

CONTRACT DOCUMENTS AND SPECIFICATIONS
FOR THE REHABILITATION AND WIDENING OF:

**HAMILTON COUNTY BRIDGE NO. 207
LIGHTING AND ELECTRICAL
INSTALLATION
LOGAN STREET over WHITE RIVER
NOBLESVILLE TOWNSHIP
HAMILTON COUNTY, INDIANA**

PM-18-0001



Bryan Wright, PE SE

Prepared by: Butler, Fairman, and Seufert Inc.
8450 Westfield Blvd. Suite 300
Indianapolis, IN. 46240



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NOTICE TO BIDDERS

Notice is hereby given that the Board of Commissioners of Hamilton County, Indiana; hereinafter referred to as the *OWNER*, will receive sealed bids for the following project:

**Hamilton County Bridge No. 207 Lighting & Electrical Installation
Logan Street over White River
Noblesville Township
Hamilton County, Indiana
PM-18-0001**

Proposals may be forwarded individually by registered mail or delivered in person, addressed to the Hamilton County Auditor, 33 North 9th Street, Suite L21, Noblesville, Indiana, 46060, prior to **12:30 p.m., August 13th, 2018**. After 12:30 p.m., bids can be delivered to the Commissioners Courtroom up until the noticed bid opening time. Bids received after the noticed bid opening time will not be considered but will be returned to the bidder unopened. Only Proposals from Contractors who have been certified by the Indiana Department of Administration will be considered for bids.

All proposals will be considered by the *OWNER* at a public meeting held in the Hamilton County Government & Judicial Center in Noblesville, Indiana, Commissioners' Courtroom, and opened and read aloud at **1:45 p.m. local time, August 13th, 2018**.

The work to be performed and the proposals to be submitted shall include a bid for all general construction, labor, material, tools, equipment, taxes, permits, licenses, insurance, service costs, etc. incidental to and required for this project.

All materials furnished and labor performed incidental to and required by the proper and satisfactory execution of the contracts to be made, shall be furnished and performed in accordance with requirements from the drawings and specifications included in these documents. Bidding documents may be examined at BF&S., 8450 Westfield Blvd. Suite 300, Indianapolis, IN. 46240 beginning at 9:00 am. on **July 19th, 2018**. Electronic copies of the Proposal, Specifications, Contract Documents and Plans must be obtained from Reprographix (<http://reprographix.com/>) or contact **Laura Morgan** at Lmorgan@bfsengr.com for further information and cost on obtaining the Contract Documents. Payments and costs of Contract Documents are non-refundable. Interested parties can view the Contract Documents and Plans at www.hamiltoncounty.in.gov. Documents posted to the county website are for informational purposes only. It shall be the responsibility of the Bidder to periodically check for addendums posted online. Only those who obtain Contract Documents and Plans through Reprographix or BF&S. will be automatically notified of addenda. Contract Documents and Plans must be obtained through Reprographix or BF&S to be eligible to bid on this contract.

Each proposal must be enclosed in a sealed envelope with the county supplied sealed bid notice, bearing the title of the project, bid opening date and the name and address of the bidder firmly affixed. **The bidder shall affix identifying tabs to the following sheets of each proposal:**

- | | |
|---|--|
| <ul style="list-style-type: none"> ■ Form 96 ■ Non-Collusion Affidavit ■ Bid Bond ■ Financial Statement | <ul style="list-style-type: none"> ■ Itemized Proposal ■ Receipt of Addendum (if applicable) ■ Employment Eligibility Verification ■ Drug Testing Program Compliance |
|---|--|

Each individual proposal shall be accompanied by a certified check or acceptable **Bidder's Bond**, made payable to the Hamilton County Auditor, in a sum of not less than **ten percent** of the total amount of the proposal, which check or bond will be held by the said Hamilton County Auditor as evidence that the bidder will, if awarded a contract, enter into the same with the *OWNER* upon notification from him to do so within ten days of said notification. Failure to execute the contract and to furnish performance bond to Hamilton County, Indiana, will be cause for forfeiture of the amount of money represented by the certified check, or bidder's bond, as and for liquidated damages. Form 96, as prescribed by the Indiana State Board of Accounts, shall be properly completed, and submitted with bid proposals. The Commissioners at their discretion reserve the right to waive any and all informalities in the bidding. All bids submitted shall be valid for 90 days from the opening of the bids.

Robin M. Mills
Hamilton County Auditor

Dated: July 2nd, 2018
Noblesville Times & Hamilton County Reporter: **July 19th, 2018 and July 26th, 2018**

< NOTICE >

Sealed Bid Documents shall contain on the outside of the sealed envelope the following label:

SEALED BID DOCUMENTS
(To be completed by bidder before submission)

Equipment Type _____

Annual Bid Category # _____

Road Contract # / Bridge # _____
(Desc.) _____

(Circle One)

Name of Bidder: _____

Bid Opening Date: _____

Other Documents Enclosed:

Bid Bond	(Y)	(N)	
Certified Check	(Y)	(N)	
Form HC BID 06 / 03	(Y)	(N)	
Form 96	(Y)	(N)	
Other			_____

For Hamilton County Use Only!
Received by the Auditor
 File Stamp

Time Received: _____

All mailer packers will be opened upon receipt. Make sure the sealed envelope is contained within.

< NOTICE >

PROPOSAL

To the Board of County Commissioners of Hamilton County, of the State of Indiana; hereinafter referred to as OWNER:

**Hamilton County Bridge No. 207 Lighting and Electrical Installation
Logan St. over White River
Noblesville, Township
Hamilton County, Indiana**

Pursuant to the legal notice that sealed proposals for the above project would be received by the Board of County Commissioners of Hamilton County, Indiana,

The undersigned hereby tenders this bid to construct the work in accordance with the plans, profiles, drawings, specifications, and all authorized revisions for this contract which are on file in the office of the Hamilton County Highway Department; and to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all material specified in the manner and at the time prescribed and under the supervision and direction of the OWNER or his duly authorized representative and pursuant to the terms of the **Performance Bond** and the **Payment Bond** in the amount of not less than **One Hundred Percent (100%)** of the amount of the Proposal, for the unit prices given on the attached Itemized Proposal dated _____.

Together with this PROPOSAL, the undersigned has:

- A. Filed an Acknowledgment of Receipt of Addendum herewith for each Addendum issued;
- B. Filed an Itemized Proposal with a unit price for each item listed, together with a total amount for all items, based upon the unique characteristics of this contract;
- C. Executed the Form No. 96 filed herewith;
- D. Filed a properly executed Bid Bond or certified check made payable to the Hamilton County Auditor herewith in an amount greater than or equal to ten percent (10%) of the total amount of this proposal;
- E. Executed the Non-Collusion affidavit filed herewith;
- F. Executed the Legal Status of Bidder Form filed herewith;
- G. Filed a current Financial Statement herewith;
- H. Filed an Employment Eligibility Verification Form herewith.

I. Drug Testing Program Compliance

If awarded the contract, the undersigned promises to prosecute the work so as to complete the contract within the time specified in the Special Provisions.

Witness our hands this _____ day of _____, 20__.

Firm Name _____

Address _____

By: _____
(Signature)

Name: _____
(Printed)

Title: _____
(Printed)

HAMILTON COUNTY
HAMILTON COUNTY BRIDGE NO. 207 - LOGAN STREET OVER WHITE RIVER
ITEMIZED PROPOSAL

Item No.	INDOT Pay Item No.	Pay Item	Quantity	Unit	Unit Cost	Total
1	601-03667	Ornamental Bridge Railing	356	LFT		
2	807-03954	Light Pole, Ornamental	5	EACH		
3	807-03950	Luminaire, Ornamental	5	EACH		
4	807-86910	Connector Kit, Unfused	5	EACH		
5	807-86915	Connector Kit, Fused	5	EACH		
6	807-86935	Insulating Link, Waterproof	9	EACH		
7	807-86920	Insulating Link, Non-Waterproof	1	EACH		
8	807-86925	Multiple Compression Fitting, Waterproof	8	EACH		
9	807-86920	Multiple Compression Fitting, Non-Waterproof	4	EACH		
10	807-86843	Wire	1255	LFT		
11		V-Rail	605	LFT		
12		Luminaire, RGBW Flood Light	8	EACH		
13		Flood Light Pole with Arm	2	EACH		
14		Lighting Foundation	2	EACH		
15		DMX Wire	1200	LFT		
16		200A Meter Base w/Panel	1	EACH		
17		20A Branch Circuit Breaker	12	EACH		
18		Concrete Base with Unistrut	1	EACH		
19		Grounding Rod	1	EACH		
20		NEMA 3R Enclosure	1	EACH		
21		Lighting Contactor	1	EACH		
22		1" PVC Schedule 80	60	LFT		
23		Fiber Optic Line	1000	LFT		
24		Quazite Boxes	10	EACH		
25	110-01001	Mobilization and Demobilization (Overhead Lighting)	1	LS		
26	110-01001	Mobilization and Demobilization (Rail and wash lighting)	1	LS		
27	801-06775	Maintaining Traffic (Undistributed Quantity)	1	LS		
28	201-52370	Clearing Right of Way	1	LS		
29	105-06845	Construction Engineering	1	LS		
					Total	

Contractor (Bidder): _____

Address: _____

Authorized Agent: _____

Title: _____

Signature: _____ **Date:** _____

BID BOND

KNOWN BY ALL PERSONS BY THESE PRESENTS THAT THE UNDERSIGNED:

BIDDER: _____

as principal, and

SURETY: [Name] _____

[Address] _____

as Surety,

are firmly bound unto Hamilton County, Indiana in the full and just sum of an amount equal to TEN PERCENT of the amount of the Principal's bid, to the payment of which, well and truly to be made, we bind ourselves jointly and severally, and our joint and several heirs, executors, administrators and assigns, firmly by these presents.

THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, whereas, the Principal is herewith submitting a bid and proposal for construction and completion of this contract in accordance with plans and specifications, which are made part of this bond;

NOW, THEREFORE, if Hamilton County shall award the Principal the contract and the Principal shall promptly, enter into contract with Hamilton County, then this obligation shall be void; otherwise to remain in full force, virtue, and effect.

IT IS AGREED that no modifications, omissions, or additions in or to the terms of such contract or in or to the plans or specifications therefore shall affect the obligation of such sureties on this bond.

IN WITNESS WHEREOF, we hereto set our hands and seals:

< <BIDDER > >

(Bid Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

< <SURETY > >

(Bid Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

PAYMENT BOND

KNOWN BY ALL PERSONS BY THESE PRESENTS THAT THE UNDERSIGNED:

BIDDER: _____
as principal, and

SURETY: [Name] _____

[Address] _____

as Surety,

are firmly bound unto Hamilton County, Indiana in the penal sum of an amount equal to ONE HUNDRED PERCENT of the amount of the Principal's bid, to the payment of which, well and truly made, we bind ourselves jointly and severally, and our joint and several heirs, executors, administrators and assigns, firmly by these presents.

THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, whereas, the Principal is herewith submitting a bid and proposal for construction and completion of this contract in accordance with plans and specifications, which are made part of this bond;

NOW, THEREFORE, if Hamilton County shall award the Principal the contract for work and the Principal shall promptly enter into contract with Hamilton County, for the work and shall promptly make payments of all amounts due to all Claimants, then this obligation shall be void; otherwise to remain in full force, virtue, and effect. Claimant shall mean any subcontractor, material supplier or the person, firm, or corporation furnishing materials or equipment for or performing labor or services in the prosecution of the work provided in such an agreement, including lubricants, oil, gasoline, coal, and coke, repairs on machinery, and tools, whether consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work.

IT IS AGREED that no modifications, omissions, or additions in or to the terms of such contract or in or to the plans or specifications therefore shall affect the obligation of such sureties on this bond.

IN WITNESS WHEREOF, we hereto set our hands and seals:

< <BIDDER > >

(Payment Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

< <SURETY > >

(Payment Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

PERFORMANCE BOND

KNOWN BY ALL PERSONS BY THESE PRESENTS THAT THE UNDERSIGNED:

BIDDER: _____

as principal, and _____

SURETY: [Name] _____

[Address] _____

as Surety,

are firmly bound unto Hamilton County, Indiana in the penal sum of an amount equal to ONE HUNDRED PERCENT of the amount of the Principal's bid, to the payment of which, well and truly made, we bind ourselves jointly and severally, and our joint and several heirs, executors, administrators and assigns, firmly by these presents.

THE CONDITIONS OF THE ABOVE OBLIGATIONS ARE SUCH THAT, whereas, the Principal is herewith submitting a bid and proposal for construction and completion of this contract in accordance with plans and specifications, which are made part of this bond;

NOW, THEREFORE, if Hamilton County shall award the Principal the contract for work and the Principal shall promptly enter into contract with Hamilton County, for the work and shall well and faithfully do and perform the same in all respects according to the plans and specifications and according to the time, terms, and conditions specified in this contract to be entered into, and in accordance with all requirements of law and shall promptly pay all debts incurred by the Principal or a subcontractor in the construction of the work, including labor, service, and materials furnished, and shall remain in effect at least until one year after the date when final payment becomes due, then this obligation shall be void; otherwise to remain in full force, virtue, and effect.

IT IS AGREED that no modifications, omissions, or additions in or to the terms of such contract or in or to the plans or specifications therefore shall affect the obligation of such sureties on this bond.

IN WITNESS WHEREOF, we hereto set our hands and seals:

< <BIDDER > >

(Performance Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

< <SURETY > >

(Performance Bond)

(Signature)

(Printed)

(Title)

State of Indiana, County of _____, SS:
Before me, the undersigned Notary Public, personally appeared;

_____ As Principal and acknowledged the execution of the
above bond on this _____ Day of _____, 20__.

My commission Expires: _____

(County of Residence)

(Notary Signature & Seal)

NON-COLLUSION AFFIDAVIT

STATE OF _____)
) SS
COUNTY OF _____)

The undersigned contractor, being duly sworn, on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by it, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone, nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding in any way or manner whatever.

BY _____
(Signature)

(Title)

FOR _____
(Firm or Corporation)

Before me, the undersigned Notary Public, personally appeared;

_____ this _____ day of _____, 20__.

My commission expires: _____

(County of Residence)

(Notary Signature)

LEGAL STATUS OF BIDDER

This Proposal is submitted in the name of:

Firm Name _____

The undersigned hereby designates below his business address to which all notices, directions or other communications may be served or mailed:

Street _____

City _____

State _____ Zip Code _____

The undersigned hereby declares that he has legal status checked below:

- () INDIVIDUAL
- () INDIVIDUAL DOING BUSINESS UNDER AN ASSUMED NAME
- () CO-PARTNERSHIP (The Assumed name of the partnership is registered in the County of _____, Indiana.)
- () CORPORATION INCORPORATED UNDER THE LAWS OF THE STATE OF _____. The Corporation is:
 - () LICENSED TO DO BUSINESS IN INDIANA
 - () NOT NOW LICENSED TO DO BUSINESS IN INDIANA

The name, titles and home address of all persons who are officers or Partners in the organization are as follows:

<u>NAME AND TITLE</u>	<u>HOME ADDRESS</u>
_____	_____
_____	_____
_____	_____

Signed and Sealed this _____ day of _____, 20__.

By _____
(Signature)

(Printed)

(Title)

Employment Eligibility Certification

This Certification is submitted by the undersigned, _____, as part of the contract with Hamilton County for the project known as _____ entered into on the _____ day of _____, 20__.

The undersigned affirms under the penalties of perjury that the Contractor does not knowingly employ an unauthorized alien. The Contractor shall enroll in and verify the work eligibility status of all newly hired employees through the E-Verify program as defined in IC 22-5-1.7-3. The Contractor is not required to participate if the Contractor is self-employed and does not employ any employees.

The Contractor shall not knowingly employ or contract with an unauthorized alien. The Contractor shall not retain an employee or contract with a person that the Contractor subsequently learns is an unauthorized alien.

The Contractor shall require all subcontractors who perform work under its contract, to certify to the Contractor that:

1. The subcontractor does not knowingly employ or contract with an unauthorized alien;
2. The subcontractor has enrolled and is participating in the E-Verify program. The Contractor agrees to maintain this certification at least two years after the term of a contract with a subcontractor.

The County may terminate the contract if the Contractor fails to cure a breach of this provision no later than thirty (30) days after being notified by the County.

The terms of this Certification shall be incorporated within the contract between the Contractor and the County.

I, _____, verify under the penalties of perjury that the facts set out in the above Employment Eligibility Certification are true.

Witness this _____ day of _____, 20__.

Contractor: _____

Address: _____

Signature: _____, _____

Printed: _____ Title

AFFIDAVIT AND WAIVER OF LIEN

Final Partial Payment to Follow

State of Indiana, County of _____ SS

_____ Being duly sworn states that he is the _____ of
(Name of Officer) (Title)

_____ having contracted with _____ to furnish

certain materials and/or labor as follows _____
(Description)

for the project known as _____

located at _____ and owned by _____
Hamilton County
(Owner)

and does hereby further state on behalf of the aforementioned subcontractor/supplier:

(PARTIAL WAIVER) that there is due from the CONTRACTOR the sum of

_____ Dollars (\$ _____)

- () receipt of which is hereby acknowledged; or
- () the payment of which has been promised as the sole consideration of this affidavit and Partial Waiver of Lien which is given solely with respect to said amount and which waiver shall be effective only upon receipt of payment thereof by the undersigned:

(FINAL WAIVER) that the final balance due from the CONTRACTOR is the sum of

_____ Dollars (\$ _____)

- () receipt of which is hereby acknowledged or
- () the payment of which has been promised as the sole consideration for the Affidavit and Final Waiver of Lien which shall become effective upon receipt of such payment

THEREFORE, the undersigned waives and releases unto the OWNER of said premises, any and all lien or claim whatsoever on the above-described property and improvements thereon on account of LABOR or material or both, furnished by the undersigned thereto, subject to limitations or conditions expressed herein, if any; and further certifies that no other party has any claim or right to a lien on account of any work performed or material furnished to the undersigned for said project, and within the scope of this affidavit and waiver.

By _____ Title _____
(Firm) (Authorized Representative)

WITNESS MY HAND AND NOTARIAL SEAL this _____ day of _____ 20__

(Notary Public)

(Printed)

My Commission Expires _____

Residing in _____ County

CERTIFICATION LETTER

TO BE COMPLETED BY ALL SUB-CONTRACTORS AND MATERIAL SUPPLIERS

Reference:

**HAMILTON COUNTY BRIDGE NO. 207 LIGHTING AND ELECTRICAL
INSTALLATION
LOGAN STREET over WHITE RIVER
NOBLESVILLE TOWNSHIP
HAMILTON COUNTY, INDIANA**

We hereby certify that we have examined the Contract Plans and Specifications for this project and that all materials and workmanship will be in strict compliance therewith.

Company Name _____

Address _____

By _____

(Signature)

(Printed)

(Title)

Date _____

Describe Item of work or material to be furnished:

Drug Testing Program
IC -4-13-18

This is submitted by the undersigned, _____, as part of the contract with Hamilton County for the project known as _____ entered into on the _____ day of _____, 20___. The undersigned affirms under the penalties of perjury that the Contractor has a drug testing program in compliance with IC 4-13-18 and the program shall continue during the term of the contract with Hamilton County.

The Contractor shall also require the maintenance of a drug testing program from all subcontractors who perform work under its contract.

The County may terminate the contract if the Contractor fails to comply with the terms of IC 4-13-18 provision no later than thirty (30) days after being notified by the County.

The terms of this requirement shall be incorporated within the contract between the Contractor and the County.

I, _____, verify under the penalties of perjury that all requirements of Drug Testing Program per IC 4-13-18 are in compliance:

Witness this _____ day of _____, 20__.

Contractor: _____

Address: _____

Signature: _____, _____

Printed: _____ Title _____

GENERAL PROVISIONS

GP1. CONTRACT DOCUMENTS

The Indiana Department of Transportation, Standard Specifications dated 2018 and the National Electrical Code dated 2017 shall be used in conjunction with these Plans, Contract Forms, General Provision, Special Provisions, Modifications to the Specifications, Standard Sheets and any addenda which may be issued for this project. The National Electric Code shall govern over the INDOT standard specifications for electrical items.

It is the intent of these Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance therewith. Any work, materials or equipment that may reasonably be inferred will be supplied whether or not specifically called for.

Wherever reference is made to the Indiana Department of Transportation, Director, or Chief Highway Engineer, it shall be interpreted as the Board of County Commissioners of Hamilton County, Indiana.

GP2. OWNER

The Board of County Commissioners of Hamilton County, Indiana

GP3. ENGINEER

The Hamilton County Highway Engineer or his authorized representative.

GP4. CONTRACTOR

The Firm or Corporation with whom the *OWNER* has entered into the Construction Contract.

GP5. BIDDING RESTRICTIONS

Only bids from those *CONTRACTORS* who are currently registered in the State of Indiana will be accepted as bidders.

GP6. EXAMINATION OF THE PROJECT SITE

Before the bid date, all bidders shall carefully and thoroughly examine the entire site of the proposed work and adjacent premises and the various means of approach and access thereto by means of a site inspection visit, and make all necessary investigations to inform themselves thoroughly as to the facilities necessary for delivering, placing, and operating the necessary construction equipment, and for delivering and handling materials at the site, and shall inform themselves thoroughly as to any and all actual or potential difficulties, hindrances, delays, and constraints involved in the commencement, prosecution and completion of the proposed work in accordance with the requirements of this contract. The *CONTRACTOR*, by the execution of the Contract, shall in no way be relieved of any obligation under it, due to his failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself with the conditions there existing. The *OWNER* will be justified in rejecting any claim based on facts which he should have noticed as a result thereof.

GP7. CONTRACT QUESTIONS

Submit all questions in writing to *Butler, Fairman, and Seufert Inc.* prior to **12:00 p.m. local time August 8th, 2018**. A written response will be sent to the emails on the “Record of Plans Purchased” that is required to be filled out by anyone purchasing plans. No questions will be answered by telephone.

GP8. PUBLIC OPENING OF BIDS

Bids will be opened publicly and read aloud at the time and place specified in the “Notice to Bidders”. Bidders, or their authorized agents, are invited to be present. Any Bids received after the time specified in the “Notice to Bidders” will be returned to the bidder unopened.

GP9. AWARD OF CONTRACT

The *OWNER* reserves the right to reject any or all bids or to waive any informalities and to accept the bid which it deems favorable to the interest of the *OWNER* after all bids have been examined and scrutinized.

GP10. NOTICE TO PROCEED

The *CONTRACTOR* shall start to perform the work on the date designated in the written Notice to Proceed, but no work shall be done at the site prior to the date of the Notice to Proceed.

GP11. PRECONSTRUCTION CONFERENCE

Before the *CONTRACTOR* is issued Notice to Proceed, a conference attended by the *OWNER*, *ENGINEER*, *CONTRACTOR* and others as appropriate may be held. The purpose of this conference will be to discuss procedures for making submittals, processing applications for payment, and to establish other procedures and understandings bearing upon coordination and performance of the work. Notice will be given of a pre-construction conference if it were to occur.

GP12. PROGRESS SCHEDULE

Within ten days after the date of the Notice to Proceed, the *CONTRACTOR* shall submit to the *ENGINEER* for review a proposed schedule indicating the starting and completion dates of the various stages of the work to be performed under this contract. The *ENGINEER* shall review the proposed schedule to determine conformity with the contract and will make recommendations to the *OWNER* concerning approval thereof; however the review, approval or other action taken by the *ENGINEER* or *OWNER* in respect of such schedules shall not relieve the *CONTRACTOR* of its obligations to perform the work within the contract schedule(s).

GP13. SUPERVISION

The *CONTRACTOR* shall supervise and direct the work completely and efficiently devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.

GP14. RESIDENT SUPERINTENDENT

The *CONTRACTOR* shall keep on the work site at all times during its progress, a competent resident superintendent, who shall not be replaced without written notice to the *ENGINEER* except under extraordinary circumstances. The superintendent will be the *CONTRACTOR*'s representative at the site and shall have authority to act on behalf of the *CONTRACTOR*. All communications given to the superintendent shall be as binding as if given to the *CONTRACTOR*.

GP15. PROJECT STAFFING

The *CONTRACTOR* shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. The *CONTRACTOR* shall at all times maintain good discipline and order at the site.

GP16. NOTIFICATION OF WORK SCHEDULE

The *CONTRACTOR* shall provide a listing of the next work day's work activities by 12:00 p.m. of that day's work for the *ENGINEER'S* scheduling and inspection. All work scheduled for Monday shall be provided on Friday of the preceding week.

Failure to provide such notice within the specified time may result in the failure of the *ENGINEER* to pay for any material placed that day.

GP17. PROJECT RESPONSIBILITY

Unless otherwise specified in the Contract Documents, the *CONTRACTOR* shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, and sanitary facilities and all other facilities and incidentals necessary for the furnishing, performance, start-up, and completion of the work.

GP18. STANDARDS OF QUALITY

All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for in the Contract Documents shall expressly run for the benefit of the *OWNER*. If requested by the *ENGINEER*, the *CONTRACTOR* shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

GP19. WARRANTY OF WORK

The *CONTRACTOR* warrants and guarantees to the *OWNER* that all work will be performed, supplied, furnished and installed, and that the work will perform in strict accordance with the Contract Documents and will not be defective. Notice of all work determined or suspected to be defective or not in conformity with the Contract Documents shall be given to the *CONTRACTOR* within reasonable time after observance thereof.

GP20. INSPECTION OF WORK

The *ENGINEER* and his representatives shall at all times have access to the work wherever it is in preparation or progress and the *CONTRACTOR* shall provide proper facilities for such access and for inspection.

If the specifications, the *ENGINEER'S* instructions, laws, ordinances or any public authority require any work to be specially tested or approved, the *CONTRACTOR* shall give the *ENGINEER* timely notice of its readiness for inspection and, if the inspection is by an authority other than the *ENGINEER*, the date fixed for such inspection. If any work should be covered up without the approval or consent of the *ENGINEER*, it must, if required by the *ENGINEER*, be uncovered for examination at the *CONTRACTOR'S* expense.

Re-examination of questioned work may be ordered by the *ENGINEER* and if so ordered the work must be uncovered by the *CONTRACTOR*. If such work is found to be in accordance with the

Contract Documents, the *OWNER* shall pay the cost of the re-examination and replacement. If such work is not found to be in accordance with the Contract Documents, the *CONTRACTOR* shall pay the cost, unless he shows that the defect in the work was caused by another *CONTRACTOR*, and in that event the *OWNER* shall pay the cost of the re-examination and replacement.

GP21. CHANGES IN THE WORK

The *OWNER*, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the conditions of the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

In giving instructions, the *ENGINEER* shall have authority to make minor changes in the work, not involving extra cost, and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, not extra work or change shall be made unless in pursuance of a written order from the *OWNER* signed or countersigned by the *ENGINEER*, or a written order from the *ENGINEER* stating that the *OWNER* has authorized the extra work or change, and no claim for an addition to the contract sum shall be valid unless so ordered. The value of any such extra work or change shall be determined in one or more of the following ways:

- (a) By estimate and acceptance in a lump sum
- (b) By unit prices named in the contract or subsequently agreed upon
- (c) By cost and percentage or by cost and a fixed fee

If none of the above methods is agreed upon, the *CONTRACTOR* provided he receives an order as above, shall proceed with the work. In such case and also under case (c), he shall keep and present in such form as the *ENGINEER* may direct, a correct account of the cost, together with vouchers. In any case, the *ENGINEER* shall certify to the amount including reasonable allowance for overhead and profit, due to the *CONTRACTOR*. Pending final determination of value, payments on account of changes shall be made on the *ENGINEER*'s certificate.

Should conditions encountered below the surface of the ground be at variance with the conditions indicated by the drawings and specifications, the contract sum shall be equitably adjusted upon claim by either party made within a reasonable time after the first observance of the conditions.

GP22. DELETION OF WORK

The *OWNER* has the right to delete any items that are a part of this contract.

GP23. DELAY AND EXTENSION OF TIME

If the *CONTRACTOR* should be delayed at any time in the progress of the work by and act or neglect of the *OWNER* or the *ENGINEER*, or of any employee of either, or by any separate *CONTRACTOR* employed by the *OWNER*, or by changes ordered in the work, or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any causes beyond the *CONTRACTOR*'S control, or by delay authorized by the *ENGINEER* pending arbitration, or by any cause which the *ENGINEER* shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the *ENGINEER* may decide.

No such extension shall be made for delay occurring more than seven days before claim therefore is made in writing to the *ENGINEER*. In the case of continuing cause of delay, only one claim is necessary.

GP24. HOLIDAYS THAT WORK IS NOT PERMITTED

The *CONTRACTOR* may not perform work on this project on the following days without written permission from the *ENGINEER*:

- 1) Sundays
- 2) New Years Day
- 3) Memorial Day
- 4) Independence Day
- 5) Labor Day
- 6) Thanksgiving Day and the day after Thanksgiving
- 7) Christmas Day

GP25. PERMITS

All permits and licenses which may be required due to construction methods such as, but not limited to, borrow or disposal pits, steam crossings, causeways, work bridges, cofferdams, etc., but which are not part of the contract documents shall be procured by the *CONTRACTOR* prior to beginning the work which requires the permit.

All charges, fees, and taxes shall be paid, and all notices necessary and incidental to the due and lawful prosecution of the work shall be given.

GP26. UTILITIES

The *CONTRACTOR* shall be responsible for contacting and coordinating with all utilities affected by this project. Contract working days will be charged unless the *CONTRACTOR* can show written evidence that he is making every possible effort on his part to get the utility work completed.

GP27. NON-DISCRIMINATION

In compliance with the Acts of Indiana General Assembly, 1933, Chapter 270, the *CONTRACTOR* hereby agrees:

That with respect to hire, tenure, terms, conditions, or privileges of employment of employees for the performance of work, under this Contract, or any Subcontract hereunder, no *CONTRACTOR*, Subcontractor, nor any person acting on behalf of such *CONTRACTOR* or subcontractor shall, by reason of race, color, religion, sex, national origin, or ancestry discriminate against any citizen qualified to do work to which the employment relates;

That no *CONTRACTOR*, Subcontractor, nor any person on his behalf shall, in any manner, discriminates against or intimidate any employee hired for the performance or work under this Contract on account of race, color, religion, sex, national origin, or ancestry;

That this Contract may be canceled or terminated by the *OWNER*, and all money due or to become due hereunder may be forfeited for a violation of the terms or conditions of this section of the Contract.

GP28. INSURANCE

Contractor's Liability Insurance

The *CONTRACTOR* shall maintain such insurance as well as protect himself from claims under Workmen's Compensation Acts and other employee benefit acts; from claims for damages because

of bodily injury, including death, to his employees and all others; and from claims for damages to property, any or all of which may arise out of or result from the *CONTRACTOR'S* operation under the Contract, whether such operations be by himself or by any subcontractor, or anyone directly or indirectly employed by either of them. This insurance shall be written for not less than any limits of liability specified herein.

Contractor's Insurance

The types and minimum amount of insurance to be provided for by the *CONTRACTOR* shall be as follows:

(A) Workmen's Compensation and Occupational Disease Insurance

The *CONTRACTOR* shall provide Workmen's compensation and Occupational Disease Insurance as required by law. Such policy shall specifically include coverage for the State of Indiana, and such adjoining states as required by the *CONTRACTOR'S* operations.

(B) Employer's Liability Insurance

The *CONTRACTOR* shall provide Employer's Liability with minimum limits as follows:

\$100,000 bodily injury by accident, each accident;
 \$100,000 bodily injury by disease, each employee;
 \$500,000 bodily injury by disease, policy limit.

(C) Comprehensive General Liability Insurance

The *CONTRACTOR* shall maintain a Comprehensive General Liability form of Insurance with a combined single limit for bodily injury and property damage of not less than \$1,000,000 each occurrence, \$2,000,000 annual aggregate. The insurance policy shall include the following:

1. Premises Operations: The policy shall include coverage for the following special hazards when applicable to the project:
 - (a) Property damage arising out of blasting or explosion
 - (b) Property damage arising out of collapse of or structural injury to any building or structure due to grading of land, excavation, burrowing, filling, backfilling, tunneling, pile driving, cofferdam work or caisson work or to moving, shoring, under pining, raising, or demolition of any building or structure or rebuilding of any structural support thereof.
 - (c) Injury to or destruction of wires, conduits, pipes, mains, sewers, and other similar property of any apparatus in connection therewith below the surface of ground, if caused by use of mechanical equipment.
2. Contractual (Broad Form Indemnification): The *CONTRACTOR* agrees to indemnify and save harmless the *OWNER*, his agents and employees, from and against all loss or expense (including costs and attorneys' fees) by reason of liability imposed by law upon the *OWNER* for damages because of bodily injury, including death, at any time resulting therefrom sustained by any person or persons or on account of damage to property is due or claimed to be due to negligence of the *CONTRACTOR*, his Subcontractors, employees or agents.

3. Contractor's Protective: The *CONTRACTOR* shall maintain this type of coverage on a "Blanket" basis to cover the operations of any Subcontractors.

(D) Automotive Liability Insurance

The *CONTRACTOR* shall maintain Comprehensive Automobile Liability Insurance policy with a combined single limit of not less than \$500,000. This coverage may be provided either as a separate policy or as a part of the comprehensive liability policy described above. The automobile insurance must include coverage for all owned, non-owned, and hired vehicles.

- (E) Furnish Indiana State Forms No. 19 (Workmen's Compensation) and No. 105 (Occupational Disease Act).

(F) Umbrella Insurance

The *CONTRACTOR* shall maintain an umbrella policy with limits of not less than \$1,000,000 per occurrence, \$1,000,000 aggregate in addition to their primary insurance.

GP29. ADDITIONAL INSURED

The *CONTRACTOR* shall submit a "Certificate of Insurance" indicating the above necessary coverage as well as naming the *OWNER*, its employees and representatives and *ENGINEER* as "Additional Insured" on all policies except Worker's Compensation.

GP30. PROOF OF INSURANCE

The *CONTRACTOR* shall not commence work until he has obtained all insurance specified herein, has filed with the *OWNER* one (1) copy of Certificate of Insurance, and such insurance has been approved by the *OWNER*.

Should any coverage approach expiration during the Contract period, it shall be renewed prior to its expiration, and certificate again filed with the *OWNER*. If any of such policies are canceled or are changed so as to reduce the coverage evidenced by the Certificate, at least ten (10) days prior written notice by registered mail of such cancellation or change shall be sent to the *OWNER*.

All insurance provided for under this Section shall be written by Insurance Companies licensed to do business in Indiana and countersigned by registered Indiana agent. The insurance company shall file with the *OWNER*, one (1) copy of Affirmation of Authority, on the form furnished by the *OWNER*, as verification of the resident agent.

All insurance shall be maintained in full force and effect until the Contract has been fully and completely performed.

GP31. PARTIAL PAYMENTS

Partial payments will be made once each month as the work progresses. Said payments will be based upon estimates prepared by the *CONTRACTOR* using the provided HCHD FORM 8049, and approved by the *ENGINEER* for the value of the work performed and materials complete in place in accordance with the contract, plans and specifications. No partial payment will be made when the amount due the *CONTRACTOR* since the last estimate amounts to less than Five Hundred Dollars. From the total of the amount determined to be payable on a partial payment, ten percent of such total amount will be deducted and retained by the *OWNER* until the final completion and acceptance of the work.

GP32. FINAL PAYMENT

When the contract work has been completed in an acceptable manner in accordance with the terms of the contract, the *CONTRACTOR* will prepare a final estimate for the work and will furnish the *ENGINEER* with a copy thereof. Before final payment of the contract, the *CONTRACTOR* shall furnish the provided Affidavit and Waiver of Lien from all subcontractors, material suppliers and equipment suppliers who provided goods and/or services valued at \$500.00 or greater. Final payment will not be made until a final inspection has been performed, the work has been accepted by the County and has met the requirements of Section 109.08 of the Indiana Department of Transportation Standard Specifications. The *ENGINEER*, acting for the Board of County Commissioners, will then certify to the County Auditor the balance due the *CONTRACTOR*, and said certificate will be deemed an acceptance of the completed contract by the *OWNER*.

SPECIAL PROVISIONS

SP 1. CONTRACT TIME

The schedule for the completion of the work included in this contract including incidentals and clean up, shall be governed on a *Completion Date* basis. Contractor must have all work completed by the Final Completion date.

The Final Completion Date for this Contract shall be *October 31st 2019*.

SP 2. ROAD CLOSURE

Logan Street shall remain open throughout the duration of this contract. Two lanes of traffic (one each direction) shall be provided at all times during construction. In no case shall the road be closed without prior consent from the *OWNER*.

SP 3. LIQUIDATED DAMAGES

The *CONTRACTOR* shall pay one thousand five hundred dollars (\$1,500.00) for each calendar day after the Calendar Completion Date of October 31st, 2019 for failure to complete the work in accordance with this contract.

The *CONTRACTOR* shall pay one thousand five hundred dollars (\$1,500.00) for each calendar day after Phase 3 construction has commenced for incomplete work associated with the overhead lighting.

SP 4. EXISTING CONDITIONS

The *CONTRACTOR* shall verify the elevation and measurements of all points where new construction is to match existing conditions prior to the commencement of any construction activities.

Where new work is to be fitted to old work, the *CONTRACTOR* shall check all dimensions and conditions in the field and report any errors or discrepancies to the *ENGINEER* or assume responsibility for their correctness and the fit of new parts to old. If such parts do not fit properly, the *CONTRACTOR* shall make such alterations to new parts as may be necessary to assure proper fits and connection, which meets the approval of the *ENGINEER*.

No direct payment shall be made for this work, but the cost thereof shall be included in the costs of other items of the contract.

SP 5. CLEARING RIGHT-OF-WAY

Areas of brush and debris in the location of installations will be cleared prior to electrical work being completed by others. Additional areas that may need to be cleared shall be communicated to the prime bridge contractor prior to installation work commencing.

