J.S. McCarty Drain
Hydraulic Study

HAMILTON COUNTY DRAINAGE BOARD
HAMILTON COUNTY, IN

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FINAL
ARRIL 2015

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J.S. McCARTY DRAIN HYDRAULIC STUDY

HAMILTON COUNTY DRAINAGE BOARD

TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... SECTION 1

PURPOSE OF STUDY - IDENTIFICATION OF STUDY AREA ..... SECTION 2
- 2.1 Location 3
- 2.2 Watershed Information 3
  - 2.2.1 Overview
  - 2.2.2 Regulated Drains
  - 2.2.3 Floodplains
- 2.3 Scope of Study 5
- 2.4 Existing Conditions 5
  - 2.4.1 Land Use
  - 2.4.2 Zoning
  - 2.4.3 Soil Types and Wetlands
  - 2.4.4 Existing Drainage Infrastructure - Culverts

EXISTING FLOODING PROBLEMS ..... SECTION 3
- 3.1 Public Input 8
  - 3.1.1 Property Owner Questionnaire
  - 3.1.2 Problem Areas Reported
- 3.2 Development of Hydrologic / Hydraulic Model 9
  - 3.2.1 Existing Topography
  - 3.2.2 Defining Subbasins
  - 3.2.3 Design Storm(s)
  - 3.2.4 Model Elements
- 3.3 Model Results 11

SOLUTION SET(S) TO FLOODING PROBLEMS ..... SECTION 4
- 4.1 Identification of Alternatives 13
  - 4.1.1 Alternative 1 - Culvert Replacement
  - 4.1.2 Alternative 2 - Replacement of Drain Tile
  - 4.1.3 Alternative 3 - Regional Detention
  - 4.1.4 Alternative 4 - Two-Stage Open Ditch
  - 4.1.5 Alternative 5 - Downstream Open Ditch and Upstream Drain Tile Replacement

TABLE OF CONTENTS (Cont'd)

4.2 Alternatives Analysis and Evaluation 15
4.2.1 Alternative 1 - Culvert Replacement
4.2.2 Alternative 2 - Replacement of Drain Tile
4.2.3 Alternative 3 - Regional Detention
4.2.4 Alternative 4 - Two-Stage Open Ditch
4.2.5 Alternative 5 - Downstream Open Ditch and Upstream Drain Tile Replacement
4.3 Public Review and Input 25

POTENTIAL FUTURE FLOODING PROBLEMS ..... SECTION 5
5.1 Elements Affecting Future Conditions 27
5.1.1 Future Land Use Map
5.1.2 Development Potential and Patterns
5.2 Alternatives Impact on or by Future Development 28
5.2.1 Replacement of Drain Tile
5.2.2 Two-Stage Open Ditch
5.2.3 Regional Detention

FINANCING MECHANISMS FOR IDENTIFIED ALTERNATIVES ..... SECTION 6
6.1 Potential Funding Mechanisms 29
6.1.1 Regulated Drain Reconstruction
6.1.2 Community Development Block Grant (CDBG)
6.1.3 Community Facilities Direct Loan and Grant
6.1.4 Collection of Post-Development Reconstruction Assessments
6.1.5 Government Bond Issue

SUMMARY, CONCLUSIONS AND RECOMMENDATION ..... SECTION 7
7.1 Summary of Findings 31
7.2 Conclusions 31
7.3 Recommendation 32

APPENDICES ..... SECTION 8
A Autodesk Storm and Sanitary Analysis Modeling Data
B Federal Highway Administration (FHWA) HY-8 Culvert Analysis
C Public Input Questionnaire Responses
D Study Area Photos
E Coordination with Stakeholders

LIST OF FIGURES

End of Section

Figure 2.1 - Location Map and Watershed Delineation 2
Figure 2.2 - Existing Regulated Drains and Culverts 2
Figure 2.3 - Existing Zoning Map 2
Figure 2.4 - Soils and Wetlands Map 2
Figure 3.1 - Public Input - Areas with Standing Water > 6 Hrs 3
Figure 3.2 - Public Input - Areas with Flooding > 1 Foot Depth 3
Figure 3.3 - Existing Topography 3
Figure 3.4 - Subbasin Delineation of J.S. McCarty Drainage Shed 3
Figure 4.1 - Alternative 1 - Culvert Replacement 4
Figure 4.2 - Alternative 2 - Drain Replacement and Upsizing 4
Figure 4.3 - Alternative 3 - Detention 4
Figure 4.4 - Alternative 4 - Open Ditch 4
Figure 4.5 - Alternative 5 - Open Ditch and Replacement with Upsizing 4
Figure 5.1 - Future Land Use Planned Information 5

LIST OF TABLES

Page

Table ES.1 – Alternatives Summary 1
Table 2.1 - Existing Culverts 7
Table 3.1 - Rainfall Depth 24-Hour Duration (Inches) 9
Table 3.2 - Model Assumptions 10
Table 4.1 - Peak Flows during 25-Year Storm Event 14
Table 4.2 - Alternative 1 Model Assumptions 16
Table 4.3 - Potential Detention Locations, Discarded 19
Table 4.4 - Culvert Demand (cfs) 25
Table 4.5 - Opinion of Probable Costs 26
Table 7.1 - Alternatives Summary 31

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SECTION 1

EXECUTIVE SUMMARY

VS Engineering was retained to complete a Hydraulic Study of the J.S. McCarty Drain for the Hamilton County Drainage Board in Indiana. The J.S. McCarty Drain is between Boden Road and Prairie Baptist Road near State Road 38, including Clarksville. The drain was installed in the late 1800s, with several segments rerouted and replaced since. The land use of the watershed is mostly agricultural fields with intermittent areas of residential development.

Recent drainage complaints for the area are concentrated in Clarksville, with some flooding of fields and overtopping of roads observed at Olio Road, 166th Street, and Durbin Road. Scouring and erosion are evident at most culverts and stabilization measures have deteriorated. Questionnaires were sent to all property owners and the information collected was analyzed to ensure specific problem areas are addressed.

The existing drain pipe consists of mainly vitrified clay pipe, with some concrete and plastic pipe. The downstream segment pipe is 18 inch, the north arm pipe is 15 inch and 2 – 7 inch, and the south arm pipe is 12 inch, 10 inch, and 8 inch. From aerials and site visits, the swale alignment and the drain alignment do not always coincide as it might have when it was first installed.

A model analysis of existing conditions was completed in Autodesk Sanitary and Storm Sewer Analysis and FHWA HY8. Model results for a 25-year design storm event, included in Appendix A, found flooding and overtopping at the upstream end of culverts on the north and south arms with existing conditions, which was verified by field observations and responses from the public questionnaire distribution.

Alternative solution sets were developed using the various data on flooding problems and included those requested in the Scope of the Study. A model and detailed analysis of the selected alternatives were completed with an Opinion of Probable Costs, included as **Table 4.5**. Detailed costs were developed from other recent projects and publicly available data from INDOT. The evaluated alternatives are summarized in the **Table ES.1**, below.

Table ES.1 – Alternatives Summary

Alt.	Description	Estimated Cost	Performance (1-10)
1	**Culvert Replacement** – Replacement culvert crossings to ensure no overtopping occurs during a 25-year storm event.	$388,000	5
2	**Replacement of Drain Tile** – Installation of new perforated drain tile in the existing drain location. Includes Alternative 1.	$1,764,000	9
3	**Regional Detention** – Installation of regional detention near Clarksville. May provide an opportunity for coordination with the development of the Hamilton Southeastern School property. Includes Alternative 1.	$1,493,000	8
4	**Two-Stage Open Ditch** – Excavation of an open ditch in replacement of the existing drain and at approximately the same invert elevation. Includes Alternative 1.	$1,348,000	9

5	**Downstream Open Ditch and Upstream Replacement of Drain Tile** – Excavation of an open ditch in replacement of the existing drain for the downstream segment and installation of replacement pipe upstream of the fork in the drain. Includes Alternative 1.	$1,562,000	9

Future development in the project area is expected and mixed use is planned mostly along State Road 38. To acceptably drain current and future runoff, improvements to the existing J.S. McCarty Drain are needed.

A specific recommendation will follow, pending input from the public meeting.

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SECTION 2

PURPOSE OF STUDY – IDENTIFICATION OF STUDY AREA

2.1 Location

The J.S. McCarty Drain is located in east-central Hamilton County, within Wayne Township. The downstream end of the drain is near the intersection of S.R. 38 with Boden Road and Middletown Avenue. See **Figure 2.1**. The main alignment extends east, crossing S.R. 38 twice, then becomes the Isaac M. Caylor arm and extends northeasterly across the north side of the unincorporated town of Clarksville, and ends at Prairie Baptist Road. Another branch of the drain, the George Steffey Arm, begins just west of Olio Road, south of S.R. 38 and extends east across the south side of the unincorporated town of Clarksville, ending just east of Clarksville. Parts of Sections 1, 2, 11, and 12 of Township 18 North, Range 5 East, and part of Section 6 of Township 18 North, Range 6 East are served by this drain.

2.2 Watershed Information

2.2.1 Overview

The J.S. McCarty drainage shed includes 583.6 acres as identified in the Hamilton County Geographical Information System (GIS) mapping. This land area is an upstream portion of the William Lehr drainage shed and the central portion of the Stoney Creek - William Lehr Ditch Basin, represented by the Hydrologic Unit Cod (HUC) 14 of 05120201070060. The HUC-6 area encompassing the J.S. McCarty Drain is the Patoka - White River Basin (051202).

2.2.2 Regulated Drains

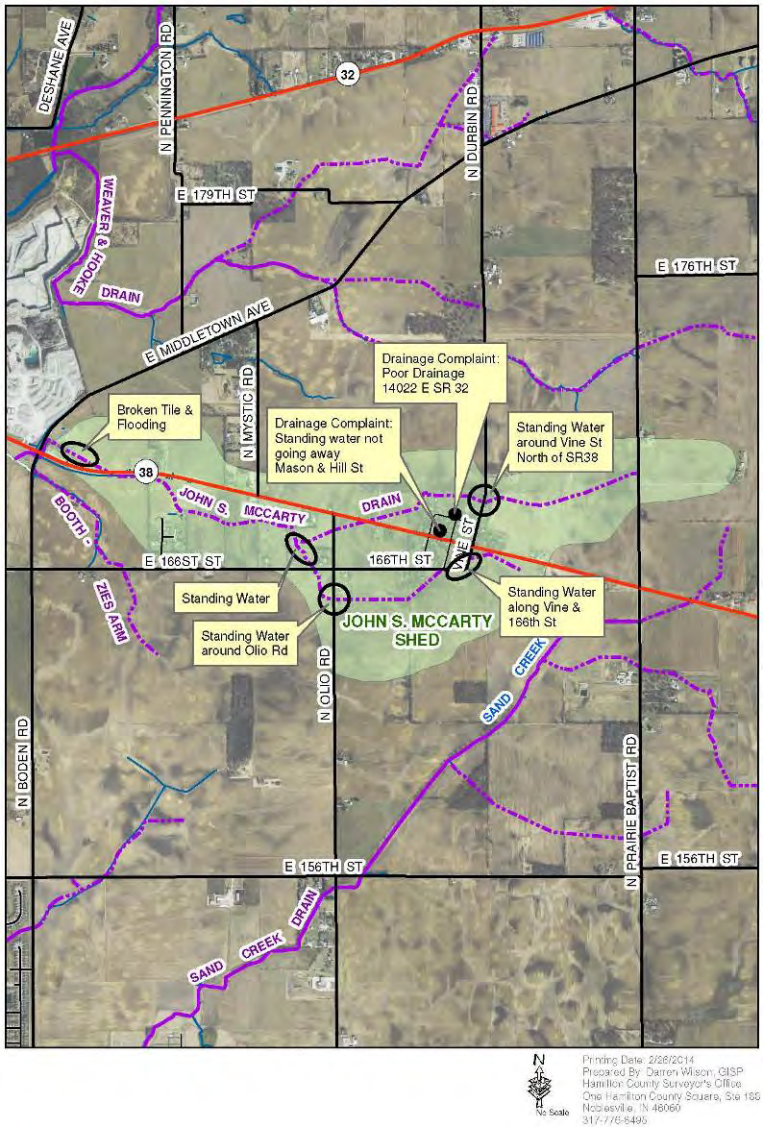
The portion now known as the Isaac M. Caylor Arm of the J.S. McCarty Drain was established by the Hamilton County Commissioners of Drainage in September 1883. This portion begins at current day Prairie Baptist Road and continues westerly / southwesterly approximately 4,250 feet to a point near the northwest corner of the unincorporated town of Clarksville. The upstream portion consists of a 7-inch tile, while the downstream portion includes two rows of 7-inch tile.

In 1888, the George Steffey Drain was created by the Hamilton County Commissioners of Drainage and included the installation of an 8-inch tile for 1400 feet, then 10-inch tile for 2800 feet. This drain begins east of the unincorporated town of Clarksville, south of S.R. 38, and then extends westerly and southerly, across Olio Road, then northerly to 166th Street.

The J.S. McCarty Drain was developed by the Hamilton County Commissioners in October 1900. Beginning at the downstream end, the main branch included a portion of open ditch (bottom width 18-inches with 1:1 sides and slope of 0.25%), then closed tile ranging in size from 18-inch to 14-inch at the upstream end and an average slope of 0.453%. A connection for and extension of the George

Steffey branch included installation of a closed 12-inch diameter tile with a slope of 0.75% creating a split in the drain approximately 800 feet northwest of the intersection of Olio Road and East 166th Street. The closed tiles were installed with a minimum of 24-inches of cover. The existing alignments of the regulated drains as depicted in the Hamilton County GIS are shown on **Figure 2.2**.

In October 1968, the J.S. McCarty Drain was certified for assessment at a rate of $0.50 per acre, $3.00 minimum. In May 1976, the Drainage Board increased the assessment rate to $1.00 per acre, $6.00 minimum.



In 1994 a portion of the drain was reconstructed when the intersection of S.R. 38 with Middletown Avenue and Boden Road was reconfigured. Approximately 680 feet of 18-inch tile was relocated on the south side of S.R. 38. In addition, open ditch and culvert crossings of S.R. 38 and Boden Road were upgraded during this reconstruction project. The changes resulted in an additional 102 feet of drain length for a total of 8,030 linear feet.

In 2001, the County Surveyor recommended an increase to the maintenance fund for the J.S. McCarty Ditch and in 2002 the Drainage Board increased the assessment to a rate of $2.00 per acre with a $10.00 minimum for agricultural tracts. In addition, rates were established for unplatted lots, regulated and unregulated subdivision tracts, commercial parcels, and roads. Also, per Indiana Code (IC) 36-9-27-67 to 69, the Surveyor recommended that the drain be designated as an Urban Drain.

In January 2005, the J.S. McCarty Drain was extended by 181 feet to intersect with the Booth-Zeis Ditch. This connection allowed the J.S. McCarty drain to become an Arm of the William Lehr Drain and combine the maintenance funds into the William Lehr Drain.

2.2.3 Floodplains

There are no designated floodplains delineated for the J.S. McCarty Drain; however, the expansion of floodplain limits should be evaluated during design of the selected alternative.

2.3 Scope of Study

The Hamilton County Drainage Board desires to identify and analyze current flooding problems in the unincorporated Town of Clarksville and within the J.S. McCarty watershed. A Hydraulic Study for the J.S. McCarty Drain is to determine the existing capacity of the drain tile and roadside ditch and propose upgrades to the system to reduce flooding. This study will also provide possible design alternatives that could improve drainage in upstream and downstream areas.

2.4 Existing Conditions

2.4.1 Land Use

The primary land use within the watershed is agricultural production with a handful of farmsteads. The second most prominent land use is single-family residential. The unincorporated town of Clarksville includes approximately 40 single-family residential properties as well as a church. In addition, another church and cemetery are located on the western edge of the watershed.

2.4.2 Zoning

Six types of zoning are shown on the Hamilton County Zoning Map within the J.S. McCarty drainage shed and identified on **Figure 2.3**.

- A-2 Agricultural District
- A-2(S) Agricultural Subdivision District
- A-4 Agricultural Business District
- C-3 Commercial Development, Major Community Impact
- M-3 Manufacturing Development, Mineral Extraction & Processing
- R-1 Residential, Low-density Suburban District

2.4.3 Soil Types and Wetlands

There are eight soil types identified by the US Natural Resources Conservation Service Web Soil Survey within the J.S. McCarty drainage shed and displayed on **Figure 2.4**:

1. Crosby silt loam, fine-loamy subsoil, 0-2% slopes (CrA) is the predominant soil type, covering just over fifty percent (53.1%) of the watershed. CrA soil is prime farmland if drained and has a typical depth to water table of about 6 to 24 inches. CrA soil falls in the Hydrologic soil group "C" and its natural drainage class is somewhat poorly drained.

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2. Brookston silty clay loam, 0-2% slopes (Br) is the second-most prominent soil type within this drainage shed, representing 35.1% of the area. Located primarily in the relatively lower elevation areas of the watershed, this soil type is prime farmland if drained and is characterized as hydrologic soil group "B/D". The depth to water table is about 0 to 12 inches and its natural drainage class is poorly drained.

3. Miami silt loam, 2-6% slopes, eroded (MmB2) covers 5.8% of the watershed and is considered prime farmland. The majority of this soil type within the watershed is located in the western quarter on either side of S.R. 38. MmB2 soil has a natural drainage class of moderately well drained. This soil type is classified as hydrologic soil group "C" and has a depth to water table of about 24 to 36 inches.

4. Miami silt loam, 0-2% slopes (MmA) makes up 20.1 acres or 3.5% of the drainage shed. This soil type is also located in the western quarter of the J.S. McCarty drainage area, on both sides of S.R. 38. MmA soil falls within the hydrologic soil group "C", has a depth to water table of about 24 to 42 inches, and its natural drainage class is moderately well drained.

5. Patton silty clay loam, limestone substratum (Ps) is also found in the drainage shed, but is limited to the area directly under the J.S. McCarty drain tile on the western edge from Middletown Avenue to the crossing of S.R. 38. This soil type has a hydrologic code of "B/D" and a depth to water table of about 0 to 12 inches. The natural drainage class for this soil type is poorly drained.

6. A discrete 3.8 acre area of Westland silty clay loam (We) soil is located along Olio Road, south of 166th Street. This soil type is prime farmland if drained and is include within the hydrologic soil group "B/D". The depth to water table is about 0 to 12 inches and its natural drainage class is poorly drained.

7. Miami clay loam, 6-12% slopes, severely eroded (MoC3) is another soil type found within this drainage shed. There are just over 3 acres of this soil type, located on both sides of S.R. 38 in the western quarter of the watershed. MoC3 soil has a depth to water table of about 24 to 36 inches and is classified as moderately well drained. The hydrologic soil group is "C".

8. The least prevalent soil type within the drainage shed is Ockley silt loam, 0-2% slopes (OcA) which covers less than an acre of the watershed on the eastern edge, south of S.R. 38. This soil is included in the hydrologic soil group "B" and has a natural drainage classification of well drained. The depth to water table is more than 80 inches.

A check of the U.S. Fish and Wildlife Service online National Wetlands Inventory (NWI) map indicates that there is one small area identified within the J.S. McCarty drainage shed as a wetland. Located on the residential lot at 16723 Greenview Drive, a 0.20 acre area has been classified as a Freshwater

Emergent Wetland (PEM1C) as identified in the 2010 NWI update completed by Ducks Unlimited and presented to the Indiana Department of Environmental Management.

2.4.4 Existing Drainage Infrastructure - Culverts

Existing culverts, along with open ditches, are responsible for the majority of the surface water runoff conveyance. There are thirteen (13) culverts at road crossings identified in **Table 2.1** below. All culverts in the watershed are corrugated metal pipe (CMP), and most are projected out from the ditch bank with no end section. Culverts 2 and 3 have mitered structures at each end, matching the existing bank slope. At many of these culverts, there is little cover above the crown of the pipe to the crest of the pavement. In these cases, once the capacity of the culvert is reached and flow reaches the crown of the pipe, the water surface elevation raises only a little before overtopping of the roadway occurs.

TABLE 2.1 - Existing Culverts

No.	Crossing Road/Location	Size and Material	Condition (1 = Poor, 5 = Great)
1	SR 38 at Middletown Rd.	36” CMP	5
2	SR 38, east of Middletown Rd.	36” CMP	5
3	SR 38, east of Middletown Rd.	42”x28” CMP	5
4	E. 166th St., west of Olio Rd.	36” CMP	4
5	Olio Rd., north of E. 166th St.	24” CMP	4
6	Olio Rd., south of E. 166th St.	21” CMP	4
7	SR 38, east of Olio Rd.	30” CMP	4
8	E. 166th St., at Mason St.	12” CMP	4
9	E. 166th St., at Mason St.	15” CMP	4
10	Durbin Rd., south of SR 38	18” CMP	2
11	Durbin Rd., north of SR 38	15” CMP	3
12	Durbin Rd., north of SR 38	Dual 12” CMP	3
13	Prairie Baptist Rd., north of SR 38	18” CMP	4

Figure 2.1 - Location Map and Watershed Delineation

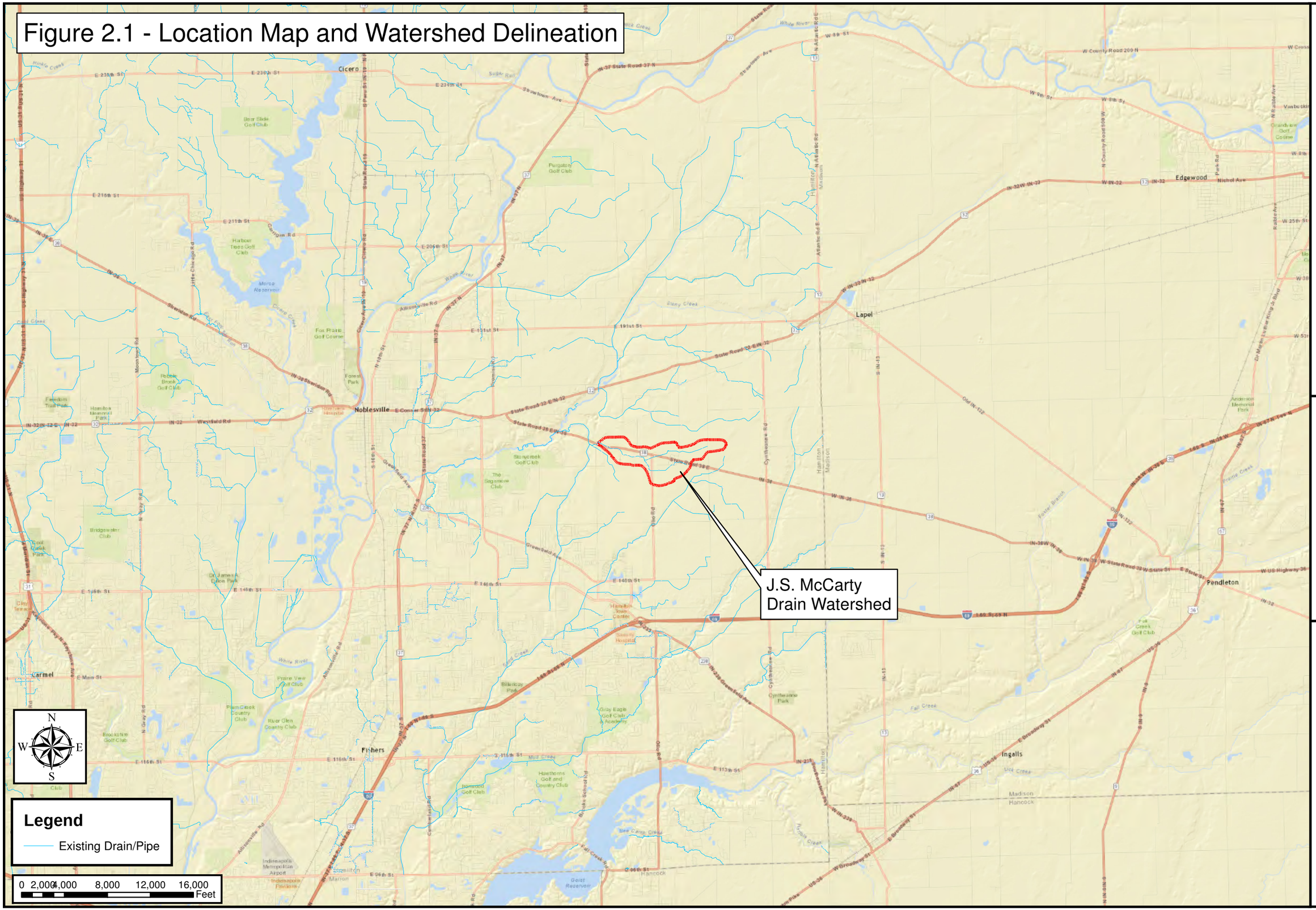

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Figure 2.1

Figure 2.2 - Existing Regulated Drain

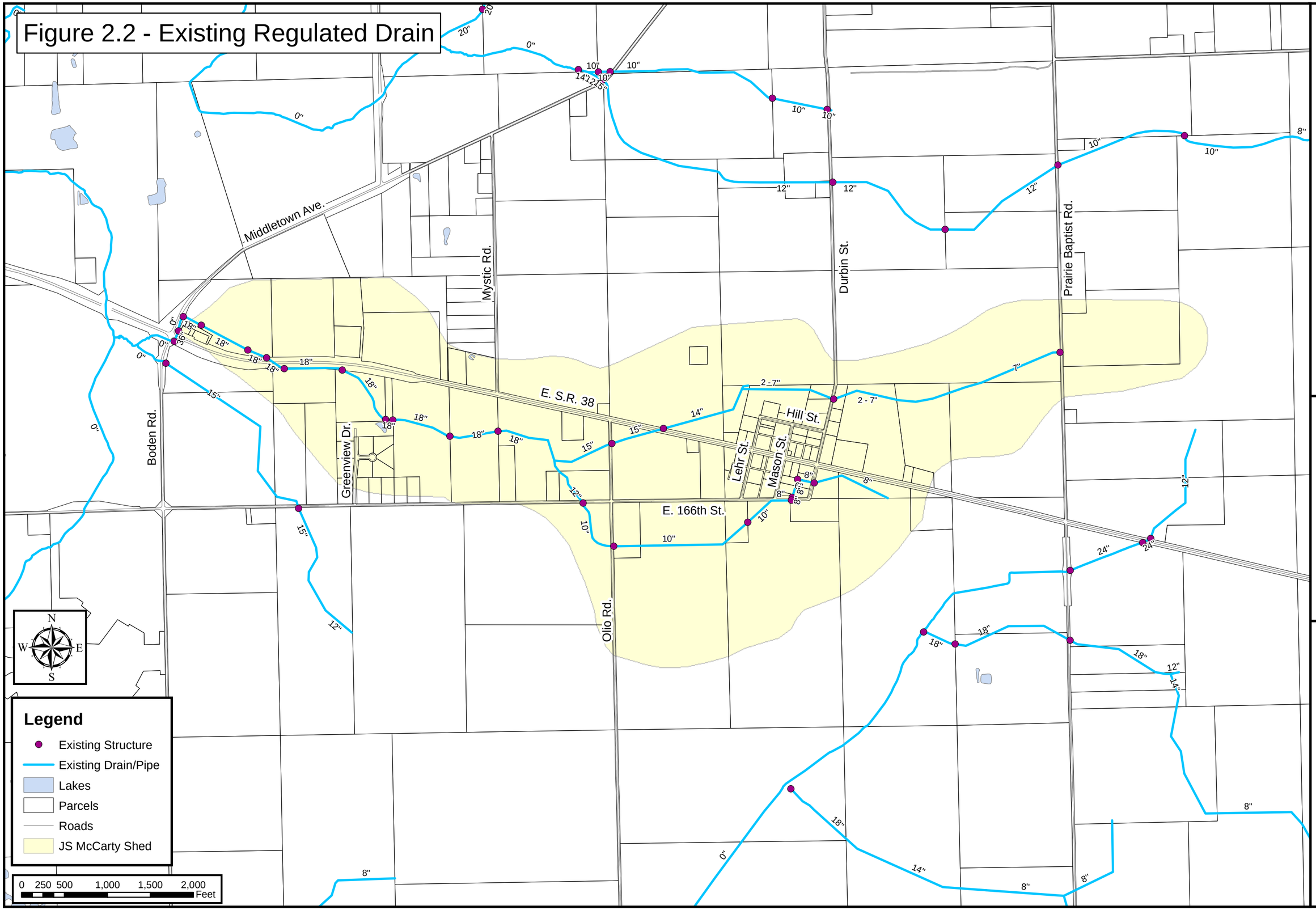

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Figure 2.2

Figure 2.3 - Existing Zoning Map

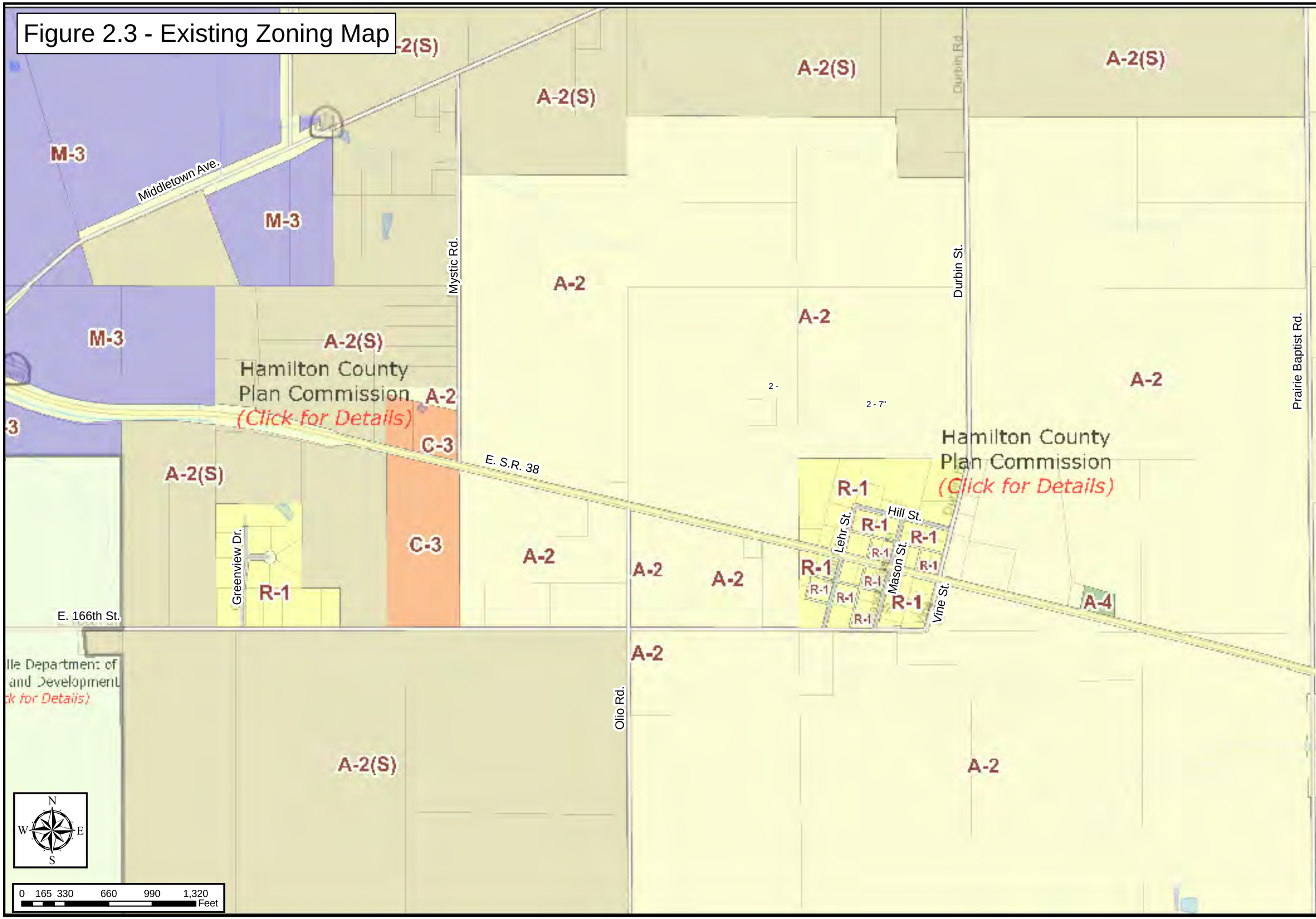

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Figure 2.3

Figure 2.4 - Soils and Wetlands Map

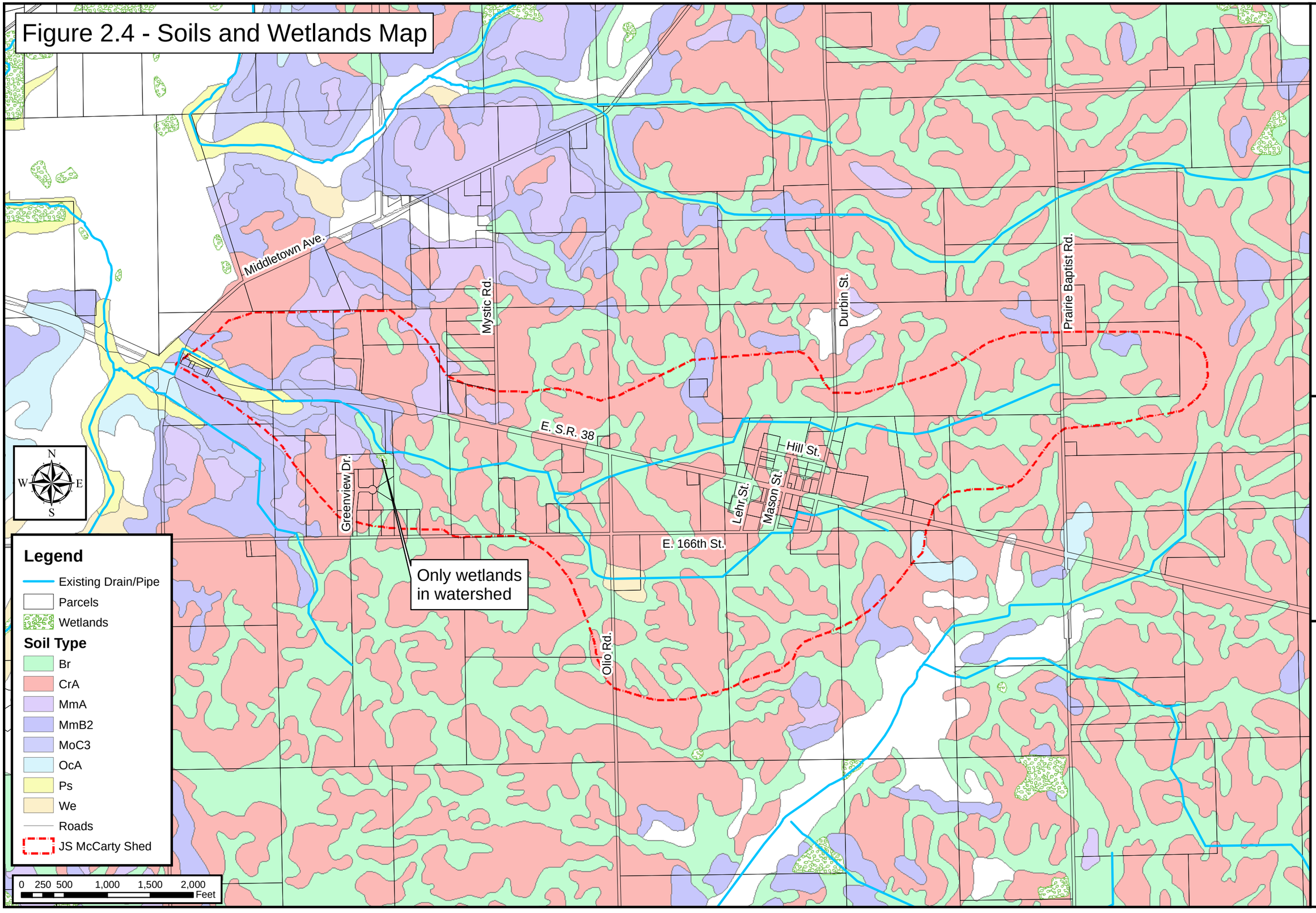

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Figure 2.4

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SECTION 3

EXISTING FLOODING PROBLEMS

3.1 Public Input

3.1.1 Property Owner Questionnaire

VS Engineering developed a questionnaire and mailed it to each property owner with a return envelope. Eighty-seven (87) questionnaires were sent and thirty-six (36) were returned representing 41.4% return rate. Two specific questions on the survey were tabulated and are represented graphically in **Figure 3.1** - *Areas with Standing Water Longer than 6 Hours* and **Figure 3.2** - *Areas with Flooding greater than 1 Foot Depth*. In addition, several specific areas of concern were identified.

3.1.2 Problem Areas Reported

Drainage complaints received by Hamilton County and other problem areas reported include:

- Broken tile and flooding near downstream end
- Standing water where the north and south arms converge
- Standing water and overtopping on Olio Road, south of East 166th Street (Culvert #6)
- Standing water along Durbin Road and East 166th Street
- Standing water along Durbin Road at the north arm
- Standing water at Mason Street and Hill Street
- Standing water along S.R. 38, just east of Lehr Street
- Standing water east of Durbin Road and south of S.R. 38
- Flooding along the south side of S.R. 38, approximately 1000 feet east of Middletown Road

A collapsed or obstructed tile is suspected in two locations: approximately 500 - 1000 feet upstream of the outfall, north of S.R. 38, and also east of Clarksville on the south arm, south of S.R. 38. Flooding and standing water has been observed in these areas and property owners or Hamilton County officials may have specific knowledge of these locations. These locations could be investigated further using Closed Circuit Televising (CCTV) or exploratory excavation to locate the specific extents of obstructions.

Overtopping of stormwater runoff over roadways has been observed at several culverts at road crossings, including north and south of 166th Street on Olio Road, east of Olio Road on 166th Street, and north of S.R. 38 on Durbin Road.

3.2 Development of Hydrologic / Hydraulic Model

3.2.1 Existing Topography

This watershed varies in surface elevation from 797 at the downstream, western edge, near the intersection of S.R. 38 and Middletown Avenue to 852 at the upstream, east side of the watershed, east of Prairie Baptist Road. Existing contours and surface features, including some woodlands, some residential or commercial development and agricultural ground are shown on **Figure 3.3**.

3.2.2 Defining Subbasins

Twenty-six (26) subbasins were delineated using the Hamilton County GIS 1-foot contour data obtained from the County. Subbasins were numbered, beginning at the eastern, upstream end, and follow the existing regulated drains to the western, downstream edge of the drainage shed. See **Figure 3.4**. Existing aerial photography, along with the contours, was used to identify surface features, land use, flow path locations, soil type, slope, and area to identify the Soil Conservation Services curve number (CN) to assign to each subbasin and to calculate the TR-55 method Time of Concentration for each. Travel times from upstream subbasins were also calculated within the model.

3.2.3 Design Storm(s)

Precipitation values were gathered from the National Oceanic and Atmospheric Administration (NOAA) National Weather Service Office of Hydrologic Development website. Latitude and longitude-based values for the specific project area were taken from the NOAA Atlas 14, Volume 2, Version 3. A 24-hour duration storm event for multiple return periods shown in **Table 3.1** below were incorporated into the model. Note that the NOAA values compared to the Hamilton County Stormwater Management Technical Standards Manual are slightly higher for smaller storms and slightly lower for larger storms.

TABLE 3.1 – Rainfall Depth - 24 Hr. Duration (Inches)

Return Period (Years)	NOAA Atlas 14	Hamilton County Stormwater Manual
2	2.85	2.66
5	3.51	3.27
10	4.03	3.83
25	4.73	4.72
50	5.29	5.52
100	5.86	6.46

Although each of the return periods listed above was evaluated within the model, the critical storm event used to develop the alternatives was the 25-year storm. The culverts have been sized to convey the 24-hour, 25-year storm without overtopping the roadways. The culverts under SR 38 have been sized to convey 24-hour, 100-year storm without overtopping the roadways.

3.2.4 Model Elements

A hydrologic and hydraulic model was completed in Autodesk Storm and Sanitary Analysis. This software is capable of modeling open and enclosed systems, including open ditches, storm sewer, detention/storage facilities, and diversion structures. The drain tile is represented by an underground conveyance link with a circular cross section. The Manning's Roughness value, slope, and inverts were dependent on nearby existing conditions. Culverts are represented with conveyance links with the appropriately surveyed inverts and have an incoming open ditch and outlet into an open ditch. Surface flow is conveyed to the drain tile, until the tile is surcharged, at which point a diversion structure diverts flow into the nearby open ditch, closely mirroring existing conditions. Storage nodes at the upstream end of most culverts allow accurate representation of flooding at these areas, should a bottleneck develop. Storage areas were defined using the existing surface data.

TABLE 3.2 - Model Assumptions

	Existing Model Assumptions	Existing System
1	Runoff enters into the existing tile at several points along the drain tile; however, these flows are concentrated at these points.	The existing tile is mostly butt-jointed tile. Infiltration occurs through the joints of the pipe, accepting flow from the surround soils every 2-4 feet.
3	The existing drain tile is surcharged evenly during all storm events, without creating large ponding areas.	The drain tile is shallow enough in most areas, 2-3 feet below the ditch, that runoff will infiltrate through the soils and into the drain tile before surface conveyance has reached capacity.
4	Where no distinct ditch section was found, a wide, >40 feet, and shallow, 1-foot, ditch conveys the water overland between nodes.	Shallow concentrated flow can be difficult to define. Much of the surface conveyance is through agricultural fields, which have rows of crops with varying direction and impact through the growing season.
5	Drain tile sizes and alignments were obtained from GIS files. Each has an ideal, circular cross section without differential settlement between pipes (which would reduce effective cross sectional area). The alignment was verified at the breather structure locations, but could vary between structures.	It is expected that some pipe have experienced differential settlement over the last 100 years, thereby reducing the cross-sectional area and capacity of some pipe. Several pipe segments have unconventional sizing and GIS alignments that slightly varied from existing breather structure locations.

6	Manning's Roughness values varied based on pipe material, age, and condition. A value of 0.018 was used for most drain tile. Values of 0.032 for open ditches and 0.025 for CMP culverts were used.	Joint separation between pipes, broken or collapsed pipe, roots or debris in the pipe, and other obstructions that increase Manning's values are likely, but could vary widely.
7	The invert breather pipe structure near Durbin Road and the south arm was found to be several feet lower than expected. A more typical slope was used and averaged from the upstream and downstream structures. Where inverts were not able to be obtained, an average slope between upstream and downstream structures was used.	The age and material type of the existing drain tile indicate there is likely settlement and lateral movement occurring along the tile. This will create high and low points along the profile, which reduce capacities.
8	Existing LiDAR surface data was used for the majority of the watershed. Limited, select survey near breather structures, culverts, and distinct open ditches was incorporated into the surface data.	Surface topography has likely changed, be it insignificantly, since LiDAR data was gathered in 2011. Tilling of agricultural field can alter the alignments of the existing shallow surface conveyance swales. In flat areas, soil movement can impact storage, infiltration, and grade breaks.
9	Where culverts or other enclosed conveyance was not found at road crossings, a shallow and wide open ditch was modeled. (This implies overtopping of the road, which should be addressed at a minimum.)	Runoff likely dissipates by infiltrating through the soil, infiltrating and flowing through gravel and sand layers, and/or through an unknown private buried culvert or drain tile.
10	Infiltration at each storage node was assumed at a maximum of 0.3-inches per hour and decreases evenly over the first 5 hours to 0.17-inches per hour.	Actual infiltration rates of soils were estimated from existing soil maps. These estimates are conservative and further soil testing could change rates enough to affect detention sizing.
11	The downstream open ditch receiving the flow from the 18-inch outfall near Middletown Road is large. It flows through a 36-inch culvert under S.R. 38. Both the open ditch and culvert are assumed to have sufficient capacity for the increased runoff created by each alternative.	

3.3 Model Results

The results of the model were calibrated as closely as possible to accurately represent conditions observed in the field; however, the inaccuracy of some of the most integral data, including surface data and drain tile invert data should be considered. Assumptions made while completing this model are listed above, in the Model Analysis section, and should be reviewed and changed accordingly as a solution is identified.

Model results are included in **Appendix A**. Results of the existing system identified flooding at these locations for a 25-year, 24-hour storm event:

- Downstream and upstream of Culvert 2
- Downstream of Culvert 3
- Convergence of north and south arms
- Upstream of Culvert 5
- Upstream of Culvert 6
- Downstream of Culvert 7
- Upstream of Culvert 9
- Downstream and upstream of Culvert 10
- Northwest of Clarksville at change from 14” to dual 7” pipe
- Upstream of Culvert 11
- Upstream of Culvert 12
- Upstream of Culvert 13
- Upstream end of south arm, outlet for Subbasin 7 near 14344 SR 38

The peak flow for each culvert will vary after implementation of the selected alternative. For example, if Culvert A does not currently flood during a 10-yr storm, but an upstream culvert, Culvert B, is enlarged and discharges flow more quickly, the demand on Culvert A will likely increase. While improvements to Culvert B may have eliminated flooding issues, the increase in demand at Culvert A may cause flooding in a location that didn’t previously flood.

Figure 3.1 Public Input - Areas with Standing Water After 6 Hours

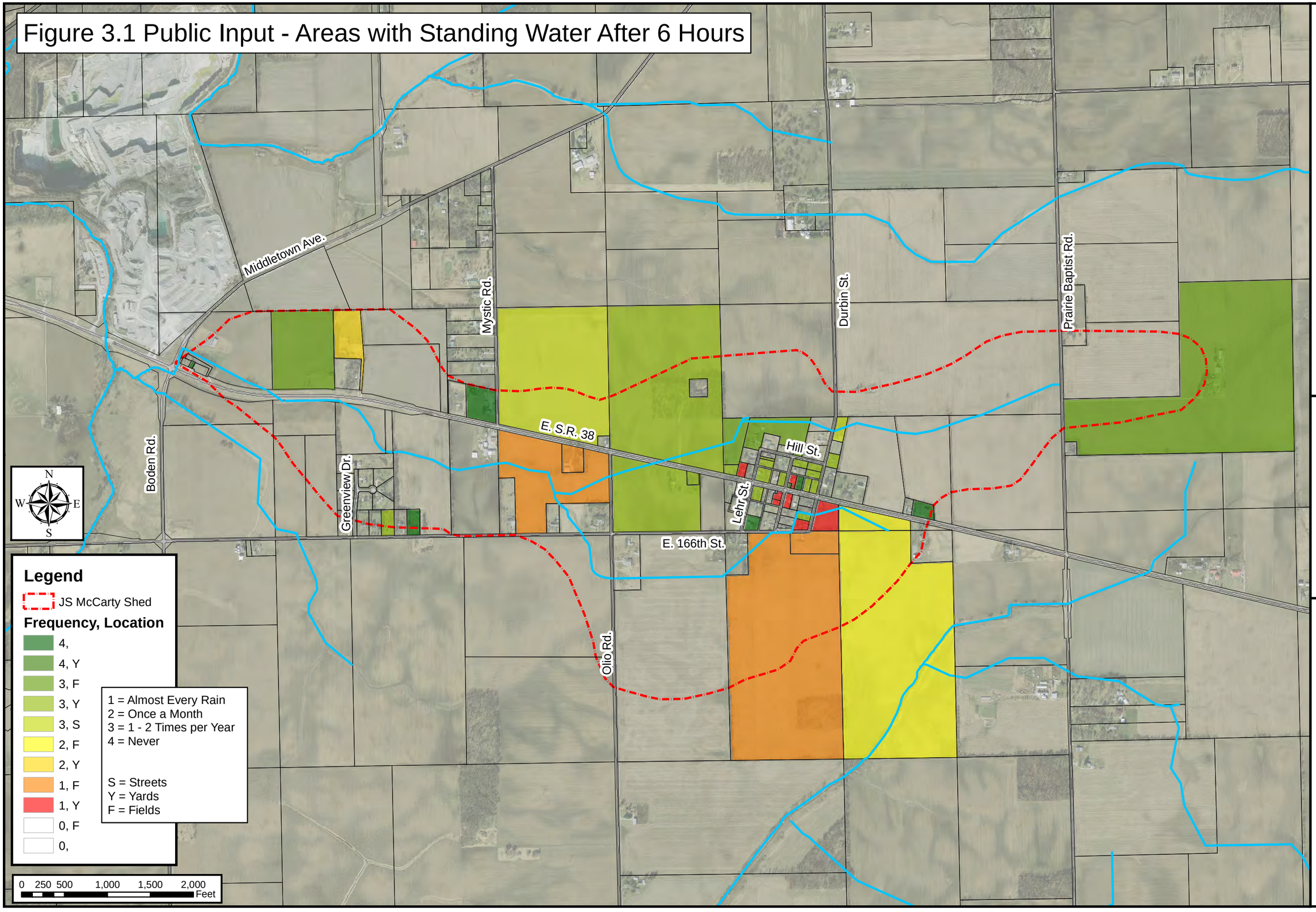

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Figure 3.1

Figure 3.2 Public Input - Areas with Flooding Deeper than 1 Foot

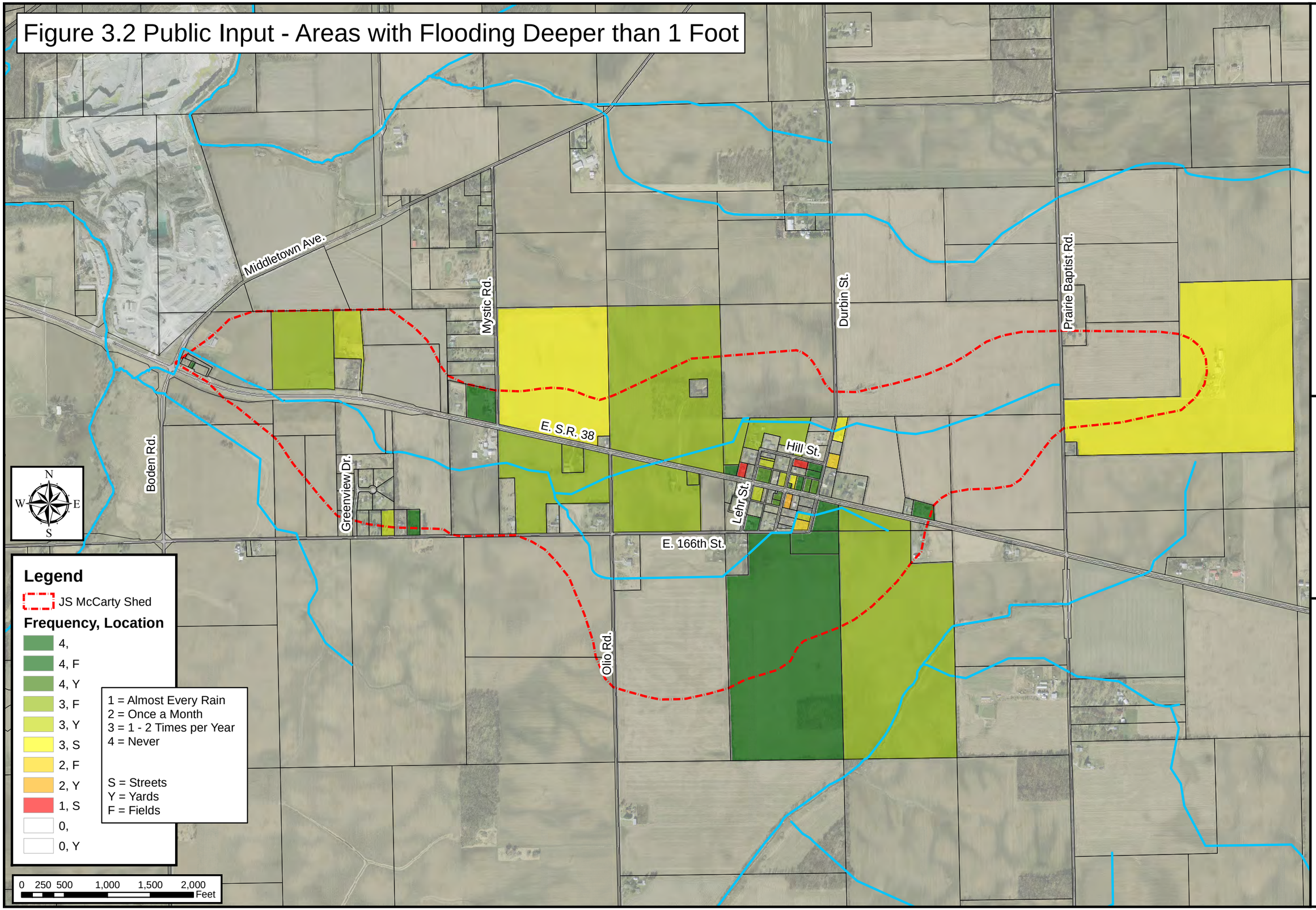

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Figure 3.2

Figure 3.3 - Existing Topography

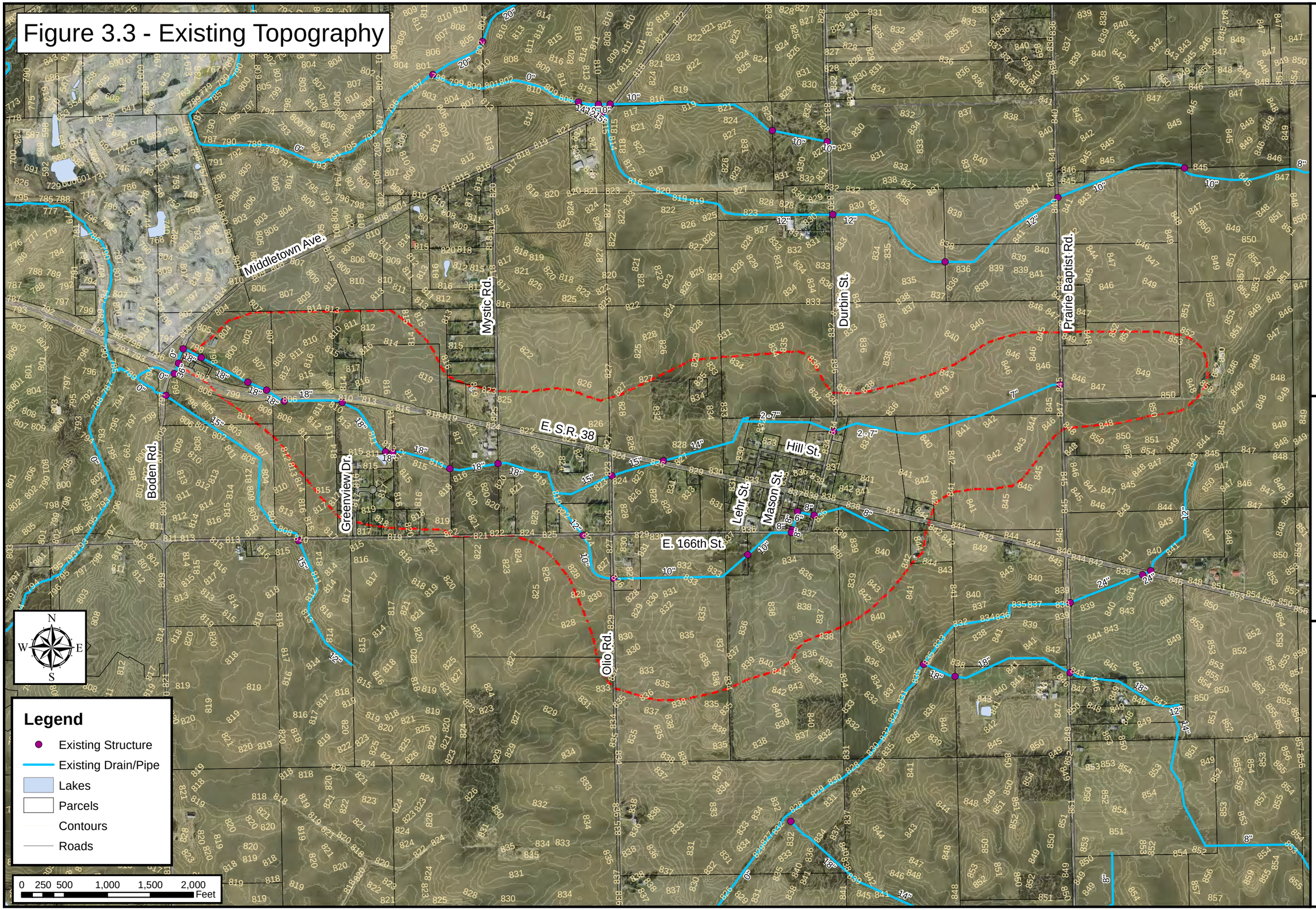

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Figure 3.3

Figure 3.4 - Subbasin Delineation of the J.S. McCarty Drain Watershed

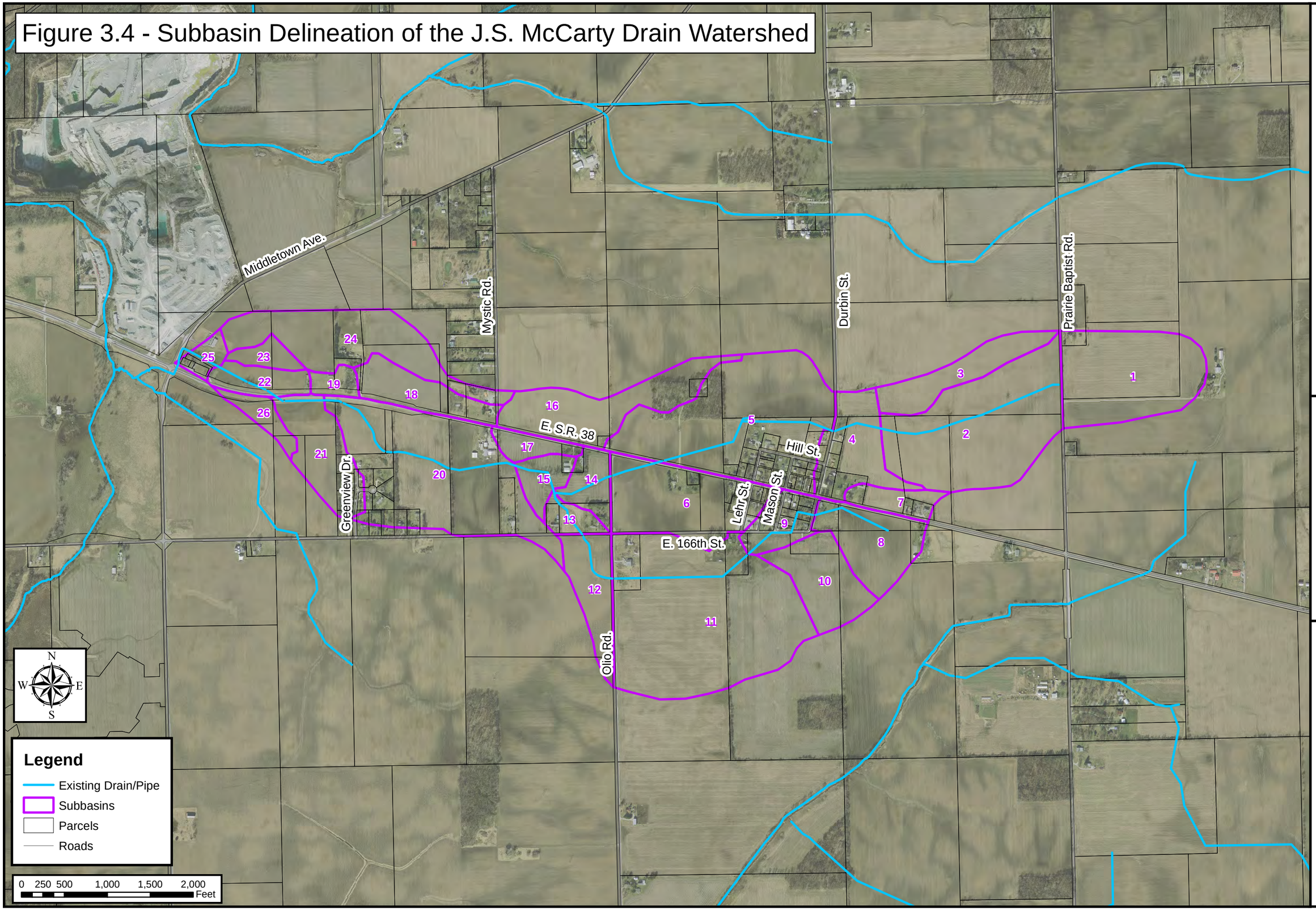

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Figure 3.4

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SECTION 4

SOLUTION SET(S) TO FLOODING PROBLEMS

4.1 Identification of Alternatives

Each alternative is built upon the primary goals of minimizing peak runoff and/or increasing conveyance capacity. Successful implementation of either goal would increase performance of the drain. The alternatives, which are identified below, include various solutions to solving the existing drainage problems. Drainage improvements within the unincorporated Town of Clarksville are anticipated within each alternative. These improvements would target the area around the intersection of S.R. 38 and Mason Street, extending a minor arm of the regulated drain south along Mason Street to 166th Street, and another minor arm along the north side of S.R. 38 west to the existing drain. The first two alternatives increase the conveyance capacity of the culverts and/or drain for the critical storm event without overtopping the roadways. A regional detention option was then identified to minimize the conveyance improvements needed while still controlling runoff and ponding locations. Two additional alternatives were then developed to incorporate an open, two-stage ditch option and combinations of open, two-stage ditch and drain tile replacement. Each alternative was modeled individually to determine impact on system performance. **Table 4.1** below identifies the peak discharges from the watershed for each alternative identified below during the critical, 25-year storm event. Culvert crossings with S.R. 38 will be sized for a 100-year storm event.

4.1.1 Alternative 1 - Culvert Replacement

As shown in **Figure 4.1**, Alternative 1 would replace culvert crossings to ensure no overtopping occurs during a 25-yr storm event. Approximately 95% of the water is currently conveyed on the surface, which will continue, utilizing the existing drain tile for draining subsurface or standing water. In addition, drainage improvements targeted within Clarksville are included.

4.1.2 Alternative 2 - Replacement of Drain Tile

As shown in **Figure 4.2**, Alternative 2 would install new perforated drain tile in the existing drain location and connect any existing private incoming tile, increasing system capacity. Inlets placed at strategic locations will accept runoff directly into the new system before overtopping of the roadways occurs. Replace existing culverts, sized to pass the critical storm event. Add drainage improvements within Clarksville to address localized flooding.

4.1.3 Alternative 3 - Regional Detention

As shown in **Figure 4.3**, Alternative 3 would complete regional detention near Clarksville which would reduce peak flows in the existing system. Detention areas in agricultural fields to the south and northwest of Clarksville would minimize ponding impacts to several properties, but would require land acquisition from one to three property owners. Detention near Durbin Road may provide an opportunity for coordination with the development of the Hamilton Southeastern School property, or may provide opportunities to accept runoff from nearby future development. Coordination with Hamilton Southeastern Schools will be needed through design and construction if this alternative is selected. Alternative 3 also includes culvert replacements and drainage improvements within Clarksville to address localized flooding and add conveyance to existing drains.

4.1.4 Alternative 4 - Two-Stage Open Ditch

As shown in **Figure 4.4**, Alternative 4 would include an open ditch which could convey the largest storm events of the alternatives evaluated. The proposed channel cross sections range from 4 feet deep, similar to a swale, to 7 feet deep near the downstream end with a 4 foot wide bottom. This alternative would also include culvert replacements and drainage improvements within Clarksville. An open ditch would impact land use along the current regulated drain alignment most severely, potentially bisecting multiple parcels.

4.1.5 Alternative 5 - Downstream Open Ditch and Upstream Drain Tile Replacement

As shown in **Figure 4.5**, Alternative 5 would include an open ditch which could convey the largest storm events on the western portion of the drain, downstream of the convergence of the two arms. A new perforated drain tile would replace the existing tile of each arm from the fork to the upstream end of each. Culverts would be replaced to convey the critical storm event, and drainage improvements would be added to address localized ponding with Clarksville. An open ditch would impact land use along the current regulated drain alignment most severely; however, this alternative reduces the impact by installation of the replacement tile upstream of the fork, where tile capacity more closely matches projected flows.

TABLE 4.1 - Peak Flows during 25-Year Storm Event

Alternative		Open Ditch	Drain Tile	Northwest Basins	Sand Creek	Total Discharge	% More than Existing
		cfs					
1	**Culvert Replacement**	199	6	38	-	243	47%
2	**Replacement of Drain Tile**	127	62	38		227	38%
3	**Regional Detention**	124	7	38	-	169	2%
4	**Two-Stage Open Ditch**	197	8	38	-	243	47%
5	**Downstream Open Ditch and Upstream Replacement of Drain Tile**	225	8	38	-	271	64%

4.2 Alternatives Analysis and Evaluation

Each of the alternatives identified is described more fully below, including modeling results and anticipated outcome if implemented, potential impacts during construction, and an opinion of probable costs and schedule. A summary of the capacity needed at each culvert location for each alternative is provided in **Table 4.4** at the end of this section.

4.2.1 Alternative 1 - Culvert Replacement (**Figure 4.1**)

4.2.1.1 *Description* - The analysis of existing conditions found there is flooding and overtopping at several culverts in the watershed, even during events smaller than a 25-year storm. In order to prevent overtopping during a 25-year event, Alternative 1 will increase culvert capacities and thereby reduce ponding and storage upstream of these culverts and the risk of overtopping. The increase in culvert capacity will provide surface runoff with conveyance downstream and standing water, which is still likely after larger events, will dissipate through the existing drain tile. The existing drain tile will remain in place.

Several swales in the watershed will be regraded and lowered to allow for positive drainage. The roadside ditch responsible for the majority of surface runoff at the downstream end on the south side of S.R. 38 will be lowered and widened to accommodate the additional peak flow created from increased upstream culvert capacities.

While Autodesk SSA has built-in culvert analysis, a more accepted method of analysis is the Federal Highway Administration (FHWA) HY-8 software. The SSA model results provided demand at the upstream point of each culvert and this demand was used in HY-8 to further verify culvert sizing and risk of overtopping. The results of the HY-8 analysis are included in **Appendix B**.

