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03-06-2020 LETTING ITEM 173

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**STATE OF ILLINOIS**

**DEPARTMENT OF TRANSPORTATION**

**PLANS FOR PROPOSED  
FEDERAL AID PROJECT  
SURFACE TRANSPORTATION  
RURAL – BRIDGE (FY-20)**

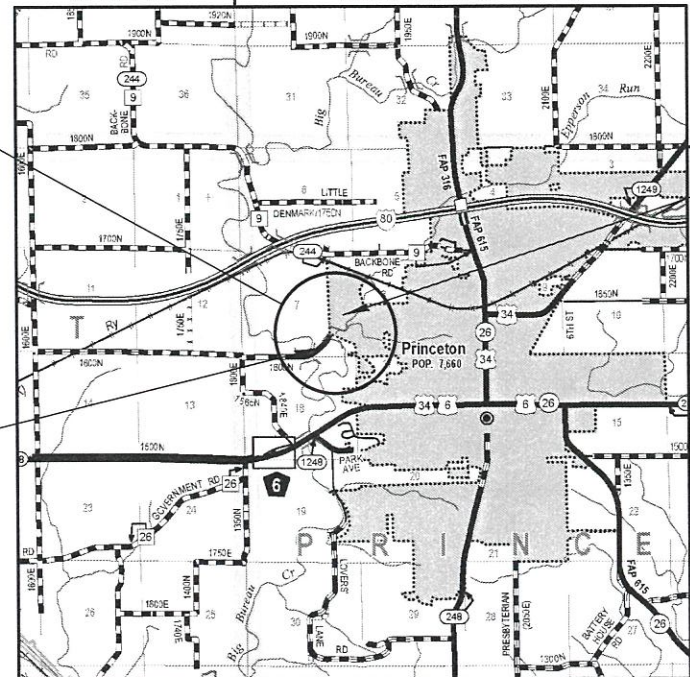
**MUNICIPAL STREET 1114 (W. EPPERSON ROAD)  
CITY OF PRINCETON  
SECTION 15-00253-00-BR  
PROJECT C9EL(828)  
STRUCTURE REPLACEMENT  
BUREAU COUNTY**

C-93-003-20

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	1
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				



RANGE 8 EAST OF 4TH PM      RANGE 9 EAST OF 4TH PM



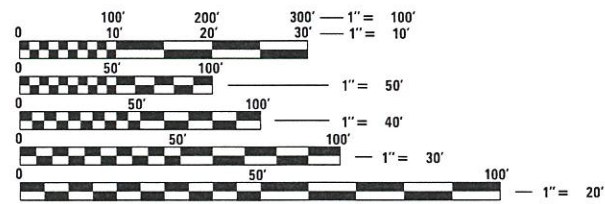
EXISTING STRUCTURE: SN 006-4286  
A THREE SPAN (3 @ 16'-0") PRECAST CHANNEL BEAMS ON TIMBER PILES WITH CLOSED TIMBER ABUTMENTS AT STA. 20+00. NO SKEW.

PROPOSED STRUCTURE: SN 006-7600  
A FOUR BARREL (4 @ 12'x10') PRECAST CONCRETE BOX CULVERT AT STA. 20+00. NO SKEW.

CONSTRUCTION ENDS STATION 20+95.00

CONSTRUCTION BEGINS STATION 18+95.00

FOR LIST OF UTILITIES  
SEE SHEET NO. 3



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. A2111610  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER – IPN  
PROJECT MANAGER – PLP

CONTRACT NO. 87719

FUNCTIONAL CLASSIFICATION  
LOCAL ROAD (URBAN)  
DESIGN SPEED 30 MPH  
2016 ADT = 731  
3R GUIDELINES

GROSS LENGTH = 200 FT = 0.038 MILE  
NET LENGTH = 200 FT = 0.038 MILE

BUREAU COUNTY HIGHWAY DEPARTMENT	
APPROVED	<i>December 30, 2019</i> <i>John C. Mann</i> BUREAU COUNTY ENGINEER
PASSED	<i>January 10, 2020</i> <i>David C. [Signature]</i> DISTRICT 3 LOCAL ROADS & STREETS ENGINEER
RELEASING FOR BID BASED ON LIMITED REVIEW	<i>January 10, 2020</i> <i>David [Signature]</i> REGION 2 ENGINEER



DATE: *12/30/2019*  
EXPIRES 11/30/21



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**SUMMARY OF QUANTITIES**

CONSTRUCTION TYPE CODE: 0010

PAY CODE	ITEM	UNITS	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	17
25100630	EROSION CONTROL BLANKET	SQ YD	1,101
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	23
28000305	TEMPORARY DITCH CHECKS	FOOT	20
28000400	PERIMETER EROSION BARRIER	FOOT	340
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	168
35100100	AGGREGATE BASE COURSE, TYPE A	TON	122
* 40603100	HOT-MIX ASPHALT BINDER COURSE, IL-19.0L, N30	TON	110
* 40604090	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N30	TON	55
48101200	AGGREGATE SHOULDERS, TYPE B	TON	62
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	12,180
51500100	NAME PLATES	EACH	1
54003000	CONCRETE BOX CULVERTS	CU YD	93.8
54011210	PRECAST CONCRETE BOX CULVERTS 12' X 10'	FOOT	172
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	287
60255500	MANHOLES TO BE ADJUSTED	EACH	1
Δ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	800
* Z0013798	CONSTRUCTION LAYOUT	L SUM	1
* X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	287
* X2020410	EARTH EXCAVATION (SPECIAL)	CU YD	508
* X2070302	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	1,077
* X2501100	SEEDING, CLASS 3 (SPECIAL)	ACRE	0.23
* X2810208	STONE RIPRAP, CLASS A4 (SPECIAL)	TONS	212
* X2810210	STONE RIPRAP, CLASS A5 (SPECIAL)	TONS	174
* X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
* <del>X2810103</del>	STONE RIPRAP, CLASS A1 (SPECIAL)	TONS	301

67100100 Mobilization L Sum 1

LOCATION	EARTH EXCAVATION (SPECIAL)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE 25%	EMBANKMENT	*FURNISHED EXCAVATION
	CU YD	CU YD	CU YD	CU YD
STA 18+95 - 20+95	508	381	12	-369
PROJECT TOTAL	508	381	12	-369

\*FOR INFORMATION ONLY, SEE SPECIAL PROVISIONS FOR EARTH EXCAVATION (SPECIAL)

\* See Special Provisions Δ Specialty Pay Items

**SCHEDULE OF QUANTITIES**

STATION	SQ. YD.	REMARKS
LT STA 18+95 - 20+95	567	
RT STA 18+95 - 20+95	534	
PROJECT TOTAL	1,101	

STATION	POUND	REMARKS
LT STA 18+95 - 20+95	12	
RT STA 18+95 - 20+95	11	
PROJECT TOTAL	23	

STATION	FOOT	REMARKS
LT STA 19+50	10	
RT STA 20+50	10	
PROJECT TOTAL	20	

STATION	FOOT	REMARKS
LT STA 18+95 -19+78	96	
RT STA 18+95 - 19+70	76	
LT STA 20+16 - 20+95	80	
RT STA 20+14 - 20+95	88	
PROJECT TOTAL	340	

STATION	TON	REMARKS
STA 18+95 - 19+71.6	91	8" - CA2
STA 20+28.4 - 20+95	77	8" - CA2
PROJECT TOTAL	168	

**SCHEDULE OF QUANTITIES - CONT.**

STATION	TON	REMARKS
STA 18+95 - 19+71.6	46	4" - CA6
STA 19+71.6 - 20+28.4	38	4 1/2" (AVE.) - CA6
STA 20+28.4 - 20+95	38	4" - CA6
PROJECT TOTAL	122	

STATION	TON	REMARKS
STA 18+95 - 20+95	110	4"
PROJECT TOTAL	110	

STATION	TON	REMARKS
STA 18+95 - 20+95	55	2"
PROJECT TOTAL	55	

STATION	TON	REMARKS
LT STA 18+95 - 20+95	31	6" SHOULDER, CA-6
RT STA 18+95 - 20+95	31	6" SHOULDER, CA-6
PROJECT TOTAL	62	

STATION	FOOT	REMARKS
LT STA 18+95 - 20+95	200	EDGE LINE - WHITE
STA 18+95 - 20+95	400	CENTERLINE - DBL YELLOW
RT STA 18+95 - 20+95	200	EDGE LINE - WHITE
PROJECT TOTAL	800	

STATION	ACRE	REMARKS
LT STA 18+95 - 20+95	0.12	
RT STA 18+95 - 20+95	0.11	
PROJECT TOTAL	0.23	



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

CITY OF PRINCETON  
M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.  
STATION 20+00

**SUMMARY & SCHEDULE OF QUANTITIES**

SHEET NO. 1 OF 1 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	2
WHA* 1347014		CONTRACT NO. 87719		

ILLINOIS FED. AID PROJECT C9EL1828

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FILE: S:\PROJECTS\2014\14204\_EPPERSON RD. EARTHWORK TOTALS\SUMMARY AND SCHEDULE OF QUANTITIES.dwg

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**GENERAL NOTES:**

EXISTING STRUCTURES (INCLUDING FOUNDATIONS, WALLS, CISTERNS, WELLS, OR OTHER UNDERGROUND STRUCTURES) WITHIN THE RIGHT OF WAY SHALL BE ACCORDANCE WITH ARTICLE 501.04 AND 501.05 OF THE STANDARD SPECIFICATIONS, WITHOUT ADDITIONAL COMPENSATION, UNLESS OTHERWISE NOTED IN THE PLANS OR SPECIAL PROVISIONS.

NO OVERHAUL HAS BEEN COMPUTED AND NONE SHALL BE PAID FOR FROM ANY SOURCE.

THE CONTRACTOR SHALL SEED ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS. THE FINAL TOP FOUR INCHES OF SOIL IN ANY RIGHT-OF-WAY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION AND APPROVED BY THE ENGINEER.

ALL UTILITY POLES, GAS PIPES, ETC. IN THE WAY OF THE IMPROVEMENTS SHALL BE MOVED BY THE UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOT BE INCLUDED IN THE CONTRACT. THE CONTRACTOR SHALL NOTIFY THE RESPECTIVE UTILITIES TO MAKE THE NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION.

THE LOCATION AND ELEVATION OF THE VARIOUS UNDERGROUND UTILITIES AS SHOWN ON THE PLANS ARE NOT TO BE TAKEN AS EXACT. THE CONTRACTOR SHALL USE SPECIAL CARE WHEN CONDUCTING CONSTRUCTION OPERATIONS NEAR THEM TO PREVENT DAMAGE.

THE LOCATION OF EXISTING FIELD TILES AND ANY OTHER PUBLIC OR PRIVATE UTILITIES AS SHOWN IN THE PLANS ARE NOT TO BE TAKEN AS EXACT. EXACT LOCATION OF ALL FIELD TILES AND UTILITIES IS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. ANY UTILITY PROPERTY DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.

THE UTILITIES LOCATED WITHIN THE PROJECT LIMITS OR IMMEDIATELY ADJACENT TO THE PROJECT CONSTRUCTION LIMITS INCLUDE:

CITY OF PRINCETON 2 S. MAIN STREET PRINCETON, IL 61356 ATTN: PETE NELSON (815) 875-2631	COMCAST 688 INDUSTRIAL DRIVE ELMHURST, IL 60126 ATTN: MARTHA GIERAS (630) 600-6352	FRONTIER COMMUNICATIONS 111 S. MAIN ST KEWANEE, IL 61443 ATTN: TERRY SPURGEON (309) 853-6293	NICOR 1844 FERRY ROAD NAPERVILLE, IL 60563 ATT: BRUCE KOPPANG (630) 388-3046
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A NATIONWIDE 404 PERMIT HAS BEEN ISSUED FOR THIS PROJECT AND THE CONDITIONS OF THAT PERMIT MUST BE ADHERED TO.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS, MONUMENTS, AND RIGHT OF WAY PINS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

EXISTING MAIL BOXES, STREET SIGNS AND TRAFFIC SIGNS THAT ARE WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED BY THE CONTRACTOR. COST OF REMOVAL TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

WHERE THE PROPOSED CONSTRUCTION MEETS AN EXISTING BITUMINOUS SURFACE, OR WHERE SAWING IS STATED ON THE PLANS, THE EXISTING SHALL BE SAWED IN A NEAT, STRAIGHT LINE. COST OF SAWING TO BE INCLUDED IN THE CONTRACT UNIT PRICE BID PER CUBIC YARD FOR EARTH EXCAVATION (SPECIAL).

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

CULVERT FLOWS MUST BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOW SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOB SITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

**COMMITMENTS:**

1. ALL TREE CLEARING SHALL TAKE PLACE BETWEEN OCTOBER 1st AND MARCH 31st TO SATISFY USFWS BAT REQUIREMENTS.
2. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO ALL ENTRANCES WITHIN THE PROJECT AREA DURING CONSTRUCTION.