SP 6. DISPOSAL OF EXCESS MATERIAL

All excess material not to be salvaged (waste) shall be removed from the project site. Whether a private or public waste site is utilized, such disposal shall comply with all Federal, State and local ordinances and permit requirements. A copy of all permits obtained or applied for shall be submitted to the *ENGINEER* prior to the material leaving the site.

The *CONTRACTOR* shall submit, in writing, the location of the proposed dump site, for review, prior to the commencement of construction.

No direct payment will be made for this work but the cost thereof shall be included in the costs of the other items of the contract.

SP 7. OPEN BURNING OF NATURAL GROWTH

Open burning of natural growth will not be permitted on this contract.

SP 8. TREE AND LAWN PROTECTION

When constructing private drives, the *CONTRACTOR* shall use reasonable care for the protection of trees, shrubbery, and lawn areas beyond the permanent right-of-way.

The cost of the protection or trimming and proper restoration of disturbed areas shall not be paid for directly, but shall be included in the cost of Clearing Right-of-Way.

SP 9. RESTORATION OF DISTURBED AREAS

Cavities formed by the removal of shrubs, trees and/or stumps and located outside of proposed pavement areas shall be backfilled and compacted with "B" Borrow. Such compaction shall comply with Section 211.04. The top six (6) inches of the backfilled area shall be topsoil in accordance with Section 914.01.

Any roots remaining after all the removal of any designated item shall be removed to a depth of 6 inches below the surface of the surrounding ground area. The final preparation of these areas shall be in accordance with Section 621.

No direct payment shall be made for this work, but shall be included in the cost of other items.

SP 10. DECREASED OR INCREASED QUANTITIES OF WORK

These Special Provisions shall not be considered as a waiver of, nor shall they invalidate the right of the *ENGINEER* to increase or decrease quantities of work.

SP 11. UTILITY INFORMATION

All applicable sections for 105.06 and 107.20 shall apply except as amended elsewhere within the contract documents and as follows:

The utilities are beyond the control of the *OWNER*. Coordination with any applicable utility(s) is the sole responsibility of the *CONTRACTOR*.

The following is provided for information only. The *CONTRACTOR* shall contact the following personnel or companies to coordinate his work prior to the commencement of any construction activities:

Duke Energy	317-736-2047
City of Noblesville	317-776-6330
USGS	317-600-2781
Zayo Bandwidth	765-341-1199
Indiana American Water	317-885-2444
Centurylink	720-888-1089
Lighttower	585-697-5145
INDOT Greenfield District	317-467-3423

Please see SP 25 for additional utility information. Work plans are located in App. B

SP 12. PERMITS

Copies of all permits obtained by the *OWNER* are included as a part of the contract documents. According to the requirements of the governing agencies, the authorizations must be conspicuously displayed at the project site and the *CONTRACTOR* shall perform his work in accordance with the conditions contained in all permits.

The *CONTRACTOR* shall procure all permits and licenses required due to construction methods in accordance with Section 107.02. A copy of each permit application and approval must be provided to the *ENGINEER* prior to issuance of notice to proceed with work which requires the permit.

A copy of the permits can be found in Appendix A

SP 13. COUNTY, CITY, AND STATE ROAD MAINTENANCE DURING CONSTRUCTION

The Hamilton County, Noblesville, State Roads, which the Contractor utilizes for the hauling of any construction materials (excavation, subbase, bituminous materials, concrete, structural members, reinforcing steel, etc.) or construction equipment, shall be coordinated with the Hamilton County Highway Department and the inspecting Engineer. The Contractor shall provide a map or sketch showing the County, City, and or State Roads that will be used during the construction of this project so that they can be monitored during construction.

SP 14. PROTECTION OF PAVEMENT

The Contractor shall take all necessary precautionary measures and perform the work in such a manner as to adequately protect and safeguard the existing pavement or pavement surface to remain in place from any damage due to such operations. The Contractor's attention is also called to the fact that the operation of crawler type construction equipment on these portions of the surface to remain in place will not be permitted and the operation of over-weight or oversize equipment in those areas shall be governed by state and local

laws and regulations. Any damaged portion of surface or pavement and surface removed in excess of that required for the construction as set out in the plans, shall be satisfactorily replaced or repaired by the Contractor at his own expense. The Contractor's attention is specifically directed to Articles 107.14 and 107.17 regarding his responsibility under this contract

SP 15. ADJACENT PROJECT COORDINATION

There is no planned adjacent project coordination associated with this project. The planned Government Center Expansion will take place at a later date.

SP 16. CONSTRUCTION STAGING AREAS

A construction staging area has been designated for the duration of this project. A section of parking lot adjacent to 5th Street, south of Conner St., may be used by the Contractor to store materials and equipment throughout construction. A copy of the staging area is included with these specifications in Appendix C. It will be the responsibility of the Contractor to restore this area to its original condition upon demobilization from the project site. In addition to the parking lot, the contractor may stage materials along portions of SR 19 that are closed during construction. Electrical Contractor shall coordinate staging areas with prime bridge Contractor.

SP 17. POWDER COATED PAINT

All powder-coating of material and painting, including fasteners, shall take place in the shop. This work shall consist of hot-dip galvanizing and shop-applied powder-coating of the steel components of the bridge railing as shown on the plans and as directed, in accordance with the manufacturers recommendations as approved by the ENGINEER. The steel on the bridge railing shall be painted Black or approved equal. The ENGINEER must approve color prior to fabrication. Only the bolt components of the bridge railing shall be field painted. Paint shall be homogenous, free of contamination, and of a consistency suitable for use in the capacity for which it is specified. Finished paint shall be well ground, and the pigment shall be properly dispersed in the vehicle according to the requirements of the paint. The dispersion shall be of such nature that the pigment does not settle, does not cake or thicken in the container, and does not become granular or curdled. The paint shall be easily broken up with a paddle to form a smooth uniform product of the proper consistency and shall possess satisfactory properties in all respects which affect its application and curing. Unless otherwise provided, the materials entering into the composition of the paint shall conform to the requirements of the applicable ASTM and AASHTO standards covering such materials. Testing shall be in accordance e with the latest tests methods of the ASTM and AASHTO. However, the ENGINEER reserves the right to make use of any information or methods of testing to determine the quality of paint and paint materials. No direct payment shall be made for this work. The cost of this work shall be included in the cost of "Railing, Steel, PS-2." All PS-2 Railing components shall be powder coated federal color standard 37038 "Black". The final chosen color shall be approved by the owner prior to installation and fabrication.

SP 18. BRIDGE LIGHT FIXTURES

Bridge decorative pole lights shall be Universe Collection Large LED-UCL, 4 luminous window style luminaires as detailed in the cut sheets in Appendix C. All luminaires shall be post top mounted at 25 feet utilizing manufacturer recommended anchor bolts and assemblies. All luminaires and poles shall be powder coated black using KIM's standard black from Federal Hill Commons, or matched equivalent. The cost of anchor bolts and assemblies shall be included in the cost of the luminaires and decorative poles. Poles shall be coated and painted as outline in special provision 34. Prime Bridge Contractor will install anchor bolts prior to casting new concrete railing to facilitate pole installation.

SP 19. BUSINESS ACCESS

Contractors shall conduct their operations in such a manner that permits access to local businesses throughout construction. If access must be restricted at times during construction, the contractor shall contact the engineer and get approval from Hamilton County prior to restrictions take place.

SP 20. EXISTING PLANS

Existing plans are available for the Logan Street Bridge and all portions of the Riverwalk. In addition, portions of the courthouse plans may be available. Copies of existing plans will be made available to contractors upon request. Copies of the courthouse plans may be obtained through Hamilton County and Noblesville.

SP 21. V-RAIL LIGHTED RAILING

Special lighted rail shall be provided in two locations of the project. The first location shall be mounted to the ornamental aluminum rail located on the exterior parapet of the pedestrian overlook. The railing shall be installed per manufacturer recommendations. Driver locations and their housings shall be provided at the locations within the electrical plan sheets and shall follow manufacturer recommendations. The second lighted rail shall be attached to the backside of the proposed PS-2 Railing adjacent to the pedestrian pathway. Manufacturer shall provide access holes for wiring to facilitate wiring for the lighted rail. The cost of providing access points and mountable surfaces will be included in the cost of the PS-2 rail, which will be installed by the Prime Bridge Contractor. The lighted rail shall be mounted to the back of the PS-2 railing and brackets will shall be specified by the Electrical Contractor. All conduit locations for wiring and access points will be located by the electrical contractor prior to final installation. Additional information and details and information regarding the V-Rail lighting and wiring may be obtained from Travis Belden at ESL Spectrum, 317-223-2603, tbelden@esl-spectrum.com.

Conduit for wiring within the bridge deck will be installed by the Prime Bridge Contractor. It will be the responsibility of the selected Electrical Contractor to coordinate the conduit installation to best conduct his operations with bridge contractor.

SP 22. SR 19 OPERATIONS

A construction entrance is planned off SR 19 to help facilitate construction. The Owner has obtained a road closure permit from INDOT which will allow the Contractor to close the NB lanes between Logan and Conner Street. The Contractor will be required to follow the stipulations of the road closure permit and return the existing roadway to its original condition at the completion of construction. If the Contractor would like to amend the permit, it will be the responsibility of the contractor to contact INDOT and get a permit amendment. It will also be the contractor's responsibility to contact INDOT prior to closing the roadway to allow for the signal timing adjustments.

The proposed detour route for the NB lane closure of SR 19 will be SR 32 to SR 38, then to Logan. A detour route is located within the contract documents.

A pedestrian signal will be installed on SR 19 in addition to line painting for the proposed crosswalk. A separate permit will be forthcoming that permits this work.

SP 23. ORNAMENTAL RAILING

Aluminum ornamental railing shall be provided in various areas of the project site. The ornamental railing placed on the bridge shall be paid for as Ornamental Railing, Bridge. Railing shall be mounted per the contract documents. Areas designated for drivers shall have their uprights fabricated in such a manner that will permit the housing of drivers that power the proposed V-Rail. Driver housing locations shall be established per the lighting design plans and shall have access panels installed per manufacturer recommendations. Additional details may be obtained from Travis Belden at ESL Spectrum. The cost of all mounting hardware, shop drawing generation, powder coating, and incidentals shall be included in the cost of Ornamental Railing, Bridge. All ornamental railing on the bridge shall be powder coated black using KIM's standard black from Federal Hill Commons, or matched equivalent. Color of rail shall match PS-2 railing on the bridge.

SP 24. COORDINATION WITH EXISTING UTILITY COMPANIES

- A. Existing utilities will be required to perform work within and adjacent to this project. It is the responsibility of the Contractor to coordinate, schedule, and complete the necessary work concurrently with utility relocation work. The active engagement of the Utility Coordinator does not minimize nor negate the responsibility of the Contractor to perform duties per the Standard Specifications. The Contractor must use caution and is required to follow all laws and safety precautions when digging, excavating, or working near aerial lines or underground utility facilities.

When the Contractor is required to clear and stake the right-of-way, the Contractor shall inform the Engineer when clearing and staking of the right-of-way for the project is completed or the right-of-way is sufficiently cleared for a specific area that will allow for a particular utility to relocate. Upon the Engineer's written and dated acceptance that the clearing and staking work is completed, the Engineer will notify the Utility Coordinator. The Contractor shall copy the Engineer and the Utility Coordinator on all correspondence with utilities.

There shall be no direct compensation for coordination with utility companies; it is assumed that costs of coordination are included in other bid items.

- B. The status and contact information of all utility companies and organizations potentially involved with the work to be performed are described below as known at the time this contract was prepared:

The facilities of Indiana American Water Company exist within the project limits, but are not expected to be affected by the proposed construction. INAW has a single water main crossing Logan Street to the north of the bridge site, but this is outside of the area of construction. If questions arise, Maninder Singh, P.E., of the utility may be contacted at 317-559-2445 or maninder.singh@amwater.com. The work plan was executed on March 28, 2018 and approved on March 28, 2018.

The facilities of Crown Castle / Lighttower exist within the project limits, but are not expected to be affected by the proposed construction. Crown Castle has a single buried fiber cable that crosses under Logan Street to the south of the bridge site under the approach slab. If questions arise, Joseph MacDonald of the utility may be contacted at 585-491-2646 or Joseph.macdonald@crowncastle.com. The work plan was executed on March 8, 2018 and approved on March 8, 2018.

The facilities of CenturyLink (Level 3) exist within the project limits, but are not expected to be affected by the proposed construction. CenturyLink has a single aerial fiber cable that crosses over Logan Street and SR 19 to the north of the bridge site in the intersection. If questions arise, Tim Hill of the utility may be contacted at 704-733-3204 or tim.w.hill@level3.com. The work plan was executed on April 3, 2018 and approved on April 3, 2018.

The facilities of Duke Energy exist within the project limits and will be affected by the proposed new construction. These facilities include an existing overhead service and a pole on the southwest corner of the bridge serving the USGS equipment shelter to be removed; existing cables from the west serving the existing lighting on the bridge; and an existing buried power cable in conduit that crosses Logan Street from the northeast to the southeast of the bridge under the approach slab that will be replaced. The new buried Duke Energy cable shall be placed 10-feet to the east of the new retaining wall for the stairs. It is anticipated that the utility shall complete their relocation by the end of September, 2018, after notification from the Contractor that all required staking of the right-of-way has been completed. If questions arise, Dan Benson of the utility may be contacted at 317-776-5340 or dan.benson@duke-energy.com. The work plan was executed on April 16, 2018 and was approved on April 16, 2018.

The facilities of Zayo Bandwidth exist within the project limits and will be affected by the new construction. These facilities include an existing underground fiber cable in conduit that runs the length of the bridge deck within conduit and hand holes at either end of the bridge. Zayo's work plan calls for a temporary aerial fiber cable to be placed a minimum of 10-feet away from the north side of the bridge structure on two temporary poles. Once the bridge work is complete, Zayo shall place a new permanent fiber cable in one of two conduits placed by the Contractor and provided by Zayo within the bridge deck for their use. It is anticipated that the utility will take 30 calendar days to complete their temporary relocation after notification that all required staking of the right-of-way has been completed by the Contractor. If questions arise, Waylon Higgins of the utility may be contacted at 765-341-1199 or Waylon.higgins@zayo.com. The work plan was executed on April 24, 2018 and was approved on April 24, 2018.

The facilities of The City of Noblesville exist within the project limits and are under review as to whether or not conflicts exist on the east side of the bridge. If questions arise, Andrew Rodewald of the utility may be contacted at 317-776-6330 or at arodewald@noblesville.in.us.

The facilities of The United States Geological Survey (USGS) exist within the project limits and will be affected by the new construction. The USGS facilities consist of monitoring equipment in a

shelter to the southwest of the bridge. The USGS shall set up temporary monitoring equipment at another location beyond the construction limits to allow the existing shelter to be demolished. Once the Logan Street bridge work is sufficiently complete, the USGS may install a new monitoring station on or next to the bridge, and this follow-on work will be negotiated with the City of Noblesville. It is anticipated that the USGS will take 2 calendar days to complete their temporary relocation. If questions arise, Paul Baker of the USGS may be contacted at 317-600-2781 or prbaker@usgs.gov.

Utility Coordination was performed on this project by Kevin A. Hintz & Ted Foster, of Butler, Fairman & Seufert, Inc., should you have any questions or concerns in regards to utilities on this project you may contact them at 317-713-4615 or uc@bfsengr.com.

Note: Utility Work plans will be provided upon request (or included as part of these special provisions?)

- C. Preconstruction Conference Notification. The Contractor shall provide notification during the preconstruction conference about known corrections to or omissions of the information presented above. Notifications regarding such corrections or omissions shall not alleviate the Contractor's inquiry or interpretation obligations as contained in 120 IAC 3-6-6.

SP 25. ASSOCIATED LIGHTING WORK AND SCOPE

Pertaining to scope, this contract shall include all electrical and lighting items associated with the bridge project. The Electrical Contractor shall install all overhead pole lighting and luminaires, and associated work to provide power to each unit. The Electrical Contractor shall be responsible for installing all lighted hand rail and necessary items to provide power to the unit as shown in the contract documents. All conduit to facilitate wiring the of the railing will be installed by the Prime Bridge Contractor, but it will be the responsibility of the Electrical Contractor to coordinate with the Bridge Contractor to locate all conduit with the bridge deck and railing to help facilitate lighting installation. In addition, it will be the Electrical Contractors responsibility to install wash lighting as shown on the plans and all associated work to provide power to these lights.

SP 26. OVERHEAD LIGHTING INSTALLATION

The Electrical Contractor shall conduct his operations such that the overhead bridge lighting is installed and functional prior to the Bridge Contractor adjusting their traffic pattern for Phase 3 construction. It will be the responsibility of the Electrical Contractor to coordinate with the Bridge Contractor to schedule his operations to install the overhead lighting. The Electrical Contractor shall ensure the Bridge Contractor has the necessary anchorages and base plates for the overhead lighting to be installed with the bridge rail prior to the rail being poured..

SP 27 MAINTENANCE OF TRAFFIC

Maintenance of Traffic for Vehicles and Pedestrians shall be provided at all times. The maintenance of traffic, as shown in the Contract Plans, will be provided by the Bridge Contractor throughout the duration of the Bridge Construction Contract. The phasing of the Maintenance of Traffic throughout the Bridge Construction Contract will be in accordance with the Bridge Contractor's proposed schedule. The Bridge Contractor's Contract Completion Date is August 31, 2019. The maintenance of traffic of any proposed

work by the Contractor, outside of the Bridge Contractor's schedule and proposed maintenance of traffic, shall be the responsibility of the Contractor. All work and items associated with maintenance of traffic by the Contractor shall be included in the cost of Maintaining Traffic. The Maintaining Traffic pay item is undistributed and shall be approved by the Engineer prior to work being started.

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STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES



CERTIFICATE OF APPROVAL
CONSTRUCTION IN A FLOODWAY

APPLICATION # : FW-29239
STREAM : West Fork White River
APPLICANT : Hamilton County Highway Department
Alison Krupski
1700 South 10th Street
Noblesville, IN 46060

MAILED: June 12, 2018

AGENT : Butler, Fairman & Seufert Inc
Neal Bennett
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240

AUTHORITY : IC 14-28-1 with 312 IAC 10 and IC 14-29-1 with 312 IAC 6

DESCRIPTION : The superstructure of the existing four-span bridge at the Logan Street crossing will be widened to accommodate a pedestrian trail on the south side and a sidewalk on the north side. The existing bridge deck will be increased to a width of 64'-5" by extending abutments and piers downstream. The approach roads will not be raised. Riprap will be placed 3' deep and 6' wide around the bridge piers. A temporary causeway will be installed to the southwest of the bridge and extend approximately 25' into the river. Tree mitigation planting will occur as a result of the project. Details of the project are contained in information received electronically at the Division of Water on December 19, 2017 and in plans and information received at the Division of Water on January 9, 2018, February 15, 2018, April 17, 2018 and May 18, 2018.

LOCATION : At the Logan Street crossing near Noblesville, Noblesville Township, Hamilton County
Section 36, T 19N, R 4E, Noblesville Quadrangle
UTM Coordinates: Downstream 4433427 North, 583883 East

APPROVED BY : Markita Shepherdson
Markita Shepherdson, CFM, Sr Environmental Manager
Division of Water

APPROVED ON : June 12, 2018

Included: Notice Of Right To Administrative Review - General Conditions - Special Conditions - Service List

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

NOTICE OF RIGHT TO ADMINISTRATIVE REVIEW

APPLICATION #: FW- 29239

This signed document constitutes the issuance of a permit by the Department of Natural Resources, subject to the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

The permit or any of the conditions or limitations which it contains may be appealed by applying for administrative review. Such review is governed by the Administrative Orders and Procedures Act, IC 4-21.5, and the Department's rules pertaining to adjudicative proceedings, 312 IAC 3-1.

In order to obtain a review, a written petition must be filed with the Division of Hearings within 18 days of the mailing date of this notice. The petition should be addressed to:

Natural Resources Commission
Division of Hearings
Indiana Government Center North, Room N103
100 North Senate Avenue
Indianapolis, Indiana 46204-2200

The petition must contain specific reasons for the appeal and indicate the portion or portions of the permit to which the appeal pertains.

If an appeal is filed, the final agency determination will be made by the Natural Resources Commission following a legal proceeding conducted before an Administrative Law Judge. The Department of Natural Resources will be represented by legal counsel.

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

GENERAL CONDITIONS

APPLICATION #: FW- 29239

- (1) If any archaeological artifacts or human remains are uncovered during construction, federal law and regulations (16 USC 470, et seq.; 36 CFR 800.11, et al) and State Law (IC 14-21-1) require that work must stop and that the discovery must be reported to the Division of Historic Preservation and Archaeology within 2 business days.

Division of Historic Preservation and Archaeology
Room W274
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-1646, FAX: (317) 232-8036

- (2) This permit must be posted and maintained at the project site until the project is completed.
- (3) This permit does not relieve the permittee of the responsibility for obtaining additional permits, approvals, easements, etc. as required by other federal, state, or local regulatory agencies. These agencies include, but are not limited to:

<u>Agency</u>	<u>Telephone Number</u>
Hamilton County Drainage Board	(317) 776-8495
US Army Corps of Engineers	(502) 315-6686
Indiana Department of Environmental Management	(317) 233-8488 or (800) 451-6027
Local city or county planning or zoning commission	

- (4) This permit must not be construed as a waiver of any local ordinance or other state or federal law.
- (5) This permit does not relieve the permittee of any liability for the effects which the project may have upon the safety of the life or property of others.
- (6) This permit may be revoked by the Department of Natural Resources for violation of any condition, limitation or applicable statute or rule.
- (7) This permit shall not be assignable or transferable without the prior written approval of the Department of Natural Resources. To initiate a transfer contact:

Director
Division of Water
Room W264
402 West Washington Street
Indianapolis, IN 46204

Telephone: (317) 232-4160, Toll Free: (877) 928-3755
FAX: (317) 233-4579

- (8) The Department of Natural Resources shall have the right to enter upon the site of the permitted activity for the purpose of inspecting the authorized work.
- (9) The receipt and acceptance of this permit by the applicant or authorized agent shall be considered as acceptance of the conditions and limitations stated on the pages entitled "General Conditions" and "Special Conditions".

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 29239

PERMIT VALIDITY : This permit is valid for 24 months from the "Approved On" date shown on the first page. If construction work in the floodway has not been completed by June 12, 2020 the permit will become void. This permit may be renewed one (1) time if a written request is received by DNR, Division of Water prior to June 12, 2020. Thereafter the permit will become void and a new permit will be required in order to continue work on the project.

This permit becomes effective 18 days after the "MAILED" date shown on the first page. If both a petition for review and a petition for a stay of effectiveness are filed before this permit becomes effective, any part of the permit that is within the scope of the petition for stay is stayed for an additional 15 days.

CONFORMANCE : Other than those measures necessary to satisfy the "General Conditions" and "Special Conditions", the project must conform to the information received by the Department of Natural Resources on: December 19, 2017, January 9, 2018, February 15, 2018, April 17, 2018 and May 18, 2018. Any deviation from the information must receive the prior written approval of the Department.

<u>Number</u>	<u>Special Condition</u>
(1)	revegetate all bare and disturbed areas that will not be mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in regularly mowed areas only
(2)	minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush
(3)	do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife
(4)	do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30
(5)	do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure
(6)	use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids
(7)	do not use broken concrete as riprap
(8)	underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap
(9)	minimize the movement of resuspended bottom sediment from the immediate project area
(10)	do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 29239

- (11) appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized
- (12) seed and protect disturbed stream banks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas
- (13) implement the mitigation plan received at the Division of Water on April 17, 2018, by the end of spring 2020
- (14) the mitigation site must be monitored for the survival of the plantings for a minimum of three years; a report must be submitted to the Central Region Environmental Biologist at the Division of Water, 402 W. Washington St., RM W264, Indianapolis, IN 46204-2641 by December 31 of each year to monitor the initiation, progress, and success of the mitigation site; the report must include appropriate pictures of vegetative plantings; a narrative must describe the activity accomplished to date, acres planted, number planted, list of species planted on site, and estimated survival; reports must be submitted each year, even if work has not been initiated on site, a minimum of three reports are required with additional reports until the mitigation site is complete or determined to be successful; if the mitigation site is not successful three years after work initiation, the permit will be considered in violation, and another plan must be submitted for approval
- (15) the replacement habitat areas must have a minimum survival of 75% of planted material at the end of the monitoring period or additional trees and shrubs must be installed to meet the minimum survival; if the site fails to meet success in any year, replanting shall occur prior to the next monitoring period; an additional year of monitoring shall be required for each year of additional planting
- (16) place a restrictive covenant (developed in coordination with a DNR biologist) on the mitigation site property within 60 days of project initiation to protect the mitigation site from any future disturbance; a copy of the covenant must be provided to the Central Region Environmental Biologist by mailing it to the Division of Water, 402 W. Washington St, Room W264, Indianapolis, IN 46204-2641
- (17) use only the species approved in the mitigation plan; if modifications become necessary to the approved species, a DNR Environmental Biologist must approve all changes
- (18) do not place riprap or other streambed stabilization materials in the active stream channel above the existing streambed or flowline elevation in order to prevent obstructions to the movement of aquatic organisms upstream and downstream of the crossing structure
- (19) except for the material used as backfill as shown on the above referenced project plans on file at the Division of Water, place all excavated material landward of the floodway *
- (20) do not leave felled trees, brush, or other debris in the floodway *
- (21) upon completion of the project, remove all construction debris from the floodway *

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SPECIAL CONDITIONS

APPLICATION #: FW- 29239

- (22) issuance of this Certificate does not constitute approval of any additional temporary causeways, coffer dams, runarounds, access bridges or borrow areas associated with the proposed bridge construction; separate written approval must be obtained from the Department for these types of projects prior to beginning any work within the floodway *
- (23) keep the bridge waterway opening free of debris and sediment at all times
- (24) any equipment and/or cables placed on a public waterway must be clearly marked with navigation buoys described in 312 IAC 5-4 in a manner that would be visible to any watercraft operator in the area
- (25) any equipment and/or cables left in a public waterway in times of limited visibility must, in addition to the requirement listed above, be marked with flashing amber warning lights and reflective signage warning watercraft operators of the hazards
- (26) * NOTE: for regulatory purposes, the floodway is defined as that shown on Panel 142 of the Hamilton County Flood Insurance Rate Map dated November 19, 2014

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SERVICE LIST

APPLICATION #: FW- 29239

Hamilton County Highway Department
Alison Krupski
1700 South 10th Street
Noblesville, IN 46060

Butler, Fairman & Seufert Inc
Neal Bennett
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240

Joan Bolden
151 North 8th Street
Noblesville, IN 46060-2205

City of Noblesville
Denise E Aschleman, CFM
16 South 10th Street, Suite 150
Noblesville, IN 46060

City of Noblesville
16 South 10th Street
Noblesville, IN 46060-2809

Department of Natural Resources
Division of Law Enforcement
District 4 Headquarters
3734 Mounds Road
Anderson, IN 46017

Duke Energy Indiana Inc
550 Tyrone Street South DEC41B
Charlotte, NC 28202

Godby Properties LP
14550 Mundy Drive
Noblesville, IN 46060

Hamilton County Drainage Board
1 Hamilton County Square, Suite 188
Noblesville, IN 46060-2653

Hamilton County Public Building Corporation
33 North 9th Street, Suite L-21
Noblesville, IN 46060-2200

Hamilton County SWCD
Mark McCauley
1717 Pleasant Street, Suite 100
Noblesville, IN 46060

Michael Howard
694 Logan Street
Noblesville, IN 46060

Chuck Kiphart
One Hamilton County Square, Suite 306
Noblesville, IN 46060

Sharon Paskins
19909 North State Road 37
Noblesville, IN 46060

Stephen L Schwartz
118 Cicero Road
Noblesville, IN 46060-1401

Glen L Schwartz
117 Cicero Road
Noblesville, IN 46060-1402

US Army Corps of Engineers
Louisville District
PO Box 59
Louisville, KY 40201-0059

Staff Assignment:

Administrative	: Jason Wenning
Technical	: Jason Wenning
Environmental	: J. Matthew Buffington
Fish and Wildlife	: Brian Boszor
Law Enforcement	: Andy Wuestefeld
Historic Preservation & Archaeology	: Cathy Draeger-Williams



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
CORPS OF ENGINEERS
INDIANAPOLIS REGULATORY OFFICE
8902 OTIS AVENUE, SUITE S106B
INDIANAPOLIS, INDIANA 46216
FAX; (317) 547-4526
<http://www.lrl.usace.army.mil/>
April 3, 2018

Regulatory Division
North Branch
ID No. LRL-2018-303-sjk

Ms. Alison Krupski
Hamilton County Highway Department
1700 South 10th Street
Noblesville, Indiana 46060

Dear Ms. Krupski:

This is in regards to the letter dated March 22, 2018, from Butler, Fairman, & Seufert concerning the proposed widening of the bridge carrying Logan Street over White River. The proposed activity would require the extension of the existing piers and installation of riprap scour protection totaling 0.077 acre. Additionally, a temporary causeway would be used during construction. The project is located at latitude 40.0469° and longitude -86.0165° in Noblesville, Hamilton County, Indiana. We have reviewed the submitted data relative to Section 404 of the Clean Water Act (CWA).

The Louisville, Detroit, and Chicago Districts issued Regional General Permit (RGP) No. 1 pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 CWA on December 15, 2014, for certain activities having minimal impact in Indiana. Since the project is considered to have minimal impact on the aquatic environment, your project is authorized under the RGP. Compliance with the enclosed RGP General Conditions and the Water Quality Certification issued by the Indiana Department of Environmental Management dated December 12, 2014, is required.

The enclosed compliance certification document must be completed and submitted to this office within 30 days of completion of the authorized activity. **This verification is valid until December 15, 2019.**

If you have any questions, please contact me by writing to the above address or by calling 317-543-9424. Any correspondence should reference our assigned Identification Number LRL-2018-303-sjk.

Sincerely,



Sarah Keller
Regulatory Specialist
Indianapolis Regulatory Office

Enclosure
Copy Furnished: IDEM (Turner)
(w/o encl) BF&S (Bennett)



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

December 12, 2014

VIA CERTIFIED MAIL 91 7190 0005 2710 0036 9499

Ms. Lee Anne Devine
U.S. Army Corps of Engineers
Louisville District
P.O. Box 59
Louisville, KY 40201-0059

Dear Ms. Devine:

Re: Section 401 Water Quality Certification
Project: 2014 Reissuance of Regional
General Permit No. 1 for Indiana

The Office of Water Quality has reviewed the Joint Public Notice/Application for Section 401 Water Quality Certification (WQC) dated September 11, 2014. According to the application, the U.S. Army Corps of Engineers (USACE) proposes to reissue the Regional General Permit No. 1 (RGP #1) for the state of Indiana. The RGP #1 is intended to authorize categories of activities that are similar in nature and cause minimal individual and cumulative impacts to the aquatic environment.

The Louisville, Detroit, and Chicago Districts of the USACE developed the existing Indiana RGP to replace several Nationwide Permits (NWP). As a consequence of this action, the following NWPs have been suspended and will not be in effect for the state of Indiana. The USACE proposes to suspend the following:

- NWP 13 Bank Stabilization
- NWP 14 Linear Transportation Projects
- NWP 18 Minor Discharges
- NWP 29 Residential Developments
- NWP 36 Boat Ramps
- NWP 39 Commercial and Institutional Developments
- NWP 40 Agricultural Activities
- NWP 41 Reshaping Existing Drainage Ditches
- NWP 42 Recreational Facilities
- NWP 43 Storm Water Management Facilities
- NWP 44 Mining Activities

Since these NWPs are suspended in Indiana, no Section 401 WQC decision is required.



Based on available information, it is the judgment of this office that the RGP #1 will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the recipient of the certification complies with the conditions set forth below. Therefore, subject to the following terms and conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 WQC for the RGP #1. Any changes in the language or scope of the RGP #1 not detailed in the Joint Public Notice/Application, or as modified by the conditions below, are not authorized by this certification.

APPLICANT RESPONSIBILITIES:

- (1) An applicant seeking coverage under this Section 401 WQC must:
 - (a) Demonstrate, via letter from the Indiana Department of Natural Resources (IDNR), Division of Nature Preserves, that no state endangered, threatened, or rare species are documented on a permanent or seasonal basis within ½-mile radius of the proposed project site by the Indiana Natural Heritage Data Center, or provide documentation from the IDNR that states that the activities proposed will not constitute a violation of state laws protecting these species.
 - (b) Submit a complete Section 401 WQC Regional General Permit Notification Form (most current State Form 51937) at least 30 days prior to the activity. The notification must at a minimum provide applicant information, project location, existing project site conditions, project impacts, and a proposed plan. Failure to submit all required information will result in the project being considered out-of-scope and not authorized.
 - (c) Provide any additional information required by the IDEM to verify that a given project will qualify under the terms and conditions of this Section 401 WQC. If the applicant fails to provide any requested information, the project is not authorized.
 - (d) Allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials, to enter upon the applicant's property to inspect the project site during the review of a proposed project.
 - (e) Notify IDEM of any project for which the USACE District Engineer has issued a waiver for the linear feet of stream impact in order to authorize the project under the RGP. IDEM will review the notification within 30 days to determine whether or not IDEM will also waive the linear feet of stream impact limit.

PERMITEE RESPONSIBILITIES

- (1) Permittees qualifying for impacts under this Section 401 WQC must:
 - (a) Allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials to:

1. Enter upon the permittee's property.
 2. Access and copy at reasonable times any records that must be kept under the conditions of this certification.
 3. Inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site.
 4. Sample or monitor any discharge of pollutants or any mitigation site.
- (b) Obtain any other permits or authorizations required for this project or related activities from IDEM or any other local, state, or federal agency or person. Land disturbing activities of one (1) acre or more or disturbances of less than an acre that are part of a larger common plan will require permit coverage for discharges associated with construction site run-off. Additional information should be obtained through the IDEM Storm Water Program at 317-233-1864. In addition, the Indiana Department of Natural Resources (317-232-4160 or toll free at 877-928-3755) should be contacted concerning the possible requirement of natural freshwater lake or floodway permits.
- (c) Deposit any dredged material in a contained upland disposal area and implement appropriate measures to prevent sediment run-off to any waterbody.
- (d) Install run-off and sediment control measures prior to any land disturbance to manage storm water and to minimize sediment from leaving the project site or entering a waterbody. All operations must phase project activities to minimize the impact of sediment to the receiving waterbody(ies). Erosion and sediment control measures shall be implemented using an appropriate order of construction (sequencing) relative to the land disturbing activities. Wetlands and/or water bodies that are adjacent to land disturbing activities must be protected with appropriate sediment control measures. As work progresses, all areas void of protective cover shall be re-vegetated or stabilized as described in the plan. Areas that are to be re-vegetated must utilize mulch that is anchored or, under more severe conditions, the erosion control blankets. Erosion control blankets or other armament shall be used for all areas associated with concentrated flow. Standards and specifications for storm water management, including erosion and sediment control can be obtained in the Indiana Storm Water Quality Manual or similar guidance documents.

TERMS OF THIS SECTION 401 WQC:

- (1) IDEM, for any project that qualifies under the terms and conditions of this certification, may choose to require an individual Section 401 WQC if the agency determines that the project would have more than minimal impacts to water quality, either viewed individually or collectively with other projects that may impact the same waterbody affected by the proposed project.
- (2) IDEM retains the right to review, modify, terminate, replace or amend this certification as needed to ensure that the federal permits or licenses certified do not result in violations of Indiana's Water Quality Standards or other applicable state laws. In the absence of another action by IDEM that would alter the termination

date of this certification, this certification shall expire with the expiration of the federal permit it certifies.

SPECIFIC CONDITIONS OF THIS SECTION 401 WQC

- (1) This Section 401 WQC does not :
 - (a) Convey any property rights of any sort, or any exclusive privileges.
 - (b) Preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities.

- (2) This Section 401 WQC does not authorize:
 - (a) Impacts or activities that do not meet the terms and conditions of this Section 401 WQC. Such activities require an individual Section 401 WQC from the IDEM.
 - (b) Any injury to permittees or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations.
 - (c) Changes to the original plan design detailed in the notification.
 - (d) The discharge of pollutants, principally sediment, associated with storm water run-off.
 - (e) Point source discharges of pollutants other than clean fill¹ and uncontaminated dredged material.
 - (f) Activities on or in any of the State's waters that have been designated as salmonid waters (cold water streams), tributaries of salmonid waters within a two river mile reach upstream from the confluence with the salmonid water, or Outstanding State and/or National Resource waters (see Attachment #1).
 - (g) Activities on or in any critical wetland or critical special aquatic sites (see Attachment #2).
 - (h) Activities associated with the establishment of a mitigation bank.

- (3) This Section 401 WQC authorizes:
 - (a) Activities that will permanently impact one-tenth (0.10) of an acre or less of waters of the U.S.
 - (b) Activities that will have a cumulative permanent impact of 300 linear feet or less of waters of the U.S.
 - (c) Activities that will not permanently change the sinuosity, flow path, velocity, cross-sectional area under the Ordinary High Water Mark (OHWM), or the slope of a stream² except as specified in Conditions (3)(d), (3)(g), and (3)(i).

¹ Clean fill, for purposes of this WQC, means uncontaminated rocks, bricks, concrete without rebar, road demolition waste materials other than asphalt, or earthen material.

² Stream, for the purposes of this WQC, means waters of the U.S. that have a defined bed and bank and convey water ephemeral, intermittently or perennially. This term includes natural streams, relocated streams, channelized streams, artificial channels, encapsulated channels and ditches.