Due to the small elevation difference between the crown of most culverts and the road crest, the risk for overtopping is high if all surface water is not conveyed through the culvert. Therefore, overtopping in select locations should be expected for a storm slightly larger than a 25-year event, except for culvert crossings under S.R. 38, which would be sized for a 100-year event. This small elevation difference also reduces sizing choices for culverts. Culverts in this alternative are large because no increases in capacity or reductions in demand are proposed for other elements of the alternative. This large and possibly unconventional size culvert could increase costs. Most culvert inverts will be sumped to provide additional cover while maintaining the appropriate capacity.

The extension of the drain to provide adequate drainage for Clarksville is also proposed to coincide with this alternative. The extensions would occur along the north side of S.R. 38, flowing west, and along Mason Street, flowing south. These extensions would include 12-inch RCP and appropriate inlet structure to accept surface runoff within developed areas. A smooth-walled perforated plastic pipe would be utilized in agricultural

areas until development occurs, at which point, the pipe would be replaced with RCP.

Model assumptions for this alternative include those previously listed.

TABLE 4.2 - Alternative 1 Model Assumptions

	Alternative 1 Model Assumptions	**Actual System**
1	Culverts are sized to prevent overtopping during a 25-year storm event, except for culverts under S.R. 38 which are sized for a 100-year storm.	Many culverts (except those crossing S.R. 38) don't have a large amount of freeboard over the crown of pipe. Overtopping could occur during storm only slightly larger than a 25-year event.
2	The model outfalls into the ditches upstream of the 8'x4' box culvert at Boden Road.	The capacity of the 8'x4' box culvert at the downstream end is approximately 300-310 cfs.

4.2.1.2 *Results and Expected Outcome* - The results of the stormwater model for implementation of Alternative 1 are included in **Appendix A**. Because the vast majority of runoff is conveyed overland, performance of Alternative 1 is expected to be significantly better than existing conditions. Replacement of the culverts will reduce ponding upstream of each culvert, but increase runoff in the swales between culverts. This runoff will require regrading several existing open ditches, including the roadside ditch on the south side of S.R. 38 near the downstream outfall. The replacement of the culverts will convey all necessary surface runoff into the existing roadside ditches, swales and fields while utilizing the existing drain tile to drain standing water and lower the water table after large events. As shown in **Table 4.1** above, this alternative is expected to increase peak discharge from the watershed to approximately 47% **more** than existing conditions, reducing upstream flooding and storage by increasing conveyance. The effects of the increased discharge to the downstream open ditch would need to be evaluated during design to determine whether additional improvements are required to avoid causing flooding downstream of the drain.

4.2.1.3 *Construction Impacts to Residents and Property* - Impact to residents adjacent to the culvert replacement and point repairs is likely to be moderate with more significant impacts to traffic. The culvert replacement will require closing of most of the affected roads to allow for safe installation, although the smaller improvements may be able to be installed with one lane of traffic remaining open. Work proposed for S.R. 38 will require coordination with INDOT and closing of S.R. 38 will likely not be a feasible option.

4.2.1.4 *Opinion of Probable Costs and Schedule* - As shown in **Table 4.5**, the opinion of probable cost for design and construction of these improvements

is approximately **$388,000**. The cost of extending the drain with new arms into Clarksville, $60,000, is not included in the costs to complete the other proposed work. The culvert replacement is expected to take approximately one week per culvert, depending on the extent of the improvements, and is expected to be completed through the bidding process.

4.2.2 Alternative 2 - Replacement of Drain Tile (**Figure 4.2**)

4.2.2.1 *Description* - The existing storm drain is not large enough to convey the surface runoff in the watershed. The drain typically functions as a method to drain the water table and reduce standing water. Surface conveyance of runoff will occur through existing open ditches and culverts. Strategically placed inlets and structures will accept flow into a new enclosed storm sewer, which will be installed above grade, but below road elevations to keep out debris but allow inflow before road overtopping. The new storm sewer will replace the existing system, staying within the J.S. McCarty Drain Easement, and provide additional underground conveyance and storage capacity. This added capacity will reduce surface runoff through nearby culverts thereby reducing the size and costs of the culverts. Culvert improvements, very similar to Alternative 1, are also included in this alternative. The existing drain tile could be crushed and allowed to remain in place or removed as the new drain tile is installed.

Alternative 2 proposes to replace the existing drain with larger pipe to increase capacity and infiltration rates. Sizes include 36-inch pipe downstream of the fork and 24-inch and 12-inch pipe for each arm of the drain.

The extension of the drain to provide adequate drainage for Clarksville is also proposed to coincide with this alternative. The extensions would occur along the north side of S.R. 38, flowing west, and along Mason Street, flowing south. These extensions would include 12-inch RCP and appropriate inlet structure to accept surface runoff within developed areas. A smooth-walled perforated plastic pipe would be utilized in agricultural areas until development occurs, at which point, the pipe would be replaced with RCP.

For a detailed list of proposed improvements and associated costs, refer to the Opinion of Probable Costs in **Table 4.5**.

Model assumptions for this alternative include those previously listed.

4.2.2.2 *Results and Expected Outcome* - The results of the stormwater model for implementation of Alternative 2 are included in **Appendix A**. While the vast majority of runoff remains overland, the new drain pipe will accept more runoff and reduce standing water. Replacement of the culverts will reduce ponding upstream of each culvert, but increase runoff in the roadside ditches and swales between culverts. This runoff will increase significantly and require regrading several existing roadside ditches, including the roadside ditch on the south side of S.R. 38 near the downstream outfall.

The replacement of the culverts will convey all necessary surface runoff into the existing roadside ditches, swales and fields while utilizing the proposed drain tile to drain standing water and lower the water table after large events. From **Table 4.1** above, runoff for Alternative 2 will also increase runoff to approximately 38% **more** than existing conditions. The effects of the increased discharge to the downstream open ditch would need to be evaluated during design to determine whether additional improvements are required to avoid causing flooding downstream of the drain.

4.2.2.3 *Construction Impacts to Residents and Property* - Impact to residents adjacent to the culvert replacement and point repairs is likely to be moderate with more significant impacts to traffic. At most culvert crossings, a culvert and the new drain beneath it will be installed, requiring more effort and time at road crossings. The culvert replacement will require closing of most of the affected roads to allow for safe installation, although the smaller improvements may be able to be installed with one lane of traffic remaining open. Work proposed for S.R. 38 will require coordination with INDOT and closing of S.R. 38 will likely not be a feasible option.

The alignment of the drain will be matched with existing. Incoming drain pipe will be connected to the new drain pipe, but this effort is difficult to quantify. The locations of private drain pipe are unlikely to be recorded, although coordination with the adjacent land owners could be beneficial. By replacing the drain pipe, land use of the drain easement will not change drastically from existing conditions, which is mostly agricultural field, apart from the deepening and regrading of a few roadside ditches.

4.2.2.4 *Opinion of Probable Costs and Schedule* - As shown in **Table 4.5**, the opinion of probable cost for design and construction of Alternative 2 is approximately **$1,764,000**. The cost of extending the drain with new arms into Clarksville, $60,000, is not included in the costs to complete the other proposed work. The culvert replacement is expected to take approximately one week per culvert, depending on the extent of the improvements and replacement of the drain tile and roadside ditch excavation could take 3-6 months.

4.2.3 <u>Alternative 3 - Regional Detention (**Figure 4.3**)</u>

4.2.3.1 *Description* - Existing conditions currently allow for significant ponding and storage, typically upstream of culverts. This storage acts similarly to small detention ponds. Alternative 3 will remove this inadvertent storage and replace it with two larger detention ponds. One storage area will be upstream of Durbin Street on the north arm, which will reduce peak flows upstream of Clarksville. There have been observations of flooding in this area where the pavement is relatively low and the culverts are undersized. The other storage area will be located upstream of Olio Road on the south arm. Flooding and overtopping of the road have also been observed in this location. Culvert work, very similar to Alternative 1, is also included in this alternative. The existing drain tile will remain in place.

Three other locations were examined for detention ponds, which could still be beneficial, but were eliminated from further analysis for various reasons. These locations are described in **Table 4.3**.

TABLE 4.3 - Potential Detention Locations, Discarded

Location	Deficit
The south pond upstream of Durbin Street on the south arm.	1. There is not a significant amount of runoff captured upstream of this location. 2. There is a peak flow of 27 cfs during a 25-year storm compared to approximately 129 cfs near Olio Road. 3. This location is near homes and adjacent to Clarksville.
A single pond at the intersection of the north and south arms.	1. This location is downstream of Clarksville and, therefore, will provide no benefit to properties there.
The north pond upstream of State Road 38. on the north arm.	1. This location is downstream of Clarksville and, therefore, will provide no benefit to properties there.
The south pond downstream of Clarksville and just south of 166th Street.	1. This location is downstream of Clarksville and, therefore, will provide no benefit to properties there.

Significant runoff does not occur upstream of Clarksville on the south arm and flooding on south arm near Clarksville can be alleviated by culvert replacement and regrading of roadside ditches and swales. Although the proposed location for the south pond is also downstream of Clarksville and will provide no benefit to properties there, the area also frequently floods, has significant peak flow, has sufficient area for a pond to be developed, and the existing topography resembles a small detention pond.

The extension of the drain to provide adequate drainage for Clarksville is also proposed to coincide with this alternative. The extensions would occur along the north side of S.R. 38, flowing west, and along Mason Street, flowing south. These extensions would include 12-inch RCP and appropriate inlet structure to accept surface runoff within developed areas. A smooth-walled perforated plastic pipe would be utilized in agricultural areas until development occurs, at which point, the pipe would be replaced with RCP.

For a detailed list of proposed improvements and associated costs, refer to the Opinion of Probable Costs in **Table 4.5**.

Model assumptions for this alternative include those previously listed.

4.2.3.2 *Results and Expected Outcome* - The results of the stormwater model for implementation of Alternative 3 are included in **Appendix A**. Because the

vast majority of runoff remains overland and will be captured by detention ponds, performance of Alternative 3 is expected to be significantly better than existing conditions. Replacement of the culverts will reduce ponding upstream of each culvert, but increase runoff in the roadside ditches and swales between culverts. This runoff will require regrading several existing roadside ditches and swales, including the roadside ditch on the south side of S.R. 38 near the downstream outfall. The replacement of the culverts will convey all necessary surface runoff into the existing roadside ditches and proposed detention ponds while utilizing the existing drain tile to drain standing water and lower the water table and pond levels after large events. Although this alternative will detain significant volumes of water, culvert improvements increase the overall watershed peak discharge to approximately 2% **more** than existing conditions. Additional detention will be constructed as development occurs.

4.2.3.3 *Construction Impacts to Residents and Property* - Impact to residents adjacent to the culvert replacement and point repairs is likely to be moderate with more significant impacts to traffic. The culvert replacement will require closing of most of the affected roads to allow for safe installation, although the smaller improvements may be able to be installed with one lane of traffic remaining open. Work proposed for S.R. 38 will require coordination with INDOT and closing of S.R. 38 will likely not be a feasible option.

The Hamilton Southeastern School property, shown in **Figure 4.4**, could provide an opportunity to coordinate improvement efforts. The property will likely need detention facilities once developed and construction of a pond that is easily incorporated into future plans could benefit all parties involved. During a meeting with Hamilton Southeastern Schools, it was indicated that the school corporation does not have plans to develop the property north of S.R. 38 and east of Durbin Street in the foreseeable future. A summary of this meeting is included in **Appendix E**. If this property were to be developed, a junior high school and high school would likely be constructed and detention would be required.

This alternative is unique in that it also will require significant land acquisition to situate the detention basin(s). Up to ten (10) acres of land between two locations is anticipated to be needed to provide the volume of storage required. The type of detention basin (wet-pond vs. dry detention) and the aesthetics of the site would be determined during preliminary design. Significant presence of equipment for grading and site work during construction should be anticipated.

4.2.3.4 *Opinion of Probable Costs and Schedule* - As shown in **Table 4.5**, the opinion of probable cost for design and construction of these improvements is approximately **$1,493,000**. The cost of extending the drain with new arms into Clarksville, $60,000, is not included in the costs to complete the other proposed work. The culvert replacement is expected to take approximately one week per culvert, depending on the extent of the improvements. Construction of the detention ponds could take approximately 3 months.

4.2.4 Alternative 4 - Two-Stage Open Ditch (**Figure 4.4**)

4.2.4.1 *Description* - Open ditches must be used to convey at least a portion of runoff in the system. Alternative 4 will remove the existing drain tile from near the downstream end to Durbin Street and 166th Street on the north and south arms, respectively. An open ditch will be excavated at a similar invert elevation to the existing drain tile, requiring removal and/or crushing of the existing tile. This open ditch will accept runoff for the entire system south of Clarksville, which allows more flexibility for drainage solutions in Clarksville and increases capacity significantly. The open ditch ranges in depth from approximately 7 feet at the downstream end, near S.R. 38, to 4 feet at the upstream end, near Durbin Street and 166th Street. A 4 foot wide bottom and 2:1 side slopes were assumed. This depth range is what is required to adequately drain a 25-year storm; however, the actual depth of the ditch could be deeper in some areas. For example, if the ditch is excavated to 4 feet deep at the upstream end, to match the existing invert elevations of the drain pipe, flow will only be about 2 feet deep during a 25-year storm.

A two-stage section downstream of Olio Road could be beneficial, although runoff will then flow into a traditional open ditch adjacent to S.R. 38, which was installed and is maintained by INDOT. Coordination with INDOT, included in **Appendix E**, has indicated this roadside ditch would become a part of the J.S. McCarty Drain to allow the Hamilton County to complete the proposed improvements. The ditches upstream of Olio Road do not need to be deep enough to warrant a two-stage cross section; however, it is feasible to install if additional capacity is preferred. Currently, this alternative proposes a two-stage open ditch downstream (west) of Olio Road. The added depth from the open ditch excavation near culverts will allow for more flexibility when determining culvert materials and cross sections. A 20 foot filter strip will be added on both sides of the ditch. Culvert work, very similar to Alternative 1, is also included in this alternative.

The extension of the drain to provide adequate drainage for Clarksville is also proposed to coincide with this alternative. The extensions would occur along the north side of S.R. 38, flowing west, and along Mason Street, flowing south. These extensions would include 12-inch RCP and appropriate inlet structure to accept surface runoff within developed areas. A smooth-walled perforated plastic pipe would be utilized in agricultural areas until development occurs, at which point, the pipe would be replaced with RCP.

For a detailed list of proposed improvements and associated costs, refer to the Opinion of Probable Costs in **Table 4.5**.

Model assumptions for this alternative include those previously listed.

4.2.4.2 *Results and Expected Outcome* - The results of the stormwater model for implementation of Alternative 4 are included in **Appendix A**. Because the

vast majority of runoff is conveyed overland and into the new open ditch, performance of Alternative 4 is expected to be significantly better than existing conditions. Replacement of the culverts will reduce ponding upstream of each culvert, but increase runoff in the open ditches between culverts. This runoff will increase significantly and require regrading several existing ditches and swales, including the roadside ditch on the south side of S.R. 38 near the downstream outfall. The replacement of the culverts will convey all necessary surface runoff into the proposed and existing ditches. This alternative provides the largest capacity increase of all alternatives; however, it will also increase runoff to approximately 47% **more** than existing conditions. The effects of the increased discharge to the downstream open ditch would need to be evaluated during design to determine whether additional improvements are required to avoid causing flooding downstream of the drain.

4.2.4.3 *Construction Impacts to Residents and Property* - Impact to residents adjacent to the culvert replacement and point repairs is likely to be moderate with more significant impacts to traffic. The culvert replacement will require closing of most of the affected roads to allow for safe installation, although the smaller improvements may be able to be installed with one lane of traffic remaining open. Work proposed for S.R. 38 will require coordination with INDOT and closing of S.R. 38 will likely not be a feasible option.

By far the largest impact will be to the owners of land through which the open ditch will be excavated. This alternative will reduce the farmable land and make accessing portions of property difficult for owners. Field crossings will be needed to allow continuation of farming in sections where the ditch separates portions of the property. Negative property value impacts to adjacent properties could occur, but will be offset by a reduction in drainage problems

4.2.4.4 *Opinion of Probable Costs and Schedule* - As shown in **Table 4.5**, the opinion of probable cost for design and construction of these improvements is approximately **$1,348,000**. The cost of extending the drain with new arms into Clarksville, $60,000, is not included in the costs to complete the other proposed work. The culvert replacement is expected to take approximately one week per culvert, depending on the extent of the improvements. Construction of the proposed two-stage ditch and other infrastructure could take 3-5 months.

4.2.5 Alternative 5 - Downstream Open Ditch and Upstream Drain Tile Replacement (**Figure 4.5**)

4.2.5.1 *Description* - Open ditches must be used to convey at least a portion of runoff in the system. Alternative 5 combines Alternatives 2 and 4 and will remove the existing drain tile from near the downstream end to west of Olio Road where the north and south arms combine and replace it with a two-stage open ditch. Replacement of the drain tile is proposed from the upstream end of the new open ditch to the upstream ends of the north and

south arms. An open ditch will be excavated at a similar invert elevation to the existing drain pipe, requiring removal and/or crushing of the existing tile. The open ditch ranges in depth from approximately 7 feet at the downstream end, near S.R. 38, to 6 feet at the upstream end, west of Olio Road. A 4 foot wide bottom and 2:1 side slopes were assumed. This depth range is what is required to adequately drain a 25-year storm; however, the actual depth of the ditch could be deeper in some areas. For example, if the ditch is excavated to 4 feet deep at the upstream end, to match the existing invert elevations of the drain pipe, flow will only be about 2 feet deep during a 25-year storm.

A two-stage section downstream of Olio Road could be beneficial, although runoff will then flow into a traditional open ditch adjacent to S.R. 38, which was installed and is maintained by INDOT. Coordination with INDOT, included in **Appendix E**, has indicated this roadside ditch would become a part of the J.S. McCarty Drain to allow the Hamilton County to complete the proposed improvements. A 20 foot filter strip will be added on both sides of the ditch. Culvert work, very similar to Alternative 1, is also included in this alternative.

Alternative 5 proposes to replace the existing drain with larger pipe to increase capacity and infiltration rates. Sizes include 24-inch and 12-inch pipe for each arm of the drain.

The extension of the drain to provide adequate drainage for Clarksville is also proposed to coincide with this alternative. The extensions would occur along the north side of S.R. 38, flowing west, and along Mason Street, flowing south. These extensions would include 12-inch RCP and appropriate inlet structure to accept surface runoff within developed areas. A smooth-walled perforated plastic pipe would be utilized in agricultural areas until development occurs, at which point, the pipe would be replaced with RCP.

For a detailed list of proposed improvements and associated costs, refer to the Opinion of Probable Costs in **Table 4.5**.

Model assumptions for this alternative include those previously listed

4.2.5.2 *Results and Expected Outcome* - The results of the stormwater model for implementation of Alternative 5 are included in **Appendix A**. Because the vast majority of runoff remains conveyed overland and into the newly regraded open ditch, drain tile, and new open ditch, performance of Alternative 5 is expected to be significantly better than existing conditions. Replacement of the culverts will reduce ponding upstream of each culvert, but increase runoff in the open ditches between culverts. This runoff will increase significantly and require regrading several existing open ditches, including the roadside ditch on the south side of S.R. 38 near the downstream outfall. The replacement of the culverts will convey all necessary surface runoff into the proposed and existing open ditches and replaced drain tile. Alternative 5 will provide a large capacity increase,

however; it will also increase runoff to approximately 64% **more** than existing conditions, which is the largest peak discharge of all the alternatives. The effects of the increased discharge to the downstream open ditch would need to be evaluated during design to determine whether additional improvements are required to avoid causing flooding downstream of the drain.

4.2.5.3 *Construction Impacts to Residents and Property* - Impact to residents adjacent to the culvert replacement and point repairs is likely to be moderate with more significant impacts to traffic. The culvert replacement will require closing of most of the affected roads to allow for safe installation, although the smaller improvements may be able to be installed with one lane of traffic remaining open. Work proposed for S.R. 38 will require coordination with INDOT and closing of S.R. 38 will likely not be a feasible option.

By far the largest impact will be to the owners of land through which the open ditch will be excavated. This alternative will reduce the farmable land and make accessing portions of property difficult for owners. Field crossings will be needed to allow continuation of farming in sections where the ditch separates portions of the property. Negative property value impacts to adjacent properties could occur, but will be offset by a reduction in drainage problems. The land use for properties through which the drain pipe will be replaced will be largely unaffected resulting in a positive impact to adjacent property values.

4.2.5.4 *Opinion of Probable Costs and Schedule* - As shown in **Table 4.5**, the opinion of probable cost for design and construction of Alternative 5 **$1,562,000**. The cost of extending the drain with new arms into Clarksville, $60,000, is not included in the costs to complete the other proposed work. The culvert replacement is expected to take approximately one week per culvert, depending on the extent of the improvements. Construction of the open ditch and replacement of the drain pipe could take 3-5 months.

TABLE 4.4 – Culvert Demand (cfs)

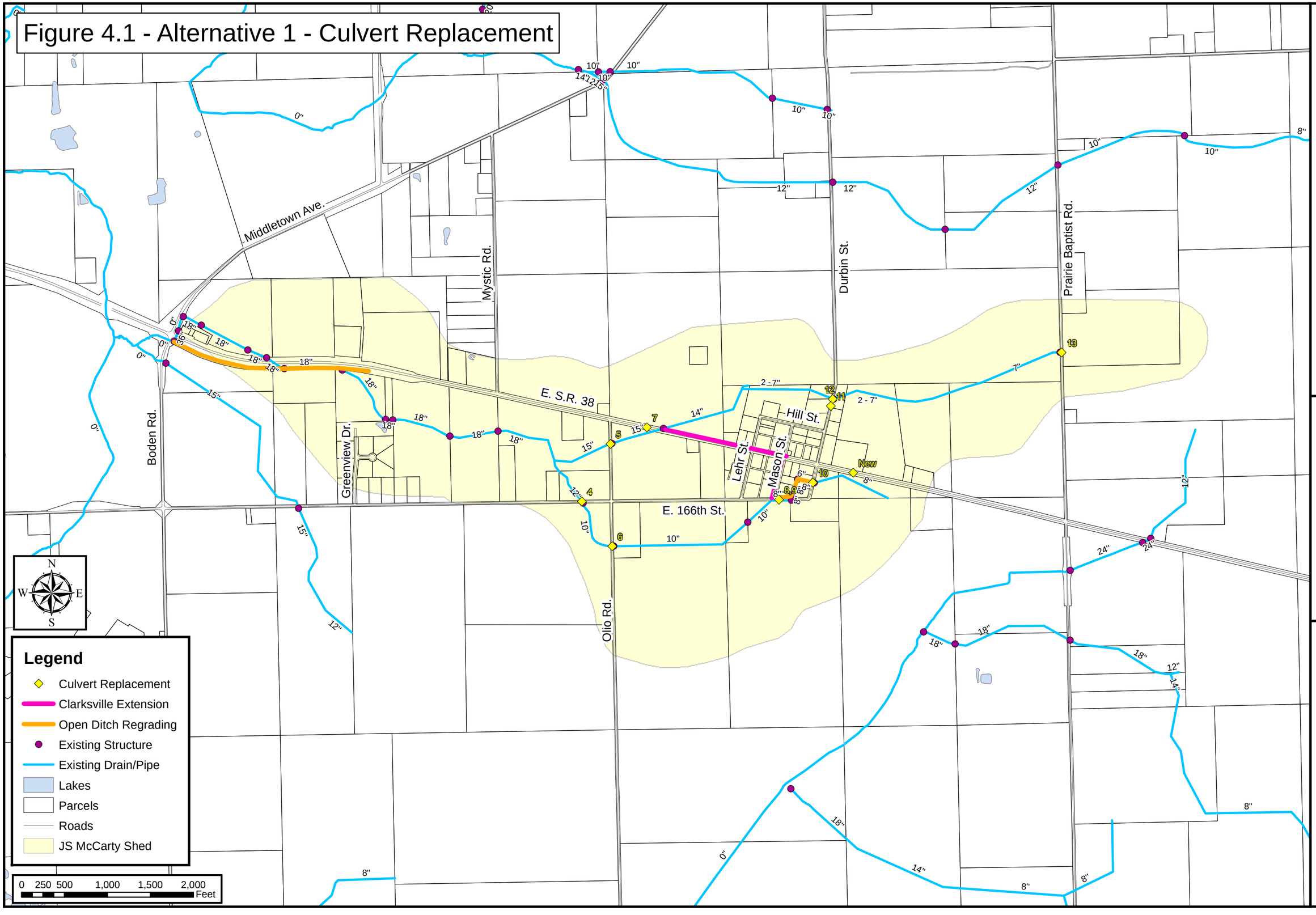
	Downstream			South Arm						North Arm				
Culvert No.	**1**	**2**	**3**	**4**	**6**	**8**	**9**	**10**	**New**	**5**	**7**	**11**	**12**	**13**
Alt	**SR 38 at Middletown Rd.**	**SR 38, east of Middletown Rd.**	**SR 38, east of Middletown Rd.**	**E. 166th St., west of Olio Rd.**	**Olio Rd., south of E. 166th St.**	**E. 166th St., West of Mason St.**	**E. 166th St., East of Mason St.**	**Durbin Rd., south of SR 38**	**SR 38, East of Durbin Rd.**	**Olio Rd., north of E. 166th St.**	**SR 38, east of Olio Rd.**	**Durbin Rd. North, north of SR 38**	**Durbin Rd. South, north of SR 38**	**Prairie Baptist Rd., north of SR 38**
1	46+	6	25	100	115	15	35	30	8	90	100	90	10	35
2	90+	6	25	75	90	15	25	25	8	75	85	85	10	35
3	45+	6	25	65	80	15	25	25	8	55	55	60	10	35
4	46+	6	25	60	75	15	25	25	8	105	130	105	10	35
5	46+	6	25	75	90	15	25	25	8	75	85	85	10	35

Note: All proposed culvert replacements are for 25-year design storm event, except the proposed INDOT culvert crossings are for 100-year design storm event.

4.3 Public Review and Input

The input from the upcoming Public Meeting will be inserted here.

Figure 4.1 - Alternative 1 - Culvert Replacement



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April 2015
Figure 4.1

Figure 4.2 - Alternative 2 - Replacement of Drain Tile

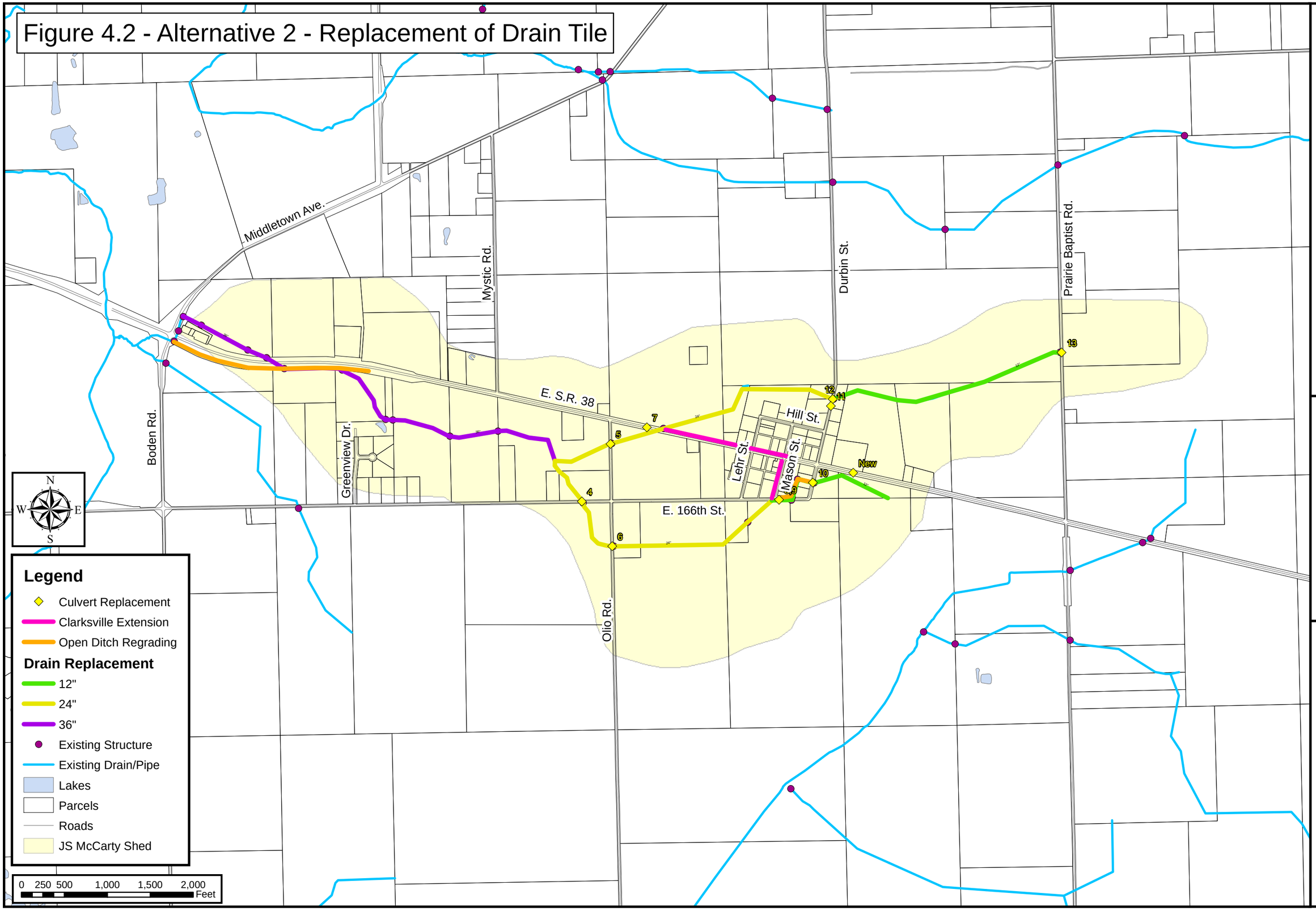

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Figure 4.2

Figure 4.3 - Alternative 3 - Regional Detention

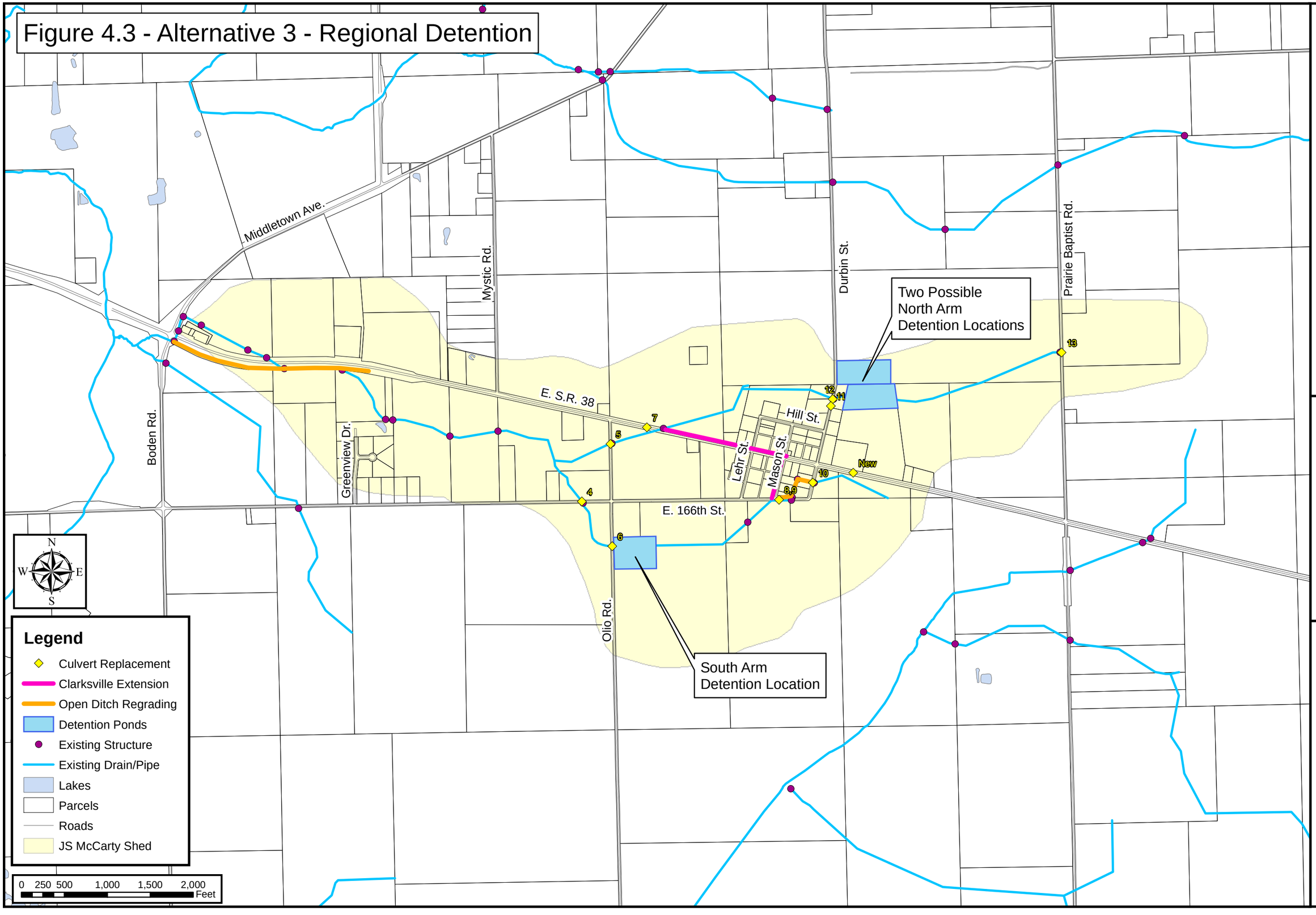

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Figure 4.3

Figure 4.4 - Alternative 4 - Two-Stage Open Ditch

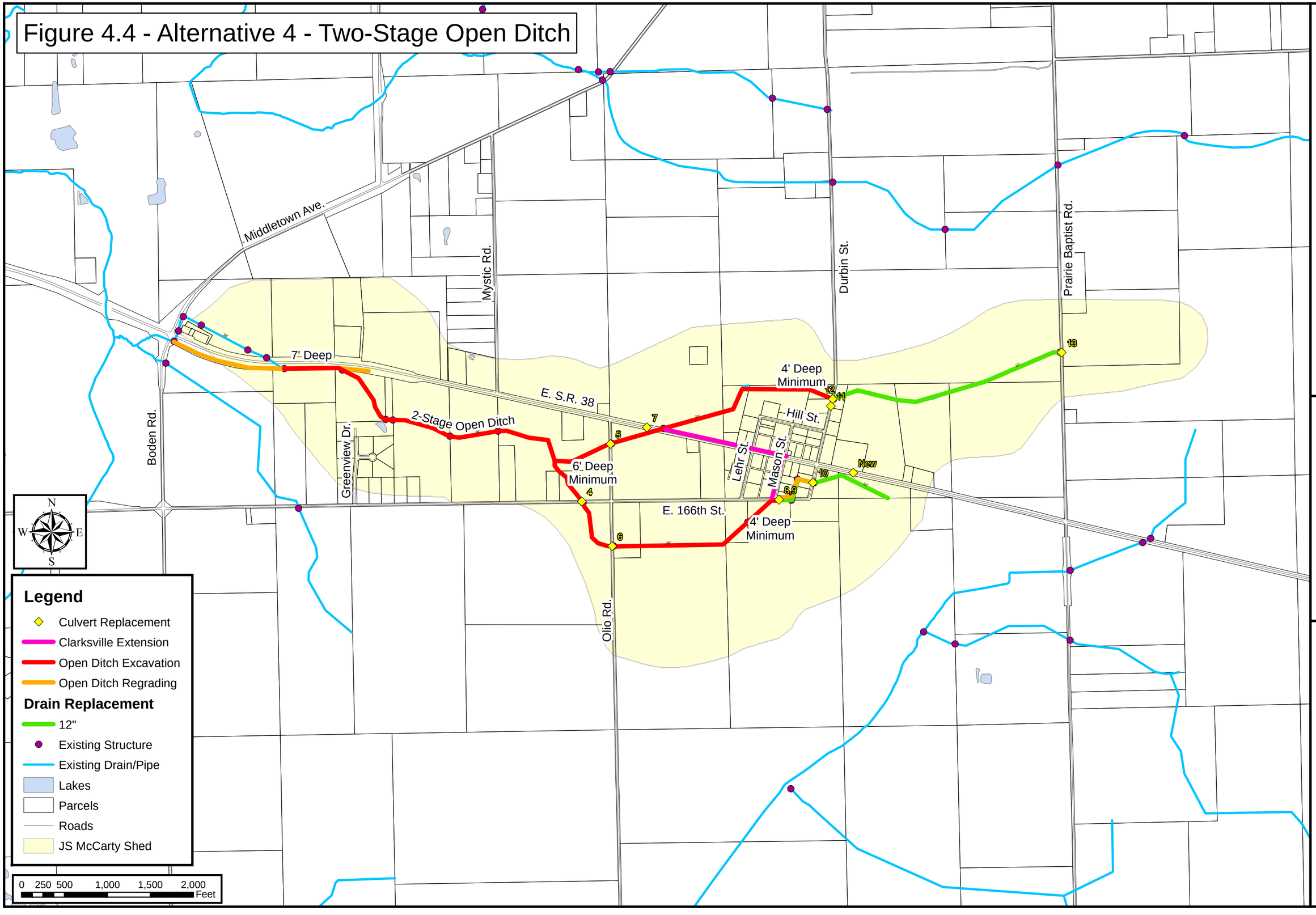

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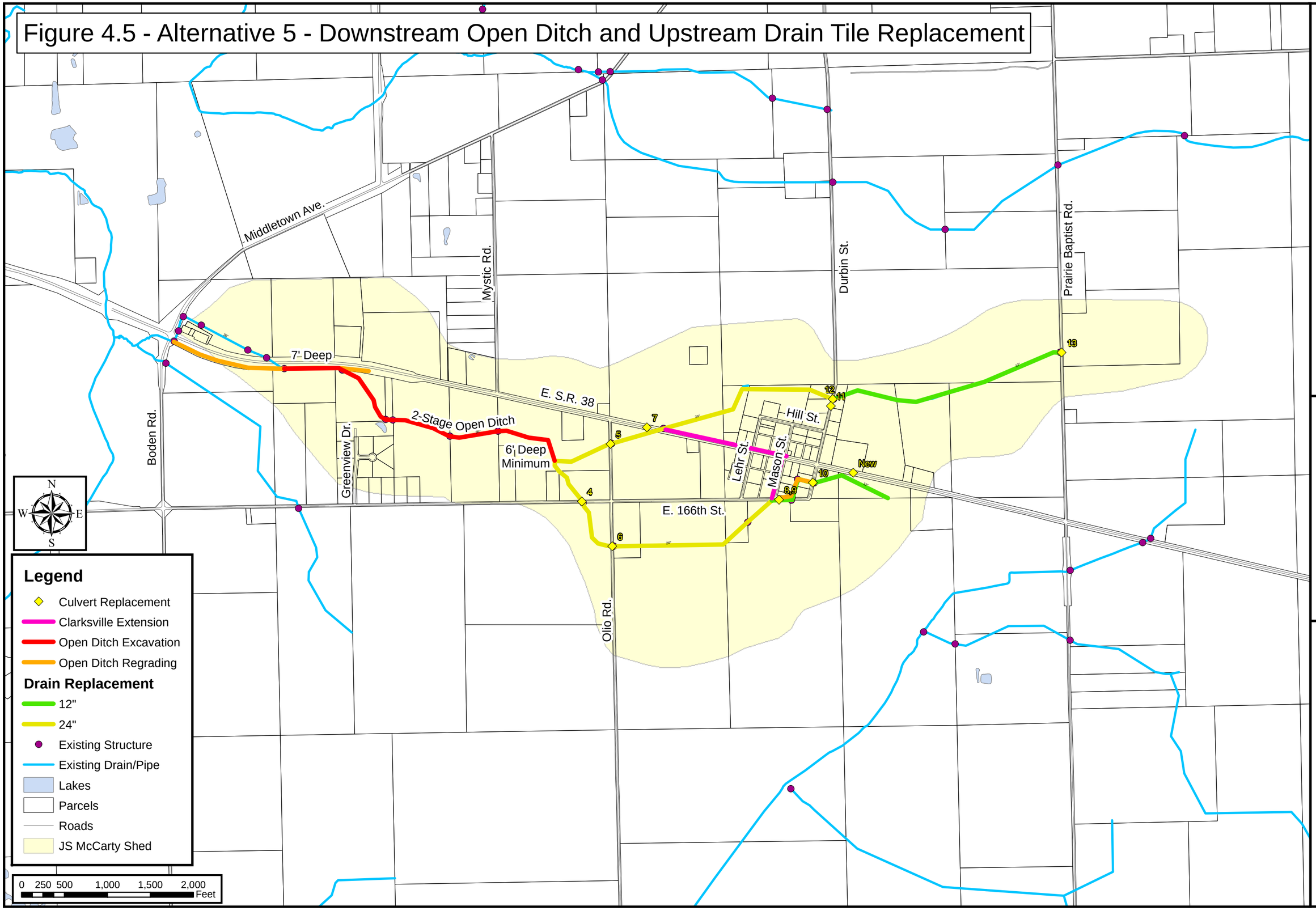
Figure 4.4

Figure 4.5 - Alternative 5 - Downstream Open Ditch and Upstream Drain Tile Replacement



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Hamilton County, IN
April 2015
Figure 4.5

Table 4.5

Opinion of Probable Costs

			Alternative 1		Alternative 2		Alternative 3		Alternative 4		Alternative 5	
			Figure 4.1		Figure 4.2		Figure 4.3		Figure 4.4		Figure 4.5	
			Culvert Replacement		Replacement of Drain Tile		Regional Detention		Two-Stage Open Ditch		Downstream Open Ditch and Upstream Replacement of Drain Tile	
Item	Unit	Unit Price	Quantity	Total Price	Quantity	Total Price	Quantity	Total Price	Quantity	Total Price	Quantity	Total Price
166th St., West of Olio Rd. Culvert Structure S	LS	$ -	1	$ 15,000	1	$ 10,000	1	$ 10,000	1	$ 8,000	1	$ 10,000
166th St., West of Durbin Rd. Culvert Structure S	LS	$ -	1	$ 12,000	1	$ 8,000	1	$ 8,000	1	$ 8,000	1	$ 8,000
Durbin Rd., South of SR38 Culvert Structure S	LS	$ -	1	$ 8,000	1	$ 5,000	1	$ 5,000	1	$ 5,000	1	$ 5,000
Olio Rd., South of 166th St. Culvert Structure S	LS	$ -	1	$ 15,000	1	$ 10,000	1	$ 8,000	1	$ 8,000	1	$ 10,000
SR38, East of Durbin Rd. Culvert Structure S	LS	$ -	1	$ 10,000	1	$ 10,000	1	$ 10,000	1	$ 10,000	1	$ 10,000
Durbin Rd., North of SR38 Culvert Structure N	LS	$ -	1	$ 23,000	1	$ 17,000	1	$ 15,000	1	$ 15,000	1	$ 17,000
Olio Rd., North of 166th St. Culvert Structure N	LS	$ -	1	$ 15,000	1	$ 10,000	1	$ 7,000	1	$ 8,000	1	$ 10,000
Prairie Baptist Rd., North of SR38 Culvert Structure N	LS	$ -	1	$ 8,000	1	$ 7,000	1	$ 8,000	1	$ 8,000	1	$ 7,000
SR38, East of Olio Rd. Culvert Structure N	LS	$ -	1	$ 22,000	1	$ 19,000	1	$ 15,000	1	$ 15,000	1	$ 19,000
SR38, East of Prairie Baptist Rd., Crossing	LS	$ -		$ -		$ -		$ -		$ -		$ -
12" Drain Pipe, Perforated HDPE and Geotextile	LFT	$ 30		$ -	4500	$ 135,000		$ -	4500	$ 135,000	4500	$ 135,000
15" Drain Pipe, Perforated HDPE and Geotextile	LFT	$ 38		$ -		$ -		$ -		$ -		$ -
18" Drain Pipe, Perforated HDPE and Geotextile	LFT	$ 46		$ -		$ -		$ -		$ -		$ -
24" Drain Pipe, Perforated HDPE and Geotextile	LFT	$ 55		$ -	6900	$ 379,500		$ -		$ -	6900	$ 379,500
36" Drain Pipe, Perforated HDPE and Geotextile	LFT	$ 70		$ -	5100	$ 357,000		$ -		$ -		$ -
Inlet for 24" Drain Pipe	EA	$ 900		$ -	4	$ 3,600		$ -		$ -	4	$ 3,600
Inlet for 36" Drain Pipe	EA	$ 1,100		$ -	2	$ 2,200		$ -		$ -		$ -
24" End Section	EA	$ 1,200		$ -		$ -		$ -		$ -	2	$ 2,400
36" End Section	EA	$ 1,500		$ -	1	$ 1,500		$ -		$ -		$ -
36" Headwall	EA	$ 7,000		$ -				$ -		$ -		$ -
Diversion Structure	EA	$ 7,000		$ -		$ -		$ -		$ -		$ -
Farm Crossing	EA	$ 12,500		$ -		$ -		$ -	13	$ 162,500	9	$ 112,500
Common Excavation	CYS	$ 10	200	$ 2,000	500	$ 5,000	45000	$ 450,000	27600	$ 276,000	9900	$ 99,000
Detention Embankment	CYS	$ 10		$ -		$ -	5000	$ 50,000		$ -		$ -
Geotextile	SYS	$ 3	750	$ 2,250	930	$ 2,790	2250	$ 6,750	10200	$ 30,600	4700	$ 14,100
Rip Rap, Revetment	TON	$ 22	450	$ 9,900	825	$ 18,150	825	$ 18,150	975	$ 21,450	825	$ 18,150
Linear Ditch Regrading	LFT	$ 20	2900	$ 58,000	2900	$ 58,000	2900	$ 58,000	2100	$ 42,000	2100	$ 42,000
Road Reconstruction and Replacement	SYS	$ 50	750	$ 37,500	875	$ 43,800	750	$ 37,500	750	$ 37,500	875	$ 43,800
Sodding	SYS	$ 4	500	$ 2,000	500	$ 2,000	500	$ 2,000	500	$ 2,000	500	$ 2,000
Restoration and Mulched Seeding	SYS	$ 3	1000	$ 3,000	2000	$ 6,000	20000	$ 60,000	10000	$ 30,000	7000	$ 21,000
Erosion Control Measures and Temporary Seeding	LS	$ -	1	$ 5,000	1	$ 15,000	1	$ 30,000	1	$ 35,000	1	$ 25,000
Tree Removal (Undistributed)	EA	$ 500		$ -	5	$ 2,500	5	$ 2,500	10	$ 5,000	10	$ 5,000
MOT, Clearing ROW, Construction Engineering	LS	10%	1	$ 24,800	1	$ 112,900	1	$ 80,100	1	$ 86,300	1	$ 100,000
Contingency	LS	15%	1	$ 37,200	1	$ 169,300	1	$ 120,200	1	$ 129,400	1	$ 149,900
		Construction Cost	**$**	**310,000**	**$**	**1,411,000**	**$**	**1,002,000**	**$**	**1,078,000**	**$**	**1,249,000**
Non-Construction Services (Survey, Design, Inspection, Legal)	LS	25.0%	1	$ 77,500	1	$ 352,800	1	$ 250,500	1	$ 269,500	1	$ 312,300
Land Acquisition (Cost will vary)	ACRE	$ 30,000	0	$ -	0	$ -	8.0	$ 240,000	0	$ -	0	$ -
		Non-Construction Cost	**$**	**78,000**	**$**	**353,000**	**$**	**491,000**	**$**	**270,000**	**$**	**313,000**
		Total Cost	**$**	**388,000**	**$**	**1,764,000**	**$**	**1,493,000**	**$**	**1,348,000**	**$**	**1,562,000**

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Hamilton County, Indiana
April 2015

Table 4.5

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SECTION 5

POTENTIAL FUTURE FLOODING PROBLEMS

5.1 Elements Affecting Future Conditions

The J.S. McCarty Watershed is currently included in the Hamilton County Plan Commission Jurisdictional Area, except for the western edge, east of Boden Road and Middletown Avenue, which is within the City of Noblesville Planning Jurisdiction.

There is an active mineral extraction and processing site, Irving Materials Inc., (IMI) on the west side of Boden Road and north of S.R. 38. IMI also owns the property immediately east of Boden Road and Middletown Avenue and these parcels are already zoned for mineral extraction and processing. IMI plans to continue the mining operation on the property southeast of the intersection of S.R. 38 and Boden Road.

In addition, residential growth from the City of Noblesville along 166th Street is just one-half mile west of the western boundary of the watershed. Development pressure within the next 5-10 years should be expected.

The Hamilton County Stormwater Management Technical Standards Manual requires development to manage stormwater runoff to reduced storm event pre-developed rates. One component of the Manual allows 0.1 cubic feet per second (cfs) per acre discharge for a 10-year storm event or less, and 0.3 cfs/acre for storm events larger than 10-year along with stormwater detention. The Hamilton County Drainage Board ca can reduce the allowable release rates from those stated in the manual if required to protect downstream properties. All detention facilities will also require a 100-year overflow route.

5.1.1 Future Land Use Map

The Hamilton County Comprehensive Plan Land Use Plan Update (undated) identifies all of the area north of 166th Street and west of Clarksville that is within the watershed as "Priority Growth - Mixed-Use". See **Figure 5.1**. Priority Growth - Mixed-Use is defined as "adjacent to high-speed arterial roadways where mixed-use development includes homes and other uses such as schools, shops, businesses, churches, and other uses that benefit from the visibility and access these locations provide." The remainder of the area within the watershed is categorized as "Rural Areas" defined as most remote from municipal services, roads, and other infrastructure. They are primarily in agricultural uses currently, and are anticipated to stay in agriculture, or be developed with extremely low density, scattered homesites and farmettes."

5.1.2 Development Potential and Patterns

The Hamilton Southeastern School Corporation owns property north of S.R. 38 between Durbin Road and Prairie Baptist Road. It is anticipated that if a school is constructed on this site, sanitary sewer and water infrastructure would be extended into the watershed. These utilities have potential to facilitate residential and commercial development adjacent to or near this site. Additional residential,

commercial and business development should be anticipated along the S.R. 38 corridor within the watershed.

A meeting with Hamilton Southeastern Schools, Hamilton County staff, and VS Engineering indicated the school corporation does not have plans to develop the property or construct a school in the foreseeable future.

5.2 Alternatives Impact by or on Future Development

5.2.1 Replacement of Drain Tile

The alternatives which include drain replacement will not change the functionality of the land use in any way, other than the improved drainage the new pipe will provide. For the upsized replacements, some changes in depth and cover may be needed, but a minimum cover should be maintained. In the existing, primarily agricultural uses, the in-kind drain replacement should provide an improved level of service due to the smoother walled pipe and lower Manning's "n" value. The upsized drain replacement could be beneficial for future development, providing a discharge location of sufficient capacity to receive allowable development flows. Development of streets, driveways, landscaping or parking areas would be possible along the alignment of the drain with few modifications needed.

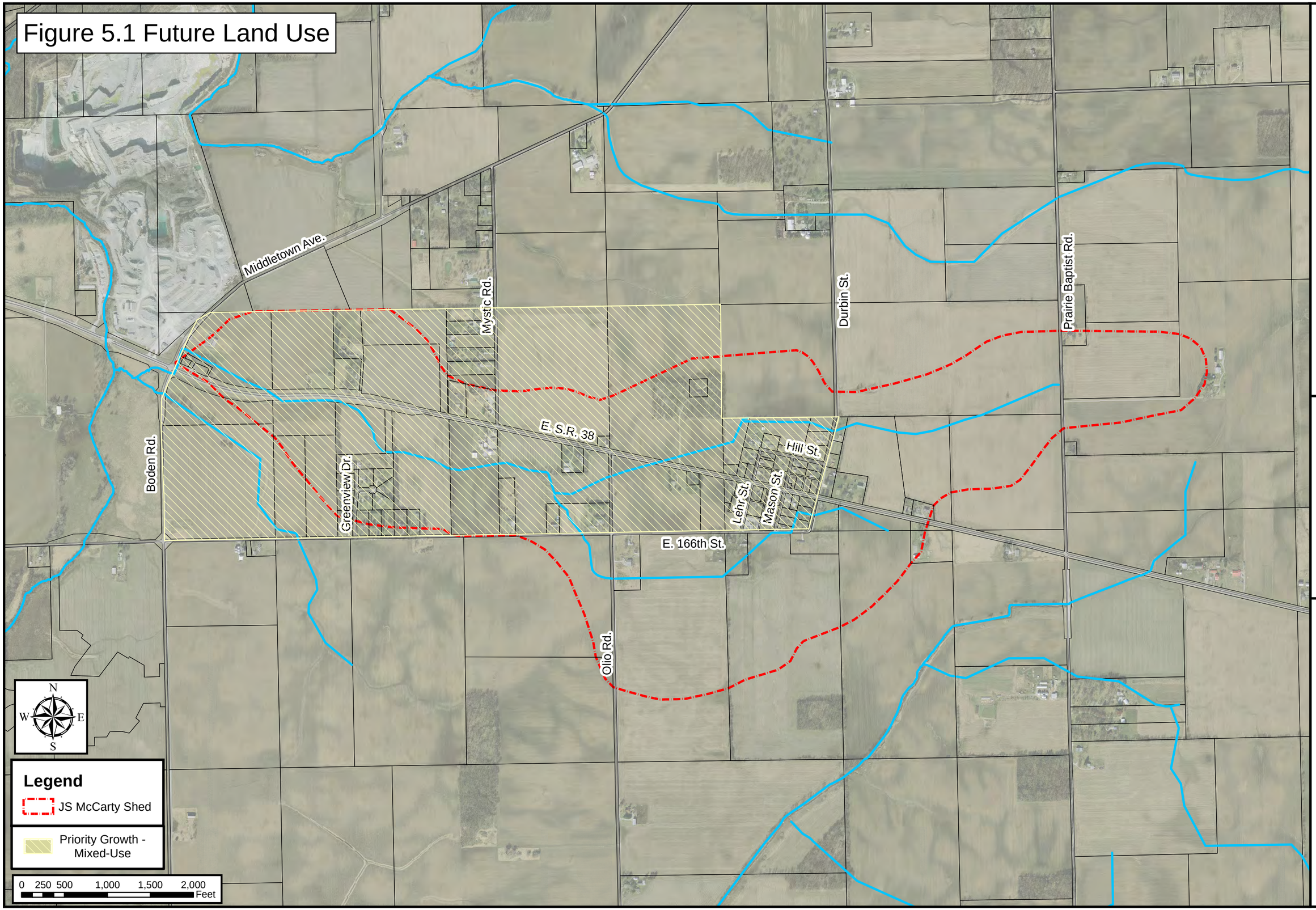
5.2.2 Two-Stage Open Ditch

The two-stage open ditch has the benefit of providing the most flow capacity of all the alternatives, but does have potential to create barriers to existing land uses, requiring occasional crossings to allow continued farming operations on bisected parcels. The open ditch would likely be replaced with a larger, storm sewer pipe during any development activities to allow the area to be usable for parking, streets, etc.; however, there would be additional grading and infrastructure costs to development to incorporate the drain. Farm crossings will be installed on affected properties to maintain access to all areas after construction.

5.2.3 Regional Detention

The regional detention alternative will take potentially developable land to construct, which impact the land acquisition process as a fair market value would need to be determined. There is potential to incorporate or couple the detention with other planned development in the area, but significant early coordination would be required to accomplish this and would take multiple willing parties and may not be feasible. The regional detention areas would serve to contain and control flooding locations to the detention areas, improving downstream areas currently inundated by standing water during large storm events.

Figure 5.1 Future Land Use



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April 2015
Figure 5.1

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SECTION 6

FINANCING MECHANISMS FOR IDENTIFIED ALTERNATIVES

6.1. Potential Funding Mechanisms

6.1.1. Regulated Drain Reconstruction

Indiana Code (IC 36-9-27) governs regulated drains and the requirements for construction and reconstruction. The costs for the construction or reconstruction are divided among the parcels of property within the watershed and directly associated with the regulated drain being (re)constructed. Reconstructing a regulated drain is the only way to: convert from an open drain to a tiled drain (or vice versa), increase the size of the drain, add an extension to the drain, change the alignment of the drain, construct drainage detention basins or provide for erosion control and for grade stabilization, or lower the drain per Section 34 of the above-referenced Code. The J.S. McCarty Drain has been classified by the Hamilton County Surveyor and Drainage Board as an Urban Drain per IC 36-9-27-88(b), so Sections 67 through 69 of the Code are applicable as well. The payment of a reconstruction assessment may be paid in equal installed over a period of 20 years. Benefits and damages to land shall be identified in accordance with Section 112.

The Hamilton County Drainage Board may transfer an amount up to 75% of the maintenance fund balance to a reconstruction fund that covers the same watershed as the maintenance fund.

6.1.2 Community Development Block Grant (CDBG)

The Housing and Community Development Act of 1974 provides monies to develop viable urban communities by providing decent housing, a suitable living environment, and expanding economic opportunities, principally for persons of low and moderate income. The improvements for Clarksville would be eligible for monies through these grants. Recipient communities may undertake a wide range of community-based activities directed toward neighborhood revitalization, economic development, and community services, facilities, and improvements. Entitlement communities develop their programs and set their funding priorities in conformance with the statutory standards, program regulations, and other federal requirements. Specific activities that can be carried out with CDBG funds include acquisition of real property; relocation; clearance and demolition; rehabilitation of residential and nonresidential structures; provision of public facilities and improvements, such as water and sewer facilities (which require reviews by the State single point of contact or a Regional Planning Agency in accordance with Executive Order 12372), streets, and neighborhood centers. Within program limitations, CDBG funds can also pay for public services. Recipients may provide assistance to microenterprises or other for-profit entities when the recipient determines that such assistance is appropriate to carry out an economic development project. Community-based development organizations may carry out neighborhood revitalization, community economic development, or energy conservation activities. Each CDBG eligible activity must meet one of three

national objectives: benefit low- and moderate-income persons, aid in the prevention or elimination of slums or blight, or meet other community development needs having a particular urgency that the grantee is unable to finance on its own. Recipients may only carry out eligible activities as listed in 24 CFR 570.201-207 or the statute. Sited from www.cfda.gov. The 2014 Consolidated Action Plan identifies how funds from the U.S. Department of Housing and Urban Development (HUD) will be spent in Fiscal Year 2014 (October 1, 2014 to September 30, 2015) for Hamilton County.

6.1.3 Community Facilities Direct Loan and Grant

The United States Department of Agriculture Rural Development and Rural Housing Service provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings. Public bodies, community-based non-profit corporations, and federally-recognized Tribes are eligible for the program, but the affected area must have less than 20,000 residents according to the latest U.S. Census Data. Funding priorities are set for communities with less than 5,000 residents and low-income communities with less than 80% of the state nonmetropolitan median household income. Sited from www.rd.usda.gov.

6.1.4 Collection of Post-Development Reconstruction Assessments

Regulated drains have been reconstructed in Hamilton County and paid for by other municipalities or developers at the time of reconstruction. When properties within the drainage shed are developed, resulting in the discharge of storm water from the properties into a reconstructed drain, a reconstruction assessment has been collected from the property owner at the time of development. When development occurs within the drainage shed, this assessment will contribute to the J.S. McCarty Drain funds.

6.1.5 Government Bond Issue

The County Council has the exclusive power to authorize the borrowing of money for the Hamilton County. The County Council and the County Commissioners can coordinate issuance of bonds for use by the Hamilton County Drainage Board to aid in reconstruction efforts of legal drains.

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SECTION 7

SUMMARY, CONCUSIONS, AND RECOMMENDATION

7.1 Summary of Findings

Flooding, overtopping of roadways, and standing water have been observed during typical existing conditions. Culverts under Olio Road, 166th Street, Durbin Road, and Prairie Baptist Road have deteriorated and erosion is significant in some areas. There is little freeboard above the crown of many culvert pipe, which causes overtopping of the roads to occur very soon after the culvert reaches full capacity. Culverts are often blocked with debris from adjacent agricultural fields which increases the probability of overtopping. A model of existing conditions was verified by these observations made in the field.

Potential future conditions were evaluated and added to problem areas identified from observations, property owner questionnaires, and the stormwater runoff model. Alternative solutions sets to these problems were then developed and analyzed, resulting in five distinct alternatives, although variations on each are feasible as well. Improvements evaluated include culvert replacement, drain replacement, two-stage open ditch, regional detention, and combinations thereof.

7.2 Conclusions

The existing conditions will exhibit overtopping in a few locations during a 1-year storm, causing frequent problems for residents. Erosion and deterioration of the existing drain and culverts over the last century have decreased performance and capacity of the system while development has increased runoff. To provide relief to residents inside the J.S. McCarty Drain Watershed, alternatives with capacity to drain a 25-year storm without road overtopping are proposed.

Table 7.1 provides a short description of each alternative, including an estimated cost and performance expectation, as estimated by VS Engineering.

Table 7.1 – Alternatives Summary

Alt.	Description	Estimated Cost	Performance (1-10)
1	**Culvert Replacement** – Replacement culvert crossings to ensure no overtopping occurs during a 25-year storm event.	$388,000	5
2	**Replacement of Drain Tile** – Installation of new perforated drain tile in the existing drain location. Includes Alternative 1.	$1,764,000	9
3	**Regional Detention** – Installation of regional detention near Clarksville. May provide an opportunity for coordination with the development of the Hamilton Southeastern School property. Includes Alternative 1.	$1,493,000	8

4	**Two-Stage Open Ditch** – Excavation of an open ditch in replacement of the existing drain and at approximately the same invert elevation. Includes Alternative 1.	$1,348,000	9
5	**Downstream Open Ditch and Upstream Replacement of Drain Tile** – Excavation of an open ditch in replacement of the existing drain for the downstream segment and installation of replacement pipe upstream of the fork in the drain. Includes Alternative 1.	$1,562,000	9

7.3 Recommendation

A recommendation will follow a public meeting through which affected residents can offer input.