**PAVEMENT STRUCTURAL DESIGN**

**M.S. 1114**

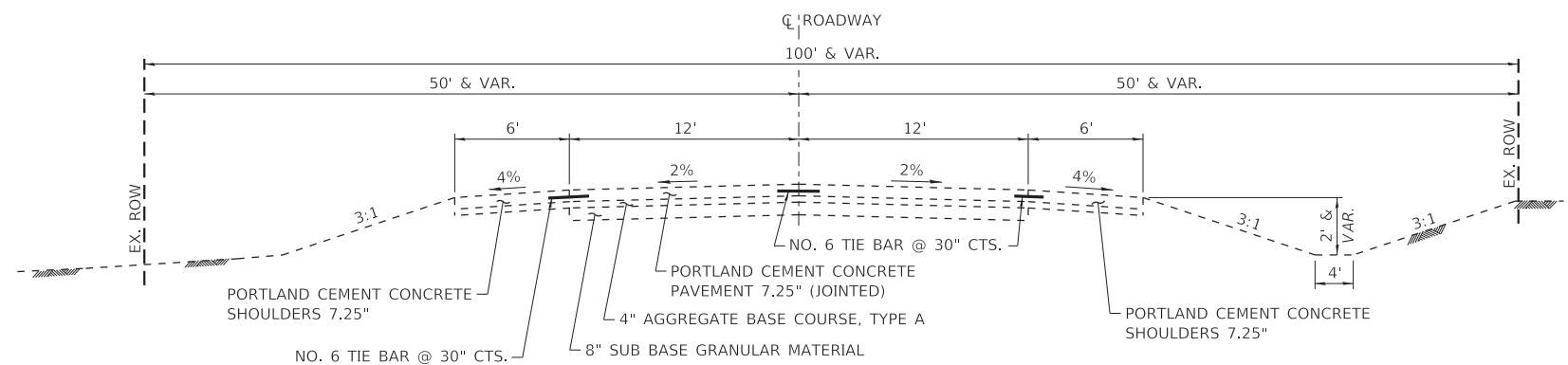
STRUCTURAL DESIGN TRAFFIC (S.D.T.) = YEAR 2038  
 CLASS III STREET  
 80,000# TRUCK DESIGN  
 E<sub>Ri</sub> : 2 ksi (POOR SUBGRADE)  
 TF = 0.12  
 HMA MIX TEMP. = 74.2°F  
 HMA E<sub>AC</sub> = 703 ksi  
 HMA DESIGN STRAIN = 275 MICROSTRAIN

**USE:**  
 2" HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N30  
 4" HOT-MIX ASPHALT BINDER COURSE, IL-19.0L, N30  
 4" AGGREGATE BASE COURSE, TYPE A (CA-6)  
 8" SUBBASE GRANULAR MATERIAL, TYPE B (CA-2)

**HMA MIXTURE REQUIREMENT TABLE**

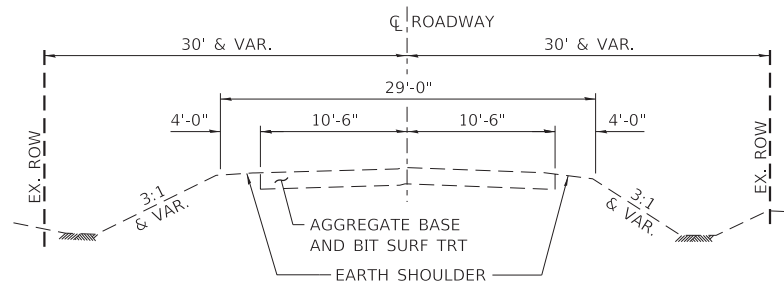
LOCATION:	ENTIRE PROJECT	ENTIRE PROJECT
MIXTURE USE(S):	HMA BINDER	HMA SURFACE
BINDER GRADE (PG):	PG 58-28	PG 58-28
DESIGN AIR VOIDS:	4.0% @ N30	4.0% @ N30
MIXTURE COMPOSITION: (MIXTURE GRADATION)	IL 19.0L	IL 9.5L
FRICTION AGGREGATE:		MIXTURE C
MIXTURE WEIGHT:	112.0 LB/SY/IN	112.0 LB/SY/IN
QUALITY MANAGEMENT PROGRAM:	QCQA	QCQA
SUBLOT SIZE:	NA	NA
DENSITY TEST METHOD:	LR 1030	LR 1030

MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.



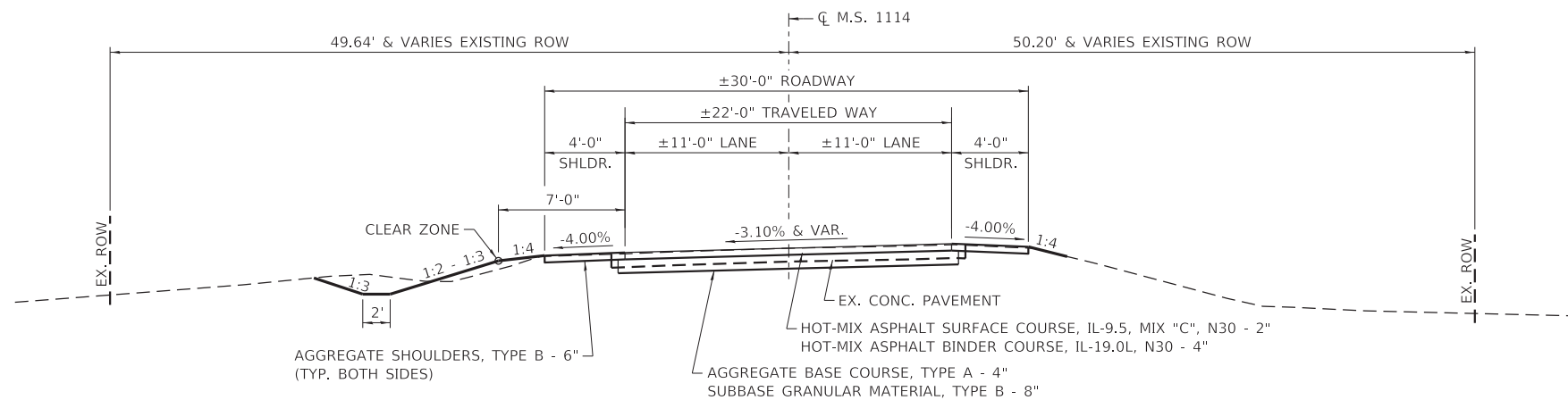
**EXISTING TYPICAL SECTION**

STA. 18+95 - STA. 19+75.89



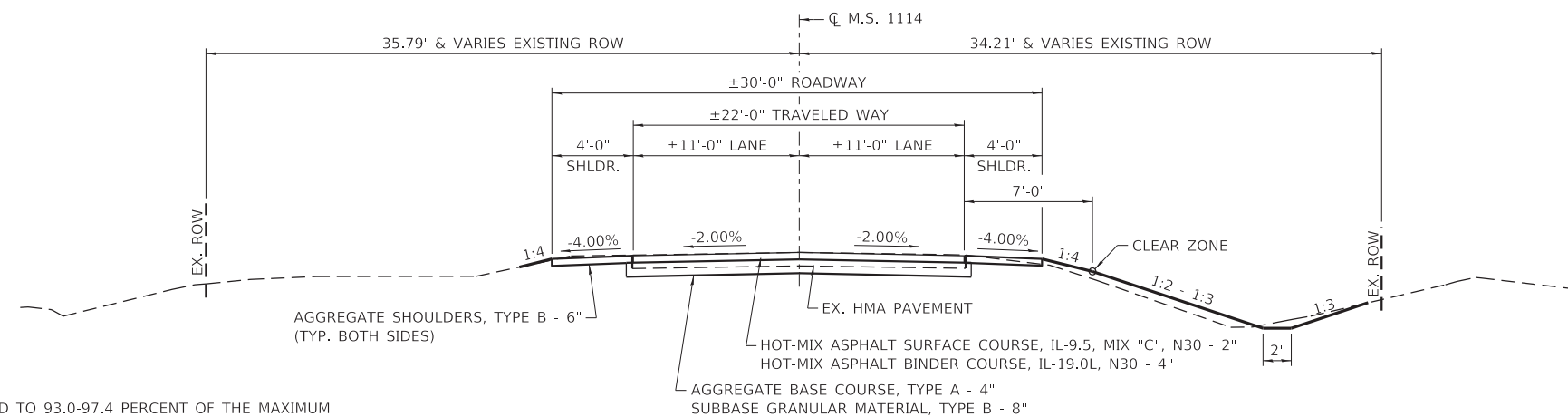
**EXISTING TYPICAL SECTION**

STA. 20+24.04 - STA. 20+95



**PROPOSED TYPICAL SECTION**

STA. 18+95 - STA. 19+95



**PROPOSED TYPICAL SECTION**

STA. 19+95 - STA. 20+95



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**GENERAL NOTES & TYPICAL SECTIONS**

SHEET NO. 1 OF 1 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	3
WHA# 1347D14		CONTRACT NO. 87719		

ILLINOIS FED. AID PROJECT C9EL828

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATIONS	
	CHKD	
	NO.	

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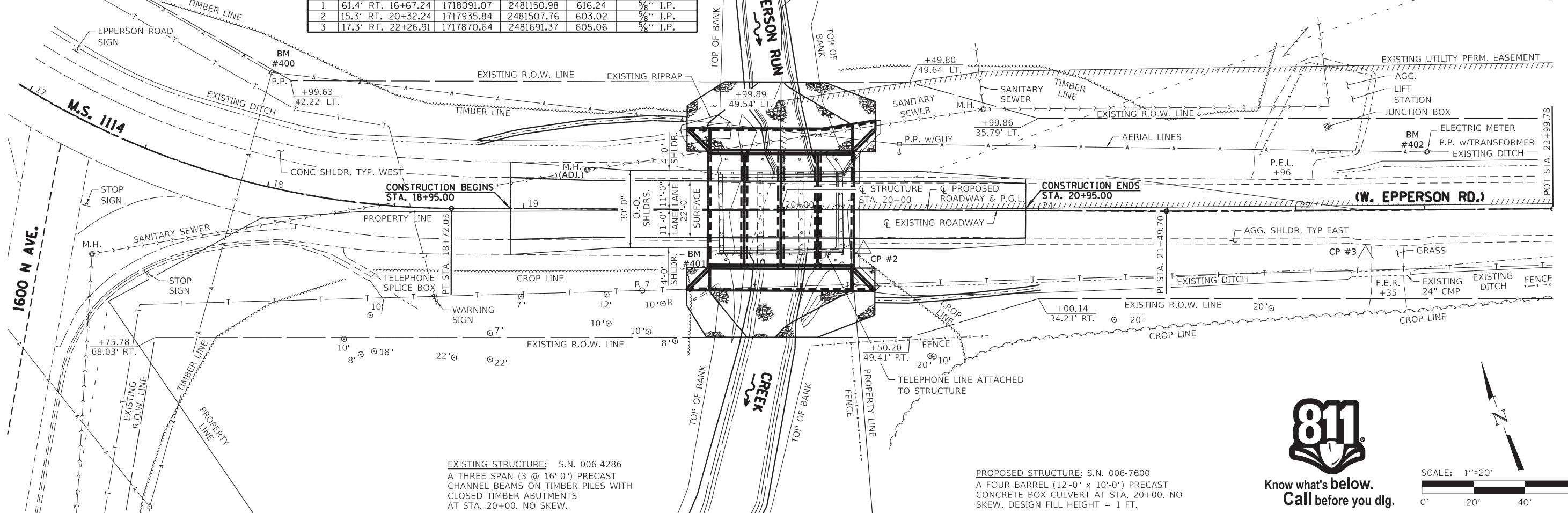
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**BENCH MARK #400:** R.R. SPIKE IN 1ST P.P. WEST OF STRUCTURE ON N. SIDE AT STA. ±17+90, 43' LT. EL. 606.97

M.S. 1114 (W. EPPERSON RD.) - HORIZONTAL CONTROL POINTS					
PT #	STA.	N	E	EL.	DESCRIPTION
1	61.4' RT. 16+67.24	1718091.07	2481150.98	616.24	3/8" I.P.
2	15.3' RT. 20+32.24	1717935.84	2481507.76	603.02	3/8" I.P.
3	17.3' RT. 22+26.91	1717870.64	2481691.37	605.06	3/8" I.P.

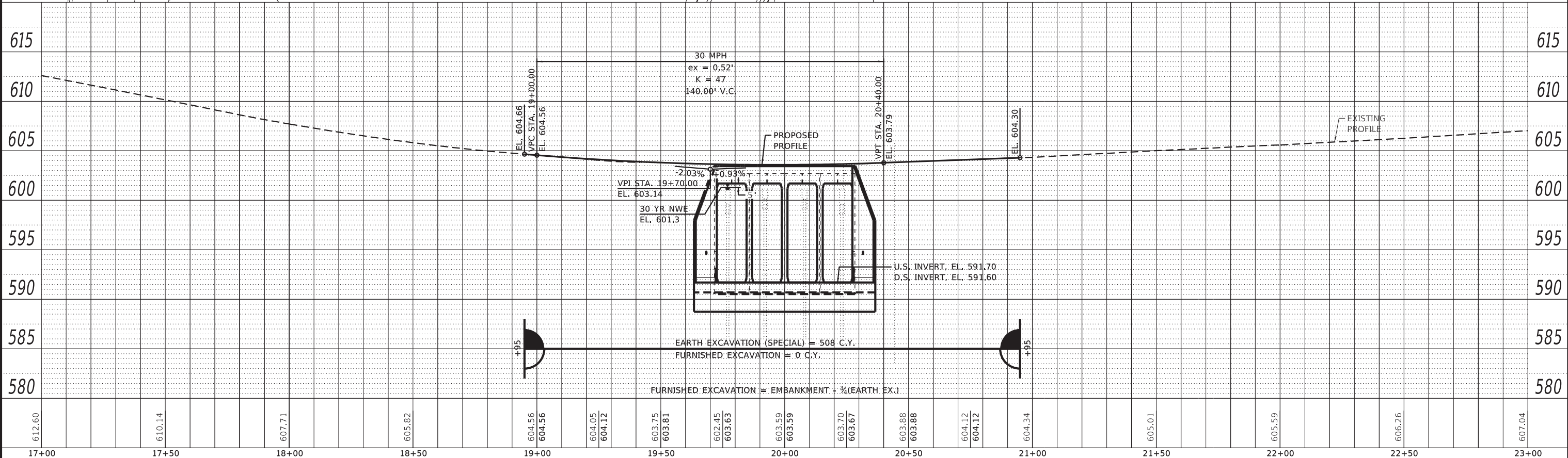
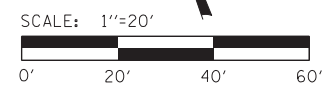
**BENCH MARK #401:** CHIS. "□" SW CORNER OF HUB GUARD ON STRUCTURE AT STA. ±19+76, 16' RT. EL. 603.59

**BENCH MARK #402:** R.R. SPIKE IN 2ND P.P. EAST OF STRUCTURE ON N. SIDE AT STA. ±22+51, 22' LT. EL. 605.16



**EXISTING STRUCTURE:** S.N. 006-4286  
A THREE SPAN (3 @ 16'-0") PRECAST CHANNEL BEAMS ON TIMBER PILES WITH CLOSED TIMBER ABUTMENTS AT STA. 20+00. NO SKEW.

