

01-19-2024 LETTING ITEM 122

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
SURFACE TRANSPORTATION PROGRAM - BRIDGE

SECTION 08-09133-00-BR RICHLAND COUNTY

PROJECT 3BML(437)

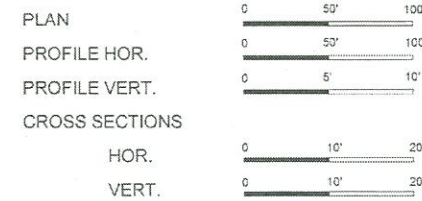
JOB NO. C-97-069-22

TR 35A

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------|----------------|----------|-------------------|-----------|
| TR 35A | 08-09133-00-BR | RICHLAND | 18 | 1 |
| CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |

INDEX OF SHEETS

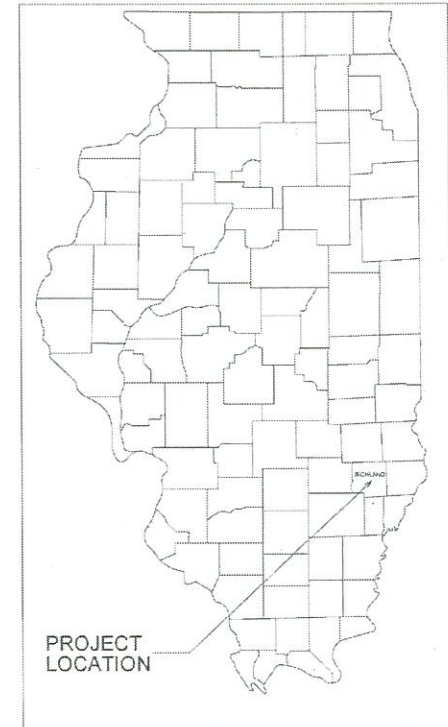
| SHEET | ITEM |
|-------|--|
| 1 | COVER SHEET |
| 2 | SUMMARY OF QUANTITIES, TYPICAL SECTIONS, AND GENERAL NOTES |
| 3 | SCHEDULE OF QUANTITIES AND SCHEDULE OF DRAINAGE STRUCTURES |
| 4 | ROADWAY PLAN AND PROFILE |
| 5 | ROADWAY SHOULDER AND GUARDRAIL PLAN |
| 6 | DRAINAGE STRUCTURE DETAILS |
| 7 | GENERAL PLAN AND ELEVATION |
| 8 | PRECAST PRESTRESS CONCRETE DECK BEAM DETAILS |
| 9 | PRECAST PRESTRESS CONCRETE DECK BEAM DETAILS |
| 10 | STEEL RAILING, TYPE S-1 DETAILS |
| 11 | ABUTMENT DETAILS |
| 12 | HP PILE DETAILS |
| 13 | SCORING LOGS |
| 14-18 | CROSS SECTIONS OF ROADWAY |



NOTE: SCALES VALID FOR 22" X 34" SHEETS

Joint Utility Locating Information for Excavators

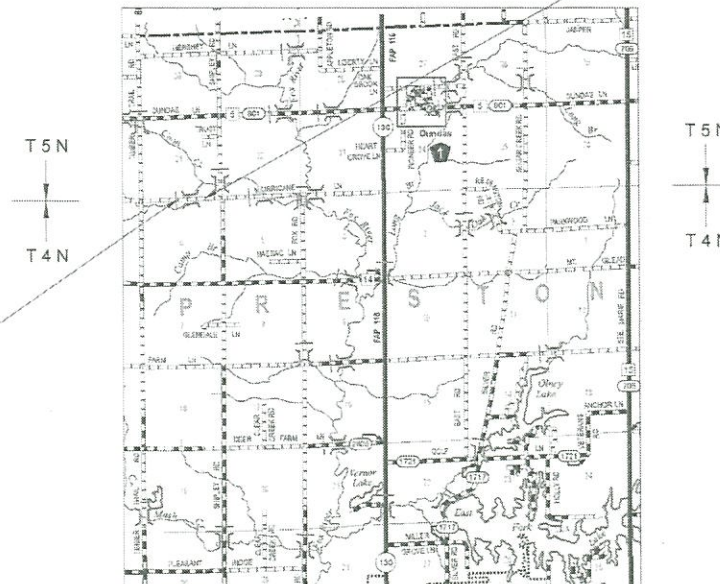
JULIE 1-800-892-0123



- STANDARD DRAWINGS
- STANDARD 000001-08
 - STANDARD 280001-07
 - STANDARD 565001-04
 - STANDARD 602401-07
 - STANDARD 604036-03
 - STANDARD 630301-09
 - STANDARD 701901-09
 - STANDARD 725001-01
 - STANDARD BLR 21-9
 - STANDARD BLR 23-4
 - STANDARD BLR 24-2
 - STANDARD BLR 26-3
 - STANDARD BLR 27-1

R 10 E

SECTION 08-09133-00-BR ENDS STA. 6+75.00



SECTION 08-09133-00-BR BEGINS STA. 0+50.00

SINGLE-SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE
58'-1 1/2" BK - BK ABUTMENTS
STEEL H PILE / SPILLTHROUGH ABUTMENTS
24' WIDE DECK
EXISTING STRUCTURE NO. 080-3038
PROPOSED STRUCTURE NO. 080-3233

R 10 E

NET LENGTH SECTION 08-09133-00-BR = 625.00 FL = 0.118 MI.

CONTRACT 95936
FUNCTIONAL CLASSIFICATION - LOCAL ROAD
ADT = 75
DESIGN SPEED = 30 MPH



Brian M. Brooks
3/28/2023

LICENSE EXPIRES 11/30/2023

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS
105 NORTH KITCHELL
P.O. BOX 357
OLNEY, ILLINOIS 62450
(618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #134.002513

APPROVED April 3, 2023
Danny A. Cornell, P.E.
COUNTY ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PASSED 04/13/23
Bob Hall
DISTRICT SEVEN ENGINEER OF
LOCAL ROADS AND STREETS

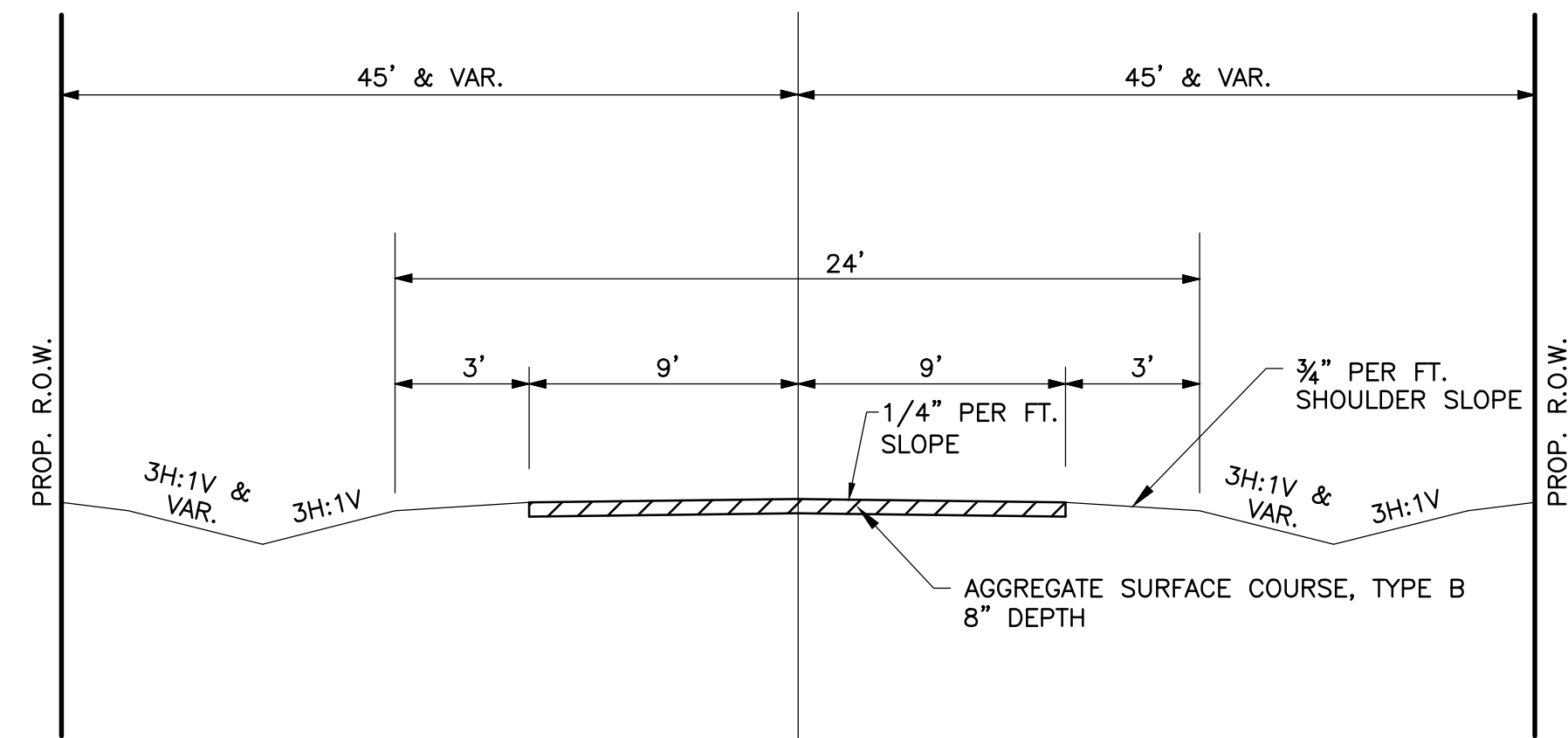
Releasing For
Bid Based on
Limited Review
04/13/23
Jeffrey M. Ryan, P.E.
REGION FOUR ENGINEER

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT JULIE (1-800-892-0123) BEFORE COMMENCING WORK. UNDERGROUND UTILITIES SHOWN ON THE PLAN SHEETS WERE OBTAINED FROM LOCAL UTILITY COMPANIES AND OTHER AVAILABLE SOURCES. LOCATIONS, SIZE, MATERIAL, DESCRIPTION, OR TYPE OF EXISTING UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT, OR COMPLETE AND SHALL BE CONSIDERED APPROXIMATE. ABOVE GROUND UTILITY LOCATIONS ARE SHOWN AS FOUND DURING THE INITIAL SURVEY FIELD WORK AND MAY NOT REFLECT CURRENT CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND COORDINATION WITH UTILITY COMPANIES.

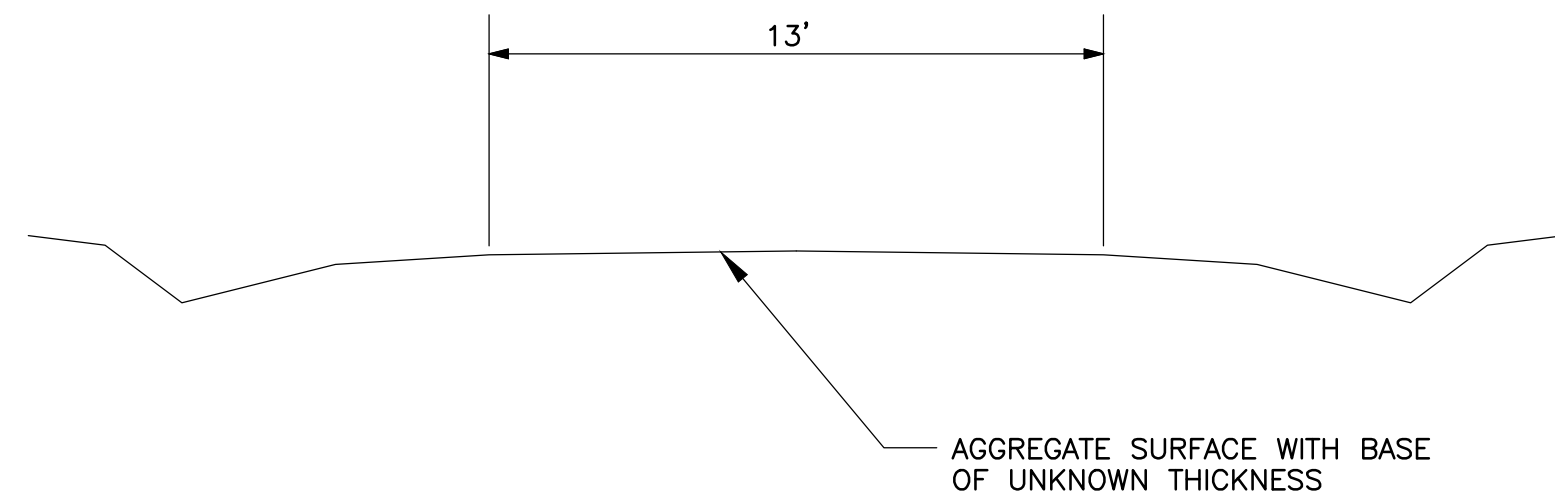
THE FOLLOWING RATES HAVE BEEN USED TO CALCULATE PLAN QUANTITIES:

AGGREGATE DITCH (SPECIAL) 1.75 TONS/CU YD
 AGGREGATE SURFACE COURSE, TY-B 2.0 TONS/CU YD



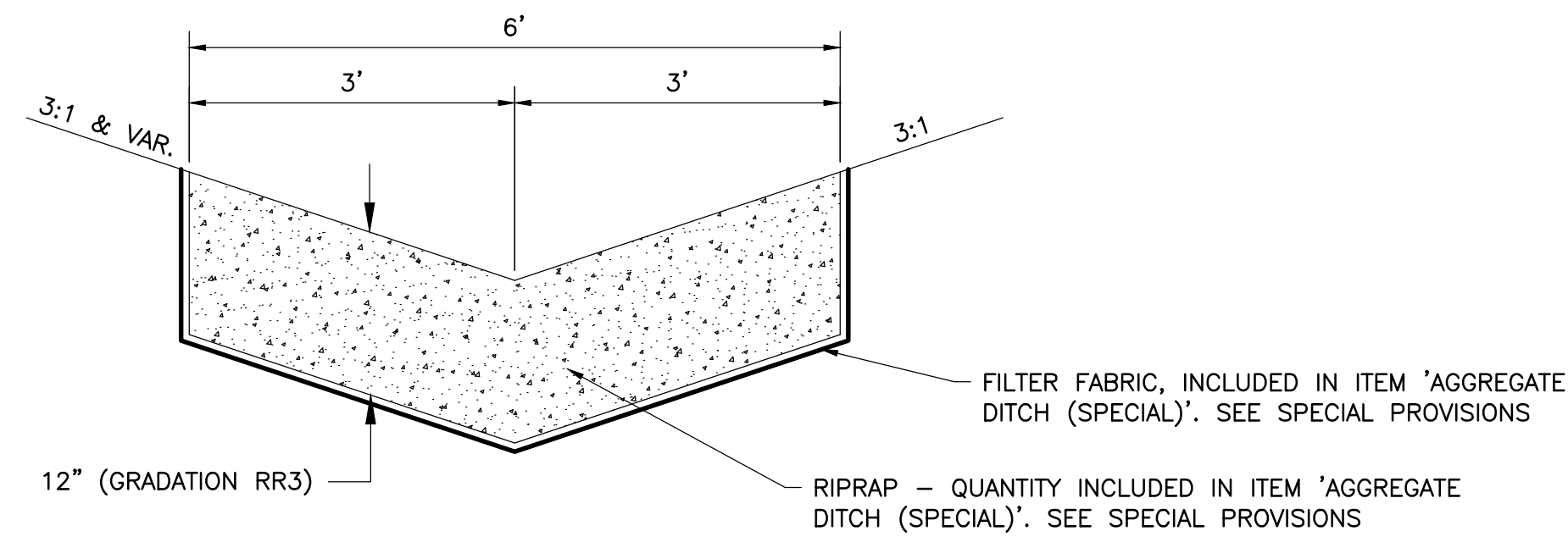
TYPICAL SECTION

PROPOSED
(LOOKING EAST)



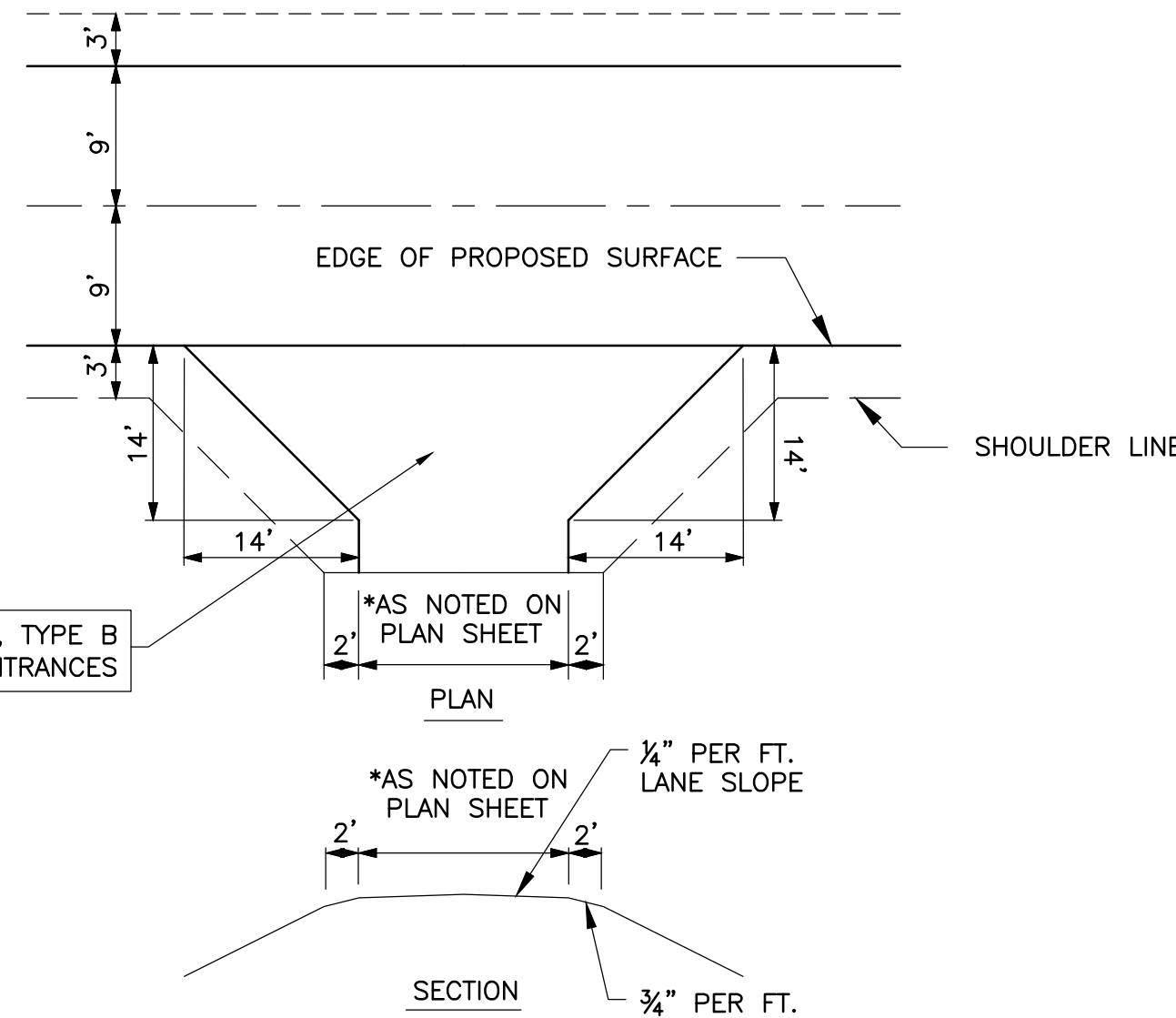
TYPICAL SECTION

EXISTING



AGGREGATE DITCH (SPECIAL) DETAIL

LT. STA. 1+80 TO 3+75
 RT. STA. 2+00 TO 3+25
 LT. STA. 4+25 TO 5+90
 RT. STA. 4+20 TO 5+55
 RT. STA. 5+95 TO 6+50



ENTRANCE DETAIL

LT. STA. 1+00 - FE
 LT. STA. 1+47 - PE
 RT. STA. 1+55 - FE
 RT. STA. 5+75 - FE

COMMITMENTS

1. U.S. ARMY CORPS OF ENGINEERS SECTION 404 NATIONWIDE PERMIT.
2. TREES THREE (3) INCHES OR GREATER IN DIAMETER AT BREAST HEIGHT SHALL NOT BE CLEARED BETWEEN APRIL 1 AND SEPTEMBER 30 OF ANY GIVEN YEAR.

