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T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	1
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

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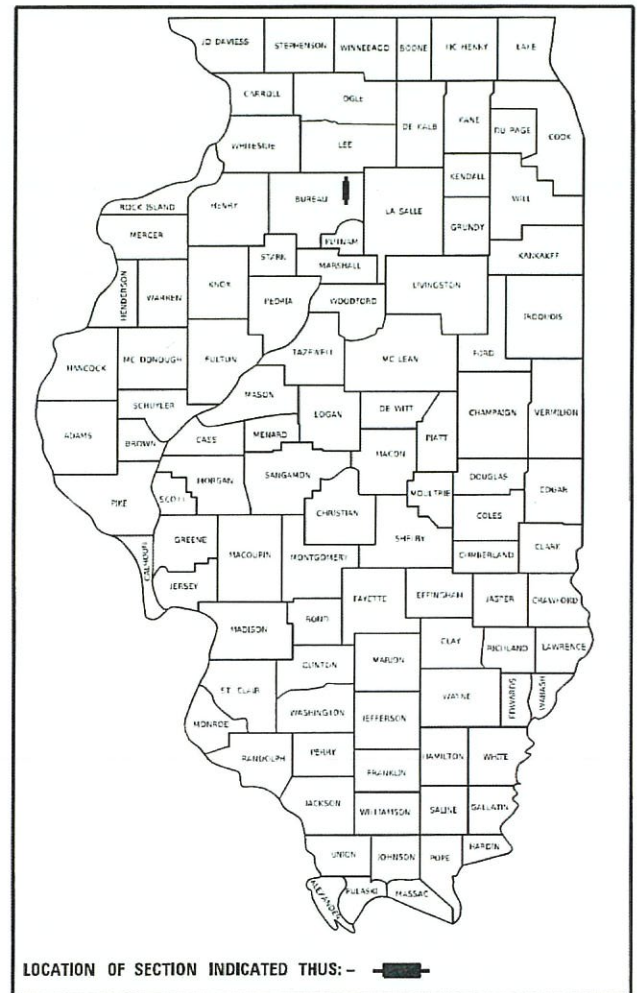
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID PROJECT SURFACE TRANSPORTATION PROGRAM - BRIDGE (FY-24)

T.R. 312 (2500 ST. E) OVER MASTERS FORK
SECTION 07-12125-00-BR
PROJECT NUMBER 7VPH(466)
STRUCTURE REPLACEMENT
LAMOILLE TOWNSHIP
BUREAU COUNTY
C-93-002-24

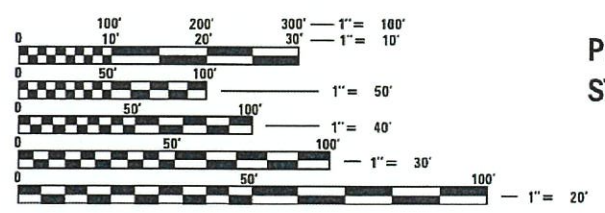
**FOR HIGHWAY STANDARDS
SEE SHEET NO. 2**

**FOR LIST OF UTILITIES
SEE SHEET NO. 2**



FUNCTIONAL CLASSIFICATION
LOCAL ROAD (RURAL)
DESIGN SPEED 30 MPH
2024 ADT - 25

DESIGN CRITERIA
3R GUIDELINES



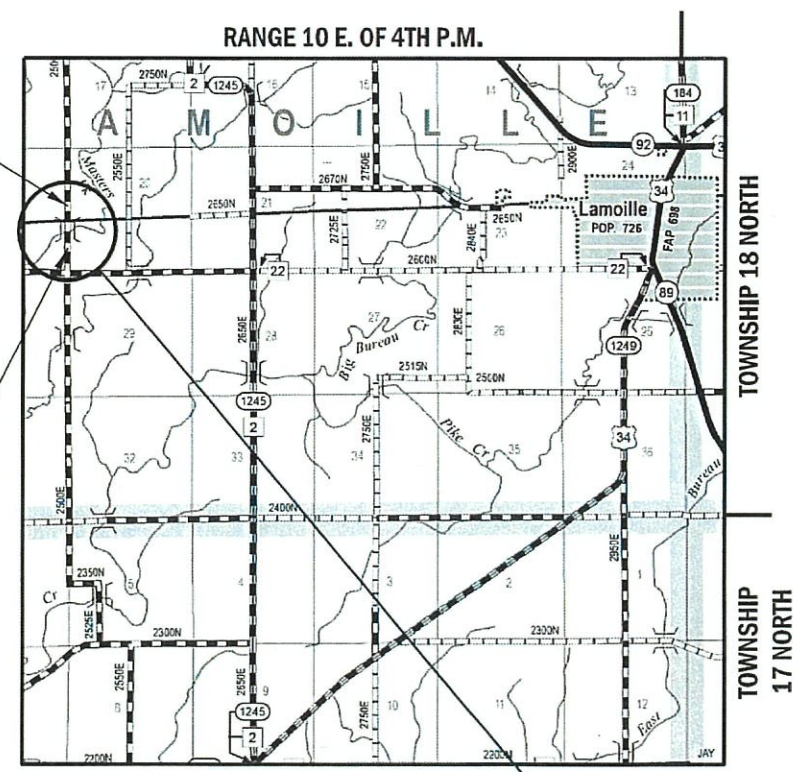
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E. A230161211
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER - ADAM T. KUENY, P.E.
PROJECT MANAGER - MICHAEL R. LESLIE, S.E., P.E.
CONTRACT NO. 87815

PROJECT ENDS
STATION 22+35

PROJECT BEGINS
STATION 17+95



PROPOSED STRUCTURE: S.N. 006-4180
A SINGLE SPAN (1 @ 70'-0") PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE ON SPILL-THRU ABUTMENTS. NO SKEW.

GROSS LENGTH = 440 FT. = 0.083 MILE
NET LENGTH = 440 FT. = 0.083 MILE



DATE: *Stephen Traviase*
EXPIRES 11/30/25

BUREAU COUNTY HIGHWAY DEPARTMENT	
APPROVED	02/16/24 2024 <i>John L. ...</i> BUREAU COUNTY ENGINEER
LAMOILLE TOWNSHIP ROAD DISTRICT	
APPROVED	02/13/24 2024 <i>Robert ...</i> LAMOILLE TOWNSHIP ROAD COMMISSIONER
PASSED	FEBRUARY 21 2024 <i>...</i> DISTRICT 3 LOCAL ROADS & STREETS ENGINEER
RELEASING FOR BID BASED ON LIMITED REVIEW	FEBRUARY 21, 2024 <i>Stephen Traviase</i> REGION 2 ENGINEER

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OF THE STATE OF ILLINOIS**

**WILLETT HOFMANN
& ASSOCIATES INC**
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T:309-517-1119 DESIGN FIRM: # 184-000918

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GENERAL NOTES

IN THESE CONTRACT DOCUMENTS MENTION IS MADE OF THE "ENGINEER", WHICH SHALL MEAN BUREAU COUNTY HIGHWAY DEPARTMENT, ILLINOIS DEPARTMENT OF TRANSPORTATION AND/OR THEIR DULY AUTHORIZED AGENT.

THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY THE COUNTY. THE CONSTRUCTION DETAILS, AS PRESENTED ON THESE PLANS MUST BE FOLLOWED BY THE CONTRACTOR; IMPROVEMENT REPRESENTATIONS AS SHOWN ARE AS ACCURATE AS POSSIBLE FROM THE INFORMATION AVAILABLE. HOWEVER, SOME FIELD REVISIONS MAY BE REQUIRED TO ACCOMMODATE UNFORESEEN CIRCUMSTANCES. THE ENGINEER SHALL BE ADVISED OF ANY NECESSARY REVISIONS WITH SUFFICIENT LEAD TIME ALLOWED TO PROPERLY CONSIDER AND ACT UPON SAID REQUESTS.

THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS ENCOUNTERED, UNTIL AN OWNER OR AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ANY PROPERTY MARKS, SECTION OR SUBSECTION MONUMENTS UNLESS REFERENCED, DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL COOPERATE WITH THE COUNTY AND ADJACENT LANDOWNERS WITH REGARDS TO ACCESS TO PRIVATE PROPERTY, AS WELL AS THE U.S. POSTAL SERVICE FOR MAIL DELIVERY.

THE LOCATION AND ELEVATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UTILITIES ON OR ADJACENT TO THE SITE. PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES, CONTACT J.U.L.I.E. AT 1-800-892-0123 AND THE CITY FOR EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE. DAMAGE, AND THE COST TO REPAIR SAID DAMAGE, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

CONTRACTOR SHALL CLEAN UP ALL EXCESS MATERIALS AND DEBRIS CAUSED AS A RESULT OF WORK UNDER THIS CONTRACT AT THE COMPLETION OF THE PROJECT AT NO ADDITIONAL COST.

CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE RESULTING FROM THE PERFORMANCE OF THE WORK UNDER THIS CONTRACT.

COPIES OF ALL DELIVERY TICKETS FOR MATERIALS USED IN THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER OR COUNTY PRIOR TO PAYMENT FOR THE WORK. EACH MATERIAL TICKET SHALL BE PROVIDED TO THE FIELD ENGINEER UPON DELIVERY.

FINAL INSPECTION OF THE WORK PERFORMED UNDER THIS CONTRACT WILL BE DONE BY THE ENGINEER AND COUNTY PRIOR TO FINAL ACCEPTANCE. DEFECTS SHALL BE CORRECTED BY THE CONTRACTOR WITHOUT COST TO THE COUNTY PRIOR TO ISSUANCE OF THE FINAL PAYMENT. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED WITH REGARD TO WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER THE DATE OF ACCEPTANCE. DEFECTS WHICH ARISE DURING THE GUARANTEE PERIOD SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO EXPENSE TO THE COUNTY WITHIN 30 DAYS OF RECEIVING NOTIFICATION OF THE DEFECT.

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
725001-01	OBJECT AND TERMINAL MARKERS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
B.L.R. 22-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

GENERAL NOTES CONT.:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.39 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123. THE FOLLOWING LISTED UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS ARE MEMBERS OF JULIE:

AMEREN ELECTRIC
CHRIS COVERT
(815)-252-8372
ccovert@ameren.com
illinoisconstruction@ameren.com

EXISTING MAIL BOXES, MONUMENTS, AND ANY MISC. SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED AND RESET BY THE CONTRACTOR. COST OF THE REMOVING AND RESETTING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER UNIT FOR EARTH EXCAVATION (SPECIAL).

THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION IN ORDER TO ARRANGE FOR APPROPRIATE CONSTRUCTION INSPECTION. WORK PERFORMED OR MATERIALS AND EQUIPMENT INSTALLED WITHOUT INSPECTION MAY BE CONSIDERED UNACCEPTABLE AT THE DISCRETION OF THE ENGINEER AND MY HAVE TO BE REPLACED AT NO COST TO THE ENGINEER OR OWNER.

EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, TANKS, WELLS OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT-OF-WAY SHALL BE REMOVED IN ACCORDANCE WITH ARTICLE 501.04 OF THE STANDARD SPECIFICATIONS, WITHOUT ANY ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

ALL BORROW / WASTE / USE SITES MUST BE APPROVED BY THE DEPARTMENT / OWNER PRIOR TO REMOVING ANY MATERIAL FROM THE PROJECT OR INITIATING ANY EARTH MOVING ACTIVITIES, INCLUDING TEMPORARY STOCKPILING OUTSIDE THE LIMITS OF CONSTRUCTION.

DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL INSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUIRED DUE TO DELAYS OR UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL MEASURES THROUGHOUT THE COURSE OF THE PROJECT. THE COST FOR ALL MAINTAINED AND ADJUSTMENTS TO THE EROSION CONTROL MEASURES SHALL BE INCLUDED IN THE CONTRACT UNIT BID PRICE FOR EACH EROSION CONTROL DEVICE.

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



WILLET HOFMANN
& ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

GENERAL NOTES
SHEET NO. 1 OF 1 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	2
WHA # 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES

PAY CODE	PAY ITEM	UNIT	QUANTITY
	NAME		
20300100	CHANNEL EXCAVATION	CU YD	423
25100630	EROSION CONTROL BLANKET	SQ YD	1,453
28000400	PERIMETER EROSION BARRIER	FOOT	770
35101400	AGGREGATE BASE COURSE, TYPE B	TON	365
40200100	AGGREGATE SURFACE COURSE, TYPE A	TON	164
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	30
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	40
50200100	STRUCTURE EXCAVATION	CU YD	136
50300225	CONCRETE STRUCTURES	CU YD	34.2
50300280	CONCRETE ENCASEMENT	CU YD	5.5
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	1,708
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,340
+ 50901050	STEEL RAILING, TYPE SM	FOOT	145
51200958	FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT	384

*INDICATES SPECIALTY ITEM

PAY CODE	PAY ITEM	UNIT	QUANTITY
	NAME		
51202305	DRIVING PILES	FOOT	384
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	42
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	97
67100100	MOBILIZATION	L SUM	1
+ 72500300	OBJECT MARKER - TYPE 3	EACH	4
+ 72900100	METAL POST - TYPE A	FOOT	24
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	232
X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.5
X2810212	STONE RIPRAP, CLASS A6 (SPECIAL)	TON	1,061
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1

*INDICATES SPECIALTY ITEM

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REVISION	DATE	BY	REMARKS	DESIGNED	ATK
				DRAWN	DAN
				REVIEWED	ATK
				APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



SUMMARY OF QUANTITIES

SHEET NO. 1 OF 1 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	3
WHA* 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

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EROSION CONTROL BLANKET		
STATION	SQ YD	REMARKS
T.R. 312		
LT 17+95 - 19+53.74	361	Southwest Quadrant
RT 17+95 - 19+53.74	317	Southeast Quadrant
LT 20+46.36 - 22+35	356	Northwest Quadrant
RT 20+46.36 - 22+35	419	Northeast Quadrant
PROJECT TOTAL	1453	
25100630		

PERIMETER EROSION BARRIER		
STATION	FOOT	REMARKS
T.R. 312		
LT 17+95 - 19+53.74	180	Southwest Quadrant
RT 17+95 - 19+53.74	175	Southeast Quadrant
LT 20+46.36 - 22+35	210	Northwest Quadrant
RT 20+46.36 - 22+35	205	Northeast Quadrant
PROJECT TOTAL	770	
28000400		

AGGREGATE BASE COURSE, TYPE B		
STATION	TON	REMARKS
T.R. 312		
STA 17+95 - 22+35	365	CA2 ONLY 8"
PROJECT TOTAL	365	
35101400		

AGGREGATE SURFACE COURSE, TYPE A		
STATION	TON	REMARKS
T.R. 312		
STA 17+95 - 22+35	164	CA6 ONLY 4"
PROJECT TOTAL	164	
40200100		

AGGREGATE SURFACE COURSE, TYPE B		
STATION	TON	REMARKS
T.R. 312		
FEL 20+63	30	FIELD ENTRANCE (DEPTH = 8") CA6 ONLY
PROJECT TOTAL	30	
40200800		

PIPE CULVERT REMOVAL		
STATION	FOOT	REMARKS
T.R. 312		
FEL 20+63	40	
PROJECT TOTAL	40	
50105220		

PIPE CULVERTS, CLASS D, TYPE 1 18"		
STATION	FOOT	REMARKS
T.R. 312		
FEL 20+63	42	CMP
PROJECT TOTAL	42	
542D0223		

OBJECT MARKER - TYPE 3		
STATION	EACH	REMARKS
T.R. 312		
LT 20+37	1	
RT 20+37	1	
LT 19+63	1	
RT 19+63	1	
PROJECT TOTAL	4	
72500300		

METAL POST - TYPE A		
STATION	FOOT	REMARKS
T.R. 312		
LT 20+37	6	
RT 20+37	6	
LT 19+63	6	
RT 19+63	6	
PROJECT TOTAL	24	
72900100		

SEEDING, CLASS 2 (SPECIAL)		
STATION	ACRE	REMARKS
T.R. 312		
STA 17+95 - 22+35	0.25	West Half
STA 17+95 - 22+35	0.25	East Half
PROJECT TOTAL	0.5	
X2501000		

Location	EARTH EXCAVATION (SPECIAL) X2020410 CU YD	CHANNEL EXCAVATION 20300100 CU YD	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE MAINLINE: 25% CHANNEL: 62.5%	EMBANKMENT	EARTH BALANCE WASTE (+) OR FURNISHED EXCAVATION(-) CU YD
MAINLINE					
T.R. 312	232		174	138	36
CHANNEL					
WATERWAY RE-GRADING		423	159		159
TOTALS	232	423	333	138	195