J.S. McCarty Hydraulic Study

Hamilton County, Indiana

April 2015

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SECTION 8

APPENDICES

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APPENDIX A

Autodesk Storm and Sanitary Analysis Modeling Data

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APPENDIX A

Existing Conditions Modeling Results

Autodesk® Storm and Sanitary Analysis 2014 - Version 8.1.46 (Build 1)

****
Project Description
****
File Name ..... Existing Conditions 103114.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 56
Number of links 66

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.20	823.20	21825.00	
Jun-02	JUNCTION	843.80	845.30	0.00	
Jun-04	JUNCTION	836.00	837.00	43650.00	
Jun-06	JUNCTION	833.10	834.10	10912.00	
Jun-07	JUNCTION	832.30	834.80	2728.00	
Jun-08	JUNCTION	832.81	834.06	10912.00	
Jun-12	JUNCTION	833.70	835.20	10912.00	
Jun-15	JUNCTION	832.30	833.30	43650.00	
Jun-19	JUNCTION	825.30	827.05	0.00	
Jun-22	JUNCTION	818.18	819.68	43650.00	
Jun-24	JUNCTION	821.30	823.30	21825.00	
Jun-26	JUNCTION	822.40	824.90	21825.00	
Jun-27	JUNCTION	817.00	818.50	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	805.50	807.50	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	802.50	805.00	21825.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	807.00	809.00	43650.00	
Jun-41	JUNCTION	832.80	833.85	43650.00	
Jun-44	JUNCTION	832.40	833.65	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.00	10912.00	
Jun-54	JUNCTION	833.20	834.20	5456.00	
Structure - (10)	JUNCTION	831.33	834.66	0.00	
Structure - (11)	JUNCTION	794.28	799.22	0.00	
Structure - (9)	JUNCTION	831.47	835.15	0.00	
Jun-34	OUTFALL	796.50	799.00	0.00	
Out-01	OUTFALL	796.50	797.50	0.00	
Out-1Pipe - (3)	OUTFALL	792.80	794.30	0.00	
FD1	DIVIDER	798.58	805.25	43650.00	
Jun-05	DIVIDER	833.20	835.70	10912.00	
Jun-20	DIVIDER	820.45	825.90	0.00	
Jun-42	DIVIDER	831.26	835.20	10912.00	
Jun-51	DIVIDER	827.23	836.50	10912.00	
Out-1Pipe - (57)	DIVIDER	818.09	824.80	22008.00	
Out-1Pipe - (92)	DIVIDER	822.89	828.10	40442.00	
Structure - (4)	DIVIDER	801.90	808.50	43650.00	
Structure - (56)	DIVIDER	820.87	826.87	0.00	
Structure - (70)	DIVIDER	815.25	820.18	43650.00	
Structure - (94)	DIVIDER	829.60	834.00	43650.00	
ST1	STORAGE	803.10	806.10	33872.00	
ST10	STORAGE	822.80	826.80	71056.00	
ST11	STORAGE	821.90	824.90	12481.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	837.00	838.00	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	821.30	823.80	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.80	834.80	5000.00	
ST9	STORAGE	825.60	827.10	40442.00	

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Inlet Summary
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Inlet ID	Inlet Catchbasin Invert Elevation	Inlet Rim Elevation	Ponded Area	Manufacturer Initial Elevation	Manufacturer Grate Part Number	Inlet Water Clogging Factor	Location	Number of Inlets
	ft	ft	ft²	ft		%		
Structure - (15)	831.58	834.80	MAXIMUM CAPTURE CUTOFF -	831.58	N/A	0.00	On Grade	1

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Roadway and Gutter Summary
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Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
Structure - (15)	0.0200	0.0500	0.0130	0.0620	2.00	0.00

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Link Summary
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Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
Link-05	Jun-08	Jun-07	CONDUIT	32.0	1.5928	0.0250
Link-06	Jun-05	Jun-06	CONDUIT	27.3	0.3667	0.0250
Link-09	Jun-04	Jun-42	CHANNEL	554.1	0.3609	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.3236	0.0320
Link-100	FD1	Structure - (11)	CONDUIT	961.1	0.4474	0.0180
Link-101	Jun-20	Structure - (70)	CONDUIT	617.4	0.8422	0.0180
Link-102	Jun-02	Jun-42	CONDUIT	2776.8	0.4516	0.0180
Link-12	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0250
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.2775	0.0320
Link-15	Jun-15	ST9	CHANNEL	1840.1	0.3641	0.0320
Link-16	ST9	Jun-19	CONDUIT	30.0	1.0013	0.0250
Link-18	Jun-19	ST11	CHANNEL	678.8	0.5009	0.0320
Link-20	ST11	Jun-01	CONDUIT	28.3	6.0134	0.0250
Link-22	Jun-01	Jun-22	CHANNEL	650.0	0.3108	0.0320
Link-24	ST5	Jun-24	CONDUIT	26.6	0.0376	0.0250
Link-25	ST10	Jun-26	CONDUIT	52.2	0.7661	0.0250
Link-26	Jun-26	ST5	CHANNEL	437.1	0.2516	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	699.9	0.4458	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	600.6	0.1965	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	366.4	0.8188	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2403.2	0.4161	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	ST1	CHANNEL	476.2	0.5039	0.0320
Link-34	FD1	Jun-32	CHANNEL	143.9	0.3476	0.0320
Link-36	Jun-32	Jun-34	CHANNEL	639.8	0.9378	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.6	0.7830	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.8434	0.0320
Link-44	Jun-06	Jun-41	CHANNEL	255.0	0.1176	0.0320
Link-45	Jun-08	Jun-41	CHANNEL	262.6	0.0100	0.0320
Link-47	Jun-05	Jun-07	CHANNEL	75.1	1.1987	0.0320
Link-48	Jun-41	Structure - (56)	CHANNEL	2114.2	0.5666	0.0320
Link-49	ST8	Jun-44	CONDUIT	25.4	1.5729	0.0250
Link-51	Jun-44	Jun-15	CHANNEL	375.7	0.0266	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	0.4826	0.0320

Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320
Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-58	ST6	Jun-02	CONDUIT	30.4	0.9855	0.0250
Link-67	Out-1Pipe - (92)	Jun-20	CONDUIT	705.8	0.3457	0.0180
Link-70	Structure - (4)	FD1	CONDUIT	682.7	0.4863	0.0180
Link-73	Structure - (56)	Out-1Pipe - (57)	CONDUIT	631.1	0.4405	0.0180
Link-75	Structure - (15)	Structure - (9)	CONDUIT	230.0	0.0478	0.0120
Link-76	Jun-51	Structure - (15)	CONDUIT	214.3	0.0100	0.0150
Link-78	Jun-42	Structure - (56)	CONDUIT	2182.4	0.4761	0.0180
Link-81	Jun-42	Jun-05	CHANNEL	12.2	8.2305	0.0320
Link-82	Jun-51	ST7	CHANNEL	38.3	4.4375	0.0320
Link-83	Jun-54	ST8	CHANNEL	374.6	0.1068	0.0320
Link-84	Structure - (15)	Jun-54	CHANNEL	6.9	23.1548	0.0320
Link-85	ST2	Jun-51	CHANNEL	300.1	0.4998	0.0320
Link-86	ST1	FD1	CHANNEL	20.1	0.4965	0.0320
Link-88	Structure - (94)	Jun-15	CHANNEL	88.8	0.7886	0.0320
Link-89	ST12	ST2	CHANNEL	230.3	1.0856	0.0320
Link-90	Jun-20	ST11	CHANNEL	13.9	21.5208	0.0320
Link-91	Structure - (56)	ST10	CHANNEL	197.4	1.5550	0.0320
Link-92	Out-1Pipe - (57)	Structure - (70)	CONDUIT	715.8	0.3968	0.0180
Link-93	Out-1Pipe - (57)	ST5	CHANNEL	5.7	44.0917	0.0320
Link-94	Out-1Pipe - (92)	ST9	CHANNEL	2.0	74.2574	0.0320
Link-95	Structure - (70)	Jun-22	CHANNEL	47.9	2.0881	0.0320
Link-96	Structure - (4)	Jun-39	CHANNEL	27.8	1.7973	0.0320
Link-97	Structure - (70)	Structure - (4)	CONDUIT	2944.4	0.4534	0.0180
Link-98	Structure - (94)	Out-1Pipe - (92)	CONDUIT	1676.3	0.4003	0.0180
Link-99	Structure - (10)	Structure - (94)	CONDUIT	589.7	0.2934	0.0120
Pipe - (3)	Structure - (11)	Out-1Pipe - (3)	CONDUIT	361.1	0.4098	0.0180
Pipe - (7)	Structure - (9)	Structure - (10)	CONDUIT	35.1	0.3991	0.0120

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Cross Section Summary
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Link ID	Shape	Depth/ Diameter (ft)	Width (ft)	No. of Barrels	Cross Sectional Area (ft²)	Full Flow Hydraulic Radius (ft)	Design Flow Capacity (cfs)
Link-05	CIRCULAR	1.25	1.25	1	1.23	0.31	4.24
Link-06	CIRCULAR	1.00	1.00	2	0.79	0.25	1.12
Link-09	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	37.47
Link-10	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	35.48
Link-100	CIRCULAR	1.50	1.50	1	1.77	0.38	5.07
Link-101	CIRCULAR	1.50	1.50	1	1.77	0.38	6.96
Link-102	CIRCULAR	0.58	0.58	2	0.27	0.15	0.41
Link-12	CIRCULAR	1.50	1.50	1	1.77	0.38	3.22
Link-14	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	32.86
Link-15	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	37.64

Link-16	CIRCULAR	1.75	1.75	1	2.41	0.44	8.24
Link-18	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	44.15
Link-20	CIRCULAR	3.00	3.00	1	7.07	0.75	85.05
Link-22	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	34.77
Link-24	CIRCULAR	2.00	2.00	1	3.14	0.50	2.28
Link-25	CIRCULAR	2.50	2.50	1	4.91	0.63	18.67
Link-26	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	31.29
Link-27	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	41.65
Link-29	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	118.06
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	56.44
Link-31	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	171.80
Link-32	CIRCULAR	3.00	3.00	1	7.07	0.75	19.78
Link-33	TRAPEZOIDAL	2.00	67.00	1	68.00	1.01	225.59
Link-34	TRAPEZOIDAL	2.25	41.50	1	47.81	1.14	142.85
Link-36	TRAPEZOIDAL	2.50	23.50	1	30.63	1.27	161.52
Link-39	HORIZ_ELLIPSE	2.33	3.50	1	6.91	0.71	27.57
Link-40	TRAPEZOIDAL	1.50	50.50	1	38.63	0.76	132.27
Link-41	TRAPEZOIDAL	1.00	34.00	1	17.50	0.51	47.76
Link-44	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	21.39
Link-45	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	6.24
Link-47	TRIANGULAR	2.50	8.00	1	10.00	1.06	52.86
Link-48	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	46.96
Link-49	CIRCULAR	1.25	1.25	1	1.23	0.31	4.21
Link-51	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	10.18
Link-52	TRIANGULAR	2.00	8.00	1	8.00	0.89	23.96
Link-53	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	37.49
Link-55	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	30.53
Link-56	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	33.60
Link-57	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	43.11
Link-58	CIRCULAR	1.50	1.50	1	1.77	0.38	5.42
Link-67	CIRCULAR	1.00	1.00	1	0.79	0.25	1.51
Link-70	CIRCULAR	1.50	1.50	1	1.77	0.38	5.29
Link-73	CIRCULAR	1.25	1.25	1	1.23	0.31	3.10
Link-75	CIRCULAR	0.67	0.67	1	0.35	0.17	

0.29							
Link-76	CIRCULAR	0.67	0.67	1	0.35	0.17	0.10
Link-78	CIRCULAR	0.83	0.83	1	0.55	0.21	1.09
Link-81	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	178.95
Link-82	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	131.40
Link-83	TRIANGULAR	1.00	20.00	1	10.00	0.50	9.53
Link-84	TRIANGULAR	1.00	20.00	1	10.00	0.50	140.30
Link-85	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	44.10
Link-86	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	187.67
Link-88	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	55.39
Link-89	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	64.99
Link-90	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	289.37
Link-91	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	77.78
Link-92	CIRCULAR	1.25	1.25	1	1.23	0.31	2.94
Link-93	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	414.19
Link-94	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	537.52
Link-95	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	90.14
Link-96	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	122.86
Link-97	CIRCULAR	1.50	1.50	1	1.77	0.38	5.11
Link-98	CIRCULAR	1.00	1.00	1	0.79	0.25	1.63
Link-99	CIRCULAR	0.67	0.67	1	0.35	0.17	0.71
Pipe - (3)	CIRCULAR	1.50	1.50	1	1.77	0.38	4.86
Pipe - (7)	CIRCULAR	0.67	0.67	1	0.35	0.17	0.83

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Transect Summary
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Transect XS-L-Pipe - (10)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
```

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (25)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (30)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338

0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (31)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487

0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (33)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (34)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483

0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (45)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (46)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (55)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (57)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (60)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (61)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (74)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (75)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187

0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (79)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (8)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680

0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (80)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (84)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (85)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145

0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (89)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (90)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (97)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

```
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (99)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000


**************************        Volume         Depth
Runoff Quantity Continuity       acre-ft        inches
**************************     ---------       -------
Total Precipitation ......       233.092         4.793
Surface Runoff ...........        10.873         0.224
Continuity Error (%) .....        -0.001


**************************        Volume        Volume
Flow Routing Continuity          acre-ft      Mgallons
**************************     ---------     ---------
External Inflow ..........         0.000         0.000
External Outflow .........       100.240        32.665
Initial Stored Volume ....         0.000         0.000
Final Stored Volume ......         0.053         0.017
Continuity Error (%) .....         0.026


*****************************************
Composite Curve Number Computations Report
*****************************************
```

```
-------------
Subbasin 1
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       37.40            -        74.50
Composite Area & Weighted CN                            37.40                     74.50

-------------
Subbasin 2
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       37.87            -        73.80
Composite Area & Weighted CN                            37.87                     73.80

-------------
Subbasin 3
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       15.15            -        75.20
Composite Area & Weighted CN                            15.15                     75.20

-------------
Subbasin 4
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       19.51            -        73.95
Composite Area & Weighted CN                            19.51                     73.95

-------------
Subbasin 5
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       62.47            -        76.60
Composite Area & Weighted CN                            62.47                     76.60

-------------
Subbasin 6
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       32.34            -        78.00
Composite Area & Weighted CN                            32.34                     78.00

-------------
Subbasin 7
-------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       23.74            -        74.60
Composite Area & Weighted CN                            23.74                     74.60

-------------
Subbasin 8
-------------
```

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44

Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17
Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80
Composite Area & Weighted CN	3.81		66.80

Subbasin 20

Soil/Surface Description	Area (acres)	Soil Group	CN
-	63.62	-	75.00
Composite Area & Weighted CN	63.62		75.00

Subbasin 21

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.05	-	75.20
Composite Area & Weighted CN	19.05		75.20

Subbasin 22

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.50	-	75.74
Composite Area & Weighted CN	8.50		75.74

Subbasin 23

```
--------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                        4.60            -        76.95
Composite Area & Weighted CN                             4.60                     76.95

--------------
Subbasin 24
--------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                       33.33            -        75.29
Composite Area & Weighted CN                            33.33                     75.29

--------------
Subbasin 25
--------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                        4.00            -        66.40
Composite Area & Weighted CN                             4.00                     66.40

--------------
Subbasin 26
--------------
                                                        Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                        5.36            -        72.00
Composite Area & Weighted CN                             5.36                     72.00


**************************************************
SCS TR-55 Time of Concentration Computations Report
**************************************************

Sheet Flow Equation
-------------------

        Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

        Where:

        Tc = Time of Concentration (hrs)
        n  = Manning's Roughness
        Lf = Flow Length (ft)
        P  = 2 yr, 24 hr Rainfall (inches)
        Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation
----------------------------------

        V  = 16.1345 * (Sf^0.5) (unpaved surface)
        V  = 20.3282 * (Sf^0.5) (paved surface)
        V  = 15.0 * (Sf^0.5) (grassed waterway surface)
        V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
        V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
        V  = 7.0 * (Sf^0.5) (short grass pasture surface)
        V  = 5.0 * (Sf^0.5) (woodland surface)
        V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
        Tc = (Lf / V) / (3600 sec/hr)

        Where:
```

```
          Tc = Time of Concentration (hrs)
          Lf = Flow Length (ft)
          V  = Velocity (ft/sec)
          Sf = Slope (ft/ft)

  Channel Flow Equation
  ---------------------

          V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
          R  = Aq / Wp
          Tc = (Lf / V) / (3600 sec/hr)

          Where:

          Tc = Time of Concentration (hrs)
          Lf = Flow Length (ft)
          R  = Hydraulic Radius (ft)
          Aq = Flow Area (ft²)
          Wp = Wetted Perimeter (ft)
          V  = Velocity (ft/sec)
          Sf = Slope (ft/ft)
          n  = Manning's Roughness

  -------------
  Subbasin 1
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.87                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             38.63                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        850.00              447.00
0.00
          Slope (%):                                 0.39                0.63
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.56                0.71
0.00
          Computed Flow Time (minutes):             25.30               10.49
0.00

==============================================================================================
          Total TOC (minutes):                      74.42

==============================================================================================


  -------------
  Subbasin 2
```

```
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             50.97                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        658.00             1428.00
0.00
          Slope (%):                                 0.32                0.36
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.51                0.54
0.00
          Computed Flow Time (minutes):             21.50               44.07
0.00

=================================================================================================
          Total TOC (minutes):                     116.54

=================================================================================================


  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.05                0.00
0.00
          Computed Flow Time (minutes):             91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        685.00              906.00
0.00
```

```
          Slope (%):                                  0.57                0.67
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.68                0.74
0.00
          Computed Flow Time (minutes):              16.79               20.41
0.00

==============================================================================================
          Total TOC (minutes):                      128.79

==============================================================================================


  -------------
  Subbasin 4
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         899.00              190.00
0.00
          Slope (%):                                  0.66                0.26
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.73                0.46
0.00
          Computed Flow Time (minutes):              20.53                6.88
0.00

==============================================================================================
          Total TOC (minutes):                       81.88

==============================================================================================


  -------------
  Subbasin 5
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
```

```
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   1.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.15                0.00
0.00
          Computed Flow Time (minutes):               32.51                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          284.00             1637.00
0.00
          Slope (%):                                   0.46                0.29
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           0.61                0.48
0.00
          Computed Flow Time (minutes):                7.76               56.84
0.00

  Channel Flow Computations
  -------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.02                0.00
0.00
          Flow Length (ft):                          231.00                0.00
0.00
          Channel Slope (%):                           0.43                0.00
0.00
          Cross Section Area (ft²):                    0.75                0.00
0.00
          Wetted Perimeter (ft):                       3.16                0.00
0.00
          Velocity (ft/sec):                           2.09                0.00
0.00
          Computed Flow Time (minutes):                1.84                0.00
0.00

==========================================================================================
          Total TOC (minutes):                        98.95

==========================================================================================


  -------------
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.15                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
```

```
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1029.00              200.00
0.00
          Slope (%):                                  0.78                0.80
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.79                0.80
0.00
          Computed Flow Time (minutes):              21.71                4.17
0.00

==============================================================================================
          Total TOC (minutes):                       52.35

==============================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         620.00                0.00
0.00
          Slope (%):                                  0.53                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.66                0.00
0.00
          Computed Flow Time (minutes):              15.66                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       70.13

==============================================================================================
```

```
  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.11                0.00
0.00
          Computed Flow Time (minutes):             45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        820.00              326.00
0.00
          Slope (%):                                 0.30                0.40
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.50                1.02
0.00
          Computed Flow Time (minutes):             27.33                5.33
0.00

==============================================================================================
          Total TOC (minutes):                      78.43

==============================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        180.00                0.00
0.00
          Slope (%):                                 1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
```

```
C
          Flow Length (ft):                        198.00              264.00
300.00
          Slope (%):                                 0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                         1.07                0.58
0.23
          Computed Flow Time (minutes):              3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.02                0.00
0.00
          Flow Length (ft):                         25.00                0.00
0.00
          Channel Slope (%):                         0.80                0.00
0.00
          Cross Section Area (ft²):                  0.79                0.00
0.00
          Wetted Perimeter (ft):                     1.00                0.00
0.00
          Velocity (ft/sec):                         4.73                0.00
0.00
          Computed Flow Time (minutes):              0.09                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      49.30

==============================================================================================


  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                         300.00               0.00
0.00
          Slope (%):                                 0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.08                0.00
0.00
          Computed Flow Time (minutes):             61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1190.00               0.00
0.00
          Slope (%):                                 0.23                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
```

```
Unpaved
          Velocity (ft/sec):                          0.43                0.00
0.00
          Computed Flow Time (minutes):              46.12                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      107.99

==========================================================================================


  --------------
  Subbasin 11
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.12                0.00
0.00
          Computed Flow Time (minutes):              41.28                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1985.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.68                0.00
0.00
          Computed Flow Time (minutes):              48.65                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       89.93

==========================================================================================


  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.83                0.00
```

```
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         866.00                0.00
0.00
          Slope (%):                                  0.48                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.63                0.00
0.00
          Computed Flow Time (minutes):              22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         633.00                0.00
0.00
          Channel Slope (%):                          0.54                0.00
0.00
          Cross Section Area (ft²):                  20.00                0.00
0.00
          Wetted Perimeter (ft):                     40.05                0.00
0.00
          Velocity (ft/sec):                          1.72                0.00
0.00
          Computed Flow Time (minutes):               6.14                0.00
0.00

==================================================================================================
          Total TOC (minutes):                       68.27

==================================================================================================


  --------------
  Subbasin 13
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         238.00                0.00
0.00
          Slope (%):                                  1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              21.25                0.00
```

```
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        640.00                0.00
0.00
          Slope (%):                                 0.52                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.65                0.00
0.00
          Computed Flow Time (minutes):             16.41                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      37.66

==========================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        176.00              640.00
0.00
          Slope (%):                                 2.39                0.39
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         1.39                0.56
0.00
          Computed Flow Time (minutes):              2.11               19.05
0.00

==========================================================================================
          Total TOC (minutes):                      72.36

==========================================================================================


  --------------
  Subbasin 15
```

```
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.16                0.00
0.00
          Computed Flow Time (minutes):             31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        112.00                0.00
0.00
          Slope (%):                                 1.88                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.23                0.00
0.00
          Computed Flow Time (minutes):              1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.04                0.00
0.00
          Flow Length (ft):                        490.00                0.00
0.00
          Channel Slope (%):                         0.36                0.00
0.00
          Cross Section Area (ft²):                 13.00                0.00
0.00
          Wetted Perimeter (ft):                    26.08                0.00
0.00
          Velocity (ft/sec):                         1.40                0.00
0.00
          Computed Flow Time (minutes):              5.84                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      38.64

==========================================================================================


  --------------
  Subbasin 16
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
```

```
          Manning's Roughness:                        0.40                0.17
0.00
          Flow Length (ft):                         150.00              150.00
0.00
          Slope (%):                                  0.67                1.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                2.85
0.00
          Velocity (ft/sec):                          0.05                0.12
0.00
          Computed Flow Time (minutes):              48.84               20.94
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1468.00                0.00
0.00
          Slope (%):                                  0.61                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.70                0.00
0.00
          Computed Flow Time (minutes):              34.95                0.00
0.00

=================================================================================================
          Total TOC (minutes):                      104.74

=================================================================================================


  --------------
  Subbasin 17
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.17                0.00
0.00
          Computed Flow Time (minutes):              30.01                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         490.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
```

```
          Computed Flow Time (minutes):               7.63                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       37.65

==========================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1220.00                0.00
0.00
          Slope (%):                                  0.86                0.00
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                          1.39                0.00
0.00
          Computed Flow Time (minutes):              14.63                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       42.68

==========================================================================================


  --------------
  Subbasin 19
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
```

```
          Velocity (ft/sec):                          0.22                0.00
0.00
          Computed Flow Time (minutes):              23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         115.00                0.00
0.00
          Slope (%):                                  3.48                0.00
0.00
          Surface Type:                            Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                          3.01                0.00
0.00
          Computed Flow Time (minutes):               0.64                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       23.88

==============================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1118.00             1574.00
387.00
          Slope (%):                                  0.87                0.40
0.52
          Surface Type:                       Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                          0.84                0.57
0.65
          Computed Flow Time (minutes):              22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
```

```
0.00
          Flow Length (ft):                        610.00                0.00
0.00
          Channel Slope (%):                         0.33                0.00
0.00
          Cross Section Area (ft²):                 10.00                0.00
0.00
          Wetted Perimeter (ft):                    20.10                0.00
0.00
          Velocity (ft/sec):                         1.34                0.00
0.00
          Computed Flow Time (minutes):              7.59                0.00
0.00

==========================================================================================
          Total TOC (minutes):                     142.31

==========================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.15                0.00
0.00
          Computed Flow Time (minutes):             33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        507.00              670.00
0.00
          Slope (%):                                 0.87                0.90
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.84                0.85
0.00
          Computed Flow Time (minutes):             10.06               13.14
0.00

==========================================================================================
          Total TOC (minutes):                      57.10

==========================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
```

```
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        233.00                0.00
0.00
          Slope (%):                                 3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):             17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        483.00              660.00
0.00
          Slope (%):                                 1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                         1.74                0.73
0.00
          Computed Flow Time (minutes):              4.63               15.07
0.00

==============================================================================================
          Total TOC (minutes):                      37.05

==============================================================================================


  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.21                0.00
0.00
          Computed Flow Time (minutes):             23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        562.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
```

```
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               8.75                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       32.05

==========================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==========================================================================================
          Total TOC (minutes):                      105.31

==========================================================================================


  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         255.00                0.00
0.00
          Slope (%):                                  2.04                0.00
```

```
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.20                0.00
0.00
          Computed Flow Time (minutes):              21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         175.00              275.00
0.00
          Slope (%):                                  0.17                2.36
0.00
          Surface Type:                    Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                          0.62                1.08
0.00
          Computed Flow Time (minutes):               4.70                4.24
0.00

==========================================================================================
          Total TOC (minutes):                       30.73

==========================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         378.00                0.00
0.00
          Slope (%):                                  2.43                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.40                0.00
0.00
          Computed Flow Time (minutes):               4.50                0.00
0.00

  Channel Flow Computations
  -------------------------
```

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.15	0.00	0.00
Flow Length (ft):	606.00	0.00	0.00
Channel Slope (%):	0.99	0.00	0.00
Cross Section Area (ft²):	31.25	0.00	0.00
Wetted Perimeter (ft):	25.50	0.00	0.00
Velocity (ft/sec):	1.13	0.00	0.00
Computed Flow Time (minutes):	8.92	0.00	0.00

==========

Total TOC (minutes): 50.91

==========

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	hh:mm:ss
1	4.73	2.19	38.08	74.500	0	01:14:25
2	4.73	2.13	38.56	73.800	0	01:56:32
3	4.73	2.25	10.48	75.200	0	02:08:47
4	4.73	2.15	18.08	73.950	0	01:21:52
5	4.73	2.37	55.90	76.600	0	01:38:57
6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18
21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03
23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node	Average	Maximum	Maximum	Time of Max	Total	Total	Retention

ID	Depth Attained ft	Depth Attained ft	HGL Attained ft	Occurrence days	Occurrence hh:mm	Flooded Volume acre-in	Time Flooded minutes	Time hh:mm:ss
Jun-01	0.63	0.82	821.02	0	15:50	0	0	0:00:00
Jun-02	0.36	0.67	844.47	0	14:06	0	0	0:00:00
Jun-04	1.34	3.01	839.01	0	15:44	55.54	580	0:00:00
Jun-06	0.58	0.82	833.92	0	16:11	0	0	0:00:00
Jun-07	3.56	5.91	838.21	0	16:09	2.85	720	0:00:00
Jun-08	0.70	0.96	833.77	0	16:15	0	0	0:00:00
Jun-12	0.64	1.95	835.65	0	15:53	1.80	230	0:00:00
Jun-15	0.41	0.85	833.15	0	12:58	0	0	0:00:00
Jun-19	0.57	0.74	826.04	0	15:31	0	0	0:00:00
Jun-22	0.92	1.13	819.31	0	16:12	0	0	0:00:00
Jun-24	0.63	0.79	822.09	0	16:35	0	0	0:00:00
Jun-26	2.34	3.37	825.77	0	16:59	7.40	749	0:00:00
Jun-27	0.80	1.10	818.10	0	13:21	0	0	0:00:00
Jun-28	0.28	0.68	820.68	0	13:05	0	0	0:00:00
Jun-29	1.05	1.56	807.06	0	13:38	0	0	0:00:00
Jun-30	1.06	1.56	807.06	0	13:38	0	0	0:00:00
Jun-32	1.45	2.27	804.77	0	13:42	0	0	0:00:00
Jun-35	0.47	1.08	800.30	0	13:17	1.12	64	0:00:00
Jun-38	0.22	0.75	810.55	0	12:25	0	0	0:00:00
Jun-39	0.96	1.46	808.46	0	13:37	0	0	0:00:00
Jun-41	0.59	0.82	833.62	0	16:21	0	0	0:00:00
Jun-44	0.47	0.82	833.22	0	16:16	0	0	0:00:00
Jun-45	0.30	1.01	799.01	0	12:37	0.08	20	0:00:00
Jun-46	0.49	1.24	798.99	0	12:41	0	0	0:00:00
Jun-47	0.41	0.97	797.97	0	12:28	0	0	0:00:00
Jun-54	0.90	2.42	835.62	0	15:55	5.04	397	0:00:00
Structure - (10)	2.29	3.11	834.44	0	12:25	0	0	0:00:00
Structure - (11)	2.56	2.90	797.18	0	13:42	0	0	0:00:00
Structure - (9)	2.25	3.03	834.50	0	12:25	0	0	0:00:00
Jun-34	1.43	2.23	798.73	0	13:43	0	0	0:00:00
Out-01	0.40	0.94	797.44	0	12:28	0	0	0:00:00
Out-1Pipe - (3)	0.95	1.01	793.81	0	13:42	0	0	0:00:00
FD1	5.58	6.65	805.23	0	13:42	0	0	0:00:00
Jun-05	2.80	5.07	838.27	0	16:09	8.12	666	0:00:00
Jun-20	1.47	4.72	825.17	0	12:40	0	0	0:00:00
Jun-42	4.53	7.04	838.30	0	16:09	20.00	700	0:00:00
Jun-51	7.71	9.69	836.92	0	13:50	2.02	172	0:00:00
Out-1Pipe - (57)	5.88	7.14	825.23	0	16:32	2.74	728	0:00:00
Out-1Pipe - (92)	5.04	7.69	830.58	0	15:28	27.96	678	0:00:00
Structure - (4)	5.43	6.63	808.53	0	13:38	0.41	41	0:00:00
Structure - (56)	4.99	6.00	826.87	0	13:15	63.29	471	0:00:00
Structure - (70)	3.63	4.49	819.74	0	12:30	0	0	0:00:00
Structure - (94)	2.87	4.12	833.72	0	12:25	0	0	0:00:00
ST1	1.37	2.21	805.31	0	13:43	0	0	0:00:00
ST10	2.55	3.81	826.61	0	17:23	0	0	0:00:00
ST11	1.44	1.89	823.79	0	15:47	0	0	0:00:00
ST12	1.58	1.91	839.91	0	12:56	2.06	1015	0:00:00
ST2	0.36	0.88	837.88	0	12:45	0	0	0:00:00
ST3	0.78	1.26	807.06	0	13:38	0	0	0:00:00
ST4	0.39	1.54	811.74	0	12:25	0	0	0:00:00
ST5	2.94	3.93	825.23	0	16:33	12.96	840	0:00:00
ST6	1.47	4.20	848.30	0	13:46	20.81	294	0:00:00
ST7	1.11	3.10	836.90	0	13:54	1.69	81	0:00:00
ST8	1.01	2.58	835.38	0	16:04	1.40	264	0:00:00
ST9	2.88	4.97	830.57	0	15:28	73.78	836	0:00:00

****
Node Flow Summary
****

Node	Element	Maximum	Peak	Time of	Maximum	Time of Peak

ID	Type	Lateral Inflow cfs	Inflow cfs	Peak Inflow Occurrence days	hh:mm	Flooding Overflow cfs	Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	20.52	0	15:47	0.00		
Jun-02	JUNCTION	0.00	13.36	0	13:48	0.00		
Jun-04	JUNCTION	48.83	59.81	0	13:20	39.43	0	13:15
Jun-06	JUNCTION	0.00	12.57	0	16:09	0.00		
Jun-07	JUNCTION	0.00	10.93	0	15:22	3.22	0	12:26
Jun-08	JUNCTION	0.00	10.87	0	16:10	0.00		
Jun-12	JUNCTION	0.00	11.25	0	13:36	1.61	0	13:54
Jun-15	JUNCTION	0.00	25.38	0	12:44	0.00		
Jun-19	JUNCTION	0.00	20.55	0	15:28	0.00		
Jun-22	JUNCTION	0.00	53.33	0	13:10	0.00		
Jun-24	JUNCTION	0.00	22.52	0	16:33	0.00		
Jun-26	JUNCTION	0.00	24.44	0	13:28	9.04	0	13:22
Jun-27	JUNCTION	20.76	76.78	0	13:12	0.00		
Jun-28	JUNCTION	20.68	20.68	0	13:05	0.00		
Jun-29	JUNCTION	0.00	116.67	0	13:37	0.00		
Jun-30	JUNCTION	0.00	5.19	0	12:17	0.00		
Jun-32	JUNCTION	0.00	120.43	0	13:41	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	2.74	0	12:55
Jun-38	JUNCTION	0.00	22.50	0	12:25	0.00		
Jun-39	JUNCTION	0.00	119.02	0	13:16	0.00		
Jun-41	JUNCTION	0.00	23.44	0	16:12	0.00		
Jun-44	JUNCTION	0.00	7.22	0	16:04	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.94	0	12:29
Jun-46	JUNCTION	0.00	34.22	0	12:25	0.00		
Jun-47	JUNCTION	5.05	36.75	0	12:27	0.00		
Jun-54	JUNCTION	0.00	10.44	0	13:39	3.62	0	12:54
Structure - (10)	JUNCTION	0.00	0.70	0	11:38	0.00		
Structure - (11)	JUNCTION	0.00	6.84	0	13:42	0.00		
Structure - (9)	JUNCTION	0.00	0.70	0	11:38	0.00		
Jun-34	OUTFALL	6.45	121.74	0	13:41	0.00		
Out-01	OUTFALL	0.00	36.67	0	12:28	0.00		
Out-1Pipe - (3)	OUTFALL	0.00	6.84	0	13:42	0.00		
FD1	DIVIDER	24.17	127.28	0	13:41	0.00		
Jun-05	DIVIDER	18.06	27.40	0	12:37	10.42	0	12:37
Jun-20	DIVIDER	15.31	16.88	0	12:40	0.00		
Jun-42	DIVIDER	0.00	26.84	0	12:44	21.77	0	12:37
Jun-51	DIVIDER	0.00	30.77	0	12:48	5.26	0	12:56
Out-1Pipe - (57)	DIVIDER	48.83	48.83	0	12:30	12.49	1	01:37
Out-1Pipe - (92)	DIVIDER	73.28	74.73	0	12:55	28.80	0	12:55
Structure - (4)	DIVIDER	40.38	45.02	0	13:30	1.81	0	13:21
Structure - (56)	DIVIDER	55.82	73.31	0	13:05	27.59	0	13:25
Structure - (70)	DIVIDER	14.63	25.26	0	12:30	0.00		
Structure - (94)	DIVIDER	24.01	24.46	0	12:35	0.00		
ST1	STORAGE	0.00	116.65	0	13:38	0.00		
ST10	STORAGE	0.00	44.78	0	13:15	0.00		
ST11	STORAGE	0.00	20.98	0	12:55	0.00		
ST12	STORAGE	7.40	7.40	0	12:40	5.78	0	12:28
ST2	STORAGE	21.92	27.83	0	12:50	0.00		
ST3	STORAGE	5.78	5.78	0	12:15	0.00		
ST4	STORAGE	22.54	22.54	0	12:25	0.00		
ST5	STORAGE	0.00	42.99	0	12:30	18.85	0	12:30
ST6	STORAGE	38.04	38.04	0	12:45	27.52	0	12:40
ST7	STORAGE	0.00	28.70	0	12:47	7.05	0	13:20
ST8	STORAGE	0.00	7.77	0	13:46	1.62	0	13:39
ST9	STORAGE	0.00	94.33	0	12:47	82.36	0	12:47

****
Inlet Depth Summary
****

Inlet	Max Gutter	Max Gutter	Max Gutter	Time of

ID	Spread during Peak Flow ft	Water Elev during Peak Flow ft	Water Depth during Peak Flow ft	Maximum Depth Occurrence days	hh:mm
Structure - (15)	0.09	834.80	0.00	0	11:44

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
Structure - (15)	0.03	0.00	0.03	0.00	100.00	2.633	798

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded days hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
ST1	25.798	38	0 13:43	6.952	10	116.57	5.66	13:40:00	2.459
ST10	37.477	75	0 17:23	19.964	40	24.44	14.18	17:20:00	9.324
ST11	1.470	15	0 15:47	0.906	9	20.52	0.66	15:45:00	0.514
ST12	5.075	100	0 12:20	7.217	142	6.38	6.95	12:55:00	8.462
ST2	12.568	77	0 12:45	2.893	18	30.77	6.72	12:45:00	2.952
ST3	1.692	3	0 13:38	0.709	1	5.19	0.98	13:35:00	0.440
ST4	0.342	2	0 12:25	0.055	0	22.50	0.12	12:25:00	0.036
ST5	7.521	100	0 12:29	33.646	447	38.19	18.49	16:30:00	14.055
ST6	18.244	100	0 12:26	21.037	115	13.36	25.43	13:45:00	5.955

```
  ST7                     32.210         100       0  13:20      6.854        21         11.25
13.48      13:50:00        2.653
  ST8                      3.550         100       0  13:39      1.994        56          7.22
1.73      16:00:00        0.600
  ST9                     47.011         100       0  12:34    162.731       346         20.55
56.98      15:25:00       39.067


  ***********************
  Outfall Loading Summary
  ***********************

  ----------------------------------------------
  Outfall Node ID        Flow   Average      Peak
                   Frequency      Flow    Inflow
                         (%)       cfs       cfs
  ----------------------------------------------
  Jun-34                95.11     55.44    121.74
  Out-01                91.34      9.18     36.67
  Out-1Pipe - (3)       98.20      6.41      6.84
  ----------------------------------------------
  System                94.88     71.04    158.11


  *****************
  Link Flow Summary
  *****************


-------------------------------------------------------------------------------------------------
-------------------------------
  Link ID              Element       Time of   Maximum  Length   Peak Flow      Design  Ratio of
Ratio of       Total  Reported
                       Type        Peak Flow  Velocity  Factor      during        Flow   Maximum
Maximum        Time  Condition
                                  Occurrence  Attained            Analysis    Capacity   /Design
Flow  Surcharged
                                  days hh:mm    ft/sec                 cfs         cfs      Flow
Depth     minutes

-------------------------------------------------------------------------------------------------
-------------------------------
  Link-05              CONDUIT      0  16:10      9.46    1.00       10.87        4.24      2.56
0.89           0  > CAPACITY
  Link-06              CONDUIT      0  16:09      8.37    1.00       12.57        2.24      5.60
0.91           0  > CAPACITY
  Link-09              CHANNEL      0  12:44      1.35    1.00       26.12       37.47      0.70
1.00         580  FLOODED
  Link-10              CHANNEL      0  14:06      0.85    1.00       12.66       35.48      0.36
0.84           0  Calculated
  Link-100             CONDUIT      0  13:42      3.87    1.00        6.84        5.07      1.35
1.00        1391  SURCHARGED
  Link-101             CONDUIT      0  12:55      3.94    1.00        6.96        6.96      1.00
1.00         201  SURCHARGED
  Link-102             CONDUIT      0  12:29      1.49    1.00        0.74        0.82      0.90
1.00         243  SURCHARGED
  Link-12              CONDUIT      0  13:36      7.07    1.00       11.25        3.22      3.50
1.00         224  SURCHARGED
  Link-14              CHANNEL      0  13:39      0.70    1.00       10.44       32.86      0.32
1.00         314  FLOODED
  Link-15              CHANNEL      0  12:58      1.36    1.00       24.38       37.64      0.65
0.92           0  Calculated
  Link-16              CONDUIT      0  15:28     11.21    1.00       20.55        8.24      2.49
0.71           0  > CAPACITY
  Link-18              CHANNEL      0  15:31      1.28    1.00       20.55       44.15      0.47
0.87           0  Calculated
  Link-20              CONDUIT      0  15:47      6.86    1.00       20.52       85.05      0.24
```

```
0.45           0  Calculated
  Link-22              CHANNEL      0  15:50      1.18    1.00       20.52       34.77      0.59
0.91           0  Calculated
  Link-24              CONDUIT      0  16:33      9.63    1.00       22.52        2.28      9.88
0.70           0  > CAPACITY
  Link-25              CONDUIT      0  13:28      4.98    1.00       24.44       18.67      1.31
1.00         733  SURCHARGED
  Link-26              CHANNEL      0  21:39      1.06    1.00       22.28       31.29      0.71
1.00         865  FLOODED
  Link-27              CHANNEL      0  16:35      1.33    1.00       22.52       41.65      0.54
0.89           0  Calculated
  Link-29              CHANNEL      0  13:19      1.42    1.00       52.51      118.06      0.44
0.74           0  Calculated
  Link-30              CHANNEL      0  13:05      1.38    1.00       20.65       56.44      0.37
0.84           0  Calculated
  Link-31              CHANNEL      0  13:21      1.58    1.00       75.48      171.80      0.44
0.85           0  Calculated
  Link-32              CONDUIT      0  12:17      2.23    1.00        5.19       19.78      0.26
0.45           0  Calculated
  Link-33              CHANNEL      0  13:38      2.16    1.00      116.65      225.59      0.52
0.89           0  Calculated
  Link-34              CHANNEL      0  13:41      2.54    1.00      120.43      142.85      0.84
0.99           0  Calculated
  Link-36              CHANNEL      0  13:43      4.82    1.00      120.42      161.52      0.75
0.90           0  Calculated
  Link-39              CONDUIT      0  12:25      6.65    1.00       22.50       27.57      0.82
0.49           0  Calculated
  Link-40              CHANNEL      0  13:37      3.09    1.00      116.12      132.27      0.88
0.99           0  Calculated
  Link-41              CHANNEL      0  12:25      2.17    1.00       22.42       47.76      0.47
0.87           0  Calculated
  Link-44              CHANNEL      0  16:11      0.91    1.00       12.57       21.39      0.59
0.82           0  Calculated
  Link-45              CHANNEL      0  16:12      0.68    1.00       10.87        6.24      1.74
0.89           0  > CAPACITY
  Link-47              CHANNEL      0  15:22      1.17    1.00       10.93       52.86      0.21
1.00         666  FLOODED
  Link-48              CHANNEL      0  16:21      1.42    1.00       23.43       46.96      0.50
0.88           0  Calculated
  Link-49              CONDUIT      0  16:04      6.66    1.00        7.22        4.21      1.71
0.83           0  > CAPACITY
  Link-51              CHANNEL      0  16:08      0.68    1.00        7.21       10.18      0.71
0.82           0  Calculated
  Link-52              CHANNEL      0  12:17      3.60    1.00        5.17       23.96      0.22
0.75           0  Calculated
  Link-53              CHANNEL      0  13:18      1.94    1.00       27.08       37.49      0.72
0.81           0  Calculated
  Link-55              CHANNEL      0  12:32      1.64    1.00       32.99       30.53      1.08
0.98           0  > CAPACITY
  Link-56              CHANNEL      0  12:20      0.78    1.00       14.40       33.60      0.43
1.00          20  FLOODED
  Link-57              CHANNEL      0  12:28      1.92    1.00       36.67       43.11      0.85
0.95           0  Calculated
  Link-58              CONDUIT      0  13:48      9.77    1.00       13.36        5.42      2.46
0.72           0  > CAPACITY
  Link-67              CONDUIT      0  18:10      3.92    1.00        3.03        1.51      2.00
1.00         270  SURCHARGED
  Link-70              CONDUIT      0  12:01      3.24    1.00        5.72        5.29      1.08
1.00        1193  SURCHARGED
  Link-73              CONDUIT      1  02:32      5.60    1.00        5.13        3.10      1.66
1.00        1524  SURCHARGED
  Link-75              CONDUIT      0  11:38      2.02    1.00        0.70        0.29      2.45
1.00         850  SURCHARGED
  Link-76              CONDUIT      0  13:50      2.89    1.00        1.01        0.10      9.63
1.00         874  SURCHARGED
  Link-78              CONDUIT      0  12:26      2.27    1.00        1.19        1.09      1.09
1.00         977  SURCHARGED
```

```
  Link-81              CHANNEL      0  16:06      1.02    1.00       21.34      178.95      0.12
1.00         700  FLOODED
  Link-82              CHANNEL      0  12:47      1.66    1.00       28.70      131.40      0.22
1.00         172  FLOODED
  Link-83              CHANNEL      0  13:46      0.78    1.00        7.77        9.53      0.82
1.00         397  FLOODED
  Link-84              CHANNEL      0  13:20      0.01    1.00        0.03      140.30      0.00
0.91           0  Calculated
  Link-85              CHANNEL      0  12:48      1.89    1.00       30.77       44.10      0.70
0.93           0  Calculated
  Link-86              CHANNEL      0  13:47      1.69    1.00      116.57      187.67      0.62
1.00         436  FLOODED
  Link-88              CHANNEL      0  12:35      2.47    1.00       22.91       55.39      0.41
0.77           0  Calculated
  Link-89              CHANNEL      0  12:56      0.76    1.00        6.38       64.99      0.10
0.63           0  Calculated
  Link-90              CHANNEL      0  12:40      1.61    1.00        9.92      289.37      0.03
0.63           0  Calculated
  Link-91              CHANNEL      0  13:15      2.26    1.00       44.78       77.78      0.58
1.00         471  FLOODED
  Link-92              CONDUIT      0  16:54      3.36    1.00        4.11        2.94      1.40
1.00         997  SURCHARGED
  Link-93              CHANNEL      0  12:30      7.32    1.00       42.99      414.19      0.10
1.00         730  FLOODED
  Link-94              CHANNEL      0  12:47      7.51    1.00       70.76      537.52      0.13
1.00         680  FLOODED
  Link-95              CHANNEL      0  12:30      3.49    1.00       20.49       90.14      0.23
0.78           0  Calculated
  Link-96              CHANNEL      0  13:41      2.49    1.00       39.43      122.86      0.32
1.00          41  FLOODED
  Link-97              CONDUIT      0  11:25      4.93    1.00        5.43        5.11      1.06
1.00         973  SURCHARGED
  Link-98              CONDUIT      0  12:22      3.10    1.00        1.56        1.63      0.96
1.00         864  SURCHARGED
  Link-99              CONDUIT      0  11:38      1.99    1.00        0.70        0.71      0.98
1.00         851  SURCHARGED
  Pipe - (3)           CONDUIT      0  13:42      4.33    1.00        6.84        4.86      1.41
0.84           0  > CAPACITY
  Pipe - (7)           CONDUIT      0  11:38      2.24    1.00        0.70        0.83      0.84
1.00         850  SURCHARGED


  *******************************
  Highest Flow Instability Indexes
  *******************************
  Link Link-22 (22)
  Link Link-20 (15)
  Link Link-58 (3)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-06 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-07 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-08 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
```

```
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-41 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Structure - (11) is below junction
maximum elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion FD1 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-05 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-20 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-42 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-51 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Out-1Pipe - (57) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Out-1Pipe - (92) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (4) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (56) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (70) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (94) is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 005 : Minimum slope used for Conduit Link-45.
  WARNING 005 : Minimum slope used for Conduit Link-76.
```

```
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-07.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-19.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-32.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-41.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node FD1.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-05.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-20.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-42.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-51.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Out-1Pipe - (57).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Out-1Pipe - (92).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (4).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (56).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (70).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (94).

  Analysis began on:  Fri Oct 31 12:07:40 2014
  Analysis ended on:  Fri Oct 31 12:07:46 2014
  Total elapsed time: 00:00:06
```

VSE

APPENDIX A

Alternative 1 Modeling Results

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

****
Project Description
****
File Name ..... Alt 1 042015.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 49
Number of links 51

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.10	823.20	21825.00	
Jun-04	JUNCTION	836.00	837.75	43650.00	
Jun-06	JUNCTION	831.26	834.70	10912.00	
Jun-07	JUNCTION	833.00	835.50	2728.00	
Jun-08	JUNCTION	832.81	834.81	10912.00	
Jun-12	JUNCTION	833.70	835.70	10912.00	
Jun-15	JUNCTION	828.54	833.00	43650.00	
Jun-19	JUNCTION	822.59	827.30	0.00	
Jun-22	JUNCTION	816.17	820.42	43650.00	
Jun-24	JUNCTION	818.00	823.00	21825.00	
Jun-26	JUNCTION	820.00	824.90	21825.00	
Jun-27	JUNCTION	813.70	818.00	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	800.99	807.50	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	797.81	804.20	0.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	801.97	808.25	43650.00	
Jun-41	JUNCTION	830.00	833.50	43650.00	
Jun-44	JUNCTION	830.00	833.65	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.50	10912.00	
Jun-54	JUNCTION	833.40	835.40	5456.00	
Jun-56	JUNCTION	837.80	843.80	0.00	
Jun-58	JUNCTION	794.30	800.20	0.00	
Structure - (10)	JUNCTION	831.33	834.66	0.00	
Structure - (11)	JUNCTION	794.28	799.22	0.00	
Structure - (9)	JUNCTION	831.47	835.15	0.00	
Jun-34	OUTFALL	791.20	795.95	0.00	
Out-01	OUTFALL	796.50	798.00	0.00	
Out-1Pipe - (3)	OUTFALL	792.80	794.30	0.00	
FD1	DIVIDER	798.58	802.83	43650.00	
Jun-02	DIVIDER	841.25	845.30	0.00	
Jun-05	DIVIDER	831.60	835.70	10912.00	
Jun-51	DIVIDER	827.23	836.50	10912.00	
ST10	STORAGE	820.80	826.80	71056.00	
ST11	STORAGE	820.45	824.90	12481.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	837.00	838.00	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	818.40	823.80	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.80	834.80	5000.00	
ST9	STORAGE	822.89	827.10	40442.00	

****
Inlet Summary
****

Inlet Catchbasin ID	Inlet Manufacturer	Inlet Ponded Area	Manufacturer Part Number	Initial Grate Invert Elevation	Inlet Location Rim Elevation	Number of Inlets Water Elevation	Clogging Factor

ft ft ft² ft %

Structure - (15) MAXIMUM CAPTURE CUTOFF N/A On Grade 1
831.58 834.80 - 831.58 0.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
Structure - (15)	0.0200	0.0500	0.0130	0.0620	2.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
166thEastofOlio	ST11	Jun-01	CONDUIT	28.3	1.2350	0.0130
166thWestofDurbin	ST8	Jun-44	CONDUIT	25.4	11.0106	0.0130
DurbinNorthofSR38	Jun-05	Jun-06	CONDUIT	27.3	1.2468	0.0130
DurbinSouthofSR38	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0150
Link-05	Jun-07	Jun-08	CONDUIT	32.0	0.5934	0.0130
Link-09	Jun-04	Jun-05	CHANNEL	555.8	0.5038	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.2987	0.0320
Link-100	FD1	Structure - (11)	CONDUIT	961.1	0.4474	0.0130
Link-102	Jun-56	ST2	CHANNEL	177.6	0.4505	0.0320
Link-104	Jun-58	Jun-34	CHANNEL	561.6	0.5520	0.0320
Link-105	Structure - (10)	Jun-44	CONDUIT	162.8	0.8170	0.0150
Link-106	Jun-41	ST10	CHANNEL	2068.3	0.4448	0.0320
Link-107	Jun-02	Jun-05	CONDUIT	2794.8	0.3453	0.0110
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.1665	0.0320
Link-15	Jun-15	ST9	CHANNEL	1673.8	0.3376	0.0320
Link-18	Jun-19	ST11	CHANNEL	678.7	0.3153	0.0320
Link-22	Jun-01	Jun-22	CHANNEL	586.2	0.6704	0.0320
Link-26	Jun-26	ST5	CHANNEL	437.1	0.3660	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	693.0	0.2641	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	610.3	0.4047	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	391.1	0.7671	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2344.9	0.5002	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	FD1	CHANNEL	468.1	0.5149	0.0320
Link-34	FD1	Jun-32	CHANNEL	139.0	0.5540	0.0320
Link-36	Jun-32	Jun-58	CHANNEL	635.2	0.5526	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.6	0.5116	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.9940	0.0320
Link-44	Jun-06	Jun-41	CHANNEL	273.4	0.4608	0.0320
Link-45	Jun-08	Jun-41	CHANNEL	269.6	1.0422	0.0320
Link-47	Jun-05	Jun-07	CHANNEL	75.1	0.2664	0.0320
Link-51	Jun-44	Jun-15	CHANNEL	432.6	0.3375	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	0.4826	0.0320
Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320
Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-75	Structure - (15)	Structure - (9)	CONDUIT	230.0	0.0478	0.0110
Link-76	Jun-51	Structure - (15)	CONDUIT	214.3	0.0100	0.0110
Link-82	Jun-51	ST7	CHANNEL	38.3	4.4375	0.0320
Link-83	Jun-54	ST8	CHANNEL	374.6	0.1602	0.0320

Link-84	Structure - (15)	Jun-54	CHANNEL	6.9	20.2605	0.0320
Link-85	ST2	Jun-51	CHANNEL	300.1	0.4998	0.0320
OlioNorthof166th	ST5	Jun-24	CONDUIT	26.6	1.5026	0.0130
OlioSouthof166th	ST9	Jun-19	CONDUIT	30.0	1.0013	0.0130
Pipe - (3)	Structure - (11)	Out-1Pipe - (3)	CONDUIT	361.1	0.4098	0.0130
Pipe - (7)	Structure - (9)	Structure - (10)	CONDUIT	35.1	0.3991	0.0110
PrairieNorthof	SR38ST6	Jun-02	CONDUIT	30.4	2.9566	0.0130
SR38EastofDurbin	ST12	Jun-56	CONDUIT	52.8	0.3790	0.0130
SR38EastofOlio	ST10	Jun-26	CONDUIT	52.2	1.5323	0.0130

****
Cross Section Summary
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Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
166thEastofOlio	RECT_CLOSED	3.00	3.00	1	9.00	0.75	94.38
166thWestofDurbin	RECT_CLOSED	2.00	3.00	1	6.00	0.60	161.89
DurbinNorthofSR38	RECT_CLOSED	3.00	7.00	1	21.00	1.05	276.90
DurbinSouthofSR38	RECT_CLOSED	2.00	4.00	1	8.00	0.67	35.61
Link-05	CIRCULAR	1.50	1.50	2	1.77	0.38	8.09
Link-09	TRAPEZOIDAL	1.75	53.50	1	47.69	0.89	145.37
Link-10	TRAPEZOIDAL	1.25	76.00	1	48.13	0.63	90.03
Link-100	CIRCULAR	1.50	1.50	1	1.77	0.38	7.03
Link-102	TRAPEZOIDAL	1.00	40.08	1	20.08	0.50	39.45
Link-104	TRAPEZOIDAL	4.75	23.00	1	64.13	2.54	411.89
Link-105	CIRCULAR	1.50	1.50	1	1.77	0.38	8.23
Link-106	TRAPEZOIDAL	3.00	16.00	1	30.00	1.72	133.51
Link-107	CIRCULAR	1.00	1.00	1	0.79	0.25	2.47
Link-14	TRAPEZOIDAL	1.50	61.00	1	46.50	0.76	73.47
Link-15	TRAPEZOIDAL	2.50	14.00	1	22.50	1.48	78.91
Link-18	TRAPEZOIDAL	2.75	15.00	1	26.13	1.60	93.30
Link-22	TRAPEZOIDAL	3.00	16.00	1	30.00	1.72	163.91
Link-26	TRAPEZOIDAL	3.50	18.00	1	38.50	1.96	169.35
Link-27	TRAPEZOIDAL	4.00	20.00	1	48.00	2.19	193.35
Link-29	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	274.18
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	54.63

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  Link-31          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
304.83
  Link-32          CIRCULAR           3.00         3.00             1         7.07         0.75
19.78
  Link-33          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
309.25
  Link-34          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
320.80
  Link-36          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
320.39
  Link-39          HORIZ_ELLIPSE      2.33         3.50             1         6.91         0.71
27.57
  Link-40          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
308.27
  Link-41          TRAPEZOIDAL        1.75        16.75             1        15.53         0.90
67.23
  Link-44          TRAPEZOIDAL        3.00        16.00             1        30.00         1.72
135.89
  Link-45          TRAPEZOIDAL        2.00        43.00             1        46.00         1.06
227.40
  Link-47          TRIANGULAR         2.50         8.00             1        10.00         1.06
24.92
  Link-51          TRAPEZOIDAL        2.00        12.00             1        16.00         1.24
49.71
  Link-52          TRIANGULAR         2.00         8.00             1         8.00         0.89
23.96
  Link-53          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
55.08
  Link-55          TRAPEZOIDAL        1.50        91.00             1        69.00         0.76
130.35
  Link-56          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
49.36
  Link-57          TRAPEZOIDAL        1.50        91.00             1        69.00         0.76
184.07
  Link-75          CIRCULAR           1.00         1.00             1         0.79         0.25
0.92
  Link-76          CIRCULAR           1.00         1.00             1         0.79         0.25
0.42
  Link-82          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
193.05
  Link-83          TRAPEZOIDAL        2.00        41.00             1        42.00         1.02
79.07
  Link-84          TRIANGULAR         1.00        20.00             1        10.00         0.50
131.24
  Link-85          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
64.79
  OlioNorthof166th RECT_CLOSED        3.00         4.00             1        12.00         0.86
151.72
  OlioSouthof166th RECT_CLOSED        3.00         3.00             1         9.00         0.75
84.98
  Pipe - (3)       CIRCULAR           1.50         1.50             1         1.77         0.38
6.72
  Pipe - (7)       CIRCULAR           1.00         1.00             1         0.79         0.25
2.66
  PrairieNorthofSR38 RECT_CLOSED        1.50         5.00             1         7.50         0.58
102.16
  SR38EastofDurbin RECT_CLOSED        1.50         2.00             1         3.00         0.43
12.00
  SR38EastofOlio   RECT_CLOSED        3.00         3.00             1         9.00         0.75
105.12


  ****************
  Transect Summary
  ****************

  Transect XS-L-Pipe - (10)
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Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (25)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (30)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (31)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (33)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483

0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (34)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (45)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (46)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (55)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (57)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187

0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (60)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (61)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680

0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (74)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (75)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145

```
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (79)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (8)
Area:
```

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (80)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (84)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (85)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754

```
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (89)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (90)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
```

0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (97)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

```
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (99)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000


**************************        Volume         Depth
Runoff Quantity Continuity       acre-ft        inches
**************************     ---------       -------
Total Precipitation ......       233.092         4.793
Surface Runoff ...........        10.873         0.224
Continuity Error (%) .....        -0.001
```

```
**************************        Volume        Volume
Flow Routing Continuity          acre-ft      Mgallons
**************************     ---------     ---------
External Inflow ..........         0.000         0.000
External Outflow .........       108.378        35.317
Initial Stored Volume ....         0.612         0.199
Final Stored Volume ......         0.005         0.002
Continuity Error (%) .....         0.008


****************************************
Composite Curve Number Computations Report
****************************************

-------------
Subbasin 1
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    37.40            -       74.50
Composite Area & Weighted CN                         37.40                    74.50

-------------
Subbasin 2
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    37.87            -       73.80
Composite Area & Weighted CN                         37.87                    73.80

-------------
Subbasin 3
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    15.15            -       75.20
Composite Area & Weighted CN                         15.15                    75.20

-------------
Subbasin 4
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    19.51            -       73.95
Composite Area & Weighted CN                         19.51                    73.95

-------------
Subbasin 5
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    62.47            -       76.60
Composite Area & Weighted CN                         62.47                    76.60

-------------
Subbasin 6
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
```

-	32.34	-	78.00
Composite Area & Weighted CN	32.34		78.00

Subbasin 7

Soil/Surface Description	Area (acres)	Soil Group	CN
-	23.74	-	74.60
Composite Area & Weighted CN	23.74		74.60

Subbasin 8

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44
Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17
Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80
Composite Area & Weighted CN	3.81		66.80

Subbasin 20

Soil/Surface Description	Area (acres)	Soil Group	CN
-	63.62	-	75.00
Composite Area & Weighted CN	63.62		75.00

Subbasin 21

Soil/Surface Description	Area (acres)	Soil Group	CN

```
-------------------------------------------------------------------------------------
-                                                        19.05            -       75.20
Composite Area & Weighted CN                             19.05                    75.20

--------------
Subbasin 22
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         8.50            -       75.74
Composite Area & Weighted CN                              8.50                    75.74

--------------
Subbasin 23
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         4.60            -       76.95
Composite Area & Weighted CN                              4.60                    76.95

--------------
Subbasin 24
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                        33.33            -       75.29
Composite Area & Weighted CN                             33.33                    75.29

--------------
Subbasin 25
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         4.00            -       66.40
Composite Area & Weighted CN                              4.00                    66.40

--------------
Subbasin 26
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         5.36            -       72.00
Composite Area & Weighted CN                              5.36                    72.00


**************************************************
SCS TR-55 Time of Concentration Computations Report
**************************************************

Sheet Flow Equation
-------------------

        Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

        Where:

        Tc = Time of Concentration (hrs)
        n  = Manning's Roughness
        Lf = Flow Length (ft)
        P  = 2 yr, 24 hr Rainfall (inches)
        Sf = Slope (ft/ft)
```

```
Shallow Concentrated Flow Equation
----------------------------------

        V  = 16.1345 * (Sf^0.5) (unpaved surface)
        V  = 20.3282 * (Sf^0.5) (paved surface)
        V  = 15.0 * (Sf^0.5) (grassed waterway surface)
        V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
        V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
        V  = 7.0 * (Sf^0.5) (short grass pasture surface)
        V  = 5.0 * (Sf^0.5) (woodland surface)
        V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)

Channel Flow Equation
---------------------

        V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
        R  = Aq / Wp
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        R  = Hydraulic Radius (ft)
        Aq = Flow Area (ft²)
        Wp = Wetted Perimeter (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)
        n  = Manning's Roughness

-------------
Subbasin 1
-------------

Sheet Flow Computations
-----------------------
                                                Subarea A           Subarea B           Subarea
C
        Manning's Roughness:                         0.17                0.00
0.00
        Flow Length (ft):                          300.00                0.00
0.00
        Slope (%):                                   0.87                0.00
0.00
        2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
        Velocity (ft/sec):                           0.13                0.00
0.00
        Computed Flow Time (minutes):               38.63                0.00
0.00

Shallow Concentrated Flow Computations
--------------------------------------
                                                Subarea A           Subarea B           Subarea
C
        Flow Length (ft):                          850.00              447.00
0.00
        Slope (%):                                   0.39                0.63
0.00
```

```
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           0.56                0.71
0.00
          Computed Flow Time (minutes):               25.30               10.49
0.00

==========================================================================================
          Total TOC (minutes):                        74.42

==========================================================================================


  -------------
  Subbasin 2
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.10                0.00
0.00
          Computed Flow Time (minutes):               50.97                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          658.00             1428.00
0.00
          Slope (%):                                   0.32                0.36
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           0.51                0.54
0.00
          Computed Flow Time (minutes):               21.50               44.07
0.00

==========================================================================================
          Total TOC (minutes):                       116.54

==========================================================================================


  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
```

```
          Slope (%):                                  0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.05                0.00
0.00
          Computed Flow Time (minutes):              91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         685.00              906.00
0.00
          Slope (%):                                  0.57                0.67
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.68                0.74
0.00
          Computed Flow Time (minutes):              16.79               20.41
0.00

==================================================================================================
          Total TOC (minutes):                      128.79

==================================================================================================


  -------------
  Subbasin 4
  -------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         899.00              190.00
0.00
          Slope (%):                                  0.66                0.26
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.73                0.46
0.00
          Computed Flow Time (minutes):              20.53                6.88
0.00

==================================================================================================
```

```
          Total TOC (minutes):                        81.88
==========================================================================================


  -------------
  Subbasin 5
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              32.51                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         284.00             1737.00
0.00
          Slope (%):                                  0.46                0.29
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.61                0.48
0.00
          Computed Flow Time (minutes):               7.76               60.31
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
          Flow Length (ft):                         231.00                0.00
0.00
          Channel Slope (%):                          0.43                0.00
0.00
          Cross Section Area (ft²):                   0.75                0.00
0.00
          Wetted Perimeter (ft):                      3.16                0.00
0.00
          Velocity (ft/sec):                          2.09                0.00
0.00
          Computed Flow Time (minutes):               1.84                0.00
0.00
==========================================================================================
          Total TOC (minutes):                       102.42
==========================================================================================


  -------------
```

```
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.19                0.00
0.00
          Computed Flow Time (minutes):             26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1029.00              200.00
0.00
          Slope (%):                                 0.78                0.80
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.79                0.80
0.00
          Computed Flow Time (minutes):             21.71                4.17
0.00

==============================================================================================
          Total TOC (minutes):                      52.35

==============================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        620.00                0.00
```

```
0.00
          Slope (%):                                  0.53                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.66                0.00
0.00
          Computed Flow Time (minutes):              15.66                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       70.13

==============================================================================================


  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.11                0.00
0.00
          Computed Flow Time (minutes):              45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         820.00              326.00
0.00
          Slope (%):                                  0.30                0.40
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.50                1.02
0.00
          Computed Flow Time (minutes):              27.33                5.33
0.00

==============================================================================================
          Total TOC (minutes):                       78.43

==============================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
```

```
0.00
          Flow Length (ft):                        180.00                0.00
0.00
          Slope (%):                                 1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        198.00              264.00
300.00
          Slope (%):                                 0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                         1.07                0.58
0.23
          Computed Flow Time (minutes):              3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.02                0.00
0.00
          Flow Length (ft):                         25.00                0.00
0.00
          Channel Slope (%):                         0.80                0.00
0.00
          Cross Section Area (ft²):                  0.79                0.00
0.00
          Wetted Perimeter (ft):                     1.00                0.00
0.00
          Velocity (ft/sec):                         4.73                0.00
0.00
          Computed Flow Time (minutes):              0.09                0.00
0.00

==================================================================================================
          Total TOC (minutes):                      49.30

==================================================================================================


  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                 0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
```

```
0.00
          Velocity (ft/sec):                          0.08                0.00
0.00
          Computed Flow Time (minutes):              61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1190.00                0.00
0.00
          Slope (%):                                  0.23                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.43                0.00
0.00
          Computed Flow Time (minutes):              46.12                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      107.99

==============================================================================================


  --------------
  Subbasin 11
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.12                0.00
0.00
          Computed Flow Time (minutes):              41.28                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1985.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.68                0.00
0.00
          Computed Flow Time (minutes):              48.65                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       89.93

==============================================================================================
```

```
  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.83                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        866.00                0.00
0.00
          Slope (%):                                 0.48                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.63                0.00
0.00
          Computed Flow Time (minutes):             22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.04                0.00
0.00
          Flow Length (ft):                        633.00                0.00
0.00
          Channel Slope (%):                         0.54                0.00
0.00
          Cross Section Area (ft²):                 20.00                0.00
0.00
          Wetted Perimeter (ft):                    40.05                0.00
0.00
          Velocity (ft/sec):                         1.72                0.00
0.00
          Computed Flow Time (minutes):              6.14                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      68.27

==========================================================================================


  --------------
  Subbasin 13
  --------------
```

```
  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        238.00                0.00
0.00
          Slope (%):                                 1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.19                0.00
0.00
          Computed Flow Time (minutes):             21.25                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        640.00                0.00
0.00
          Slope (%):                                 0.52                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.65                0.00
0.00
          Computed Flow Time (minutes):             16.41                0.00
0.00

==================================================================================================
          Total TOC (minutes):                      37.66

==================================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        176.00              640.00
0.00
          Slope (%):                                 2.39                0.39
0.00
```

```
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           1.39                0.56
0.00
          Computed Flow Time (minutes):                2.11               19.05
0.00

==========================================================================================
          Total TOC (minutes):                        72.36

==========================================================================================


  --------------
  Subbasin 15
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.16                0.00
0.00
          Computed Flow Time (minutes):               31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          112.00                0.00
0.00
          Slope (%):                                   1.88                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                           1.23                0.00
0.00
          Computed Flow Time (minutes):                1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.04                0.00
0.00
          Flow Length (ft):                          490.00                0.00
0.00
          Channel Slope (%):                           0.36                0.00
0.00
          Cross Section Area (ft²):                   13.00                0.00
0.00
          Wetted Perimeter (ft):                      26.08                0.00
0.00
          Velocity (ft/sec):                           1.40                0.00
0.00
          Computed Flow Time (minutes):                5.84                0.00
0.00
```

```
==========================================================================================
          Total TOC (minutes):                        38.64

==========================================================================================


  --------------
  Subbasin 16
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.40                0.17
0.00
          Flow Length (ft):                        150.00              150.00
0.00
          Slope (%):                                 0.67                1.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                2.85
0.00
          Velocity (ft/sec):                         0.05                0.12
0.00
          Computed Flow Time (minutes):             48.84               20.94
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1468.00                0.00
0.00
          Slope (%):                                 0.61                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.70                0.00
0.00
          Computed Flow Time (minutes):             34.95                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       104.74

==========================================================================================


  --------------
  Subbasin 17
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.17                0.00
0.00
```