- (d) Minimal changes to stream morphology, including minor relocations, which result in a net benefit to the aquatic ecosystem. Stream relocations may be authorized, provided the activity:
 - 1. Is associated with the installation of a stream crossing or replacement of an existing crossing, and results in a net benefit to the stream morphology.
 - 2. Does not reduce the cross-sectional area under the OHWM.
 - 3. Is accompanied by an acceptable restoration/stabilization plan.
 - 4. Does not accelerate stream instability. Examples of instability include, but are not limited to, stream bank erosion, channel enlargement, channel incision, degradation, aggradation, meander migration (down-valley and lateral accretion), avulsion and base-level shifts.
- (e) Stream bank stabilization activities or new lake and reservoir shoreline stabilization that will permanently affect 300 linear feet or less and the applicant demonstrates that the bank or shoreline in question is unstable. Natural shoreline stabilization methods are required where there is no pre-existing seawall or other shoreline hard armament on a lake or reservoir. Natural shoreline stabilization methods include bank stabilization practices that benefit the aquatic environment by incorporating organic materials to produce functional structures, provide wildlife habitat, and provide areas for revegetation.
- (f) Placement of riprap or other bank stabilization materials provided the design and installation is flush with the upstream and downstream bank and stream channel/lake bed elevations and grades.
- (g) New bridge piers, piles, shafts or other support structures and their associated scour protection measures that do not significantly reduce the cross-sectional area of the stream and are located below the OHWM and outside the low flow channel of the stream.
- (h) Activities that do not result in a permanent secondary effect to waters of the U.S. Potential secondary effects include, but are not limited to damming, loss of hydrology, and creation of in-channel ponds.
- (i) New permanent stream encapsulations that are for the purpose of constructing a crossing must:
 - 1. Allow the passage of aquatic organisms in the waterbody.
 - 2. Not exceed 150 cumulative linear feet of encapsulation.
 - 3. Have a cross-sectional area at least twenty percent (20%) larger than the area under the OHWM of the stream immediately upstream and downstream of the encapsulation in the form of a single opening.
 - 4. Have a streambed slope within the encapsulation that matches the slope of the bed both immediately upstream and downstream.
 - 5. Not create or accelerate stream instability. Examples of stream instability include, but are not limited to head cutting, stream bank erosion, channel enlargement, channel incision, degradation, aggradation, meander migration, (down-valley and lateral accretion), avulsion and base-level shifts.

6. Either have no bottom (e.g., three sided culvert) or are embedded (sumped)³ into the stream channel based on the following structure sizes and substrate types:
 - a. Stream bed of sand
 - Structure < four (4) feet wide: Six (6) inch sump
 - Structure four (4) feet wide to 12 feet wide: 12 inch sump
 - Structure 12 feet to 20 feet wide: 18 inch sump
 - b. Stream bed of other soil or unconsolidated till⁴
 - Structure < four (4) feet wide: Three (3) inch sump
 - Structure four (4) feet wide to 12 feet wide: Six (6) inch sump
 - Structure 12 feet to 20 feet wide: 12 inch sump
 - c. Stream bed of bedrock or consolidated till⁵
 - Inside elevation of the structure bottom shall be a minimum of three (3) inches below the surface of the bedrock or consolidated till
 7. Meet the following requirements when installed in perennial streams with OHWM width of 12 feet or greater. These encapsulations must:
 - a. Be sumped to a greater depth if needed for the design of the streambed inside the encapsulation.
 - b. Have a width equal to or wider than the existing OHWM.
 - c. Have a natural stream bottom. If the stream bottom will be disturbed during construction (e.g. four sided box culverts or pipe culverts or because of footer work for three sided culverts), natural stream substrate must be placed in the encapsulation in accordance with the Federal Highway Administration Hydraulic Engineering Circular No. 26: Culvert Design for Aquatic Organism Passage.
 - d. Have a low flow channel constructed or restored through the encapsulation. The low flow channel shall have the same width, depth, and side slope as the natural upstream and downstream low flow channel. If the upstream and downstream channels are highly degraded a V-shaped channel with 5:1 slopes within the structure may be substituted.
- (j) Stream pump-around activities, provided:
1. The discharge from the activity does not cause erosion at the outlet.
 2. Cofferdam dewatering activities are directed to a filter bag(s), upland sediment basins/traps, or a combination of other appropriate sediment control measures to minimize the discharge of sediment-laden water into waters of the U.S.
 3. All sediment control measures are installed and maintained in good working order.
 4. Any materials used for an in-stream dam are constructed using non erodible materials. Examples include sand bags and sheet pile walls.

³ Sump, for the purpose of this Water Quality Certification, means the inside elevation of the bottom of the structure is placed at a specified depth below the grade of the stream.

⁴ Other soil and unconsolidated till includes substrates that are more cohesive and less mobile (e.g. clay, silt, gravel, and cobble substrates).

⁵ Consolidated till includes dense hard materials such as hardpan.

- (k) The installation of temporary work causeways when the activity is conducted in a manner that maintains near normal downstream flows and is constructed of material that can be expected to withstand high flow events.
- (l) The use of temporary structures provided the structures are removed in their entirety and the stream channel restored to preconstruction grades, contours, and vegetative conditions.
- (m) Multiple impacts on a project as long as the cumulative amount of those impacts are less than the most restrictive thresholds of this Section 401 WQC.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in an enforcement action. If an enforcement action is pursued, civil penalties could be assessed up to \$25,000 per day. Criminal liability may apply if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

This certification is effective eighteen (18) days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18-day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the certification within the scope of the petition for stay is stayed for fifteen (15) days, unless or until an Environmental Law Judge further stays the certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

- (1) You must petition for review in writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
- (2) You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication
100 North Senate Avenue
IGCN Room N501
Indianapolis, IN 46204

- (3) You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.

Identifying the certification, decision, or other order for which you seek review by number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

If you have procedural questions regarding filing a petition for review you may contact the Office of Environmental Adjudication at 317-232-8591.

If you have any questions about this certification, please contact Jason Randolph, Project Manager, of my staff by phone at 317-233-0467, or by e-mail at jrandolp@idem.in.gov.

Sincerely,



Martha Clark Mettler
Deputy Assistant Commissioner
Office of Water Quality

cc: Norma Condra, USACE-Louisville
Kerrie Kuhne, USACE-Detroit
Paul Leffler, USACE-Chicago
Scott Pruitt, USFWS
Matt Buffington, IDNR
Randy Braun, IDEM

Attachment 1: Indiana Waters Designated for Special Protection

Designated Salmonid Waters: [327 IAC 2-1.5-5(a)(3)]

- Trail Creek and its tributaries downstream to Lake Michigan, LaPorte County
- East Branch of the Little Calumet River and its tributaries downstream to Lake Michigan via Burns Ditch, Porter and LaPorte Counties
- Salt Creek above (upstream of) its confluence with the Little Calumet River, Porter County
- Kintzele Ditch (Black Ditch) from Beverly Drive downstream to Lake Michigan, Porter County
- The Galena River and its tributaries, LaPorte County
- The St. Joseph River and its tributaries in St. Joseph County from the Twin Branch Dam in Mishawaka downstream to the Indiana/Michigan state line, St. Joseph County
- The Indiana portion of the open waters of Lake Michigan
- Those waters designated by the Indiana Department of Natural Resources (IDNR) for put-and-take trout fishing⁶

Waterbodies which have been designated all or partially as Outstanding State Resource Waters: [327 IAC 2-1.3-3 and 327 IAC 2-1.5-19(b)]

- The Blue River in Washington, Crawford, and Harrison Counties, from river mile 57.0 to river mile 11.5
- The North Fork of Wildcat Creek in Carroll and Tippecanoe Counties, from river mile 43.11 to river mile 4.82
- The South Fork of Wildcat Creek in Tippecanoe County, from river mile 10.21 to river mile 0.00
- Cedar Creek in Allen and DeKalb counties, from river mile 13.7 to its confluence with the St. Joseph River
- The Indiana portion of the open waters of Lake Michigan
- All waters incorporated in the Indiana Dunes National Lakeshore.

Waterbodies which have been designated all or partially as Exceptional Use Streams⁷: [listed in: 327 IAC 2-1-11(b) and IC 13-11-2-72.5 (before its repeal)]

- Big Pine Creek in Warren County downstream of the State Road 55 bridge near the town of Pine Village to its confluence with the Wabash River
- Mud Pine Creek in Warren County from the bridge on the County Road between Brisco and Rainsville to its confluence with Big Pine Creek
- Fall Creek in Warren County from the old C.R. 119 bridge in the NW quarter of Section 21, Township 22N, Range 8W downstream to its confluence with Big Pine Creek
- Indian Creek in Montgomery County from the County Road 650 West bridge downstream to its confluence with Sugar Creek
- Clifty Creek in Montgomery County within the boundaries of Pine Hills Nature Preserve
- Bear Creek in Fountain County from the bridge on County Road 450 North to its confluence with the Wabash River

⁶ Available on the internet under trout stocking locations at: <http://www.in.gov/dnr/fishwild/3622.htm>.

⁷ As per IC 13-18-3-2(u): "Each exceptional use water (as defined in IC 13-11-2-72.5, before its repeal) designated by the board before June 1, 2009, becomes an outstanding state resource water on June 1, 2009, by operation of law."

- Rattlesnake Creek in Fountain County from the bridge on County Road 450 North to its confluence with Bear Creek
- The small tributary to Bear Creek in Fountain County within the Portland Arch Nature Preserve which enters Bear Creek at the sharpest bend and has formed the small natural bridge called Portland Arch
- Blue River from the confluence of the West and Middle Forks of the Blue River in Washington County downstream to its confluence with the Ohio River
- The South Fork of Blue River in Washington County from the Horner's Chapel Road bridge downstream to its confluence with Blue River.
- Lost River and all surface and underground tributaries upstream from the Orangeville Rise (T2N, R1W, Section 6) and the Rise of Lost River (T2N, R1W, Section 7) and the mainstem of the Lost River from the Orangeville Rise downstream to its confluence with the East Fork of White River.

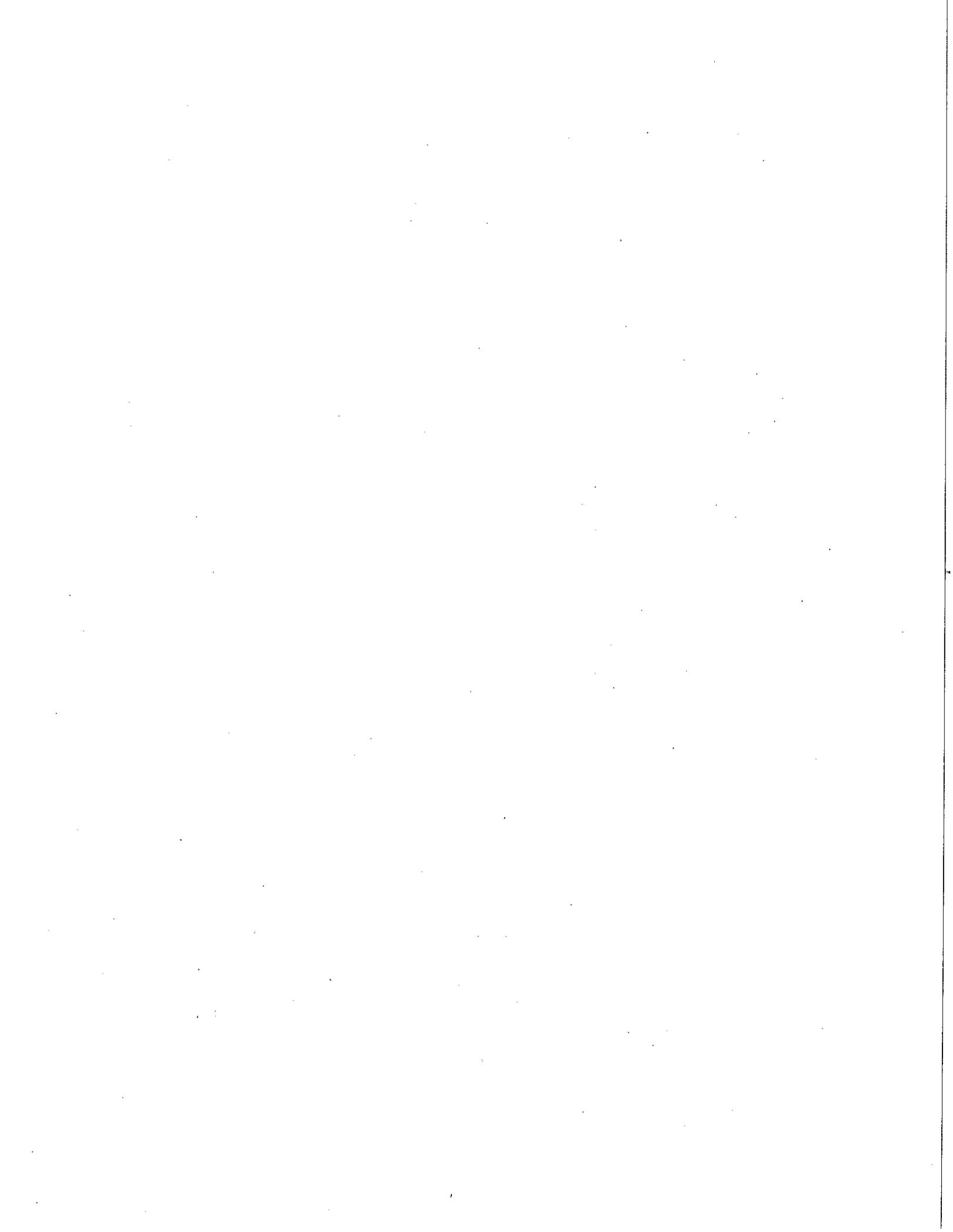
Attachment 2: Critical Wetlands and Critical Special Aquatic Sites

In the interest of maintaining consistency with the State Regulated (Isolated) Wetland program established at 327 IAC 17, IDEM defines Critical Wetlands and Critical Special Aquatic Sites to be synonymous with Rare and Ecologically Important Wetland Types under 327 IAC 17-1-3(3)(B):

- **Acid bog:** Acid bog is an acidic wetland of kettle holes in glacial terrain. Bogs can be graminoid (*Carex* spp. and *Sphagnum* spp.) or low shrub (*Chamaedaphne calyculata* and *Betula pumila*). The graminoid bog can be a floating, quaking mat. The soils in acid bogs are saturated and acidic peat. Bogs have non-flowing or very slow flowing water. The water level fluctuates seasonally. When a sphagnum mat floats, it rises and falls with the water table. Acid bogs can be found in northern Indiana.
- **Acid seep:** Acid seep is a bog-like wetland typically found in unglaciated hill regions. This community is a small groundwater-fed wetland located primarily in upland terrain. A thin layer of muck may lie over a mineral substrate. The soil reaction is acid. This seep community is characterized by flowing water during at least part of the year. Acid seeps are located primarily in southern Indiana.
- **Circumneutral bog:** Circumneutral bog is a bog-like wetland that receives groundwater. Circumneutral bogs can be a mosaic of tall shrub bog, graminoid bog, and other communities. The graminoid bog often occurs on a quaking or floating mat. Although a few bogs occur in unglaciated regions, most are found in glacial ice-block depressions. The soils in circumneutral bogs are usually peat, or other low nutrient organic substrates, which are saturated and circumneutral to slightly acid. Circumneutral bogs have non-flowing or very slow flowing water. The water level fluctuates seasonally. Circumneutral bogs are usually found in northern Indiana.
- **Circumneutral seep:** The circumneutral seep (or seep-spring) is a groundwater-fed wetland on organic soil. It is primarily herbaceous. Species typically include marsh marigold (*Caltha palustris*) and skunk cabbage (*Symplocarpus foetidus*) with a scattered tree canopy. Circumneutral seep is typically situated on or near the base of a slope. The soil is typically circumneutral muck. This seep community is characterized by slowly flowing water during at least part of the year. Circumneutral seeps can be found scattered throughout Indiana.
- **Cypress swamp:** Bald cypress swamps are seasonally to permanently inundated wetlands found in depressions and sloughs of large bottomlands associated with the Wabash/Ohio River system. Poorly to very poorly drained soils characterize this environment. Bald cypress (*Taxodium distichum*) is present, and green ash (*Fraxinus pennsylvanica*), silver maple (*Acer saccharinum*), and overcup oak (*Quercus lyrata*) are also usually present. This community is restricted to extreme southwest Indiana.
- **Dune and swale:** Dune and swale is an ecological system consisting of a mixture of upland (black oak sand savanna, dry to mesic sand prairie) and wetland (pond, panne, sedge meadow, marsh, wet prairie) natural communities. These communities occur in long, narrow, linear complexes, with the dry communities occupying sand ridges, and the wet communities occurring in the intervening swales. Black oak (*Quercus velutina*), paper birch (*Betula papyrifera*), jack pine (*Pinus banksiana*), and prairie vegetation typically occur on the ridges, and sedges, reeds, and marsh/aquatic vegetation line are found in the swales. Water levels are directly influenced by ground water, with the interdunal swales controlled largely by lateral flow through porous beach ridges. Dune and swale is restricted to extreme northwest Indiana, near Lake Michigan.

- **Fen:** Fen is a calcareous, groundwater-fed wetland. Fens are often a mosaic of grassy areas, sedgy areas, graminoid-shrubby cinquefoil, and tall shrub areas. The extent of the tall shrub component of fens may be determined by fire frequency and/or soil moisture. Drying of the soil increases the growth of shrubs. Fens typically occur in the vicinity of glacial moraines. Fens typically have a muck or peat substrate. The water level fluctuates seasonally and is fed by groundwater. Fens can be found in central and northern Indiana.
- **Forested fen:** Forested fen is a tree-dominated wetland on organic soil which receives groundwater. Forested fens are often a mosaic of treed areas, tall shrub areas, and herbaceous areas. A tall shrub layer is often well developed in forested fens. Indicative species typically include tamarack (*Larix laricina*), black ash (*Fraxinus nigra*), yellow birch (*Betula alleghaniensis*), poison sumac (*Toxicodendron vernix*), and red maple (*Acer rubrum*). Forested fens occur in wet lowlands, where moraines meet outwash features or depressions. Forested fens have saturated, poorly to very poorly drained soils that are often muck, but some seasonal flooding can occur in forested fens that are especially level. This community is a late successional stage of fen or circumneutral bog. Forested fens occur in northern Indiana.
- **Forested swamp:** Forested swamp is a seasonally inundated to intermittently exposed wetland of large river bottoms. Forested swamps do not receive direct flow from river flooding except under exceptional circumstances. Forested swamps occur in depressions, sloughs and large bottomlands, typically dominated by tree species such as swamp cottonwood (*Populus heterophylla*), green ash (*Fraxinus pennsylvanica*), and swamp white oak (*Quercus bicolor*). In northern Indiana important tree species include black ash (*Fraxinus nigra*), yellow birch (*Betula alleghaniensis*), and red maple (*Acer rubrum*). Poorly to very poorly drained and aerated soils characterize the swamp environment. Soils usually are mineral not muck or peat. This community type is found throughout Indiana.
- **Marl beach:** Marl beach is a fen-like community located on the marly muck shorelines of lakes. Marl precipitate is evident. A thin layer of water is present in spring, but dries down in summer. Draw-down of a lake creates additional area for this community to develop on. Marl beaches can be found in extreme northern Indiana, primarily in the northeast.
- **Muck flat:** Muck flat is a shoreline and lake community possessing a unique flora of sedges and annual plants, many of which are also found on the Atlantic and Gulf Coastal Plains. This community is found at the margins of lakes or covering shallow basins. This community has a peat substrate. The muck flats can float on the water surface, but during high water periods are usually inundated. The water level of a basin fluctuates during a season or from year to year in response to the amount of precipitation. This exposes bare substrate needed for germination by species of the community. Muck flats are found in northern Indiana.
- **Panne:** Panne is a groundwater fed herbaceous wetland occupying interdunal swales near Lake Michigan. Pannes are located on the lee side of the first or second line of dunes from the lakeshore. The soil is wet, calcareous sand. Pannes are located in counties bordering Lake Michigan.
- **Sand flat:** Sand flat is a shoreline and lake community possessing a unique flora of sedges and annual plants, many of which are also found on the Atlantic and Gulf Coastal Plains. This community is found at the margins of lakes or covering shallow basins. This community has a sand substrate. During high water periods sand flats at the margins of lakes or ponds are inundated. The water level of a basin fluctuates during a season or from year to year in response to the amount of precipitation. This exposes bare substrate needed for germination by species of the community. Sand flats occur in northern Indiana, and in the Plainville Sand Section of southwest Indiana.

- **Sedge meadow:** Sedge meadow is an herbaceous wetland typically dominated by graminoid species such as flat sedge (*Cyperus* spp.), spike rush (*Eleocharis* spp.), rushes (*Juncus* spp.) and sedges (*Carex* spp.). Sedge meadow is an herbaceous wetland of stream margins and river floodplains, and lake margins or upland depressions. Streamside sedge meadows are frequently flooded in the spring and early summer. Sedge meadows of lake margins and depressions often contain standing water during wet months and after heavy rains; during dry periods, the water level is at or just below the substrate. Sedge meadow usually occupies the ground between a marsh and the uplands, or a shrub swamp or wet forest. Periodic high water can kill trees and shrubs invading sedge meadows. Sedge meadows can be found in the northern half of the state.
- **Shrub swamp:** Shrub swamp is a shrub-dominated wetland that is seasonally inundated to intermittently exposed. This community occurs in depressions and the substrate in either mineral soils or muck, as opposed to peat which is characteristic of bogs. Shrub swamp is characterized by non-flowing or very slowly flowing water with levels that fluctuate seasonally. Shrub swamps are persistent, though considered successional. Two opportunistic native shrubs, sandbar willow (*Salix exigua*) and gray dogwood (*Cornus racemosa*), by themselves, are not indicative of shrub swamps. This community type is found throughout Indiana.
- **Sinkhole pond:** Sinkhole ponds are water-containing depressions in karst topography. Sinkhole ponds are found in the Mitchell Karst Plain in south-central Indiana.
- **Sinkhole swamp:** Sinkhole swamps are depressions in karst topography dominated by tree or shrub species. Sinkhole swamps are found in the Mitchell Karst Plain in south-central Indiana.
- **Wet floodplain forest:** Wet floodplain forest is a broadleaf deciduous forest of river floodplains. Wet floodplain forests occur in depressions and flats on narrow to wide floodplains and also on recently exposed substrates that are frequently flooded. Wet floodplain forests are frequently flooded and may have standing water seasonally to permanently present. Wet floodplain forests occur statewide.
- **Wet prairie:** Wet prairie is an herbaceous wetland typically dominated by graminoid species such as prairie cordgrass (*Spartina pectinata*), bluejoint (*Calamagrostis canadensis*), and sedges (*Carex* spp.). Vegetation height is often 2-3 m. The species diversity of wet prairies is lower than that of mesic prairies. Wet prairies occur in deep swales and the substrate ranges from very deep black mineral soils (which are high in organic matter) to muck. Ponding in spring lasts for several weeks prior to drainage. Wet prairies commonly occur in the Grand Prairie Natural Region, the Tipton Till Plain and the Bluffton Till Plain, with a few examples found in the Northern Lakes Natural Region.
- **Wet sand prairie:** Wet sand prairie is an herbaceous wetland typically dominated by graminoid species such as prairie cordgrass (*Spartina pectinata*), bluejoint (*Calamagrostis canadensis*), and sedges (*Carex* spp.). Vegetation height is often 2-3 m. The species diversity of wet prairies is lower than that of mesic prairies. Wet lowland prairies occur in deep swales and the substrate is sand, sometimes mixed with muck. Flooding is a regular springtime occurrence in wet sand prairie and may last several weeks. This community occurs in a mosaic with marsh and other wetlands, and with upland prairies and sand savannas. Fire was frequent occurrence, but more common in the fall when waters had receded. This community occurs in northwest Indiana and in the Plainville Sands area.



Neal Bennett

From: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Sent: Friday, June 01, 2018 8:53 AM
To: Neal Bennett
Subject: RE: IDEM No 2018-197-29-ADF-X

The project has been approved with IDEM ID # 2018-360-29-ADF-X. Have a great weekend!

From: Neal Bennett [mailto:NBennett@bfsengr.com]
Sent: Tuesday, May 29, 2018 3:49 PM
To: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Subject: RE: IDEM No 2018-197-29-ADF-X

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Awesome. Thank you!

-Neal

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p (317) 713-4615 | f (317) 713-4616
NBennett@bfsengr.com | www.BFSEngr.com

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From: Driscoll Farid, Aileen [mailto:ADriscol@idem.IN.gov]
Sent: Tuesday, May 29, 2018 3:47 PM
To: Neal Bennett <NBennett@bfsengr.com>
Subject: RE: IDEM No 2018-197-29-ADF-X

Thanks. I sent it through for approval. I'll let you know once it's processed with the IDEM ID #.

Aileen

From: Neal Bennett [mailto:NBennett@bfsengr.com]
Sent: Tuesday, May 29, 2018 10:26 AM
To: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Subject: RE: IDEM No 2018-197-29-ADF-X

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Hello Aileen-

Attached is the updated application. Let me know if there is anything else that you need. Thank you for your help.

-Neal

**Neal Bennett, PWS
Environmental Scientist**

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p (317) 713-4615 | f (317) 713-4616
NBennett@bfsengr.com | www.BFSEngr.com

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From: Driscoll Farid, Aileen [<mailto:ADriscol@idem.IN.gov>]
Sent: Friday, May 25, 2018 3:12 PM
To: Neal Bennett <NBennett@bfsengr.com>
Subject: RE: IDEM No 2018-197-29-ADF-X

Hi Neal,

This looks acceptable under the RGP. I will need a re-submission since the original has already been processed as out-of-scope. Once I get that, it will be quick turn around on my end. Thanks for your patience.

Best,

Aileen

From: Neal Bennett [<mailto:NBennett@bfsengr.com>]
Sent: Tuesday, May 15, 2018 10:41 AM
To: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Subject: RE: IDEM No 2018-197-29-ADF-X

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Hi Aileen-

Here is an update on the information for this project. We don't think the existing bridge piers are scour critical, so we will not be adding any riprap around the existing piers. As a result, only the fill from the pier extensions and riprap around them would be the permanent fill impacts. That is 0.035 acre for the piers and 0.029 acre for the stone, so total 0.064 acre. That is well below the 0.1 acre threshold. The causeway will be a combination of pipes and stone in order to maintain normal water flow. Attached is the cofferdam detail and project photos, and USACE permit. The IDNR are finishing up the last of their review. I shall forward you a copy of their permit once I have it. Will this require that I resubmit a new RGP application? Thank you.

-Neal

**Neal Bennett, PWS
Environmental Scientist**

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302

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From: Driscoll Farid, Aileen [<mailto:ADriscol@idem.IN.gov>]
Sent: Tuesday, April 10, 2018 9:02 AM
To: Neal Bennett <NBennett@bfsengr.com>
Subject: RE: IDEM No 2018-197-29-ADF-X

Right, that's fine then.

From: Neal Bennett [<mailto:NBennett@bfsengr.com>]
Sent: Tuesday, April 10, 2018 8:06 AM
To: Driscoll Farid, Aileen
Subject: RE: IDEM No 2018-197-29-ADF-X

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Christie said that since there is a DNR permit under review, there was no reason for her to comment about the project. Double work on there end.

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p (317) 713-4615 | f (317) 713-4616
NBennett@bfsengr.com | www.BFSEngr.com

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From: Driscoll Farid, Aileen [<mailto:ADriscol@idem.IN.gov>]
Sent: Monday, April 09, 2018 12:32 PM
To: Neal Bennett <NBennett@bfsengr.com>
Subject: RE: IDEM No 2018-197-29-ADF-X

Great. For the DNR, you will need to follow-up with Christie Stanifer on the SE species that are listed in the first letter. When you get that, you can just e-mail it to me.

From: Neal Bennett [<mailto:NBennett@bfsengr.com>]
Sent: Monday, April 09, 2018 11:29 AM
To: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Subject: RE: IDEM No 2018-197-29-ADF-X

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OK. I have sent this on to the designer for his feedback. We are double checking our impact calculations and discussing your other points. I will get pictures today. I have the ETR stuff. See attached.

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p (317) 713-4615 | f (317) 713-4616
NBennett@bfsengr.com | www.BFSEngr.com

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From: Driscoll Farid, Aileen [<mailto:ADriscol@idem.IN.gov>]
Sent: Monday, April 09, 2018 11:01 AM
To: Neal Bennett <NBennett@bfsengr.com>
Subject: RE: IDEM No 2018-197-29-ADF-X

Neal,

The plans you sent look good, but there are still some issues for meeting RGP conditions.

- In the narrative description page in your original application, the permanent fill below OHWM totals to 0.112 acres. The 0.07 acres on the notification form doesn't include replacement of the riprap around existing piers. Even though this impact is "already existing", it still counts towards the permanent impacts for this project. So, for this to be processed as an RGP, I'd need those impacts to be lowered to 0.10 acres or less.
- Please include the following:
 - o Plans for any pump around, cofferdams etc., and a more detailed plan for the temporary causeway. A cross section view would be best for the temporary causeway, and I'll need to know what material it will be constructed of. Because it is 150 long, I have concerns that it may not meet Specific Condition 3(k), maintaining near normal downstream flows.
 - o Photos of the project area
 - o IDNR correspondence for ETR species.

Feel free to give me a call if you want to discuss any of this. Have a great day!

Aileen

From: Neal Bennett [<mailto:NBennett@bfsengr.com>]
Sent: Monday, April 09, 2018 9:51 AM
To: Driscoll Farid, Aileen <ADriscol@idem.IN.gov>
Subject: IDEM No 2018-197-29-ADF-X

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Aileen-
Attached is the plans/exhibits, etc. Thanks.

-Neal

Neal Bennett, PWS
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
p (317) 713-4615 | f (317) 713-4616
NBennett@bfsengr.com | www.BFSEngr.com

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Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bf@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Merrillville
Plainfield
South Bend
Louisville



March 8, 2018

Mr. Joseph MacDonald
800 Oliver Avenue, Suite 1
Indianapolis, IN 46225

Subject: Work Plan Approved for Project: Logan Street Bridge Reconstruction and Widening

Dear Mr. MacDonald;

Your work plan dated March 6, 2018 is approved for the proposed project: Logan Street Bridge Reconstruction and Widening in City of Noblesville in Hamilton County, Indiana. We are returning a copy of the approved work plan for your records.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|---|
| (1) Name or route number: | Logan St |
| (2) Geographical limits: | Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19 |
| (3) General description of work: | Bridge Widening, Deck Replacement, Path & Sidewalks |
| (4) Date approved work plan will be needed: | March 23, 2018 |
| (5) Letting date: | April 23, 2018 |
| (6) Name of designer and contact information: | Bryan Wright, P.E., S.E. – Butler, Fairman & Seufert, Inc.,
E: BWright@BFSEngr.com , P: 317-713-4615 |
| (7) Major or minor project: | Minor |

If you have any questions on this subject please contact Kevin A. Hintz, P.E., Butler, Fairman & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, Indiana, 46240, P: (317) 713-4615, F: (317) 713-4616, UC@BFSEngr.com. Thank you for your attention to these matters.

Sincerely;

Kevin A. Hintz, P.E.
Utility Coordinator

Cc: Bryan Wright, P.E., S.E., BF&S
Ted Foster, BF&S

Crown Castle/Lighthouse

Date: 3/6/2018

Subject:

Utility Relocation Work Plan for:	Crown Castle/Lighthouse
Facility Type:	Communication Fiber Optic

Section 1: General Information

A. INDOT/LPA Project Information

1. DES NO.:	N/A
2. Route Number:	Logan St
3. Location:	Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19
4. Work Type:	Bridge Widening, Deck Replacement, Path & Sidewalks
5. Letting Date:	September 1, 2018
6. Date Work Plan Needed	July 2018
7. Target Date for Utility to be out of conflict with INDOT Project	September 1, 2018
Intermediate Phase	NA
Intermediate Phase	NA

B. Utility Designated Contact – Information

1. Designated Contact Name:	Joseph Macdonald
2. Office telephone:	585-491-2646
3. Mobile telephone:	585-491-2646
4. Email address:	Joseph.macdonald@crowncastle.com
5. Agency name	Crown Castle/Lighthouse
6. Address:	800 Oliver Ave. Suite 1
7. City, State, Zip Code:	Indianapolis, IN 46225
8. Construction Emergency Contact:	Crown Castle NOC
Name:	Crown Castle NOC
Number:	1-800-497-5578

C. By signing here, the Utility has determined to the best of their ability that they do not have facilities within the project area:

Signature of Utility Representative

Print Name

Date

Crown Castle/Lighttower

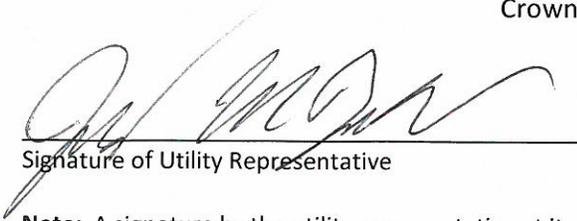
Note: A signature by the utility representative at item "(C)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct

D. INDOT/LPA Utility Coordinator Contact Information

1.	Utility Coordinator Name:	Kevin A. Hintz, P.E.
2.	Office Telephone:	317-713-4615
3.	Mobile Telephone:	317-627-7501
4.	Email Address:	uc@bfsengr.com
5.	Agency Name:	Butler, Fairman & Seufert, Inc.
6.	Address:	8450 Westfield Blvd., Suite 300
7.	City, State, Zip Code	Indianapolis, Indiana 46240

Section 2: A narrative description of the facility relocation that will be required. [IAC 13-3-3(c)]

- A. Describe what types of existing active and inactive facilities are present.
Crown Castle has one fiber optic cable just inside of the project limits and is in a shared handhole with Zayo.
- B. Describe the location of existing active and inactive facilities.
North to south underground fiber on the east end of Logan St. Bridge. Fiber is located under transition from bridge deck to road. Also in a shared handhole with Zayo on south east end of bridge. New sidewalk will be routed around handhole location. Handhole is located 15' south of existing curb. I do not see conflict with new sidewalk and existing handhole.
- C. Describe what will be done with existing active and inactive facilities.
No relocation is necessary.
- D. Describe the details of the proposed new facilities.
No Change
- E. Describe the proposed location of the new facilities.
No Change
- F. By signing here, the Utility has determined to the best of their ability that they have facilities within the project area and the facilities are not in conflict with the project based upon the plans received on <3/2/2018>



Signature of Utility Representative

Joseph MacDonald

3/6/2018

Print Name

Date

Note: A signature by the utility representative at item "(F)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct.

Section 3: A statement whether the facility relocation is or is not dependent on the acquisition of additional property interests with a description of that work. [IAC 13-3-3(c) (2) (B)]

Section 4: A statement whether the utility is or is not willing to allow the INDOT contractor to do the required work as part of the highway contract. [IAC 13-3-3(c) (3)]

Section 5: From the date the work plan is approved by both parties; please provide the Utility's pre-construction scheduling information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A.	The expected lead time in calendar days to obtain required permits:	Enter Total Days
B.	The expected lead time in calendar days to obtain materials:	Enter Total Days
C.	The expected lead time in calendar days to schedule work crews:	Enter Total Days
D.	If the contractor is being selected by competitive bid what is the date of selection?	Enter Bid Date
E.	The expected lead time in calendar days to obtain new property interests:	Enter Days
F.	The earliest date when the utility could begin to implement the pre-construction activities of the work plan:	Enter Date
G.	The total number of calendar days for pre-construction activities: (accounting for concurrent activities)	Enter Total Days

Crown Castle/Lighttower

Section 6: The Utility Construction Scheduling Information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A. A statement whether the facility relocation is or is not dependent on work to be done by another utility with a description of that work. [IAC 13-3-3(c)(2)(A)(i)]

1. Utility A, with a description of the required work.

2. Utility B, with a description of the required work.

3. Utility C, with a description of the required work.

B. A statement whether the facility relocation is or is not dependent on work to be done by the department or the department's contractor with a description of that work. [IAC 13-3-3(c)(2)(A)(ii)]

1. Work item A

2. Work item B

3. Work item C

C. How many calendar days after the events identified in Sec 6 A and B are completed can the utility begin construction: **Enter Total Days**

D. The number of calendar days to complete the relocation work: **Enter Total Relocation Days**

Crown Castle/Lighttower

Section 7: A drawing of sufficient detail with station, offset, elevations, and scale to show the proposed location of the facility relocation, which takes precedence over the narrative description of the work, needs to be on INDOT Construction drawings. [IAC 13-3-3(c) (6)]. Plans must be attached to this Work Plan Document.

Section 8: For each work plan the utility shall include a cost estimate for the facility relocation. For reimbursable work the estimate will identify betterment and salvage which is not reimbursable. [IAC 13-3-3(d)]

Section 9: For work the utility is entitled to be compensated by the Department, the work plan shall include documentation of property interests and compensable land rights. [IAC 13-3-3(d)]

Section 10: The implementation of this approved work plan is dependent upon the issuance of: (a notice to proceed will be provided when items in Section 6 are accomplished)

Items Completed	Yes	Not Applicable
An executed reimbursement agreement with INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>
A relocation permit from INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>

(Note: Double-click on box in Yes or NA to mark it with an "X")

Submitter Signature

Date

Crown Castle/Lighttower

Submitter Name Printed

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

The following sections are to be used by INDOT personnel to review the utility relocation work plan.

Section 11: The Department shall review the work plan to ensure that it: [IAC 13-3-3(e)]

Description	Yes	No	Initials
(1.a) is compatible with department permit requirements	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.b) is compatible with the project plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.c) is compatible with the construction schedule	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.d) is compatible with other utility relocation work plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.a) has reasonable relocation scheme	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.b) has a reasonable cost for compensable work	<input type="checkbox"/>	<input type="checkbox"/>	KAH

(Note: Double-click on box under Yes or No to mark it with an "X")

Comments on any sections (1.a – 2.b) that were marked No:

No Relocations

Kevin A. Hintz
Reviewer Signature

3-8-18
Date

Kevin A. Hintz P.E.
Reviewer Name Printed
Utility Coordinator

Section 12: Approved Work Plan. [IAC 13-3-3(f)]

I have reviewed the work plan and found it acceptable.