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

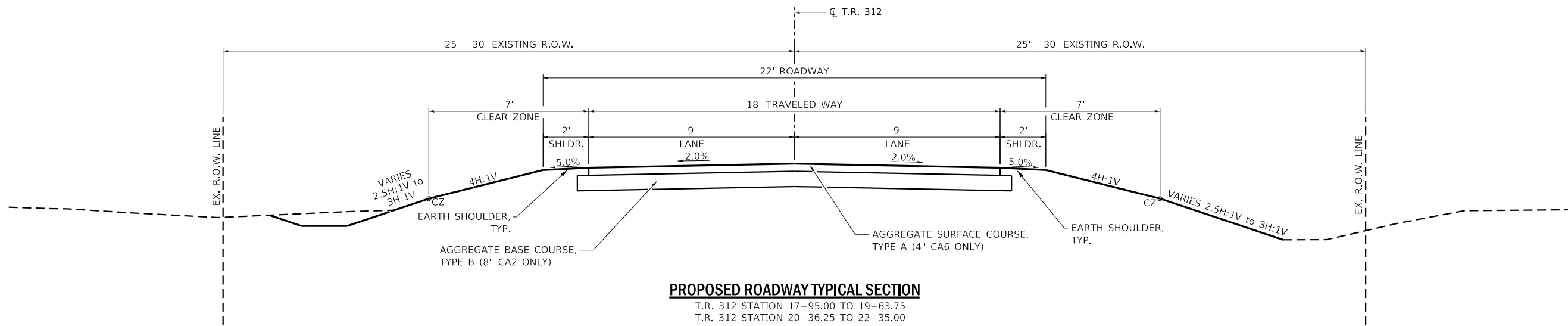
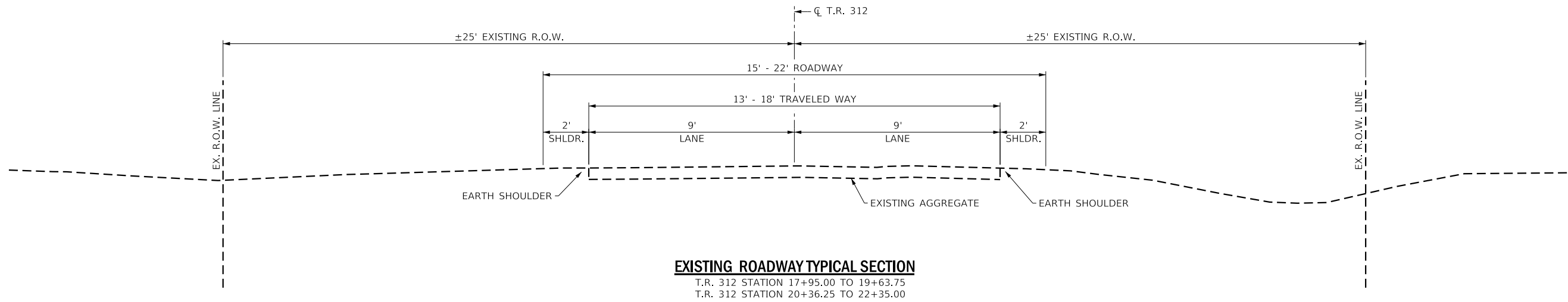


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 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T: 309-517-1119 DESIGN FIRM: # 184-000918

SCHEDULE OF QUANTITIES

SHEET NO. 1 OF 1 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	4
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



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DESIGNED	ATK
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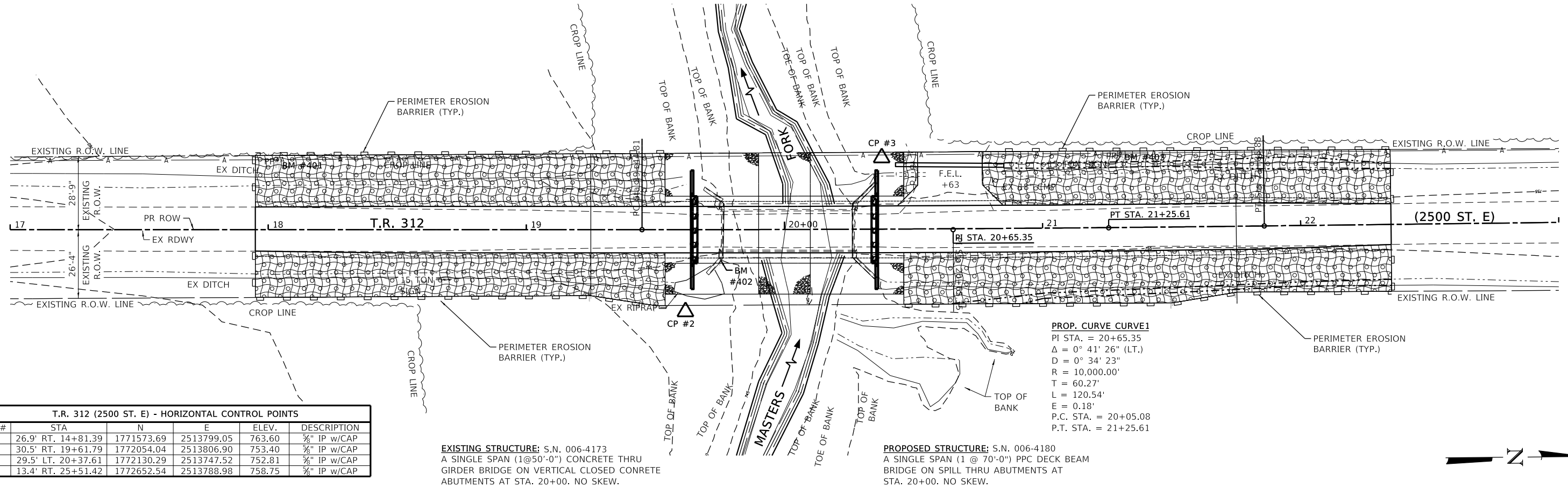
BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



TYPICAL SECTIONS
SHEET NO. 1 OF 1 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	5
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

BENCH MARK #400: RR SPIKE IN 2ND PP S. OF STRUCTURE ±26' LT. OF STA. ±14+57 EL. 763.94
BENCH MARK #401: RR SPIKE IN 1ST PP S. OF STRUCTURE ±26' LT. OF STA. ±18+04 EL. 759.12
BENCH MARK #402: CHIS. "□" SE WINGWALL ON STRUCTURE ±11' RT. OF STA. ±19+75 EL. 754.48
BENCH MARK #403: RR SPIKE IN 1ST PP N. OF STRUCTURE ±28' LT. OF STA. ±21+31 EL. 754.16
BENCH MARK #404: RR SPIKE IN 2ND PP N. OF STRUCTURE ±27' LT. OF STA. ±24+00 EL. 757.15



T.R. 312 (2500 ST. E) - HORIZONTAL CONTROL POINTS					
PT #	STA	N	E	ELEV.	DESCRIPTION
1	26.9' RT. 14+81.39	1771573.69	2513799.05	763.60	3/4" IP w/CAP
2	30.5' RT. 19+61.79	1772054.04	2513806.90	753.40	3/4" IP w/CAP
3	29.5' LT. 20+37.61	1772130.29	2513747.52	752.81	3/4" IP w/CAP
4	13.4' RT. 25+51.42	1772652.54	2513788.98	758.75	3/4" IP w/CAP

EXISTING STRUCTURE: S.N. 006-4173
 A SINGLE SPAN (1@50'-0") CONCRETE THRU GIRDER BRIDGE ON VERTICAL CLOSED CONCRETE ABUTMENTS AT STA. 20+00. NO SKEW.

PROPOSED STRUCTURE: S.N. 006-4180
 A SINGLE SPAN (1 @ 70'-0") PPC DECK BEAM BRIDGE ON SPILL THRU ABUTMENTS AT STA. 20+00. NO SKEW.

PROP. CURVE CURVE 1
 PI STA. = 20+65.35
 Δ = 0° 41' 26" (LT.)
 D = 0° 34' 23"
 R = 10,000.00'
 T = 60.27'
 L = 120.54'
 E = 0.18'
 P.C. STA. = 20+05.08
 P.T. STA. = 21+25.61

EROSION CONTROL NOTES

THE SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER 1/2" OF RAIN OR MORE BY THE INDIVIDUAL ON SITE IN CHARGE OF SOIL EROSION AND SEDIMENT CONTROL DURING THE CONSTRUCTION OF THE PROJECT.

PERIMETER EROSION BARRIER SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS AND SHALL BE PLACED AS SHOWN ON THIS EROSION CONTROL PLAN AND IN ACCORDANCE WITH STATIONS SHOWN ON THE SCHEDULE OF QUANTITIES SHEET OR AS DIRECTED BY THE ENGINEER.


EROSION CONTROL BLANKET SHALL BE PLACED ON ALL DISTURBED AREAS AS SHOWN ON THIS EROSION CONTROL PLAN SHEET AND IN ACCORDANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE USE OF GREEN DYE IN THE EROSION CONTROL BLANKET IS NOT ACCEPTABLE.

STOCKPILES OF SOIL AND OTHER BUILDING MATERIALS TO REMAIN IN PLACE MORE THAN 3 DAYS SHALL BE FURNISHED WITH EROSION AND SEDIMENT CONTROL MEASURES (I.E. PERIMETER SILT FENCE). SOCKPILES TO REMAIN IN PLACE FOR 14 DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.

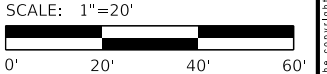
ALL ADJACENT STREETS MUST BE KEPT CLEAR OF DEBRIS, INSPECTED DAILY, AND CLEANED WHEN NECESSARY.

LEGEND

-  PERIMETER EROSION BARRIER
-  EROSION CONTROL BLANKET
-  SEEDING, CLASS 2A (SPECIAL)
-  STONE RIPRAP, CLASS A6 (SPECIAL)



Know what's below.
 Call before you dig.



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

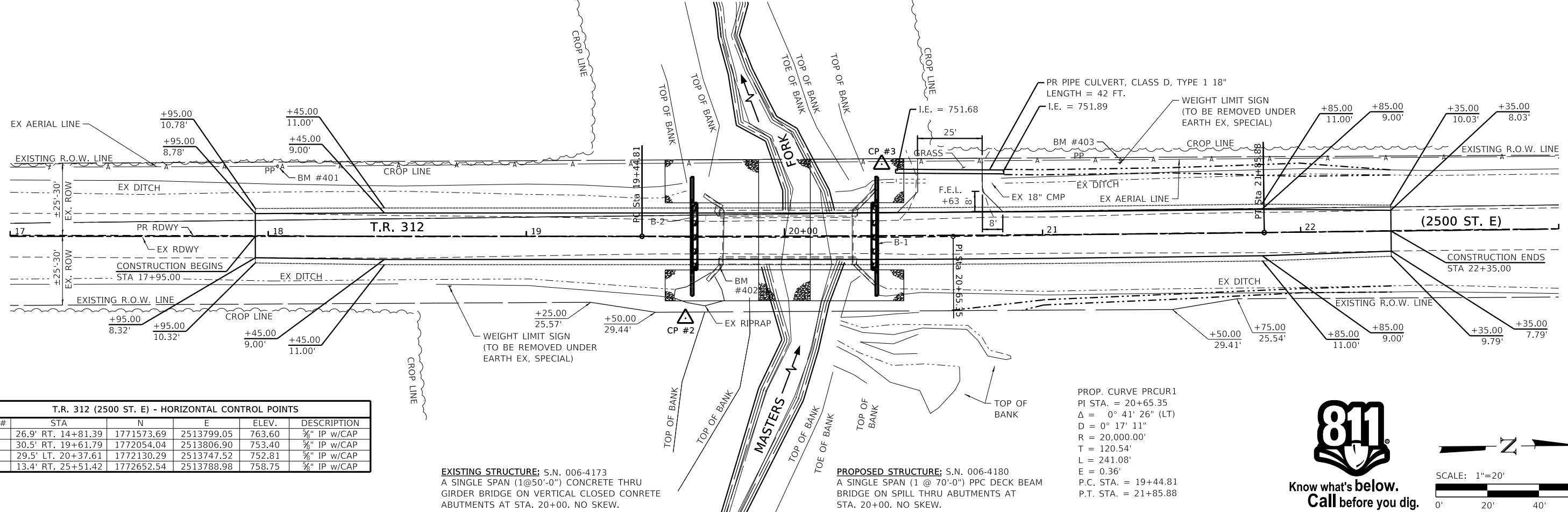
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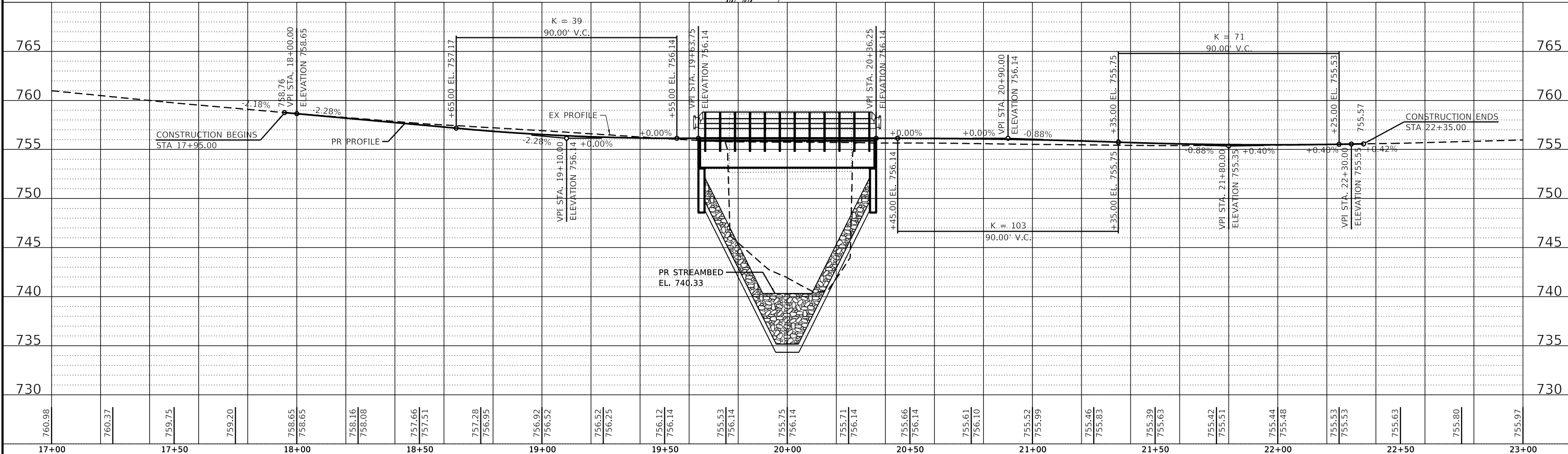
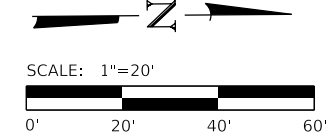
EROSION CONTROL PLAN
 SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA. 17+00.00 TO STA. 23+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	6
WHA# 1672M22			CONTRACT NO. 87815	
ILLINOIS FED. AID PROJECT				

BENCH MARK #400: RR SPIKE IN 2ND PP S. OF STRUCTURE ±26' LT. OF STA. ±14+57 EL. 763.94
BENCH MARK #401: RR SPIKE IN 1ST PP S. OF STRUCTURE ±26' LT. OF STA. ±18+04 EL. 759.12
BENCH MARK #402: CHIS. "□" SE WINGWALL ON STRUCTURE ±11' RT. OF STA. ±19+75 EL. 754.48
BENCH MARK #403: RR SPIKE IN 1ST PP N. OF STRUCTURE ±28' LT. OF STA. ±21+31 EL. 754.16
BENCH MARK #404: RR SPIKE IN 2ND PP N. OF STRUCTURE ±27' LT. OF STA. ±24+00 EL. 757.15



T.R. 312 (2500 ST. E) - HORIZONTAL CONTROL POINTS					
PT #	STA	N	E	ELEV.	DESCRIPTION
1	26.9' RT. 14+81.39	1771573.69	2513799.05	763.60	3/8" IP w/CAP
2	30.5' RT. 19+61.79	1772054.04	2513806.90	753.40	3/8" IP w/CAP
3	29.5' LT. 20+37.61	1772130.29	2513747.52	752.81	3/8" IP w/CAP
4	13.4' RT. 25+51.42	1772652.54	2513788.98	758.75	3/8" IP w/CAP



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



PLAN AND PROFILE

SCALE: 1" = 20'-0" SHEET NO. 1 OF 1 SHEETS STA. 17+00.00 TO STA. 23+00.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	7
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

PRINT_ORGANIZER-BW.plt.ctb 2/13/2024 3:35:49 PM - PLOTTED

Existing Structure: S.N. 006-4173 A single span (50'-0") Concrete Thru Girder Bridge on Vertical Closed Abutments at Sta. 20+00.