```
          Computed Flow Time (minutes):              30.01                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         490.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               7.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       37.65

==============================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1220.00                0.00
0.00
          Slope (%):                                  0.86                0.00
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                          1.39                0.00
0.00
          Computed Flow Time (minutes):              14.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       42.68

==============================================================================================


  --------------
```

```
  Subbasin 19
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):             23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        115.00                0.00
0.00
          Slope (%):                                 3.48                0.00
0.00
          Surface Type:                            Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                         3.01                0.00
0.00
          Computed Flow Time (minutes):              0.64                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      23.88

==========================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1118.00             1574.00
```

```
387.00
          Slope (%):                                  0.87                0.40
0.52
          Surface Type:                       Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                          0.84                0.57
0.65
          Computed Flow Time (minutes):              22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         610.00                0.00
0.00
          Channel Slope (%):                          0.33                0.00
0.00
          Cross Section Area (ft²):                  10.00                0.00
0.00
          Wetted Perimeter (ft):                     20.10                0.00
0.00
          Velocity (ft/sec):                          1.34                0.00
0.00
          Computed Flow Time (minutes):               7.59                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      142.31

==============================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         507.00              670.00
0.00
          Slope (%):                                  0.87                0.90
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.84                0.85
```

```
0.00
          Computed Flow Time (minutes):              10.06               13.14
0.00

==========================================================================================
          Total TOC (minutes):                       57.10

==========================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        233.00                0.00
0.00
          Slope (%):                                 3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):              17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        483.00              660.00
0.00
          Slope (%):                                 1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                         1.74                0.73
0.00
          Computed Flow Time (minutes):              4.63               15.07
0.00

==========================================================================================
          Total TOC (minutes):                       37.05

==========================================================================================


  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
```

```
0.00
          Velocity (ft/sec):                          0.21                0.00
0.00
          Computed Flow Time (minutes):              23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         562.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               8.75                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       32.05

==============================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==============================================================================================
          Total TOC (minutes):                      105.31

==============================================================================================
```

```
  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        255.00                0.00
0.00
          Slope (%):                                 2.04                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.20                0.00
0.00
          Computed Flow Time (minutes):             21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        175.00              275.00
0.00
          Slope (%):                                 0.17                2.36
0.00
          Surface Type:                   Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                         0.62                1.08
0.00
          Computed Flow Time (minutes):              4.70                4.24
0.00

==================================================================================================
          Total TOC (minutes):                      30.73

==================================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
```

	Subarea A	Subarea B	Subarea C
Flow Length (ft):	378.00	0.00	0.00
Slope (%):	2.43	0.00	0.00
Surface Type:	Straight rows	Unpaved	Unpaved
Velocity (ft/sec):	1.40	0.00	0.00
Computed Flow Time (minutes):	4.50	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.15	0.00	0.00
Flow Length (ft):	606.00	0.00	0.00
Channel Slope (%):	0.99	0.00	0.00
Cross Section Area (ft²):	31.25	0.00	0.00
Wetted Perimeter (ft):	25.50	0.00	0.00
Velocity (ft/sec):	1.13	0.00	0.00
Computed Flow Time (minutes):	8.92	0.00	0.00

==========

Total TOC (minutes): 50.91

==========

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	hh:mm:ss
1	4.73	2.19	38.08	74.500	0	01:14:25
2	4.73	2.13	38.56	73.800	0	01:56:32
3	4.73	2.25	10.48	75.200	0	02:08:47
4	4.73	2.15	18.08	73.950	0	01:21:52
5	4.73	2.37	54.36	76.600	0	01:42:25
6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18

21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03
23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
Jun-01	1.02	1.79	821.89	0	14:30	0	0	0:00:00
Jun-04	0.71	1.50	837.50	0	13:16	0	0	0:00:00
Jun-06	1.01	2.72	833.98	0	13:22	0	0	0:00:00
Jun-07	0.06	0.91	833.91	0	13:23	0	0	0:00:00
Jun-08	0.03	0.42	833.23	0	13:25	0	0	0:00:00
Jun-12	0.21	1.16	834.86	0	13:14	0	0	0:00:00
Jun-15	0.70	1.86	830.40	0	13:12	0	0	0:00:00
Jun-19	1.25	2.54	825.13	0	14:19	0	0	0:00:00
Jun-22	1.92	3.39	819.56	0	14:48	0	0	0:00:00
Jun-24	1.59	2.88	820.88	0	14:56	0	0	0:00:00
Jun-26	1.53	3.48	823.48	0	14:38	0	0	0:00:00
Jun-27	1.84	3.17	816.87	0	14:37	0	0	0:00:00
Jun-28	0.36	0.77	820.77	0	13:07	0	0	0:00:00
Jun-29	2.06	3.57	804.56	0	13:40	0	0	0:00:00
Jun-30	0.46	1.21	806.71	0	12:17	0	0	0:00:00
Jun-32	1.92	3.47	801.28	0	13:33	0	0	0:00:00
Jun-35	0.44	0.92	800.14	0	13:03	0	0	0:00:00
Jun-38	0.36	1.19	810.99	0	12:26	0	0	0:00:00
Jun-39	2.11	3.75	805.72	0	13:38	0	0	0:00:00
Jun-41	0.99	2.62	832.62	0	13:29	0	0	0:00:00
Jun-44	0.47	1.40	831.40	0	13:19	0	0	0:00:00
Jun-45	0.25	0.74	798.74	0	12:25	0	0	0:00:00
Jun-46	0.44	0.94	798.69	0	12:29	0	0	0:00:00
Jun-47	0.38	0.85	797.85	0	12:27	0	0	0:00:00
Jun-54	0.30	1.40	834.80	0	13:16	0	0	0:00:00
Jun-56	0.21	0.52	838.32	0	12:54	0	0	0:00:00
Jun-58	1.97	3.56	797.86	0	13:33	0	0	0:00:00
Structure - (10)	0.49	0.71	832.04	0	12:18	0	0	0:00:00
Structure - (11)	1.50	2.14	796.42	0	13:32	0	0	0:00:00
Structure - (9)	0.75	1.17	832.64	0	12:31	0	0	0:00:00
Jun-34	1.90	3.41	794.61	0	13:33	0	0	0:00:00
Out-01	0.37	0.83	797.33	0	12:27	0	0	0:00:00
Out-1Pipe - (3)	0.90	1.09	793.89	0	13:32	0	0	0:00:00
FD1	2.04	3.73	802.31	0	13:32	0	0	0:00:00
Jun-02	1.58	2.77	844.02	0	13:11	0	0	0:00:00
Jun-05	0.96	3.07	834.67	0	13:23	0	0	0:00:00
Jun-51	6.47	8.72	835.95	0	12:56	0	0	0:00:00
ST10	2.22	5.31	826.11	0	13:52	0	0	0:00:00
ST11	1.95	3.78	824.23	0	14:29	0	0	0:00:00
ST12	0.31	1.26	839.26	0	12:53	0	0	0:00:00
ST2	0.37	0.86	837.86	0	12:56	0	0	0:00:00
ST3	0.25	1.15	806.95	0	12:17	0	0	0:00:00
ST4	0.41	1.72	811.92	0	12:25	0	0	0:00:00
ST5	2.17	4.51	822.91	0	14:55	0	0	0:00:00
ST6	0.51	1.93	846.03	0	12:58	0	0	0:00:00
ST7	0.27	1.83	835.63	0	13:01	0	0	0:00:00
ST8	0.30	1.88	834.68	0	13:18	0	0	0:00:00
ST9	1.83	3.71	826.60	0	14:03	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	56.24	0	14:29	0.00		
Jun-04	JUNCTION	48.83	78.40	0	13:14	0.00		
Jun-06	JUNCTION	0.00	98.01	0	13:23	0.00		
Jun-07	JUNCTION	0.00	5.89	0	13:23	0.00		
Jun-08	JUNCTION	0.00	5.89	0	13:23	0.00		
Jun-12	JUNCTION	0.00	23.85	0	13:01	0.00		
Jun-15	JUNCTION	24.01	43.25	0	13:07	0.00		
Jun-19	JUNCTION	0.00	54.95	0	14:03	0.00		
Jun-22	JUNCTION	14.63	151.19	0	14:43	0.00		
Jun-24	JUNCTION	0.00	93.49	0	14:55	0.00		
Jun-26	JUNCTION	0.00	107.20	0	13:52	0.00		
Jun-27	JUNCTION	20.76	159.99	0	14:33	0.00		
Jun-28	JUNCTION	20.67	20.67	0	13:05	0.00		
Jun-29	JUNCTION	0.00	196.78	0	13:37	0.00		
Jun-30	JUNCTION	0.00	5.27	0	12:17	0.00		
Jun-32	JUNCTION	0.00	195.30	0	13:32	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	0.00		
Jun-38	JUNCTION	0.00	22.48	0	12:25	0.00		
Jun-39	JUNCTION	40.38	196.31	0	13:35	0.00		
Jun-41	JUNCTION	0.00	103.77	0	13:24	0.00		
Jun-44	JUNCTION	0.00	24.60	0	13:18	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.00		
Jun-46	JUNCTION	0.00	34.49	0	12:25	0.00		
Jun-47	JUNCTION	5.05	38.40	0	12:25	0.00		
Jun-54	JUNCTION	0.00	23.42	0	13:02	0.00		
Jun-56	JUNCTION	0.00	6.80	0	12:53	0.00		
Jun-58	JUNCTION	6.45	196.84	0	13:31	0.00		
Structure - (10)	JUNCTION	0.00	3.32	0	12:57	0.00		
Structure - (11)	JUNCTION	0.00	7.99	0	13:32	0.00		
Structure - (9)	JUNCTION	0.00	3.32	0	12:57	0.00		
Jun-34	OUTFALL	0.00	196.82	0	13:33	0.00		
Out-01	OUTFALL	0.00	38.27	0	12:27	0.00		
Out-1Pipe - (3)	OUTFALL	0.00	7.99	0	13:32	0.00		
FD1	DIVIDER	24.17	203.30	0	13:31	0.00		
Jun-02	DIVIDER	0.00	34.07	0	12:58	0.00		
Jun-05	DIVIDER	18.06	105.37	0	13:21	0.00		
Jun-51	DIVIDER	0.00	27.48	0	12:56	0.00		
ST10	STORAGE	54.36	145.77	0	13:27	0.00		
ST11	STORAGE	15.31	58.52	0	13:56	0.00		
ST12	STORAGE	7.40	7.40	0	12:40	0.00		
ST2	STORAGE	21.92	28.58	0	12:49	0.00		
ST3	STORAGE	5.78	5.78	0	12:15	0.00		
ST4	STORAGE	22.54	22.54	0	12:24	0.00		
ST5	STORAGE	48.83	112.04	0	13:54	0.00		
ST6	STORAGE	38.04	38.04	0	12:45	0.00		
ST7	STORAGE	0.00	24.16	0	12:56	0.00		
ST8	STORAGE	0.00	22.20	0	13:07	0.00		
ST9	STORAGE	73.28	114.40	0	13:00	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days hh:mm
Structure - (15)	0.01	834.80	0.00	0 12:57

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
Structure - (15)	0.00	0.00	0.00	0.00	100.00	0.000	0

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded days hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
ST10	193.359	63	0 13:52	32.445	11	107.20	40.98	13:50:00	5.972
ST11	36.869	56	0 14:29	9.793	15	56.24	10.12	14:25:00	2.422
ST12	1.937	38	0 12:53	0.171	3	6.80	2.56	12:50:00	0.191
ST2	12.010	74	0 12:56	2.929	18	27.48	7.73	12:55:00	3.305
ST3	1.293	3	0 12:17	0.114	0	5.27	0.87	12:15:00	0.133
ST4	0.443	2	0 12:25	0.058	0	22.48	0.17	12:25:00	0.043
ST5	131.529	56	0 14:55	33.281	14	93.49	31.45	0:00:00	6.168
ST6	15.787	87	0 12:58	1.258	7	34.07	8.87	12:55:00	0.701
ST7	2.773	9	0 13:01	0.229	1	23.85			

```
1.21      13:00:00        0.091
  ST8                      2.975          84       0  13:18      0.301         8         21.29
1.26      13:15:00        0.123
  ST9                    316.492          77       0  14:03    107.623        26         54.95
49.36      14:00:00       20.702


  ***********************
  Outfall Loading Summary
  ***********************

  ----------------------------------------------
  Outfall Node ID        Flow   Average      Peak
                   Frequency      Flow    Inflow
                         (%)       cfs       cfs
  ----------------------------------------------
  Jun-34               100.00     81.68    196.82
  Out-01                89.69      9.26     38.27
  Out-1Pipe - (3)       95.74      6.41      7.99
  ----------------------------------------------
  System                95.15     97.36    234.77


  *****************
  Link Flow Summary
  *****************


-------------------------------------------------------------------------------------------------------------
-------------------------------
  Link ID              Element       Time of   Maximum  Length   Peak Flow      Design  Ratio of
Ratio of       Total  Reported
                       Type        Peak Flow  Velocity  Factor      during        Flow   Maximum
Maximum        Time  Condition
                                  Occurrence  Attained            Analysis    Capacity   /Design
Flow  Surcharged
                                  days hh:mm    ft/sec                 cfs         cfs      Flow
Depth     minutes

-------------------------------------------------------------------------------------------------------------
-------------------------------
  166thEastofOlio      CONDUIT      0  14:29      7.82    1.00       56.24       94.38      0.60
0.80           0  Calculated
  166thWestofDurbin    CONDUIT      0  13:18      4.32    1.00       21.29      161.89      0.13
0.82           0  Calculated
  DurbinNorthofSR38    CONDUIT      0  13:23      4.90    1.00       98.01      276.90      0.35
0.95           0  Calculated
  DurbinSouthofSR38    CONDUIT      0  13:01      4.05    1.00       23.85       35.61      0.67
0.74           0  Calculated
  Link-05              CONDUIT      0  13:23      4.36    1.00        5.89       16.18      0.36
0.44           0  Calculated
  Link-09              CHANNEL      0  13:21      2.68    1.00       90.64      145.37      0.62
0.84           0  Calculated
  Link-10              CHANNEL      0  13:11      0.90    1.00       29.69       90.03      0.33
0.83           0  Calculated
  Link-100             CONDUIT      0  13:32      4.53    1.00        7.99        7.03      1.14
1.00         473  SURCHARGED
  Link-102             CHANNEL      0  12:54      0.79    1.00        6.79       39.45      0.17
0.69           0  Calculated
  Link-104             CHANNEL      0  13:33      5.15    1.00      196.82      411.89      0.48
0.73           0  Calculated
  Link-105             CONDUIT      0  12:57      5.12    1.00        3.32        8.23      0.40
0.69           0  Calculated
  Link-106             CHANNEL      0  13:28      3.69    1.00       99.65      133.51      0.75
0.94           0  Calculated
  Link-107             CONDUIT      0  12:17      4.33    1.00        2.82        2.47      1.14
1.00         245  SURCHARGED
```

Link-14	CHANNEL	0	13:02	0.85	1.00	23.42	73.47	0.32	0.85	0	Calculated
Link-15	CHANNEL	0	13:12	2.36	1.00	43.09	78.91	0.55	0.87	0	Calculated
Link-18	CHANNEL	0	14:07	2.25	1.00	54.72	93.30	0.59	0.96	0	Calculated
Link-22	CHANNEL	0	14:30	2.67	1.00	56.24	163.91	0.34	0.80	0	Calculated
Link-26	CHANNEL	0	13:54	2.86	1.00	104.04	169.35	0.61	1.00	0	Calculated
Link-27	CHANNEL	0	14:56	3.25	1.00	93.49	193.35	0.48	0.78	0	Calculated
Link-29	CHANNEL	0	14:45	4.36	1.00	151.11	274.18	0.55	0.77	0	Calculated
Link-30	CHANNEL	0	13:07	2.19	1.00	20.60	54.63	0.38	0.66	0	Calculated
Link-31	CHANNEL	0	14:37	4.35	1.00	159.94	304.83	0.52	0.81	0	Calculated
Link-32	CONDUIT	0	12:17	2.17	1.00	5.27	19.78	0.27	0.38	0	Calculated
Link-33	CHANNEL	0	13:38	4.78	1.00	196.75	309.25	0.64	0.86	0	Calculated
Link-34	CHANNEL	0	13:32	4.85	1.00	195.30	320.80	0.61	0.85	0	Calculated
Link-36	CHANNEL	0	13:33	5.04	1.00	195.29	320.39	0.61	0.83	0	Calculated
Link-39	CONDUIT	0	12:25	4.80	1.00	22.48	27.57	0.82	0.62	0	Calculated
Link-40	CHANNEL	0	13:38	4.73	1.00	196.18	308.27	0.64	0.86	0	Calculated
Link-41	CHANNEL	0	12:26	3.49	1.00	22.37	67.23	0.33	0.62	0	Calculated
Link-44	CHANNEL	0	13:23	4.04	1.00	98.11	135.89	0.72	0.88	0	Calculated
Link-45	CHANNEL	0	13:25	0.32	1.00	5.78	227.40	0.03	0.60	0	Calculated
Link-47	CHANNEL	0	13:23	2.94	1.00	5.89	24.92	0.24	0.48	0	Calculated
Link-51	CHANNEL	0	13:19	2.08	1.00	24.59	49.71	0.49	0.82	0	Calculated
Link-52	CHANNEL	0	12:17	2.75	1.00	5.27	23.96	0.22	0.49	0	Calculated
Link-53	CHANNEL	0	13:03	1.70	1.00	28.65	55.08	0.52	0.73	0	Calculated
Link-55	CHANNEL	0	12:28	1.39	1.00	34.29	130.35	0.26	0.59	0	Calculated
Link-56	CHANNEL	0	12:20	0.73	1.00	14.73	49.36	0.30	0.84	0	Calculated
Link-57	CHANNEL	0	12:27	1.76	1.00	38.27	184.07	0.21	0.56	0	Calculated
Link-75	CONDUIT	0	12:57	4.23	1.00	3.32	0.92	3.61	1.00	279	SURCHARGED
Link-76	CONDUIT	0	12:56	4.23	1.00	3.32	0.42	7.89	1.00	506	SURCHARGED
Link-82	CHANNEL	0	12:56	2.02	1.00	24.16	193.05	0.13	0.72	0	Calculated
Link-83	CHANNEL	0	13:07	1.23	1.00	22.20	79.07	0.28	0.82	0	Calculated
Link-84	CHANNEL	0	13:14	0.00	1.00	0.00	131.24	0.00	0.50	0	Calculated
Link-85	CHANNEL	0	12:56	1.79	1.00	27.48	64.79	0.42	0.70	0	Calculated
OlioNorthof166th	CONDUIT	0	14:55	7.95	1.00	93.49	151.72	0.62	0.98	0	Calculated
OlioSouthof166th	CONDUIT	0	14:03	6.66	1.00	54.95	84.98	0.65	0.92	0	Calculated
Pipe - (3)	CONDUIT	0	13:32	4.92	1.00	7.99	6.72	1.19			

```
0.86           0  > CAPACITY
  Pipe - (7)           CONDUIT      0  12:57      4.76    1.00        3.32        2.66      1.25
0.86           0  > CAPACITY
  PrairieNorthofSR38   CONDUIT      0  12:58      5.94    1.00       34.07      102.16      0.33
0.77           0  Calculated
  SR38EastofDurbin     CONDUIT      0  12:53      3.83    1.00        6.80       12.00      0.57
0.59           0  Calculated
  SR38EastofOlio       CONDUIT      0  13:52     11.91    1.00      107.20      105.12      1.02
1.00         118  SURCHARGED


  *********************************
  Highest Flow Instability Indexes
  *********************************
  Link Link-05 (3)
  Link Link-47 (3)
  Link DurbinNorthofSR38 (1)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-06 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-07 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-08 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-19 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-41 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum
```

```
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-58 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Structure - (11) is below junction
maximum elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion FD1 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-05 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-51 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit 166thWestofDurbin is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit DurbinSouthofSR38 is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinSouthofSR38 is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 005 : Minimum slope used for Conduit Link-76.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-04.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-07.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-08.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-12.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-29.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-39.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-47.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-54.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-05.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-51.

  Analysis began on:  Mon Apr 20 08:03:53 2015
  Analysis ended on:  Mon Apr 20 08:03:56 2015
  Total elapsed time: 00:00:03
```

VSE

APPENDIX A

Alternative 2 Modeling Results

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

****
Project Description
****
File Name ..... Alt 2 042015.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 54
Number of links 64

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.20	823.20	21825.00	
Jun-04	JUNCTION	836.00	838.00	43650.00	
Jun-06	JUNCTION	833.00	836.00	10912.00	
Jun-07	JUNCTION	833.00	835.50	2728.00	
Jun-08	JUNCTION	832.81	834.31	10912.00	
Jun-12	JUNCTION	833.70	835.70	10912.00	
Jun-15	JUNCTION	831.30	833.30	43650.00	
Jun-19	JUNCTION	824.60	827.60	0.00	
Jun-22	JUNCTION	818.18	820.18	43650.00	
Jun-24	JUNCTION	821.00	824.30	21825.00	
Jun-26	JUNCTION	822.40	825.40	21825.00	
Jun-27	JUNCTION	817.00	819.00	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	805.50	808.25	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	802.20	805.20	21825.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	807.00	809.50	43650.00	
Jun-41	JUNCTION	832.50	834.50	43650.00	
Jun-44	JUNCTION	832.40	834.40	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.00	10912.00	
Jun-54	JUNCTION	833.20	835.20	5456.00	
Jun-69	JUNCTION	837.80	839.30	0.00	
Jun-34	OUTFALL	796.50	799.50	0.00	
Out-01	OUTFALL	796.50	797.50	0.00	
Out-02	OUTFALL	792.80	795.80	0.00	
Diversion-02	DIVIDER	830.50	835.00	5000.00	
Jun-02	DIVIDER	841.54	845.30	0.00	
Jun-05	DIVIDER	831.20	835.70	10912.00	
Jun-56	DIVIDER	798.58	805.45	43650.00	
Jun-57	DIVIDER	800.80	807.30	43650.00	
Jun-58	DIVIDER	815.25	820.08	43650.00	
Jun-59	DIVIDER	820.45	825.80	0.00	
Jun-60	DIVIDER	822.89	828.50	40442.00	
Jun-61	DIVIDER	829.60	833.90	43650.00	
Jun-63	DIVIDER	827.23	836.50	10912.00	
Jun-64	DIVIDER	831.26	835.50	10912.00	
Jun-66	DIVIDER	820.87	827.50	0.00	
Jun-67	DIVIDER	818.09	824.70	22008.00	
ST1	STORAGE	800.78	806.10	33872.00	
ST10	STORAGE	822.80	826.80	71056.00	
ST11	STORAGE	821.90	824.90	12481.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	837.00	838.00	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	821.30	824.30	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.90	834.80	5000.00	
ST9	STORAGE	825.60	827.60	40442.00	

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Link Summary
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Link	From Node	To Node	Element	Length	Slope	Manning's

ID			Type	ft	%	Roughness
166thEastofOlio	ST11	Jun-01	CONDUIT	28.3	6.0134	0.0130
166thWestofDurbin	ST8	Jun-44	CONDUIT	25.4	1.9662	0.0130
DurbinNorthofSR38	Jun-06	Jun-05	CONDUIT	27.3	6.6007	0.0130
Link-05	Jun-07	Jun-08	CONDUIT	32.0	0.5934	0.0130
Link-09	Jun-04	Jun-64	CHANNEL	553.6	0.4516	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.2987	0.0320
Link-102	Jun-56	Out-02	CONDUIT	1320.9	0.4376	0.0110
Link-103	Jun-57	Jun-56	CONDUIT	467.6	0.4748	0.0110
Link-104	Jun-58	Jun-57	CONDUIT	3128.1	0.4619	0.0110
Link-105	Jun-59	Jun-58	CONDUIT	605.0	0.8595	0.0110
Link-106	Jun-60	Jun-59	CONDUIT	678.5	0.3596	0.0110
Link-107	Jun-61	Jun-60	CONDUIT	1667.0	0.4025	0.0110
Link-111	Diversion-02	Jun-63	CONDUIT	608.8	0.5371	0.0110
Link-112	Diversion-02	Jun-61	CONDUIT	447.2	0.2012	0.0110
Link-114	Jun-60	ST9	CHANNEL	5.3	26.1682	0.0320
Link-115	Jun-59	ST11	CHANNEL	21.0	13.8293	0.0320
Link-116	Jun-58	Jun-22	CHANNEL	48.5	1.8549	0.0320
Link-117	Diversion-02	ST8	CHANNEL	10.4	0.9588	0.0320
Link-118	Jun-67	Jun-58	CONDUIT	721.5	0.3937	0.0110
Link-119	Jun-67	ST5	CHANNEL	7.9	30.2267	0.0320
Link-12	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0130
Link-120	Jun-66	ST10	CHANNEL	203.3	1.3283	0.0320
Link-121	Jun-66	Jun-67	CONDUIT	634.6	0.4381	0.0110
Link-122	Jun-64	Jun-66	CONDUIT	2179.5	0.4767	0.0110
Link-123	Jun-64	Jun-05	CHANNEL	23.3	1.2881	0.0320
Link-124	Jun-57	Jun-29	CHANNEL	9.8	8.1800	0.0320
Link-125	ST1	Jun-56	CHANNEL	18.6	1.0724	0.0320
Link-126	Jun-69	ST2	CHANNEL	178.0	0.4493	0.0320
Link-127	Jun-41	Jun-66	CHANNEL	2065.2	0.5631	0.0320
Link-128	Jun-02	Jun-64	CONDUIT	2751.3	0.3736	0.0110
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.2775	0.0320
Link-15	Jun-15	ST9	CHANNEL	1743.5	0.3269	0.0320
Link-18	Jun-19	ST11	CHANNEL	678.8	0.3978	0.0320
Link-22	Jun-01	Jun-22	CHANNEL	650.0	0.3108	0.0320
Link-26	Jun-26	ST5	CHANNEL	437.1	0.2516	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	699.9	0.4029	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	600.6	0.1965	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	366.4	0.8188	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2403.2	0.4161	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	ST1	CHANNEL	468.3	1.0078	0.0320
Link-34	Jun-56	Jun-32	CHANNEL	141.1	0.3544	0.0320
Link-36	Jun-32	Jun-34	CHANNEL	639.8	0.8909	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.6	0.7830	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.8434	0.0320
Link-44	Jun-06	Jun-41	CHANNEL	255.0	0.1961	0.0320
Link-45	Jun-08	Jun-41	CHANNEL	262.6	0.1181	0.0320
Link-47	Jun-05	Jun-07	CHANNEL	75.1	0.2664	0.0320
Link-51	Jun-44	Jun-15	CHANNEL	375.7	0.2928	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	0.4826	0.0320
Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320
Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-82	Jun-63	ST7	CHANNEL	42.4	2.8289	0.0320
Link-83	Jun-54	Diversion-02	CHANNEL	364.2	0.0824	0.0320
Link-85	ST2	Jun-63	CHANNEL	299.3	0.5012	0.0320
Link-88	Jun-61	Jun-15	CHANNEL	94.8	1.6881	0.0320
OlioNorthof166th	ST5	Jun-24	CONDUIT	26.6	1.1270	0.0130
OlioSouthof166th	ST9	Jun-19	CONDUIT	30.0	3.3378	0.0130
PrairieNorthofSR38	ST6	Jun-02	CONDUIT	30.4	0.9855	0.0130
SR38EastofDurbin	ST12	Jun-69	CONDUIT	52.3	0.3823	0.0150
SR38EastofOlio	ST10	Jun-26	CONDUIT	52.2	0.7661	0.0130

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Cross Section Summary
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Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
166thEastofOlio	RECT_CLOSED	3.00	5.00	1	15.00	0.94	402.76
166thWestofDurbin	RECT_CLOSED	1.25	4.00	1	5.00	0.48	48.87
DurbinNorthofSR38	RECT_CLOSED	3.00	12.00	1	36.00	1.20	1193.88
Link-05	CIRCULAR	1.50	1.50	2	1.77	0.38	8.09
Link-09	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	382.66
Link-10	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	311.21
Link-102	CIRCULAR	3.00	3.00	1	7.07	0.75	52.14
Link-103	CIRCULAR	3.00	3.00	1	7.07	0.75	54.31
Link-104	CIRCULAR	3.00	3.00	1	7.07	0.75	53.58
Link-105	CIRCULAR	2.00	2.00	1	3.14	0.50	24.79
Link-106	CIRCULAR	2.00	2.00	1	3.14	0.50	16.03
Link-107	CIRCULAR	2.00	2.00	1	3.14	0.50	16.96
Link-111	CIRCULAR	1.00	1.00	1	0.79	0.25	3.09
Link-112	CIRCULAR	2.00	2.00	1	3.14	0.50	11.99
Link-114	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	1362.44
Link-115	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	231.97
Link-116	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	84.95
Link-117	TRIANGULAR	2.00	25.00	1	25.00	0.99	112.72
Link-118	CIRCULAR	2.00	2.00	1	3.14	0.50	16.77
Link-119	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	503.84
Link-12	RECT_CLOSED	1.50	4.00	1	6.00	0.55	26.96
Link-120	TRAPEZOIDAL	2.00	81.00	1	82.00	1.01	442.11
Link-121	CIRCULAR	1.50	1.50	1	1.77	0.38	8.22
Link-122	CIRCULAR	1.50	1.50	1	1.77	0.38	8.57
Link-123	TRAPEZOIDAL	1.50	61.00	1	46.50	0.76	204.34
Link-124	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	178.40

Link-125	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	275.81
Link-126	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	61.43
Link-127	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	427.33
Link-128	CIRCULAR	1.00	1.00	1	0.79	0.25	2.57
Link-14	TRAPEZOIDAL	1.50	61.00	1	46.50	0.76	94.85
Link-15	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	152.29
Link-18	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	167.98
Link-22	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	148.47
Link-26	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	285.66
Link-27	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	361.47
Link-29	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	252.41
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	56.44
Link-31	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	171.80
Link-32	CIRCULAR	3.00	3.00	1	7.07	0.75	19.78
Link-33	TRAPEZOIDAL	2.75	91.75	1	127.53	1.38	737.86
Link-34	TRAPEZOIDAL	2.75	50.50	1	70.81	1.39	243.52
Link-36	TRAPEZOIDAL	3.00	28.00	1	43.50	1.51	251.38
Link-39	HORIZ_ELLIPSE	2.33	3.50	1	6.91	0.71	27.57
Link-40	TRAPEZOIDAL	2.50	83.50	1	105.63	1.26	505.84
Link-41	TRAPEZOIDAL	1.00	34.00	1	17.50	0.51	47.76
Link-44	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	252.14
Link-45	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	91.52
Link-47	TRIANGULAR	2.50	8.00	1	10.00	1.06	24.92
Link-51	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	144.12
Link-52	TRIANGULAR	2.00	8.00	1	8.00	0.89	23.96
Link-53	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	55.08
Link-55	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	44.85
Link-56	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	49.36
Link-57	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	63.34
Link-82	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	104.91
Link-83	TRAPEZOIDAL	2.00	41.00	1	42.00	1.02	56.70
Link-85	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	64.88
Link-88	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	81.05
OlioNorthof166th	RECT_CLOSED	2.00	5.00	1	10.00	0.71	

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96.96
  OlioSouthof166th RECT_CLOSED        3.00        10.00             1        30.00         1.15
689.22
  PrairieNorthofSR38 RECT_CLOSED        1.50         5.00             1         7.50         0.58
58.98
  SR38EastofDurbin RECT_CLOSED        1.00         2.50             1         2.50         0.36
7.71
  SR38EastofOlio   RECT_CLOSED        2.50         5.00             1        12.50         0.83
110.75


  ****************
  Transect Summary
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  Transect XS-L-Pipe - (10)
  Area:
              0.0005     0.0019     0.0043     0.0076     0.0118
              0.0170     0.0232     0.0305     0.0390     0.0487
              0.0595     0.0715     0.0847     0.0990     0.1145
              0.1312     0.1491     0.1682     0.1884     0.2098
              0.2323     0.2561     0.2810     0.3071     0.3338
              0.3604     0.3871     0.4137     0.4404     0.4670
              0.4937     0.5203     0.5470     0.5736     0.6003
              0.6269     0.6536     0.6802     0.7069     0.7335
              0.7602     0.7868     0.8135     0.8401     0.8668
              0.8934     0.9201     0.9467     0.9734     1.0000
  Hrad:
              0.0139     0.0278     0.0418     0.0557     0.0696
              0.0835     0.0963     0.1080     0.1202     0.1329
              0.1459     0.1591     0.1724     0.1858     0.1994
              0.2130     0.2267     0.2404     0.2542     0.2680
              0.2818     0.2957     0.3095     0.3238     0.3512
              0.3784     0.4055     0.4326     0.4595     0.4863
              0.5130     0.5396     0.5660     0.5924     0.6187
              0.6448     0.6708     0.6968     0.7226     0.7483
              0.7740     0.7995     0.8249     0.8502     0.8754
              0.9005     0.9256     0.9505     0.9753     1.0000
  Width:
              0.0355     0.0711     0.1066     0.1422     0.1777
              0.2132     0.2520     0.2961     0.3402     0.3842
              0.4283     0.4724     0.5164     0.5605     0.6046
              0.6487     0.6927     0.7368     0.7809     0.8249
              0.8690     0.9131     0.9572     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000

  Transect XS-L-Pipe - (25)
  Area:
              0.0005     0.0019     0.0043     0.0076     0.0118
              0.0170     0.0232     0.0305     0.0390     0.0487
              0.0595     0.0715     0.0847     0.0990     0.1145
              0.1312     0.1491     0.1682     0.1884     0.2098
              0.2323     0.2561     0.2810     0.3071     0.3338
              0.3604     0.3871     0.4137     0.4404     0.4670
              0.4937     0.5203     0.5470     0.5736     0.6003
              0.6269     0.6536     0.6802     0.7069     0.7335
              0.7602     0.7868     0.8135     0.8401     0.8668
              0.8934     0.9201     0.9467     0.9734     1.0000
  Hrad:
              0.0139     0.0278     0.0418     0.0557     0.0696
              0.0835     0.0963     0.1080     0.1202     0.1329
              0.1459     0.1591     0.1724     0.1858     0.1994
              0.2130     0.2267     0.2404     0.2542     0.2680
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0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (30)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (31)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (33)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145

0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (34)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754

```
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (45)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (46)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
```

0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (55)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (57)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338

0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487

0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (60)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (61)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (74)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (75)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (79)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483

0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (8)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (80)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (84)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (85)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (89)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (90)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (97)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (99)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

********** Runoff Quantity Continuity **********	Volume acre-ft	Depth inches
Total Precipitation	233.092	4.793
Surface Runoff	10.873	0.224
Continuity Error (%)	-0.001	

********** Flow Routing Continuity **********	Volume acre-ft	Volume Mgallons
External Inflow	0.000	0.000
External Outflow	107.654	35.081
Initial Stored Volume	0.014	0.004
Final Stored Volume	0.015	0.005
Continuity Error (%)	0.009	

****
Composite Curve Number Computations Report
****

Subbasin 1

Soil/Surface Description	Area (acres)	Soil Group	CN
-	37.40	-	74.50
Composite Area & Weighted CN	37.40		74.50

Subbasin 2

Soil/Surface Description	Area (acres)	Soil Group	CN
-	37.87	-	73.80
Composite Area & Weighted CN	37.87		73.80

Subbasin 3

Soil/Surface Description	Area (acres)	Soil Group	CN
-	15.15	-	75.20
Composite Area & Weighted CN	15.15		75.20

Subbasin 4

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.51	-	73.95
Composite Area & Weighted CN	19.51		73.95

Subbasin 5

Soil/Surface Description	Area (acres)	Soil Group	CN
-	62.47	-	76.60
Composite Area & Weighted CN	62.47		76.60

Subbasin 6

Soil/Surface Description	Area (acres)	Soil Group	CN
-	32.34	-	78.00
Composite Area & Weighted CN	32.34		78.00

Subbasin 7

Soil/Surface Description	Area (acres)	Soil Group	CN
-	23.74	-	74.60
Composite Area & Weighted CN	23.74		74.60

Subbasin 8

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44
Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17
Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80

Composite Area & Weighted CN	3.81		66.80

Subbasin 20

Soil/Surface Description	Area (acres)	Soil Group	CN
-	63.62	-	75.00
Composite Area & Weighted CN	63.62		75.00

Subbasin 21

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.05	-	75.20
Composite Area & Weighted CN	19.05		75.20

Subbasin 22

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.50	-	75.74
Composite Area & Weighted CN	8.50		75.74

Subbasin 23

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.60	-	76.95
Composite Area & Weighted CN	4.60		76.95

Subbasin 24

Soil/Surface Description	Area (acres)	Soil Group	CN
-	33.33	-	75.29
Composite Area & Weighted CN	33.33		75.29

Subbasin 25

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.00	-	66.40
Composite Area & Weighted CN	4.00		66.40

Subbasin 26

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.36	-	72.00
Composite Area & Weighted CN	5.36		72.00

****

```
SCS TR-55 Time of Concentration Computations Report
***************************************************

Sheet Flow Equation
-------------------

        Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

        Where:

        Tc = Time of Concentration (hrs)
        n  = Manning's Roughness
        Lf = Flow Length (ft)
        P  = 2 yr, 24 hr Rainfall (inches)
        Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation
----------------------------------

        V  = 16.1345 * (Sf^0.5) (unpaved surface)
        V  = 20.3282 * (Sf^0.5) (paved surface)
        V  = 15.0 * (Sf^0.5) (grassed waterway surface)
        V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
        V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
        V  = 7.0 * (Sf^0.5) (short grass pasture surface)
        V  = 5.0 * (Sf^0.5) (woodland surface)
        V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)

Channel Flow Equation
---------------------

        V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
        R  = Aq / Wp
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        R  = Hydraulic Radius (ft)
        Aq = Flow Area (ft²)
        Wp = Wetted Perimeter (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)
        n  = Manning's Roughness

-------------
Subbasin 1
-------------

Sheet Flow Computations
-----------------------
                                                Subarea A           Subarea B           Subarea
C
        Manning's Roughness:                         0.17                0.00
0.00
        Flow Length (ft):                          300.00                0.00
0.00
        Slope (%):                                   0.87                0.00
```

```
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              38.63                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         850.00              447.00
0.00
          Slope (%):                                  0.39                0.63
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.56                0.71
0.00
          Computed Flow Time (minutes):              25.30               10.49
0.00

==============================================================================================
          Total TOC (minutes):                       74.42

==============================================================================================


  -------------
  Subbasin 2
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.10                0.00
0.00
          Computed Flow Time (minutes):              50.97                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         658.00             1428.00
0.00
          Slope (%):                                  0.32                0.36
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.51                0.54
0.00
          Computed Flow Time (minutes):              21.50               44.07
0.00

==============================================================================================
          Total TOC (minutes):                      116.54
```

```
==========================================================================================

  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.05                0.00
0.00
          Computed Flow Time (minutes):             91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        685.00              906.00
0.00
          Slope (%):                                 0.57                0.67
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.68                0.74
0.00
          Computed Flow Time (minutes):             16.79               20.41
0.00

==========================================================================================
          Total TOC (minutes):                     128.79

==========================================================================================


  -------------
  Subbasin 4
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00
```

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
Flow Length (ft):	899.00	190.00	0.00
Slope (%):	0.66	0.26	0.00
Surface Type:	Straight rows	Straight rows	Unpaved
Velocity (ft/sec):	0.73	0.46	0.00
Computed Flow Time (minutes):	20.53	6.88	0.00

==========
Total TOC (minutes): 81.88

==========

Subbasin 5

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.17	0.00	0.00
Flow Length (ft):	300.00	0.00	0.00
Slope (%):	1.33	0.00	0.00
2 yr, 24 hr Rainfall (in):	2.85	0.00	0.00
Velocity (ft/sec):	0.15	0.00	0.00
Computed Flow Time (minutes):	32.51	0.00	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
Flow Length (ft):	284.00	1737.00	0.00
Slope (%):	0.46	0.29	0.00
Surface Type:	Straight rows	Straight rows	Unpaved
Velocity (ft/sec):	0.61	0.48	0.00
Computed Flow Time (minutes):	7.76	60.31	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.02	0.00	0.00
Flow Length (ft):	231.00	0.00	0.00
Channel Slope (%):	0.43	0.00	0.00

```
          Cross Section Area (ft²):                   0.75                0.00
0.00
          Wetted Perimeter (ft):                      3.16                0.00
0.00
          Velocity (ft/sec):                          2.09                0.00
0.00
          Computed Flow Time (minutes):               1.84                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      102.42

==========================================================================================


  -------------
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1029.00              200.00
0.00
          Slope (%):                                  0.78                0.80
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.79                0.80
0.00
          Computed Flow Time (minutes):              21.71                4.17
0.00

==========================================================================================
          Total TOC (minutes):                       52.35

==========================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
```

```
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.09                0.00
0.00
          Computed Flow Time (minutes):               54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          620.00                0.00
0.00
          Slope (%):                                   0.53                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                           0.66                0.00
0.00
          Computed Flow Time (minutes):               15.66                0.00
0.00

==================================================================================================
          Total TOC (minutes):                        70.13

==================================================================================================


  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.11                0.00
0.00
          Computed Flow Time (minutes):               45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          820.00              326.00
0.00
          Slope (%):                                   0.30                0.40
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                           0.50                1.02
0.00
          Computed Flow Time (minutes):               27.33                5.33
0.00
```

```
==========================================================================================
          Total TOC (minutes):                        78.43

==========================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  ------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         180.00                0.00
0.00
          Slope (%):                                  1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         198.00              264.00
300.00
          Slope (%):                                  0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                          1.07                0.58
0.23
          Computed Flow Time (minutes):               3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
          Flow Length (ft):                          25.00                0.00
0.00
          Channel Slope (%):                          0.80                0.00
0.00
          Cross Section Area (ft²):                   0.79                0.00
0.00
          Wetted Perimeter (ft):                      1.00                0.00
0.00
          Velocity (ft/sec):                          4.73                0.00
0.00
          Computed Flow Time (minutes):               0.09                0.00
0.00

==========================================================================================
          Total TOC (minutes):                        49.30

==========================================================================================
```

```
  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.08                0.00
0.00
          Computed Flow Time (minutes):             61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1190.00                0.00
0.00
          Slope (%):                                 0.23                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.43                0.00
0.00
          Computed Flow Time (minutes):             46.12                0.00
0.00

==============================================================================================
          Total TOC (minutes):                     107.99

==============================================================================================


  --------------
  Subbasin 11
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.12                0.00
0.00
          Computed Flow Time (minutes):             41.28                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
```

```
C
          Flow Length (ft):                        1985.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.68                0.00
0.00
          Computed Flow Time (minutes):              48.65                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       89.93

==============================================================================================


  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.83                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         866.00                0.00
0.00
          Slope (%):                                  0.48                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.63                0.00
0.00
          Computed Flow Time (minutes):              22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         633.00                0.00
0.00
          Channel Slope (%):                          0.54                0.00
0.00
          Cross Section Area (ft²):                  20.00                0.00
0.00
          Wetted Perimeter (ft):                     40.05                0.00
```

```
0.00
          Velocity (ft/sec):                          1.72                0.00
0.00
          Computed Flow Time (minutes):               6.14                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       68.27

==========================================================================================


  --------------
  Subbasin 13
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         238.00                0.00
0.00
          Slope (%):                                  1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              21.25                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         640.00                0.00
0.00
          Slope (%):                                  0.52                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.65                0.00
0.00
          Computed Flow Time (minutes):              16.41                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       37.66

==========================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.33                0.00
```

```
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.10                0.00
0.00
          Computed Flow Time (minutes):              51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         176.00              640.00
0.00
          Slope (%):                                  2.39                0.39
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          1.39                0.56
0.00
          Computed Flow Time (minutes):               2.11               19.05
0.00

==============================================================================================
          Total TOC (minutes):                       72.36

==============================================================================================


  --------------
  Subbasin 15
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.16                0.00
0.00
          Computed Flow Time (minutes):              31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         112.00                0.00
0.00
          Slope (%):                                  1.88                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.23                0.00
0.00
          Computed Flow Time (minutes):               1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
```

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.04	0.00	0.00
Flow Length (ft):	490.00	0.00	0.00
Channel Slope (%):	0.36	0.00	0.00
Cross Section Area (ft²):	13.00	0.00	0.00
Wetted Perimeter (ft):	26.08	0.00	0.00
Velocity (ft/sec):	1.40	0.00	0.00
Computed Flow Time (minutes):	5.84	0.00	0.00

==========

Total TOC (minutes): 38.64

==========

Subbasin 16

Sheet Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.40	0.17	0.00
Flow Length (ft):	150.00	150.00	0.00
Slope (%):	0.67	1.00	0.00
2 yr, 24 hr Rainfall (in):	2.85	2.85	0.00
Velocity (ft/sec):	0.05	0.12	0.00
Computed Flow Time (minutes):	48.84	20.94	0.00

Shallow Concentrated Flow Computations

	Subarea A	Subarea B	Subarea C
Flow Length (ft):	1468.00	0.00	0.00
Slope (%):	0.61	0.00	0.00
Surface Type:	Straight rows	Unpaved	Unpaved
Velocity (ft/sec):	0.70	0.00	0.00
Computed Flow Time (minutes):	34.95	0.00	0.00

==========

Total TOC (minutes): 104.74

==========

Subbasin 17

```
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.17                0.00
0.00
          Computed Flow Time (minutes):             30.01                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        490.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                     Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.07                0.00
0.00
          Computed Flow Time (minutes):              7.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      37.65

==============================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1220.00                0.00
0.00
```

```
          Slope (%):                                  0.86                0.00
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                          1.39                0.00
0.00
          Computed Flow Time (minutes):              14.63                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       42.68

==========================================================================================


  --------------
  Subbasin 19
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.22                0.00
0.00
          Computed Flow Time (minutes):              23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         115.00                0.00
0.00
          Slope (%):                                  3.48                0.00
0.00
          Surface Type:                             Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                          3.01                0.00
0.00
          Computed Flow Time (minutes):               0.64                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       23.88

==========================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
```

```
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.09                0.00
0.00
          Computed Flow Time (minutes):               56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         1118.00             1574.00
387.00
          Slope (%):                                   0.87                0.40
0.52
          Surface Type:                        Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                           0.84                0.57
0.65
          Computed Flow Time (minutes):               22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.04                0.00
0.00
          Flow Length (ft):                          610.00                0.00
0.00
          Channel Slope (%):                           0.33                0.00
0.00
          Cross Section Area (ft²):                   10.00                0.00
0.00
          Wetted Perimeter (ft):                      20.10                0.00
0.00
          Velocity (ft/sec):                           1.34                0.00
0.00
          Computed Flow Time (minutes):                7.59                0.00
0.00

==================================================================================================
          Total TOC (minutes):                       142.31

==================================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
```

```
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         507.00              670.00
0.00
          Slope (%):                                  0.87                0.90
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.84                0.85
0.00
          Computed Flow Time (minutes):              10.06               13.14
0.00

==============================================================================================
          Total TOC (minutes):                       57.10

==============================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         233.00                0.00
0.00
          Slope (%):                                  3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.22                0.00
0.00
          Computed Flow Time (minutes):              17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         483.00              660.00
0.00
          Slope (%):                                  1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                          1.74                0.73
0.00
          Computed Flow Time (minutes):               4.63               15.07
0.00

==============================================================================================
          Total TOC (minutes):                       37.05

==============================================================================================
```

```
  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.21                0.00
0.00
          Computed Flow Time (minutes):             23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        562.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.07                0.00
0.00
          Computed Flow Time (minutes):              8.75                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      32.05

==============================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
```

```
C
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==========================================================================================
          Total TOC (minutes):                      105.31

==========================================================================================


  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         255.00                0.00
0.00
          Slope (%):                                  2.04                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.20                0.00
0.00
          Computed Flow Time (minutes):              21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         175.00              275.00
0.00
          Slope (%):                                  0.17                2.36
0.00
          Surface Type:                   Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                          0.62                1.08
0.00
          Computed Flow Time (minutes):               4.70                4.24
0.00

==========================================================================================
          Total TOC (minutes):                       30.73

==========================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
```

```
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         378.00                0.00
0.00
          Slope (%):                                  2.43                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.40                0.00
0.00
          Computed Flow Time (minutes):               4.50                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         606.00                0.00
0.00
          Channel Slope (%):                          0.99                0.00
0.00
          Cross Section Area (ft²):                  31.25                0.00
0.00
          Wetted Perimeter (ft):                     25.50                0.00
0.00
          Velocity (ft/sec):                          1.13                0.00
0.00
          Computed Flow Time (minutes):               8.92                0.00
0.00

==================================================================================================
          Total TOC (minutes):                       50.91

==================================================================================================


  ***********************
  Subbasin Runoff Summary
  ***********************

  ---------------------------------------------------------------------------
  Subbasin             Total     Total      Peak  Weighted           Time of
  ID                  Precip    Runoff    Runoff     Curve     Concentration
                          in        in       cfs    Number    days  hh:mm:ss
  ---------------------------------------------------------------------------
  1                     4.73      2.19     38.08    74.500       0  01:14:25
  2                     4.73      2.13     38.56    73.800       0  01:56:32
  3                     4.73      2.25     10.48    75.200       0  02:08:47
  4                     4.73      2.15     18.08    73.950       0  01:21:52
```

5	4.73	2.37	54.36	76.600	0	01:42:25
6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18
21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03
23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
Jun-01	0.42	1.09	821.29	0	14:01	0	0	0:00:00
Jun-04	0.60	1.09	837.09	0	13:21	0	0	0:00:00
Jun-06	0.61	1.34	834.34	0	13:18	0	0	0:00:00
Jun-07	0.24	0.92	833.92	0	13:20	0	0	0:00:00
Jun-08	0.24	0.78	833.59	0	13:30	0	0	0:00:00
Jun-12	0.26	1.05	834.75	0	13:05	0	0	0:00:00
Jun-15	0.23	0.80	832.10	0	13:16	0	0	0:00:00
Jun-19	0.40	1.06	825.66	0	13:38	0	0	0:00:00
Jun-22	0.75	1.57	819.75	0	14:30	0	0	0:00:00
Jun-24	0.50	1.04	822.04	0	14:52	0	0	0:00:00
Jun-26	0.62	2.00	824.40	0	14:48	0	0	0:00:00
Jun-27	0.72	1.31	818.31	0	14:42	0	0	0:00:00
Jun-28	0.34	0.68	820.68	0	13:05	0	0	0:00:00
Jun-29	0.95	1.48	806.98	0	14:49	0	0	0:00:00
Jun-30	0.97	1.48	806.98	0	14:49	0	0	0:00:00
Jun-32	1.07	2.34	804.54	0	15:06	0	0	0:00:00
Jun-35	0.49	0.92	800.14	0	13:03	0	0	0:00:00
Jun-38	0.26	0.76	810.56	0	12:20	0	0	0:00:00
Jun-39	0.82	1.47	808.47	0	14:54	0	0	0:00:00
Jun-41	0.48	1.07	833.57	0	13:32	0	0	0:00:00
Jun-44	0.14	0.65	833.05	0	13:10	0	0	0:00:00
Jun-45	0.29	0.74	798.74	0	12:25	0	0	0:00:00
Jun-46	0.49	0.94	798.69	0	12:29	0	0	0:00:00
Jun-47	0.42	0.85	797.85	0	12:27	0	0	0:00:00
Jun-54	0.45	1.46	834.66	0	13:07	0	0	0:00:00
Jun-69	0.19	0.44	838.24	0	12:48	0	0	0:00:00
Jun-34	1.05	2.30	798.80	0	15:06	0	0	0:00:00
Out-01	0.41	0.83	797.33	0	12:27	0	0	0:00:00
Out-02	2.50	3.00	795.80	0	12:13	0	0	0:00:00
Diversion-02	1.34	3.82	834.32	0	13:07	0	0	0:00:00
Jun-02	1.68	2.48	844.02	0	13:11	0	0	0:00:00
Jun-05	2.39	3.52	834.72	0	13:21	0	0	0:00:00

Jun-56	4.42	6.39	804.97	0	15:05	0	0	0:00:00
Jun-57	3.76	6.23	807.03	0	13:38	0	0	0:00:00
Jun-58	2.37	4.47	819.72	0	14:29	0	0	0:00:00
Jun-59	1.96	4.60	825.05	0	12:40	0	0	0:00:00
Jun-60	2.44	4.79	827.68	0	13:31	0	0	0:00:00
Jun-61	1.52	3.84	833.44	0	12:38	0	0	0:00:00
Jun-63	6.40	8.75	835.98	0	12:56	0	0	0:00:00
Jun-64	2.28	3.53	834.79	0	13:22	0	0	0:00:00
Jun-66	4.14	5.77	826.64	0	14:09	0	0	0:00:00
Jun-67	2.91	6.22	824.31	0	14:50	0	0	0:00:00
ST1	2.58	4.31	805.09	0	15:05	0	0	0:00:00
ST10	0.99	3.53	826.33	0	14:15	0	0	0:00:00
ST11	0.89	2.83	824.73	0	13:59	0	0	0:00:00
ST12	0.33	1.11	839.11	0	12:47	0	0	0:00:00
ST2	0.41	0.86	837.86	0	12:56	0	0	0:00:00
ST3	0.72	1.18	806.98	0	14:49	0	0	0:00:00
ST4	0.46	1.54	811.74	0	12:25	0	0	0:00:00
ST5	1.08	3.02	824.32	0	14:50	0.27	15	0:00:00
ST6	0.64	1.94	846.04	0	12:59	0	0	0:00:00
ST7	0.39	1.86	835.66	0	13:00	0	0	0:00:00
ST8	0.24	1.38	834.28	0	13:08	0	0	0:00:00
ST9	0.58	1.96	827.56	0	13:35	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	63.66	0	13:59	0.00		
Jun-04	JUNCTION	48.83	78.55	0	13:13	0.00		
Jun-06	JUNCTION	0.00	76.85	0	13:21	0.00		
Jun-07	JUNCTION	0.00	6.55	0	13:20	0.00		
Jun-08	JUNCTION	0.00	6.86	0	13:20	0.00		
Jun-12	JUNCTION	0.00	25.42	0	13:00	0.00		
Jun-15	JUNCTION	0.00	31.15	0	13:04	0.00		
Jun-19	JUNCTION	0.00	67.81	0	13:35	0.00		
Jun-22	JUNCTION	0.00	119.27	0	14:23	0.00		
Jun-24	JUNCTION	0.00	63.78	0	14:50	0.00		
Jun-26	JUNCTION	0.00	82.63	0	14:15	0.00		
Jun-27	JUNCTION	20.76	122.04	0	14:31	0.00		
Jun-28	JUNCTION	20.68	20.68	0	13:05	0.00		
Jun-29	JUNCTION	0.00	145.95	0	14:48	0.00		
Jun-30	JUNCTION	0.00	5.33	0	12:17	0.00		
Jun-32	JUNCTION	0.00	126.79	0	15:05	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	0.00		
Jun-38	JUNCTION	0.00	22.50	0	12:25	0.00		
Jun-39	JUNCTION	0.00	122.22	0	14:41	0.00		
Jun-41	JUNCTION	0.00	83.26	0	13:23	0.00		
Jun-44	JUNCTION	0.00	16.22	0	13:08	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.00		
Jun-46	JUNCTION	0.00	34.49	0	12:25	0.00		
Jun-47	JUNCTION	5.05	38.40	0	12:25	0.00		
Jun-54	JUNCTION	0.00	25.22	0	13:02	0.00		
Jun-69	JUNCTION	0.00	7.25	0	12:47	0.00		
Jun-34	OUTFALL	6.45	127.41	0	15:06	0.00		
Out-01	OUTFALL	0.00	38.27	0	12:27	0.00		
Out-02	OUTFALL	0.00	61.34	0	15:05	0.00		
Diversion-02	DIVIDER	0.00	27.01	0	13:06	0.00		
Jun-02	DIVIDER	0.00	33.95	0	12:59	0.00		
Jun-05	DIVIDER	18.06	83.38	0	13:21	0.00		
Jun-56	DIVIDER	24.17	188.14	0	15:04	0.00		

Jun-57	DIVIDER	40.38	88.36	0	13:30	0.00		
Jun-58	DIVIDER	14.63	59.29	0	12:17	0.00		
Jun-59	DIVIDER	15.31	30.16	0	12:40	0.00		
Jun-60	DIVIDER	73.28	88.74	0	12:55	0.00		
Jun-61	DIVIDER	24.01	31.84	0	12:48	0.00		
Jun-63	DIVIDER	0.00	27.87	0	12:56	0.00		
Jun-64	DIVIDER	0.00	79.23	0	13:21	0.00		
Jun-66	DIVIDER	54.36	136.22	0	13:21	0.00		
Jun-67	DIVIDER	48.83	48.83	0	12:29	0.00		
ST1	STORAGE	0.00	145.92	0	14:49	0.00		
ST10	STORAGE	0.00	99.27	0	13:56	0.00		
ST11	STORAGE	0.00	67.71	0	13:38	0.00		
ST12	STORAGE	7.40	7.40	0	12:40	0.00		
ST2	STORAGE	21.92	29.12	0	12:46	0.00		
ST3	STORAGE	5.78	5.78	0	12:14	0.00		
ST4	STORAGE	22.54	22.54	0	12:25	0.00		
ST5	STORAGE	0.00	111.10	0	14:00	4.56	0	14:42
ST6	STORAGE	38.04	38.04	0	12:45	0.00		
ST7	STORAGE	0.00	25.70	0	12:56	0.00		
ST8	STORAGE	0.00	16.29	0	13:05	0.00		
ST9	STORAGE	0.00	122.93	0	13:30	0.00		

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded days	hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
ST1	183.645	59	0	15:05	77.585	25	142.03	30.50	15:05:00	10.009
ST10	23.027	46	0	14:15	2.520	5	82.63	12.17	14:15:00	0.802
ST11	7.596	79	0	13:59	1.336	14	63.66	3.03	13:55:00	0.349
ST12	0.906	18	0	12:47	0.144	3	7.25	1.24	12:45:00	0.117
ST2	12.098	75	0	12:56	3.678	23	27.87	7.76	12:55:00	3.308
ST3	1.418	3	0	14:49	0.632	1	5.33	0.97	14:45:00	0.292
ST4	0.342	2	0	12:25	0.063	0	22.50	0.14	12:25:00	0.043
ST5	23.438	100	0	14:42	3.106	13	72.26	11.80	14:50:00	1.134
ST6	16.079	88	0	12:59	2.095	11	33.95	8.95	12:55:00	0.713
ST7	2.875	9	0	13:00	0.393	1	25.42	1.23	13:00:00	0.094
ST8	1.216	40	0	13:08	0.158	5	16.22	0.70	13:05:00	0.044
ST9	82.728	96	0	13:35	18.691	22	81.30	24.74	13:35:00	3.844

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Jun-34	86.07	50.65	127.41
Out-01	88.35	11.99	38.27
Out-02	98.99	48.70	61.34
System	91.14	111.35	198.30

****
Link Flow Summary
****

Link ID	Element Type	Reported Condition	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow	Ratio of Maximum Flow	Total Surcharged Depth	Time minutes
166thEastofOlio	CONDUIT		0 13:59	6.50	1.00	63.66	402.76	0.16	0.65	0	Calculated
166thWestofDurbin	CONDUIT		0 13:08	4.27	1.00	16.22	48.87	0.33	0.76	0	Calculated
DurbinNorthofSR38	CONDUIT		0 13:21	6.42	1.00	76.85	1193.88	0.06	0.72	0	Calculated
Link-05	CONDUIT		0 13:20	9.79	1.00	6.86	16.18	0.42	0.56	0	Calculated
Link-09	CHANNEL		0 13:21	1.79	1.00	76.82	382.66	0.20	0.59	0	Calculated
Link-10	CHANNEL		0 13:11	1.09	1.00	29.88	311.21	0.10	0.48	0	Calculated
Link-102	CONDUIT		0 15:05	8.68	1.00	61.34	52.14	1.18	1.00	448	SURCHARGED
Link-103	CONDUIT		0 12:27	8.26	1.00	58.37	54.31	1.07	1.00	331	SURCHARGED
Link-104	CONDUIT		0 12:15	10.79	1.00	53.27	53.58	0.99	1.00	205	SURCHARGED
Link-105	CONDUIT		0 12:17	10.67	1.00	24.53	24.79	0.99	1.00	217	SURCHARGED
Link-106	CONDUIT		0 12:09	6.82	1.00	21.06	16.03	1.31	1.00	217	SURCHARGED
Link-107	CONDUIT		0 12:25	4.93	1.00	15.50	16.96	0.91	1.00	160	SURCHARGED
Link-111	CONDUIT		0 12:14	4.87	1.00	3.62	3.09	1.17	1.00	175	SURCHARGED
Link-112	CONDUIT		0 13:10	3.42	1.00	10.75	11.99	0.90	1.00	149	SURCHARGED
Link-114	CHANNEL		0 13:31	8.03	1.00	96.57	1362.44	0.07	0.73	0	Calculated
Link-115	CHANNEL		0 12:40	2.68	1.00	6.60	231.97	0.03	0.62	0	Calculated
Link-116	CHANNEL		0 16:49	3.61	1.00	47.71	84.95	0.56			

0.89	0	Calculated									
Link-117		CHANNEL	0	13:05	3.65	1.00	16.29	112.72	0.14		
0.68	0	Calculated									
Link-118		CONDUIT	0	12:14	8.11	1.00	22.86	16.77	1.36		
1.00	213	SURCHARGED									
Link-119		CHANNEL	0	15:47	6.62	1.00	40.55	503.84	0.08		
0.80	0	Calculated									
Link-12		CONDUIT	0	13:00	5.01	1.00	25.42	26.96	0.94		
0.85	0	Calculated									
Link-120		CHANNEL	0	13:56	2.10	1.00	99.27	442.11	0.22		
0.78	0	Calculated									
Link-121		CONDUIT	0	14:03	9.56	1.00	12.62	8.22	1.54		
1.00	374	SURCHARGED									
Link-122		CONDUIT	0	12:23	5.35	1.00	9.09	8.57	1.06		
1.00	507	SURCHARGED									
Link-123		CHANNEL	0	13:26	2.73	1.00	71.79	204.34	0.35		
0.93	0	Calculated									
Link-124		CHANNEL	0	13:35	2.94	1.00	41.56	178.40	0.23		
0.86	0	Calculated									
Link-125		CHANNEL	0	15:05	2.64	1.00	142.03	275.81	0.51		
1.00	456	FLOODED									
Link-126		CHANNEL	0	12:48	0.60	1.00	7.24	61.43	0.12		
0.65	0	Calculated									
Link-127		CHANNEL	0	13:32	1.13	1.00	81.63	427.33	0.19		
0.77	0	Calculated									
Link-128		CONDUIT	0	12:15	3.87	1.00	2.89	2.57	1.12		
1.00	503	SURCHARGED									
Link-14		CHANNEL	0	13:02	1.09	1.00	25.22	94.85	0.27		
0.84	0	Calculated									
Link-15		CHANNEL	0	13:16	0.72	1.00	29.19	152.29	0.19		
0.77	0	Calculated									
Link-18		CHANNEL	0	13:38	1.44	1.00	67.71	167.98	0.40		
0.85	0	Calculated									
Link-22		CHANNEL	0	14:02	1.55	1.00	63.62	148.47	0.43		
0.86	0	Calculated									
Link-26		CHANNEL	0	14:26	1.45	1.00	78.12	285.66	0.27		
1.00	0	Calculated									
Link-27		CHANNEL	0	14:52	1.46	1.00	63.73	361.47	0.18		
0.65	0	Calculated									
Link-29		CHANNEL	0	14:34	1.78	1.00	112.63	252.41	0.45		
0.72	0	Calculated									
Link-30		CHANNEL	0	13:05	1.47	1.00	20.65	56.44	0.37		
0.84	0	Calculated									
Link-31		CHANNEL	0	14:42	2.08	1.00	120.26	171.80	0.70		
0.93	0	Calculated									
Link-32		CONDUIT	0	12:17	2.37	1.00	5.33	19.78	0.27		
0.43	0	Calculated									
Link-33		CHANNEL	0	14:49	3.10	1.00	145.92	737.86	0.20		
0.77	0	Calculated									
Link-34		CHANNEL	0	15:05	2.54	1.00	126.79	243.52	0.52		
0.84	0	Calculated									
Link-36		CHANNEL	0	15:06	4.79	1.00	126.78	251.38	0.50		
0.77	0	Calculated									
Link-39		CONDUIT	0	12:25	6.64	1.00	22.50	27.57	0.82		
0.49	0	Calculated									
Link-40		CHANNEL	0	14:53	3.20	1.00	120.03	505.84	0.24		
0.59	0	Calculated									
Link-41		CHANNEL	0	12:23	2.26	1.00	22.80	47.76	0.48		
0.81	0	Calculated									
Link-44		CHANNEL	0	13:22	3.28	1.00	76.97	252.14	0.31		
0.60	0	Calculated									
Link-45		CHANNEL	0	13:25	0.28	1.00	6.31	91.52	0.07		
0.61	0	Calculated									
Link-47		CHANNEL	0	13:20	35.89	1.00	6.55	24.92	0.26		
0.49	0	Calculated									
Link-51		CHANNEL	0	13:10	1.00	1.00	16.18	144.12	0.11		
0.48	0	Calculated									

```
  Link-52              CHANNEL      0  12:17      4.06    1.00        5.33       23.96      0.22
0.72           0  Calculated
  Link-53              CHANNEL      0  13:03      1.70    1.00       28.65       55.08      0.52
0.73           0  Calculated
  Link-55              CHANNEL      0  12:28      1.39    1.00       34.29       44.85      0.76
0.89           0  Calculated
  Link-56              CHANNEL      0  12:20      0.73    1.00       14.73       49.36      0.30
0.84           0  Calculated
  Link-57              CHANNEL      0  12:27      1.76    1.00       38.27       63.34      0.60
0.84           0  Calculated
  Link-82              CHANNEL      0  12:56      2.50    1.00       25.70      104.91      0.24
0.79           0  Calculated
  Link-83              CHANNEL      0  13:06      1.16    1.00       24.90       56.70      0.44
0.72           0  Calculated
  Link-85              CHANNEL      0  12:56      1.80    1.00       27.87       64.88      0.43
0.70           0  Calculated
  Link-88              CHANNEL      0  12:48      4.04    1.00       16.38       81.05      0.20
0.65           0  Calculated
  OlioNorthof166th     CONDUIT      0  14:50      8.41    1.00       63.78       96.96      0.66
0.76           0  Calculated
  OlioSouthof166th     CONDUIT      0  13:35      4.49    1.00       67.81      689.22      0.10
0.50           0  Calculated
  PrairieNorthofSR38   CONDUIT      0  12:59      5.85    1.00       33.95       58.98      0.58
0.77           0  Calculated
  SR38EastofDurbin     CONDUIT      0  12:47      4.03    1.00        7.25        7.71      0.94
0.72           0  Calculated
  SR38EastofOlio       CONDUIT      0  14:15      8.23    1.00       82.63      110.75      0.75
0.90           0  Calculated


  ********************************
  Highest Flow Instability Indexes
  ********************************
  Link Link-05 (9)
  Link DurbinNorthofSR38 (9)
  Link Link-47 (6)
  Link Link-44 (4)
  Link Link-114 (3)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-06 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-07 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-08 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
```

```
  WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-41 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-69 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Diversion-02 is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-05 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-57 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-58 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-59 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-60 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-61 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-63 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-64 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-66 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-67 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinNorthofSR38 is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-107 is below downstream
node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-34 is below downstream
node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
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  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-40 is below downstream
node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-52 is below downstream
node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit OlioSouthof166th is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit OlioSouthof166th is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-04.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-06.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-07.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-08.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-29.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-32.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-39.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-41.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-54.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Diversion-02.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-05.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-56.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-57.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-58.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-59.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-60.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-61.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-63.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-64.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-66.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-67.