SCHEDULE OF KNOWN UTILITIES

DESIGN STAGE JULIE NO. A221923537

| UTILITY COMPANY | TYPE | CONTACT NAME | PHONE NUMBER | E-MAIL ADDRESS | MAILING ADDRESS |
|-------------------------|----------------|----------------|--------------|---------------------------|---|
| NORRIS ELECTRIC CO-OP | ELECTRIC | DOUG KLIER | 618-873-8765 | dklier@norriselectric.com | 8543 N. STATE HIGHWAY 130, NEWTON, IL 62448 |
| FRONTIER COMMUNICATIONS | COMMUNICATIONS | BRIAN VANGUNDY | 618-395-6189 | brian.vangundy@ftr.com | 225 E. CHESTNUT ST, OLNEY, IL 62450 |
| EJ WATER COOPERATIVE | WATER LINE | DEAN SWINGLER | 217-925-5566 | dswingler@ejwatercoop.com | 108 S. MAIN STREET, DIETERICH, IL 62424 |
| CITATION OIL & GAS CO. | PIPELINE | RODNEY TUCKER | 618-676-1044 | rtucker@cogc.com | 3943 BIG FOUR ROAD, CLAY CITY, IL 62824 |

| SUMMARY OF QUANTITIES | | | |
|-----------------------|---|--------|----------|
| CODE NO. | ITEM | UNIT | QUANTITY |
| X0322916 | PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER | EACH | 1 |
| X0327301 | RELOCATE EXISTING MAILBOX | EACH | 1 |
| * X2300007 | TRAFFIC BARRIER TERMINAL, TYPE 1 | EACH | 1 |
| X2501000 | SEEDING, CLASS 2 (SPECIAL) | ACRE | 0.65 |
| X2830495 | AGGREGATE DITCH (SPECIAL) | TON | 315 |
| Z0013798 | CONSTRUCTION LAYOUT | L. SUM | 1 |
| * 20100500 | TREE REMOVAL, ACRES | ACRE | 0.20 |
| 20200100 | EARTH EXCAVATION | CU YD | 930 |
| 20300100 | CHANNEL EXCAVATION | CU YD | 505 |
| 20700110 | POROUS GRANULAR EMBANKMENT | TON | 100 |
| 20800150 | TRENCH BACKFILL | CU YD | 50 |
| 28100807 | STONE DUMPED RIPRAP, CLASS A4 | TON | 528 |
| 40200800 | AGGREGATE SURFACE COURSE, TYPE B | TON | 715 |
| 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50105220 | PIPE CULVERT REMOVAL | FOOT | 94 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 31.2 |
| 50300280 | CONCRETE ENCASMENT | CU YD | 2.8 |
| 50400405 | PRECAST PRESTRESSED CONCRETE DECK BEAMS (21" DEPTH) | SQ FT | 1344 |
| 50800105 | REINFORCEMENT BARS | POUND | 4080 |
| * 50900200 | STEEL RAILING, TYPE S1 | FOOT | 117 |
| 51201600 | FURNISHING STEEL PILES HP12X53 | FOOT | 161 |
| 51202305 | DRIVING PILES | FOOT | 161 |
| 51203600 | TEST PILE STEEL HP12X53 | EACH | 1 |
| 51500100 | NAME PLATES | EACH | 1 |
| 54213450 | END SECTIONS 15" | EACH | 1 |
| 542D0217 | PIPE CULVERTS, CLASS D, TYPE 1 12" | FOOT | 40 |
| 542D0220 | PIPE CULVERTS, CLASS D, TYPE 1 15" | FOOT | 40 |
| 550B0360 | STORM SEWERS, CLASS B, TYPE 2 15" | FOOT | 60 |
| 550B0410 | STORM SEWERS, CLASS B, TYPE 2 24" | FOOT | 60 |
| 60100915 | PIPE DRAINS 6" | FOOT | 20 |
| 60219000 | MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE | EACH | 2 |
| * 63100075 | TRAFFIC BARRIER TERMINAL, TYPE 5A | EACH | 2 |
| * 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT | EACH | 1 |
| 67100100 | MOBILIZATION | L. SUM | 1 |
| * 72501000 | TERMINAL MARKER - DIRECT APPLIED | EACH | 4 |

*SPECIALIY ITMES

CHARLESTON ENGINEERING, INC.
 CONSULTING ENGINEERS - LAND SURVEYORS
 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
 P.O. BOX 397 (618) 392-0736
 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

| | |
|----------------|-----------|
| DESIGNED - BMB | REVISED - |
| DRAWN - BMB | REVISED - |
| CHECKED - BMB | REVISED - |
| DATE - 3-2023 | REVISED - |

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES, TYPICAL SECTIONS,
 AND GENERAL NOTES

| | | | | |
|----------------|----------------|----------|-------------------|-----------|
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| T.R. 35A | 08-09133-00-BR | RICHLAND | 18 | 2 |
| CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |

| EARTHWORK SCHEDULE | | | | | | | | | | |
|---|---|--------------------------|----------------------------|------------------|---------------------------------------|-------------------------------------|----------------------|--|--------------------|---|
| CODE NUMBER | | 20200100 | 20300100 | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| LOCATION | STATION | EARTH EXCAVATION (CU YD) | CHANNEL EXCAVATION (CU YD) | PERCENT USED (%) | ESTIMATED UNSUITABLE MATERIAL (CU YD) | ESTIMATED SUITABLE MATERIAL (CU YD) | SHRINKAGE FACTOR (%) | ESTIMATED SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE (CU YD) | EMBANKMENT (CU YD) | EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD) |
| LT. & RT. | STA. 0+50 TO 3+61.94 | 300 | | 100 | 0 | 300 | 25 | 225 | 165 | 60 |
| LT. & RT. | STA. 3+61.94 TO 4+20.06 (PROPOSED BRIDGE) | | 505 | 50 | 252.5 | 252.5 | 25 | 189 | | 189 |
| LT. & RT. | STA. 4+20.06 TO 6+75 | 155 | | 100 | 0 | 155 | 25 | 116 | 290 | -174 |
| SUBTOTAL = | | 455 | 505 | | 252.5 | 707.5 | | 530 | 455 | |
| VOLUMES NOT SHOWN ON CROSS SECTION SHEETS | | | | | | | | | | |
| LT. & RT. | CONCRETE STRUCTURES & AGG. ABUTMENT BACKFILL VOID | 115 | | 100 | 0 | 115 | 25 | 86 | | 86 |
| LT. & RT. | AGGREGATE DITCH (SPECIAL) | 175 | | 100 | 0 | 175 | 25 | 131 | | 131 |
| LT. | STA. 0+80 (DITCH TO DS #1) | 45 | | 100 | 0 | 45 | 25 | 34 | | 34 |
| LT. | STA. 1+00 (FIELD ENTRANCE) | | | | | | | | 10 | -10 |
| LT. | STA. 1+25 (DITCH TO END SECTION 15") | 5 | | 100 | 0 | 5 | 25 | 4 | | 4 |
| LT. | STA. 1+25 (EMBANKMENT OVER PROP STM. SEW.) | | | | | | | | 20 | -20 |
| LT. | STA. 1+50 (PRIVATE ENTRANCE) | | | | | | | | 5 | -5 |
| RT. | STA. 1+50 (FIELD ENTRANCE) | | | | | | | | 5 | -5 |
| LT. | STA. 1+64 (DITCH TO D.S. #3) | 65 | | 100 | 0 | 65 | 25 | 49 | | 49 |
| LT. | STA. 0+84 TO 1+26 (STORM SEWERS) | 70 | | 100 | 0 | 70 | 25 | 53 | | 53 |
| RT. | STA. 5+75 (FIELD ENTRANCE) | | | | | | | | 15 | -15 |
| TOTAL = | | 930 | 505 | | 252.5 | 1182.5 | 150 | 887 | 510 | 377 |

- NOTES: 1. COST OF EXCAVATION FOR CONCRETE STRUCTURES INCLUDED IN ITEM "EARTH EXCAVATION."
2. SUITABLE MATERIAL EXCAVATED FROM THE CHANNEL SHALL BE USED TO CONSTRUCT THE SHOULDER WIDENING - SEE SPECIAL PROVISIONS.
3. UNSUITABLE MATERIAL SHALL BE DISPOSED OFF THE JOBSITE BY THE CONTRACTOR.
4. WASTE = 380 C.Y.

| ROADWAY SCHEDULE | | |
|------------------|------------------------------|--|
| CODE NUMBER | | 40200800 |
| LOCATION | STATION | AGGREGATE SURFACE COURSE, TYPE B (TON) |
| LT. & RT. | STA. 0+50 TO 6+75 | 600 |
| LT. | STA. 1+03 (FIELD ENTRANCE) | 35 |
| LT. | STA. 1+47 (PRIVATE ENTRANCE) | 40 |
| RT. | STA. 1+55 (FIELD ENTRANCE) | 15 |
| LT. | STA. 5+75 (FIELD ENTRANCE) | 25 |
| TOTAL = | | 715 |

| PIPE CULVERT SCHEDULE | | | |
|-----------------------|-----------|---|---|
| CODE NUMBER | | 542D0217 | 542D0220 |
| LOCATION | STATION | PIPE CULVERTS, CLASS D, TYPE 1 12" (FOOT) | PIPE CULVERTS, CLASS D, TYPE 1 15" (FOOT) |
| RT. | STA. 1+55 | 40 | |
| RT. | STA. 5+00 | | 40 |
| TOTAL = | | 40 | 40 |

| PIPE CULVERT REMOVAL SCHEDULE | | | | |
|-------------------------------|-----------|---------------|--------------|-----------------------------|
| ITEM NUMBER | | 50105220 | | |
| LOCATION | STATION | DIAMETER (IN) | TYPE | PIPE CULVERT REMOVAL (FOOT) |
| LT. | STA. 1+06 | 12 | STEEL CASING | 42 |
| LT. | STA. 1+48 | 18 | CMP | 32 |
| RT. | STA. 1+55 | 12 | CMP | 20 |
| TOTAL = | | | | 94 |

| TREE REMOVAL | | |
|--------------|-------------------|----------------------|
| ITEM NUMBER | | 20100500 |
| LOCATION | STATION | TREE REMOVAL (ACRES) |
| LT. | STA. 1+65 TO 1+75 | 0.01 |
| LT. | STA. 3+20 TO 5+75 | 0.19 |
| TOTAL = | | 0.20 |

| RELOCATE EXISTING MAILBOX | | |
|---------------------------|-----------|----------------------------------|
| ITEM NUMBER | | X0327301 |
| LOCATION | STATION | RELOCATE EXISTING MAILBOX (EACH) |
| LT. | STA. 1+35 | 1 |
| TOTAL = | | 1 |

| GUARDRAIL SCHEDULE | | | | | |
|--------------------|-------------------|---|--|---|---|
| CODE NUMBER | | X2300007 | 63100075 | 63100167 | 72501000 |
| LOCATION | STATION | TRAFFIC BARRIER TERMINAL, TYPE 1 (EACH) | TRAFFIC BARRIER TERMINAL, TYPE 5A (EACH) | TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT (EACH) | TERMINAL MARKER - DIRECT APPLIED (EACH) |
| RT. | STA. 3+18 TO 3+45 | | | 1 | |
| LT. | STA. 4+37 TO 4+65 | 1 | | | |
| RT. | STA. 3+45 TO 3+58 | | 1 | | |
| LT. | STA. 4+24 TO 4+37 | | 1 | | |
| RT. | STA. 3+18 | | | | 1 |
| LT. | STA. 3+66 | | | | 1 |
| RT. | STA. 4+15 | | | | 1 |
| LT. | STA. 4+65 | | | | 1 |
| TOTAL = | | 1 | 2 | 1 | 4 |

NOTE: SEE SHEET 5 FOR GUARDRAIL PLAN

| DITCH SCHEDULE | | |
|----------------|-------------------|---------------------------------|
| CODE NUMBER | | X2830495 |
| LOCATION | STATION | AGGREGATE DITCH (SPECIAL) (TON) |
| LT. | STA. 1+80 TO 3+75 | 85 |
| RT. | STA. 1+70 TO 3+25 | 70 |
| LT. | STA. 4+25 TO 5+90 | 70 |
| RT. | STA. 4+20 TO 5+55 | 60 |
| RT. | STA. 5+95 TO 6+50 | 30 |
| TOTAL = | | 315 |

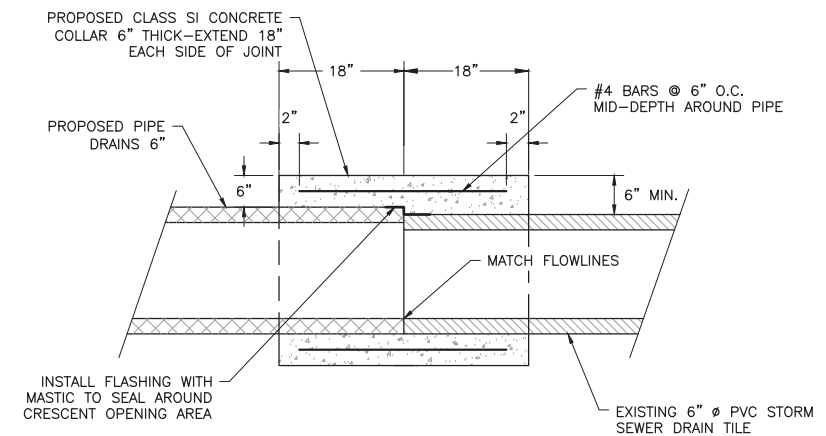
| SEEDING SCHEDULE | | | | | | |
|------------------|-------------------|-----------------------------------|---|--|---|-------------------------------------|
| CODE NUMBER | | X2501000 | FOR INFORMATION ONLY | | | |
| LOCATION | STATION | SEEDING, CLASS 2 (SPECIAL) (ACRE) | NITROGEN FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND) | PHOSPHOROUS FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND) | SUITABLE POTASSIUM FERTILIZER NUTRIENT (100 LBS/ACRE) (POUND) | MULCH METHOD 2 (2 TONS/ACRE) (TONS) |
| LT. & RT. | STA. 0+50 TO 3+62 | 0.35 | 35 | 35 | 35 | 0.70 |
| LT. & RT. | STA. 4+20 TO 6+75 | 0.30 | 30 | 30 | 30 | 0.60 |
| TOTAL = | | 0.65 | 65 | 65 | 65 | 1.30 |

NOTE: FERTILIZER AND MULCH QUANTITIES SHOWN ARE FOR INFORMATION ONLY, SEE SPECIAL PROVISIONS

| DRAINAGE STRUCTURES | | | | | | | | | | |
|---------------------------|-----------|-----------|--|-------------------------|--|---|--------------------------------------|--------------------------------|--------------------------------|-----------------------|
| CODE NUMBER | | X0322916 | 54213450 | 60219000 | | | | | | |
| DRAINAGE STRUCTURE NUMBER | LOCATION | STATION | PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER (EACH) | END SECTIONS 15" (EACH) | MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE (EACH) | ITEM | PROPOSED TOP OF GRATE ELEVATION (FT) | U.S.F.L. INVERT ELEVATION (FT) | D.S.F.L. INVERT ELEVATION (FT) | INVERT ELEVATION (FT) |
| 1 | 19.1' LT. | STA. 0+84 | | | | U.S.F.L. OF #1 (INLET END) | - | 469.20 | - | - |
| 2 | 19.2' LT. | STA. 1+25 | | | 1 | MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE | 467.75 | 464.65 | 464.55 | - |
| 3 | 22.1' LT. | STA. 1+68 | | | 1 | MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE | 467.50 | 464.00 | 463.95 | - |
| 4 | 19.2' LT. | STA. 1+89 | | | | D.S.F.L. OF #4 (OUTFALL END) | - | - | 463.68 | - |
| 5 | 34.2' LT | STA. 1+26 | | 1 | | END SECTIONS 15" | - | 470.30 | - | - |
| 6 | 26.0' LT | STA. 1+20 | 1 | | | PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER | - | - | - | MATCH EX. PIPE EL. |
| TOTAL = | | | 1 | 1 | 2 | | | | | |

NOTE: MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE SHALL BE FURNISHED WITH A REINFORCED CONCRETE FLAT SLAB TOP. THE COST OF FURNISHING AND INSTALLING THE FLAT SLAB TOP SHALL BE INCLUDED IN THE COST OF ITEM "60219000 - MANHOLES, TYPE A, 4'-DIAMETER, TYPE 8 GRATE"

| STORM SEWERS - CLASS B | | | | | |
|------------------------|-----------------------|--------------------------------------|--------------------------------------|----------------------|----|
| CODE NUMBER | 60100915 | 55080360 | 55080410 | 20800150 | |
| LOCATION | PIPE DRAINS 6" (FOOT) | STORM SEWERS, CLASS B, TYPE 2 (FOOT) | STORM SEWERS, CLASS B, TYPE 2 (FOOT) | TRENCH BACKFILL (CY) | |
| 1 TO 2 | - | 40 | - | 15 | |
| 2 TO 3 | - | - | 40 | 25 | |
| 3 TO 4 | - | - | 20 | - | |
| 2 TO 5 | - | 20 | - | - | |
| 2 TO 6 | 20 | - | - | 10 | |
| TOTAL = | | 20 | 60 | 60 | 50 |



PROPOSED CONCRETE COLLAR DETAIL

PROPOSED D.S. #6

NOTE: COST OF CONCRETE COLLAR INCLUDED IN ITEM "PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER"

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 387 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

DESIGNED -- BMB
DRAWN -- BMB
CHECKED -- BMB
DATE -- 3-2023

REVISED --
REVISED --
REVISED --
REVISED --

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES AND
SCHEDULE OF DRAINAGE STRUCTURES

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|----------------|----------------|----------|-------------------|-----------|
| T.R. 35A | 08-09133-00-BR | RICHLAND | 18 | 3 |
| CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |

P.O.T. STA. 1+00.00
 N: 783362.50
 E: 1039491.18
 COORDINATES BASED ON NAD83
 ILLINOIS STATE PLANE
 COORDINATE SYSTEM
 (TO BE SET)

P.I. STA. 3+50.00
 N: 783377.35
 E: 1039740.74
 COORDINATES BASED ON NAD83
 ILLINOIS STATE PLANE
 COORDINATE SYSTEM
 (TO BE SET)

EXISTING TELEPHONE LINE
 FRONTIER COMMUNICATIONS
 225 E. CHESTNUT ST.
 OLNEY, ILLINOIS 62450
 PH. 618-395-6189

ERIC M. NEWKIRK
 PI Sta = 3+25.76
 D = 1'21'27"
 Da = 2'01'29"
 T = 33.53
 R = 2830.00
 L = 67.06
 C = 67.05
 M = 0.20
 e = NC

EXISTING ABANDONED UNDERGROUND PETROLEUM PIPELINE -
 CUT OFF, PLUG, AND REMOVE EXPOSED NORTH 12 FT OF 6" STEEL
 PIPE - COST INCLUDED IN "EARTH EXCAVATION". SEE SPECIAL PROVISIONS
 NO OWNER INFORMATION ON
 JULIE REQUEST - CONTRACTOR TO
 USE CAUTION WHILE EXCAVATING

DAVID T. HOCKING AND DEBORAH L. HOCKING,
 TRUSTEES OF THE DAVID T. HOCKING AND DEBORAH
 L. HOCKING TRUST DATED JUNE 15, 2006

P.O.T. STA. 7+00.00
 N: 783390.66
 E: 1040090.48
 COORDINATES BASED ON NAD83
 ILLINOIS STATE PLANE
 COORDINATE SYSTEM
 (TO BE SET)

NOTE
 FRONT SLOPES:
 RT. STA. 3+25 TO 3+40 - PROVIDE 2.0H:1V FRONT SLOPE
 RT. STA. 3+40 TO 3+60 - PROVIDE 1.5H:1V FRONT SLOPE
 BACK SLOPES:
 LT. STA. 2+25 TO 2+40 - PROVIDE 2.0H:1V BACK SLOPE
 LT. STA. 2+40 TO 2+60 - PROVIDE 2.5H:1V BACK SLOPE

SCALES:
 1" = 50' HOR
 1" = 5' VER

SECTION 08-09133-00-BR BEGINS STA. 0+50.00

SECTION 08-09133-00-BR ENDS STA. 6+75.00

JERRY L. KERMICL AND DOROTHEA J. KERMICL,
 TRUSTEES OF THE JERRY L. KERMICL AND DOROTHEA J.
 KERMICL REVOCABLE TRUST DATED AUGUST 22, 2011

NORRIS ELECTRIC CO-OP
 ROUTE 130 SOUTH
 NEWTON, ILLINOIS 62448
 PH. 618-783-8765

EJ WATER CO-OP
 108 SOUTH MAIN STREET
 DIETERICH, ILLINOIS 62424
 PH. 217-925-5566

RT. STA. 1+55
 CONSTRUCT F.E. 25' WIDTH
 PIPE CULVERT 40' X 12"
 CL-D, TY-1
 U.S.F.L. = 468.00
 D.S.F.L. = 466.37

CITATION OIL AND GAS CORP.
 3943 BIG FOUR ROAD
 CLAY CITY, ILLINOIS 62448
 PH. 618-676-1044

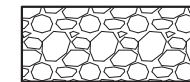
NO OWNER INFORMATION ON
 JULIE REQUEST - CONTRACTOR TO
 USE CAUTION WHILE EXCAVATING

STA. 4+00.00 EXISTING STRUCTURE NO 080-3038
 SINGLE SPAN STEEL GIRDER BRIDGE WITH C.I.P. CONCRETE DECK
 BEARING ON CLOSED CONCRETE ABUTMENTS
 20.6' SPAN
 14.1' WIDE DECK
 NO SKEW
 TO BE REMOVED AND DISPOSED OFF OF THE JOBSITE BY THE CONTRACTOR

CAROL J. JONES

B.M. RT. STA. 4+46
 61.6' RT. OF PROPOSED C. ALIGNMENT
 MAG HUB IN 8" TREE
 ELEV. 461.47

HATCH LEGEND



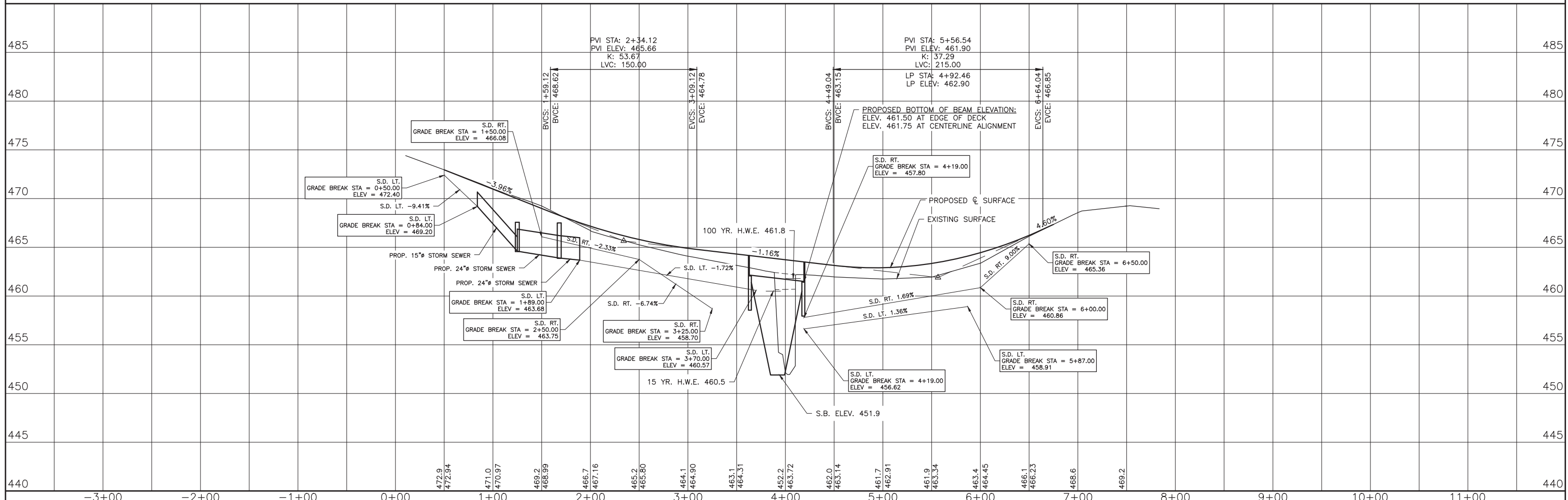
PROPOSED AGGREGATE DITCH (SPECIAL)