**PROPOSED STRUCTURE:** S.N. 006-7600  
A FOUR BARREL (12'-0" x 10'-0") PRECAST CONCRETE BOX CULVERT AT STA. 20+00. NO SKEW. DESIGN FILL HEIGHT = 1 FT.



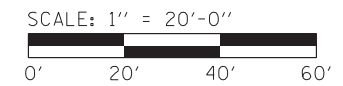
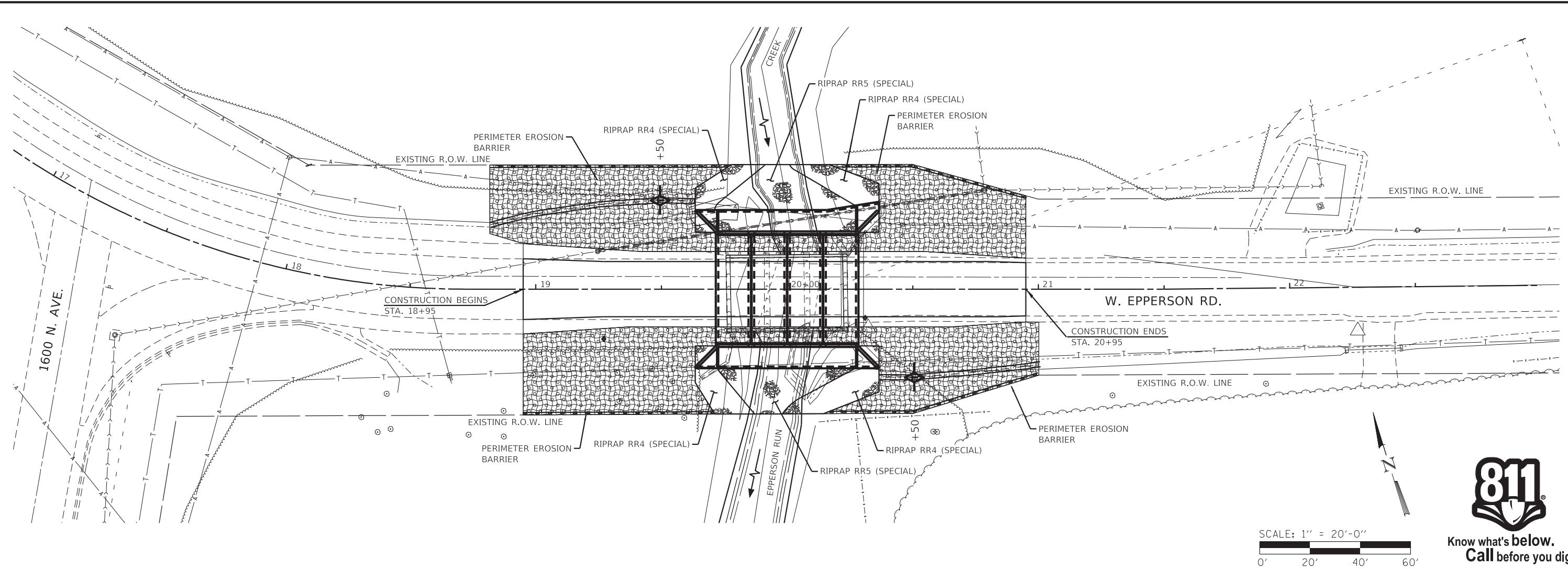
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CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**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

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	4
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9E1(828)				



**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 THE EROSION CONTROL PLAN AND IN ACCORDANCE WITH STATIONS SHOWN ON THE SCHEDULE OF QUANTITIES SHEET OR AS DIRECTED BY THE ENGINEER.

SILT FENCE SHALL BE INSTALLED FOLLOWING THE COMPLETION AND STABILIZATION OF ALL AREAS ADJACENT TO THE ON-SITE DRAINAGES. THE SILT FENCE WILL REMAIN IN PLACE UNTIL THE CONTRIBUTING AREA IS STABILIZED.

FOR SEEDING, CLASS 3 (SPECIAL) SEE SPECIAL PROVISIONS.

EROSION CONTROL BLANKET SHALL BE PLACED IN DITCHES AND TO 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.

TEMPORARY DITCH CHECKS SHALL COMPLY WITH SECTION 280 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STANDARD 280001-07.

TEMPORARY DITCH CHECKS SHALL BE PLACED AT STATIONS CALLED OUT IN THE SCHEDULE OF QUANTITIES OR AS DIRECTED BY THE ENGINEER.

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

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

**LEGEND**



**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
EROSION CONTROL BLANKET	SQ YD	1,101
TEMPORARY EROSION CONTROL SEEDING	POUND	23
TEMPORARY DITCH CHECKS	FOOT	20
PERIMETER EROSION BARRIER	FOOT	340
SEEDING, CLASS 3 (SPECIAL)	ACRE	0.23

SEE STRUCTURAL SHEET 2 OF 9 FOR RIPRAP (SPECIAL) QUANTITIES.



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**EROSION CONTROL PLAN**

SHEET NO. 1 OF 1 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	5
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

PRINT: ORGANIZER: Bk, Plot: 12/31/2019 8:13:28 AM - PLOTTED

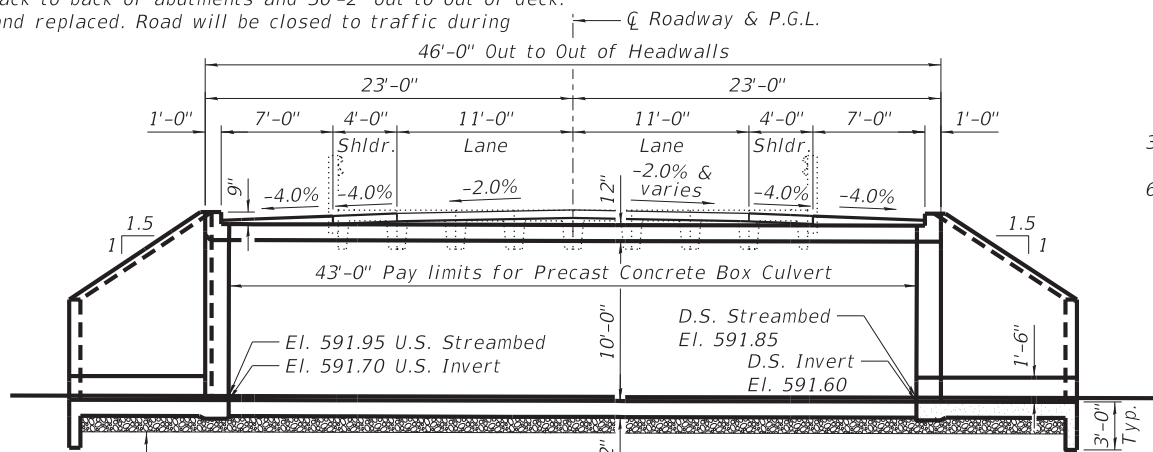
EXISTING STRUCTURE: S.N. 006-4286

Originally constructed in 1967 at Sta. 20+00 as a three span (3@16'-0") precast channel beam bridge on closed timber pile abutments and timber pile piers. The existing bridge is 48'-3" back to back of abutments and 30'-2" out to out of deck. Structure to be removed and replaced. Road will be closed to traffic during construction.

BENCH MARK: Chis. "□" SW Corner of hub guard on structure at Sta. ±19+76, 16' Rt., Elev. 603.59

No Salvage.

D.H.W.E. 601.3



See Structural Sheet 4 of 9 for Base and Embankment details

**LONGITUDINAL SECTION**

**Index of Sheets**

- 1 General Plan & Elevation
- 2 Riprap Layout
- 3-5 Multi-Cell Precast Concrete Box Culvert Apron End Section Details
- 6-9 Soil Borings

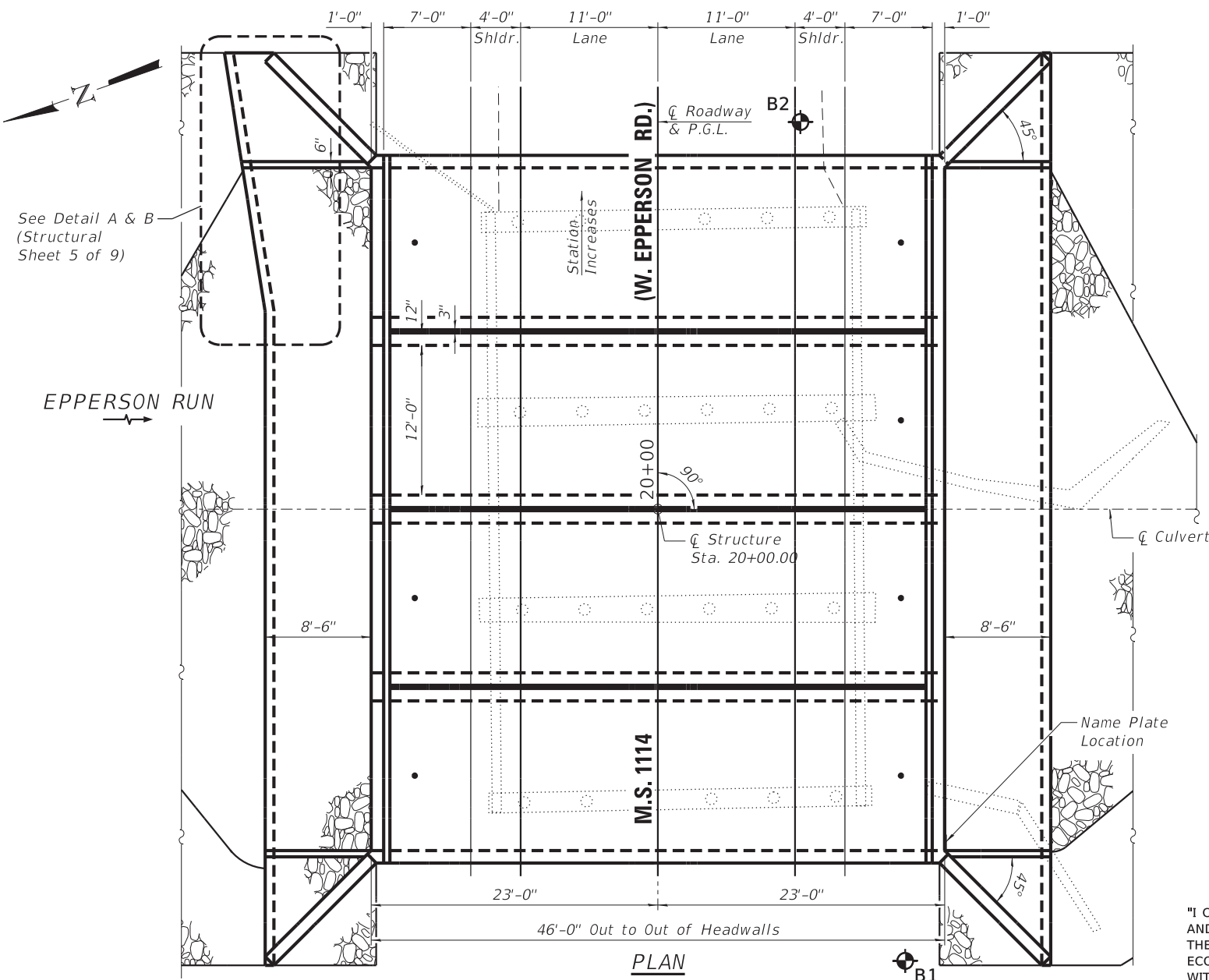
EPPELSON RUN CREEK  
BUILT 2020 BY  
CITY OF PRINCETON  
SEC. 15-00253-00-BR  
M.S. 1114 STATION 20+00  
STR. NO. 006-7600 LOADING HL-93

**NAME PLATE**  
See Std. 515001

**BILL OF MATERIAL - CULVERT**

ITEM	UNIT	TOTAL
Removal of Existing Structures	Each	1
Reinforcement Bars, Epoxy Coated	Pound	12,180
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	93.8
Precast Concrete Box Culverts, 12'x10'	Foot	172
Geocomposite Wall Drain	Sq. Yd.	287
Membrane Waterproofing for Buried Structures	Sq. Yd.	287
Porous Granular Embankment, Special	Ton	1,077
Stone Riprap, Class A4 (Special)	Ton	212
Stone Riprap, Class A5 (Special)	Ton	174
Stone Riprap, Class A1 (Special)	Ton	301

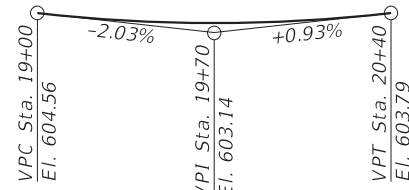
\* See Special Provisions



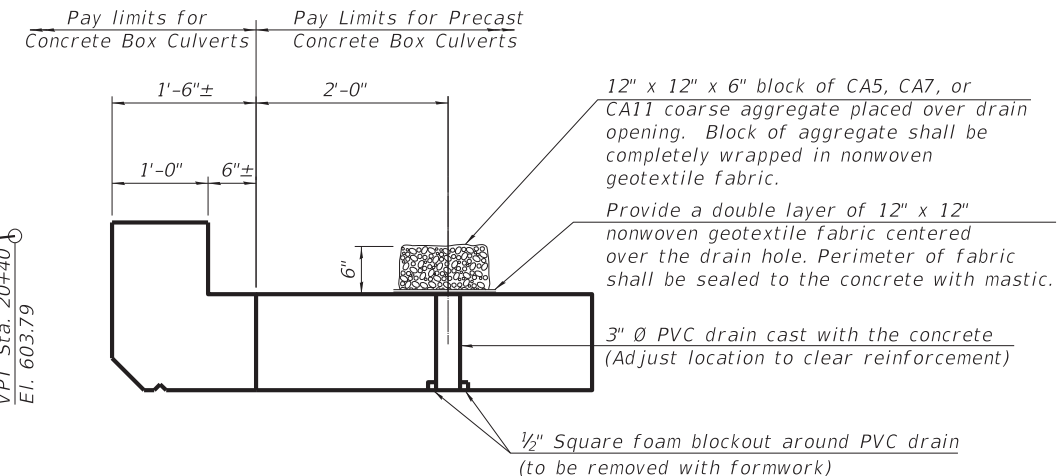
See Detail A & B (Structural Sheet 5 of 9)

EPPELSON RUN

**PLAN**



**PROFILE GRADE**



**DRAIN DETAIL**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)

**DESIGN STRESSES**

**CAST IN PLACE UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

**PRECAST UNITS**  
Per ASTM C1577 Specifications

**DESIGN SPECIFICATIONS**

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

**LOADING HL-93**

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

**WATERWAY INFORMATION**

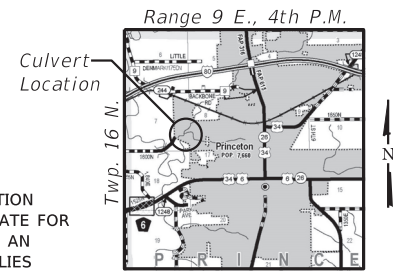
Flood	Freq. Yr.	Q (C.F.S.)	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
OVT(E)	25	2,624	268	341	601.2	2.7	0.5	603.9	601.7
Design	30	2,750	268	346	601.3	2.8	0.6	604.1	601.9
Base	100	3,450	268	365	601.7	3.2	1.2	604.9	602.9
OVT(P)	200	3,850	268	365	601.9	3.3	1.8	605.2	603.7
Max. Calc.	500	4,400	268	365	602.2	3.0	2.1	605.2	604.3

Exist. Overtopping El. = 603.49 @ Sta. 19+75.98  
Drainage Area = 8.9 sq. mi. Prop. Overtopping El. = 603.59 @ Sta. 19+96.04



DATE: 12/30/2019  
EXPIRES 11/30/20

"I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS CULVERT 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'."