  Analysis began on:  Mon Apr 20 08:08:20 2015
```

```
Analysis ended on:  Mon Apr 20 08:08:23 2015
Total elapsed time: 00:00:03
```

VSE

APPENDIX A

Alternative 3 Modeling Results

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

****
Project Description
****
File Name ..... Alt 3 042015.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 53
Number of links 61

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.20	823.20	0.05	
Jun-04	JUNCTION	836.00	837.75	43650.00	
Jun-06	JUNCTION	832.70	835.70	10912.00	
Jun-12	JUNCTION	833.70	837.70	10912.00	
Jun-15	JUNCTION	831.30	833.30	43650.00	
Jun-19	JUNCTION	822.50	827.30	0.00	
Jun-22	JUNCTION	818.18	820.68	43650.00	
Jun-24	JUNCTION	821.00	823.00	21825.00	
Jun-26	JUNCTION	822.40	824.90	43650.00	
Jun-27	JUNCTION	817.00	819.50	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	804.80	808.55	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	800.20	804.70	0.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	806.50	810.00	43650.00	
Jun-44	JUNCTION	832.40	834.40	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.50	10912.00	
Jun-54	JUNCTION	833.40	837.40	5456.00	
Jun-56	JUNCTION	837.80	843.80	0.00	
Jun-58	JUNCTION	795.40	800.40	0.00	
Jun-59	JUNCTION	823.10	829.10	0.00	
Jun-60	JUNCTION	825.30	831.30	0.00	
Structure - (10)	JUNCTION	831.33	834.66	0.00	
Structure - (11)	JUNCTION	794.28	799.22	0.00	
Structure - (9)	JUNCTION	831.47	835.15	0.00	
Jun-34	OUTFALL	791.20	796.20	0.00	
Out-01	OUTFALL	796.50	798.00	0.00	
Out-1Pipe - (3)	OUTFALL	792.80	794.30	0.00	
FD1	DIVIDER	798.58	805.25	43650.00	
Jun-02	DIVIDER	841.54	845.30	0.00	
Jun-20	DIVIDER	831.16	834.50	10912.00	
Jun-51	DIVIDER	827.23	836.50	10912.00	
Out-1Pipe - (57)	DIVIDER	818.09	824.80	22008.00	
Structure - (56)	DIVIDER	820.87	827.80	0.00	
Structure - (70)	DIVIDER	815.25	821.18	43650.00	
Structure - (94)	DIVIDER	829.60	834.00	43650.00	
ST1	STORAGE	831.26	834.70	130950.00	
ST10	STORAGE	822.80	826.80	71056.00	
ST11	STORAGE	822.00	825.20	12481.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	836.40	837.40	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	821.30	823.80	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.80	834.80	5000.00	
ST9	STORAGE	822.89	827.10	218000.00	

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Grate Part	Inlet Location	Number of Catchbasin	Inlet	Ponded	Initial

Invert Elevation	Rim Elevation	Area	Water Elevation	Clogging Number Factor		Inlets
ft	ft	ft²	ft	%		
Structure - (15)	MAXIMUM CAPTURE CUTOFF		N/A		On Grade	1
831.58	834.80	-	831.58	0.00		

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
Structure - (15)	0.0200	0.0500	0.0130	0.0620	2.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
166thEastofOlio	ST11	Jun-01	CONDUIT	28.1	6.3989	0.0130
166thWestofDurbin	ST8	Jun-44	CONDUIT	25.4	1.5729	0.0130
DurbinNorthofSR38	Jun-06	ST1	CONDUIT	27.3	4.0337	0.0150
DurbinSouthofSR38	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0130
Link-09	Jun-04	ST1	CHANNEL	555.8	0.4678	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.2987	0.0320
Link-100	FD1	Structure - (11)	CONDUIT	961.1	0.4474	0.0180
Link-101	Jun-20	Structure - (70)	CONDUIT	617.4	2.5768	0.0180
Link-102	Jun-56	ST2	CHANNEL	177.6	0.7884	0.0320
Link-104	Jun-58	Jun-34	CHANNEL	561.6	0.7478	0.0320
Link-107	Jun-02	ST1	CONDUIT	2787.8	0.4283	0.0180
Link-108	Jun-59	ST9	CHANNEL	44.0	0.4777	0.0320
Link-109	Jun-59	Jun-60	CHANNEL	459.5	0.1110	0.0320
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.1665	0.0320
Link-15	Jun-15	Jun-60	CHANNEL	1235.0	0.2664	0.0320
Link-18	Jun-19	ST11	CHANNEL	679.0	0.4860	0.0320
Link-22	Jun-01	Jun-22	CHANNEL	650.0	0.3108	0.0320
Link-26	Jun-26	ST5	CHANNEL	437.1	0.2516	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	699.9	0.4029	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	600.6	0.1965	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	366.4	0.8188	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2403.2	0.4369	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	FD1	CHANNEL	468.6	0.7575	0.0320
Link-34	FD1	Jun-32	CHANNEL	139.0	0.7555	0.0320
Link-36	Jun-32	Jun-58	CHANNEL	635.2	0.7557	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.8	0.8863	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.9940	0.0320
Link-48	Jun-06	Structure - (56)	CHANNEL	2366.8	0.4998	0.0320
Link-51	Jun-44	Jun-15	CHANNEL	375.7	0.2928	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	3.8610	0.0320
Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320
Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-67	Jun-20	ST9	CONDUIT	705.8	1.1717	0.0180
Link-73	Structure - (56)	Out-1Pipe - (57)	CONDUIT	631.1	0.4405	0.0180

Link-75	Structure - (15)	Structure - (9)	CONDUIT	230.0	0.0478	0.0120
Link-76	Jun-51	Structure - (15)	CONDUIT	214.3	0.0100	0.0150
Link-78	ST1	Structure - (56)	CONDUIT	2181.0	0.4764	0.0180
Link-82	Jun-51	ST7	CHANNEL	38.3	4.4375	0.0320
Link-83	Jun-54	ST8	CHANNEL	374.6	0.1602	0.0320
Link-84	Structure - (15)	Jun-54	CHANNEL	6.9	20.2605	0.0320
Link-85	ST2	Jun-51	CHANNEL	300.1	0.2999	0.0320
Link-88	Structure - (94)	Jun-15	CHANNEL	88.8	0.7886	0.0320
Link-90	Jun-20	ST11	CHANNEL	14.1	65.1031	0.0320
Link-91	Structure - (56)	ST10	CHANNEL	197.4	1.5195	0.0320
Link-92	Out-1Pipe - (57)	Structure - (70)	CONDUIT	715.8	0.3968	0.0180
Link-93	Out-1Pipe - (57)	ST5	CHANNEL	5.7	44.0917	0.0320
Link-95	Structure - (70)	Jun-22	CHANNEL	47.9	2.0881	0.0320
Link-97	Structure - (70)	FD1	CONDUIT	3157.7	0.5279	0.0180
Link-98	Structure - (94)	ST9	CONDUIT	1676.3	0.4003	0.0180
Link-99	Structure - (10)	Structure - (94)	CONDUIT	589.7	0.2934	0.0120
OlioNorthof166th	ST5	Jun-24	CONDUIT	26.6	1.1270	0.0130
OlioSouthof166th	ST9	Jun-19	CONDUIT	32.1	0.9340	0.0130
Pipe - (3)	Structure - (11)	Out-1Pipe - (3)	CONDUIT	361.1	0.4098	0.0180
Pipe - (7)	Structure - (9)	Structure - (10)	CONDUIT	35.1	0.3991	0.0120
PrairieNorthof	SR38ST6	Jun-02	CONDUIT	30.4	2.9566	0.0130
SR38EastofDurbin	ST12	Jun-56	CONDUIT	52.8	0.3790	0.0130
SR38EastofOlio	ST10	Jun-26	CONDUIT	52.2	0.7661	0.0130

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
166thEastofOlio	RECT_CLOSED	3.00	4.00	1	12.00	0.86	313.10
166thWestofDurbin	RECT_CLOSED	2.00	9.00	1	18.00	0.82	225.74
DurbinNorthofSR38	RECT_CLOSED	3.00	5.00	1	15.00	0.94	285.88
DurbinSouthofSR38	RECT_CLOSED	1.50	6.00	1	9.00	0.60	43.09
Link-09	TRAPEZOIDAL	1.75	106.00	1	93.63	0.88	273.64
Link-10	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	145.56
Link-100	CIRCULAR	1.50	1.50	1	1.77	0.38	5.07
Link-101	CIRCULAR	1.50	1.50	1	1.77	0.38	12.18
Link-102	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	55.39
Link-104	TRAPEZOIDAL	5.00	47.00	1	122.50	2.54	915.82
Link-107	CIRCULAR	0.58	0.58	2	0.27	0.15	0.40
Link-108	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	393.58
Link-109	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	189.72
Link-14	TRAPEZOIDAL	4.00	20.00	1	48.00	2.19	153.53

Link-15	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	293.91
Link-18	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	396.98
Link-22	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	317.44
Link-26	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	285.66
Link-27	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	361.47
Link-29	TRAPEZOIDAL	2.50	151.00	1	190.00	1.26	455.66
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	56.44
Link-31	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	376.40
Link-32	CIRCULAR	3.00	3.00	1	7.07	0.75	19.78
Link-33	TRAPEZOIDAL	3.75	35.75	1	70.78	1.93	443.50
Link-34	TRAPEZOIDAL	4.00	38.00	1	80.00	2.05	521.48
Link-36	TRAPEZOIDAL	4.50	42.50	1	100.13	2.30	703.52
Link-39	HORIZ_ELLIPSE	2.33	3.50	1	6.91	0.71	27.57
Link-40	TRAPEZOIDAL	3.50	33.50	1	62.13	1.81	403.12
Link-41	TRAPEZOIDAL	1.00	34.00	1	17.50	0.51	51.85
Link-48	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	188.30
Link-51	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	308.14
Link-52	TRIANGULAR	2.00	8.00	1	8.00	0.89	67.77
Link-53	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	55.08
Link-55	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	130.35
Link-56	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	49.36
Link-57	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	184.07
Link-67	CIRCULAR	1.00	1.00	1	0.79	0.25	2.79
Link-73	CIRCULAR	1.25	1.25	1	1.23	0.31	3.10
Link-75	CIRCULAR	0.67	0.67	1	0.35	0.17	0.29
Link-76	CIRCULAR	0.67	0.67	1	0.35	0.17	0.10
Link-78	CIRCULAR	0.92	0.92	1	0.66	0.23	1.41
Link-82	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	193.05
Link-83	TRAPEZOIDAL	4.00	20.00	1	48.00	2.19	150.58
Link-84	TRIANGULAR	1.00	20.00	1	10.00	0.50	131.24
Link-85	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	50.19
Link-88	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	505.67
Link-90	TRAPEZOIDAL	2.00	81.00	1	82.00	1.01	3095.13
Link-91	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	

```
701.95
  Link-92          CIRCULAR          1.25         1.25             1         1.23         0.31
2.94
  Link-93          TRAPEZOIDAL       1.00        41.00             1        21.00         0.51
414.19
  Link-95          TRAPEZOIDAL       2.00       121.00             1       122.00         1.01
822.87
  Link-97          CIRCULAR          1.50         1.50             1         1.77         0.38
5.51
  Link-98          CIRCULAR          1.00         1.00             1         0.79         0.25
1.63
  Link-99          CIRCULAR          0.67         0.67             1         0.35         0.17
0.71
  OlioNorthof166th RECT_CLOSED       2.00         5.00             1        10.00         0.71
96.96
  OlioSouthof166th RECT_CLOSED       3.00        12.00             1        36.00         1.20
449.10
  Pipe - (3)       CIRCULAR          1.50         1.50             1         1.77         0.38
4.86
  Pipe - (7)       CIRCULAR          0.67         0.67             1         0.35         0.17
0.83
  PrairieNorthofSR38 RECT_CLOSED        1.50         7.00             1        10.50         0.62
149.68
  SR38EastofDurbin RECT_CLOSED       1.00         2.50             1         2.50         0.36
8.86
  SR38EastofOlio   RECT_CLOSED       2.50         8.00             1        20.00         0.95
193.70


  ****************
  Transect Summary
  ****************

  Transect XS-L-Pipe - (10)
  Area:
              0.0005     0.0019     0.0043     0.0076     0.0118
              0.0170     0.0232     0.0305     0.0390     0.0487
              0.0595     0.0715     0.0847     0.0990     0.1145
              0.1312     0.1491     0.1682     0.1884     0.2098
              0.2323     0.2561     0.2810     0.3071     0.3338
              0.3604     0.3871     0.4137     0.4404     0.4670
              0.4937     0.5203     0.5470     0.5736     0.6003
              0.6269     0.6536     0.6802     0.7069     0.7335
              0.7602     0.7868     0.8135     0.8401     0.8668
              0.8934     0.9201     0.9467     0.9734     1.0000
  Hrad:
              0.0139     0.0278     0.0418     0.0557     0.0696
              0.0835     0.0963     0.1080     0.1202     0.1329
              0.1459     0.1591     0.1724     0.1858     0.1994
              0.2130     0.2267     0.2404     0.2542     0.2680
              0.2818     0.2957     0.3095     0.3238     0.3512
              0.3784     0.4055     0.4326     0.4595     0.4863
              0.5130     0.5396     0.5660     0.5924     0.6187
              0.6448     0.6708     0.6968     0.7226     0.7483
              0.7740     0.7995     0.8249     0.8502     0.8754
              0.9005     0.9256     0.9505     0.9753     1.0000
  Width:
              0.0355     0.0711     0.1066     0.1422     0.1777
              0.2132     0.2520     0.2961     0.3402     0.3842
              0.4283     0.4724     0.5164     0.5605     0.6046
              0.6487     0.6927     0.7368     0.7809     0.8249
              0.8690     0.9131     0.9572     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
```

Transect XS-L-Pipe - (25)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (30)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (31)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754

```
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (33)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (34)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
```

0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338

0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487

0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (45)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (46)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (55)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (57)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483

0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (60)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (61)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (74)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (75)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (79)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (8)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (80)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (84)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (85)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (89)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187

0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (90)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680

0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (97)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (99)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

```
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000


**************************        Volume         Depth
Runoff Quantity Continuity       acre-ft        inches
**************************     ---------       -------
Total Precipitation ......       233.092         4.793
Surface Runoff ...........        10.873         0.224
Continuity Error (%) .....        -0.001


**************************        Volume        Volume
Flow Routing Continuity          acre-ft      Mgallons
**************************     ---------     ---------
External Inflow ..........         0.000         0.000
External Outflow .........       143.808        46.862
Initial Stored Volume ....         0.007         0.002
Final Stored Volume ......        13.828         4.506
Continuity Error (%) .....        -0.409


*****************************************
Composite Curve Number Computations Report
*****************************************

-------------
Subbasin 1
-------------
                                                        Area          Soil
Soil/Surface Description                              (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                      37.40            -        74.50
Composite Area & Weighted CN                           37.40                     74.50

-------------
Subbasin 2
-------------
                                                        Area          Soil
Soil/Surface Description                              (acres)        Group          CN
-----------------------------------------------------------------------------------------
-                                                      37.87            -        73.80
Composite Area & Weighted CN                           37.87                     73.80
```

Subbasin 3

Soil/Surface Description	Area (acres)	Soil Group	CN
-	15.15	-	75.20
Composite Area & Weighted CN	15.15		75.20

Subbasin 4

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.51	-	73.95
Composite Area & Weighted CN	19.51		73.95

Subbasin 5

Soil/Surface Description	Area (acres)	Soil Group	CN
-	62.47	-	76.60
Composite Area & Weighted CN	62.47		76.60

Subbasin 6

Soil/Surface Description	Area (acres)	Soil Group	CN
-	32.34	-	78.00
Composite Area & Weighted CN	32.34		78.00

Subbasin 7

Soil/Surface Description	Area (acres)	Soil Group	CN
-	23.74	-	74.60
Composite Area & Weighted CN	23.74		74.60

Subbasin 8

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44
Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17

Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80
Composite Area & Weighted CN	3.81		66.80

Subbasin 20

Soil/Surface Description	Area (acres)	Soil Group	CN
-	63.62	-	75.00
Composite Area & Weighted CN	63.62		75.00

Subbasin 21

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.05	-	75.20
Composite Area & Weighted CN	19.05		75.20

Subbasin 22

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.50	-	75.74
Composite Area & Weighted CN	8.50		75.74

Subbasin 23

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.60	-	76.95
Composite Area & Weighted CN	4.60		76.95

Subbasin 24

Soil/Surface Description	Area (acres)	Soil Group	CN
-	33.33	-	75.29
Composite Area & Weighted CN	33.33		75.29

Subbasin 25

Soil/Surface Description	Area (acres)	Soil Group	CN
-	4.00	-	66.40
Composite Area & Weighted CN	4.00		66.40

Subbasin 26

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.36	-	72.00
Composite Area & Weighted CN	5.36		72.00

****
SCS TR-55 Time of Concentration Computations Report
****

Sheet Flow Equation

```
Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))
```

Where:

Tc = Time of Concentration (hrs)
n = Manning's Roughness
Lf = Flow Length (ft)
P = 2 yr, 24 hr Rainfall (inches)
Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation

```
V  = 16.1345 * (Sf^0.5) (unpaved surface)
V  = 20.3282 * (Sf^0.5) (paved surface)
V  = 15.0 * (Sf^0.5) (grassed waterway surface)
V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
V  = 7.0 * (Sf^0.5) (short grass pasture surface)
V  = 5.0 * (Sf^0.5) (woodland surface)
V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
Tc = (Lf / V) / (3600 sec/hr)
```

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
V = Velocity (ft/sec)
Sf = Slope (ft/ft)

Channel Flow Equation

```
V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
R  = Aq / Wp
Tc = (Lf / V) / (3600 sec/hr)
```

Where:

Tc = Time of Concentration (hrs)
Lf = Flow Length (ft)
R = Hydraulic Radius (ft)
Aq = Flow Area (ft^2)

```
          Wp = Wetted Perimeter (ft)
          V  = Velocity (ft/sec)
          Sf = Slope (ft/ft)
          n  = Manning's Roughness

  -------------
  Subbasin 1
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.87                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             38.63                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        850.00              447.00
0.00
          Slope (%):                                 0.39                0.63
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.56                0.71
0.00
          Computed Flow Time (minutes):             25.30               10.49
0.00

==============================================================================================
          Total TOC (minutes):                      74.42

==============================================================================================


  -------------
  Subbasin 2
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             50.97                0.00
0.00
```

```
  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        658.00             1428.00
0.00
          Slope (%):                                 0.32                0.36
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.51                0.54
0.00
          Computed Flow Time (minutes):             21.50               44.07
0.00

=============================================================================================
          Total TOC (minutes):                     116.54

=============================================================================================


  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.05                0.00
0.00
          Computed Flow Time (minutes):             91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        685.00              906.00
0.00
          Slope (%):                                 0.57                0.67
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.68                0.74
0.00
          Computed Flow Time (minutes):             16.79               20.41
0.00

=============================================================================================
          Total TOC (minutes):                     128.79

=============================================================================================


  -------------
  Subbasin 4
  -------------
```

```
  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        899.00              190.00
0.00
          Slope (%):                                 0.66                0.26
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.73                0.46
0.00
          Computed Flow Time (minutes):             20.53                6.88
0.00

=============================================================================================
          Total TOC (minutes):                      81.88

=============================================================================================


  -------------
  Subbasin 5
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.15                0.00
0.00
          Computed Flow Time (minutes):             32.51                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        284.00             1637.00
0.00
          Slope (%):                                 0.46                0.29
```

```
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.61                0.48
0.00
          Computed Flow Time (minutes):               7.76               56.84
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
          Flow Length (ft):                         231.00                0.00
0.00
          Channel Slope (%):                          0.43                0.00
0.00
          Cross Section Area (ft²):                   0.75                0.00
0.00
          Wetted Perimeter (ft):                      3.16                0.00
0.00
          Velocity (ft/sec):                          2.09                0.00
0.00
          Computed Flow Time (minutes):               1.84                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       98.95

==============================================================================================


  -------------
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1029.00              200.00
0.00
          Slope (%):                                  0.78                0.80
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.79                0.80
0.00
          Computed Flow Time (minutes):              21.71                4.17
```

```
0.00

==========================================================================================
          Total TOC (minutes):                      52.35

==========================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        620.00                0.00
0.00
          Slope (%):                                 0.53                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.66                0.00
0.00
          Computed Flow Time (minutes):             15.66                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      70.13

==========================================================================================


  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.11                0.00
```

```
0.00
          Computed Flow Time (minutes):              45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         820.00              326.00
0.00
          Slope (%):                                  0.30                0.40
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.50                1.02
0.00
          Computed Flow Time (minutes):              27.33                5.33
0.00

=============================================================================================
          Total TOC (minutes):                       78.43

=============================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         180.00                0.00
0.00
          Slope (%):                                  1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         198.00              264.00
300.00
          Slope (%):                                  0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                          1.07                0.58
0.23
          Computed Flow Time (minutes):               3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
```

```
          Flow Length (ft):                          25.00                0.00
0.00
          Channel Slope (%):                          0.80                0.00
0.00
          Cross Section Area (ft²):                   0.79                0.00
0.00
          Wetted Perimeter (ft):                      1.00                0.00
0.00
          Velocity (ft/sec):                          4.73                0.00
0.00
          Computed Flow Time (minutes):               0.09                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       49.30

==========================================================================================


  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.08                0.00
0.00
          Computed Flow Time (minutes):              61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1190.00                0.00
0.00
          Slope (%):                                  0.23                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.43                0.00
0.00
          Computed Flow Time (minutes):              46.12                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      107.99

==========================================================================================


  --------------
  Subbasin 11
  --------------

          User-Defined TOC override (minutes):     89.93
```

```
  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.83                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        866.00                0.00
0.00
          Slope (%):                                 0.48                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.63                0.00
0.00
          Computed Flow Time (minutes):             22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.04                0.00
0.00
          Flow Length (ft):                        633.00                0.00
0.00
          Channel Slope (%):                         0.54                0.00
0.00
          Cross Section Area (ft²):                 20.00                0.00
0.00
          Wetted Perimeter (ft):                    40.05                0.00
0.00
          Velocity (ft/sec):                         1.72                0.00
0.00
          Computed Flow Time (minutes):              6.14                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      68.27

==============================================================================================


  --------------
  Subbasin 13
  --------------

  Sheet Flow Computations
  -----------------------
```

```
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        238.00                0.00
0.00
          Slope (%):                                 1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.19                0.00
0.00
          Computed Flow Time (minutes):             21.25                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        640.00                0.00
0.00
          Slope (%):                                 0.52                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.65                0.00
0.00
          Computed Flow Time (minutes):             16.41                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      37.66

==========================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        176.00              640.00
0.00
          Slope (%):                                 2.39                0.39
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
```

```
          Velocity (ft/sec):                          1.39                0.56
0.00
          Computed Flow Time (minutes):               2.11               19.05
0.00

==========================================================================================
          Total TOC (minutes):                       72.36

==========================================================================================


  --------------
  Subbasin 15
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.16                0.00
0.00
          Computed Flow Time (minutes):             31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        112.00                0.00
0.00
          Slope (%):                                 1.88                0.00
0.00
          Surface Type:                     Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.23                0.00
0.00
          Computed Flow Time (minutes):              1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.04                0.00
0.00
          Flow Length (ft):                        490.00                0.00
0.00
          Channel Slope (%):                         0.36                0.00
0.00
          Cross Section Area (ft²):                 13.00                0.00
0.00
          Wetted Perimeter (ft):                    26.08                0.00
0.00
          Velocity (ft/sec):                         1.40                0.00
0.00
          Computed Flow Time (minutes):              5.84                0.00
0.00

==========================================================================================
```

```
          Total TOC (minutes):                        38.64

==========================================================================================


  --------------
  Subbasin 16
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.40                0.17
0.00
          Flow Length (ft):                        150.00              150.00
0.00
          Slope (%):                                 0.67                1.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                2.85
0.00
          Velocity (ft/sec):                         0.05                0.12
0.00
          Computed Flow Time (minutes):             48.84               20.94
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1468.00                0.00
0.00
          Slope (%):                                 0.61                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.70                0.00
0.00
          Computed Flow Time (minutes):             34.95                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       104.74

==========================================================================================


  --------------
  Subbasin 17
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.17                0.00
0.00
          Computed Flow Time (minutes):             30.01                0.00
0.00
```

```
  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        490.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                     Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.07                0.00
0.00
          Computed Flow Time (minutes):              7.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      37.65

==============================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1220.00                0.00
0.00
          Slope (%):                                 0.86                0.00
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                         1.39                0.00
0.00
          Computed Flow Time (minutes):             14.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      42.68

==============================================================================================


  --------------
  Subbasin 19
  --------------
```

```
  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):             23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        115.00                0.00
0.00
          Slope (%):                                 3.48                0.00
0.00
          Surface Type:                            Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                         3.01                0.00
0.00
          Computed Flow Time (minutes):              0.64                0.00
0.00

=============================================================================================
          Total TOC (minutes):                      23.88

=============================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1118.00             1574.00
387.00
          Slope (%):                                 0.87                0.40
```

```
0.52
          Surface Type:                      Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                          0.84                0.57
0.65
          Computed Flow Time (minutes):              22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         610.00                0.00
0.00
          Channel Slope (%):                          0.33                0.00
0.00
          Cross Section Area (ft²):                  10.00                0.00
0.00
          Wetted Perimeter (ft):                     20.10                0.00
0.00
          Velocity (ft/sec):                          1.34                0.00
0.00
          Computed Flow Time (minutes):               7.59                0.00
0.00

==================================================================================================
          Total TOC (minutes):                      142.31

==================================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         507.00              670.00
0.00
          Slope (%):                                  0.87                0.90
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.84                0.85
0.00
          Computed Flow Time (minutes):              10.06               13.14
```

```
0.00

==========================================================================================
          Total TOC (minutes):                      57.10

==========================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        233.00                0.00
0.00
          Slope (%):                                 3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):              17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        483.00              660.00
0.00
          Slope (%):                                 1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                         1.74                0.73
0.00
          Computed Flow Time (minutes):              4.63               15.07
0.00

==========================================================================================
          Total TOC (minutes):                      37.05

==========================================================================================


  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.21                0.00
```

```
0.00
          Computed Flow Time (minutes):              23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         562.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               8.75                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       32.05

==============================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==============================================================================================
          Total TOC (minutes):                      105.31

==============================================================================================
```

```
  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        255.00                0.00
0.00
          Slope (%):                                 2.04                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.20                0.00
0.00
          Computed Flow Time (minutes):             21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        175.00              275.00
0.00
          Slope (%):                                 0.17                2.36
0.00
          Surface Type:                   Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                         0.62                1.08
0.00
          Computed Flow Time (minutes):              4.70                4.24
0.00

==============================================================================================
          Total TOC (minutes):                      30.73

==============================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
```

Flow Length (ft):	378.00	0.00	0.00
Slope (%):	2.43	0.00	0.00
Surface Type:	Straight rows	Unpaved	Unpaved
Velocity (ft/sec):	1.40	0.00	0.00
Computed Flow Time (minutes):	4.50	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.15	0.00	0.00
Flow Length (ft):	606.00	0.00	0.00
Channel Slope (%):	0.99	0.00	0.00
Cross Section Area (ft²):	31.25	0.00	0.00
Wetted Perimeter (ft):	25.50	0.00	0.00
Velocity (ft/sec):	1.13	0.00	0.00
Computed Flow Time (minutes):	8.92	0.00	0.00

==========

Total TOC (minutes): 50.91

==========

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	hh:mm:ss
1	4.73	2.19	38.08	74.500	0	01:14:25
2	4.73	2.13	38.56	73.800	0	01:56:32
3	4.73	2.25	10.48	75.200	0	02:08:47
4	4.73	2.15	18.08	73.950	0	01:21:52
5	4.73	2.37	55.90	76.600	0	01:38:57
6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18
21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03

23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	Time of Max Occurrence hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
Jun-01	0.70	1.18	821.38	0	14:05	0	0	0:00:00
Jun-04	0.29	1.28	837.28	0	13:22	0	0	0:00:00
Jun-06	0.21	0.85	833.55	0	14:38	0	0	0:00:00
Jun-12	0.26	1.85	835.55	0	13:04	0	0	0:00:00
Jun-15	0.26	1.21	832.51	0	13:20	0	0	0:00:00
Jun-19	3.42	4.80	827.30	0	00:37	0.07	1	0:00:00
Jun-22	0.91	1.54	819.72	0	15:10	0	0	0:00:00
Jun-24	0.27	0.95	821.95	0	15:38	0	0	0:00:00
Jun-26	0.28	1.45	823.85	0	15:33	0	0	0:00:00
Jun-27	0.74	1.26	818.26	0	15:22	0	0	0:00:00
Jun-28	0.15	0.68	820.68	0	13:05	0	0	0:00:00
Jun-29	1.27	2.39	807.19	0	13:42	0	0	0:00:00
Jun-30	0.59	1.69	807.19	0	13:42	0	0	0:00:00
Jun-32	1.20	2.45	802.65	0	13:40	0	0	0:00:00
Jun-35	0.22	0.92	800.14	0	13:03	0	0	0:00:00
Jun-38	0.12	0.72	810.52	0	12:25	0	0	0:00:00
Jun-39	1.16	2.12	808.62	0	15:41	0	0	0:00:00
Jun-44	0.14	0.78	833.18	0	13:08	0	0	0:00:00
Jun-45	0.13	0.74	798.74	0	12:25	0	0	0:00:00
Jun-46	0.22	0.94	798.69	0	12:29	0	0	0:00:00
Jun-47	0.19	0.85	797.85	0	12:27	0	0	0:00:00
Jun-54	0.31	1.87	835.27	0	13:04	0	0	0:00:00
Jun-56	0.09	0.45	838.25	0	12:48	0	0	0:00:00
Jun-58	1.22	2.50	797.90	0	13:42	0	0	0:00:00
Jun-59	2.84	5.81	828.91	0	01:15	0	0	0:00:00
Jun-60	0.95	2.00	827.30	0	01:01	0	0	0:00:00
Structure - (10)	1.01	2.74	834.07	0	12:35	0	0	0:00:00
Structure - (11)	2.10	2.51	796.79	0	13:40	0	0	0:00:00
Structure - (9)	1.02	2.73	834.20	0	12:35	0	0	0:00:00
Jun-34	1.20	2.44	793.64	0	13:42	0	0	0:00:00
Out-01	0.19	0.83	797.33	0	12:27	0	0	0:00:00
Out-1Pipe - (3)	0.92	0.98	793.78	0	13:40	0	0	0:00:00
FD1	3.86	5.26	803.84	0	13:40	0	0	0:00:00
Jun-02	1.54	2.52	844.06	0	13:04	0	0	0:00:00
Jun-20	0.04	0.25	831.41	0	12:40	0	0	0:00:00
Jun-51	5.24	8.74	835.97	0	12:58	0	0	0:00:00
Out-1Pipe - (57)	3.27	6.18	824.27	0	12:35	0	0	0:00:00
Structure - (56)	3.44	5.68	826.55	0	14:52	0	0	0:00:00
Structure - (70)	1.63	4.47	819.72	0	15:10	0	0	0:00:00
Structure - (94)	1.07	3.02	832.62	0	12:35	0	0	0:00:00
ST1	1.36	3.38	834.64	0	14:26	0	0	0:00:00
ST10	0.32	1.97	824.77	0	14:58	0	0	0:00:00
ST11	1.60	3.86	825.86	0	14:03	8.96	96	0:00:00
ST12	0.14	1.11	839.11	0	12:47	0	0	0:00:00
ST2	0.21	0.96	837.36	0	12:58	0	0	0:00:00
ST3	0.33	1.39	807.19	0	13:42	0	0	0:00:00
ST4	0.22	1.54	811.74	0	12:25	0	0	0:00:00
ST5	0.57	2.49	823.79	0	15:35	0	0	0:00:00
ST6	0.22	1.62	845.72	0	12:53	0	0	0:00:00
ST7	0.24	1.91	835.71	0	13:03	0	0	0:00:00

ST8	0.13	1.11	833.91	0	13:06	0	0	0:00:00
ST9	3.04	3.63	826.52	0	13:35	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	79.23	0	14:03	0.00		
Jun-04	JUNCTION	48.83	81.61	0	13:10	0.00		
Jun-06	JUNCTION	0.00	42.70	0	14:26	0.00		
Jun-12	JUNCTION	0.00	26.04	0	13:03	0.00		
Jun-15	JUNCTION	0.00	44.89	0	13:03	0.00		
Jun-19	JUNCTION	0.00	84.73	0	13:34	8.99	0	00:37
Jun-22	JUNCTION	0.00	128.05	0	19:05	0.00		
Jun-24	JUNCTION	0.00	50.21	0	15:35	0.00		
Jun-26	JUNCTION	0.00	53.63	0	14:58	0.00		
Jun-27	JUNCTION	20.76	111.55	0	15:12	0.00		
Jun-28	JUNCTION	20.67	20.67	0	13:04	0.00		
Jun-29	JUNCTION	40.38	144.41	0	13:40	0.00		
Jun-30	JUNCTION	0.00	5.42	0	12:16	0.00		
Jun-32	JUNCTION	0.00	149.24	0	13:40	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	0.00		
Jun-38	JUNCTION	0.00	22.50	0	12:25	0.00		
Jun-39	JUNCTION	0.00	112.00	0	15:22	0.00		
Jun-44	JUNCTION	0.00	25.98	0	13:06	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.00		
Jun-46	JUNCTION	0.00	34.49	0	12:25	0.00		
Jun-47	JUNCTION	5.05	38.40	0	12:25	0.00		
Jun-54	JUNCTION	0.00	26.03	0	13:03	0.00		
Jun-56	JUNCTION	0.00	7.25	0	12:47	0.00		
Jun-58	JUNCTION	6.45	150.59	0	13:40	0.00		
Jun-59	JUNCTION	73.28	393.36	1	19:21	0.00		
Jun-60	JUNCTION	0.00	252.00	0	00:57	0.00		
Structure - (10)	JUNCTION	0.00	0.75	0	11:34	0.00		
Structure - (11)	JUNCTION	0.00	6.40	0	13:40	0.00		
Structure - (9)	JUNCTION	0.00	0.77	0	11:33	0.00		
Jun-34	OUTFALL	0.00	150.56	0	13:42	0.00		
Out-01	OUTFALL	0.00	38.26	0	12:27	0.00		
Out-1Pipe - (3)	OUTFALL	0.00	6.40	0	13:40	0.00		
FD1	DIVIDER	24.17	155.66	0	13:39	0.00		
Jun-02	DIVIDER	0.00	36.38	0	12:53	0.00		
Jun-20	DIVIDER	15.31	15.31	0	12:40	0.00		
Jun-51	DIVIDER	0.00	27.19	0	12:58	0.00		
Out-1Pipe - (57)	DIVIDER	48.83	48.83	0	12:30	0.00		
Structure - (56)	DIVIDER	55.81	62.39	0	14:17	0.00		
Structure - (70)	DIVIDER	14.63	19.00	0	12:30	0.00		
Structure - (94)	DIVIDER	24.01	24.64	0	12:35	0.00		
ST1	STORAGE	18.06	90.77	0	13:17	0.00		
ST10	STORAGE	0.00	53.99	0	14:52	0.00		
ST11	STORAGE	0.00	241.48	0	00:37	26.72	0	13:23
ST12	STORAGE	7.40	7.40	0	12:40	0.00		
ST2	STORAGE	21.92	29.13	0	12:45	0.00		
ST3	STORAGE	5.78	5.78	0	12:15	0.00		
ST4	STORAGE	22.54	22.54	0	12:25	0.00		
ST5	STORAGE	0.00	53.70	0	15:06	0.00		
ST6	STORAGE	38.04	38.04	0	12:45	0.00		
ST7	STORAGE	0.00	26.44	0	12:58	0.00		
ST8	STORAGE	0.00	26.02	0	13:05	0.00		
ST9	STORAGE	0.00	1808.02	0	00:00	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days hh:mm
Structure - (15)	0.18	834.81	0.01	0 12:09

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
Structure - (15)	0.06	0.00	0.06	0.00	100.00	0.152	156

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded Volume days hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
ST1	372.328	98	0 14:26	125.491	33	43.95	36.31	14:25:00	75.204
ST10	1.024	2	0 14:58	0.113	0	53.63	0.28	14:55:00	0.107
ST11	19.028	100	0 13:23	3.724	20	79.23	10.55	14:00:00	2.219
ST12	0.905	18	0 12:47	0.063	1	7.25	1.24	12:45:00	0.117
ST2	15.048	93	0 12:58	1.919	12	27.19	8.65	12:55:00	3.770
ST3	2.341	5	0 13:42	0.354	1	5.42			

```
1.50      13:40:00        0.453
  ST4                      0.343          2       0  12:25      0.031         0         22.50
0.15      12:25:00        0.043
  ST5                      7.267         97       0  15:35      0.509         7         50.21
5.99      15:35:00        0.729
  ST6                      7.691         42       0  12:53      0.341         2         36.38
6.07      12:50:00        0.410
  ST7                      3.129         10       0  13:03      0.183         1         26.04
1.29      13:00:00        0.162
  ST8                      0.690         19       0  13:06      0.049         1         25.98
0.41      13:05:00        0.090
  ST9                    470.867         79       0  13:35    342.721        57        400.57
186.38       0:00:00      175.203


  ************************
  Outfall Loading Summary
  ************************

  ----------------------------------------------
  Outfall Node ID        Flow   Average      Peak
                   Frequency      Flow    Inflow
                         (%)       cfs       cfs
  ----------------------------------------------
  Jun-34                97.24     40.33    150.56
  Out-01                49.27      9.39     38.26
  Out-1Pipe - (3)       98.03      5.93      6.40
  ----------------------------------------------
  System                81.52     55.65    183.41


  *****************
  Link Flow Summary
  *****************


-------------------------------------------------------------------------------------------------
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  Link ID              Element       Time of   Maximum  Length   Peak Flow      Design  Ratio of
Ratio of       Total  Reported
                       Type        Peak Flow  Velocity  Factor      during        Flow   Maximum
Maximum        Time  Condition
                                  Occurrence  Attained            Analysis    Capacity   /Design
Flow  Surcharged
                                  days hh:mm    ft/sec                 cfs         cfs      Flow
Depth     minutes

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-------------------------------
  166thEastofOlio      CONDUIT      0  14:03      9.47    1.00       79.23      313.10      0.25
0.70           0  Calculated
  166thWestofDurbin    CONDUIT      0  13:06      3.05    1.00       25.98      225.74      0.12
0.47           0  Calculated
  DurbinNorthofSR38    CONDUIT      0  14:26      4.45    1.00       42.70      285.88      0.15
0.64           0  Calculated
  DurbinSouthofSR38    CONDUIT      0  13:03      2.89    1.00       26.04       43.09      0.60
1.00          57  SURCHARGED
  Link-09              CHANNEL      0  13:22      2.26    1.00       77.40      273.64      0.28
0.61           0  Calculated
  Link-10              CHANNEL      0  13:04      1.08    1.00       33.52      145.56      0.23
0.70           0  Calculated
  Link-100             CONDUIT      0  13:40      3.62    1.00        6.40        5.07      1.26
1.00        2797  SURCHARGED
  Link-101             CONDUIT      0  12:40      3.67    1.00        0.71       12.18      0.06
0.58           0  Calculated
  Link-102             CHANNEL      0  12:48      0.78    1.00        7.24       55.39      0.13
0.71           0  Calculated
```

Link-104	CHANNEL	0	13:42	4.66	1.00	150.56	915.82	0.16	0.49	0	Calculated
Link-107	CONDUIT	0	12:21	1.70	1.00	0.86	0.80	1.08	1.00	106	SURCHARGED
Link-108	CHANNEL	0	00:00	14.36	1.00	1751.38	393.58	4.45	1.00	2852	FLOODED
Link-109	CHANNEL	0	00:57	17.57	1.00	252.00	189.72	1.33	0.94	0	> CAPACITY
Link-14	CHANNEL	0	13:03	1.81	1.00	26.03	153.53	0.17	0.47	0	Calculated
Link-15	CHANNEL	0	13:20	1.54	1.00	40.61	293.91	0.14	0.46	0	Calculated
Link-18	CHANNEL	0	00:37	5.33	1.00	241.48	396.98	0.61	0.82	0	Calculated
Link-22	CHANNEL	0	14:05	1.53	1.00	79.18	317.44	0.25	0.65	0	Calculated
Link-26	CHANNEL	0	15:07	0.87	1.00	49.98	285.66	0.17	0.86	0	Calculated
Link-27	CHANNEL	0	15:38	1.12	1.00	50.19	361.47	0.14	0.62	0	Calculated
Link-29	CHANNEL	0	15:14	1.76	1.00	105.04	455.66	0.23	0.56	0	Calculated
Link-30	CHANNEL	0	13:05	1.38	1.00	20.65	56.44	0.37	0.84	0	Calculated
Link-31	CHANNEL	0	15:22	1.57	1.00	110.34	376.40	0.29	0.81	0	Calculated
Link-32	CONDUIT	0	12:16	2.87	1.00	5.42	19.78	0.27	0.50	0	Calculated
Link-33	CHANNEL	0	13:42	4.40	1.00	144.39	443.50	0.33	0.66	0	Calculated
Link-34	CHANNEL	0	13:40	4.45	1.00	149.24	521.48	0.29	0.63	0	Calculated
Link-36	CHANNEL	0	13:41	4.60	1.00	149.24	703.52	0.21	0.55	0	Calculated
Link-39	CONDUIT	0	12:25	6.71	1.00	22.50	27.57	0.82	0.49	0	Calculated
Link-40	CHANNEL	0	15:40	4.23	1.00	108.74	403.12	0.27	0.63	0	Calculated
Link-41	CHANNEL	0	12:25	1.71	1.00	22.42	51.85	0.43	0.86	0	Calculated
Link-48	CHANNEL	0	14:38	0.99	1.00	42.19	188.30	0.22	0.78	0	Calculated
Link-51	CHANNEL	0	13:08	0.87	1.00	25.93	308.14	0.08	0.50	0	Calculated
Link-52	CHANNEL	0	12:17	2.62	1.00	5.42	67.77	0.08	0.90	0	Calculated
Link-53	CHANNEL	0	13:03	1.70	1.00	28.65	55.08	0.52	0.73	0	Calculated
Link-55	CHANNEL	0	12:28	1.39	1.00	34.29	130.35	0.26	0.59	0	Calculated
Link-56	CHANNEL	0	12:20	0.73	1.00	14.73	49.36	0.30	0.84	0	Calculated
Link-57	CHANNEL	0	12:27	1.76	1.00	38.26	184.07	0.21	0.56	0	Calculated
Link-67	CONDUIT	0	12:40	0.72	1.00	0.37	2.79	0.13	0.62	0	Calculated
Link-73	CONDUIT	1	02:11	3.25	1.00	3.99	3.10	1.29	1.00	2135	SURCHARGED
Link-75	CONDUIT	0	11:33	2.20	1.00	0.77	0.29	2.68	1.00	841	SURCHARGED
Link-76	CONDUIT	0	11:33	2.23	1.00	0.78	0.10	7.42	1.00	872	SURCHARGED
Link-78	CONDUIT	0	12:34	2.28	1.00	1.46	1.41	1.03	1.00	1857	SURCHARGED
Link-82	CHANNEL	0	12:58	1.80	1.00	26.44	193.05	0.14	0.73	0	Calculated
Link-83	CHANNEL	0	13:05	2.49	1.00	26.02	150.58	0.17			

```
0.37           0  Calculated
  Link-84              CHANNEL      0  12:33      0.02    1.00        0.06      131.24      0.00
0.74           0  Calculated
  Link-85              CHANNEL      0  12:58      1.55    1.00       27.19       50.19      0.54
0.75           0  Calculated
  Link-88              CHANNEL      0  12:35      2.07    1.00       23.02      505.67      0.05
0.44           0  Calculated
  Link-90              CHANNEL      0  12:40      0.70    1.00       14.23     3095.13      0.00
0.56           0  Calculated
  Link-91              CHANNEL      0  14:52      1.87    1.00       53.99      701.95      0.08
0.68           0  Calculated
  Link-92              CONDUIT      0  19:22      5.73    1.00        4.98        2.94      1.69
1.00         429  SURCHARGED
  Link-93              CHANNEL      0  12:30     15.68    1.00       42.50      414.19      0.10
0.74           0  Calculated
  Link-95              CHANNEL      0  19:05      4.82    1.00       95.06      822.87      0.12
0.52           0  Calculated
  Link-97              CONDUIT      0  12:12      3.22    1.00        5.51        5.51      1.00
1.00         426  SURCHARGED
  Link-98              CONDUIT      0  12:17      2.05    1.00        1.61        1.63      0.99
1.00         842  SURCHARGED
  Link-99              CONDUIT      0  11:35      2.16    1.00        0.75        0.71      1.06
1.00         841  SURCHARGED
  OlioNorthof166th     CONDUIT      0  15:35      6.82    1.00       50.21       96.96      0.52
0.74           0  Calculated
  OlioSouthof166th     CONDUIT      0  00:10     20.16    1.00      392.82      449.10      0.87
0.87           0  Calculated
  Pipe - (3)           CONDUIT      0  13:40      4.10    1.00        6.40        4.86      1.32
0.83           0  > CAPACITY
  Pipe - (7)           CONDUIT      0  11:34      2.28    1.00        0.75        0.83      0.91
1.00         841  SURCHARGED
  PrairieNorthofSR38   CONDUIT      0  12:53      4.45    1.00       36.38      149.68      0.24
0.79           0  Calculated
  SR38EastofDurbin     CONDUIT      0  12:47      3.99    1.00        7.25        8.86      0.82
0.73           0  Calculated
  SR38EastofOlio       CONDUIT      0  14:58      4.33    1.00       53.63      193.70      0.28
0.67           0  Calculated


  ********************************
  Highest Flow Instability Indexes
  ********************************
  Link Link-108 (13)
  Link OlioSouthof166th (3)
  Link Link-52 (2)
  Link Link-32 (2)
  Link Link-109 (2)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-06 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-19 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
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elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 107 : Initial water surface elevation defined for Junction Jun-32 is below junction invert elevation.
Assumed initial water surface elevation equal to invert elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-58 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-59 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Jun-60 is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 108 : Surcharge elevation defined for Junction Structure - (11) is below junction maximum elevation. Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion FD1 is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-20 is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-51 is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Out-1Pipe - (57) is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (56) is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (70) is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 113 : Surcharge elevation defined for Flow Diversion Structure - (94) is below flow diversion maximum elevation.
Assumed surcharge elevation equal to maximum elevation.
WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinNorthofSR38 is below downstream node invert elevation.
Assumed conduit outlet invert elevation equal to downstream node invert elevation.
WARNING 116 : Conduit inlet invert elevation defined for Conduit Link-101 is below upstream node invert elevation.
Assumed conduit inlet invert elevation equal to upstream node invert elevation.
WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-67 is below downstream node invert elevation.
Assumed conduit outlet invert elevation equal to downstream node invert

```
elevation.
  WARNING 005 : Minimum slope used for Conduit Link-76.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit Link-90 is below upstream node
invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-04.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-06.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-12.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-15.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-29.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-32.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-39.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-44.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-47.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-54.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-58.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node FD1.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-51.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Out-1Pipe - (57).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (56).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (70).
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (94).

  Analysis began on:  Mon Apr 20 08:10:35 2015
  Analysis ended on:  Mon Apr 20 08:10:42 2015
  Total elapsed time: 00:00:07
```

VSE

APPENDIX A

Alternative 4 Modeling Results

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

****
Project Description
****
File Name ..... Alt 4 042015.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 49
Number of links 51

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.10	823.20	21825.00	
Jun-04	JUNCTION	836.00	837.75	43650.00	
Jun-06	JUNCTION	831.26	834.70	10912.00	
Jun-07	JUNCTION	833.00	835.50	2728.00	
Jun-08	JUNCTION	832.81	834.81	10912.00	
Jun-12	JUNCTION	833.70	835.70	10912.00	
Jun-15	JUNCTION	828.54	833.00	43650.00	
Jun-19	JUNCTION	822.59	827.30	0.00	
Jun-22	JUNCTION	816.17	820.42	43650.00	
Jun-24	JUNCTION	818.00	823.00	21825.00	
Jun-26	JUNCTION	820.00	824.90	21825.00	
Jun-27	JUNCTION	813.70	818.00	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	800.99	807.50	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	797.81	804.20	0.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	801.97	808.25	43650.00	
Jun-41	JUNCTION	830.00	833.50	43650.00	
Jun-44	JUNCTION	830.00	833.65	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.50	10912.00	
Jun-54	JUNCTION	833.40	835.40	5456.00	
Jun-56	JUNCTION	837.80	843.80	0.00	
Jun-58	JUNCTION	794.30	800.20	0.00	
Structure - (10)	JUNCTION	831.33	834.66	0.00	
Structure - (11)	JUNCTION	794.28	799.22	0.00	
Structure - (9)	JUNCTION	831.47	835.15	0.00	
Jun-34	OUTFALL	791.20	795.95	0.00	
Out-01	OUTFALL	796.50	798.00	0.00	
Out-1Pipe - (3)	OUTFALL	792.80	794.30	0.00	
FD1	DIVIDER	798.58	802.83	43650.00	
Jun-02	DIVIDER	841.25	845.30	0.00	
Jun-05	DIVIDER	831.60	835.70	10912.00	
Jun-51	DIVIDER	827.23	836.50	10912.00	
ST10	STORAGE	820.80	826.80	71056.00	
ST11	STORAGE	820.45	824.90	12481.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	837.00	838.00	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	818.40	823.80	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.80	834.80	5000.00	
ST9	STORAGE	822.89	827.10	40442.00	

****
Inlet Summary
****

Inlet Catchbasin ID	Inlet Manufacturer	Inlet Ponded Area	Manufacturer Part Number	Initial Grate Invert Elevation	Inlet Location Rim Elevation	Number of Inlets Water Elevation	Clogging Factor

ft ft ft² ft %

Structure - (15) MAXIMUM CAPTURE CUTOFF N/A On Grade 1
831.58 834.80 - 831.58 0.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
Structure - (15)	0.0200	0.0500	0.0130	0.0620	2.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
166thEastofOlio	ST11	Jun-01	CONDUIT	28.3	1.2350	0.0130
166thWestofDurbin	ST8	Jun-44	CONDUIT	25.4	11.0106	0.0130
DurbinNorthofSR38	Jun-05	Jun-06	CONDUIT	27.3	1.2468	0.0130
DurbinSouthofSR38	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0150
Link-05	Jun-07	Jun-08	CONDUIT	32.0	0.5934	0.0130
Link-09	Jun-04	Jun-05	CHANNEL	555.8	0.5038	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.2987	0.0320
Link-100	FD1	Structure - (11)	CONDUIT	961.1	0.4474	0.0130
Link-102	Jun-56	ST2	CHANNEL	177.6	0.4505	0.0320
Link-104	Jun-58	Jun-34	CHANNEL	561.6	0.5520	0.0320
Link-105	Structure - (10)	Jun-44	CONDUIT	162.8	0.8170	0.0150
Link-106	Jun-41	ST10	CHANNEL	2068.3	0.4448	0.0320
Link-107	Jun-02	Jun-05	CONDUIT	2794.8	0.3453	0.0110
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.1665	0.0320
Link-15	Jun-15	ST9	CHANNEL	1673.8	0.3376	0.0320
Link-18	Jun-19	ST11	CHANNEL	678.7	0.3153	0.0320
Link-22	Jun-01	Jun-22	CHANNEL	586.2	0.6704	0.0320
Link-26	Jun-26	ST5	CHANNEL	437.1	0.3660	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	693.0	0.2641	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	610.3	0.4047	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	391.1	0.7671	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2344.9	0.5002	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	FD1	CHANNEL	468.1	0.5149	0.0320
Link-34	FD1	Jun-32	CHANNEL	139.0	0.5540	0.0320
Link-36	Jun-32	Jun-58	CHANNEL	635.2	0.5526	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.6	0.5116	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.9940	0.0320
Link-44	Jun-06	Jun-41	CHANNEL	273.4	0.4608	0.0320
Link-45	Jun-08	Jun-41	CHANNEL	269.6	1.0422	0.0320
Link-47	Jun-05	Jun-07	CHANNEL	75.1	0.2664	0.0320
Link-51	Jun-44	Jun-15	CHANNEL	432.6	0.3375	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	0.4826	0.0320
Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320
Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-75	Structure - (15)	Structure - (9)	CONDUIT	230.0	0.0478	0.0110
Link-76	Jun-51	Structure - (15)	CONDUIT	214.3	0.0100	0.0110
Link-82	Jun-51	ST7	CHANNEL	38.3	4.4375	0.0320
Link-83	Jun-54	ST8	CHANNEL	374.6	0.1602	0.0320

Link-84	Structure - (15)	Jun-54	CHANNEL	6.9	20.2605	0.0320
Link-85	ST2	Jun-51	CHANNEL	300.1	0.4998	0.0320
OlioNorthof166th	ST5	Jun-24	CONDUIT	26.6	1.5026	0.0130
OlioSouthof166th	ST9	Jun-19	CONDUIT	30.0	1.0013	0.0130
Pipe - (3)	Structure - (11)	Out-1Pipe - (3)	CONDUIT	361.1	0.4098	0.0130
Pipe - (7)	Structure - (9)	Structure - (10)	CONDUIT	35.1	0.3991	0.0110
PrairieNorthof	SR38ST6	Jun-02	CONDUIT	30.4	2.9566	0.0130
SR38EastofDurbin	ST12	Jun-56	CONDUIT	52.8	0.3790	0.0130
SR38EastofOlio	ST10	Jun-26	CONDUIT	52.2	1.5323	0.0130

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter ft	Width ft	No. of Barrels	Cross Sectional Area ft²	Full Flow Hydraulic Radius ft	Design Flow Capacity cfs
166thEastofOlio	RECT_CLOSED	3.00	3.00	1	9.00	0.75	94.38
166thWestofDurbin	RECT_CLOSED	2.00	3.00	1	6.00	0.60	161.89
DurbinNorthofSR38	RECT_CLOSED	3.00	7.00	1	21.00	1.05	276.90
DurbinSouthofSR38	RECT_CLOSED	2.00	4.00	1	8.00	0.67	35.61
Link-05	CIRCULAR	1.50	1.50	2	1.77	0.38	8.09
Link-09	TRAPEZOIDAL	1.75	53.50	1	47.69	0.89	145.37
Link-10	TRAPEZOIDAL	1.25	76.00	1	48.13	0.63	90.03
Link-100	CIRCULAR	1.50	1.50	1	1.77	0.38	7.03
Link-102	TRAPEZOIDAL	1.00	40.08	1	20.08	0.50	39.45
Link-104	TRAPEZOIDAL	4.75	23.00	1	64.13	2.54	411.89
Link-105	CIRCULAR	1.50	1.50	1	1.77	0.38	8.23
Link-106	TRAPEZOIDAL	3.00	16.00	1	30.00	1.72	133.51
Link-107	CIRCULAR	1.00	1.00	1	0.79	0.25	2.47
Link-14	TRAPEZOIDAL	1.50	61.00	1	46.50	0.76	73.47
Link-15	TRAPEZOIDAL	2.50	14.00	1	22.50	1.48	78.91
Link-18	TRAPEZOIDAL	2.75	15.00	1	26.13	1.60	93.30
Link-22	TRAPEZOIDAL	3.00	16.00	1	30.00	1.72	163.91
Link-26	TRAPEZOIDAL	3.50	18.00	1	38.50	1.96	169.35
Link-27	TRAPEZOIDAL	4.00	20.00	1	48.00	2.19	193.35
Link-29	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	274.18
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	54.63

```
  Link-31          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
304.83
  Link-32          CIRCULAR           3.00         3.00             1         7.07         0.75
19.78
  Link-33          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
309.25
  Link-34          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
320.80
  Link-36          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
320.39
  Link-39          HORIZ_ELLIPSE      2.33         3.50             1         6.91         0.71
27.57
  Link-40          TRAPEZOIDAL        4.25        21.00             1        53.13         2.31
308.27
  Link-41          TRAPEZOIDAL        1.75        16.75             1        15.53         0.90
67.23
  Link-44          TRAPEZOIDAL        3.00        16.00             1        30.00         1.72
135.89
  Link-45          TRAPEZOIDAL        2.00        43.00             1        46.00         1.06
227.40
  Link-47          TRIANGULAR         2.50         8.00             1        10.00         1.06
24.92
  Link-51          TRAPEZOIDAL        2.00        12.00             1        16.00         1.24
49.71
  Link-52          TRIANGULAR         2.00         8.00             1         8.00         0.89
23.96
  Link-53          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
55.08
  Link-55          TRAPEZOIDAL        1.50        91.00             1        69.00         0.76
130.35
  Link-56          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
49.36
  Link-57          TRAPEZOIDAL        1.50        91.00             1        69.00         0.76
184.07
  Link-75          CIRCULAR           1.00         1.00             1         0.79         0.25
0.92
  Link-76          CIRCULAR           1.00         1.00             1         0.79         0.25
0.42
  Link-82          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
193.05
  Link-83          TRAPEZOIDAL        2.00        41.00             1        42.00         1.02
79.07
  Link-84          TRIANGULAR         1.00        20.00             1        10.00         0.50
131.24
  Link-85          TRAPEZOIDAL        1.00        61.00             1        31.00         0.51
64.79
  OlioNorthof166th RECT_CLOSED        3.00         4.00             1        12.00         0.86
151.72
  OlioSouthof166th RECT_CLOSED        3.00         3.00             1         9.00         0.75
84.98
  Pipe - (3)       CIRCULAR           1.50         1.50             1         1.77         0.38
6.72
  Pipe - (7)       CIRCULAR           1.00         1.00             1         0.79         0.25
2.66
  PrairieNorthofSR38 RECT_CLOSED        1.50         5.00             1         7.50         0.58
102.16
  SR38EastofDurbin RECT_CLOSED        1.50         2.00             1         3.00         0.43
12.00
  SR38EastofOlio   RECT_CLOSED        3.00         3.00             1         9.00         0.75
105.12


  ****************
  Transect Summary
  ****************

  Transect XS-L-Pipe - (10)
```

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (25)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (30)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (31)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (33)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483

0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (34)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (45)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (46)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (55)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (57)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187

0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (60)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (61)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680

0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (74)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (75)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145

```
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (79)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (8)
Area:
```

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (80)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (84)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (85)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754

```
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (89)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (90)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
```

0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (97)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

```
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (99)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000


**************************        Volume         Depth
Runoff Quantity Continuity       acre-ft        inches
**************************     ---------       -------
Total Precipitation ......       233.092         4.793
Surface Runoff ...........        10.873         0.224
Continuity Error (%) .....        -0.001
```

```
**************************        Volume        Volume
Flow Routing Continuity          acre-ft      Mgallons
**************************     ---------     ---------
External Inflow ..........         0.000         0.000
External Outflow .........       108.378        35.317
Initial Stored Volume ....         0.612         0.199
Final Stored Volume ......         0.005         0.002
Continuity Error (%) .....         0.008


****************************************
Composite Curve Number Computations Report
****************************************

-------------
Subbasin 1
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    37.40            -       74.50
Composite Area & Weighted CN                         37.40                    74.50

-------------
Subbasin 2
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    37.87            -       73.80
Composite Area & Weighted CN                         37.87                    73.80

-------------
Subbasin 3
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    15.15            -       75.20
Composite Area & Weighted CN                         15.15                    75.20

-------------
Subbasin 4
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    19.51            -       73.95
Composite Area & Weighted CN                         19.51                    73.95

-------------
Subbasin 5
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    62.47            -       76.60
Composite Area & Weighted CN                         62.47                    76.60

-------------
Subbasin 6
-------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
```

-	32.34	-	78.00
Composite Area & Weighted CN	32.34		78.00

Subbasin 7

Soil/Surface Description	Area (acres)	Soil Group	CN
-	23.74	-	74.60
Composite Area & Weighted CN	23.74		74.60

Subbasin 8

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44
Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17
Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80
Composite Area & Weighted CN	3.81		66.80

Subbasin 20

Soil/Surface Description	Area (acres)	Soil Group	CN
-	63.62	-	75.00
Composite Area & Weighted CN	63.62		75.00

