

# JOINT PUBLIC NOTICE

January 18, 2016

United States Army  
Corps of Engineers  
New Orleans District  
Regulatory Branch  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

(504) 862-1564

[Stephanie.L.Castaing@usace.army.mil](mailto:Stephanie.L.Castaing@usace.army.mil)

Project Manager  
Stephanie Castaing  
Permit Application Number  
MVN 2008-3657-EPP

State of Louisiana  
Department of Environmental Quality  
ATTN: Water Quality Certifications  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

(225) 219-3225

Project Manager  
Elizabeth Hill  
WQC Application Number  
WQC 160112-05

Interested parties are hereby notified that a permit application has been received by the New Orleans District of the U.S. Army Corps of Engineers pursuant to: [X] Section 10 of the Rivers and Harbors Act of March 3, 1899 (30 Stat. 1151; 33 USC 403); and/or [X] Section 404 of the Clean Water Act (86 Stat. 816; 33 USC 1344).

Application has also been made to the Louisiana Department of Environmental Quality, Water Quality Certifications, for a Water Quality Certification (WQC) in accordance with statutory authority contained in LRS30:2047 A(3), and provisions of Section 401 of the Clean Water Act (P.L.95-17).

## **REMOVAL AND REPLACEMENT OF ACCESS RAMP IN ST. BERNARD PARISH**

**NAME OF APPLICANT:** St. Bernard Parish Government, c/o Burk-Kleinpeter, Inc., 4176 Canal Street, New Orleans, Louisiana 70119.

**LOCATION OF WORK:** The project is located on the left descending bank of the Mississippi River, at about 88.3 miles above Head of Passes, in Meraux, Louisiana, in St. Bernard Parish, as shown on the attached drawings.

Latitude: 29.92695/Longitude: -89.959472 Hydrologic Unit Codes: 08090100 Lower Mississippi-New Orleans.

**CHARACTER OF WORK:** Removal and replacement of an existing raw water in-take access ramp. The new 878.6' x 9.5' ramp will be constructed within the same footprint as the ramp being removed. Project implementation includes removal of all shrubs and limbs at the existing grade level and hauled to a non-wet location at the north end of the property. All other cleared and grubbed material will be loaded onto trucks and hauled to a landfill. Approximately 0.6 acre of jurisdictional wetlands will be temporarily impacted by the proposed activities. All matting within the work area shall be removed at the end of construction. The applicant maintains that jurisdictional wetlands will be temporarily impacted and vegetation will restore once construction is completed thus, no compensatory mitigation is anticipated.

The comment period for the Department of the Army Permit and the Louisiana Department of Environmental Quality WQC will close **20 days** from the date of this joint public notice. Written comments, including suggestions for modifications or objections to the proposed work, stating reasons thereof, are being solicited from anyone having interest in this permit and/or this WQC request and must be mailed so as to be received before or by the last day of the comment period. Letters concerning the Corps of Engineers permit application must reference the applicant's name and the Permit Application Number, and be mailed to the Corps of Engineers at the address above, **ATTENTION: REGULATORY BRANCH**. Similar letters concerning the Water Quality Certification must reference the applicant's name and the WQC Application number and be mailed to the Louisiana Department of Environmental Quality at the address above. Individuals or parties may request an extension of time in which to comment on the proposed work by writing or e-mailing the Corps of Engineers Project Manager listed above. Any request must be specific and substantively supportive of the requested extension, and received by this office prior to the end of the initial comment period. The Section Chief will review the request and the requestor will be promptly notified of the decision to grant or deny the request. If granted, the time extension will be continuous to the initial comment period and, inclusive of the initial comment period, will not exceed a total of 30 calendar days.

The application for this proposed project is on file with the Louisiana Department of Environmental Quality and may be examined during weekdays between 8:00 a.m. and 4:30 p.m. Copies may be obtained upon payment of costs of reproduction.

### **Corps of Engineers Permit Criteria**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public, federal, state, and local agencies and officials, Indian Tribes, and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the U.S. Army Corps of Engineers to determine whether to make, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

The New Orleans District is unaware of properties listed on the National Register of Historic Places near the proposed work. The possibility exists that the proposed work may damage or destroy presently unknown archeological, scientific, prehistorical, historical sites, or data. Issuance of this public notice solicits input from the State Archeologist and State Historic Preservation Officer regarding potential impacts to cultural resources.

Our initial finding is that the proposed work will result in no effect on any threatened or endangered species. Concurrence has been received from the US Fish and Wildlife Service per the Standard Local Operating Procedure for Endangered Species in Louisiana, dated October 22, 2014.

Our initial finding is that the proposed work would not affect any species, nor affect any habitat designated as critical to the survival and recovery of such species, listed as endangered by the U.S. Department of Commerce.

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal would result in the destruction or alteration of **0.6** acres of EFH utilized by various life stages of red drum and penaeid shrimp. Our initial determination is that the proposed action would not have a substantial adverse impact on EFH or federally managed fisheries in the Gulf of Mexico. Our final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the National Marine Fisheries Service.

If the proposed work involves deposits of dredged or fill material into navigable waters, the evaluation of the probable impacts will include the application of guidelines established by the Administrator of the Environmental Protection Agency. Also, a certification that the proposed activity will not violate applicable water quality standards will be required from the Department of Environmental Quality, Water Quality Certifications, before a permit is issued.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

The applicant has certified that the proposed activity described in the application complies with and will be conducted in a manner that is consistent with the Louisiana Coastal Resources Program. The Department of the Army permit will not be issued unless the applicant received approval or a waiver of the Coastal Use Permit by the Department of Natural Resources.

You are requested to communicate the information contained in this notice to any other parties whom you deem likely to have interest in the matter.

Michael V. Farabee  
Chief, Eastern Evaluation Section

Enclosure

**INDEX TO SHEETS**

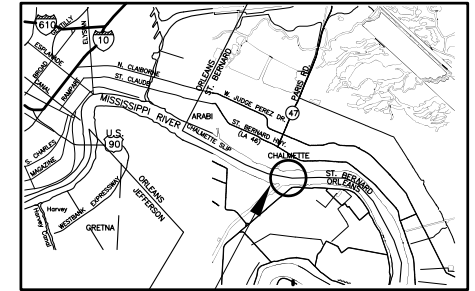
| SHEET NO.                   | DESCRIPTION                                |
|-----------------------------|--|
| 1.0                         | PROJECT LOCATION & DRAWING INDEX           |
| 2.0                         | GENERAL NOTES                              |
| 2.1                         | SUMMARY OF QUANTITIES                      |
| C1.0                        | TOPOGRAPHIC SURVEY                         |
| C2.0                        | DEMOLITION PLAN                            |
| C3.0                        | DEMOLITION SECTION                         |
| C4.0                        | PROJECT LAYOUT PLAN                        |
| C5.0                        | PLAN AND ELEVATION                         |
| C6.0                        | PLAN AND ELEVATION                         |
| C7.0                        | PLAN AND ELEVATION                         |
| C7.1                        | PLAN AND ELEVATION                         |
| C8.0                        | BRIDGE SPANS DETAILS                       |
| C9.0                        | BRIDGE SPANS DETAILS                       |
| C10.0                       | BRIDGE SPANS DETAILS                       |
| C11.0                       | BRIDGE SPANS DETAILS                       |
| C12.0                       | BRIDGE SPANS DETAILS                       |
| C13.0                       | MISCELLANEOUS DETAILS                      |
| E1.0                        | PANEL SCHEDULE & LIGHTING FIXTURE SCHEDULE |
| E2.0                        | LIGHTING PLAN                              |
| TOTAL NUMBER OF SHEETS = 18 |  |

# ST. BERNARD PARISH GOVERNMENT

## FEMA PW 16844 ST. BERNARD PARISH RAW WATER INTAKE ACCESS BRIDGE



BKI JOB NO.14.044



PROJECT FEMA PW 16844

### VICINITY MAP (N.T.S.)

PLANS PREPARED BY AND  
RECOMMENDED FOR APPROVAL :

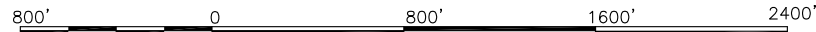
BURK-KLEINPETER, INC.

DATE : \_\_\_\_\_



**LOCATION MAP**

PROJECT LOCATION



SCALE: 1"=800'

90% REVIEW ONLY

**1. DESIGN SPECIFICATIONS**

STRUCTURE DESIGN IS IN ACCORDANCE WITH LOAD FACTOR BRIDGE DESIGN.

**2. DESIGN CRITERIA**

THE ELEVATED CONCRETE SLAB IS DESIGNED TO SATISFY BOTH SERVICE LOAD DESIGN METHOD AND LOAD FACTOR DESIGN METHOD. THE ALLOWABLE COMPRESSIVE STRESS IN CONCRETE AT SERVICE LOAD ( $f_c$ ) IS MODIFIED TO  $0.375 f_c$ .

**3. DESIGN LOADS:**

**DEAD LOADS:**

THE STRUCTURE IS DESIGNED FOR THE SELF-WEIGHT OF THE ENTIRE STRUCTURE INCLUDING GUARDRAILS AND LIGHT POLES.

**LIVE LOADS:**

THE STRUCTURE IS DESIGNED FOR THE VEHICULAR TRAFFIC LIVE LOADING: HS-10.

**4. CONSTRUCTION SPECIFICATIONS:**

CONSTRUCTION SHALL BE IN ACCORDANCE WITH "THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, OFFICE OF HIGHWAYS" "STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES", 2006, (LADOTD BLUE BOOK) EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

**5. ELEVATIONS:**

ALL ELEVATIONS ARE BASED ON NAD 83 (2011), 2010.0000 EPOCH REF. REFER TO PROJECT BENCH MARK FOR INFORMATION.

**6. DIMENSIONS:**

ALL DIMENSIONS ARE HORIZONTAL UNLESS OTHERWISE NOTED ON PLANS, AND MEASURED AT NORMAL TEMPERATURE (68 F).

**7. YEAR PLATE:**

DATE OF CONSTRUCTION IS REQUIRED AT RIGHT SIDE OF STRUCTURES, SEE STANDARD PLAN YP-01.

**8. CONCRETE:**

UNLESS NOTED OTHERWISE, CONCRETE SHALL BE CLASS A(M) PER SECTION 805 OF LADOTD SPECIFICATIONS WITH A MIN. 28 DAYS COMPRESSIVE STRENGTH  $f'_c = 4,700$  PSI (SEE TECH. SPECS.)

ALL SUPERSTRUCTURE CONCRETE TO BE CLASS "AA(M)", ALL PRECAST PRESTRESSED MEMBERS TO BE CLASS "P" OR "P(M)" CONCRETE UNLESS OTHERWISE SPECIFIED IN THE PLANS. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4" EXCEPT ALL CORNERS OF BENTS WHICH SHALL BE CHAMFERED 1 1/2" UNLESS OTHERWISE NOTED. NO DEDUCTIONS ARE TO BE MADE IN CONCRETE QUANTITIES FOR CHAMFERS 1 1/2" OR LESS.

**9. STRUCTURAL METALWORK:**

UNLESS OTHERWISE INDICATED IN THE PLANS, ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL SHALL BE STRUCTURAL CARBON STEEL IN ACCORDANCE WITH ASTM A36. ANY NECESSARY SUBSTITUTION MUST HAVE PRIOR APPROVAL OF THE PROJECT ENGINEER.

ALL SQUARE HOLLOW STRUCTURAL STEEL SECTIONS SHALL HAVE A MINIMUM YIELD STRENGTH  $F_y=46$  KSI AS SPECIFIED IN ASTM A 500 STANDARD GRADE B.

ALL STEEL PIPE SHALL BE ASTM A53. ALL STEEL PIPE SHALL BE SCHEDULE 40 THICKNESS UNLESS OTHERWISE NOTED.

**10. PILES:**

ALL PILE REQUIREMENTS INCLUDING SIZE, TYPE AND MAXIMUM DESIGN LOAD SHALL BE AS DESCRIBED ON THE PLANS OR IN THE SPECIAL PROVISIONS.

**TREATED TIMBER PILE:**

CLASS "B" TREATED TIMBER PILE, 12" # BUTT, 7" TIP (60' LONG) 8 TONS 5.5 TONS

THE CONTRACTOR SHALL PROVIDE A TEST PILES AND THE TEST PILE PROGRAM IN ACCORDANCE WITH THE SPECIFICATIONS AT THE LOCATIONS SHOWN ON THE PLANS.

TIMBER PILES SHALL MET AND BE TREATED IN ACCORDANCE WITH SECTION 1014 OF THE LADOTD BLUE BOOK SPECIFICATIONS.

**11. PRECAST BRIDGE PANELS:**

- A. DESIGN & MANUFACTURE OF PRECAST CONCRETE MEMBERS SHALL BE BY WASKEY BRIDGES, INC. OR APPROVED EQUAL ALTERNATE DESIGN. FABRICATION TRANSFER AND ERECTION SHALL CONFORM TO THE LATEST ACI AND PCI CODES AND ACI HANDBOOK.
- B. DESIGN CALCULATIONS AND SHOP DRAWINGS ARE TO BE PREPARED AND SEALED BY PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF LOUISIANA. SHALL BE A CURRENT SUBMITTED TOGETHER TO THE PROJECT ENGINEER FOR REVIEW. FABRICATE FROM APPROVED DRAWINGS ONLY. INCLUDE REQUIRED STRENGTH OF ANY STRUCTURAL TOPPING, CAMBER PER MANUFACTURER'S RECOMMENDATIONS IS SUBJECT TO APPROVAL BY THE PROJECT ENGINEER. CAMBERS MUST BE SHOWN ON SHOP DRAWINGS.
- C. THE PRECAST DESIGNER SHALL DESIGN, FURNISH AND INSTALL ALL CONNECTIONS AND HEADERS REQUIRED TO ATTACH PRECAST MEMBERS; UNLESS NOTED OTHERWISE ON THE DRAWINGS. PRECASTER SHALL FURNISH ALL OPENINGS, BLOCKOUTS, INSERTS ETC. REQUIRED IN THE PRECAST MEMBERS. REINFORCE ENDS OF MEMBERS TO PREVENT CRACKING DUE TO VOLUME CHANGES.

**12. WELDING:**

WELDING OF ALL STRUCTURAL STEEL AND STEEL PIPE SHALL CONFORM TO AWS PUBLICATION D1.1 "STRUCTURAL WELDING CODE".

ALL WELDS THAT ARE TO BE MADE ON ANY STRUCTURAL STEEL MEMBERS SHALL BE ONLY AS SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS, AND SUBJECT TO APPROVAL BY THE DESIGN ENGINEER. "ALL WELDS" IS DEFINED AS ANY WELD PLACED FROM INITIATION OF FABRICATION TO FINAL ACCEPTANCE INCLUDING FABRICATION, TRANSPORTATION, ERECTION AND CONSTRUCTION. ALL WELDS SHALL BE CONTINUOUS.