Bench Mark: WHA #402, Chiseled "C" in S.W. corner of hub guard. Elevation 754.48

No Salvage.

INDEX OF STRUCTURAL SHEETS

- 1 General Plan and Elevation
2 General Data
3 Riprap and Pile Layout
4 33" x 36" PPC Deck Beam
5 33" x 36" PPC Deck Beam Details
6-7 Abutment Details
8 Steel Railing, Type SM - Elevation
9 Steel Railing, Type SM - Details
10 Metal Shell Pile Details
11-14 Boring Logs

DESIGN SPECIFICATIONS

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" Ø Low Lax Strands)
fpbt = 201,960 psi (1/2" Ø Low Lax Strands)

DESIGN SCOUR ELEVATION TABLE

Table with 4 columns: Event / Limit, Design Scour Elevations (ft.), Item 113. Rows include State, Q100, Q200, Design, and Check.

HIGHWAY CLASSIFICATION

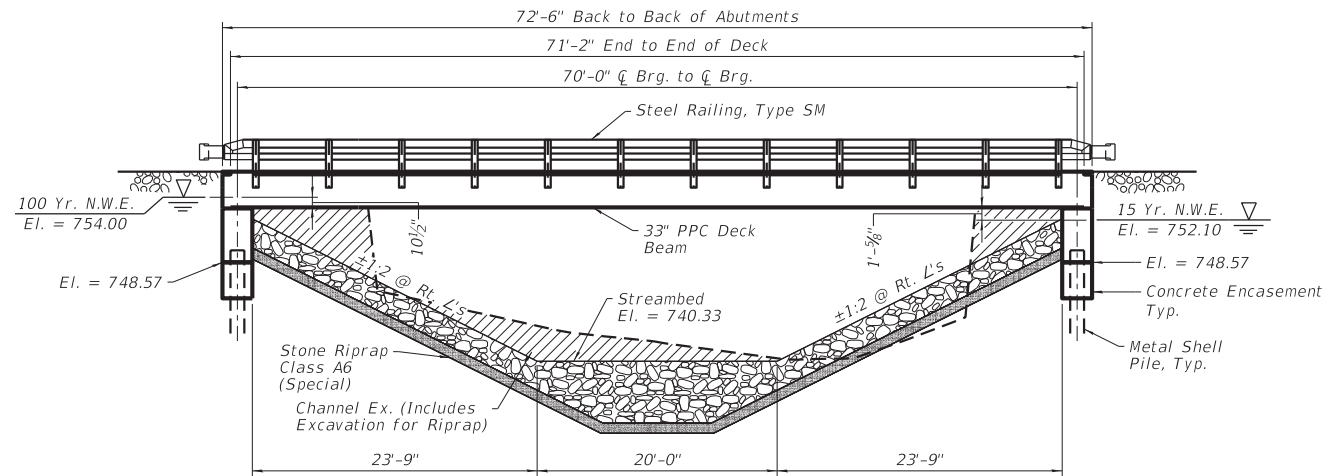
Twop. Rte 312 - 2500 St. E.
Functional Class: Local Road
ADT: 25 (2024 - Current); 25 (2024 - Design)
ADTT: 0 (2024 - Current); 0 (2024 - Design)
DHV: 3
Design Speed: 30 m.p.h.
Posted Speed: 55 m.p.h.
Two-Way Traffic
Directional Distribution: 50:50

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.111
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.166
Soil Site Class = D



ELEVATION VIEW

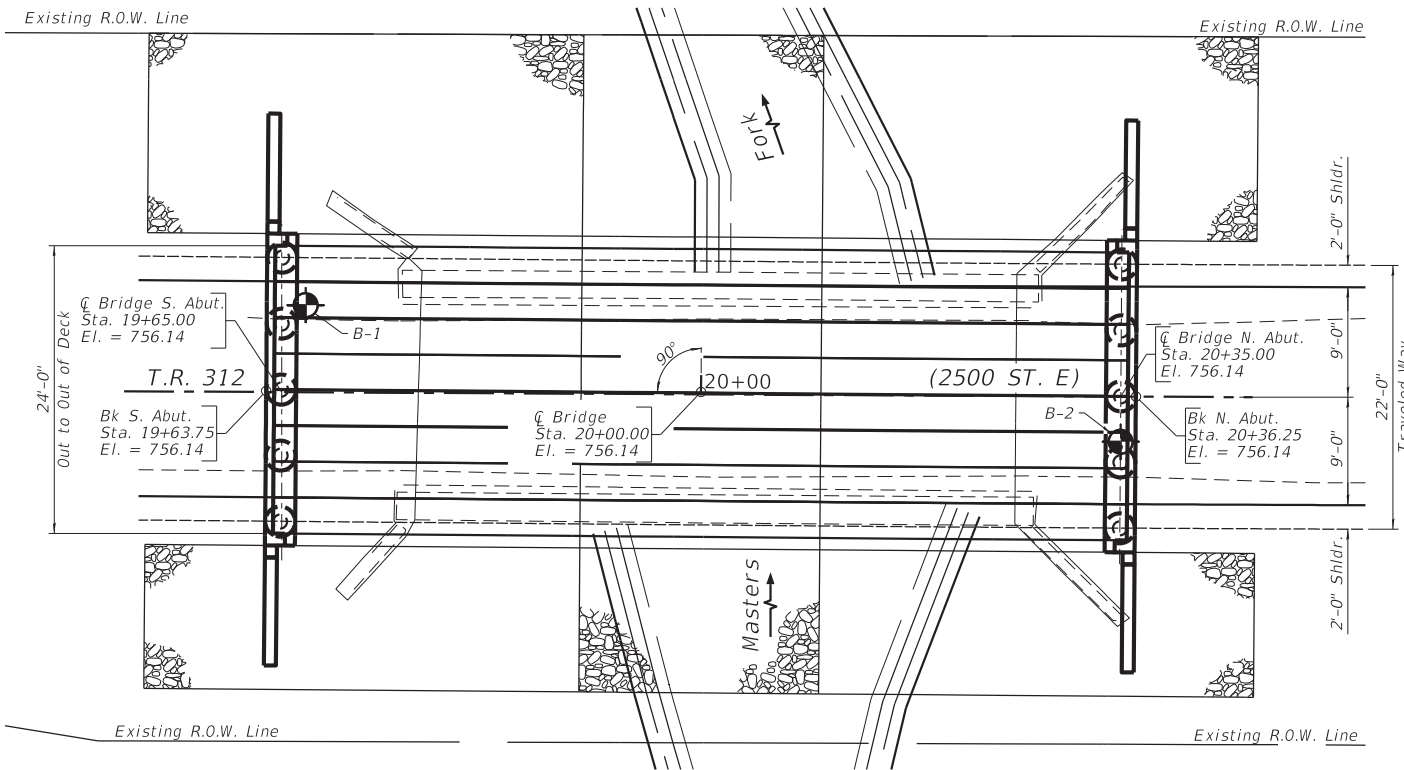
MASTERS FORK
BUILT 2024 BY
BUREAU COUNTY
SECTION 07-12125-00-BR
2500 ST. E STA. 20+00
STR. NO. 006-4180 LOADING HL-93

NAME PLATE LETTERING

Refer To Std. 515001

WATERWAY INFORMATION

Table with columns: Flood, Freq. Yr., Q C.F.S., Opening ft., Nat. H.W.E., Head - ft., Headwater El. Rows include Design, Base, Scour, and Max. Calc.

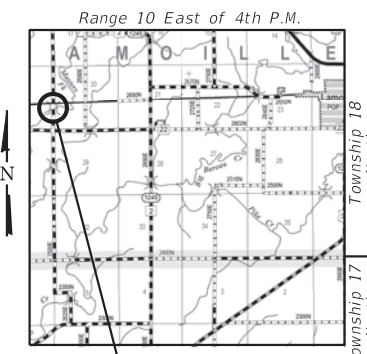


PLAN VIEW



DATE: 2/13/24
EXPIRES 11/30/24

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 Bridge Design Specifications.



LOCATION SKETCH

GENERAL PLAN & ELEVATION
T.R. 312 (2500 ST. E)
OVER MASTERS FORK
SECTION 07-12125-00-BR
EXISTING S.N. 006-4173
PROPOSED S.N. 006-4180
LAMOILLE TOWNSHIP
BUREAU COUNTY
STATION 20+00

FILE = S:\PROJECTS\2022\1672M22.BUC.TR312\DESIGN\CAD_SHEETS\1672M22-General Plan & Elevation.dgn

Table with columns: REVISION, DATE, BY, REMARKS. Includes rows for DESIGNED, DRAWN, REVIEWED, and APPROVED.

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

WILLET HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: #184-000918

STRUCTURAL SHEET NO. 1 OF 14 SHEETS

Table with columns: T.R., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. Includes project details like WHA# 1672M22 and CONTRACT NO. 87815.

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BILL OF MATERIAL - BRIDGE

ITEM	UNIT	SUPER	SUB	TOTAL
CHANNEL EXCAVATION	CU YD		423	423
REMOVAL OF EXISTING STRUCTURES	EACH			1
STRUCTURE EXCAVATION	CU YD			136
CONCRETE STRUCTURES	CU YD		34.2	34.2
CONCRETE ENCASEMENT	CU YD		5.5	5.5
PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	1708		1708
REINFORCEMENT BARS, EPOXY COATED	POUND		3340	3340
STEEL RAILING, TYPE SM	FOOT	145		145
FURNISHING METAL SHELL PILES 14" X 0.250"	FOOT		384	384
DRIVING PILES	FOOT		384	384
TEST PILE METAL SHELLS	EACH		2	2
NAME PLATES	EACH		1	1
GRANULAR BACKFILL FOR STRUCTURES	CU YD		97	97
*STONE RIPRAP, CLASS A6 (SPECIAL)	TON		1061	1061

* See Special Provisions

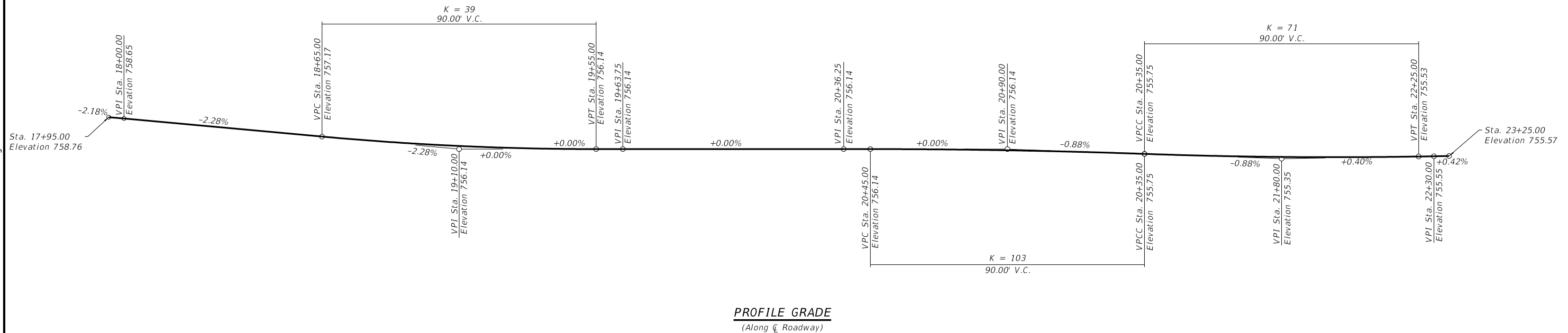
GENERAL NOTES:

Reinforcement bars designated (E) shall be epoxy coated.

The channel shall be transitioned to fit the proposed structure inside the right of way. Cost shall be included in the Price per Cubic Yard for Channel Excavation.

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

* See Special Provisions.



GENERAL DATA
 T.R. 312 (2500 ST. E)
 OVER MASTERS FORK
 SECTION 07-12125-00-BR
 EXISTING S.N. 006-4173
 PROPOSED S.N. 006-4180
 LAMOILLE TOWNSHIP
 BUREAU COUNTY
 STATION 20+00

REVISION	DATE	BY	REMARKS

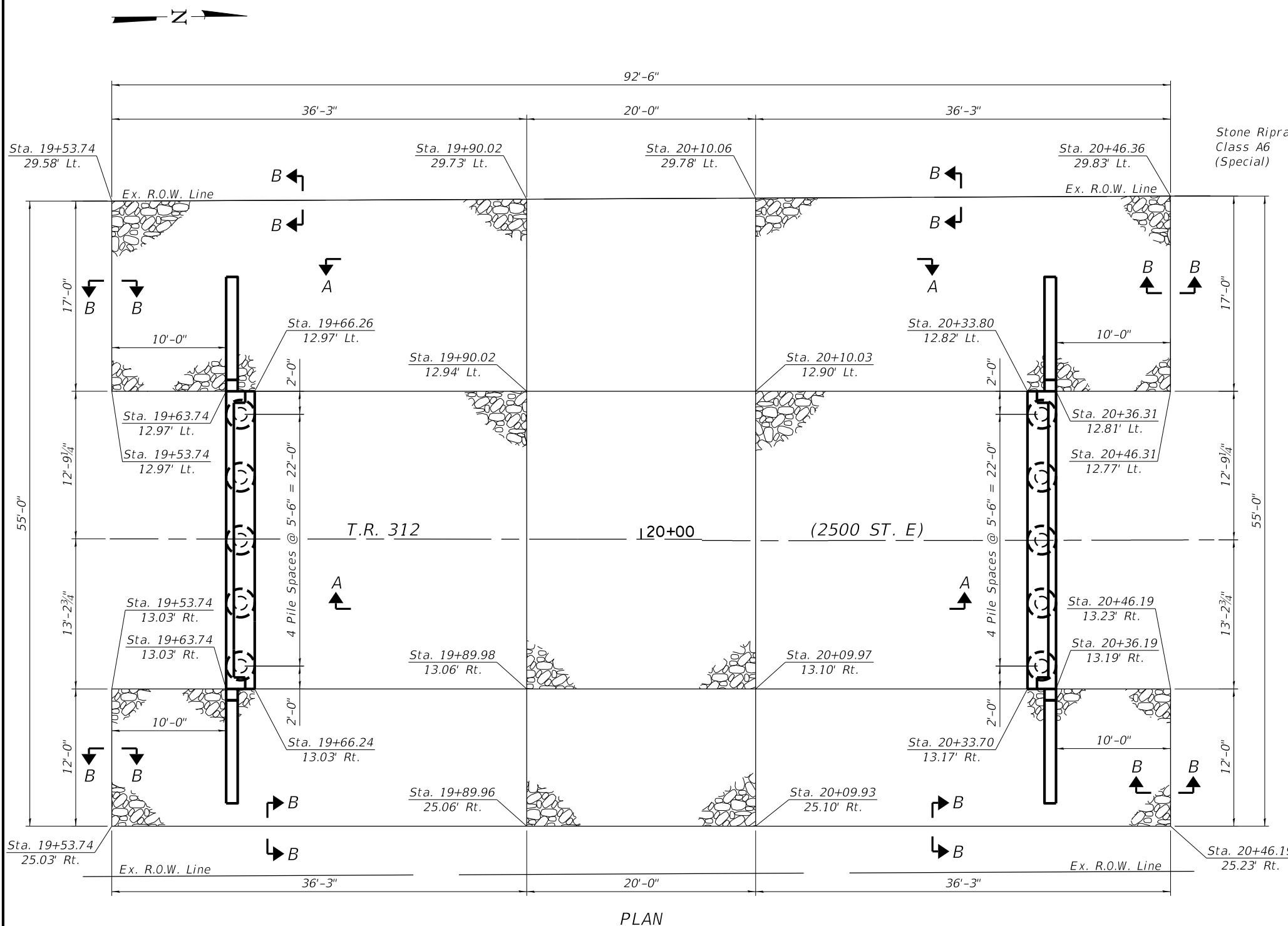
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
 T.R. 312 (2500 ST. E) OVER MASTERS FORK
 STATION 20+00