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**M.S. 1114 (W. EPPELSON RD.) OVER**  
**EPPELSON RUN CK.**  
**SECTION 15-00253-00-BR**  
**CITY OF PRINCETON**  
**BUREAU COUNTY**  
**STATION 20+00**  
**STRUCTURE NO. 006-7600**



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPELSON RD.) OVER EPPELSON RUN CK.**  
**STATION 20+00**

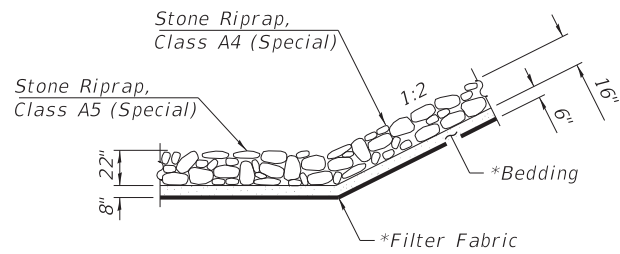
M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	6
WHA# 1347D14		CONTRACT NO. 87719		

STRUCTURAL SHEET NO. 1 OF 9 SHEETS

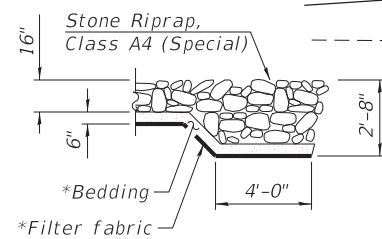
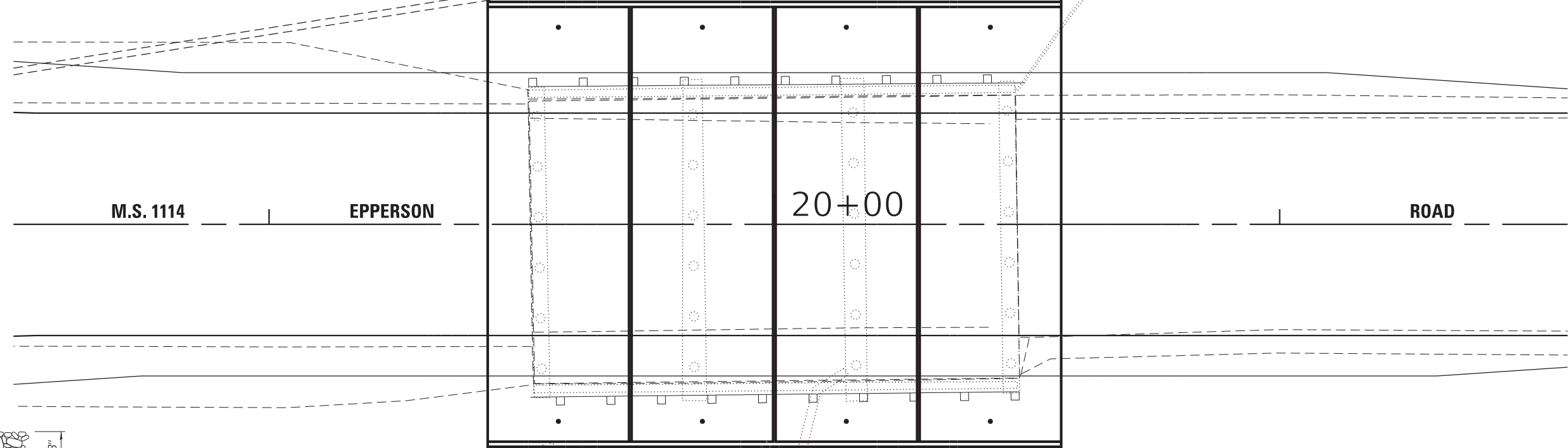
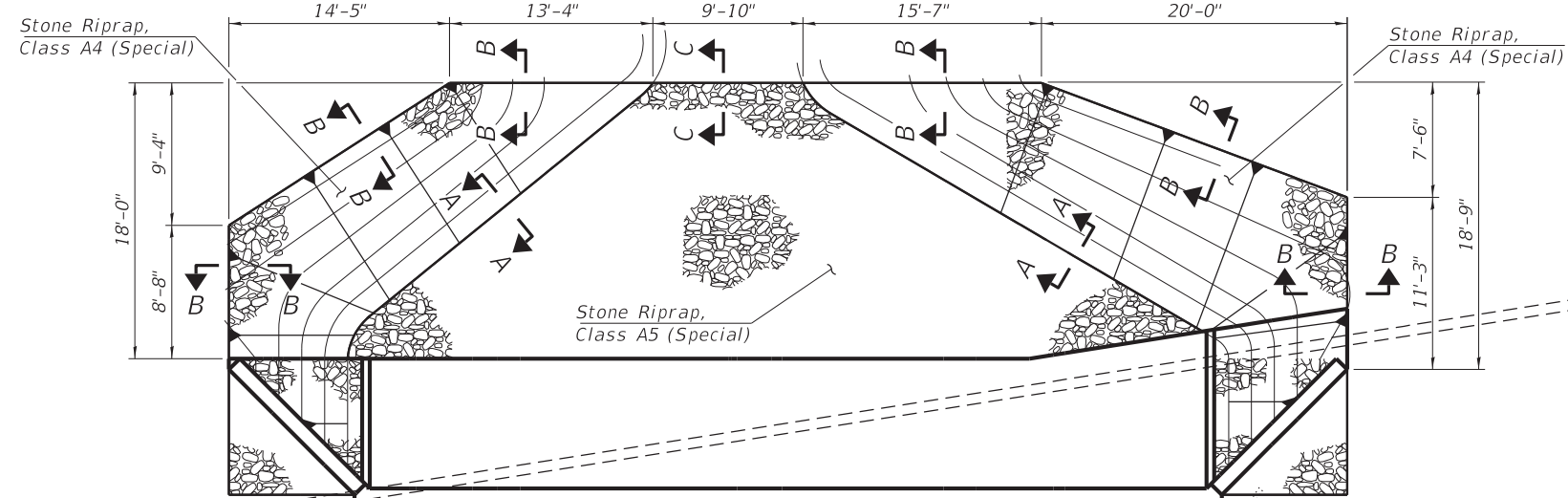
ILLINOIS FED. AID PROJECT C9E18(28)

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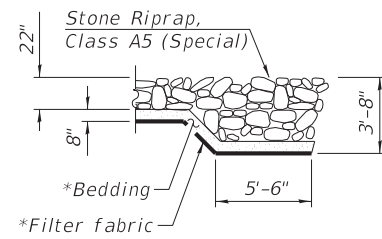
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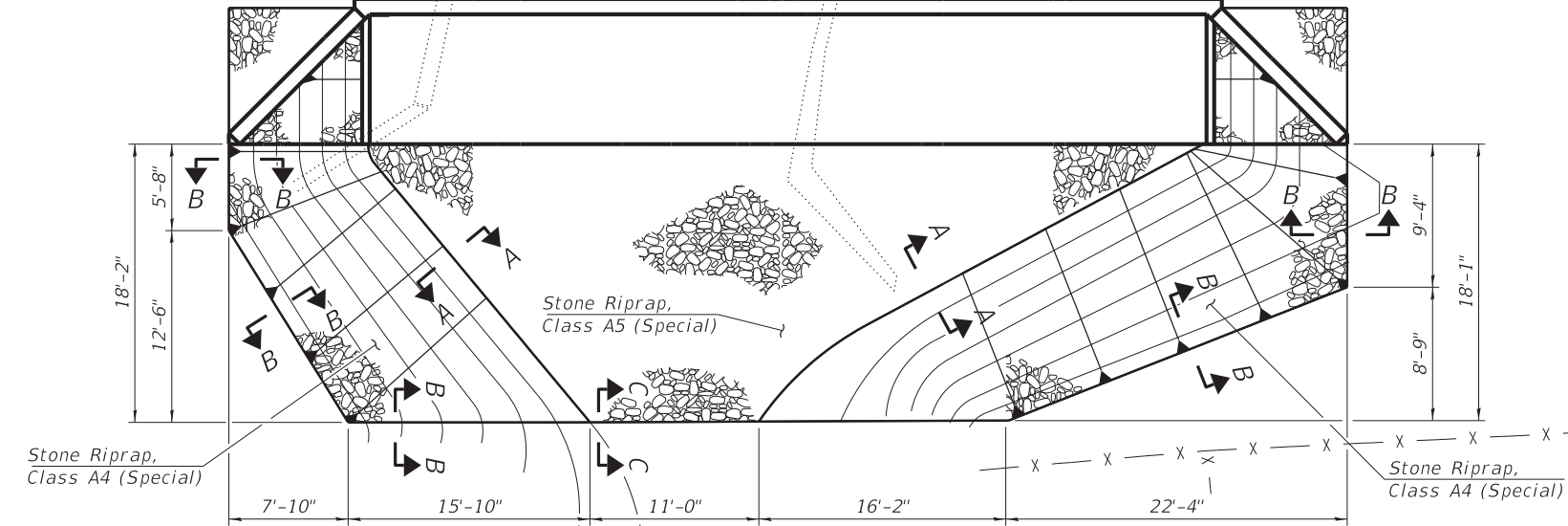
SECTION A-A



SECTION B-B



SECTION C-C



PLAN

**BILL OF MATERIAL**

Item	Unit	Quantity
Stone Riprap, Class A4 (Special)	Ton	212
Stone Riprap, Class A5 (Special)	Ton	174

\* Included in the cost of Stone Riprap, Class A4 (Special) and Stone Riprap, Class A5 (Special).



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

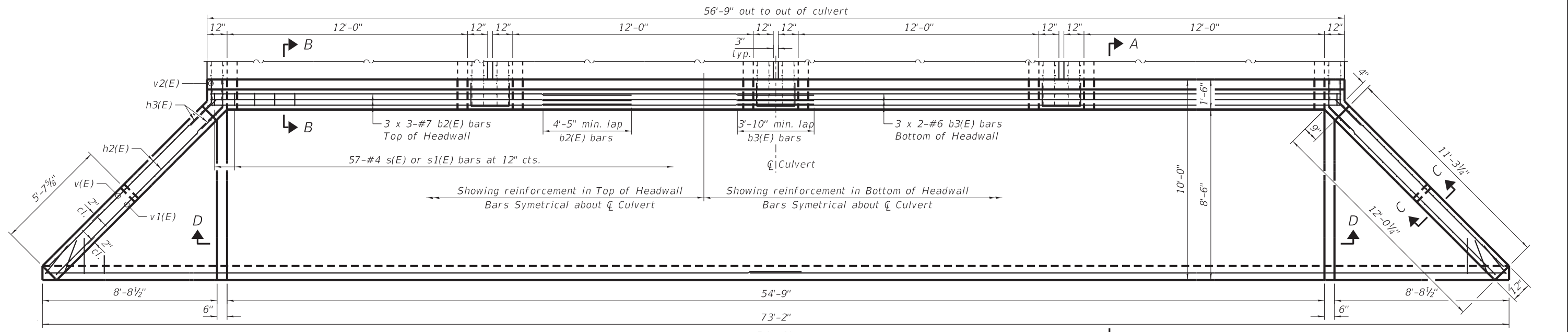
**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**RIPRAP LAYOUT**  
**STRUCTURE NO. 006-7600**  
 STRUCTURAL SHEET NO. 2 OF 9 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

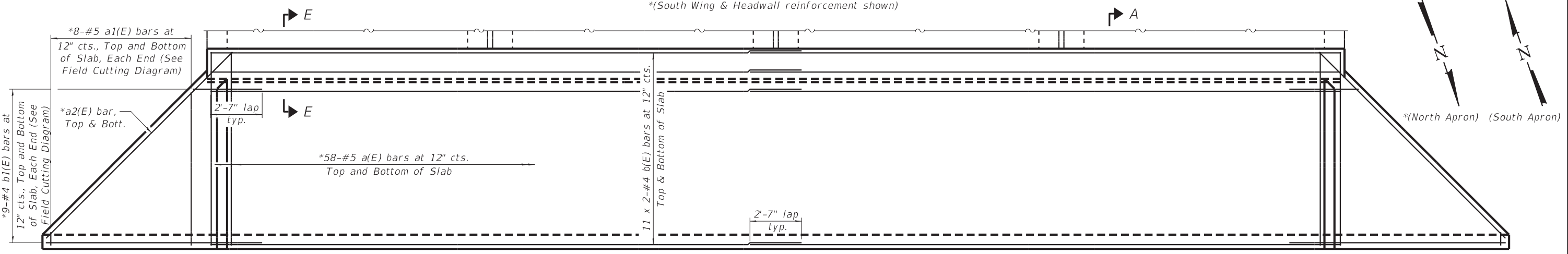
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PLAN

