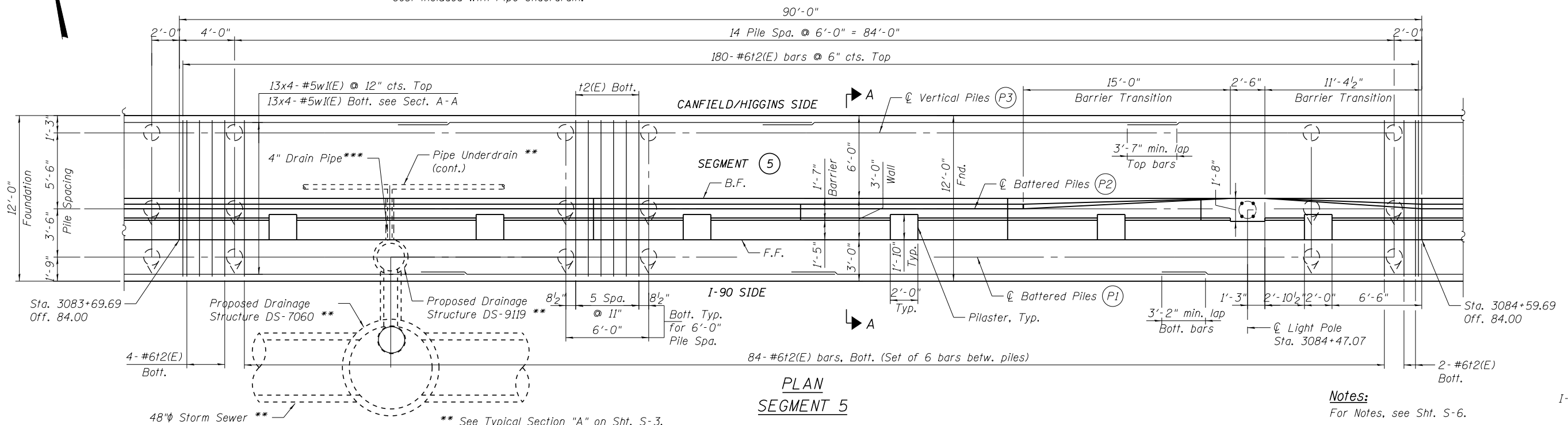


* Space to maintain 2" cl. min. from Barrier Joints

PILE DATA
See Sht. S-7.

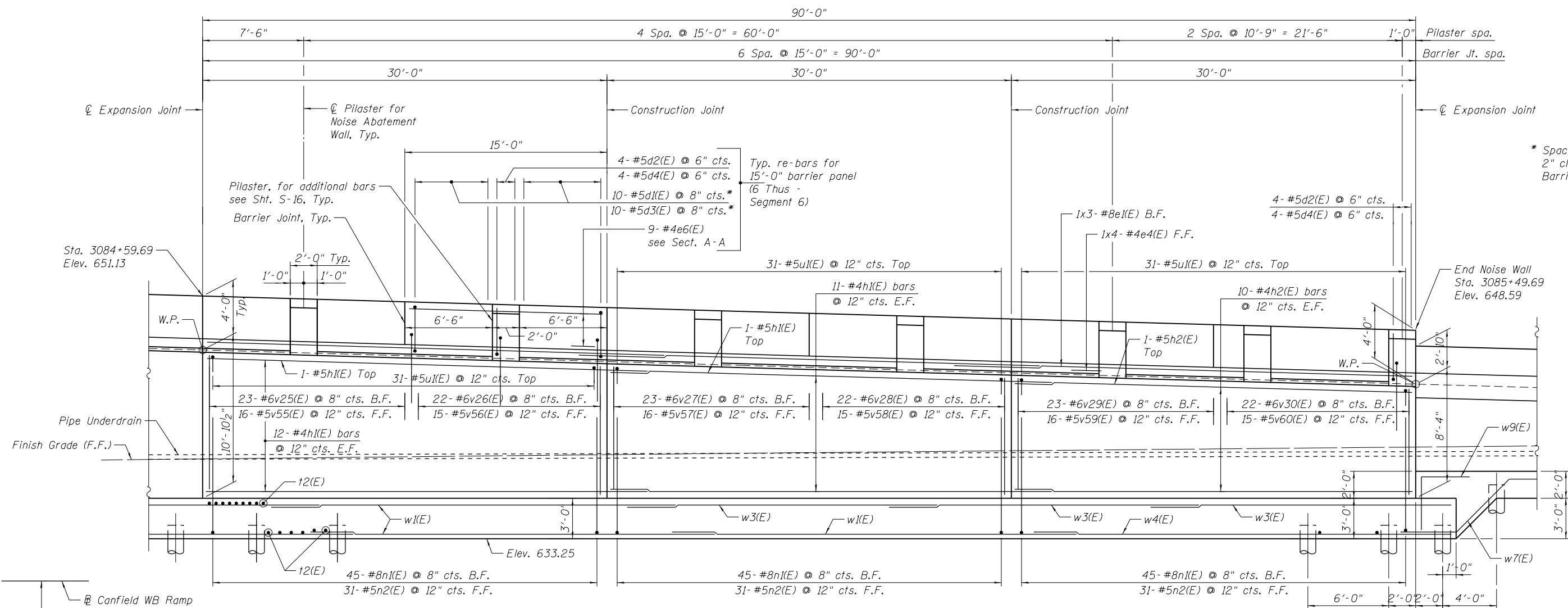
Canfield WB Ramp & Prop. EOP



Notes:
For Notes, see Sht. S-6.

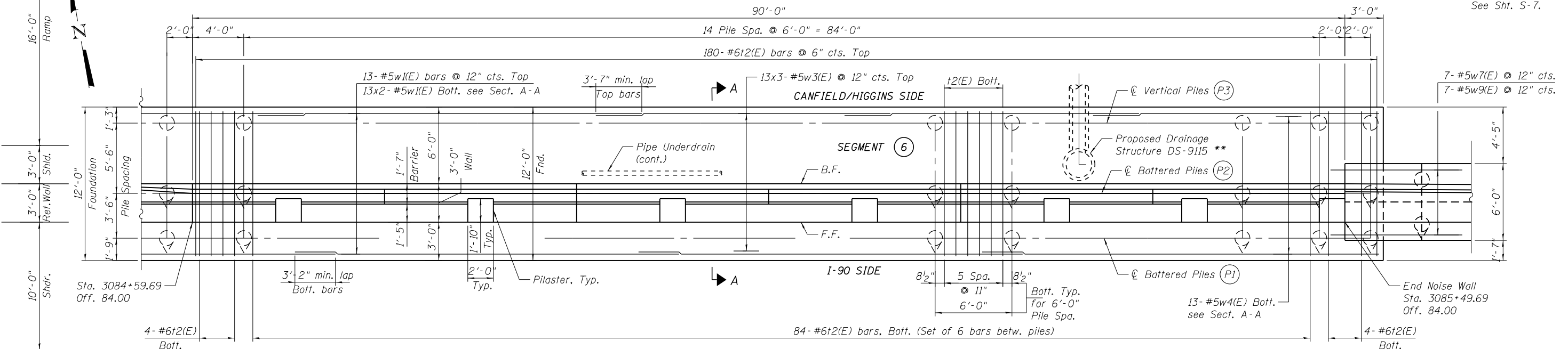
exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME : *USER*	DESIGNED STD	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL WB-3 SN 016-2289 PLAN & ELEVATION - 6 OF 9 SHEET NO. S-11 OF 26 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : *SCALE*	CHECKED KK	REVISD -			I-90	(1517 & 1415) R-2	COOK	734	501
	PLOT DATE : *DATE*	DRAWN HBJ	REVISD -			CONTRACT NO. 60Y39				
		DATE 01/19/2018	REVISD -			ILLINOIS FED. AID PROJECT				

FILE NAME = #FILE#



ELEVATION

PILE DATA
See Sht. S-7.



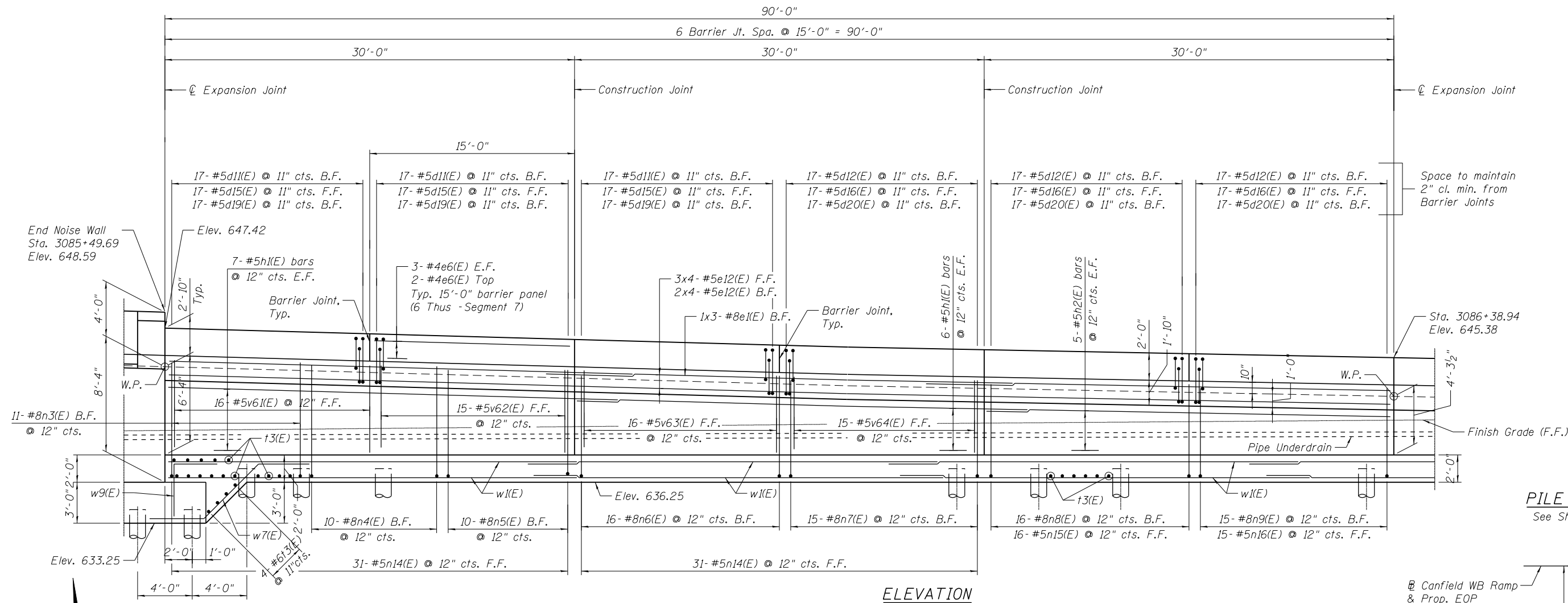
PLAN SEGMENT 6

Notes:
For Notes, see Sht. S-6.

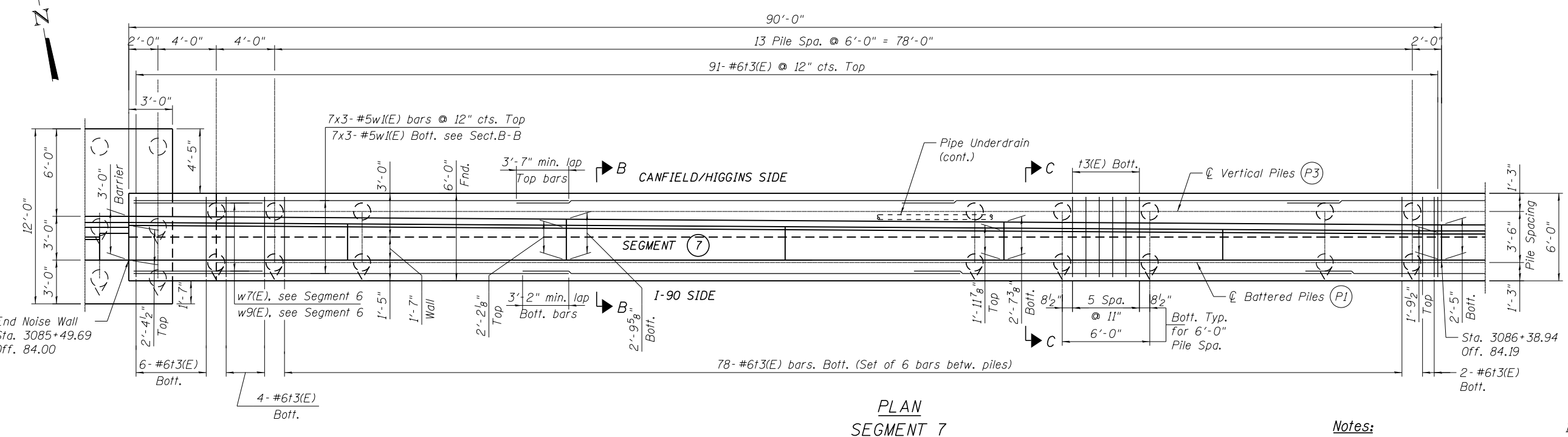
** See Typical Section "A" on Sht. S-3.

USER NAME : *USER*	DESIGNED STD	REVISED -
CHECKED KK	REVISOR	REVISOR
DRAWN HBJ	REVISOR	REVISOR
DATE 01/19/2018	REVISOR	REVISOR

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	502
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



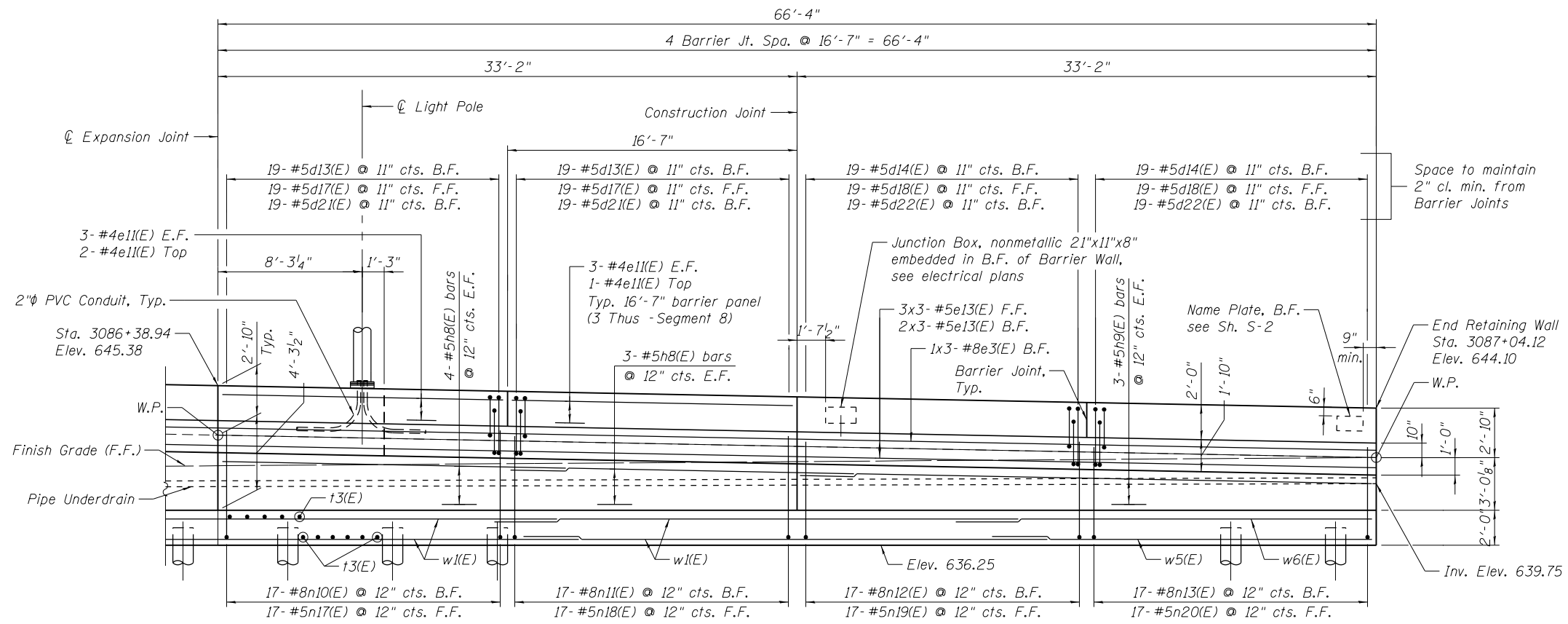
PILE DATA
See Sht. S-7.



Notes:
For Notes, see Sht. S-6.

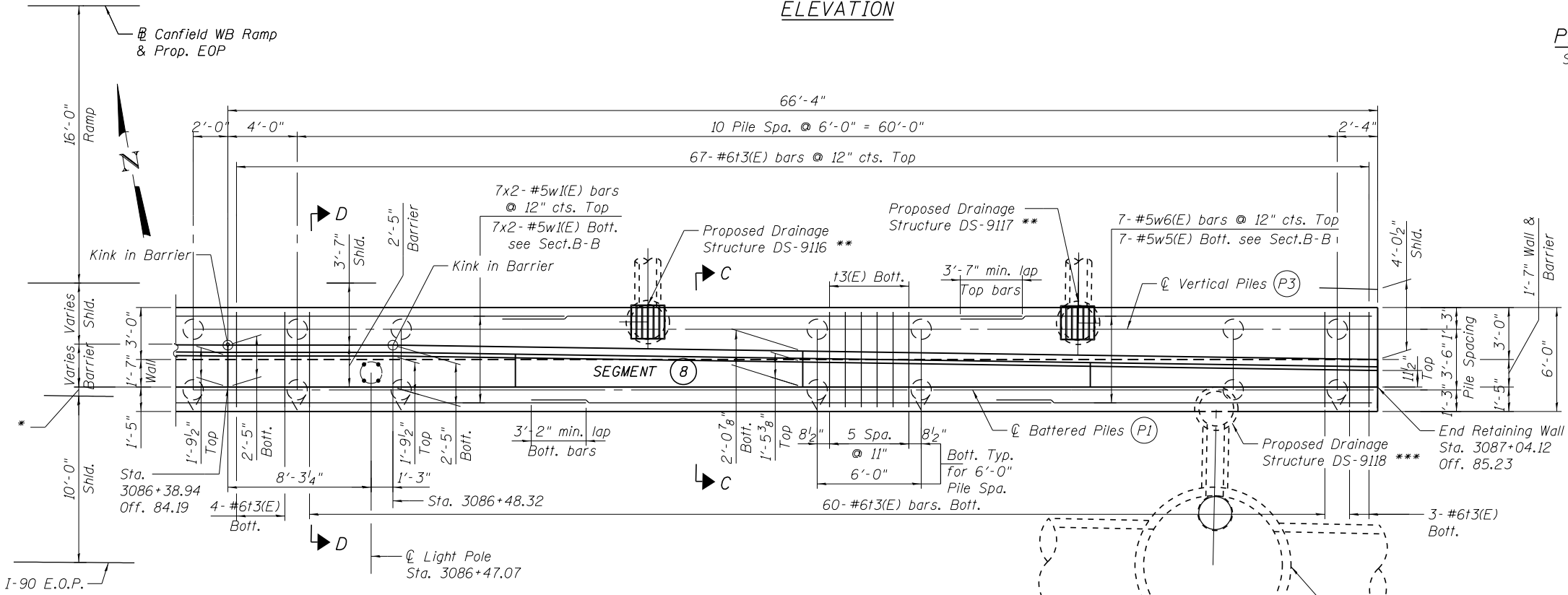
exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME : *USER*	DESIGNED STD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL WB-3 SN 016-2289 PLAN & ELEVATION - 8 OF 9 SHEET NO. S-13 OF 26 SHEETS	F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE : *SCALE*	DRAWN HBJ	REVISED -			I-90	(1517 & 1415) R-2	COOK	734	503		
	PLOT DATE : *DATE*	DATE 01/19/2018	REVISED -			CONTRACT NO. 60Y39		ILLINOIS FED. AID PROJECT				

FILE NAME = #FILE#



ELEVATION

PILE DATA
See Sht. S-7.

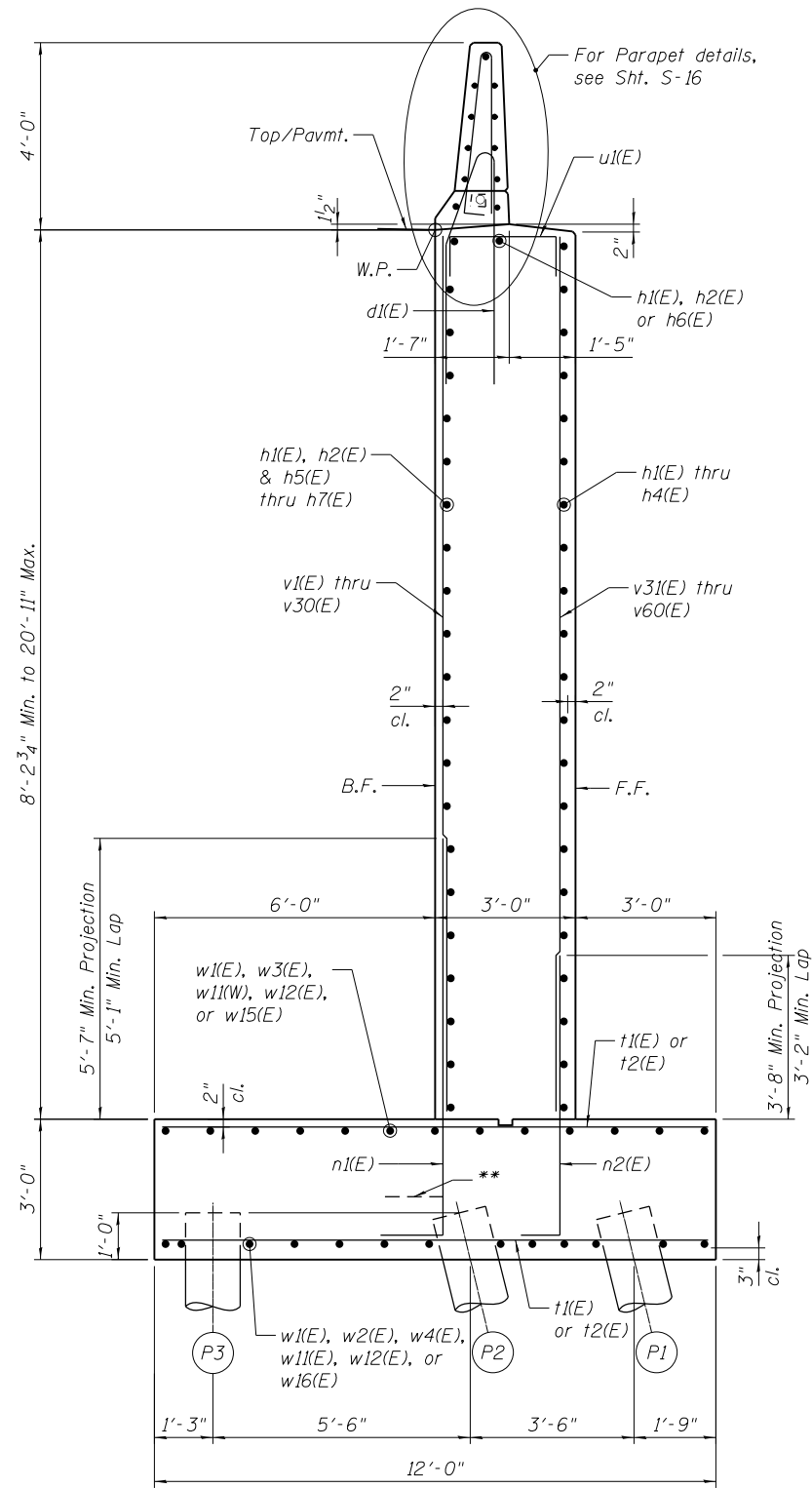


PLAN
SEGMENT 8

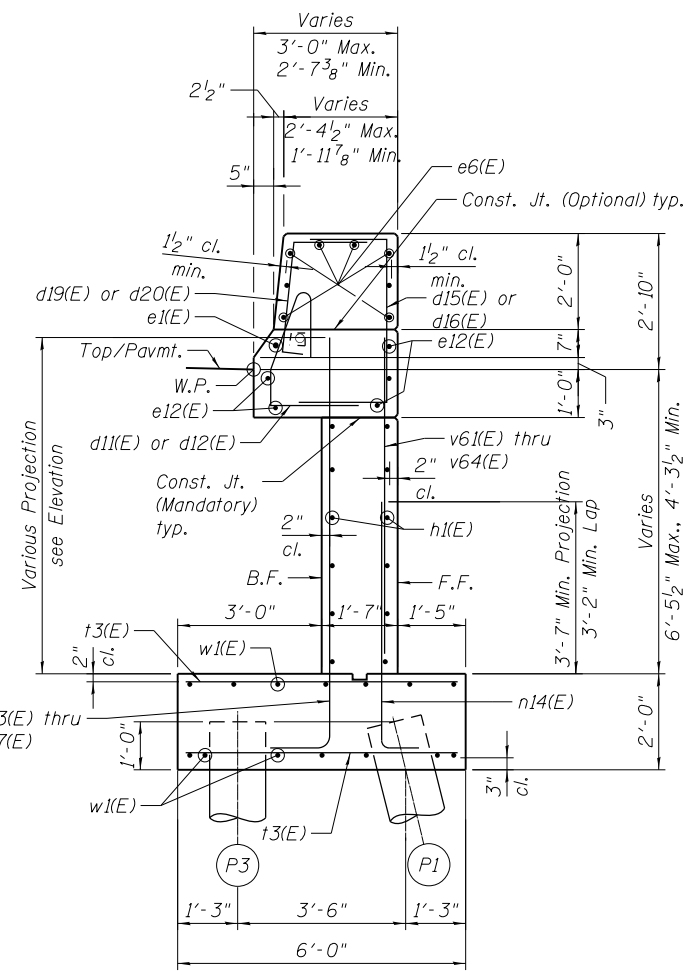
Notes:
For Notes, see Sht. S-6.

USER NAME : #USER*	DESIGNED STD	REVISED -
PLOT SCALE : #SCALE*	CHECKED KK	REVISED -
PLOT DATE : #DATE*	DRAWN HBJ	REVISED -
	DATE 01/19/2018	REVISED -

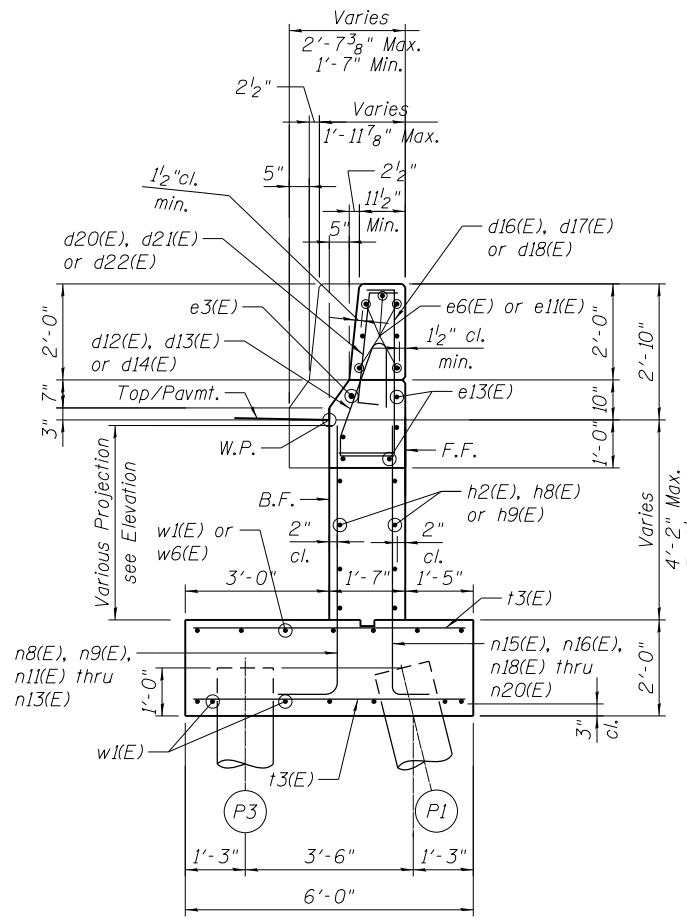
F.A.I R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	504
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



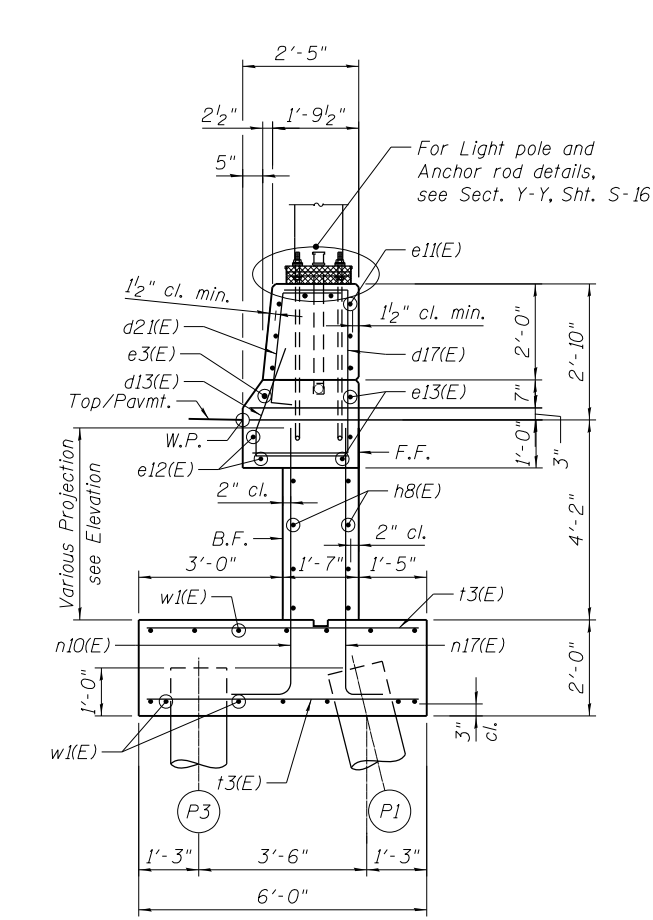
SECTION A-A
(Sta. 3080+50.67 to Sta. 3085+49.69)



SECTION B-B

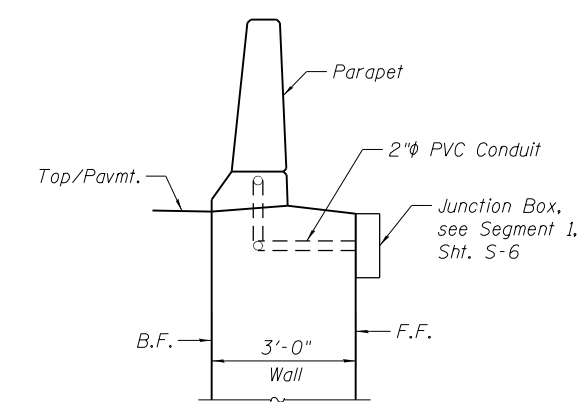


SECTION C-C



SECTION D-D
AT LIGHT POLE IN SEGMENT 8
(Sta. 3086+38.94 to Sta. 3086+48.32)

** Raise the dowel bars at locations where they coincide with piles



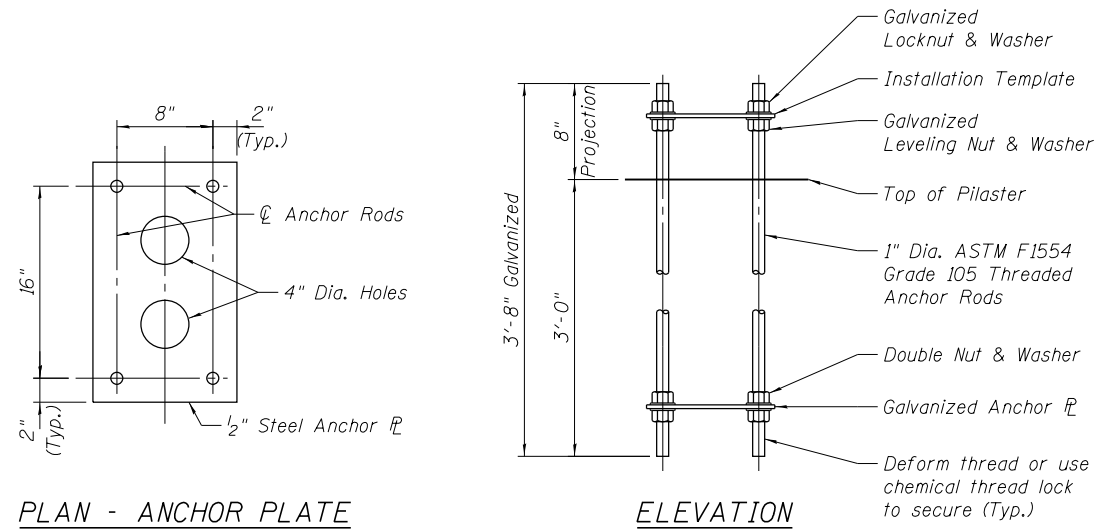
DETAIL "E"

Notes:

1. For Bar List, see Sht. S-19.
2. All edges shall have 3/4" chamfer, U.N.O.
3. B.F. indicates Back Face
F.F. indicates Front Face

USER NAME = #USER#	DESIGNED STD	REVISED -
CHECKED KK	REVISIONS -	
PLOT SCALE = #SCALE#	DRAWN STD/HBJ	REVISED -
PLOT DATE = #DATE#	DATE 01/19/2018	REVISED -

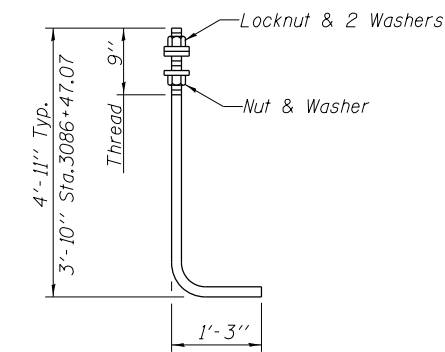
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	505
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



PLAN - ANCHOR PLATE

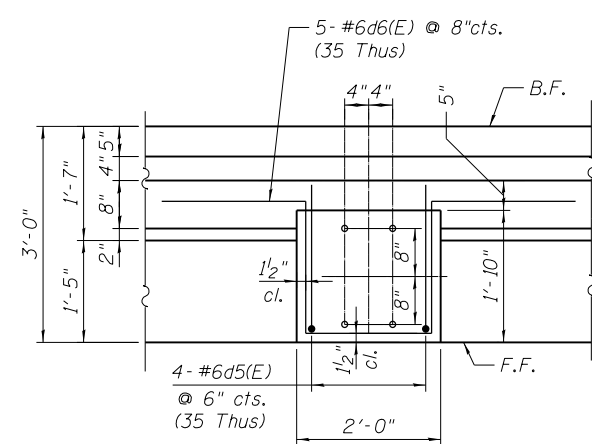
ELEVATION

ANCHOR ROD ASSEMBLY FOR NOISE WALL

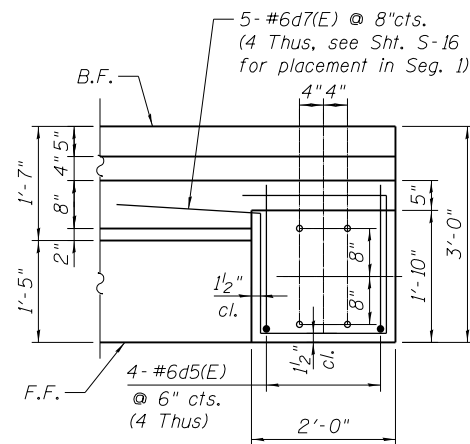


ANCHOR ROD FOR LIGHT POLE **

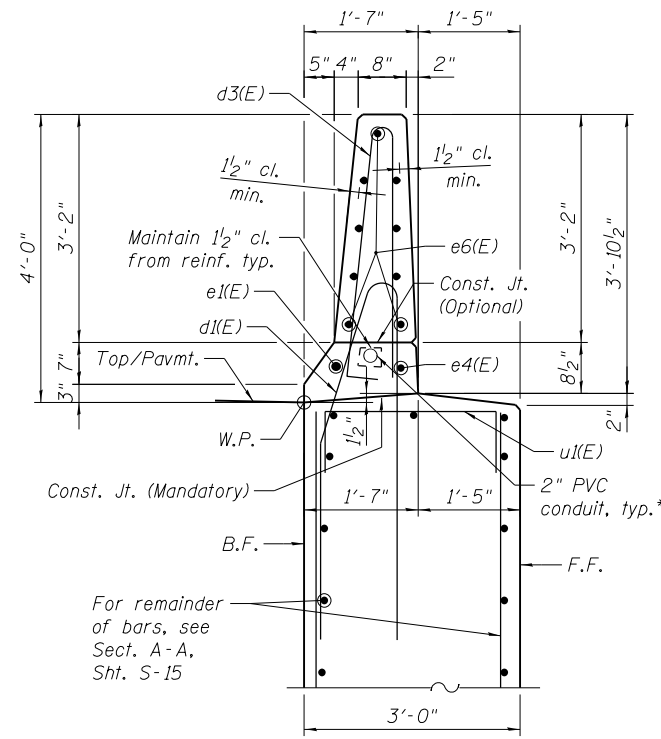
Diameter as specified for light poles. (ASTM F 1554 Grade 105) Full length hot dipped galvanized



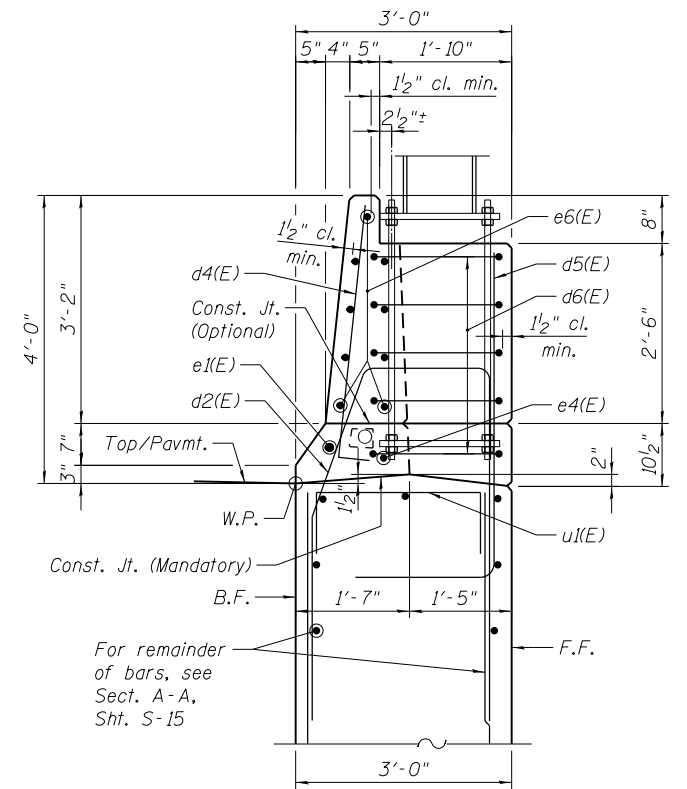
PLAN AT TYPICAL PILASTER



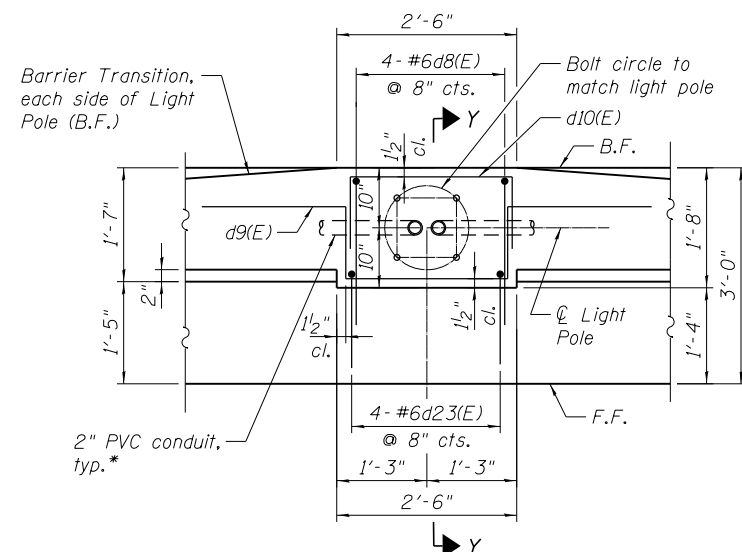
PLAN AT PILASTER-SEGMENT 6 AT PILASTER-SEGMENT 1 SIMILAR



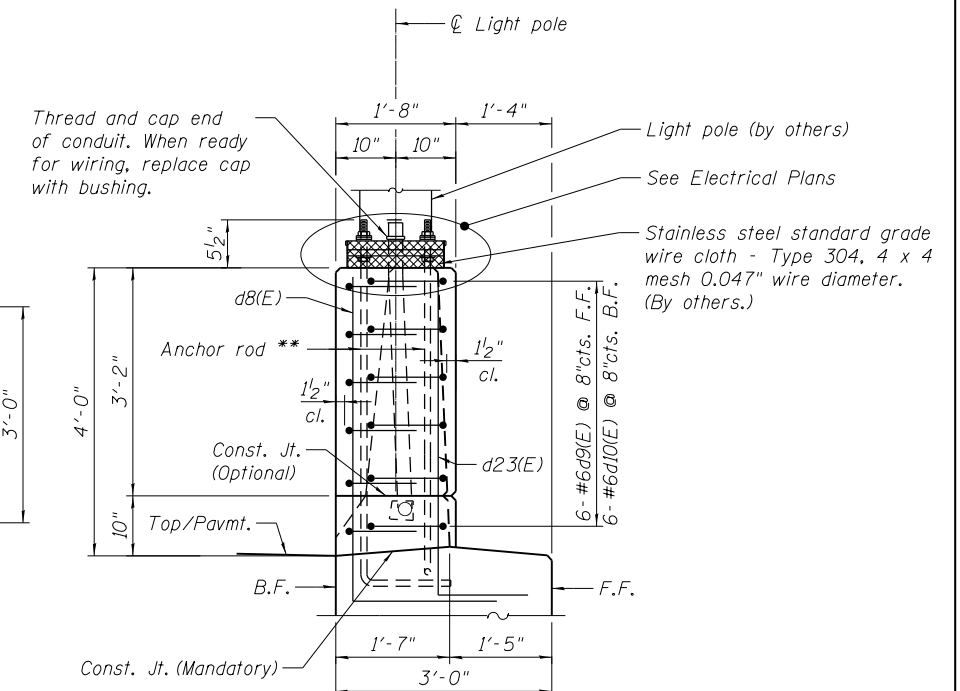
PARAPET DETAIL BETWEEN NOISE WALL PILASTERS



PARAPET DETAIL AT NOISE WALL PILASTER



PLAN AT LIGHT POLE SEGMENT 3 - SHOWN SEGMENTS 1 & 5 - SIMILAR



SECTION Y-Y AT LIGHT POLE IN SEGMENTS 1, 3 & 5

* Refer to Electrical Plans for pay item and quantity, typical.