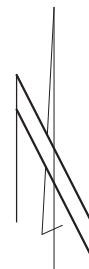
TREE REMOVAL
(ACRES) LIMITS



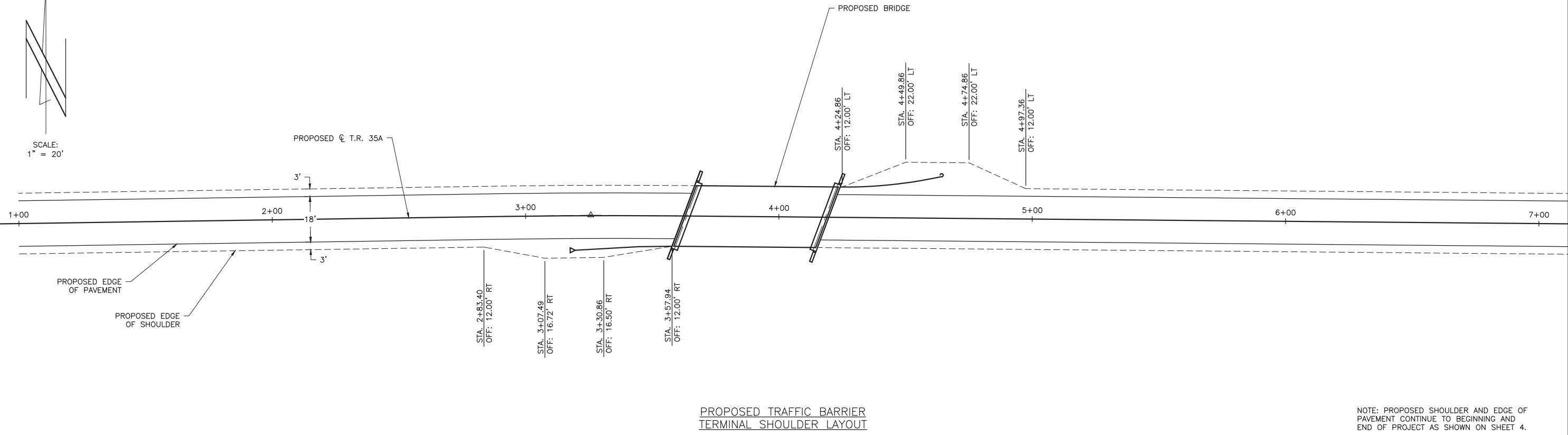
TREE REMOVAL



| | | | | | | | | | | | |
|---|--|--|---|--|---|--------------------------|-------------------------------------|---------------------------|--------------------|--------------------|----------------|
| CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 397 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513 | | | DESIGNED - BMB DRAWN - BMB CHECKED - BMB DATE - 3-2023 | REVISED - REVISED - REVISED - REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | ROADWAY PLAN AND PROFILE | ROUTE T.R. 35A CONTRACT 95936 | SECTION 08-09133-00-BR | COUNTY RICHLAND | TOTAL SHEETS 18 | SHEET NO. 4 |
|---|--|--|---|--|---|--------------------------|-------------------------------------|---------------------------|--------------------|--------------------|----------------|

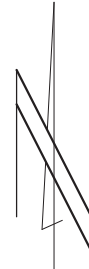


SCALE:
1" = 20'

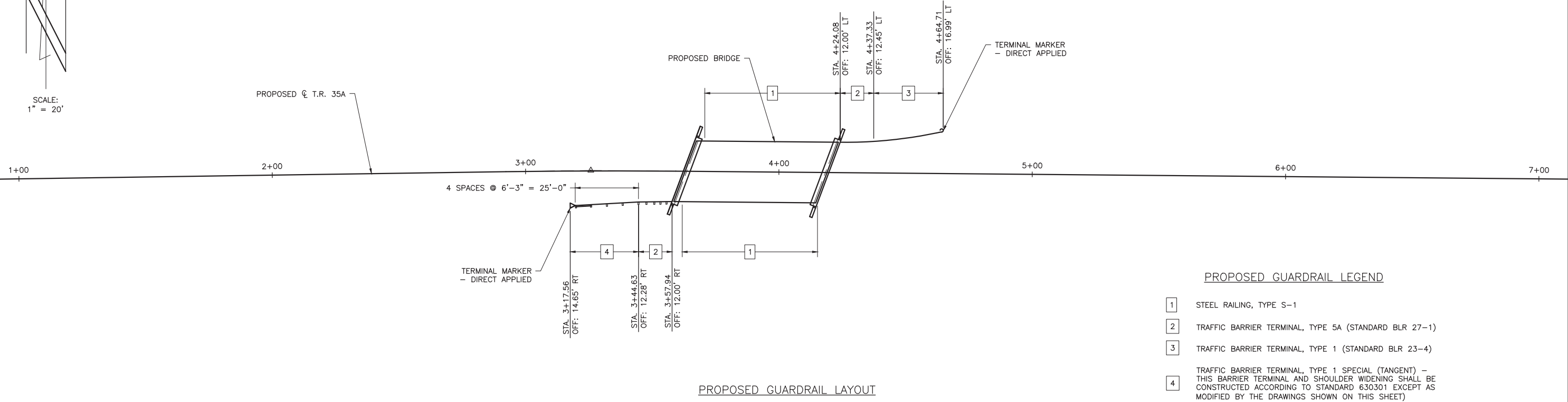


PROPOSED TRAFFIC BARRIER
TERMINAL SHOULDER LAYOUT

NOTE: PROPOSED SHOULDER AND EDGE OF
PAVEMENT CONTINUE TO BEGINNING AND
END OF PROJECT AS SHOWN ON SHEET 4.



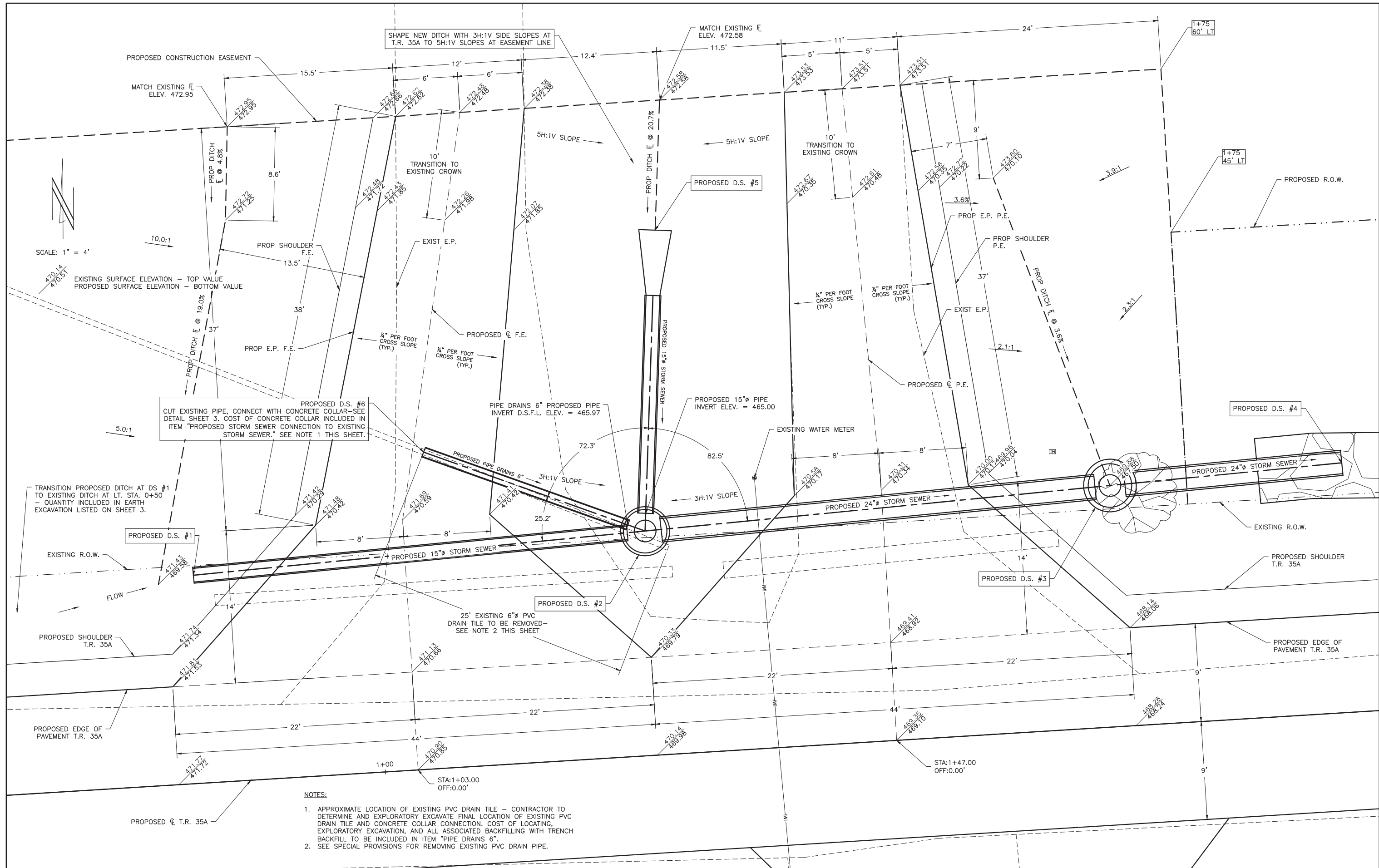
SCALE:
1" = 20'



PROPOSED GUARDRAIL LAYOUT

- PROPOSED GUARDRAIL LEGEND**
- 1 STEEL RAILING, TYPE S-1
 - 2 TRAFFIC BARRIER TERMINAL, TYPE 5A (STANDARD BLR 27-1)
 - 3 TRAFFIC BARRIER TERMINAL, TYPE 1 (STANDARD BLR 23-4)
 - 4 TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT) - THIS BARRIER TERMINAL AND SHOULDER WIDENING SHALL BE CONSTRUCTED ACCORDING TO STANDARD 630301 EXCEPT AS MODIFIED BY THE DRAWINGS SHOWN ON THIS SHEET

| | | | | | | | | | |
|---|----------------|-----------|---|-------------------------------------|----------------|----------------|----------|-------------------|-----------|
| CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS 105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450 P.O. BOX 387 (618) 392-0736 ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513 | DESIGNED - BMB | REVISED - | STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION | ROADWAY SHOULDER AND GUARDRAIL PLAN | ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| | DRAWN - BMB | REVISED - | | | T.R. 35A | 08-09133-00-BR | RICHLAND | 18 | 5 |
| | CHECKED - BMB | REVISED - | | | CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |
| | DATE - 3-2023 | REVISED - | | | | | | | |



SCALE: 1" = 4'

EXISTING SURFACE ELEVATION - TOP VALUE
PROPOSED SURFACE ELEVATION - BOTTOM VALUE

PROPOSED D.S. #6
CUT EXISTING PIPE, CONNECT WITH CONCRETE COLLAR-SEE
DETAIL SHEET 3. COST OF CONCRETE COLLAR INCLUDED IN
ITEM "PROPOSED STORM SEWER CONNECTION TO EXISTING
STORM SEWER." SEE NOTE 1 THIS SHEET.

PIPE DRAINS 6" PROPOSED PIPE
INVERT D.S.F.L. ELEV. = 465.97

PROPOSED 15" PIPE
INVERT ELEV. = 465.00

TRANSITION PROPOSED DITCH AT DS #1
TO EXISTING DITCH AT LT. STA. 0+50'
- QUANTITY INCLUDED IN EARTH
EXCAVATION LISTED ON SHEET 3.

25' EXISTING 6" PVC
DRAIN TILE TO BE REMOVED-
SEE NOTE 2 THIS SHEET

- NOTES:
1. APPROXIMATE LOCATION OF EXISTING PVC DRAIN TILE - CONTRACTOR TO DETERMINE AND EXPLORATORY EXCAVATE FINAL LOCATION OF EXISTING PVC DRAIN TILE AND CONCRETE COLLAR CONNECTION. COST OF LOCATING, EXPLORATORY EXCAVATION, AND ALL ASSOCIATED BACKFILLING WITH TRENCH BACKFILL TO BE INCLUDED IN ITEM "PIPE DRAINS 6".
 2. SEE SPECIAL PROVISIONS FOR REMOVING EXISTING PVC DRAIN PIPE.

CHARLESTON ENGINEERING, INC.
CONSULTING ENGINEERS - LAND SURVEYORS
105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450
P.O. BOX 397 (618) 392-0736
ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513

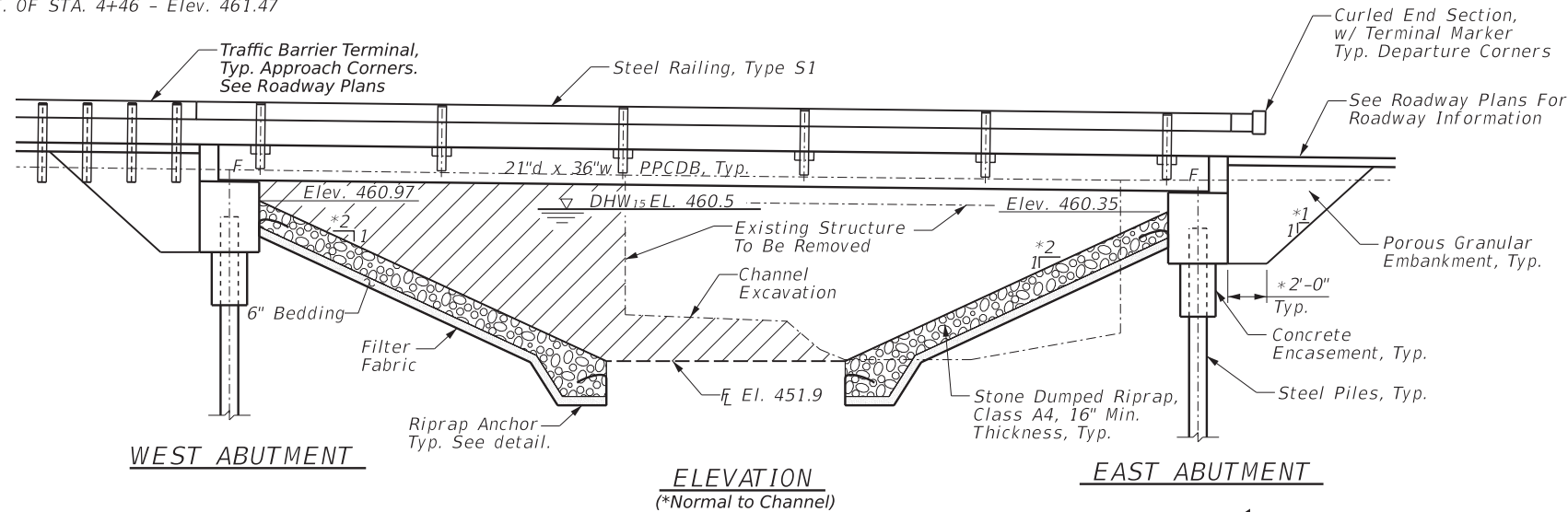
| | |
|----------------|-----------|
| DESIGNED - BMB | REVISED - |
| DRAWN - BMB | REVISED - |
| CHECKED - BMB | REVISED - |
| DATE - 3-2023 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRAINAGE STRUCTURE DETAILS

| | | | | |
|----------------|----------------|----------|-------------------|-----------|
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| T.R. 35A | 08-09133-00-BR | RICHLAND | 18 | 6 |
| CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |

T.B.M. - MAG HUB IN 8" O TREE,
61.6'± RT. OF STA. 4+46 - Elev. 461.47



LOADING HL-93
50#/sq. ft. included
for future wearing surface.

DESIGN SPECIFICATIONS
AASHTO LRFD Bridge Design Specifications,
2020 (9th Edition)

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
PRECAST PRESTRESSED UNITS
 $f'_c = 6,000$ psi
 $f'_{ci} = 5,000$ psi
 $f_{pu} = 270,000$ psi ($1/2$ " low lax. strands)
 $f_{pbt} = 201,960$ psi ($1/2$ " low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Soil Site Classification = C
 $S_{D1} = 0.169$ $S_{D5} = 0.442$

Existing Structure: Structure No. 080-3038. Single span steel beam bridge with concrete deck on closed concrete abutments and wingwalls. 24'± L. x 14.1'± W. To be removed.

BILL OF MATERIALS (BRIDGE ONLY)

| ITEM | UNIT | TOTAL |
|----------------------------------|-------|-------|
| Porous Granular Embankment | Ton | 100 |
| Stone Dumped Riprap, Class A4 | Ton | 528 |
| Removal of Existing Structures | Each | 1 |
| Concrete Structures | Cu Yd | 31.2 |
| Concrete Encasement | Cu Yd | 2.8 |
| PPCDB (21" Depth) | Sq Ft | 1344 |
| Reinforcement Bars | Pound | 4080 |
| Steel Railing, Type S1 | Foot | 117 |
| Furnishing Steel Piles HP12x53 | Foot | 161 |
| Driving Piles | Foot | 161 |
| Test Pile Steel HP12x53 | Each | 1 |
| Name Plates | Each | 1 |
| Terminal Marker - Direct Applied | Each | 4 |

GENERAL NOTES

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

See Section 502 of the Standard Specifications for Structural Excavation. An allowance for structure excavation has been included in the quantity for Earth Excavation. See note on sheet 3.

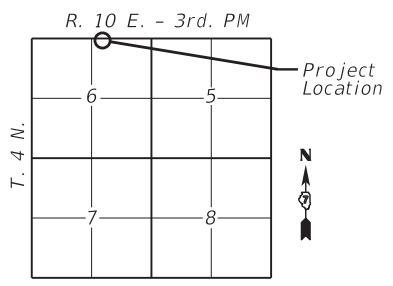
Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the R.O.W. line. See Roadway Plan and Profile sheet for Channel Excavation quantity. If the Engineer deems this material satisfactory, it may be used to construct the roadway embankment. See note on Sheet 3.

The cost of the bedding material and filter fabric shall be included in the cost of the Stone Dumped Riprap, Class A4 and no additional compensation will be allowed. The estimated quantity for the bedding material is 153 tons and the estimated quantity for filter fabric is 540 sq yd (for information only). The quantity shown for Stone Dumped Riprap, Class A4 includes the estimated quantity for the bedding material.

See Sheet 13 for Soil Borings.

Do not scale these drawings.

The bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required, $1/8$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

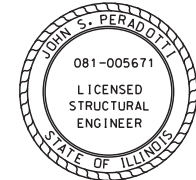


LOCATION SKETCH

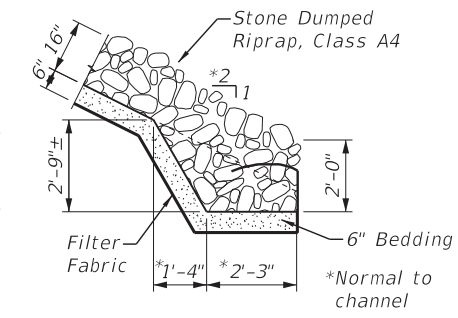
WEST FORK COON CREEK
BUILT 20__ BY
RICHLAND COUNTY
SEC. 08-09113-00-BR
TR 35A STA. 3+91.00
LOADING HL-93
STRUCTURE NO. 080-3233

NAME PLATE
See Std. 515001

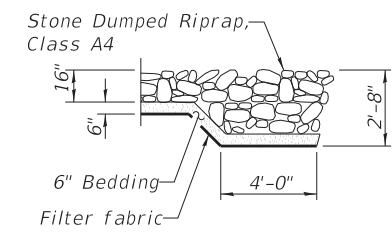
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.



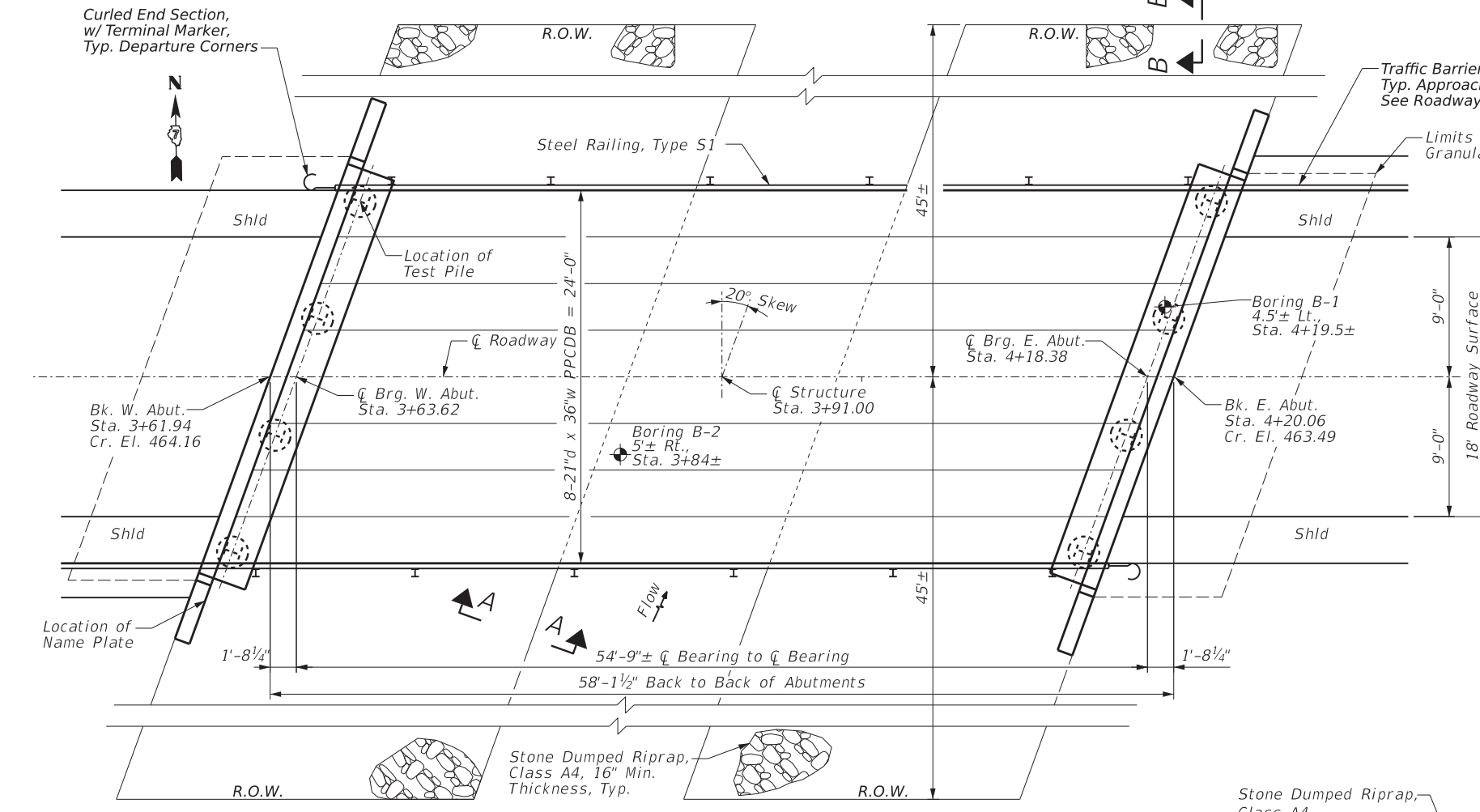
John S. Peradotti 3/29/23
John S. Peradotti
Salem, Illinois
Illinois Licensed Structural
Engineer No. 081-005671
Expires Nov. 30, 2024



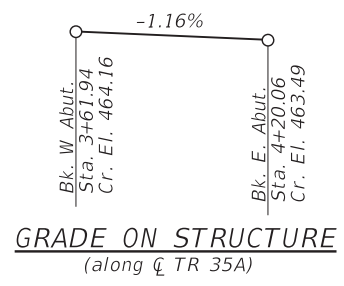
SECTION A-A



SECTION B-B



PLAN



GRADE ON STRUCTURE
(along \bar{C} TR 35A)

WATERWAY INFORMATION

(Hydraulic Information provided by Charleston Engineering, Inc.)