**13. REINFORCING STEEL:**

DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR. THE MINIMUM COVERING FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY DEFORMED REINFORCING BAR SHALL NOT BE LESS THAN THE FOLLOWING:

TOP OF SLAB= 2";  
BOTTOM OF SLAB= 1".  
NO EPOXY COATED STEEL IS REQUIRED ON THIS PROJECT.

REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH ( $F_y$ ) OF 60,000 PSI & MEET ASTM A615.

ALL BENDS OF REINFORCEMENT AND ALL BAR SPACERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SP-66, AMERICAN CONCRETE INSTITUTE DETAILING MANUAL-1994

REINFORCING BAR DESIGNATION NUMBERS CONFORM TO THE NUMBERING SYSTEM OF THE CONCRETE REINFORCING STEEL INSTITUTE. REINFORCING BARS SHALL BE CONTINUOUS AT ALL CORNERS UNLESS OTHERWISE NOTED. REINFORCEMENT, WHERE NECESSARY TO AVOID OPENING, PIPES, EMBEDDED ITEMS AND OTHER OBSTRUCTIONS, SHALL BE BENT OR SHIFTED AS DIRECTED BY THE PROJECT ENGINEER.

**14. BOLTED CONNECTIONS:**

ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS CONFORMING TO ASTM A-325. ALL BOLTS, NUTS & WASHERS SHALL BE HOT DIP GALVANIZED.

BOLT SPACING SHALL BE IN ACCORDANCE WITH DESIGN DRAWINGS, SHOP DRAWINGS, AND THE REQUIREMENTS OF DESIGN SPECIFICATIONS, UNLESS OTHERWISE SHOWN.

BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER HIGH STRENGTH BOLTS. ONE STANDARD OR LOCKING WASHER WILL BE REQUIRED BENEATH THE TURNING ELEMENT. BOLTED CONNECTIONS ARE DESIGNED AS FRICTION TYPE. ALL STEEL SHALL BE SO POSITIONED IN THE MEMBERS OR SPLICE PLATES SO AS TO PLACE THE DIRECTION OF FINISH ROLLING PARALLEL TO THE DIRECTION OF PRIMARY STRESS.

**15. GALVANIZED STEEL:**

ALL MISCELLANEOUS HARDWARE WHICH IS SPECIFIED TO BE GALVANIZED SHALL BE COATED IN ACCORDANCE WITH ASTM A-153.

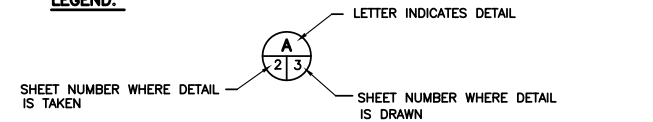
ALL STRUCTURAL STEEL SHAPES WHICH ARE SPECIFIED TO BE GALVANIZED SHALL BE COATED IN CONFORMANCE WITH ASTM A-123 AFTER FABRICATION.

DAMAGED GALVANIZED COATS THAT ARE NOT TO BE EMBEDDED IN MORE THAN THREE (3) INCHES OF CONCRETE SHALL BE REPAIRED WITH COLD APPLIED ZINC RICH ORGANIC PAINT OR OTHER APPROVED METHOD OF REPAIR.

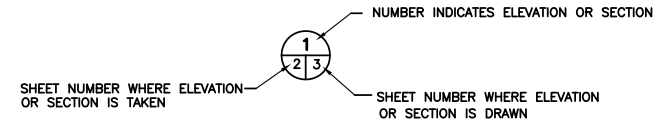
**16. CONSTRUCTION LOADING:**

CONSTRUCTION LOADING FOR THE NEW ACCESS BRIDGE SHALL NOT EXCEED 100 PSF. THE BRIDGE DESIGN IS FOR HS-10 LOADING AND SHALL NOT BE USED FOR HEAVY EQUIPMENT LIVE LOAD ON THE BRIDGE DECK DURING ERECTION OF THE PRECAST CONCRETE DECK PANELS. THE CONTRACTOR SHALL SUBMIT THE ERECTION PLAN FOR THE PRECAST CONCRETE PANELS WITH THE CONSTRUCTION LOADING NOT TO EXCEED 80 PSF.

**LEGEND:**



**DETAIL CROSS REFERENCE**



**SECTION CROSS REFERENCE**

**DEVELOPMENT LENGTH & LAP SPLICE TABLE (FOR 2" MIN. COVER)**

| BAR SIZE | LAP CLASS | UNCOATED |       |
|----------|-----------|----------|-------|
|          |           | TOP      | OTHER |
| #4       | A         | 25       | 19    |
|          | B         | 32       | 25    |
| #5       | A         | 31       | 24    |
|          | B         | 40       | 31    |
| #6       | A         | 37       | 29    |
|          | B         | 48       | 37    |
| #7       | A         | 54       | 42    |
|          | B         | 70       | 54    |
| #8       | A         | 62       | 48    |
|          | B         | 80       | 62    |
| #9       | A         | 70       | 54    |
|          | B         | 91       | 70    |
| #10      | A         | 79       | 61    |
|          | B         | 102      | 79    |
| #11      | A         | 87       | 67    |
|          | B         | 113      | 87    |

LAP SPLICE LENGTHS ARE MULTIPLES OF TENSION DEVELOPMENT LENGTHS; CLASS A =  $L_d$  AND CLASS B =  $(1.3)L_d$   
TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 in. OF CONCRETE CAST BELOW THE BARS.

**17. PERMIT REQUIREMENTS:**

CONTRACTOR SHALL STRICTLY FOLLOW ALL USACE PERMIT REQUIREMENTS AND SHALL STOP PILE DRIVING OR EXCAVATION WHEN THE RIVER WATER LEVEL IS AT EL. 11.00 OR HIGHER ON THE CARROLITON GAUGE.

ALL STRUCTURES, FACILITIES, WELL AND PIPELINES/FLOWLINES OCCURRING IN OPEN WATER AREAS OR IN OILFIELD CANALS OR SLIPS SHALL BE REMOVED WITHIN 120 DAYS OF ABANDONMENT OR THE FACILITIES FOR THE HEREIN PERMITTED USE UNLESS PRIOR WRITTEN APPROVAL TO LEAVE SUCH STRUCTURES IN PLACE IS RECEIVED FROM THE COASTAL MANAGEMENT DIVISION. THIS CONDITION DOES NOT PRECLUDE THE NECESSITY FOR REVISING THE CURRENT PERMIT OR OBTAINING A SEPARATE COASTAL USE PERMIT, SHOULD ONE BE REQUIRED.

STRUCTURES SHALL BE MARKED/LIGHTED IN ACCORDANCE WITH U. S. COAST GUARD REGULATIONS.

IN ORDER TO ENSURE THE SAFETY OF ALL PARTIES, THE PERMITTEE SHALL CONTACT THE LOUISIANA ONE CALL SYSTEM (1-800-272-3020) A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION (DIGGING, DREDGING, JETTING, ETC.) OR DEMOLITION ACTIVITY.

AS-BUILT DRAWINGS WILL BE SUBMITTED WITHIN 30 DAYS OF COMPLETION OF THIS PROJECT TO THE LOUISIANA DEPARTMENT OF NATURAL RESOURCES, OFFICE OF COASTAL MANAGEMENT, P. O. BOX 44487, BATON, ROUGE, LA 70804-4487.

90%

PRELIMINARY  
NOT TO BE USED FOR  
CONSTRUCTION,  
BIDDING,  
RECORDATION,  
CONVEYANCE, SALES  
OR AS THE BASIS FOR  
THE ISSUANCE OF A  
PERMIT.

BURK-KLEINPETER, INC.

ENGINEER: SUBENDRANUAR I. SHAH, P.E.  
LA. LICENSE #: 17937  
DATE: JUNE, 2015

JOB NO. No.14,044  
DESIGNED: RM  
CHECKED: SS

|   |               |               |    |
|---|---------------|---------------|----|
| REV.  | DATE          | DESCRIPTION   | BY |
|   |               |               |    |
| <b>Burk-Kleinpeter, Inc.</b><br>Engineers, Architects, Planners, Environmental Scientists<br>4178 Canal Street, New Orleans Louisiana 70119 |               |               |    |
| <b>FEMA PW16844</b><br><b>ST. BERNARD PARISH</b><br><b>RAW WATER INTAKE ACCESS BRIDGE</b><br><b>GENERAL NOTES</b>                           |               |               |    |
| SCALE: AS SHOWN   | DATE: 04/2015 | SHEET NO. 2.0 | OF |

**TABLE OF ESTIMATED QUANTITIES**

| ITEM  | ITEM  | UNIT     | QUANTITY |
|-------|---|----------|----------|
| S-001 | MOBILIZATION AND DEMOBILIZATION                                   | LUMP SUM | 1        |
| S-002 | CONSTRUCTION LAYOUT   | LUMP SUM | 1        |
| S-003 | CLEARING AND GRUBBING   | ACRE     | 0.75     |
| S-004 | REMOVAL AND DISPOSAL OF 1 1/2" STEEL GUARDRAIL                    | LF       | 1,640    |
| S-005 | REMOVAL AND DISPOSAL OF 4" THICK PRECAST CONCRETE PANELS          | SF       | 8,200    |
| S-006 | REMOVAL AND DISPOSAL OF STRUCTURAL STEEL                          | TON      | 73.80    |
| S-007 | REMOVAL AND DISPOSAL OF TIMBER LATERAL BRACING                    | LF       | 1,312    |
| S-008 | REMOVAL AND DISPOSAL OF TREATED TIMBER PILES                      | EA       | 80       |
| S-009 | REMOVAL AND DISPOSAL OF WOODEN CURB                               | LF       | 1,800    |
| S-010 | REMOVAL AND DISPOSAL OF EXISTING CONCRETE CURB AND DECK SLAB      | LF       | 15       |
| S-011 | REMOVAL AND DISPOSAL OF EXISTING STEEL VEHICULAR GUARDRAIL        | LF       | 15       |
| S-012 | REMOVAL AND DISPOSAL OF EXISTING CONDUITS                         | LF       | 900      |
| S-013 | FURNISH AND INSTALL CLASS "B" TREATED TIMBER TEST PILE (60' LONG) | EA       | 1        |
| S-014 | FURNISH AND INSTALL CLASS "B" TREATED TIMBER PILES (60' LONG)     | LF       | 5,280    |
| S-015 | FURNISH AND INSTALL TREATED TIMBER LATERAL BRACING                | EA       | 46       |
| S-016 | FURNISH AND INSTALL PRECAST CONCRETE PILE CAPS                    | EA       | 45       |
| S-017 | FURNISH AND INSTALL 8" THICK PRECAST CONCRETE PANEL               | SF       | 8,310    |
| S-018 | FURNISH AND INSTALL 1 1/2" DIA. GALV. STEEL GUARDRAIL             | LF       | 1,770    |
| S-019 | ELECTRICAL LIGHTING – ROADWAY LUMINAIRES                          | EA       | 44       |
| S-020 | REMOVAL AND DISPOSAL OF LIGHT AND UTILITY POLES                   | EA       | 10       |
| S-021 | REMOVAL AND DISPOSAL OF 1" WATER LINE                             | LF       | 625      |
| S-022 | REMOVAL AND DISPOSAL OF SHED STRUCTURE                            | EA       | 1        |
| S-023 | REMOVAL AND DISPOSAL OF PILE CLUSTERS                             | EA       | 3        |
| S-024 | REMOVAL AND DISPOSAL OF PUMP, PLATFORM AND PIPING                 | EA       | 1        |
| S-025 | FURNISH AND INSTALL METAL BRIDGE                                  | SF       | 60       |
|       |   |          |          |
|       |   |          |          |
|       |   |          |          |
|       |   |          |          |
|       |   |          |          |

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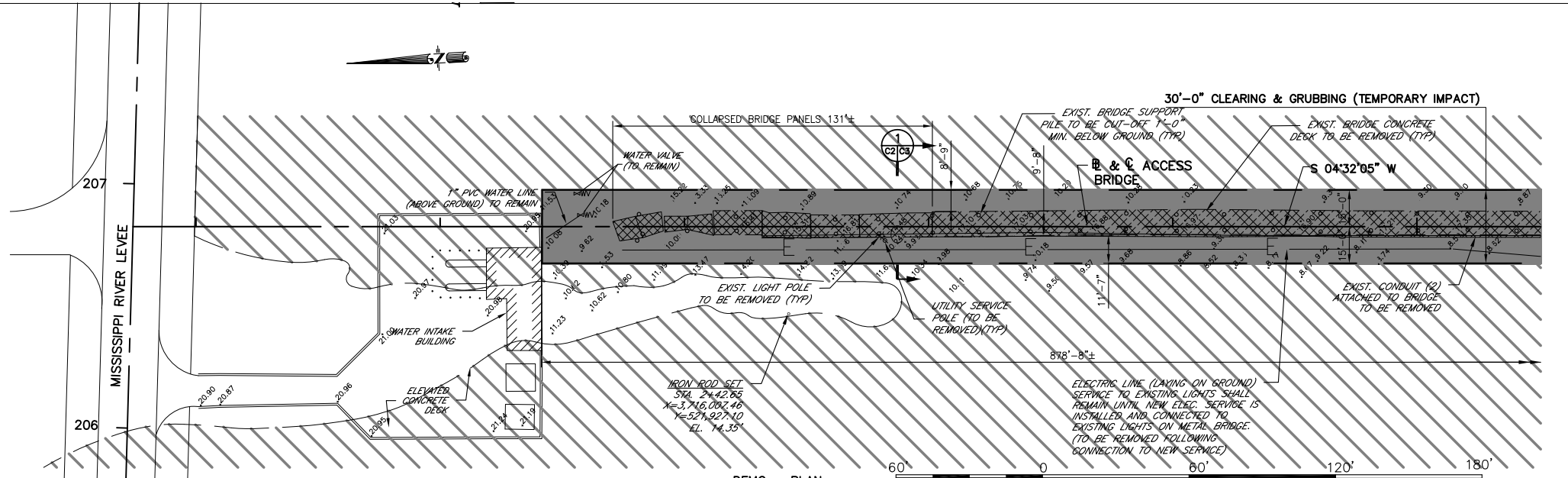
BURK-KLEINPETER, INC.

ENGINEER: SURENDRAKUMAR I. SHAM, P.E.