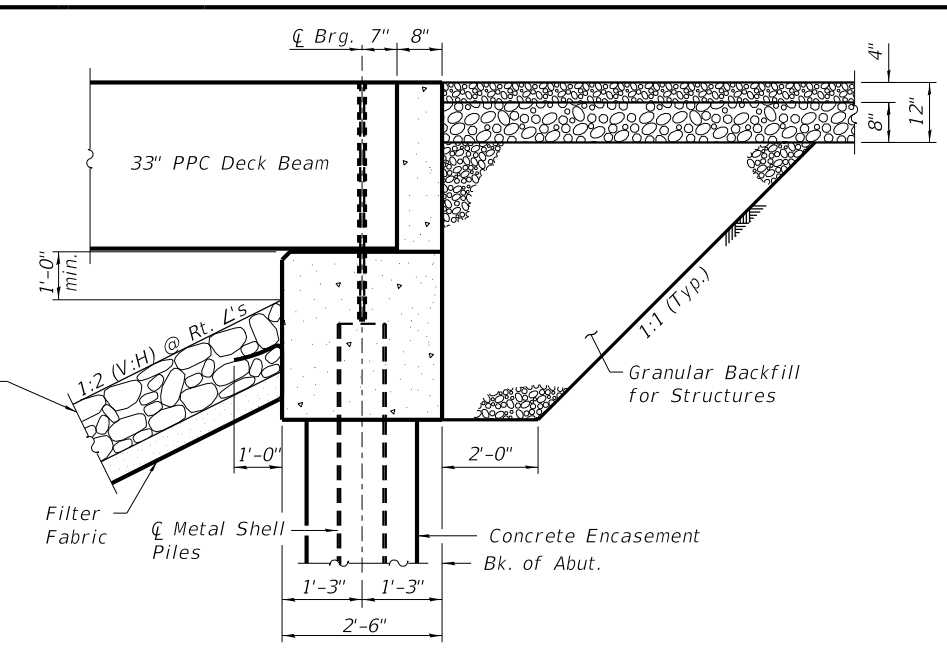


STRUCTURAL SHEET NO. 2 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	9
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

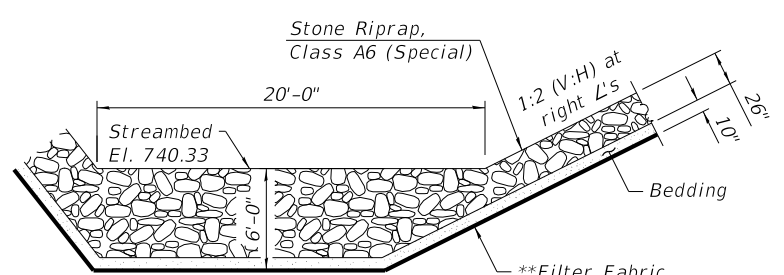


PLAN

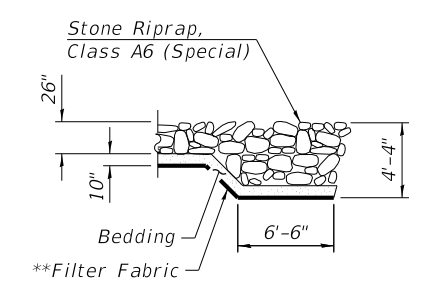


SECTION THRU ABUTMENT
(Dimensions at Rt. L's.)

* Pay Limits of Granular Backfill for Structures shall extend to 2'-0" in from the end of each wingwall.



SECTION A-A



SECTION B-B

BILL OF MATERIAL

Item	Unit	Quantity
Stone Riprap, Class A6, (Special)	TON	1061

* Pay Limits of Granular Backfill for Structures shall extend to 2'-0" in from the end of each wingwall.

** Cost included in Stone Riprap, Class A6 (Special)

REVISION	DATE	BY	REMARKS

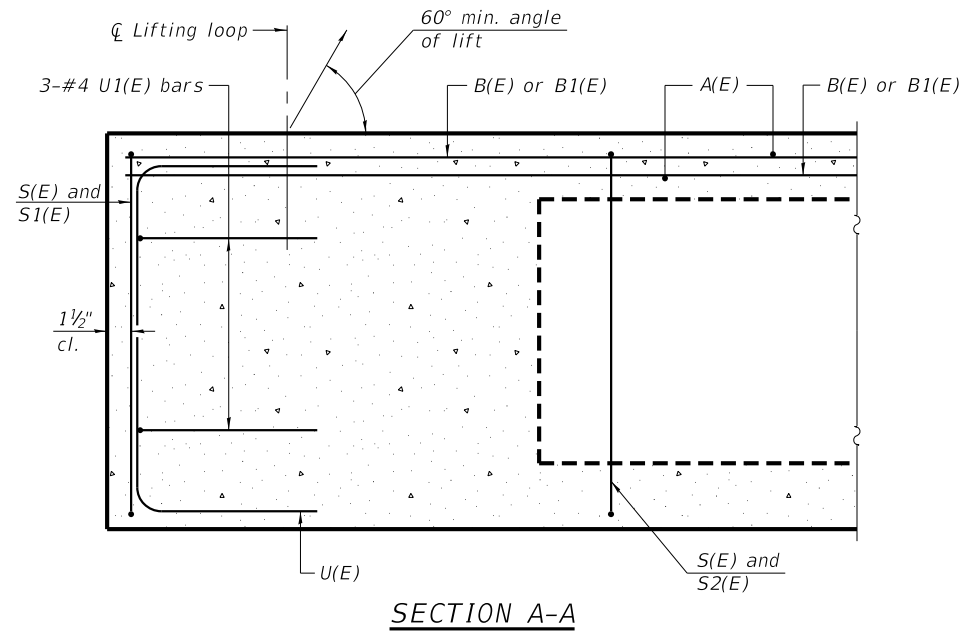
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

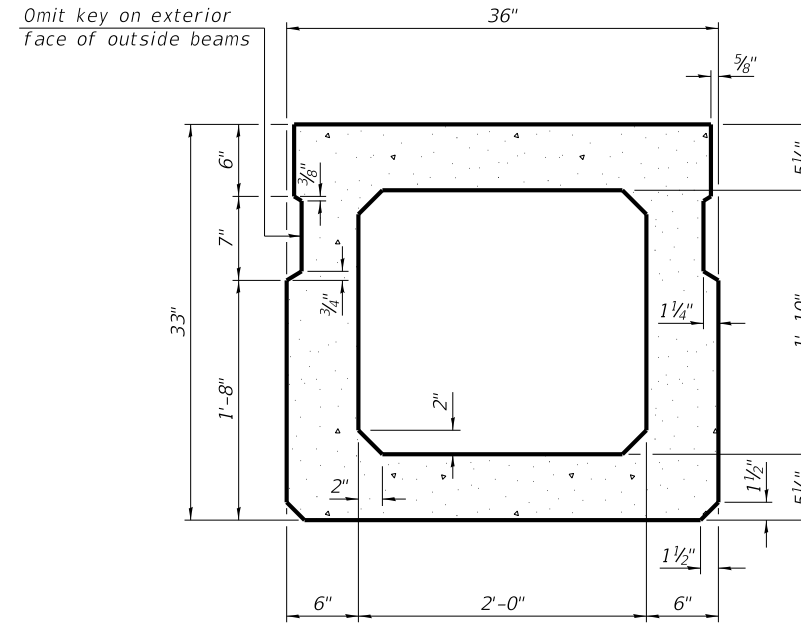


RIPRAP AND PILE LAYOUT
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 3 OF 14 SHEETS

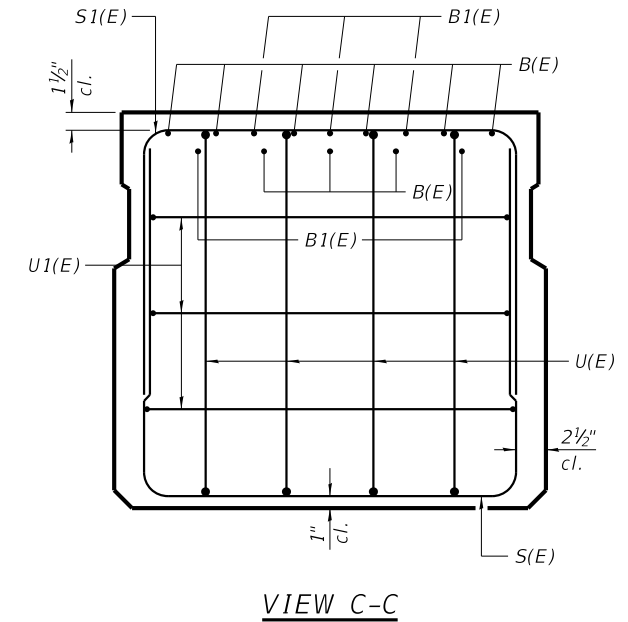
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	10
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



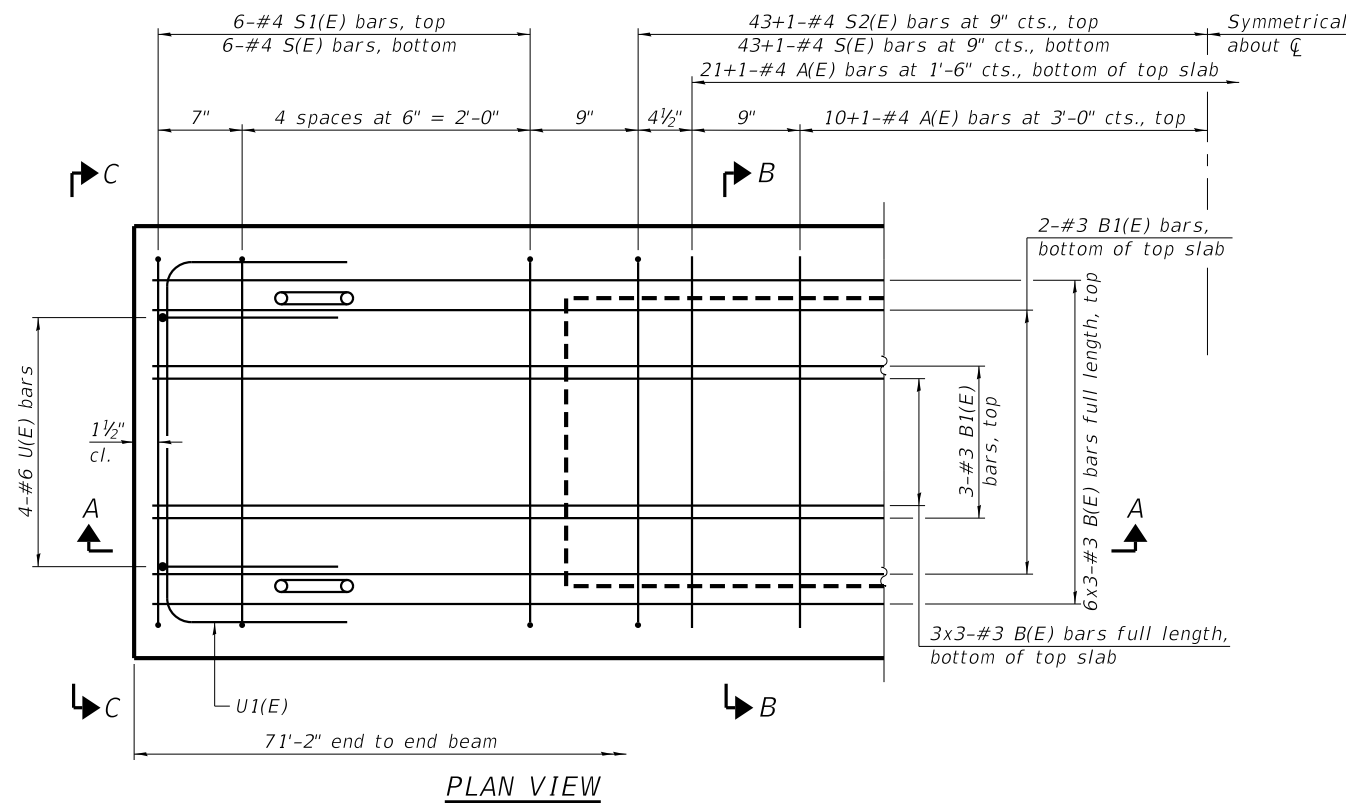
SECTION A-A



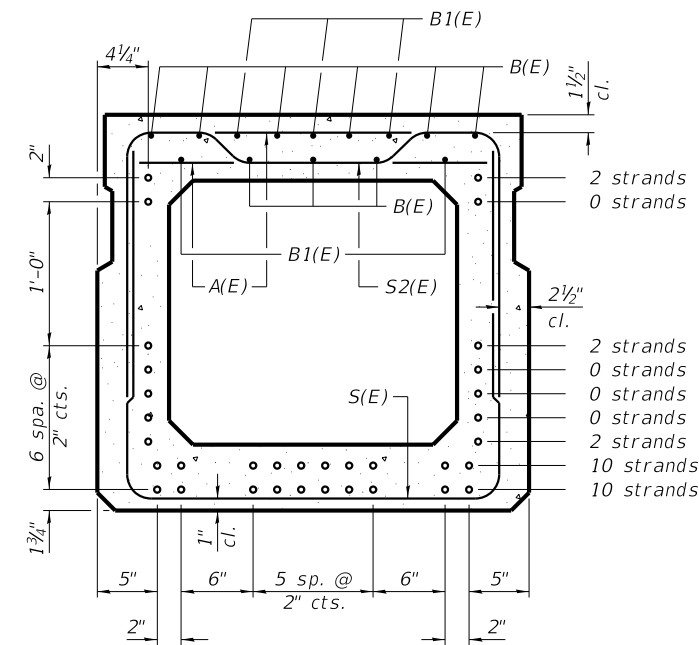
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



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

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	64	#4	2'-7"	—
B(E)	27	#3	24'-8"	—
B1(E)	10	#3	10'-0"	—
S(E)	99	#4	7'-8"	U
S1(E)	12	#4	6'-5"	U
S2(E)	87	#4	6'-8"	U
U(E)	8	#6	5'-0"	U
U1(E)	6	#4	5'-0"	U

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 43+1 indicates 43 lines of bars each side of centerline plus 1 additional at centerline.

Bars indicated 3x2-#3 indicates 3 lines of bars with 2 lengths.

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

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

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

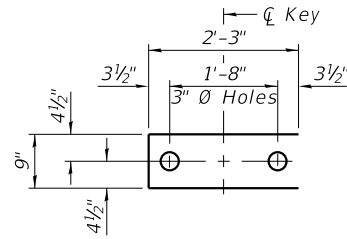


33" X 36" PPC DECK BEAM
STRUCTURE NO. 006-4180

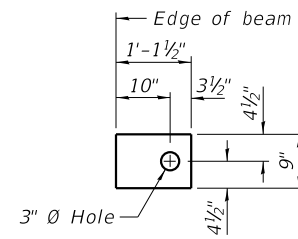
STRUCTURAL DRAWING NO. 4 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	11
WHA# 1672M22		CONTRACT NO. 87815		

ILLINOIS FED. AID PROJECT



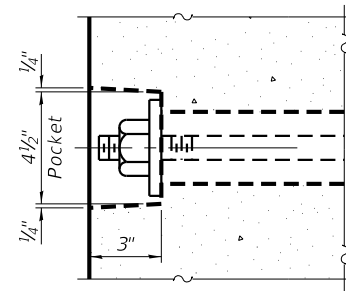
FABRIC BEARING PAD
(Interior)



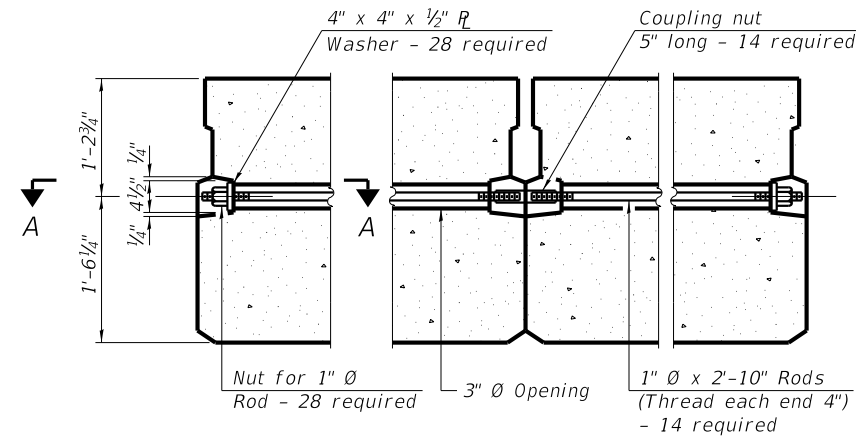
FABRIC BEARING PAD
(Exterior)

FIXED

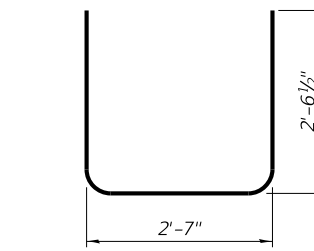
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pads shall be bonded to the substructure.