Drainage Area = 1.83 sq. mi. Prop. Low Grade Elev. 462.9 @ Sta. 4+92.5

| Flood | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. | | Nat. Head - Ft. | | Headwater El. | | |
|------------|-----------|----------|-----------------|-------|-----------------|--------|---------------|--------|-------|
| | | | Exist. | Prop. | H.W.E. | Exist. | Prop. | Exist. | Prop. |
| Design | 15 | 920 | 171 | 274 | 460.5 | 0.1 | 0.3 | 460.6 | 460.8 |
| Base | 100 | 1520 | 189 | 329 | 461.8 | 0.0 | 0.1 | 461.8 | 461.9 |
| Max. Calc. | 500 | 2100 | 196 | 365 | 462.6 | 0.7 | 0.2 | 463.3 | 462.8 |



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7 CARPENTER DRIVE
SALEM, IL 62881
PHONE (618) 222-2221
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DESIGNED - JSP
DRAWN - JSP
CHECKED - JSP/BLT
DATE - 03/28/2023

REVISED -
REVISED -
REVISED -
REVISED -

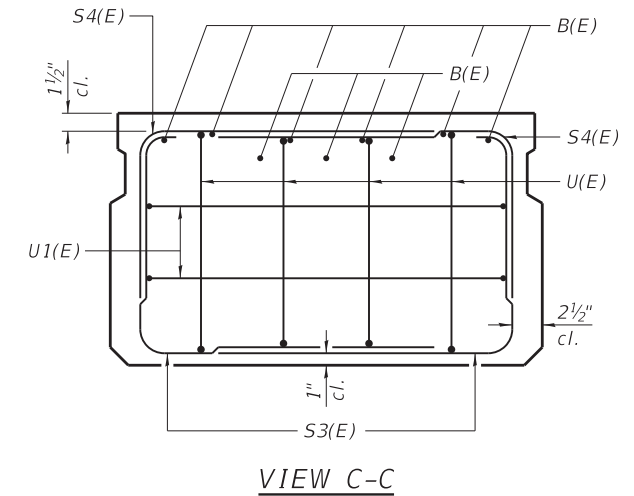
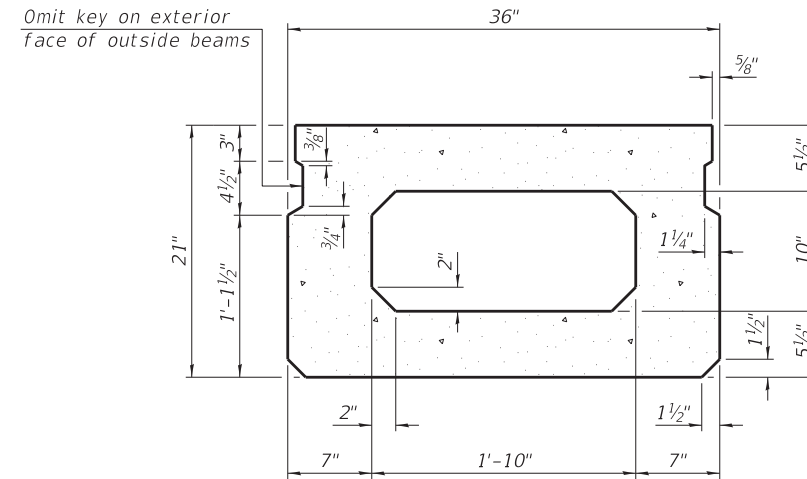
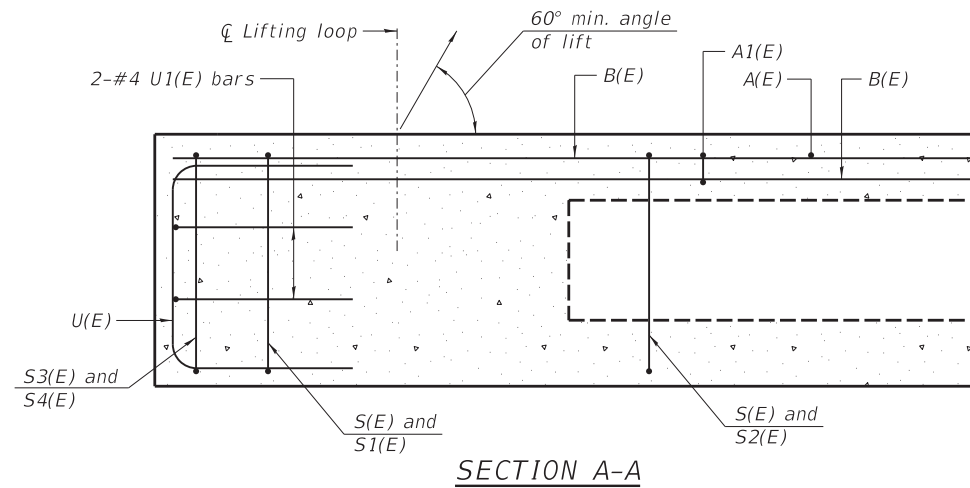
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION

GCL JOB NO. 22-6034

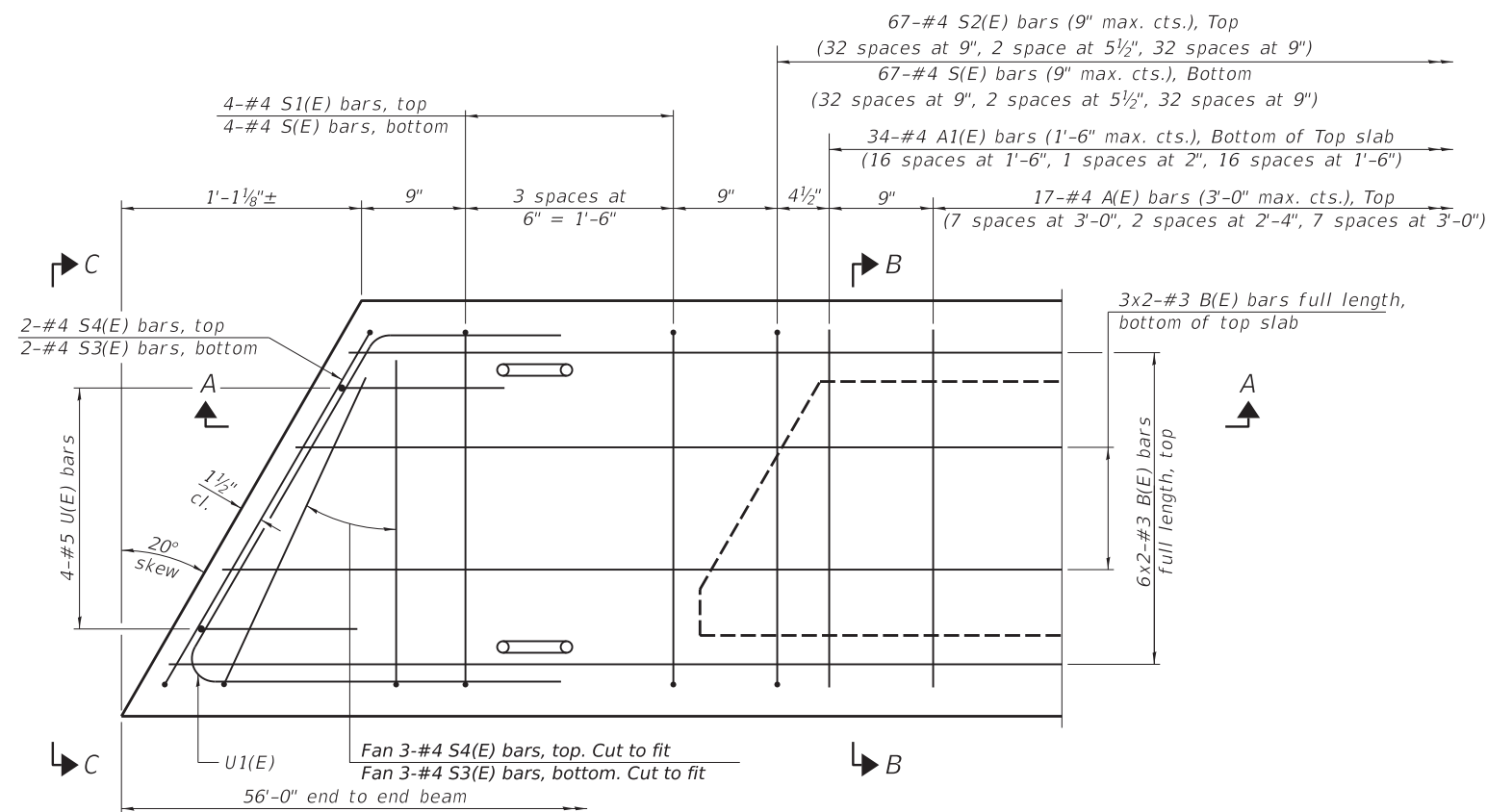
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------|----------------|----------|--------------|-----------|
| TR 35A | 08-09113-00-BR | RICHLAND | 18 | 7 |

CONTRACT NO. 95936



SECTION B-B
(Showing dimensions)

VIEW C-C

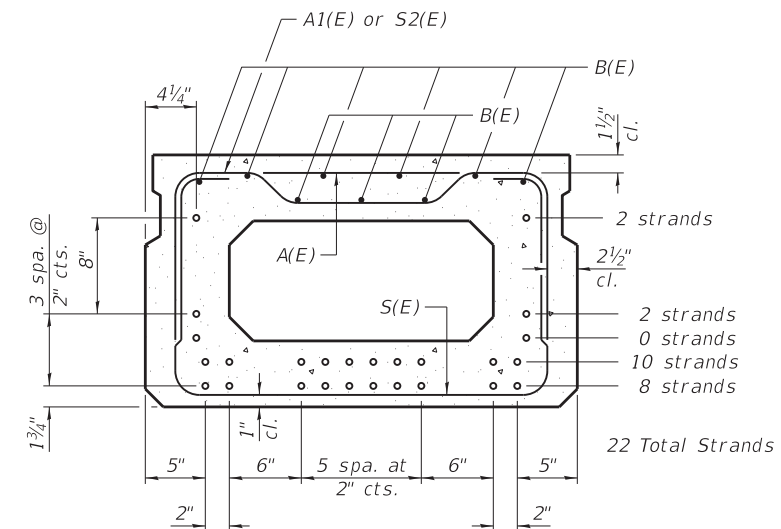


PLAN VIEW

Note:
Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

Bars indicated thus: 4x3-#3, etc. indicates 4 lines of bars with 3 lengths per line.

Similar about \bar{C}



SECTION B-B
(Showing reinforcement and permissible strand locations)

Note:
Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

| Bar | No. | Size | Length | Shape |
|-------|-----|------|--------|-------|
| A(E) | 17 | #4 | 2'-7" | — |
| A1(E) | 34 | #4 | 2'-10" | — |
| B(E) | 18 | #3 | 28'-8" | — |
| S(E) | 75 | #4 | 6'-5" | U |
| S1(E) | 8 | #4 | 4'-11" | U |
| S2(E) | 67 | #4 | 5'-2" | U |
| S3(E) | 10 | #4 | 4'-6" | U |
| S4(E) | 10 | #4 | 3'-9" | U |
| U(E) | 8 | #5 | 4'-0" | C |
| U1(E) | 4 | #4 | 6'-4" | C |

Note: See sheet 9 for additional details and Bill of Material.

MINIMUM BAR LAP
#3 bar = 1'-6"



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DESIGNED - JSP
DRAWN - JSP
CHECKED - JSP/BLT
DATE - 03/28/2023

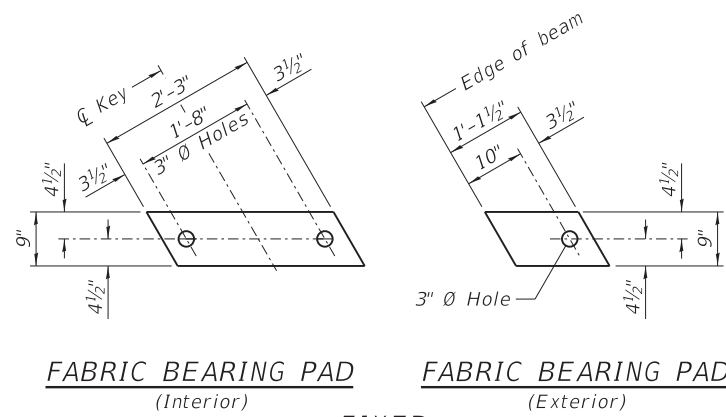
REVISED -
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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST PRESTRESS CONCRETE DECK BEAM DETAILS

| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------|----------------|----------|--------------------|-----------|
| TR 35A | 08-09133-00-BR | RICHLAND | 18 | 8 |
| | | | CONTRACT NO. 95936 | |

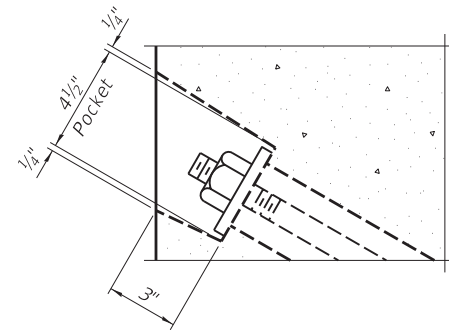
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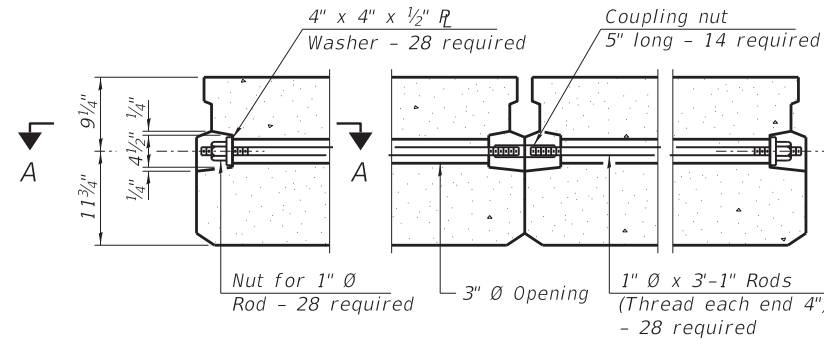
FABRIC BEARING PAD
(Interior) **FABRIC BEARING PAD**
(Exterior)

FIXED

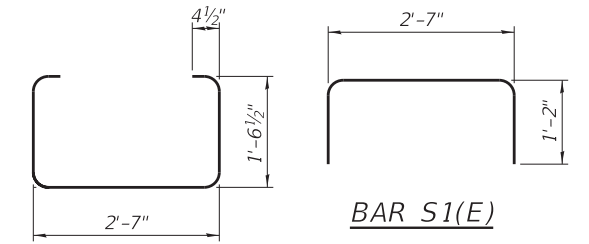
Notes: All bearing pads shall be 1" thick.



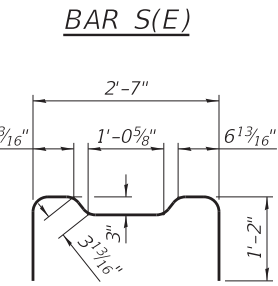
SECTION A-A



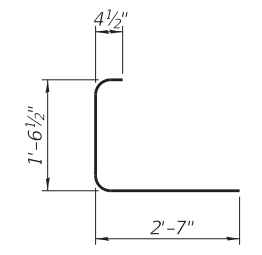
TYPICAL TRANSVERSE TIE ASSEMBLY



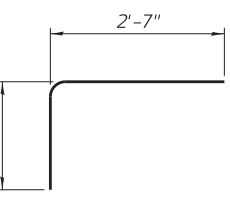
BAR S1(E)



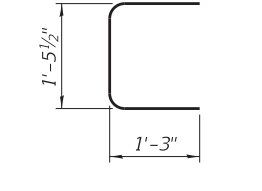
BAR S2(E)



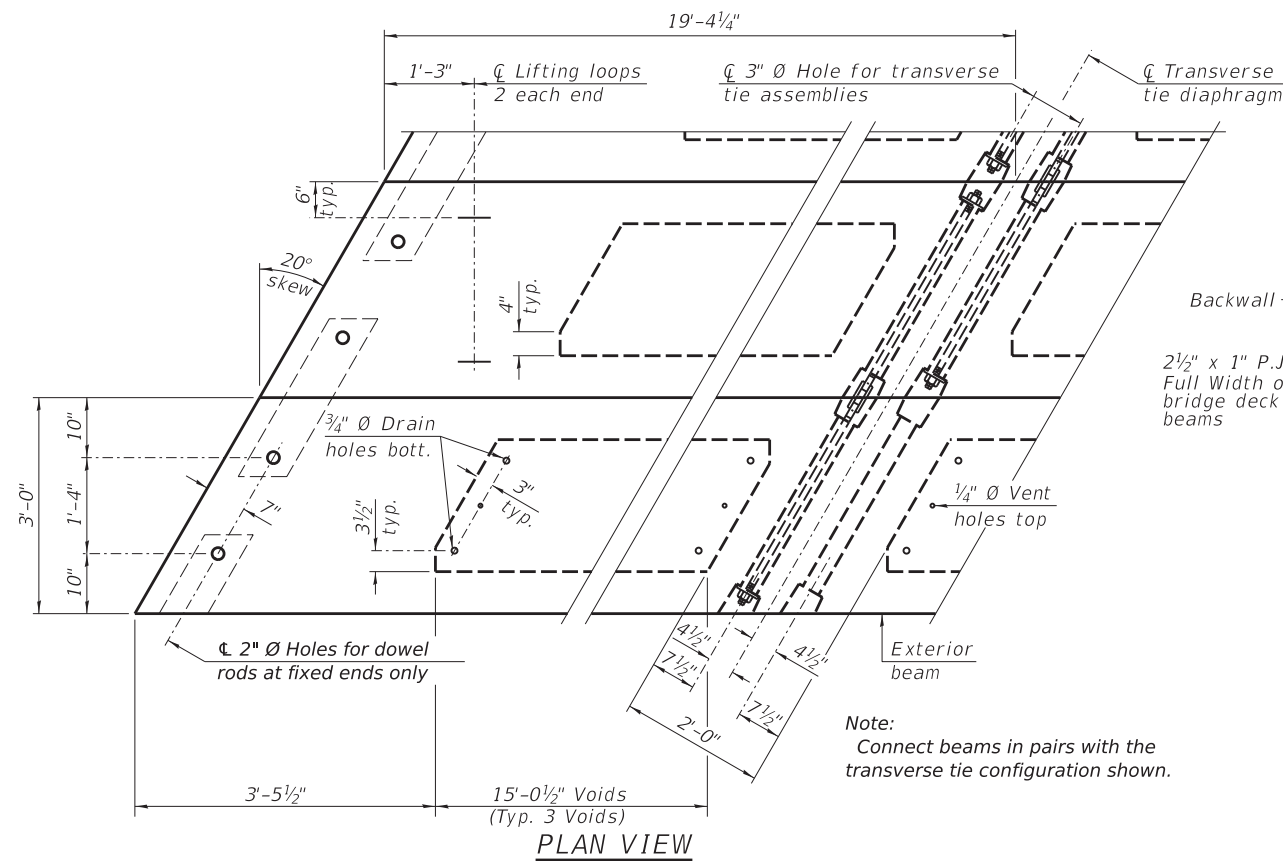
BAR S3(E)



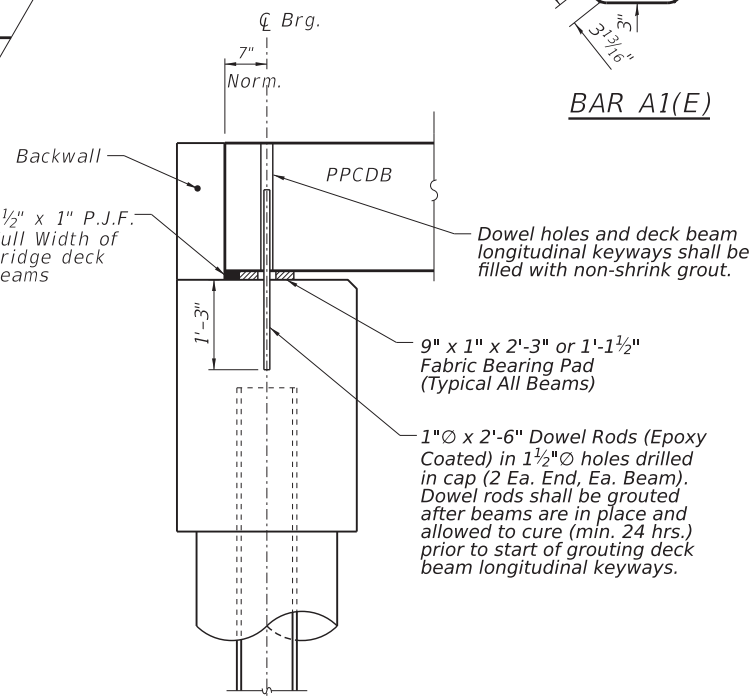
BAR S4(E)



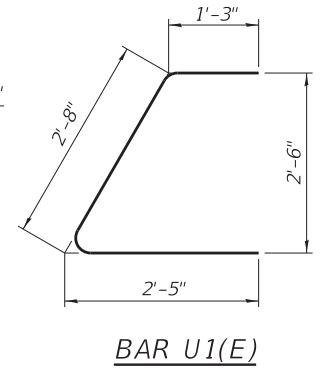
BAR U(E)



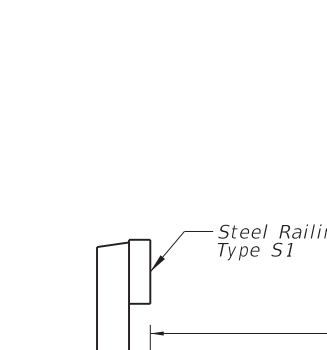
PLAN VIEW



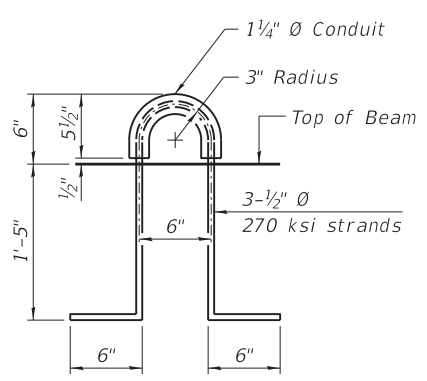
FIXED BEARING ABUTMENT
(Normal to Q)



BAR A1(E)



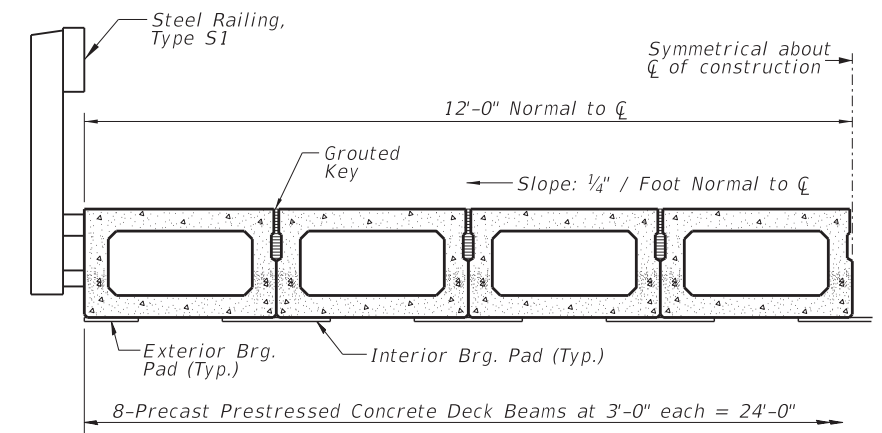
BAR U1(E)



LIFTING LOOP DETAIL

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60 (IL Modified). Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f_c , shall be 6000 psi. Compressive strength of prestressed concrete at release, f_{ci} , shall be 5000 psi.



