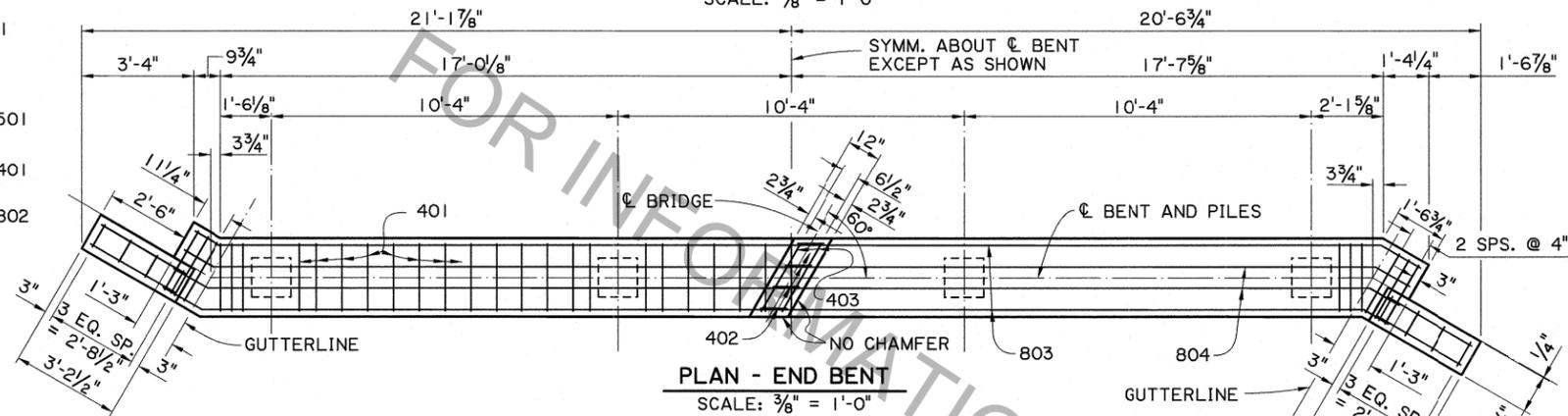
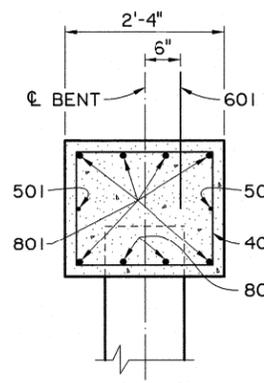


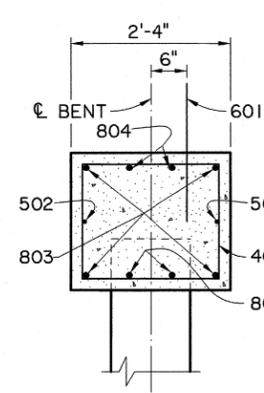
PLAN - INTERMEDIATE BENT  
SCALE: 3/8" = 1'-0"



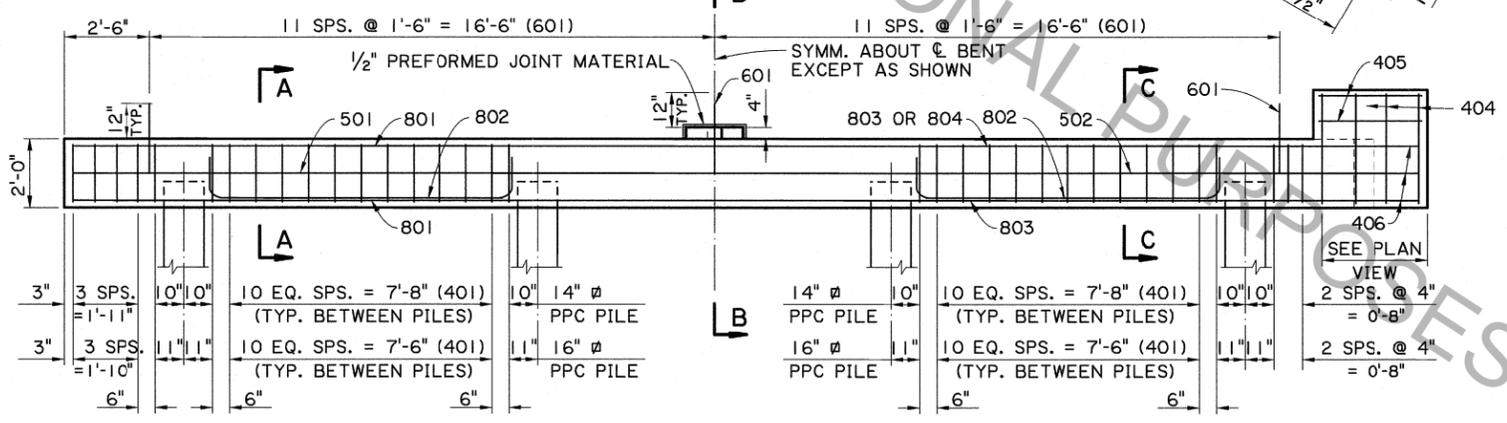
PLAN - END BENT  
SCALE: 3/8" = 1'-0"