Subbasin 21

Soil/Surface Description	Area (acres)	Soil Group	CN

```
-------------------------------------------------------------------------------------
-                                                        19.05            -       75.20
Composite Area & Weighted CN                             19.05                    75.20

--------------
Subbasin 22
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         8.50            -       75.74
Composite Area & Weighted CN                              8.50                    75.74

--------------
Subbasin 23
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         4.60            -       76.95
Composite Area & Weighted CN                              4.60                    76.95

--------------
Subbasin 24
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                        33.33            -       75.29
Composite Area & Weighted CN                             33.33                    75.29

--------------
Subbasin 25
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         4.00            -       66.40
Composite Area & Weighted CN                              4.00                    66.40

--------------
Subbasin 26
--------------
                                                         Area          Soil
Soil/Surface Description                               (acres)        Group          CN
-------------------------------------------------------------------------------------
-                                                         5.36            -       72.00
Composite Area & Weighted CN                              5.36                    72.00


**************************************************
SCS TR-55 Time of Concentration Computations Report
**************************************************

Sheet Flow Equation
-------------------

        Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

        Where:

        Tc = Time of Concentration (hrs)
        n  = Manning's Roughness
        Lf = Flow Length (ft)
        P  = 2 yr, 24 hr Rainfall (inches)
        Sf = Slope (ft/ft)
```

```
Shallow Concentrated Flow Equation
----------------------------------

        V  = 16.1345 * (Sf^0.5) (unpaved surface)
        V  = 20.3282 * (Sf^0.5) (paved surface)
        V  = 15.0 * (Sf^0.5) (grassed waterway surface)
        V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
        V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
        V  = 7.0 * (Sf^0.5) (short grass pasture surface)
        V  = 5.0 * (Sf^0.5) (woodland surface)
        V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)

Channel Flow Equation
---------------------

        V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
        R  = Aq / Wp
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        R  = Hydraulic Radius (ft)
        Aq = Flow Area (ft²)
        Wp = Wetted Perimeter (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)
        n  = Manning's Roughness

-------------
Subbasin 1
-------------

Sheet Flow Computations
-----------------------
                                                Subarea A           Subarea B           Subarea
C
        Manning's Roughness:                         0.17                0.00
0.00
        Flow Length (ft):                          300.00                0.00
0.00
        Slope (%):                                   0.87                0.00
0.00
        2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
        Velocity (ft/sec):                           0.13                0.00
0.00
        Computed Flow Time (minutes):               38.63                0.00
0.00

Shallow Concentrated Flow Computations
--------------------------------------
                                                Subarea A           Subarea B           Subarea
C
        Flow Length (ft):                          850.00              447.00
0.00
        Slope (%):                                   0.39                0.63
0.00
```

```
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           0.56                0.71
0.00
          Computed Flow Time (minutes):               25.30               10.49
0.00

==========================================================================================
          Total TOC (minutes):                        74.42

==========================================================================================


  -------------
  Subbasin 2
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.10                0.00
0.00
          Computed Flow Time (minutes):               50.97                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          658.00             1428.00
0.00
          Slope (%):                                   0.32                0.36
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           0.51                0.54
0.00
          Computed Flow Time (minutes):               21.50               44.07
0.00

==========================================================================================
          Total TOC (minutes):                       116.54

==========================================================================================


  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
```

```
          Slope (%):                                  0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.05                0.00
0.00
          Computed Flow Time (minutes):              91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         685.00              906.00
0.00
          Slope (%):                                  0.57                0.67
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.68                0.74
0.00
          Computed Flow Time (minutes):              16.79               20.41
0.00

==================================================================================================
          Total TOC (minutes):                      128.79

==================================================================================================


  -------------
  Subbasin 4
  -------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         899.00              190.00
0.00
          Slope (%):                                  0.66                0.26
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.73                0.46
0.00
          Computed Flow Time (minutes):              20.53                6.88
0.00

==================================================================================================
```

```
          Total TOC (minutes):                        81.88
==========================================================================================


  -------------
  Subbasin 5
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              32.51                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         284.00             1737.00
0.00
          Slope (%):                                  0.46                0.29
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.61                0.48
0.00
          Computed Flow Time (minutes):               7.76               60.31
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
          Flow Length (ft):                         231.00                0.00
0.00
          Channel Slope (%):                          0.43                0.00
0.00
          Cross Section Area (ft²):                   0.75                0.00
0.00
          Wetted Perimeter (ft):                      3.16                0.00
0.00
          Velocity (ft/sec):                          2.09                0.00
0.00
          Computed Flow Time (minutes):               1.84                0.00
0.00
==========================================================================================
          Total TOC (minutes):                       102.42
==========================================================================================


  -------------
```

```
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.19                0.00
0.00
          Computed Flow Time (minutes):             26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1029.00              200.00
0.00
          Slope (%):                                 0.78                0.80
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.79                0.80
0.00
          Computed Flow Time (minutes):             21.71                4.17
0.00

==============================================================================================
          Total TOC (minutes):                      52.35

==============================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        620.00                0.00
```

```
0.00
          Slope (%):                                  0.53                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.66                0.00
0.00
          Computed Flow Time (minutes):              15.66                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       70.13

==============================================================================================


  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.11                0.00
0.00
          Computed Flow Time (minutes):              45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         820.00              326.00
0.00
          Slope (%):                                  0.30                0.40
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.50                1.02
0.00
          Computed Flow Time (minutes):              27.33                5.33
0.00

==============================================================================================
          Total TOC (minutes):                       78.43

==============================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
```

```
0.00
          Flow Length (ft):                        180.00                0.00
0.00
          Slope (%):                                 1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        198.00              264.00
300.00
          Slope (%):                                 0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                         1.07                0.58
0.23
          Computed Flow Time (minutes):              3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.02                0.00
0.00
          Flow Length (ft):                         25.00                0.00
0.00
          Channel Slope (%):                         0.80                0.00
0.00
          Cross Section Area (ft²):                  0.79                0.00
0.00
          Wetted Perimeter (ft):                     1.00                0.00
0.00
          Velocity (ft/sec):                         4.73                0.00
0.00
          Computed Flow Time (minutes):              0.09                0.00
0.00

==================================================================================================
          Total TOC (minutes):                      49.30

==================================================================================================


  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                 0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
```

```
0.00
          Velocity (ft/sec):                          0.08                0.00
0.00
          Computed Flow Time (minutes):              61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1190.00                0.00
0.00
          Slope (%):                                  0.23                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.43                0.00
0.00
          Computed Flow Time (minutes):              46.12                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      107.99

==============================================================================================


  --------------
  Subbasin 11
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.12                0.00
0.00
          Computed Flow Time (minutes):              41.28                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1985.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.68                0.00
0.00
          Computed Flow Time (minutes):              48.65                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       89.93

==============================================================================================
```

```
  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.83                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        866.00                0.00
0.00
          Slope (%):                                 0.48                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.63                0.00
0.00
          Computed Flow Time (minutes):             22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.04                0.00
0.00
          Flow Length (ft):                        633.00                0.00
0.00
          Channel Slope (%):                         0.54                0.00
0.00
          Cross Section Area (ft²):                 20.00                0.00
0.00
          Wetted Perimeter (ft):                    40.05                0.00
0.00
          Velocity (ft/sec):                         1.72                0.00
0.00
          Computed Flow Time (minutes):              6.14                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      68.27

==========================================================================================


  --------------
  Subbasin 13
  --------------
```

```
  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        238.00                0.00
0.00
          Slope (%):                                 1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.19                0.00
0.00
          Computed Flow Time (minutes):             21.25                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        640.00                0.00
0.00
          Slope (%):                                 0.52                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.65                0.00
0.00
          Computed Flow Time (minutes):             16.41                0.00
0.00

==================================================================================================
          Total TOC (minutes):                      37.66

==================================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.10                0.00
0.00
          Computed Flow Time (minutes):             51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        176.00              640.00
0.00
          Slope (%):                                 2.39                0.39
0.00
```

```
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                           1.39                0.56
0.00
          Computed Flow Time (minutes):                2.11               19.05
0.00

==========================================================================================
          Total TOC (minutes):                        72.36

==========================================================================================


  --------------
  Subbasin 15
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.17                0.00
0.00
          Flow Length (ft):                          300.00                0.00
0.00
          Slope (%):                                   1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                   2.85                0.00
0.00
          Velocity (ft/sec):                           0.16                0.00
0.00
          Computed Flow Time (minutes):               31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                          112.00                0.00
0.00
          Slope (%):                                   1.88                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                           1.23                0.00
0.00
          Computed Flow Time (minutes):                1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                         0.04                0.00
0.00
          Flow Length (ft):                          490.00                0.00
0.00
          Channel Slope (%):                           0.36                0.00
0.00
          Cross Section Area (ft²):                   13.00                0.00
0.00
          Wetted Perimeter (ft):                      26.08                0.00
0.00
          Velocity (ft/sec):                           1.40                0.00
0.00
          Computed Flow Time (minutes):                5.84                0.00
0.00
```

```
==========================================================================================
          Total TOC (minutes):                        38.64

==========================================================================================


  --------------
  Subbasin 16
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.40                0.17
0.00
          Flow Length (ft):                        150.00              150.00
0.00
          Slope (%):                                 0.67                1.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                2.85
0.00
          Velocity (ft/sec):                         0.05                0.12
0.00
          Computed Flow Time (minutes):             48.84               20.94
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1468.00                0.00
0.00
          Slope (%):                                 0.61                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.70                0.00
0.00
          Computed Flow Time (minutes):             34.95                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       104.74

==========================================================================================


  --------------
  Subbasin 17
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.17                0.00
0.00
```

```
          Computed Flow Time (minutes):              30.01                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         490.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               7.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       37.65

==============================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1220.00                0.00
0.00
          Slope (%):                                  0.86                0.00
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                          1.39                0.00
0.00
          Computed Flow Time (minutes):              14.63                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       42.68

==============================================================================================


  --------------
```

```
  Subbasin 19
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):             23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        115.00                0.00
0.00
          Slope (%):                                 3.48                0.00
0.00
          Surface Type:                            Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                         3.01                0.00
0.00
          Computed Flow Time (minutes):              0.64                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      23.88

==========================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1118.00             1574.00
```

```
387.00
          Slope (%):                                  0.87                0.40
0.52
          Surface Type:                       Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                          0.84                0.57
0.65
          Computed Flow Time (minutes):              22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         610.00                0.00
0.00
          Channel Slope (%):                          0.33                0.00
0.00
          Cross Section Area (ft²):                  10.00                0.00
0.00
          Wetted Perimeter (ft):                     20.10                0.00
0.00
          Velocity (ft/sec):                          1.34                0.00
0.00
          Computed Flow Time (minutes):               7.59                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      142.31

==============================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
0.00
          Computed Flow Time (minutes):              33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         507.00              670.00
0.00
          Slope (%):                                  0.87                0.90
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.84                0.85
```

```
0.00
          Computed Flow Time (minutes):              10.06               13.14
0.00

==========================================================================================
          Total TOC (minutes):                       57.10

==========================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        233.00                0.00
0.00
          Slope (%):                                 3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.22                0.00
0.00
          Computed Flow Time (minutes):              17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        483.00              660.00
0.00
          Slope (%):                                 1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                         1.74                0.73
0.00
          Computed Flow Time (minutes):              4.63               15.07
0.00

==========================================================================================
          Total TOC (minutes):                       37.05

==========================================================================================


  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
```

```
0.00
          Velocity (ft/sec):                          0.21                0.00
0.00
          Computed Flow Time (minutes):              23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         562.00                0.00
0.00
          Slope (%):                                  1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.07                0.00
0.00
          Computed Flow Time (minutes):               8.75                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       32.05

==============================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==============================================================================================
          Total TOC (minutes):                      105.31

==============================================================================================
```

```
  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        255.00                0.00
0.00
          Slope (%):                                 2.04                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.20                0.00
0.00
          Computed Flow Time (minutes):             21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        175.00              275.00
0.00
          Slope (%):                                 0.17                2.36
0.00
          Surface Type:                   Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                         0.62                1.08
0.00
          Computed Flow Time (minutes):              4.70                4.24
0.00

==================================================================================================
          Total TOC (minutes):                      30.73

==================================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.13                0.00
0.00
          Computed Flow Time (minutes):             37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
```

	Subarea A	Subarea B	Subarea C
Flow Length (ft):	378.00	0.00	0.00
Slope (%):	2.43	0.00	0.00
Surface Type:	Straight rows	Unpaved	Unpaved
Velocity (ft/sec):	1.40	0.00	0.00
Computed Flow Time (minutes):	4.50	0.00	0.00

Channel Flow Computations

	Subarea A	Subarea B	Subarea C
Manning's Roughness:	0.15	0.00	0.00
Flow Length (ft):	606.00	0.00	0.00
Channel Slope (%):	0.99	0.00	0.00
Cross Section Area (ft²):	31.25	0.00	0.00
Wetted Perimeter (ft):	25.50	0.00	0.00
Velocity (ft/sec):	1.13	0.00	0.00
Computed Flow Time (minutes):	8.92	0.00	0.00

==========

Total TOC (minutes): 50.91

==========

****
Subbasin Runoff Summary
****

Subbasin ID	Total Precip in	Total Runoff in	Peak Runoff cfs	Weighted Curve Number	Time of Concentration days	hh:mm:ss
1	4.73	2.19	38.08	74.500	0	01:14:25
2	4.73	2.13	38.56	73.800	0	01:56:32
3	4.73	2.25	10.48	75.200	0	02:08:47
4	4.73	2.15	18.08	73.950	0	01:21:52
5	4.73	2.37	54.36	76.600	0	01:42:25
6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18

21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03
23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
Jun-01	1.02	1.79	821.89	0	14:30	0	0	0:00:00
Jun-04	0.71	1.50	837.50	0	13:16	0	0	0:00:00
Jun-06	1.01	2.72	833.98	0	13:22	0	0	0:00:00
Jun-07	0.06	0.91	833.91	0	13:23	0	0	0:00:00
Jun-08	0.03	0.42	833.23	0	13:25	0	0	0:00:00
Jun-12	0.21	1.16	834.86	0	13:14	0	0	0:00:00
Jun-15	0.70	1.86	830.40	0	13:12	0	0	0:00:00
Jun-19	1.25	2.54	825.13	0	14:19	0	0	0:00:00
Jun-22	1.92	3.39	819.56	0	14:48	0	0	0:00:00
Jun-24	1.59	2.88	820.88	0	14:56	0	0	0:00:00
Jun-26	1.53	3.48	823.48	0	14:38	0	0	0:00:00
Jun-27	1.84	3.17	816.87	0	14:37	0	0	0:00:00
Jun-28	0.36	0.77	820.77	0	13:07	0	0	0:00:00
Jun-29	2.06	3.57	804.56	0	13:40	0	0	0:00:00
Jun-30	0.46	1.21	806.71	0	12:17	0	0	0:00:00
Jun-32	1.92	3.47	801.28	0	13:33	0	0	0:00:00
Jun-35	0.44	0.92	800.14	0	13:03	0	0	0:00:00
Jun-38	0.36	1.19	810.99	0	12:26	0	0	0:00:00
Jun-39	2.11	3.75	805.72	0	13:38	0	0	0:00:00
Jun-41	0.99	2.62	832.62	0	13:29	0	0	0:00:00
Jun-44	0.47	1.40	831.40	0	13:19	0	0	0:00:00
Jun-45	0.25	0.74	798.74	0	12:25	0	0	0:00:00
Jun-46	0.44	0.94	798.69	0	12:29	0	0	0:00:00
Jun-47	0.38	0.85	797.85	0	12:27	0	0	0:00:00
Jun-54	0.30	1.40	834.80	0	13:16	0	0	0:00:00
Jun-56	0.21	0.52	838.32	0	12:54	0	0	0:00:00
Jun-58	1.97	3.56	797.86	0	13:33	0	0	0:00:00
Structure - (10)	0.49	0.71	832.04	0	12:18	0	0	0:00:00
Structure - (11)	1.50	2.14	796.42	0	13:32	0	0	0:00:00
Structure - (9)	0.75	1.17	832.64	0	12:31	0	0	0:00:00
Jun-34	1.90	3.41	794.61	0	13:33	0	0	0:00:00
Out-01	0.37	0.83	797.33	0	12:27	0	0	0:00:00
Out-1Pipe - (3)	0.90	1.09	793.89	0	13:32	0	0	0:00:00
FD1	2.04	3.73	802.31	0	13:32	0	0	0:00:00
Jun-02	1.58	2.77	844.02	0	13:11	0	0	0:00:00
Jun-05	0.96	3.07	834.67	0	13:23	0	0	0:00:00
Jun-51	6.47	8.72	835.95	0	12:56	0	0	0:00:00
ST10	2.22	5.31	826.11	0	13:52	0	0	0:00:00
ST11	1.95	3.78	824.23	0	14:29	0	0	0:00:00
ST12	0.31	1.26	839.26	0	12:53	0	0	0:00:00
ST2	0.37	0.86	837.86	0	12:56	0	0	0:00:00
ST3	0.25	1.15	806.95	0	12:17	0	0	0:00:00
ST4	0.41	1.72	811.92	0	12:25	0	0	0:00:00
ST5	2.17	4.51	822.91	0	14:55	0	0	0:00:00
ST6	0.51	1.93	846.03	0	12:58	0	0	0:00:00
ST7	0.27	1.83	835.63	0	13:01	0	0	0:00:00
ST8	0.30	1.88	834.68	0	13:18	0	0	0:00:00
ST9	1.83	3.71	826.60	0	14:03	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	56.24	0	14:29	0.00		
Jun-04	JUNCTION	48.83	78.40	0	13:14	0.00		
Jun-06	JUNCTION	0.00	98.01	0	13:23	0.00		
Jun-07	JUNCTION	0.00	5.89	0	13:23	0.00		
Jun-08	JUNCTION	0.00	5.89	0	13:23	0.00		
Jun-12	JUNCTION	0.00	23.85	0	13:01	0.00		
Jun-15	JUNCTION	24.01	43.25	0	13:07	0.00		
Jun-19	JUNCTION	0.00	54.95	0	14:03	0.00		
Jun-22	JUNCTION	14.63	151.19	0	14:43	0.00		
Jun-24	JUNCTION	0.00	93.49	0	14:55	0.00		
Jun-26	JUNCTION	0.00	107.20	0	13:52	0.00		
Jun-27	JUNCTION	20.76	159.99	0	14:33	0.00		
Jun-28	JUNCTION	20.67	20.67	0	13:05	0.00		
Jun-29	JUNCTION	0.00	196.78	0	13:37	0.00		
Jun-30	JUNCTION	0.00	5.27	0	12:17	0.00		
Jun-32	JUNCTION	0.00	195.30	0	13:32	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	0.00		
Jun-38	JUNCTION	0.00	22.48	0	12:25	0.00		
Jun-39	JUNCTION	40.38	196.31	0	13:35	0.00		
Jun-41	JUNCTION	0.00	103.77	0	13:24	0.00		
Jun-44	JUNCTION	0.00	24.60	0	13:18	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.00		
Jun-46	JUNCTION	0.00	34.49	0	12:25	0.00		
Jun-47	JUNCTION	5.05	38.40	0	12:25	0.00		
Jun-54	JUNCTION	0.00	23.42	0	13:02	0.00		
Jun-56	JUNCTION	0.00	6.80	0	12:53	0.00		
Jun-58	JUNCTION	6.45	196.84	0	13:31	0.00		
Structure - (10)	JUNCTION	0.00	3.32	0	12:57	0.00		
Structure - (11)	JUNCTION	0.00	7.99	0	13:32	0.00		
Structure - (9)	JUNCTION	0.00	3.32	0	12:57	0.00		
Jun-34	OUTFALL	0.00	196.82	0	13:33	0.00		
Out-01	OUTFALL	0.00	38.27	0	12:27	0.00		
Out-1Pipe - (3)	OUTFALL	0.00	7.99	0	13:32	0.00		
FD1	DIVIDER	24.17	203.30	0	13:31	0.00		
Jun-02	DIVIDER	0.00	34.07	0	12:58	0.00		
Jun-05	DIVIDER	18.06	105.37	0	13:21	0.00		
Jun-51	DIVIDER	0.00	27.48	0	12:56	0.00		
ST10	STORAGE	54.36	145.77	0	13:27	0.00		
ST11	STORAGE	15.31	58.52	0	13:56	0.00		
ST12	STORAGE	7.40	7.40	0	12:40	0.00		
ST2	STORAGE	21.92	28.58	0	12:49	0.00		
ST3	STORAGE	5.78	5.78	0	12:15	0.00		
ST4	STORAGE	22.54	22.54	0	12:24	0.00		
ST5	STORAGE	48.83	112.04	0	13:54	0.00		
ST6	STORAGE	38.04	38.04	0	12:45	0.00		
ST7	STORAGE	0.00	24.16	0	12:56	0.00		
ST8	STORAGE	0.00	22.20	0	13:07	0.00		
ST9	STORAGE	73.28	114.40	0	13:00	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days hh:mm
Structure - (15)	0.01	834.80	0.00	0 12:57

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
Structure - (15)	0.00	0.00	0.00	0.00	100.00	0.000	0

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded days hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
ST10	193.359	63	0 13:52	32.445	11	107.20	40.98	13:50:00	5.972
ST11	36.869	56	0 14:29	9.793	15	56.24	10.12	14:25:00	2.422
ST12	1.937	38	0 12:53	0.171	3	6.80	2.56	12:50:00	0.191
ST2	12.010	74	0 12:56	2.929	18	27.48	7.73	12:55:00	3.305
ST3	1.293	3	0 12:17	0.114	0	5.27	0.87	12:15:00	0.133
ST4	0.443	2	0 12:25	0.058	0	22.48	0.17	12:25:00	0.043
ST5	131.529	56	0 14:55	33.281	14	93.49	31.45	0:00:00	6.168
ST6	15.787	87	0 12:58	1.258	7	34.07	8.87	12:55:00	0.701
ST7	2.773	9	0 13:01	0.229	1	23.85			

```
1.21      13:00:00        0.091
  ST8                      2.975          84       0  13:18      0.301         8         21.29
1.26      13:15:00        0.123
  ST9                    316.492          77       0  14:03    107.623        26         54.95
49.36      14:00:00       20.702


  ***********************
  Outfall Loading Summary
  ***********************

  ----------------------------------------------
  Outfall Node ID        Flow   Average      Peak
                   Frequency      Flow    Inflow
                         (%)       cfs       cfs
  ----------------------------------------------
  Jun-34               100.00     81.68    196.82
  Out-01                89.69      9.26     38.27
  Out-1Pipe - (3)       95.74      6.41      7.99
  ----------------------------------------------
  System                95.15     97.36    234.77


  *****************
  Link Flow Summary
  *****************


-------------------------------------------------------------------------------------------------------------
-------------------------------
  Link ID              Element       Time of   Maximum  Length   Peak Flow      Design  Ratio of
Ratio of       Total  Reported
                       Type        Peak Flow  Velocity  Factor      during        Flow   Maximum
Maximum        Time  Condition
                                  Occurrence  Attained            Analysis    Capacity   /Design
Flow  Surcharged
                                  days hh:mm    ft/sec                 cfs         cfs      Flow
Depth     minutes

-------------------------------------------------------------------------------------------------------------
-------------------------------
  166thEastofOlio      CONDUIT      0  14:29      7.82    1.00       56.24       94.38      0.60
0.80           0  Calculated
  166thWestofDurbin    CONDUIT      0  13:18      4.32    1.00       21.29      161.89      0.13
0.82           0  Calculated
  DurbinNorthofSR38    CONDUIT      0  13:23      4.90    1.00       98.01      276.90      0.35
0.95           0  Calculated
  DurbinSouthofSR38    CONDUIT      0  13:01      4.05    1.00       23.85       35.61      0.67
0.74           0  Calculated
  Link-05              CONDUIT      0  13:23      4.36    1.00        5.89       16.18      0.36
0.44           0  Calculated
  Link-09              CHANNEL      0  13:21      2.68    1.00       90.64      145.37      0.62
0.84           0  Calculated
  Link-10              CHANNEL      0  13:11      0.90    1.00       29.69       90.03      0.33
0.83           0  Calculated
  Link-100             CONDUIT      0  13:32      4.53    1.00        7.99        7.03      1.14
1.00         473  SURCHARGED
  Link-102             CHANNEL      0  12:54      0.79    1.00        6.79       39.45      0.17
0.69           0  Calculated
  Link-104             CHANNEL      0  13:33      5.15    1.00      196.82      411.89      0.48
0.73           0  Calculated
  Link-105             CONDUIT      0  12:57      5.12    1.00        3.32        8.23      0.40
0.69           0  Calculated
  Link-106             CHANNEL      0  13:28      3.69    1.00       99.65      133.51      0.75
0.94           0  Calculated
  Link-107             CONDUIT      0  12:17      4.33    1.00        2.82        2.47      1.14
1.00         245  SURCHARGED
```

Link-14	CHANNEL	0	13:02	0.85	1.00	23.42	73.47	0.32	0.85	0	Calculated
Link-15	CHANNEL	0	13:12	2.36	1.00	43.09	78.91	0.55	0.87	0	Calculated
Link-18	CHANNEL	0	14:07	2.25	1.00	54.72	93.30	0.59	0.96	0	Calculated
Link-22	CHANNEL	0	14:30	2.67	1.00	56.24	163.91	0.34	0.80	0	Calculated
Link-26	CHANNEL	0	13:54	2.86	1.00	104.04	169.35	0.61	1.00	0	Calculated
Link-27	CHANNEL	0	14:56	3.25	1.00	93.49	193.35	0.48	0.78	0	Calculated
Link-29	CHANNEL	0	14:45	4.36	1.00	151.11	274.18	0.55	0.77	0	Calculated
Link-30	CHANNEL	0	13:07	2.19	1.00	20.60	54.63	0.38	0.66	0	Calculated
Link-31	CHANNEL	0	14:37	4.35	1.00	159.94	304.83	0.52	0.81	0	Calculated
Link-32	CONDUIT	0	12:17	2.17	1.00	5.27	19.78	0.27	0.38	0	Calculated
Link-33	CHANNEL	0	13:38	4.78	1.00	196.75	309.25	0.64	0.86	0	Calculated
Link-34	CHANNEL	0	13:32	4.85	1.00	195.30	320.80	0.61	0.85	0	Calculated
Link-36	CHANNEL	0	13:33	5.04	1.00	195.29	320.39	0.61	0.83	0	Calculated
Link-39	CONDUIT	0	12:25	4.80	1.00	22.48	27.57	0.82	0.62	0	Calculated
Link-40	CHANNEL	0	13:38	4.73	1.00	196.18	308.27	0.64	0.86	0	Calculated
Link-41	CHANNEL	0	12:26	3.49	1.00	22.37	67.23	0.33	0.62	0	Calculated
Link-44	CHANNEL	0	13:23	4.04	1.00	98.11	135.89	0.72	0.88	0	Calculated
Link-45	CHANNEL	0	13:25	0.32	1.00	5.78	227.40	0.03	0.60	0	Calculated
Link-47	CHANNEL	0	13:23	2.94	1.00	5.89	24.92	0.24	0.48	0	Calculated
Link-51	CHANNEL	0	13:19	2.08	1.00	24.59	49.71	0.49	0.82	0	Calculated
Link-52	CHANNEL	0	12:17	2.75	1.00	5.27	23.96	0.22	0.49	0	Calculated
Link-53	CHANNEL	0	13:03	1.70	1.00	28.65	55.08	0.52	0.73	0	Calculated
Link-55	CHANNEL	0	12:28	1.39	1.00	34.29	130.35	0.26	0.59	0	Calculated
Link-56	CHANNEL	0	12:20	0.73	1.00	14.73	49.36	0.30	0.84	0	Calculated
Link-57	CHANNEL	0	12:27	1.76	1.00	38.27	184.07	0.21	0.56	0	Calculated
Link-75	CONDUIT	0	12:57	4.23	1.00	3.32	0.92	3.61	1.00	279	SURCHARGED
Link-76	CONDUIT	0	12:56	4.23	1.00	3.32	0.42	7.89	1.00	506	SURCHARGED
Link-82	CHANNEL	0	12:56	2.02	1.00	24.16	193.05	0.13	0.72	0	Calculated
Link-83	CHANNEL	0	13:07	1.23	1.00	22.20	79.07	0.28	0.82	0	Calculated
Link-84	CHANNEL	0	13:14	0.00	1.00	0.00	131.24	0.00	0.50	0	Calculated
Link-85	CHANNEL	0	12:56	1.79	1.00	27.48	64.79	0.42	0.70	0	Calculated
OlioNorthof166th	CONDUIT	0	14:55	7.95	1.00	93.49	151.72	0.62	0.98	0	Calculated
OlioSouthof166th	CONDUIT	0	14:03	6.66	1.00	54.95	84.98	0.65	0.92	0	Calculated
Pipe - (3)	CONDUIT	0	13:32	4.92	1.00	7.99	6.72	1.19			

```
0.86           0  > CAPACITY
  Pipe - (7)           CONDUIT      0  12:57      4.76    1.00        3.32        2.66      1.25
0.86           0  > CAPACITY
  PrairieNorthofSR38   CONDUIT      0  12:58      5.94    1.00       34.07      102.16      0.33
0.77           0  Calculated
  SR38EastofDurbin     CONDUIT      0  12:53      3.83    1.00        6.80       12.00      0.57
0.59           0  Calculated
  SR38EastofOlio       CONDUIT      0  13:52     11.91    1.00      107.20      105.12      1.02
1.00         118  SURCHARGED


  *********************************
  Highest Flow Instability Indexes
  *********************************
  Link Link-05 (3)
  Link Link-47 (3)
  Link DurbinNorthofSR38 (1)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-06 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-07 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-08 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-19 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-41 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum
```

```
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-58 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Structure - (11) is below junction
maximum elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion FD1 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-05 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-51 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit 166thWestofDurbin is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit DurbinSouthofSR38 is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinSouthofSR38 is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 005 : Minimum slope used for Conduit Link-76.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-04.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-07.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-08.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-12.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-29.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-39.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-47.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-54.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-05.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-51.

  Analysis began on:  Mon Apr 20 08:12:20 2015
  Analysis ended on:  Mon Apr 20 08:12:24 2015
  Total elapsed time: 00:00:04
```

VSE

APPENDIX A

Alternative 5 Modeling Results

Autodesk® Storm and Sanitary Analysis 2015 - Version 9.1.140 (Build 1)

****
Project Description
****
File Name ..... Alt 5 042015.SPF

****
Analysis Options
****
Flow Units ..... cfs
Subbasin Hydrograph Method. SCS TR-55
Time of Concentration..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Storage Node Exfiltration.. Horton, wetted area
Starting Date SEP-24-2014 00:00:00
Ending Date SEP-26-2014 00:00:00
Report Time Step 00:05:00

****
Element Count
****
Number of rain gages 1
Number of subbasins 26
Number of nodes 49
Number of links 56

****
Subbasin Summary
****

Subbasin ID	Total Area acres
1	37.40
2	54.68
3	15.15
4	19.51
5	62.47
6	32.34
7	6.94
8	19.66
9	10.14
10	18.32
11	82.77
12	14.78
13	5.12
14	8.45
15	6.99
16	26.83
17	5.59
18	14.21
19	3.81
20	63.62
21	19.05
22	8.50
23	4.60
24	33.33
25	4.00
26	5.36

****
Node Summary
****

Node ID	Element Type	Invert Elevation ft	Maximum Elev. ft	Ponded Area ft²	External Inflow
Jun-01	JUNCTION	820.10	823.20	21825.00	
Jun-04	JUNCTION	836.00	837.75	43650.00	
Jun-12	JUNCTION	833.70	835.70	10912.00	
Jun-15	JUNCTION	830.90	832.90	43650.00	
Jun-19	JUNCTION	825.20	828.20	0.00	
Jun-22	JUNCTION	816.17	820.42	43650.00	
Jun-24	JUNCTION	821.00	825.00	21825.00	
Jun-26	JUNCTION	822.40	825.40	21825.00	
Jun-27	JUNCTION	813.70	818.00	43650.00	
Jun-28	JUNCTION	820.00	821.00	21825.00	
Jun-29	JUNCTION	800.99	807.50	43650.00	
Jun-30	JUNCTION	805.50	808.60	21825.00	
Jun-32	JUNCTION	797.81	804.20	0.00	
Jun-35	JUNCTION	799.22	800.22	43650.00	
Jun-38	JUNCTION	809.80	812.30	21825.00	
Jun-39	JUNCTION	801.97	808.25	43650.00	
Jun-44	JUNCTION	832.00	834.00	21825.00	
Jun-45	JUNCTION	798.00	799.00	43650.00	
Jun-46	JUNCTION	797.75	799.60	43650.00	
Jun-47	JUNCTION	797.00	798.50	10912.00	
Jun-54	JUNCTION	833.40	835.40	5456.00	
Jun-56	JUNCTION	837.80	843.80	0.00	
Jun-58	JUNCTION	794.30	800.20	0.00	
Structure - (11)	JUNCTION	794.28	799.22	0.00	
Jun-34	OUTFALL	791.20	795.95	0.00	
Out-01	OUTFALL	796.50	798.00	0.00	
Out-1Pipe - (3)	OUTFALL	792.80	794.30	0.00	
Diversion-02	DIVIDER	818.00	826.80	0.00	
Diversion-03	DIVIDER	831.26	834.40	0.00	
Diversion-04	DIVIDER	820.45	824.90	0.00	
Diversion-05	DIVIDER	822.89	828.00	0.00	
Diversion-06	DIVIDER	828.70	833.00	0.00	
FD1	DIVIDER	798.58	802.83	43650.00	
Jun-02	DIVIDER	841.54	845.30	0.00	
Jun-51	DIVIDER	827.23	836.50	10912.00	
Structure - (9)	DIVIDER	831.47	837.52	0.00	
Jun-05	STORAGE	831.40	834.20	66780.00	
ST10	STORAGE	822.80	826.80	71056.00	
ST11	STORAGE	821.90	824.90	12841.00	
ST12	STORAGE	838.00	839.50	16764.00	
ST2	STORAGE	837.00	838.00	32337.00	
ST3	STORAGE	805.80	809.80	33045.00	
ST4	STORAGE	810.20	814.70	22812.00	
ST5	STORAGE	821.30	823.80	22008.00	
ST6	STORAGE	844.10	846.10	34387.00	
ST7	STORAGE	833.80	836.80	60403.00	
ST8	STORAGE	832.80	834.80	5000.00	
ST9	STORAGE	824.00	827.10	40442.00	

****
Inlet Summary
****

Inlet ID	Inlet Manufacturer	Manufacturer Part Number	Inlet Location	Number of Inlets	Catchbasin Invert Elevation	Inlet Rim Elevation	Ponded Area	Initial Water Elevation	Grate Clogging Factor

ft ft ft² ft %

Structure - (15) MAXIMUM CAPTURE CUTOFF N/A On Grade 1
831.58 834.80 - 831.58 0.00

****
Roadway and Gutter Summary
****

Inlet ID	Roadway Longitudinal Slope ft/ft	Roadway Cross Slope ft/ft	Roadway Manning's Roughness	Gutter Cross Slope ft/ft	Gutter Width ft	Gutter Depression in
Structure - (15)	0.0200	0.0500	0.0130	0.0620	2.00	0.00

****
Link Summary
****

Link ID	From Node	To Node	Element Type	Length ft	Slope %	Manning's Roughness
166thEastofOlio	ST11	Jun-01	CONDUIT	28.2	6.3785	0.0130
166thWestofDurbin	ST8	Jun-44	CONDUIT	25.4	3.1459	0.0130
DurbinNorthofSR38	Jun-05	Diversion-03	CONDUIT	27.2	0.5151	0.0130
DurbinSouthofSR38	ST7	Jun-12	CONDUIT	28.8	0.3467	0.0150
Link-09	Jun-04	Jun-05	CHANNEL	555.8	0.5578	0.0320
Link-10	Jun-02	Jun-04	CHANNEL	2410.6	0.2987	0.0320
Link-100	FD1	Structure - (11)	CONDUIT	961.1	0.4474	0.0130
Link-102	Jun-56	ST2	CHANNEL	177.6	0.4505	0.0320
Link-104	Jun-58	Jun-34	CHANNEL	561.6	0.5520	0.0320
Link-106	Diversion-03	ST10	CHANNEL	2342.3	0.3928	0.0320
Link-107	Diversion-02	Jun-22	CONDUIT	1340.1	0.1366	0.0110
Link-109	Diversion-02	ST10	CHANNEL	184.4	0.6507	0.0320
Link-110	Diversion-03	Diversion-02	CONDUIT	2153.1	0.6159	0.0110
Link-112	Diversion-05	Diversion-04	CONDUIT	701.8	0.3477	0.0110
Link-113	Diversion-04	ST11	CHANNEL	4.9	4.0733	0.0320
Link-114	Diversion-04	Jun-22	CONDUIT	615.0	0.6960	0.0110
Link-115	Structure - (9)	Diversion-06	CONDUIT	638.0	0.4342	0.0110
Link-116	Diversion-05	ST9	CHANNEL	6.2	6.4935	0.0320
Link-117	Diversion-06	Diversion-05	CONDUIT	1662.2	0.3495	0.0110
Link-118	Diversion-06	Jun-15	CHANNEL	11.9	0.8382	0.0320
Link-119	Structure - (9)	ST8	CHANNEL	170.9	1.5919	0.0320
Link-120	Jun-02	Diversion-03	CONDUIT	2816.7	0.3650	0.0110
Link-14	Jun-12	Jun-54	CHANNEL	180.2	0.1665	0.0320
Link-15	Jun-15	ST9	CHANNEL	1673.8	0.3166	0.0320
Link-18	Jun-19	ST11	CHANNEL	678.8	0.4862	0.0320
Link-22	Jun-01	Jun-22	CHANNEL	586.2	0.6704	0.0320
Link-26	Jun-26	ST5	CHANNEL	437.1	0.2516	0.0320
Link-27	Jun-24	Jun-22	CHANNEL	693.0	0.6970	0.0320
Link-29	Jun-22	Jun-27	CHANNEL	610.3	0.4047	0.0320
Link-30	Jun-28	Jun-27	CHANNEL	391.1	0.7671	0.0320
Link-31	Jun-27	Jun-39	CHANNEL	2344.9	0.5002	0.0320
Link-32	ST3	Jun-30	CONDUIT	61.5	0.3253	0.0250
Link-33	Jun-29	FD1	CHANNEL	468.1	0.5149	0.0320
Link-34	FD1	Jun-32	CHANNEL	139.0	0.5540	0.0320
Link-36	Jun-32	Jun-58	CHANNEL	635.2	0.5526	0.0320
Link-39	ST4	Jun-38	CONDUIT	56.7	0.7056	0.0250
Link-40	Jun-39	Jun-29	CHANNEL	191.6	0.5116	0.0320
Link-41	Jun-38	Jun-39	CHANNEL	332.0	0.9940	0.0320
Link-51	Jun-44	Jun-15	CHANNEL	432.6	0.2543	0.0320
Link-52	Jun-30	Jun-29	CHANNEL	20.7	0.4826	0.0320
Link-53	Jun-35	Jun-46	CHANNEL	171.7	0.3612	0.0320
Link-55	Jun-46	Jun-47	CHANNEL	313.1	0.2395	0.0320

Link-56	Jun-45	Jun-46	CHANNEL	86.2	0.2902	0.0320
Link-57	Jun-47	Out-01	CHANNEL	104.7	0.4776	0.0320
Link-75	Structure - (15)	Structure - (9)	CONDUIT	230.0	0.0478	0.0120
Link-76	Jun-51	Structure - (15)	CONDUIT	214.3	0.0100	0.0110
Link-82	Jun-51	ST7	CHANNEL	38.3	4.4375	0.0320
Link-83	Jun-54	ST8	CHANNEL	374.6	0.1602	0.0320
Link-84	Structure - (15)	Jun-54	CHANNEL	6.9	20.2605	0.0320
Link-85	ST2	Jun-51	CHANNEL	300.1	0.4998	0.0320
OlioNorthof166th	ST5	Jun-24	CONDUIT	26.6	1.1270	0.0130
OlioSouthof166th	Jun-19	ST9	CONDUIT	30.0	4.0053	0.0130
Pipe - (3)	Structure - (11)	Out-1Pipe - (3)	CONDUIT	361.1	0.4098	0.0130
PrairieNorthofSR38	ST6	Jun-02	CONDUIT	30.4	2.9566	0.0130
SR38EastofDurbin	ST12	Jun-56	CONDUIT	52.8	0.3790	0.0130
SR38EastofOlio	ST10	Jun-26	CONDUIT	52.2	0.7661	0.0130

****
Cross Section Summary
****

Link ID	Shape	Depth/ Diameter (ft)	Width (ft)	No. of Barrels	Cross Sectional Area (ft²)	Full Flow Hydraulic Radius (ft)	Design Flow Capacity (cfs)
166thEastofOlio	RECT_CLOSED	3.00	6.00	1	18.00	1.00	519.64
166thWestofDurbin	RECT_CLOSED	2.00	4.00	1	8.00	0.67	123.78
DurbinNorthofSR38	RECT_CLOSED	3.00	7.00	1	21.00	1.05	177.98
DurbinSouthofSR38	RECT_CLOSED	2.00	4.00	1	8.00	0.67	35.61
Link-09	TRAPEZOIDAL	1.75	53.50	1	47.69	0.89	152.96
Link-10	TRAPEZOIDAL	1.25	76.00	1	48.13	0.63	90.03
Link-100	CIRCULAR	1.50	1.50	1	1.77	0.38	7.03
Link-102	TRAPEZOIDAL	1.00	40.08	1	20.08	0.50	39.45
Link-104	TRAPEZOIDAL	4.75	23.00	1	64.13	2.54	411.89
Link-106	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	356.88
Link-107	CIRCULAR	2.00	2.00	1	3.14	0.50	9.88
Link-109	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	459.36
Link-110	CIRCULAR	2.00	2.00	1	3.14	0.50	20.98
Link-112	CIRCULAR	2.00	2.00	1	3.14	0.50	15.76
Link-113	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	1149.28
Link-114	CIRCULAR	2.00	2.00	1	3.14	0.50	22.30
Link-115	CIRCULAR	1.50	1.50	1	1.77	0.38	8.18
Link-116	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	1451.08
Link-117	CIRCULAR	2.00	2.00	1	3.14	0.50	

Link-118	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	15.81
Link-119	TRAPEZOIDAL	2.00	41.00	1	42.00	1.02	521.35
Link-120	CIRCULAR	1.00	1.00	1	0.79	0.25	249.26
Link-14	TRAPEZOIDAL	1.50	61.00	1	46.50	0.76	2.54
Link-15	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	73.47
Link-18	TRAPEZOIDAL	2.50	151.00	1	190.00	1.26	320.43
Link-22	TRAPEZOIDAL	3.00	16.00	1	30.00	1.72	716.75
Link-26	TRAPEZOIDAL	2.00	121.00	1	122.00	1.01	163.91
Link-27	TRAPEZOIDAL	4.00	20.00	1	48.00	2.19	285.66
Link-29	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	314.11
Link-30	TRAPEZOIDAL	1.00	41.00	1	21.00	0.51	274.18
Link-31	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	54.63
Link-32	CIRCULAR	3.00	3.00	1	7.07	0.75	304.83
Link-33	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	19.78
Link-34	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	309.25
Link-36	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	320.80
Link-39	HORIZ_ELLIPSE	2.33	3.50	1	6.91	0.71	320.39
Link-40	TRAPEZOIDAL	4.25	21.00	1	53.13	2.31	27.57
Link-41	TRAPEZOIDAL	1.75	16.75	1	15.53	0.90	308.27
Link-51	TRAPEZOIDAL	2.00	12.00	1	16.00	1.24	67.23
Link-52	TRIANGULAR	2.00	8.00	1	8.00	0.89	43.15
Link-53	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	23.96
Link-55	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	55.08
Link-56	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	130.35
Link-57	TRAPEZOIDAL	1.50	91.00	1	69.00	0.76	49.36
Link-75	CIRCULAR	0.67	0.67	1	0.35	0.17	184.07
Link-76	CIRCULAR	1.00	1.00	1	0.79	0.25	0.29
Link-82	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	0.42
Link-83	TRAPEZOIDAL	2.00	41.00	1	42.00	1.02	193.05
Link-84	TRIANGULAR	1.00	20.00	1	10.00	0.50	79.07
Link-85	TRAPEZOIDAL	1.00	61.00	1	31.00	0.51	131.24
OlioNorthof166th	RECT_CLOSED	2.00	7.00	1	14.00	0.78	64.79
OlioSouthof166th	RECT_CLOSED	3.00	10.00	1	30.00	1.15	143.68
							755.00

```
  Pipe - (3)       CIRCULAR           1.50         1.50             1         1.77         0.38
6.72
  PrairieNorthofSR38 RECT_CLOSED        1.50         5.00             1         7.50         0.58
102.16
  SR38EastofDurbin RECT_CLOSED        1.50         2.00             1         3.00         0.43
12.00
  SR38EastofOlio   RECT_CLOSED        3.00         5.00             1        15.00         0.94
143.76


  ****************
  Transect Summary
  ****************

  Transect XS-L-Pipe - (10)
  Area:
              0.0005     0.0019     0.0043     0.0076     0.0118
              0.0170     0.0232     0.0305     0.0390     0.0487
              0.0595     0.0715     0.0847     0.0990     0.1145
              0.1312     0.1491     0.1682     0.1884     0.2098
              0.2323     0.2561     0.2810     0.3071     0.3338
              0.3604     0.3871     0.4137     0.4404     0.4670
              0.4937     0.5203     0.5470     0.5736     0.6003
              0.6269     0.6536     0.6802     0.7069     0.7335
              0.7602     0.7868     0.8135     0.8401     0.8668
              0.8934     0.9201     0.9467     0.9734     1.0000
  Hrad:
              0.0139     0.0278     0.0418     0.0557     0.0696
              0.0835     0.0963     0.1080     0.1202     0.1329
              0.1459     0.1591     0.1724     0.1858     0.1994
              0.2130     0.2267     0.2404     0.2542     0.2680
              0.2818     0.2957     0.3095     0.3238     0.3512
              0.3784     0.4055     0.4326     0.4595     0.4863
              0.5130     0.5396     0.5660     0.5924     0.6187
              0.6448     0.6708     0.6968     0.7226     0.7483
              0.7740     0.7995     0.8249     0.8502     0.8754
              0.9005     0.9256     0.9505     0.9753     1.0000
  Width:
              0.0355     0.0711     0.1066     0.1422     0.1777
              0.2132     0.2520     0.2961     0.3402     0.3842
              0.4283     0.4724     0.5164     0.5605     0.6046
              0.6487     0.6927     0.7368     0.7809     0.8249
              0.8690     0.9131     0.9572     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000
              1.0000     1.0000     1.0000     1.0000     1.0000

  Transect XS-L-Pipe - (25)
  Area:
              0.0005     0.0019     0.0043     0.0076     0.0118
              0.0170     0.0232     0.0305     0.0390     0.0487
              0.0595     0.0715     0.0847     0.0990     0.1145
              0.1312     0.1491     0.1682     0.1884     0.2098
              0.2323     0.2561     0.2810     0.3071     0.3338
              0.3604     0.3871     0.4137     0.4404     0.4670
              0.4937     0.5203     0.5470     0.5736     0.6003
              0.6269     0.6536     0.6802     0.7069     0.7335
              0.7602     0.7868     0.8135     0.8401     0.8668
              0.8934     0.9201     0.9467     0.9734     1.0000
  Hrad:
              0.0139     0.0278     0.0418     0.0557     0.0696
              0.0835     0.0963     0.1080     0.1202     0.1329
              0.1459     0.1591     0.1724     0.1858     0.1994
              0.2130     0.2267     0.2404     0.2542     0.2680
              0.2818     0.2957     0.3095     0.3238     0.3512
```

0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (26)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (28)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329

0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (29)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (3)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (30)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (31)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003

0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (32)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (33)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098

0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (34)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (35)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118

0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (36)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (37)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (38)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (39)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (40)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (41)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (42)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842

0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (43)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (44)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (45)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (46)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187

0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (47)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (48)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680

0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (49)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (50)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696

0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (52)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (53)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668

```
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (55)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (57)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
```

0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (58)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (59)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145

```
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (60)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (61)
Area:
```

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (62)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (7)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (72)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (73)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (74)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249

0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (75)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (76)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777

0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (78)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (79)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754

```
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (8)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
            0.5130     0.5396     0.5660     0.5924     0.6187
            0.6448     0.6708     0.6968     0.7226     0.7483
            0.7740     0.7995     0.8249     0.8502     0.8754
            0.9005     0.9256     0.9505     0.9753     1.0000
Width:
            0.0355     0.0711     0.1066     0.1422     0.1777
            0.2132     0.2520     0.2961     0.3402     0.3842
            0.4283     0.4724     0.5164     0.5605     0.6046
            0.6487     0.6927     0.7368     0.7809     0.8249
            0.8690     0.9131     0.9572     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000
            1.0000     1.0000     1.0000     1.0000     1.0000

Transect XS-L-Pipe - (80)
Area:
            0.0005     0.0019     0.0043     0.0076     0.0118
            0.0170     0.0232     0.0305     0.0390     0.0487
            0.0595     0.0715     0.0847     0.0990     0.1145
            0.1312     0.1491     0.1682     0.1884     0.2098
            0.2323     0.2561     0.2810     0.3071     0.3338
            0.3604     0.3871     0.4137     0.4404     0.4670
            0.4937     0.5203     0.5470     0.5736     0.6003
            0.6269     0.6536     0.6802     0.7069     0.7335
            0.7602     0.7868     0.8135     0.8401     0.8668
            0.8934     0.9201     0.9467     0.9734     1.0000
Hrad:
            0.0139     0.0278     0.0418     0.0557     0.0696
            0.0835     0.0963     0.1080     0.1202     0.1329
            0.1459     0.1591     0.1724     0.1858     0.1994
            0.2130     0.2267     0.2404     0.2542     0.2680
            0.2818     0.2957     0.3095     0.3238     0.3512
            0.3784     0.4055     0.4326     0.4595     0.4863
```

0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (81)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (82)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994

0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (83)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (84)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (85)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (86)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335

0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (87)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (88)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338

0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (89)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (90)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487

0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (92)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (93)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (94)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (95)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (96)

Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (97)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046
0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

Transect XS-L-Pipe - (99)
Area:

0.0005	0.0019	0.0043	0.0076	0.0118
0.0170	0.0232	0.0305	0.0390	0.0487
0.0595	0.0715	0.0847	0.0990	0.1145
0.1312	0.1491	0.1682	0.1884	0.2098
0.2323	0.2561	0.2810	0.3071	0.3338
0.3604	0.3871	0.4137	0.4404	0.4670
0.4937	0.5203	0.5470	0.5736	0.6003
0.6269	0.6536	0.6802	0.7069	0.7335
0.7602	0.7868	0.8135	0.8401	0.8668
0.8934	0.9201	0.9467	0.9734	1.0000

Hrad:

0.0139	0.0278	0.0418	0.0557	0.0696
0.0835	0.0963	0.1080	0.1202	0.1329
0.1459	0.1591	0.1724	0.1858	0.1994
0.2130	0.2267	0.2404	0.2542	0.2680
0.2818	0.2957	0.3095	0.3238	0.3512
0.3784	0.4055	0.4326	0.4595	0.4863
0.5130	0.5396	0.5660	0.5924	0.6187
0.6448	0.6708	0.6968	0.7226	0.7483
0.7740	0.7995	0.8249	0.8502	0.8754
0.9005	0.9256	0.9505	0.9753	1.0000

Width:

0.0355	0.0711	0.1066	0.1422	0.1777
0.2132	0.2520	0.2961	0.3402	0.3842
0.4283	0.4724	0.5164	0.5605	0.6046

0.6487	0.6927	0.7368	0.7809	0.8249
0.8690	0.9131	0.9572	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000
1.0000	1.0000	1.0000	1.0000	1.0000

**********	Volume	Depth
Runoff Quantity Continuity	acre-ft	inches
**********	---	---
Total Precipitation	233.092	4.793
Surface Runoff	10.873	0.224
Continuity Error (%)	-0.001	

**********	Volume	Volume
Flow Routing Continuity	acre-ft	Mgallons
**********	---	---
External Inflow	0.000	0.000
External Outflow	107.543	35.044
Initial Stored Volume	0.260	0.085
Final Stored Volume	0.023	0.008
Continuity Error (%)	0.012	

****
Composite Curve Number Computations Report
****

Subbasin 1

Soil/Surface Description	Area (acres)	Soil Group	CN
-	37.40	-	74.50
Composite Area & Weighted CN	37.40		74.50

Subbasin 2

Soil/Surface Description	Area (acres)	Soil Group	CN
-	37.87	-	73.80
Composite Area & Weighted CN	37.87		73.80

Subbasin 3

Soil/Surface Description	Area (acres)	Soil Group	CN
-	15.15	-	75.20
Composite Area & Weighted CN	15.15		75.20

Subbasin 4

Soil/Surface Description	Area (acres)	Soil Group	CN
-	19.51	-	73.95
Composite Area & Weighted CN	19.51		73.95

Subbasin 5

Soil/Surface Description	Area (acres)	Soil Group	CN
-	62.47	-	76.60
Composite Area & Weighted CN	62.47		76.60

Subbasin 6

Soil/Surface Description	Area (acres)	Soil Group	CN
-	32.34	-	78.00
Composite Area & Weighted CN	32.34		78.00

Subbasin 7

Soil/Surface Description	Area (acres)	Soil Group	CN
-	23.74	-	74.60
Composite Area & Weighted CN	23.74		74.60

Subbasin 8

Soil/Surface Description	Area (acres)	Soil Group	CN
-	17.21	-	77.80
Composite Area & Weighted CN	17.21		77.80

Subbasin 9

Soil/Surface Description	Area (acres)	Soil Group	CN
-	12.59	-	78.10
Composite Area & Weighted CN	12.59		78.10

Subbasin 10

Soil/Surface Description	Area (acres)	Soil Group	CN
-	18.32	-	73.80
Composite Area & Weighted CN	18.32		73.80

Subbasin 11

Soil/Surface Description	Area (acres)	Soil Group	CN
-	82.77	-	74.60
Composite Area & Weighted CN	82.77		74.60

Subbasin 12

	Area	Soil

Soil/Surface Description	(acres)	Group	CN
-	14.78	-	73.45
Composite Area & Weighted CN	14.78		73.45

Subbasin 13

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.12	-	73.64
Composite Area & Weighted CN	5.12		73.64

Subbasin 14

Soil/Surface Description	Area (acres)	Soil Group	CN
-	8.45	-	74.24
Composite Area & Weighted CN	8.45		74.24

Subbasin 15

Soil/Surface Description	Area (acres)	Soil Group	CN
-	6.99	-	74.44
Composite Area & Weighted CN	6.99		74.44

Subbasin 16

Soil/Surface Description	Area (acres)	Soil Group	CN
-	26.83	-	74.00
Composite Area & Weighted CN	26.83		74.00

Subbasin 17

Soil/Surface Description	Area (acres)	Soil Group	CN
-	5.59	-	75.17
Composite Area & Weighted CN	5.59		75.17

Subbasin 18

Soil/Surface Description	Area (acres)	Soil Group	CN
-	14.21	-	75.60
Composite Area & Weighted CN	14.21		75.60

Subbasin 19

Soil/Surface Description	Area (acres)	Soil Group	CN
-	3.81	-	66.80
Composite Area & Weighted CN	3.81		66.80

```
--------------
Subbasin 20
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    63.62            -       75.00
Composite Area & Weighted CN                         63.62                    75.00

--------------
Subbasin 21
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    19.05            -       75.20
Composite Area & Weighted CN                         19.05                    75.20

--------------
Subbasin 22
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                     8.50            -       75.74
Composite Area & Weighted CN                          8.50                    75.74

--------------
Subbasin 23
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                     4.60            -       76.95
Composite Area & Weighted CN                          4.60                    76.95

--------------
Subbasin 24
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                    33.33            -       75.29
Composite Area & Weighted CN                         33.33                    75.29

--------------
Subbasin 25
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                     4.00            -       66.40
Composite Area & Weighted CN                          4.00                    66.40

--------------
Subbasin 26
--------------
                                                      Area          Soil
Soil/Surface Description                            (acres)        Group          CN
-----------------------------------------------------------------------------------
-                                                     5.36            -       72.00
Composite Area & Weighted CN                          5.36                    72.00

**************************************************
SCS TR-55 Time of Concentration Computations Report
```

```
**************************************************

Sheet Flow Equation
-------------------

        Tc = (0.007 * ((n * Lf)^0.8)) / ((P^0.5) * (Sf^0.4))

        Where:

        Tc = Time of Concentration (hrs)
        n  = Manning's Roughness
        Lf = Flow Length (ft)
        P  = 2 yr, 24 hr Rainfall (inches)
        Sf = Slope (ft/ft)

Shallow Concentrated Flow Equation
----------------------------------

        V  = 16.1345 * (Sf^0.5) (unpaved surface)
        V  = 20.3282 * (Sf^0.5) (paved surface)
        V  = 15.0 * (Sf^0.5) (grassed waterway surface)
        V  = 10.0 * (Sf^0.5) (nearly bare & untilled surface)
        V  = 9.0 * (Sf^0.5) (cultivated straight rows surface)
        V  = 7.0 * (Sf^0.5) (short grass pasture surface)
        V  = 5.0 * (Sf^0.5) (woodland surface)
        V  = 2.5 * (Sf^0.5) (forest w/heavy litter surface)
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)

Channel Flow Equation
---------------------

        V  = (1.49 * (R^(2/3)) * (Sf^0.5)) / n
        R  = Aq / Wp
        Tc = (Lf / V) / (3600 sec/hr)

        Where:

        Tc = Time of Concentration (hrs)
        Lf = Flow Length (ft)
        R  = Hydraulic Radius (ft)
        Aq = Flow Area (ft²)
        Wp = Wetted Perimeter (ft)
        V  = Velocity (ft/sec)
        Sf = Slope (ft/ft)
        n  = Manning's Roughness

-------------
Subbasin 1
-------------

Sheet Flow Computations
-----------------------
                                                Subarea A           Subarea B           Subarea
C
        Manning's Roughness:                        0.17                0.00
0.00
        Flow Length (ft):                         300.00                0.00
0.00
        Slope (%):                                  0.87                0.00
0.00
```

```
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              38.63                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         850.00              447.00
0.00
          Slope (%):                                  0.39                0.63
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.56                0.71
0.00
          Computed Flow Time (minutes):              25.30               10.49
0.00

==============================================================================================
          Total TOC (minutes):                       74.42

==============================================================================================


  -------------
  Subbasin 2
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.43                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.10                0.00
0.00
          Computed Flow Time (minutes):              50.97                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         658.00             1428.00
0.00
          Slope (%):                                  0.32                0.36
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.51                0.54
0.00
          Computed Flow Time (minutes):              21.50               44.07
0.00

==============================================================================================
          Total TOC (minutes):                      116.54
```

```
==========================================================================================

  -------------
  Subbasin 3
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.10                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.05                0.00
0.00
          Computed Flow Time (minutes):             91.60                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        685.00              906.00
0.00
          Slope (%):                                 0.57                0.67
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.68                0.74
0.00
          Computed Flow Time (minutes):             16.79               20.41
0.00

==========================================================================================
          Total TOC (minutes):                     128.79

==========================================================================================


  -------------
  Subbasin 4
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.09                0.00
0.00
          Computed Flow Time (minutes):             54.47                0.00
0.00

  Shallow Concentrated Flow Computations
```

```
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        899.00              190.00
0.00
          Slope (%):                                 0.66                0.26
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.73                0.46
0.00
          Computed Flow Time (minutes):             20.53                6.88
0.00

==============================================================================================
          Total TOC (minutes):                      81.88

==============================================================================================


  -------------
  Subbasin 5
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.15                0.00
0.00
          Computed Flow Time (minutes):             32.51                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        284.00             1737.00
0.00
          Slope (%):                                 0.46                0.29
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                         0.61                0.48
0.00
          Computed Flow Time (minutes):              7.76               60.31
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.02                0.00
0.00
          Flow Length (ft):                        231.00                0.00
0.00
          Channel Slope (%):                         0.43                0.00
0.00
          Cross Section Area (ft²):                  0.75                0.00
```

```
0.00
          Wetted Perimeter (ft):                      3.16                0.00
0.00
          Velocity (ft/sec):                          2.09                0.00
0.00
          Computed Flow Time (minutes):               1.84                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      102.42

==========================================================================================


  -------------
  Subbasin 6
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              26.48                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1029.00              200.00
0.00
          Slope (%):                                  0.78                0.80
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.79                0.80
0.00
          Computed Flow Time (minutes):              21.71                4.17
0.00

==========================================================================================
          Total TOC (minutes):                       52.35

==========================================================================================


  -------------
  Subbasin 7
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
```

```
0.00
          Slope (%):                                  0.37                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              54.47                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         620.00                0.00
0.00
          Slope (%):                                  0.53                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.66                0.00
0.00
          Computed Flow Time (minutes):              15.66                0.00
0.00

==================================================================================================
          Total TOC (minutes):                       70.13

==================================================================================================


  -------------
  Subbasin 8
  -------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.11                0.00
0.00
          Computed Flow Time (minutes):              45.77                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         820.00              326.00
0.00
          Slope (%):                                  0.30                0.40
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.50                1.02
0.00
          Computed Flow Time (minutes):              27.33                5.33
0.00
```

```
==========================================================================================
          Total TOC (minutes):                        78.43

==========================================================================================


  -------------
  Subbasin 9
  -------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         180.00                0.00
0.00
          Slope (%):                                  1.94                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.18                0.00
0.00
          Computed Flow Time (minutes):              16.80                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         198.00              264.00
300.00
          Slope (%):                                  0.51                0.15
0.07
          Surface Type:                   Grassed waterway    Grassed waterway       Straight
rows
          Velocity (ft/sec):                          1.07                0.58
0.23
          Computed Flow Time (minutes):               3.08                7.59
21.74

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.02                0.00
0.00
          Flow Length (ft):                          25.00                0.00
0.00
          Channel Slope (%):                          0.80                0.00
0.00
          Cross Section Area (ft²):                   0.79                0.00
0.00
          Wetted Perimeter (ft):                      1.00                0.00
0.00
          Velocity (ft/sec):                          4.73                0.00
0.00
          Computed Flow Time (minutes):               0.09                0.00
0.00

==========================================================================================
          Total TOC (minutes):                        49.30

==========================================================================================
```

```
  --------------
  Subbasin 10
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.08                0.00
0.00
          Computed Flow Time (minutes):             61.87                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1190.00                0.00
0.00
          Slope (%):                                 0.23                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         0.43                0.00
0.00
          Computed Flow Time (minutes):             46.12                0.00
0.00

==============================================================================================
          Total TOC (minutes):                     107.99

==============================================================================================


  --------------
  Subbasin 11
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 0.73                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.12                0.00
0.00
          Computed Flow Time (minutes):             41.28                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
```

```
          Flow Length (ft):                        1985.00                0.00
0.00
          Slope (%):                                  0.57                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.68                0.00
0.00
          Computed Flow Time (minutes):              48.65                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       89.93

==========================================================================================


  --------------
  Subbasin 12
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.83                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              39.22                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         866.00                0.00
0.00
          Slope (%):                                  0.48                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.63                0.00
0.00
          Computed Flow Time (minutes):              22.91                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         633.00                0.00
0.00
          Channel Slope (%):                          0.54                0.00
0.00
          Cross Section Area (ft²):                  20.00                0.00
0.00
          Wetted Perimeter (ft):                     40.05                0.00
0.00
```

```
          Velocity (ft/sec):                          1.72                0.00
0.00
          Computed Flow Time (minutes):               6.14                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       68.27

==========================================================================================


  --------------
  Subbasin 13
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         238.00                0.00
0.00
          Slope (%):                                  1.89                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.19                0.00
0.00
          Computed Flow Time (minutes):              21.25                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         640.00                0.00
0.00
          Slope (%):                                  0.52                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.65                0.00
0.00
          Computed Flow Time (minutes):              16.41                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       37.66

==========================================================================================


  --------------
  Subbasin 14
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.33                0.00
0.00
```

```
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.10                0.00
0.00
          Computed Flow Time (minutes):              51.20                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         176.00              640.00
0.00
          Slope (%):                                  2.39                0.39
0.00
          Surface Type:                       Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          1.39                0.56
0.00
          Computed Flow Time (minutes):               2.11               19.05
0.00

==============================================================================================
          Total TOC (minutes):                       72.36

==============================================================================================


  --------------
  Subbasin 15
  --------------

  Sheet Flow Computations
  -----------------------
                                                  Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.47                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.16                0.00
0.00
          Computed Flow Time (minutes):              31.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                  Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         112.00                0.00
0.00
          Slope (%):                                  1.88                0.00
0.00
          Surface Type:                       Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.23                0.00
0.00
          Computed Flow Time (minutes):               1.52                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                  Subarea A           Subarea B           Subarea
```

```
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         490.00                0.00
0.00
          Channel Slope (%):                          0.36                0.00
0.00
          Cross Section Area (ft²):                  13.00                0.00
0.00
          Wetted Perimeter (ft):                     26.08                0.00
0.00
          Velocity (ft/sec):                          1.40                0.00
0.00
          Computed Flow Time (minutes):               5.84                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       38.64

==============================================================================================


  --------------
  Subbasin 16
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.40                0.17
0.00
          Flow Length (ft):                         150.00              150.00
0.00
          Slope (%):                                  0.67                1.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                2.85
0.00
          Velocity (ft/sec):                          0.05                0.12
0.00
          Computed Flow Time (minutes):              48.84               20.94
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1468.00                0.00
0.00
          Slope (%):                                  0.61                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          0.70                0.00
0.00
          Computed Flow Time (minutes):              34.95                0.00
0.00

==============================================================================================
          Total TOC (minutes):                      104.74

==============================================================================================


  --------------
  Subbasin 17
  --------------
```

```
  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.27                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.17                0.00
0.00
          Computed Flow Time (minutes):             30.01                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        490.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.07                0.00
0.00
          Computed Flow Time (minutes):              7.63                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      37.65

==========================================================================================


  --------------
  Subbasin 18
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                       1220.00                0.00
0.00
          Slope (%):                                 0.86                0.00
```

```
0.00
          Surface Type:                   Grassed waterway             Unpaved
Unpaved
          Velocity (ft/sec):                          1.39                0.00
0.00
          Computed Flow Time (minutes):              14.63                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       42.68

==========================================================================================


  --------------
  Subbasin 19
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  2.40                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.22                0.00
0.00
          Computed Flow Time (minutes):              23.24                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         115.00                0.00
0.00
          Slope (%):                                  3.48                0.00
0.00
          Surface Type:                             Unpaved             Unpaved
Unpaved
          Velocity (ft/sec):                          3.01                0.00
0.00
          Computed Flow Time (minutes):               0.64                0.00
0.00

==========================================================================================
          Total TOC (minutes):                       23.88

==========================================================================================


  --------------
  Subbasin 20
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
```

```
0.00
          Slope (%):                                  0.33                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.09                0.00
0.00
          Computed Flow Time (minutes):              56.59                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        1118.00             1574.00
387.00
          Slope (%):                                  0.87                0.40
0.52
          Surface Type:                       Straight rows       Straight rows       Straight
rows
          Velocity (ft/sec):                          0.84                0.57
0.65
          Computed Flow Time (minutes):              22.18               46.02
9.92

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.04                0.00
0.00
          Flow Length (ft):                         610.00                0.00
0.00
          Channel Slope (%):                          0.33                0.00
0.00
          Cross Section Area (ft²):                  10.00                0.00
0.00
          Wetted Perimeter (ft):                     20.10                0.00
0.00
          Velocity (ft/sec):                          1.34                0.00
0.00
          Computed Flow Time (minutes):               7.59                0.00
0.00

==========================================================================================
          Total TOC (minutes):                      142.31

==========================================================================================


  --------------
  Subbasin 21
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  1.20                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.15                0.00
```

```
0.00
          Computed Flow Time (minutes):              33.90                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         507.00              670.00
0.00
          Slope (%):                                  0.87                0.90
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.84                0.85
0.00
          Computed Flow Time (minutes):              10.06               13.14
0.00

==============================================================================================
          Total TOC (minutes):                       57.10

==============================================================================================


  --------------
  Subbasin 22
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         233.00                0.00
0.00
          Slope (%):                                  3.00                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.22                0.00
0.00
          Computed Flow Time (minutes):              17.36                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         483.00              660.00
0.00
          Slope (%):                                  1.35                0.65
0.00
          Surface Type:                   Grassed waterway       Straight rows
Unpaved
          Velocity (ft/sec):                          1.74                0.73
0.00
          Computed Flow Time (minutes):               4.63               15.07
0.00

==============================================================================================
          Total TOC (minutes):                       37.05

==============================================================================================
```

```
  --------------
  Subbasin 23
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.17                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 3.07                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.21                0.00
0.00
          Computed Flow Time (minutes):             23.29                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                        562.00                0.00
0.00
          Slope (%):                                 1.42                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                         1.07                0.00
0.00
          Computed Flow Time (minutes):              8.75                0.00
0.00

=============================================================================================
          Total TOC (minutes):                      32.05

=============================================================================================


  --------------
  Subbasin 24
  --------------

  Sheet Flow Computations
  -----------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                       0.15                0.00
0.00
          Flow Length (ft):                        300.00                0.00
0.00
          Slope (%):                                 1.50                0.00
0.00
          2 yr, 24 hr Rainfall (in):                 2.85                0.00
0.00
          Velocity (ft/sec):                         0.18                0.00
0.00
          Computed Flow Time (minutes):             28.05                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
```

```
          Flow Length (ft):                        2435.00              874.00
0.00
          Slope (%):                                  0.60                0.78
0.00
          Surface Type:                      Straight rows       Straight rows
Unpaved
          Velocity (ft/sec):                          0.69                0.79
0.00
          Computed Flow Time (minutes):              58.82               18.44
0.00

==============================================================================================
          Total TOC (minutes):                      105.31

==============================================================================================


  --------------
  Subbasin 25
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         255.00                0.00
0.00
          Slope (%):                                  2.04                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.20                0.00
0.00
          Computed Flow Time (minutes):              21.78                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                 Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         175.00              275.00
0.00
          Slope (%):                                  0.17                2.36
0.00
          Surface Type:                   Grassed waterway       Grass pasture
Unpaved
          Velocity (ft/sec):                          0.62                1.08
0.00
          Computed Flow Time (minutes):               4.70                4.24
0.00

==============================================================================================
          Total TOC (minutes):                       30.73

==============================================================================================


  --------------
  Subbasin 26
  --------------

  Sheet Flow Computations
  -----------------------
                                                 Subarea A           Subarea B           Subarea
C
```

```
          Manning's Roughness:                        0.17                0.00
0.00
          Flow Length (ft):                         300.00                0.00
0.00
          Slope (%):                                  0.93                0.00
0.00
          2 yr, 24 hr Rainfall (in):                  2.85                0.00
0.00
          Velocity (ft/sec):                          0.13                0.00
0.00
          Computed Flow Time (minutes):              37.49                0.00
0.00

  Shallow Concentrated Flow Computations
  --------------------------------------
                                                Subarea A           Subarea B           Subarea
C
          Flow Length (ft):                         378.00                0.00
0.00
          Slope (%):                                  2.43                0.00
0.00
          Surface Type:                      Straight rows             Unpaved
Unpaved
          Velocity (ft/sec):                          1.40                0.00
0.00
          Computed Flow Time (minutes):               4.50                0.00
0.00

  Channel Flow Computations
  -------------------------
                                                Subarea A           Subarea B           Subarea
C
          Manning's Roughness:                        0.15                0.00
0.00
          Flow Length (ft):                         606.00                0.00
0.00
          Channel Slope (%):                          0.99                0.00
0.00
          Cross Section Area (ft²):                  31.25                0.00
0.00
          Wetted Perimeter (ft):                     25.50                0.00
0.00
          Velocity (ft/sec):                          1.13                0.00
0.00
          Computed Flow Time (minutes):               8.92                0.00
0.00

==============================================================================================
          Total TOC (minutes):                       50.91

==============================================================================================


  ***********************
  Subbasin Runoff Summary
  ***********************

  ---------------------------------------------------------------------------
  Subbasin             Total     Total      Peak  Weighted          Time of
  ID                  Precip    Runoff    Runoff     Curve     Concentration
                          in        in       cfs    Number    days  hh:mm:ss
  ---------------------------------------------------------------------------
  1                     4.73      2.19     38.08    74.500       0  01:14:25
  2                     4.73      2.13     38.56    73.800       0  01:56:32
  3                     4.73      2.25     10.48    75.200       0  02:08:47
  4                     4.73      2.15     18.08    73.950       0  01:21:52
  5                     4.73      2.37     54.36    76.600       0  01:42:25
```