[Signature]
Project Manager Signature

3/8/18
Date

Crown Castle/Lighttower

Bryan Wright

Project Manager Name Printed

Logan St. Bridge Replacement
Noblesville, IN.
Crown Castle fiber path.

Existing UG fiber

Existing Aerial fiber

1 Hamilton County Square (Court House)

Google Earth

40°02'48.13" N 86°00'56.88" W elev 764 ft eye alt 1460 ft

1998





Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bfs@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Merrillville
Plainfield
South Bend
Louisville



April 16, 2018

Mr. Dan Benson
Duke Energy
100 South Mill Creek Road
Noblesville, IN 46062

Subject: Work Plan Approved for Project: Logan Street Bridge Reconstruction and Widening

Dear Mr. Benson;

Your work plan dated April 5, 2018 is approved for the proposed project: Logan Street Bridge Reconstruction and Widening in City of Noblesville in Hamilton County, Indiana. We are returning a copy of the approved work plan for your records.

- **This letter serves as your Notice To Proceed for all pre-construction and relocation activities identified outlined in your approved work plan to fully complete your relocation**

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|---|
| (1) Name or route number: | Logan St |
| (2) Geographical limits: | Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19 |
| (3) General description of work: | Bridge Widening, Deck Replacement, Path & Sidewalks |
| (4) Date approved work plan will be needed: | March 23, 2018 |
| (5) Letting date: | April 23, 2018 |
| (6) Name of designer and contact information: | Bryan Wright, P.E., S.E. – Butler, Fairman & Seufert, Inc.,
E: BWright@BFSEngr.com , P: 317-713-4615 |
| (7) Major or minor project: | Minor |

If you have any questions on this subject please contact Kevin A. Hintz, P.E., Butler, Fairman & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, Indiana, 46240, P: (317) 713-4615, F: (317) 713-4616, UC@BFSEngr.com. Thank you for your attention to these matters.

Sincerely;

Kevin A. Hintz, P.E.
Utility Coordinator

Cc: Bryan Wright, P.E., S.E., BF&S
Ted Foster, BF&S



Date: **April 13, 2018**

Subject:

Utility Relocation Work Plan for:	Duke Energy
Facility Type:	Electric

Section 1: General Information

A. INDOT/LPA Project Information

1. Des Number.:	NA
2. Route Number:	Logan St.
3. Location:	Noblesville, IN
4. Work Type:	Bridge Widening, Deck Replacement, Path & Sidewalks
5. Letting Date:	April 23,2018
6. Date Work Plan Needed:	March 23,2018
7. Target Date for Utility to be out of conflict with INDOT Project:	TBD
Intermediate Phase:	NA
Intermediate Phase:	NA

B. Utility Designated Contact – Information

1. Designated Contact Name:	Dan Benson
2. Office telephone:	317-776-5340
3. Mobile telephone:	317-315-4681
4. Email address:	Dan.Benson@duke-energy.com
5. Agency name:	Duke Energy
6. Address:	100 S. Mill Creek Rd.
7. City, State, Zip Code:	Noblesville, IN 46062
8. Construction Emergency Contact:	
Name:	Dan Benson
Number:	317-315-4681

**** For Outage and Damage Issues please contact 1-800-521-2232 ****

C. By signing here, the Utility has determined to the best of their ability that they do not have facilities within the project area:

Signature of Utility Representative

Print Name

Date

Note: A signature by the utility representative at item “(C)” fulfills the requirement to complete the rest of this form and affirms their contact information above is correct



D. INDOT/LPA Utility Coordinator Contact Information

1.	Utility Coordinator Name:	Ted Foster
2.	Office Telephone:	317-713-4615
3.	Mobile Telephone:	NA
4.	Email Address:	TFoster@bfsengr.com
5.	Agency Name:	Butler, Fairman & Seufert, Inc.
6.	Address:	8450 Westfield Blvd. Suite 300
7.	City, State, Zip Code	Indianapolis, IN 46240

Section 2: A narrative description of the facility relocation that will be required. [IAC 13-3-3(c)]

DESCRIBE IN DETAIL

A. Describe what types of existing active and inactive facilities are present.

- Duke Energy has the Noblesville 8th St. substation just north of the project location. From that substation there is a 3-phase, 12kV underground primary conductor that runs southwest from the substation, under Logan Street (approximately under the bridge approach slab on the southeast end of the bridge), to the switch gear that sits west of the Hamilton County Judicial Center.
- Duke Energy also has an overhead 3-phase, 12kV primary conductor that heads west from the substation to an H structure on the northwest corner of the bride, then proceeds to cross Logan Street at the northwest corner, and SR 19, then continues west.
- Duke Energy also has underground secondary conductors in the parking lot to the north of the Hamilton County Judicial Center.
- There is also another underground secondary conductor along the north side of the Logan Street Bridge.
- There is an overhead secondary conductor that extends from the H structure on the northwest corner to the southwest corner of the bridge to provide service to that metered location on the southwest corner of the bridge.

Duke Energy is unable to confirm whether or not there are any underground, inactive Duke Energy facilities present. Regardless, any such inactive facilities should be considered abandoned in place, and therefore, subject to neither removal nor preservation by Duke Energy.

B. Describe the location of existing active and inactive facilities.

- Duke Energy has the Noblesville 8th St. substation just north of the project location. From that substation there is a 3-phase, 12kV underground primary conductor that runs southwest from the substation, under Logan Street (approximately under the bridge approach slab on the southeast end of the bridge), to the switch gear that sits west of the Hamilton County Judicial Center.
- Duke Energy also has an overhead 3-phase, 12kV primary conductor that heads west from the substation to an H structure on the northwest corner of the bride, then proceeds to cross Logan Street at the northwest corner, and SR 19, then continues west.
- Duke Energy also has underground secondary conductors in the parking lot to the north of the Hamilton County Judicial Center.
- There is also another underground secondary conductor along the north side of the Logan Street Bridge.
- There is an overhead secondary conductor that extends from the H structure on the northwest corner to the southwest corner of the bridge to provide service to that metered location on the southwest corner of the bridge.



Duke Energy is unable to confirm whether or not there are any underground, inactive Duke Energy facilities present. Regardless, any such inactive facilities should be considered abandoned in place, and therefore, subject to neither removal nor preservation by Duke Energy.

C. Describe what will be done with existing active and inactive facilities.

- The underground 3-phase, 12kV primary conductors, that proceed southwest from the substation, will be relocated east, approximately 7 ft., and to a further depth to become out of conflict with the project.
- The remainder of the existing Duke Energy facilities will remain as there is no conflict with these facilities.
- Please note that when the existing overhead service on the southwest corner of the bridge is relocated to the northwest corner of the bridge, customer is to call 1-800-774-0246 to schedule disconnect/reconnect services.

Duke Energy is unable to confirm whether or not there are any underground, inactive Duke Energy facilities present. Regardless, any such inactive facilities should be considered abandoned in place, and therefore, subject to neither removal nor preservation by Duke Energy.

PLEASE REFER TO THE OSHA WEBSITE FOR ALL CLEARANCE REQUIREMENTS BASED ON THE VOLTAGE OF OUR LINES LISTED ABOVE.

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=19

WARNING: ANY ORANGE OR YELLOW COVER-UP THAT DUKE ENERGY WOULD PLACE ON THE DISTRIBUTION LINE WOULD BE FOR VISUAL IDENTIFICATION ONLY AND WILL NOT PROTECT AGAINST THE TRAVEL OF ELECTRICITY, THEREFORE ALL WIRES WOULD BE CONSIDERED BARE, UNINSULATED, AND ENERGIZED AT ALL TIMES.

IF THE CONTRACTOR WOULD LIKE VISUAL COVER INSTALLED ON THE DISTRIBUTION WIRES, THEY WILL NEED TO CONTACT THE DUKE ENERGY CALL CENTER FOR SCHEDULING AT 1.800.521.2232, MONDAY THROUGH FRIDAY FROM 7A TO 7P OR ON SATURDAY FROM 8A TO 1P.

D. Describe the details of the proposed new facilities.

- The underground 3-phase, 12kV primary conductors, that proceed southwest from the substation, will be spliced at two locations on either side of the bridge. One splice pit will be on the northern side of the bridge, southwest of the parking lot, in the landscape mound (landscape mound to be restored by Hamilton County). The second splice pit will be approximately 23 ft. southwest from the existing sidewalk. The existing conductors between the splice pits will be abandoned and new primary conductors will be spliced in at both splice pit locations, installed approximately 7 ft. east of the northern splice pit, then heading southwest to intercept the existing line at the southern splice pit, to eliminate the conflict with the bridge retaining wall, and installed at a depth of no less than 5 ft. The new conductor will be bored east of the existing conductor to eliminate conflicts the retaining wall on the bridge.
Please see "Attachment B"
- The remainder of the existing Duke Energy facilities will remain as there is no conflict with these facilities.
- Please note that when the existing overhead service on the southwest corner of the bridge is relocated to the northwest corner of the bridge, customer is to call 1-800-774-0246 to schedule disconnect/reconnect services.

E. Describe the proposed location of the new facilities.



- The underground 3-phase, 12kV primary conductors, that proceed southwest from the substation, will be spliced at two locations on either side of the bridge. One splice pit will be on the northern side of the bridge, southwest of the parking lot, in the landscape mound (landscape mound to be restored by Hamilton County). The second splice pit will be approximately 23 ft. southwest from the existing sidewalk. The existing conductors between the splice pits will be abandoned and new primary conductors will be spliced in at both splice pit locations, installed approximately 7 ft. east of the northern splice pit, then heading southwest to intercept the existing line at the southern splice pit, to eliminate the conflict with the bridge retaining wall, and installed at a depth of no less than 5 ft. The new conductor will be bored east of the existing conductor to eliminate conflicts the retaining wall on the bridge.
Please see "Attachment B"
- The remainder of the existing Duke Energy facilities will remain as there is no conflict with these facilities.
- Please note that when the existing overhead service on the southwest corner of the bridge is relocated to the northwest corner of the bridge, customer is to call 1-800-774-0246 to schedule disconnect/reconnect services.

F. By signing here, the Utility has determined to the best of their ability that they have facilities within the project area and the facilities are not in conflict with the project based upon the plans received on **March 1, 2018**

Signature of Utility Representative

Print Name

Date

Note: A signature by the utility representative at item "(F)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct.

Section 3: A statement whether the facility relocation is or is not dependent on the acquisition of additional property interests with a description of that work. [IAC 13-3-3(c) (2) (B)]

- (A) Duke Energy must have acquired all ROW, RR, State or Federal permits before relocation construction begins.**
- (B) Duke Energy must have acquired all private "possessory rights" needed for the approved relocation plan before relocation construction begins.**
- (C) Duke Energy will not be acquiring easements for the said project.**

Section 4: A statement whether the utility is or is not willing to allow the INDOT contractor to do the required work as part of the highway contract. [IAC 13-3-3(c) (3)]

Duke Energy Indiana is not willing to have a HAMILTON COUNTY HIGHWAY DEPARTMENT's contractor perform the required relocation.



Section 5: From the date the work plan is approved by both parties; please provide the Utility’s pre-construction scheduling information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A.	The expected lead time in calendar days to obtain required permits:	60 Days
B.	The expected lead time in calendar days to obtain materials:	120 Days
C.	The expected lead time in calendar days to schedule work crews:	60 Days (Minimum)
D.	If the contractor is being selected by competitive bid what is the date of selection?	Not Applicable
E.	The expected lead time in calendar days to obtain new property interests:	INDOT to obtain all ROW
F.	The earliest date when the utility could begin to implement the pre-construction activities of the work plan:	Material Reservation Contingent on Work Plan Approval. Scheduling Contingent on Notice to Proceed.
G.	The total number of calendar days for pre-construction activities: (accounting for concurrent activities)	120 Days

Section 6: The Utility Construction Scheduling Information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

- A. A statement whether the facility relocation is or is not dependent on work to be done by another utility with a description of that work. [IAC 13-3-3(c)(2)(A)(i)]

The removal of Duke Energy's pole(s) is dependent upon the removal of attachers to our poles. The attachers must remove their facilities before the existing poles can be removed. The existing attachers to our poles on this project are:

NOT APPLICABLE

If the existing attacher is transferring their facilities to our new poles, the existing attacher’s construction schedule may begin only after Duke Energy’s relocation construction is completed. Duke Energy has no control over the start date or finish date for attachers vacating our existing poles.

- B. A statement whether the facility relocation is or is not dependent on work to be done by the HAMILTON COUNTY HIGHWAY DEPARTMENT or the HAMILTON COUNTY HIGHWAY DEPARTMENT’S contractor with a description of that work. [IAC 13-3- 3(c)(2)(A)(ii)]

Work item A

HAMILTON COUNTY HIGHWAY DEPARTMENT will give written notice to Duke Energy that all “possessory rights” have been acquired for the entire length of the approved work plan area before relocation construction begins.

Work item B

HAMILTON COUNTY HIGHWAY DEPARTMENT will work closely with Duke Energy to safely clear all trees, shrubs and structures, at the HAMILTON COUNTY HIGHWAY DEPARTMENT’S cost, for the entire length of the approved relocation plan area, including areas sufficiently beyond the construction limits to accommodate the approved relocation work plan before relocation construction begins.



Work item C

**HAMILTON COUNTY HIGHWAY DEPARTMENT will notify Duke Energy after staking (A or B):
NOT APPLICABLE**

Work item D

HAMILTON COUNTY HIGHWAY DEPARTMENT will provide signed copies of all reimbursement agreements before relocation construction begins. NOT APPLICABLE

Work item E

HAMILTON COUNTY HIGHWAY DEPARTMENT will provide Duke Energy a “Signed” work plan on or before as the ready for contracts date.

Work item F

HAMILTON COUNTY HIGHWAY DEPARTMENT will provide Duke Energy a “Letter to Proceed” on or before the ready for contracts date but no event later than the required pre-construction lead time prescribed in Sections 5 F & G.

In the event that Duke Energy Indiana decides to hold, protect or guard its installed facilities before, after or during relocation construction, for the safe installation of another facility or utility, Duke Energy Indiana will notify the HAMILTON COUNTY HIGHWAY DEPARTMENT immediately. Because time is of the essence, the HAMILTON COUNTY HIGHWAY DEPARTMENT and Duke Energy Indiana agree to work together to minimize costs and delays for all parties involved, and Duke Energy Indiana agrees to not proceed until an agreement is reached with the HAMILTON COUNTY HIGHWAY DEPARTMENT regarding reimbursement of Duke Energy Indiana's costs for holding protecting or guarding its facilities.

- C. How many calendar days after the events identified in Sec 6 A and B are completed can the utility begin construction:

Absent an agreement expediting the work between the HAMILTON COUNTY HIGHWAY DEPARTMENT and Duke Energy Indiana, the earliest date when Duke Energy Indiana could begin construction.

- 1.) **If the HAMILTON COUNTY HIGHWAY DEPARTMENT ROW staking and clearing is contained in the HAMILTON COUNTY HIGHWAY DEPARTMENT’s construction contract, Duke Energy Indiana will begin construction within 60 days after Duke Energy Indiana has received from HAMILTON COUNTY HIGHWAY DEPARTMENT both a “Notice to Proceed” (confirming the staking and clearing has been completed) and a fully executed Work Plan.**

If the HAMILTON COUNTY HIGHWAY DEPARTMENT ROW staking and clearing is let as a separate contract, Duke Energy Indiana will begin construction within 60 days after Duke Energy Indiana has received from HAMILTON COUNTY HIGHWAY DEPARTMENT both a “Notice to Proceed” (confirming the staking and clearing has been completed) and a fully executed Work Plan.

If at any time within 120 days from the most current published letting date, the HAMILTON COUNTY HIGHWAY DEPARTMENT changes the letting date by more than fourteen (14) days, Duke Energy Indiana reserves the right upon written notice sent by mail to the HAMILTON COUNTY HIGHWAY DEPARTMENT, to provide to the HAMILTON COUNTY HIGHWAY DEPARTMENT a revised work plan within 60 days from the date Duke Energy Indiana is notified of the change.

- D. The number of calendar days to complete the relocation work: **90 Days**

Duke Energy will work with the customer to do everything we can to complete the relocation of their facilities to eliminate conflicts by September 28, 2018



Section 7: A drawing of sufficient detail with station, offset, elevations, and scale to show the proposed location of the facility relocation, which takes precedence over the narrative description of the work. [IAC 13-3-3(c) (6)].

See "Attachment B"

Section 8: For each work plan the utility shall include a cost estimate for the facility relocation. For reimbursable work the estimate will identify betterment and salvage, which is not reimbursable. [IAC 13-3-3(d)]

NOT APPLICABLE

Section 9: For work the utility is entitled to be compensated by the Department, the work plan shall include documentation of property interests and compensable land rights. [IAC 13-3-3(d)]

Not Applicable.



Section 10: The implementation of this approved work plan is dependent upon the issuance of: (a notice to proceed will be provided when items in Section 6 are accomplished)

Items Completed	Yes	Not Applicable
An executed reimbursement agreement with INDOT/LPA:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A relocation permit from INDOT/LPA:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

(Note: Double-click on box in Yes or NA to mark it with an "X")

(KAT) City permit may be req'd

Dan Benson
Submitter Signature

04/13/2018
Date

Dan Benson
Submitter Name Printed



INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

The following sections are to be used by INDOT personnel to review the utility relocation work plan.

Section 11: The Department shall review the work plan to ensure that it: [IAC 13-3-3(e)]

Description	Yes	No	Initials
(1.a) is compatible with department permit requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.b) is compatible with the project plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.c) is compatible with the construction schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.d) is compatible with other utility relocation work plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(2.a) has reasonable relocation scheme	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(2.b) has a reasonable cost for compensable work	<input type="checkbox"/> N/A	<input type="checkbox"/>	KAH

(Note: Double-click on box under Yes or No to mark it with an "X")

Comments on any sections (1.a – 2.b) that were marked No:

Kevin A. Hintz
 Reviewer Signature

4-16-18
 Date

Kevin A. Hintz, P.E.
 Reviewer Name Printed
 Utility Coordinator

Section 12: Approved Work Plan. [IAC 13-3-3(f)]

I have reviewed the work plan and found it acceptable.

Bryan Wright
 Project Manager Signature

4/16/18
 Date

Bryan Wright
 Project Manager Name Printed



Upstream Protection	
Type (recloser, breaker, sectionalizer), ID, Location	

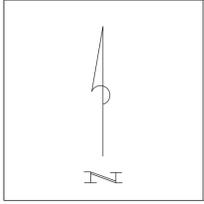
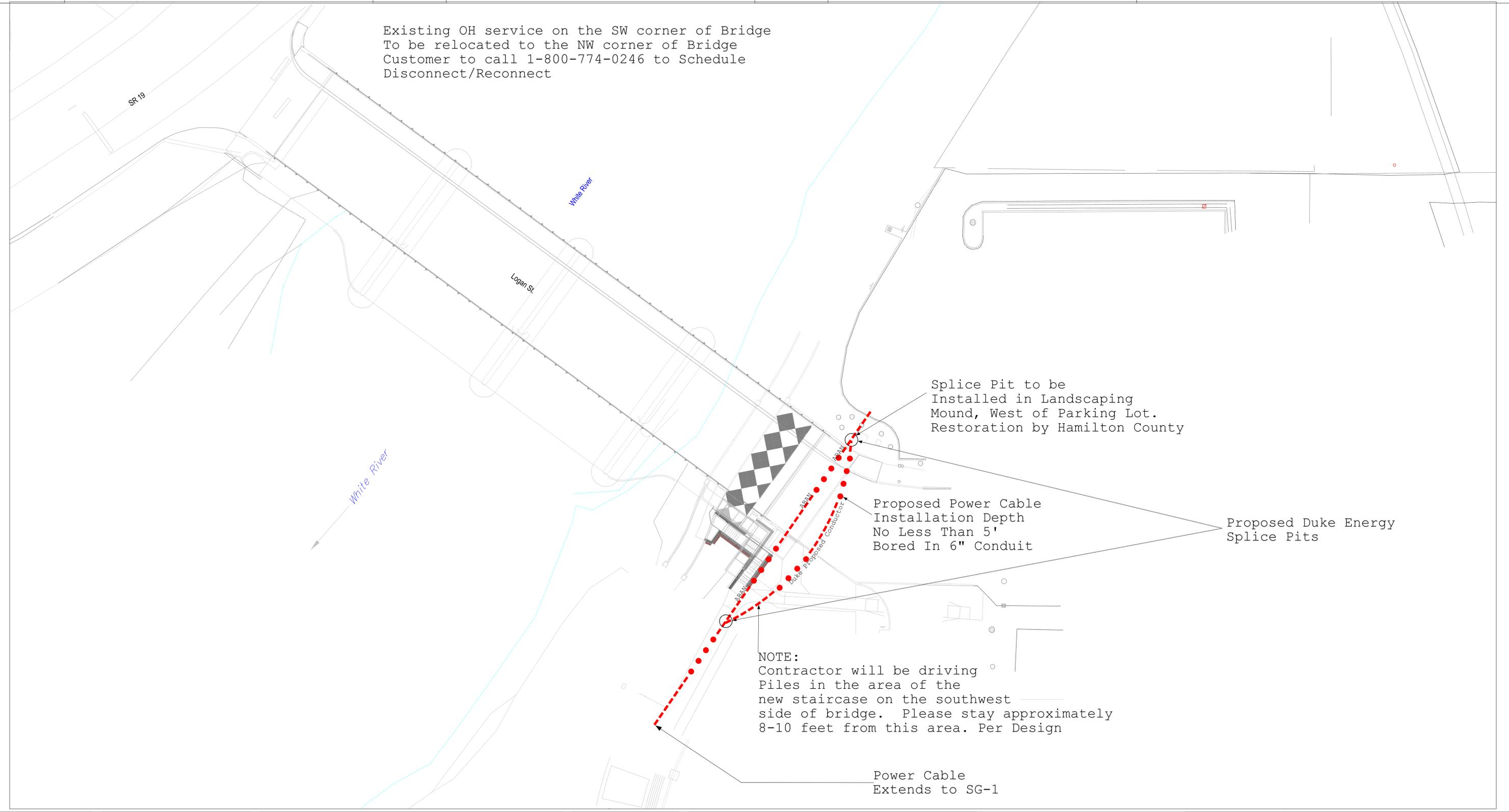


Safety Reminders / Adverse Conditions	
Remember "Your Circle of Safety"	



REMEMBER: Work zone area conditions may have changed for this job. Everyone is responsible for verifying the safety information is correct prior to any work being performed each day.

Other Project Notes	



General Information	
INDOT DES #	NA
Logan Street	
Hamilton County, IN Noblesville Township	

Work Order Information					
Distribution					
Emax #	Install	Remove	OH Maint.	UG Maint.	OU / Center
Transmission					
Emax #	Install	Remove	OH Maint.	UG Maint.	OU / Center

Circuit Information	
Distribution	
Pendleton 69	1201 Circuit
Transmission	

Duke Energy Legend			
	Existing Duke Pole		Existing Downguy
	Proposed Duke Pole		Proposed Downguy
	Remove Duke Pole		Transmission Line
	Existing Foreign Pole		Distribution Line
	Proposed Foreign Pole		Secondary Line
	Remove Foreign Pole		Overhead Light

DATE 4.16.2018		LOCATION 40°2' 47.8108" N, 86°0' 57.8786" W	
DRAWN Dan Benson		PHONE 317.315.4681	
ELECTRIC TRANSMISSION & DISTRIBUTION LINE ENGINEERING		APPROVAL SIGNATURE	
INDEX Exhibit "B"		DETAIL Logan Street Bridge Work Plan Drawing	
		DWG NO 317.315.4681	
		SHEET 1 OF 1	



Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bfs@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Merrillville
Plainfield
South Bend
Louisville



March 28, 2018

Mr. Maninder Singh, P.E.
Indiana American Water Company
153 north Emerson Street
Greenwood, IN 46143

Subject: Work Plan Approved for Project: Logan Street Bridge Reconstruction and Widening

Dear Mr. Singh;

Your work plan dated March 28, 2018 is approved for the proposed project: Logan Street Bridge Reconstruction and Widening in City of Noblesville in Hamilton County, Indiana. We are returning a copy of the approved work plan for your records.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|---|
| (1) Name or route number: | Logan St |
| (2) Geographical limits: | Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19 |
| (3) General description of work: | Bridge Widening, Deck Replacement, Path & Sidewalks |
| (4) Date approved work plan will be needed: | March 23, 2018 |
| (5) Letting date: | April 23, 2018 |
| (6) Name of designer and contact information: | Bryan Wright, P.E., S.E. – Butler, Fairman & Seufert, Inc.,
E: BWright@BFSEngr.com , P: 317-713-4615 |
| (7) Major or minor project: | Minor |

If you have any questions on this subject please contact Kevin A. Hintz, P.E., Butler, Fairman & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, Indiana, 46240, P: (317) 713-4615, F: (317) 713-4616, UC@BFSEngr.com. Thank you for your attention to these matters.

Sincerely;

Kevin A. Hintz, P.E.
Utility Coordinator

Cc: Bryan Wright, P.E., S.E., BF&S
Ted Foster, BF&S

Date: **March 28, 2018**

Subject:

Utility Relocation Work Plan for:	Indiana-American Water Company
Facility Type:	Water

Section 1: General Information

A. INDOT/LPA Project Information

1. DES NO.:	N/A
2. Route Number:	Logan St
3. Location:	Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19
4. Work Type:	Bridge Widening, Deck Replacement, Path & Sidewalks
5. Letting Date:	September 1, 2018
6. Date Work Plan Needed	July 2018
7. Target Date for Utility to be out of conflict with INDOT Project	September 1, 2018
Intermediate Phase	NA
Intermediate Phase	NA

B. Utility Designated Contact – Information

1. Designated Contact Name:	Maninder Singh, P.E.
2. Office telephone:	(317) 885-2445
3. Mobile telephone:	(317) 560-8441
4. Email address:	maninder.singh@amwater.com
5. Agency name	Indiana-American Water Company
6. Address:	153 N. Emerson Ave
7. City, State, Zip Code:	Greenwood, IN 46143
8. Construction Emergency Contact:	
Name:	Ryan Smith
Number:	(317) 773-2497 Ext. 2

C. By signing here, the Utility has determined to the best of their ability that they do not have facilities within the project area:

Signature of Utility Representative

Print Name

Date

Indiana American Water

Note: A signature by the utility representative at item "(C)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct

D. INDOT/LPA Utility Coordinator Contact Information

1.	Utility Coordinator Name:	Kevin A. Hintz, P.E.
2.	Office Telephone:	317-713-4615
3.	Mobile Telephone:	317-627-7501
4.	Email Address:	uc@bfsengr.com
5.	Agency Name:	Butler, Fairman & Seufert, Inc.
6.	Address:	8450 Westfield Blvd., Suite 300
7.	City, State, Zip Code	Indianapolis, Indiana 46240

Section 2: A narrative description of the facility relocation that will be required. [IAC 13-3-3(c)]

A. Describe what types of existing active and inactive facilities are present.

Indiana American Water Company has 8" PVC, 10" PVC, 16" Ductile Iron, and 4" Cast Iron water mains in the proposed project area.

B. Describe the location of existing active and inactive facilities.

See the attached aerial exhibit that shows approximate locations of existing water mains in the proposed project area.

C. Describe what will be done with existing active and inactive facilities.

No conflicts anticipated with the existing facilities, approximate depth of water mains in the project area is 4ft to 4.5ft below existing grade. INAWC strongly recommends that the water mains be field located prior to occurrence of any construction operations.

D. Describe the details of the proposed new facilities.

N/A

E. Describe the proposed location of the new facilities.

N/A

F. By signing here, the Utility has determined to the best of their ability that they have facilities within the project area and the facilities are not in conflict with the project based upon the plans received on February 27, 2018.

Maninder Singh
Signature of Utility Representative

MANINDER SINGH 03/28/2018
Print Name Date

Note: A signature by the utility representative at item "(F)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct.

Section 3: A statement whether the facility relocation is or is not dependent on the acquisition of additional property interests with a description of that work. [IAC 13-3-3(c) (2) (B)]

Section 4: A statement whether the utility is or is not willing to allow the INDOT contractor to do the required work as part of the highway contract. [IAC 13-3-3(c) (3)]

Section 5: From the date the work plan is approved by both parties; please provide the Utility's pre-construction scheduling information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A.	The expected lead time in calendar days to obtain required permits:	Enter Total Days
B.	The expected lead time in calendar days to obtain materials:	Enter Total Days
C.	The expected lead time in calendar days to schedule work crews:	Enter Total Days
D.	If the contractor is being selected by competitive bid what is the date of selection?	Enter Bid Date
E.	The expected lead time in calendar days to obtain new property interests:	Enter Days
F.	The earliest date when the utility could begin to implement the pre-construction activities of the work plan:	Enter Date
G.	The total number of calendar days for pre-construction activities: (accounting for concurrent activities)	Enter Total Days

Section 6: The Utility Construction Scheduling Information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

- A. A statement whether the facility relocation is or is not dependent on work to be done by another utility with a description of that work. [IAC 13-3-3(c)(2)(A)(i)]
1. Utility A, with a description of the required work.

 2. Utility B, with a description of the required work.

 3. Utility C, with a description of the required work.
- B. A statement whether the facility relocation is or is not dependent on work to be done by the department or the department's contractor with a description of that work. [IAC 13-3-3(c)(2)(A)(ii)]
1. Work item A

 2. Work item B

 3. Work item C
- C. How many calendar days after the events identified in Sec 6 A and B are completed can the utility begin construction: **Enter Total Days**
- D. The number of calendar days to complete the relocation work: **Enter Total Relocation Days**

Section 7: A drawing of sufficient detail with station, offset, elevations, and scale to show the proposed location of the facility relocation, which takes precedence over the narrative description of the work, needs to be on INDOT

Construction drawings. [IAC 13-3-3(c) (6)]. Plans must be attached to this Work Plan Document.

Section 8: For each work plan the utility shall include a cost estimate for the facility relocation. For reimbursable work the estimate will identify betterment and salvage which is not reimbursable. [IAC 13-3-3(d)]

Section 9: For work the utility is entitled to be compensated by the Department, the work plan shall include documentation of property interests and compensable land rights. [IAC 13-3-3(d)]

Section 10: The implementation of this approved work plan is dependent upon the issuance of: (a notice to proceed will be provided when items in Section 6 are accomplished)

Items Completed	Yes	Not Applicable
An executed reimbursement agreement with INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>
A relocation permit from INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>

(Note: Double-click on box in Yes or NA to mark it with an "X")

Submitter Signature

Date

Submitter Name Printed

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

Indiana American Water

The following sections are to be used by INDOT personnel to review the utility relocation work plan.

Section 11: The Department shall review the work plan to ensure that it: [IAC 13-3-3(e)]

Description	Yes	No	Initials
(1.a) is compatible with department permit requirements	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.b) is compatible with the project plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.c) is compatible with the construction schedule	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.d) is compatible with other utility relocation work plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.a) has reasonable relocation scheme	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.b) has a reasonable cost for compensable work	<input type="checkbox"/>	<input type="checkbox"/>	KAH

(Note: Double-click on box under Yes or No to mark it with an "X")

Comments on any sections (1.a – 2.b) that were marked No:

No Relocations

Kevin A. Hintz
 Reviewer Signature

3-28-18
 Date

Kevin A Hintz, P.E.
 Reviewer Name Printed
Utility Coordinator

Section 12: Approved Work Plan. [IAC 13-3-3(f)]

I have reviewed the work plan and found it acceptable.

Bryan Wright
 Project Manager Signature

3/28/18
 Date

Bryan Wright
 Project Manager Name Printed

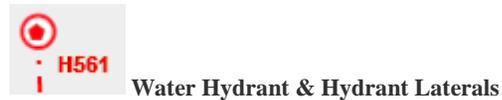
Logan St Bridge Widening over White River (NOBLESVILLE, IN)

INDIANA AMERICAN WATER - FACILITIES

AERIAL EXHIBITS – Project Des. No. N/A

Legend

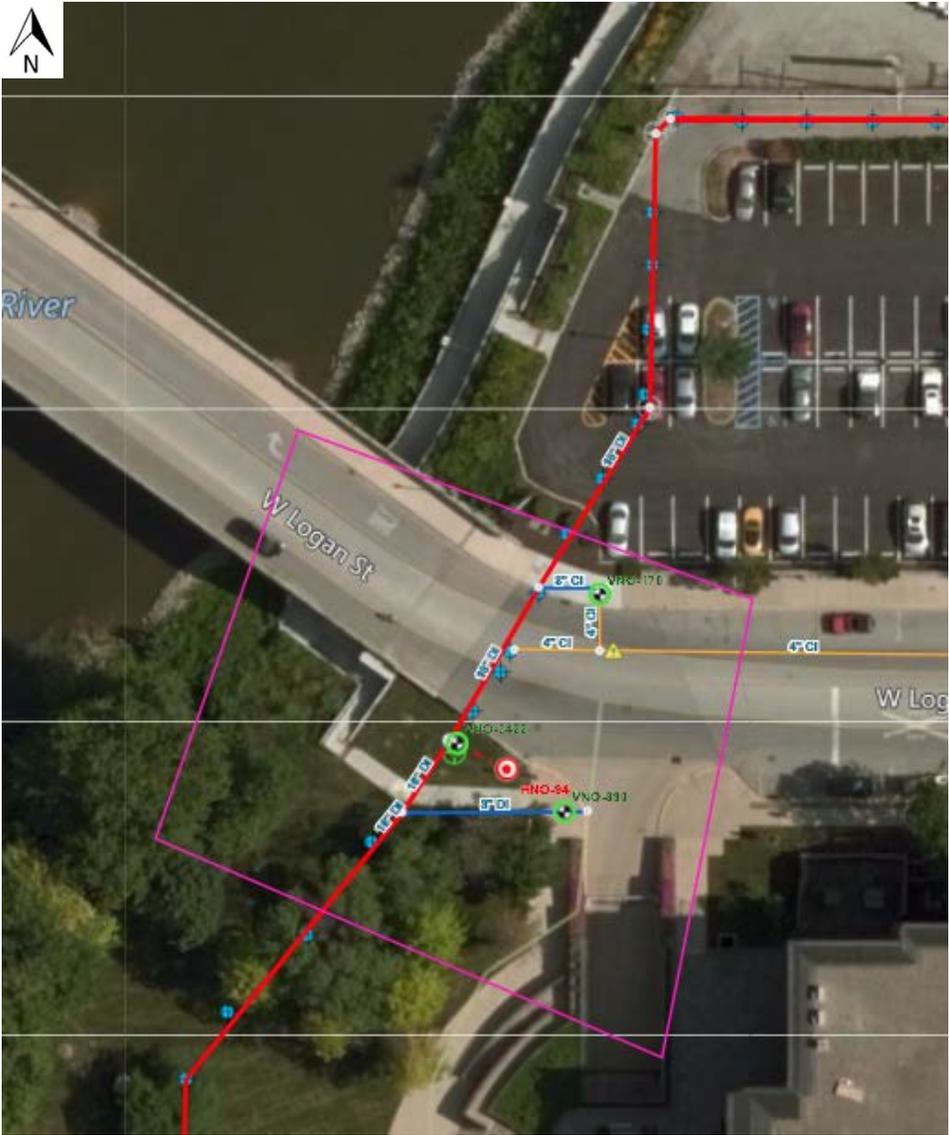
Abbreviation	Facility Name
8" PVC	8" Polyvinyl Chloride
10" PVC	10" Polyvinyl Chloride
16" DI	10" Ductile Iron
4" CI	4" Cast Iron



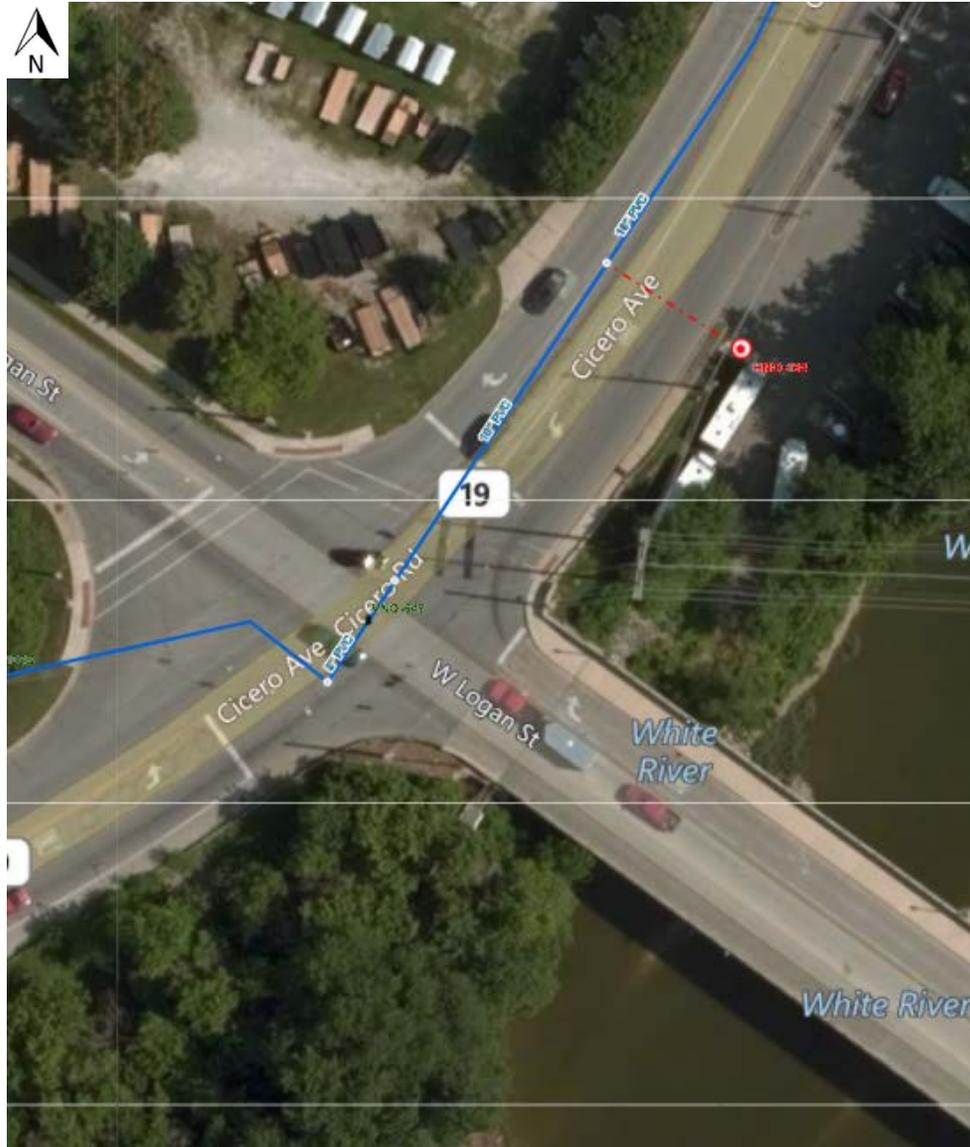
Logan Street Bridge (Area Overview)



Logan Street Bridge – East End (Area Overview)



Logan Street Bridge – West End (Area Overview)





Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bf@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Merrillville
Plainfield
South Bend
Louisville



April 3, 2018

Mr. Tim Hill
CenturyLink (Level 3 Communications)
1025 Eldorado Boulevard
Broomfield, CO 80021

Subject: Work Plan Approved for Project: Logan Street Bridge Reconstruction and Widening

Dear Mr. Hill;

Your work plan dated March 22, 2018 is approved for the proposed project: Logan Street Bridge Reconstruction and Widening in City of Noblesville in Hamilton County, Indiana. We are returning a copy of the approved work plan for your records.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|---|
| (1) Name or route number: | Logan St |
| (2) Geographical limits: | Along South State Rd 19 from approximately 80 ft. North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft. east of South State Rd 19 |
| (3) General description of work: | Bridge Widening, Deck Replacement, Path & Sidewalks |
| (4) Date approved work plan will be needed: | March 23, 2018 |
| (5) Letting date: | April 23, 2018 |
| (6) Name of designer and contact information: | Bryan Wright, P.E., S.E. – Butler, Fairman & Seufert, Inc.,
E: BWright@BFSEngr.com , P: 317-713-4615 |
| (7) Major or minor project: | Minor |

If you have any questions on this subject please contact Kevin A. Hintz, P.E., Butler, Fairman & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, Indiana, 46240, P: (317) 713-4615, F: (317) 713-4616, UC@BFSEngr.com. Thank you for your attention to these matters.