HALF CROSS SECTION

See Sheet 10 for the details showing the spacing and mounting of posts and rails to the PPCDB.

BILL OF MATERIAL

| | | |
|---|---------|------|
| Precast Prestressed Conc. Deck Bms. (21" depth) | Sq. Ft. | 1344 |
|---|---------|------|



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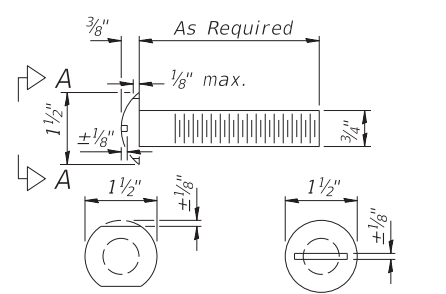
| | |
|-------------------|-----------|
| DESIGNED - JSP | REVISED - |
| DRAWN - JSP | REVISED - |
| CHECKED - JSP/BLT | REVISED - |
| DATE - 03/28/2023 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

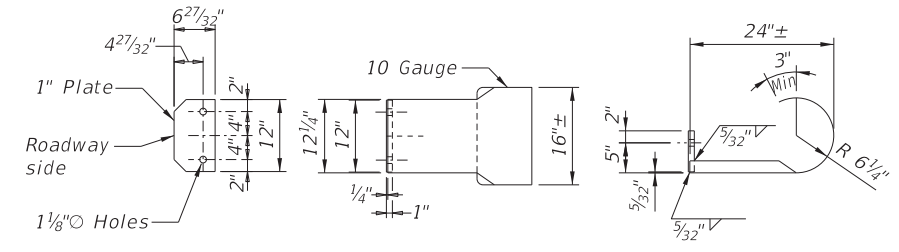
PRECAST PRESTRESS CONCRETE DECK BEAM DETAILS

| | | | | |
|--------|----------------|----------|--------------------|-----------|
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| TR 35A | 08-09133-00-BR | RICHLAND | 18 | 9 |
| | | | CONTRACT NO. 95936 | |

GCL JOB NO. 22-6034

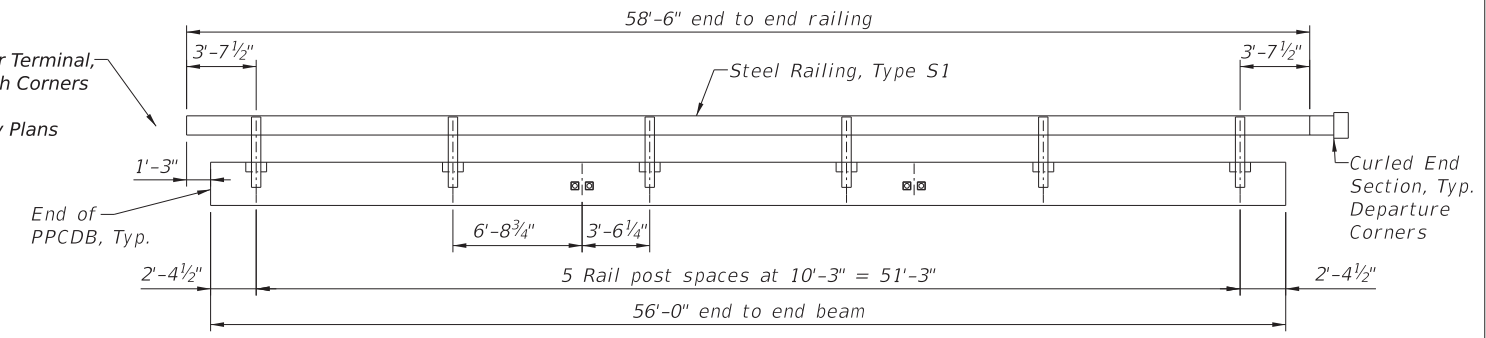


VIEW A-A
ROUND HEAD BOLT



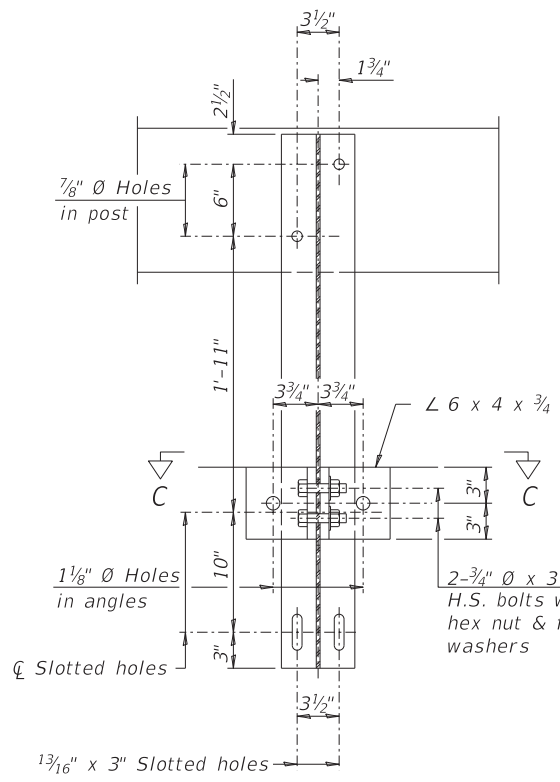
CURLLED END SECTION DETAILS
2 Each Req'd

Traffic Barrier Terminal, Typ. Approach Corners (Not Shown) See Roadway Plans



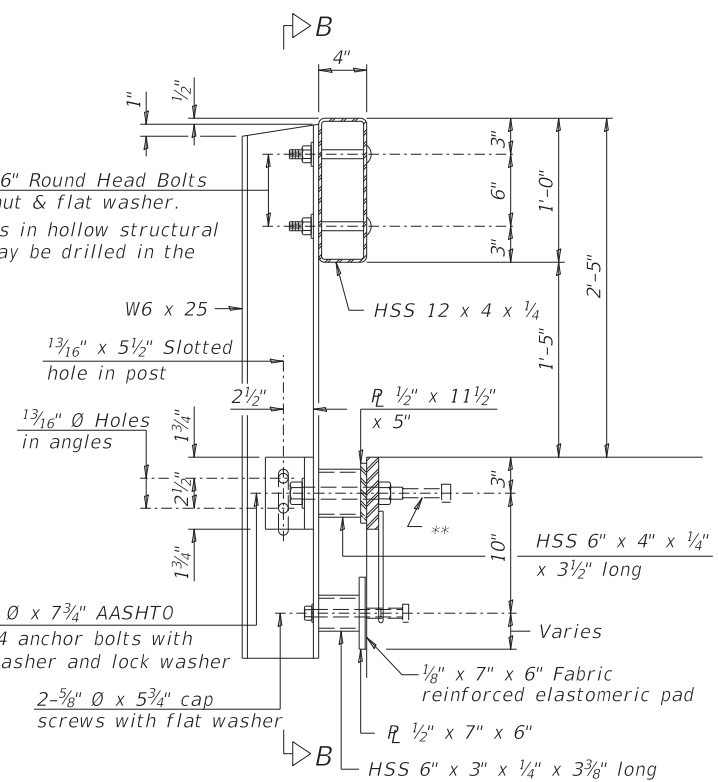
ELEVATION

Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

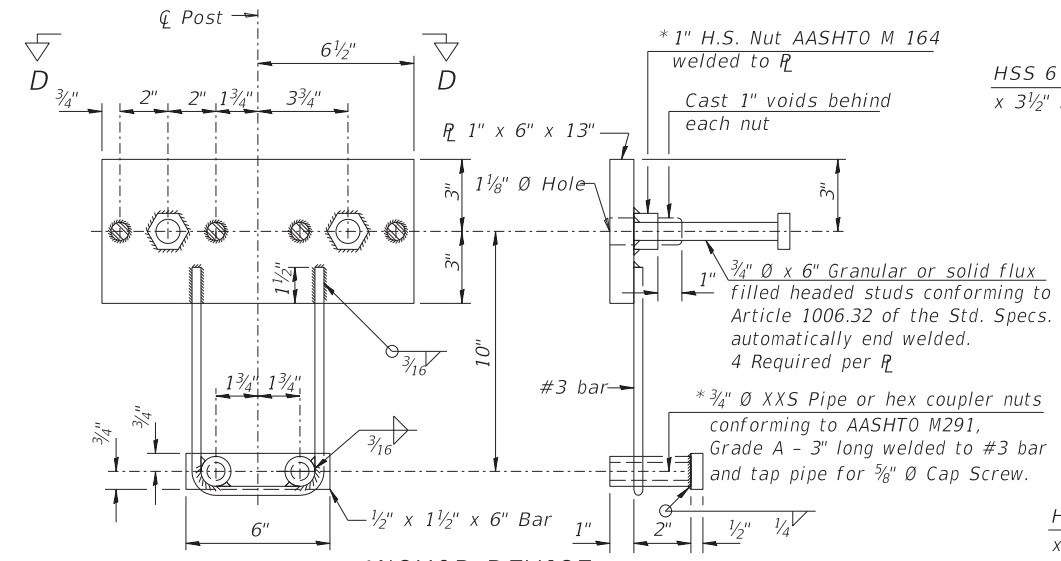


SECTION B-B

2-3/4" Ø x 6" Round Head Bolts with locknut & flat washer. 7/8" Ø holes in hollow structural section may be drilled in the field.

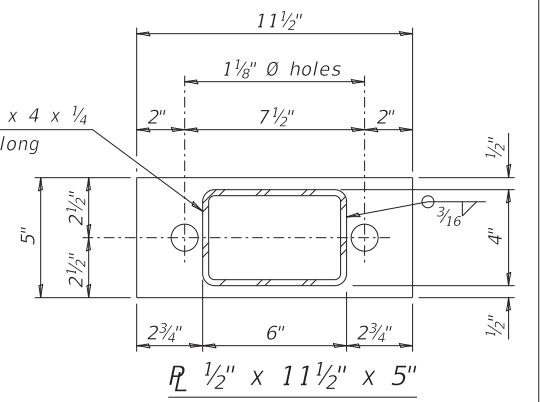


SECTION AT RAILING POST

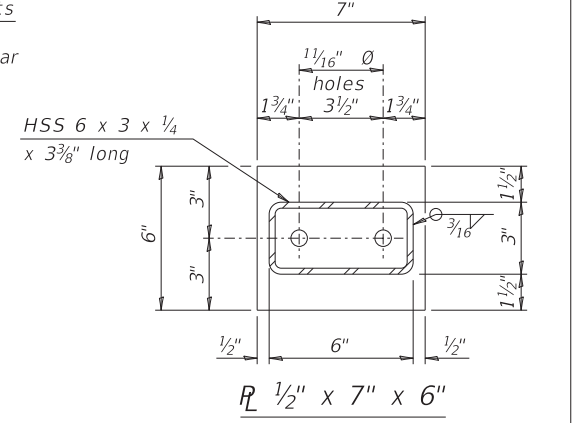


ANCHOR DEVICE

* Threaded areas shall be plugged or blocked off during casting of beam.

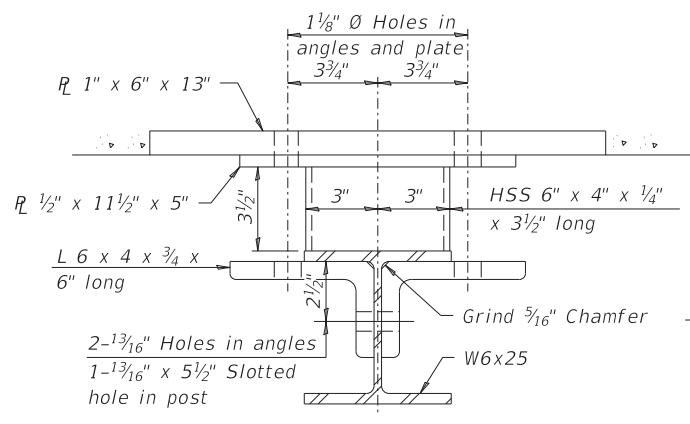


R 1/2" x 11 1/2" x 5"

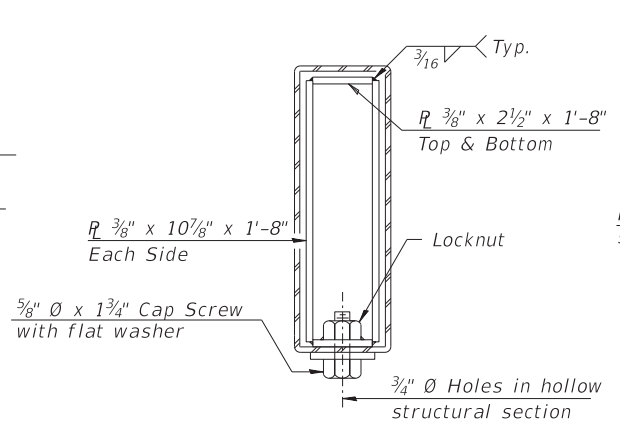


R 1/2" x 7" x 6"

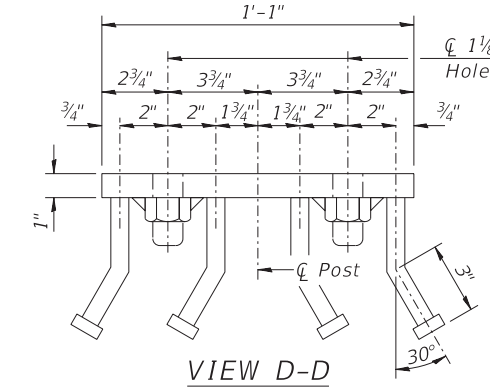
Notes:
All field drilled holes shall be coated with an approved zinc rich paint before erection.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



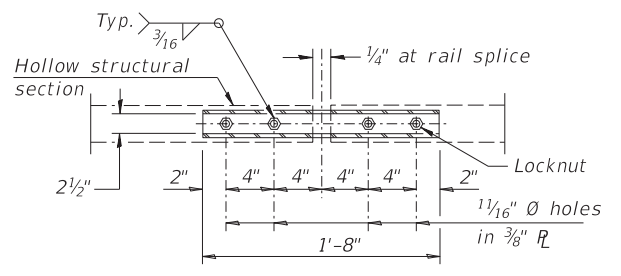
SECTION C-C



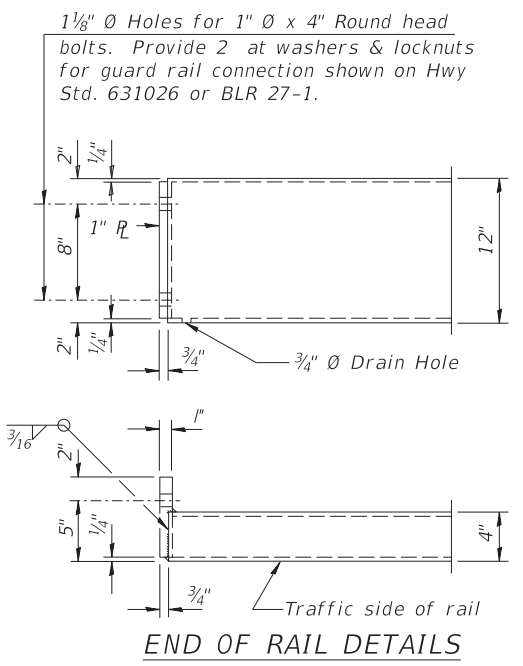
SECTIONS AT RAIL SPLICE



VIEW D-D



PLAN-BOTT. SPLICE R TYPICAL

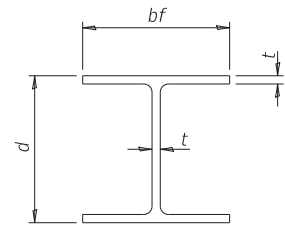


END OF RAIL DETAILS

** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device. The anchorage studs may be bent down 1/2" to accommodate the top reinforcement bar placement.

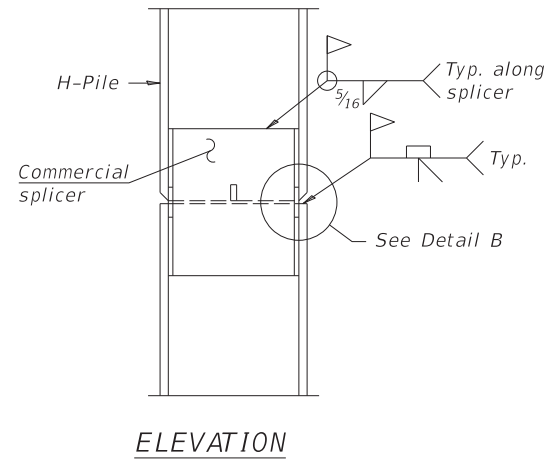
BILL OF MATERIAL

| Item | Unit | Quantity |
|------------------------|------|----------|
| Steel Railing, Type S1 | Foot | 117 |

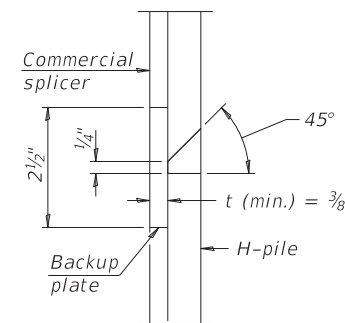


STEEL PILE TABLE

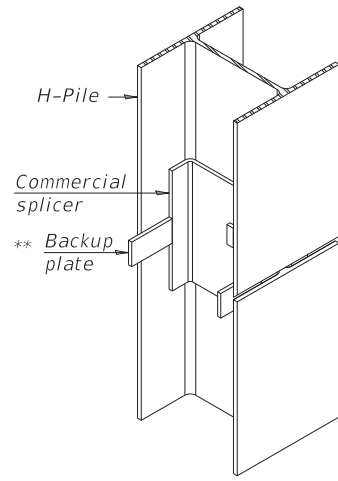
| Designation | Depth d | Flange width bf | Web and Flange thickness t | Encasement diameter A |
|-------------|---------|-----------------|----------------------------|-----------------------|
| HP 14x117 | 14 1/4" | 14 7/8" | 1 3/16" | 30" |
| x102 | 14" | 14 3/4" | 1 1/16" | 30" |
| x89 | 13 7/8" | 14 3/4" | 5/8" | 30" |
| x73 | 13 5/8" | 14 5/8" | 1/2" | 30" |
| HP 12x84 | 12 1/4" | 12 1/4" | 1 1/16" | 24" |
| x74 | 12 1/8" | 12 1/4" | 5/8" | 24" |
| x63 | 12" | 12 1/8" | 1/2" | 24" |
| x53 | 11 3/4" | 12" | 7/16" | 24" |
| HP 10x57 | 10" | 10 1/4" | 9/16" | 24" |
| x42 | 9 3/4" | 10 1/8" | 7/16" | 24" |
| HP 8x36 | 8" | 8 1/8" | 7/16" | 18" |