LA. LICENSE #: 17937

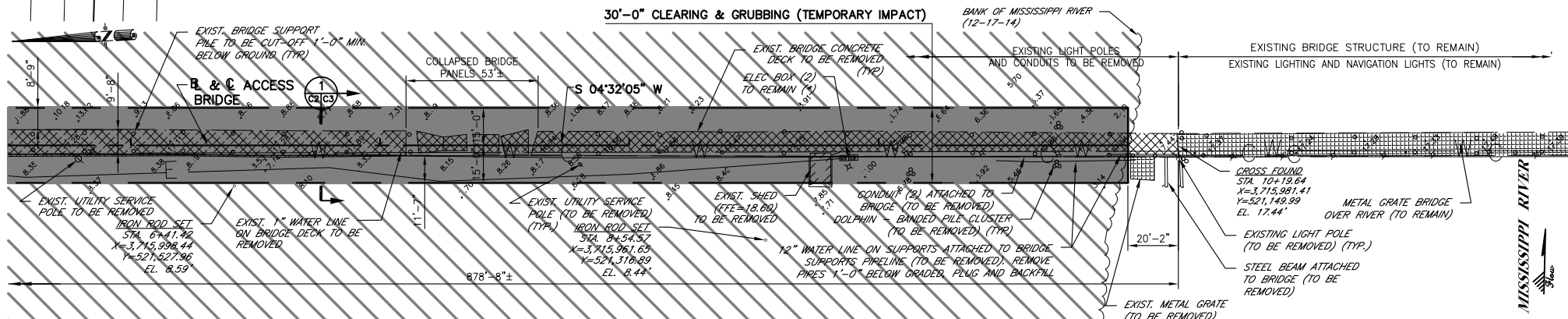
DATE: JUNE, 2015

|   |             |                |           |
|---|-------------|----------------|-----------|
| REV.  | DATE        | DESCRIPTION    | BY        |
|   |             |                |           |
| <b>Burk-Kleinpeter, Inc.</b><br>Engineers, Architects, Planners, Environmental Scientists<br>4178 Canal Street, New Orleans Louisiana 70119 |             |                |           |
| <b>FEMA PW16844</b><br><b>ST. BERNARD PARISH</b><br><b>RAW WATER INTAKE ACCESS BRIDGE</b>   |             |                |           |
| <b>SUMMARY OF QUANTITIES</b>  |             |                |           |
| JOB NO.   | DESIGNED RM | SCALE AS SHOWN | SHEET NO. |
| No.14,044   | DETAILED BL | DATE 04/2015   | 2.1       |
| REVIEWER  | CHECKED SS  | FILE NO.       | OF        |
|   |             |                |           |



**DEMOLITION PLAN**  
SCALE: 1" = 60'

SCALE: 1" = 60'



**DEMOLITION PLAN**  
SCALE: 1" = 60'

**LEGEND:**

- NOTES: EXISTING TO BE REMOVED
- CLEARING AND GRUBBING TEMPORARY IMPACT
- WETLAND (10/404) & MISS. RIVER (10/404)

CONTRACTOR SHALL REMOVE ALL EXISTING TIMBER PILES (CUT 1'-0" MIN. BELOW GROUND), TIMBER BRACING, CONCRETE PANEL DECKS, GUARDRAILS, MISCELLANEOUS PIPING & CONDUIT, AND LIGHT POLES, AND HAUL TO AN OFFSITE FACILITY.

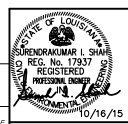
EXISTING TIMBER PILES ARE TREATED WITH CREOSOTE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL DISPOSAL FEES ASSOCIATED WITH THE DISPOSAL OF THE DEMOLISHED MATERIAL TO AN OFFSITE FACILITY.

**LEGEND:**

- ⊙ - LIGHT POLE
- ⊕ - POWER POLE
- ⊖ - FIRE HYDRANT
- ⊗ - WATER METER
- ⊕ - WATER VALVE
- ⊗ - WATER MANHOLE
- ⊞ - ELECTRIC BOX
- ⊕ - ELECTRIC MANHOLE
- ⊖ - GAS MANHOLE
- CONDUIT LINE
- WATER LINE
- ELECTRIC LINE

90%  
PRELIMINARY  
NOT TO BE USED FOR  
CONSTRUCTION,  
BIDDING,  
RECORDATION,  
CONVEYANCE SALES  
OR AS THE BASIS FOR  
THE ISSUANCE OF A  
PERMIT.

BURK-KLEINPETER, INC.  
ENGINEER: SURENDRAKUMAR I. SHAIK, P.E.  
LA LICENSE #: 17937  
DATE: JUNE, 2015



| REV | DATE | DESCRIPTION | BY |
|-----|------|-------------|----|
|     |      |             |    |

**Burk-Kleinpeter, Inc.**  
Engineers, Architects, Planners, Environmental Scientists  
4176 Canal Street, New Orleans Louisiana 70119

FEMA PW16844  
ST. BERNARD PARISH  
RAW WATER INTAKE ACCESS BRIDGE

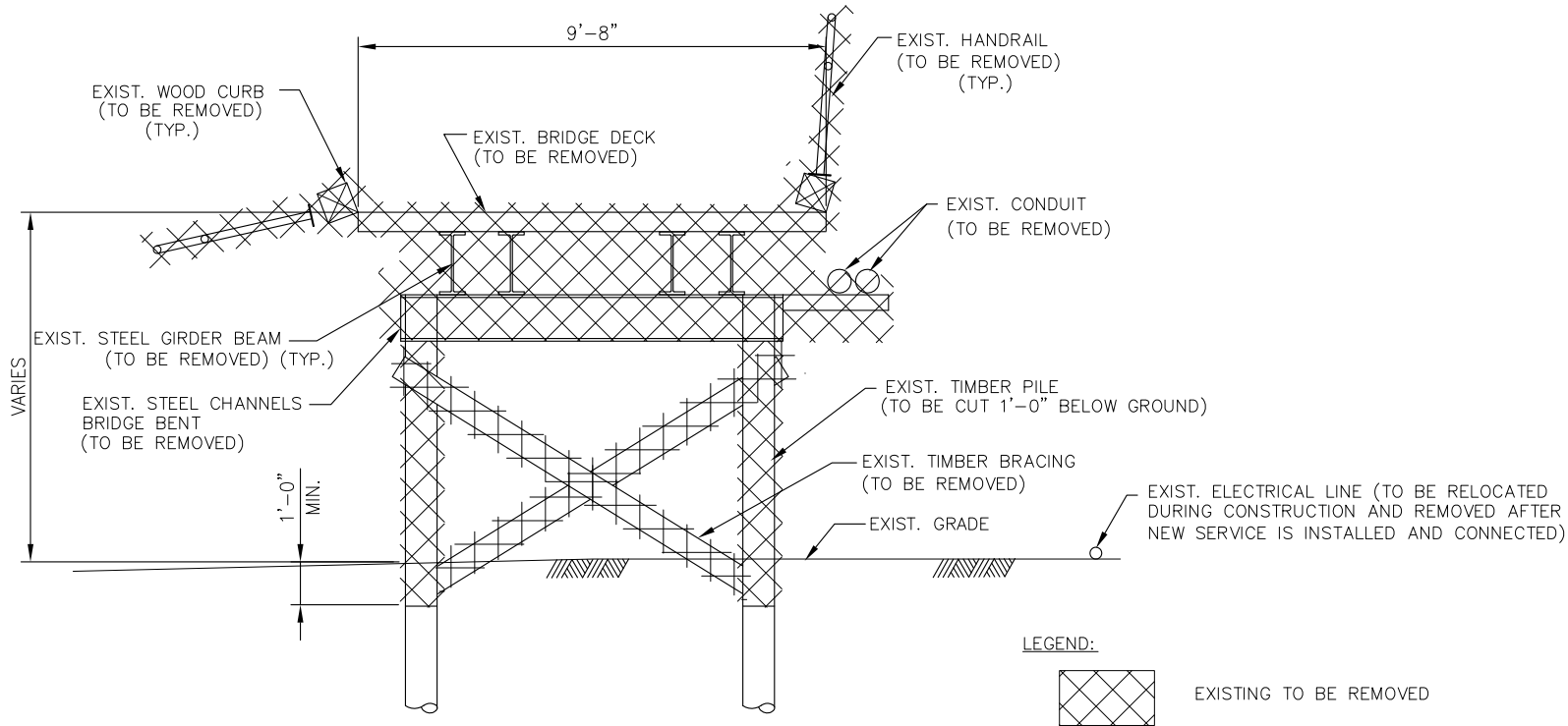
| DEMOLITION PLAN |          |          |           |
|-----------------|----------|----------|-----------|
| JOB NO.         | DESIGNED | SCALE    | SHEET NO. |
| No.14.044       | RM       | AS SHOWN | C2.0      |
| DATE            | DATE     | FILE NO. | OF        |
| 04/2015         | 04/2015  |          |           |

MISSISSIPPI RIVER

**NOTES:**

CONTRACTOR SHALL REMOVE ALL EXISTING TIMBER PILES (CUT 1'-0" MIN. BELOW GROUND), TIMBER BRACING, CONCRETE PANEL DECKS, GUARDRAILS, MISCELLANEOUS PIPING & CONDUIT, AND LIGHT POLES, AND HAUL TO AN OFFSITE FACILITY.

EXISTING TIMBER PILES AND TIMBER BRACING ARE TREATED WITH CREOSOTE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL DISPOSAL FEES ASSOCIATED WITH THE DISPOSAL OF THE DEMOLISHED MATERIAL TO AN OFFSITE FACILITY.

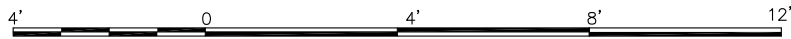


**LEGEND:**



EXISTING TO BE REMOVED

**TYP. SECTION 1**  
SCALE: 1/4" = 1'-0" C2/C3



SCALE: 1/4" = 1'-0"

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
|      |      |             |    |

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4178 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

**DEMOLITION SECTION**

90%

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CONVIANCE SALES  
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PERMIT.

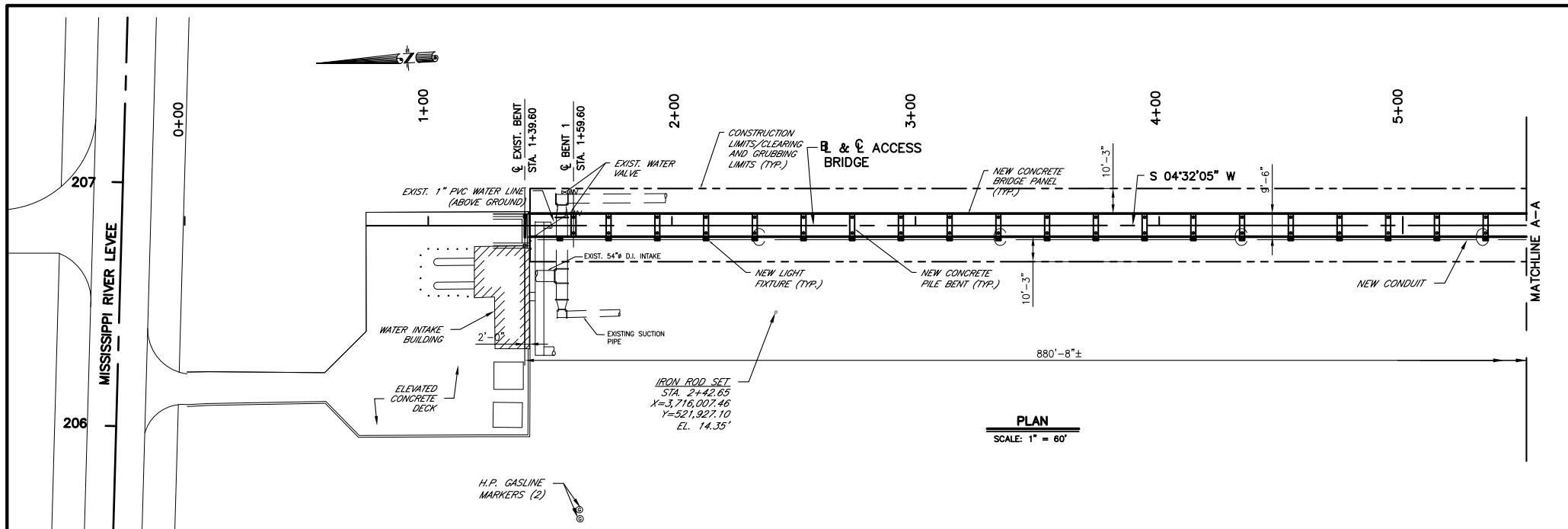
BURK-KLEINPETER, INC.

ENGINEER: SURENDRAKUMAR I. SHAM, P.E.  
L.A. LICENSE # 17937  
DATE: JUNE, 2015

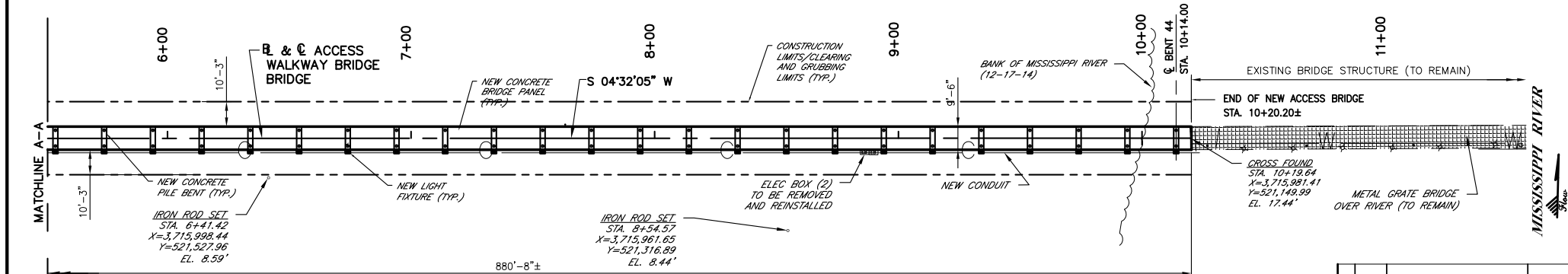
| DATE PLOTTED | DESIGNED | SCALE    | SHEET NO. |
|--------------|----------|----------|-----------|
|              | RM       | AS SHOWN | C3.0      |
|              | BL       | 04/2015  |           |
|              | SS       |          |           |

JOB NO. No.14.044  
REVIEWER  
CHECKED  
DATE  
FILE NO.