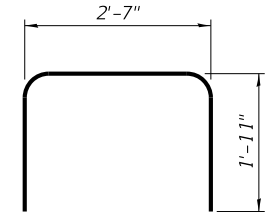
SECTION A-A



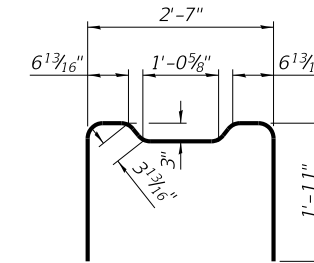
TYPICAL TRANSVERSE TIE ASSEMBLY



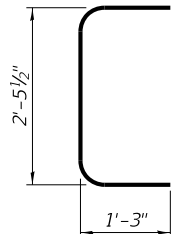
BAR S(E)



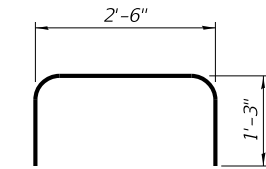
BAR S1(E)



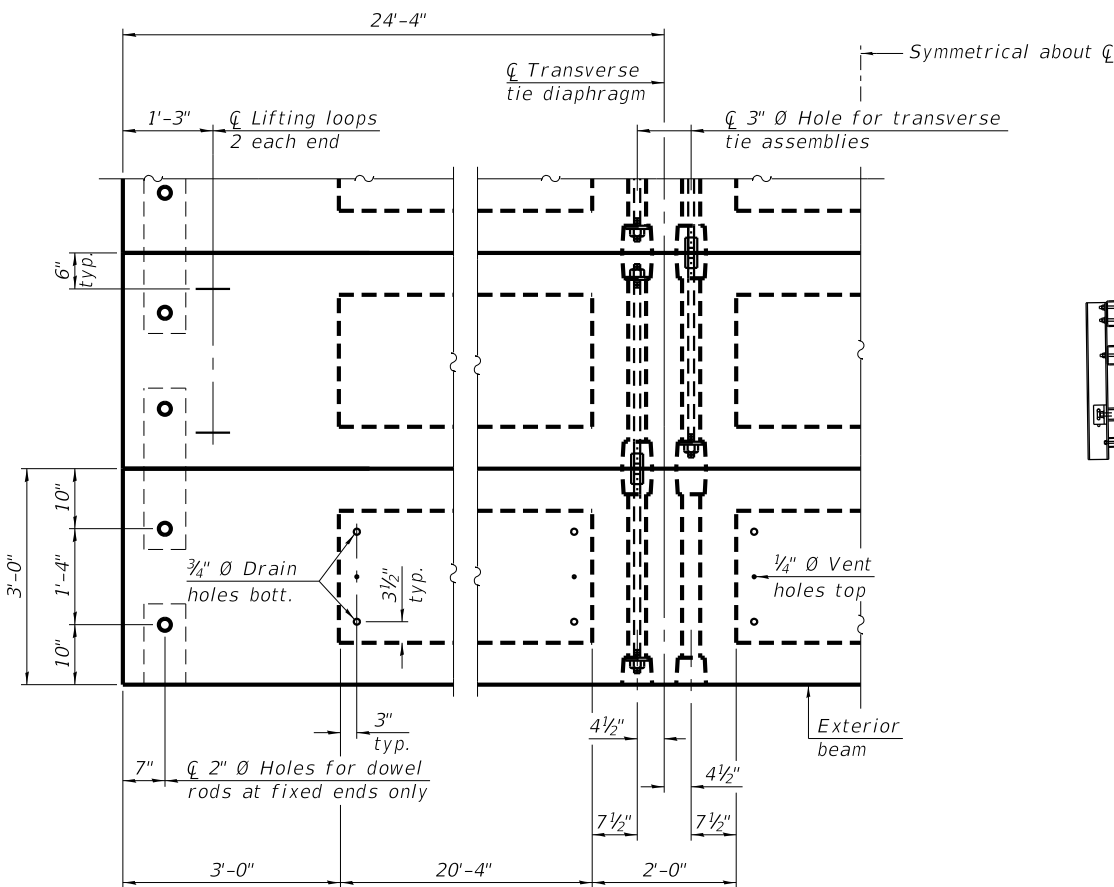
BAR S2(E)



BAR U(E)

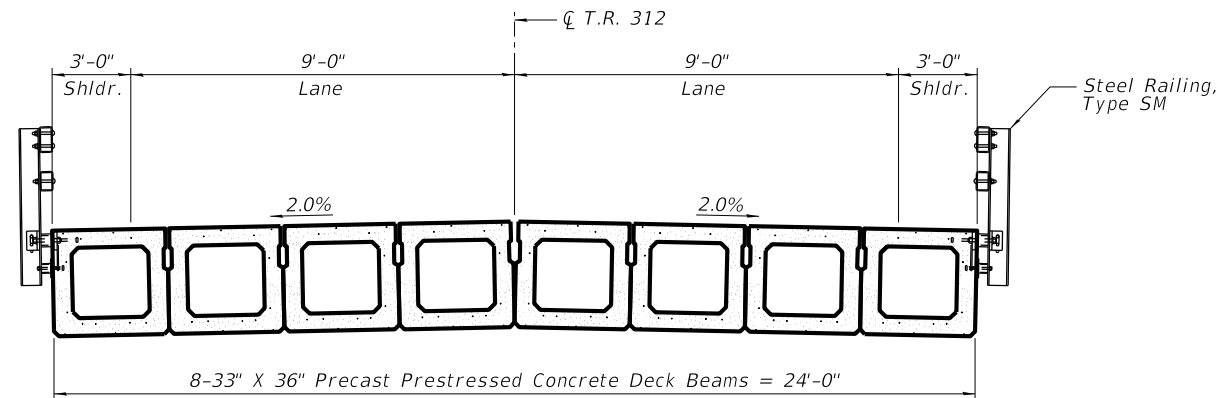


BAR U1(E)

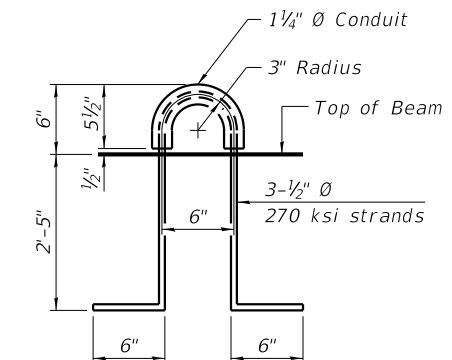


PLAN VIEW

Note:
Connect beams in pairs with the transverse tie configuration shown.



DECK CROSS SECTION



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" diameter 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.
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.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft.	1,708
-------------------------------------------------	---------	-------

REVISION	DATE	BY	REMARKS

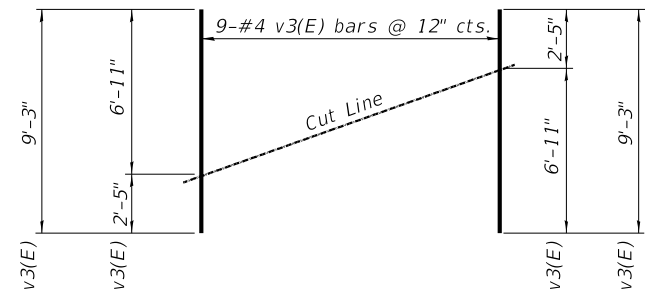
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



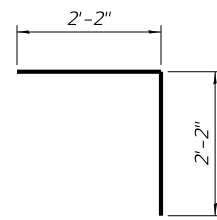
33" X 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 5 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	12
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

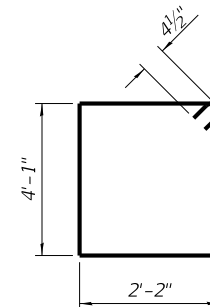


FIELD CUTTING DIAGRAM

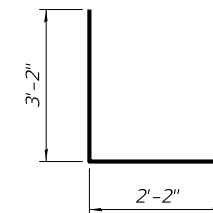
Order v3(E) bars full length.
Cut as shown and use remainder of bars in opposite face.



BAR h3(E)



BAR s(E)



BAR u(E)

**BILL OF MATERIAL
NORTH & SOUTH ABUTMENT**

Bar	No.	Size	Length	Shape
h(E)	8	5	25' - 8"	—
h1(E)	64	5	13' - 2"	—
h2(E)	8	4	9' - 10"	—
h3(E)	16	5	4' - 4"	└
h4(E)	8	4	7' - 5"	—
p(E)	20	6	25' - 8"	—
s(E)	56	4	13' - 3"	□
u(E)	20	4	8' - 6"	┌
v1(E)	50	5	6' - 11"	—
v2(E)	24	4	6' - 11"	—
v3(E)	36	4	9' - 4"	—
STRUCTURE EXCAVATION		CU YD	136	
CONCRETE STRUCTURES		CU YD	34.2	
CONCRETE ENCASEMENT		CU YD	5.5	
REINFORCEMENT BARS, EPOXY COATED		POUND	3340	
FURNISHING METAL SHELL PILES 14" X 0.250"		FOOT	384	
DRIVING PILES		FOOT	384	
TEST PILE METAL SHELLS		EACH	2	
NAME PLATES		EACH	1	
GRANULAR BACKFILL FOR STRUCTURES		CU YD	97	

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

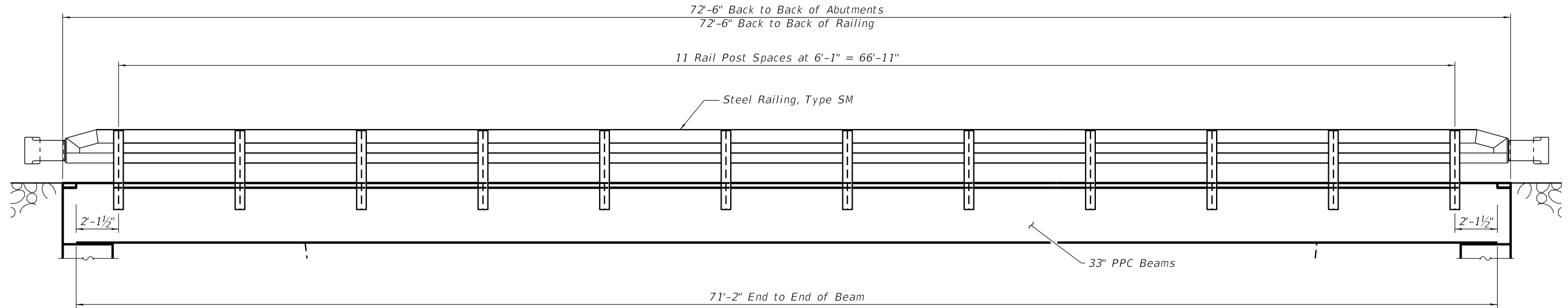


WILLET HOFMANN & ASSOCIATES INC
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

ABUTMENT DETAILS
STRUCTURE NO. 006-4180

STRUCTURAL SHEET NO. 7 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	14
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



ELEVATION VIEW

REVISION	DATE	BY	REMARKS

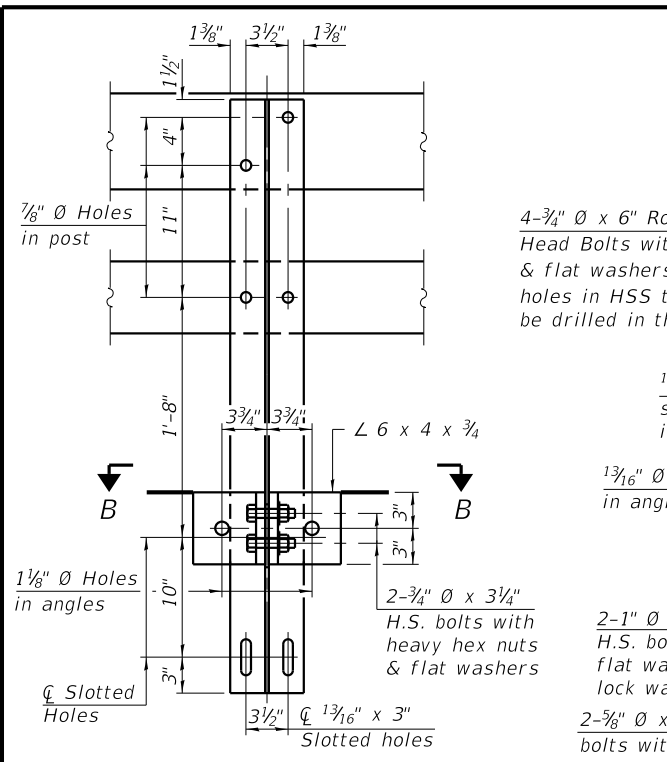
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

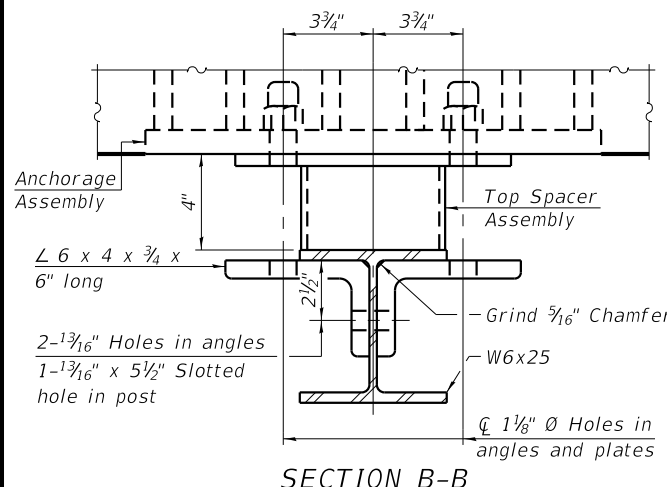
WILLET HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
 T. 309-517-1119 DESIGN FIRM: # 184-000918

STEEL RAILING, TYPE SM - ELEVATION
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 8 OF 14 SHEETS

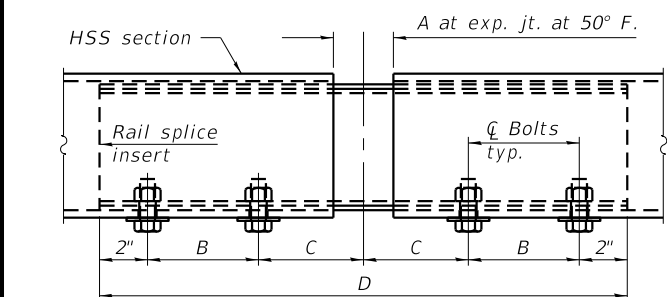
T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	15
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



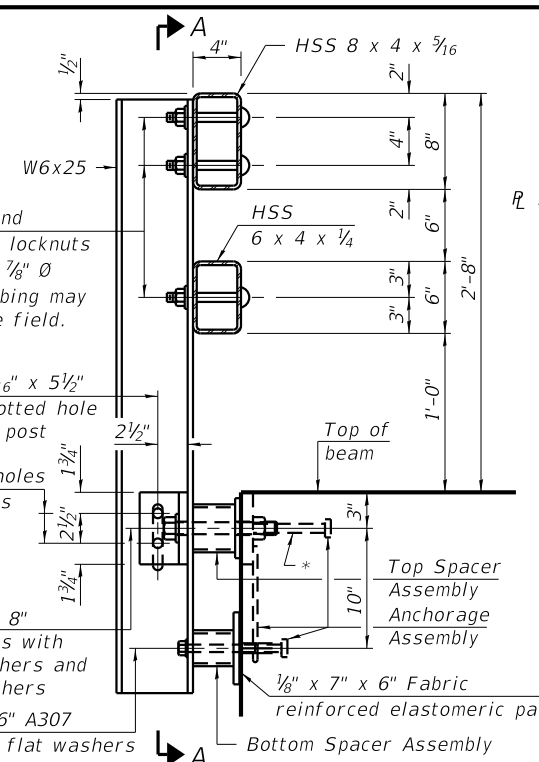
SECTION A-A



SECTION B-B

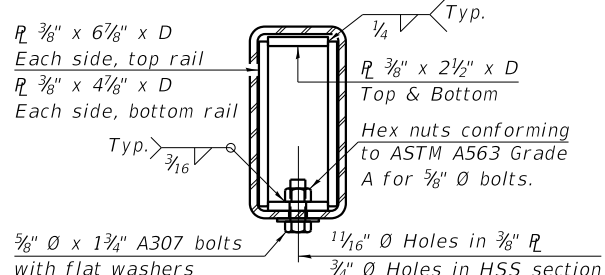


RAIL SPLICE ELEVATION

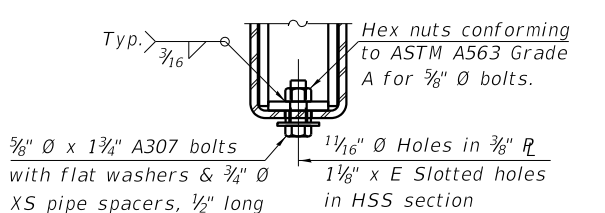


SECTION AT RAIL POST

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



SECTION AT RAIL SPLICE

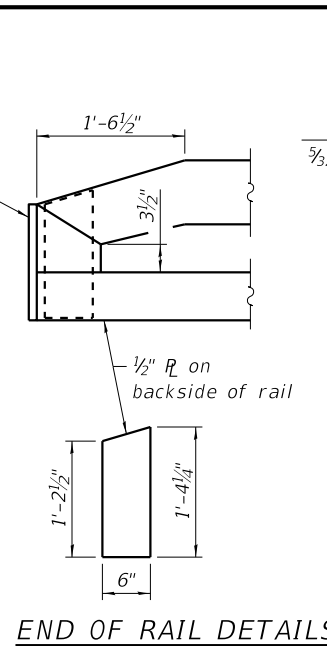


RAIL SPLICE CONNECTION AT EXPANSION JT.

