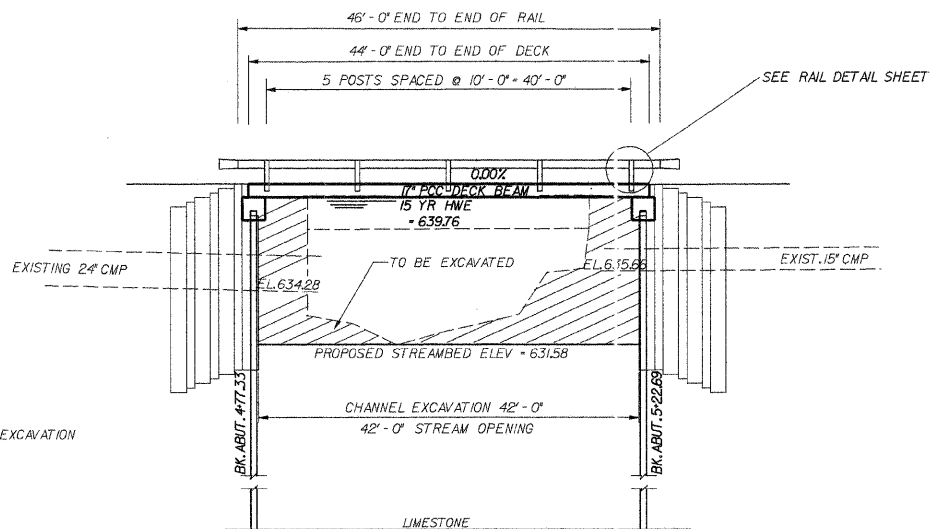


**DESIGN STRESSES**

|      |         |        |                       |
|------|---------|--------|-----------------------|
| f'c  | 5,000   | P.S.I. | (PRESTRESSED BEAMS)   |
| f'cl | 4,000   | P.S.I. | (PRESTRESSED BEAMS)   |
| f'c  | 3,500   | P.S.I. | (CLASS X CONCRETE)    |
| f's  | 270,000 | P.S.I. | (PRESTRESSED STRANDS) |
| f'sl | 189,000 | P.S.I. | (PRESTRESSED STRANDS) |
| f'y  | 60,000  | P.S.I. | (REINFORCEMENT BARS)  |

LOADING HS 20-44 DESIGN SPECS. 1996 AASHTO & 1997 THRU 2002 INTERIMS

EXISTING STRUCTURE NO. 015-3180 - SINGLE SPAN CONCRETE DECK BEAM BRIDGE WITH TIMBER ABUTMENTS, SKEWED 0 DEGREES. REMOVAL OF EXISTING STRUCTURES - 1 EACH.



= CHANNEL EXCAVATION

**TOTAL BILL OF MATERIAL**

| ITEM  | UNIT    | SUPER | SUB  | TOTAL |
|---|---------|-------|------|-------|
| PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH) | SO. FT. | 1232  |      | 1232  |
| CONCRETE STRUCTURES                                 | CU. YD. |       | 15.2 | 15.2  |
| REINFORCEMENT BARS                                  | POUND   |       | 960  | 960   |
| STEEL RAILING, TYPE S-1                             | FOOT    | 92    |      | 92    |
| NAME PLATES   | EACH    | 1     |      | 1     |
| FURNISHING STEEL PILES HP 8 X 36                    | FOOT    |       | 450  | 450   |
| DRIVING PILES                                       | FOOT    |       | 450  | 450   |
| TEST PILE, STEEL HP 8 X 36                          | EACH    |       | 1    | 1     |
| CHANNEL EXCAVATION                                  | CU. YD. |       | 295  | 295   |
| STONE DUMPED RIPRAP, CLASS A-4                      | TON     |       | 50   | 50    |
| PERMANENT STEEL SHEET PILING                        | SO. FT. |       | 1976 | 1976  |
| REMOVAL OF EXISTING STRUCTURES                      | EACH    | 1     |      | 1     |
| HARDWARE  | POUND   |       | 1584 | 1584  |

**GENERAL NOTES**

SEE PLAN AND PROFILE SHEET FOR BORING LOCATION

BORING DATA IS SHOWN ONLY AS A GUIDE TO BIDDERS IN ESTIMATING SOIL CONDITIONS WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION

SEE SHEET NO. 8 FOR BORING DATA.