Sincerely;

Kevin A. Hintz, P.E.
Utility Coordinator

Cc: Bryan Wright, P.E., S.E., BF&S
Ted Foster, BF&S

Level 3 Communications, L.L.C.

Date: 3/22/18

Subject:

Utility Relocation Work Plan for:	Level 3 Communications, L.L.C.
Facility Type:	Fiber Optic Transmissions

Section 1: General Information

A. INDOT/LPA Project Information

1. DES NO.:	N/A
2. Route Number:	Logan St
3. Location:	Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19
4. Work Type:	Bridge Widening, Deck Replacement, Path & Sidewalks
5. Letting Date:	September 1, 2018
6. Date Work Plan Needed	July 2018
7. Target Date for Utility to be out of conflict with INDOT Project	September 1, 2018
Intermediate Phase	NA
Intermediate Phase	NA

B. Utility Designated Contact – Information

1. Designated Contact Name:	Tim Hill
2. Office telephone:	704) 733-3204
3. Mobile telephone:	Enter Mobile Telephone
4. Email address:	tim.w.hill@level3.com
5. Agency name	CenturyLink
6. Address:	1025 Eldorado Blvd
7. City, State, Zip Code:	Broomfield CO 80021
8. Construction Emergency Contact:	
Name:	Hamilton, Dewayne
Number:	317-916-2708

C. By signing here, the Utility has determined to the best of their ability that they do not have facilities within the project area:

Signature of Utility Representative

Print Name

Date

Level 3 Communications, L.L.C.

Note: A signature by the utility representative at item "(C)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct

D. INDOT/LPA Utility Coordinator Contact Information

1.	Utility Coordinator Name:	Kevin A. Hintz, P.E.
2.	Office Telephone:	317-713-4615
3.	Mobile Telephone:	317-627-7501
4.	Email Address:	uc@bfsengr.com
5.	Agency Name:	Butler, Fairman & Seufert, Inc.
6.	Address:	8450 Westfield Blvd., Suite 300
7.	City, State, Zip Code	Indianapolis, Indiana 46240

Section 2: A narrative description of the facility relocation that will be required. [IAC 13-3-3(c)]

A. Describe what types of existing active and inactive facilities are present.

Level 3 is aerial over the west end of Logan St

B. Describe the location of existing active and inactive facilities.

See above.

C. Describe what will be done with existing active and inactive facilities.

The existing facilities are not in conflict.

D. Describe the details of the proposed new facilities.

N/A

E. Describe the proposed location of the new facilities.

N/A

F. By signing here, the Utility has determined to the best of their ability that they have facilities within the project area and the facilities are not in conflict with the project based upon the plans received on <3/22/18>

Xan M Rypkema
Signature of Utility Representative

Xan Marie Rypkema
Print Name

3/22/18
Date

Level 3 Communications, L.L.C.

Note: A signature by the utility representative at item "(F)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct.

Section 3: A statement whether the facility relocation is or is not dependent on the acquisition of additional property interests with a description of that work. [IAC 13-3-3(c) (2) (B)]

Section 4: A statement whether the utility is or is not willing to allow the INDOT contractor to do the required work as part of the highway contract. [IAC 13-3-3(c) (3)]

Section 5: From the date the work plan is approved by both parties; please provide the Utility's pre-construction scheduling information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A.	The expected lead time in calendar days to obtain required permits:	Enter Total Days
B.	The expected lead time in calendar days to obtain materials:	Enter Total Days
C.	The expected lead time in calendar days to schedule work crews:	Enter Total Days
D.	If the contractor is being selected by competitive bid what is the date of selection?	Enter Bid Date
E.	The expected lead time in calendar days to obtain new property interests:	Enter Days
F.	The earliest date when the utility could begin to implement the pre-construction activities of the work plan:	Enter Date
G.	The total number of calendar days for pre-construction activities: (accounting for concurrent activities)	Enter Total Days

Level 3 Communications, L.L.C.

Section 6: The Utility Construction Scheduling Information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

- A. A statement whether the facility relocation is or is not dependent on work to be done by another utility with a description of that work. [IAC 13-3-3(c)(2)(A)(i)]
1. Utility A, with a description of the required work.
 2. Utility B, with a description of the required work.
 3. Utility C, with a description of the required work.
- B. A statement whether the facility relocation is or is not dependent on work to be done by the department or the department's contractor with a description of that work. [IAC 13-3-3(c)(2)(A)(ii)]
1. Work item A
 2. Work item B
 3. Work item C
- C. How many calendar days after the events identified in Sec 6 A and B are completed can the utility begin construction: **Enter Total Days**
- D. The number of calendar days to complete the relocation work: **Enter Total Relocation Days**

Level 3 Communications, L.L.C.

Section 7: A drawing of sufficient detail with station, offset, elevations, and scale to show the proposed location of the facility relocation, which takes precedence over the narrative description of the work, needs to be on INDOT Construction drawings. [IAC 13-3-3(c) (6)]. Plans must be attached to this Work Plan Document.

Section 8: For each work plan the utility shall include a cost estimate for the facility relocation. For reimbursable work the estimate will identify betterment and salvage which is not reimbursable. [IAC 13-3-3(d)]

Section 9: For work the utility is entitled to be compensated by the Department, the work plan shall include documentation of property interests and compensable land rights. [IAC 13-3-3(d)]

Section 10: The implementation of this approved work plan is dependent upon the issuance of: (a notice to proceed will be provided when items in Section 6 are accomplished)

Items Completed	Yes	Not Applicable
An executed reimbursement agreement with INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>
A relocation permit from INDOT/LPA:	<input type="checkbox"/>	<input type="checkbox"/>

(Note: Double-click on box in Yes or NA to mark it with an "X")

Submitter Signature

Date

Submitter Name Printed

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

Level 3 Communications, L.L.C.

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

The following sections are to be used by INDOT personnel to review the utility relocation work plan.

Section 11: The Department shall review the work plan to ensure that it: [IAC 13-3-3(e)]

Description	Yes	No	Initials
(1.a) is compatible with department permit requirements	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.b) is compatible with the project plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.c) is compatible with the construction schedule	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(1.d) is compatible with other utility relocation work plans	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.a) has reasonable relocation scheme	<input type="checkbox"/>	<input type="checkbox"/>	KAH
(2.b) has a reasonable cost for compensable work	<input type="checkbox"/>	<input type="checkbox"/>	KAH

(Note: Double-click on box under Yes or No to mark it with an "X")

Comments on any sections (1.a – 2.b) that were marked No:

No Relocations

Kevin A. Hintz

Reviewer Signature

4-3-18

Date

Kevin A. Hintz P.E.
Utility Coordinator

Reviewer Name Printed

Section 12: Approved Work Plan. [IAC 13-3-3(f)]

I have reviewed the work plan and found it acceptable.

Boyer Wright

Project Manager Signature

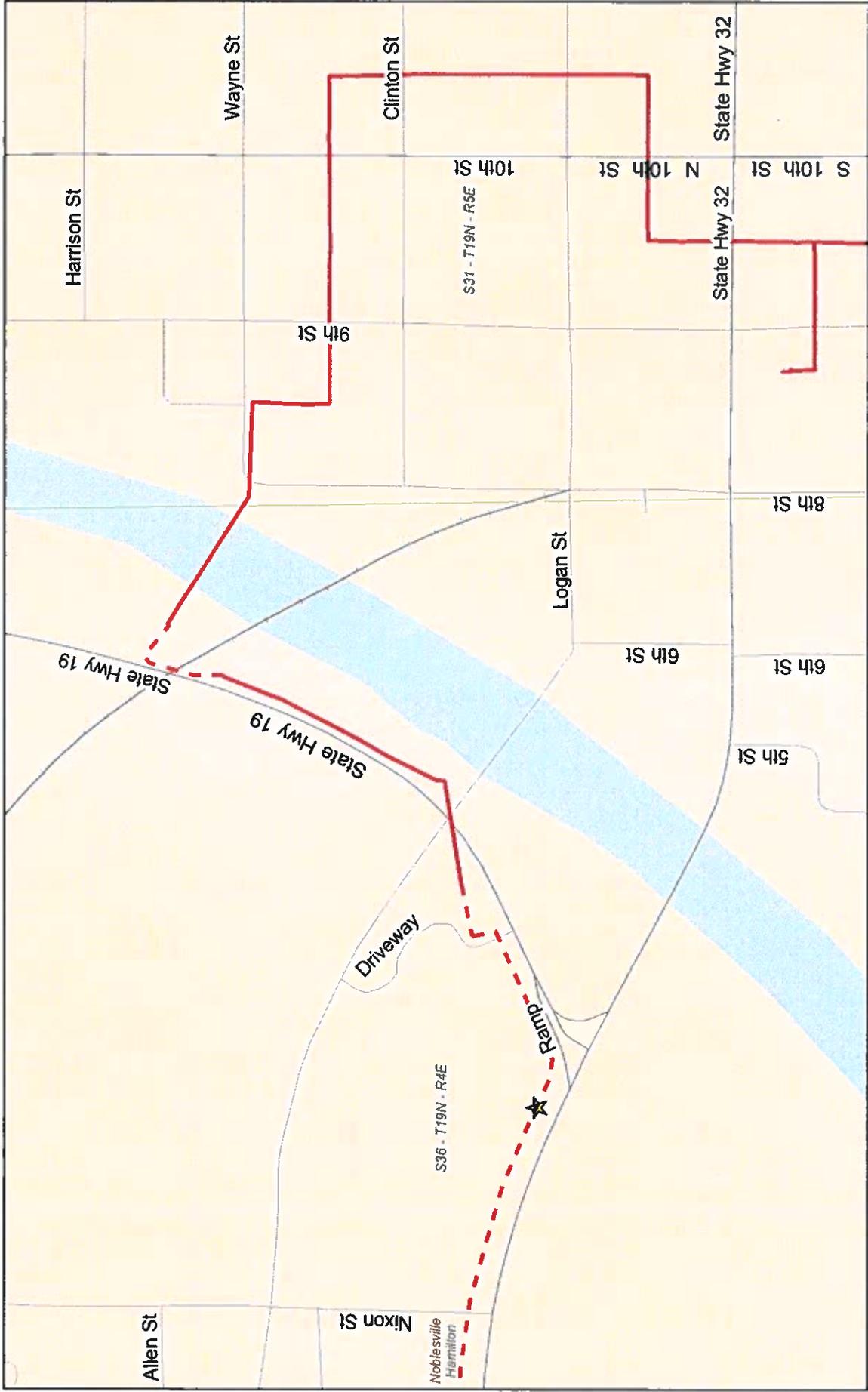
4/3/18

Date

Boyer Wright

Project Manager Name Printed

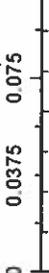
CenturyLink and Level 3 Network



March 14, 2018

- All CTL National Routes**
- Owned, Aerial
 - Owned, Underground
 - Leased, Aerial
- Level 3 Facilities**
- Leased, Underground
 - Level 3 Facilities
 - Leased, Aerial
- Non Level 3 Facilities**
- Aerial
 - Underground
 - Streets
 - Highways
 - Railroad
- Network Data (Asbuilt Hyperlink)**
- ★ Network Data (Asbuilt Hyperlink)
- Persons working in the area covered by this data must contact the statewide Call-Before-You-Dig System to ascertain the location of underground facilities prior to performing any excavation.

1:4,514



Level 3 Data is Highly Confidential and Proprietary. Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan. CenturyLink and Level 3 Data is Highly Confidential and Proprietary. CenturyLink and Level 3 Communications Data is Confidential.



Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bf@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Merrillville
Plainfield
South Bend
Louisville



April 24, 2018

Mr. Waylon Higgins
Zayo Bandwidth
9209 Castlegate Drive
Indianapolis, IN 46256

Subject: Work Plan Approved for Project: Logan Street Bridge Reconstruction and Widening

Dear Mr. Higgins;

Your work plan dated March 29, 2018 is approved for the proposed project: Logan Street Bridge Reconstruction and Widening in City of Noblesville in Hamilton County, Indiana. We are returning a copy of the approved work plan for your records.

- **This letter serves as your Notice to Proceed for all preconstruction activities as outlined in Zayo Bandwidth's approved work plan.**
- **This letter serves as your Notice to Proceed for all relocation construction activities as outlined in Zayo Bandwidth's approved work plan.**

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

- | | |
|---|---|
| (1) Name or route number: | Logan St |
| (2) Geographical limits: | Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19 |
| (3) General description of work: | Bridge Widening, Deck Replacement, Path & Sidewalks |
| (4) Date approved work plan will be needed: | March 23, 2018 |
| (5) Letting date: | April 23, 2018 |
| (6) Name of designer and contact information: | Bryan Wright, P.E., S.E. – Butler, Fairman & Seufert, Inc.,
E: BWright@BFSEngr.com , P: 317-713-4615 |
| (7) Major or minor project: | Minor |

If you have any questions on this subject please contact Kevin A. Hintz, P.E., Butler, Fairman & Seufert, Inc., 8450 Westfield Blvd. Suite 300, Indianapolis, Indiana, 46240, P: (317) 713-4615, F: (317) 713-4616, UC@BFSEngr.com. Thank you for your attention to these matters.

Sincerely;

Kevin A. Hintz, P.E.
Utility Coordinator

Cc: Bryan Wright, P.E., S.E., BF&S
Ted Foster, BF&S

Date: 03/29/2018

Subject:

Utility Relocation Work Plan for:	Zayo Bandwidth
Facility Type:	Fiber Optic/Communications

Section 1: General Information

A. INDOT/LPA Project Information

1. DES NO.:	N/A
2. Route Number:	Logan St
3. Location:	Along South State Rd 19 from approximately 80 ft North of Conner St to Logan St then East along Logan Street from South State Rd 19 to approximately 375 ft east of South State Rd 19
4. Work Type:	Bridge Widening, Deck Replacement, Path & Sidewalks
5. Letting Date:	September 1, 2018
6. Date Work Plan Needed	July 2018
7. Target Date for Utility to be out of conflict with INDOT Project	September 1, 2018
Intermediate Phase	NA
Intermediate Phase	NA

B. Utility Designated Contact – Information

1. Designated Contact Name:	Waylon Higgins
2. Office telephone:	(765) 341-1199
3. Mobile telephone:	(765) 341-1199
4. Email address:	Waylon.higgins@zayo.com
5. Agency name	Zayo Bandwidth
6. Address:	9209 Castlegate Dr
7. City, State, Zip Code:	Indianapolis, IN 46256
8. Construction Emergency Contact:	
Name:	Waylon Higgins
Number:	(765) 341-1199

C. By signing here, the Utility has determined to the best of their ability that they do not have facilities within the project area:

Signature of Utility Representative

Print Name

Date

Note: A signature by the utility representative at item "(C)" fulfills the requirement to complete the rest of this form and affirms their contact information above is correct

D. INDOT/LPA Utility Coordinator Contact Information

1.	Utility Coordinator Name:	Kevin A. Hintz, P.E.
2.	Office Telephone:	317-713-4615
3.	Mobile Telephone:	317- 627-501 213-5947
4.	Email Address:	uc@bfsengr.com
5.	Agency Name:	Butler, Fairman & Seufert, Inc.
6.	Address:	8450 Westfield Blvd., Suite 300
7.	City, State, Zip Code	Indianapolis, Indiana 46240

Section 2: A narrative description of the facility relocation that will be required. [IAC 13-3-3(c)]

- A. Describe what types of existing active and inactive facilities are present.
Zayo has an active 144 fiber and 2 handholes within the Limits of the project

- B. Describe the location of existing active and inactive facilities.
See included drawing

- C. Describe what will be done with existing active and inactive facilities.
See included Drawing

- D. Describe the details of the proposed new facilities.
Per the attached drawing, Zayo will place to poles 10' from the bridge on each side of the river, and place a temporary aerial cable. The temp cable will tie in to the existing handholes on each side of the bridge, and the existing cable in the bridge will be removed from service and removed from the duct if possible. Once bridge construction is complete and the 2-2" ducts are available to Zayo, they will place a new fiber optic cable in the ducts, and remove the temporary aerial cable from service. Ad remove the poles.

- E. Describe the proposed location of the new facilities.
See Attached drawing

- F. By signing here, the Utility has determined to the best of their ability that they have facilities within the project area and the facilities are not in conflict with the project based upon the plans received on **<Enter Date Received Plans>**

Signature of Utility Representative

Print Name

Date

Note: A signature by the utility representative at item “(F)” fulfills the requirement to complete the rest of this form and affirms their contact information above is correct.

Section 3: A statement whether the facility relocation is or is not dependent on the acquisition of additional property interests with a description of that work. [IAC 13-3-3(c) (2) (B)]

Not Dependent

Section 4: A statement whether the utility is or is not willing to allow the INDOT contractor to do the required work as part of the highway contract. [IAC 13-3-3(c) (3)]

The placement of the new ducts will be performed by the bridge contractor. All other work will be completed by a contractor chosen by Zayo

Section 5: From the date the work plan is approved by both parties; please provide the Utility’s pre-construction scheduling information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

A.	The expected lead time in calendar days to obtain required permits:	7
B.	The expected lead time in calendar days to obtain materials:	14
C.	The expected lead time in calendar days to schedule work crews:	14
D.	If the contractor is being selected by competitive bid what is the date of selection?	TBD
E.	The expected lead time in calendar days to obtain new property interests:	NA
F.	The earliest date when the utility could begin to implement the pre-construction activities of the work plan:	04/18/2018
G.	The total number of calendar days for pre-construction activities: (accounting for concurrent activities)	14

Section 6: The Utility Construction Scheduling Information. [IAC 13-3-3(c) (4), IAC 13-3-3(c) (5)]

- A. A statement whether the facility relocation is or is not dependent on work to be done by another utility with a description of that work. [IAC 13-3-3(c)(2)(A)(i)]
1. Utility A, with a description of the required work.
Not Dependent

 2. Utility B, with a description of the required work.
Not Dependent

 3. Utility C, with a description of the required work.
Not Dependent
- B. A statement whether the facility relocation is or is not dependent on work to be done by the department or the department's contractor with a description of that work. [IAC 13-3-3(c)(2)(A)(ii)]
1. Work item A
Zayos work plan is dependent upon the placement of 2-2" ducts underneath the north sidewalk of the bridge
 2. Work item B
 3. Work item C
- C. How many calendar days after the events identified in Sec 6 A and B are completed can the utility begin construction: **Construction can BEGIN prior to that work being completed, but the work plan can not be completed until that work is complete**
- D. The number of calendar days to complete the relocation work: **30**

Zayo Bandwidth shall provide the 2-inch conduit to be placed on the bridge along with any couplings or other material needed to complete the installation. Zayo Bandwidth will also be billed for the labor to install the conduit per a phone call with Waylon Higgins on April 4, 2018. EAF

Section 7: A drawing of sufficient detail with station, offset, elevations, and scale to show the proposed location of the facility relocation, which takes precedence over the narrative description of the work, needs to be on INDOT Construction drawings. [IAC 13-3-3(c) (6)]. Plans must be attached to this Work Plan Document.
Included

Section 8: For each work plan the utility shall include a cost estimate for the facility relocation. For reimbursable work the estimate will identify betterment and salvage which is not reimbursable. [IAC 13-3-3(d)]
NA

Section 9: For work the utility is entitled to be compensated by the Department, the work plan shall include documentation of property interests and compensable land rights. [IAC 13-3-3(d)]
NA

Section 10: The implementation of this approved work plan is dependent upon the issuance of: (a notice to proceed will be provided when items in Section 6 are accomplished)

Items Completed	Yes	Not Applicable
An executed reimbursement agreement with INDOT/LPA:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A relocation permit from INDOT/LPA:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(Note: Double-click on box in Yes or NA to mark it with an "X")

KAH



Submitter Signature

03/29/2018

Date

Brian Cravens (Agent for Zayo)

Submitter Name Printed

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

INDOT/LPA use only below this point ----- INDOT/LPA use only below this point

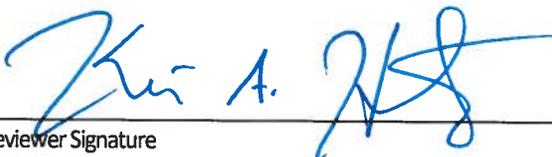
The following sections are to be used by INDOT personnel to review the utility relocation work plan.

Section 11: The Department shall review the work plan to ensure that it: [IAC 13-3-3(e)]

Description	Yes	No	Initials
(1.a) is compatible with department permit requirements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.b) is compatible with the project plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.c) is compatible with the construction schedule	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(1.d) is compatible with other utility relocation work plans	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(2.a) has reasonable relocation scheme	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KAH
(2.b) has a reasonable cost for compensable work	<input type="checkbox"/> N/A	<input type="checkbox"/>	KAH

(Note: Double-click on box under Yes or No to mark it with an "X")

Comments on any sections (1.a – 2.b) that were marked No:


 Reviewer Signature

4-24-18
 Date

Kevin A. Hintz, P.E.
 Reviewer Name Printed
 Utility Coordinator

Section 12: Approved Work Plan. [IAC 13-3-3(f)]

I have reviewed the work plan and found it acceptable.


 Project Manager Signature

4/24/18
 Date

Bryan Wright
 Project Manager Name Printed

Logan Street Bridge

Staging Area for Contractor

Legend

 Bridge No. 207

Bridge No. 207

Staging Area for Logan Street Bridge Construction

Google Earth

© 2018 Google

S 5th St

Maple Ave

6th St

300 ft





Date: Feb 27, 2018

ESL-Spectrum
1591 N Harding Street
Indianapolis IN 46202
Phone: (317) 951-2300
Fax: (317) 951-2310

Job Name
Logan Street Bridge
INDY18-55731

Architect:
Butler Fairman & Seufert Inc
8450 Westfield Blvd #300
Indianapolis IN 46240



Transmittal

ESL-Spectrum
1591 N Harding Street
Indianapolis IN 46202
Phone: (317) 951-2300
From: Travis Belden

Project Logan Street Bridge
Quote# INDY18-55731
Location

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- | | | |
|-----------------------------------|--|--------|
| <input type="checkbox"/> Drawings | <input type="checkbox"/> Specifications | Other: |
| <input type="checkbox"/> Prints | <input type="checkbox"/> Information | |
| <input type="checkbox"/> Plans | <input checked="" type="checkbox"/> Submittals | |

THESE ARE TRANSMITTED FOR:

- | | | |
|--|---|---------------------------------|
| <input type="checkbox"/> Prior Approval | <input type="checkbox"/> Resubmittal for Approval | <input type="checkbox"/> Record |
| <input type="checkbox"/> Approval | <input type="checkbox"/> Corrections | Bids due on: |
| <input type="checkbox"/> Approval as Submitted | <input checked="" type="checkbox"/> Your Use | Other: |
| <input type="checkbox"/> Approval as Noted | <input type="checkbox"/> Review and Comment | |

Qty	Type	MFG	Part
2	FLC1	WE-EF	667-6127 667-8125 667-9264 667-9332
2	FLC1B	WE-EF	667-6127 667-9332
2	FLC2	WE-EF	667-4127 667-8122 667-9244 667-9332
2	POLE FOR FLOODS	Hapco	RTA14D5A4-4-FIXTURE CROSSARM-WHITE TO MATCH RIVERWALK POLES
15	RL2	Intense Lighting	IVR2-RPS-ST-W-RGBW-30AS
161	RL3	Intense Lighting	IVR2-RPS-ST-W-RGBW-30AS
2	SP1	Insight	17SP-200-RGBW-5-TR-INT-TW-VS-TA2
5	T3-700	A.A.L	UCL-WND-FLR-T3-56LED-4K-700-WH-FTG-PM
5	T3-700	Hapco	RTA25C8B4-WHITE TO MATCH RIVERWALK FIXTURES

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-6127 667-8125 667-9264
 667-9332

Notes:

Type:**FLC1**

INDY18-55731

FLC260-CC LED**667-6127**

1/14

we-ef**Description**

RGBW Colour Changer. IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Silicone CCG® Controlled Compression Gasket. Safety glass lens. One cable gland. Second gland for through wiring on request. Integral EC electronic converter, thermally separated. CAD-optimised optics for superior illumination and glare control. OLC® One LED Concept. Factory installed LED circuit board. DMX interface. M20 cable gland for network- and DMX-connection, WE-EF recommend a multi core cable for DMX & Power "Power PUR-SR 3x1,5 + DMX".

Beam Type	symmetric, narrow beam [V]
------------------	----------------------------

Lamp Type	LED-36/126W - RGBW - 300 mA
------------------	-----------------------------

CRI	80
------------	----

Gear Type	electronic gear
------------------	-----------------

Nominal Luminous Flux (lm)

LED Lumens	200 lm
------------	--------

LEDs	36
------	----

Total Lumens	7200 lm
--------------	---------

Tj	85 °C
----	-------

Rated Luminous Flux (lm)

LED Lumens	178 lm
------------	--------

Total Lumens	6406.5 lm
--------------	-----------

Ta	25 °C
----	-------

Rated Input Power	133 W
--------------------------	-------

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-6127 667-8125 667-9264
 667-9332

Notes:

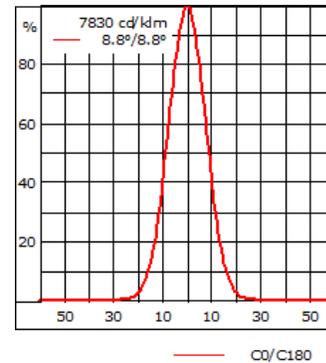
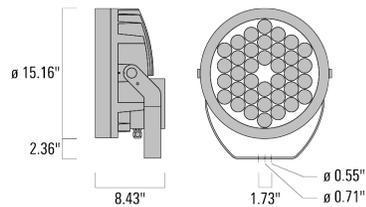
Type:**FLC1**

INDY18-55731

FLC260-CC LED

667-6127

2/14

we-ef**Material Specification**

Body:	Marine-grade, die-cast aluminium alloy
Weight (lbs):	39.68
Lens:	Safety glass lens
Gasket:	Silicone CCG® Controlled Compression Gasket
Fasteners:	PCS Polymer Coated Stainless Steel Hardware
Ingress protection:	IP66
Impact protection:	IK07
Corrosion protection:	5CE
Finish:	Powder coat finish in Black RAL9004, White RAL9016, Grey Metallic RAL9007, and Dark Bronze RAL8019.
Listings:	ETL Listed. Suitable for Wet Locations

Electrical Specification

Power supply:	Integral [ECG] electronic MH ballast for 120 volt supply only.
Power factor:	> 0.9

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-6127 667-8125 667-9264
 667-9332

Notes:

Type:**FLC1**

INDY18-55731

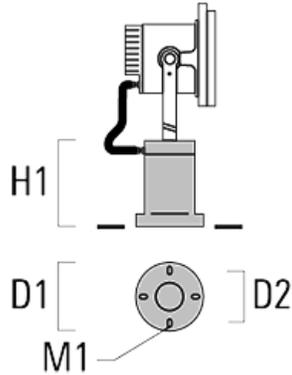
FLC260-CC LED

667-6127

10/14

we-ef

	D1	D2	H1	M1	Weight (lbs)
■ 667-9301 EM1-M16	6.30	5.12	7.87	9	4.85 lbs

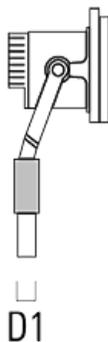
**Spigot cap KF**

Spigot caps made from die-cast aluminium with stainless steel hardware. For mounting of one or two floodlights. Max. permissible weight per installed floodlight 15.0 kg.

	D1	Weight (lbs)
■ 667-9334 KF1-108/M16 Spigot Cap (Ø 4.25")	4.25	2.00 lbs

Missing Image

	D1	Weight (lbs)
■ 667-9332 KF1-76/M16 Spigot Cap (Ø 3.0")	3.0	2.00 lbs



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-6127 667-8125 667-9264
 667-9332

Notes:

Type:**FLC1**

INDY18-55731

FLC260-CC LED

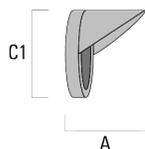
667-6127

12/14

we-ef**Optical Accessories****Glare shield**

Glare shield made from corrosion resistant aluminum. Inner surfaces matt black powdercoated.

	A	C1
667-9264 ES-FLC260-LED	5.16	8.90

**Linear spread lens**

Broadens light distribution in one plane only. A maximum of one internal optical accessory.

	C1
667-8125 IO-180-FLC260-LED	13.07



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-6127 667-8125 667-9264
 667-9332

Notes:

Type:**FLC1**

INDY18-55731

FLC260-CC LED

667-6127

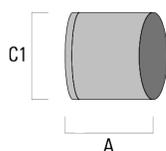
13/14

Snoot

Framing snoot made from corrosion resistant aluminium. Provides all-round glare cut-off as well as effective framing of beam. Inner surfaces matt black powdercoated. Framing snoot must be specified in the order. Re-order only possible with conversion kit (on request).

we-ef

	A	C1
■ 667-9265 ET-FLC260-LED	180	293

**Wallwash lens**

Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at $0.125 \times h$ away from the target surface and spaced up to $1.75 \times d$ apart: h = height of wall/target surface $d = 0.125 \times h$ = distance from the wall/target surface $s = 1.75 \times d$ = spacing between luminaires The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained. Not separately available. A maximum of one internal optical accessory.

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:

667-6127 667-9332

Type:**FLC1B**

Notes:

INDY18-55731

FLC260-CC LED**667-6127**

1/14

we-ef**Description**

RGBW Colour Changer. IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Silicone CCG® Controlled Compression Gasket. Safety glass lens. One cable gland. Second gland for through wiring on request. Integral EC electronic converter, thermally separated. CAD-optimised optics for superior illumination and glare control. OLC® One LED Concept. Factory installed LED circuit board. DMX interface. M20 cable gland for network- and DMX-connection, WE-EF recommend a multi core cable for DMX & Power "Power PUR-SR 3x1,5 + DMX".

Beam Type	symmetric, narrow beam [V]
------------------	----------------------------

Lamp Type	LED-36/126W - RGBW - 300 mA
------------------	-----------------------------

CRI	80
------------	----

Gear Type	electronic gear
------------------	-----------------

Nominal Luminous Flux (lm)

LED Lumens	200 lm
------------	--------

LEDs	36
------	----

Total Lumens	7200 lm
--------------	---------

Tj	85 °C
----	-------

Rated Luminous Flux (lm)

LED Lumens	178 lm
------------	--------

Total Lumens	6406.5 lm
--------------	-----------

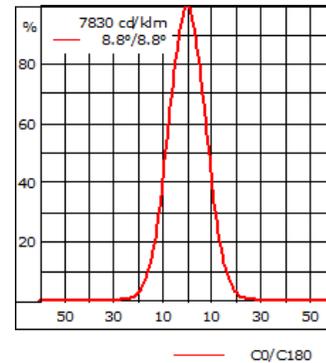
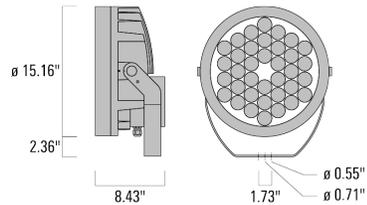
Ta	25 °C
----	-------

Rated Input Power	133 W
--------------------------	-------

FLC260-CC LED

667-6127

2/14



Material Specification

Body:	Marine-grade, die-cast aluminium alloy
Weight (lbs):	39.68
Lens:	Safety glass lens
Gasket:	Silicone CCG® Controlled Compression Gasket
Fasteners:	PCS Polymer Coated Stainless Steel Hardware
Ingress protection:	IP66
Impact protection:	IK07
Corrosion protection:	5CE
Finish:	Powder coat finish in Black RAL9004, White RAL9016, Grey Metallic RAL9007, and Dark Bronze RAL8019.
Listings:	ETL Listed. Suitable for Wet Locations

Electrical Specification

Power supply:	Integral [ECG] electronic MH ballast for 120 volt supply only.
Power factor:	> 0.9

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:

667-6127 667-9332

Type:**FLC1B**

Notes:

INDY18-55731

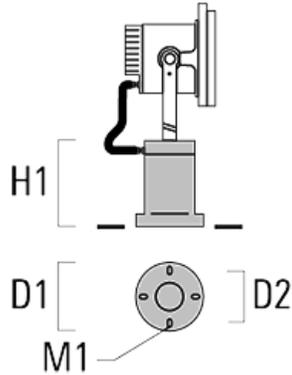
FLC260-CC LED

667-6127

10/14

we-ef

	D1	D2	H1	M1	Weight (lbs)
■ 667-9301 EM1-M16	6.30	5.12	7.87	9	4.85 lbs

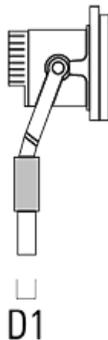
**Spigot cap KF**

Spigot caps made from die-cast aluminium with stainless steel hardware. For mounting of one or two floodlights. Max. permissible weight per installed floodlight 15.0 kg.

	D1	Weight (lbs)
■ 667-9334 KF1-108/M16 Spigot Cap (Ø 4.25")	4.25	2.00 lbs

Missing Image

	D1	Weight (lbs)
■ 667-9332 KF1-76/M16 Spigot Cap (Ø 3.0")	3.0	2.00 lbs



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:

667-6127 667-9332

Notes:

Type:**FLC1B**

INDY18-55731

FLC260-CC LED

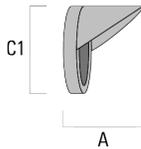
667-6127

12/14

we-ef**Optical Accessories****Glare shield**

Glare shield made from corrosion resistant aluminum. Inner surfaces matt black powdercoated.

	A	C1
667-9264 ES-FLC260-LED	5.16	8.90

**Linear spread lens**

Broadens light distribution in one plane only. A maximum of one internal optical accessory.

	C1
667-8125 IO-180-FLC260-LED	13.07



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:

667-6127 667-9332

Type:**FLC1B**

Notes:

INDY18-55731

FLC260-CC LED

667-6127

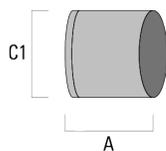
13/14

Snoot

Framing snoot made from corrosion resistant aluminium. Provides all-round glare cut-off as well as effective framing of beam. Inner surfaces matt black powdercoated. Framing snoot must be specified in the order. Re-order only possible with conversion kit (on request).

we-ef

	A	C1
■ 667-9265 ET-FLC260-LED	180	293

**Wallwash lens**

Specifically developed for the lighting of architectural surfaces, in combination with WE-EF [M] symmetric medium beam LED optics. Luminaires fitted with the IO-20 wallwash lens are typically positioned at $0.125 \times h$ away from the target surface and spaced up to $1.75 \times d$ apart: h = height of wall/target surface $d = 0.125 \times h$ = distance from the wall/target surface $s = 1.75 \times d$ = spacing between luminaires The IO-20 LED wallwash lens is factory-installed within the luminaire. The factory-sealed qualities and advantages of the luminaire are fully maintained. Not separately available. A maximum of one internal optical accessory.

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-4127 667-8122 667-9244
 667-9332

Notes:

Type:**FLC2**

INDY18-55731

FLC240-CC LED**667-4127**

1/15

we-ef**Description**

RGBW Colour Changer. IP66, Class I. IK07. Marine-grade, die-cast aluminium alloy. 5CE superior corrosion protection including PCS hardware. Silicone CCG® Controlled Compression Gasket. Safety glass lens. One cable gland. Second gland for through wiring on request. Integral EC electronic converter, thermally separated. CAD-optimised optics for superior illumination and glare control. OLC® One LED Concept. Factory installed LED circuit board. DMX interface. M20 cable gland for network- and DMX-connection, WE-EF recommend a multi core cable for DMX & Power "Power PUR-SR 3x1,5 + DMX".