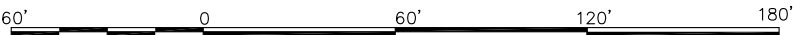
**PLAN**  
SCALE: 1" = 60'



**PLAN**  
SCALE: 1" = 20'

**LEGEND:**

- ☆ - LIGHT POLE
- ⊗ - POWER POLE
- ⊙ - WATER METER
- ⊕ - WATER VALVE
- ⊞ - ELECTRIC BOX
- ⊕ - GAS MANHOLE
- — — — — CONDUIT LINE
- — — — — WATER LINE
- — — — — ELECTRIC LINE



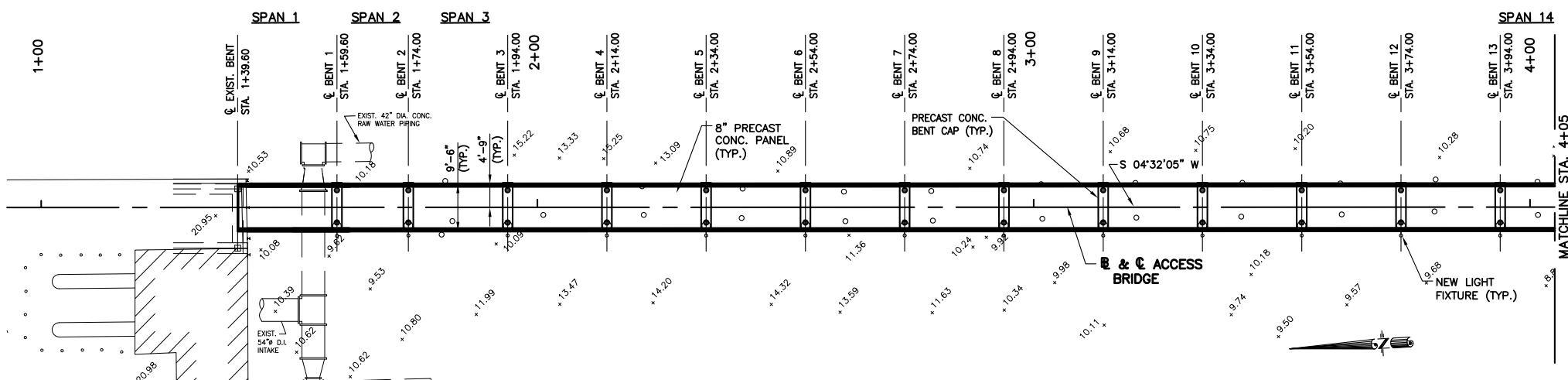
SCALE: 1" = 60'

90%

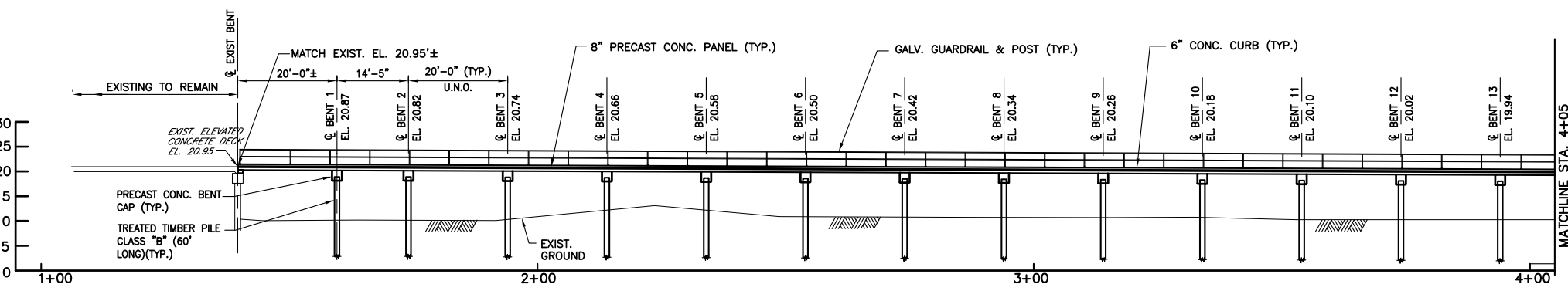
PRELIMINARY  
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RECORDATION,  
CONVIANCE SALES  
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PERMIT.

BURK-KLEINPETER, INC.  
ENGINEER: SURENDRAKUMAR I. SHAM, P.E.  
LA. LICENSE #: 17937  
DATE: JUNE, 2015

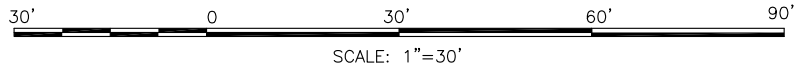
| REV.  | DATE          | DESCRIPTION     | BY        |
|---|---------------|-----------------|-----------|
|   |               |                 |           |
| <b>Burk-Kleinpeter, Inc.</b><br>Engineers, Architects, Planners, Environmental Scientists<br>4176 Canal Street, New Orleans Louisiana 70119 |               |                 |           |
| <b>FEMA PW16844</b><br><b>ST. BERNARD PARISH</b><br><b>RAW WATER INTAKE ACCESS BRIDGE</b>   |               |                 |           |
| <b>PROJECT LAYOUT PLAN</b>  |               |                 |           |
| JOB NO.   | DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO. |
| No.14.044   | DATE: 04/2015 |                 | C4.0      |
| REVIEWER  | DETAILED: BL  | FILE NO.        | OF        |
| PLAN IN HAND  | CHECKED: SS   |                 |           |



- LEGEND:**
- EXISTING TREATED TIMBER PILE (CUT 1'-0" MIN. BELOW GROUND)
  - NEW TREATED TIMBER PILE CLASS "B" (60' LONG)(TYP.)
  - NEW F1 LIGHT FIXTURE AND POLE



- NOTES:**
1. ALL TIMBER PILES SHALL BE CLASS "B" WITH 12" BUTT & 7" TIP AND SHALL BE TREATED.
  2. LIGHT FIXTURES NOT SHOWN IN ELEVATION VIEW FOR CLARITY.
  3. CONTRACTOR TO FIELD VERIFY ELEVATIONS @ TIE-IN LOCATIONS FOR BRIDGE.



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BURK-KLEINPETER, INC.  
ENGINEER: SURENDRAKUMAR I. SHAM, P.E.  
LA. LICENSE #: 17937  
DATE: JUNE, 2015

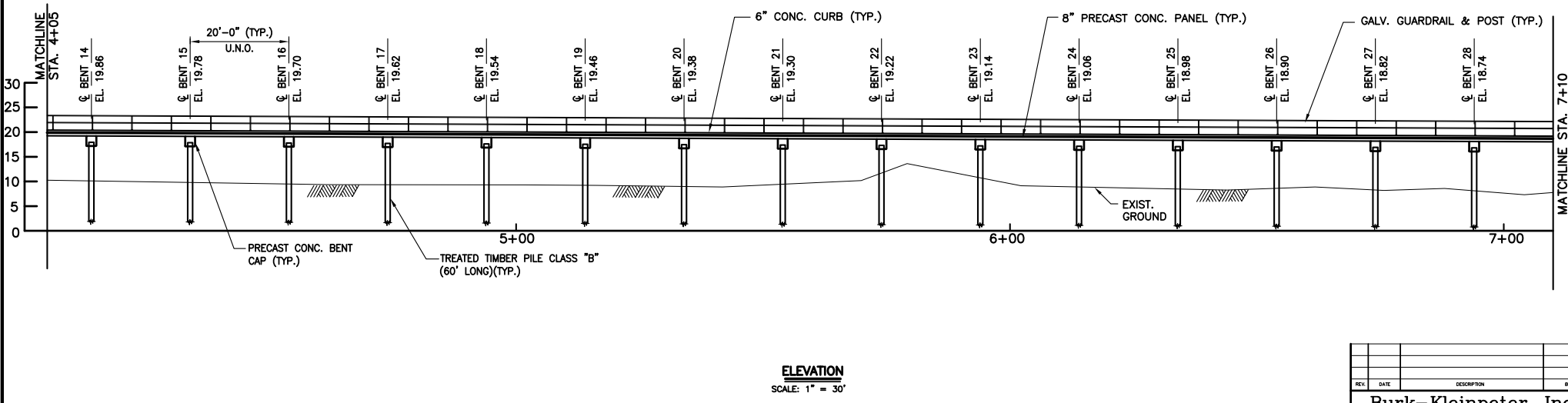
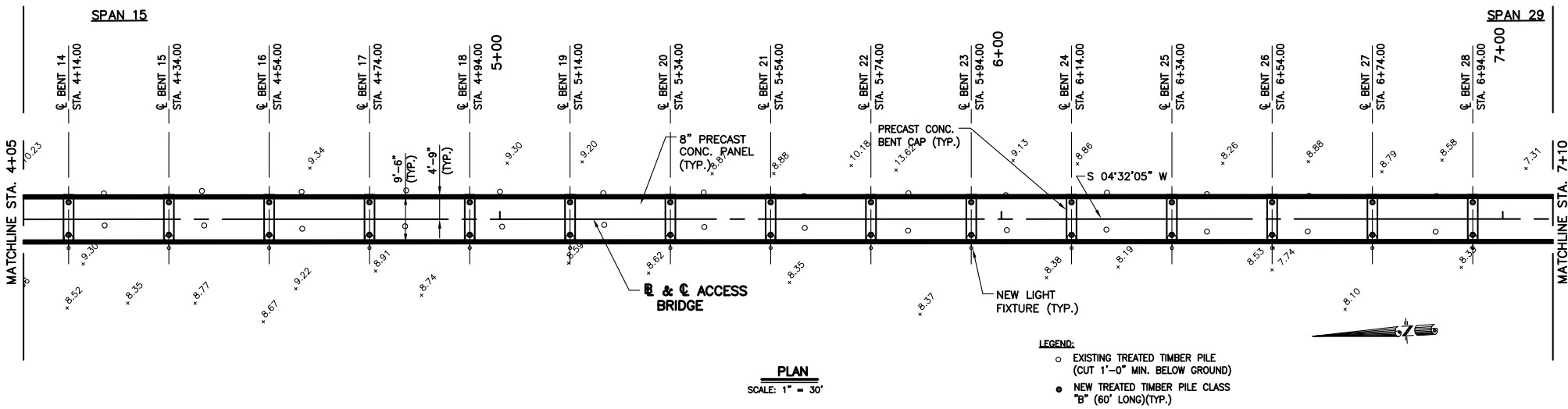
| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
|      |      |             |    |
|      |      |             |    |

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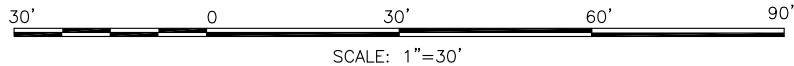
**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

**PLAN AND ELEVATION**

|           |             |                |           |
|-----------|-------------|----------------|-----------|
| JOB NO.   | DESIGNED RM | SCALE AS SHOWN | SHEET NO. |
| No.14.044 | DETAILED BL | DATE 04/2015   | C5.0      |
| REVIEWER  | CHECKED SS  | FILE NO.       | OF        |
|           |             |                |           |



- NOTES:**
1. ALL TIMBER PILES SHALL BE CLASS "B" WITH 12" BUTT & 7" TIP AND SHALL BE TREATED.
  2. LIGHT FIXTURES NOT SHOWN IN ELEVATION VIEW FOR CLARITY.
  3. CONTRACTOR TO FIELD VERIFY ELEVATIONS @ TIE-IN LOCATIONS FOR BRIDGE.



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PERMIT.

BURK-KLEINPETER, INC.  
ENGINEER: SUBENDRAKUMAR I. SHAM, P.E.  
LA. LICENSE #: 17937  
DATE: JUNE, 2015

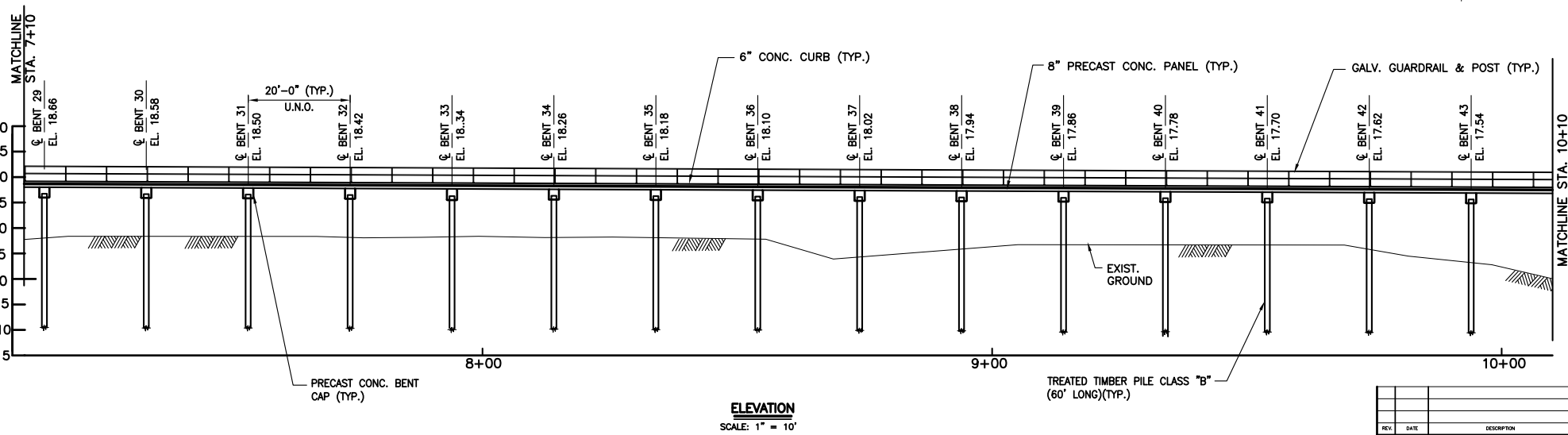
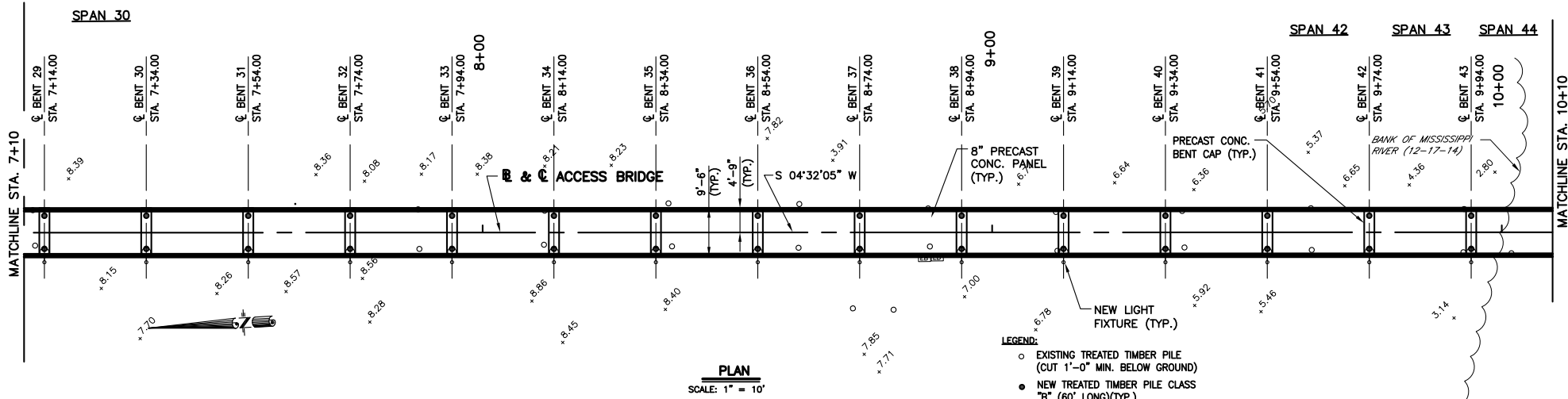
| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
|      |      |             |    |
|      |      |             |    |

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4176 Canal Street, New Orleans Louisiana 70119

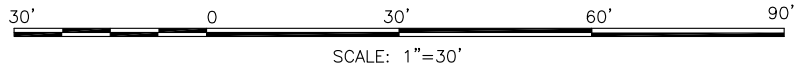
**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

**PLAN AND ELEVATION**

|              |                 |            |
|--------------|-----------------|------------|
| DESIGNED: RM | SCALE: AS SHOWN | SHEET NO.: |
| NO. 14,044   | DATE: 04/2015   | C6.0       |
| DRAWN: SS    | FILE NO.:       | OF         |



- NOTES:**
1. ALL TIMBER PILES SHALL BE CLASS "B" WITH 12" BUTT & 7" TIP AND SHALL BE TREATED.
  2. LIGHT FIXTURES NOT SHOWN IN ELEVATION VIEW FOR CLARITY.
  3. CONTRACTOR TO FIELD VERIFY ELEVATIONS ● TIE-IN LOCATIONS FOR BRIDGE.