\*(South Wing & Headwall reinforcement shown)

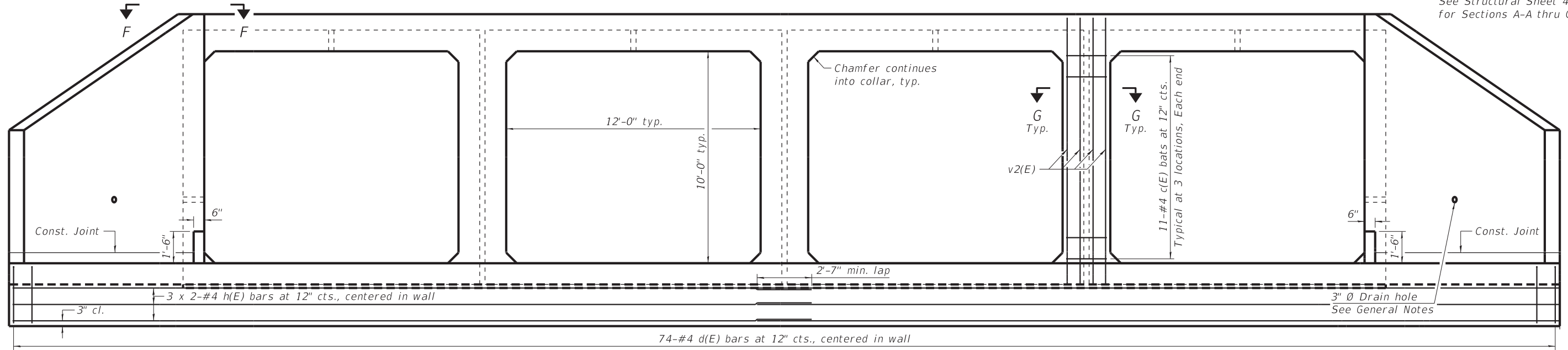


PLAN

\*(South Apron reinforcement shown)

\*See Detail A & B (Structural Sheet 5 of 9) for North Apron End modifications.

NOTE:  
See Structural Sheet 4 of 9 for Sections A-A thru G-G



END VIEW

(Sheet 1 of 2)



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

CITY OF PRINCETON  
M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.  
STATION 20+00

MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END  
SECTION DETAILS - STRUCTURE NO. 006-7600

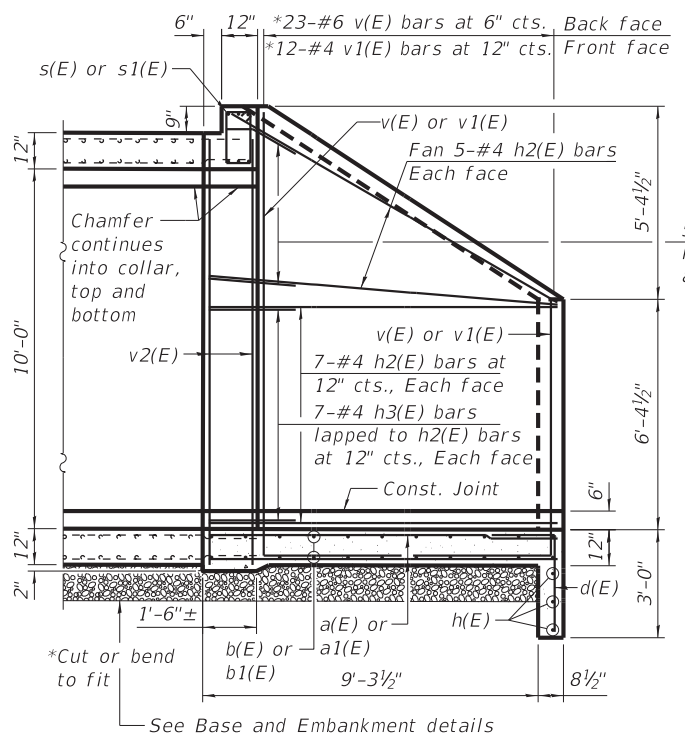
M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	8
WHA# 1347D14		CONTRACT NO. 87719		

STRUCTURAL SHEET NO. 3 OF 9 SHEETS

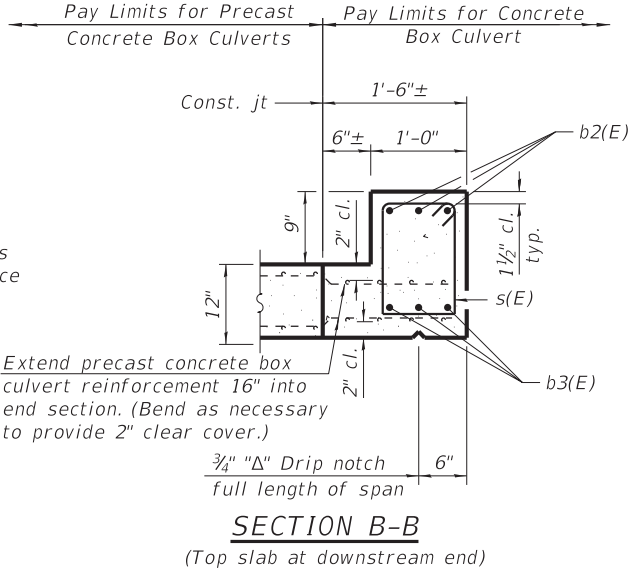
ILLINOIS FED. AID PROJECT C9E1(828)

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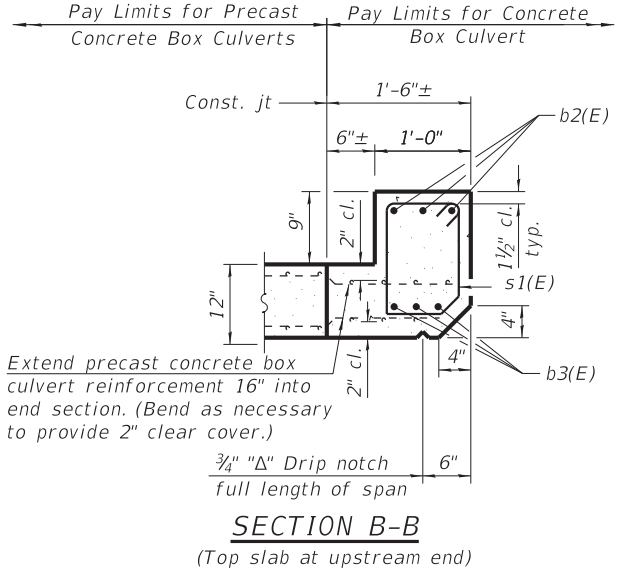




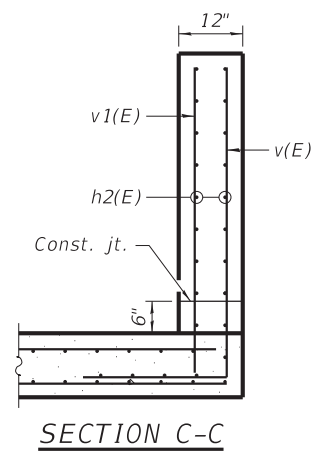
**SECTION A-A**



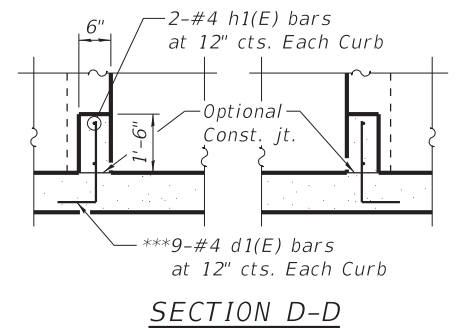
**SECTION B-B**  
(Top slab at downstream end)



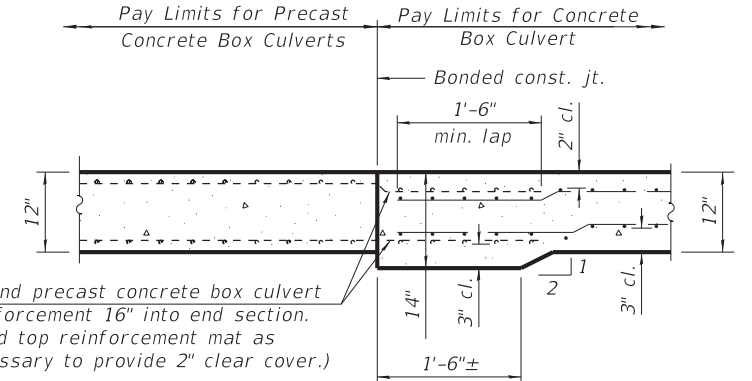
**SECTION B-B**  
(Top slab at upstream end)



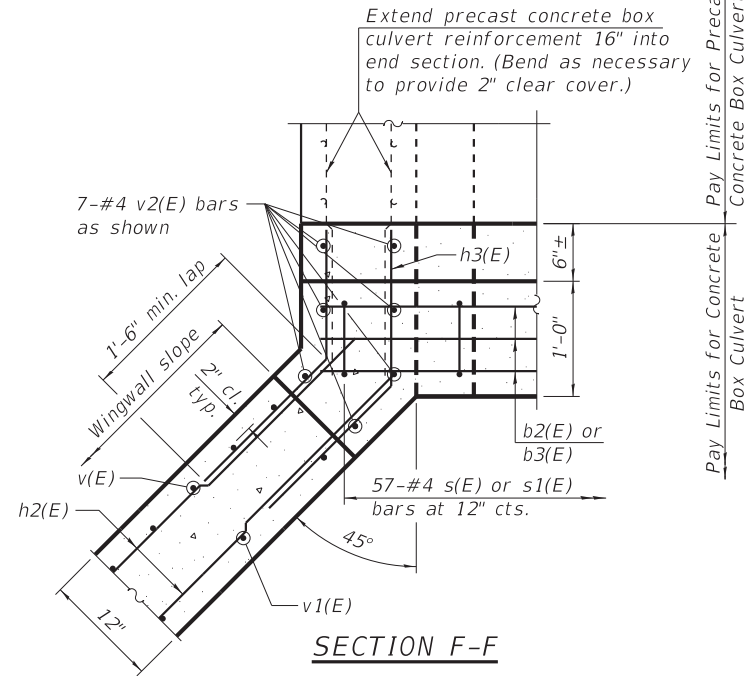
**SECTION C-C**



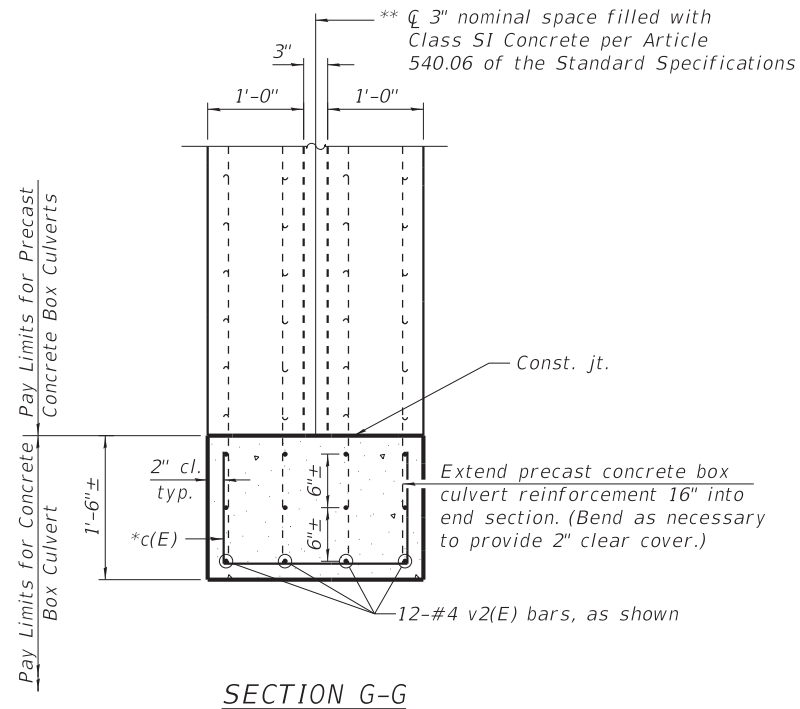
**SECTION D-D**  
\*\*\*11-#4 d1(E) bars in North Apron End NE quadrant curb. See Detail A & B (Structural Sheet 5 of 9) for North Apron End modifications.



**SECTION E-E**  
(Bottom slab)

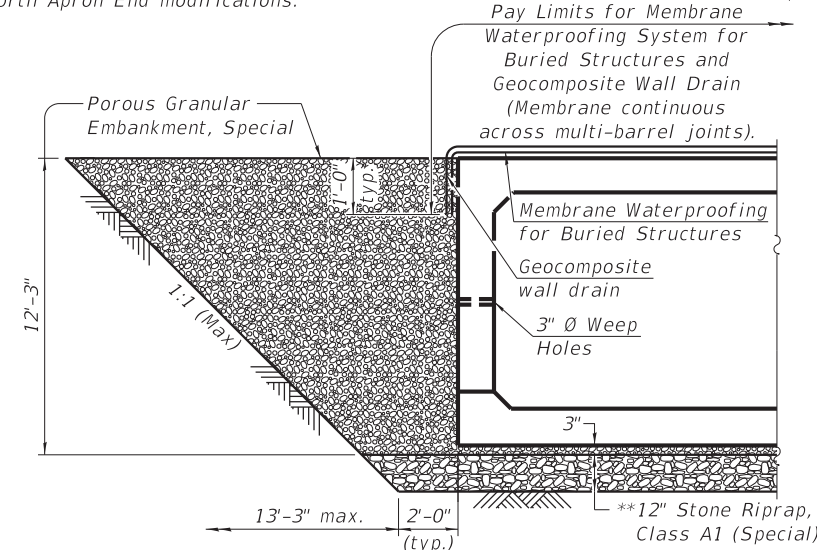


**SECTION F-F**



**SECTION G-G**

\*\* Concrete used to fill 3" nominal space shall not be measured separately for payment, but shall be considered incidental to the Pay Item "Precast Concrete Box Culverts 12'x10"



**MEMBRANE WATERPROOFING FOR PRECAST CULVERTS**

**NOTE:** Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications, except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing System for Buried Structures.