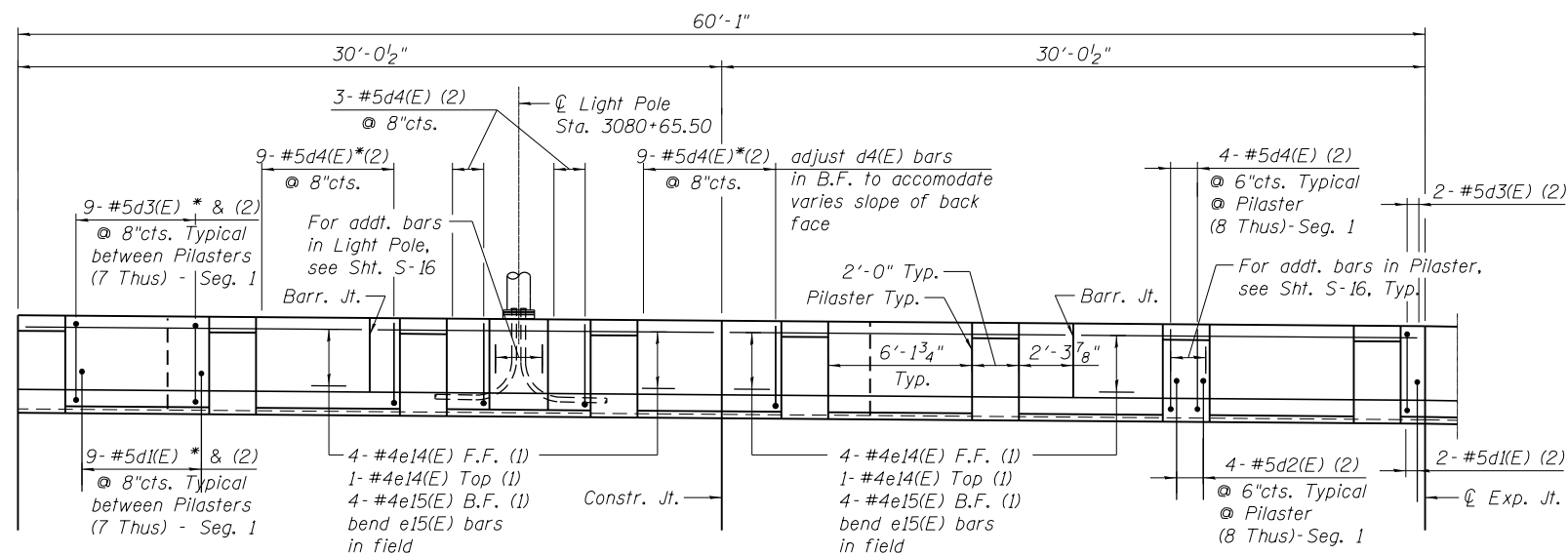
** Anchor rods (Dia. as specified for light pole) Provide 3 flat washers, 1 regular nut & 1 locknut for each rod. See detail "Anchor Rod for Light Pole". Cost of Anchor Rod is included with Concrete Superstructure.

Notes:

1. For Bar List, see Sht. S-19
2. All edges shall have 3/4 inch chamfer, U.N.O.
3. W.P. denotes working point.

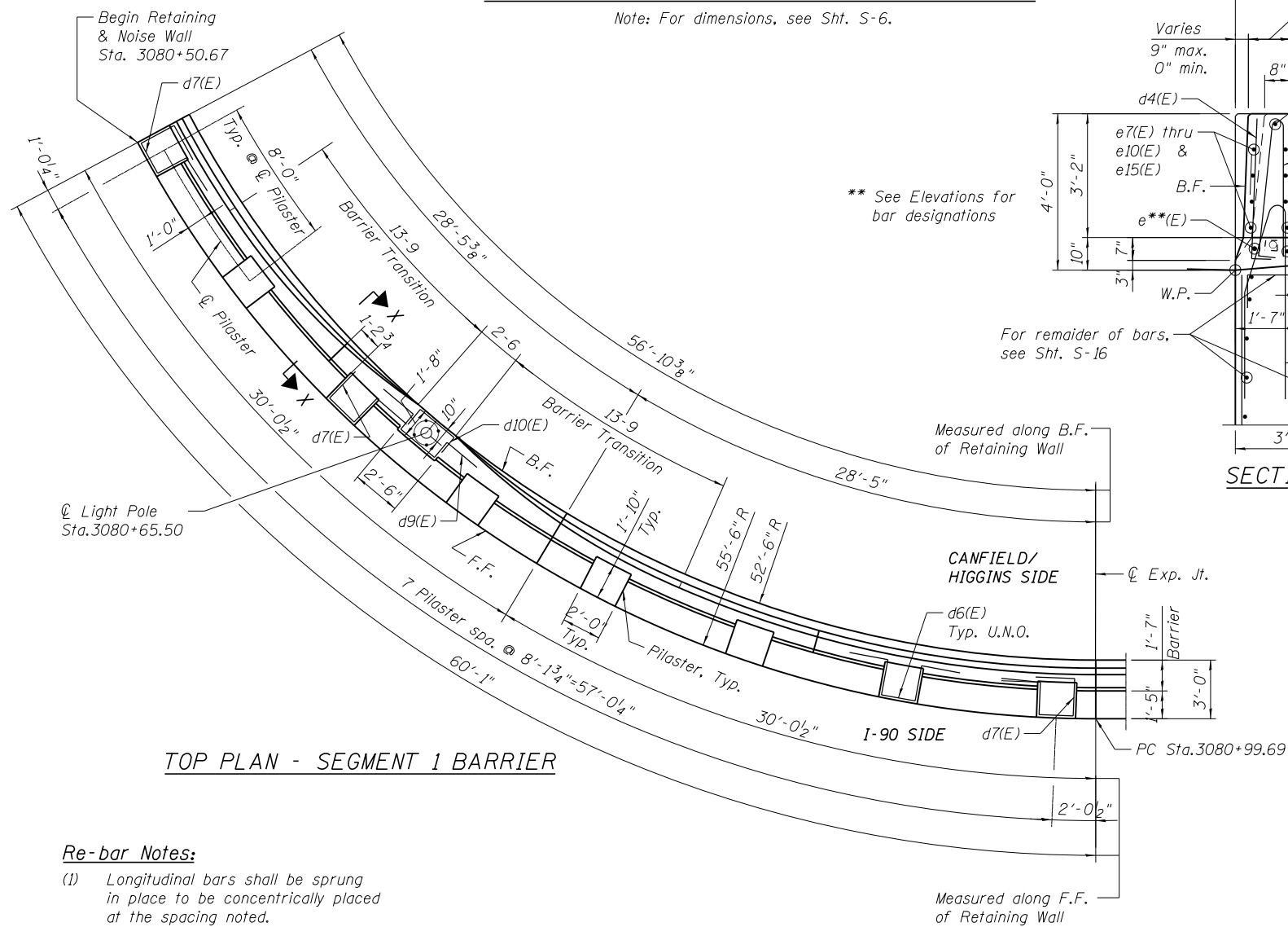
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PLOT SCALE = *SCALE*	CHECKED KK	REVISED -
PLOT DATE = *DATE*	DRAWN STD/HBJ	REVISED -
	DATE 01/19/2018	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	506
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



DEVELOPED ELEVATION - SEGMENT 1 BARRIER

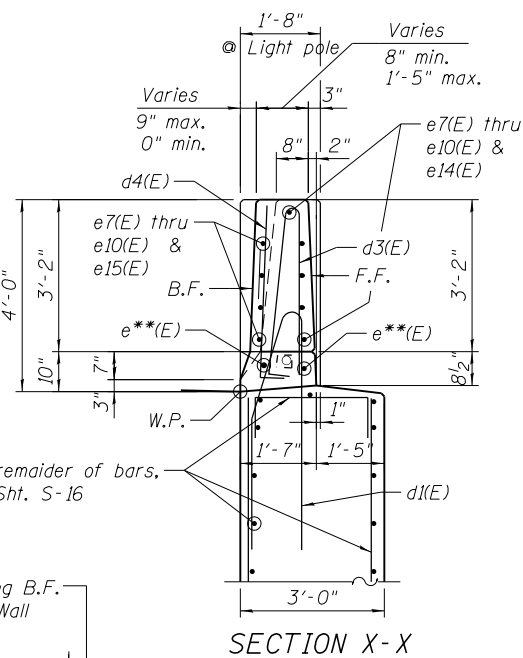
Note: For dimensions, see Sht. S-6.



TOP PLAN - SEGMENT 1 BARRIER

Re-bar Notes:

- (1) Longitudinal bars shall be sprung in place to be concentrically placed at the spacing noted.
- (2) Transverse bars shall be placed radially at the spacing noted.

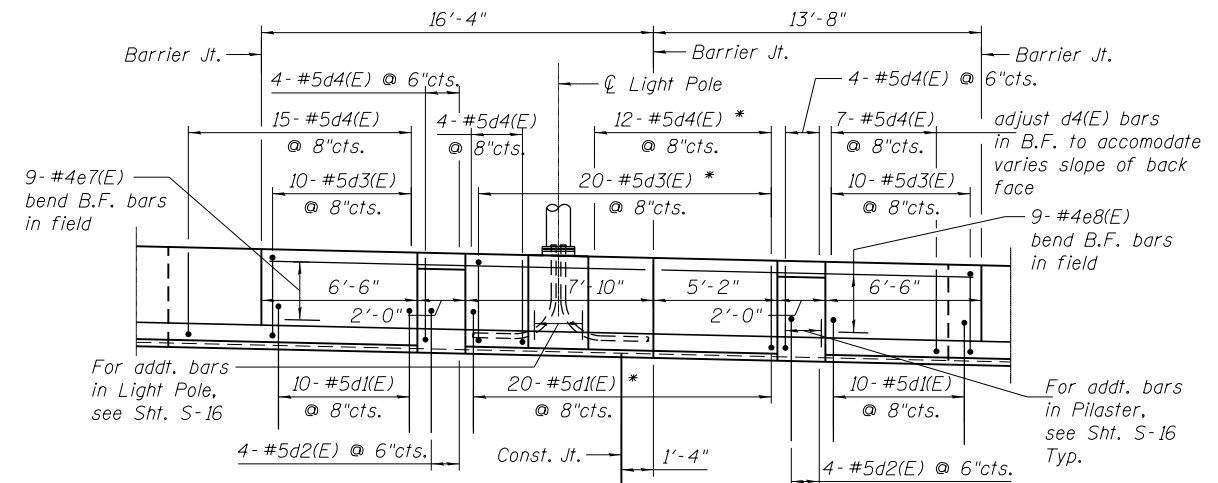


SECTION X-X

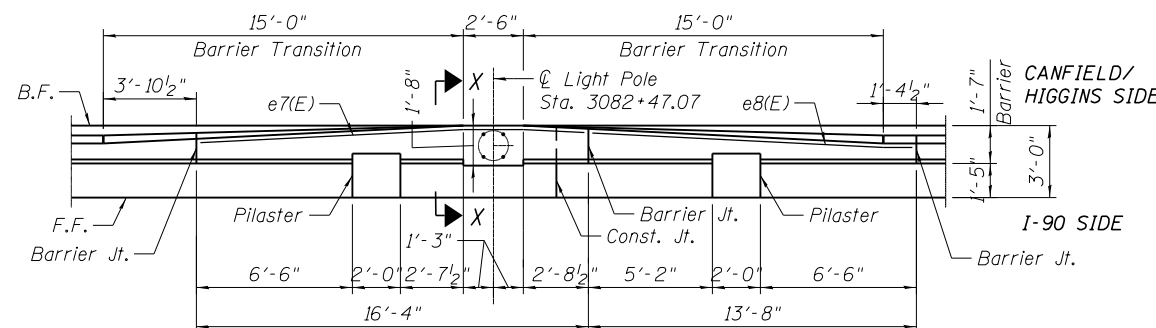
* Space bars to maintain 2" cl. min. from Barrier or Const. Joints

Notes:

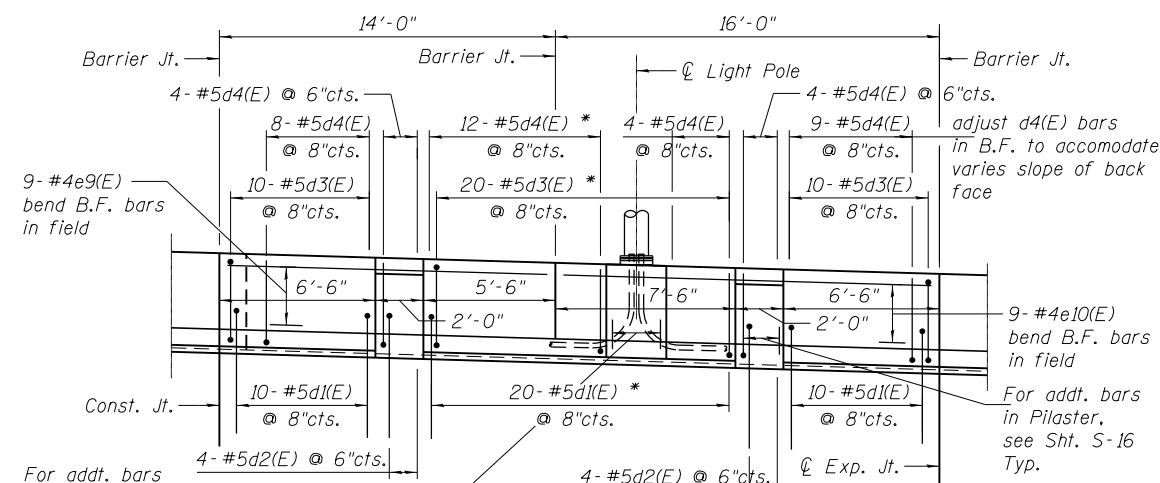
For Notes, see Sht. S-6.



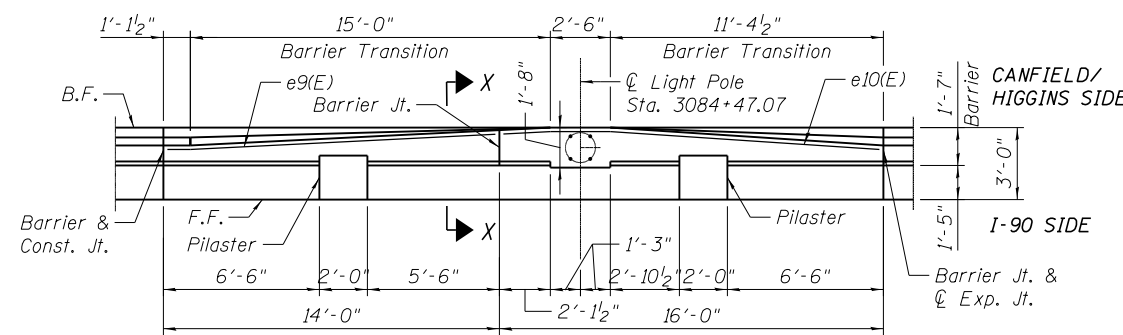
ELEVATION - SEGMENT 3 BARRIER



TOP PLAN - SEGMENT 3 BARRIER



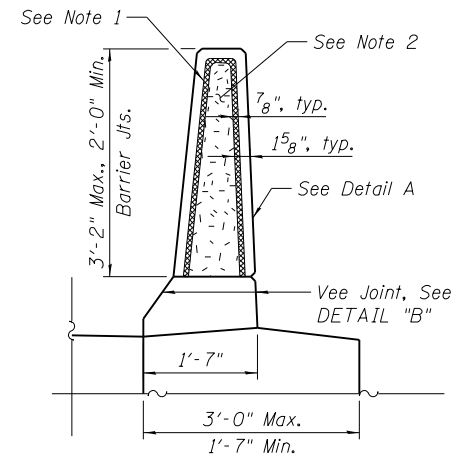
ELEVATION - SEGMENT 5 BARRIER



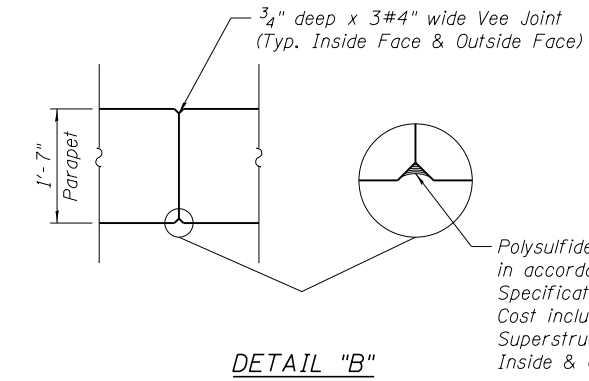
TOP PLAN - SEGMENT 5 BARRIER

USER NAME : *USER*	DESIGNED STD	REVISED -
CHECKED KK	REVISOR	REVISED -
PLOT SCALE : *SCALE*	DRAWN HBJ	REVISED -
PLOT DATE : *DATE*	DATE 01/19/2018	REVISED -

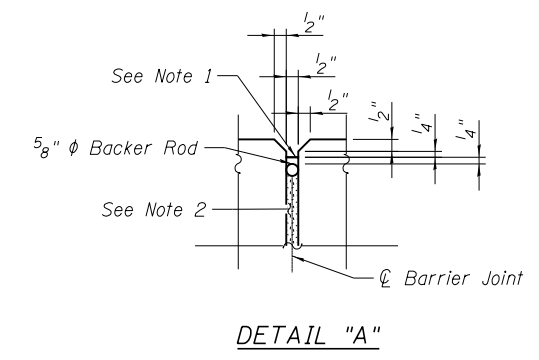
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	507
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



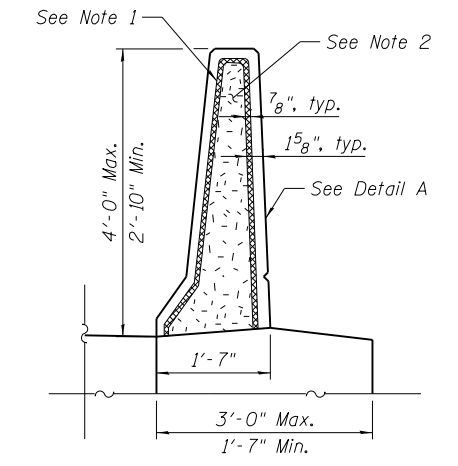
BARRIER JOINT
(in between expansion joints)



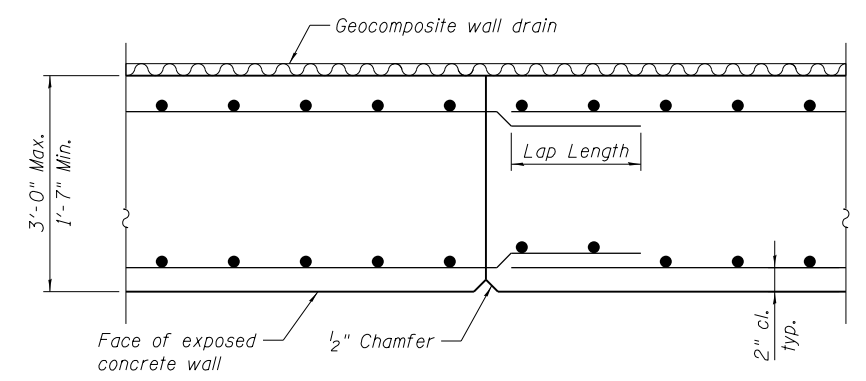
DETAIL "B"



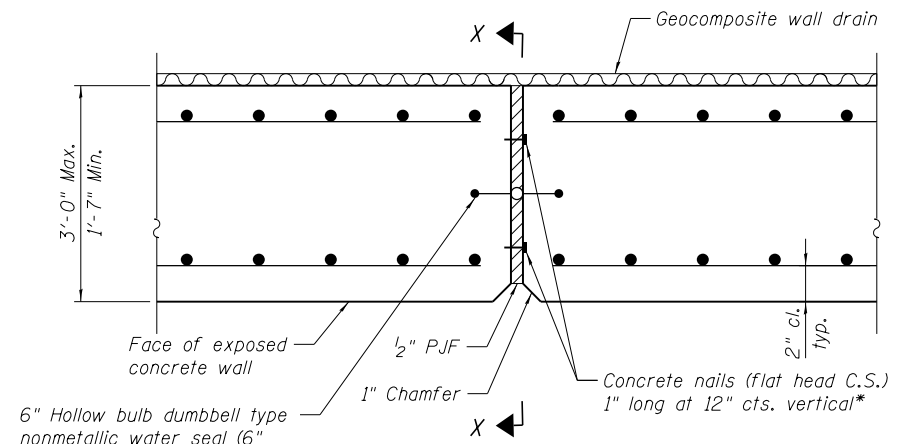
DETAIL "A"



SECTION X-X
(at expansion joints)

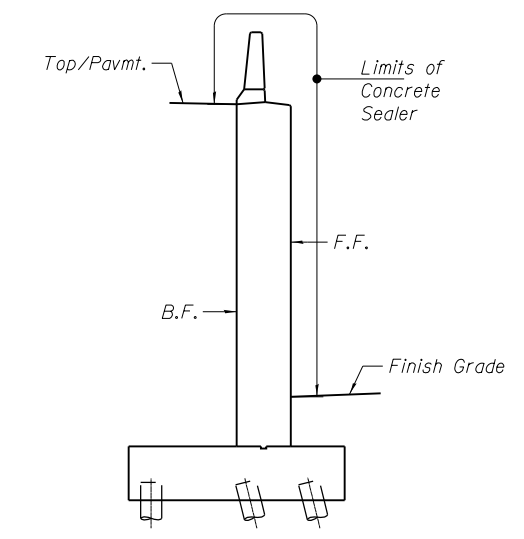


CONSTRUCTION JOINT
(Retaining wall stem)



EXPANSION JOINT
(Retaining wall stem)

RETAINING WALL JOINT DETAILS



LIMITS OF CONCRETE SEALER

- Notes:**
1. Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, use T with a backer rod.
 2. Performed Self-Expanding Cork Joint Filler according to Article 1051.07 of Std. Spec.

* Cost to be included with Concrete Structures

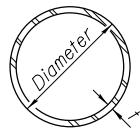


USER NAME = *USER*	DESIGNED STD	REVISED -
	CHECKED KK	REVISED -
PLOT SCALE = *SCALE*	DRAWN STD	REVISED -
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

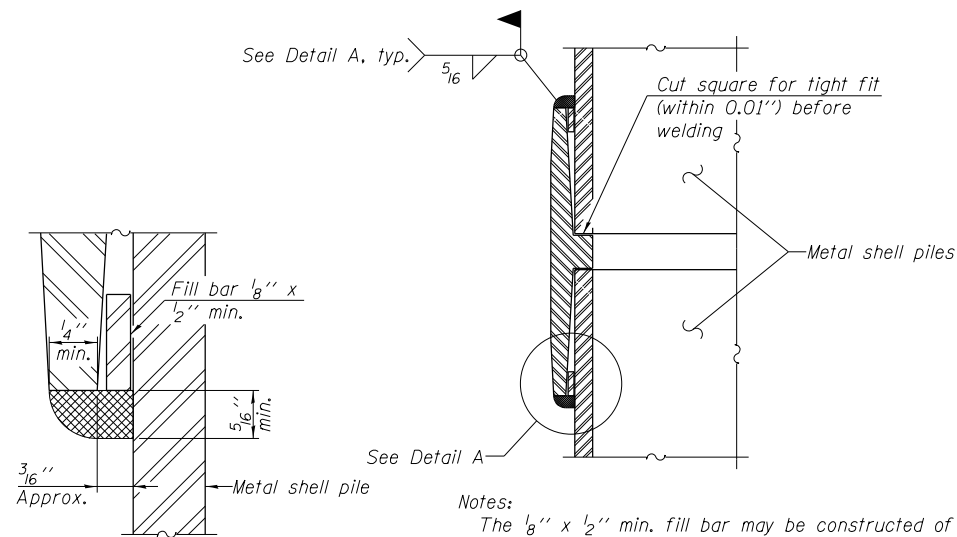
**RETAINING WALL WB-3
SN 016-2289
SECTION & DETAILS - 4 OF 4**
SHEET NO.S-18 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	508
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60Y39	



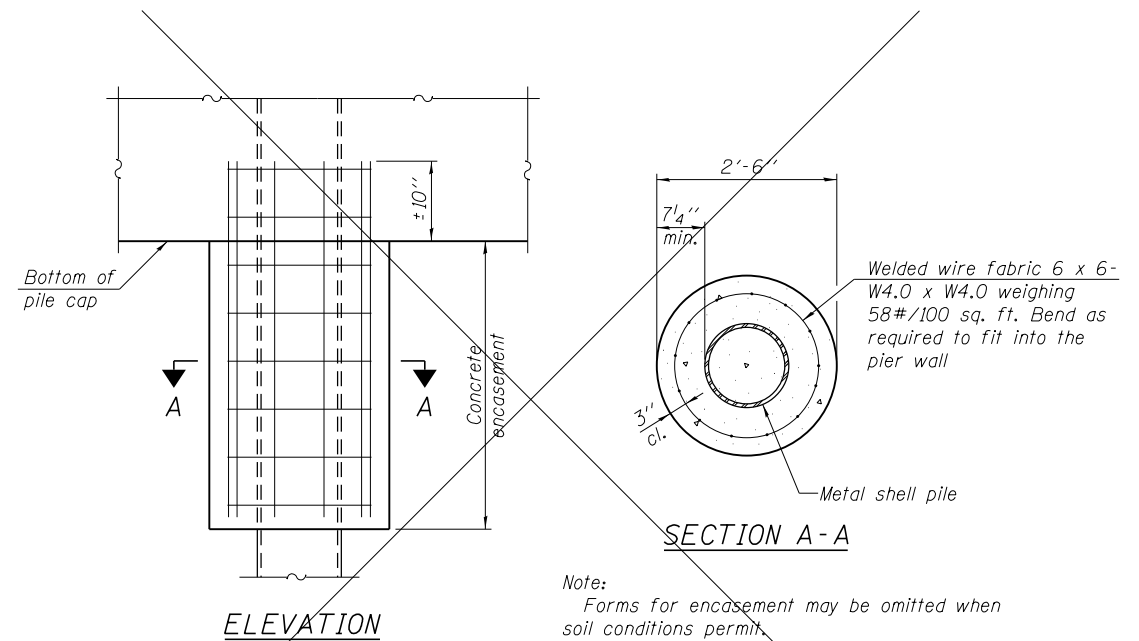
METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

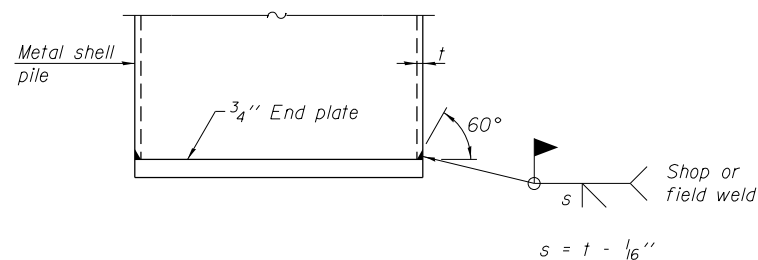


Notes:
 The $\frac{1}{8}$ " x $\frac{1}{2}$ " min. fill bar may be constructed of 2 bars with a $\frac{1}{8}$ " max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

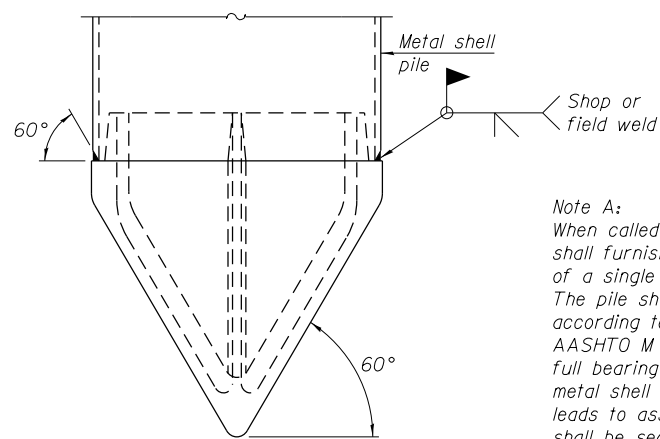
WELDED COMMERCIAL SPLICE



CONCRETE ENCASEMENT AT PIERS



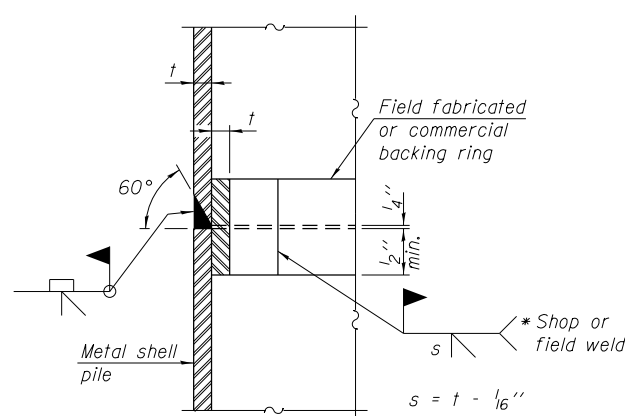
END PLATE ATTACHMENT



Note A:
 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 90-60 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.

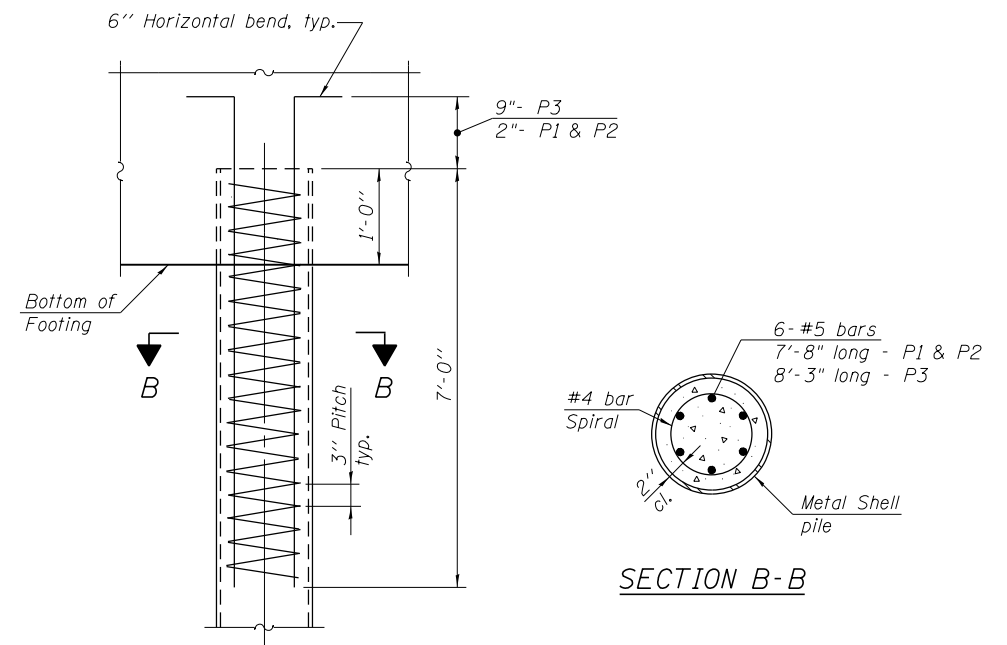
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)



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

METAL SHELL REINFORCEMENT AT FOOTING

Notes:
 1. The metal shell piles shall be according to ASTM A 252 Grade 3.
 2. Cost of Concrete Filling and Reinforcement for Metal Shell Piles is included in Furnishing Metal Shell Piles 14" x 0.25" pay item.

F-MS 1-27-12

exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED SD	REVISED -
CHECKED KK	REVISED -	
PLOT SCALE = *SCALE*	DRAWN SD	REVISED -
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-3
 SN 016-2289
 METAL SHELL PILE DETAILS
 SHEET NO.S-20 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	510
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

GSI Job No. 12245

Page 1 of 2

Date 11/13/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	B	U	M	Surface Water Elev.	DEPTH	B	U	M
Station	ft	(/6")	(tsf)	(%)	ft	ft	(/6")	(tsf)	(%)
					n/a				
					n/a				
BORING NO. RWB-15					Groundwater Elev.:				
Station 3080+61					First Encounter Dry To -10.0' ft				
Offset 66.90ft Left					Upon Completion n/a ft				
Ground Surface Elev. 637.50					After Hrs. ft				
8.0" ASPHALT, 4.0" CRUSHED STONE	636.50				CLAY to CLAY LOAM-gray-stiff to very stiff (continued)				
CLAY LOAM-gray-very stiff (Possible Fill)		4				4			
		5	3.0	16		5	1.9	19	
		7	P			9	B		
CLAY-gray-stiff	634.50								
		3				4			
		4	1.8	20		6	1.5	17	
		5	B			8	B		
		-5				-25			
		4				3			
		7	1.9	20		4	1.0	17	
		8	B			5	P		
		4				4			
		6	1.9	18		7	1.4	23	
		7	B			9	B		
		-10				-30			
CLAY to CLAY LOAM-gray-stiff to very stiff	627.00								
		4				5			
		5	1.0	15		6	2.7	15	
		6	B			8	B		
		4				5			
		5	1.2	21		6	2.7	15	
		-15				-35			
		3				7			
		5	1.3	22		8	3.0	14	
		7	B			14	B		
		4				7			
		6	1.5	17		8	3.0	14	
		8	B			14	B		
		-20				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245

Page 2 of 2

Date 11/13/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	B	U	M	Surface Water Elev.	DEPTH	B	U	M
Station	ft	(/6")	(tsf)	(%)	ft	ft	(/6")	(tsf)	(%)
					n/a				
					n/a				
BORING NO. RWB-15					Groundwater Elev.:				
Station 3080+61					First Encounter Dry To -10.0' ft				
Offset 66.90ft Left					Upon Completion n/a ft				
Ground Surface Elev. 637.50					After Hrs. ft				
CLAY to CLAY LOAM-gray-stiff to very stiff (continued)									
						8			
		10	2.4	15		10	2.4	15	
		13	B			13	B		
		592.50				-45			
Enc Of Boring @ -45.0'. Boring backfilled with cuttings.									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245

Page 1 of 2

Date 11/13/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	B	U	M	Surface Water Elev.	DEPTH	B	U	M
Station	ft	(/6")	(tsf)	(%)	ft	ft	(/6")	(tsf)	(%)
					n/a				
					n/a				
BORING NO. RWB-16					Groundwater Elev.:				
Station 3081+24					First Encounter Dry To -10.0' ft				
Offset 67.00ft Left					Upon Completion n/a ft				
Ground Surface Elev. 637.90					After Hrs. ft				
8.0" ASPHALT, 4.0" CRUSHED STONE	636.90				CLAY to CLAY LOAM-gray-stiff (continued)				
CLAY-gray-very stiff		3				3			
		5				4	1.2	20	
		5	B			5	B		
		4				3			
		6	2.2	20		5	1.1	15	
		-5				-25			
		4				4			
		6	2.3	18		7	1.9	21	
		7	B			9	B		
		629.90							
COBBLES-dense		36				4			
		17	3			5	1.8	23	
		-10				-30			
		627.40							
SILTY CLAY LOAM-gray-medium dense		5				7			
		9				9			
		4				7			
		6	1.4	14		8			
		-15				-35			
		622.40							
CLAY to CLAY LOAM-gray-stiff		3				6			
		5	1.4	20		9	4.6	14	
		5	B			15	B		
		3				6			
		3	1.2	23		9	4.6	14	
		4	B			15	B		
		-20				-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



USER NAME = #USER*	DESIGNED KK	REVISED -
PLOT SCALE = #SCALE*	CHECKED EG	REVISED -
PLOT DATE = #DATE*	DRAWN EG	REVISED -
	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-3 SN 016-2289 BORING LOGS - 1 OF 6 SHEET NO. 21 OF 26 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	511
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



SOIL BORING LOG

GSI Job No. 12245 Page 2 of 2 Date 11/11/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

Table with columns: DEPTH, BULGE, UCS, MOISTURE, Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.