SECTION A-A  
SCALE: 3/4" = 1'-0"

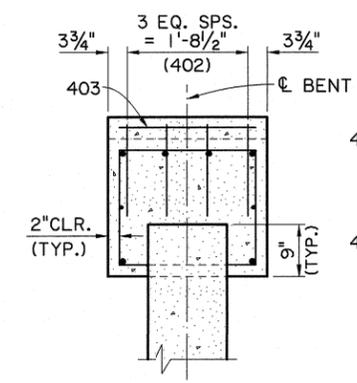


SECTION C-C  
SCALE: 3/4" = 1'-0"

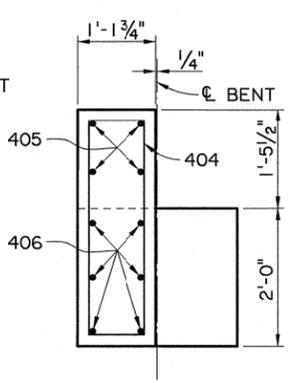


HALF ELEVATION - INTERMEDIATE BENT  
SCALE: 3/8" = 1'-0"

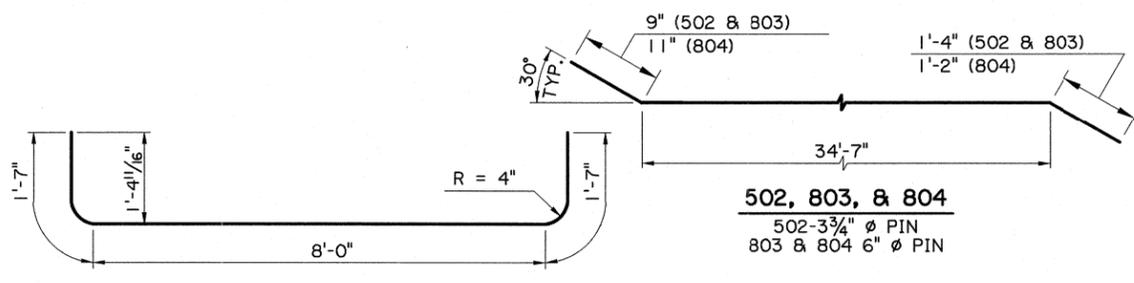
HALF ELEVATION - END BENT  
SCALE: 3/8" = 1'-0"



SECTION B-B  
SCALE: 3/4" = 1'-0"



END ELEVATION  
SCALE: 3/4" = 1'-0"



| AS-DESIGNED RATING |               |                            |
|--------------------|---------------|----------------------------|
| VEHICLE            | RATING FACTOR | NOTES                      |
| HL-93 (INV)        | 1.611         | ---                        |
| HL-93 (OPR)        | 2.089         | ---                        |
| LADV-11 (INV)      | 1.240         | MAGNIFICATION FACTOR = 1.3 |



| ESTIMATED QUANTITIES (ONE INTER. BENT)  |             |              |          |                   |
|---|-------------|--------------|----------|-------------------|
| BAR NO.   | UNIT LENGTH | TOTAL LENGTH | LOCATION |                   |
| 801   | 6           | 37'-8"       | 226'-0"  | LONGIT. IN CAP    |
| 802   | 6           | 11'-2"       | 67'-0"   | LONGIT. IN CAP    |
| <b>TOTAL NO. 8 BARS = 293'-0" = 782 LBS.</b>  |             |              |          |                   |
| 601   | 23          | 2'-0"        | 46'-0"   | DOWELS            |
| <b>TOTAL NO. 6 BARS = 46'-0" = 69 LBS.</b>  |             |              |          |                   |
| 501   | 2           | 37'-8"       | 75'-4"   | LONGIT. IN CAP    |
| <b>TOTAL NO. 5 BARS = 75'-4" = 79 LBS.</b>  |             |              |          |                   |
| 401   | 49          | 8'-2"        | 400'-2"  | STIRRUPS IN CAP   |
| 402   | 4           | 3'-5"        | 13'-8"   | STIRRUPS IN RISER |
| 403   | 2           | 2'-3"        | 4'-6"    | LONGIT. IN RISER  |
| <b>TOTAL NO. 4 BARS = 418'-4" = 279 LBS.</b>  |             |              |          |                   |
| <b>* TOTAL DEFORMED REINFORCING STEEL = 1,209 LBS.</b>  |             |              |          |                   |
| <b>CLASS A CONCRETE = 6.40 CU. YDS.</b>   |             |              |          |                   |
| <b>MAX. PILE LOAD: SERVICE DEAD LOAD = 29 TONS</b>  |             |              |          |                   |
| <b>SERVICE LIVE LOAD = 40 TONS</b>  |             |              |          |                   |
| <b>FACTORED TOTAL LOAD = 96 TONS</b>  |             |              |          |                   |
| <b>* ADD 69 LBS. OF REINFORCING STEEL (23-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.</b> |             |              |          |                   |