(Sheet 2 of 3)

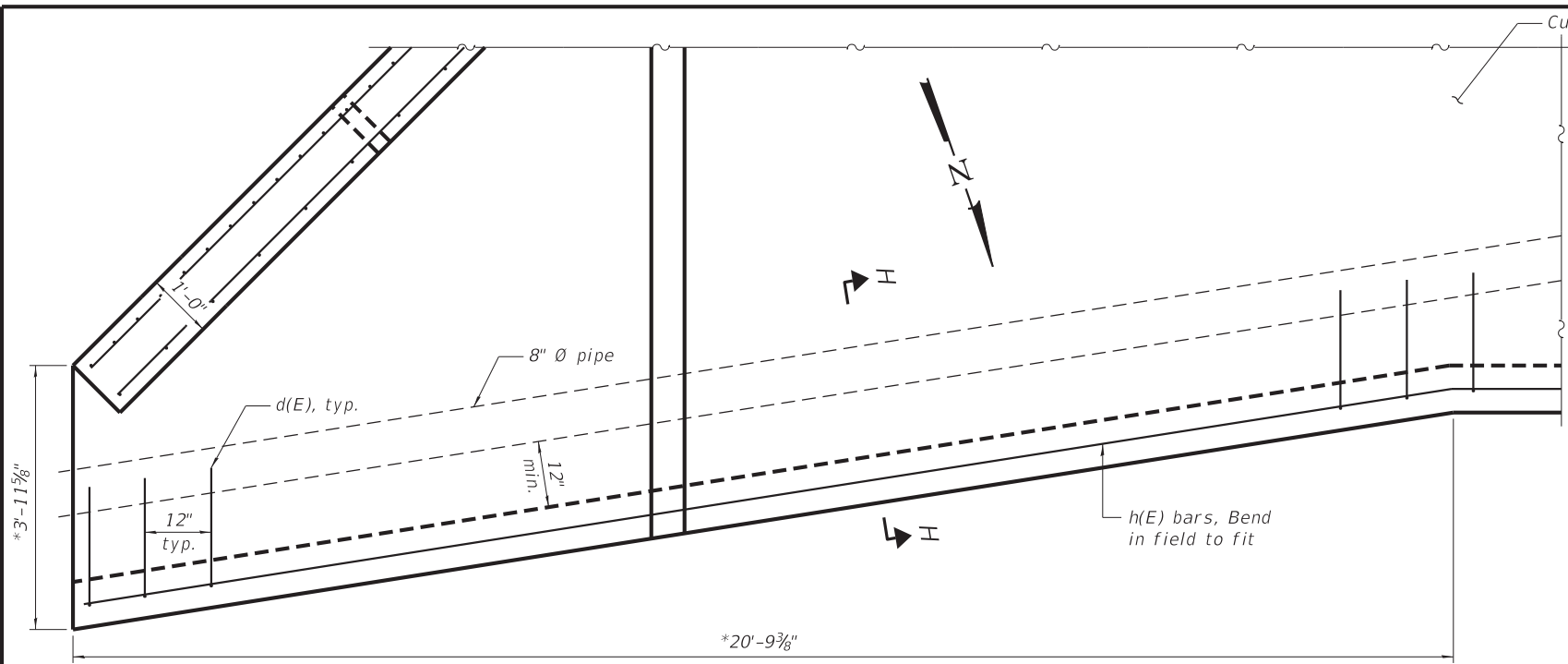


DESIGNED	-	IPN	REVISED	-
CHECKED	-	BKC	REVISED	-
DRAWN	-	FDL	REVISED	-
CHECKED	-	IPN	REVISED	-

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**MULTI-CELL PRECAST CONCRETE BOX CULVERT APRON END**  
**SECTION DETAILS - STRUCTURE NO. 06-7600**  
STRUCTURAL SHEET NO. 4 OF 9 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	9
WHA# 1347D14		CONTRACT NO. 87719		



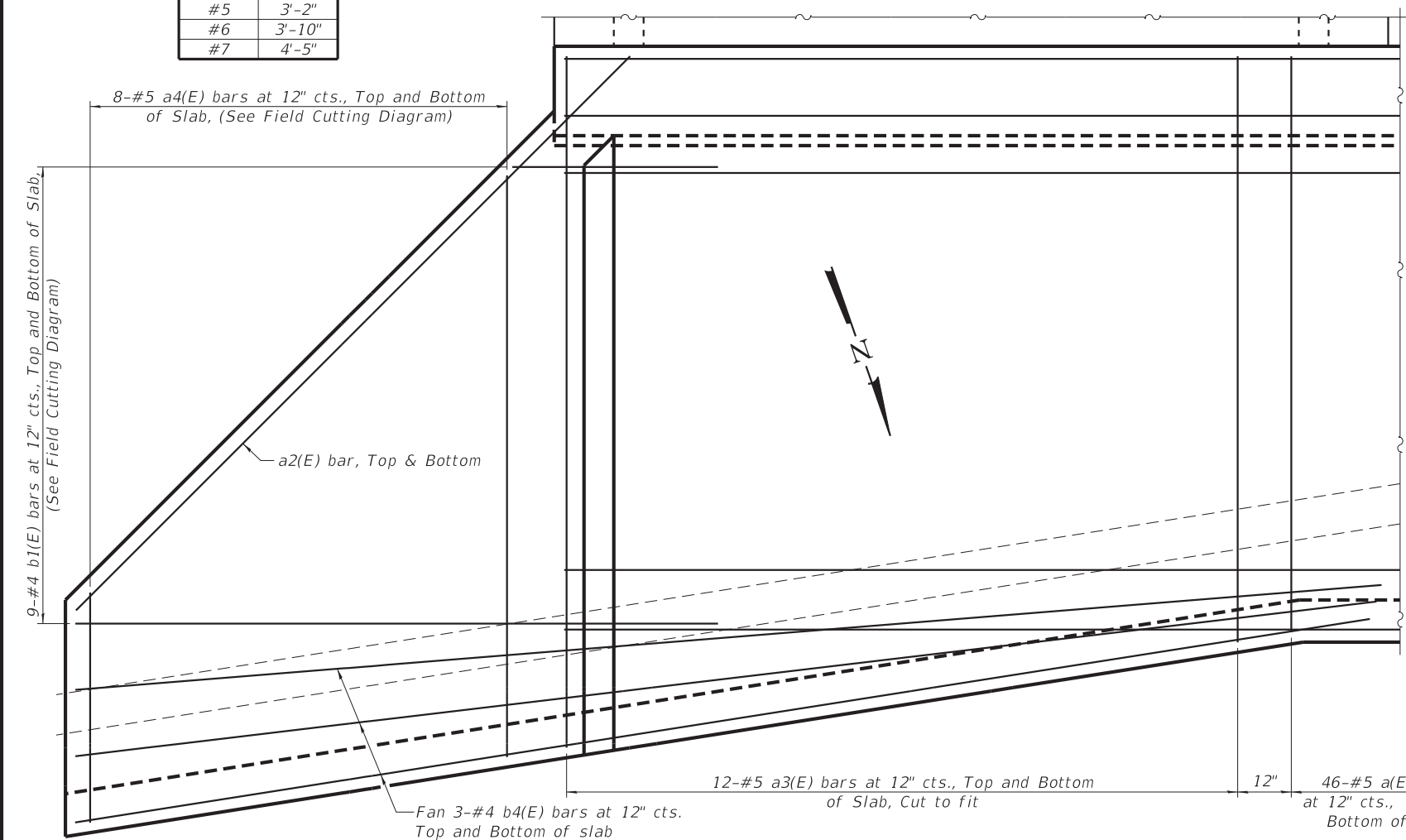
**MINIMUM BAR LAP**

Size	Length
#4	2'-7"
#5	3'-2"
#6	3'-10"
#7	4'-5"

**DETAIL A - WALL REINFORCEMENT PLAN VIEW**

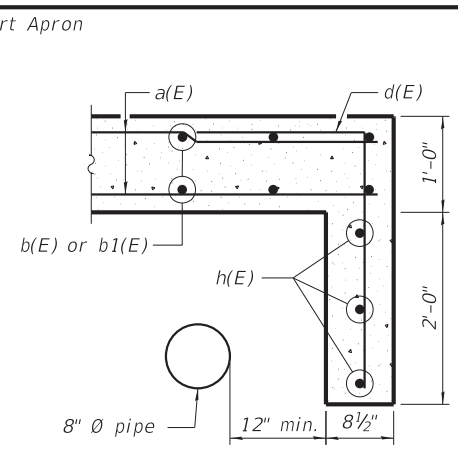
(For North Wall, NE quadrant Only)

\*Field verify to provide 12" min. lateral clearance of 8" Ø pipe.



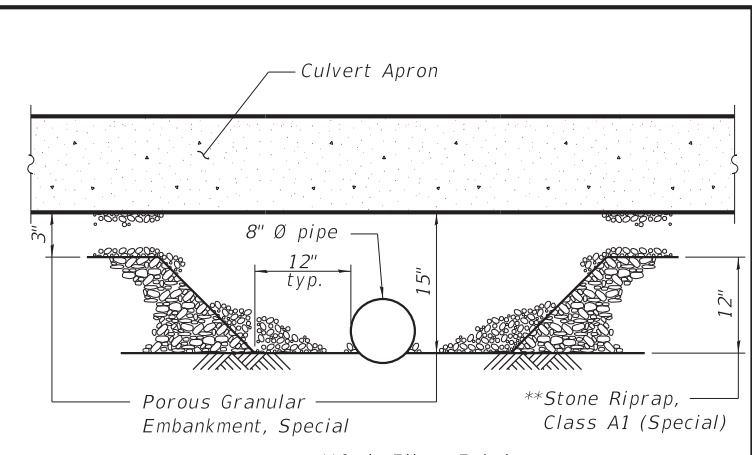
**DETAIL B - APRON REINFORCEMENT PLAN VIEW**

(For North Apron, NE quadrant Only)



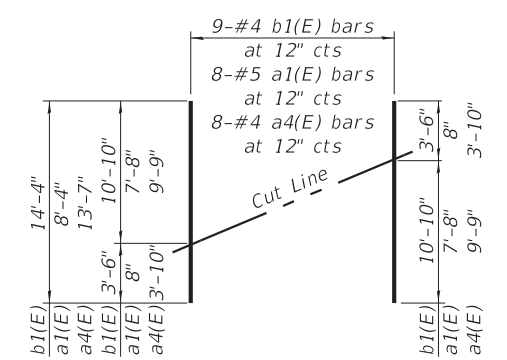
**SECTION H-H**

(At North Apron, NE quadrant Only)



**TYPICAL PIPE BACKFILL DETAIL**

(At North Apron, NE quadrant Only)

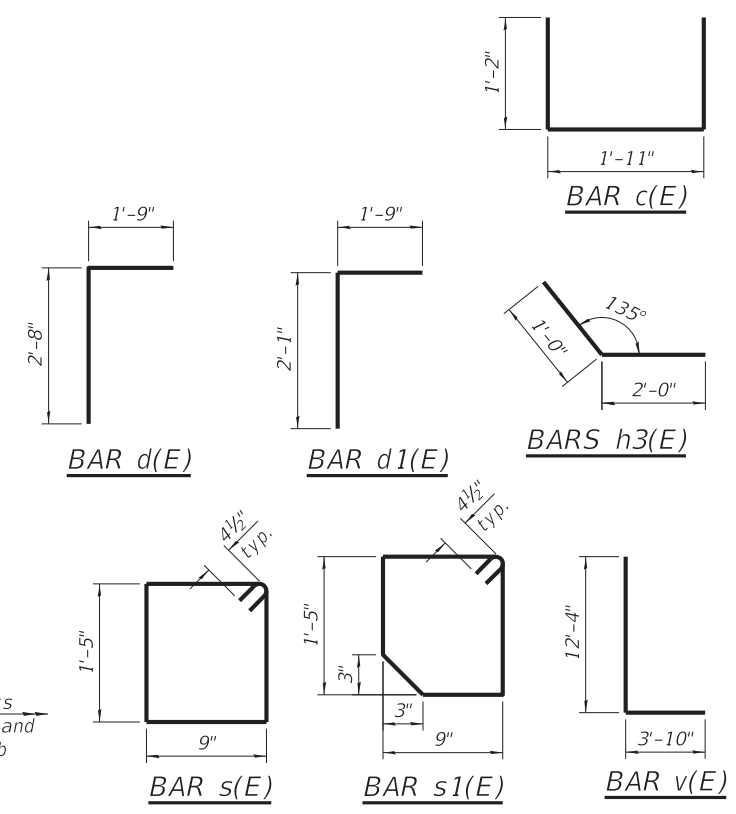


**FIELD CUTTING DIAGRAM**

Order bars shown full length. Cut as shown and use remainder of bars in opposite apron corner.