Main data table for boring log with columns for depth, blow counts, and soil descriptions like CLAY-gray-stiff.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245 Page 1 of 1 Date 10/18/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY CW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns: DEPTH, BULGE, UCS, MOISTURE, Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.

Main data table for boring log with columns for depth, blow counts, and soil descriptions like 12.0" ASPHALT, 3.0" CRUSHED STONE.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245 Page 1 of 1 Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW
SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

Table with columns: DEPTH, BULGE, UCS, MOISTURE, Surface Water Elev., Stream Bed Elev., Groundwater Elev., First Encounter, Upon Completion, After Hrs.

Main data table for boring log with columns for depth, blow counts, and soil descriptions like 11.0" ASPHALT, 4.0" CRUSHED STONE.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245

Page 1 of 1

Date 10/28/14

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Oriole Ave.) LOGGED BY VH

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOIST	Surface Water Elev.	DEPTH	BULGE	UCS	MOIST
Station	ft	(ft)	(tsf)	(%)	n/a ft	ft	(ft)	(tsf)	(%)
	654.00				n/a				
		4			n/a		2		
		8	3				4	1.8	20
		10					6	B	
	652.00								
		3					2		
		4	2.7	20			5	1.5	23
		5	B				6	B	
		2							
		6	4.2	12					
		9	B						
	647.00								
		4							
		9	6.1	19					
		12	B						
		3							
		5	4.0	20					
		8	B						
		3							
		5	2.5	21					
		6	B						
		3							
		4	2.7	23					
		8	B						
		3							
		4	1.9	18					
		5	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245

Page 1 of 1

Date 10/29/14

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Oriole Ave.) LOGGED BY VH

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

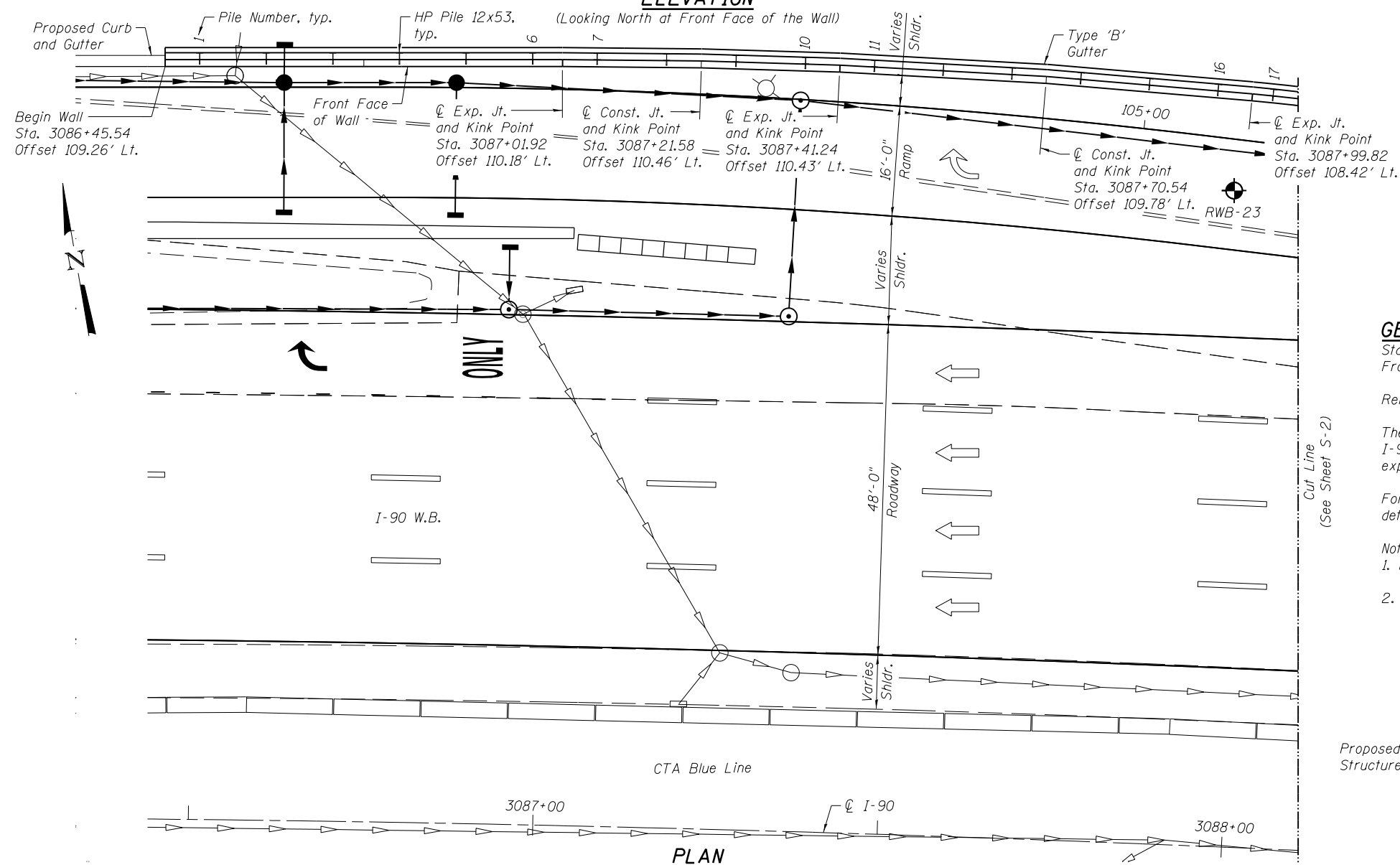
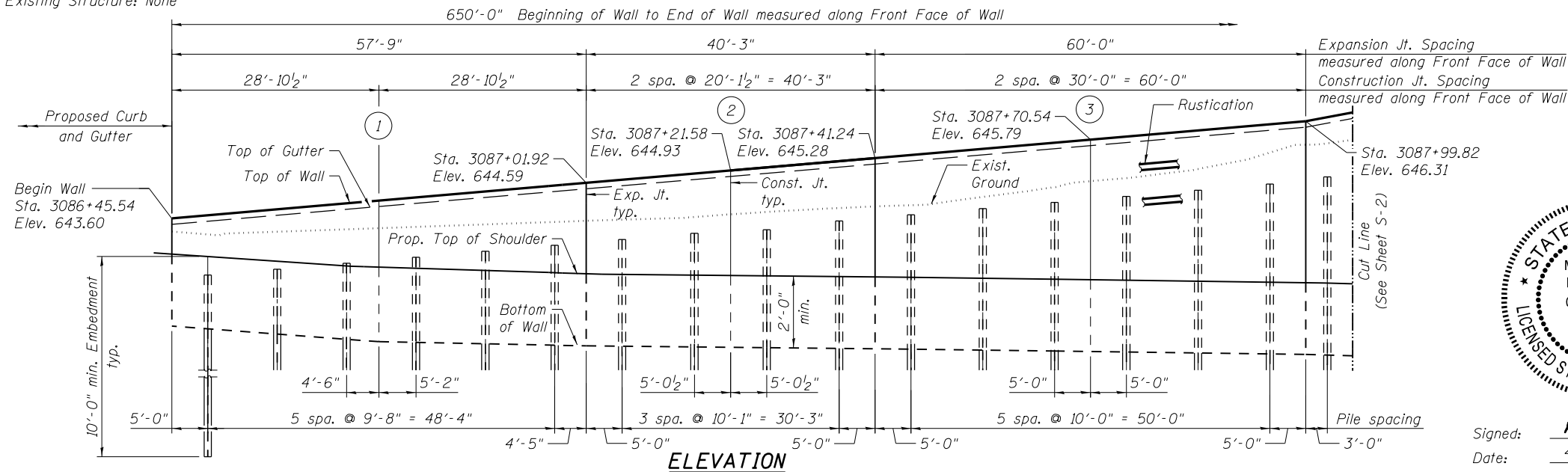
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	MOIST	Surface Water Elev.	DEPTH	BULGE	UCS	MOIST
Station	ft	(ft)	(tsf)	(%)	n/a ft	ft	(ft)	(tsf)	(%)
	655.00				n/a				
		26			n/a				
		16					3		
		10	3				4	1.6	23
							6	B	
		6					2		
		4					4		
		4	3				3	1.2	23
		4					5	B	
		4							
		8							
		10	2						
		2							
		2							
		13	6						
	645.50								
		4							
		8	4.8	19					
		11	B						
		4							
		7	4.2	20					
		9	B						
		3							
		5	2.2	23					
		7	B						
		3							
		4	1.9	23					
		7	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Bench Mark: TBM #17 (Elev. 637.45) - "x" cut SW bolt of light pole (FH8) on North side of WB I-90, 3rd pole West of CTA bridge West of Harlem Ave.

Existing Structure: None



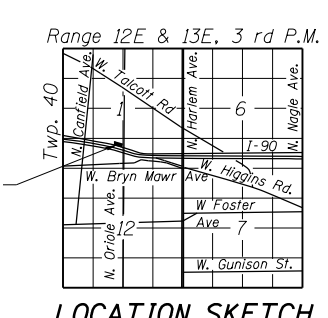
Signed: *Mohsen M. Farahany*
 Date: 4/21/2018
 Exp: 11/30/2018
 Sheets: S-1 to S-12

STATION 3086+45.54
 BUILT 201L BY
 STATE OF ILLINOIS
 F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
 LOADING HL-93
 STRUCTURE NO. 016-Z038

NAME PLATE
 See Std. 515001

GENERAL NOTES

- Stations and Offsets are measured from C I-90 to Front Face of wall.
- Reinforcement bars designated (E) shall be epoxy coated.
- The geometry of the wall follows curvature of the C I-90 . The wall may be constructed on chords between expansion/construction joints.
- For Section thru wall, Construction and Expansion joint details and Pile Table see Sheet S-7 of 12.
- Notes:
 1. For continuation see Sheet S-2 of 12.
 2. For panel details see Sheets S-4 thru S-7 of 12.



INDEX OF SHEETS

- S-1 Retaining Wall WB-4 Plan & Elevation - 1
- S-2 Retaining Wall WB-4 Plan & Elevation - 2
- S-3 Retaining Wall WB-4 Plan & Elevation - 3
- S-4 Retaining Wall WB-4 Details - 1
- S-5 Retaining Wall WB-4 Details - 2
- S-6 Retaining Wall WB-4 Details - 3
- S-7 Retaining Wall WB-4 Details - 4
- S-8 Retaining Wall WB-4 Soil Boring Logs - 1
- S-9 Retaining Wall WB-4 Soil Boring Logs - 2
- S-10 Retaining Wall WB-4 Soil Boring Logs - 3
- S-11 Retaining Wall WB-4 Soil Boring Logs - 4
- S-12 Retaining Wall WB-4 Soil Boring Logs - 5

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	258
Concrete Structures	Cu Yd	161.6
Stud Shear Connectors	Each	498
Reinforcement Bars, Epoxy Coated	Pound	23,980
Name Plates	Each	1
Furnishing Soldier Piles (HP section)	Foot	995
Driving Soldier Piles	Foot	995
Untreated Timber Lagging	Sq Ft	3,387
Concrete Sealer	Sq Ft	3,712
Geocomposite Wall Drain	Sq Yd	376
Pipe Underdrains for Structures, 4 in	Foot	650

LEGEND:

- Existing: Existing
- Proposed: Proposed
- Inlet
- Catch Basin
- Manhole
- Storm Sewer
- Pipe Underdrain
- Light Pole
- Boring
- Panel Type

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi (Reinforcement)}$
 $f_y = 50,000 \text{ psi (M270 Grade 50)}$

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions

GENERAL PLAN AND ELEVATION I
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3086+45.54 TO 3092+81.73
STRUCTURE NO. 016-Z038

1/16/2018 MODEL: Default D:\158015-sh1-PRWB-4_LP&E01.dgn



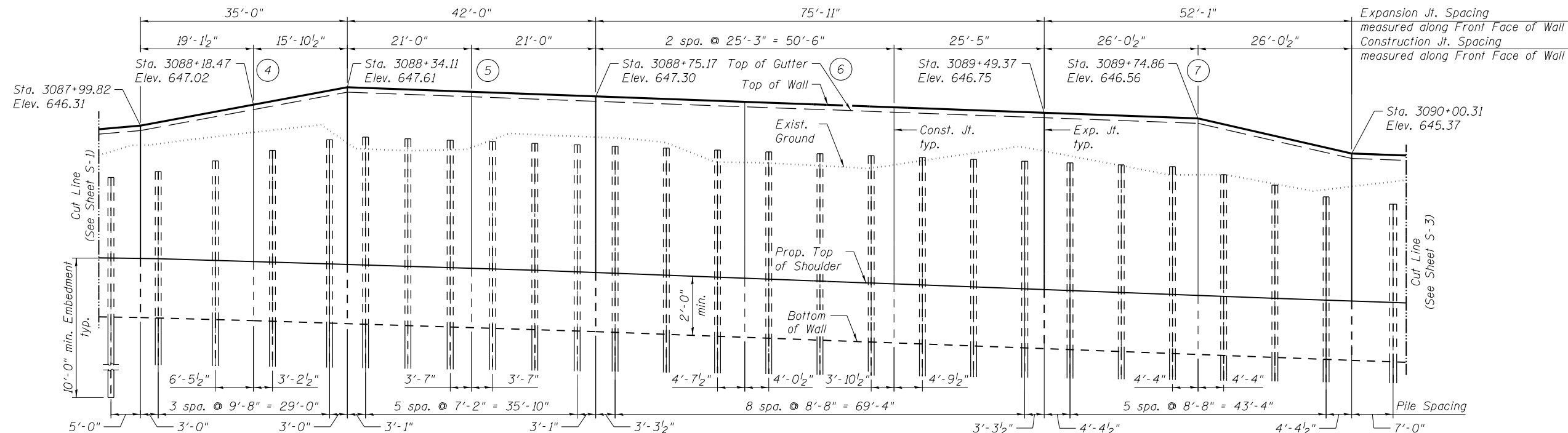
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

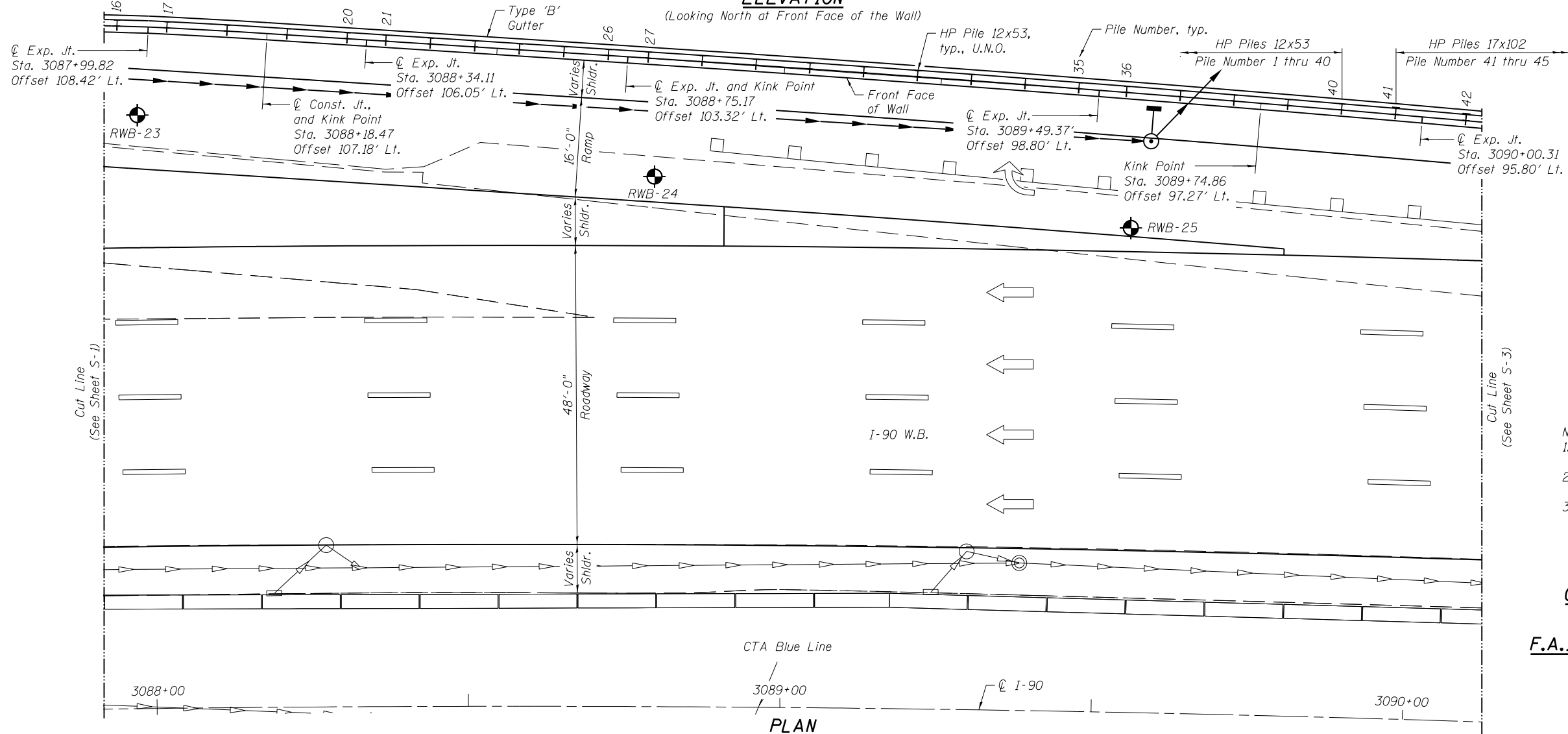
RETAINING WALL WB-4 PLAN & ELEVATION - 1
STRUCTURE NO. 016-Z038
 SHEET NO. S-1 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	517
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

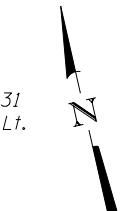
650'-0" Beginning of Wall to End of Wall measured along Front Face of Wall



ELEVATION
(Looking North at Front Face of the Wall)



PLAN



- Notes:
1. For continuation, see Sheet S-3 of 12.
 2. For Legend and Notes, see Sheet S-1 of 12.
 3. For panel details see Sheets S-4 thru S-7 of 12.

GENERAL PLAN AND ELEVATION II
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3086+45.54 TO 3092+81.73
STRUCTURE NO. 016-Z038

1/16/2018 MODEL: Default D:\58015-sh1-PRWB-4_LP&E02.dgn

RME Rubinos & Mesa Engineers, Inc.
 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -
CHECKED - PAH	CHECKED - PAH	REVISED -
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PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

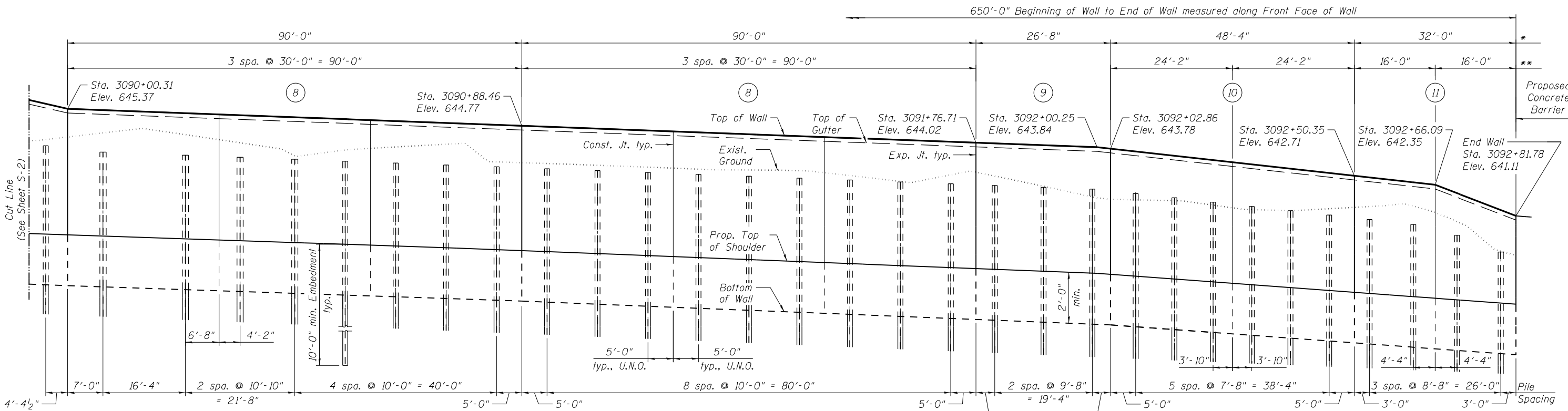
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 PLAN & ELEVATION - 2
STRUCTURE NO. 016-Z038

SHEET NO. S-2 OF 12 SHEETS

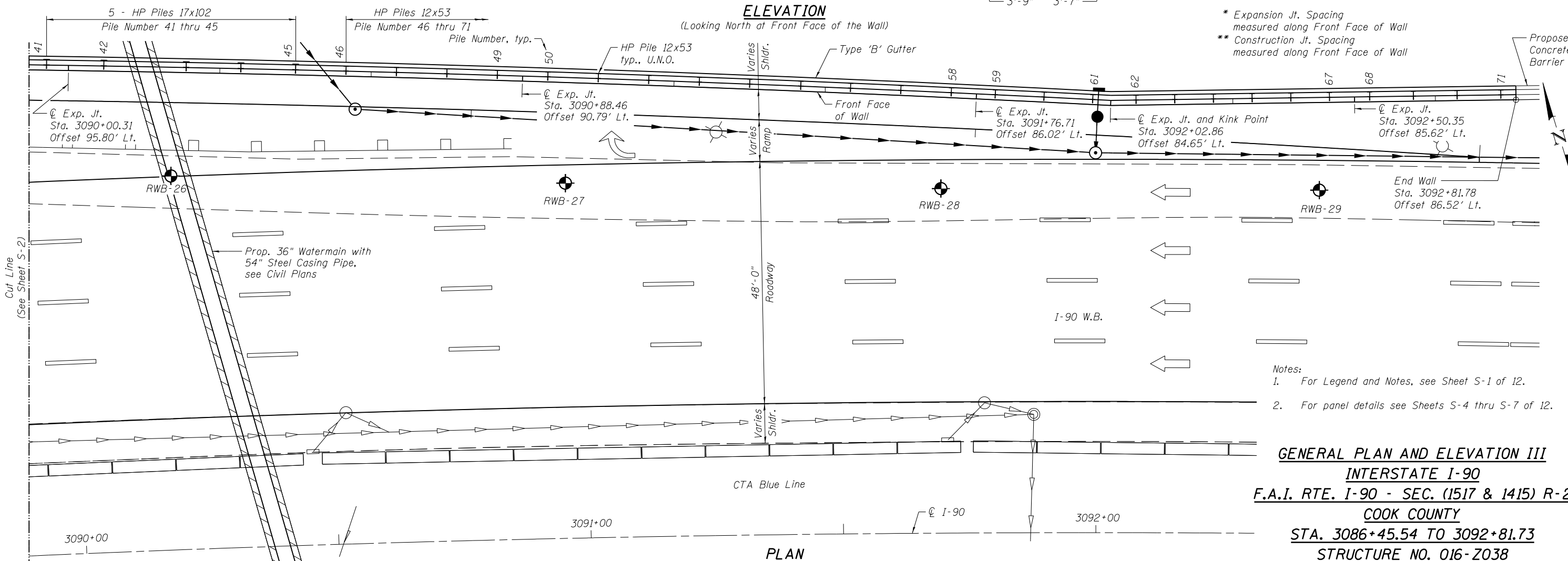
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	518
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT



ELEVATION

(Looking North at Front Face of the Wall)



PLAN

- * Expansion Jt. Spacing measured along Front Face of Wall
- ** Construction Jt. Spacing measured along Front Face of Wall

- Notes:
1. For Legend and Notes, see Sheet S-1 of 12.
 2. For panel details see Sheets S-4 thru S-7 of 12.

GENERAL PLAN AND ELEVATION III
INTERSTATE I-90
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STA. 3086+45.54 TO 3092+81.73
STRUCTURE NO. 016-Z038

1/16/2018
 MODEL: Default
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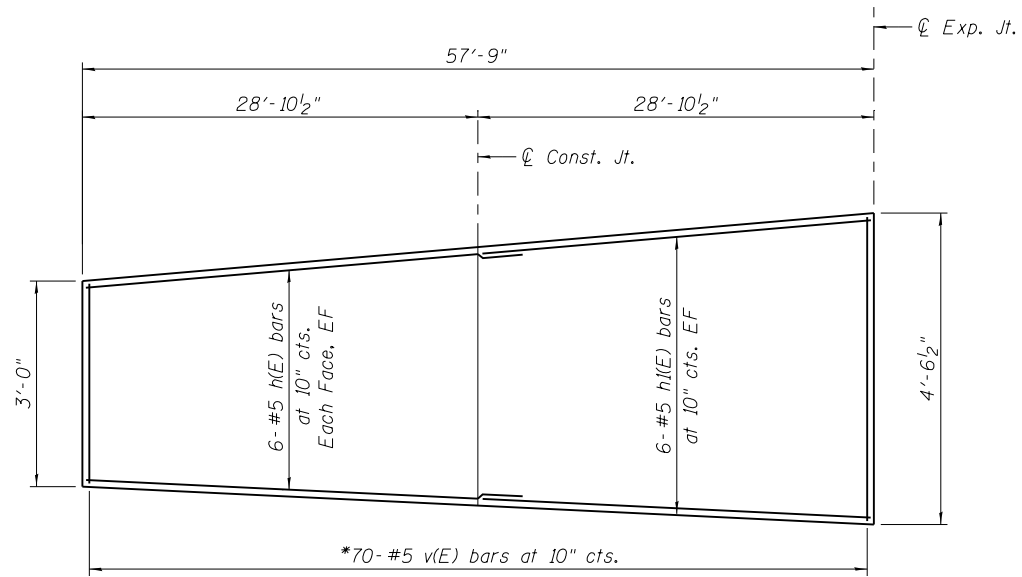
RME Rubinos & Mesa Engineers, Inc.
 200 S. Michigan Avenue, Suite 1500, Chicago, IL 60604-2482

USER NAME = PHodina	DESIGNED - EV	REVISED -
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PLOT DATE = 01/19/2018	DRAWN - EV	REVISED -
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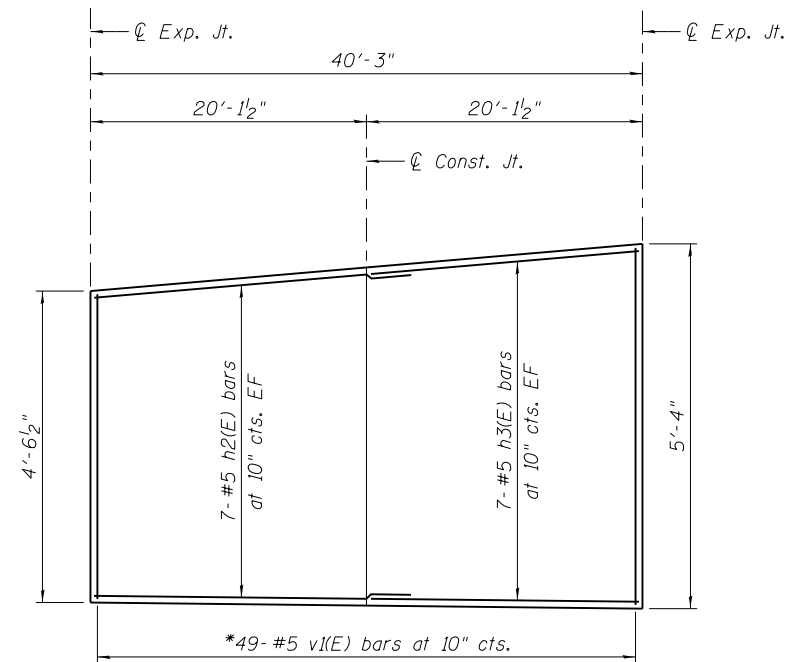
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 PLAN & ELEVATION - 3
STRUCTURE NO. 016-Z038
 SHEET NO. S-3 OF 12 SHEETS

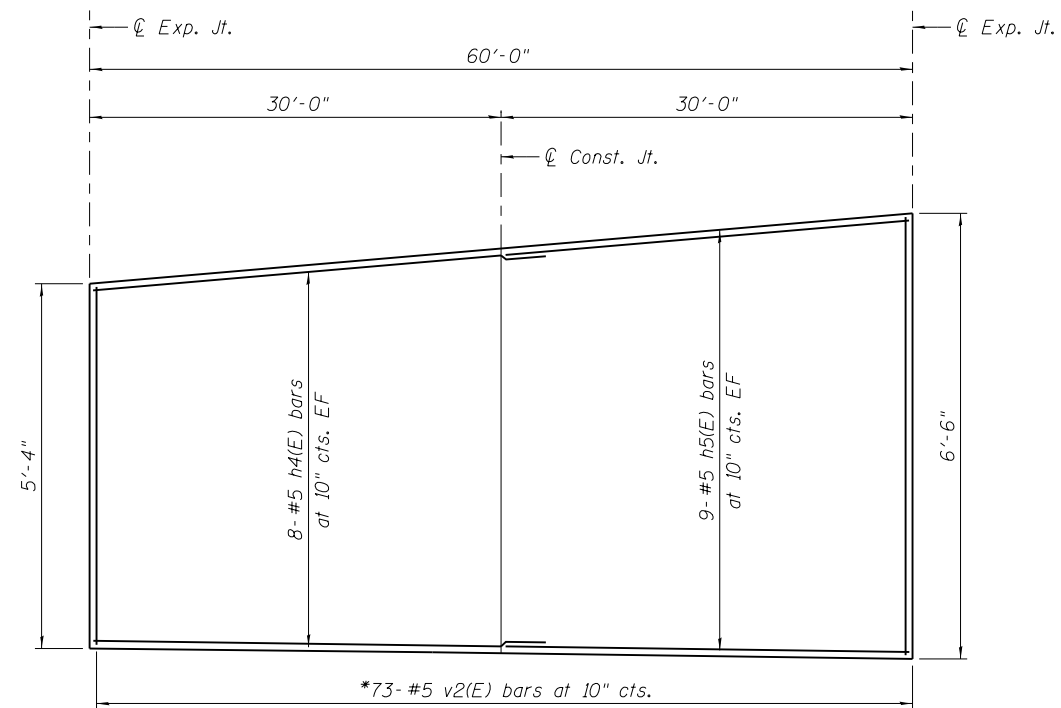
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	519
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



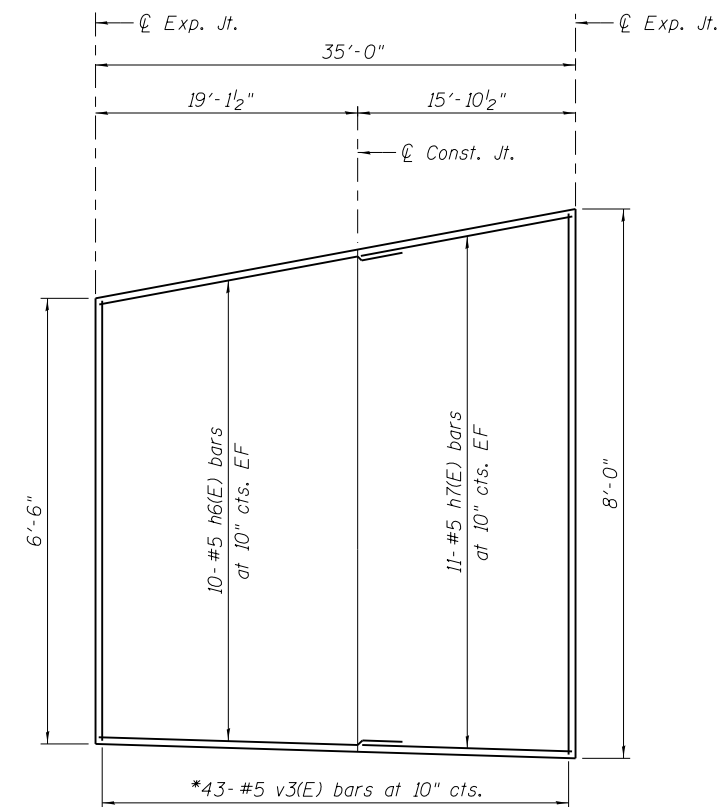
TYPE 1
(1 total)



TYPE 2
(1 total)



TYPE 3
(1 total)



TYPE 4
(1 total)

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram on Sheet S-6.

MINIMUM BAR LAPS

#5 bar = 3'-7"

Notes:

1. Panel types shown looking North at Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels type 1 thru 3, see Sheet S-1 of 12.
4. For location of panel type 4, see Sheet S-2 of 12.
5. For panels Bill of Material see Sheet S-6 of 12.

1/16/2018
MODEL: Sheet
D:\58015-shr-PRWB-4-DET01.dgn



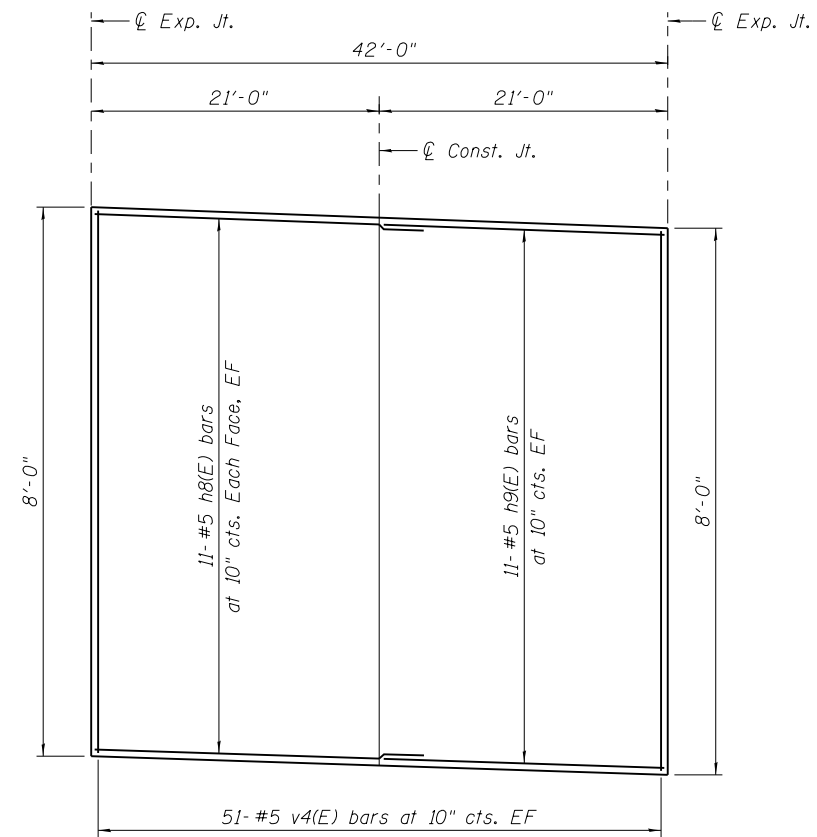
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PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

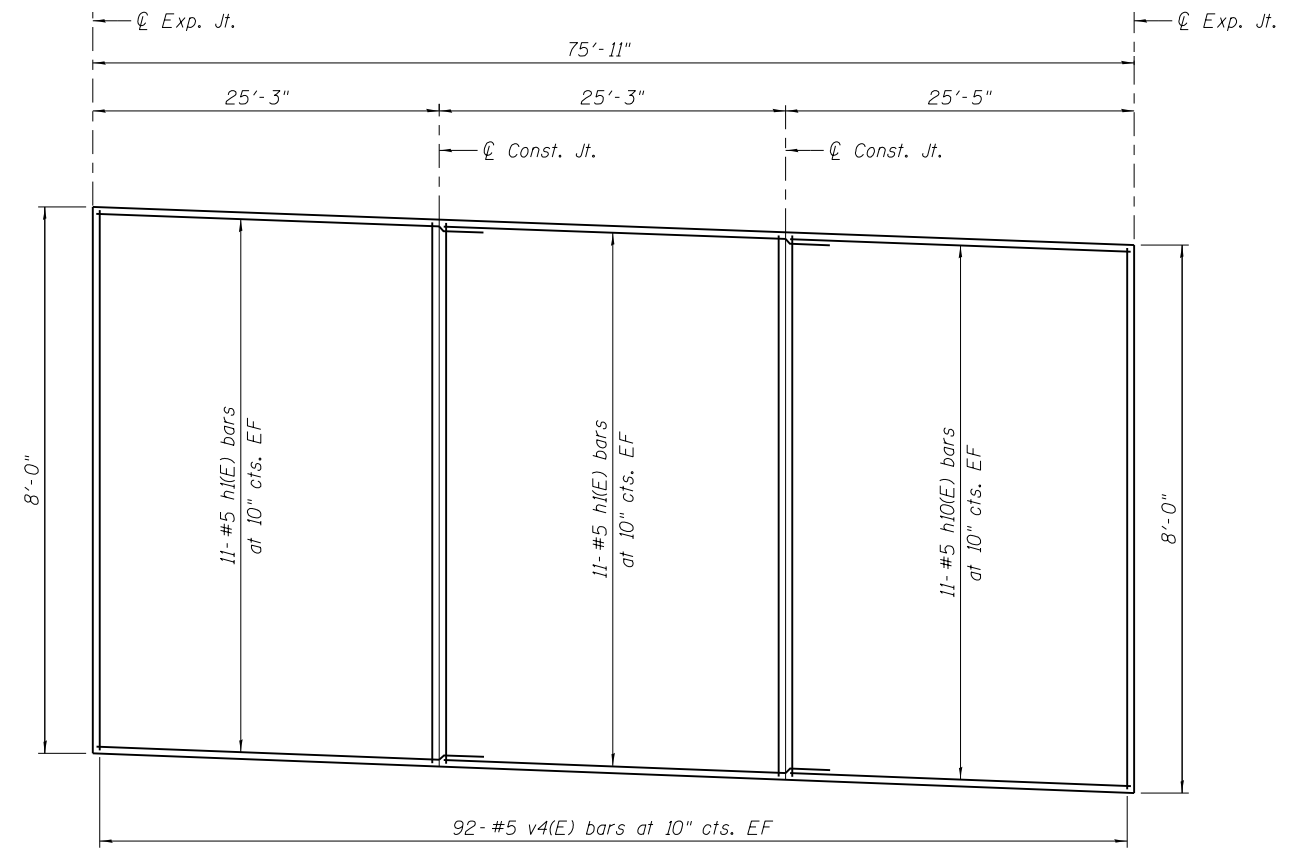
**RETAINING WALL WB-4 DETAILS - 1
STRUCTURE NO. 016-2038**

SHEET NO. S-4 OF 12 SHEETS

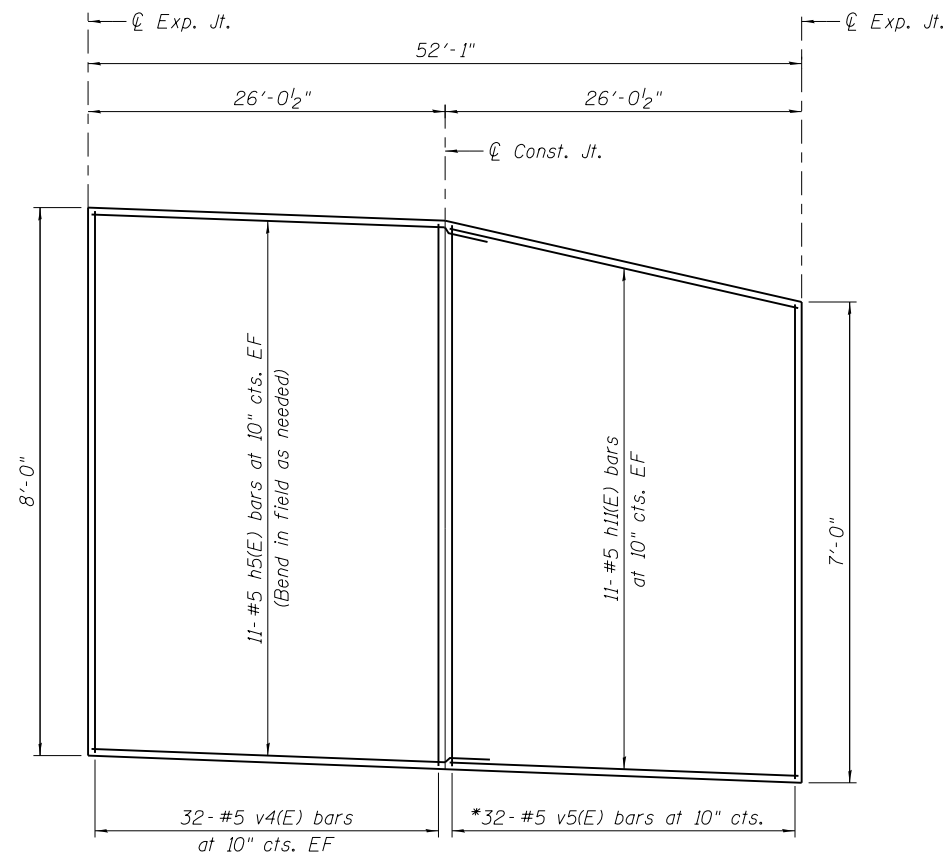
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	520
				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				



TYPE 5
(1 total)



TYPE 6
(1 total)



TYPE 7
(1 total)

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram on Sheet S-6.