6	4.73	2.48	48.89	78.000	0	00:52:21
7	4.73	2.20	7.43	74.600	0	01:10:07
8	4.73	2.47	21.92	77.800	0	01:18:25
9	4.73	2.49	16.04	78.100	0	00:49:18
10	4.73	2.13	13.68	73.800	0	01:47:59
11	4.73	2.20	73.31	74.600	0	01:29:55
12	4.73	2.11	15.32	73.450	0	01:08:16
13	4.73	2.12	8.18	73.640	0	00:37:39
14	4.73	2.17	8.71	74.240	0	01:12:21
15	4.73	2.19	11.36	74.440	0	00:38:38
16	4.73	2.15	20.71	74.000	0	01:44:44
17	4.73	2.25	9.50	75.170	0	00:37:39
18	4.73	2.28	22.55	75.600	0	00:42:40
19	4.73	1.60	5.87	66.800	0	00:23:52
20	4.73	2.23	40.46	75.000	0	02:22:18
21	4.73	2.25	24.30	75.200	0	00:57:06
22	4.73	2.29	14.93	75.740	0	00:37:03
23	4.73	2.39	9.31	76.950	0	00:32:02
24	4.73	2.26	26.95	75.290	0	01:45:18
25	4.73	1.58	5.16	66.400	0	00:30:43
26	4.73	1.99	6.45	72.000	0	00:50:54

****
Node Depth Summary
****

Node ID	Average Depth Attained ft	Maximum Depth Attained ft	Maximum HGL Attained ft	Time of Max Occurrence days	Time of Max Occurrence hh:mm	Total Flooded Volume acre-in	Total Time Flooded minutes	Retention Time hh:mm:ss
Jun-01	0.78	1.96	822.06	0	13:51	0	0	0:00:00
Jun-04	0.73	1.49	837.49	0	13:26	0	0	0:00:00
Jun-12	0.32	1.12	834.82	0	13:10	0	0	0:00:00
Jun-15	0.27	0.78	831.68	0	13:19	0	0	0:00:00
Jun-19	0.39	1.05	826.25	0	13:34	0	0	0:00:00
Jun-22	2.10	3.59	819.76	0	14:11	0	0	0:00:00
Jun-24	1.11	1.99	822.99	0	14:46	0	0	0:00:00
Jun-26	0.69	1.52	823.92	0	14:43	0	0	0:00:00
Jun-27	2.01	3.39	817.09	0	14:02	0	0	0:00:00
Jun-28	0.38	0.77	820.77	0	13:07	0	0	0:00:00
Jun-29	2.24	3.81	804.80	0	13:49	0	0	0:00:00
Jun-30	0.47	1.21	806.71	0	12:17	0	0	0:00:00
Jun-32	2.13	3.70	801.51	0	13:45	0	0	0:00:00
Jun-35	0.47	0.92	800.14	0	13:03	0	0	0:00:00
Jun-38	0.39	1.19	810.99	0	12:26	0	0	0:00:00
Jun-39	2.32	4.01	805.98	0	13:48	0	0	0:00:00
Jun-44	0.49	1.78	833.78	0	13:18	0	0	0:00:00
Jun-45	0.29	0.74	798.74	0	12:25	0	0	0:00:00
Jun-46	0.47	0.94	798.69	0	12:29	0	0	0:00:00
Jun-47	0.40	0.85	797.85	0	12:27	0	0	0:00:00
Jun-54	0.44	1.33	834.73	0	13:13	0	0	0:00:00
Jun-56	0.22	0.52	838.32	0	12:54	0	0	0:00:00
Jun-58	2.18	3.78	798.08	0	13:46	0	0	0:00:00
Structure - (11)	1.51	2.21	796.49	0	13:44	0	0	0:00:00
Jun-34	2.10	3.62	794.82	0	13:46	0	0	0:00:00
Out-01	0.40	0.83	797.33	0	12:27	0	0	0:00:00
Out-1Pipe - (3)	0.85	1.10	793.90	0	13:44	0	0	0:00:00
Diversion-02	4.85	7.82	825.82	0	14:26	0	0	0:00:00
Diversion-03	1.01	1.79	833.05	0	13:54	0	0	0:00:00
Diversion-04	1.74	4.03	824.48	0	13:50	0	0	0:00:00
Diversion-05	2.08	4.04	826.93	0	13:31	0	0	0:00:00
Diversion-06	1.14	2.99	831.69	0	13:18	0	0	0:00:00
FD1	2.28	3.97	802.55	0	13:44	0	0	0:00:00

Jun-02	1.52	2.48	844.02	0	13:11	0	0	0:00:00
Jun-51	7.27	8.72	835.95	0	12:56	0	0	0:00:00
Structure - (9)	0.85	4.48	835.95	0	12:30	0	0	0:00:00
Jun-05	1.13	2.68	834.08	0	13:45	0	0	0:00:00
ST10	1.33	3.02	825.82	0	14:26	0	0	0:00:00
ST11	0.91	2.58	824.48	0	13:50	0	0	0:00:00
ST12	0.36	1.26	839.26	0	12:53	0	0	0:00:00
ST2	0.39	0.86	837.86	0	12:56	0	0	0:00:00
ST3	0.28	1.15	806.95	0	12:17	0	0	0:00:00
ST4	0.45	1.72	811.92	0	12:25	0	0	0:00:00
ST5	1.30	2.50	823.80	0	14:45	0.02	7	0:00:00
ST6	0.60	1.93	846.03	0	12:58	0	0	0:00:00
ST7	0.40	1.86	835.66	0	13:01	0	0	0:00:00
ST8	0.42	1.74	834.54	0	13:17	0	0	0:00:00
ST9	1.73	2.93	826.93	0	13:31	0	0	0:00:00

****
Node Flow Summary
****

Node ID	Element Type	Maximum Lateral Inflow cfs	Peak Inflow cfs	Time of Peak Inflow Occurrence days	hh:mm	Maximum Flooding Overflow cfs	Time of Peak Flooding Occurrence days	hh:mm
Jun-01	JUNCTION	0.00	67.19	0	13:50	0.00		
Jun-04	JUNCTION	48.83	78.27	0	13:14	0.00		
Jun-12	JUNCTION	0.00	24.35	0	13:01	0.00		
Jun-15	JUNCTION	0.00	28.14	0	13:10	0.00		
Jun-19	JUNCTION	0.00	72.99	0	13:31	0.00		
Jun-22	JUNCTION	14.63	171.84	0	14:06	0.00		
Jun-24	JUNCTION	0.00	70.80	0	14:45	0.00		
Jun-26	JUNCTION	0.00	68.14	0	14:26	0.00		
Jun-27	JUNCTION	20.76	184.97	0	13:58	0.00		
Jun-28	JUNCTION	20.67	20.67	0	13:05	0.00		
Jun-29	JUNCTION	0.00	225.88	0	13:47	0.00		
Jun-30	JUNCTION	0.00	5.27	0	12:17	0.00		
Jun-32	JUNCTION	0.00	223.14	0	13:44	0.00		
Jun-35	JUNCTION	28.68	28.68	0	13:00	0.00		
Jun-38	JUNCTION	0.00	22.48	0	12:25	0.00		
Jun-39	JUNCTION	40.38	225.46	0	13:44	0.00		
Jun-44	JUNCTION	0.00	22.38	0	13:17	0.00		
Jun-45	JUNCTION	14.92	14.92	0	12:20	0.00		
Jun-46	JUNCTION	0.00	34.49	0	12:25	0.00		
Jun-47	JUNCTION	5.05	38.40	0	12:25	0.00		
Jun-54	JUNCTION	0.00	24.09	0	13:03	0.00		
Jun-56	JUNCTION	0.00	6.80	0	12:53	0.00		
Jun-58	JUNCTION	6.45	224.40	0	13:44	0.00		
Structure - (11)	JUNCTION	0.00	8.11	0	13:44	0.00		
Jun-34	OUTFALL	0.00	224.38	0	13:46	0.00		
Out-01	OUTFALL	0.00	38.27	0	12:27	0.00		
Out-1Pipe - (3)	OUTFALL	0.00	8.11	0	13:44	0.00		
Diversion-02	DIVIDER	54.36	70.82	0	13:05	0.00		
Diversion-03	DIVIDER	0.00	82.49	0	13:45	0.00		
Diversion-04	DIVIDER	15.31	32.69	0	12:35	0.00		
Diversion-05	DIVIDER	73.28	87.26	0	12:55	0.00		
Diversion-06	DIVIDER	13.66	22.01	0	12:53	0.00		
FD1	DIVIDER	24.17	231.27	0	13:43	0.00		
Jun-02	DIVIDER	0.00	34.07	0	12:58	0.00		
Jun-51	DIVIDER	0.00	27.48	0	12:56	0.00		
Structure - (9)	DIVIDER	15.92	15.92	0	12:30	0.00		
Jun-05	STORAGE	18.06	86.10	0	13:30	0.00		
ST10	STORAGE	0.00	97.57	0	13:30	0.00		
ST11	STORAGE	0.00	72.90	0	13:34	0.00		
ST12	STORAGE	7.40	7.40	0	12:40	0.00		

ST2	STORAGE	21.92	28.58	0	12:49	0.00		
ST3	STORAGE	5.78	5.78	0	12:15	0.00		
ST4	STORAGE	22.54	22.54	0	12:24	0.00		
ST5	STORAGE	48.83	72.46	0	14:28	0.56	0	14:41
ST6	STORAGE	38.04	38.04	0	12:45	0.00		
ST7	STORAGE	0.00	24.67	0	12:56	0.00		
ST8	STORAGE	0.00	23.30	0	13:07	0.00		
ST9	STORAGE	0.00	94.44	0	13:02	0.00		

****
Inlet Depth Summary
****

Inlet ID	Max Gutter Spread during Peak Flow ft	Max Gutter Water Elev during Peak Flow ft	Max Gutter Water Depth during Peak Flow ft	Time of Maximum Depth Occurrence days	hh:mm
Structure - (15)	0.00	834.80	0.00	0	11:49

****
Inlet Flow Summary
****

Inlet ID	Peak Flow cfs	Peak Lateral Flow cfs	Peak Flow Intercepted by Inlet cfs	Peak Flow Bypassing Inlet cfs	Inlet Efficiency during Peak Flow %	Total Flooding acre-in	Total Time Flooded minutes
Structure - (15)	0.00	0.00	0.00	0.00	0.00	9.746	574

****
Storage Node Summary
****

Storage Node ID	Maximum Ponded Volume 1000 ft³	Maximum Ponded Volume (%)	Time of Max Ponded days hh:mm	Average Ponded Volume 1000 ft³	Average Ponded Volume (%)	Maximum Storage Node Outflow cfs	Maximum Exfiltration Rate cfm	Time of Max. Exfiltration Rate hh:mm:ss	Total Exfiltrated Volume 1000 ft³
Jun-05	48.886	88	0 13:45	8.625	16	79.89	15.67	13:45:00	2.094

ST10	8.262	17	0	14:26	1.812	4	68.14	3.92	14:25:00	0.478	
ST11	6.769	47	0	13:50	1.132	8	69.98	3.89	13:50:00	0.393	
ST12	1.937	38	0	12:53	0.219	4	6.80	2.56	12:50:00	0.191	
ST2	12.010	74	0	12:56	3.453	21	27.48	7.73	12:55:00	3.304	
ST3	1.293	3	0	12:17	0.136	0	5.27	0.87	12:15:00	0.133	
ST4	0.443	2	0	12:25	0.067	0	22.48	0.17	12:25:00	0.043	
ST5	7.927	100	0	14:41	1.943	25	70.80	6.13	14:45:00	0.794	
ST6	15.788	87	0	12:58	1.685	9	34.07	8.87	12:55:00	0.701	
ST7	2.889	9	0	13:01	0.340	1	24.35	1.24	13:00:00	0.103	
ST8	2.390	67	0	13:17	0.343	10	22.38	1.10	13:15:00	0.117	
ST9	81.173	84	0	13:31	20.177	21	72.99	24.34	13:30:00	10.214	

****
Outfall Loading Summary
****

Outfall Node ID	Flow Frequency (%)	Average Flow cfs	Peak Inflow cfs
Jun-34	100.00	101.96	224.38
Out-01	83.62	12.27	38.27
Out-1Pipe - (3)	94.05	6.35	8.11
System	92.56	120.57	259.54

****
Link Flow Summary
****

Link ID	Element Type	Time of Peak Flow Occurrence days hh:mm	Maximum Velocity Attained ft/sec	Length Factor	Peak Flow during Analysis cfs	Design Flow Capacity cfs	Ratio of Maximum /Design Flow	Ratio of Maximum Depth	Total Time minutes	Reported Condition
166thEastofOlio	CONDUIT	0 13:50	4.93	1.00	67.19	519.64	0.13	0.76	0	Calculated
166thWestofDurbin	CONDUIT	0 13:17	3.18	1.00	22.38	123.78	0.18	0.88	0	Calculated
DurbinNorthofSR38	CONDUIT	0 13:45	5.12	1.00	79.89	177.98	0.45	0.74	0	Calculated
DurbinSouthofSR38	CONDUIT	0 13:01	4.12	1.00	24.35	35.61	0.68	0.74	0	Calculated
Link-09	CHANNEL	0 13:33	2.88	1.00	76.07	152.96	0.50			

0.75	0	Calculated									
Link-10		CHANNEL	0	13:11	0.89	1.00	29.56	90.03	0.33	0.83	0
Calculated											
Link-100		CONDUIT	0	13:44	4.59	1.00	8.11	7.03	1.15	1.00	450
SURCHARGED											
Link-102		CHANNEL	0	12:54	0.79	1.00	6.79	39.45	0.17	0.69	0
Calculated											
Link-104		CHANNEL	0	13:46	5.32	1.00	224.38	411.89	0.54	0.78	0
Calculated											
Link-106		CHANNEL	0	13:54	0.98	1.00	64.52	356.88	0.18	0.76	0
Calculated											
Link-107		CONDUIT	0	14:58	5.53	1.00	17.38	9.88	1.76	1.00	332
SURCHARGED											
Link-109		CHANNEL	0	13:05	3.37	1.00	54.42	459.36	0.12	0.96	0
Calculated											
Link-110		CONDUIT	0	13:20	5.63	1.00	16.90	20.98	0.81	0.95	0
Calculated											
Link-112		CONDUIT	0	12:12	6.49	1.00	19.62	15.76	1.24	1.00	216
SURCHARGED											
Link-113		CHANNEL	0	12:35	4.20	1.00	12.15	1149.28	0.01	1.00	86
FLOODED											
Link-114		CONDUIT	0	13:37	7.02	1.00	21.68	22.30	0.97	1.00	216
SURCHARGED											
Link-115		CONDUIT	0	12:15	6.16	1.00	10.85	8.18	1.33	1.00	67
SURCHARGED											
Link-116		CHANNEL	0	12:55	4.60	1.00	71.08	1451.08	0.05	0.57	0
Calculated											
Link-117		CONDUIT	0	13:03	4.49	1.00	14.02	15.81	0.89	1.00	130
SURCHARGED											
Link-118		CHANNEL	0	12:53	2.17	1.00	7.92	521.35	0.02	0.37	0
Calculated											
Link-119		CHANNEL	0	12:30	2.17	1.00	5.02	249.26	0.02	0.44	0
Calculated											
Link-120		CONDUIT	0	12:12	3.86	1.00	2.84	2.54	1.12	1.00	339
SURCHARGED											
Link-14		CHANNEL	0	13:03	0.86	1.00	24.09	73.47	0.33	0.82	0
Calculated											
Link-15		CHANNEL	0	13:19	0.96	1.00	27.32	320.43	0.09	0.53	0
Calculated											
Link-18		CHANNEL	0	13:34	1.71	1.00	72.90	716.75	0.10	0.71	0
Calculated											
Link-22		CHANNEL	0	13:51	3.02	1.00	67.19	163.91	0.41	0.83	0
Calculated											
Link-26		CHANNEL	0	14:31	0.72	1.00	67.04	285.66	0.23	0.88	0
Calculated											
Link-27		CHANNEL	0	14:46	2.87	1.00	70.79	314.11	0.23	0.69	0
Calculated											
Link-29		CHANNEL	0	14:09	4.48	1.00	171.71	274.18	0.63	0.82	0
Calculated											
Link-30		CHANNEL	0	13:07	2.19	1.00	20.60	54.63	0.38	0.66	0
Calculated											
Link-31		CHANNEL	0	14:02	4.43	1.00	184.88	304.83	0.61	0.87	0
Calculated											
Link-32		CONDUIT	0	12:17	2.17	1.00	5.27	19.78	0.27	0.38	0
Calculated											
Link-33		CHANNEL	0	13:48	4.93	1.00	225.86	309.25	0.73	0.92	0
Calculated											
Link-34		CHANNEL	0	13:44	4.99	1.00	223.14	320.80	0.70	0.90	0
Calculated											
Link-36		CHANNEL	0	13:45	5.20	1.00	223.14	320.39	0.70	0.88	0
Calculated											
Link-39		CONDUIT	0	12:25	4.80	1.00	22.48	27.57	0.82	0.62	0
Calculated											
Link-40		CHANNEL	0	13:48	4.87	1.00	225.33	308.27	0.73	0.92	0
Calculated											
Link-41		CHANNEL	0	12:26	3.49	1.00	22.37	67.23	0.33	0.62	0
Calculated											

```
  Link-51              CHANNEL      0  13:18      2.66    1.00       22.37       43.15      0.52
0.64           0  Calculated
  Link-52              CHANNEL      0  12:17      2.75    1.00        5.27       23.96      0.22
0.49           0  Calculated
  Link-53              CHANNEL      0  13:03      1.70    1.00       28.65       55.08      0.52
0.73           0  Calculated
  Link-55              CHANNEL      0  12:28      1.39    1.00       34.29      130.35      0.26
0.59           0  Calculated
  Link-56              CHANNEL      0  12:20      0.73    1.00       14.73       49.36      0.30
0.84           0  Calculated
  Link-57              CHANNEL      0  12:27      1.76    1.00       38.27      184.07      0.21
0.56           0  Calculated
  Link-75              CONDUIT      0  14:40      4.21    1.00        1.42        0.29      4.95
1.00         141  SURCHARGED
  Link-76              CONDUIT      0  12:57      3.58    1.00        2.81        0.42      6.68
1.00         845  SURCHARGED
  Link-82              CHANNEL      0  12:56      1.49    1.00       24.67      193.05      0.13
0.73           0  Calculated
  Link-83              CHANNEL      0  13:07      1.05    1.00       23.30       79.07      0.29
0.77           0  Calculated
  Link-84              CHANNEL      0  00:00      0.00    1.00        0.00      131.24      0.00
0.50           0  Calculated
  Link-85              CHANNEL      0  12:56      1.79    1.00       27.48       64.79      0.42
0.70           0  Calculated
  OlioNorthof166th     CONDUIT      0  14:45      5.07    1.00       70.80      143.68      0.49
1.00           0  Calculated
  OlioSouthof166th     CONDUIT      0  13:31      3.66    1.00       72.99      755.00      0.10
0.66           0  Calculated
  Pipe - (3)           CONDUIT      0  13:44      4.98    1.00        8.11        6.72      1.21
0.87           0  > CAPACITY
  PrairieNorthofSR38   CONDUIT      0  12:58      5.95    1.00       34.07      102.16      0.33
0.77           0  Calculated
  SR38EastofDurbin     CONDUIT      0  12:53      3.83    1.00        6.80       12.00      0.57
0.59           0  Calculated
  SR38EastofOlio       CONDUIT      0  14:26      6.08    1.00       68.14      143.76      0.47
0.75           0  Calculated


  ********************************
  Highest Flow Instability Indexes
  ********************************
  Link OlioSouthof166th (8)
  Link Link-113 (2)

  WARNING 108 : Surcharge elevation defined for Junction Jun-01 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-04 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-12 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-15 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-19 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-22 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-24 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-26 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-27 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-28 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-29 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-30 is below junction maximum
```

```
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-32 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-35 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-38 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-39 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-44 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-45 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-46 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-47 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-54 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Jun-58 is below junction maximum
elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 108 : Surcharge elevation defined for Junction Structure - (11) is below junction
maximum elevation. Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Diversion-02 is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Diversion-04 is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Diversion-05 is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Diversion-06 is below flow
diversion maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion FD1 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 113 : Surcharge elevation defined for Flow Diversion Jun-51 is below flow diversion
maximum elevation.
                Assumed surcharge elevation equal to maximum elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit 166thEastofOlio is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinNorthofSR38 is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit DurbinSouthofSR38 is below
upstream node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit DurbinSouthofSR38 is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-106 is below downstream
node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit Link-110 is below upstream
node invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 116 : Conduit inlet invert elevation defined for Conduit Link-18 is below upstream node
invert elevation.
                Assumed conduit inlet invert elevation equal to upstream node invert elevation.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit Link-18 is below downstream
node invert elevation.
```

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                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 005 : Minimum slope used for Conduit Link-76.
  WARNING 117 : Conduit outlet invert elevation defined for Conduit OlioSouthof166th is below
downstream node invert elevation.
                Assumed conduit outlet invert elevation equal to downstream node invert
elevation.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-04.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-12.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-19.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-22.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-24.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-26.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-27.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-29.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-30.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-39.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-46.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-47.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-54.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Diversion-05.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Diversion-06.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Jun-51.
  WARNING 002 : Max/rim elevation (depth) increased to account for connecting conduit height
dimensions for Node Structure - (9).