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BURK-KLEINPETER, INC.  
 ENGINEER: SURENDRAKUNAR I. SHAKI, P.E.  
 L.A. LICENSE #: 17937  
 DATE: JUNE, 2015

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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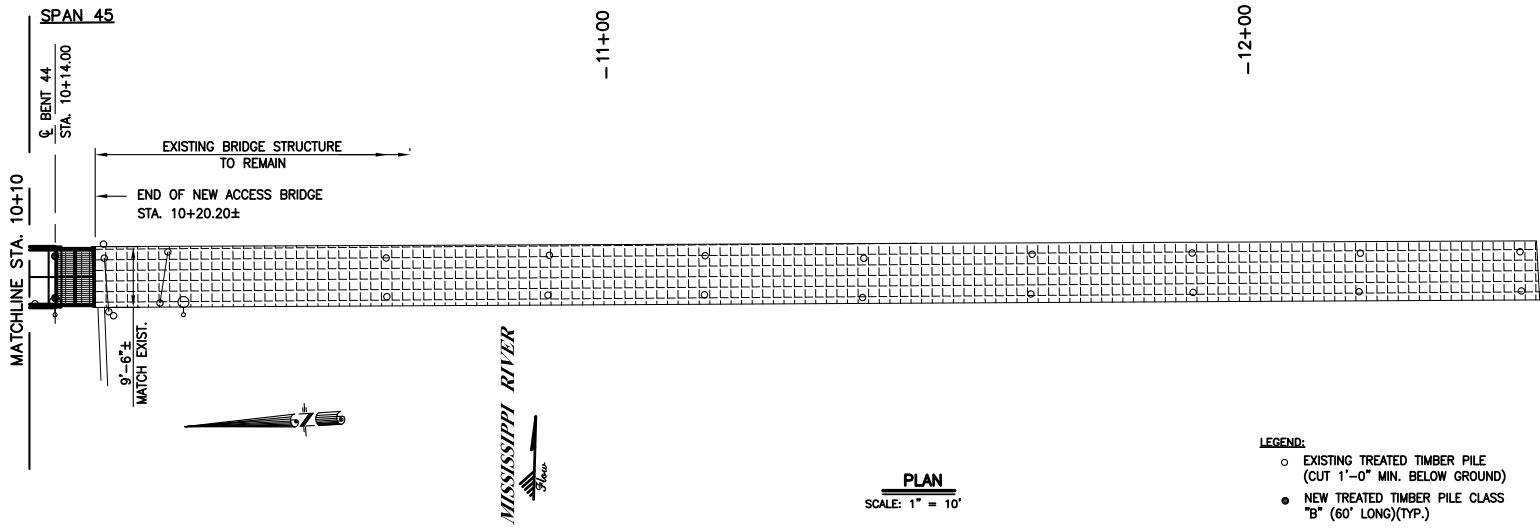
**Burk-Kleinpeter, Inc.**  
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 4178 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

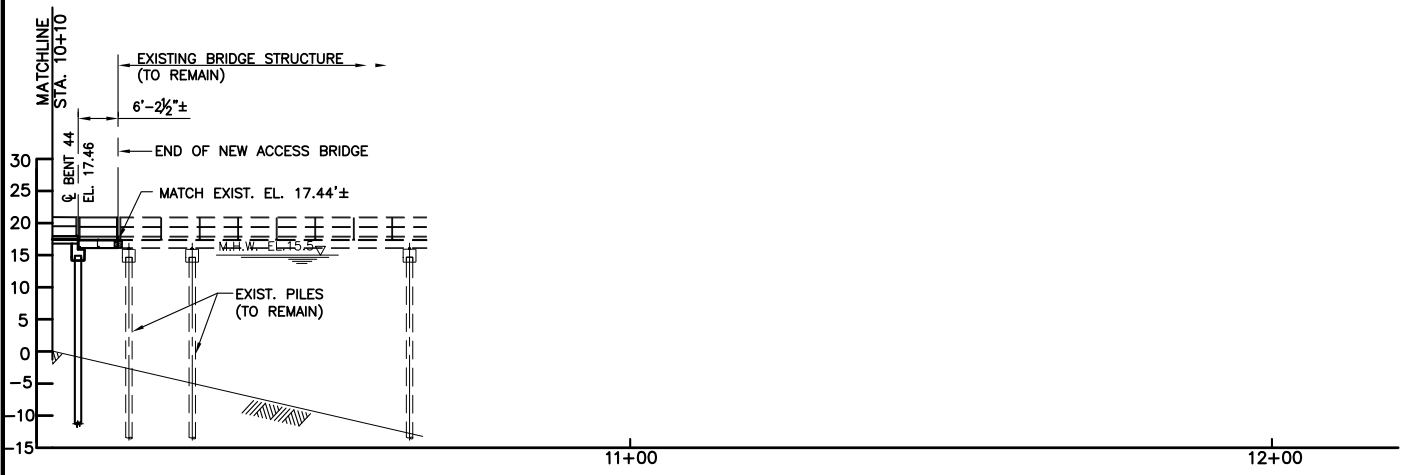
**PLAN AND ELEVATION**

|           |              |                |           |
|-----------|--------------|----------------|-----------|
| JOB NO.   | DESIGNED RM  | SCALE AS SHOWN | SHEET NO. |
| No.14,044 |              |                | C7.0      |
| REVIEWER  | DATE 04/2015 | CHECKED SS     | FILE NO.  |
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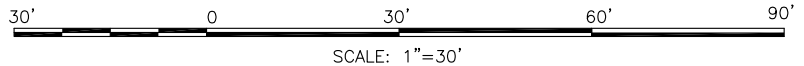
DATE: JUNE, 2015



- LEGEND:**
- EXISTING TREATED TIMBER PILE (CUT 1'-0" MIN. BELOW GROUND)
  - NEW TREATED TIMBER PILE CLASS "B" (60' LONG)(TYP.)



- NOTES:**
1. ALL TIMBER PILES SHALL BE CLASS "B" WITH 12" BUTT & 7" TIP AND SHALL BE TREATED.
  2. LIGHT FIXTURES NOT SHOWN IN ELEVATION VIEW FOR CLARITY.
  3. CONTRACTOR TO FIELD VERIFY ELEVATIONS ● TIE-IN LOCATIONS FOR BRIDGE.



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 BURK-KLEINPETER, INC.  
 ENGINEER: SURENDRAKUNAR I. SHAM, P.E.  
 L.A. LICENSE #: 17937  
 DATE: JUNE, 2015

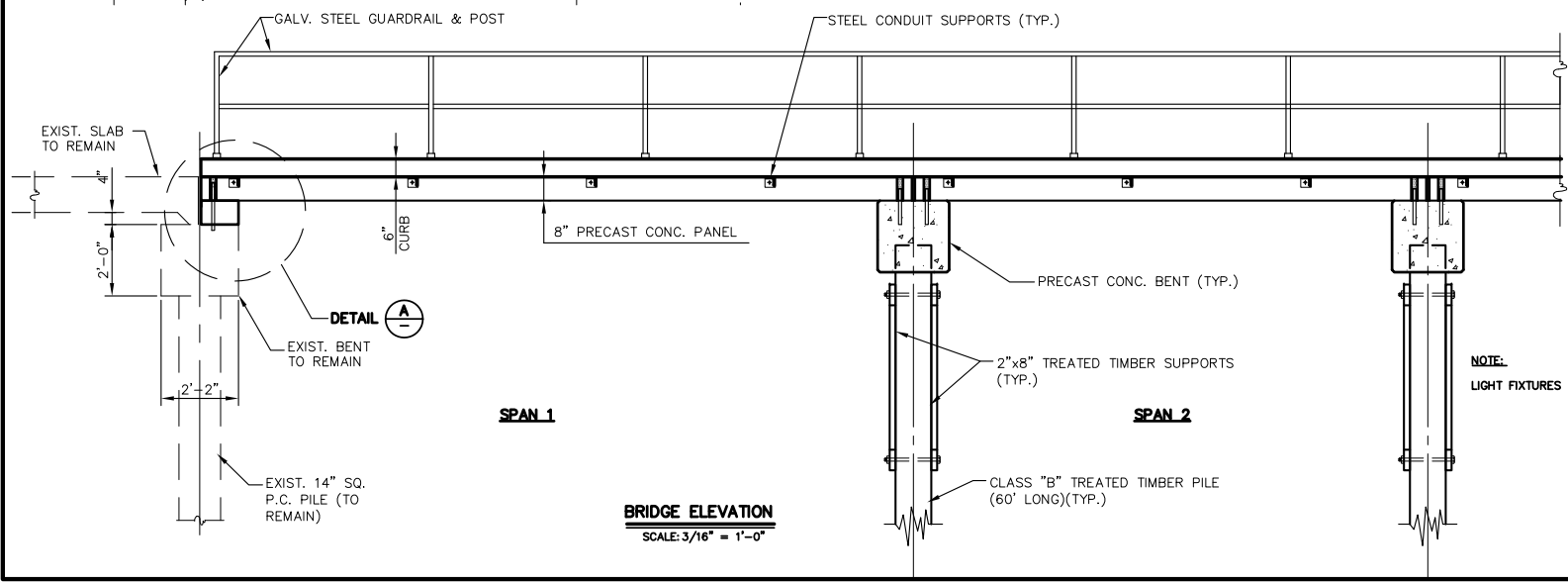
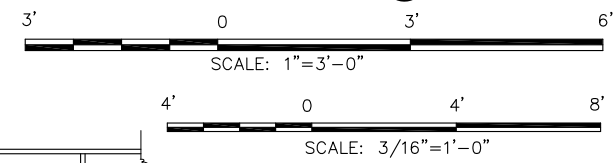
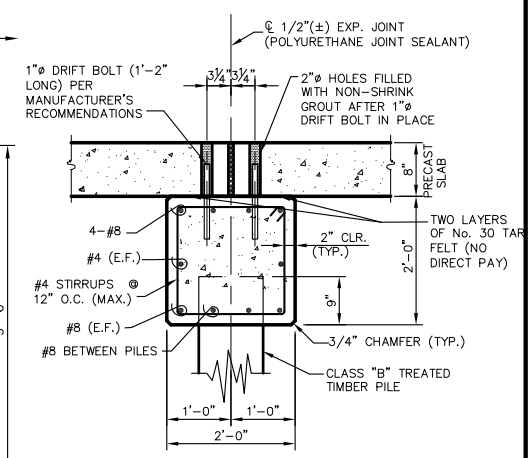
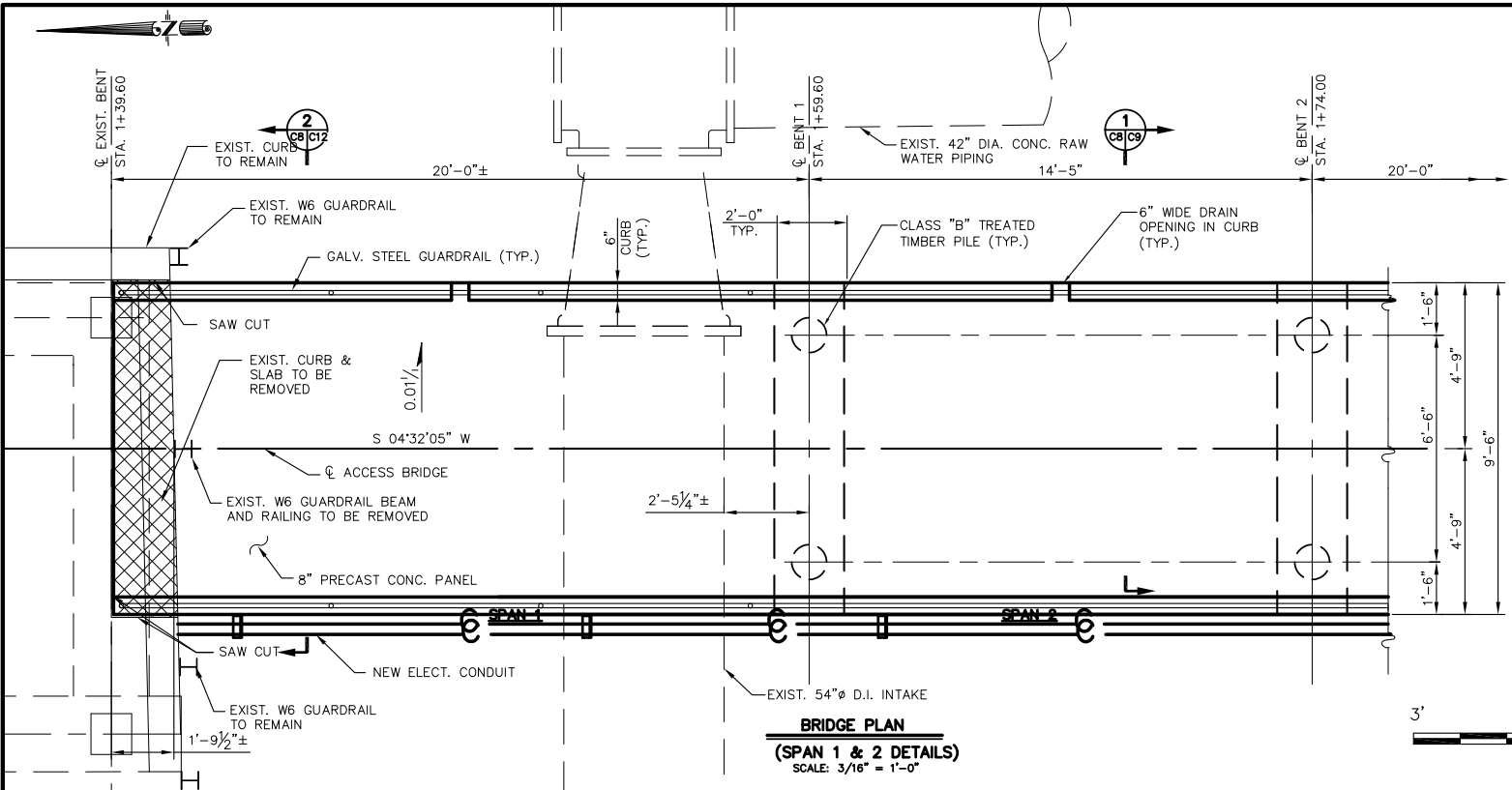
| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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**Burk-Kleinpeter, Inc.**  
 Engineers, Architects, Planners, Environmental Scientists  
 4178 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844  
 ST. BERNARD PARISH  
 RAW WATER INTAKE ACCESS BRIDGE**