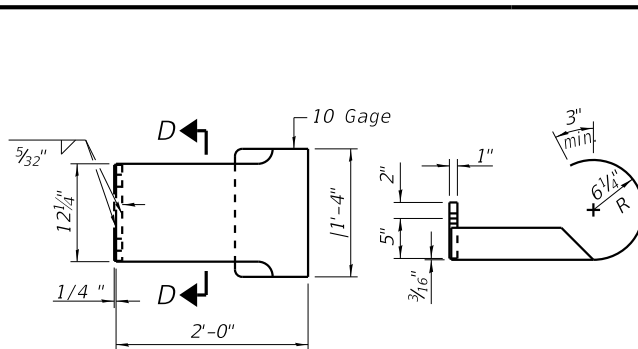
SPLICE DIMENSIONS

Location	T	A	B	C	D	E
All locs. not over exp. jts.	0	1/4"	4"	4"	1'-8"	-
Over Strip Seal Jt.	≤4"	2 1/2"	4 3/8"	4 3/8"	1'-10"	3 1/16"
Over Finger or Modular Jt.	≤9 1/2"	5 1/2"	7 3/8"	7 1/4"	2'-9 1/4"	5 1 3/16"
Over Finger or Modular Jt.	≤15"	8 1/4"	10 1/8"	10"	3'-8 1/4"	8 3/16"

T = ; total movement along centerline of roadway at expansion joint.

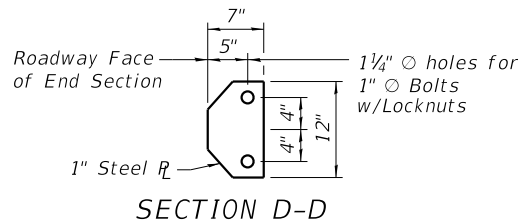


END OF RAIL DETAILS

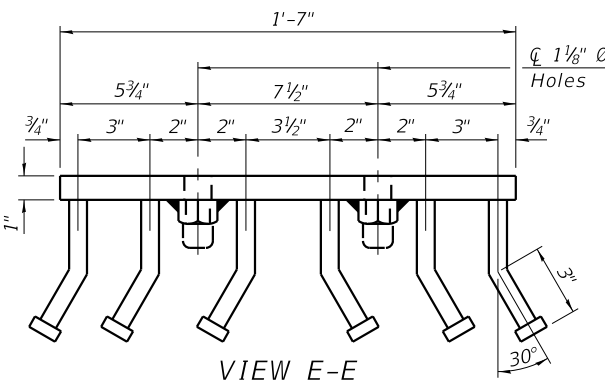


CURLLED END SECTION DETAILS

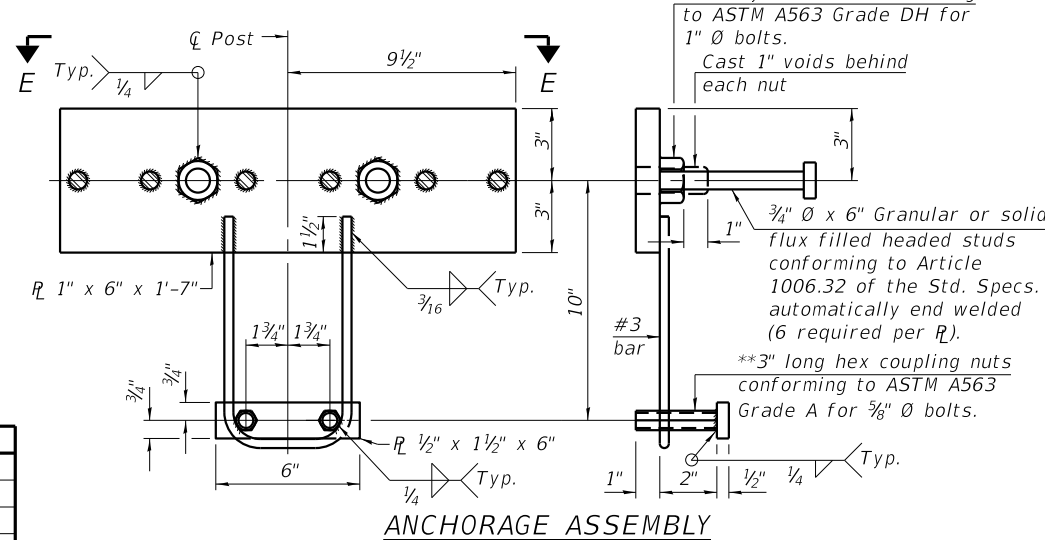
*** (4 required)



SECTION D-D



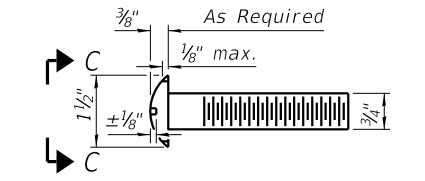
VIEW E-E



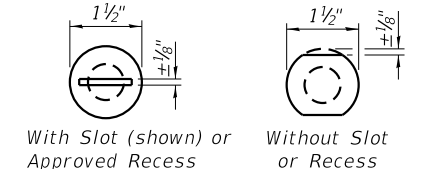
ANCHORAGE ASSEMBLY

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

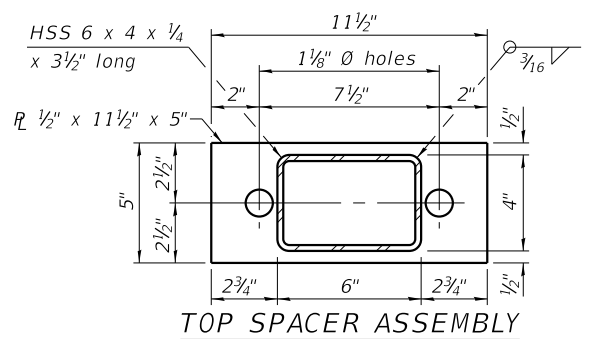
Notes:
 A sufficient number of shims of various thicknesses, sized to fit behind the top spacer assembly, 5" x 11 1/2", and bottom spacer assembly, 6" x 7", shall be provided to adjust posts for proper alignment. If the summation of shims is greater than 1/4" (top) or 1/2" (bottom), longer bolts are required. Cost included with Steel Railing, Type SM.
 All steel rail elements including shims shall be galvanized according to Article 509.05 of the Standard Specifications.
 All HSS tubing serving as railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
 Rail splice inserts may be built out of 2 - 3/8" bent plates in lieu of the 4 plate rail splice inserts shown, provided the outside dimensions are matched.
 All round head bolts shall be ASTM A307 with locknuts according to ASTM A563 grade A.



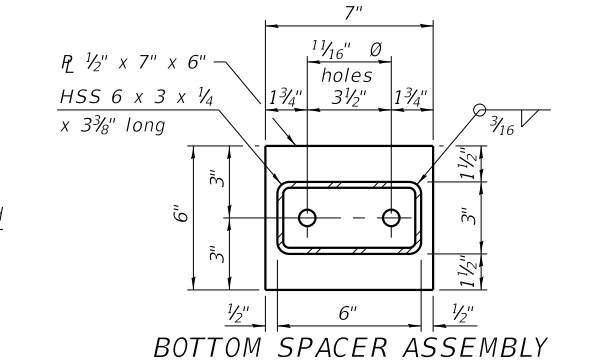
ROUND HEAD BOLT DETAIL



VIEW C-C



TOP SPACER ASSEMBLY



BOTTOM SPACER ASSEMBLY

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	145

Cost of rail end sections incidental to Steel Railing, Type SM

RAILING CRITERIA

MASH 2016 Test Level	2
Railing Weight (plf)	90
Min f'c (psi)	5,000
Max Post Spacing	6'-3"
HMA thickness range (in)	1 1/4" - 3 1/8"

REVISION	DATE	BY	REMARKS

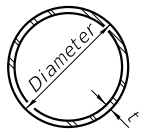
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

WILLETT HOFMANN & ASSOCIATES INC.
 ENGINEERING ARCHITECTURE LAND SURVEYING
 1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61255
 T: 309-517-1119 DESIGN FIRM # 184-000918

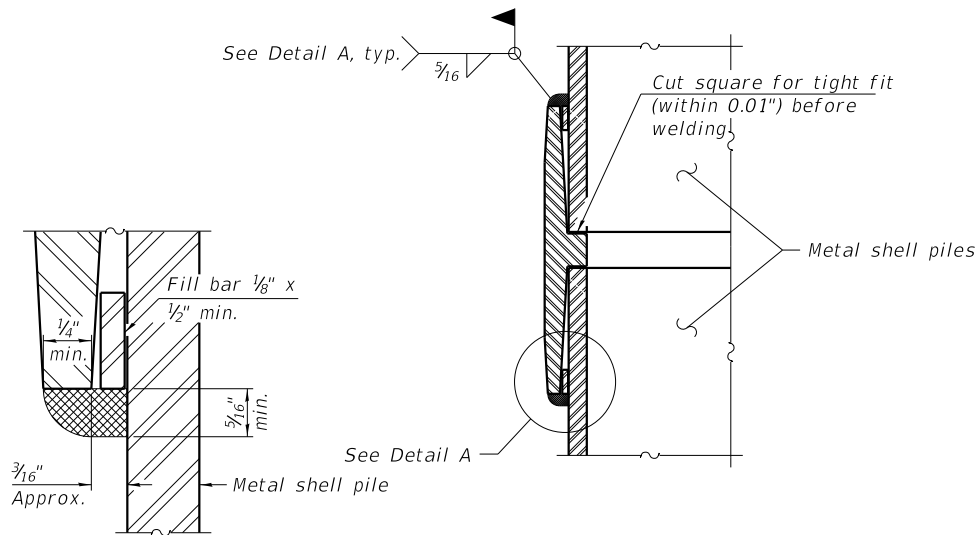
STEEL RAILING, TYPE SM - DETAILS
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 9 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	16
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				

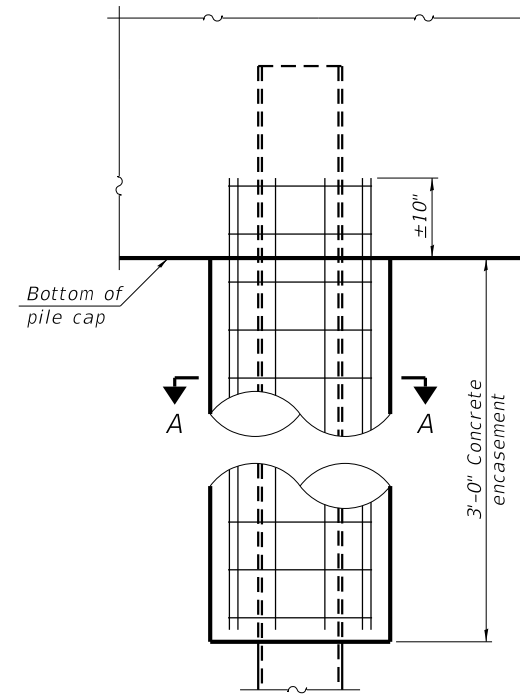


METAL SHELL PILE TABLE

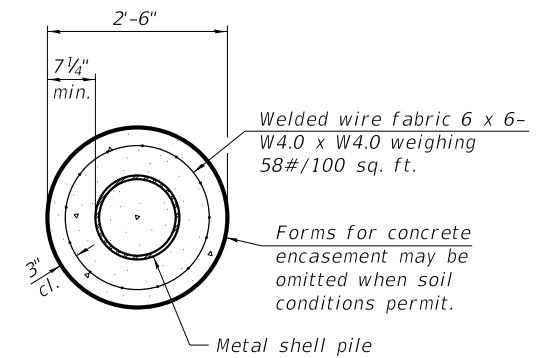
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.40	0.0267
PP14	0.250"	36.75	0.0368
PP14	0.312"	45.65	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



DETAIL A

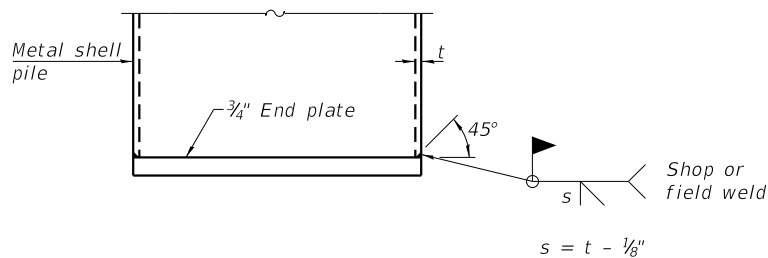


ELEVATION



SECTION A-A

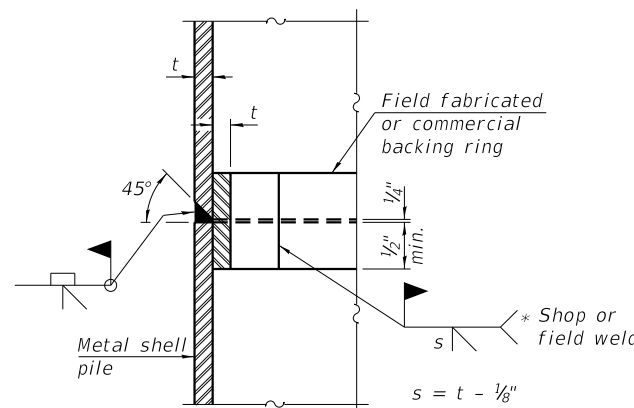
INDIVIDUAL PILE CONCRETE ENCASUREMENT
(When specified)