MINIMUM BAR LAPS

#5 bar = 3'-7"

Notes:

1. Panel types shown looking North at Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels type 5 thru 7, see Sheet S-2 of 12.
4. For panels Bill of Material see Sheet S-6 of 12.

1/16/2018
MODEL: Sheet
D:\58015-sh1-PRWB-4_DET02.dgn



USER NAME = PHodina	DESIGNED - EV	REVISED -
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PLOT DATE = 01/19/2018	DRAWN - EV	REVISED -
	CHECKED - PAH	REVISED -

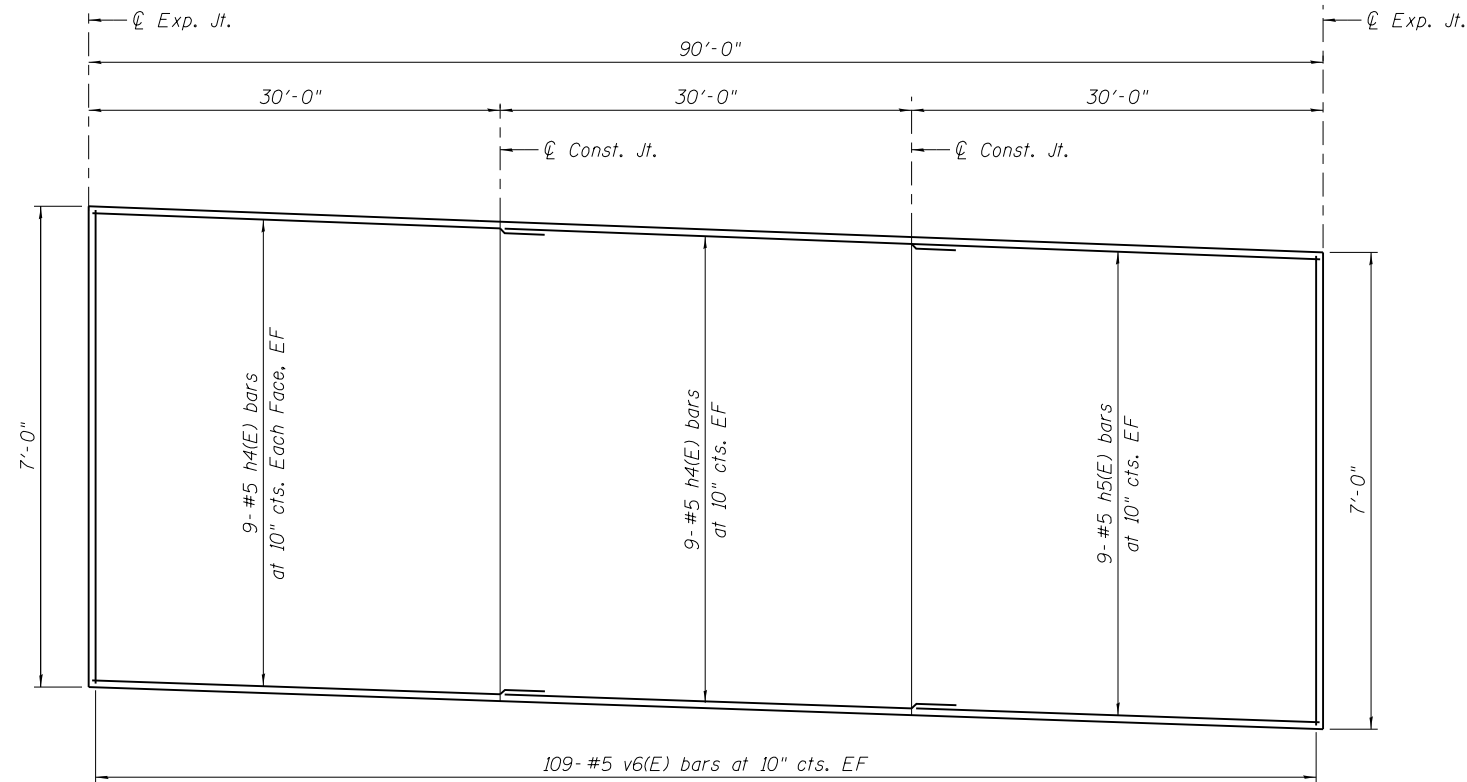
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 DETAILS - 2
STRUCTURE NO. 016-2038

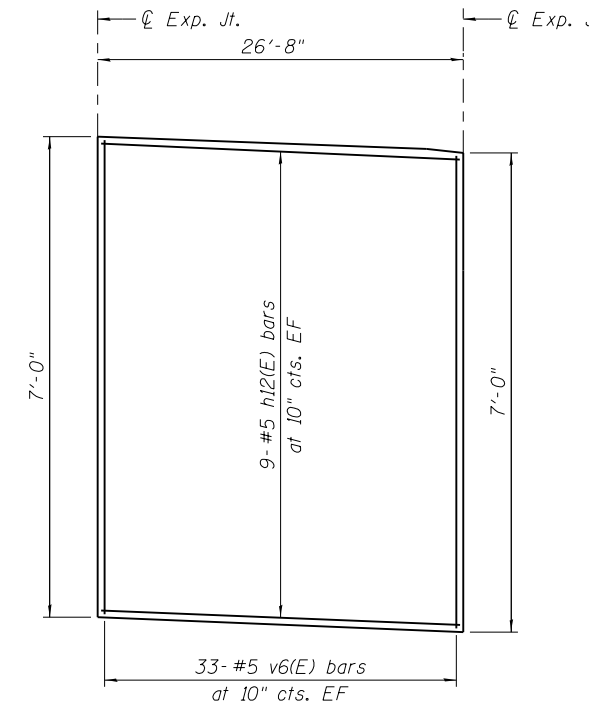
SHEET NO. S-5 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				

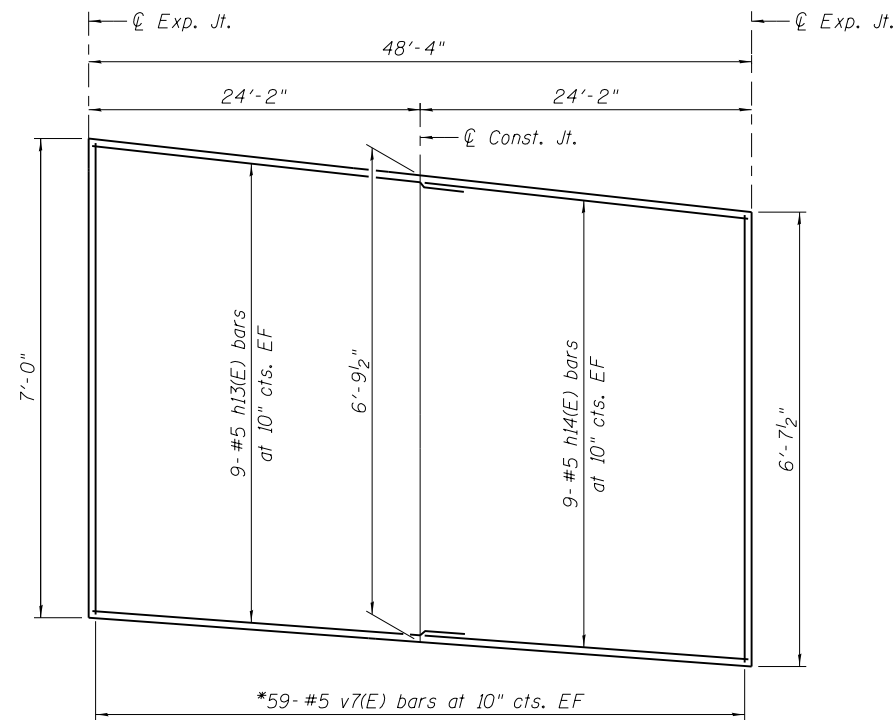
WALL WB-4 BILL OF MATERIAL



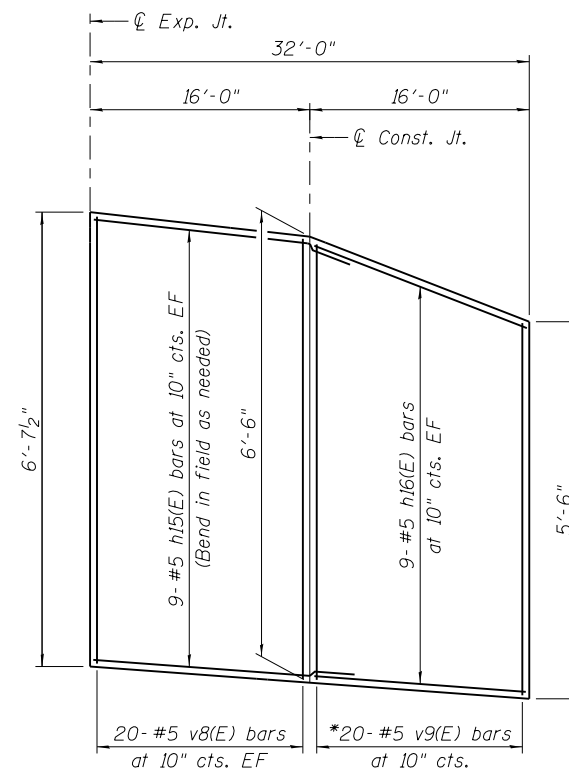
TYPE 8
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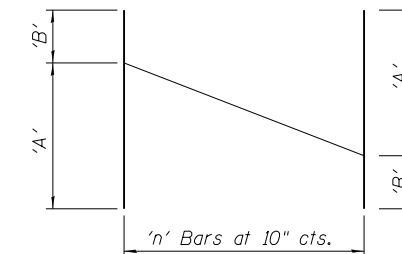
TYPE 9
(1 total)



TYPE 10
(1 total)



TYPE 11
(1 total)



Bar	'A'	'B'	'n'
v(E)	4'-3"	2'-9"	70
h1(E)	5'-1"	4'-3"	49
v2(E)	6'-3"	5'-1"	73
v3(E)	7'-9"	6'-3"	43
v5(E)	7'-9"	6'-9"	32
v7(E)	6'-9"	6'-4"	59
v9(E)	6'-3"	5'-3"	20

BAR CUTTING DIAGRAM

*Cut bars as req'd and use remainder in opposite face. See bar cutting diagram this sheet.

MINIMUM BAR LAPS

#5 bar = 3'-7"

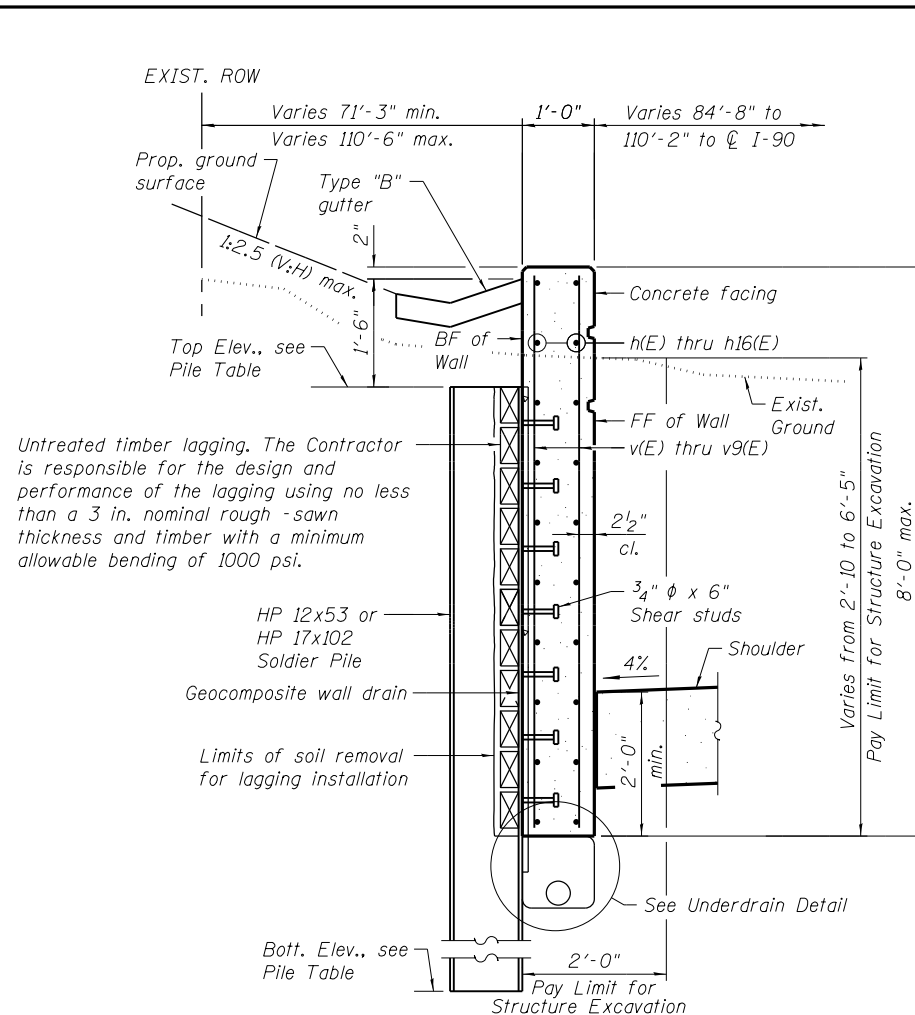
Notes:

1. Panel types shown looking North at Front Face of Wall.
2. Reinforcement spacing shown is to be used as maximum spacing.
3. For location of panels, see Sheet S-3 of 12.

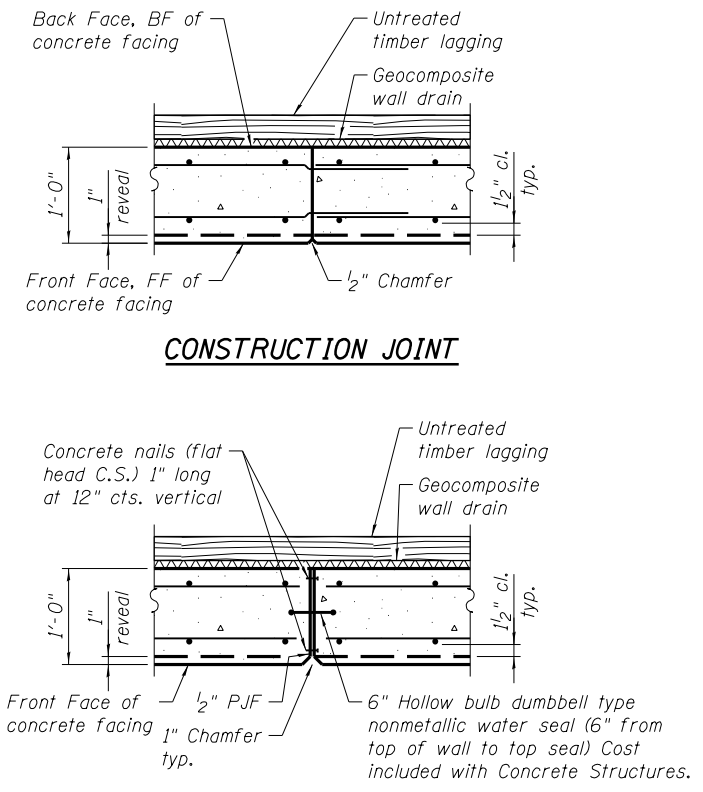
Bar	No.	Size	Length	Shape
h1(E)	12	#5	32'-5"	---
h1(E)	56	#5	28'-9"	---
h2(E)	14	#5	23'-8"	---
h3(E)	14	#5	20'-0"	---
h4(E)	88	#5	33'-7"	---
h5(E)	76	#5	29'-10"	---
h6(E)	20	#5	22'-7"	---
h7(E)	22	#5	15'-8"	---
h8(E)	22	#5	24'-7"	---
h9(E)	22	#5	20'-10"	---
h10(E)	22	#5	25'-3"	---
h11(E)	22	#5	25'-10"	---
h12(E)	18	#5	26'-4"	---
h13(E)	18	#5	27'-9"	---
h14(E)	18	#5	24'-0"	---
h15(E)	18	#5	19'-7"	---
h16(E)	18	#5	15'-10"	---
v(E)	70	#5	7'-0"	---
v1(E)	49	#5	9'-4"	---
v2(E)	73	#5	11'-4"	---
v3(E)	43	#5	14'-0"	---
v4(E)	350	#5	7'-9"	---
v5(E)	32	#5	14'-6"	---
v6(E)	502	#5	6'-9"	---
v7(E)	59	#5	13'-1"	---
v8(E)	40	#5	6'-3"	---
v9(E)	20	#5	11'-6"	---
Concrete Structures	Cu Yd		161.6	
Reinforcement Bars, Epoxy Coated	Pound		23,980	
Concrete Sealer	Sq Yd		3,712	

USER NAME = PHodina	DESIGNED - EV	REVISED -
	CHECKED - PAH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	522
				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				

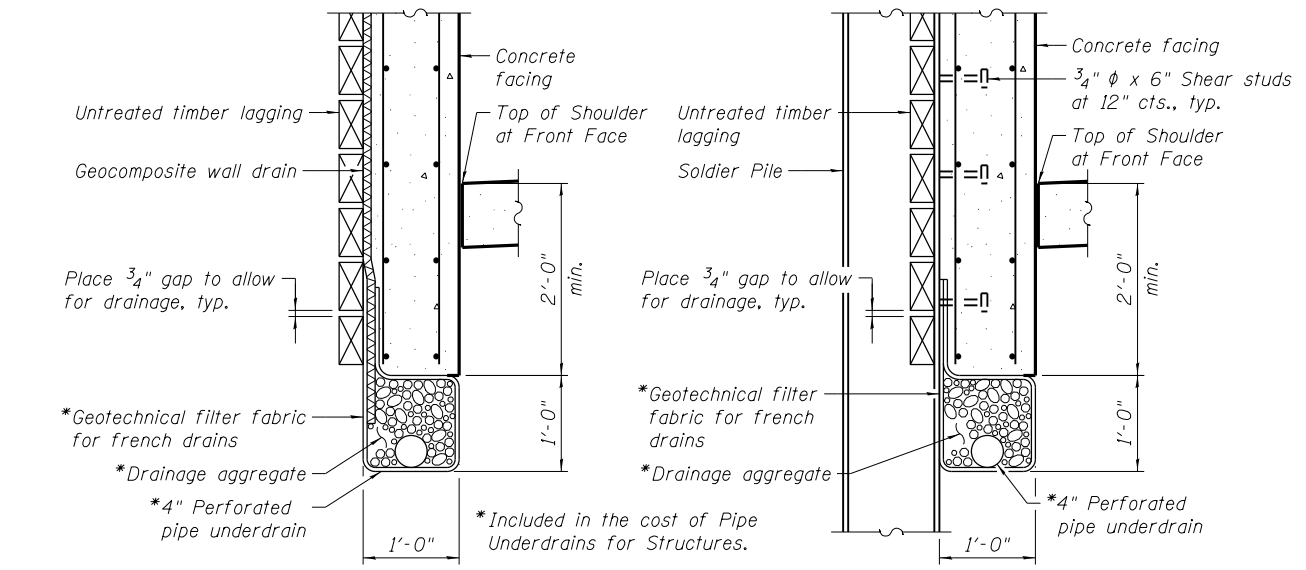


SECTION THRU DRIVEN SOLDIER PILE WALL



CONSTRUCTION JOINT

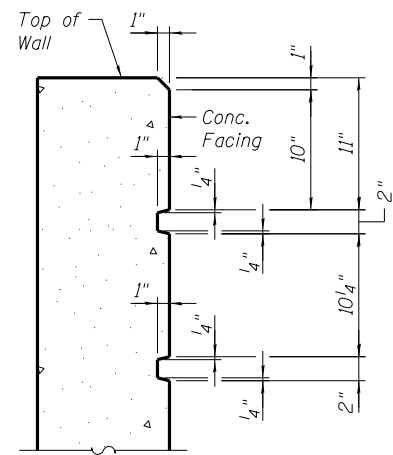
EXPANSION JOINT



BETWEEN SOLDIER PILES

AT SOLDIER PILES

UNDERDRAIN DETAIL



RUSTICATION DETAIL AT TOP OF WALL

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
1	HP 12X53	642.02	632.02	10	3
2	HP 12X53	642.18	632.18	10	3
3	HP 12X53	642.35	631.35	11	4
4	HP 12X53	642.52	631.52	11	4
5	HP 12X53	642.68	631.68	11	4
6	HP 12X53	642.85	631.85	11	4
7	HP 12X53	643.01	632.01	11	4
8	HP 12X53	643.18	631.18	12	5
9	HP 12X53	643.36	631.36	12	5
10	HP 12X53	643.53	631.53	12	5
11	HP 12X53	643.70	631.70	12	5
12	HP 12X53	643.87	631.87	12	5
13	HP 12X53	644.04	631.04	13	6
14	HP 12X53	644.21	631.21	13	6
15	HP 12X53	644.39	631.39	13	6
16	HP 12X53	644.56	631.56	13	6
17	HP 12X53	644.75	631.75	13	6
18	HP 12X53	645.11	631.11	14	7
19	HP 12X53	645.47	631.47	14	7
20	HP 12X53	645.83	630.83	15	8
21	HP 12X53	645.92	630.92	15	8
22	HP 12X53	645.87	630.87	15	8
23	HP 12X53	645.82	630.82	15	8
24	HP 12X53	645.76	630.76	15	8
25	HP 12X53	645.71	630.71	15	8
26	HP 12X53	645.66	630.66	15	8
27	HP 12X53	645.61	630.61	15	8
28	HP 12X53	645.55	630.55	15	8
29	HP 12X53	645.49	630.49	15	8
30	HP 12X53	645.42	630.42	15	8
31	HP 12X53	645.36	630.36	15	8
32	HP 12X53	645.30	630.30	15	8
33	HP 12X53	645.23	630.23	15	8
34	HP 12X53	645.17	630.17	15	8
35	HP 12X53	645.11	630.11	15	8
36	HP 12X53	645.05	630.05	15	8
37	HP 12X53	644.99	629.99	15	8
38	HP 12X53	644.93	629.93	15	8

PILE TABLE

Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length	Shear Stud
39	HP 12X53	644.70	629.70	15	8
40	HP 12X53	644.30	630.30	14	7
41	HP 17X102	643.90	624.90	19	12
42	HP 17X102	643.65	624.65	19	12
43	HP 17X102	643.53	624.53	19	12
44	HP 17X102	643.45	624.45	19	12
45	HP 17X102	643.37	624.37	19	12
46	HP 12X53	643.29	629.29	14	7
47	HP 12X53	643.22	629.22	14	7
48	HP 12X53	643.14	629.14	14	7
49	HP 12X53	643.07	629.07	14	7
50	HP 12X53	642.99	628.99	14	7
51	HP 12X53	642.92	628.92	14	7
52	HP 12X53	642.84	628.84	14	7
53	HP 12X53	642.77	628.77	14	7
54	HP 12X53	642.69	628.69	14	7
55	HP 12X53	642.62	628.62	14	7
56	HP 12X53	642.54	628.54	14	7
57	HP 12X53	642.47	628.47	14	7
58	HP 12X53	642.39	628.39	14	7
59	HP 12X53	642.33	628.33	14	7
60	HP 12X53	642.25	628.25	14	7
61	HP 12X53	642.18	628.18	14	7
62	HP 12X53	642.00	628.00	14	7
63	HP 12X53	641.83	627.83	14	7
64	HP 12X53	641.66	627.66	14	7
65	HP 12X53	641.49	627.49	14	7
66	HP 12X53	641.32	627.32	14	7
67	HP 12X53	641.15	628.15	13	6
68	HP 12X53	640.97	627.97	13	6
69	HP 12X53	640.78	627.78	13	6
70	HP 12X53	640.13	627.13	13	6
71	HP 12X53	639.03	627.03	12	5

Notes:
1. For panel reinforcement, see Sheets S-4 thru S-6 of 12.

1/16/2018 MODEL: Sheet D158015-sh1-PRWB-4_DET04.dgn



USER NAME = PHodina	DESIGNED - EV	REVISED -
PLOT SCALE =	CHECKED - PAH	REVISED -
PLOT DATE = 01/19/2018	DRAWN - EV	REVISED -
	CHECKED - PAH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL WB-4 DETAILS - 4
STRUCTURE NO. 016-2038**

SHEET NO. S-7 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	523
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	D	B	U	M	Surface Water Elev.	D	B	U	M
Station	P	L	C	O	Stream Bed Elev.	P	L	C	O
BORING NO.	T	W	S	Q	Groundwater Elev.:	T	W	S	Q
Station	H	S	Qu	T	First Encounter	H	S	Qu	T
Offset					Upon Completion				
Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	After	(ft)	(/6")	(tsf)	(%)
9.0" ASPHALT					CLAY-gray-stiff to very stiff				
	639.75				(continued)				
4.0" CRUSHED STONE	639.42					4		1.5	21
CLAY-gray-stiff to very stiff		5				6	B		
		4		15					
		4							
		2				3			
		3	1.8	22		5	1.7	20	
		4	B			7	B		
		-5			615.50				
		4			End Of Boring @ -25.0'. Boring				
		4	2.4	21	backfilled with cuttings.				
		6	B						
		3							
		5	2.1	21					
		-10							
		6	B						
		3							
		4	1.5	22					
		5	B						
		4							
		6	1.5	13					
		-15							
		7	B						
		4							
		5	1.9	22					
		6	B						
		4							
		4	1.5	21					
		-20							
		5	B						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\12245\INTB_140 FROM I-190 TO HARLEM AVENUE (PTB 162-2011\12245 BORING LOGS\12245 LOG.GPJ_27174



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 2

Date 11/5/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	D	B	U	M	Surface Water Elev.	D	B	U	M
Station	P	L	C	O	Stream Bed Elev.	P	L	C	O
BORING NO.	T	W	S	Q	Groundwater Elev.:	T	W	S	Q
Station	H	S	Qu	T	First Encounter	H	S	Qu	T
Offset					Upon Completion				
Ground Surface Elev.	(ft)	(/6")	(tsf)	(%)	After	(ft)	(/6")	(tsf)	(%)
8.0" ASPHALT					CLAY-gray-stiff (continued)				
	639.23								
CLAY LOAM-gray-very stiff		4				4		1.5	21
		4		17		5	B		
		4	3.9	17		6	B		
		5	B						
		636.90							
CLAY-gray-stiff		4				4			
		5	1.2	20		5	1.2	20	
		-5				6	B		
		4							
		6	1.8	22					
		6	B						
		4							
		6	1.9	22					
		-10				7	B		
		3							
		4	1.8	22					
		6	B						
		3							
		5	1.8	22					
		-15				7	B		
		4							
		5	1.8	18					
		6	B						
		4							
		5	1.7	18					
		-20				7	B		
		6							
		8	2.4	21					
		12	B						
		611.90			SILTY LOAM to				
					LOAM-gray-medium dense				
		5				5			
		8		19		8			
		-30				11			
		609.40			CLAY to CLAY LOAM-gray-very				
					stiff				
		5							
		10	2.7	12					
		-35				13	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\12245\INTB_140 FROM I-190 TO HARLEM AVENUE (PTB 162-2011\12245 BORING LOGS\12245 LOG.GPJ_27174

1/16/2018
 MODEL: Sheet
 D158015-sh1-PRWB-4_BOR02.dgn



USER NAME = Phodina	DESIGNED - EV	REVISED -
CHECKED - PAH	CHECKED - PAH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 SOIL BORING LOGS - 2
 STRUCTURE NO. 016-Z038

SHEET NO. 5-9 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	525
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



GSI Job No. 12245

SOIL BORING LOG

Page 2 of 2

Date 11/5/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RWB-26
 Station 3090+19
 Offset 74.10ft Left
 Ground Surface Elev. 639.90 ft

Surface Water Elev. n/a ft
 Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter Dry ft
 Upon Completion Dry ft
 After Hrs. _____ ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS	UNIT WEIGHT (pcf)	MOISTURE (%)
0	CLAY to CLAY LOAM-gray-very stiff (continued)			
10				
10	End Of Boring @ -45.0'. Boring backfilled with cuttings.	3.5	12	
12		B		
594.90				
-45				
-50				
-55				
-60				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. _____
 Station _____
 BORING NO. RWB-27
 Station 3090+93
 Offset 70.40ft Left
 Ground Surface Elev. 639.60 ft

Surface Water Elev. n/a ft
 Stream Bed Elev. n/a ft
 Groundwater Elev.:
 First Encounter Dry ft
 Upon Completion Dry ft
 After Hrs. _____ ft

DEPTH (ft)	SOIL DESCRIPTION	BLOWS	UNIT WEIGHT (pcf)	MOISTURE (%)
0	9.0" ASPHALT			
638.85				
6.0" CRUSHED STONE				
638.35				
5				
5	CLAY LOAM-brown & gray-very stiff	3.0	12	
7		P		
636.60				
3	CLAY-gray-stiff			
4		1.9	21	
6		B		
-5				
3				
4		1.2	22	
6		B		
3				
4		1.2	22	
5		B		
-10				
3				
4		1.6	18	
5		B		
3				
4		1.8	21	
6		B		
-15				
3				
4		1.8	22	
7		B		
4				
5		1.5	21	
6		B		
-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

1/16/2018
 MODEL: Sheet
 D158015-sh1-PRWB-4_BOR03.dgn



USER NAME =	PHodina	DESIGNED -	EV	REVISED -	
CHECKED -	PAH	REVISED -			
PLOT SCALE =		DRAWN -	EV	REVISED -	
PLOT DATE =	01/19/2018	CHECKED -	PAH	REVISED -	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 SOIL BORING LOGS - 3
 STRUCTURE NO. 016-Z038

SHEET NO. S-10 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	526
				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D P T H	B L O W S	U C S	M O I S T
BORING NO. RWB-28 Station 3091+70 Offset 68.30ft Left Ground Surface Elev. 639.00 ft					n/a ft n/a ft				
7.0" ASPHALT					638.42				
CRUSHED STONE-medium dense		5		6	636.00		8	1.5	20
		6					9	B	
CLAY-gray-stiff		3					4	1.4	21
		4	1.5	20			6	B	
		5	P						
		3					2		
		4	1.2	22			3	0.7	23
		5	B				4	B	
		3					2		
		4	1.5	22			3	0.7	25
		6	B				5	B	
		3					3		
		4	1.4	22			3	0.9	24
		4	B				5	B	
		3					3		
		4	1.5	19			4	1.2	23
		5	P				5	B	
		3					3		
		4	1.3	21			3	0.9	20
		5	B				4	B	
CLAYEY SAND & GRAVEL-gray-medium dense		9			621.00		3		
		8		8			4	1.1	23
		9					5	B	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	D P T H	B L O W S	U C S	M O I S T
BORING NO. RWB-29 Station 3092+43 Offset 67.90ft Left Ground Surface Elev. 638.40 ft					n/a ft n/a ft				
5.0" ASPHALT					637.98				
7.0" CRUSHED STONE					637.40				
CLAY LOAM-gray-very stiff		3					4	2.0	19
		4					4	B	
CLAY-gray-medium stiff to stiff		2			635.40				
		3					4	1.0	28
		4					5	1.1	21
		5	P				7	B	
		2							
		3					3	0.7	23
		4					4	B	
		2					2		
		3					3	0.7	25
		5	B				5	B	
		3					3		
		4	1.2	23			4	1.2	23
		5	B				5	B	
		3					3		
		3					3	0.9	20
		4	B				4	B	
		3					3		
		4	1.1	23			4	1.1	23
		5	B				5	B	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

1/16/2018
MODEL: Sheet
D158015-sh1-PRWB-4_BOR04.dgn



USER NAME = Phodina	DESIGNED - EV	REVISED -
	CHECKED - PAH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 SOIL BORING LOGS - 4
STRUCTURE NO. 016-2038

SHEET NO. 5-11 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	527
				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 2

Date 11/5/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev.		D E P T H	B L O W S	U C S	M O I S T
					ft	n/a				
BORING NO. RWB-30 Station 3093+07 Offset 69.10ft Left Ground Surface Elev. 637.60 ft					Groundwater Elev.:	636.6 ft ▼				
					First Encounter	Dry ft				
					Upon Completion	Dry ft				
					After	Hrs.				
8.0" ASPHALT					CLAY-gray-stiff to very stiff					
CLAY-gray-stiff to very stiff					(continued)					
		5					4			
		6	3.1	19			5	1.6	20	
		7	B				7	B		
		3					5			
		3	1.5	26			5	1.4	22	
		4	P				5	B		
		3					5			
		3	1.1	24			5	1.6	22	
		4	B				7	B		
		3					5			
		4	1.0	24			7	2.1	20	
		5	B				10	B		
		3					8			
		5	1.5	22			12	1.2	21	
		6	B				9	B		
		4								
		4	1.5	19						
		6	B							
		3					8			
		5	1.5	22			11	2.7	21	
		7	B				13	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\12245\INTB_140 FROM I-190 TO HARLEM AVENUE (PTB 162-200112245 BORING LOGS)\12245 LOG.GPJ_27114



GSI Job No. 12245

SOIL BORING LOG

Page 2 of 2

Date 11/5/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SW 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev.		D E P T H	B L O W S	U C S	M O I S T
					ft	n/a				
BORING NO. RWB-30 Station 3093+07 Offset 69.10ft Left Ground Surface Elev. 637.60 ft					Groundwater Elev.:	636.6 ft ▼				
					First Encounter	Dry ft				
					Upon Completion	Dry ft				
					After	Hrs.				
CLAY-gray-stiff to very stiff					(continued)					
CLAY LOAM-gray-stiff										
End Of Boring @ -45.0'. Boring backfilled with cuttings.										
		5					5			
		8	1.5	15			8	1.5	15	
		9	B				9	B		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

Z:\PROJECTS\2013\12245\INTB_140 FROM I-190 TO HARLEM AVENUE (PTB 162-200112245 BORING LOGS)\12245 LOG.GPJ_27114

1/16/2018
MODEL: Sheet
D:\58015-sh1-PRWB-4_BOR05.dgn



USER NAME = Phodina	DESIGNED - EV	REVISED -
	CHECKED - PAH	REVISED -
PLOT SCALE =	DRAWN - EV	REVISED -
PLOT DATE = 01/19/2018	CHECKED - PAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-4 SOIL BORING LOGS - 5
STRUCTURE NO. 016-2038

SHEET NO. 5-12 OF 12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	528
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				

Bench Mark: TBM #18 "□" cut on top of barrier wall by light pole FD2, mile marker 80.74, on the North side of I-90 WB, east of the bridge. Elev. 639.02.

Existing Structure: None

Notes:

1. Offsets are measured from ϕ I-90 to Front Face of Wall.
2. The geometry of the wall between Sta. 3098+05.50 to Sta. 3102+78.34 follows curvature of ϕ I-90. The wall may be constructed on chords between expansion/construction joints.
3. Contractor shall install piles to avoid existing and proposed lighting cables. The pile may be relocated up to 1'-0" from the location shown on these sheets.