| ESTIMATED QUANTITIES (ONE END BENT)   |             |              |          |                      |
|---|-------------|--------------|----------|----------------------|
| BAR NO.   | UNIT LENGTH | TOTAL LENGTH | LOCATION |                      |
| 802   | 6           | 11'-2"       | 67'-0"   | LONGIT. IN CAP       |
| 803   | 4           | 36'-8"       | 146'-8"  | LONGIT. IN CAP       |
| 804   | 2           | 36'-8"       | 73'-4"   | LONGIT. IN CAP       |
| <b>TOTAL NO. 8 BARS = 287'-0" = 766 LBS.</b>  |             |              |          |                      |
| 601   | 23          | 2'-0"        | 46'-0"   | DOWELS               |
| <b>TOTAL NO. 6 BARS = 46'-0" = 69 LBS.</b>  |             |              |          |                      |
| 502   | 2           | 36'-8"       | 73'-4"   | LONGIT. IN CAP       |
| <b>TOTAL NO. 5 BARS = 73'-4" = 76 LBS.</b>  |             |              |          |                      |
| 401   | 51          | 8'-2"        | 416'-6"  | STIRRUPS IN CAP      |
| 402   | 4           | 3'-5"        | 13'-8"   | STIRRUPS IN RISER    |
| 403   | 2           | 2'-3"        | 4'-6"    | LONGIT. IN RISER     |
| 404   | 8           | 8'-9"        | 70'-0"   | STIRRUPS IN WINGWALL |
| 405   | 8           | 2'-10"       | 22'-8"   | LONGIT. IN WINGWALL  |
| 406   | 12          | 4'-0"        | 48'-0"   | LONGIT. IN WINGWALL  |
| <b>TOTAL NO. 4 BARS = 575'-4" = 384 LBS.</b>  |             |              |          |                      |
| <b>TOTAL DEFORMED REINFORCING STEEL = 1,295 LBS.</b>  |             |              |          |                      |
| <b>CLASS A CONCRETE = 7.08 CU. YDS.</b>   |             |              |          |                      |
| <b>MAX. PILE LOAD: SERVICE DEAD LOAD = 29 TONS</b>  |             |              |          |                      |
| <b>SERVICE LIVE LOAD = 40 TONS</b>  |             |              |          |                      |
| <b>FACTORED TOTAL LOAD = 96 TONS</b>  |             |              |          |                      |
| <b>16" # PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.05 CU. YDS. OF CLASS A CONCRETE PER BENT WHEN 14" # PPC PILES ARE USED.)</b> |             |              |          |                      |

**BENT NOTES:**

**CONSTRUCTION SPECIFICATIONS:** LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.  
**DESIGN SPECIFICATIONS:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION WITH 2008 & 2009 INTERIMS.  
**DESIGN LOAD:** LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).  
**STRUCTURAL CONCRETE:** ALL CONCRETE SHALL BE CLASS A. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER SUB-SECTION 805.13 OF THE STANDARD SPECIFICATIONS, EXCEPT WHEN SPECIFIED ELSEWHERE IN THE PLANS. 1/2" PREFORMED JOINT MATERIAL AND ASPHALT SATURATED FELT SHALL BE INCLUDED IN THE PRICE BID FOR CLASS A CONCRETE.  
**REINFORCING STEEL:** ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED. DOWELS (601 BARS) SHALL BE PROVIDED AT ALL FIXED BEARINGS AND APPROACH SLAB BEARINGS (SEE GENERAL PLAN). ALL EXPOSED ENDS OF DOWELS SHALL BE WRAPPED WITH TWO LAYERS OF 15 LB. ASPHALT SATURATED FELT. CLOSE FITTING TUBES OF COMPRESSIBLE MATERIAL NOT LESS THAN 3/16" THICK MAY BE SUBSTITUTED.  
**PRECAST CONCRETE PILES:** FOR DETAILS SEE STANDARD DETAIL CS-216. EXTERIOR PILES ARE TO BE BATTERED OUTWARD AT 1/2 ON 12 IN THE LONGITUDINAL DIRECTION OF THE BENT, WHEN NOTED ON THE GENERAL PLAN.  
**PREFORMED JOINT MATERIAL:** PREFORMED JOINT MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 805.12 OF THE STANDARD SPECIFICATIONS.

SHEET NUMBER: \_\_\_\_\_

DESIGNED BY: J. NAKHLEH  
 CHECKED BY: J. PAINE  
 DATE: 10/10/2011

PROJECT: REINFORCED CONCRETE PILE BENT  
 30'-0" CLEAR ROADWAY  
 60" CROSSING TWO WAY TANGENT

REVISION DESCRIPTION: \_\_\_\_\_

NO. \_\_\_\_\_ DATE \_\_\_\_\_

STANDARD DETAIL: BCSSBR-60-30TWT-20SL

BRIDGE AND STRUCTURAL DESIGN