ELEVATION

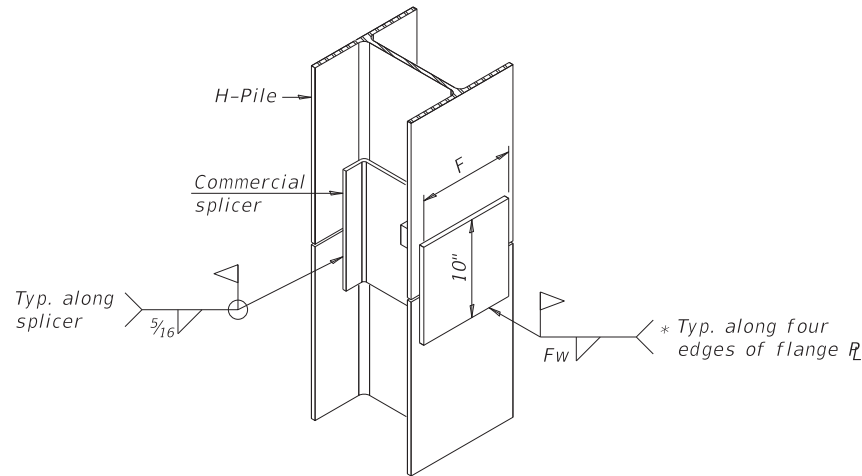


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



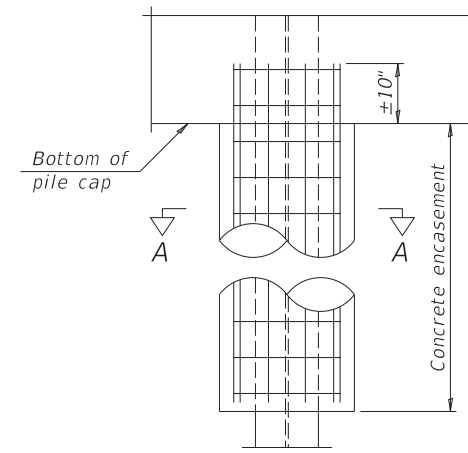
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

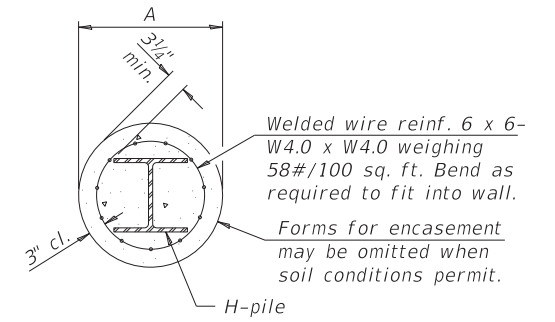
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

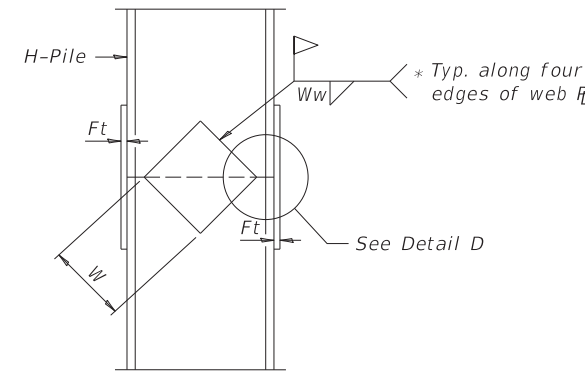


ELEVATION

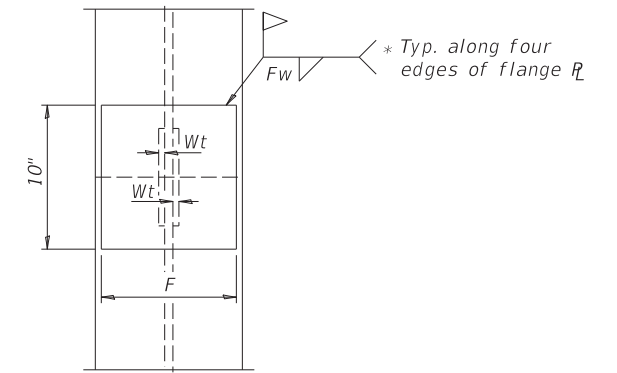


SECTION A-A

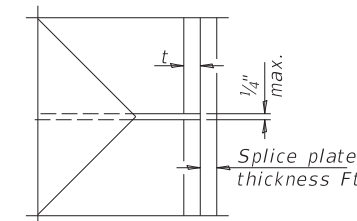
INDIVIDUAL PILE CONCRETE ENCASUREMENT (when specified)



ELEVATION



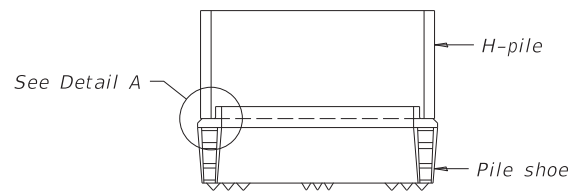
END VIEW



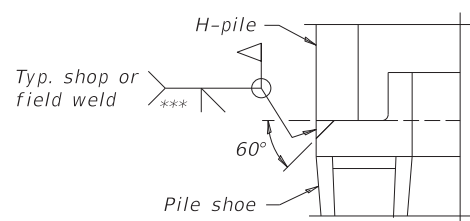
DETAIL D

WELDED PLATE FIELD SPLICE

| Designation | F | Ft | Fw | W | Wt | Ww |
|-------------|---------|------|---------|--------|------|------|
| HP 14x117 | 12 1/2" | 1" | 7/8" | 7 3/4" | 5/8" | 1/2" |
| x102 | 12 1/2" | 7/8" | 3/4" | 7 3/4" | 5/8" | 1/2" |
| x89 | 12 1/2" | 3/4" | 1 1/16" | 7 3/4" | 5/8" | 1/2" |
| x73 | 12 1/2" | 5/8" | 9/16" | 7 3/4" | 5/8" | 1/2" |
| HP 12x84 | 10" | 7/8" | 1 1/16" | 6 1/2" | 5/8" | 1/2" |
| x74 | 10" | 7/8" | 1 1/16" | 6 1/2" | 5/8" | 1/2" |
| x63 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| x53 | 10" | 5/8" | 1/2" | 6 1/2" | 1/2" | 3/8" |
| HP 10x57 | 8" | 3/4" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| x42 | 8" | 5/8" | 9/16" | 5 1/4" | 1/2" | 3/8" |
| HP 8x36 | 7" | 5/8" | 7/16" | 4 1/4" | 1/2" | 3/8" |



ELEVATION



DETAIL A

SHOE ATTACHMENT

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



GONZALEZ COMPANIES, LLC
7 CARPENTER DRIVE
SALEM, IL 62381
PHONE (618) 222-2221
www.gonzalezcos.com
ILLINOIS PROFESSIONAL DESIGN FIRM 184,004564

| | |
|-------------------|-----------|
| DESIGNED - JSP | REVISED - |
| DRAWN - JSP | REVISED - |
| CHECKED - JSP/BLT | REVISED - |
| DATE - 03/28/2023 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

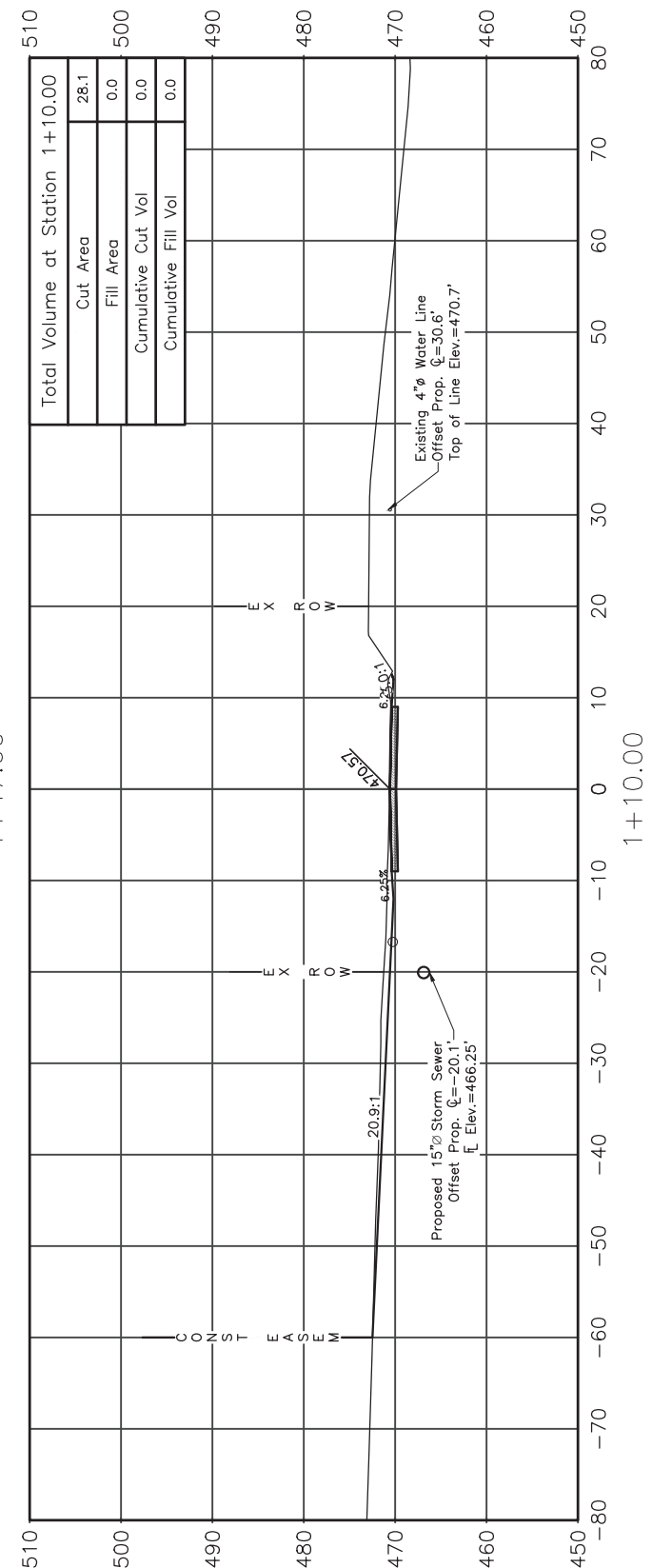
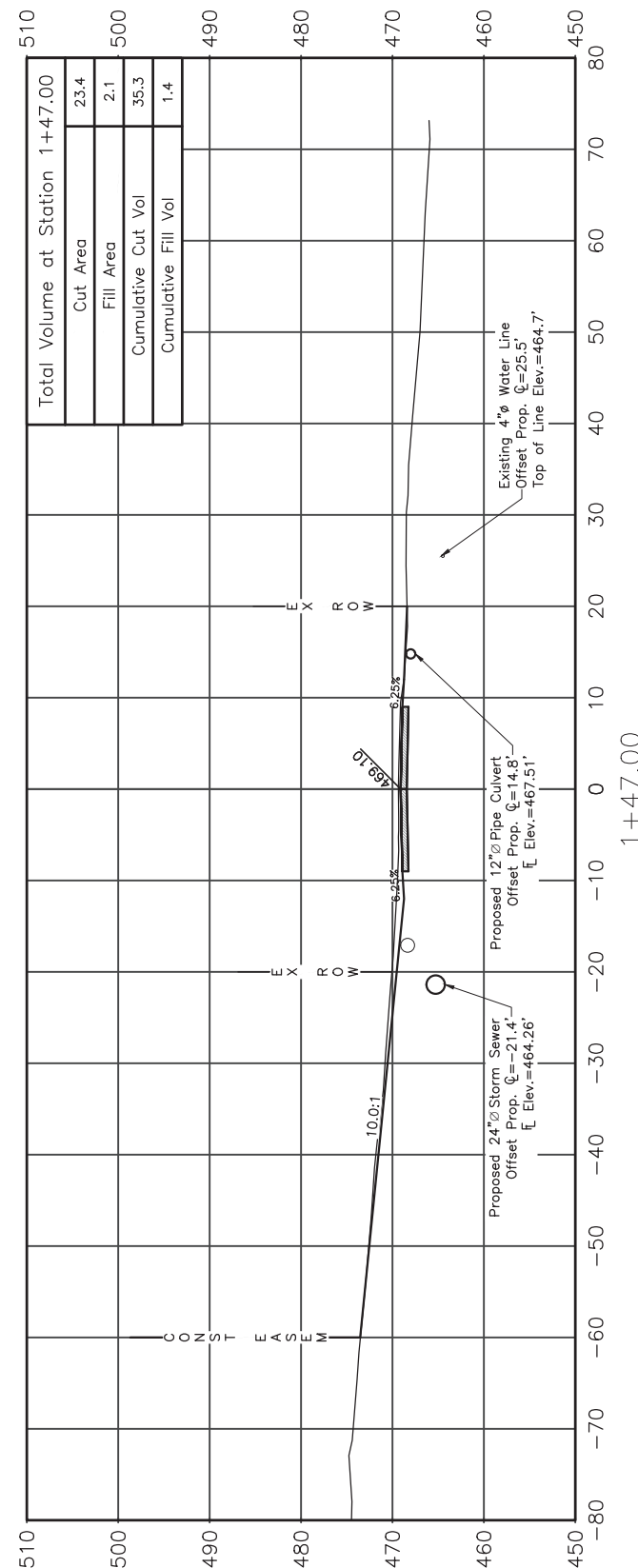
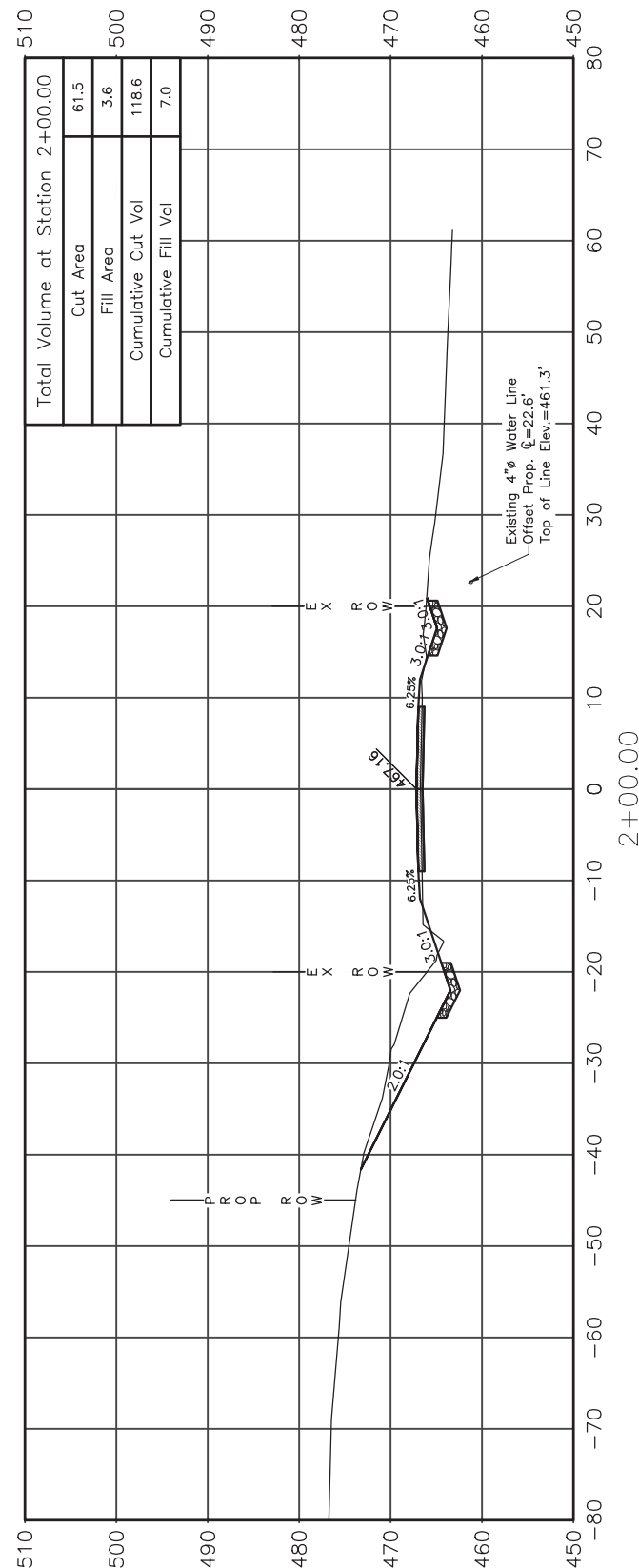
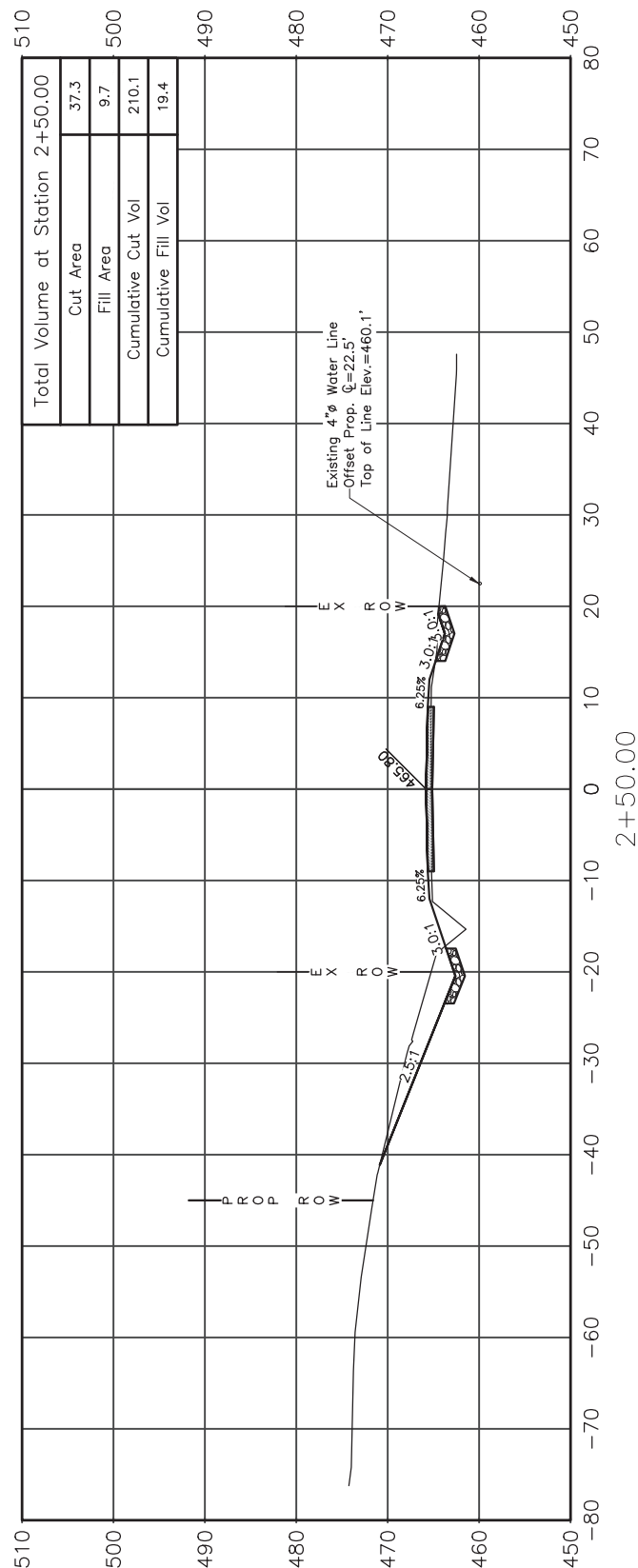
HP PILE DETAILS