INDEX OF SHEETS

S-1	Retaining Wall WB-5 General Plan & Elevation - 1
S-2	Retaining Wall WB-5 General Plan & Elevation - 2
S-3	Retaining Wall WB-5 General Plan & Elevation - 3
S-4	Retaining Wall WB-5 General Plan & Elevation - 4
S-5	Retaining Wall WB-5 Details - 1
S-6	Retaining Wall WB-5 Details - 2
S-7	Retaining Wall WB-5 Details - 3
S-8	Retaining Wall WB-5 Details - 4
S-9	Retaining Wall WB-5 Soil Boring Logs - 1
S-10	Retaining Wall WB-5 Soil Boring Logs - 2
S-11	Retaining Wall WB-5 Soil Boring Logs - 3
S-12	Retaining Wall WB-5 Soil Boring Logs - 4
S-13	Retaining Wall WB-5 Soil Boring Logs - 5
S-14	Retaining Wall WB-5 Soil Boring Logs - 6

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Structures	Cu Yd	272.2
Stud Shear Connectors	Each	752
Reinforcement Bars, Epoxy Coated	Pound	35,830
Name Plates	Each	1
Furnishing Soldier Piles (HP Section)	Foot	3,375
Driving Soldier Piles	Foot	3,375
Untreated Timber Lagging	Sq Ft	4,507
Concrete Sealer	Sq Ft	5,675
Geocomposite Wall Drain	Sq Yd	386
Pipe Underdrains for Structures 4"	Foot	1,018

DESIGN STRESSES

FIELD UNITS

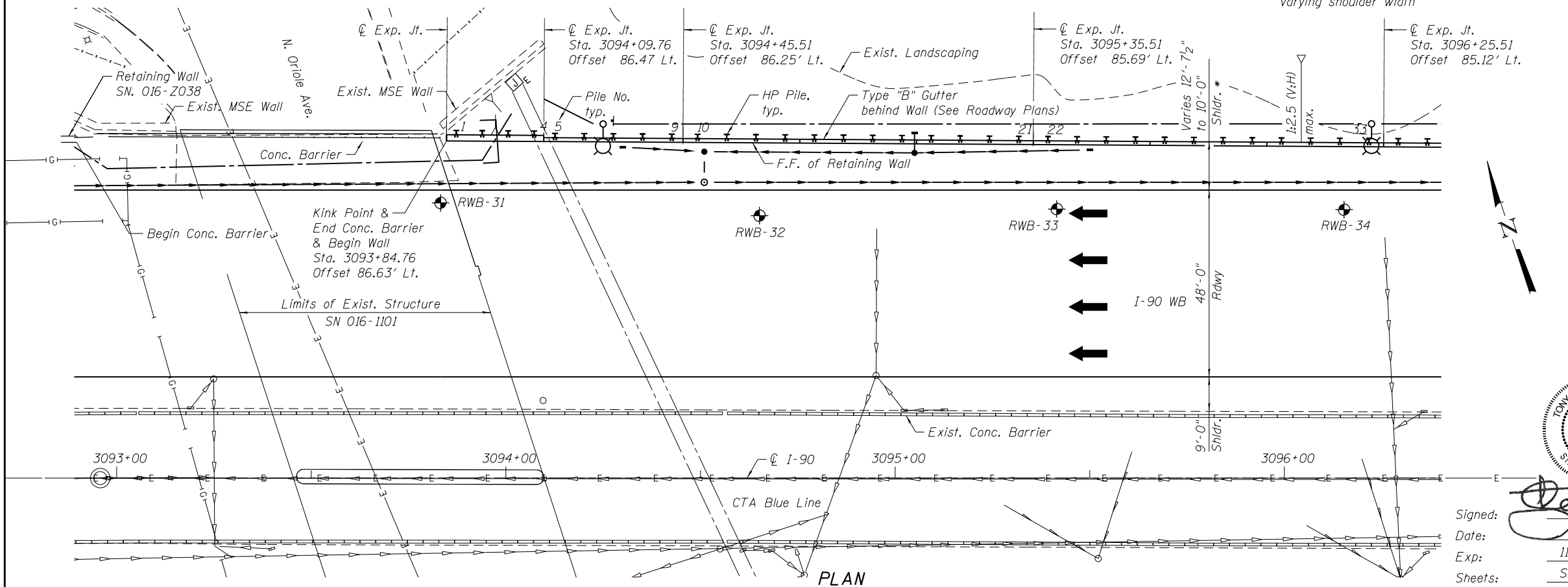
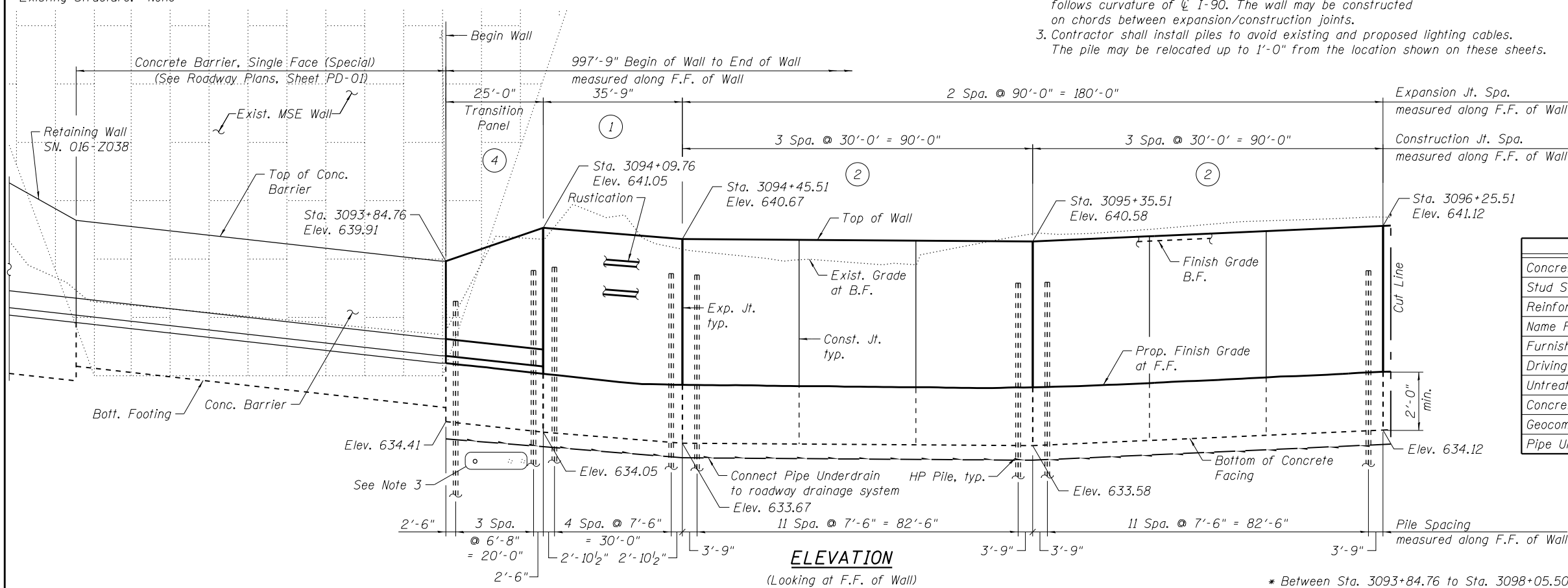
- $f'_c = 3,500$ psi
- $f_y = 60,000$ psi (Reinforcement)
- $f_y = 50,000$ psi (M270 Grade 50)

DESIGN SPECIFICATIONS

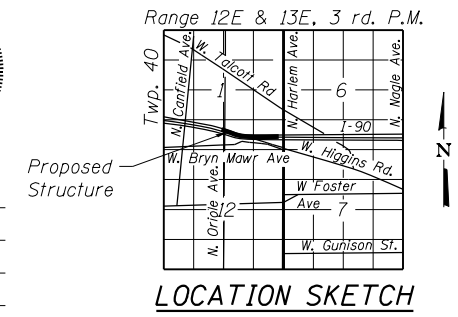
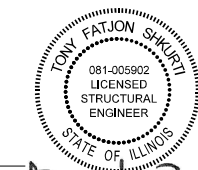
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition, with 2016 Interim Revisions

LEGEND:

Existing	Proposed	Description
—	—	Inlet
○	●	Catch Basin
○	○	Manhole
—	—	Storm Sewer
—	—	Pipe Underdrain
—	—	Exist. Underground combined sewer
—	—	Fence
□	□	Light Pole
○	○	Boring
—	—	Lighting cable
F.F.		F.F. - denotes Front Face
B.F.		B.F. - denotes Back Face
E.F.		E.F. - denotes Each Face
①		Panel Type
▽		Slope



Signed: *[Signature]*
 Date: 1/19/2018
 Exp: 11/30/2018
 Sheets: S-1 thru S-14



USER NAME = kkalite	DESIGNED ACF	REVISED -
CHECKED MLK	REVISED -	
PLOT SCALE = 0.16667 "/> <td>DRAWN LK</td> <td>REVISED -</td>	DRAWN LK	REVISED -
PLOT DATE = 1/17/2018	DATE 01/19/2018	REVISED -

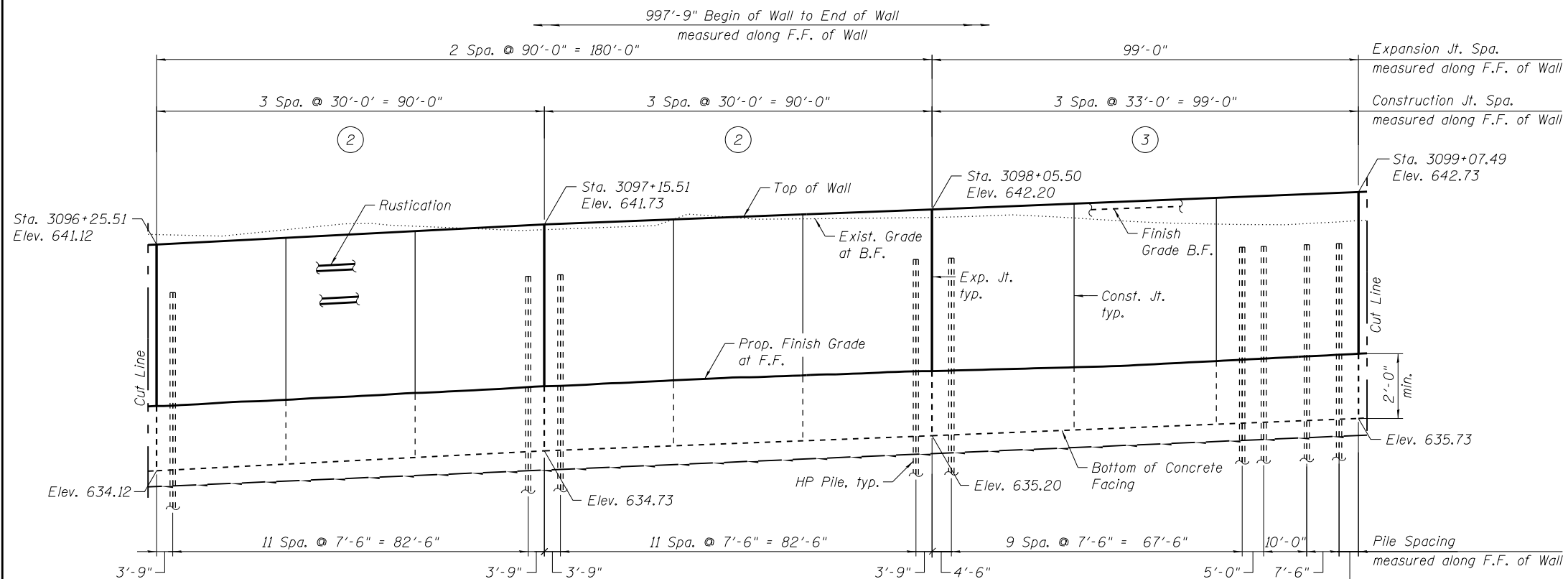
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-5 GENERAL PLAN & ELEVATION - 1
 STRUCTURE NO. 016-2039
 SHEET NO. 1 OF 14 SHEETS

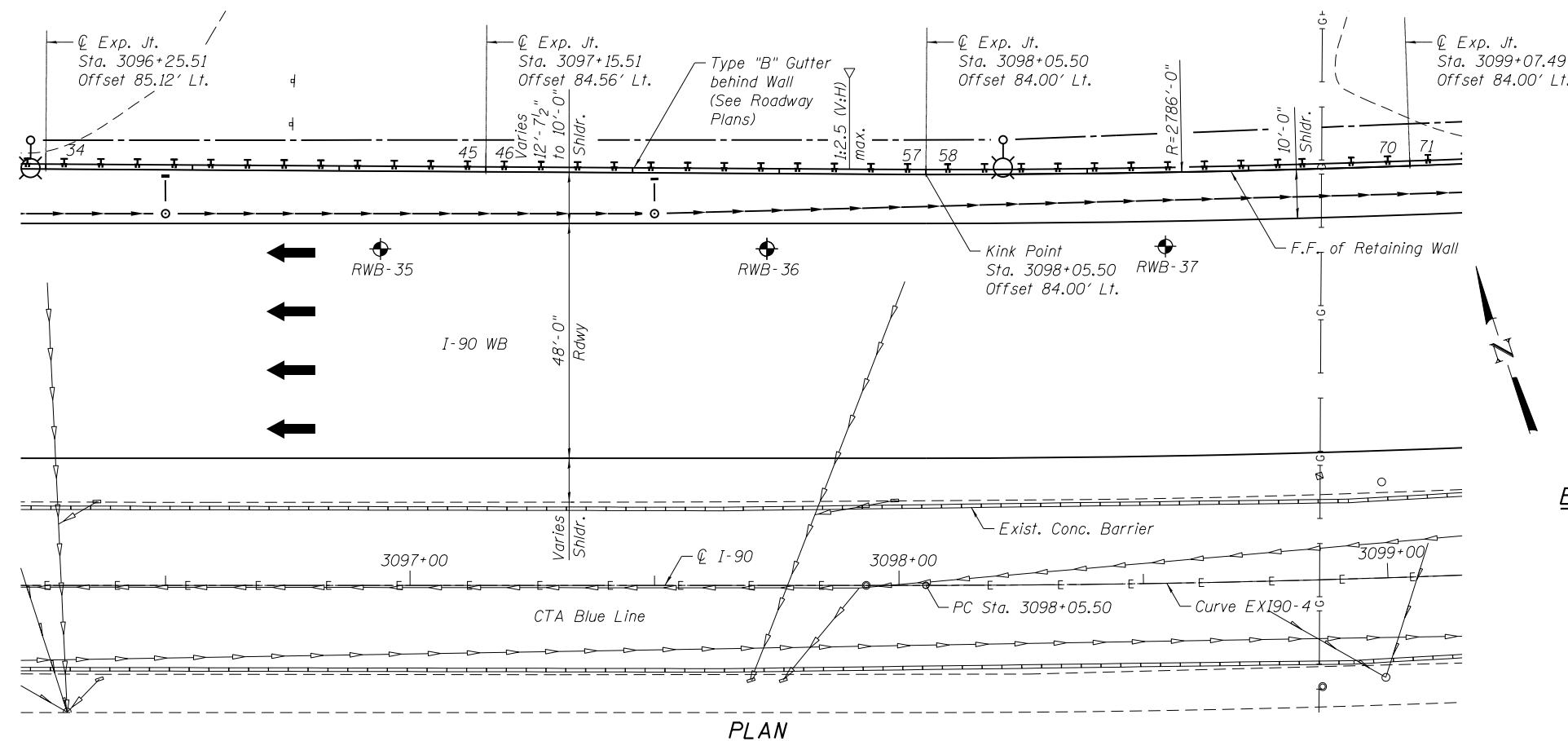
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	529
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				

PILE TABLE

PILE NO.	SIZE	TOP ELEV.	BOTT. ELEV.	PILE LENGTH (FEET)	NO. OF SHEAR STUDS
1	HP14x73	638.36	613.36	25.00	4
2	HP14x73	638.66	613.66	25.00	5
3	HP14x73	638.97	613.97	25.00	5
4	HP14x73	639.27	614.27	25.00	6
5	HP14x73	639.35	614.35	25.00	6
6	HP14x73	639.27	614.27	25.00	6
7	HP14x73	639.19	614.19	25.00	6
8	HP14x73	639.11	614.11	25.00	6
9	HP14x73	639.03	614.03	25.00	6
10	HP14x73	639.00	614.00	25.00	6
11	HP14x73	638.99	613.99	25.00	6
12	HP14x73	638.98	613.98	25.00	6
13	HP14x73	638.98	613.98	25.00	6
14	HP14x73	638.97	613.97	25.00	6
15	HP14x73	638.96	613.96	25.00	6
16	HP14x73	638.95	613.95	25.00	6
17	HP14x73	638.95	613.95	25.00	6
18	HP14x73	638.94	613.94	25.00	6
19	HP14x73	638.93	613.93	25.00	6
20	HP14x73	638.92	613.92	25.00	6
21	HP14x73	638.92	613.92	25.00	6
22	HP14x73	638.94	613.94	25.00	6
23	HP14x73	638.98	613.98	25.00	6
24	HP14x73	639.03	614.03	25.00	6
25	HP14x73	639.07	614.07	25.00	6
26	HP14x73	639.12	614.12	25.00	6
27	HP14x73	639.16	614.16	25.00	6
28	HP14x73	639.21	614.21	25.00	6
29	HP14x73	639.25	614.25	25.00	6
30	HP14x73	639.30	614.30	25.00	6
31	HP14x73	639.34	614.34	25.00	6
32	HP14x73	639.39	614.39	25.00	6
33	HP14x73	639.43	614.43	25.00	6
34	HP14x73	639.48	614.48	25.00	6
35	HP14x73	639.53	614.53	25.00	6
36	HP14x73	639.58	614.58	25.00	6
37	HP14x73	639.63	614.63	25.00	6
38	HP14x73	639.68	614.68	25.00	6
39	HP14x73	639.73	614.73	25.00	6
40	HP14x73	639.78	614.78	25.00	6
41	HP14x73	639.83	614.83	25.00	6
42	HP14x73	639.89	614.89	25.00	6
43	HP14x73	639.94	614.94	25.00	6
44	HP14x73	639.99	614.99	25.00	6
45	HP14x73	640.04	615.04	25.00	6
46	HP14x73	640.08	615.08	25.00	6



ELEVATION
(Looking at F.F. of Wall)



EXIST. CURVE EX190-4

PI Sta. = 3102+83.35
 $\Delta = 18^\circ 54' 22''$ (LT)
 $D = 1^\circ 59' 47''$
 $R = 2,870.00'$
 $T = 477.85'$
 $L = 947.02'$
 $E = 39.51'$
 $e = 4.4\%$
 $T.R. = 90'$
 S.E. Run = 265'
 P.C. Sta. = 3098+05.50
 P.T. Sta. = 3107+52.52

Notes:
1. For Legend and Notes, see Sheet 1 of 14.



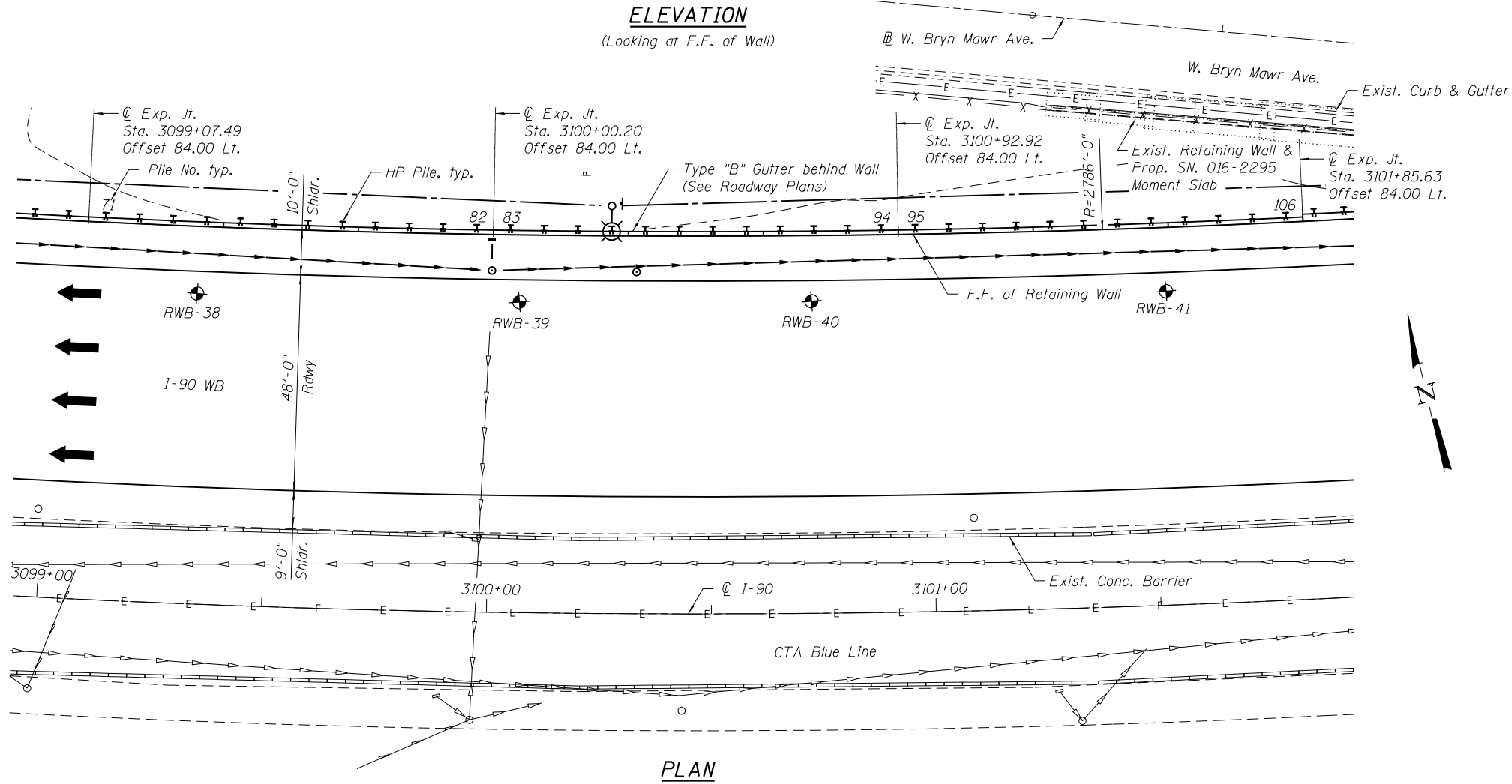
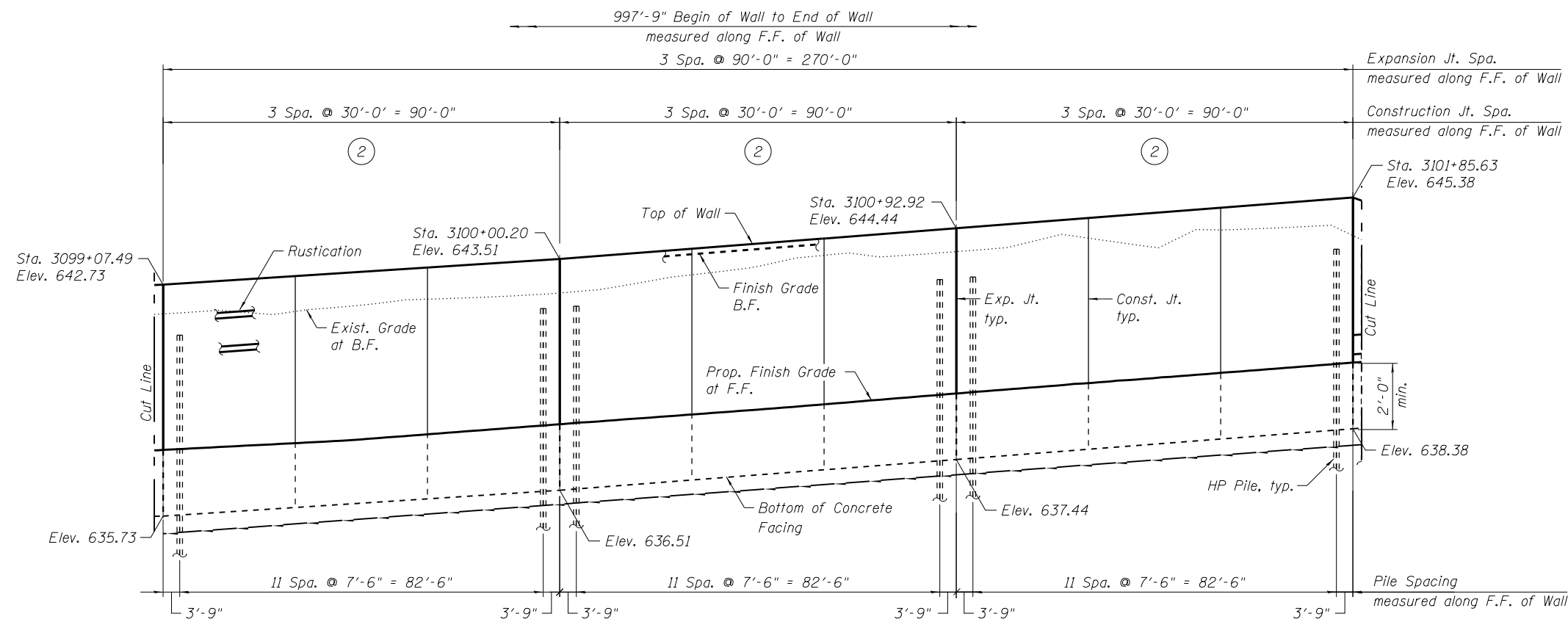
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PLOT SCALE = 0.16667" / 1'	CHECKED MLK	REVISED -
PLOT DATE = 1/16/2018	DRAWN LK	REVISED -
	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-5 GENERAL PLAN & ELEVATION - 2
STRUCTURE NO. 016-2039

SHEET NO. 2 OF 14 SHEETS

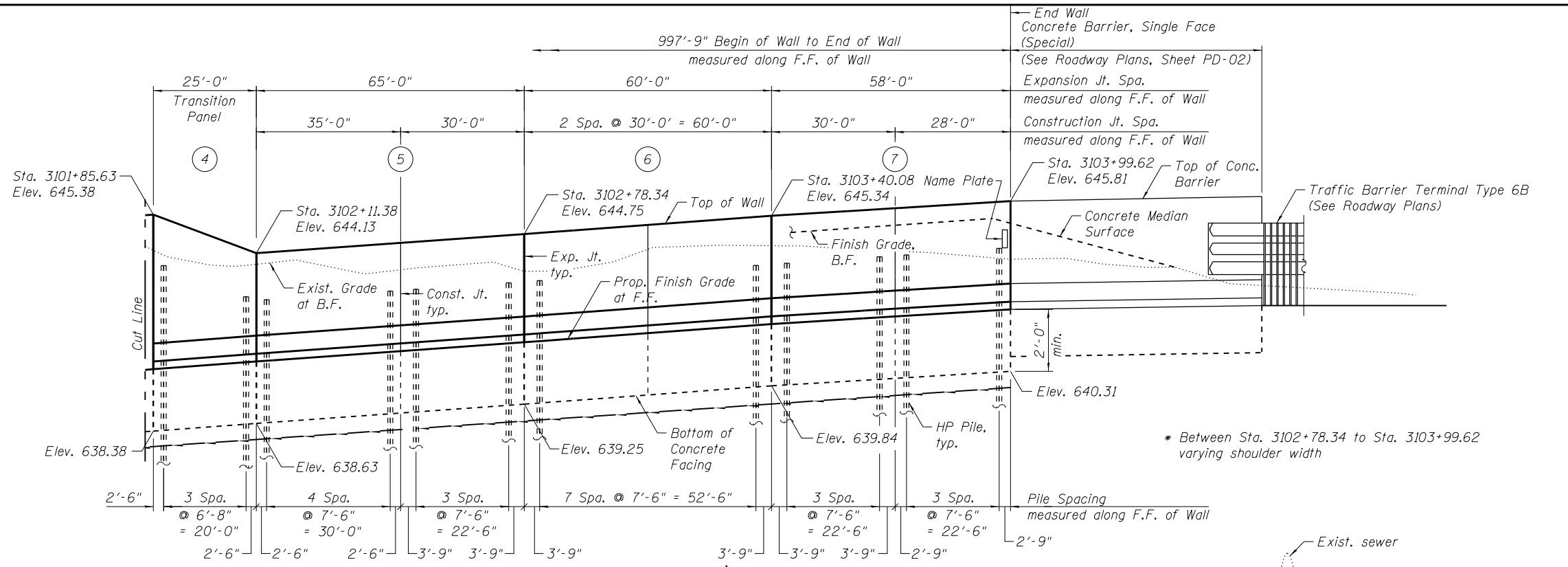
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	530
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



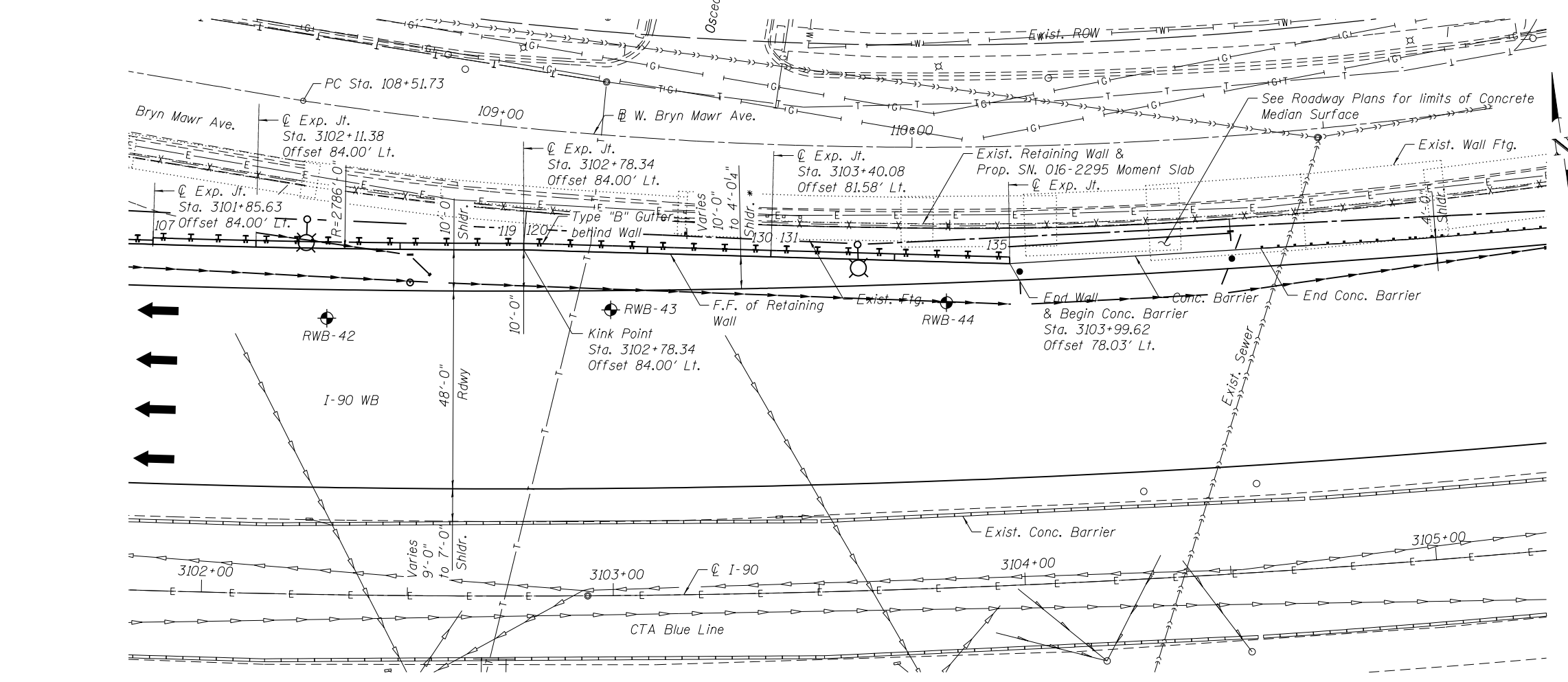
PILE TABLE					
Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length (feet)	No. of Shear Studs
47	HP14x73	640.12	615.12	25.00	6
48	HP14x73	640.16	615.16	25.00	6
49	HP14x73	640.20	615.20	25.00	6
50	HP14x73	640.24	615.24	25.00	6
51	HP14x73	640.28	615.28	25.00	6
52	HP14x73	640.32	615.32	25.00	6
53	HP14x73	640.36	615.36	25.00	6
54	HP14x73	640.40	615.40	25.00	6
55	HP14x73	640.44	615.44	25.00	6
56	HP14x73	640.47	615.47	25.00	6
57	HP14x73	640.51	615.51	25.00	6
58	HP14x73	640.56	615.56	25.00	6
59	HP14x73	640.59	615.59	25.00	6
60	HP14x73	640.63	615.63	25.00	6
61	HP14x73	640.66	615.66	25.00	6
62	HP14x73	640.70	615.70	25.00	6
63	HP14x73	640.74	615.74	25.00	6
64	HP14x73	640.77	615.77	25.00	6
65	HP14x73	640.81	615.81	25.00	6
66	HP14x73	640.85	615.85	25.00	6
67	HP14x73	640.89	615.89	25.00	6
68	HP14x73	640.92	615.92	25.00	6
69	HP14x73	640.99	615.99	25.00	6
70	HP14x73	641.03	616.03	25.00	6
71	HP14x73	641.10	616.10	25.00	6
72	HP14x73	641.16	616.16	25.00	6
73	HP14x73	641.23	616.23	25.00	6
74	HP14x73	641.29	616.29	25.00	6
75	HP14x73	641.36	616.36	25.00	6
76	HP14x73	641.42	616.42	25.00	6
77	HP14x73	641.49	616.49	25.00	6
78	HP14x73	641.55	616.55	25.00	6
79	HP14x73	641.62	616.62	25.00	6
80	HP14x73	641.68	616.68	25.00	6
81	HP14x73	641.75	616.75	25.00	6
82	HP14x73	641.81	616.81	25.00	6
83	HP14x73	641.88	616.88	25.00	6
84	HP14x73	641.96	616.96	25.00	6
85	HP14x73	642.04	617.04	25.00	6
86	HP14x73	642.11	617.11	25.00	6
87	HP14x73	642.19	617.19	25.00	6
88	HP14x73	642.27	617.27	25.00	6
89	HP14x73	642.35	617.35	25.00	6
90	HP14x73	642.42	617.42	25.00	6
91	HP14x73	642.50	617.50	25.00	6
92	HP14x73	642.58	617.58	25.00	6
93	HP14x73	642.66	617.66	25.00	6
94	HP14x73	642.73	617.73	25.00	6
95	HP14x73	642.81	617.81	25.00	6
96	HP14x73	642.89	617.89	25.00	6
97	HP14x73	642.97	617.97	25.00	6
98	HP14x73	643.05	618.05	25.00	6
99	HP14x73	643.13	618.13	25.00	6
100	HP14x73	643.20	618.20	25.00	6
101	HP14x73	643.28	618.28	25.00	6

Notes:
1. For Legend and Notes, see Sheet 1 of 14.

HNTB	USER NAME = ikelite	DESIGNED ACF	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RETAINING WALL WB-5 GENERAL PLAN & ELEVATION - 3	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 0.16667" = 1'-0"	CHECKED MLK	REVISIONS			90	(1517 & 1415) R-2	COOK	734	531
	PLOT DATE = 1/16/2018	DRAWN LK	REVISIONS			CONTRACT NO. 60Y39				
					SHEET NO. 3 OF 14 SHEETS		ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking at F.F. of Wall)



PLAN

PILE TABLE					
Pile No.	Size	Top Elev.	Bott. Elev.	Pile Length (feet)	No. of Shear Studs
102	HP14x73	643.36	618.36	25.00	6
103	HP14x73	643.44	618.44	25.00	6
104	HP14x73	643.52	618.52	25.00	6
105	HP14x73	643.60	618.60	25.00	6
106	HP14x73	643.67	618.67	25.00	6
107	HP14x73	643.59	618.59	25.00	6
108	HP14x73	643.26	618.26	25.00	5
109	HP14x73	642.92	617.92	25.00	5
110	HP14x73	642.59	617.59	25.00	4
111	HP14x73	642.49	617.49	25.00	4
112	HP14x73	642.55	617.55	25.00	4
113	HP14x73	642.62	617.62	25.00	4
114	HP14x73	642.68	617.68	25.00	4
115	HP14x73	642.75	617.75	25.00	4
116	HP14x73	642.81	617.81	25.00	4
117	HP14x73	642.89	617.89	25.00	4
118	HP14x73	642.97	617.97	25.00	4
119	HP14x73	643.04	618.04	25.00	4
120	HP14x73	643.12	618.12	25.00	4
121	HP14x73	643.19	618.19	25.00	4
122	HP14x73	643.27	618.27	25.00	4
123	HP14x73	643.34	618.34	25.00	4
124	HP14x73	643.42	618.42	25.00	4
125	HP14x73	643.49	618.49	25.00	4
126	HP14x73	643.56	618.56	25.00	4
127	HP14x73	643.64	618.64	25.00	4
128	HP14x73	643.70	618.70	25.00	4
129	HP14x73	643.76	618.76	25.00	4
130	HP14x73	643.82	618.82	25.00	4
131	HP14x73	643.88	618.88	25.00	4
132	HP14x73	643.93	618.93	25.00	4
133	HP14x73	643.99	618.99	25.00	4
134	HP14x73	644.06	619.06	25.00	4
135	HP14x73	644.12	619.12	25.00	4

STATION 3093+84.76
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 90
STR. NO. 016-2039

NAME PLATE
See Std. 515001

Notes:
1. For Legend and Notes, see Sheet 1 of 14.