BORING #2 INDICATES SAND EXISTS AT A DEPTH OF ABOUT 1 FOOT BELOW THE BOTTOM OF THE FOOTING, WITH CLAY ABOVE.

NO BACKFILL SHALL BE PLACED BEHIND THE PROPOSED ABUTMENTS UNTIL THE SUPER STRUCTURE IS DOWELED IN PLACE. SEE ARTICLE 502J OF THE STANDARD SPECIFICATIONS.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31, M42 OR M53 GRADE 60

LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER

BENCHMARK ELEV. 638.88  
RR SPIKE IN POWER POLE 20' RT. STA 5-72

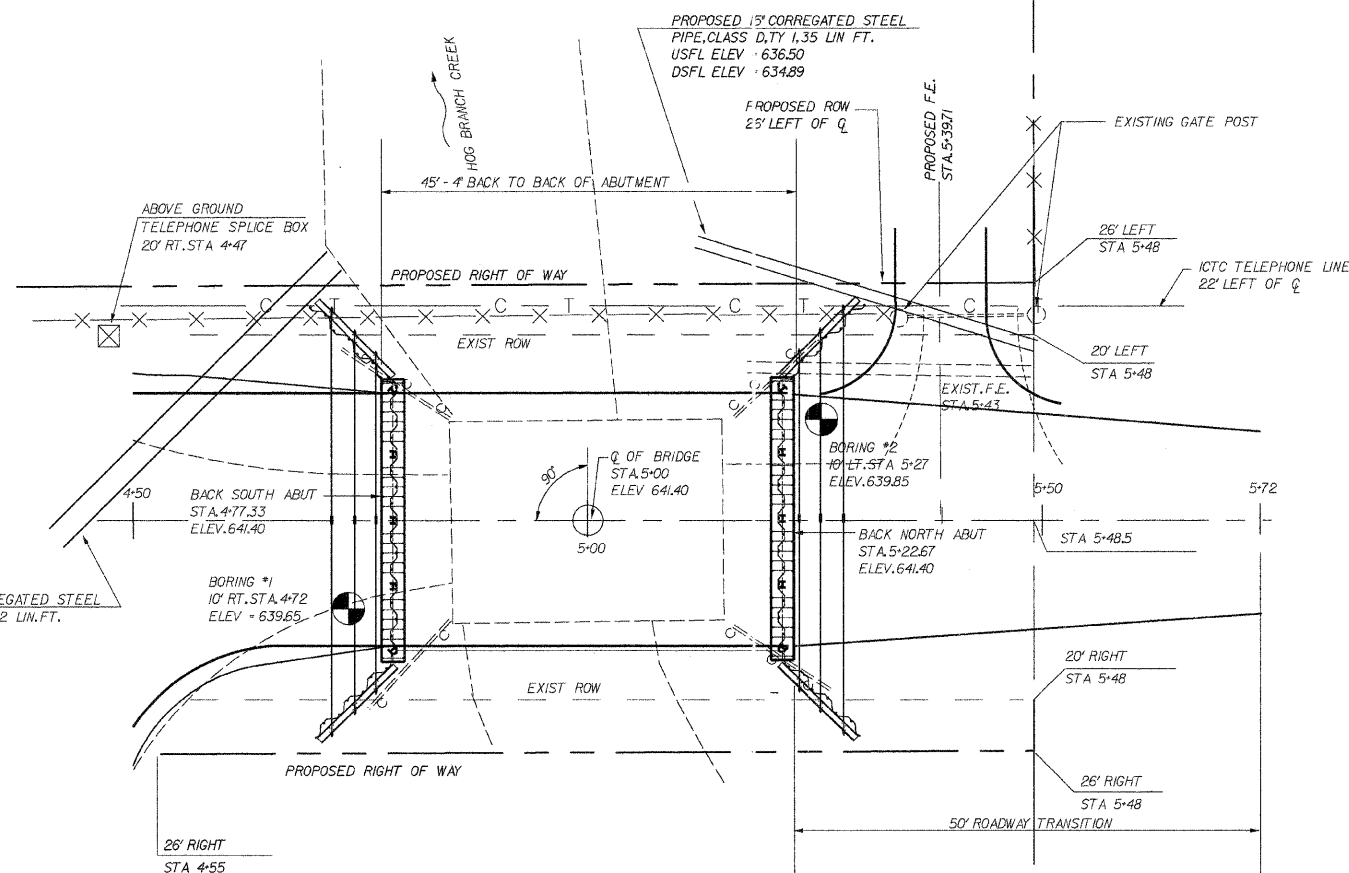
CHANNEL EXCAVATION SHALL EXTEND TO PROPOSED RIGHT OF WAY LINES.