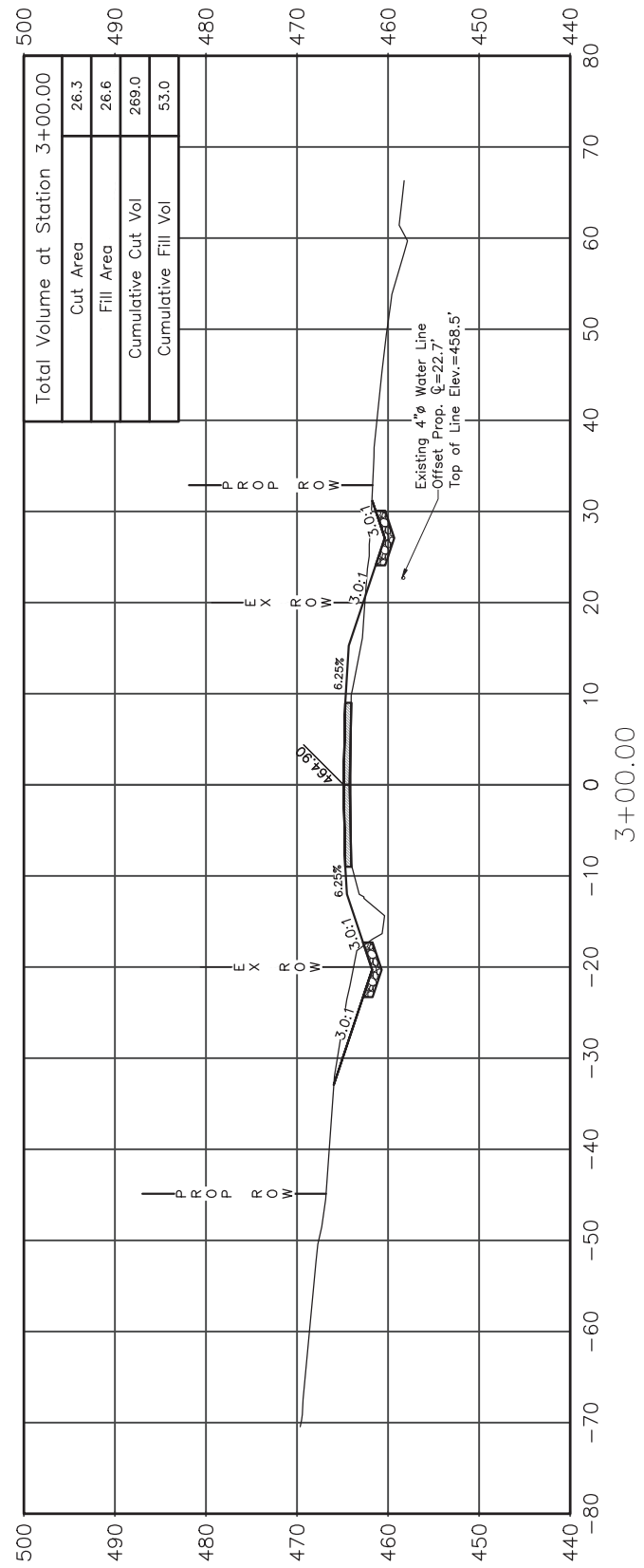
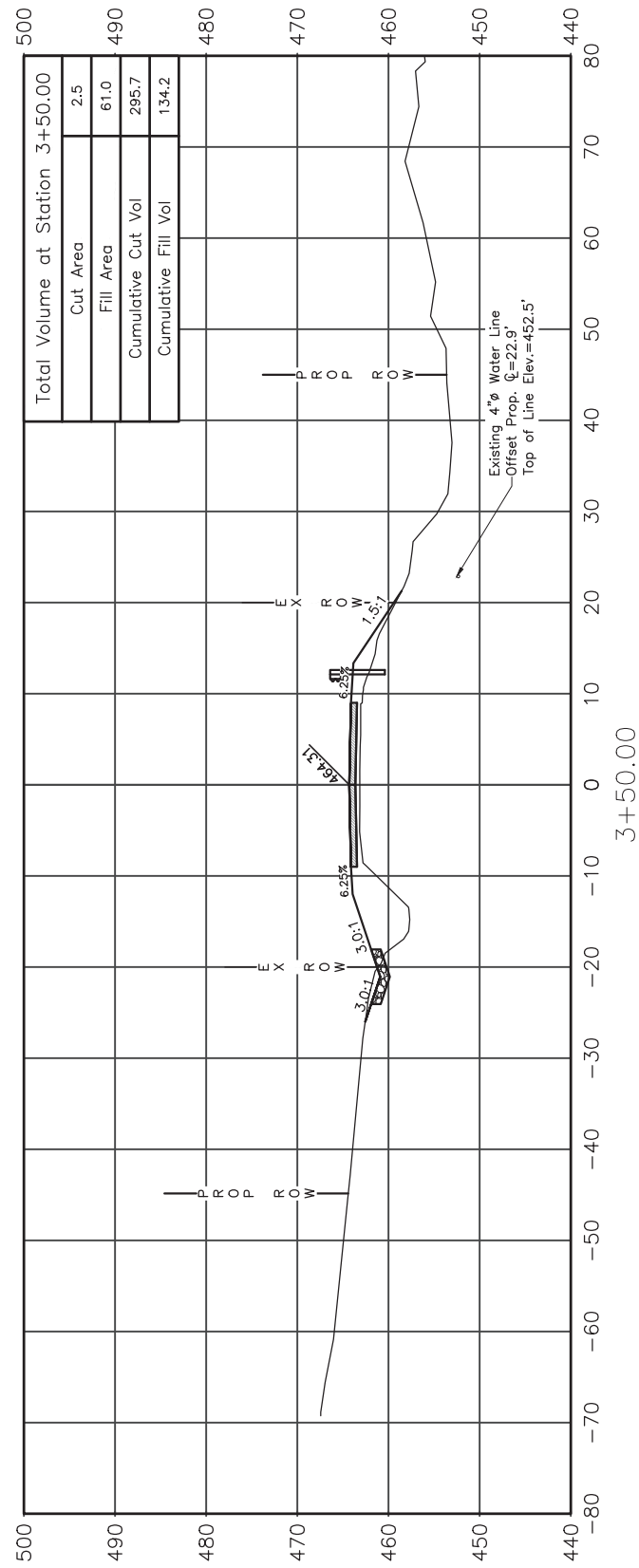
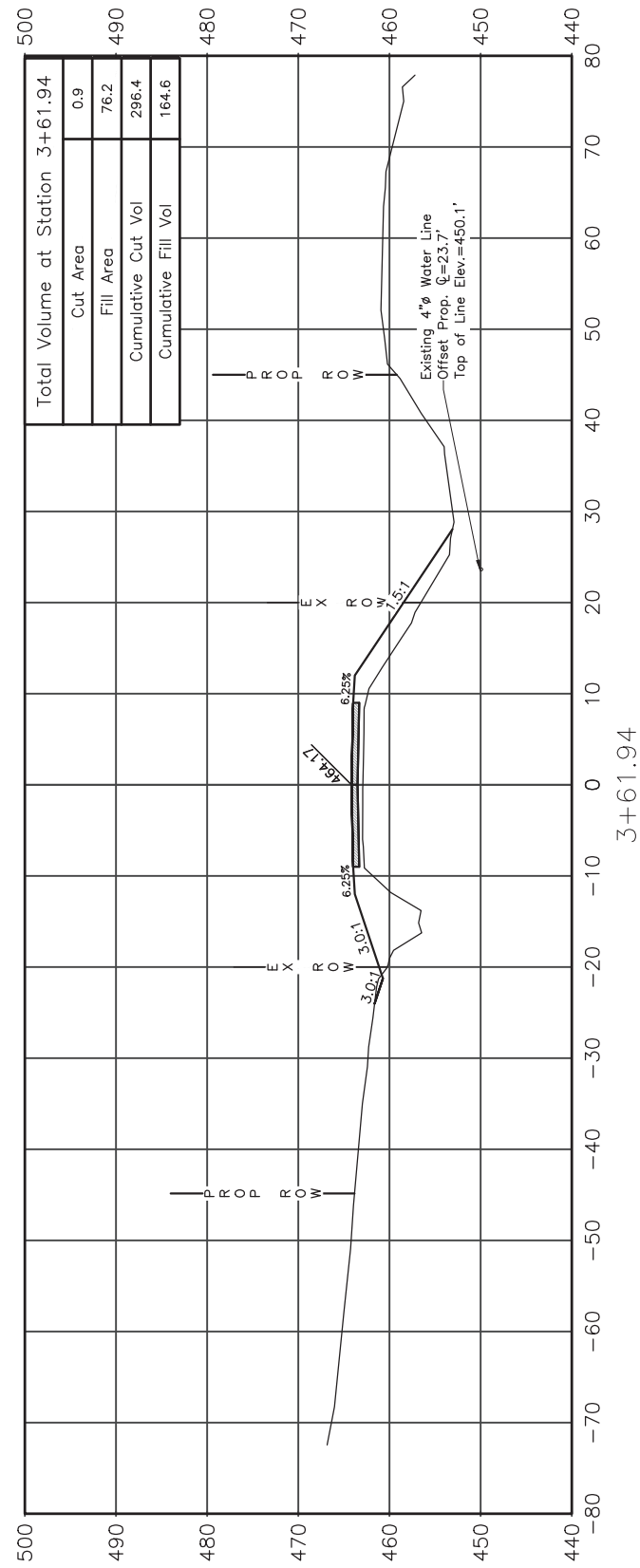
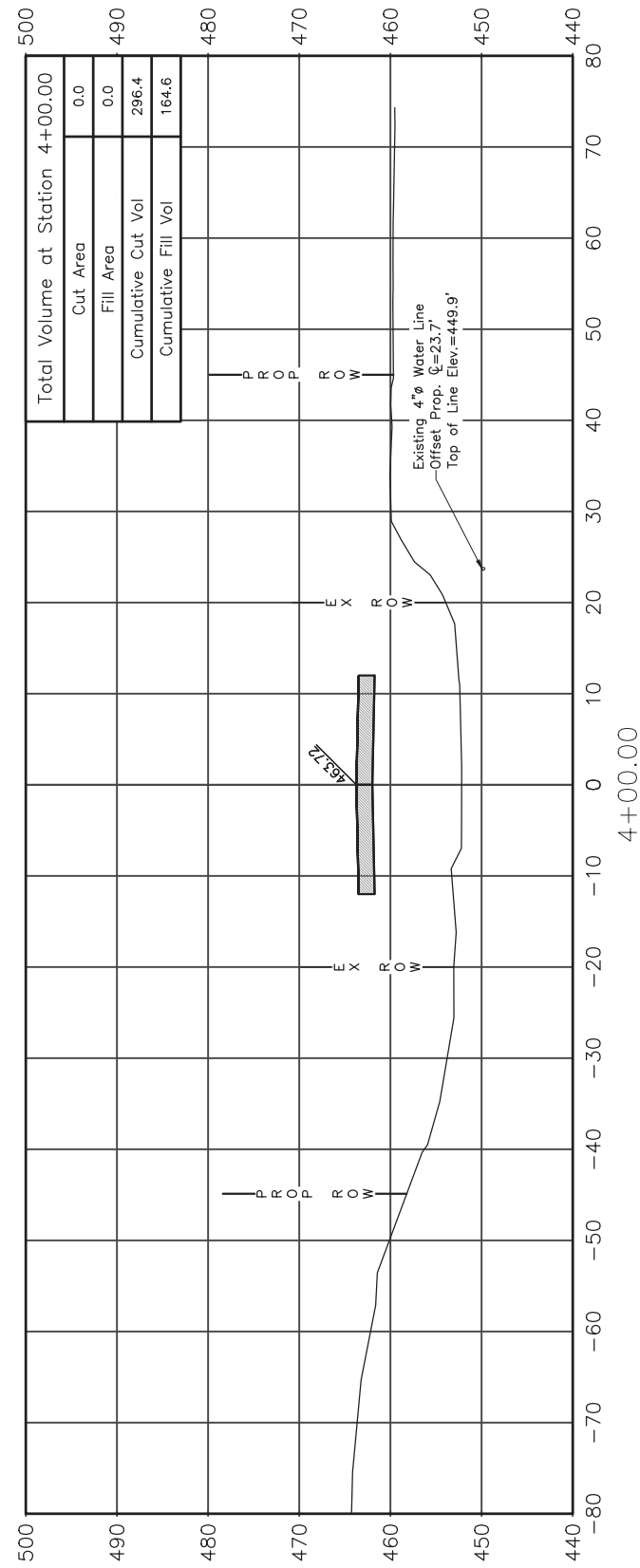
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|--------|----------------|----------|--------------------|-----------|
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| TR 35A | 08-09133-00-BR | RICHLAND | 18 | 12 |
| | | | CONTRACT NO. 95936 | |

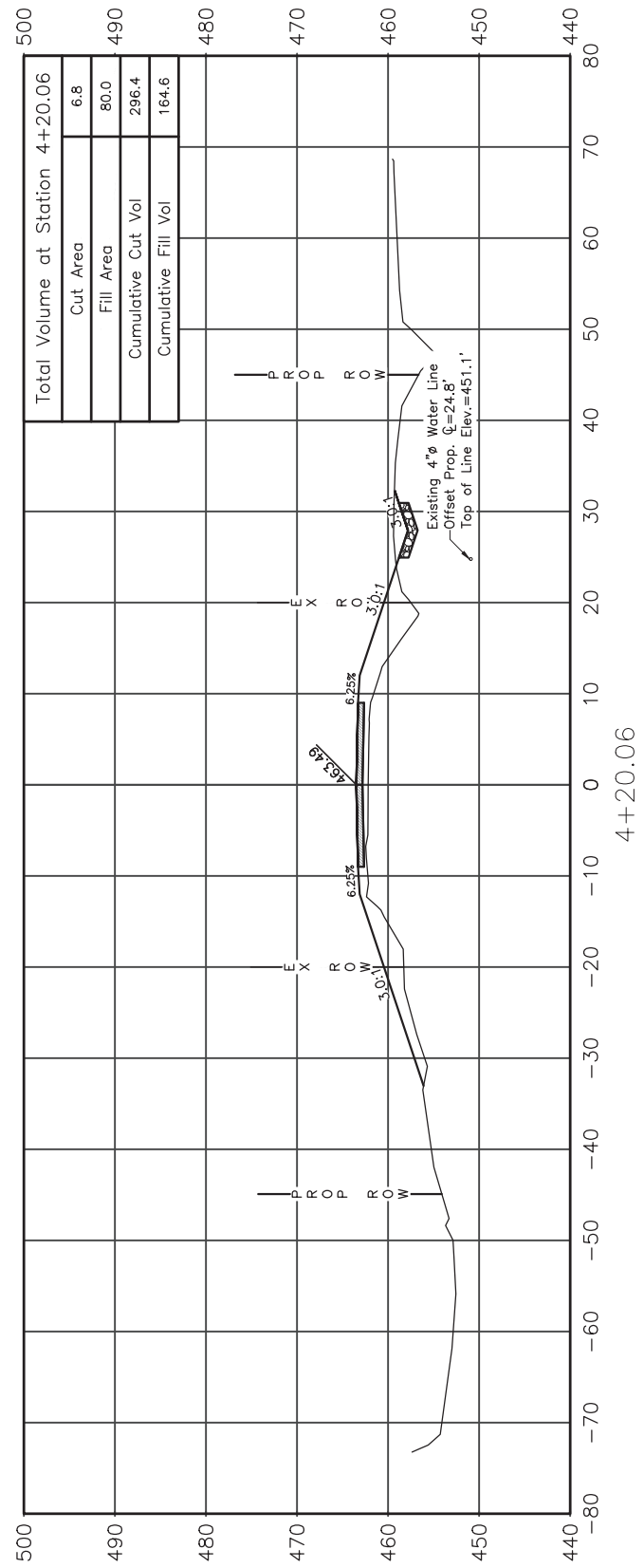
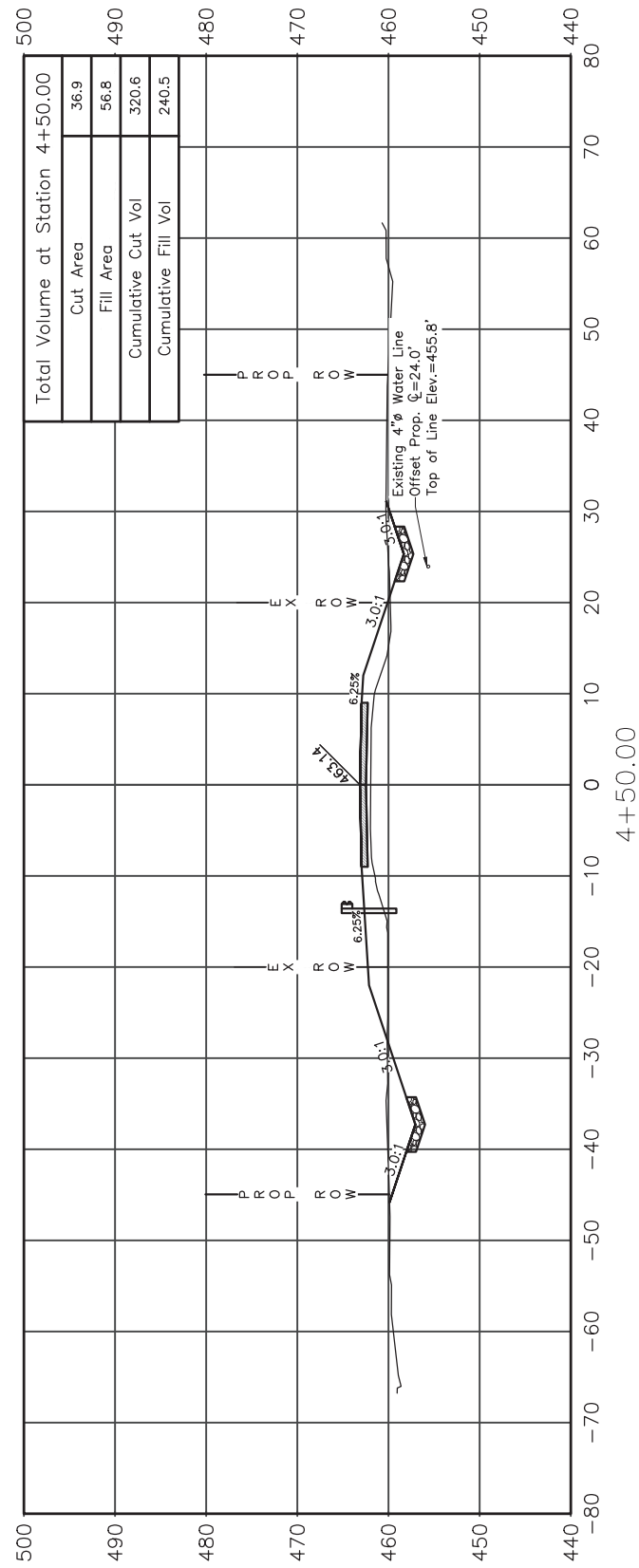
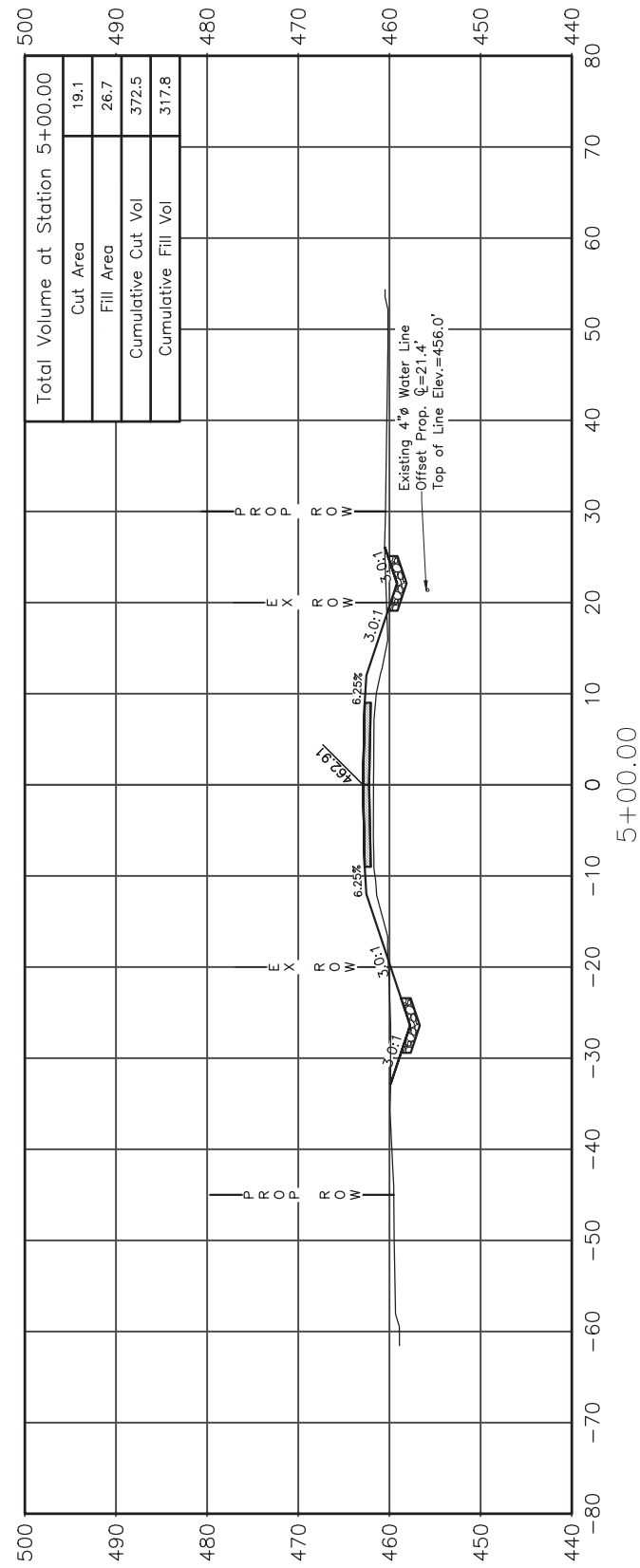
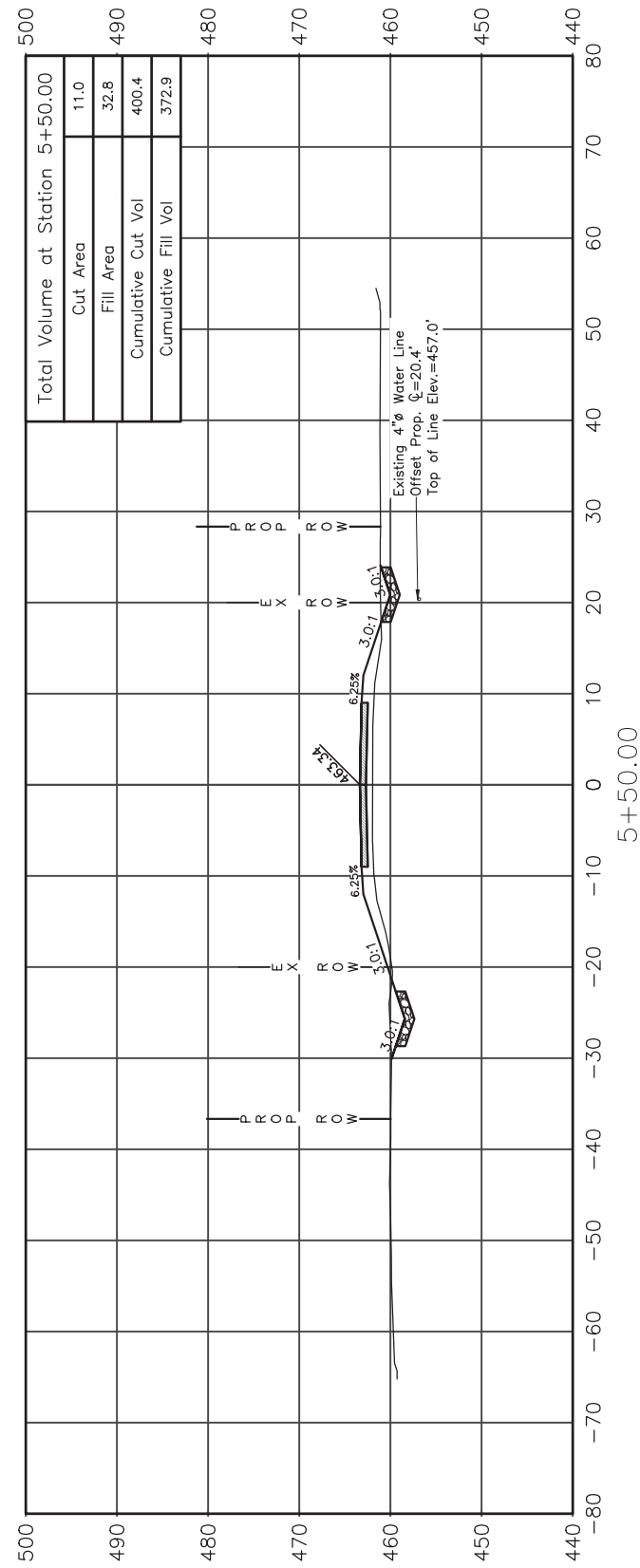
GCL JOB NO. 22-6034