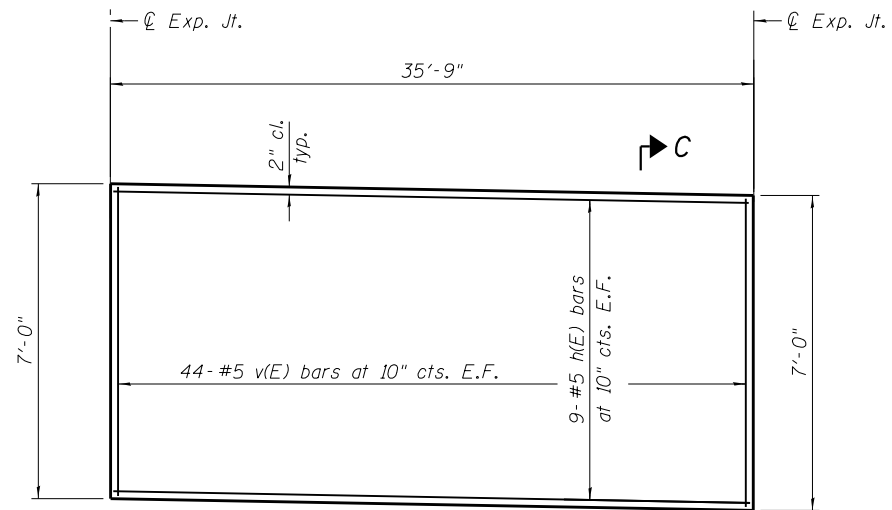
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PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

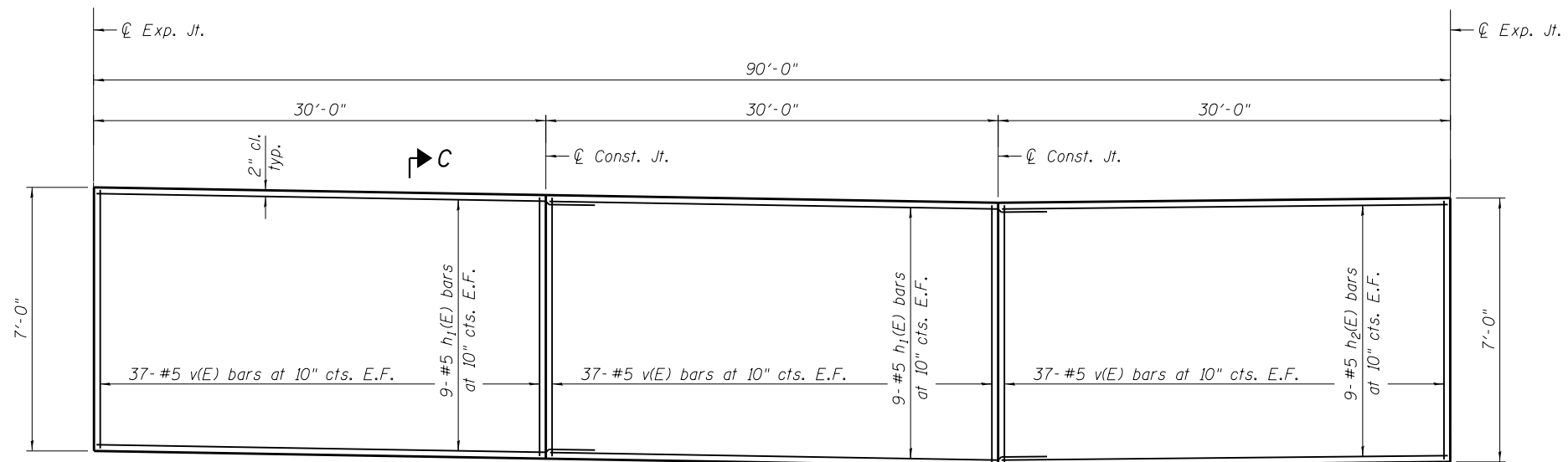
RETAINING WALL WB-5 GENERAL PLAN & ELEVATION - 4
STRUCTURE NO. 016-2039

SHEET NO. 4 OF 14 SHEETS

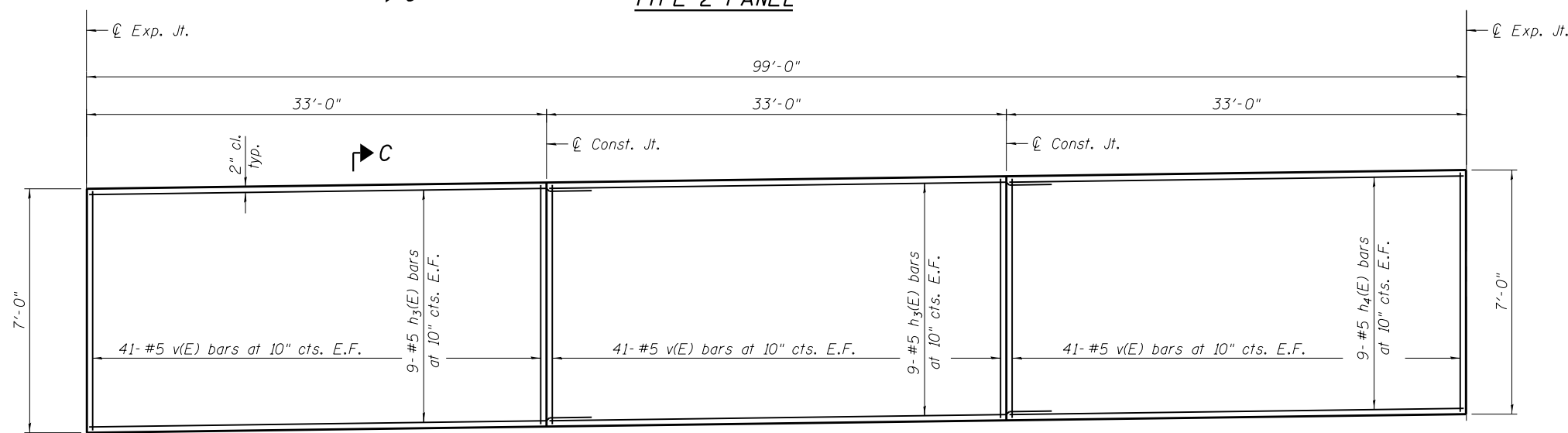
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	532
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



TYPE 1 PANEL



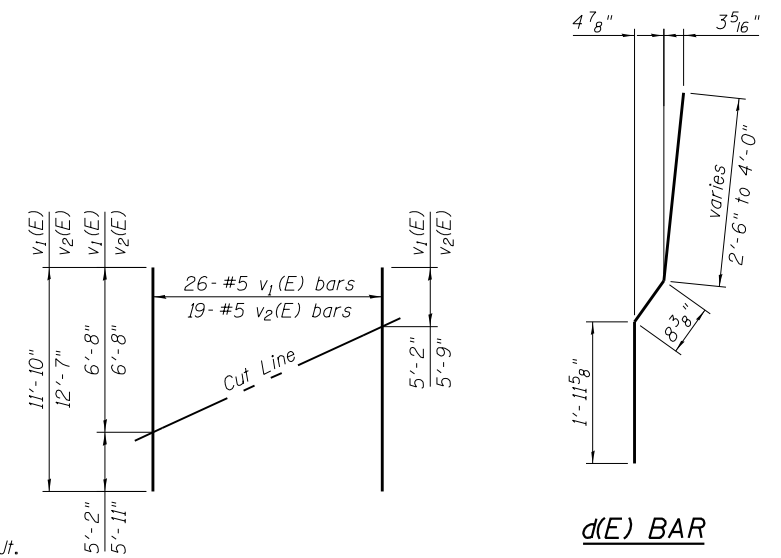
TYPE 2 PANEL



TYPE 3 PANEL

WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	318	#6	6'-8"	~
h(E)	18	#5	35'-5"	—
h ₁ (E)	276	#5	33'-3"	—
h ₂ (E)	150	#5	29'-8"	—
h ₃ (E)	36	#5	36'-3"	—
h ₄ (E)	18	#5	32'-8"	—
h ₅ (E)	24	#5	24'-8"	—
h ₆ (E)	12	#5	38'-3"	—
h ₇ (E)	12	#5	27'-8"	—
v(E)	1888	#5	6'-8"	—
v ₁ (E)	26	#4	11'-10"	—
v ₂ (E)	19	#6	12'-7"	—
v ₃ (E)	189	#4	5'-2"	—
Reinforcement Bars, Epoxy Coated		Pound	35,830	
Concrete Structures		Cu Yd	272.2	



FIELD CUTTING DIAGRAM

BAR BENDING DIAGRAM

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

MINIMUM BAR LAP

#5 bar = 3'-3"

- Notes:
1. Walls shown looking North at Front of the Wall.
 2. For Section C-C, see Sheet 7 of 14.



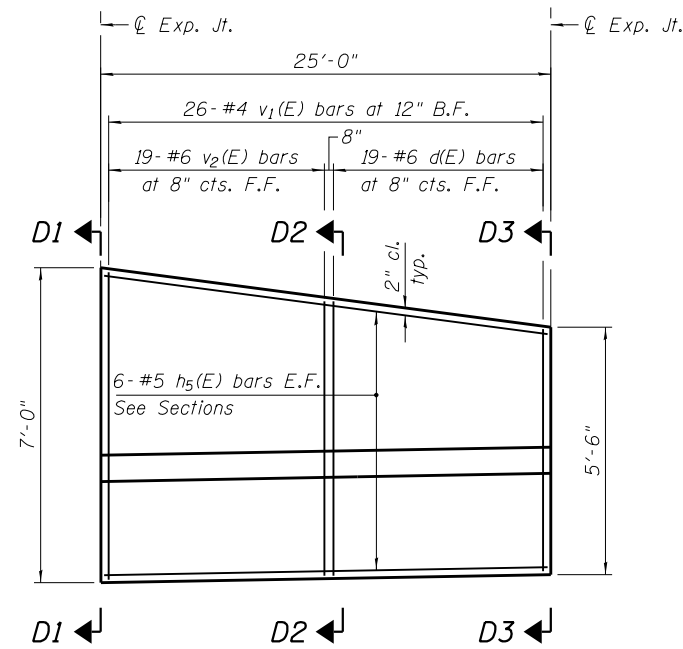
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	CHECKED MLK	REVISED -
PLOT SCALE = 0.16667' / in.	DRAWN LK	REVISED -
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

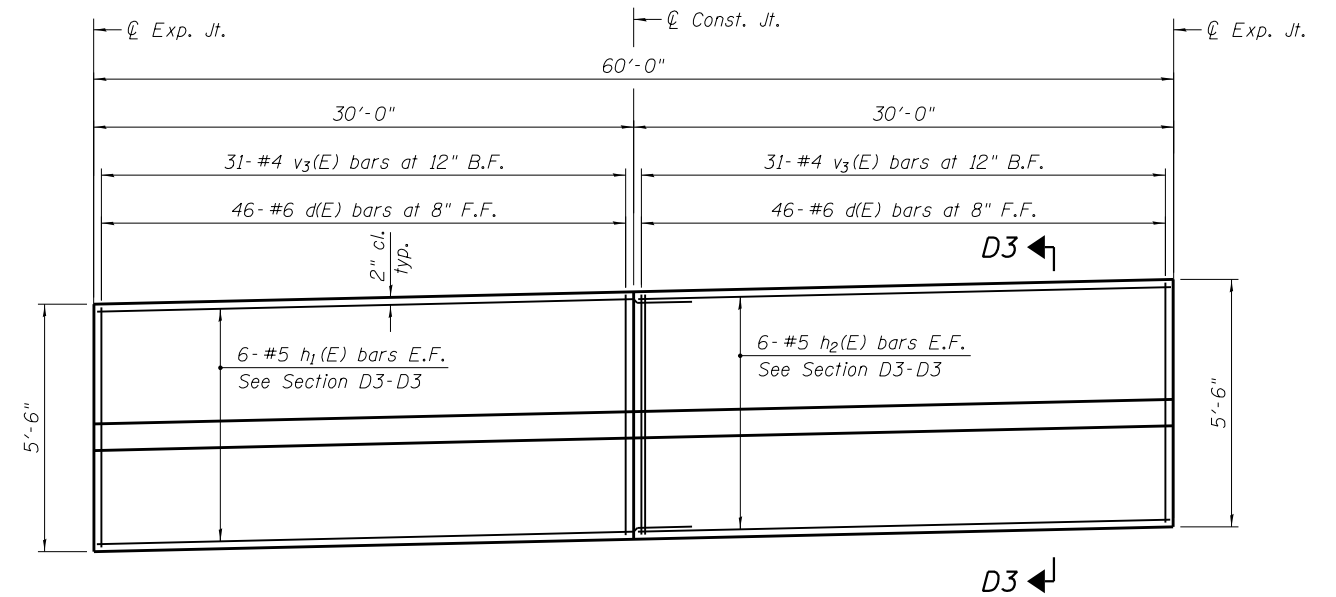
RETAINING WALL WB-5 DETAILS - 1
STRUCTURE NO. 016-2039

SHEET NO. 5 OF 14 SHEETS

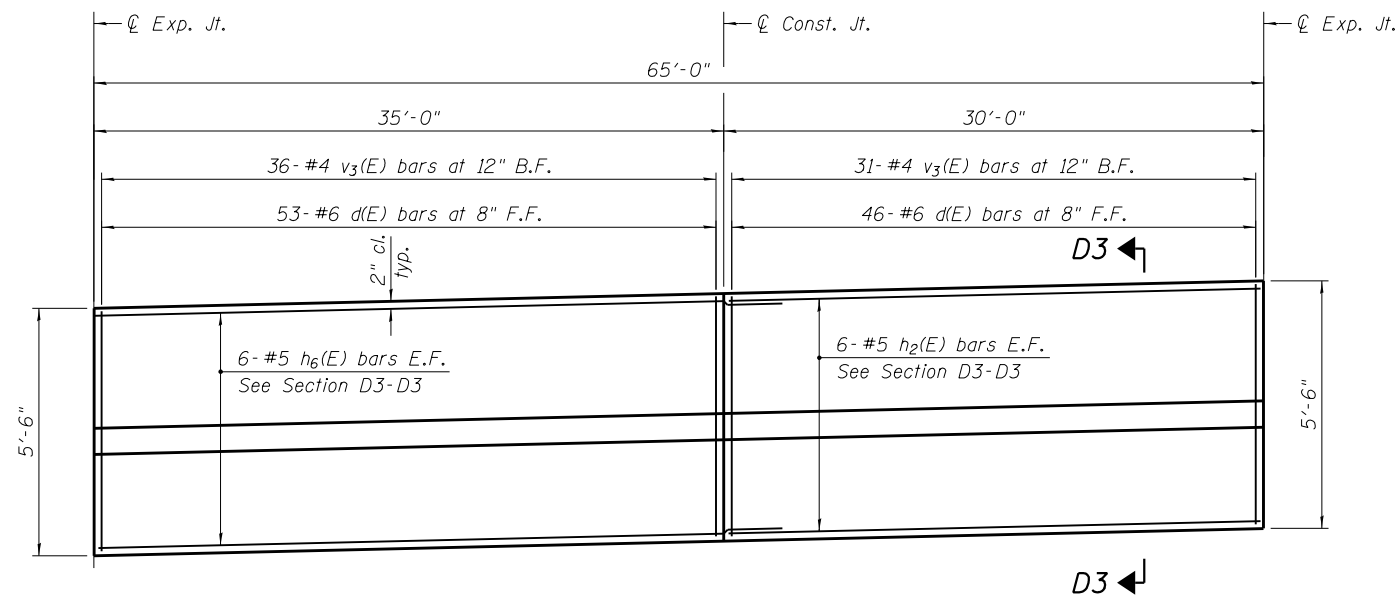
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	533
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



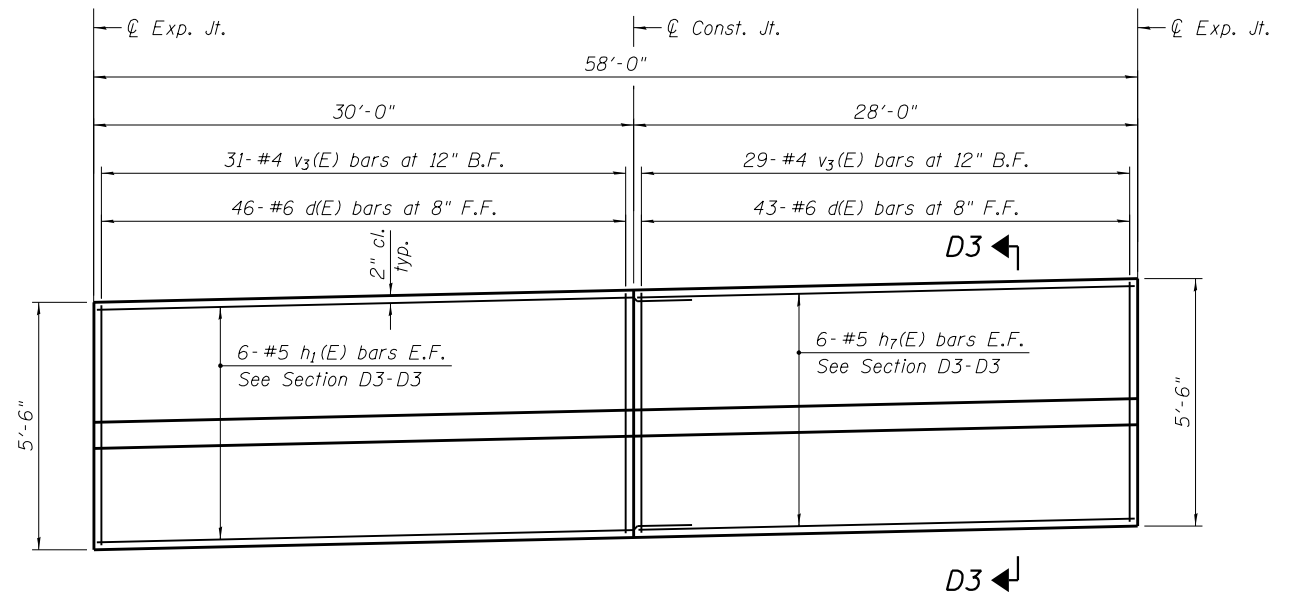
TYPE 4 PANEL



TYPE 6 PANEL



TYPE 5 PANEL



TYPE 7 PANEL

MINIMUM BAR LAP

#5 bar = 3'-3"

- Notes:
1. Walls shown looking North at Front of the Wall.
 2. For Section D-D series, see Sheet 8 of 14.
 3. For Bill of Material, see Sheet 5 of 14.



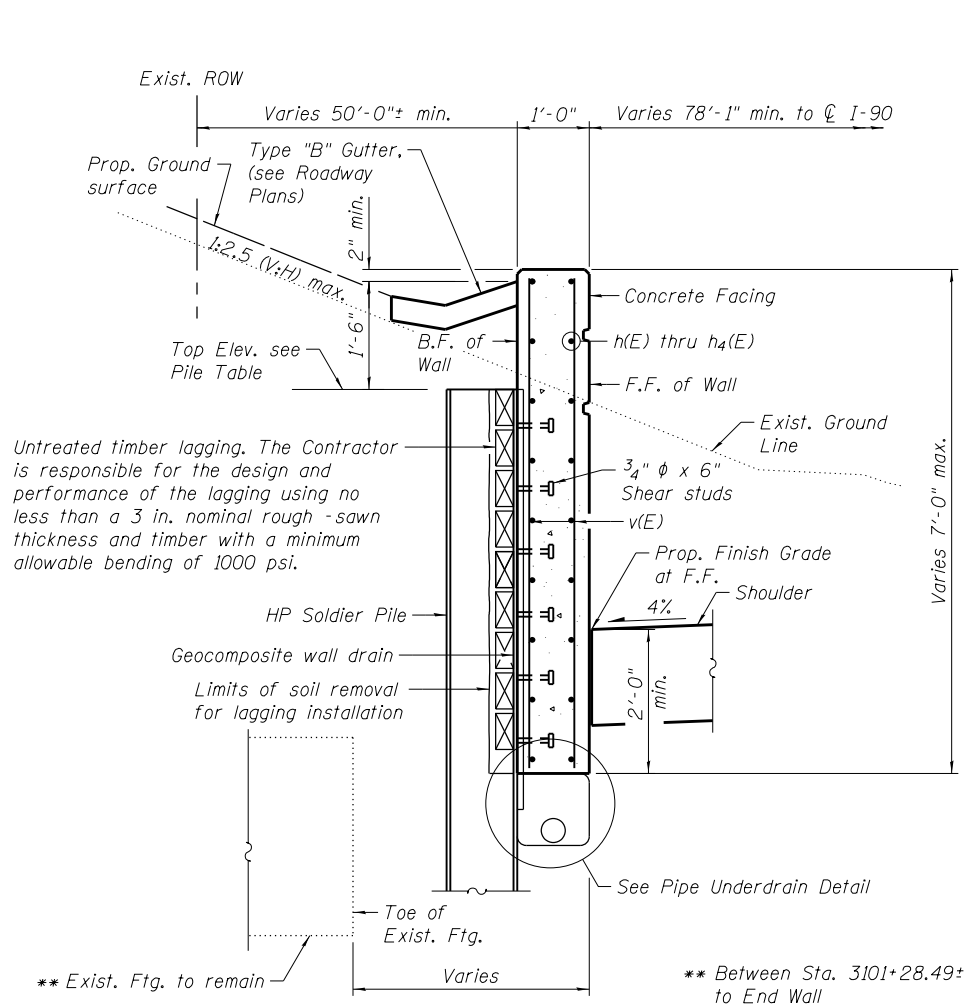
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	CHECKED MLK	REVISED -
PLOT SCALE = 0.16667' / in.	DRAWN LK	REVISED -
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

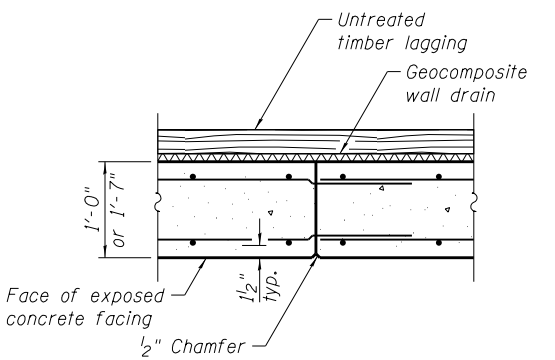
**RETAINING WALL WB-5 DETAILS - 2
STRUCTURE NO. 016-2039**

SHEET NO. 6 OF 14 SHEETS

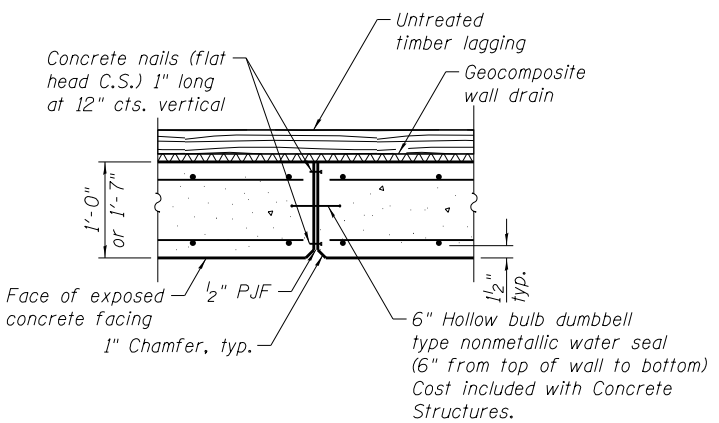
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	534
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



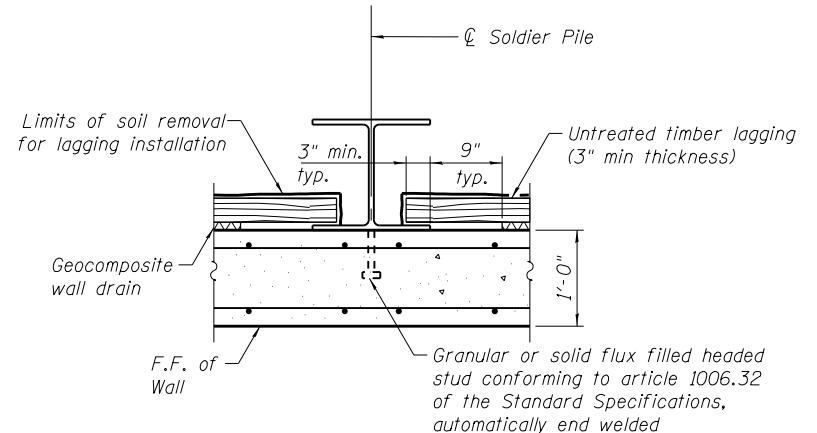
SECTION C-C
SECTION THRU DRIVEN SOLDIER PILE WALL



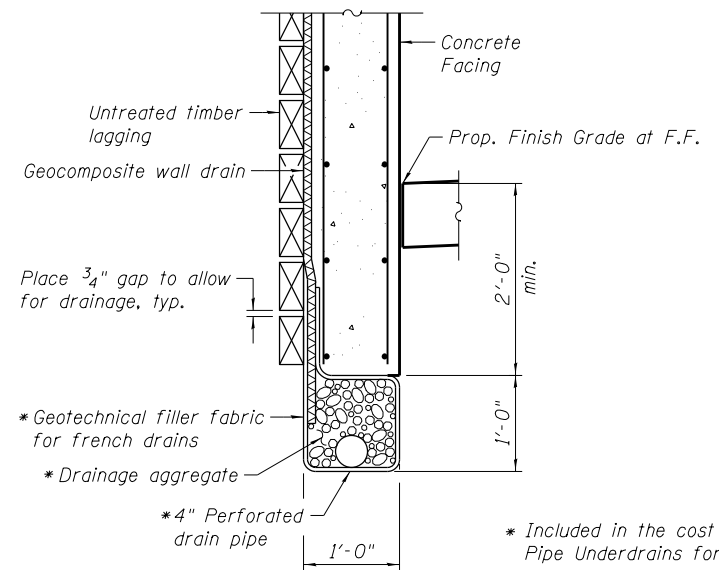
CONSTRUCTION JOINT



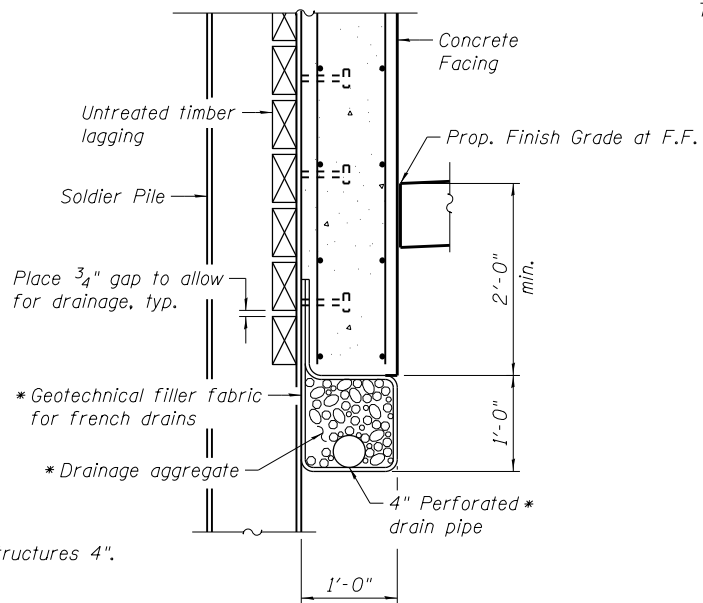
EXPANSION JOINT



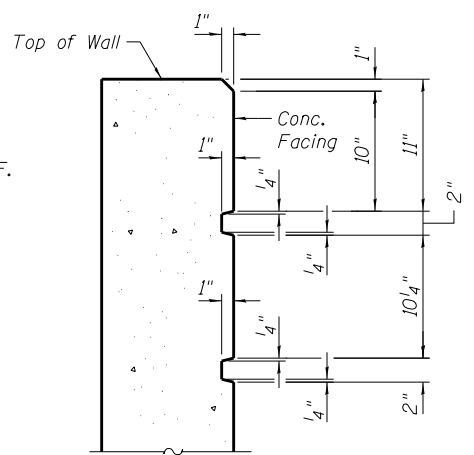
SECTION THRU SOLDIER PILE



BETWEEN SOLDIER PILES



AT SOLDIER PILES



RUSTICATION DETAIL AT TOP OF WALL

- Notes:
1. For panel reinforcement, see Sheets 5 through 6 of 14.
 2. See Roadway Plans for material behind the retaining wall.
 3. For location of section C-C, see Sheet 5 of 14.
 4. Concrete Sealer shall be applied to exposed surfaces of the front face and the top of wall.



USER NAME = lkolite	DESIGNED ACF	REVISIONS
	CHECKED MLK	REVISIONS -
PLOT SCALE = 0:1.999996 '1' / 1"	DRAWN LK	REVISIONS -
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISIONS -

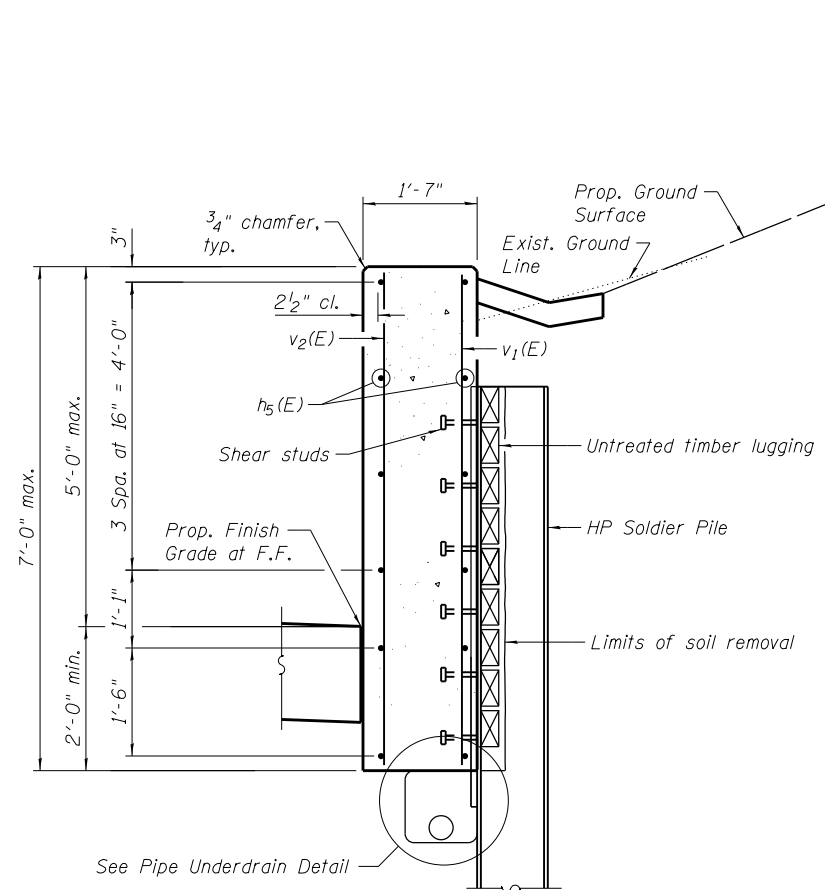
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-5 DETAILS - 3
STRUCTURES NO. 016-2039

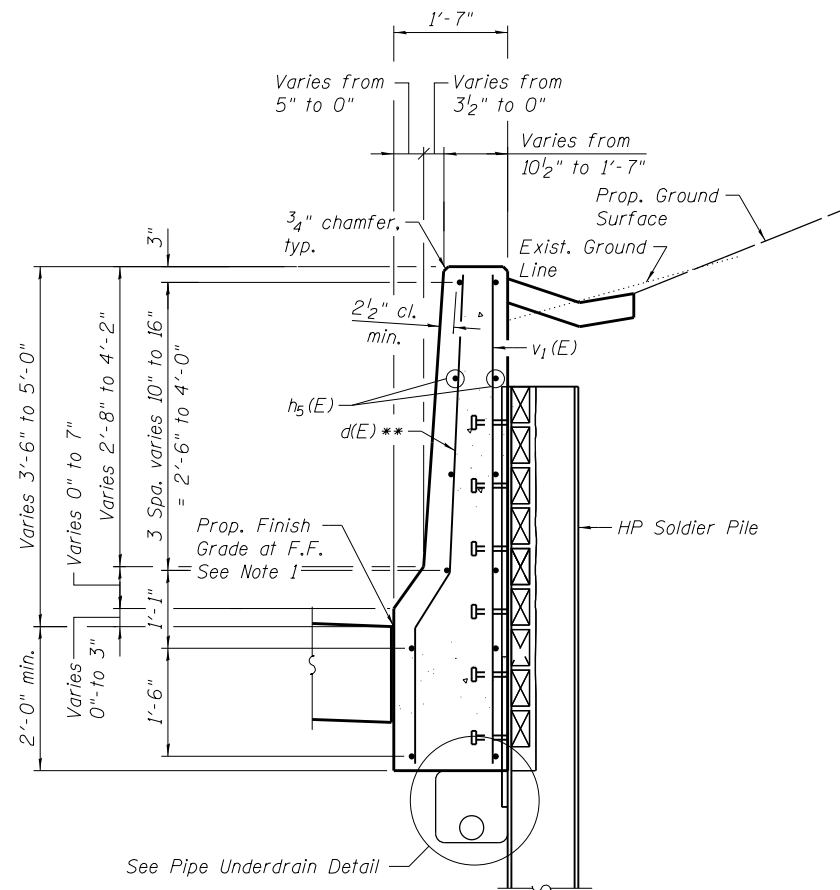
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	535
CONTRACT NO. 60Y39				

SHEET NO. 7 OF 14 SHEETS

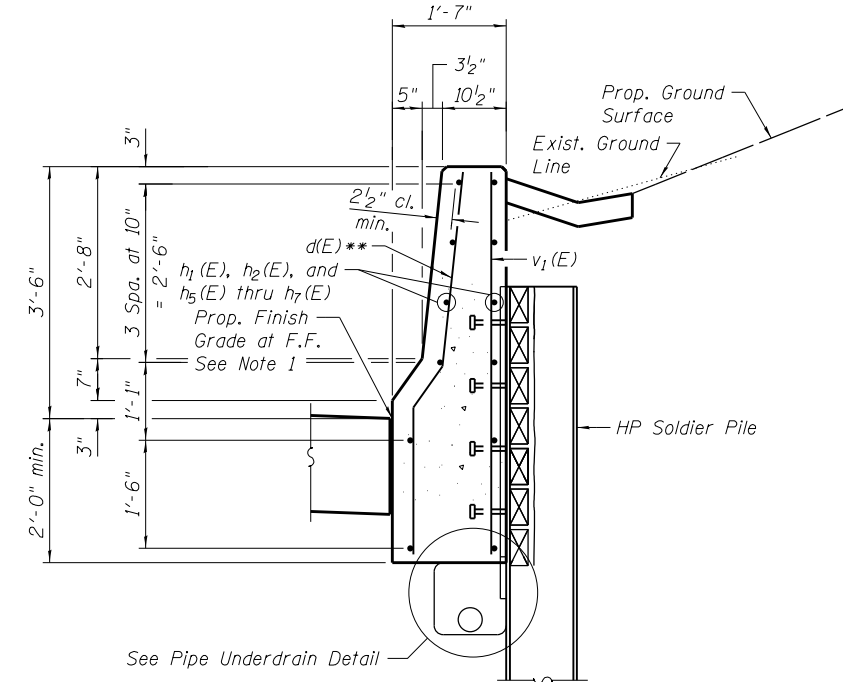
ILLINOIS FED. AID PROJECT



SECTION D1-D1



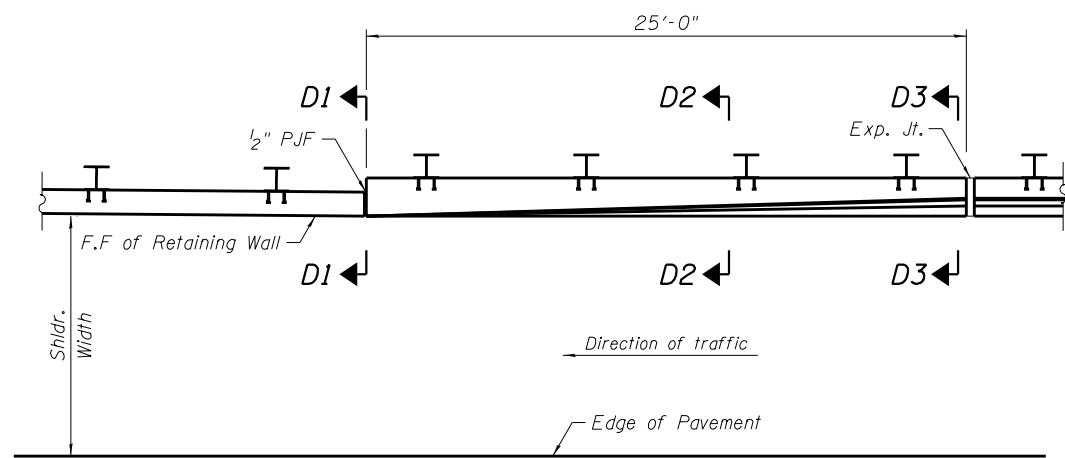
SECTION D2-D2



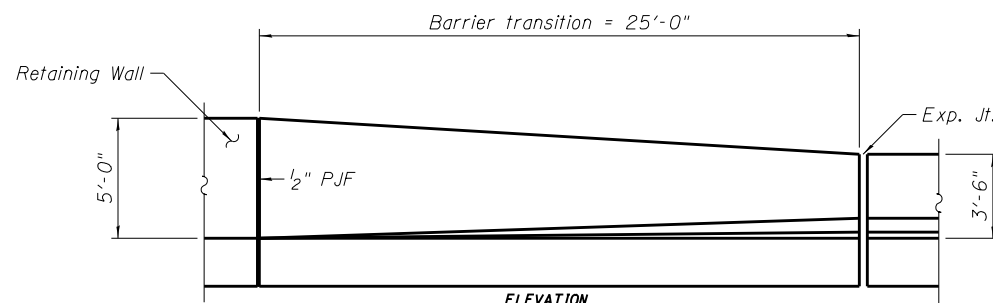
SECTION D3-D3

** Cut to fit in field
2" vertical clearance

- Notes:
1. Top shoulder edge of barrier base gutter shall match the top of shoulder elevation.
 2. See Section C-C on Sheet 7 of 14 for additional details not shown on this sheet.