Beam Type	symmetric, narrow beam [V]
------------------	----------------------------

Lamp Type	LED-24/84W - RGBW - 300 mA
------------------	----------------------------

CRI	80
------------	----

Gear Type	electronic gear
------------------	-----------------

Nominal Luminous Flux (lm)

LED Lumens	200 lm
------------	--------

LEDs	24
------	----

Total Lumens	4800 lm
--------------	---------

Tj	85 °C
----	-------

Rated Luminous Flux (lm)

LED Lumens	178 lm
------------	--------

Total Lumens	4271 lm
--------------	---------

Ta	25 °C
----	-------

Rated Input Power	90 W
--------------------------	------

Job Name:

Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)

Catalog Number:

667-4127 667-8122 667-9244
 667-9332

Notes:

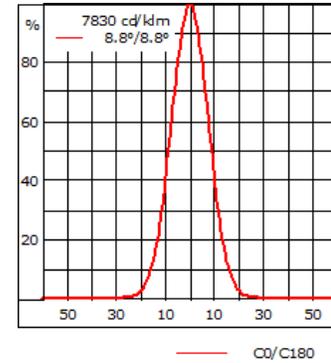
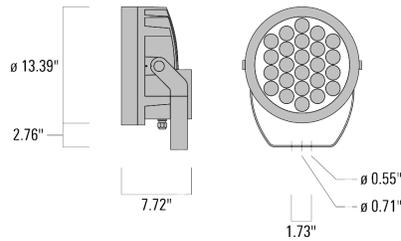
Type:**FLC2**

INDY18-55731

FLC240-CC LED

667-4127

2/15

we-ef**Material Specification**

Body:	Marine-grade, die-cast aluminium alloy
Weight (lbs):	30.40
Lens:	Safety glass lens
Gasket:	Silicone CCG® Controlled Compression Gasket
Fasteners:	PCS Polymer Coated Stainless Steel hardware
Ingress protection:	IP66
Impact protection:	IK07
Corrosion protection:	5CE
Finish:	Powdercoat finish in Black RAL9004, White RAL9016, and Grey Metallic RAL9007 and Dark Bronze RAL8019
Listings:	ETL

Electrical Specification

Power supply:	Integral [ECG] electronic driver 120-277V
Ballast:	Integral EC electronic converter, thermally separated
Cable:	One cable entry, second cable entry on request

Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-4127 667-8122 667-9244
 667-9332

Notes:

Type:**FLC2**

INDY18-55731

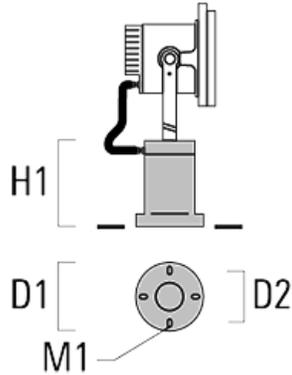
FLC260-CC LED

667-6127

10/14

we-ef

	D1	D2	H1	M1	Weight (lbs)
■ 667-9301 EM1-M16	6.30	5.12	7.87	9	4.85 lbs

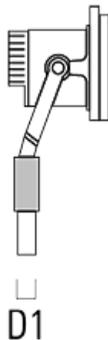
**Spigot cap KF**

Spigot caps made from die-cast aluminium with stainless steel hardware. For mounting of one or two floodlights. Max. permissible weight per installed floodlight 15.0 kg.

	D1	Weight (lbs)
■ 667-9334 KF1-108/M16 Spigot Cap (Ø 4.25")	4.25	2.00 lbs

Missing Image

	D1	Weight (lbs)
■ 667-9332 KF1-76/M16 Spigot Cap (Ø 3.0")	3.0	2.00 lbs



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 667-4127 667-8122 667-9244
 667-9332

Notes:

Type:**FLC2**

INDY18-55731

FLC240-CC LED

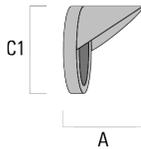
667-4127

13/15

we-ef**Optical Accessories****Glare shield**

Glare shield made from corrosion resistant aluminum. Inner surfaces matt black powdercoated.

	A	C1
667-9244 ES-FLC240-LED	5.17	8.90

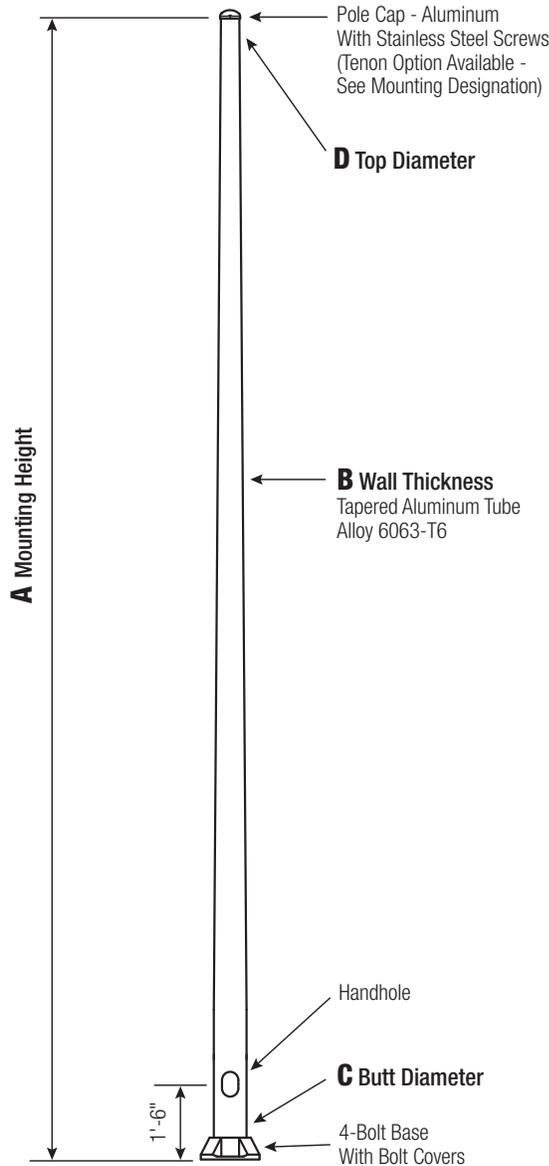
**Linear spread lens**

Broadens light distribution in one plane only. A maximum of one internal optical accessory.

	C1
667-8122 Linear spread lens IO-180	11.40



RTA Round Tapered Aluminum Pole No Arm — 4-Bolt Base



Satin Aluminum or Powder Coated Finish per Customer Specification.

C BUTT DIA.	D TOP DIA.	F BOLT CIR. DIA.	G BASE SQ.	H BOLT PROJ.	I BOLT SIZE
4	3	6.5 - 8	7.5	2	.75 x 17 x 3
5	3	7.5 - 8	7.5	2	.75 x 17 x 3
6	4.5	9 - 10	9.75	2.75	.75 x 30 x 3*
7	4.5	10 - 11	10.5	2.75	1 x 36 x 4
8	4.5	11 - 12	11.25	2.75	1 x 36 x 4
9	4.5	12.5 - 14	12.75	2.75	1 x 36 x 4
10 Up To .250"	6	14 - 15	14	3.25	1 x 48 x 4
10 .312"	6	14 - 15	14	3.25	1.25 x 48 x 6

*1" x 36" x 4" Anchor Bolts can be specified for 6" butt diameter poles.

Dimensions in Inches

Pole

The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base weld to produce a T6 temper.

Base Style

4-Bolt Cast Aluminum Base Flange of Alloy 356-T6 with Aluminum Bolt Covers (Alloy 356-F) and Stainless Steel Hex Head Attaching Screws.



Handhole

4"-5" Butt Diameters - 2" x 4" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC hole is provided.

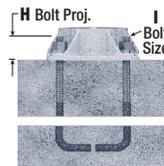
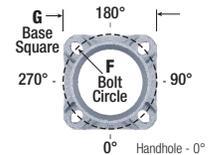
6" Butt Diameter - Reinforced, 3" x 5" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. A Grounding Provision incorporating a 3/8" diameter hole is provided opposite the Handhole.

7"+ Butt Diameters - Reinforced, 4" x 6" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. Reinforced Frame will contain a tapped 3/8"-16NC Grounding Provision.

Anchorage

Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153.

Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.



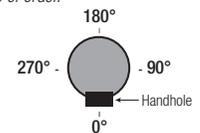
Vibration Damper

When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

Mounting Designation

Side Drill Mount

For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.



Tenon Mount - Welded or Spun

For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.

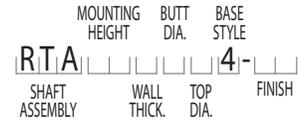


Welded Tenon Spun Tenon

A MTG. HGT.	B WALL THICKNESS	C BUTT DIAMETER	TOTAL LUM. WEIGHT	MAXIMUM EPA					OLD CAT. NUMBER	CATALOG NUMBER
				90	100	110	120	130		
06	0.125"	4	100	17.6	14.2	13.2	11.0	9.2	78-001	RTA06B4A4-**
08	0.125"	4	100	11.8	9.4	8.6	7.0	5.8	78-002	RTA08B4A4-**
08	0.188"	4	100	17.2	13.8	12.8	10.6	8.8	78-015	RTA08D4A4-**
10	0.125"	4	75	8.4	6.6	6.0	4.8	4.0	78-003	RTA10B4A4-**
10	0.188"	4	100	12.6	10.0	9.2	7.4	6.2		RTA10D4A4-**
10	0.125"	5	100	16.6	13.0	12.2	10.0	8.2	78-012	RTA10B5A4-**
10	0.188"	5	100	24.6	19.6	18.2	15.2	12.6		RTA10D5A4-**
12	0.125"	4	50	6.4	4.8	4.4	3.4	2.6	78-004	RTA12B4A4-**
12	0.188"	4	85	9.6	7.4	6.8	5.6	4.4	78-018	RTA12D4A4-**
12	0.125"	5	100	12.6	10.0	9.2	7.4	6.0	78-009	RTA12B5A4-**
12	0.156"	5	100	16.0	12.6	11.6	9.6	7.8	78-009W3	RTA12C5A4-**
12	0.188"	5	100	19.2	15.2	14.2	11.6	9.6	78-009W4	RTA12D5A4-**
14	0.125"	4	25	4.8	3.6	3.2	2.4	1.8	78-005	RTA14B4A4-**
14	0.188"	4	60	7.6	5.8	5.2	4.0	3.2	78-019	RTA14D4A4-**
14	0.125"	5	90	10.0	7.6	7.0	5.6	4.4	78-010	RTA14B5A4-**
14	0.156"	5	100	12.8	9.8	9.0	7.4	6.0	78-021	RTA14C5A4-**
14	0.188"	5	100	15.4	12.0	11.2	9.0	7.4	78-022	RTA14D5A4-**
16	0.188"	4	35	6.0	4.4	4.0	3.0	2.2	78-027	RTA16D4A4-**
16	0.125"	5	60	8.0	6.0	5.4	4.2	3.2	78-011	RTA16B5A4-**
16	0.156"	5	85	10.2	7.8	7.2	5.6	4.6	78-029	RTA16C5A4-**
16	0.156"	5	90	9.8	7.4	6.6	5.2	4.4	51-002S48	RTA16C5B4-**
16	0.188"	5	100	12.6	9.8	9.0	7.2	5.8	78-030	RTA16D5A4-**
16	0.188"	6	100	24.2	19.0	17.6	14.6	12.2		RTA16D6B4-**
18	0.125"	5	40	6.4	4.6	4.2	3.0	2.2	78-007	RTA18B5A4-**
18	0.156"	5	60	8.2	6.2	5.6	4.2	3.4	78-031	RTA18C5A4-**
18	0.188"	5	85	10.2	7.8	7.0	5.4	4.4	78-032	RTA18D5A4-**
18	0.156"	6	100	16.2	12.4	11.6	9.4	7.8		RTA18C6B4-**
18	0.188"	6	100	20.0	15.6	14.4	11.8	10.0		RTA18D6B4-**
18	0.156"	7	100	24.0	18.8	17.4	14.4	12.0		RTA18C7B4-**
20	0.125"	5	30	5.0	3.4	3.0	2.0	1.4	78-008	RTA20B5A4-**
20	0.156"	5	40	6.6	4.8	4.2	3.2	2.2	78-033	RTA20C5A4-**
20	0.188"	5	55	8.4	6.2	5.6	4.2	3.2		RTA20D5A4-**
20	0.125"	6	85	10.0	7.4	6.8	5.4	4.4	51-001	RTA20B6B4-**
20	0.156"	6	100	13.2	10.0	9.2	7.4	6.2	51-002	RTA20C6B4-**
20	0.188"	6	100	16.6	12.8	11.8	9.6	8.0	51-003	RTA20D6B4-**
20	0.156"	7	100	20.2	15.6	14.4	11.8	10.0	51-004	RTA20C7B4-**
20	0.188"	7	100	24.8	19.6	18.0	14.8	12.4	51-005	RTA20D7B4-**
20	0.156"	8	100	28.0	22.2	20.6	17.0	14.2	51-006	RTA20C8B4-**
20	0.188"	8	100	34.4	27.2	25.4	21.0	17.6	51-007	RTA20D8B4-**
25	0.156"	6	60	8.0	5.6	5.0	4.0	3.2	51-062	RTA25C6B4-**
25	0.188"	6	85	10.4	7.6	7.0	5.4	4.4	51-063	RTA25D6B4-**
25	0.156"	7	100	13.0	9.8	9.0	7.2	5.8	51-064	RTA25C7B4-**
25	0.188"	7	100	16.6	12.8	11.6	9.4	7.8	51-065	RTA25D7B4-**
25	0.156"	8	100	19.0	14.8	13.6	11.0	9.2	51-066	RTA25C8B4-**
25	0.188"	8	100	23.8	18.6	17.2	14.0	11.8	51-067	RTA25D8B4-**
25	0.219"	8	100	28.4	22.2	20.6	17.0	14.2	51-068	RTA25E8B4-**
25	0.250"	8	100	32.8	25.8	24.0	19.8	16.6	51-069	RTA25F8B4-**
25	0.156"	9	100	25.8	20.2	18.8	15.4	13.0		RTA25C9B4-**
25	0.156"	10	100	33.6	27.0	25.0	20.8	17.4		RTA25C1C4-**
30	0.156"	7	60	8.4	5.8	5.2	4.0	3.0	51-124	RTA30C7B4-**
30	0.188"	7	90	11.0	8.0	7.2	5.6	4.6	51-125	RTA30D7B4-**
30	0.156"	8	100	13.0	9.6	8.8	7.0	5.6	51-126	RTA30C8B4-**
30	0.188"	8	100	16.8	12.6	11.6	9.4	7.6	51-127	RTA30D8B4-**
30	0.219"	8	100	20.4	15.6	14.4	11.6	9.6	51-128	RTA30E8B4-**
30	0.250"	8	100	23.8	18.4	17.0	13.8	11.6	51-129	RTA30F8B4-**
30	0.188"	9	100	23.2	18.0	16.6	13.6	11.4	51-131	RTA30D9B4-**
30	0.250"	9	100	32.4	25.6	23.6	19.6	16.4	51-133	RTA30F9B4-**
30	0.188"	10	100	30.8	24.4	22.8	18.8	15.8	51-139	RTA30D1C4-**
30	0.250"	10	100	42.4	33.8	31.6	26.2	22.0	51-141	RTA30F1C4-**
35	0.156"	8	55	8.6	6.0	5.4	4.0	3.0	51-186	RTA35C8B4-**
35	0.188"	8	90	11.6	8.4	7.6	5.8	4.6	51-187	RTA35D8B4-**
35	0.219"	8	100	14.4	10.8	9.8	7.6	6.2	51-188	RTA35E8B4-**
35	0.250"	8	100	17.4	13.0	12.0	9.6	7.8	51-189	RTA35F8B4-**
35	0.188"	9	100	16.8	12.8	11.6	9.4	7.6	51-191	RTA35D9B4-**
35	0.250"	9	100	24.4	19.0	17.4	14.2	11.8	51-193	RTA35F9B4-**
35	0.188"	10	100	23.0	18.2	16.8	13.8	11.4	51-199	RTA35D1C4-**
35	0.219"	10	100	27.8	22.0	20.4	16.8	14.0	51-200	RTA35E1C4-**
35	0.250"	10	100	32.6	25.8	24.0	19.8	16.6	51-201	RTA35F1C4-**
35	0.312"	10	100	41.8	33.4	31.0	25.6	21.6	51-202	RTA35G1C4-**
40	0.188"	8	40	7.8	5.2	4.6	3.2	2.4	51-247	RTA40D8B4-**
40	0.219"	8	70	10.0	7.0	6.2	4.6	3.6	51-248	RTA40E8B4-**
40	0.250"	8	95	12.4	8.8	8.0	6.2	4.8	51-249	RTA40F8B4-**
40	0.188"	9	95	11.8	8.6	7.8	6.0	4.8	51-251	RTA40D9B4-**
40	0.250"	9	100	18.2	13.8	12.6	10.2	8.2	51-253	RTA40F9B4-**
40	0.188"	10	100	17.0	13.2	12.2	9.8	8.0	51-259	RTA40D1C4-**
40	0.219"	10	100	21.2	16.6	15.4	12.4	10.2	51-260	RTA40E1C4-**
40	0.250"	10	100	25.2	19.8	18.4	15.0	12.4	51-261	RTA40F1C4-**
40	0.312"	10	100	33.0	26.2	24.2	20.0	16.6	51-262	RTA40G1C4-**

Catalog Number System

The catalog number for Hapco poles utilizes the following identification system.



Catalog Number Example -

RTA 30 D 8 B 4 - 01

Round Tapered Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, 4.5" Top Diameter, 4-Bolt Base, Satin Aluminum Finish

Wall Thickness

- B = .125"
- C = .156"
- D = .188"
- E = .219"
- F = .250"
- G = .312"

Butt Diameter

- 4 = 4"
- 5 = 5"
- 6 = 6"
- 7 = 7"
- 8 = 8"
- 9 = 9"
- 1 = 10"

Top Diameter

- A = 3"
- B = 4.5"
- C = 6"

Base Style

- 4 = 4-Bolt Base

Finish

- 01 = Satin Aluminum
- BA = Black Powder Coat
- BH = White Powder Coat
- BM = Dark Bronze Powder Coat
- BV = Dark Green Powder Coat
- GC = Gray Powder Coat
- ** = Specify Finish

EPA Notes:

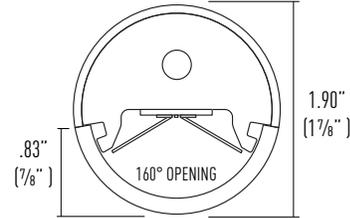
Effective Projected Area (EPA) in square feet. EPA's calculated using wind velocity (mph) indicated in accordance with 2009 AASHTO LTS-5 using a 25 year design life. Maximum EPA is based on the luminaire weight shown. Increased luminaire weight may reduce the maximum EPA. If weight is exceeded, or if other design life or code is required, please consult the factory.

IVR2-RPS

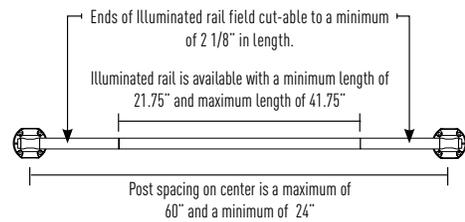
1.9" Solid State Illuminated Rail
Remote Power Supply



JOB NAME		CATALOG NUMBER	
NOTES		TYPE	

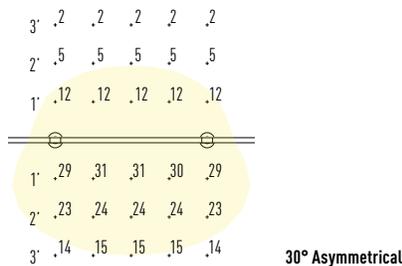
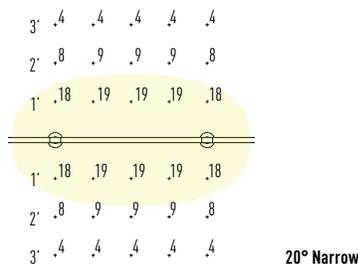
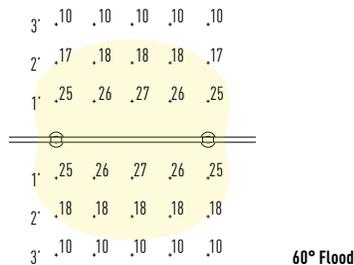


Exact decimal and common fraction is shown



PHOTOMETRIC DATA

- LED: 4.6W High Output
- CCT: 4000K
- Illuminated Rail Length: 41"
- Rail Height: 36"
- Post Spacing: 48"



CONSTRUCTION

Internal Rail Construction: Heavy duty extruded 6061-T6 Aluminum Alloy.
External Rail Jacket: Available in 304 or 316 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powder coat finishes (AAMA 2604).

LED LIGHT SOURCE

Closely packed array of small LEDs allow for smooth seamless illumination with immediate overlap to avoid pixilation and provide a continuous flow of light. Color temperatures options include 2700K, 3000K, 3500K or 4000K.

- 85 CRI
- 50,000 hours of average rated life at 70% output

LED LIGHT ENGINE (PER FOOT)

- High Output**
- System Power Consumption: 4.6W
 - Cool White 4000K: 241 lm
 - Neutral White 3500K: 207 lm
 - Warm White 3000K: 202 lm
 - Warm White 2700K: 197 lm
- Super High Output**
- System Power Consumption: 9.2W
 - Cool White 4000K: 483 lm
 - Neutral White 3500K: 415 lm
 - Warm White 3000K: 404 lm
 - Warm White 2700K: 395 lm

LIGHT DISTRIBUTION & OUTPUT

The V-Rail optical system includes a unique reflector that allows you to put the light where it is needed. Factory preset distributions include 60° symmetric, 20° symmetric and 30° asymmetric.

OPTICAL LENS SYSTEM

High-impact acrylic lens is sealed with silicone. Lens is secured with (2) countersunk flush screws, (1) at each end. Vandal resistant "TORX" is also available. Consult factory.

REFLECTOR SYSTEM

Internal reflector system is constructed of an innovative material that has 99% reflectance properties. Reflector allows up to 140° total adjustment. Right to left side reflector panels are independently adjustable from -30° to 70°. When the outer reflector panel is adjusted toward a stairway, ramp or walkway, the reflector panel will act as a glare shield from distant viewing angles below an elevated platform.

REMOTE MOUNTING POWER SUPPLY

Configured per project requirements. Supplies 24V electronically stabilized power to LED's. U.L. Class 2 output for safe operation. Housed to NEMA rated enclosures. Intense Lighting provides shop drawings and specification to satisfy Architect and Electrical Contractor.

MOUNTING / INSTALLATION

Each rail support is secured to the swivel mount on specified mounting system. Wall, post or embedded mount is available. See mounting submittal sheets for detailed information.

SURFACE™ SIMULATED NATURAL FINISHES

- Available in 8 standard wood grain powder coated finishes
- Straight runs only, consult factory

EMERGENCY

Remote emergency inverter available. Can be remote up to 1000 ft. See IB-IIS specification sheet.

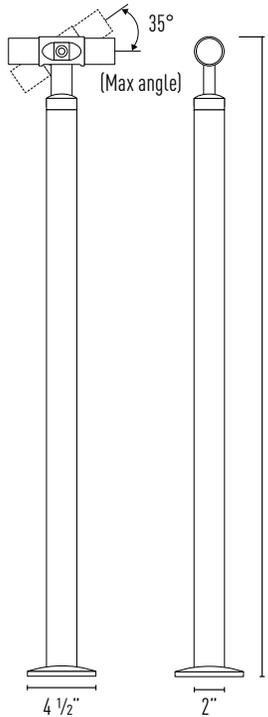
LISTINGS

- 5-Year Intense LED Limited Warranty (LED & Power Supply Only)
- UL Wet Location Listed. File #E333075
- IDA approved
- ADA compliant

IVR2-RPS

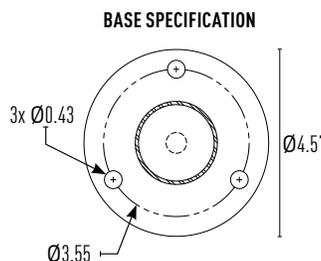
2" Remote Post Mount Assembly

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	



DIMENSIONS

	Guardrail	Handrail
A	42"	36"



CONSTRUCTION

Post mount assembly is available in heavy duty steel alloy or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powder coat finishes (AAMA 2604).

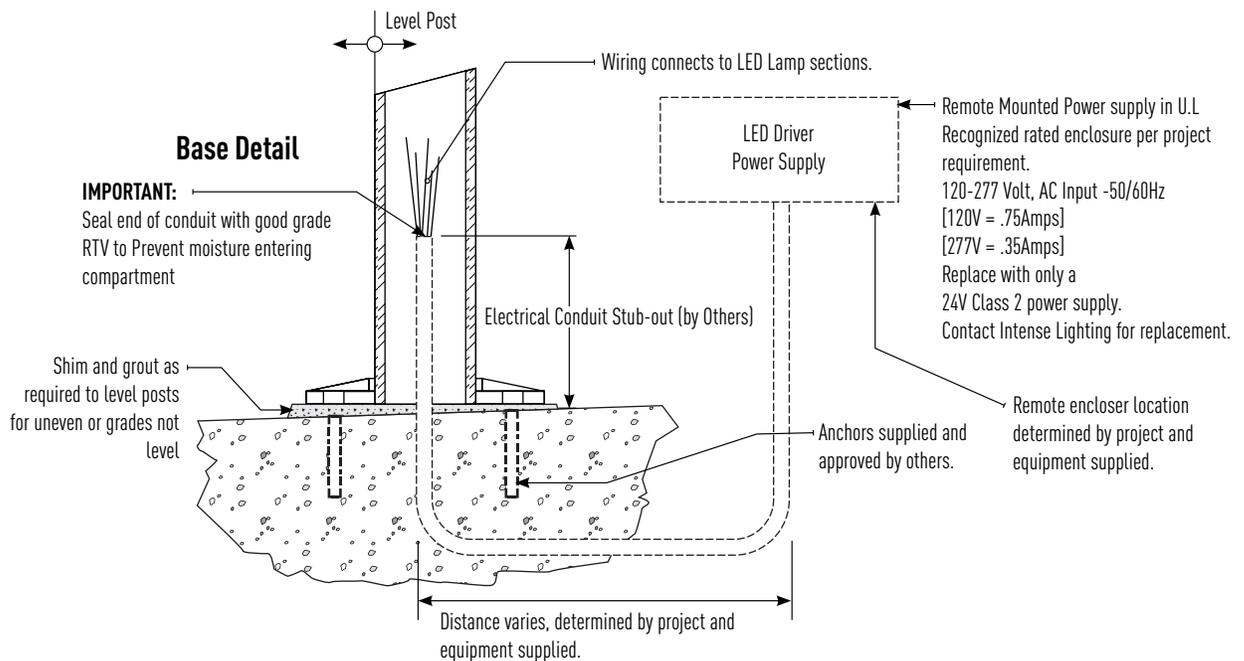
MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Post mount is to be surface mounted to concrete utilizing 5/16" anchor bolts (supplied by others). Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See post mount installation chart for more information. Anchorage template available by request.

FITTINGS

Consult factory for standard fittings and epoxy weld adhesive.

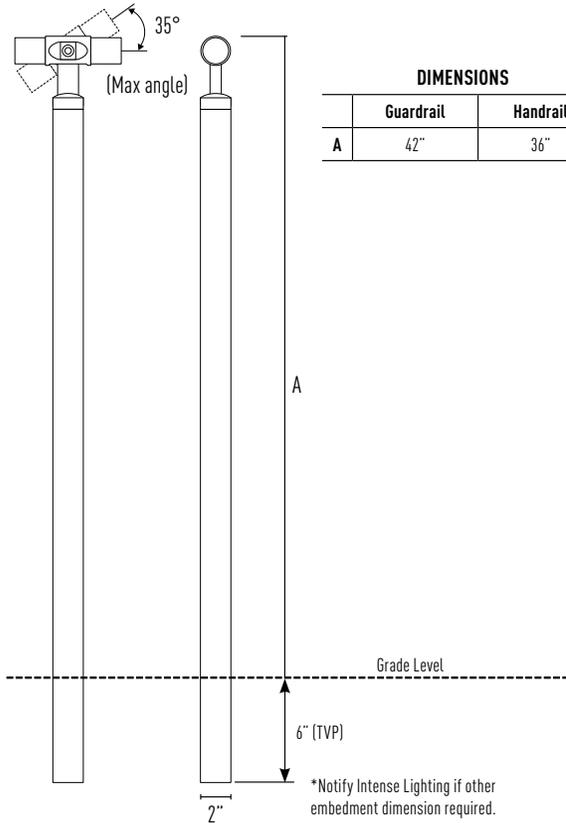
Post Mount Installation Detail



IVR2-RPS

2" Remote Post Embedded Assembly

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	



DIMENSIONS

	Guardrail	Handrail
A	42"	36"

CONSTRUCTION

Embedded mount assembly is available in heavy duty steel alloy or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powdercoat finishes(AAMA 2604).

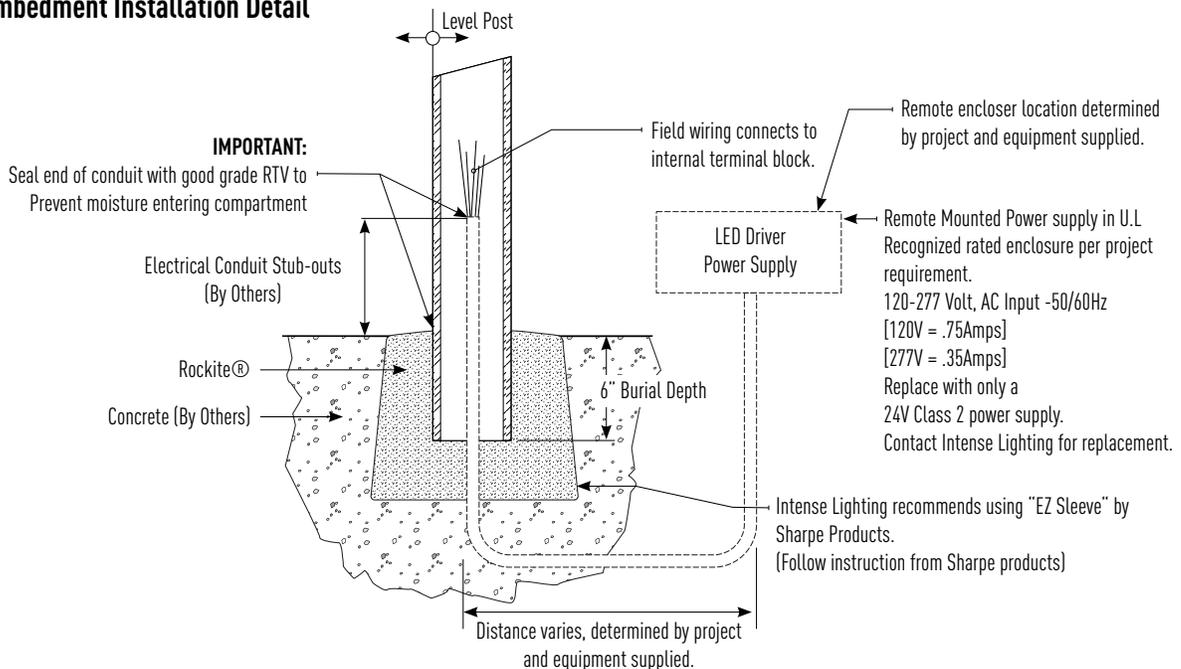
MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Embedded mount post are set into place using Rockite® or Kwikset® anchor cement. A minimum of 6" post must be embedded into concrete to structurally secure post. Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See Embedded Mount Installation chart for more information.

FITTINGS

Consult factory for standard fittings and epoxy weld adhesive.

Embedment Installation Detail



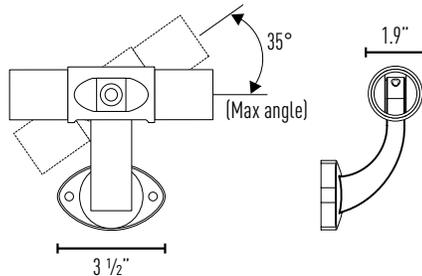
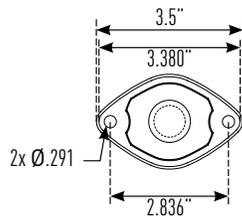
Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:

IVR2-RPS-ST-W-RGBW-30AS

Type:**RL2**

Notes:

INDY18-55731

IVR2-RPS**2" Remote Post Wall Mount Assembly****WALL BRACKET SPECIFICATION**

JOB NAME	CATALOG NUMBER
NOTES	TYPE

CONSTRUCTION

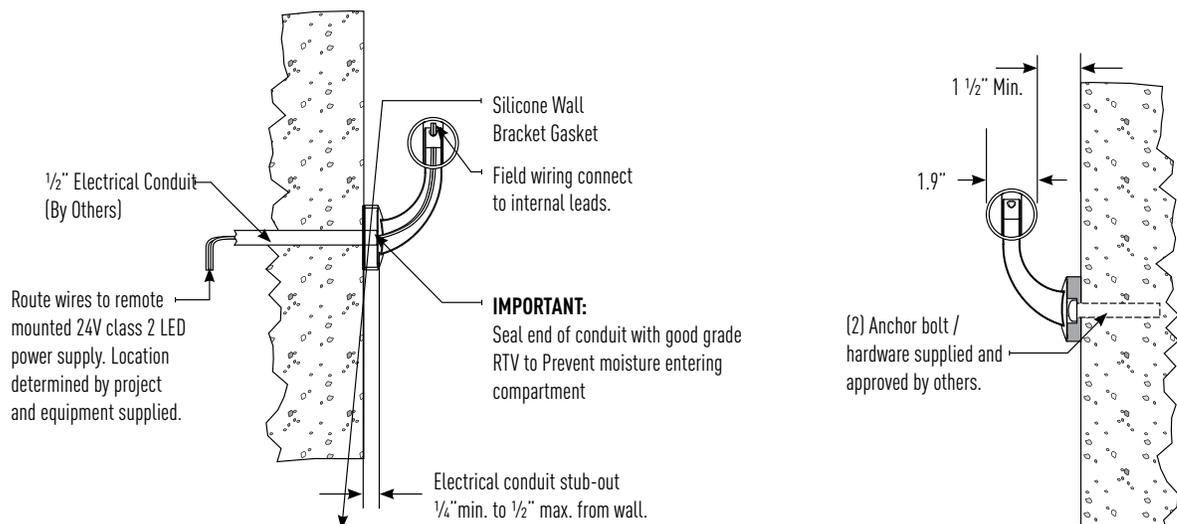
Wall mount assembly is available in heavy duty aluminum or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powdercoat finishes.

MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Wall mount assembly is to be mounted to concrete wall utilizing 1/4" anchor bolts (supplied by others). Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See Wall Mount Installation chart for more information. Anchorage template available by request.

FITTINGS

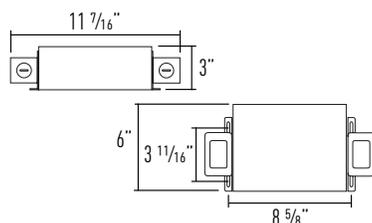
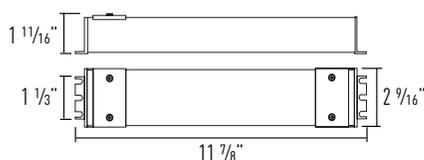
Consult factory for standard fittings and epoxy weld adhesive.

Wall Mounted Installation Detail

IVR2-RPS

Remote Power Supply

Wet Location No Enclosure Required



JOB NAME	CATALOG NUMBER
NOTES	TYPE

IB-OT96 - 96W 24V Damp Location

IB-OT96-DIM - 96W 24V Damp Location 0-10V Dimming

FEATURES

- Protected against open circuit, short circuit, overload and overheating issues
- Universal 120-277V input
- UL Wet location listed and FCC compliant
- Built in wiring compartments
- Integrated 0-10V dimming available

MAX RUN LENGTH (POST ON 4' CENTER)

- High Output (HO) - 20'

SPECIFICATIONS

- Input: 100-240VAC, 1.5-0.75A 277VAC / 0.47A, 47-63Hz
- Output: 96W 24V / 4A
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Weight: 2 lbs (.09 kg)
- Wiring: 18 AWG
- Classification: Class 2
- Protection Rating: IP66
- UL/cUL Recognized for damp location

IB-OT240-CH3 - 240W 24V 3 Channels Output 120-240V Input, Wet Location

FEATURES

- Protected against open circuit, short circuit, overload and overheating issues
- Built in wiring compartments
- UL Wet location listed and FCC compliant
- 3 channel output with 80W max per channel

MAX RUN LENGTH PER 80W CHANNEL

- High Output (HO) - 16'

SPECIFICATIONS

- Input Power: 108-254VAC, 50/60 Hz, 2.39A @ 120VAC
- Output Power: 240W 24V DC (80W per channel)
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Weight: 11 lbs (5 kg)
- Wiring: 18 AWG
- Classification: Class 2
- Protection Rating: IP66
- UL/cUL Listed Wet location

Maximum Mounting Distance (ft) to LED Input (at full load)

Power Supply	22 AWG	18 AWG	14 AWG	12 AWG
IB-OT96	7'	18'	46'	71'
IB-OT240-CH3	7'	22'	46'	71'
IB-ADV24V-347	7'	18'	46'	71'

Remote Wiring Limitation for Constant Voltage Power Supplies Due to EMI

All Constant Current power supplies are limited to **32ft maximum** remote mounting distance for EMI compliance (except NAED 51524 OT3/120-240/350 - 50ft).