  Analysis began on:  Mon Apr 20 08:15:07 2015
  Analysis ended on:  Mon Apr 20 08:15:10 2015
  Total elapsed time: 00:00:03
```

VSE

APPENDIX B

Federal Highway Administration (FHWA) HY-8 Culvert Analysis

HY-8 Culvert Analysis Report

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 1 - Summary of Culvert Flows at Crossing: 166thEastofOlio

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
823.93	10 year	85.00	85.00	0.00	1
824.90	100 year	160.00	160.00	0.00	1
824.90	Overtopping	160.08	160.08	0.00	Overtopping

Rating Curve Plot for Crossing: 166thEastofOlio

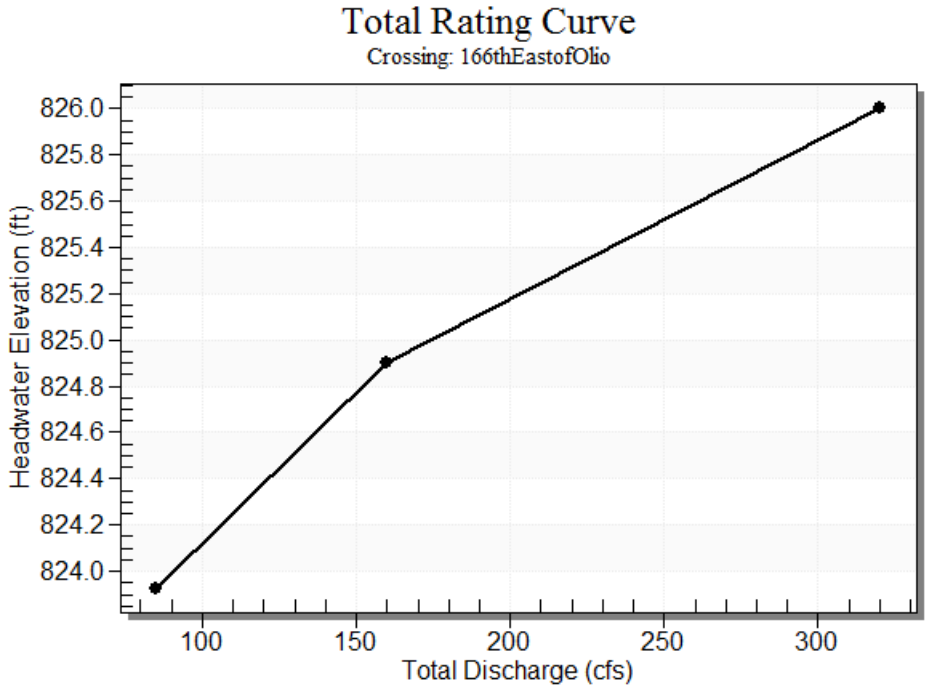


Table 2 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	85.00	85.00	823.93	2.028	1.310	1-S2r	0.723	1.481	0.880	1.113	12.206	2.220
100 yea	160.00	160.00	824.90	2.998	2.112	1-S2r	1.011	2.057	1.294	1.415	13.698	2.601

****

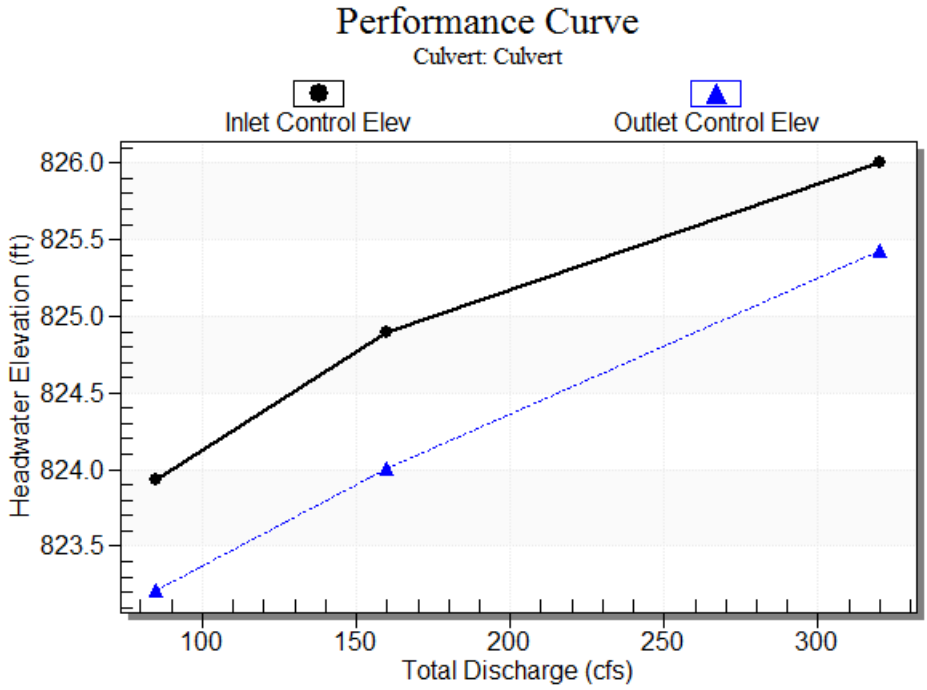
Straight Culvert

Inlet Elevation (invert): 821.90 ft, Outlet Elevation (invert): 820.20 ft

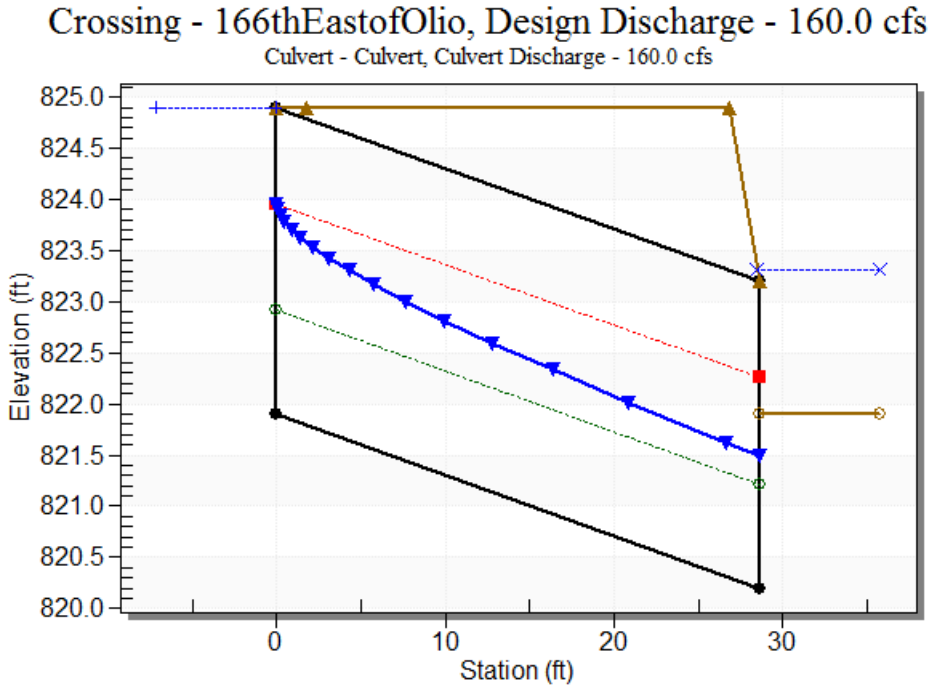
Culvert Length: 28.64 ft, Culvert Slope: 0.0595

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 821.90 ft
Outlet Station: 28.59 ft
Outlet Elevation: 820.20 ft
Number of Barrels: 4

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 3.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 3 - Downstream Channel Rating Curve (Crossing: 166thEastofOlio)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
85.00	823.01	1.11	2.22	0.34	0.52
160.00	823.32	1.42	2.60	0.43	0.54

Tailwater Channel Data - 166thEastofOlio

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0049
Channel Manning's n: 0.0320
Channel Invert Elevation: 821.90 ft

Roadway Data for Crossing: 166thEastofOlio

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 824.90 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 4 - Summary of Culvert Flows at Crossing: 166thWestofDurbin

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
834.07	10 year	20.00	20.00	0.00	1
834.56	100 year	36.00	35.07	0.96	4
834.50	Overtopping	35.74	35.74	0.00	Overtopping

Rating Curve Plot for Crossing: 166thWestofDurbin

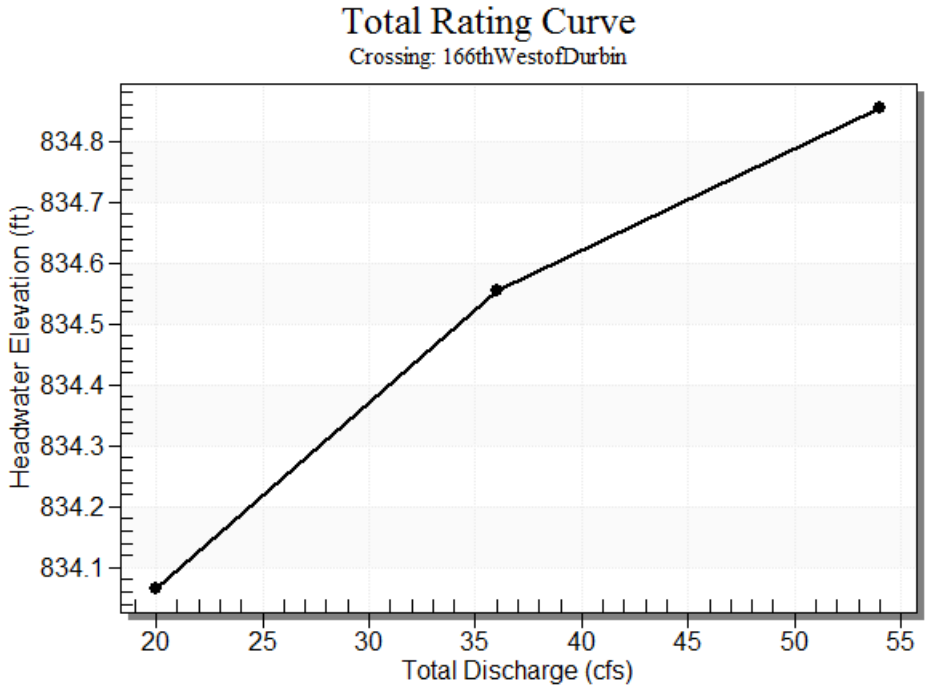


Table 5 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	20.00	20.00	834.07	0.838	1.266	1-S1	0.445	0.595	1.250	1.175	1.928	1.334
100 yea	36.00	35.07	834.56	1.165	1.757	4-FF	0.609	0.794	1.250	1.477	3.175	1.545

****

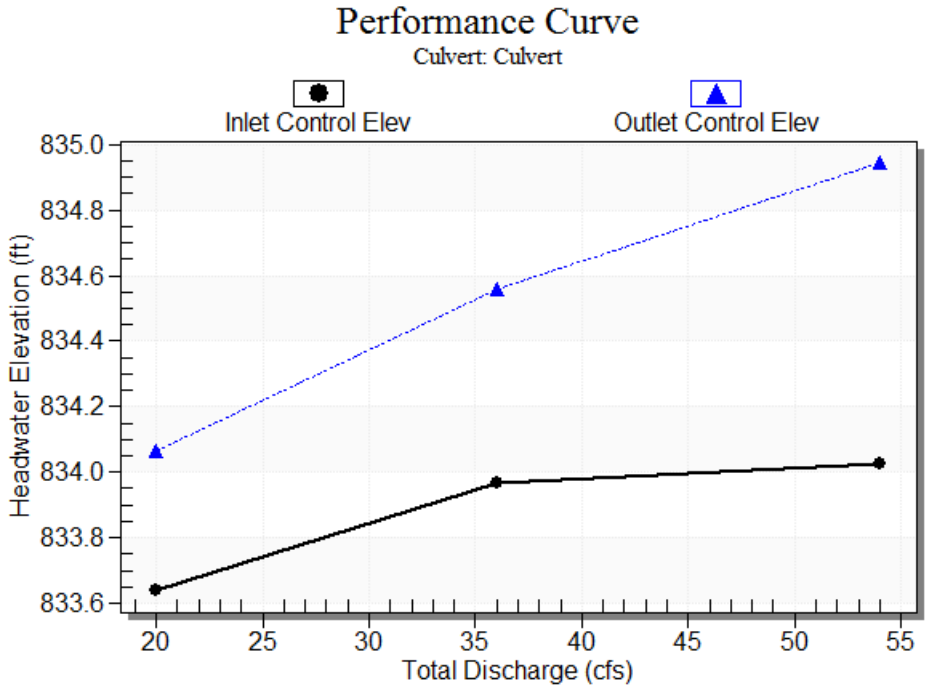
Straight Culvert

Inlet Elevation (invert): 832.80 ft, Outlet Elevation (invert): 832.40 ft

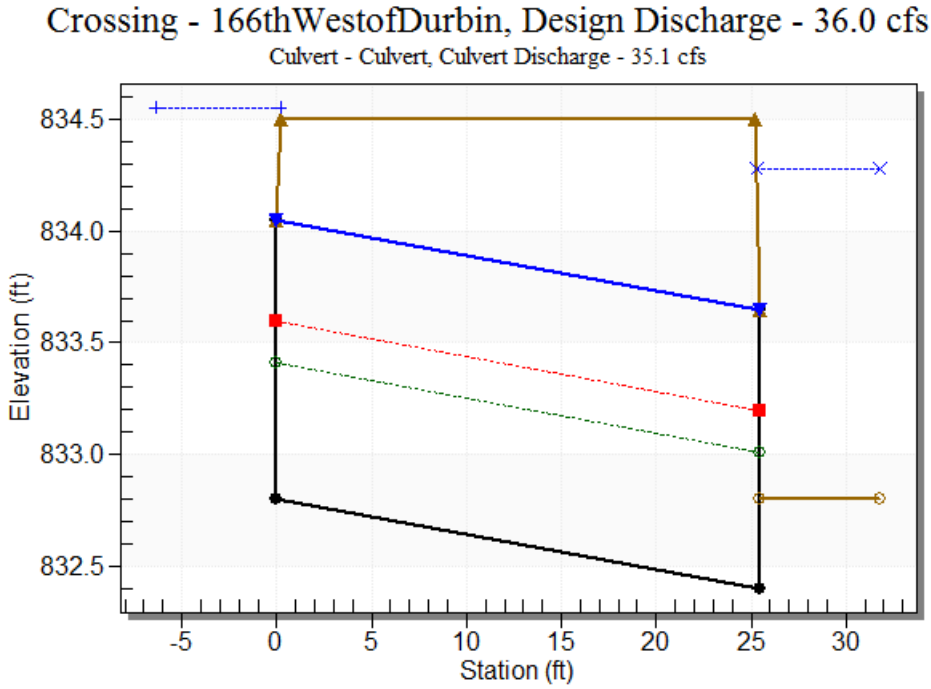
Culvert Length: 25.43 ft, Culvert Slope: 0.0157

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 832.80 ft
Outlet Station: 25.43 ft
Outlet Elevation: 832.40 ft
Number of Barrels: 9

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 1.25 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 6 - Downstream Channel Rating Curve (Crossing: 166thWestofDurbin)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
20.00	833.98	1.18	1.33	0.12	0.30
36.00	834.28	1.48	1.55	0.15	0.31

Tailwater Channel Data - 166thWestofDurbin

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 10.00 (_:1)
Channel Slope: 0.0016
Channel Manning's n: 0.0320
Channel Invert Elevation: 832.80 ft

Roadway Data for Crossing: 166thWestofDurbin

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 834.50 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 7 - Summary of Culvert Flows at Crossing: DurbinNorthofSR38

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
834.30	10 year	60.00	60.00	0.00	1
834.78	100 year	116.00	116.00	0.00	1
834.75	Overtopping	116.84	116.84	0.00	Overtopping

Rating Curve Plot for Crossing: DurbinNorthofSR38

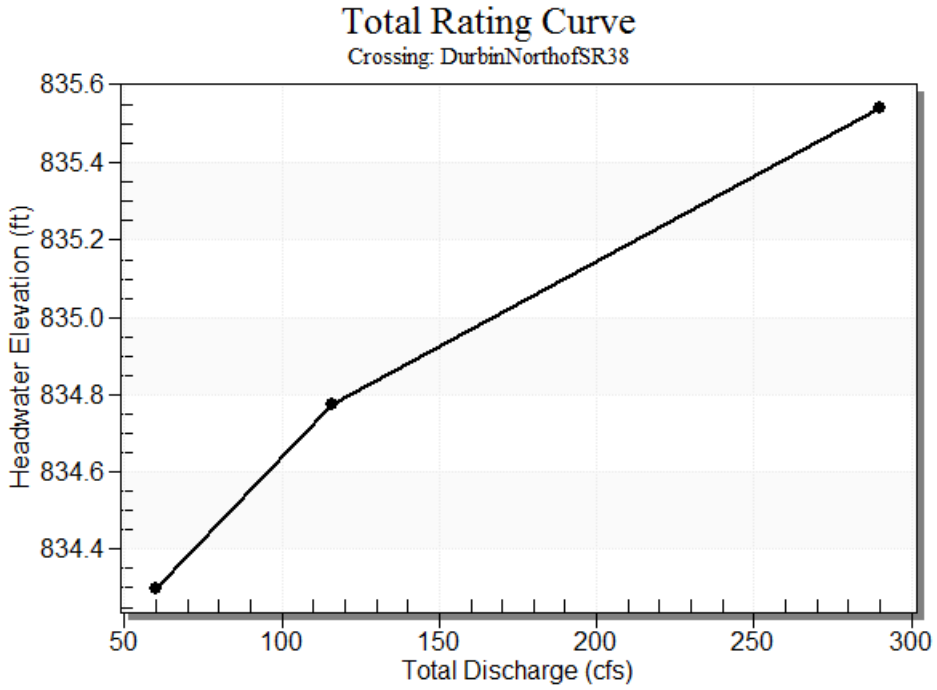


Table 8 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	60.00	60.00	834.30	0.631	1.100	4-FF	0.420	0.448	1.000	1.034	1.441	1.813
100 yea	116.00	116.00	834.78	0.925	1.575	4-FF	0.627	0.629	1.000	1.328	2.787	2.137

****

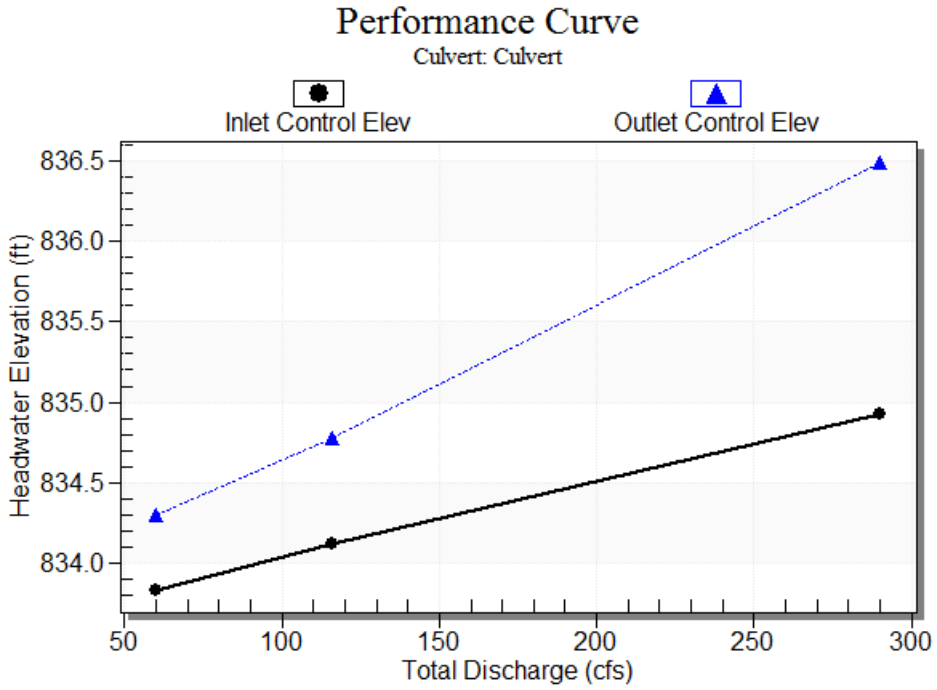
Straight Culvert

Inlet Elevation (invert): 833.20 ft, Outlet Elevation (invert): 833.00 ft

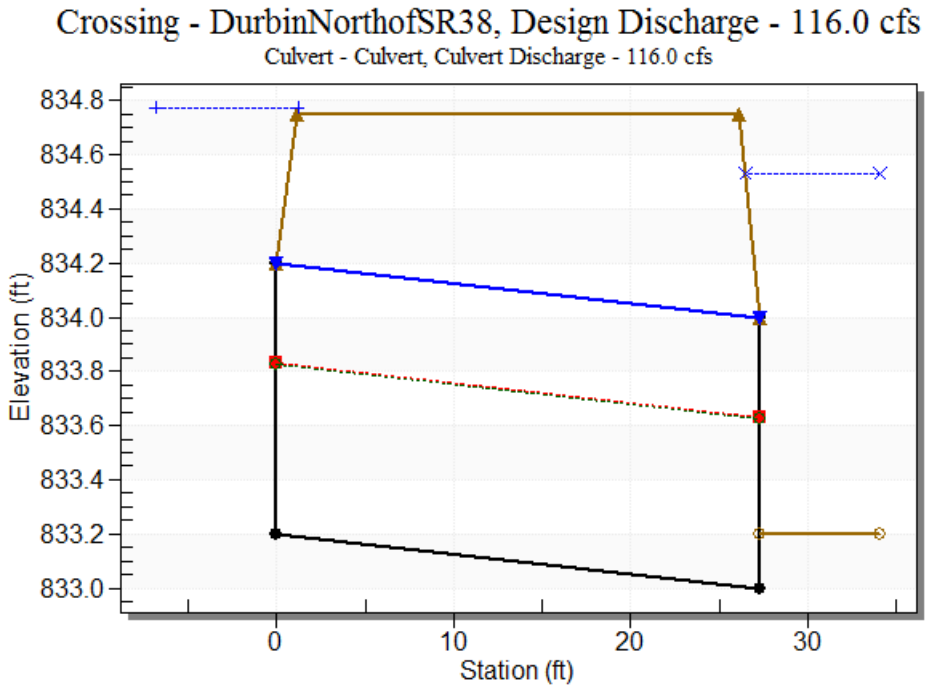
Culvert Length: 27.27 ft, Culvert Slope: 0.0073

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 833.20 ft
Outlet Station: 27.27 ft
Outlet Elevation: 833.00 ft
Number of Barrels: 53

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 1.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 9 - Downstream Channel Rating Curve (Crossing: DurbinNorthofSR38)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
60.00	834.23	1.03	1.81	0.23	0.44
116.00	834.53	1.33	2.14	0.30	0.46

Tailwater Channel Data - DurbinNorthofSR38

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0036
Channel Manning's n: 0.0320
Channel Invert Elevation: 833.20 ft

Roadway Data for Crossing: DurbinNorthofSR38

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 834.75 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 10 - Summary of Culvert Flows at Crossing: DurbinSouthofSR38

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
835.09	10 year	20.00	20.00	0.00	1
835.77	100 year	37.00	37.00	0.00	1
836.00	Overtopping	41.67	41.67	0.00	Overtopping

Rating Curve Plot for Crossing: DurbinSouthofSR38

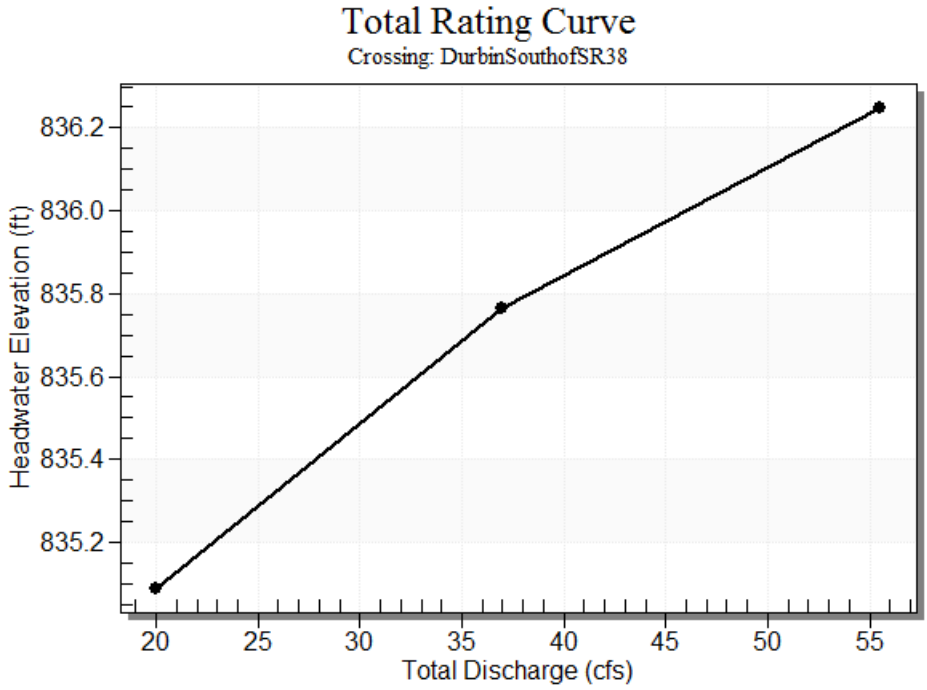


Table 11 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	20.00	20.00	835.09	1.243	1.290	2-M2	1.023	0.856	0.856	0.418	4.801	3.531
100 yea	37.00	37.00	835.77	1.901	1.965	7-M2	1.500	1.174	1.174	0.531	6.232	4.120

****

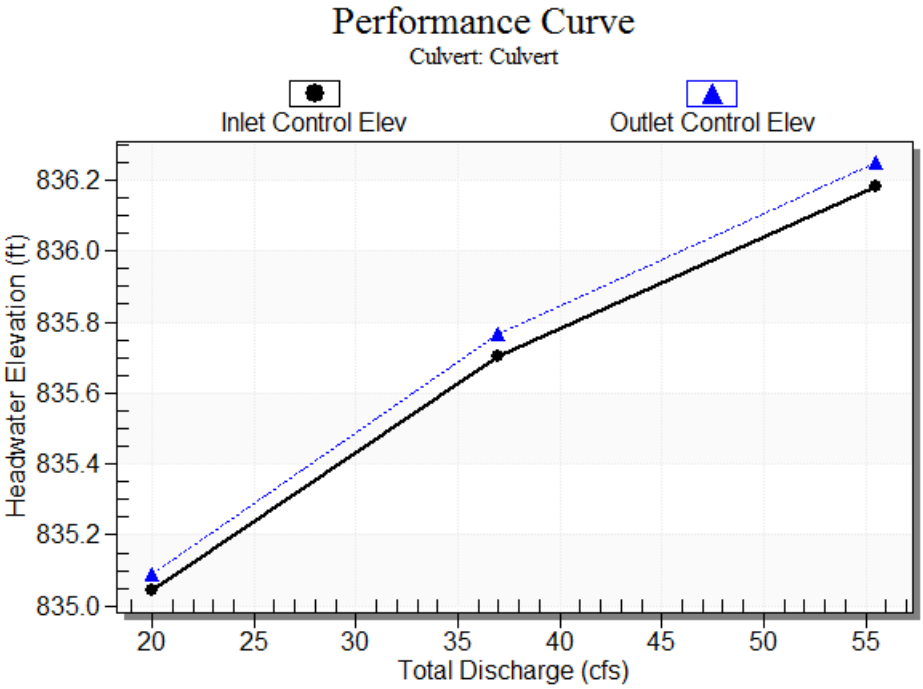
Straight Culvert

Inlet Elevation (invert): 833.80 ft, Outlet Elevation (invert): 833.70 ft

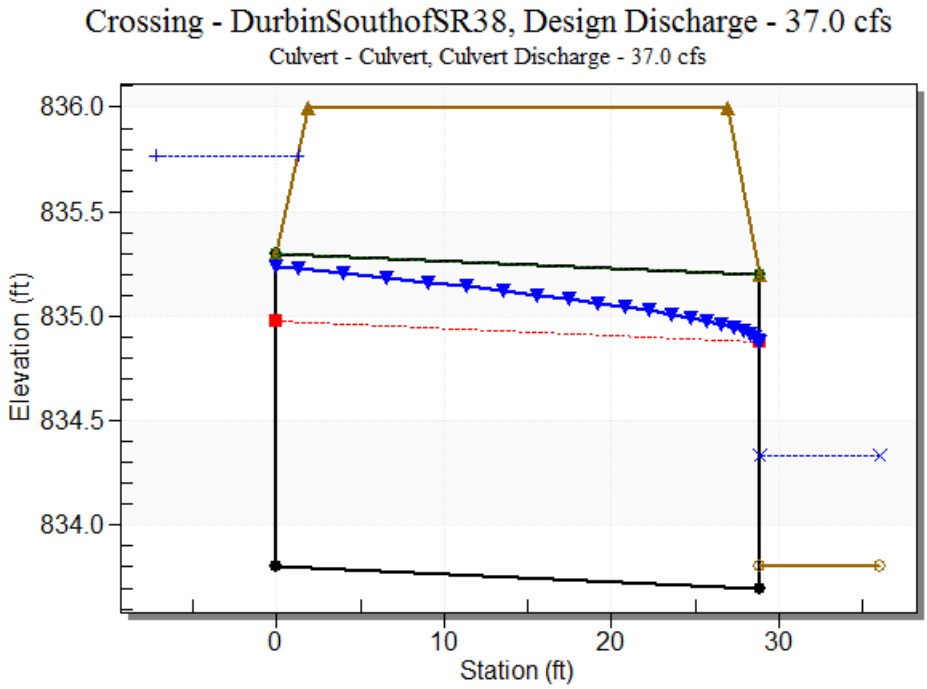
Culvert Length: 28.84 ft, Culvert Slope: 0.0035

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 833.80 ft
Outlet Station: 28.84 ft
Outlet Elevation: 833.70 ft
Number of Barrels: 4

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 1.50 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 12 - Downstream Channel Rating Curve (Crossing: DurbinSouthofSR38)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
20.00	834.22	0.42	3.53	1.16	1.34
37.00	834.33	0.53	4.12	1.47	1.39

Tailwater Channel Data - DurbinSouthofSR38

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0444
Channel Manning's n: 0.0320
Channel Invert Elevation: 833.80 ft

Roadway Data for Crossing: DurbinSouthofSR38

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 836.00 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 13 - Summary of Culvert Flows at Crossing: OlioNorthof166th

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
823.01	10 year	54.00	54.00	0.00	1
824.17	100 year	108.00	108.00	0.00	1
824.20	Overtopping	109.04	109.04	0.00	Overtopping

Rating Curve Plot for Crossing: OlioNorthof166th

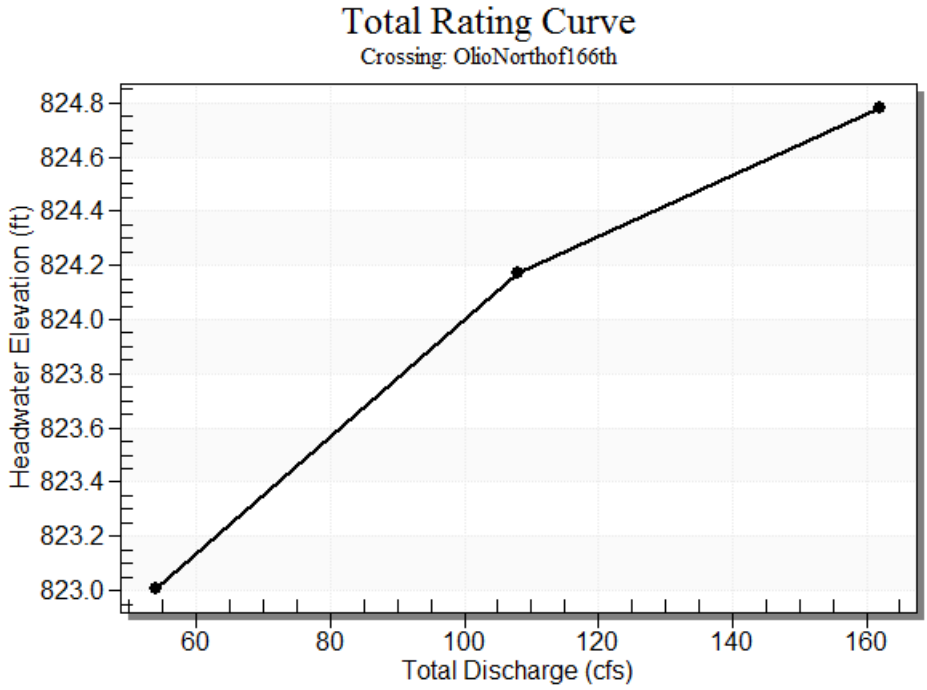


Table 14 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	54.00	54.00	823.01	1.700	1.335	1-S2r	0.929	1.175	0.980	1.065	7.051	1.540
100 yea	108.00	108.00	824.17	2.861	2.498	5-S2r	1.466	1.661	1.509	1.385	8.510	1.831

****

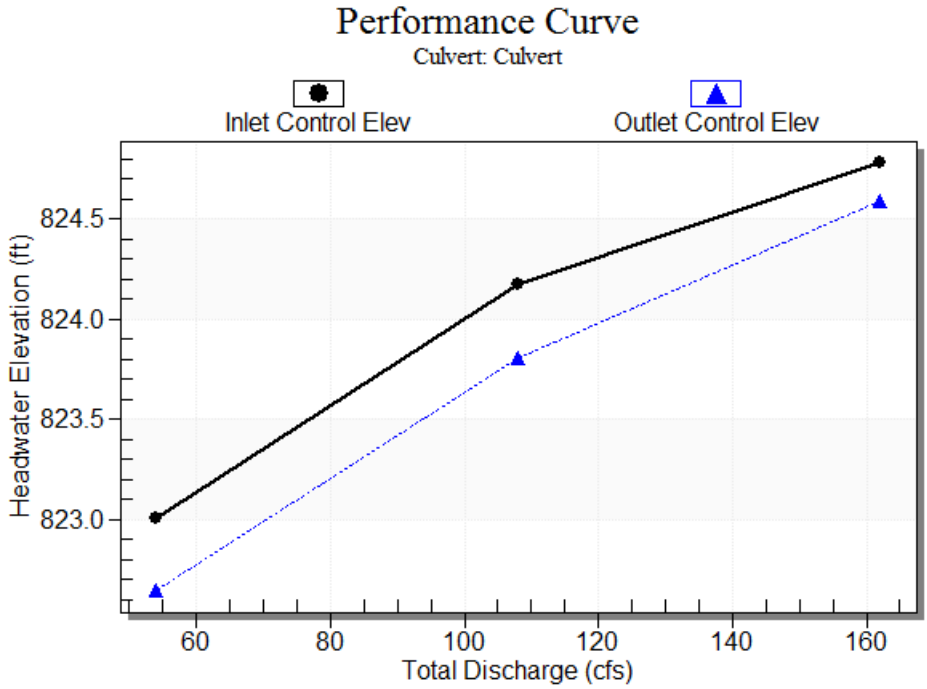
Straight Culvert

Inlet Elevation (invert): 821.31 ft, Outlet Elevation (invert): 821.00 ft

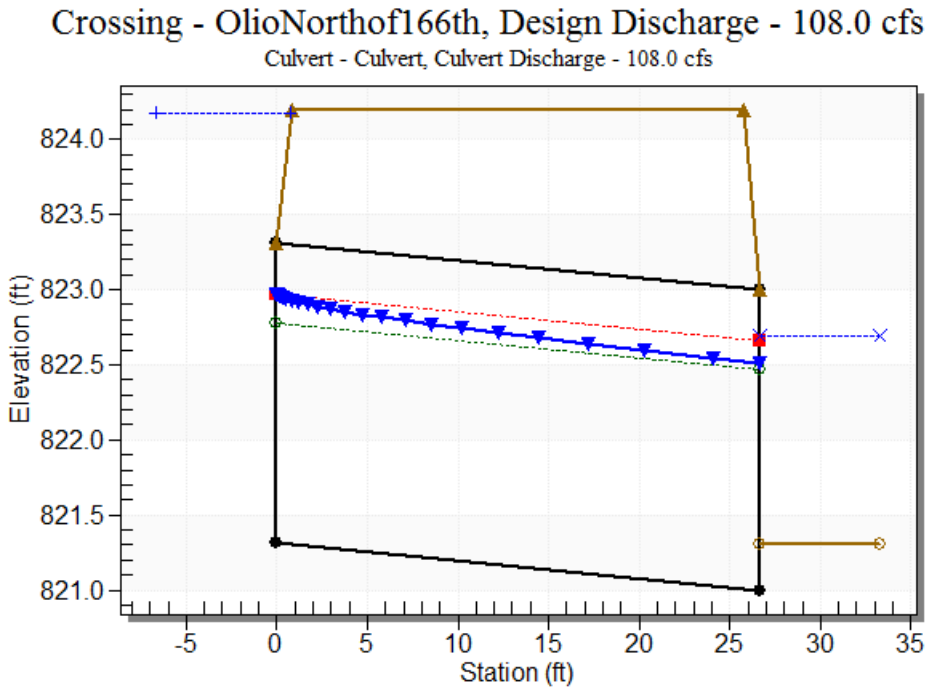
Culvert Length: 26.62 ft, Culvert Slope: 0.0116

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 821.31 ft
Outlet Station: 26.62 ft
Outlet Elevation: 821.00 ft
Number of Barrels: 5

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 2.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 15 - Downstream Channel Rating Curve (Crossing: OlioNorthof166th)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
54.00	822.36	1.06	1.54	0.17	0.37
108.00	822.69	1.39	1.83	0.22	0.39

Tailwater Channel Data - OlioNorthof166th

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0025
Channel Manning's n: 0.0320
Channel Invert Elevation: 821.30 ft

Roadway Data for Crossing: OlioNorthof166th

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 824.20 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 16 - Summary of Culvert Flows at Crossing: OlioSouthof166th

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
826.78	10 year	54.00	54.00	0.00	1
827.34	100 year	108.00	107.34	0.52	6
827.30	Overtopping	103.48	103.48	0.00	Overtopping

Rating Curve Plot for Crossing: OlioSouthof166th

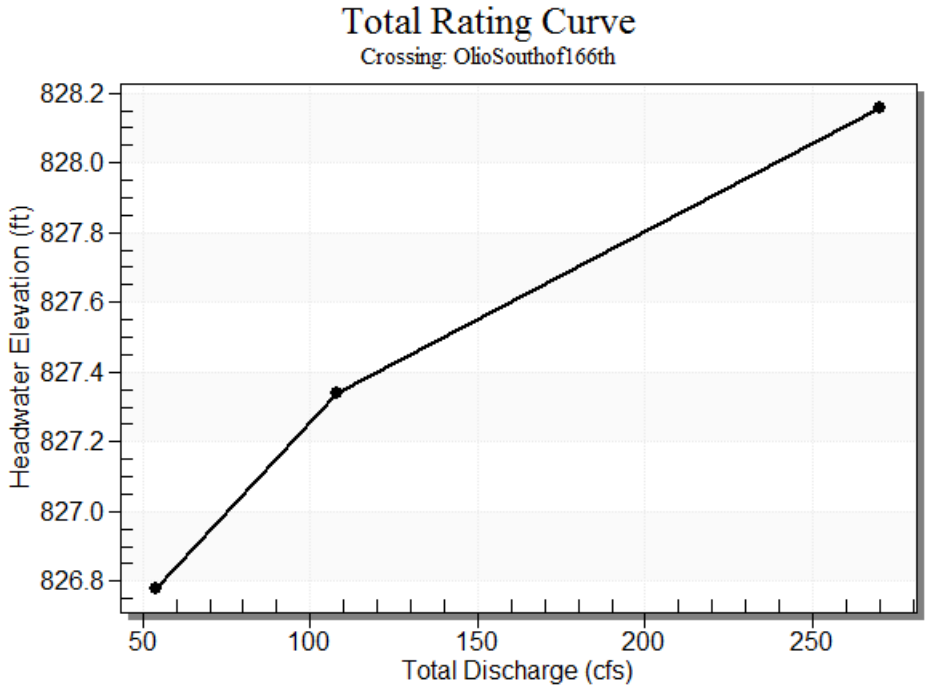


Table 17 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	54.00	54.00	826.78	1.181	1.025	1-JS1	0.685	0.870	1.298	0.998	2.630	1.747
100 yea	108.00	107.34	827.34	1.738	1.403	1-JS1	0.974	1.246	1.600	1.300	4.001	2.078

****

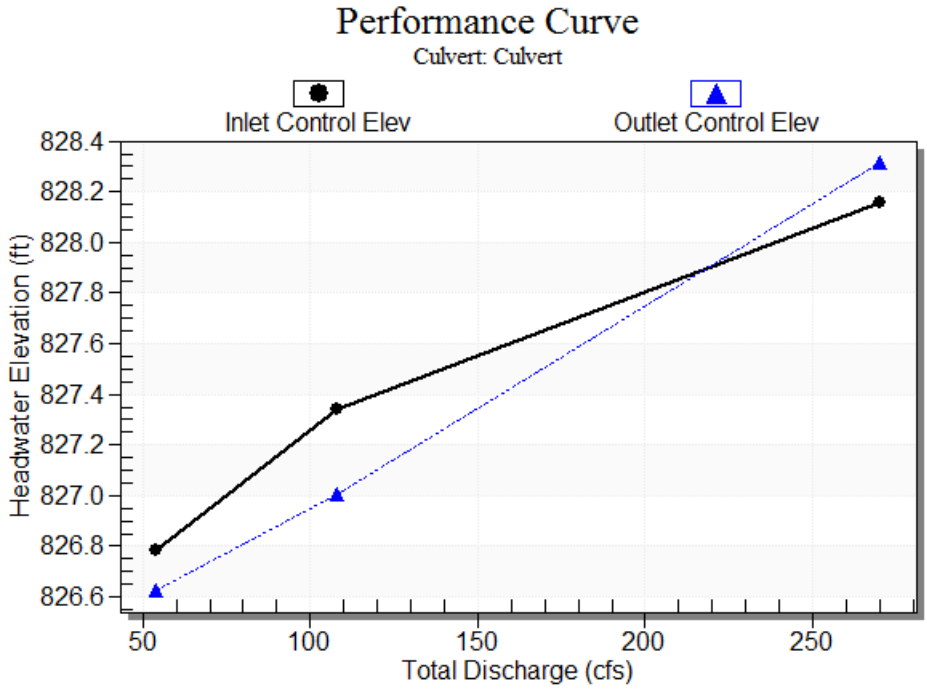
Straight Culvert

Inlet Elevation (invert): 825.60 ft, Outlet Elevation (invert): 825.30 ft

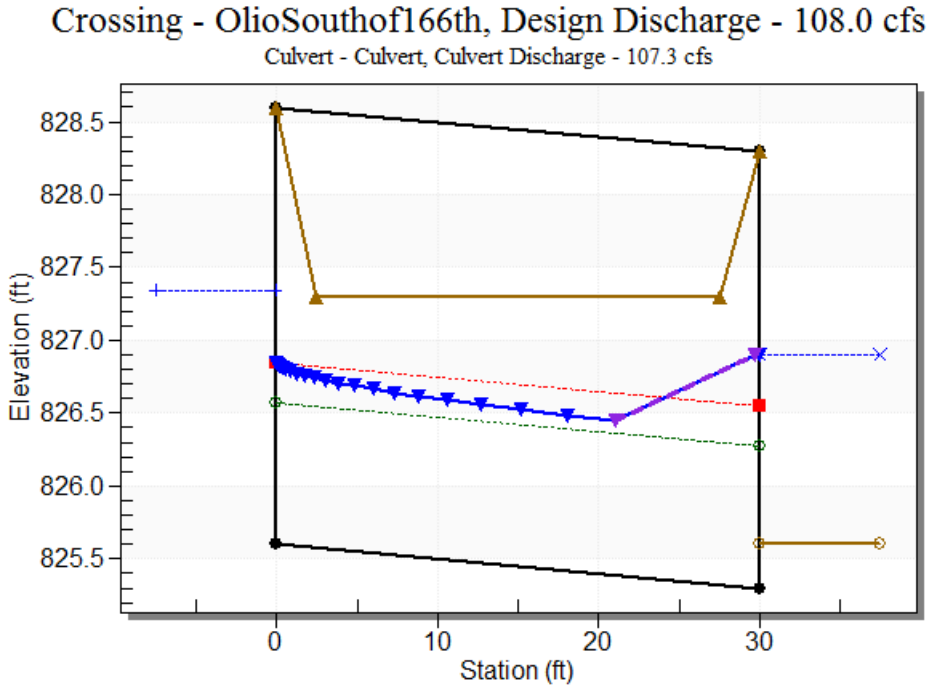
Culvert Length: 29.96 ft, Culvert Slope: 0.0100

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 825.60 ft
Outlet Station: 29.96 ft
Outlet Elevation: 825.30 ft
Number of Barrels: 7

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 3.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 18 - Downstream Channel Rating Curve (Crossing: OlioSouthof166th)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
54.00	826.60	1.00	1.75	0.22	0.43
108.00	826.90	1.30	2.08	0.28	0.45

Tailwater Channel Data - OlioSouthof166th

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0035
Channel Manning's n: 0.0320
Channel Invert Elevation: 825.60 ft

Roadway Data for Crossing: OlioSouthof166th

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 827.30 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 19 - Summary of Culvert Flows at Crossing: PrairieNorthofSR38

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
845.41	10 year	28.00	28.00	0.00	1
845.94	100 year	50.00	50.00	0.00	1
846.00	Overtopping	52.61	52.61	0.00	Overtopping

Rating Curve Plot for Crossing: PrairieNorthofSR38

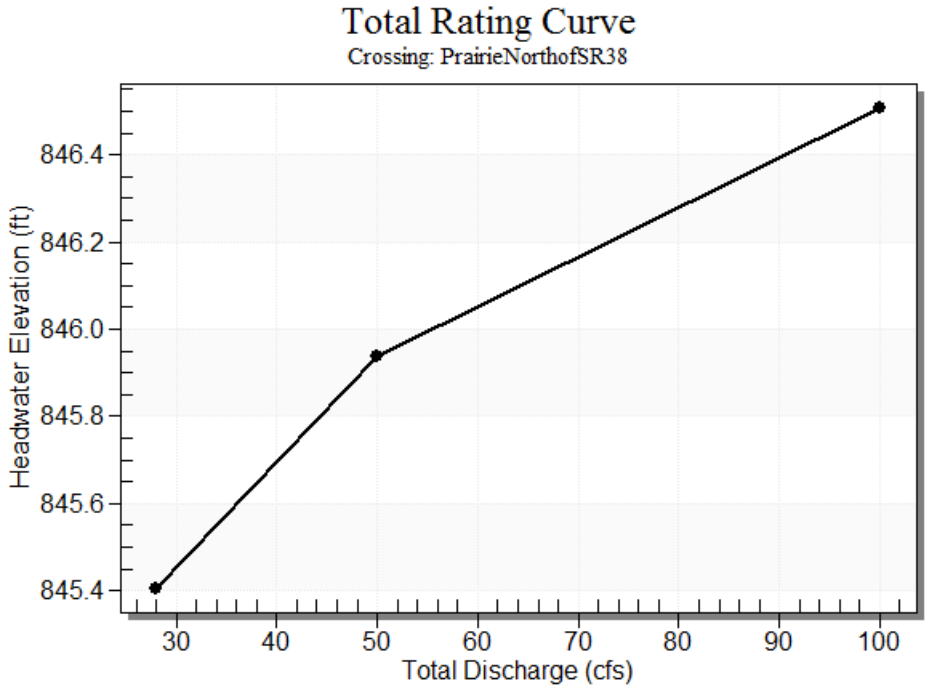


Table 20 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	28.00	28.00	845.41	1.306	0.775	1-S2n	0.565	0.939	0.621	0.654	8.380	2.076
100 year	50.00	50.00	845.94	1.838	1.204	1-S2n	0.774	1.269	0.872	0.817	9.491	2.401

****

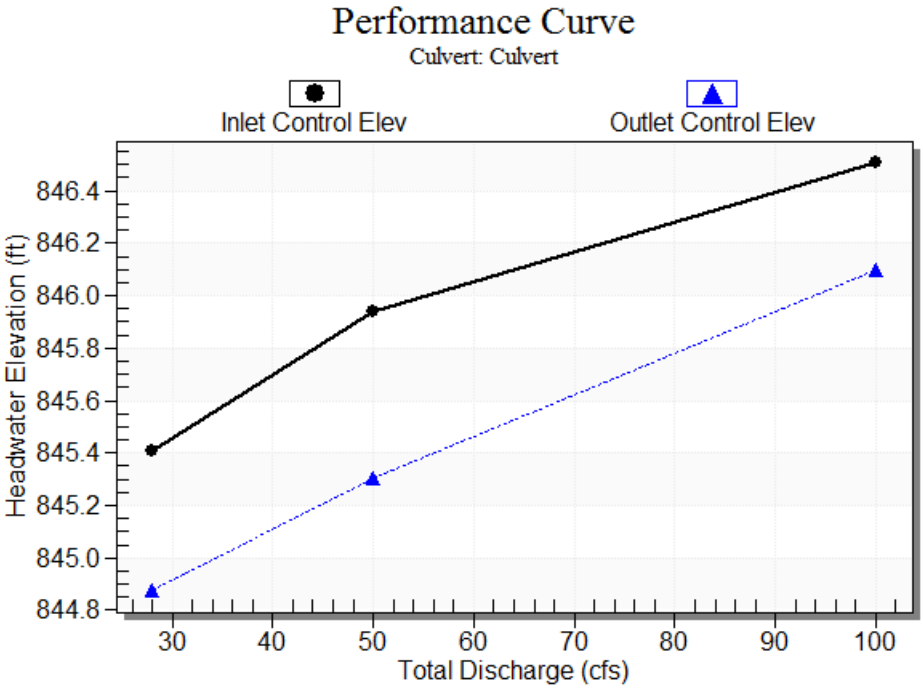
Straight Culvert

Inlet Elevation (invert): 844.10 ft, Outlet Elevation (invert): 843.20 ft

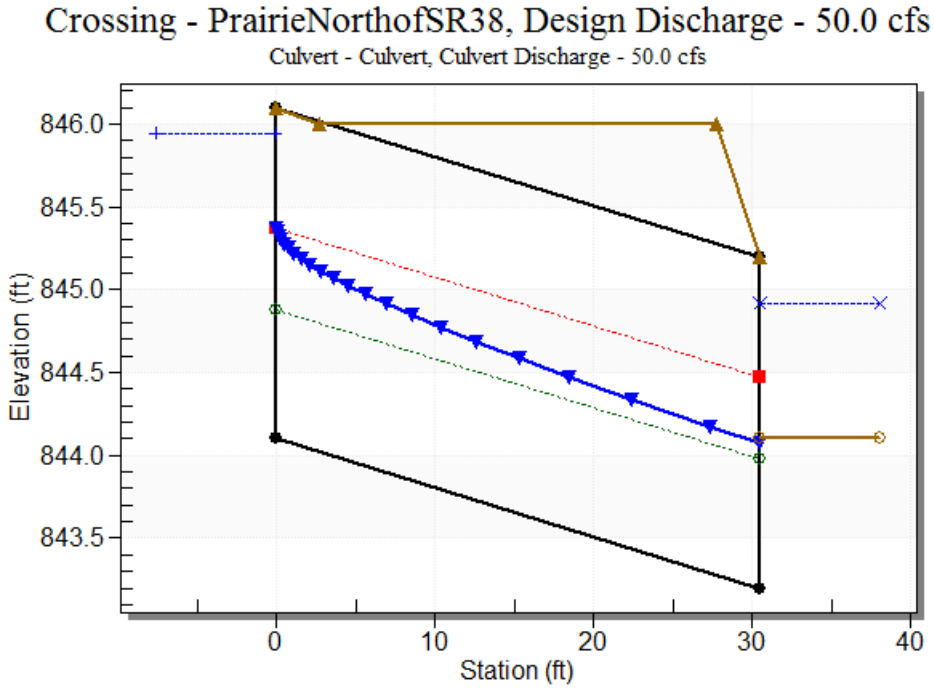
Culvert Length: 30.45 ft, Culvert Slope: 0.0296

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 844.10 ft
Outlet Station: 30.44 ft
Outlet Elevation: 843.20 ft
Number of Barrels: 4

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 2.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 21 - Downstream Channel Rating Curve (Crossing: PrairieNorthofSR38)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
28.00	844.75	0.65	2.08	0.35	0.63
50.00	844.92	0.82	2.40	0.44	0.66

Tailwater Channel Data - PrairieNorthofSR38

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0086
Channel Manning's n: 0.0320
Channel Invert Elevation: 844.10 ft

Roadway Data for Crossing: PrairieNorthofSR38

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 846.00 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 22 - Summary of Culvert Flows at Crossing: SR38EastofDurbin

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
839.04	10 year	6.00	6.00	0.00	1
839.63	100 year	11.00	11.00	0.00	1
839.80	Overtopping	11.94	11.94	0.00	Overtopping

Rating Curve Plot for Crossing: SR38EastofDurbin

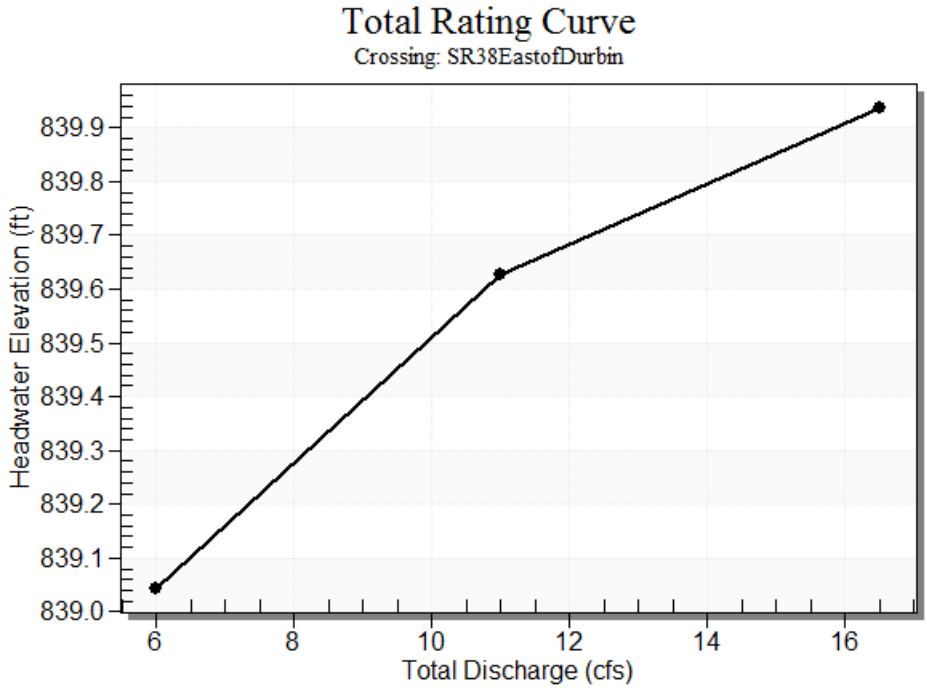


Table 23 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	6.00	6.00	839.04	1.004	1.044	2-M2	0.810	0.694	0.694	0.427	4.289	1.019
100 yea	11.00	11.00	839.63	1.499	1.628	7-M2	1.250	0.947	0.947	0.540	5.516	1.186

****

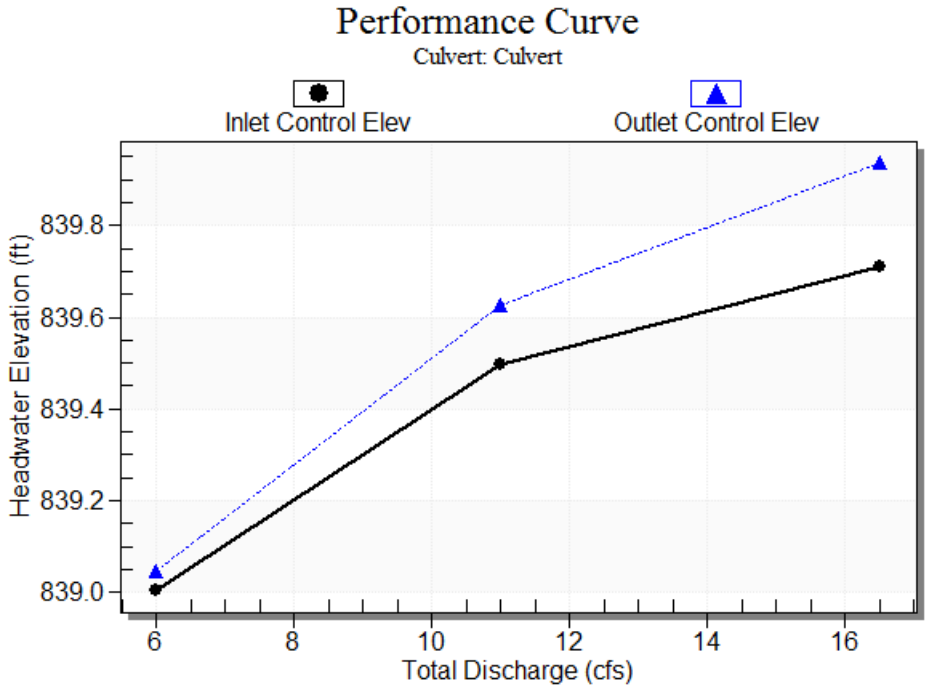
Straight Culvert

Inlet Elevation (invert): 838.00 ft, Outlet Elevation (invert): 837.80 ft

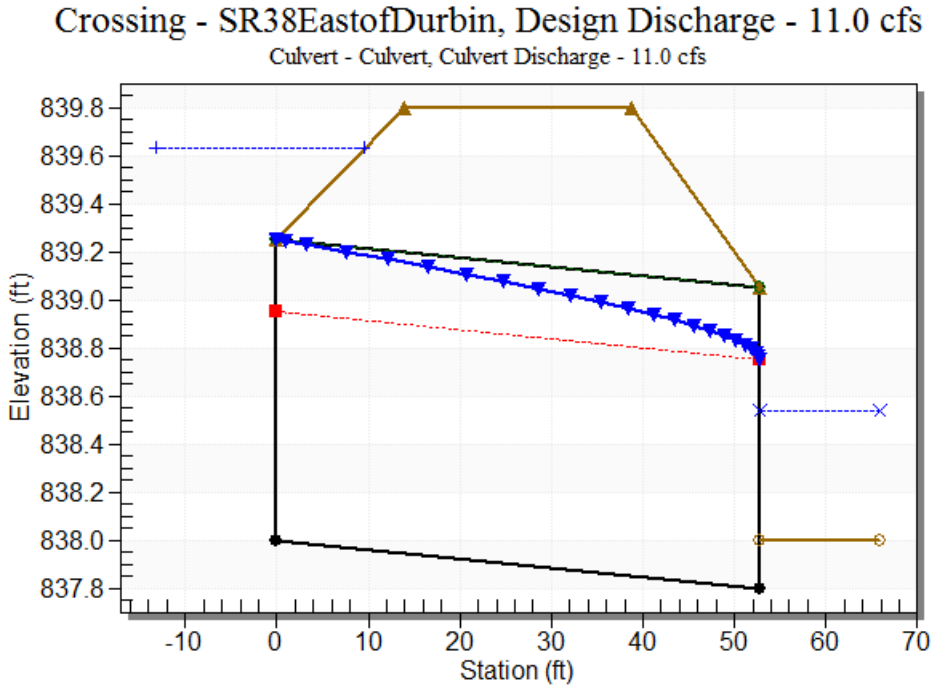
Culvert Length: 52.70 ft, Culvert Slope: 0.0038

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 838.00 ft
Outlet Station: 52.70 ft
Outlet Elevation: 837.80 ft
Number of Barrels: 2

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 1.25 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 24 - Downstream Channel Rating Curve (Crossing: SR38EastofDurbin)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
6.00	838.43	0.43	1.02	0.10	0.38
11.00	838.54	0.54	1.19	0.12	0.40

Tailwater Channel Data - SR38EastofDurbin

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0036
Channel Manning's n: 0.0320
Channel Invert Elevation: 838.00 ft

Roadway Data for Crossing: SR38EastofDurbin

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 839.80 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 25 - Summary of Culvert Flows at Crossing: SR38EastofOlio

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert Dischar (cfs)	Roadway Discharge (cfs	Iterations
824.85	10 year	41.00	41.00	0.00	1
826.53	100 year	103.00	103.00	0.00	1
827.20	Overtopping	121.97	121.97	0.00	Overtopping

Rating Curve Plot for Crossing: SR38EastofOlio

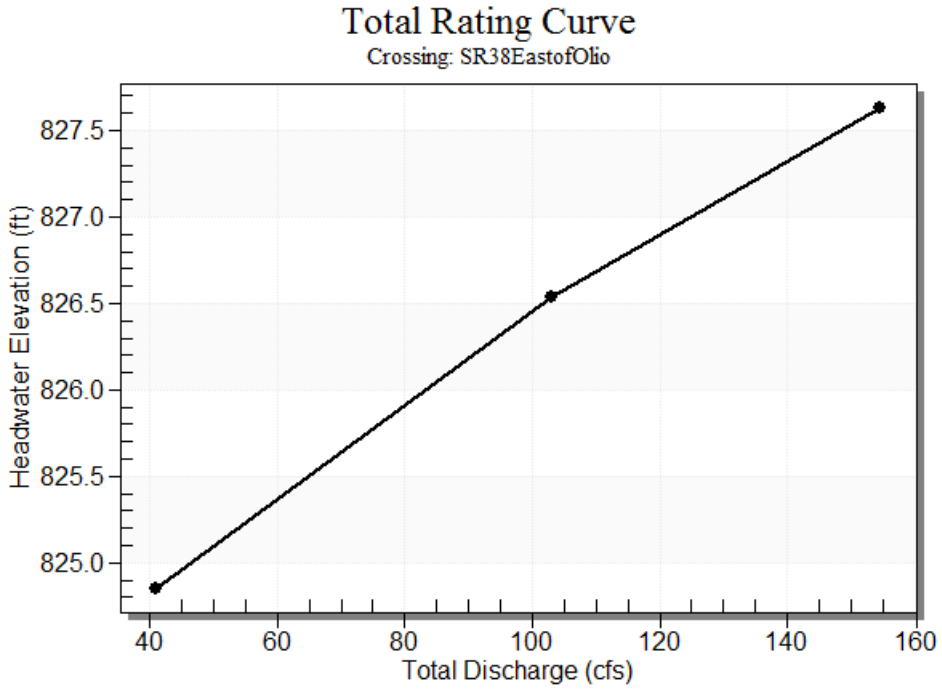


Table 26 - Culvert Summary Table: Culvert

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	41.00	41.00	824.85	2.054	1.239	1-S2r	1.051	1.454	1.158	0.676	8.125	2.849
100 yea	103.00	103.00	826.53	3.734	3.432	5-S2r	1.793	2.331	1.988	0.962	10.359	3.587

****

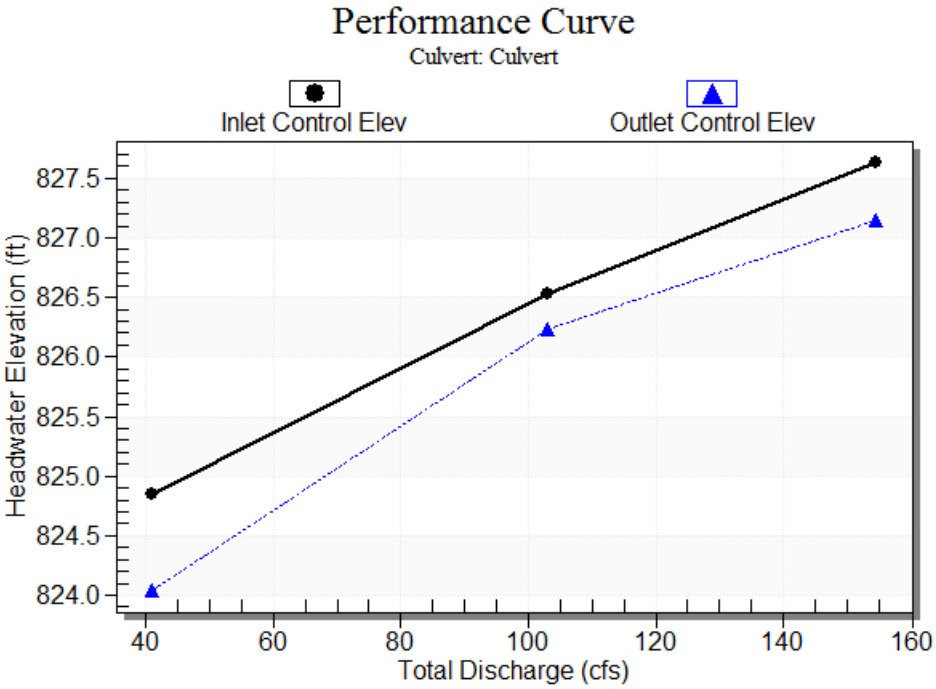
Straight Culvert

Inlet Elevation (invert): 822.80 ft, Outlet Elevation (invert): 822.40 ft

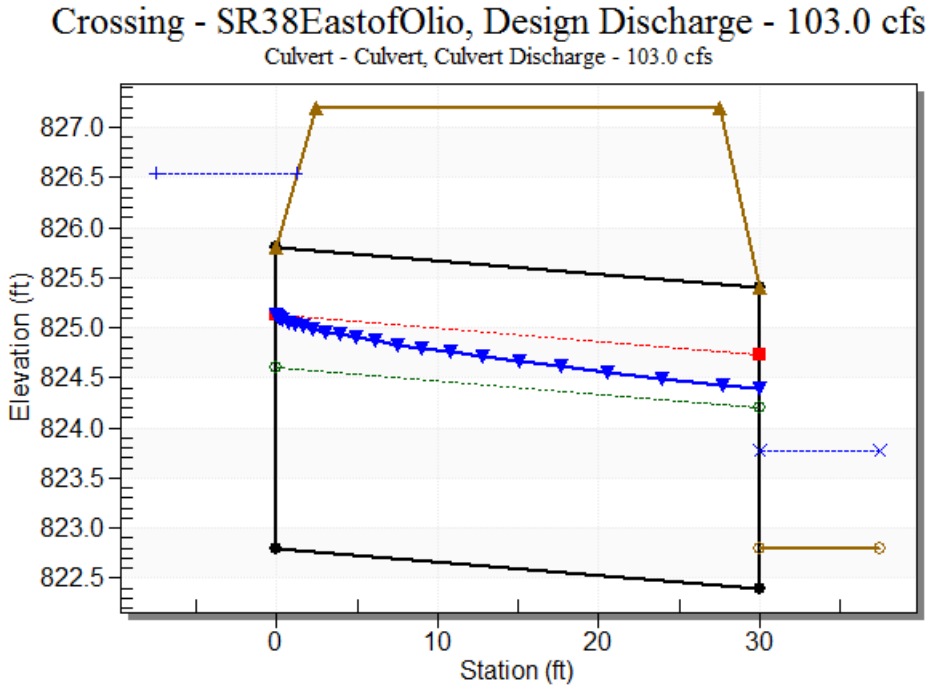
Culvert Length: 29.96 ft, Culvert Slope: 0.0134

****

Culvert Performance Curve Plot: Culvert



Water Surface Profile Plot for Culvert: Culvert



Site Data - Culvert

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 822.80 ft
Outlet Station: 29.96 ft
Outlet Elevation: 822.40 ft
Number of Barrels: 2

Culvert Data Summary - Culvert

Barrel Shape: Circular
Barrel Diameter: 3.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Grooved End Projecting
Inlet Depression: NONE

Table 27 - Downstream Channel Rating Curve (Crossing: SR38EastofOlio)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
41.00	823.48	0.68	2.85	0.65	0.85
103.00	823.76	0.96	3.59	0.93	0.90

Tailwater Channel Data - SR38EastofOlio

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 1.00 ft
Side Slope (H:V): 30.00 (_:1)
Channel Slope: 0.0155
Channel Manning's n: 0.0320
Channel Invert Elevation: 822.80 ft

Roadway Data for Crossing: SR38EastofOlio

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 827.20 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

Crossing Discharge Data

Discharge Selection Method: Recurrence

Table 28 - Summary of Culvert Flows at Crossing: 4x8 Box

Headwater Elevation (ft)	Discharge Nam	Total Discharg (cfs)	Culvert 2 Discha (cfs)	Roadway Discharge (cfs	Iterations
896.46	10 year	180.00	180.00	0.00	1
898.17	25 year	270.00	270.00	0.00	1
899.20	Overtopping	314.51	314.51	0.00	Overtopping

Rating Curve Plot for Crossing: 4x8 Box

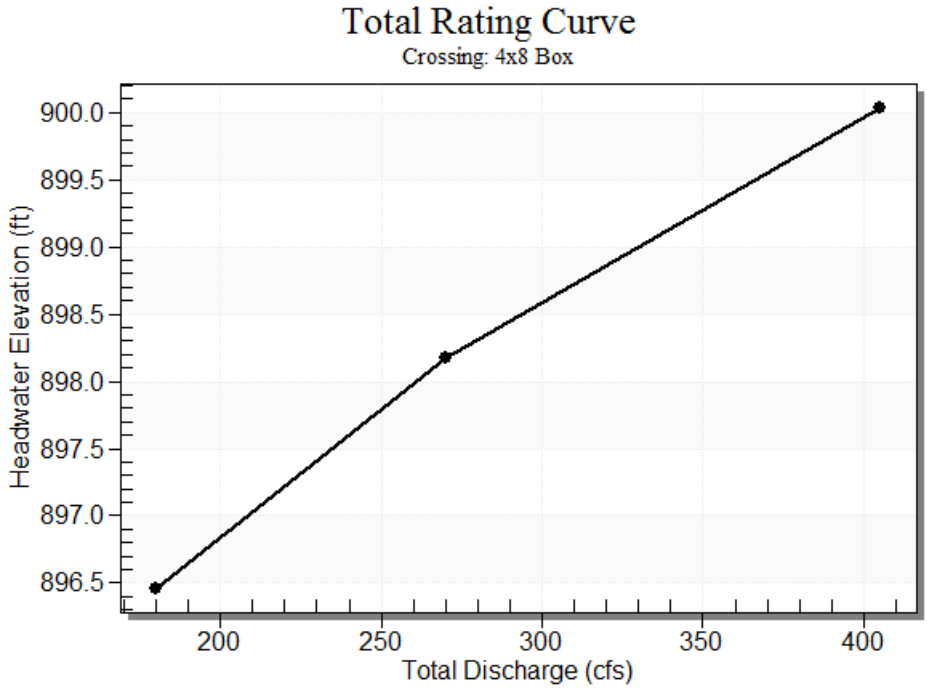


Table 29 - Culvert Summary Table: Culvert 2

Discharge Name	Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (f	Outlet Control Depth (f	Flow Type	Normal Depth (f	Critical Depth (f	Outlet Depth (f	Tailwater Depth (f	Outlet Velocity (ft/s)	Tailwater Velocity (ft/s)
10 year	180.00	180.00	896.46	4.263	3.380	5-JS1	2.376	2.505	2.879	2.479	7.816	8.107
25 year	270.00	270.00	898.17	5.974	5.027	5-JS1	3.181	3.283	3.400	3.000	9.928	9.002

****

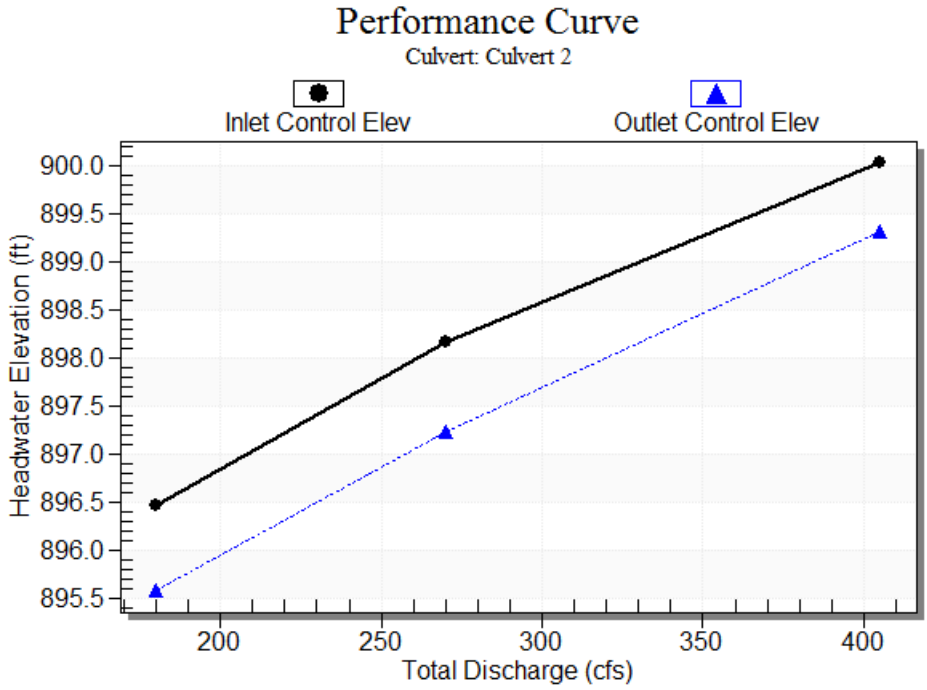
Straight Culvert

Inlet Elevation (invert): 892.20 ft, Outlet Elevation (invert): 891.80 ft

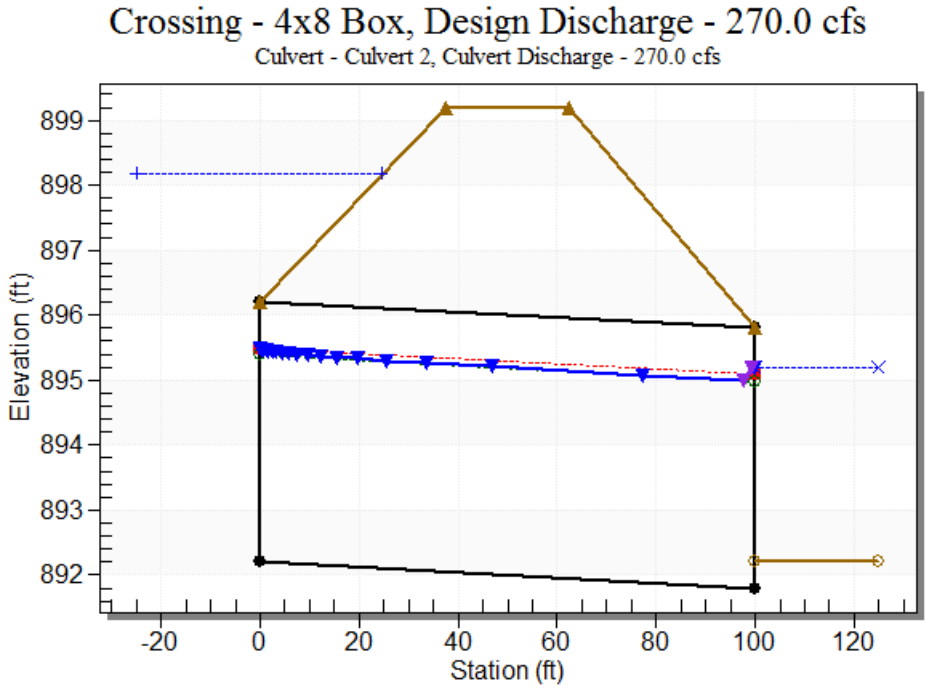
Culvert Length: 100.00 ft, Culvert Slope: 0.0040

****

Culvert Performance Curve Plot: Culvert 2



Water Surface Profile Plot for Culvert: Culvert 2



Site Data - Culvert 2

Site Data Option: Culvert Invert Data
Inlet Station: 0.00 ft
Inlet Elevation: 892.20 ft
Outlet Station: 100.00 ft
Outlet Elevation: 891.80 ft
Number of Barrels: 1

Culvert Data Summary - Culvert 2

Barrel Shape: Concrete Box
Barrel Span: 8.00 ft
Barrel Rise: 4.00 ft
Barrel Material: Concrete
Embedment: 0.00 in
Barrel Manning's n: 0.0130
Culvert Type: Straight
Inlet Configuration: Square Edge (90º) Headwall
Inlet Depression: NONE

Table 30 - Downstream Channel Rating Curve (Crossing: 4x8 Box)

Flow (cfs)	Water Surfac Elev (ft)	Depth (ft)	Velocity (ft/s	Shear (psf)	Froude Number
180.00	894.68	2.48	8.11	0.62	1.13
270.00	895.20	3.00	9.00	0.75	1.16

Tailwater Channel Data - 4x8 Box

Tailwater Channel Option: Trapezoidal Channel
Bottom Width: 4.00 ft
Side Slope (H:V): 2.00 (_:1)
Channel Slope: 0.0040
Channel Manning's n: 0.0150
Channel Invert Elevation: 892.20 ft

Roadway Data for Crossing: 4x8 Box

Roadway Profile Shape: Constant Roadway Elevation
Crest Length: 25.00 ft
Crest Elevation: 899.20 ft
Roadway Surface: Paved
Roadway Top Width: 25.00 ft

VSE

APPENDIX C

Public Input Questionnaire Responses

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 8-11-2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Lyn Boram

PROPERTY ADDRESS: 13655 ST Rd 38 E Noblesville IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-773-2804

1. How long have you lived in your home or farm? 45 Years

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

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By _____

4. How is your home constructed?
   ✓ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ✓ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Most of the drainage issue with my property was made worse when they Repaved Olio Rd. That created a dam which causes my field to wash & create a crater the full length of it. Any ideas?

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:**_____

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: FRANK + Evelyn HARRIS

PROPERTY ADDRESS: 16373 Cumberland Rd 14201 E SR38

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 12 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

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By_____

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes X No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7/27/14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Fred Wyant – Dennis Wyant

PROPERTY ADDRESS: 14221 E. 166 St. Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-379-1677

1. How long have you lived in your home or farm? 59 Years

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), X Field(s), and/or ____ Street? (Check one or both if they apply)
   X Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

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By_____

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

The Wyant Family LLC is a field at the above address. I (Dennis Wyant) have 3 acres out of this 80 acre field. Field floods BAD!!

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** July 25, 2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Dennis F. Wyant

PROPERTY ADDRESS: 14221 E. 166th St. Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-379-1677

1. How long have you lived in your home or farm? 12 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or _____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; _____ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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By_____

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No ?

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No ?

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Need more project information to answer right-of-way and easement questions, But this area needs help - Thanks

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:**_____

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Carol Rudd

PROPERTY ADDRESS: 13966 State Rd 38 E Noblesville 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 773-3976

1. How long have you lived in your home or farm? _____ Years 49 years

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

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6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ✓ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-24-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Pamela Scheil

PROPERTY ADDRESS: 14107 Hill St. Noblesville IN. 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-491-5104

1. How long have you lived in your home or farm? 3 Years

2. When there is a rain, does water stand for more than 6 hours in the; X Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; X Yard(s), ____ Field(s), and/or X Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   X Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   X Crawl Space

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By _____

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   X Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   X Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   X Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

The culvert on the property needs to be changed it is damaged.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-25-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Gregory Stevens

PROPERTY ADDRESS: 14120 EAST STATE Rd 38 NOBLES. 46060

MAILING ADDRESS (if different from above): (House is on MASON ST) NO A 38

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 17 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ✓ Yard(s), ____ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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JUL 30 2014
By_____

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 8-6-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

12-11-01-03-02-011.000

PROPERTY OWNER'S NAME: Larry Barker

PROPERTY ADDRESS: 14103 St Rd 38 E

MAILING ADDRESS (if different from above): Noblesville In 46060

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 32 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ✓ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ✓ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

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AUG 18 2014
By_____

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 8-13-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Chester Rust

PROPERTY ADDRESS: South east Corner SR38 & Durbin Rd.

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-371-7769 Chad Galloway Farm Tenant

1. How long have you lived in your home or farm? N/A Years

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ✓ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

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By _____

4. How is your home constructed? N/A
   ____ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)? N/A
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ✓ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Investigated Tile hole fall of 2013 in corner of Field, found Tile To be broken Down and mostly full of Dirt

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-27-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Karl & Rachel Anderson

PROPERTY ADDRESS: 13100 State Rd 38 East Noblesville IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-774-0306

1. How long have you lived in your home or farm? 12 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   - ____ Almost every rain.
   - ✓ Once a month.
   - ____ Once or twice a year.
   - ____ Never.

3. When there is a rain, do the; ✓ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   - ____ Almost every rain.
   - ____ Once a month.
   - ✓ Once or twice a year.
   - ____ Never.

4. How is your home constructed?
   - ✓ Basement
   - ____ Crawl Space
   - ____ Slab on grade (concrete floor)

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By _____

5. If water enters your home, what areas are flooded (check all that apply)?
   - ✓ Basement
   - ____ Crawl Space
   - ____ Living Space
   - ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ✓ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-28-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: IRVING MATERIALS INC

PROPERTY ADDRESS: 13002 STRD 38 EAST NOBLESVILLE, IN 46060

MAILING ADDRESS (if different from above): P.O. Box 337

TELEPHONE NUMBER (Optional): 765-628-7278

1. How long have you ~~lived in your~~ OWNED THE home or farm? 5 Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; _____ Yard(s), ✓ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

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JUL 29 2014
By_____

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ✓ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7/27/14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Fred E. Wyant

PROPERTY ADDRESS: 16711 Durbin Rd, Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-379-1677

1. How long have you lived in your home or farm? 59 Years

2. When there is a rain, does water stand for more than 6 hours in the; X Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. X Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. X Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

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6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Need project information to answer #6 + #7

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: WENDELL H. Smith

PROPERTY ADDRESS: 14011 SR 38 E. NOBLESVILLE, IN. 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 52 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ✓ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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By _____

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No MAYBE

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-25-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: William & Barbara Ousley

PROPERTY ADDRESS: 16605 Durbin Rd. Noblesville IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-770-6404

1. How long have you lived in your home or farm? 45 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ✓ Yard(s), ✓ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ✓ Yes ____ No

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JUL 28 2014
By_____

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-26-2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: DAVID L COCKHOLM

PROPERTY ADDRESS: 10882 Durbin Road, Noblesville

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 12 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. X Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), X Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   X Once a month. ____ Never.

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JUL 28 2014
By _____

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   X Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   X Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-24-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Split Rail Farms Inc

PROPERTY ADDRESS: NE corner State Rd. 38 + Mystic Rd

MAILING ADDRESS (if different from above): Noblesville IN 46060

TELEPHONE NUMBER (Optional): 317-850-9710

1. How long have you lived in your home or farm? 30 Years

2. When ~~there is~~ a rain, does water stand for more than 6 hours in the; ____ Yard(s), ✓ Field(s), and/or ✓ Street? (Check one or both if they apply) State Rd 38
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply) State Rd 38
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ✓ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

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By

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

#7 - 150' easement is excessive with all of the technology tools there are to locate + repair new installations!

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7/26/14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Otto & Elizabeth Berlin

PROPERTY ADDRESS: 16781 Lehr St. 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 6 Years

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), X Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. X Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), X Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. X Once or twice a year.
   ____ Once a month. ____ Never.

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4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   X Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage N/A

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   X Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes X No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

County should take tax DOLLARS collected over the PAST MANY YEARS to fund DRAINAGE IMPROVEMENT IN CLARKSVILLE AREA.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-29-2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: GLORIA SUE HAINES RICHARD KENT HARRY KURT

PROPERTY ADDRESS: 13855 STATE ROAD 38 EAST, NOBLESVILLE, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-773-6499

1. How long have you lived in your home or farm? 53 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No if it is underground & the land returned to the way it was prior to this project.

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No Same as above

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

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_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-29-2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: GLORIA JUE HAINES

PROPERTY ADDRESS: 13855 STATE ROAD 38 EAST, NOBLESVILLE, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-773-0499

1. How long have you lived in your home or farm? 53 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; _____ Yard(s), ✓ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No if it is underground & the land returned to the way it was prior to this project

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No Same as above

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

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_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7.30.2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Boone Farms, Inc.

PROPERTY ADDRESS: 16884 Prarie Baptist Rd., Noblesville

MAILING ADDRESS (if different from above): 15445 E. 176th St Noblesville

TELEPHONE NUMBER (Optional): 317.432.3102 - Terry Boone cell

1. How long have you lived in your home or farm? 61 Years (husband)

2. When there is a rain, does water stand for more than 6 hours in the; ____ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   - ____ Almost every rain.
   - ✓ Once or twice a year.
   - ____ Once a month.
   - ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   - ____ Almost every rain.
   - ✓ Once or twice a year. flows over road particularly with heavy spring rain
   - ____ Once a month.
   - ____ Never.

4. How is your home constructed?
   - ____ Basement
   - ____ Slab on grade (concrete floor)
   - ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)? N/A
   - ____ Basement
   - ____ Living Space
   - ____ Crawl Space
   - ____ Garage

   McCarty Drain is not watersheded by homesite - Only farm ground.

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No See below

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

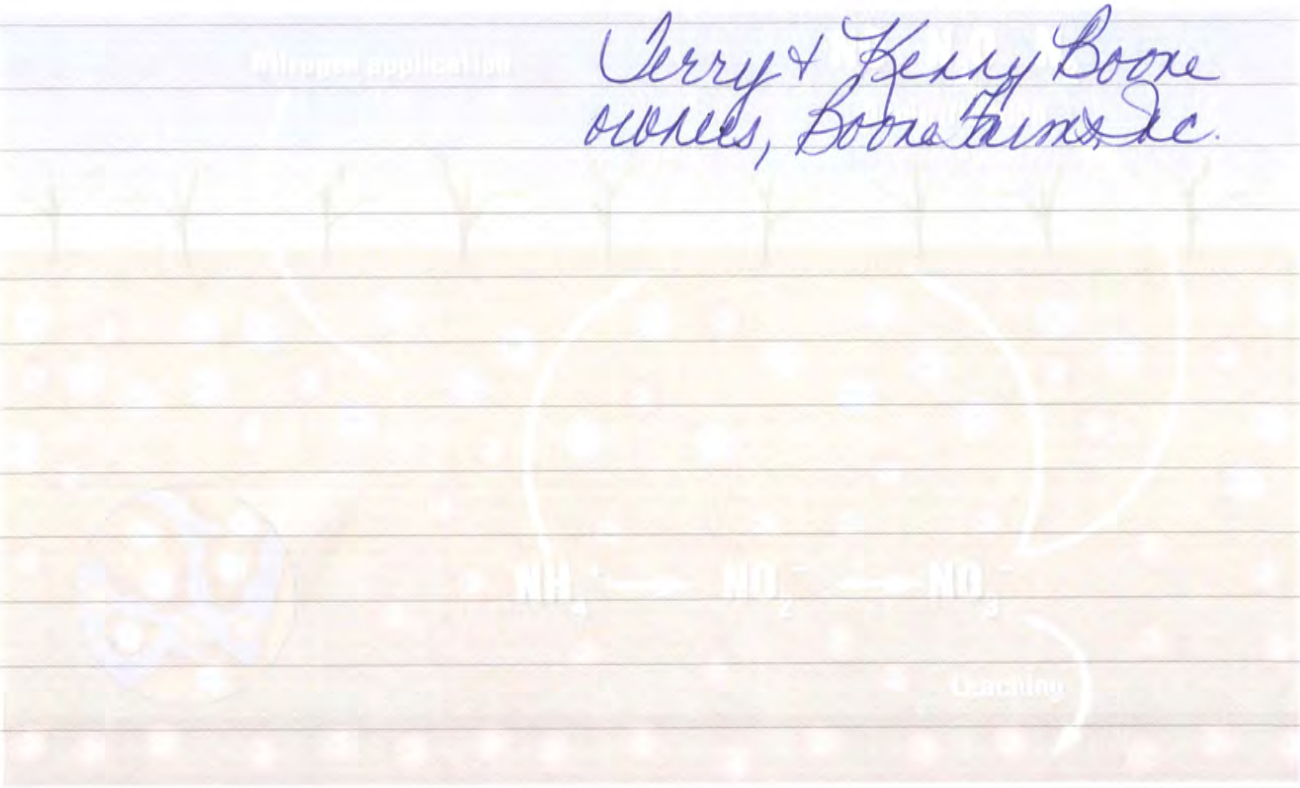
The McCarty Drain actually headlands immediately west of Prarie Baptist and our farmland is on east side of Prarie but does watershed the drain. What water we do get does sometime pond a few days particularly in wet springs such as 2014.

Protecting Nitrogen Starts Here.

We wouldn't see any need for construction / reconstruction to involve our property unless extending the drain is being proposed.

Thanks -

Terry & Kelly Boore
owners, Boore Farms Inc.



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Instinct® II NITROGEN STABILIZER

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Do not fall-apply anhydrous ammonia south of Highway 16 in the state of Illinois. Always read and follow label directions. ©2013 Dow AgroSciences LLC

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-28-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Barbara Russell

PROPERTY ADDRESS: 16611 Mason St Lot B 16611 Masons St Lot A Noblesville, IN

MAILING ADDRESS (if different from above): 6145 Chestnut dr. Anderson, IN. 46013

TELEPHONE NUMBER (Optional): 765-730-7064 W# 765-778-2621

1. How long have you lived in your home or farm? 55 owned Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or across 146th St ____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a lot rain, do the; ✓ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ✓ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   X Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes X No

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7/30/2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

?→

PROPERTY OWNER'S NAME: BARDONNER, Wayne D. & Mary C.

PROPERTY ADDRESS: 16740 Lehr St. Noblesville, In. 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 16 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   - ____ Almost every rain.
   - ✓ Once or twice a year.
   - ____ Once a month.
   - ____ Never.

3. When there is a rain, do the; ____ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   - ____ Almost every rain.
   - ____ Once or twice a year.
   - ____ Once a month.
   - ✓ Never. – See below

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4. How is your home constructed?
   - ____ Basement
   - ____ Slab on grade (concrete floor)
   - ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   - ____ Basement
   - ____ Living Space
   - ✓ Crawl Space
   - ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No ?? would need more information about what would be involved before making a decision.

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✗ No

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

it nevers gets 1 foot deep or more, but it does get 3 or 4 inches deep over a large area in our neighborhood. There is a drain in the neighbor's yard next to mine, but it's completely full of dirt, and doesn't drain very well.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** July 29, 2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Richard A & Peggy R. Merrill

PROPERTY ADDRESS: 13958 St Rd 38E Noblesville In 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-773-2229

1. How long have you lived in your home or farm? 47 Years

2. When there is a rain, does water stand for more than 6 hours in the; X Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   ____ Almost every rain. X Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), X Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. X Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   X Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

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If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Water has never covered all of the yard and leaves pretty quicky after rain ends. Would be willing to discuss with the company if need be, so am not saying yes or no.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** August 12, 2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: James T. & Patricia E. Chadwell

PROPERTY ADDRESS: 17022 Durbin Road Noblesville, IN 46060

MAILING ADDRESS (if different from above): —

TELEPHONE NUMBER (Optional): (317) 773-6078

1. How long have you lived in your home or farm? 35 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or ✓ Street? (Check one or both if they apply)
   ___ Almost every rain. ✓ Once or twice a year.
   ___ Once a month. ___ Never.

3. When there is a rain, do the; ✓ Yard(s), ✓ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ___ Almost every rain. ✓ Once or twice a year.
   ___ Once a month. ___ Never.

4. How is your home constructed?
   ___ Basement ___ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ___ Basement ___ Living Space
   ✓ Crawl Space ✓ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ___ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ___ Yes ✓ No

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-25-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Ken Hussman

PROPERTY ADDRESS: 13476 E. 166th St. Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 765-418-2172

1. How long have you lived in your home or farm? 20 Years

2. When there is a rain, does water stand for more than 6 hours in the; X Yard(s), X Field(s), and/or _____ Street? (Check one or both if they apply)
   ___ Almost every rain. X Once or twice a year. Sometimes more during heavy events.
   ___ Once a month. ___ Never.

3. When there is a rain, do the; X Yard(s), X Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ___ Almost every rain. X Once or twice a year.
   ___ Once a month. ___ Never.
   Possibly even less than a foot.

4. How is your home constructed?
   ___ Basement ___ Slab on grade (concrete floor)
   X Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ___ Basement ___ Living Space
   X Crawl Space ___ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   X Yes ___ No As long as my trees, etc are not affected.

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ___ Yes X No

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

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J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-28-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Fellowship Baptist Church

PROPERTY ADDRESS: 12860 E ST RD 38

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? _____ Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

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Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

This is a church. There isn't any water that stands on the property. IT is surrounded by a cemetary.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** July 28, 2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

Outside Watershed

PROPERTY OWNER'S NAME: Donald + Nancy Garrison

PROPERTY ADDRESS: 14737 St Rd. 38 E, Noblesville, In 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-773-3610

1. How long have you lived in your home or farm? 40 Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ✓ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

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5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage None

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ✓ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-28-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Kenneth & Susan Weimer

PROPERTY ADDRESS: 14144 State Road 38 East Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 16 Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

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JUL 29 2014
By _____

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No maybe- depends on exactly what it is

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** July 25, 2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: William E. and Merna D. Christopher

PROPERTY ADDRESS: 13516 E. 166th St., Noblesville, Indiana

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 20 Years

2. When there is a rain, does water stand for more than 6 hours in the; No Yard(s), No Field(s), and/or No Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; ✓ Yard(s), ✓ Field(s), and/or ✓ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ✓ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

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JUL 28 2014
BY

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 8-6-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Diane Neuitt

PROPERTY ADDRESS: 14022 State Rd 38E, Noblesville IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-709.1601

1. How long have you lived in your home or farm? _____ Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ✓ Once or twice a year. – Only for heavy continual rain
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ✓ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

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By _____

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space ✓ does not enter
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No – would want area left as found

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No Need more information

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

I also own 14170 + 14188 State Rd 38E, Noblesville, IN 46060.
The above applies to these addresses.

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 5-6-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Diane Z Nevitt & Dorothy Z. Young

PROPERTY ADDRESS: 16715 Mason St, Noblesville IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317. 709.1601

1. How long have you ~~lived~~ owned in your home or farm? 13 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ____ Field(s), and/or ____ Street? (Check one or both if they apply)
   - ____ Almost every rain.
   - ____ Once or twice a year.
   - ____ Once a month.
   - ✓ Never.

3. When there is a rain, do the; ✓ Yard(s), ____ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   - ____ Almost every rain.
   - ____ Once or twice a year.
   - ____ Once a month.
   - ✓ Never.

4. How is your home constructed?
   - ____ Basement
   - ____ Slab on grade (concrete floor)
   - ____ Crawl Space
   - ✓ None of the above

5. If water enters your home, what areas are flooded (check all that apply)?
   - ____ Basement
   - ____ Living Space
   - ✓ does not enter
   - ____ Crawl Space
   - ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No – would want area left as found

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No Need more information

RECEIVED
AUG 08 2014
By

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

Also own 14100 State Rd 38E. Back part of building floods from heavy rain plus neighbor has downspout exit pointed towards our property

Schoolhouse SR 38

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7·28·14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: DAVID & KIM PORTER

PROPERTY ADDRESS: 14520 SR 38 E. NOBLESVILLE 46060

MAILING ADDRESS (if different from above): 15562 E. 146th Street

TELEPHONE NUMBER (Optional): 317-714 3273

1. How long have you lived in your home or farm? 1998 Years DO NOT LIVE THERE

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed? N/A
   ____ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)? NA
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ✓ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

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If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7-24-14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: WILLIAM A & KAREN C HUFF

PROPERTY ADDRESS: 16907 MYSTIC RD

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-847-1186

1. How long have you lived in your home or farm? 15 Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ____ Basement ✓ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ____ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 7/25/14

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Eva M. George

PROPERTY ADDRESS: 14180 E. 146th St. Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): _____

1. How long have you lived in your home or farm? 9 Years

2. When there is a rain, does water stand for more than 6 hours in the; ✓ Yard(s), ✓ Field(s), and/or ____ Street? (Check one or both if they apply)
   ✓ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ____ Never.

3. When there is a rain, do the; ____ Yard(s), ✓ Field(s), and/or ____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ✓ Once a month. ____ Never.

4. How is your home constructed?
   ____ Basement ____ Slab on grade (concrete floor)
   ✓ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ____ Basement ____ Living Space
   ✓ Crawl Space ____ Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ✓ Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ✓ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

_____

_____

_____

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 10/11/2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Tom Barker 12-11-01-03-02-009.000 12-11-01-03-02-008.000

PROPERTY ADDRESS: 14099 SR 38E 0 Mason Street

MAILING ADDRESS (if different from above): PO Box 857

TELEPHONE NUMBER (Optional): 317-985-2211

1. How long have you lived in your ~~home or farm?~~ Commercial PROPERTY 27 Years

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____ Field(s), and/or _____ Street? (Check one or both if they apply) RUNS IN BLD.
   - ✓ Almost every rain.
   - ____ Once or twice a year.
   - ____ Once a month.
   - ____ Never.

3. When there is a rain, do the; ✓ Yard(s), _____ Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   - ____ Almost every rain.
   - ____ Once or twice a year.
   - ____ Once a month.
   - X Never.

4. How is your ~~home~~ Bldg constructed?
   - ____ Basement
   - ✓ Slab on grade (concrete floor)
   - ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   - ____ Basement
   - ____ Living Space
   - ____ Crawl Space
   - X Garage

6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   X Yes ____ No

7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   X Yes ____ No

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If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

AT THIS TIME There is No Home — Concrete Block GARAGE HAS Flooded since Hwy 38 was re constructed several yrs AGO

J.S McCARTY DRAIN HYDRAULIC STUDY
PROJECT SURVEY

Project: **J.S. McCarty Drain Hydraulic Study** **Date:** 8/4/2014

On behalf of Hamilton County Surveyors Office and Drainage Board, VS ENGINEERING (VS) is conducting an investigation into drainage problems within the J.S. McCarty Drain Basin in eastern Hamilton County, Indiana. Your comments and inputs will assist us in evaluating the need for improvements in your area. Please complete this survey form and return it in the self-addressed, stamped envelope by Friday, August 15, 2014. If you have any questions, you may contact Nick Jahn or Sam Weber at (317) 293-3542. Your cooperation is greatly appreciated.

PROPERTY OWNER'S NAME: Clarksville Christian Church

PROPERTY ADDRESS: 16600 Lehr St. Noblesville, IN 46060

MAILING ADDRESS (if different from above): _____

TELEPHONE NUMBER (Optional): 317-774-3600

1. How long have you lived in your home or farm? _____ Years – Church Built 1867 –

2. When there is a rain, does water stand for more than 6 hours in the; _____ Yard(s), _____Field(s), and/or _____ Street? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

3. When there is a rain, do the; _____ Yard(s), _____Field(s), and/or _____ Street(s) next to your property flood greater than 1 foot deep? (Check one or both if they apply)
   ____ Almost every rain. ____ Once or twice a year.
   ____ Once a month. ✓ Never.

4. How is your home constructed?
   ✓ Basement ____ Slab on grade (concrete floor)
   ____ Crawl Space

5. If water enters your home, what areas are flooded (check all that apply)?
   ✓ Basement ____ Living Space
   ____ Crawl Space ____ Garage

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AUG 06 2014
By_____

? 6. If a drainage improvement project is proposed for your area, and there is not sufficient existing right-of-way to construct parts of the project, would you be willing to grant a temporary easement which will allow sufficient room for the proposed drainage improvements to be constructed? The granting of a temporary right-of-entry would not allow future access to your property.
   ____ Yes ____ No

? 7. If a drainage improvement project is proposed for your area, and there is not sufficient existing easement to construct parts of the project, would you be willing to grant a permanent drainage easement which will allow the proposed drainage improvements to be constructed on your property? The granting of a drainage easement will allow future access to the drainage facilities.
   ____ Yes ____ No

If you did not receive an envelope or have misplaced the one you did receive, please mail this survey to:

Nick Jahn, P.E.
VS ENGINEERING
4275 N. High School Road
Indianapolis, IN 46254

Please use the area below for additional comments (attach a separate sheet for additional space):

~~Needs~~ Need more information to answer #6 & #7

VSE

APPENDIX D

Study Area Photos

03.18.2014

03.18.2014

03.18.2014

03.18.2014

Hill St
Mason St
03.18.2014

03.18.2014

03.18.2014

03.18.2014

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03 . 18 . 2014

03 . 18 . 2014

166th St
El Dorado
03.18.2014

03.18.2014

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03.18.2014

REGULATED DRAIN
CONTACT HAMILTON COUNTY DIRECTOR'S OFFICE BEFORE EXCAVATING
03.18.2014

03.18.2014

03.18.2014

03 18 2014

03 18 2014

03.18.2014

03.18.2014

03.18.2014

166th St
Mason St
03.18.2014

03 18 2014

166TH ST
03 18 2014

03 18 2014

03 18 2014

03 18 2014

03 18 2014

REGULATED DRAIN
03. 18. 2014

03. 18. 2014

03 18 2014

03 18 2014

03.18.2014

03.18.2014

03.18.2014

REGULATED DRAIN
CONTACT HAMILTON COUNTY DRAINAGE BOARD'S OFFICE BEFORE EXCAVATING
03.18.2014

03.18.2014

03.18.2014

03.18.2014

VSE

APPENDIX E

Coordination with Stakeholders

VS ENGINEERING, INC.
Civil • Structural • Transportation • Environmental

MEETING SUMMARY

J.S. McCarty Drain Hydraulics Study
Hamilton County Drainage Board

HSE SCHOOLS COORDINATION MEETING

Wednesday, February 11, 2015 – 3:30 P.M.

Meeting Purpose and Goals: Discuss project overview and Hamilton Southeastern Schools role. Develop an "Action items" list, as required.

Kent gave an overview of the J.S. McCarty Drain watershed and the properties affected by the proposed improvements to the drain, including the Hamilton Southeastern School (HSES) property adjacent to Durbin Rd. and SR 38.

Mike explained HSES has no immediate plans for the 160+ acre property and that development of the property is not anticipated in the next 10 years. The district purchased this property before the housing market collapse in 2008 when the projected population in the district was expected to grow significantly.

Eventual use of the property is intended to be grounds for a high school and junior high school. The high school has a planned enrollment of approximately 2,500 students and the junior high school approximately 1,000 students. The property will likely have separate sports facilities, including football, soccer, and/or baseball, for each school. The high school will have more parking area because of student drivers.

HSES had a High School Analysis completed for the property before 2008.

HSES had approximately 10,000 students 10 years ago and now have an enrollment of closer to 20,000 students.

Noblesville is petitioning for controlled zoning of the land southwest and downstream of the J.S. McCarty Drain watershed. Development is expected to creep northeast, towards the drain.

Corby and Kessler, two property owners to the southwest of the watershed, are expected to develop their property in the near future.

Durbin Elementary School has approximately 400 students enrolled. HSES would like to expand the school but cannot until sanitary sewer is provided.

An alternative to accept runoff from the HSES property and route it to Sand Creek is being evaluated in the Hydraulic Study, however, from initial research, Sand Creek does not appear to have sufficient capacity to accept much, if any, more flow without causing problems downstream.

4275 North High School Road Indianapolis, Indiana 46254
(317) 293-3542 Tel (317) 293-4737 Fax
www.vsengineering.com

HSES expressed that an encloses system will be more beneficial for their property. Kent explained that the existing drain can, and may have to, be rerouted on the property depending on the location of future infrastructure. The drain must continue accepting flow from properties upstream of the HSES property (across Prairie Baptist Road) during and after development.

Naren explained the Hydraulic Study will be completed assuming the fully developed HSES property will discharge to the drain in accordance to current Hamilton County allowable discharge rates.

The J.S. McCarty Drain Hydraulic Study will be made available to the public through Hamilton County's website for future use by the HSES engineer.

This meeting summary is believed to be an accurate account of items discussed above and/or agreed upon. Please contact Sam Weber at VS Engineering, if there are any differences with your understanding, or if any clarity is needed.

Cc: Attendees
Attachments: Meeting Agenda
Meeting Sign-in Sheet

VS ENGINEERING, INC.
Civil • Structural • Transportation • Environmental

J.S. McCarty Drain Hydraulics Study
Hamilton County Drainage Board

Coordination Meeting, February 11, 2015, 3:30 pm

SIGN-IN SHEET

Attended (Initial)	Name and Company	Phone	E-mail
CK	Christie Kallio, Hamilton County	317-776-8495	Christie.Kallio@hamiltoncounty.in.gov
KW	Kenton Ward, Hamilton County	317-776-8495	Kenton.Ward@hamiltoncounty.in.gov
A.D.C	Andy Conover, Hamilton County	317-776-8495	Andy.Conover@hamiltoncounty.in.gov
AB	Dr. Allen Bourff, HSE Schools	317-594-4100	abourff@hse.k12.in.us
MR	Mike Reuter, HSE Schools	317-594-4100	mreuter@hse.k12.in.us
NP	Naren Patel, VS Engineering	317-293-3542	njpatel@vsengineering.com
SJW	Sam Weber, VS Engineering	317-403-0253	sweber@vsengineering.com

4275 North High School Road Indianapolis, Indiana 46254
(317) 293-3542 Tel (317) 293-4737 Fax
www.vsengineering.com

Sam Weber <sweber@vsengineering.com>

FW: J. S. McCarty Drain

3 messages

Haney, Shelley R. <shaney@indot.in.gov>
To: Sam Weber <sweber@vsengineering.com>, "kenton.ward@hamiltoncounty.in.gov" <kenton.ward@hamiltoncounty.in.gov>

Hi Sam and Kenton –

Conceptually, we are okay with moving forward with the plan for the relocation of the JS McCarty Drain on SR 38 in Hamilton County. We'll also work on a maintenance agreement for the pc

Let me know if you have any questions.

Shelley Haney

Permits Manager

INDOT-Greenfield District

18 S. Broadway Street

Greenfield, IN 46140

(317) 467-3492

shaney@indot.in.gov

www.greenfield.indot.in.gov

From: Kenton C. Ward [mailto:Kenton.Ward@hamiltoncounty.in.gov]
Sent: Thursday, April 02, 2015 2:14 PM
To: Poturalski, Jim
Cc: Haney, Shelley R.; njpatel@vsengineering.com; sweber@vsengineering.com
Subject: J. S. McCarty Drain

I found three letters in the file for the W. P. Bennett Drain which concern the US 31 project in 1952. The file is attached and you can find the letters on pages 5 – 7. I have also attached the

W.P. Bennett Drain

J.S. McCarty Drain

Bennett Drain, William_1924 Original.pdf
999K

Kenton C. Ward <Kenton.Ward@hamiltoncounty.in.gov> Mon, Apr 13, 2015 at 4:26 PM
To: "Haney, Shelley R." <shaney@indot.in.gov>, Sam Weber <sweber@vsengineering.com>
Cc: "Sam Weber (sweber@vsengineering.com)" <sweber@vsengineering.com>, "Naren Patel (njpatel@vsengineering.com)" <njpatel@vsengineering.com>

Shelley –

Thank you for your quick turn around on this. This is great news. Look forward to getting this worked through.

Kent

From: Haney, Shelley R. [mailto:shaney@indot.IN.gov]
Sent: Monday, April 13, 2015 2:42 PM
To: Sam Weber; Kenton C. Ward
Subject: FW: J. S. McCarty Drain

[Quoted text hidden]

Haney, Shelley R. <shaney@indot.in.gov> Mon, Apr 13, 2015 at 4:34 PM
To: "Kenton C. Ward" <Kenton.Ward@hamiltoncounty.in.gov>, Sam Weber <sweber@vsengineering.com>
Cc: "Naren Patel (njpatel@vsengineering.com)" <njpatel@vsengineering.com>

You're welcome Kent – the information you provided on April 2 was very helpful.

Shelley Haney

Permits Manager

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From: Kenton C. Ward [mailto:Kenton.Ward@hamiltoncounty.in.gov]
Sent: Monday, April 13, 2015 4:27 PM
To: Haney, Shelley R.; Sam Weber
Cc: Sam Weber (sweber@vsengineering.com); Naren Patel (njpatel@vsengineering.com)
Subject: RE: J. S. McCarty Drain

[Quoted text hidden]