PLAN



RETAINING WALL TRANSITION PANEL

East Transition Panel shown, West Transition Panel similar



USER NAME = kkalite	DESIGNED ACF/JRK	REVISED -
PLOT SCALE = 0.166666' / in.	CHECKED PCA	REVISED -
PLOT DATE = 1/16/2018	DRAWN LK	REVISED -
	DATE 01/19/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RETAINING WALL WB-5 DETAILS - 4
STRUCTURE NO. 016-2039**

SHEET NO. 8 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	536
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/16/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TZ

SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL
					Surface Water Elev. n/a ft				
					Stream Bed Elev. n/a ft				
BORING NO. RWB-31	Station 3093+83				Groundwater Elev.: First Encounter 634.7 ft ▼				
	Offset 70.70ft Left				Upon Completion Dry ft				
	Ground Surface Elev. 636.70 ft				After Hrs. ft				
11.0' ASPHALT	635.78				SANDY CLAY LOAM-gray-medium dense (continued)				
CLAY LOAM-gray-hard (Fill)		7				6			
		6	4.5	15		7		10	
		7	P			10			
CLAY-gray-medium stiff to stiff	633.70				CLAY-gray-stiff				
		3				5			
		4	1.3	24		6	0.9	18	
		5	B			8	B		
		-5				-25			
		3			End Of Boring @ -25.0'. Boring backfilled with cuttings.				
		4	1.0	23		2			
		6	B			2	1.3	23	
		3				4	B		
		4	1.2	23		3			
		5	B			4	1.5	23	
		-10				4	B		
		3				-10			
		4	0.9	23		3			
		4	B			3	1.5	22	
		4				5	B		
		3				3			
		4	1.3	21		4	1.9	22	
		5	B			6	B		
		-15				-15			
		3				3			
		5	1.5	20		4	1.5	20	
		6	B			4	B		
SANDY CLAY LOAM-gray-medium dense	618.70					3			
		3				5	1.8	20	
		7				7	B		
		8				-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL
					Surface Water Elev. n/a ft				
					Stream Bed Elev. n/a ft				
BORING NO. RWB-32	Station 3094+65				Groundwater Elev.: First Encounter Dry ft				
	Offset 67.40ft Left				Upon Completion Dry ft				
	Ground Surface Elev. 636.20 ft				After Hrs. ft				
10.0' ASPHALT	635.37				CLAY-gray-stiff (continued)				
	634.87				SANDY CLAY LOAM-gray-medium dense				
		6				3			
		5		8		7		10	
		6				10			
CLAY-gray-stiff	613.70				CLAY-gray-very stiff				
		2				4			
		2	1.4	23		5	2.2	20	
		3	B			7	B		
		-5				-25			
		2			End Of Boring @ -25.0'. Boring backfilled with cuttings.				
		2				2			
		4	1.3	23		2	1.3	23	
		4	B			4	B		
		3				3			
		4	1.5	23		4	1.5	23	
		4	B			4	B		
		-10				-10			
		3				3			
		3	1.5	22		3	1.5	22	
		5	B			5	B		
		3				3			
		4	1.9	22		4	1.9	22	
		6	B			6	B		
		-15				-15			
		3				3			
		4	1.5	20		4	1.5	20	
		4	B			4	B		
		3				3			
		5	1.8	20		5	1.8	20	
		7	B			7	B		
		-20				-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



GSI Job No. 12245

SOIL BORING LOG

Page 1 of 1

Date 10/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW

SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL	DEPTH (ft)	BULGE (in)	UCS (tsf)	MATERIAL
					Surface Water Elev. n/a ft				
					Stream Bed Elev. n/a ft				
BORING NO. RWB-33	Station 3095+42				Groundwater Elev.: First Encounter 634.6 ft ▼				
	Offset 69.10ft Left				Upon Completion 630.1 ft ▼				
	Ground Surface Elev. 636.10 ft				After Hrs. ft				
8.0' ASPHALT	635.43				CLAY-gray-stiff (continued)				
6.0' CRUSHED STONE	634.93								
		3				3			
		3		7		4	1.0	23	
		2				6	B		
CLAY-gray-medium stiff	613.10				SANDY CLAY LOAM-gray-medium dense				
		2				5			
		2				9		12	
		3	0.5	25		13			
		3	B		End Of Boring @ -25.0'. Boring backfilled with cuttings.				
		-5				2			
		2				2			
		3	0.5	23		3	0.5	23	
		4	B			4	B		
		2				2			
		3				3			
		3		24		3		24	
		-10				4		-30	
		2				-10			
		3	0.5	26		2			
		3	P			3	0.5	26	
		3				3			
		3	0.7	23		3	0.7	23	
		-15				3	B		
		-15				-15			
		2				2			
		4		14		4		14	
		6				6			
SANDY LOAM-gray-medium dense	620.60					3			
		2				3			
		4				4			
		6				6			
CLAY-gray-stiff	618.10					3			
		3				3			
		3	1.3	22		3	1.3	22	
		4	B			4	B		
		-20				-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Notes:
1. For location of soil borings, see Sheet 1 of 14.



USER NAME = kkalite	DESIGNED ACF	REVISED -
CHECKED MLK	REVISED -	
PLOT SCALE = 0.166666' / in.	DRAWN LK	REVISED -
PLOT DATE = 1/16/2018	DATE 01/19/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL WB-5 SOIL BORING LOGS - 1
STRUCTURE NO. 016-2039

SHEET NO. 9 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	537
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW
SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev.	D E P T H	B L O W S	U C S	M O I S T U R E
					n/a ft				
9.0' ASPHALT 635.85					n/a	616.10			
6.0' CRUSHED STONE 635.35		3					5		
SILTY CLAY-gray-stiff to very stiff		2	2.8	18			7	1.8	21
		4	B						
		2					5		
		2	1.0	24			7	1.9	17
		3	B			611.60	9		
		-5							
		2							
		3	1.1	24			4	1.9	21
		3	B				5	B	
		2					3		
		2	1.1	23			4	1.9	18
		-10	B			-30	5	B	
		3							
		4	1.5	22			4	1.9	17
		5	B				5	B	
		-15					3		
		3					3	1.2	20
		4	1.4	21			4	1.4	21
		5	B				5	B	
		-10					4		
		3					5	1.5	21
		4	1.3	19			7	B	
		5	B						
		-20					8		
		9		10			5	1.9	23
		9					7	B	
		-20					8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245
Page 1 of 1
Date 10/14/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW
SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev.	D E P T H	B L O W S	U C S	M O I S T U R E
					n/a ft				
8.0' ASPHALT 636.43					n/a	612.10			
6.0' CRUSHED STONE 635.93		3					5		
CLAY-gray-stiff to very stiff		3	2.2	19			6	2.0	18
		3	B						
		2					3		
		3	1.7	22			5	2.0	22
		4	B			612.10	5		
		-5							
		2							
		4	1.9	21			4	1.9	21
		5	B				5	B	
		3					3		
		4	1.9	18			4	1.9	18
		-10	B			-30	5	B	
		4							
		5	1.9	17			4	1.9	17
		5	B				5	B	
		-15					3		
		3					3	1.2	20
		4	1.4	21			4	1.4	21
		5	B				5	B	
		-10					4		
		3					5	1.5	21
		4	1.4	21			7	B	
		5	B						
		-20					4		
		4					5	1.2	18
		5	1.2	18			8		
		-20					8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 12245
Page 1 of 2
Date 11/4/13

ROUTE -- DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY NW
SECTION -- LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM
COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T U R E	Surface Water Elev.	D E P T H	B L O W S	U C S	M O I S T U R E
					n/a ft				
7.0' ASPHALT 636.82					n/a	614.40			
5.0' CRUSHED STONE 636.40		6					4		
CLAY-gray-stiff		4	1.5	21			5	1.0	17
		3	B				7	B	
		2					5		
		4	1.7	22			7		13
		5	B			614.40	9		
		-5							
		2					5		
		4	1.7	22			7		
		5	B			611.90	9		
		-5							
		3					5		
		5	1.5	22			6	1.3	23
		7	B				8	B	
		3					4		
		4	1.4	22			6	1.5	16
		-10	B			-30	7	B	
		4							
		5	1.6	22			3		
		7	B				10	2.6	21
		-15					13	B	
		3							
		4	1.5	22			3		
		5	B				5	1.9	23
		5	1.2	18			7	B	
		-20					8		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

Notes:
1. For location of soil borings, see Sheet 1 and 2 of 14.

Bench Mark: Square Cut on top of barrier wall by light pole "FC13" mile marker 80.40 on north side WB I-90 just east of Canfield.

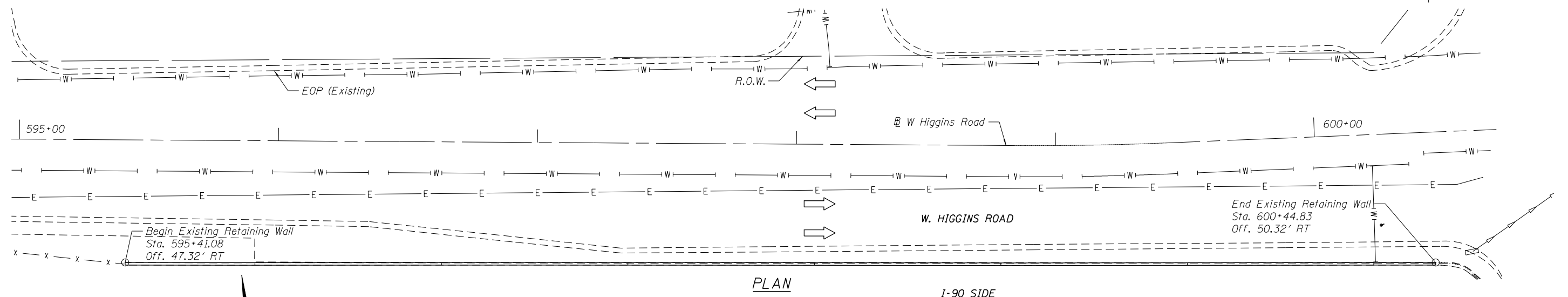
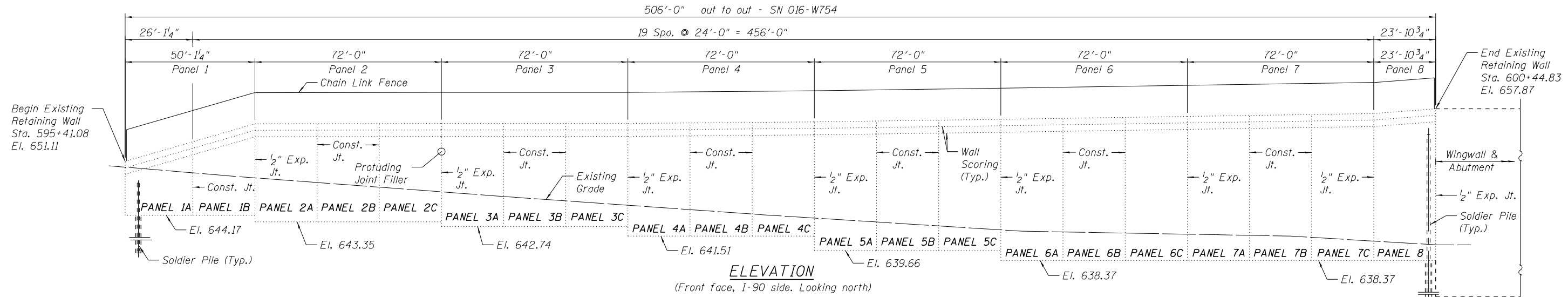
Existing Structure: The existing wall was constructed in 1999 and is a steel soldier pile with cast-in-place concrete wall (SN 016-W754). Total length of the wall is approximately 506 feet and the maximum height is approximately 16 feet 11 inches above existing grade on the side facing WB I-90, and approximately 2 feet 4 inches high on the side facing W. Higgins Road. A chain link fence four feet high with handrail is mounted to the top of the wall.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications,
7th Edition (2014) with 2016 Interim Revisions

EXISTING UNITS (ALLOWABLE)

f'c = 3,500 psi
fy = 58,000 psi (Reinforcement)
fy = 50,000 psi (Soldier Piles)

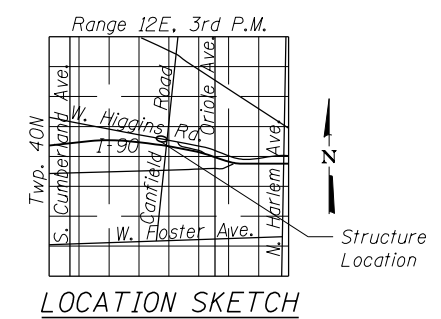


LEGEND

- > Existing Storm Sewer
- |— Existing Underground Water Line
- E— Existing Underground Electric Line
- ← Existing Traffic Lane
- ⊙ Light Pole



Signed: *Brian L. Umbright*
Date: 01/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-2



GENERAL PLAN & ELEVATION
W HIGGINS ROAD
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 595+41.08 TO 600+44.83
STRUCTURE NO. 016-W754

	USER NAME = *USER*	DESIGNED STD	REVISD	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">EXISTING RETAINING WALL REPAIR PLANS SN 016-W754 GENERAL PLAN AND ELEVATION</p>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	CHECKED KK	REVISD			I-90	(1517 & 1415) R-2	COOK	734	543
	PLOT DATE = 1-17-2018	DRAWN STD	REVISD			CONTRACT NO. 60Y39				
FILE NAME = *FILE*	DATE 01/19/2018	REVISD	SHEET NO. 1 OF 2 SHEETS			ILLINOIS FED. AID PROJECT				

EXISTING STRUCTURE NOTES

The wall is located along WB I-90 west of Canfield Road & ties into the northwest wingwall of Canfield Road Bridge over I-90 & CTA Blue Line.

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES AND TOTAL BILL OF MATERIAL

SCOPE OF WORK

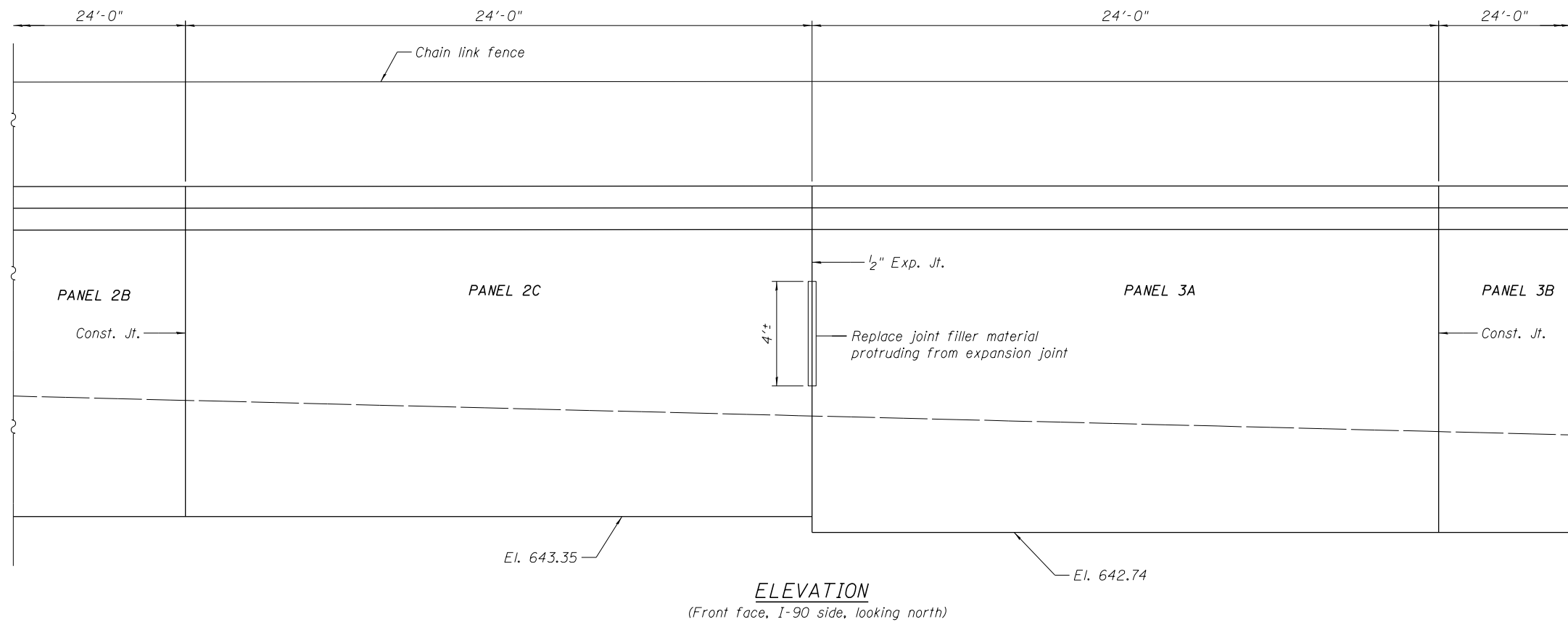
Reposition or replace joint filler material protruding from expansion joint between panel 2C & 3A

GENERAL NOTES

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

TOTAL BILL OF MATERIAL

Item	Unit	Total
REPLACE JOINT FILLER	FOOT	4



USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN STD	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	544
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

Bench Mark: Square cut on top of barrier wall by light pole "FC13" mile marker 80.40 on north side WB I-90 just east of Canfield.

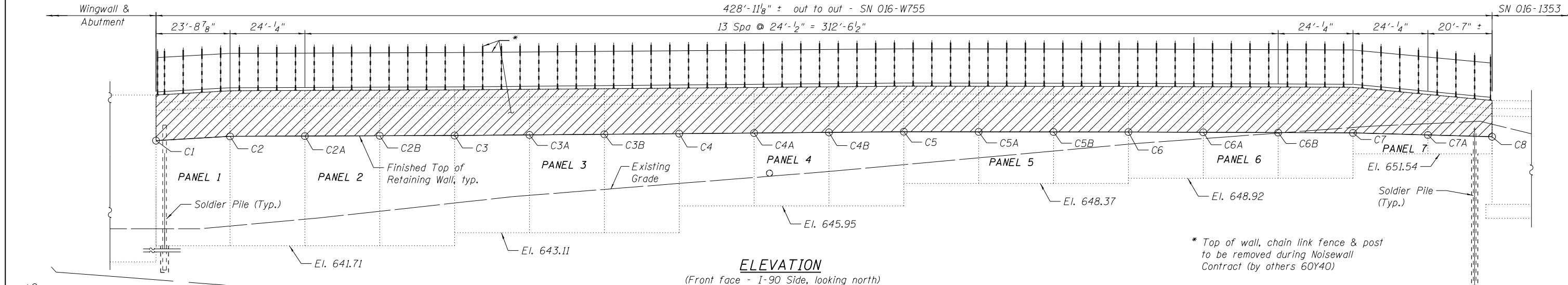
Existing Structure: The existing wall was constructed in 1999 and is a steel soldier pile with cast-in-place concrete wall (SN 016-W755). Total length of the wall is approximately 429 feet and the maximum height is approximately 13 feet 6 inches above existing grade on the side facing WB I-90, and approximately 2 feet 4 inches high on the side facing W. Higgins Road. A chain link fence four feet high with handrail is mounted to the top of the wall. Top portion of the existing wall will be removed to allow for moment slab and noise wall construction (noise wall construction is a separate contract). No impact to traffic is anticipated.

DESIGN SPECIFICATIONS

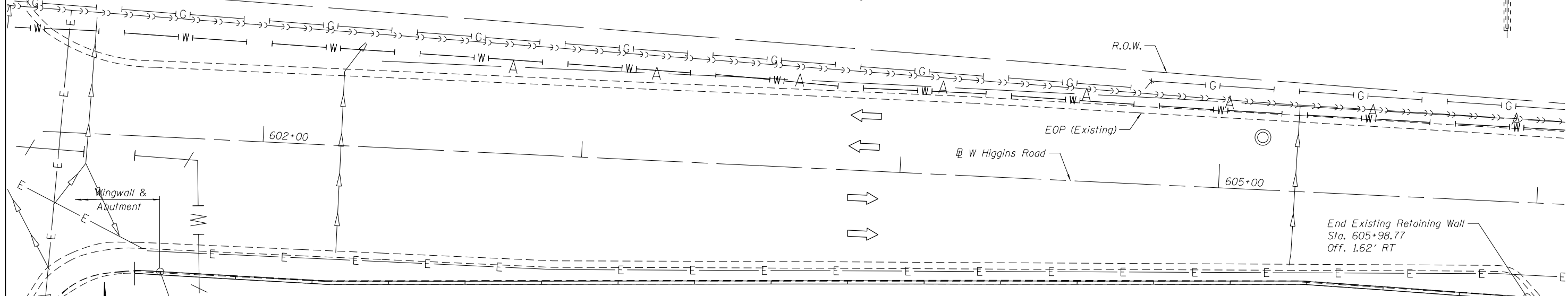
AASHTO LRFD Bridge Design Specifications,
7th Edition (2014) with 2016 Interim Revisions

EXISTING UNITS (ALLOWABLE)

f'c = 3,500 psi
fy = 58,000 psi (Reinforcement)
fy = 50,000 psi (Soldier Piles)



ELEVATION
(Front face - I-90 Side, looking north)



PLAN

NOTE:
See Sht. 2 for Stations & Elevations of Geometric Control Points

LEGEND

	Existing Storm Sewer		Concrete Removal (by others - Contract 60Y40)
	Existing Underground Water Line		Existing Traffic Lane
	Existing Underground Electric Line		Light Pole
	Existing Underground Gas Line		
	Existing Underground Combined Sewer		



Signed: *Brian L. Umbright*
Date: 01/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-4



GENERAL PLAN & ELEVATION
W HIGGINS ROAD
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 601+69.16 TO 605+98.69
STRUCTURE NO. 016-W755

 exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME : #USER#	DESIGNED STD	REVISD	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-W755 GENERAL PLAN AND ELEVATION SHEET NO. 1 OF 4 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : #SCALE#	DRAWN STD	REVISD			I-90	(1517 & 1415) R-2	COOK	734	545
PLOT DATE : 1-17-2018	DATE 01/19/2018	REVISD				CONTRACT NO. 60Y39		ILLINOIS FED. AID PROJECT		

EXISTING STRUCTURE NOTES

The wall is located along WB I-90 east of Canfield Road & ties into the northeast wingwall of Canfield Road Bridge over I-90 & CTA Blue Line on the west end & ties into SN 016-1353 on the east end.

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES AND TOTAL BILL OF MATERIAL
- 3 STRUCTURAL REPAIRS (1 OF 2)
- 4 STRUCTURAL REPAIRS (2 OF 2)

SCOPE OF WORK

- 1. Place Granular Backfill at front face of west end of the wall.
- 2. Clean and core weep hole for debris.

GENERAL NOTES

- 1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 2. It shall be Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
- 3. Top of wall, chain link fence and post shall be removed by others in Contract 60Y40.
- 4. Elevation of Control Point "C" is based on the removal elevation of existing wall by others from Contract 60Y40. For information only.

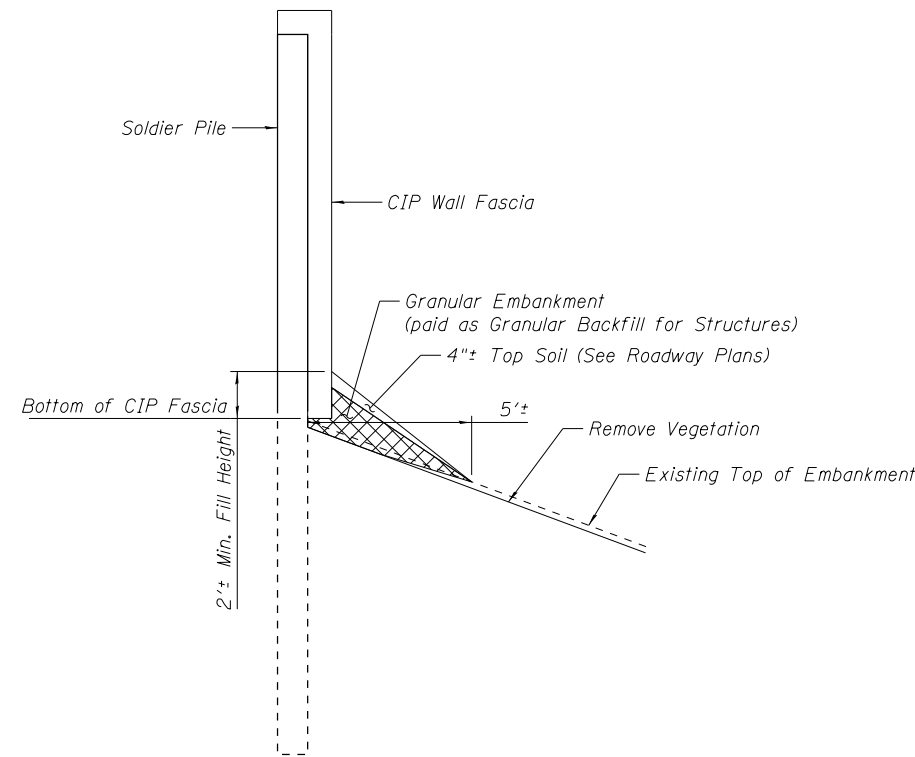
TOTAL BILL OF MATERIAL

Item	Unit	Total
GRANULAR BACKFILL FOR STRUCTURES	CU YD	2.0
WEEP HOLES CLEANED AND CORED	EACH	1

GEOMETRIC CONTROL POINTS, STATIONS AND ELEVATIONS

(For Information Only)

Control Point "C"	Stations	New Elevation @ Finished Top of Wall (C)
C1	601+73.66	653.41
C2	601+97.66	653.48
C2'	602+21.83	653.55
C3	602+69.80	653.69
C4	603+41.71	653.90
C5	604+13.63	654.12
C6	604+85.55	653.99
C6'	605+27.50	653.85
C7	605+56.49	653.75
C8	605+98.51	653.61

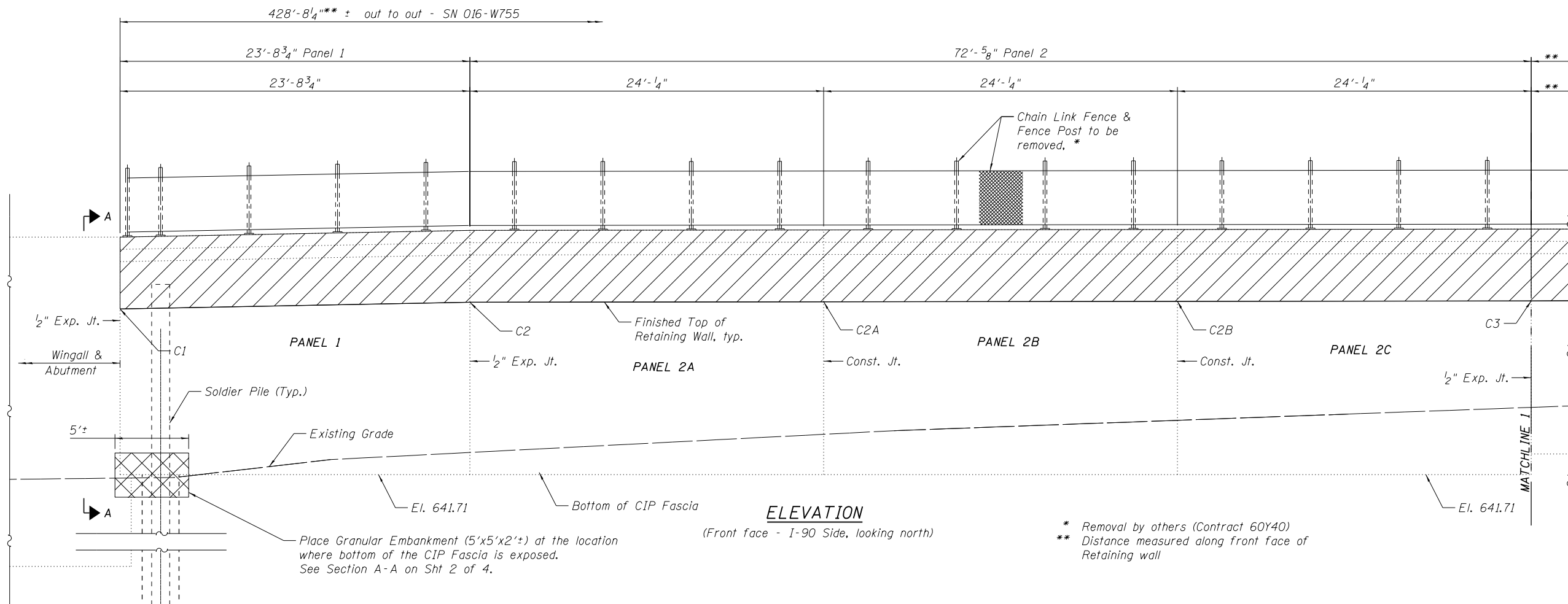


SECTION A-A

(Showing Granular Embankment)

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN STD	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

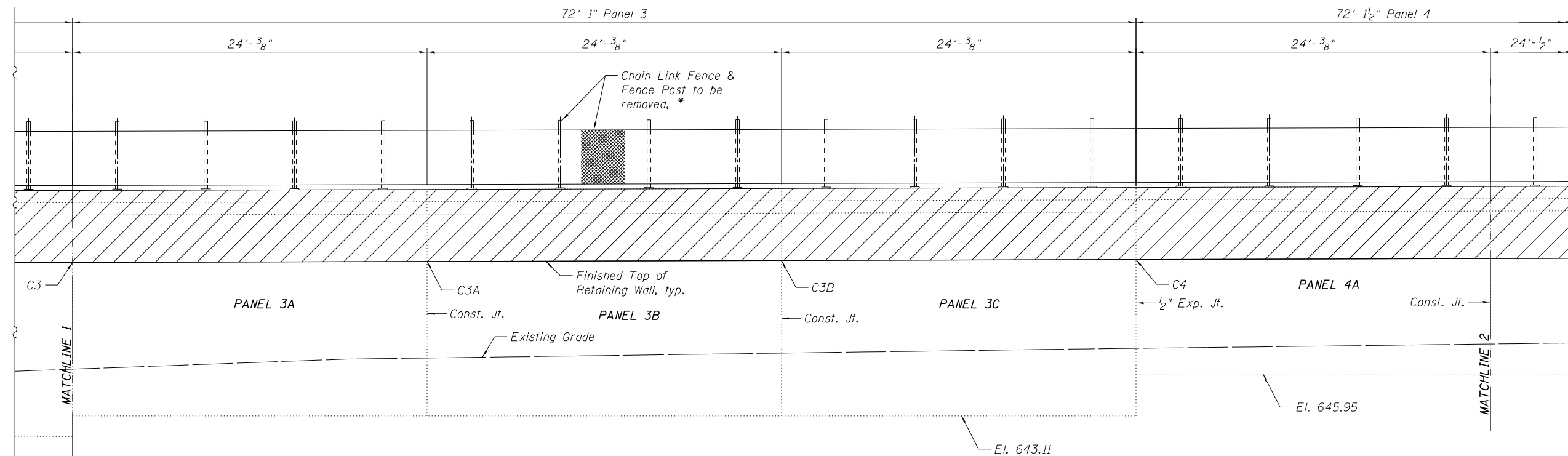
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	546
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				



ELEVATION

(Front face - I-90 Side, looking north)

- * Removal by others (Contract 60Y40)
- ** Distance measured along front face of Retaining wall



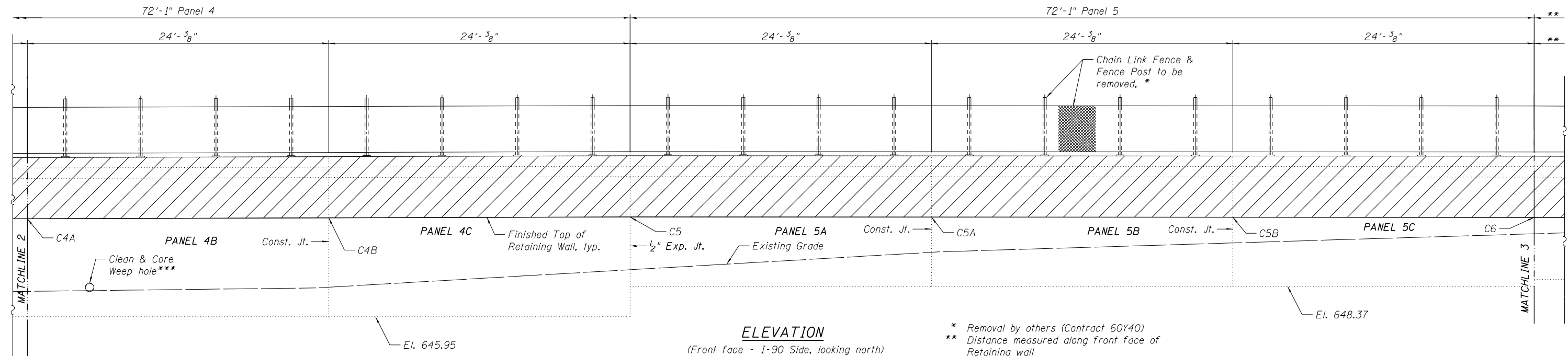
ELEVATION

(Front face - I-90 Side, looking north)

LEGEND

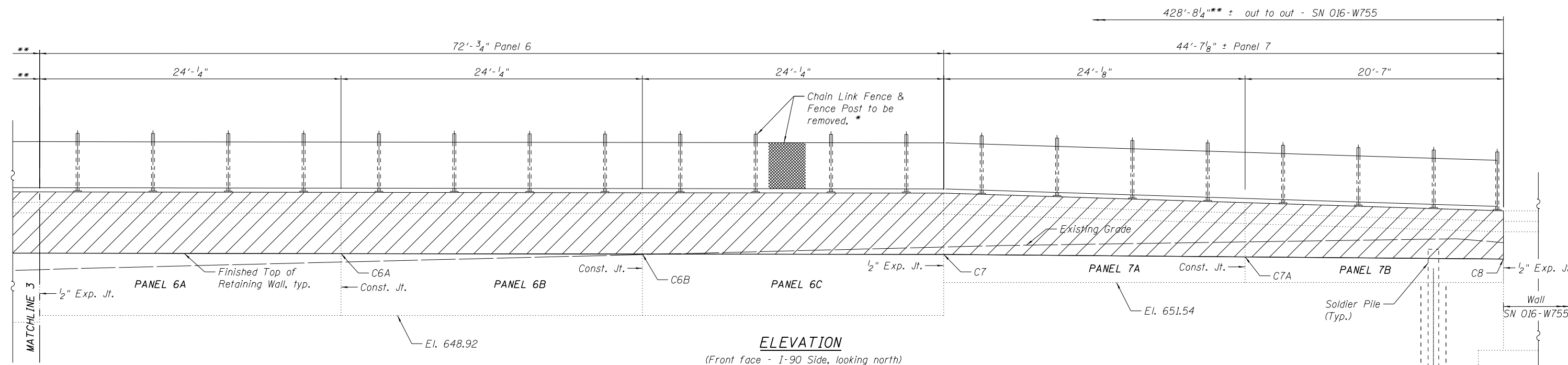
- Concrete Removal (by others - Contract 60Y40)
- Granular Backfill for Structures

exp U.S. Services Inc. Chicago, IL BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY	USER NAME = *USER*	DESIGNED STD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-W755 STRUCTURAL REPAIRS (1 OF 2)	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	DRAWN STD	REVISED			I-90	(1517 & 1415) R-2	COOK	734	547
	PLOT DATE = *DATE*	DATE 01/19/2018	REVISED			CONTRACT NO. 60Y39		SHEET NO. 3 OF 4 SHEETS		
ILLINOIS FED. AID PROJECT										



ELEVATION
(Front face - I-90 Side, looking north)

- * Removal by others (Contract 60Y40)
- ** Distance measured along front face of Retaining wall
- *** Location to be identified by the Contractor and approved by the Engineer.



ELEVATION
(Front face - I-90 Side, looking north)

exp U.S. Services Inc.
Chicago, IL
BUILDINGS • EARTH & ENVIRONMENT • ENERGY
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN STD	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-W755
STRUCTURAL REPAIRS (2 OF 2)
SHEET NO. 4 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	548
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

FILE NAME = *FILEL*

Bench Mark: Square cut on top of barrier wall by light pole (FD2) mile marker 80.74 on north side WB I-90 just east of Oriole Bridge.

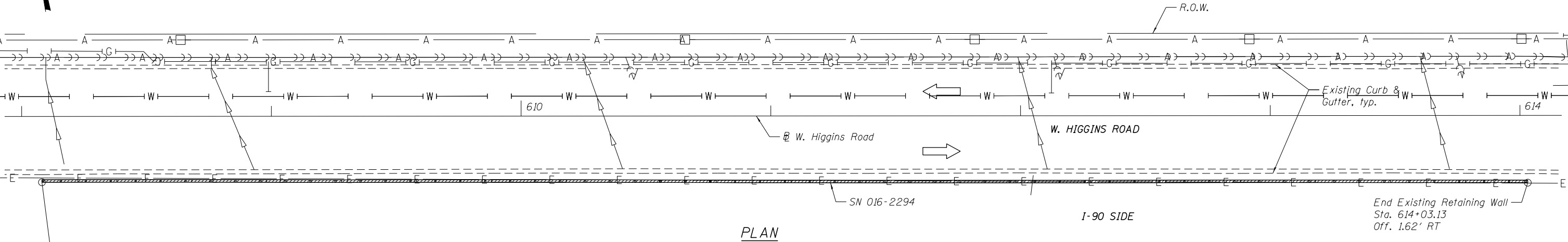
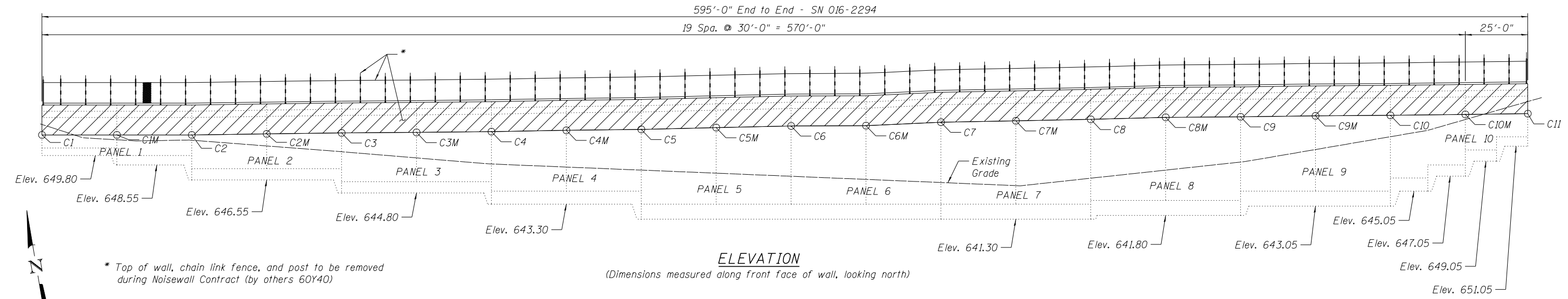
Existing Structure: The existing wall was constructed in 1958 and is a cast-in-place concrete cantilever wall on spread footing (SN 016-2294). Total length of the wall is approximately 595 feet and the maximum height is approximately 12 feet 8 inches above existing grade on the side facing the ramp, and approximately 1 foot 8 inches high on the side facing W. Higgins Road. A chain link fence between two feet and three feet high is mounted to the top of the wall. Top portion of the existing wall will be removed to allow for moment slab and noise wall construction (noise wall construction is a separate contract). No impact to traffic is anticipated

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications,
7th Edition (2014) with 2016 Interim Revisions

EXISTING UNITS (ALLOWABLE)

$f'c = 800$ psi
 $f_y = 20,000$ psi (Reinforcement)

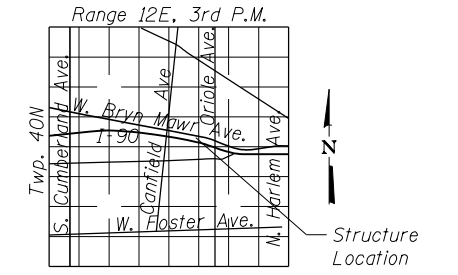


LEGEND

- Proposed Storm Sewer
- Existing Storm Sewer
- ⊙ Light Pole
- ← Existing Traffic Lane
- ▨ Concrete Removal (by others - Contract 60Y40)
- G— Existing Underground Gas Line
- A— Existing Aerial Line
- E— Existing Underground Electric Line
- W— Existing Underground Water Line
- Existing Underground Combined Sewer



Signed: *Pompeo V. ...*
Date: 01/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-5



GENERAL PLAN & ELEVATION
W HIGGINS ROAD
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 608+08.13 TO 614+03.13
STRUCTURE NO. 016-2294

	USER NAME = #USER#	DESIGNED STD	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-2294 GENERAL PLAN AND ELEVATION SHEET NO. 1 OF 5 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	DRAWN EG	REVISIONS			I-90	(1517 & 1415) R-2	COOK	734	549
	PLOT DATE = 1-17-2018	DATE 01/19/2018	REVISIONS			CONTRACT NO. 60Y39		ILLINOIS FED. AID PROJECT		

EXISTING STRUCTURE NOTES

The retaining wall SN 016-2294 is located along W. Higgins Road adjacent to WB I-90 off ramp to W. Higgins Road between Canfield Road and Oriole Avenue.