END PLATE ATTACHMENT

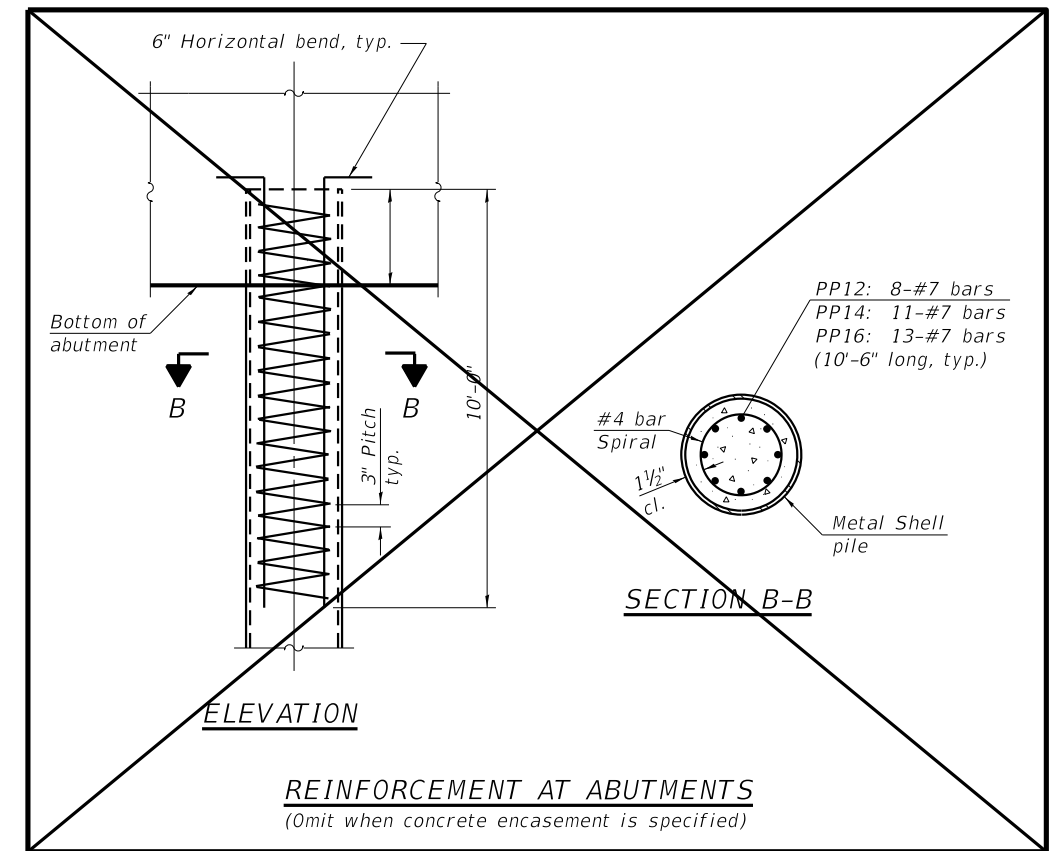
WELDED COMMERCIAL SPLICE

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

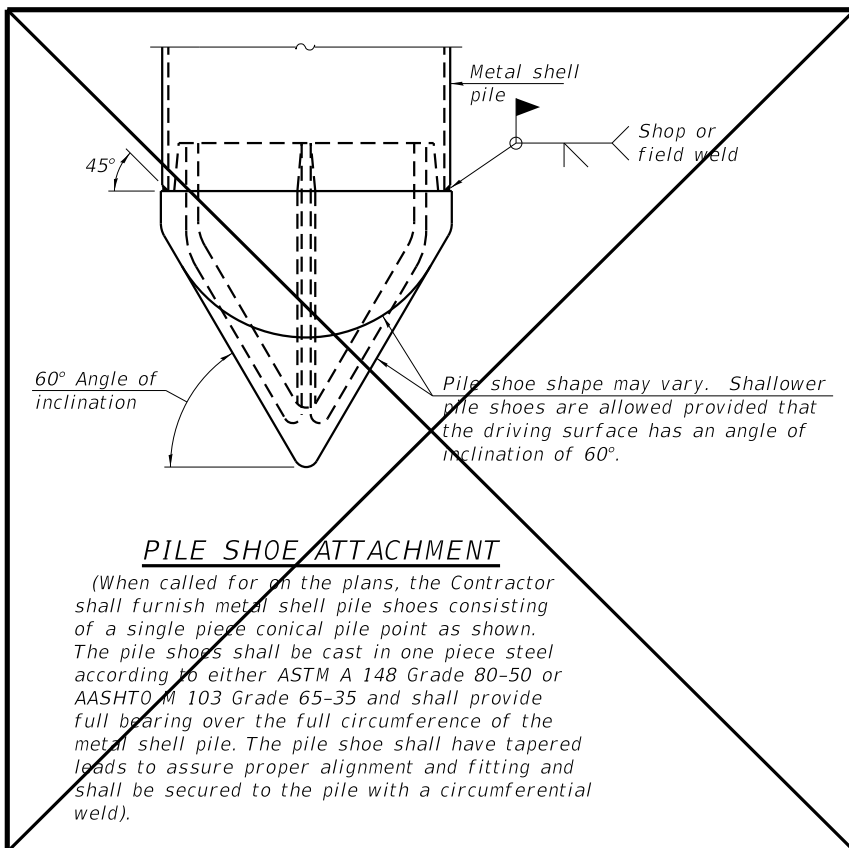


ELEVATION

SECTION B-B

REINFORCEMENT AT ABUTMENTS
(Omit when concrete encasement is specified)

Note:
The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.



PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 80-50 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

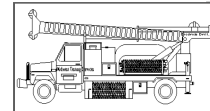


WILLET HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T. 309-517-1119 DESIGN FIRM: # 184-000918

METAL SHELL PILE DETAILS
STRUCTURE NO. 006-4180

STRUCTURAL SHEET NO. 10 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	17
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

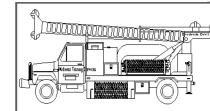
Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-1
Surface Elev. 99.17
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 20+35 5' RT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
99.17	Asphalt over Gravel		1							Randy Safranski Diedrich D-120	
98.17	Soft Black/Brown Silty Clay Fill		2								
97.17			3	1	SS	0.5	2	B	30		
96.17			4								
95.17			5								
94.17			6	2	SS	0.5	1	B	28		
93.17			7								
92.17	Soft Black Silty Clay Fill		8	3	SS	0.5	2	B	29		
91.17			9								
90.17			10								
89.17	Loose Gray Sand & Gravel		11	4	SS	---	8	---	9		
88.17			12								
87.17			13	5	SS	1.0	4	B	22		
86.17	Medium Stiff Pinkish Gray Silty Clay Till		14								
85.17			15								
84.17			16	6	SS	1.2	4	B	14		
83.17			17								
82.17	Stiff Pinkish Gray Silty Clay Till		18	7	SS	1.6	10	B	14		
81.17			19								
80.17			20								
79.17	Stiff to Very Stiff Pinkish Gray Silty Clay Till			8	SS	2.8	13	B	12		

Groundwater Data: Static water after auger removal elevation 89.17.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696
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Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-1
Surface Elev. 99.17
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 20+35 5' RT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
78.17			22							Randy Safranski Diedrich D-120	
77.17			23	9	SS	2.9	12	B	13		
76.17			24								
75.17			25								
74.17			26	10	SS	2.9	13	B	12		
73.17			27								
72.17			28								
71.17	Stiff to Very Stiff Pinkish Gray Silty Clay Till		29								
70.17			30								
69.17			31	11	SS	3.1	18	B	13		
68.17			32								
67.17			33								
66.17			34								
65.17			35								
64.17			36	12	SS	3.0	17	B	13		
63.17			37								
62.17			38								
61.17			39								
60.17			40								
59.17			41	13	SS	2.8	16	B	12		
58.17											

Groundwater Data: Static water after auger removal elevation 89.17.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0

REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00

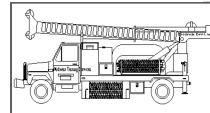


WILLETT HOFMANN & ASSOCIATES, INC.
ENGINEERING ARCHITECTURE LAND SURVEYING
1515 FIFTH AVENUE, SUITE 102, MOLINE, IL 61265
T: 309-517-1119 DESIGN FIRM: # 184-000918

BORING LOGS
STRUCTURE NO. 006-4180

STRUCTURAL SHEET NO. 11 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	18
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696
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e-mail: mts37@comcast.net

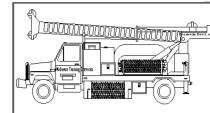
Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-1
Surface Elev. 99.17
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 20+35 5' RT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
57.17											
56.17	Very Stiff Pinkish Gray Silty Clay Till		43							Randy Safranski Diedrich D-120	
55.17			44								
54.17			45	14	SS	3.2	16	B	13		
53.17			46								
52.17			47								
51.17			48								
50.17			49								
49.17	Very Stiff Pinkish Gray Silty Clay Till with Cobbles		50	15	SS	3.5	23	B/S	13		
48.17			51								
47.17			52								
46.17			53								
45.17			54								
44.17			55	16	SS	3.6	25	B/S	13		
43.17			56								
42.17			57								
41.17			58								
40.17			59								
39.17			60								
38.17			61	17	SS	3.3	21	B/S	13		
37.17			62								

Groundwater Data: Static water after auger removal elevation 89.17.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 4 of 4

Phone: 815-223-6696
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e-mail: mts37@comcast.net

Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-1
Surface Elev. 99.17
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 20+35 5' RT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		
36.17											
35.17	Very Stiff Pinkish Gray Silty Clay Till		64							Randy Safranski Diedrich D-120	
34.17			65								
33.17			66	18	SS	3.5	24	B/S	12		
32.17			67								
31.17			68								
30.17			69								
29.17			70								
28.17	Very Stiff Pinkish Gray Silty Clay Till		71	19	SS	3.5	25	B/S	12		
27.17			72								
26.17			73								
25.17			74								
24.17			75								
23.17	Boring Terminated		76	20	SS	3.6	27	B/S	11		
22.17			77								
21.17			78								
20.17			79								
19.17			80								
18.17			81								
17.17			82								
16.17			83								

Groundwater Data: Static water after auger removal elevation 89.17.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0

REVISION	DATE	BY	REMARKS

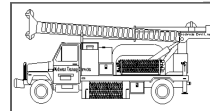
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



BORING LOGS
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 12 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	19
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 1 of 4

Phone: 815-223-6696
Fax: 815-223-6659
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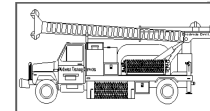
Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-2
Surface Elev. 99.08
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 19+67 6' LT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
99.08												
98.08	Asphalt over Gravel		1									
97.08	Soft Black/Brown Silty Clay Fill		2									
96.08			3	1	SS	0.5	2	B	30			
95.08			4									
94.08	Soft Black Silty Clay Fill		5									
93.08			6	2	SS	0.5	2	B	28			
92.08			7									
91.08			8	3	SS	0.5	2	B	29			
90.08	Stiff Pinkish Gray Silty Clay Till		9									
89.08			10	4	SS	0.6	3	B	30			
88.08			11									
87.08	Very Stiff Pinkish Gray Silty Clay Till		12									
86.08			13	5	SS	0.6	3	B	22			
85.08			14									
84.08			15	6	SS	1.4	8	B	14			
83.08			16									
82.08			17									
81.08			18	7	SS	1.6	12	B	14			
80.08			19									
79.08			20	8	SS	2.8	15	B	12			

Groundwater Data: Bore Hole dry after auger removal.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 2 of 4

Phone: 815-223-6696
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e-mail: mts37@comcast.net

Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-2
Surface Elev. 99.08
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 19+67 6' LT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
78.08												
77.08	Stiff to Very Stiff Pinkish Gray Silty Clay Till		22									
76.08			23	9	SS	3.0	14	B	12			
75.08			24									
74.08			25									
73.08			26	10	SS	2.9	14	B	12			
72.08			27									
71.08			28									
70.08			29									
69.08			30									
68.08			31	11	SS	3.0	17	B	13			
67.08			32									
66.08			33									
65.08			34									
64.08		35										
63.08		36	12	SS	3.0	17	B	13				
62.08		37										
61.08		38										
60.08		39										
59.08		40										
58.08		41	13	SS	2.8	15	B	12				

Groundwater Data: Bore Hole dry after auger removal.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0

REVISION	DATE	BY	REMARKS

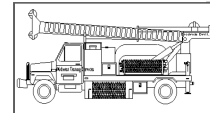
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



BORING LOGS
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 13 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	20
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 3 of 4

Phone: 815-223-6696
Fax: 815-223-6659
e-mail: mts37@comcast.net

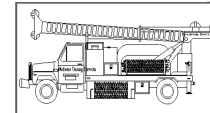
Client: Willett Hofmann & Associates, Inc.
Project Name: TR-312 (2500 St. E) over Masters Fork
Project Site: Section 07-12125-00-BR LaMoille Twp.
Bureau County, Illinois

Boring No. B-2
Surface Elev. 99.08
Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

Location: Station: 19+67 6' LT
Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
57.08												
56.08	Very Stiff Pinkish Gray Silty Clay Till		43									
55.08			44									
54.08			45	14	SS	3.2	21	B	13			
53.08			46									
52.08			47									
51.08			48									
50.08			49									
49.08			50	15	SS	3.5	23	B/S	13			
48.08			51									
47.08			52									
46.08			53									
45.08			54									
44.08	Very Stiff Pinkish Gray Silty Clay Till with Cobbles		55	16	SS	3.5	25	B/S	13			
43.08			56									
42.08			57									
41.08			58									
40.08			59									
39.08			60									
38.08			61	17	SS	3.3	21	B/S	13			
37.08			62									

Groundwater Data: Bore Hole dry after auger removal.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0



Midwest Testing Services, Inc.
3705 Progress Blvd.
Peru, IL 61354

BORING LOG

Sheet 4 of 4

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Auger Depth 76' Rotary Depth NA
Start Date 03/06/23 Finish Date 03/06/23

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Existing Structure No.: 006-4173
Proposed Structure No.: 006-4412

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)			Dry Density (PCF)
36.08												
35.08	Very Stiff Pinkish Gray Silty Clay Till		64									
34.08			65									
33.08			66	18	SS	3.5	24	B/S	12			
32.08			67									
31.08			68									
30.08			69									
29.08			70									
28.08			71	19	SS	3.5	25	B/S	11			
27.08			72									
26.08			73									
25.08		74										
24.08		75										
23.08		76	20	SS	3.6	27	B/S	11				
22.08	Boring Terminated		77									
21.08			78									
20.08			79									
19.08			80									
18.08			81									
17.08			82									
16.08			83									

Groundwater Data: Bore Hole dry after auger removal.
Comments: Assumed Chisel mark at Southeast Wingwall to be elevation 100.0

REVISION	DATE	BY	REMARKS

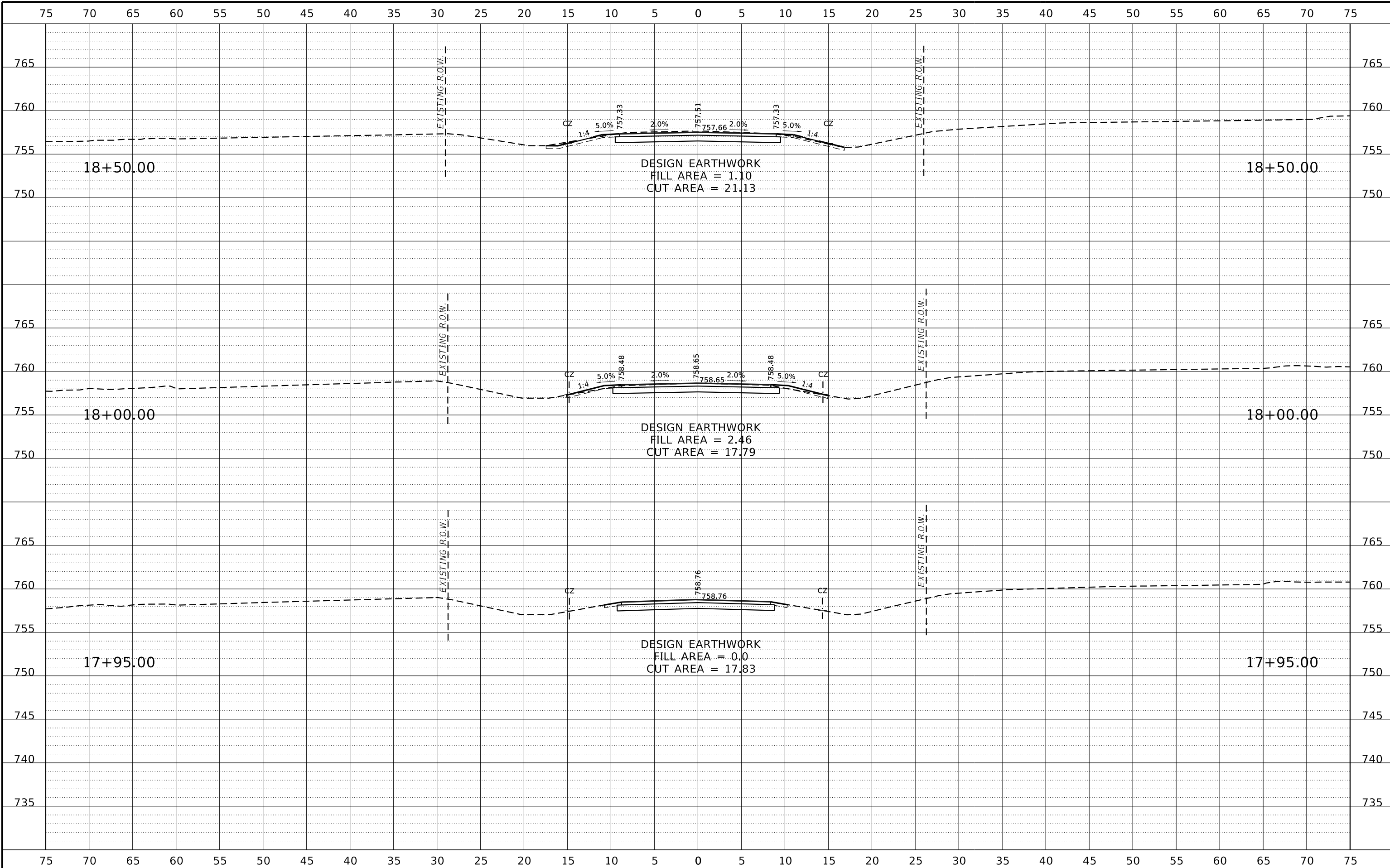
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