**BILL OF MATERIAL - N. & S. APRONS**

Bar	No.	Size	Length	Shape
a(E)	208	#5	9'-8"	—
a1(E)	24	#5	8'-4"	—
a2(E)	8	#5	13'-2"	—
a3(E)	24	#5	11'-7"	—
a4(E)	8	#5	13'-7"	—
b(E)	88	#4	29'-6"	—
b1(E)	36	#4	14'-4"	—
b2(E)	18	#7	21'-9"	—
b3(E)	12	#6	30'-2"	—
b4(E)	6	#4	22'-0"	—
c(E)	66	#4	4'-3"	⊏
d(E)	148	#4	4'-5"	⊏
d1(E)	38	#4	3'-10"	⊏
h(E)	12	#4	38'-0"	—
h1(E)	8	#4	7'-11"	—
h2(E)	96	#4	11'-10"	—
h3(E)	96	#4	3'-0"	⊏
s(E)	57	#4	5'-1"	⊏
s1(E)	57	#4	5'-0"	⊏
v(E)	92	#6	16'-2"	⊏
v1(E)	48	#4	12'-4"	—
v2(E)	100	#4	12'-2"	—
Removal of Existing Structures	Each		1	
Reinforcement Bars, Epoxy Coated	Pound		12,180	
Concrete Box Culverts	Cu. Yd.		93.8	
Precast Concrete Box Culverts, 12' x 10'	Foot		172	
Geocomposite Wall Drain	Sq. Yd.		287	
Membrane Waterproofing for Buried Structures	Sq. Yd.		287	
Porous Granular Embankment, Special	Ton		1,077	
Stone Riprap, Class A1 (Special)	Ton		301	



(Sheet 3 of 3)

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>1</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
--	--	---	---

Client: <u>Willett Hofmann &amp; Associates, Inc.</u> Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u> Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u> <u>Bureau County; City of Princeton, IL</u>	Boring No. <u>B-1</u> Surface Elev. <u>603.26</u> Auger Depth <u>76.00</u> Rotary Depth <u>NA</u> Start Date <u>01/11/17</u> Finish Date <u>01/11/17</u>	
--	---	--

Location: 19+27 20' RT

(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)	
603.26													
602.26			1										
601.26			2										
600.26			3	1	SS	1.0	7	B	21				
599.26	Medium Stiff Brown Silty Clay Loam Fill		4										
598.26			5										
597.26			6	2	SS	0.8	7	B	20				
596.26			7										
595.26			8	3	SS	1.0	8	B	19				
594.26			9										
593.26			10	4	SS	---	11	---	12				
592.26	Medium Dense Gravel & Cobble with Wood		11										
591.26			12										
590.26			13	5	SS	2.0	12	B	15				
589.26	Stiff Brown/Gray Silty Clay Till		14										
588.26			15	6	SS	2.3	13	B	13				
587.26			16										
586.26			17										
585.26	Very Stiff Gray Silty Clay Till		18	7	SS	3.0	16	B	12				
584.26			19										
583.26			20	8	SS	3.5	19	B	12				

Groundwater Data: Water after auger removal 10.5-feet below top of ground elevation.  
 Comments:

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>2</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
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Client: <u>Willett Hofmann &amp; Associates, Inc.</u> Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u> Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u> <u>Bureau County; City of Princeton, IL</u>	Boring No. <u>B-1</u> Surface Elev. <u>603.26</u> Auger Depth <u>76.00</u> Rotary Depth <u>NA</u> Start Date <u>01/11/17</u> Finish Date <u>01/11/17</u>	
--	---	--

Location: 19+27 20' RT

(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)	
582.26													
581.26			22										
580.26			23	9	SS	3.0	21	B	12				
579.26			24										
578.26			25	10	SS	3.2	23	B	12				
577.26	Very Stiff Gray Silty Clay Till		26										
576.26			27										
575.26			28										
574.26			29										
573.26			30	11	SS	3.6	25	B	12				
572.26			31										
571.26			32										
570.26			33										
569.26			34										
568.26			35	12	SS	4.0	25	B	12				
567.26			36										
566.26			37										
565.26			38										
564.26			39										
563.26			40										
562.26			41	13	SS	4.0	25	B	12				

Groundwater Data: Water after auger removal 10.5-feet below top of ground elevation.  
 Comments:

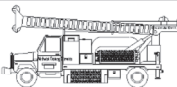


DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**BORING LOGS**  
**STRUCTURE NO. 006-7600**  
 STRUCTURAL SHEET NO. 6 OF 9 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	11
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>3</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
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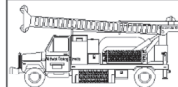
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 Project Name: Bridge carrying Epperson Rd. over Epperson Run Creek  
 Project Site: 15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600  
Bureau County; City of Princeton, IL

Boring No. B-1  
 Surface Elev. 603.26  
 Auger Depth 76.00 Rotary Depth NA  
 Start Date 01/11/17 Finish Date 01/11/17

Location: 19+27 20' RT

(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)
561.26												
560.26	Hard Gray Silty Clay Till		43							Randy Safranski Diedrich D-120		
559.26			44									
558.26			45	14	SS	5.0	53	B	11			
557.26			46									
556.26	Hard Gray Silty Clay Till with Sand Layers		47									
555.26			48									
554.26			49									
553.26			50	15	SS	5.0	55	B	11			
552.26			51									
551.26			52									
550.26	Hard Gray Silty Clay Till		53									
549.26			54									
548.26			55	16	SS	4.8	53	B	11			
547.26			56									
546.26	Hard Gray Silty Clay Till		57									
545.26			58									
544.26			59									
543.26			60	17	SS	4.6	52	B	12			
542.26			61									
541.26			62									

Groundwater Data: Water after auger removal 10.5-feet below top of ground elevation.  
 Comments:

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>4</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
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Client: Willett Hofmann & Associates, Inc.  
 Project Name: Bridge carrying Epperson Rd. over Epperson Run Creek  
 Project Site: 15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600  
Bureau County; City of Princeton, IL

Boring No. B-1  
 Surface Elev. 603.26  
 Auger Depth 76.00 Rotary Depth NA  
 Start Date 01/11/17 Finish Date 01/11/17

Location: 19+27 20' RT

(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)	
540.26													
539.26	Hard Gray Silty Clay Till		64							Randy Safranski Diedrich D-120			
538.26			65	18	SS	5.0	55	B	11				
537.26			66										
536.26			67										
535.26	Hard Gray Silty Clay Till		68										
534.26			69										
533.26			70	19	SS	4.8	50	B	11				
532.26			71										
531.26			72										
530.26			73										
529.26	Bottom of Boring		74										
528.26			75	20	SS	5.0	55	B	11				
527.26			76										
526.26			77										
525.26		78											
524.26		79											
523.26		80											
522.26		81											
521.26		82											
520.26		83											

Groundwater Data: Water after auger removal 10.5-feet below top of ground elevation.  
 Comments:



DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**BORING LOGS**  
**STRUCTURE NO. 006-7600**  
 STRUCTURAL SHEET NO. 7 OF 9 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	12
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>1</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
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Client: <u>Willett Hofmann &amp; Associates, Inc.</u>	Boring No. <u>B-2</u>	
Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u>	Surface Elev. <u>603.42</u>	
Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u>	Auger Depth <u>76.00</u>	Rotary Depth <u>NA</u>
<u>Bureau County; City of Princeton, IL</u>	Start Date <u>01/11/17</u>	Finish Date <u>01/11/17</u>

Location: 20+31 12' RT

(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 (%)		
603.42										Randy Safranski Diedrich D-120	
602.42	Medium Dense Brown Gravely Loam Fill		1								
601.42			2								
600.42			3	1	SS	---	11	---	14		
599.42			4								
598.42			5								
597.42			6	2	SS	---	10	---	16		
596.42			7								
595.42	Medium Dense Gravel & Cobble		8	3	SS	---	10	---	12		
594.42			9								
593.42			10	4	SS	---	11	---	12		
592.42			11								
591.42	Stiff Brown/Gray Silty Clay Till		12								
590.42			13	5	SS	2.0	12	B	15		
589.42			14								
588.42			15	6	SS	2.1	13	B	14		
587.42			16								
586.42			17								
585.42	Very Stiff Gray Silty Clay Till		18	7	SS	3.0	17	B	12		
584.42			19								
583.42			20	8	SS	3.2	18	B	12		

Groundwater Data: Dry after auger removal.  
 Comments:

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>2</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
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Client: <u>Willett Hofmann &amp; Associates, Inc.</u>	Boring No. <u>B-2</u>	
Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u>	Surface Elev. <u>603.42</u>	
Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u>	Auger Depth <u>76.00</u>	Rotary Depth <u>NA</u>
<u>Bureau County; City of Princeton, IL</u>	Start Date <u>01/11/17</u>	Finish Date <u>01/11/17</u>

Location: 20+31 12' RT

(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 (%)		
582.42										Randy Safranski Diedrich D-120	
581.42	Very Stiff Gray Silty Clay Till		22								
580.42			23	9	SS	3.0	20	B	12		
579.42			24								
578.42			25	10	SS	3.0	20	B	12		
577.42			26								
576.42			27								
575.42			28								
574.42			29								
573.42			30	11	SS	3.8	26	B	12		
572.42			31								
571.42			32								
570.42			33								
569.42			34								
568.42		35	12	SS	4.0	27	B	12			
567.42		36									
566.42		37									
565.42		38									
564.42		39									
563.42		40									
562.42		41	13	SS	4.0	26	B	12			

Groundwater Data: Dry after auger removal.  
 Comments:

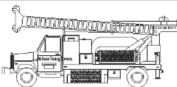


DESIGNED - IPN	REVISED -
CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**BORING LOGS**  
**STRUCTURE NO. 006-7600**  
 STRUCTURAL SHEET NO. 8 OF 9 SHEETS

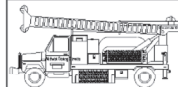
M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	13
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>3</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
	Client: <u>Willett Hofmann &amp; Associates, Inc.</u> Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u> Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u> <u>Bureau County; City of Princeton, IL</u>	Boring No. <u>B-2</u> Surface Elev. <u>603.42</u> Auger Depth <u>76.00</u> Rotary Depth <u>NA</u> Start Date <u>01/11/17</u> Finish Date <u>01/11/17</u>	

Location: 20+31 12' RT

(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 (%)		
561.42										Randy Safranski Diedrich D-120	
560.42			43								
559.42			44								
558.42			45	14	SS	5.0	50	B	11		
557.42			46								
556.42			47								
555.42			48								
554.42			49								
553.42			50	15	SS	5.0	55	B	11		
552.42			51								
551.42			52								
550.42	Hard Gray Silty Clay Till		53								
549.42			54								
548.42			55	16	SS	5.0	51	B	11		
547.42			56								
546.42			57								
545.42			58								
544.42			59								
543.42			60	17	SS	4.8	53	B	12		
542.42			61								
541.42			62								

Groundwater Data: Dry after auger removal.  
 Comments:

	<b>Midwest Testing Services, Inc.</b> 3705 Progress Blvd. Peru, IL 61354	<b>BORING LOG</b> Sheet <u>4</u> of <u>4</u>	Phone: 815-223-6696 Fax: 815-223-6659 e-mail: mts37@comcast.net
	Client: <u>Willett Hofmann &amp; Associates, Inc.</u> Project Name: <u>Bridge carrying Epperson Rd. over Epperson Run Creek</u> Project Site: <u>15-00253-00-BR Existing S.N. 006-4286 Proposed S.N. 006-7600</u> <u>Bureau County; City of Princeton, IL</u>	Boring No. <u>B-2</u> Surface Elev. <u>603.42</u> Auger Depth <u>76.00</u> Rotary Depth <u>NA</u> Start Date <u>01/11/17</u> Finish Date <u>01/11/17</u>	

Location: 20+31 12' RT

(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 (%)		
540.42										Randy Safranski Diedrich D-120	
539.42			64								
538.42			65	18	SS	5.0	59	B	11		
537.42			66								
536.42	Hard Gray Silty Clay Till		67								
535.42			68								
534.42			69								
533.42			70	19	SS	5.0	60	B	11		
532.42			71								
531.42			72								
530.42			73								
529.42			74								
528.42			75	20	SS	4.6	49	B	11		
527.42			76								
526.42	Bottom of Boring		77								
525.42			78								
524.42			79								
523.42			80								
522.42			81								
521.42			82								
520.42			83								

Groundwater Data: Dry after auger removal.  
 Comments:



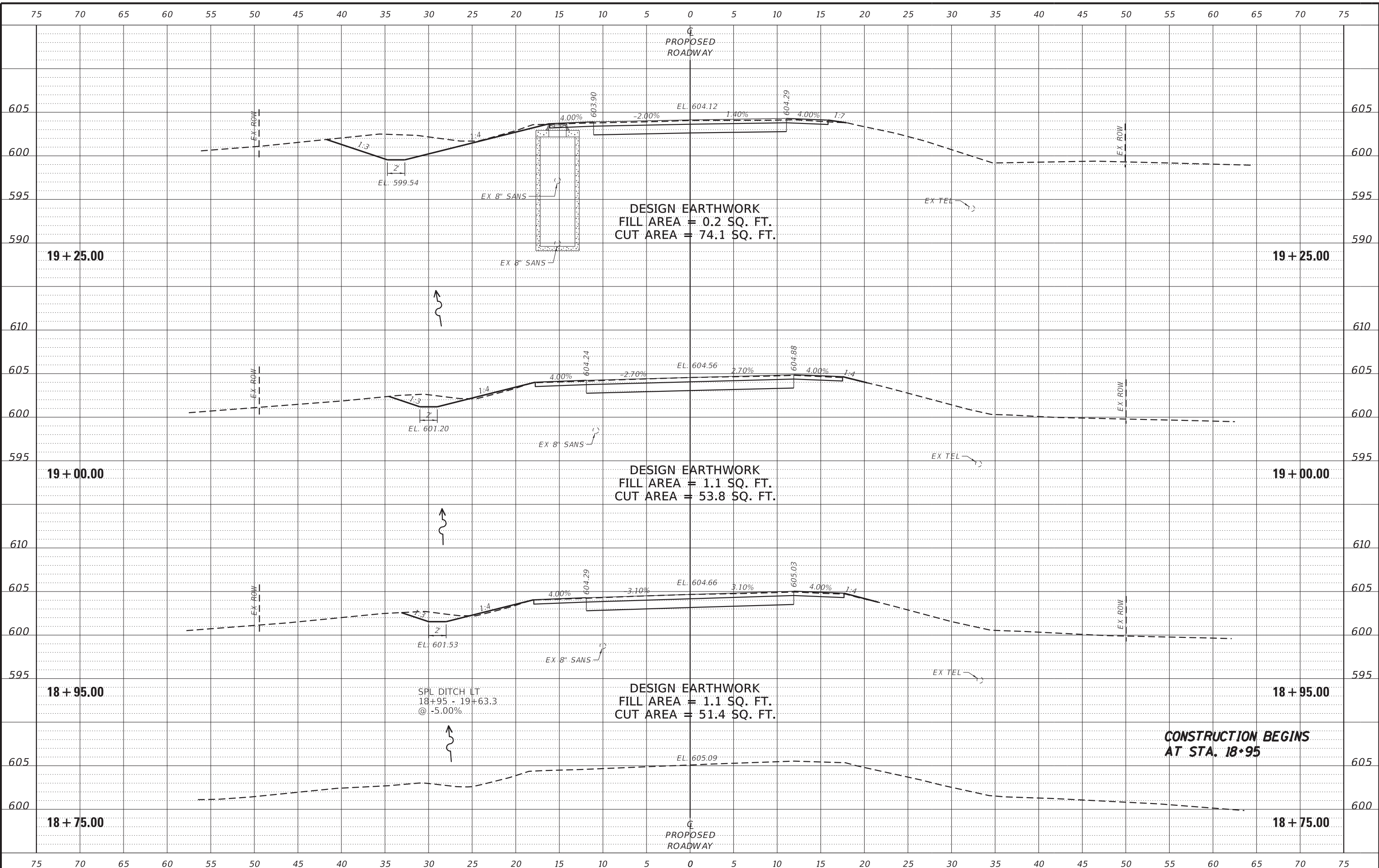
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DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**BORING LOGS**  
**STRUCTURE NO. 006-7600**  
 STRUCTURAL SHEET NO. 9 OF 9 SHEETS