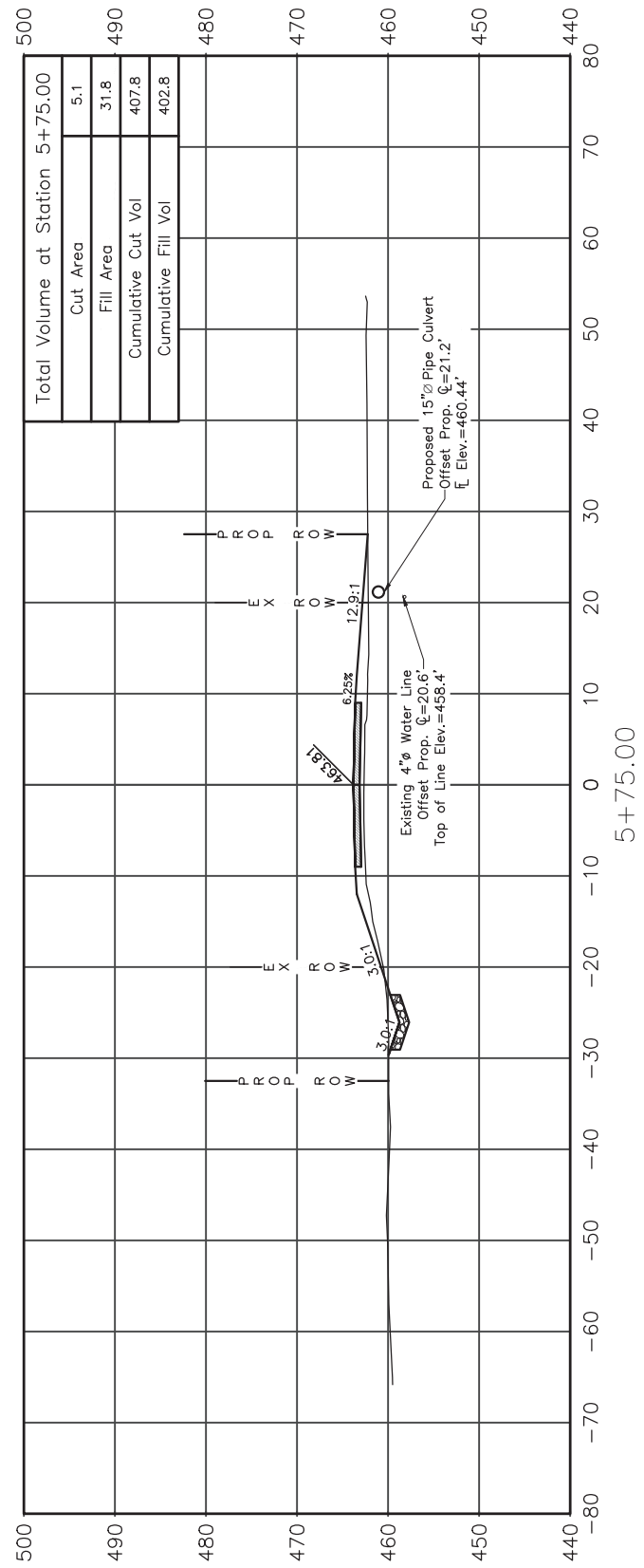
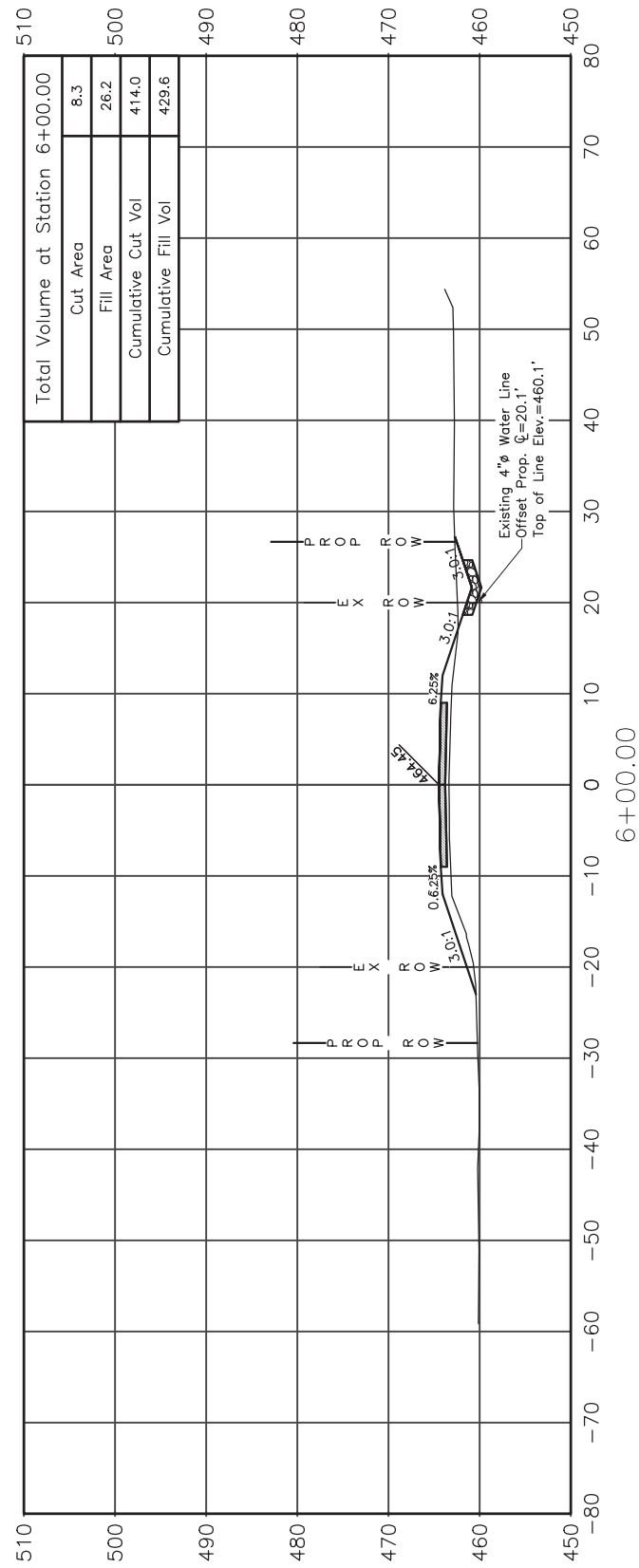
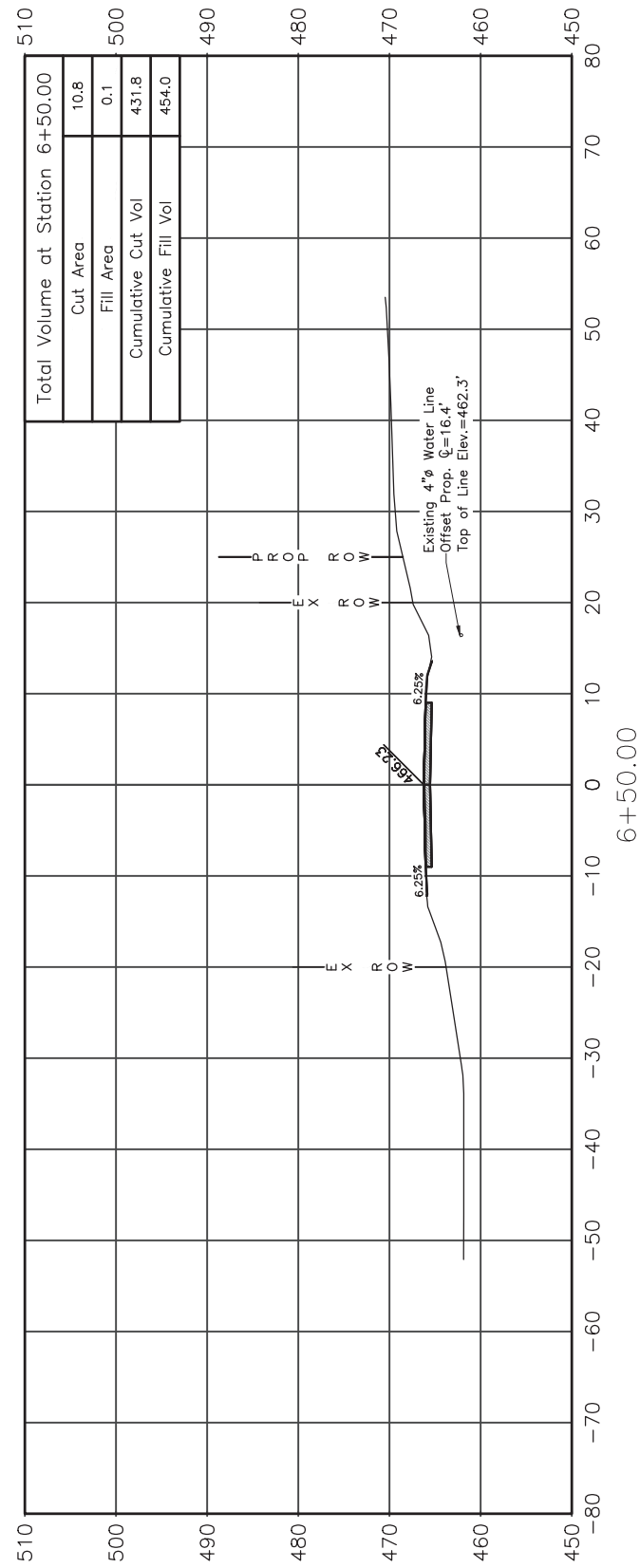
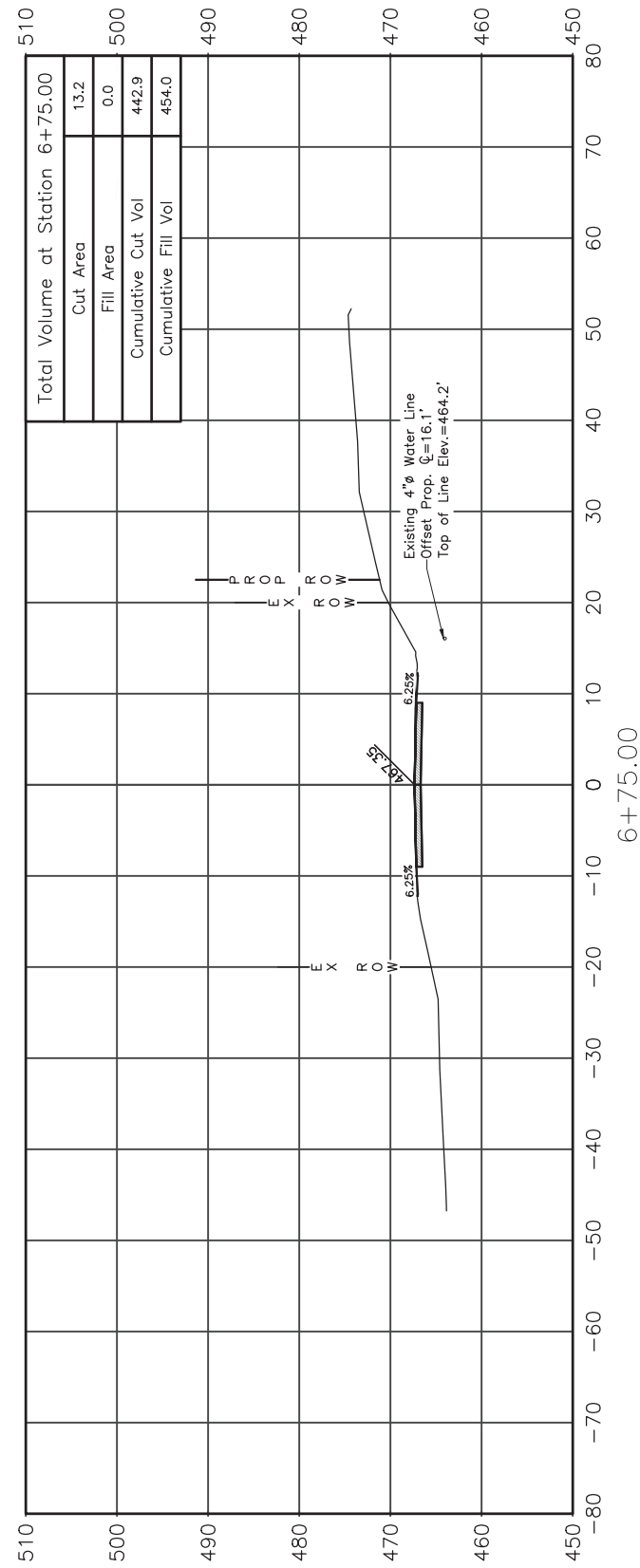
| NOBLE | | BORING No. B-1 | | water level reading | | | | | |
|--|------------|------------------------|---------|--|--------------|-----------|--|------------|---------|
| ENGINEERING CONSULTANTS | | County: Richland, IL | | Sheet No. 1 of 1 | | | | | |
| Client: Charleston Engineering | | Weather: Sunny | | Temperature: 80's | | | | | |
| Driller: Noble Engineering Consultants | | Date Start: 6-22-17 | | Surface Elevation: 462.2 | | | | | |
| Location: Sec. #08-09133-00-BR | | Date Finished: 6-22-17 | | Driller: Tony Schocker | | | | | |
| | | | | @completion Dry Cave | | | | | |
| | | | | Backfill: Soil cuttings | | | | | |
| Depth: | Sample No. | Sample Depth | N-Value | Blow Count | Recovery (%) | Qp (tsf)* | Soil Description | USC Class. | Elev.** |
| 1 | | | | | | | 0.0'-0.7' Gravel FILL | | 461.2 |
| 2 | SS-1 | 1.0'-2.5' | 14 | 5-7-7 | 20 | | 0.7'-6.0' Silt, Clay, Etc. FILL | FILL | 460.2 |
| 3 | | | | | | | | | 459.2 |
| 4 | SS-2 | 3.5'-5.0' | 12 | 5-6-6 | 100 | | | FILL | 458.2 |
| 5 | | | | | | | | | 457.2 |
| 6 | SS-3 | 6.0'-7.5' | 6 | 2-2-4 | 100 | 1.5 | 6.0'-14.0' SILTY CLAY, trace to some sand, soft, brown | CL | 456.2 |
| 7 | | | | | | | | | 455.2 |
| 8 | | | | | | | | | 454.2 |
| 9 | SS-4 | 8.5'-10.0' | 7 | 2-3-4 | 100 | 1.5 | | CL | 453.2 |
| 10 | | | | | | | | | 452.2 |
| 11 | | | | | | | | | 451.2 |
| 12 | | | | | | | | | 450.2 |
| 13 | | | | | | | | | 449.2 |
| 14 | SS-5 | 13.5'-15.0' | 71 | 9-29-42 | 100 | - | | - | 448.2 |
| 15 | | | | | | | | | 447.2 |
| 16 | | | | | | | | | 446.2 |
| 17 | | | | | | | | | 445.2 |
| 18 | | | | | | | | | 444.2 |
| 19 | SS-6 | 18.5'-20.0' | 156+ | 43-56-100/4" | 100 | - | 14.0'-22.9' HIGHLY WEATHERED ROCK | - | 443.2 |
| 20 | | | | | | | | | 442.2 |
| 21 | | | | | | | | | 441.2 |
| 22 | | | | | | | | | 440.2 |
| 23 | | | | | | | AR 22.9' | | 439.2 |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| Drilling Method: HSA (2-1/4" id) | | comments | | * Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder | | | | | |
| Depth: 0' to 22.9' | | | | ** ground surface elevation at boring location assumes bridge deck elevation of 100 and is not surveyed or based on AMSL | | | | | |
| Drill Rig: Mobile B-47 | | | | | | | | | |
| Sampling: split-spoon (SS) | | | | | | | | | |

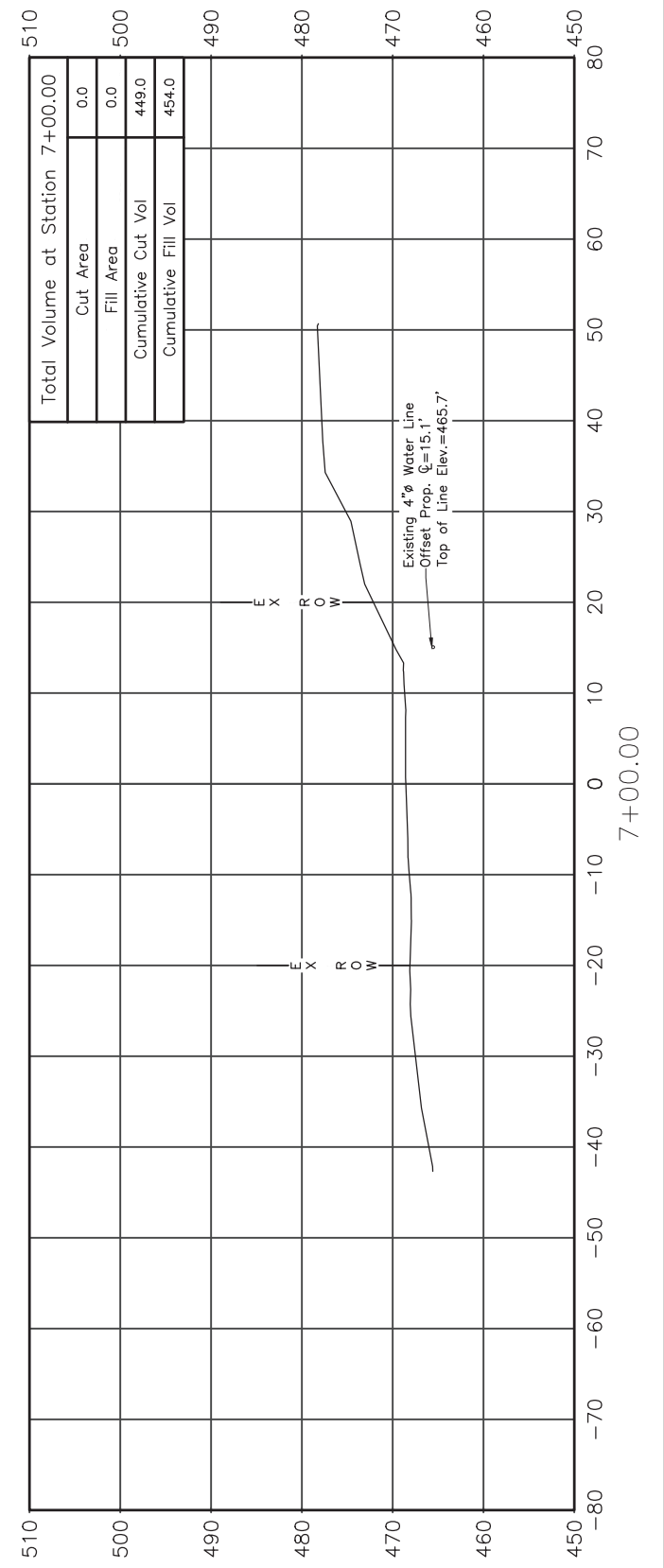
| NOBLE | | BORING No. B-2 | | water level reading | | | | | |
|--|------------|------------------------|---------|--|--------------|-----------|--|------------|---------|
| ENGINEERING CONSULTANTS | | County: Richland, IL | | Sheet No. 1 of 1 | | | | | |
| Client: Charleston Engineering | | Weather: Sunny | | Temperature: 80's | | | | | |
| Driller: Noble Engineering Consultants | | Date Start: 6-22-17 | | Surface Elevation: 462.4 | | | | | |
| Location: Sec. #08-09133-00-BR | | Date Finished: 6-22-17 | | Driller: Tony Schocker | | | | | |
| | | | | @completion Dry Cave | | | | | |
| | | | | Backfill: Soil cuttings | | | | | |
| Depth: | Sample No. | Sample Depth | N-Value | Blow Count | Recovery (%) | Qp (tsf)* | Soil Description | USC Class. | Elev.** |
| 1 | | | | | | | 0.0'-0.6' Gravel FILL | | 461.4 |
| 2 | SS-1 | 1.0'-2.5' | 9 | 5-4-5 | 10 | | 0.6'-9.5' Silt, Clay, Etc. FILL | FILL | 460.4 |
| 3 | | | | | | | | | 459.4 |
| 4 | SS-2 | 3.5'-5.0' | 4 | 2-2-2 | 100 | | | FILL | 458.4 |
| 5 | | | | | | | | | 457.4 |
| 6 | SS-3 | 6.0'-7.5' | 16 | 3-9-7 | 100 | - | | CL | 456.4 |
| 7 | | | | | | | | | 455.4 |
| 8 | | | | | | | | | 454.4 |
| 9 | SS-4 | 8.5'-10.0' | 46 | 5-27-19 | 100 | 1.5 | 9.5'-13.5' SILTY CLAY, trace to some sand, soft, brown | CL | 453.4 |
| 10 | | | | | | | | | 452.4 |
| 11 | | | | | | | | | 451.4 |
| 12 | | | | | | | | | 450.4 |
| 13 | | | | | | | | | 449.4 |
| 14 | SS-5 | 13.5'-15.0' | 96 | 12-34-62 | 100 | - | | - | 448.4 |
| 15 | | | | | | | | | 447.4 |
| 16 | | | | | | | | | 446.4 |
| 17 | | | | | | | | | 445.4 |
| 18 | | | | | | | | | 444.4 |
| 19 | SS-6 | 18.5'-20.0' | 172+ | 89-72-100/4" | 100 | - | 13.5'-23.2' HIGHLY WEATHERED ROCK | - | 443.4 |
| 20 | | | | | | | | | 442.4 |
| 21 | | | | | | | | | 441.4 |
| 22 | | | | | | | | | 440.4 |
| 23 | | | | | | | AR 23.2' | | 439.4 |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |
| 26 | | | | | | | | | |
| 27 | | | | | | | | | |
| 28 | | | | | | | | | |
| 29 | | | | | | | | | |
| 30 | | | | | | | | | |
| Drilling Method: HSA (2-1/4" id) | | comments | | * Qp test is an estimate of the unconfined compressive strength performed by a compact calibrated spring loaded cylinder | | | | | |
| Depth: 0' to 22.9' | | | | ** ground surface elevation at boring location assumes bridge deck elevation of 100 and is not surveyed or based on AMSL | | | | | |
| Drill Rig: Mobile B-47 | | | | | | | | | |
| Sampling: split-spoon (SS) | | | | | | | | | |











| | | |
|--|----------------|-----------|
| CHARLESTON ENGINEERING, INC. CONSULTING ENGINEERS - LAND SURVEYORS <small>105 NORTH KITCHELL AVENUE OLNEY, ILLINOIS 62450</small> <small>P.O. BOX 397 (618) 392-0736</small> <small>ILLINOIS DEPARTMENT OF PROFESSIONAL REGULATION REGISTRATION #184.003513</small> | DESIGNED - BMB | REVISED - |
| | DRAWN - BMB | REVISED - |
| | CHECKED - BMB | REVISED - |
| | DATE - 3-2023 | REVISED - |

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY

| | | | | |
|----------------|----------------|----------|-------------------|-----------|
| ROUTE | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| T.R. 35A | 08-09133-00-BR | RICHLAND | 18 | 18 |
| CONTRACT 95936 | | ILLINOIS | PROJECT 3BML(437) | |