**PLAN AND ELEVATION**

|              |              |                |           |
|--------------|--------------|----------------|-----------|
| JOB NO.      | DESIGNED RM  | SCALE AS SHOWN | SHEET NO. |
| REVIEWER     | DATE 04/2015 | FILE NO.       | C7.0      |
| PLAN IN HAND | CHECKED SS   | FILE NO.       | OF        |



**NOTE:**  
LIGHT FIXTURES NOT SHOWN FOR CLARITY.

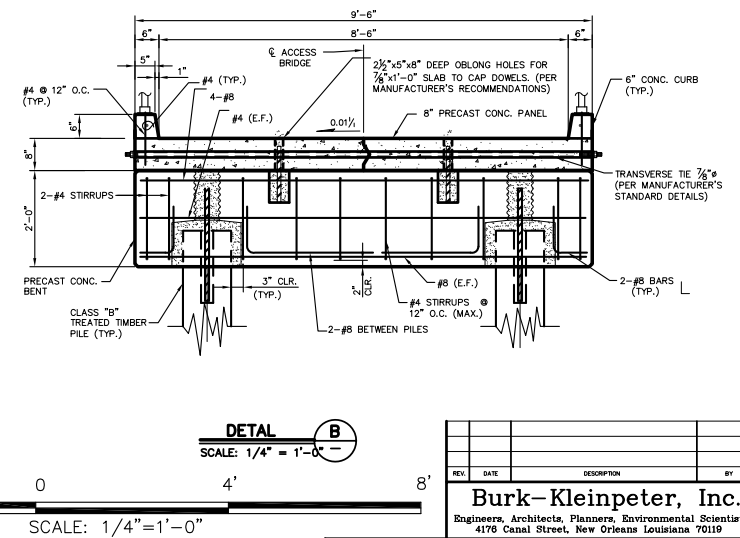
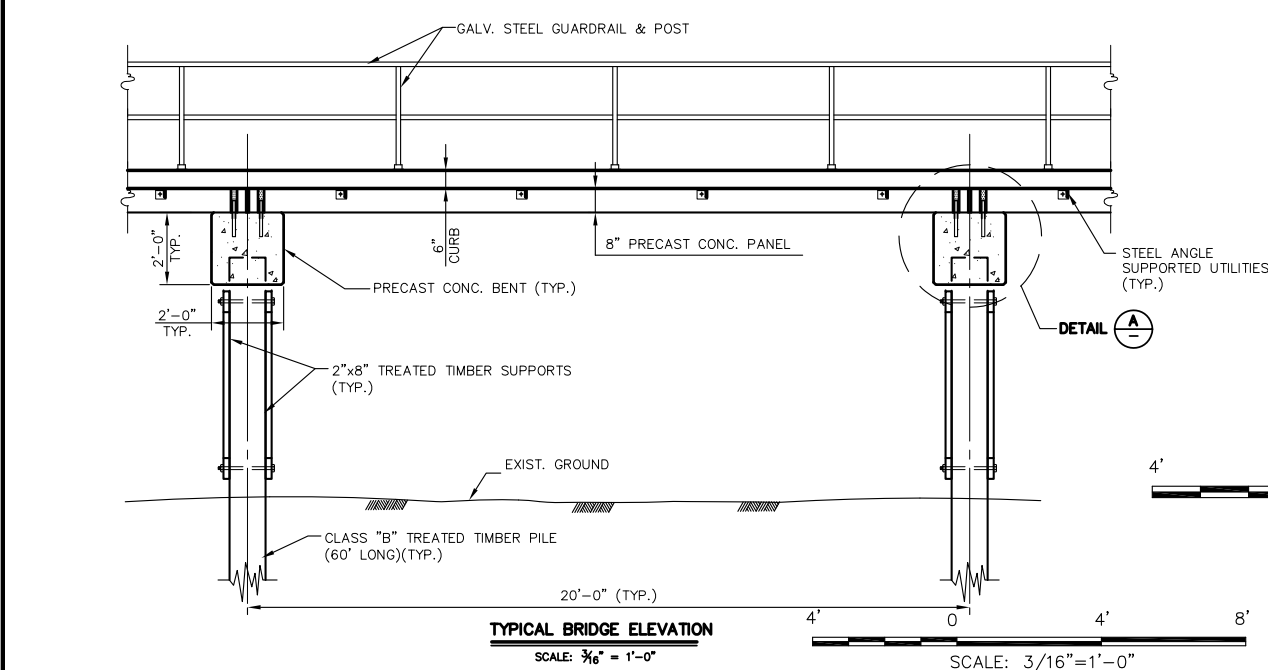
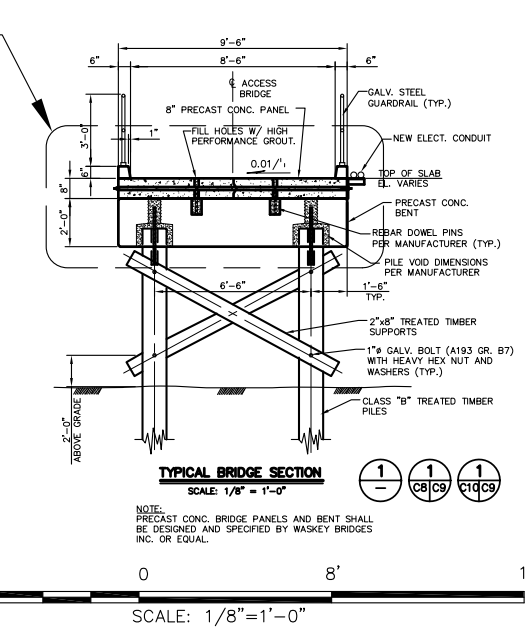
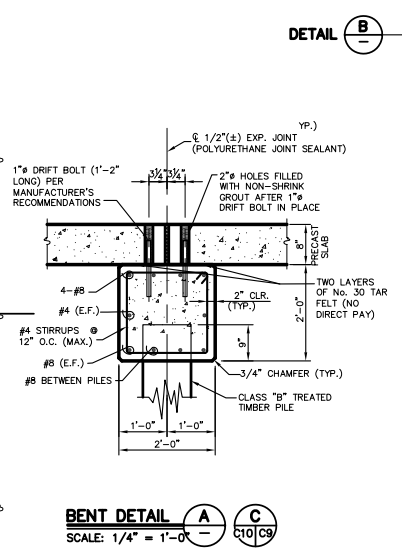
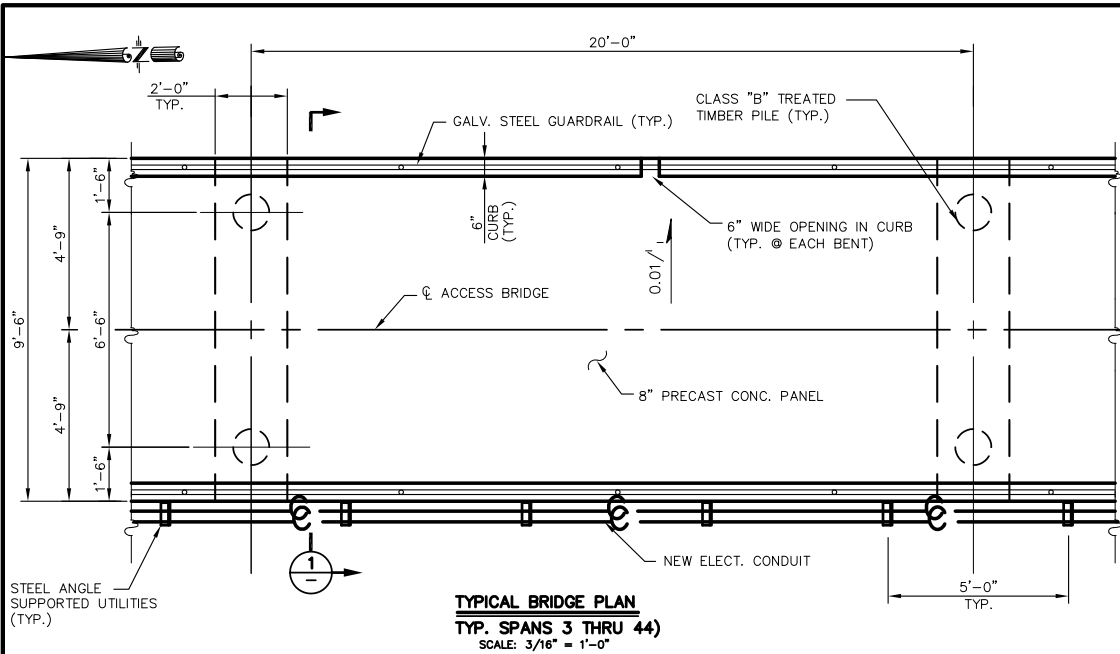
90%  
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**BURK-KLEINPETER, INC.**  
 ENGINEER: SURENDRAKUMAR J. SHAN, P.E.  
 L.A. LICENSE #: 17937  
 DATE: JUNE, 2015

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
|      |      |             |    |
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**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**  
**BRIDGE SPANS DETAILS**

|               |                 |            |
|---------------|-----------------|------------|
| DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO.: |
| DATE: 04/2015 | DATE: 04/2015   | C8.0       |
| NO. 14,044    | FILE NO.:       | OF         |



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**BURK-KLEINPETER, INC.**  
ENGINEER: SUBENDRAKUMAR I. SHAM, P.E.  
L.A. LICENSE #: 17937  
DATE: JUNE, 2015

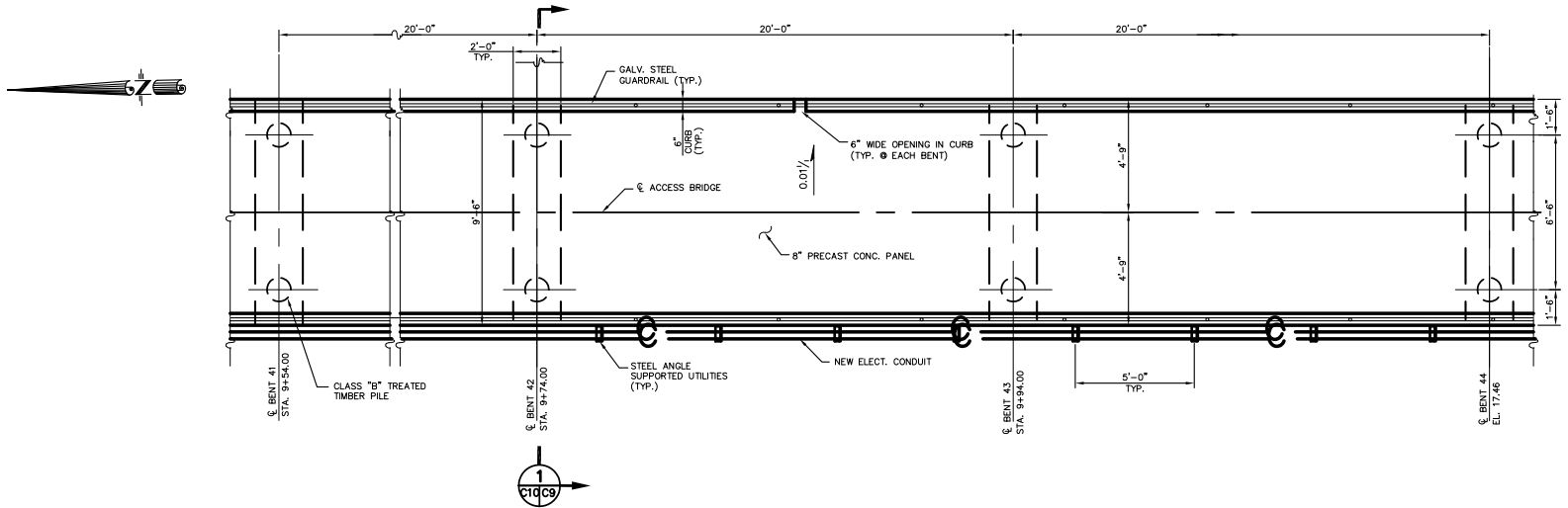
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| DESIGNED: RM | SCALE: AS SHOWN | SHEET NO.: |
| REVIEWER: BL | DATE: 04/2015   | C9.0       |
| NO. 14,044   | FILE NO.:       | OF         |