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	14
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

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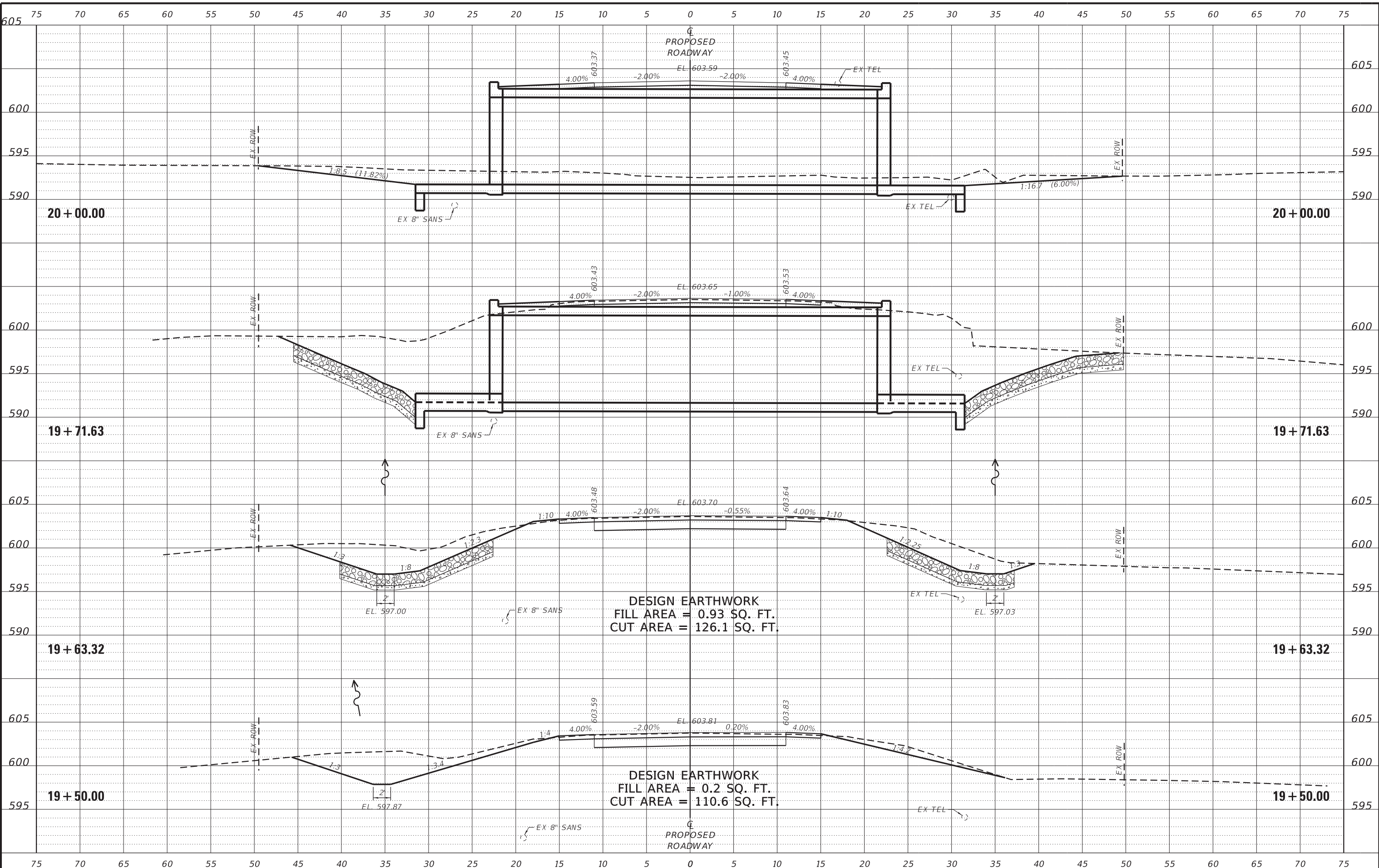
**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**CROSS SECTIONS**  
 SCALE: 1" = 5'-0"  
 SHEET NO. 1 OF 4 SHEETS  
 STA. 18+75.00 TO STA. 19+25.00

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	15
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

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DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**CROSS SECTIONS**

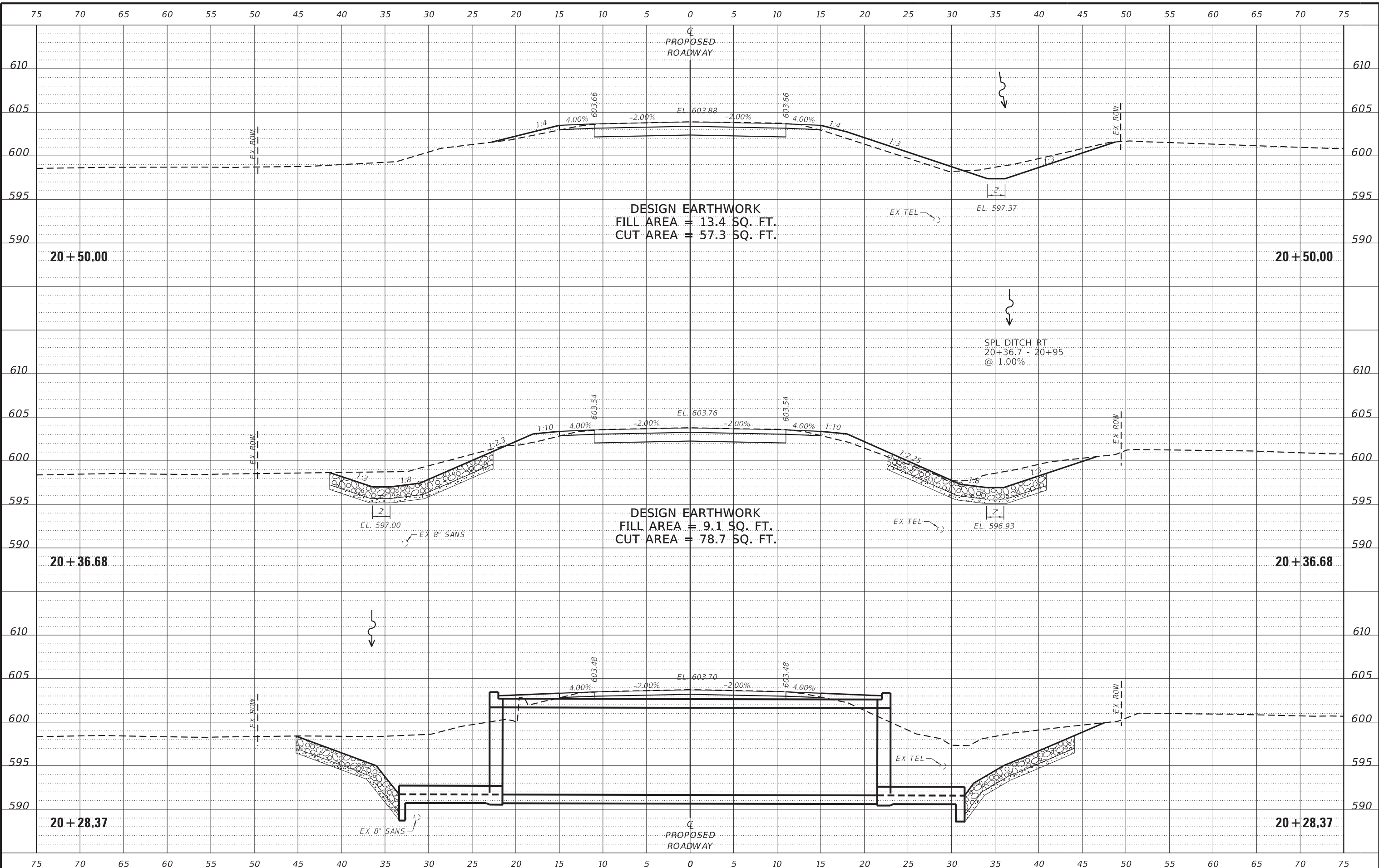
SCALE: 1" = 5'-0"  
 SHEET NO. 2 OF 4 SHEETS  
 STA. 19+50.00 TO STA. 20+00.00

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	16
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

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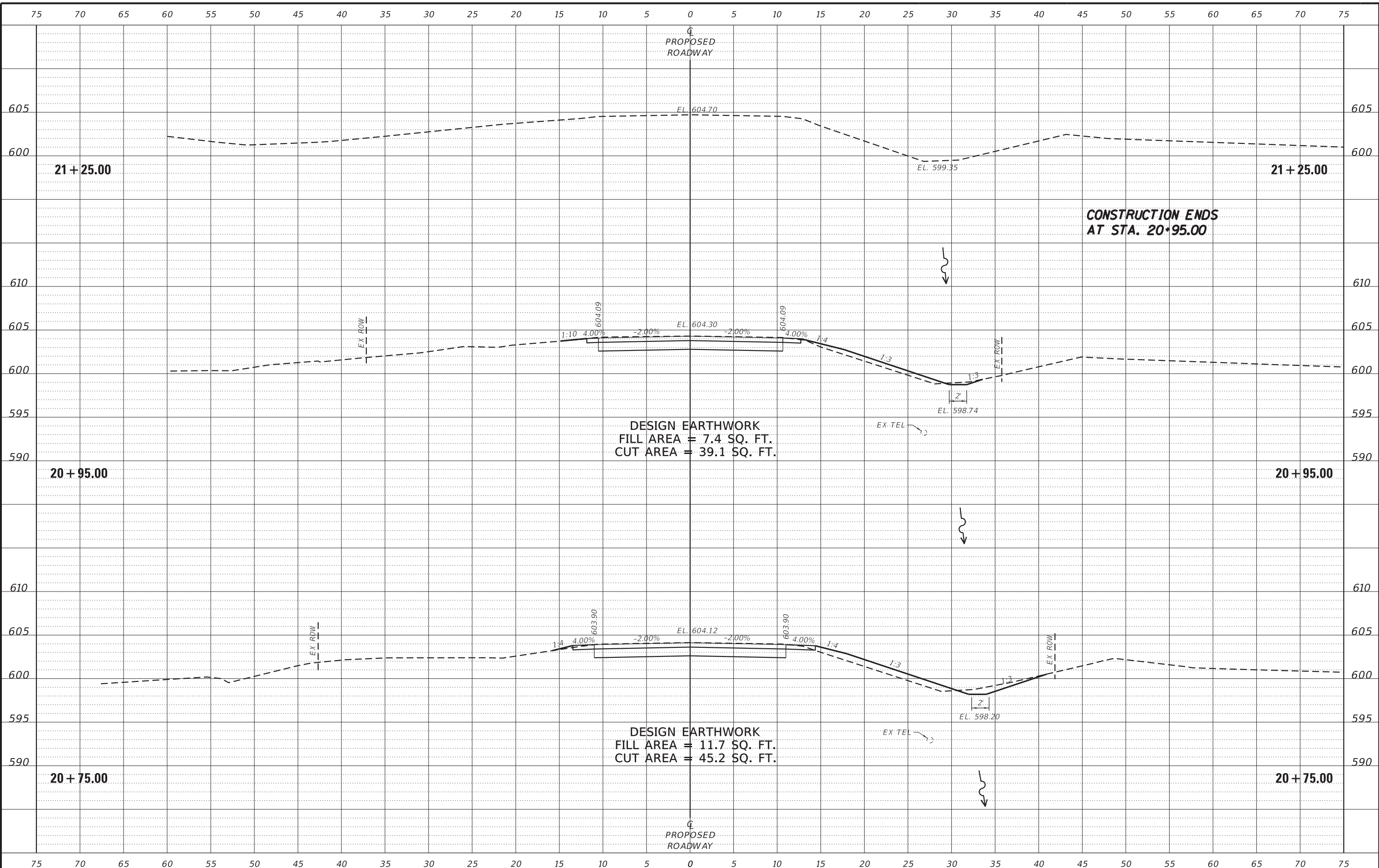
**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**CROSS SECTIONS**  
 SCALE: 1" = 5'-0"  
 SHEET NO. 3 OF 4 SHEETS  
 STA. 20+28.37 TO STA. 20+50.00

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	17
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

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CHECKED - BKC	REVISED -
DRAWN - FDL	REVISED -
CHECKED - IPN	REVISED -

**CITY OF PRINCETON**  
**M.S. 1114 (W. EPPERSON RD.) OVER EPPERSON RUN CK.**  
**STATION 20+00**

**CROSS SECTIONS**

SCALE: 1" = 5'-0"    SHEET NO. 4 OF 4 SHEETS    STA. 20+75.00 TO STA. 21+25.00

M.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1114	15-00253-00-BR	BUREAU	18	18
WHA# 1347D14		CONTRACT NO. 87719		
ILLINOIS FED. AID PROJECT C9EL(828)				

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