Although it is possible to exceed the EMI limited remote mounting distance, it is the responsibility of the installer and/or end user to take precautions to prevent and/or test the effects of EMI on the installation. Additional EMC/EMI filters may be required on the output side of the power supply for compliance of installations above the limits given in Table 1.

Job Name:

Logan Street Bridge
Architect: Butler Fairman & Seufert Inc
(Indianapolis)

Catalog Number:

IVR2-RPS-ST-W-RGBW-30AS

Type:**RL2**

Notes:

INDY18-55731

IVR2-RPS

Remote Power Supply

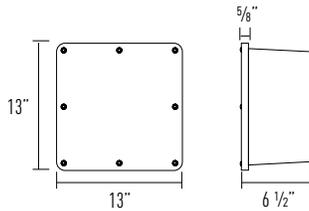
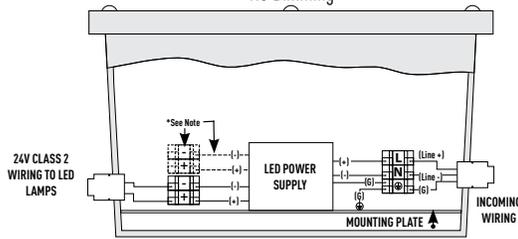
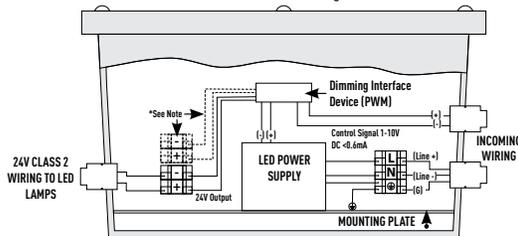
Multiple Output Wet Location Enclosure

Nema 4x UL Listed Outdoor Rated PVC Boxes

Non-Corroding, Non-Conducting, Fire Resistant, Concrete Tight



Suitable for Surface Mount and Recessed Mount

**LED Remote Power Supply**
"No Dimming"**LED Remote Power Supply**
"With Dimming"

Wire gauge to be determined per project. Voltage drop occurs with distance. Any change in wire length requires re-engineering.

*Notes: Dash lines represent additional outputs when supplied per project.

All components inside enclosure are supplied by Intense lighting.

JOB NAME	CATALOG NUMBER
NOTES	TYPE

IVR-RPS-1-0T96 - (1) 96W 120/277V (1) 24V Outputs**IVR-RPS-2-0T96** - (2) 96W 120/277V (2) 24V Outputs**IVR-RPS-3-0T96** - (3) 96W 120/277V (3) 24V Outputs**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Universal 120-277V input
- Suitable for damp and wet locations
- Easy connectivity to terminal blocks
- Integrated 0-10V dimming available

SPECIFICATIONS

- Input Power: 108-305VAC, 50/60 Hz, .91A @ 120VAC
- Output Power: 96W 24V DC
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Classification: Class 2
- Protection Rating: IP66

IVR-RPS-0T-240-CH3**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Suitable for damp and wet locations
- Easy connectivity to terminal blocks
- UL Wet location listed and FCC compliant
- 3 channel output with 80W max per channel

SPECIFICATIONS

- Input Power: 108-254VAC, 50/60 Hz, 2.39A @ 120VAC
- Output Power: 240W 24V DC (80W per channel)
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Classification: Class 2
- Protection Rating: IP66

IVR-RPS-1-ADV24V-347 - (1) 96W 347V (1) 24V Outputs**IVR-RPS-2-ADV24V-347** - (2) 96W 347V (2) 24V Outputs**IVR-RPS-3-ADV24V-347** - (3) 96W 347V (3) 24V Outputs**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Ideal for projects in USA with 480V input
- Ideal for projects in Canada with 347V input

SPECIFICATIONS

- Input Power: 347-480VAC,
- Output Power: 100W 24V DC
- Ambient Temperature Range: -40°C to 65°C
- Classification: Class 2
- Protection Rating: IP66

IVR2-RPS

V-Rail Remote Power Supply Specification Guide

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	

V-Rail Part Number (Example: IVR2-RPS-ST-W-SH027-60S)

(Specify Quantity By Foot)

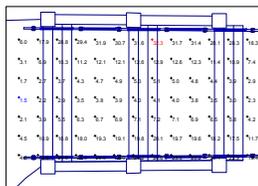
A: Family	B: Finish	C: Mounting/Height	D: LED Output	E: CCT	F: Light Distribution	G: Electrical	H: Options
IVR2-RPS	-ST (304 Stainless Steel) ¹ -W (White Aluminum) -B (Black Aluminum) -BR (Bronze Aluminum) -SV (Silver Aluminum) -SU (Surface™) ² -C (Custom) ³	-W (Wall Mount) -P36 (36" Post Mount) -P42 (42" Post Mount) -E36 (36" Embedded Mount) -E42 (42" Embedded Mount)	-HO (High Output) -SHO (Super High Output) -NL (No LED - Rail Only) ⁴ RGBW	27 (2700K) 30 (3000K) 35 (3500K) 40 (4000K)	-60S (60° Symmetric) -20S (20° Symmetric) -30AS (30° Asymmetric)	blank (24V Input)	-I (Infill) ³

- Notes:**
- 316 Stainless steel available by special order
 - See Surface™ simulated natural finishes submittal sheet for specification. Straight runs only.
 - Special order, consult factory
 - No LED (rail only). Please omit sections E, F, and G

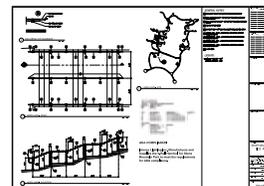
Specification and Delivery Process

Architectural drawings or detailed elevation drawings are required for a V-Rail quotation. A photometric layout will be provided if requested. Once an order is placed, Intense Lighting will provide detailed shop drawings for approval.

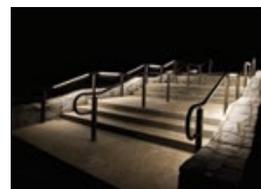
V-Rail will be delivered to the job site ready for installation. A detailed assembly drawing will be provided along with dimensions and locations for remote power supplies. All products included will be labeled clearly to match the assembly drawing. Certain tools and equipment will be required for the assembly of V-Rail. A detailed list of tools can be found in the V-Rail Installation Guide. Installation guide available upon request, consult factory.



Photometric Layout



Shop Drawing / Assembly Guide



Completed Project

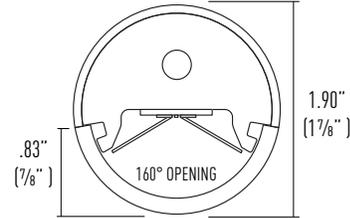
Notes:

IVR2-RPS

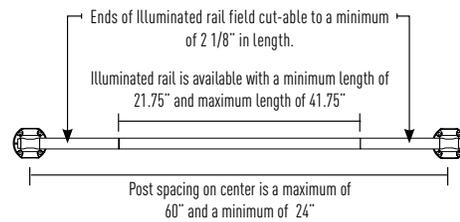
1.9" Solid State Illuminated Rail
Remote Power Supply



JOB NAME	CATALOG NUMBER
NOTES	TYPE

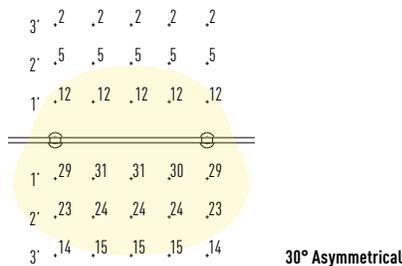
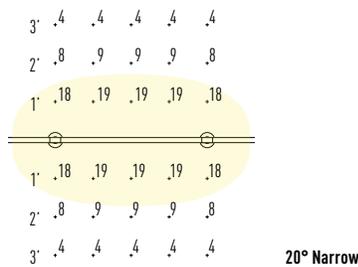
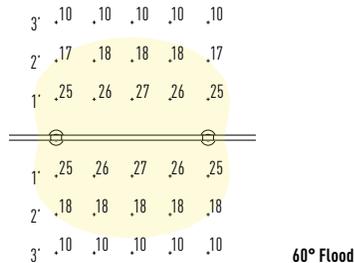


Exact decimal and common fraction is shown



PHOTOMETRIC DATA

- LED: 4.6W High Output
- CCT: 4000K
- Illuminated Rail Length: 41"
- Rail Height: 36"
- Post Spacing: 48"



CONSTRUCTION

Internal Rail Construction: Heavy duty extruded 6061-T6 Aluminum Alloy.
External Rail Jacket: Available in 304 or 316 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powder coat finishes (AAMA 2604).

LED LIGHT SOURCE

Closely packed array of small LEDs allow for smooth seamless illumination with immediate overlap to avoid pixilation and provide a continuous flow of light. Color temperatures options include 2700K, 3000K, 3500K or 4000K.

- 85 CRI
- 50,000 hours of average rated life at 70% output

LED LIGHT ENGINE (PER FOOT)

- High Output**
- System Power Consumption: 4.6W
 - Cool White 4000K: 241 lm
 - Neutral White 3500K: 207 lm
 - Warm White 3000K: 202 lm
 - Warm White 2700K: 197 lm
- Super High Output**
- System Power Consumption: 9.2W
 - Cool White 4000K: 483 lm
 - Neutral White 3500K: 415 lm
 - Warm White 3000K: 404 lm
 - Warm White 2700K: 395 lm

LIGHT DISTRIBUTION & OUTPUT

The V-Rail optical system includes a unique reflector that allows you to put the light where it is needed. Factory preset distributions include 60° symmetric, 20° symmetric and 30° asymmetric.

OPTICAL LENS SYSTEM

High-impact acrylic lens is sealed with silicone. Lens is secured with (2) countersunk flush screws, (1) at each end. Vandal resistant "TORX" is also available. Consult factory.

REFLECTOR SYSTEM

Internal reflector system is constructed of an innovative material that has 99% reflectance properties. Reflector allows up to 140° total adjustment. Right to left side reflector panels are independently adjustable from -30° to 70°. When the outer reflector panel is adjusted toward a stairway, ramp or walkway, the reflector panel will act as a glare shield from distant viewing angles below an elevated platform.

REMOTE MOUNTING POWER SUPPLY

Configured per project requirements. Supplies 24V electronically stabilized power to LED's. U.L. Class 2 output for safe operation. Housed to NEMA rated enclosures. Intense Lighting provides shop drawings and specification to satisfy Architect and Electrical Contractor.

MOUNTING / INSTALLATION

Each rail support is secured to the swivel mount on specified mounting system. Wall, post or embedded mount is available. See mounting submittal sheets for detailed information.

SURFACE™ SIMULATED NATURAL FINISHES

- Available in 8 standard wood grain powder coated finishes
- Straight runs only, consult factory

EMERGENCY

Remote emergency inverter available. Can be remote up to 1000 ft. See IB-IIS specification sheet.

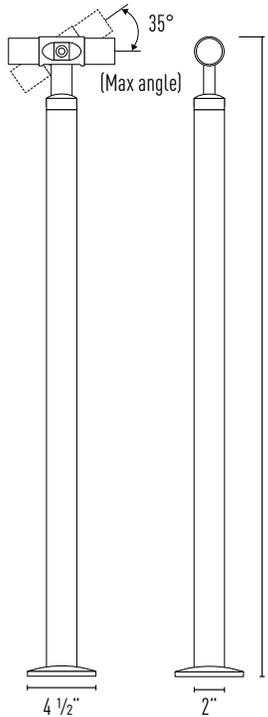
LISTINGS

- 5-Year Intense LED Limited Warranty (LED & Power Supply Only)
- UL Wet Location Listed. File #E333075
- IDA approved
- ADA compliant

IVR2-RPS

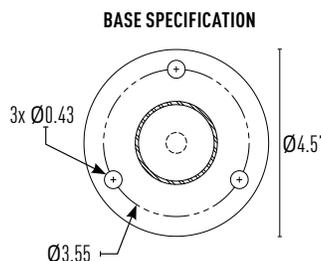
2" Remote Post Mount Assembly

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	



DIMENSIONS

	Guardrail	Handrail
A	42"	36"



CONSTRUCTION

Post mount assembly is available in heavy duty steel alloy or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powder coat finishes (AAMA 2604).

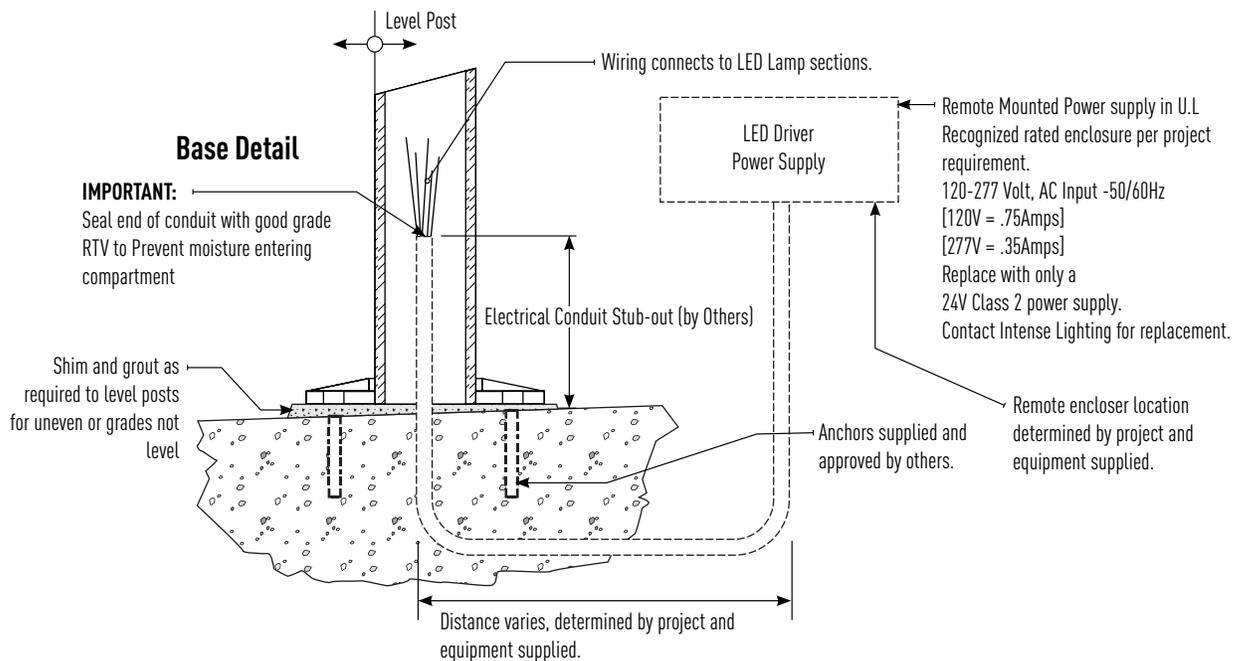
MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Post mount is to be surface mounted to concrete utilizing 5/16" anchor bolts (supplied by others). Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See post mount installation chart for more information. Anchorage template available by request.

FITTINGS

Consult factory for standard fittings and epoxy weld adhesive.

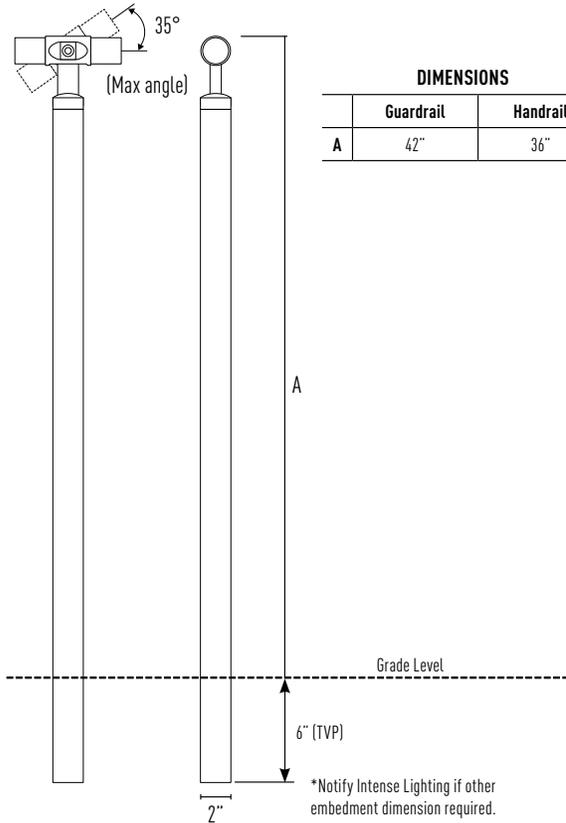
Post Mount Installation Detail



IVR2-RPS

2" Remote Post Embedded Assembly

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	



CONSTRUCTION

Embedded mount assembly is available in heavy duty steel alloy or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powdercoat finishes(AAMA 2604).

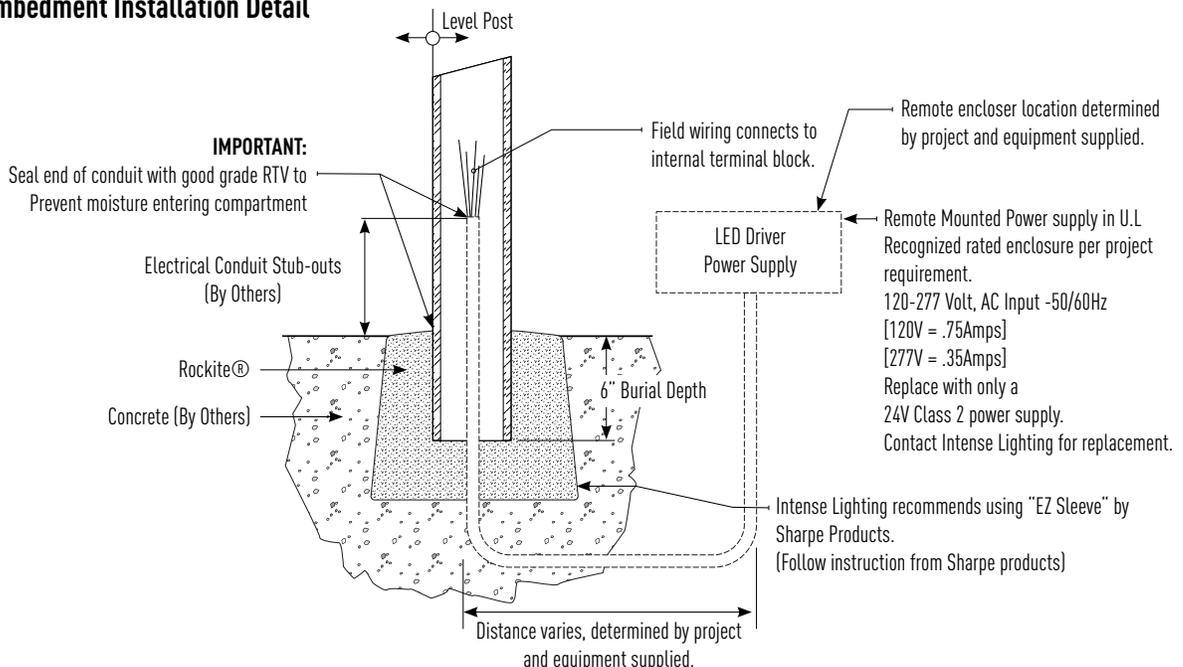
MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Embedded mount post are set into place using Rockite® or Kwikset® anchor cement. A minimum of 6" post must be embedded into concrete to structurally secure post. Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See Embedded Mount Installation chart for more information.

FITTINGS

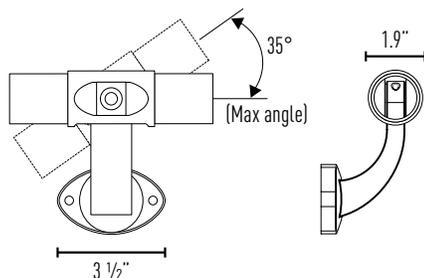
Consult factory for standard fittings and epoxy weld adhesive.

Embedment Installation Detail



IVR2-RPS
2" Remote Post Wall Mount Assembly

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	



CONSTRUCTION

Wall mount assembly is available in heavy duty aluminum or No.4 polished 304 stainless steel. Standard aluminum finishes include silver, white, black, or bronze powder-coat. Consult factory for custom powdercoat finishes.

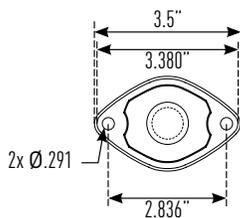
MOUNTING / INSTALLATION

Post are to be spaced at a maximum of 60" and minimum of 24" on centers. Wall mount assembly is to be mounted to concrete wall utilizing 1/4" anchor bolts (supplied by others). Anchoring means and size must be determined by local codes. Not to be supplied or engineered by Intense Lighting. See Wall Mount Installation chart for more information. Anchorage template available by request.

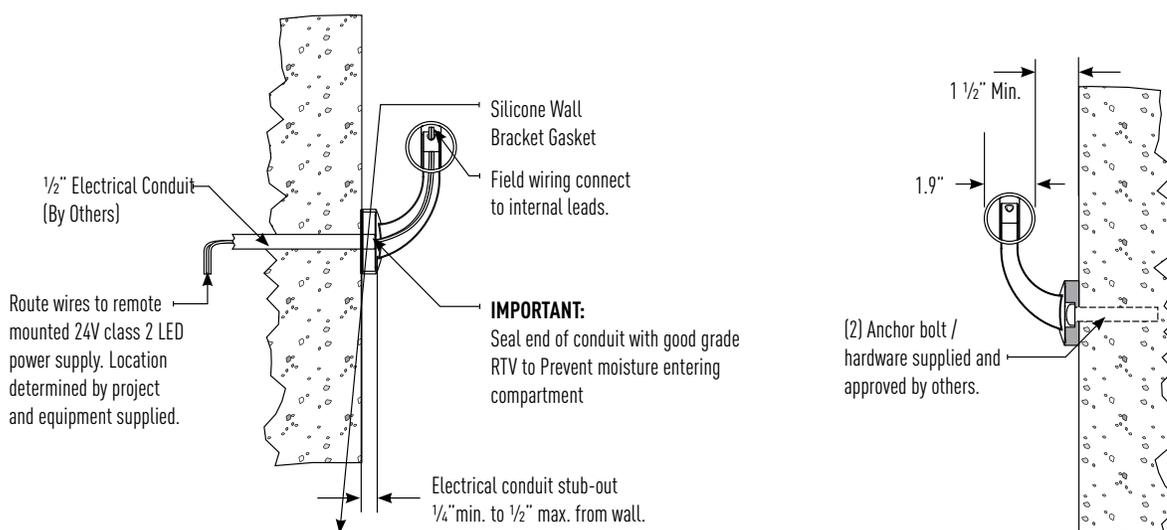
FITTINGS

Consult factory for standard fittings and epoxy weld adhesive.

WALL BRACKET SPECIFICATION



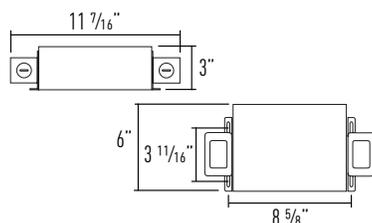
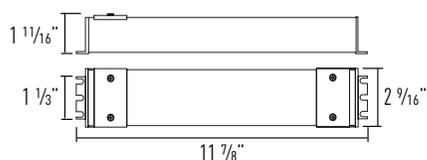
Wall Mounted Installation Detail



IVR2-RPS

Remote Power Supply

Wet Location No Enclosure Required



JOB NAME	CATALOG NUMBER
NOTES	TYPE

IB-OT96 - 96W 24V Damp Location**IB-OT96-DIM** - 96W 24V Damp Location 0-10V Dimming**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Universal 120-277V input
- UL Wet location listed and FCC compliant
- Built in wiring compartments
- Integrated 0-10V dimming available

MAX RUN LENGTH (POST ON 4' CENTER)

- High Output (HO) - 20'

SPECIFICATIONS

- Input: 100-240VAC, 1.5-0.75A 277VAC / 0.47A, 47-63Hz
- Output: 96W 24V / 4A
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Weight: 2 lbs (.09 kg)
- Wiring: 18 AWG
- Classification: Class 2
- Protection Rating: IP66
- UL/cUL Recognized for damp location

IB-OT240-CH3 - 240W 24V 3 Channels Output 120-240V Input, Wet Location
FEATURES

- Protected against open circuit, short circuit, overload and overheating issues
- Built in wiring compartments
- UL Wet location listed and FCC compliant
- 3 channel output with 80W max per channel

MAX RUN LENGTH PER 80W CHANNEL

- High Output (HO) - 16'

SPECIFICATIONS

- Input Power: 108-254VAC, 50/60 Hz, 2.39A @ 120VAC
- Output Power: 240W 24V DC (80W per channel)
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Weight: 11 lbs (5 kg)
- Wiring: 18 AWG
- Classification: Class 2
- Protection Rating: IP66
- UL/cUL Listed Wet location

Maximum Mounting Distance (ft) to LED Input (at full load)

Power Supply	22 AWG	18 AWG	14 AWG	12 AWG
IB-OT96	7'	18'	46'	71'
IB-OT240-CH3	7'	22'	46'	71'
IB-ADV24V-347	7'	18'	46'	71'

Remote Wiring Limitation for Constant Voltage Power Supplies Due to EMI

All Constant Current power supplies are limited to **32ft maximum** remote mounting distance for EMI compliance (except NAED 51524 OT3/120-240/350 - 50ft).

Although it is possible to exceed the EMI limited remote mounting distance, it is the responsibility of the installer and/or end user to take precautions to prevent and/or test the effects of EMI on the installation. Additional EMC/EMI filters may be required on the output side of the power supply for compliance of installations above the limits given in Table 1.

Job Name:

Logan Street Bridge
Architect: Butler Fairman & Seufert Inc
(Indianapolis)

Catalog Number:

IVR2-RPS-ST-W-RGBW-30AS

Type:**RL3**

Notes:

INDY18-55731

IVR2-RPS

Remote Power Supply

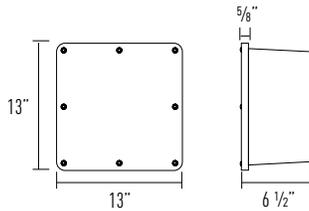
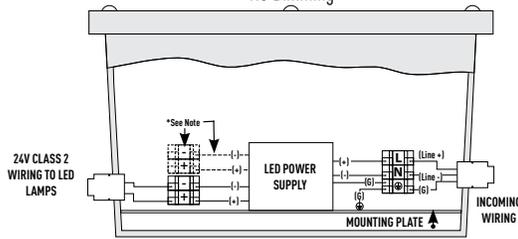
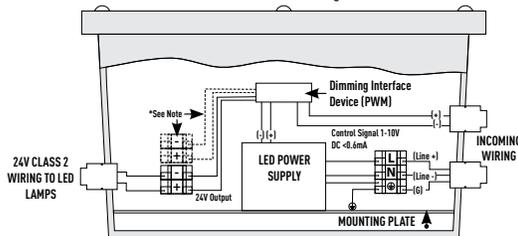
Multiple Output Wet Location Enclosure

Nema 4x UL Listed Outdoor Rated PVC Boxes

Non-Corroding, Non-Conducting, Fire Resistant, Concrete Tight



Suitable for Surface Mount and Recessed Mount

**LED Remote Power Supply**
"No Dimming"**LED Remote Power Supply**
"With Dimming"

Wire gauge to be determined per project. Voltage drop occurs with distance. Any change in wire length requires re-engineering.

*Notes: Dash lines represent additional outputs when supplied per project.

All components inside enclosure are supplied by Intense lighting.

JOB NAME	CATALOG NUMBER
NOTES	TYPE

IVR-RPS-1-0T96 - (1) 96W 120/277V (1) 24V Outputs**IVR-RPS-2-0T96** - (2) 96W 120/277V (2) 24V Outputs**IVR-RPS-3-0T96** - (3) 96W 120/277V (3) 24V Outputs**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Universal 120-277V input
- Suitable for damp and wet locations
- Easy connectivity to terminal blocks
- Integrated 0-10V dimming available

SPECIFICATIONS

- Input Power: 108-305VAC, 50/60 Hz, .91A @ 120VAC
- Output Power: 96W 24V DC
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Classification: Class 2
- Protection Rating: IP66

IVR-RPS-0T-240-CH3**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Suitable for damp and wet locations
- Easy connectivity to terminal blocks
- UL Wet location listed and FCC compliant
- 3 channel output with 80W max per channel

SPECIFICATIONS

- Input Power: 108-254VAC, 50/60 Hz, 2.39A @ 120VAC
- Output Power: 240W 24V DC (80W per channel)
- Ambient Temperature Range: -22°F to 158°F (-30°C to 70°C)
- Classification: Class 2
- Protection Rating: IP66

IVR-RPS-1-ADV24V-347 - (1) 96W 347V (1) 24V Outputs**IVR-RPS-2-ADV24V-347** - (2) 96W 347V (2) 24V Outputs**IVR-RPS-3-ADV24V-347** - (3) 96W 347V (3) 24V Outputs**FEATURES**

- Protected against open circuit, short circuit, overload and overheating issues
- Ideal for projects in USA with 480V input
- Ideal for projects in Canada with 347V input

SPECIFICATIONS

- Input Power: 347-480VAC,
- Output Power: 100W 24V DC
- Ambient Temperature Range: -40°C to 65°C
- Classification: Class 2
- Protection Rating: IP66

IVR2-RPS

V-Rail Remote Power Supply Specification Guide

JOB NAME		CATALOG NUMBER	
NOTES		TYPE	

V-Rail Part Number (Example: IVR2-RPS-ST-W-SHO27-60S)

(Specify Quantity By Foot)

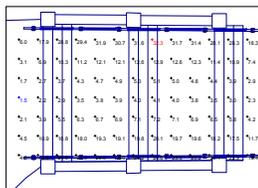
A: Family	B: Finish	C: Mounting/Height	D: LED Output	E: CCT	F: Light Distribution	G: Electrical	H: Options
IVR2-RPS	-ST (304 Stainless Steel) ¹	-W (Wall Mount)	-HO (High Output)	27 (2700K)	-60S (60° Symmetric)	blank (24V Input)	-I (Infill) ³
	-W (White Aluminum)	-P36 (36" Post Mount)	-SHO (Super High Output)	30 (3000K)	-20S (20° Symmetric)		
	-B (Black Aluminum)	-P42 (42" Post Mount)	-NL (No LED - Rail Only) ⁴	35 (3500K)	-30AS (30° Asymmetric)		
	-BR (Bronze Aluminum)	-E36 (36" Embedded Mount)	RGBW	40 (4000K)			
	-SV (Silver Aluminum)	-E42 (42" Embedded Mount)					
	-SU (Surface™) ²						
	-C (Custom) ³						

- Notes:**
- 316 Stainless steel available by special order
 - See Surface™ simulated natural finishes submittal sheet for specification. Straight runs only.
 - Special order, consult factory
 - No LED (rail only). Please omit sections E, F, and G

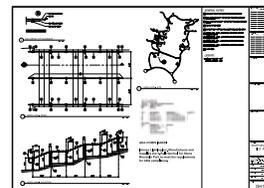
Specification and Delivery Process

Architectural drawings or detailed elevation drawings are required for a V-Rail quotation. A photometric layout will be provided if requested. Once an order is placed, Intense Lighting will provide detailed shop drawings for approval.

V-Rail will be delivered to the job site ready for installation. A detailed assembly drawing will be provided along with dimensions and locations for remote power supplies. All products included will be labeled clearly to match the assembly drawing. Certain tools and equipment will be required for the assembly of V-Rail. A detailed list of tools can be found in the V-Rail Installation Guide. Installation guide available upon request, consult factory.



Photometric Layout



Shop Drawing / Assembly Guide



Completed Project

Notes:

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SPECIFICATION

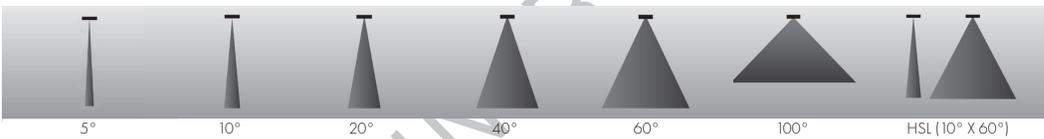
17-SPOT

FACADE & FLOOD LIGHTING
 COLOR CHANGING

Line voltage LED, High Performance Facade and Flood Lighting

- Ideal for lighting facades, structures, bridges
- Integral power (line voltage 120V – 277V)
- 3G vibration rating, suitable for use on bridges
- Wireless DMX capability
- Field adjustable accessories



ITEM	SPECIFICATION				
LIGHT SOURCE	100W, 150W, 200W				
OPTICS					
COLOR TEMPERATURES	RGB, RGBW, RGBA, RGBL Color Changing				
PERFORMANCE	RGB COLOR CHANGING				
	FIXTURE WATTAGE (TOTAL WATTAGE)	OPTICS	LUMENS	EFFICACY lm/W	PEAK CANDELA (CD / m ²)
	100W, 150W, 200W	5°	TBD	TBD	TBD
	100W, 150W, 200W	10°	TBD	TBD	TBD
	100W, 150W, 200W	20°	TBD	TBD	TBD
	100W, 150W, 200W	40°	TBD	TBD	TBD
	100W, 150W, 200W	60°	TBD	TBD	TBD
	100W, 150W, 200W	100°	TBD	TBD	TBD
	100W, 150W, 200W	HSL	TBD	TBD	TBD
	Lumen measurement tested in accordance with IES LM-79-08				
LUMEN MAINTENANCE	WHITE: L70 AT 25° C, MINIMUM	100,000 hours			
ELECTRICAL	AC LINE VOLTAGE	110V to 277V			
	POWER SUPPLY	INTEGRAL TO THE LUMINAIRE			
CONTROL	DMX	DMX			
PHYSICAL	HOUSING	Heavy duty die-cast aluminum, powder-coated finish			
	LENS	Tempered glass			
	DIMENSIONS (H X W X D)	16-5/8" x 21" x 6-1/8"			
	WEIGHT	52 lbs			
	EPA	1.24 sq. ft.			
	OPERATING TEMPERATURE	-40° C to 50° C			
CERTIFICATIONS					ETL and cETL Wet Location Pending IP67 IK07 rated 3G ANSI C136.31 vibration testing (suitable for use on bridges)
WARRANTY					5 Year

INSIGHT
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17-SPOT
 FACADE & FLOOD LIGHTING
 COLOR CHANGING

PRELIMINARY

ORDERING INFORMATION

PREFIX	WATTAGE	LED COLOR	OPTICS	MOUNTING	VOLTAGE/WIRING METHOD	FINISH	OPTIONS
17SP		RGB		TR = Trunnion	INT = 110V thru 277V Integral Power Supply	TW = Textured White	VS = Visor Accessory (field installable) Visor cannot be used with the Snoot
17-SPOT		RED, GREEN, BLUE COLOR CHANGING			Contact factory for Plug and Play fixture connection	TBL = Textured Black	SN = Snoot Accessory (field installable) Snoot cannot be used with the Visor
	100	RGB	5° 10° 20° 40° 60° 100° HSL		DMX Control System must be ordered separately. Contact factory for details.	TBR = Textured Bronze	WG = Wire Guard Accessory (field installable)
	150					TLB = Textured Light Bronze	PA2 = 2.5" Round Mid Pole Mount Adapter Option
	200					TN = Textured Natural	PA4 = 4" Round Mid Pole Mount Adapter Option
	HSL = 10° X 60°					TS = Textured Sandstone	TA2 = 2-3/8" Tenon Adaptor Option
		RGBW/RGBA				CC = Custom Color*	TA4 = 4" Tenon Adaptor Option
		RED, GREEN, BLUE, 4000K/AMBER COLOR CHANGING				* Contact factory for custom color. Additional charges will apply.	CRF = Corrosion Resistant Finish Option CRF is recommended for coastal or extreme exterior environments
	100	RGBW	5° 10° 20° 40° 60° 100° HSL				Accessories are field installable
	150	RGBA					
	200						
	HSL = 10° X 60°						
		RGBL - NEW!					
		RED, GREEN, BLUE, LIME COLOR CHANGING					
	100	RGBL	5° 10° 20° 40° 60° 100° HSL				
	150						
	200						
	HSL = 10° X 60°						

Color Changing Notes:

- All Color Changing products require a DMX programmer for proper mixing. Must order separately.
- One LPT Programming Tool is required for field re-addressing of factory DMX settings. See below.

Catalog Number Example: 17SP / 100 / RGB / 10° / TR / INT / TW / VS, CRF

DMX DISTRIBUTION & PROGRAMMING KIT IS REQUIRED FOR ALL COLOR CHANGING INSTALLATIONS

CATALOG NUMBER	DESCRIPTION
LPT	DMX PROGRAMMING TOOL: One LPT is required for field re-addressing of factory DMX settings.
CDS-A	DMX DISTRIBUTION KIT ONLY: CDS-A consists of four outputs. Each output accommodates up to 32 fixtures in INT/REM wiring methods and unlimited fixtures in ACV wiring method. Four terminators are included for use as required.