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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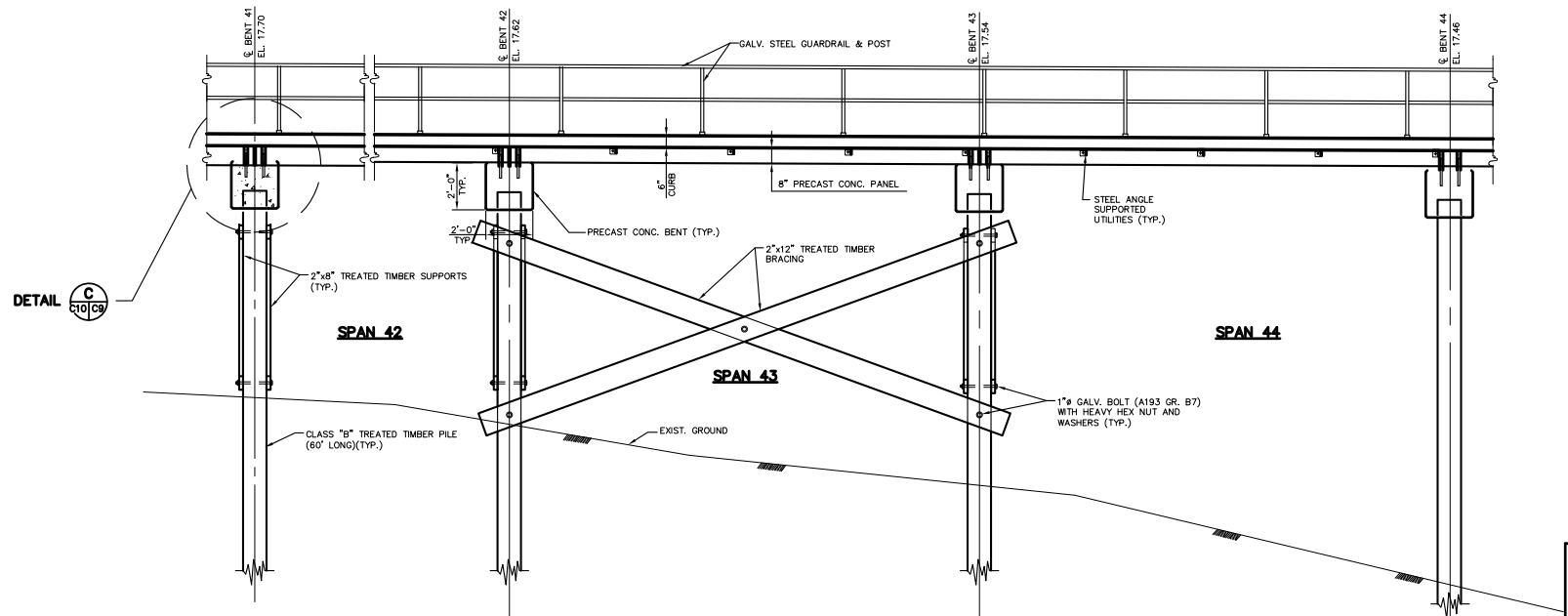
**Burk-Kleinpeter, Inc.**  
Engineers, Architects, Planners, Environmental Scientists  
4178 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

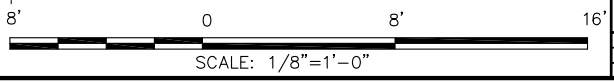
**BRIDGE SPANS DETAILS**



**BRIDGE PLAN**  
**(SPANS 42, 43 & 44)**  
 SCALE: 1/8" = 1'-0"



**BRIDGE ELEVATION**  
 SCALE: 1/8" = 1'-0"



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 BURK-KLEINPETER, INC.  
 ENGINEER: SURENDRAKUMAR J. SHAH, P.E.  
 LA. LICENSE #: 17937  
 DATE: JUNE, 2015

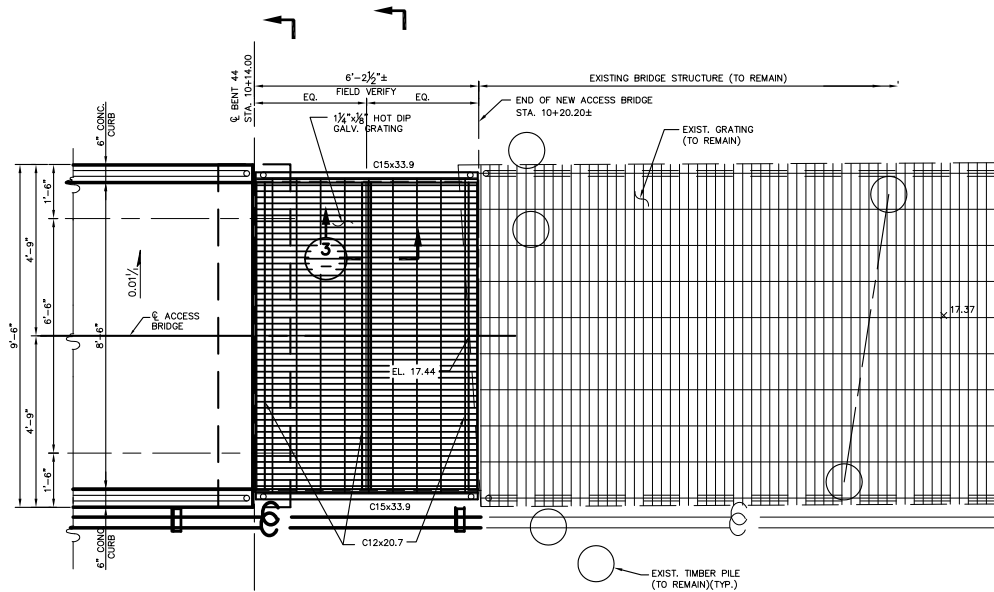
| REV. | DATE | DESCRIPTION | BY |
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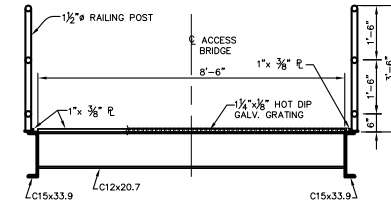
**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

| BRIDGE SPANS DETAILS |               |                 |           |
|----------------------|---------------|-----------------|-----------|
| JOB NO.              | DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO. |
| No. 14,044           | DATE: 04/2015 |                 | C10.0     |
| REVIEWER             | DATE          | FILE NO.        | OF        |
| PLAN IN HAND         |               |                 |           |

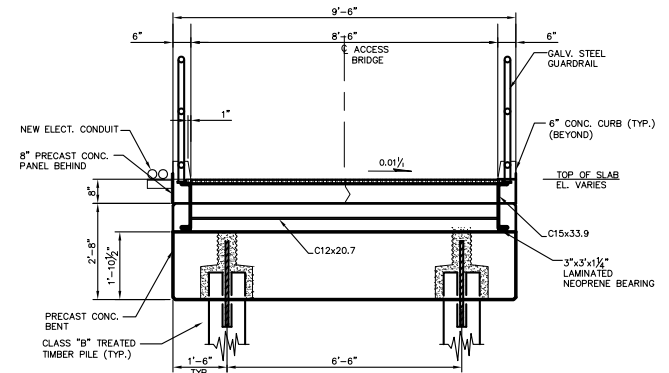




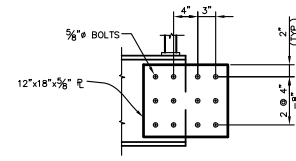
**BRIDGE PLAN**  
**(SPAN 45 DETAILS)**  
SCALE: 3/16" = 1'-0"



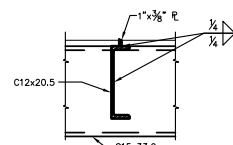
**SECTION 1**  
SCALE: 3/16" = 1'-0"



**SECTION 2**  
SCALE: 3/16" = 1'-0"

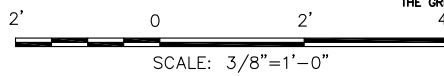


**DETAIL A**  
SCALE: 3/8" = 1'-0"

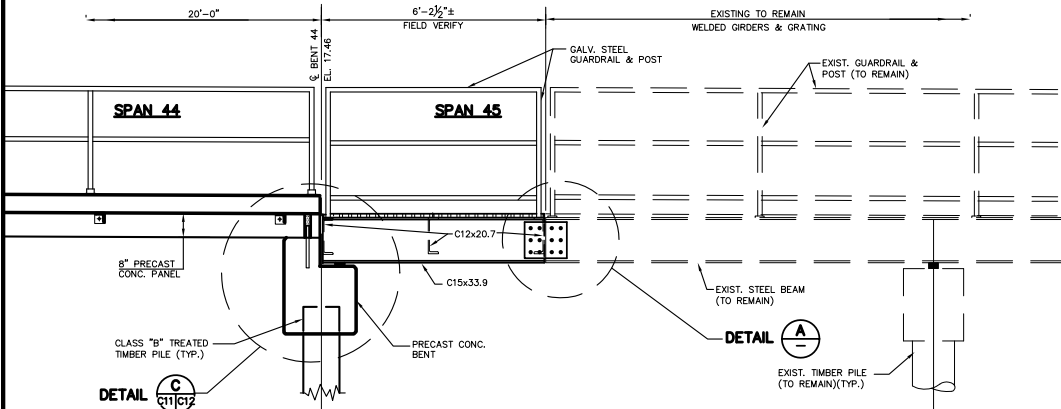


**SECTION 3**  
SCALE: 3/8" = 1'-0"

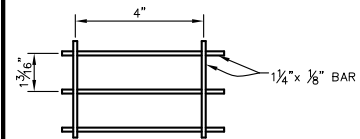
**NOTE:**  
ALL STRUCTURAL STEEL, BOLTS, PLATES, GRATING, CLIPS, GUARDRAILS, ETC. SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION TO THE GREATEST EXTENT POSSIBLE.



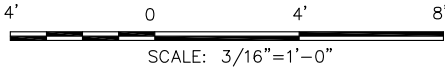
SCALE: 3/8" = 1'-0"



**BRIDGE ELEVATION**  
SCALE: 3/16" = 1'-0"



**TYPICAL GRATING DETAIL**



SCALE: 3/16" = 1'-0"

90%  
**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.

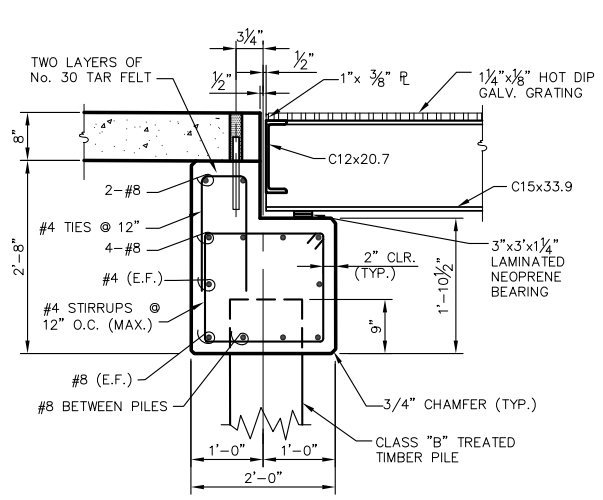
**BURK-KLEINPETER, INC.**  
ENGINEER: SURENDRAKUNAR I. SHAH, P.E.  
LA. LICENSE #: 17937  
DATE: JUNE, 2015

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|-------------------|-----------------|-----------------|
| DESIGNED: RM      | SCALE: AS SHOWN | SHEET NO. C11.0 |
| REVIEWER: [blank] | DATE: 04/2015   | OF              |
| PLAN IN HAND      | FILE NO.        |                 |

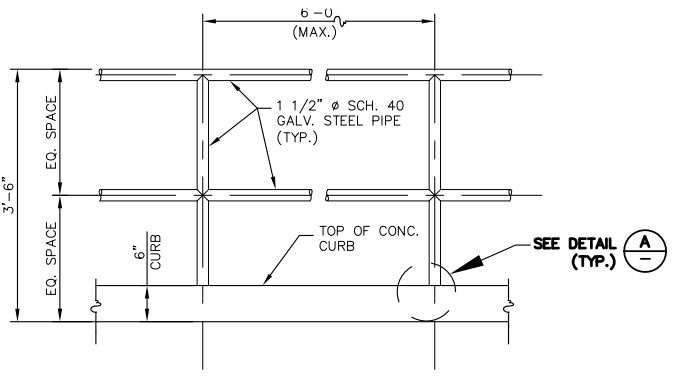
**Burk-Kleinpeter, Inc.**  
Engineers, Architects, Planners, Environmental Scientists  
4178 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**  
**BRIDGE SPANS DETAILS**

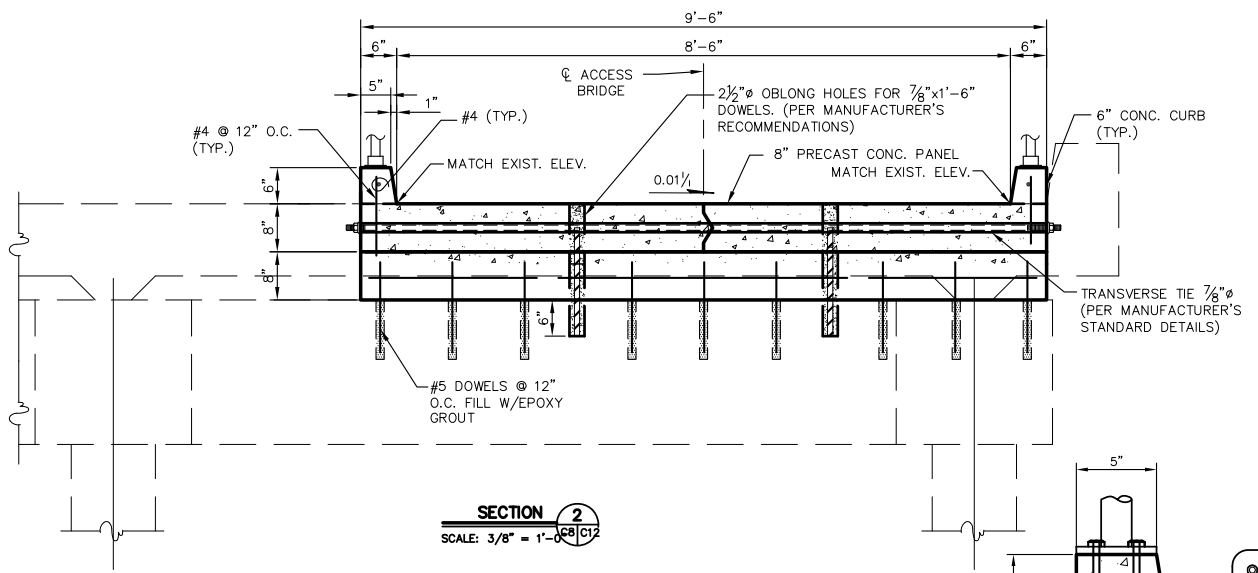
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| JOB NO. No.14,044        | DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO. C11.0 |
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| PLAN IN HAND             | FILE NO.      |                 |                 |



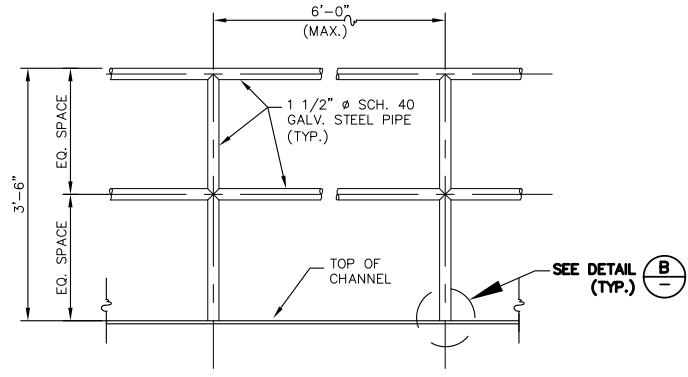
**DETAIL C**  
SCALE: 3/8" = 1'-0"



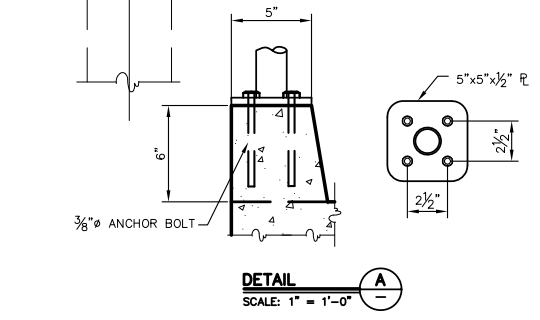
**GUARDRAIL DETAIL - CONC. PANEL**  
SCALE: 3/8" = 1'-0"



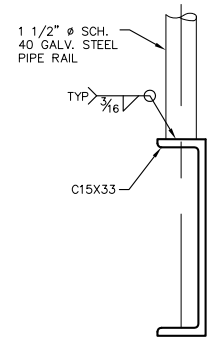
**SECTION 2**  
SCALE: 3/8" = 1'-0"



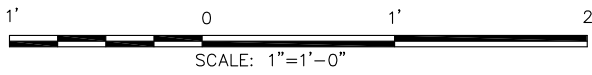
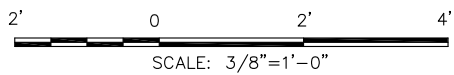
**GUARDRAIL DETAIL - METAL BRIDGE**  
SCALE: 3/8" = 1'-0"



**DETAIL A**  
SCALE: 1" = 1'-0"



**DETAIL B**  
SCALE: 1" = 1'-0"



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RECORDATION,  
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THE ISSUANCE OF A  
PERMIT.