IF RIPRAP IS NEEDED IT WILL BE PLACED AS DIRECTED BY ENGINEER

PROPOSED 24" CORRUGATED STEEL PIPE, CLASS D, TY 1, 82 LIN. FT., USFL ELEV - 637.71 DSFL ELEV - 634.00

**ELEVATION**

VERTICAL SCALE - 1" = 5'  
HORIZONTAL SCALE - 1" = 10'



**PLAN**

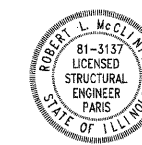
**WATERWAY INFORMATION**

PROPOSED LOW GRADE = 640.25 @ STA 7+00

| DRAINAGE AREA - 14.02 SQ. MI. |                                 | EXIST LOW GRADE ELEV. 639.18 AT STATION 6+50 |                             |       |             |               |       |
|-------------------------------|---------------------------------|--|-----------------------------|-------|-------------|---------------|-------|
| FLOOD                         | FREQ.                           | Q  | OPENING SQ. FT.             | NAT.  | HEAD - FOOT | HEADWATER EL. |       |
|                               | YR.                             | C.F.S.                                       | EXISTING                    | PROP. | H.W.E.      | EXIST.        | PROP. |
| DESIGN                        | 15                              | 842  | 136                         | 308   | 639.76      | 0.39          | 0.33  |
| BASE                          | 100                             | 1257   | 136                         | 308   | 640.36      | 0.28          | 0.70  |
| OVERTOPPING                   | EXIST 15 YR OTR FLOW - 358 CFS  |  | PROPOSED OTR FLOW - 0 CFS   |       |             |               |       |
| MAX. CALC.                    | EXIST 100 YR OTR FLOW - 831 CFS |  | PROPOSED OTR FLOW - 209 CFS |       |             |               |       |

SEC. 06-03123-00-BR BUILT 200  
EAST OAKLAND ROAD DIST.  
COLES COUNTY  
LOADING HS 20  
BROS-029 (281)  
STR. NO. 015-3421

**NAME PLATE DETAIL**  
(SEE STANDARD 515001)



"I certify that to the best of my knowledge, information, and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current 'A.A.S.H.T.O. Standard Specifications for Highway Bridges."  
*Robert L. McClintock* Date: 6/26/08  
Robert L. McClintock ILL. S.E.# 3137  
License Expires 11-13-08

SCALE 1" = 10'

|  |   |   |                     |
|--|---|---|---------------------|
| <b>GENERAL PLAN &amp; ELEVATION</b>                            |   | McCLINTOCK<br>CIVIL ENGINEERING SERVICE<br>404 SHAW STREET, PARIS, IL 61944<br>PHONE (717) 466-6100 |                     |
| SEC. 06-03123-00-BR<br>EAST OAKLAND ROAD DIST.<br>COLES COUNTY | DRN SDE DATE 4/10/07<br>REV. 6/23/08 SCALE 1" = 10' | SHEET 4 OF 13   | JOB NO. 3137-729-06 |
|  | APPR.   |   |                     |