BORING LOGS
STRUCTURE NO. 006-4180
STRUCTURAL SHEET NO. 14 OF 14 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	21
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS

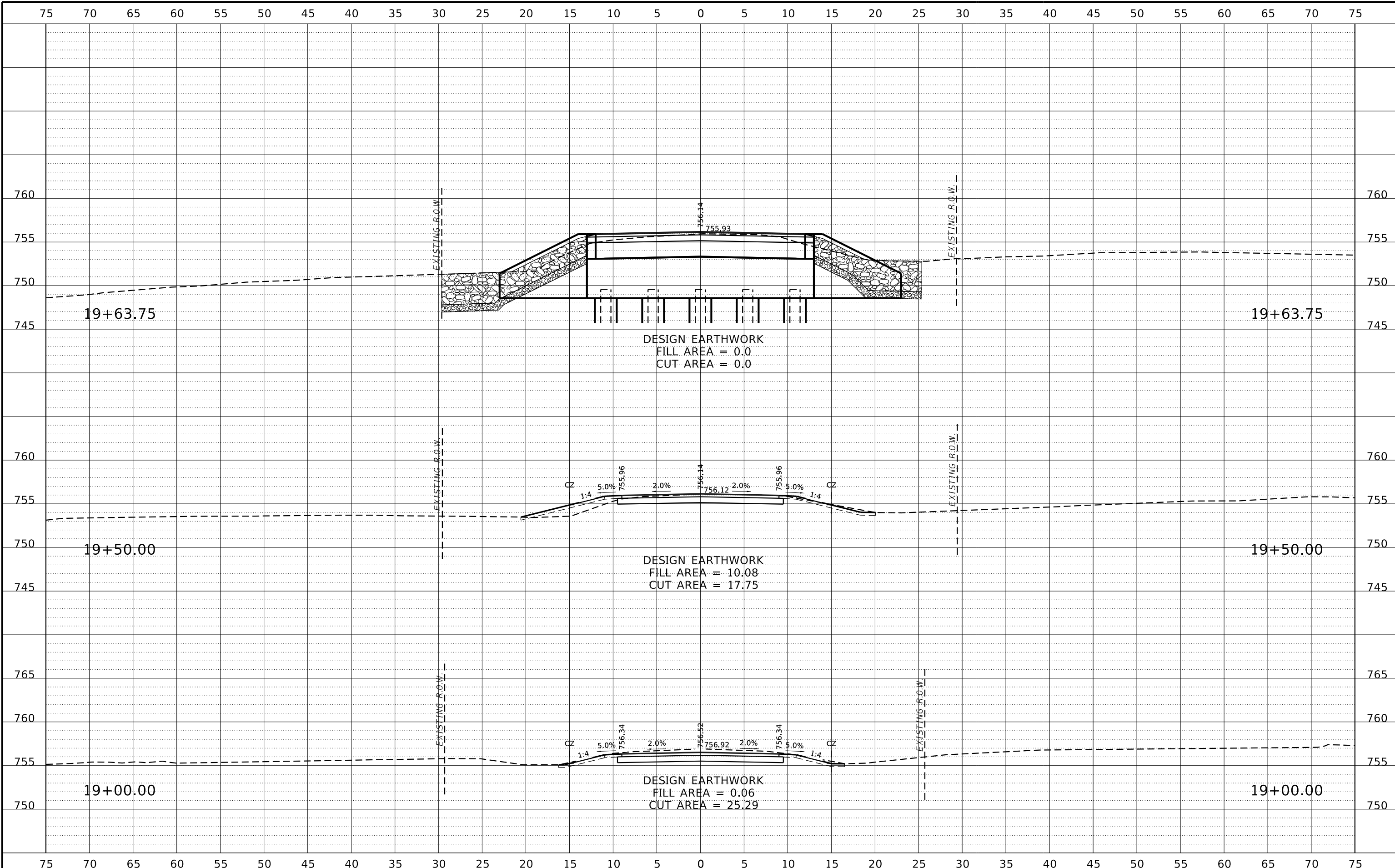
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



CROSS SECTIONS
 SCALE: 1" = 5'-0" SHEET NO. 1 OF 5 SHEETS STA. 17+95.00 TO STA. 18+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	22
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS

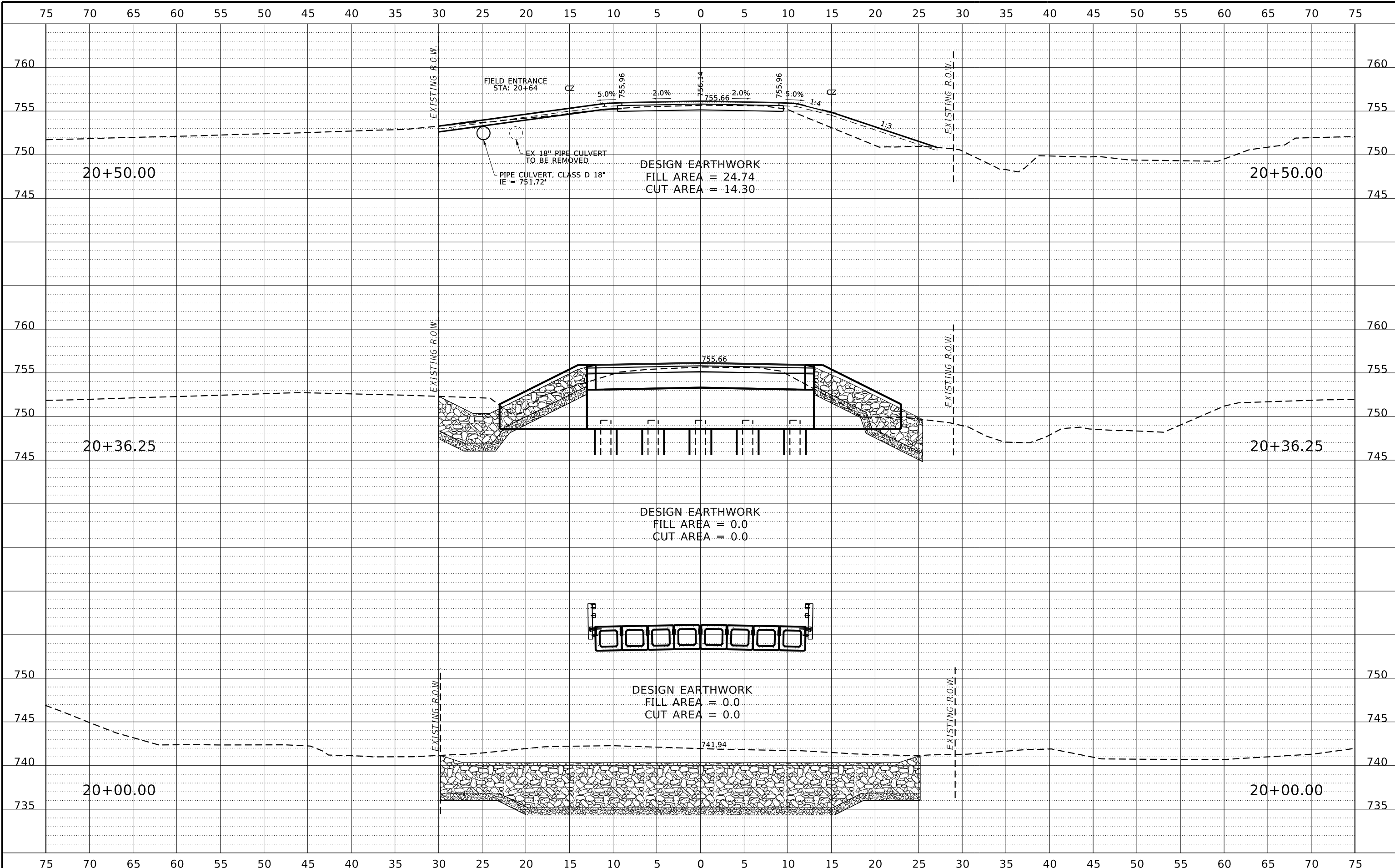
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



CROSS SECTIONS
 SCALE: 1" = 5'-0" SHEET NO. 2 OF 5 SHEETS STA. 19+00.00 TO STA. 19+63.75

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	23
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS

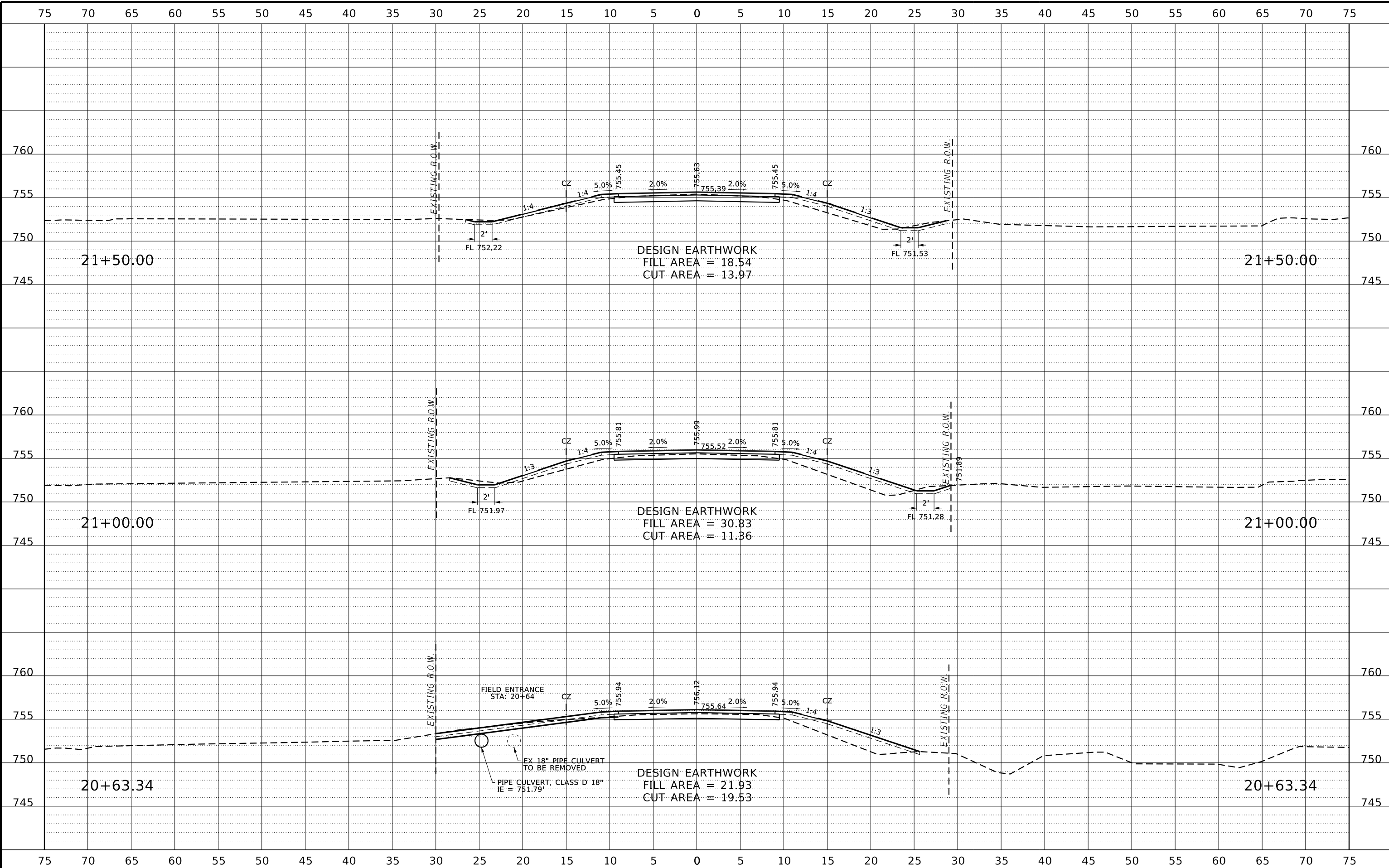
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



CROSS SECTIONS
 SCALE: 1" = 5'-0"
 SHEET NO. 3 OF 5 SHEETS
 STA. 20+00.00 TO STA. 20+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	24
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS

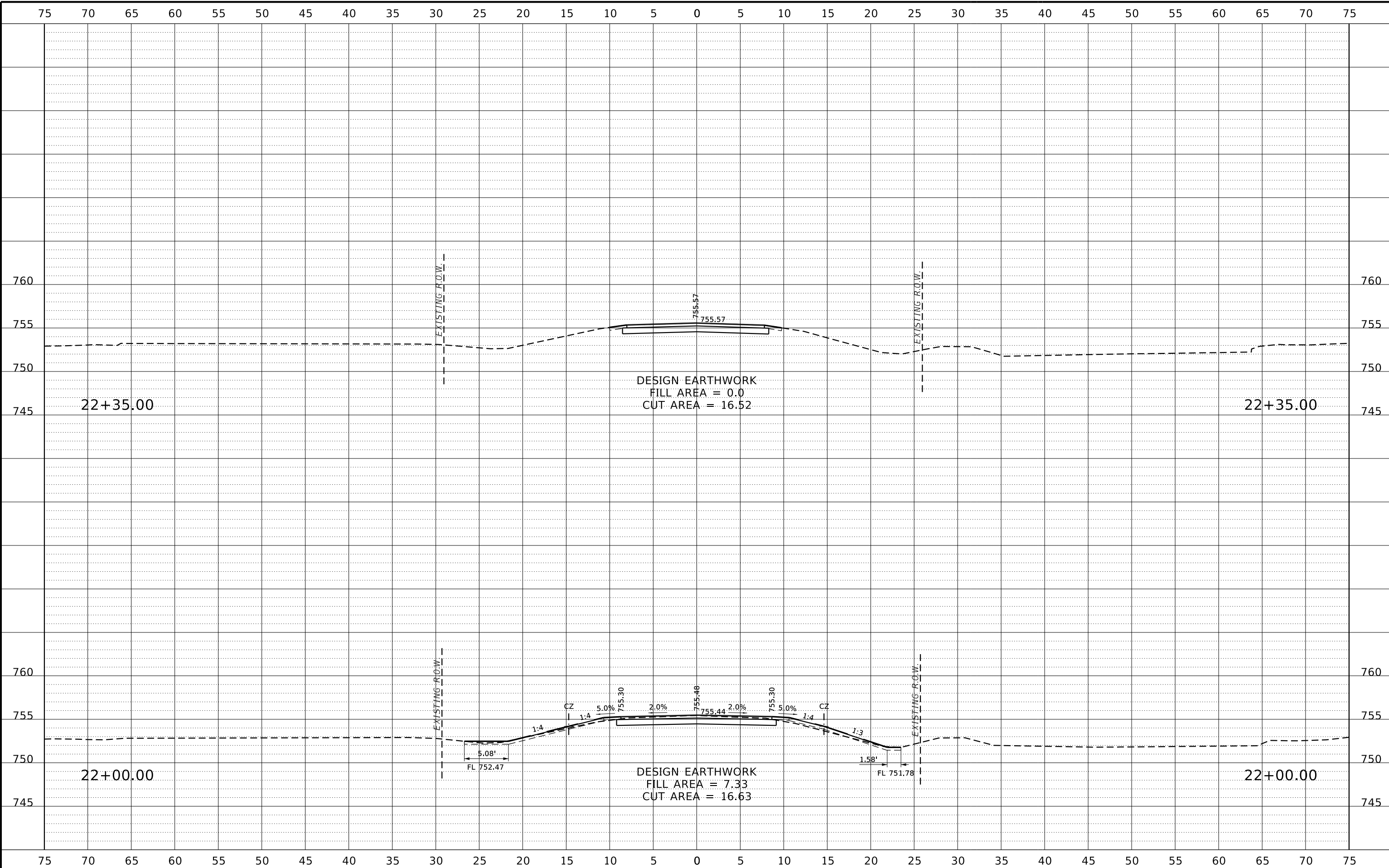
DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



CROSS SECTIONS
 SCALE: 1" = 5'-0" SHEET NO. 4 OF 5 SHEETS STA. 20+63.34 TO STA. 21+50.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	25
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				



REVISION	DATE	BY	REMARKS

DESIGNED	ATK
DRAWN	DAN
REVIEWED	ATK
APPROVED	MRL

BUREAU COUNTY
T.R. 312 (2500 ST. E) OVER MASTERS FORK
STATION 20+00



CROSS SECTIONS		
SCALE: 1" = 5'-0"	SHEET NO. 5 OF 5 SHEETS	STA. 22+00.00 TO STA. 22+35.00

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
312	07-12125-00-BR	BUREAU	26	26
WHA# 1672M22		CONTRACT NO. 87815		
ILLINOIS FED. AID PROJECT				