STANDARD EXTERIOR FINISHES

TEXTURED WHITE	TEXTURED BLACK	TEXTURED BRONZE	TEXTURED LIGHT BRONZE	TEXTURED NATURAL	TEXTURED SANDSTONE
					

Color Disclaimer

 Due to the many variations in monitors and browsers, color samples may appear different on different monitors. Computer monitors are not all calibrated equally and color reproduction on the Internet is not precise. Please contact your local Insight Representative to obtain color chips for accurate colors. <http://www.insightlighting.com/agent-locator/>

INSIGHT

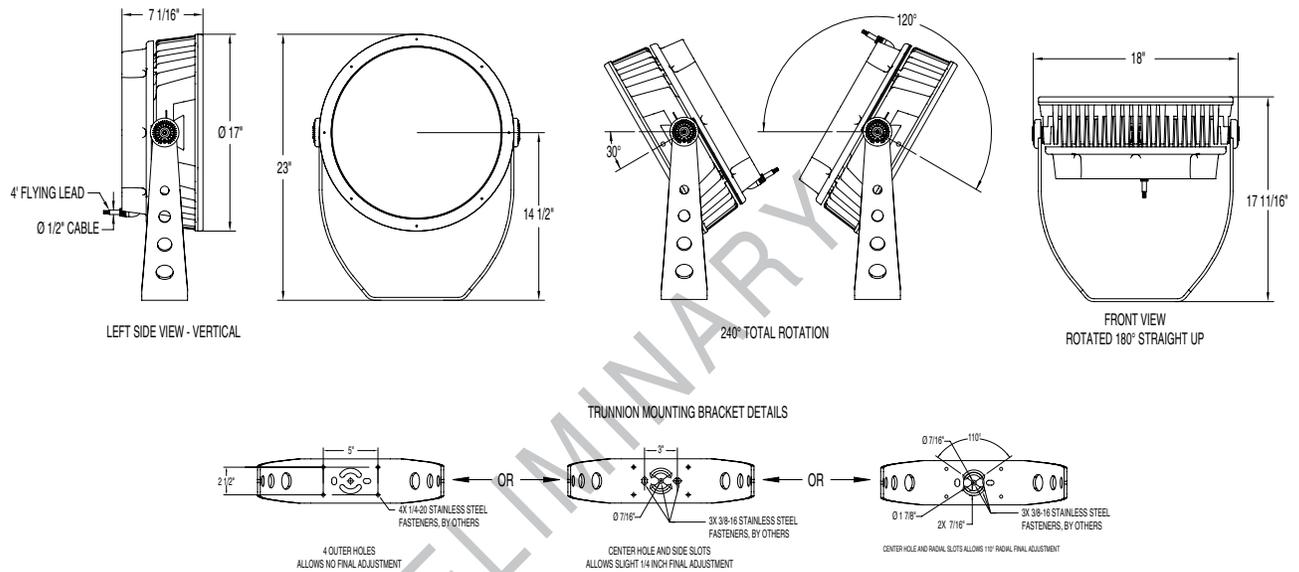
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MOUNTING AND DIMENSIONS

17-SPOT

FACADE & FLOOD LIGHTING
COLOR CHANGING

TR - TRUNNION



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 17SP-200-RGBW-5-TR-INT-TW-
 VS-TA2

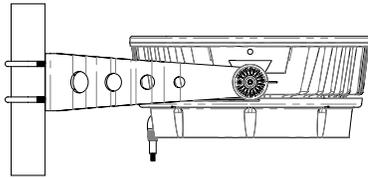
Notes:

Type:**SP1**

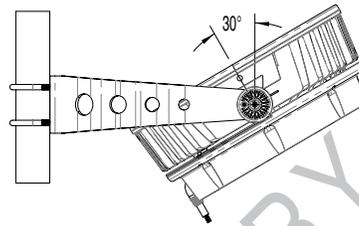
INDY18-55731

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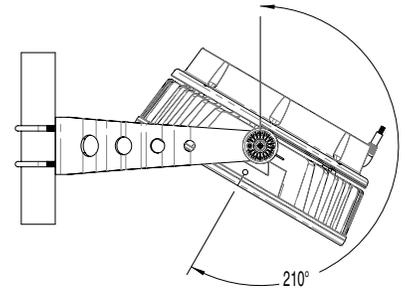
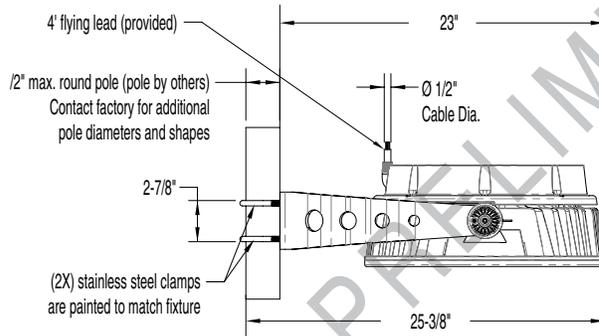
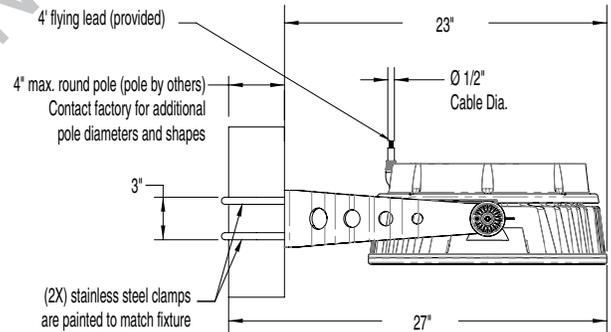
17-SPOT
 FACADE & FLOOD LIGHTING
 COLOR CHANGING

ROUND MID POLE MOUNT ADAPTOR OPTIONS


MOUNT FIXTURE UP OR DOWN



240° Total Rotation

**PM2 - 2.5" Round Mid Pole Mount Adapter Option****PM4 - 4" Round Mid Pole Mount Adapter Option**

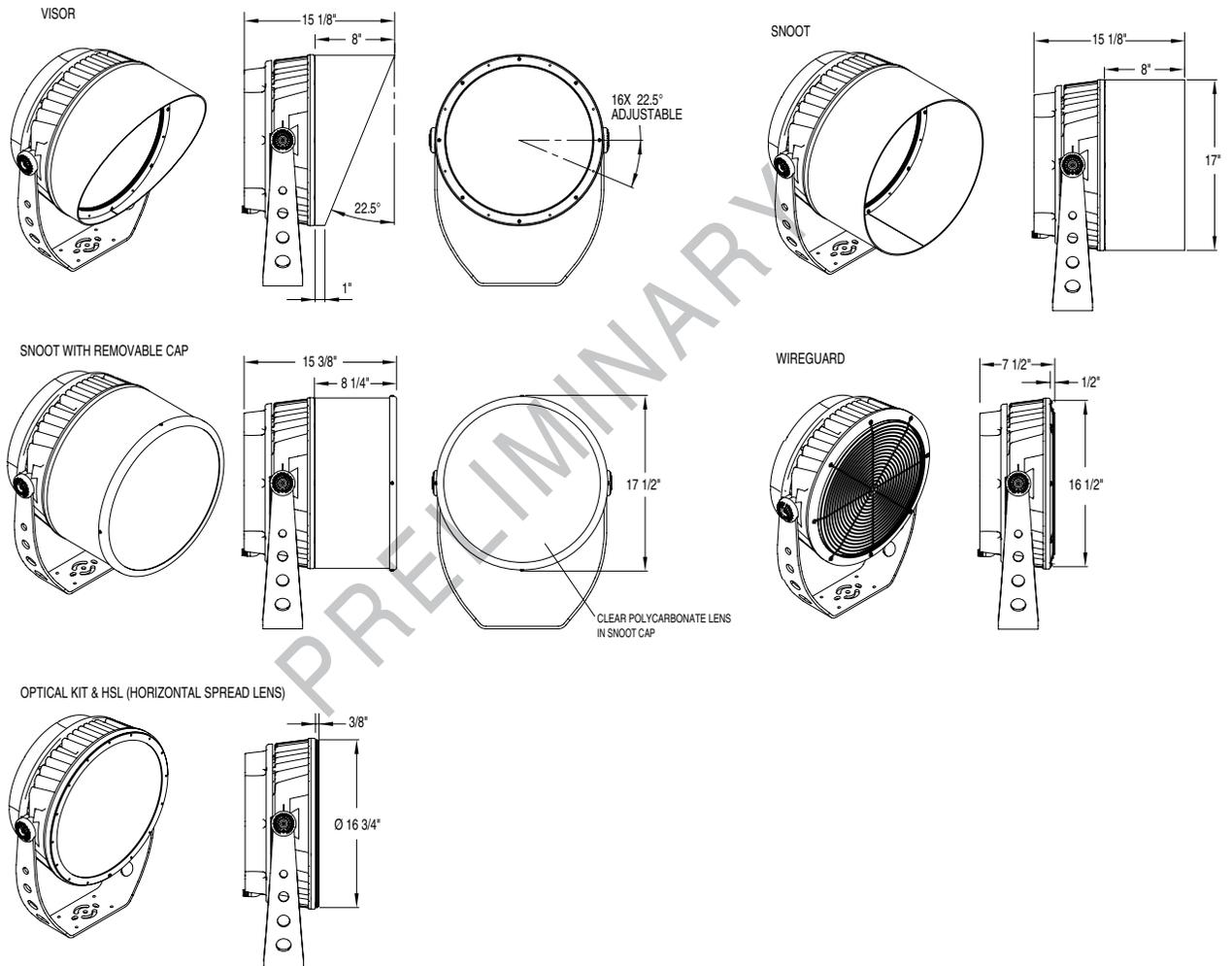
INSIGHT

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ACCESSORIES

17-SPOT

FACADE & FLOOD LIGHTING
 COLOR CHANGING

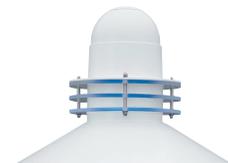


Universe® Collection Large LED – UCL

TYPE

FEATURES

- DLC QPL Listed
- Reliable, uniform, glare free illumination
- Types II, III, IV, V and custom distributions
- 3000K, 4000K, 5000K CCT
- 0-10V dimming ready
- Integral surge suppression
- LifeShield™ thermal protection
- 13 standard powder coat finishes
- Upgrade Kits



SPECIFICATIONS

The first dimension is the height of fixtures with LEDs or horizontal reflectors.
EPA for horizontal configuration only.

HOOD	NO LUMINOUS	4 LUMINOUS WINDOW (WND)	SOLID RINGS (SR)	VERTICAL SLOTS (VSL)	LUMINOUS RINGS (LUM)
Angled (ANG) DIA: 30"/760 mm	 HT: 21.4"/545 mm WT: 47 lbs EPA: 1.12	 HT: 26.7"/680 mm WT: 28.55 lbs EPA: .60	 HT: 26.7"/680 mm WT: 55 lbs EPA: 1.36	 HT: 26.7"/680 mm WT: 48 lbs EPA: 1.35	 HT: 26.7"/680 mm WT: 50 lbs EPA: 1.36
Bell (BEL) DIA: 30"/760 mm	 HT: 22"/560 mm WT: 47 lbs EPA: 1.16	 HT: 26.7"/680 mm WT: 48 lbs EPA: 1.38	 HT: 26.7"/680 mm WT: 55 lbs EPA: 1.39	 HT: 26.7"/680 mm WT: 48 lbs EPA: 1.38	 HT: 26.7"/680 mm WT: 50 lbs EPA: 1.39
Flared (FLR) DIA: 32"/810 mm	 HT: 21"/535 mm WT: 47 lbs EPA: 1.05	 HT: 26.7"/680 mm WT: 48 lbs EPA: 1.27	 HT: 26.7"/680 mm WT: 55 lbs EPA: 1.28	 HT: 26.7"/680 mm WT: 48 lbs EPA: 1.27	 HT: 26.7"/680 mm WT: 50 lbs EPA: 1.28
Skirted Bell (SKB) DIA: 32"/810 mm	 HT: 27.25"/693 mm WT: 48 lbs EPA: 1.72	 HT: 32.5"/826 mm WT: 49 lbs EPA: 1.95	 HT: 32.25"/820 mm WT: 56 lbs EPA: 1.96	 HT: 32.5"/826 mm WT: 49 lbs EPA: 1.95	 HT: 32.25"/820 mm WT: 50 lbs EPA: 1.96



Job Name:
 Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)
Catalog Number:
 UCL-WND-FLR-T3-56LED-4K-
 700-WH-FTG-PM

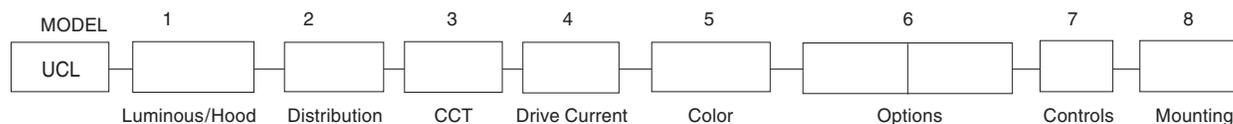
Notes:

Type:**T3-700**

INDY18-55731

Universe® Collection Large LED – UCL

TYPE

ORDERING INFORMATION**1. LUMINOUS ELEMENTS/HOOD****HOOD ONLY**
 ANG Angled
 BEL Bell
 FLR Flared
 SKB Skirted Bell
LUMINOUS & HOOD**Four Luminous Windows**
 WND-ANG
 WND-BEL
 WND-FLR
 WND-SKB
Solid Rings
 SR-ANG
 SR-BEL
 SR-FLR
 SR-SKB
Vertical Slots
 VSL-ANG
 VSL-BEL
 VSL-FLR
 VSL-SKB
Luminous Rings
 LUM-ANG
 LUM-BEL
 LUM-FLR
 LUM-SKB
Luminous Rings Color Option
 BLU (Blue inner lens)
 RD (Red inner lens)
 GRN (Green inner lens)
2. DISTRIBUTION**MicroCore Precision aimed optics**
 T2-56LED
 T3-56LED
 T4-56LED
 T5-56LED
 TL-56LED
 TR-56LED
3. COLOR TEMPERATURE

3K 4K 5K

4. DRIVE CURRENT

700 450

5. COLOR Standard Color

WH	Arctic White
BL	Black
BLT	Matte Black
DB	Dark Bronze
DGN	Dark Green
TT	Titanium
WDB	Weathered Bronze
MDB	Bronze Metallic
VB	Verde Blue
CRT	Corten
MAL	Matte Aluminum
MG	Medium Grey
AGN	Antique Green
LG	Light Grey

Premium Color

SHK	Shamrock
SPP	Salt and Pepper
SFM	Seafoam
WCP	Weathered Copper
RAL	RAL 4 digit Color
CUSTOM	Custom Color

6. OPTIONS
HOOD OPTIONS – May choose one
 (The natural copper and stainless steel hoods are unfinished to develop a patina over time.)

 COP (Copper)
 STS (Stainless steel)
LENS OPTIONS – May choose one
 FTG (Clear flat glass lens)
 HSS (House Side shield for Type 4)
 FLD (Lightly diffused finish on flat glass lens)
OTHERS

SLC (Luminous element remains unlit during normal operation)

7. CONTROL

PCA-C (Rotatable photocell-Contemporary)

 SCP (Sensor Control Programmable) pole accessory is available to provide occupancy detection for outdoor applications meeting California Title 24. For complete spec sheet and ordering information, visit www.aal.net/products/sensor_control_programmable/
8. MOUNTING – Must choose one

POLE MOUNT	SLA3	SLA4
	SLA4-2	SLA7
	SLA7-2	SLA7(5)
	SLA7(5)-2	SLA8D
	SLA9	SLA9-2
	SLA10	SLA10-2
	SLA16	SLA16-2
	SLA17	SLA17-2
	SLA17(5)	SLA17(5)-2
	SLA18	SLA18-2
	SLA20	SLA20-2
	SLA20A	SLA20A-2
	SLA20B	SLA20B-2
	SLA20C	SLA20C-2
	SLA20D	SLA20D-2
	SLA22D	SLA24
	SLA24-2	SLA24(5)
	SLA24(5)-2	TRA4
	TRA7	TRA7-2
	TRA8	TRA8-2
	TRA9	TRA9-2

WALL MOUNT

WMA4	WMA5
WMA6	WMA8
WMA9D	WMA10
WMA11	WMA12
WMA16	WMA17
WMA18	WMA20
WMA22D	WMA24
WMA37	WMA38
WMA39	

 Visit www.aal.net for Arms, Poles & Accessories Specification Guide
MOD - POST TOP MOUNT

Universe® Collection Large LED – UCL

TYPE

LUMINAIRE PERFORMANCE

Optical System	Secondary Lens or Shield	Distribution	Light Engine	Ordering Code									Drive Current (ma)	System Watts						
				3K			4K			5K										
				Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating	Delivered Lumens	Efficacy (lm/w)	Bug Rating								
MicroCore	No Lens (Standard)	TYPE 2	T2-56LED	8103	62	2	0	2	9636	74	2	0	2	10950	84	3	0	3	700	132
		TYPE 3	T3-56LED	7976	61	2	0	2	9486	73	2	0	2	10779	83	2	0	2		
		TYPE 4	T4-56LED	7919	61	1	0	2	9397	72	1	0	2	10702	82	1	0	3		
		TYPE 5	T5-56LED	8398	65	3	0	2	9724	75	3	0	2	11050	85	4	0	2		
		45° LEFT	TL-56LED	7560	58	1	0	2	9053	70	1	0	2	9949	77	1	0	2		
		45° RIGHT	TR-56LED	7560	58	1	0	2	9053	70	1	0	2	9949	77	1	0	2		
	House Side Shield	TYPE 4	T4-56LED-...HSS	5761	44	0	0	2	6797	52	0	0	2	7604	58	0	0	2	450	84
		TYPE 2	T2-56LED	5189	62	2	0	2	6167	74	2	0	2	7008	84	2	0	2		
	No Lens (Standard)	TYPE 3	T3-56LED	5105	61	1	0	2	6071	73	1	0	2	6898	83	2	0	2		
		TYPE 4	T4-56LED	5068	61	1	0	2	6014	72	1	0	2	6850	82	1	0	2		
		TYPE 5	T5-56LED	5375	64	3	0	1	6223	74	3	0	1	7072	85	3	0	2		
		45° LEFT	TL-56LED	4839	58	1	0	2	5794	69	1	0	2	6367	76	1	0	2		
		45° RIGHT	TR-56LED	4839	58	1	0	2	5794	69	1	0	2	6367	76	1	0	2		
	House Side Shield	TYPE 4	T4-56LED-...HSS	3687	44	0	0	2	4090	49	0	0	2	4839	58	0	0	2		

* DesignLights Consortium® Qualified Product


ELECTRICAL CHARACTERISTICS

Optical System	Ordering Code	Driver									Dimming						
		LED Drive mA	System Watts	Line Voltage		Amps AC		Min. Power Factor	Max THD (%)	Operating Temp. Range	Dimming Range	Source current out of 0-10V purple wire			Absolute voltage range on 0-10V (+) purple wire		
				VAC	HZ	120	277					Min	Typical	Max	Min	Typical	Max
MicroCore	56LED	700	132	120-277	50/60	1.1	0.48	≥ 9	20	-30°C TO +40°C	10% TO 100%	0 MA	-	8 mA	-2.0V	-	+15 V
	450	84	0.71			0.31											

LED COLOR

Consult factory for Amber, Turtle Friendly, Gulf Coast and Observatory applications.

	Ordering Code		
	3K	4K	5K
CRI Minimum	≥ 80	≥ 70	≥ 70
S/P Ratio	1.33	1.66	1.78

TM-21 LIFETIME CALCULATION

Optical System	Ordering Code	Ambient Environment °C	Projected Lumen Maintenance (% vs. Khrs)					Reported L70
			15	25	50	60	100	
MicroCore	56LED	15	93	91	87	85	78	>60Khrs
		25	93	91	87	85	78	

Job Name:

Logan Street Bridge
 Architect: Butler Fairman & Seufert Inc
 (Indianapolis)

Catalog Number:

UCL-WND-FLR-T3-56LED-4K-
 700-WH-FTG-PM

Notes:

Type:**T3-700**

INDY18-55731

Universe® Collection Large LED – UCL

TYPE

SPECIFICATIONS**HOUSING**

- All housing components shall be die-cast aluminum, sealed with continuous silicone rubber gaskets.
- Hood and spacers shall be heavy gauge spun aluminum with hemmed edges for added rigidity.
- Luminous rings shall be clear acrylic with an internal lens.
- Standard configurations do not require a flat lens, optional lenses shall be tempered glass
- All internal and external hardware shall be stainless steel.
- Optical bezel finish shall match the luminaire housing.

OPTICAL

- Patent pending MicroCore™ LED modules shall independently aim each light emitting diode (LED) in both horizontal rotation and vertical tilt angle.
- LEDs shall be mounted to a metal printed circuit board assembly (PCBA) with a uniform conformal coating over the panel surface and electrical features.
- LED optics shall be clear injection molded PMMA acrylic.
- MicroCore™ PCBA and optic shall be sealed to a die-cast anodized aluminum heat sink with an injection molded silicone rubber gasket. IP66.
- Type 4 distribution with optional House Side Shield not available with clear or diffused glass lenses. Factory installed House Side Shield is optimized for Type 4 distribution and not recommended for use with Type 2 or 3 distribution and not available with type 5 distribution.

ELECTRICAL

- Luminaires shall have integral surge protection that shall be U.L. recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J.
- Drivers shall be U.L. recognized with an inrush current maximum of <20.0 Amps maximum at 230VAC.
- Drivers shall not be compatible with current sourcing dimmers, consult factory for current list of known compatible dimming systems, approved dimmers include Lutron Diva AVTV, Lutron Nova NFTV and NTFTV.
- LifeShield™ shall be provided with all configurations for added protection in the event of abnormally excessive high ambient temperature conditions.

CONTROLS

- SCP shall have an integral surge protection device with a current rating of 10,000 Amps using the industry standard 8/20uSec wave and surge rating of 372J
- Sensor not intended for use with additional photo-control, wireless control or dimming systems.

PHOTOCELL / EGRESS ADAPTERS

- Adapter(s) shall slip over a 4"/100mm DIA. pole with the luminaire or arm slipping over the adapter to add a total of 4.5"/114mm to the overall height. Adapter(s) shall be prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard.
- Photocell adapter shall include an internal twist lock receptacle. Photocell by others.
- Egress adapter shall require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter shall have a socket that accepts miniature bi-pin MR16 lamps up to 50 watts, lamp by others.

SERVICING

- Luminaire shall have tool-less service access to the gear compartment. Driver and surge suppressor shall be mounted to a prewired tray with quick disconnects that may be removed from the gear compartment.

ARM MOUNTING

- Luminaire shall be attached to the arm assembly with three stainless steel bolts. The connection shall be sealed with a silicone compression gasket.
- Post top arms and brackets shall slip over a 4"/100mm O.D. or a 5"/127mm as configured and secured with six stainless steel set screws.
- Wall mounted arms and brackets shall require mounting hardware by others.

FINISH

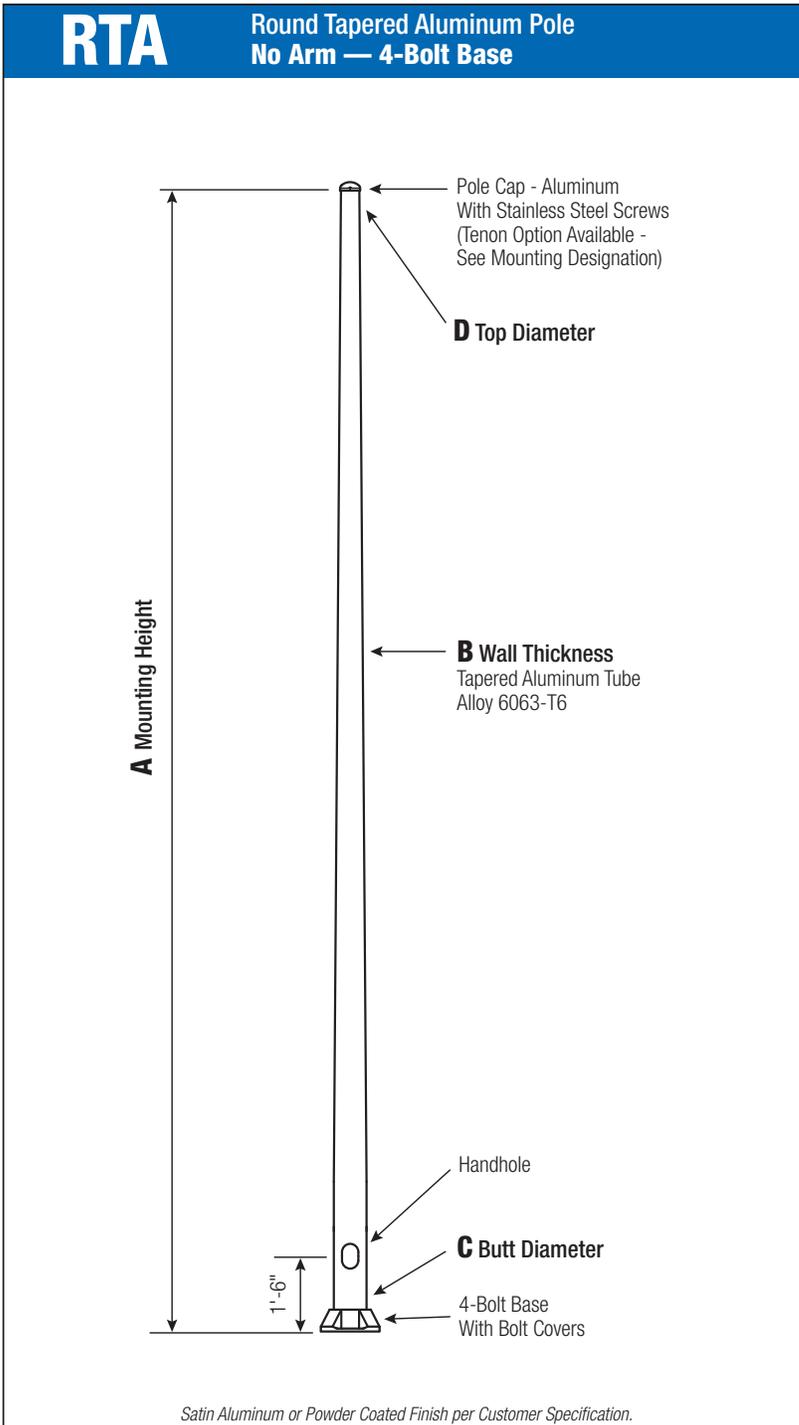
- Luminaire finish shall consist of a five stage pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish.
- Luminaire finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

CERTIFICATION

- Luminaire shall be listed with ETL for outdoor, wet location use, UL1598, UL 8750 and Canadian CSA Std. C22.2 no.250.

WARRANTY / TERMS AND CONDITIONS OF SALE

Download:
<http://www.hubbelling.com/resources/warranty/>



Satin Aluminum or Powder Coated Finish per Customer Specification.

C BUTT DIA.	D TOP DIA.	F BOLT CIR. DIA.	G BASE SQ.	H BOLT PROJ.	I BOLT SIZE
4	3	6.5 - 8	7.5	2	.75 x 17 x 3
5	3	7.5 - 8	7.5	2	.75 x 17 x 3
6	4.5	9 - 10	9.75	2.75	.75 x 30 x 3*
7	4.5	10 - 11	10.5	2.75	1 x 36 x 4
8	4.5	11 - 12	11.25	2.75	1 x 36 x 4
9	4.5	12.5 - 14	12.75	2.75	1 x 36 x 4
10 Up To .250"	6	14 - 15	14	3.25	1 x 48 x 4
10 .312"	6	14 - 15	14	3.25	1.25 x 48 x 6

*1" x 36" x 4" Anchor Bolts can be specified for 6" butt diameter poles.

Dimensions in Inches

Pole
The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base weld to produce a T6 temper.

Base Style
4-Bolt Cast Aluminum Base Flange of Alloy 356-T6 with Aluminum Bolt Covers (Alloy 356-F) and Stainless Steel Hex Head Attaching Screws.

Handhole
4"-5" Butt Diameters - 2" x 4" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC hole is provided.
6" Butt Diameter - Reinforced, 3" x 5" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. A Grounding Provision incorporating a 3/8" diameter hole is provided opposite the Handhole.
7"+ Butt Diameters - Reinforced, 4" x 6" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. Reinforced Frame will contain a tapped 3/8"-16NC Grounding Provision.

Anchorage
Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. Ten inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.

Vibration Damper
When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

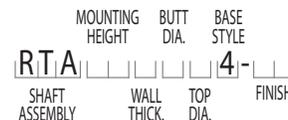
Mounting Designation
Side Drill Mount
For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.

Tenon Mount - Welded or Spun
For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.

A MTG. HGT.	B WALL THICKNESS	C BUTT DIAMETER	TOTAL LUM. WEIGHT	MAXIMUM EPA					OLD CAT. NUMBER	CATALOG NUMBER
				90	100	110	120	130		
06	0.125"	4	100	17.6	14.2	13.2	11.0	9.2	78-001	RTA06B4A4-**
08	0.125"	4	100	11.8	9.4	8.6	7.0	5.8	78-002	RTA08B4A4-**
08	0.188"	4	100	17.2	13.8	12.8	10.6	8.8	78-015	RTA08D4A4-**
10	0.125"	4	75	8.4	6.6	6.0	4.8	4.0	78-003	RTA10B4A4-**
10	0.188"	4	100	12.6	10.0	9.2	7.4	6.2		RTA10D4A4-**
10	0.125"	5	100	16.6	13.0	12.2	10.0	8.2	78-012	RTA10B5A4-**
10	0.188"	5	100	24.6	19.6	18.2	15.2	12.6		RTA10D5A4-**
12	0.125"	4	50	6.4	4.8	4.4	3.4	2.6	78-004	RTA12B4A4-**
12	0.188"	4	85	9.6	7.4	6.8	5.6	4.4	78-018	RTA12D4A4-**
12	0.125"	5	100	12.6	10.0	9.2	7.4	6.0	78-009	RTA12B5A4-**
12	0.156"	5	100	16.0	12.6	11.6	9.6	7.8	78-009W3	RTA12C5A4-**
12	0.188"	5	100	19.2	15.2	14.2	11.6	9.6	78-009W4	RTA12D5A4-**
14	0.125"	4	25	4.8	3.6	3.2	2.4	1.8	78-005	RTA14B4A4-**
14	0.188"	4	60	7.6	5.8	5.2	4.0	3.2	78-019	RTA14D4A4-**
14	0.125"	5	90	10.0	7.6	7.0	5.6	4.4	78-010	RTA14B5A4-**
14	0.156"	5	100	12.8	9.8	9.0	7.4	6.0	78-021	RTA14C5A4-**
14	0.188"	5	100	15.4	12.0	11.2	9.0	7.4	78-022	RTA14D5A4-**
16	0.188"	4	35	6.0	4.4	4.0	3.0	2.2	78-027	RTA16D4A4-**
16	0.125"	5	60	8.0	6.0	5.4	4.2	3.2	78-011	RTA16B5A4-**
16	0.156"	5	85	10.2	7.8	7.2	5.6	4.6	78-029	RTA16C5A4-**
16	0.156"	5	90	9.8	7.4	6.6	5.2	4.4	51-002S48	RTA16C5B4-**
16	0.188"	5	100	12.6	9.8	9.0	7.2	5.8	78-030	RTA16D5A4-**
16	0.188"	6	100	24.2	19.0	17.6	14.6	12.2		RTA16D6B4-**
18	0.125"	5	40	6.4	4.6	4.2	3.0	2.2	78-007	RTA18B5A4-**
18	0.156"	5	60	8.2	6.2	5.6	4.2	3.4	78-031	RTA18C5A4-**
18	0.188"	5	85	10.2	7.8	7.0	5.4	4.4	78-032	RTA18D5A4-**
18	0.156"	6	100	16.2	12.4	11.6	9.4	7.8		RTA18C6B4-**
18	0.188"	6	100	20.0	15.6	14.4	11.8	10.0		RTA18D6B4-**
18	0.156"	7	100	24.0	18.8	17.4	14.4	12.0		RTA18C7B4-**
20	0.125"	5	30	5.0	3.4	3.0	2.0	1.4	78-008	RTA20B5A4-**
20	0.156"	5	40	6.6	4.8	4.2	3.2	2.2	78-033	RTA20C5A4-**
20	0.188"	5	55	8.4	6.2	5.6	4.2	3.2		RTA20D5A4-**
20	0.125"	6	85	10.0	7.4	6.8	5.4	4.4	51-001	RTA20B6B4-**
20	0.156"	6	100	13.2	10.0	9.2	7.4	6.2	51-002	RTA20C6B4-**
20	0.188"	6	100	16.6	12.8	11.8	9.6	8.0	51-003	RTA20D6B4-**
20	0.156"	7	100	20.2	15.6	14.4	11.8	10.0	51-004	RTA20C7B4-**
20	0.188"	7	100	24.8	19.6	18.0	14.8	12.4	51-005	RTA20D7B4-**
20	0.156"	8	100	28.0	22.2	20.6	17.0	14.2	51-006	RTA20C8B4-**
20	0.188"	8	100	34.4	27.2	25.4	21.0	17.6	51-007	RTA20D8B4-**
25	0.156"	6	60	8.0	5.6	5.0	4.0	3.2	51-062	RTA25C6B4-**
25	0.188"	6	85	10.4	7.6	7.0	5.4	4.4	51-063	RTA25D6B4-**
25	0.156"	7	100	13.0	9.8	9.0	7.2	5.8	51-064	RTA25C7B4-**
25	0.188"	7	100	16.6	12.8	11.6	9.4	7.8	51-065	RTA25D7B4-**
25	0.156"	8	100	19.0	14.8	13.6	11.0	9.2	51-066	RTA25C8B4-**
25	0.188"	8	100	23.8	18.6	17.2	14.0	11.8	51-067	RTA25D8B4-**
25	0.219"	8	100	28.4	22.2	20.6	17.0	14.2	51-068	RTA25E8B4-**
25	0.250"	8	100	32.8	25.8	24.0	19.8	16.6	51-069	RTA25F8B4-**
25	0.156"	9	100	25.8	20.2	18.8	15.4	13.0		RTA25C9B4-**
25	0.156"	10	100	33.6	27.0	25.0	20.8	17.4		RTA25C1C4-**
30	0.156"	7	60	8.4	5.8	5.2	4.0	3.0	51-124	RTA30C7B4-**
30	0.188"	7	90	11.0	8.0	7.2	5.6	4.6	51-125	RTA30D7B4-**
30	0.156"	8	100	13.0	9.6	8.8	7.0	5.6	51-126	RTA30C8B4-**
30	0.188"	8	100	16.8	12.6	11.6	9.4	7.6	51-127	RTA30D8B4-**
30	0.219"	8	100	20.4	15.6	14.4	11.6	9.6	51-128	RTA30E8B4-**
30	0.250"	8	100	23.8	18.4	17.0	13.8	11.6	51-129	RTA30F8B4-**
30	0.188"	9	100	23.2	18.0	16.6	13.6	11.4	51-131	RTA30D9B4-**
30	0.250"	9	100	32.4	25.6	23.6	19.6	16.4	51-133	RTA30F9B4-**
30	0.188"	10	100	30.8	24.4	22.8	18.8	15.8	51-139	RTA30D1C4-**
30	0.250"	10	100	42.4	33.8	31.6	26.2	22.0	51-141	RTA30F1C4-**
35	0.156"	8	55	8.6	6.0	5.4	4.0	3.0	51-186	RTA35C8B4-**
35	0.188"	8	90	11.6	8.4	7.6	5.8	4.6	51-187	RTA35D8B4-**
35	0.219"	8	100	14.4	10.8	9.8	7.6	6.2	51-188	RTA35E8B4-**
35	0.250"	8	100	17.4	13.0	12.0	9.6	7.8	51-189	RTA35F8B4-**
35	0.188"	9	100	16.8	12.8	11.6	9.4	7.6	51-191	RTA35D9B4-**
35	0.250"	9	100	24.4	19.0	17.4	14.2	11.8	51-193	RTA35F9B4-**
35	0.188"	10	100	23.0	18.2	16.8	13.8	11.4	51-199	RTA35D1C4-**
35	0.219"	10	100	27.8	22.0	20.4	16.8	14.0	51-200	RTA35E1C4-**
35	0.250"	10	100	32.6	25.8	24.0	19.8	16.6	51-201	RTA35F1C4-**
35	0.312"	10	100	41.8	33.4	31.0	25.6	21.6	51-202	RTA35G1C4-**
40	0.188"	8	40	7.8	5.2	4.6	3.2	2.4	51-247	RTA40D8B4-**
40	0.219"	8	70	10.0	7.0	6.2	4.6	3.6	51-248	RTA40E8B4-**
40	0.250"	8	95	12.4	8.8	8.0	6.2	4.8	51-249	RTA40F8B4-**
40	0.188"	9	95	11.8	8.6	7.8	6.0	4.8	51-251	RTA40D9B4-**
40	0.250"	9	100	18.2	13.8	12.6	10.2	8.2	51-253	RTA40F9B4-**
40	0.188"	10	100	17.0	13.2	12.2	9.8	8.0	51-259	RTA40D1C4-**
40	0.219"	10	100	21.2	16.6	15.4	12.4	10.2	51-260	RTA40E1C4-**
40	0.250"	10	100	25.2	19.8	18.4	15.0	12.4	51-261	RTA40F1C4-**
40	0.312"	10	100	33.0	26.2	24.2	20.0	16.6	51-262	RTA40G1C4-**

Catalog Number System

The catalog number for Hapco poles utilizes the following identification system.



Catalog Number Example -

RTA 30 D 8 B 4 - 01

Round Tapered Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, 4.5" Top Diameter, 4-Bolt Base, Satin Aluminum Finish

Wall Thickness

- B = .125"
- C = .156"
- D = .188"
- E = .219"
- F = .250"
- G = .312"

Butt Diameter

- 4 = 4"
- 5 = 5"
- 6 = 6"
- 7 = 7"
- 8 = 8"
- 9 = 9"
- 1 = 10"

Top Diameter

- A = 3"
- B = 4.5"
- C = 6"

Base Style

- 4 = 4-Bolt Base

Finish

- O1 = Satin Aluminum
- BA = Black Powder Coat
- BH = White Powder Coat
- BM = Dark Bronze Powder Coat
- BV = Dark Green Powder Coat
- GC = Gray Powder Coat
- ** = Specify Finish

EPA Notes:

Effective Projected Area (EPA) in square feet. EPA's calculated using wind velocity (mph) indicated in accordance with 2009 AASHTO LTS-5 using a 25 year design life. Maximum EPA is based on the luminaire weight shown. Increased luminaire weight may reduce the maximum EPA. If weight is exceeded, or if other design life or code is required, please consult the factory.