BURK-KLEINPETER, INC.  
ENGINEER: SURENDRAKUMAR I. SHAM, P.E.  
L.A. LICENSE #: 17937  
DATE: JUNE, 2015

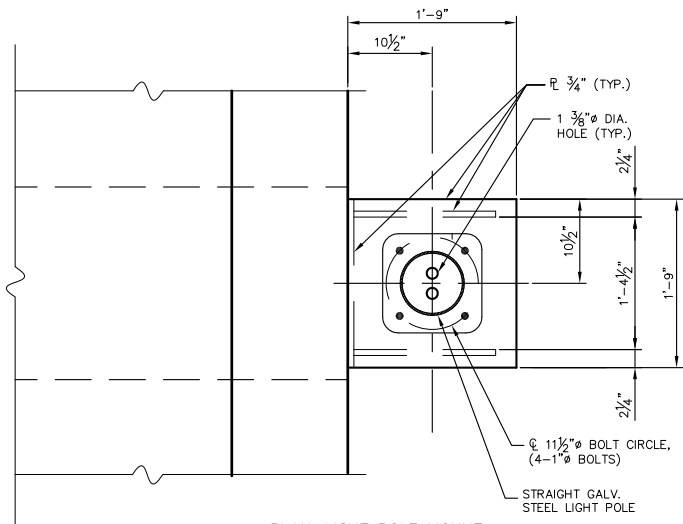
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4178 Canal Street, New Orleans Louisiana 70119

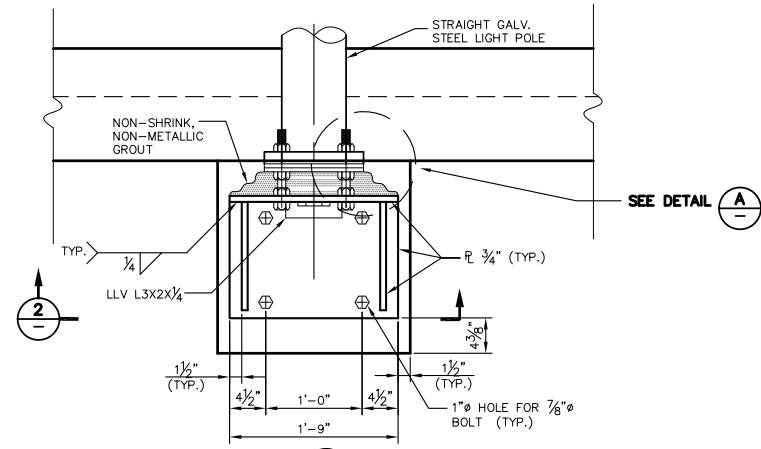
**FEMA PW16844  
ST. BERNARD PARISH  
RAW WATER INTAKE ACCESS BRIDGE**

**BRIDGE SPANS DETAILS**

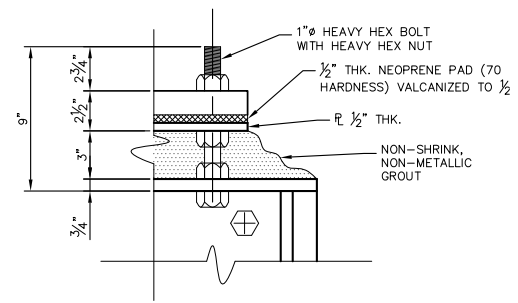
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| JOB NO.<br><b>No.14,044</b> | DESIGNED<br>RM         | SCALE<br>AS SHOWN | SHEET NO.<br><b>C12.0</b> |
| REVIEWER                    | DATE<br><b>04/2015</b> | FILE NO.          | OF                        |
| DESIGNED<br>SS              | FILE NO.               |                   |                           |



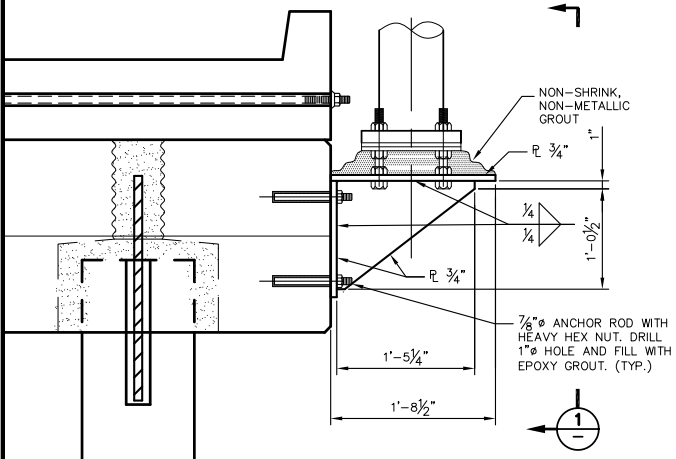
**PLAN-LIGHT POLE MOUNT**  
SCALE: 1/2" = 1'-0"



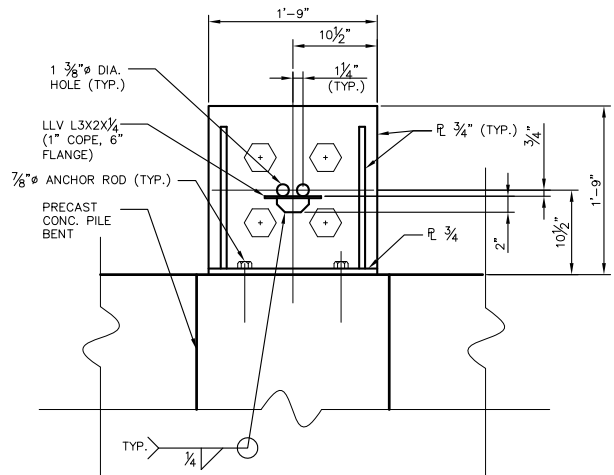
**SECTION 1**  
SCALE: 1/2" = 1'-0"



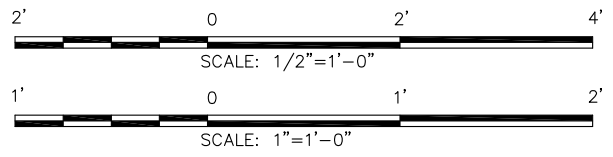
**DETAIL A**  
SCALE: 1" = 1'-0"



**ELEVATION-LIGHT POLE MOUNT**  
SCALE: 1/2" = 1'-0"



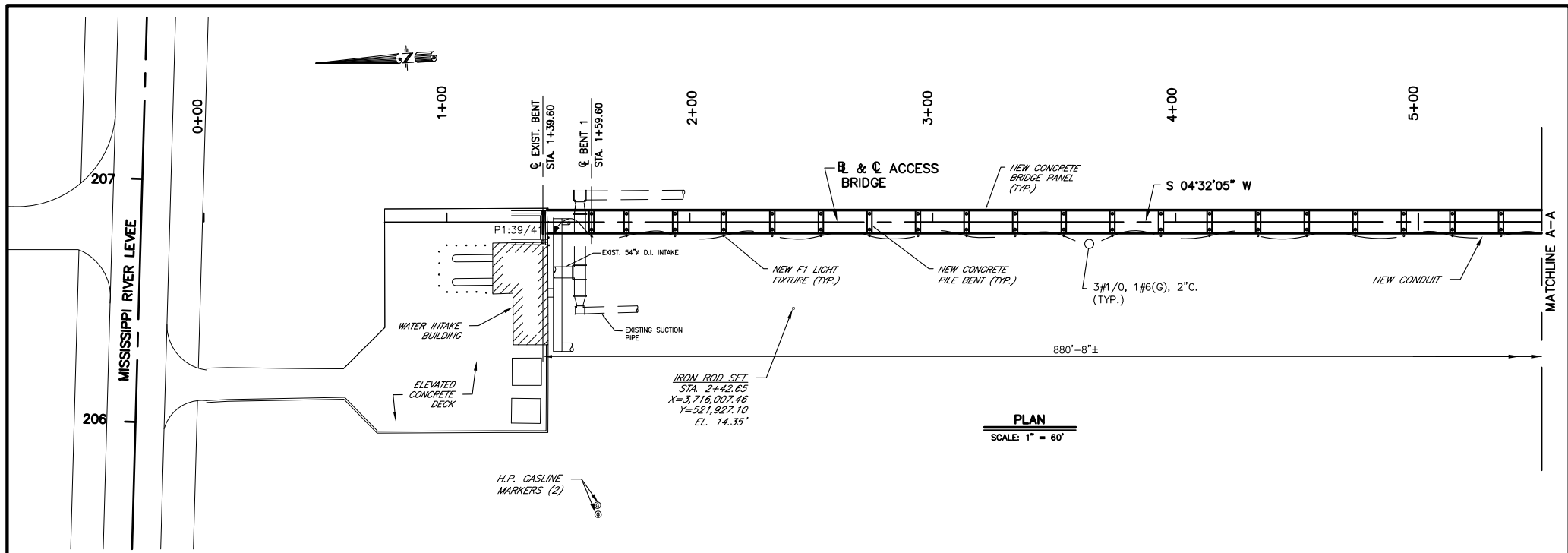
**SECTION 2**  
SCALE: 1/2" = 1'-0"



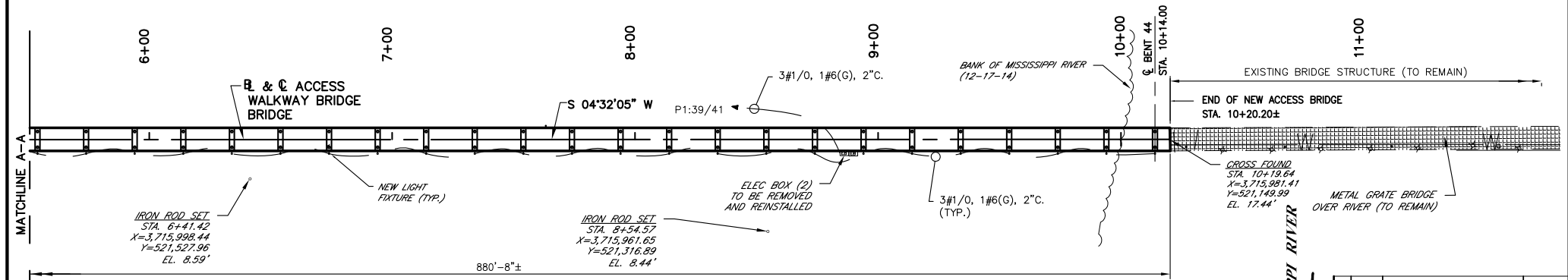
90%  
**PRELIMINARY**  
NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.  
**BURK-KLEINPETER, INC.**  
ENGINEER: SURENDRAKUMAR I. SHAM, P.E.  
LA LICENSE #: 17937  
DATE: JUNE, 2015

| REV.  | DATE          | DESCRIPTION     | BY        |
|---|---------------|-----------------|-----------|
|   |               |                 |           |
| <b>Burk-Kleinpeter, Inc.</b><br>Engineers, Architects, Planners, Environmental Scientists<br>4176 Canal Street, New Orleans Louisiana 70119 |               |                 |           |
| <b>FEMA PW16844</b><br><b>ST. BERNARD PARISH</b><br><b>RAW WATER INTAKE ACCESS BRIDGE</b>   |               |                 |           |
| <b>MISCELLANEOUS DETAILS</b>  |               |                 |           |
| JOB NO.   | DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO. |
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| REVIEWER  | DATE: 04/2015 |                 | C13.0     |
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| PLAN IN HAND  | CHECKED: SS   | FILE NO.        |           |





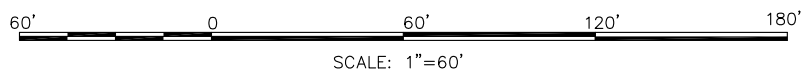
**PLAN**  
SCALE: 1" = 60'



**PLAN**  
SCALE: 1" = 60'

**LEGEND:**

- ★ - LIGHT POLE
- ⊙ - POWER POLE
- ⊙ - WATER METER
- ⊙ - WATER VALVE
- ⊙ - ELECTRIC BOX
- ⊙ - GAS MANHOLE
- — — — — CONDUIT LINE
- — — — — WATER LINE
- — — — — ELECTRIC LINE



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RECORDATION,  
CONVEYANCE, SALES  
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THE ISSUANCE OF A  
PERMIT.

BURK-KLEINPETER, INC.  
ENGINEER: PERRY P. HOGAN  
LICENSE #: LA 31042  
DATE: JULY, 2015

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
|      |      |             |    |
|      |      |             |    |

**Burk-Kleinpeter, Inc.**  
Engineers, Architects, Planners, Environmental Scientists  
4176 Canal Street, New Orleans Louisiana 70119

**FEMA PW16844**  
**ST. BERNARD PARISH**  
**RAW WATER INTAKE ACCESS BRIDGE**

**LIGHTING PLAN**

|              |               |                 |           |
|--------------|---------------|-----------------|-----------|
| JOB NO.      | DESIGNED: RM  | SCALE: AS SHOWN | SHEET NO. |
| No.14.044    | DATE: 07/2015 |                 | E2.0      |
| REVIEWER     | DRAWN: BL     | FILE NO.        | OF        |
| PLAN IN HAND | CHECKED: SS   |                 |           |