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES AND TOTAL BILL OF MATERIAL
- 3 STRUCTURAL REPAIRS (1 OF 3)
- 4 STRUCTURAL REPAIRS (2 OF 3)
- 5 STRUCTURAL REPAIRS (3 OF 3)

GENERAL NOTES

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. It shall be Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
3. Top of wall, chain link fence and post shall be removed by others in Contract 60Y40.
4. Elevation of Control Point "C" is based on the removal elevation of existing wall by others from Contract 60Y40. For information only.

SCOPE OF WORK

Repair concrete and seal cracks with widths greater than 1/16" with Low Pressure Epoxy Injection.

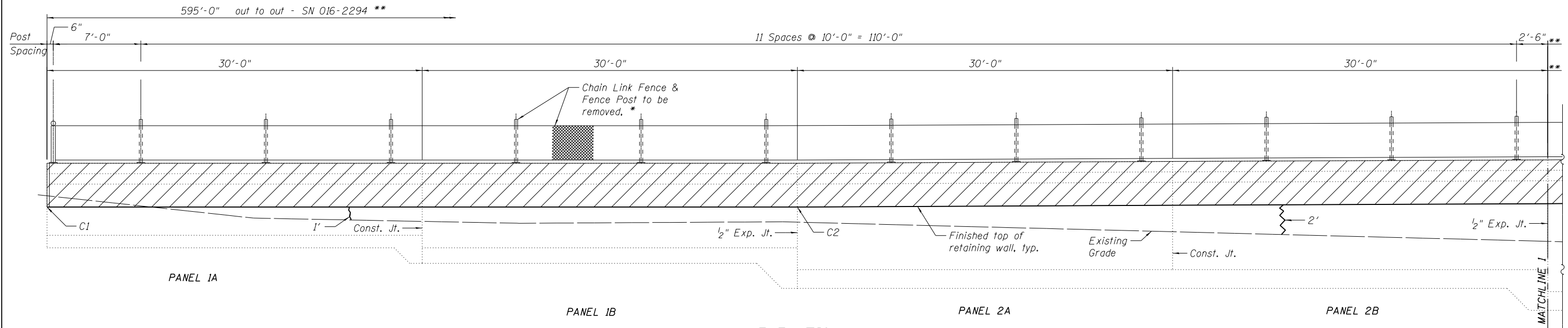
TOTAL BILL OF MATERIAL

Item	Unit	Total
EPOXY CRACK INJECTION	FOOT	72

GEOMETRIC CONTROL POINTS, STATIONS AND ELEVATIONS

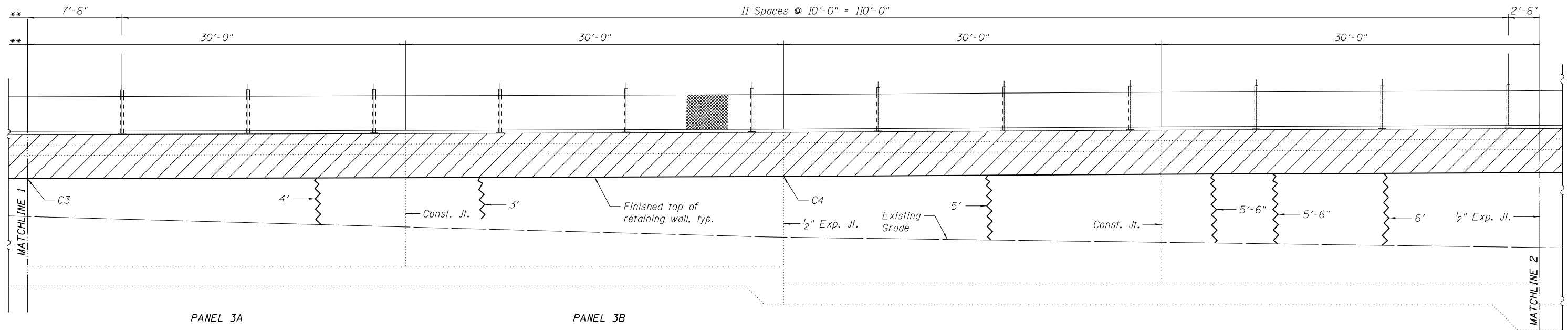
(For Information Only)

Control Point "C"	Stations	New Elevation @ Finished Top of Wall (C)
C1	608+08.13	653.26
C2	608+68.13	653.34
C3	609+28.13	653.63
C4	609+88.13	653.93
C5	610+48.13	654.23
C6	611+08.13	654.52
C7	611+68.13	654.84
C8	612+28.13	655.19
C9	612+88.13	655.54
C10	613+48.13	655.89
C11	614+03.13	656.21



ELEVATION
(Front face - I-90 side, looking north)

* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



ELEVATION
(Front face - I-90 side, looking north)

LEGEND

Concrete Removal (by others - Contract 60Y40)

Cracks to be repaired using Epoxy Crack Injection
Repair Length indicated

Note: Repair length indicated is the length of the crack requiring Epoxy Crack Injection. Total length of crack may be longer. Cracks, or portions of cracks within areas identified as Structural Repair of Concrete or Concrete Removal do not require Epoxy Crack Injection and are not shown on Repair Plans.

exp U.S. Services Inc.
Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = #USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = #SCALE*	DRAWN EG	REVISED
PLOT DATE = #DATE*	DATE 01/19/2018	REVISED

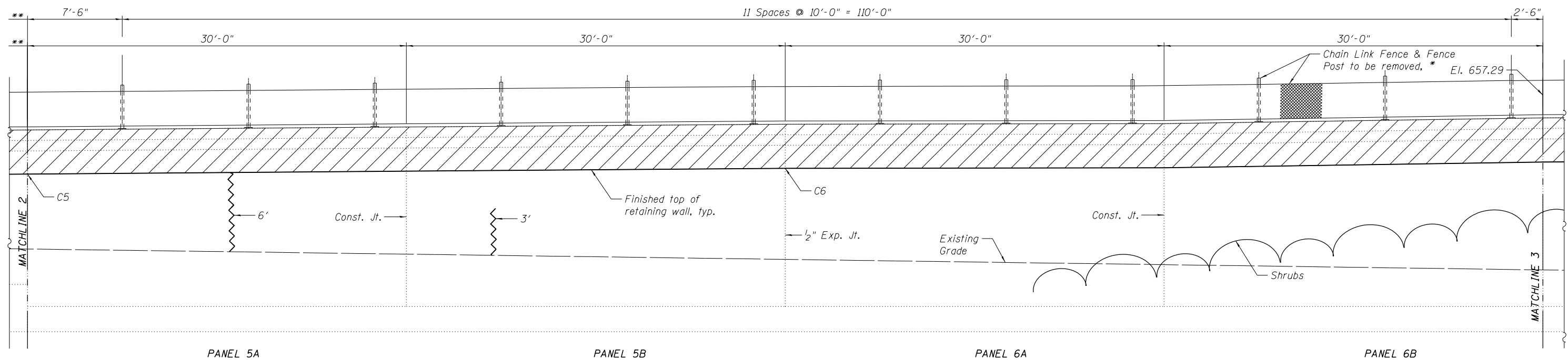
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2294
STRUCTURAL REPAIRS (1 OF 5)

SHEET NO. 3 OF 5 SHEETS

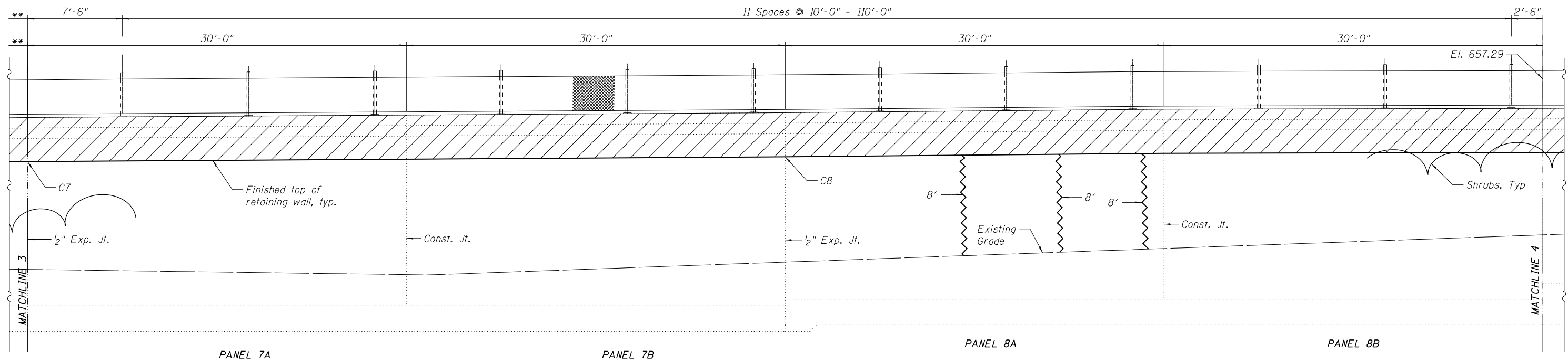
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	551
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT



ELEVATION
(Front face - I-90 side, looking north)

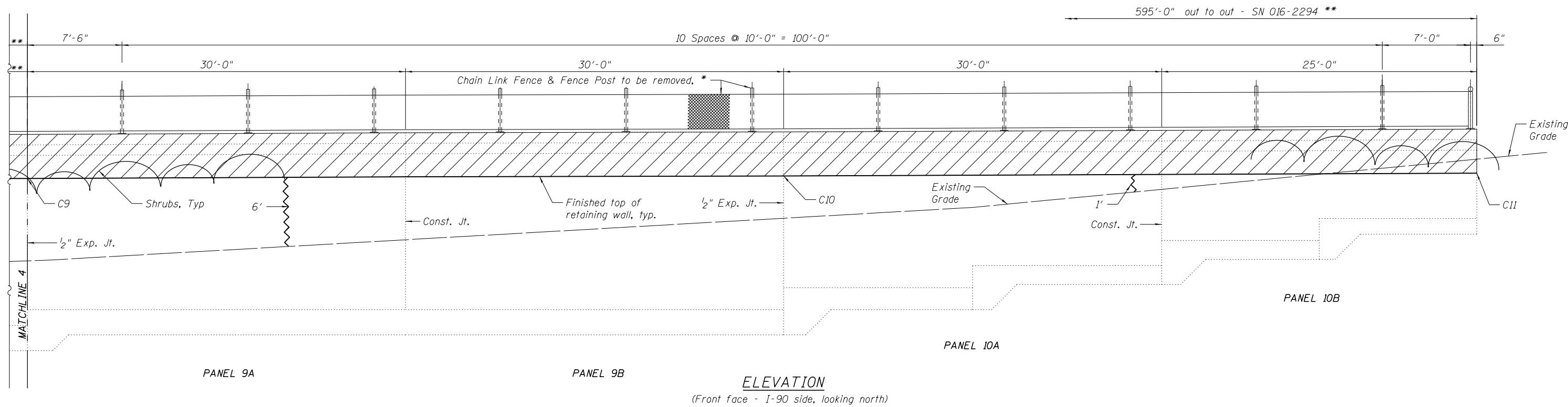
* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



ELEVATION
(Front face - I-90 side, looking north)

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN EG	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	552
CONTRACT NO. 60Y39				



* Removal by others (Contract 60Y40)
 ** Distance measured along front face of Retaining wall

 exp U.S. Services Inc. Chicago, IL BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY	USER NAME = *USER*	DESIGNED STD	REVISED
		CHECKED KK	REVISED
	PLOT SCALE = *SCALE*	DRAWN EG	REVISED
	PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXISTING RETAINING WALL REPAIR PLANS
 SN 016-2294
 STRUCTURAL REPAIRS (3 OF 3)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	553
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

Bench Mark: "X" cut on SW bolt of LP "FH8" on north side of WB I-90, 3rd pole west of CTA bridge west of Harlem Avenue.

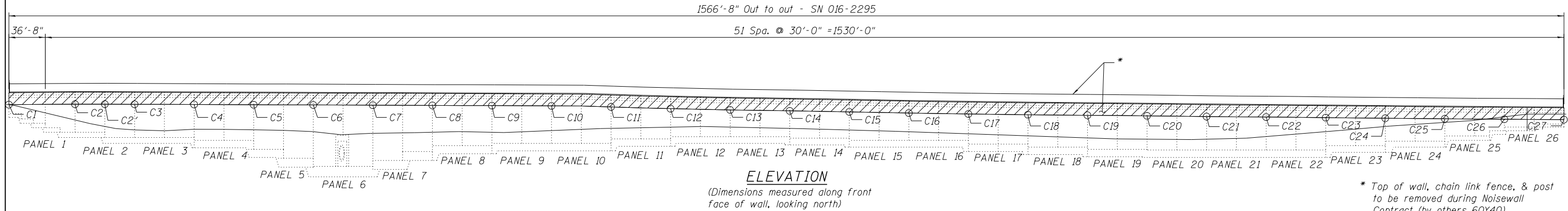
Existing Structure: The existing wall is located along WB I-90 extending from the on ramp at Harlem Avenue to east of Oriole Avenue and separates WB I-90 from Bryn Mawr Avenue. The wall was constructed in 1958 and is a cast-in-place concrete cantilever wall on spread footing with panels 4A thru 24B supported on drilled and cast-in-place concrete piles. Total length of the wall is approximately 1567 feet and maximum height is approximately 14 feet above existing grade on the side facing WB I-90, and approximately 18 inches on side facing Bryn Mawr Avenue. A chain link fence between two feet and three feet high is mounted to the top of the wall. Top portion of the existing wall will be removed to allow for moment slab and noise wall construction (noise wall construction is a separate contract). No impact to traffic is anticipated

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications,
7th Edition (2014) with 2016 Interim Revisions

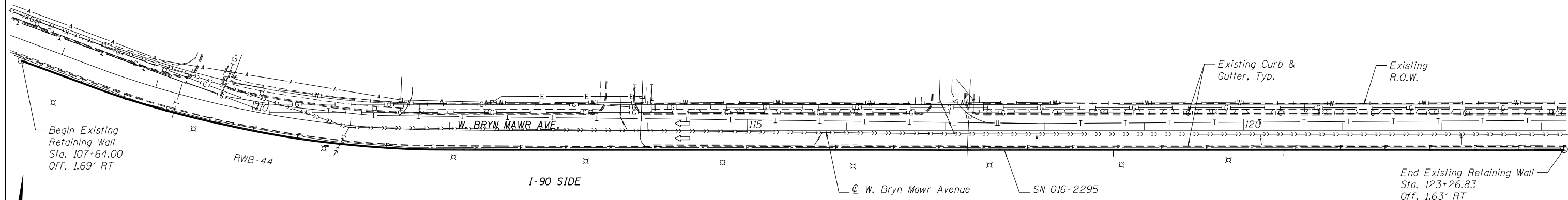
EXISTING UNITS (ALLOWABLE)

f'c = 800 psi
fy = 20,000 psi (Reinforcement)



ELEVATION

(Dimensions measured along front face of wall, looking north)



PLAN

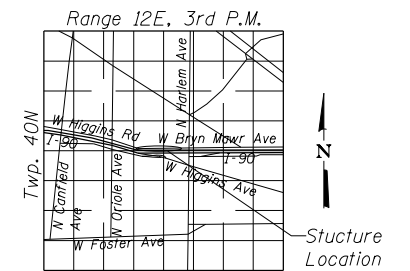


LEGEND

- Proposed Catch Basin (Existing to remain)
- ⊗ Light Pole
- ← Existing Traffic Lane
- ▨ Concrete Removal (by others - Contract 60Y40)
- ▶ Existing Storm Sewer
- ▶ Proposed Storm Sewer
- |—|—| Existing Underground Water Line
- |—|—| Existing Underground Combined Sewer
- T— Existing Underground Telephone Line
- A— Existing Aerial Line
- E— Existing Underground Electric Line
- G— Existing Underground Gas Line



Signed: *Brian L. Umbright*
Date: 01/19/2018
Exp: 11/30/2018
Sheets: S-1 thru S-9



LOCATION SKETCH

GENERAL PLAN & ELEVATION
W. BRYN MAWR AVENUE
F.A.I. RTE. I-90 - SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 107+63.46 TO 123+22.94
STRUCTURE No. 016-2295

	USER NAME = *USER*	DESIGNED STD	REVISED
	PLOT SCALE = *SCALE*	CHECKED KK	REVISED
	PLOT DATE = 1-17-2018	DRAWN EG	REVISED
		DATE 01/19/2018	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
GENERAL PLAN AND ELEVATION
SHEET NO. 1 OF 9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	554
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES AND TOTAL BILL OF MATERIAL
- 3 STRUCTURAL REPAIRS (1 OF 7)
- 4 STRUCTURAL REPAIRS (2 OF 7)
- 5 STRUCTURAL REPAIRS (3 OF 7)
- 6 STRUCTURAL REPAIRS (4 OF 7)
- 7 STRUCTURAL REPAIRS (5 OF 7)
- 8 STRUCTURAL REPAIRS (6 OF 7)
- 9 STRUCTURAL REPAIRS (7 OF 7)

SCOPE OF WORK

Repair concrete and seal cracks with widths greater than 1/16" with Low Pressure Epoxy Injection.

GENERAL NOTES

- 1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 2. No concrete cutting will be permitted until the cutting limits have been outlined by the Contractor and approved by the Engineer.
- 3. It shall be Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
- 4. Top of wall, chain link fence and post shall be removed by others in Contract 60Y40.
- 5. Elevation of Control Point "C" is based on the removal elevation of existing wall by others from Contract 60Y40. For information only.

TOTAL BILL OF MATERIAL



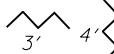
Item	Unit	Total
EPOXY CRACK INJECTION	FOOT	600
STRUCTURAL REPAIR OF CONCRETE	SQ FT	40

GEOMETRIC CONTROL POINTS, STATIONS AND ELEVATIONS

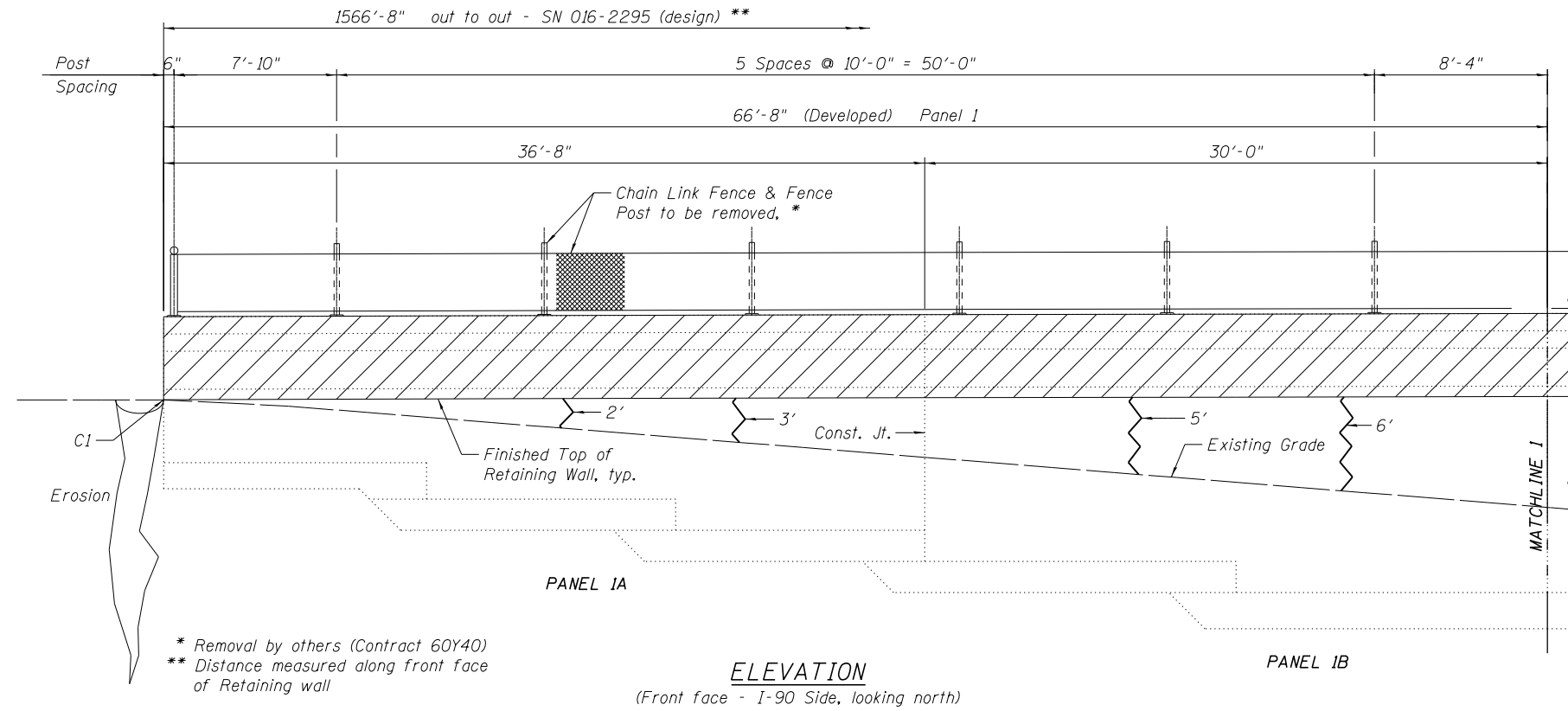
(For Information Only)

Control Point "C"	Station	New Elevation @ Finished Top of Wall (C)
C1	107+63.59	655.19
C2	108+27.07	655.39
C2'	108+51.72	655.45
C3	108+86.04	655.55
C4	109+44.88	655.73
C5	110+03.74	655.91
C6	110+62.59	655.99
C7	111+21.43	655.81
C8	111+80.26	655.63
C9	112+40.18	655.45
C10	112+99.95	655.10
C11	113+59.95	654.64
C12	114+19.95	653.98
C13	114+79.95	653.60
C14	115+39.95	653.22
C15	115+99.96	652.84
C16	116+59.96	652.46
C17	117+19.96	652.22
C18	117+79.96	652.04
C19	118+39.96	651.85
C20	118+99.96	651.67
C21	119+59.96	651.49
C22	120+23.96	651.30
C23	120+79.96	651.12
C24	121+39.96	650.94
C25	121+99.96	650.76
C26	122+59.96	650.57
C27	123+19.96	650.21

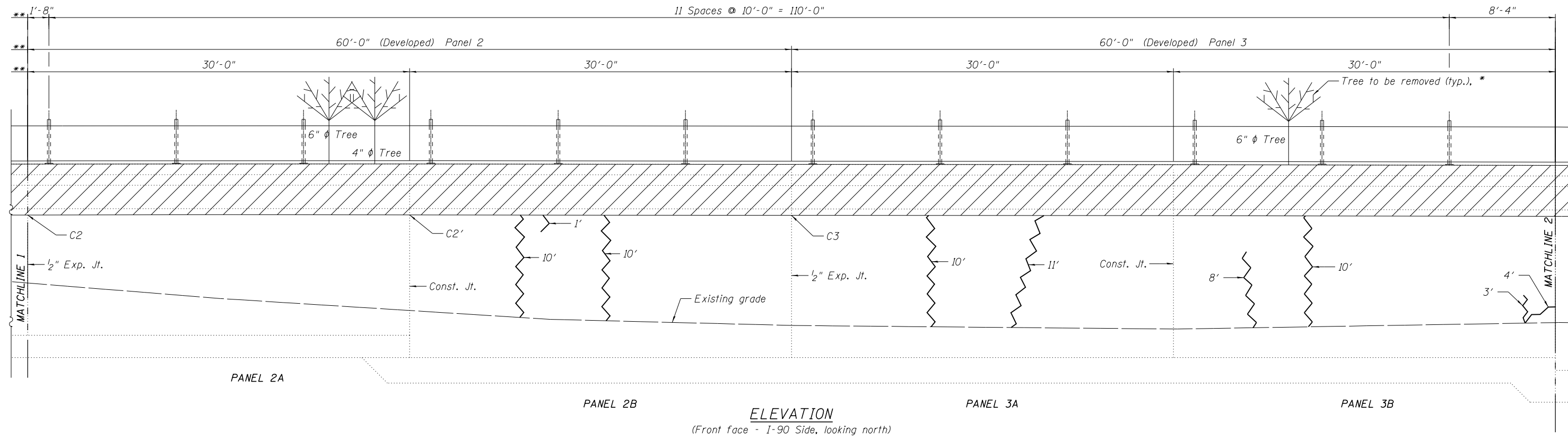
LEGEND

-  Concrete Removal (by others - Contract 60Y40)
-  Structural Repair of Concrete (Depth equal to or less than 5 inches)
-  Cracks to be repaired using Epoxy Crack Injection (Repair Length indicated)

Note: Repair length indicated is the length of the crack requiring Epoxy Crack Injection. Total length of crack may be longer. Cracks, or portions of cracks within areas identified as Structural Repair of Concrete or Concrete Removal do not require Epoxy Crack Injection and are not shown on Repair Plans.



ELEVATION
(Front face - I-90 Side, looking north)



ELEVATION
(Front face - I-90 Side, looking north)

exp U.S. Services Inc.
Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = #USER#	DESIGNED STD	REVISOR
CHECKED KK	REVISIONS	
PLOT SCALE = #SCALE#	DRAWN EG	REVISIONS
PLOT DATE = #DATE#	DATE 01/19/2018	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

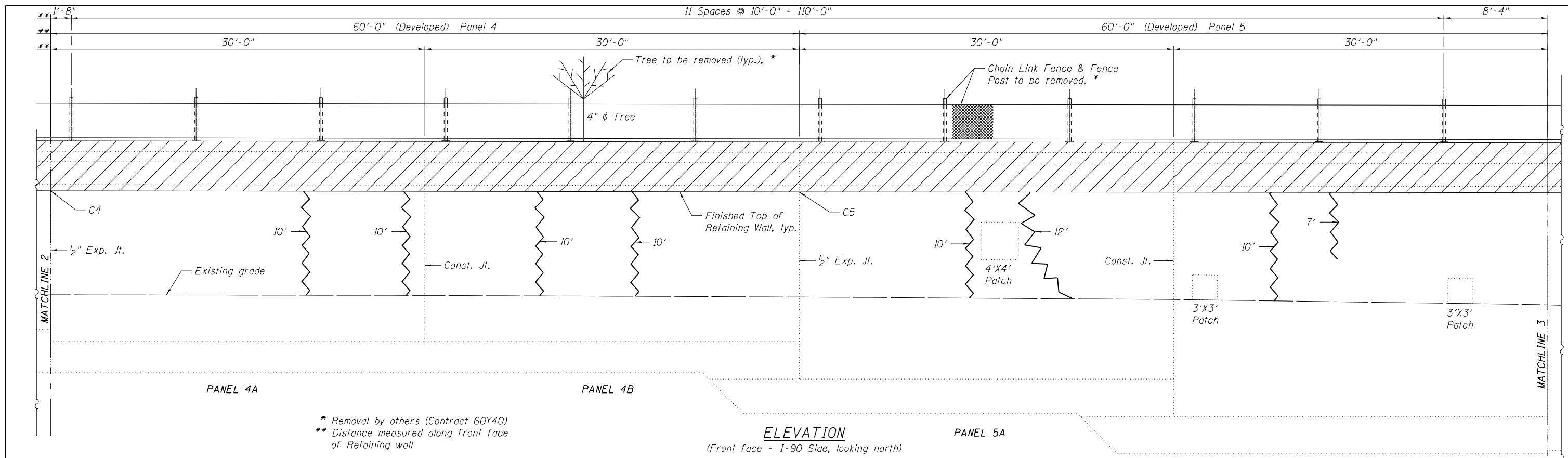
EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
STRUCTURAL REPAIRS (1 OF 7)

SHEET NO. 3 OF 9 SHEETS

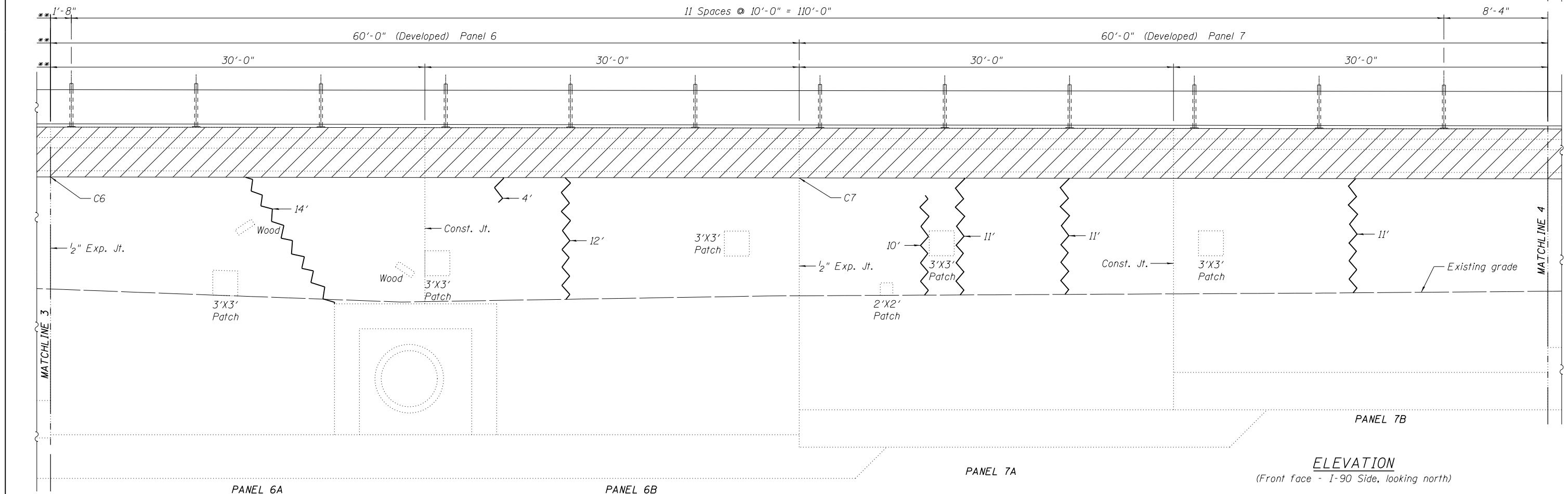
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	556
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT

FILE NAME = #FILE#



* Removal by others (Contract 60Y40)
 ** Distance measured along front face of Retaining wall



exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = #USER#	DESIGNED STD	REVISED
CHECKED KK	REVISED	
PLOT SCALE = #SCALE#	DRAWN EG	REVISED
PLOT DATE = #DATE#	DATE 01/19/2018	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

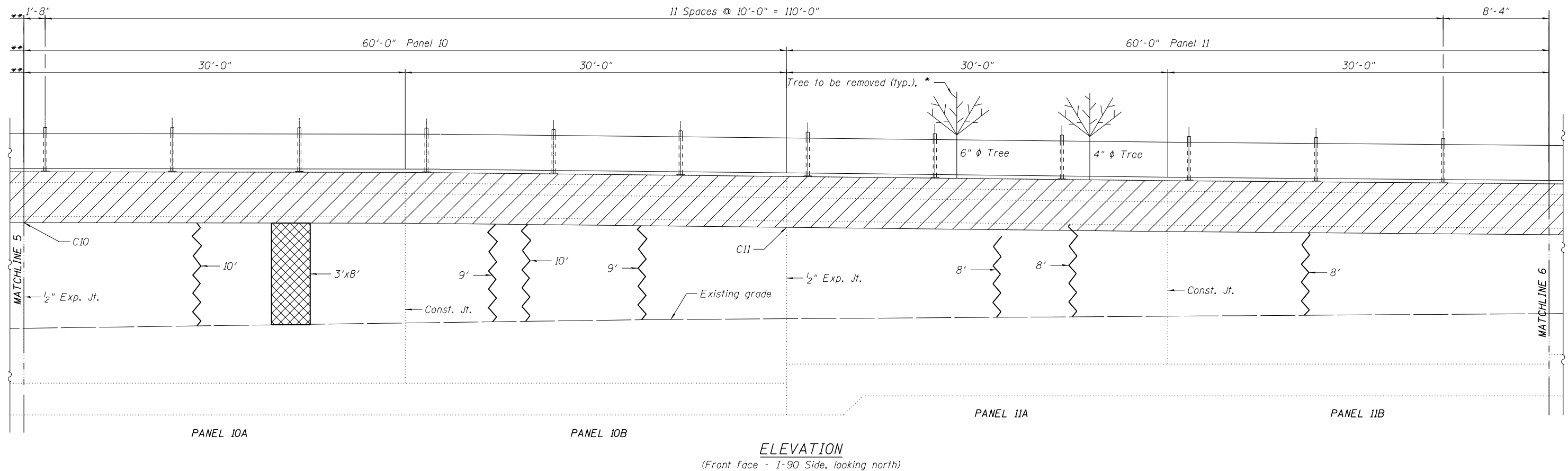
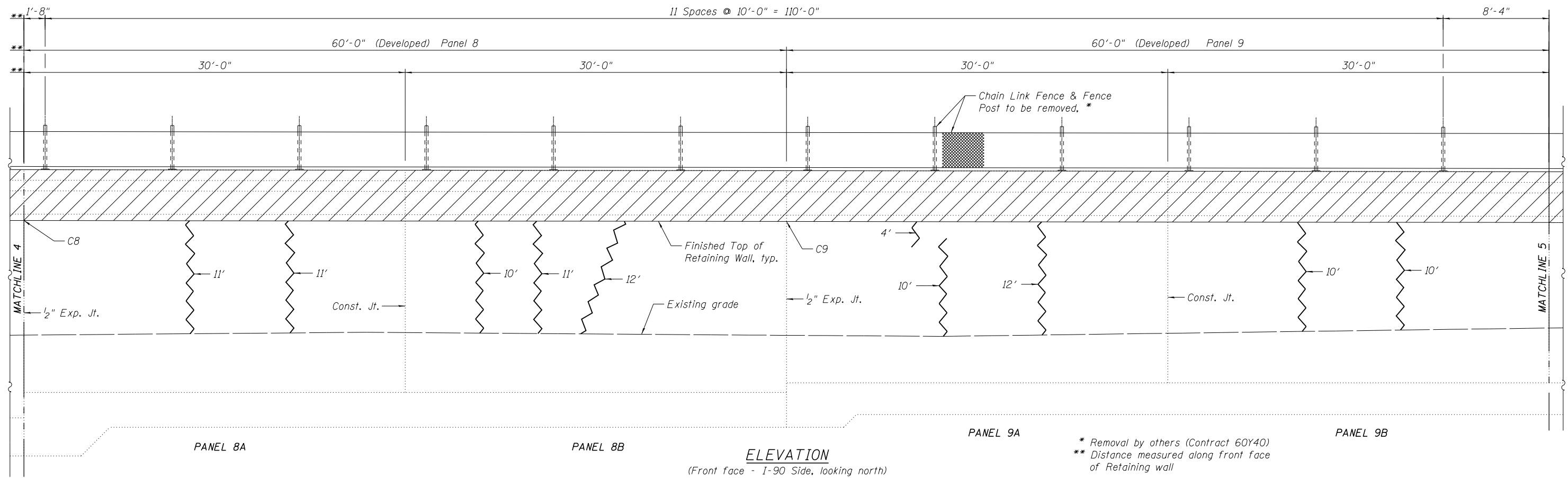
EXISTING RETAINING WALL REPAIR PLANS
 SN 016-2295
STRUCTURAL REPAIRS (2 OF 7)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	557
CONTRACT NO. 60Y39				

SHEET NO. 4 OF 9 SHEETS

ILLINOIS FED. AID PROJECT

FILE NAME = #FILE#



exp U.S. Services Inc.
Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN EG	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

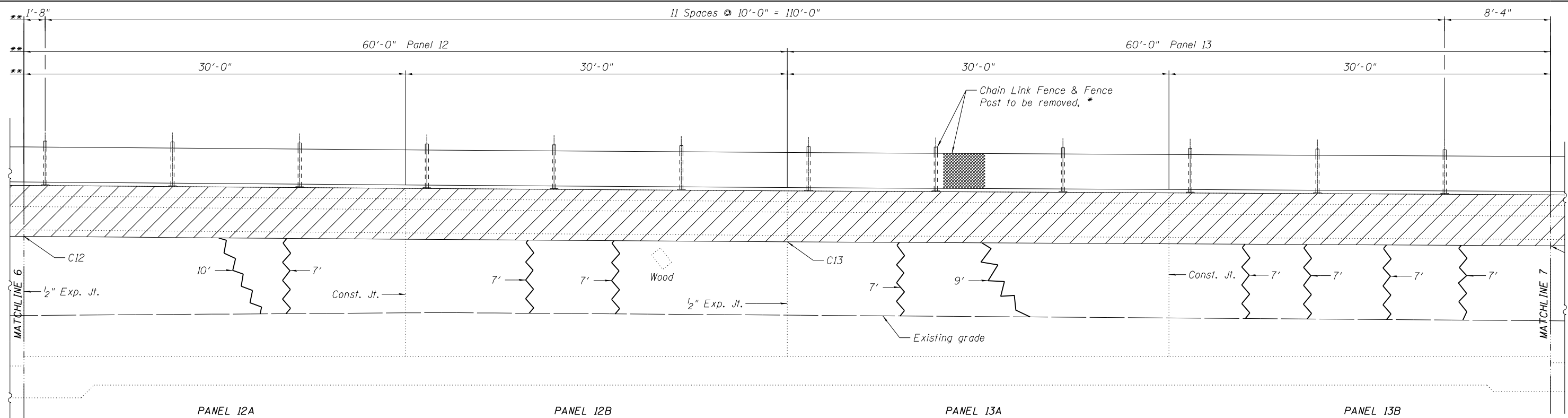
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
STRUCTURAL REPAIRS (3 OF 7)

SHEET NO. 5 OF 9 SHEETS

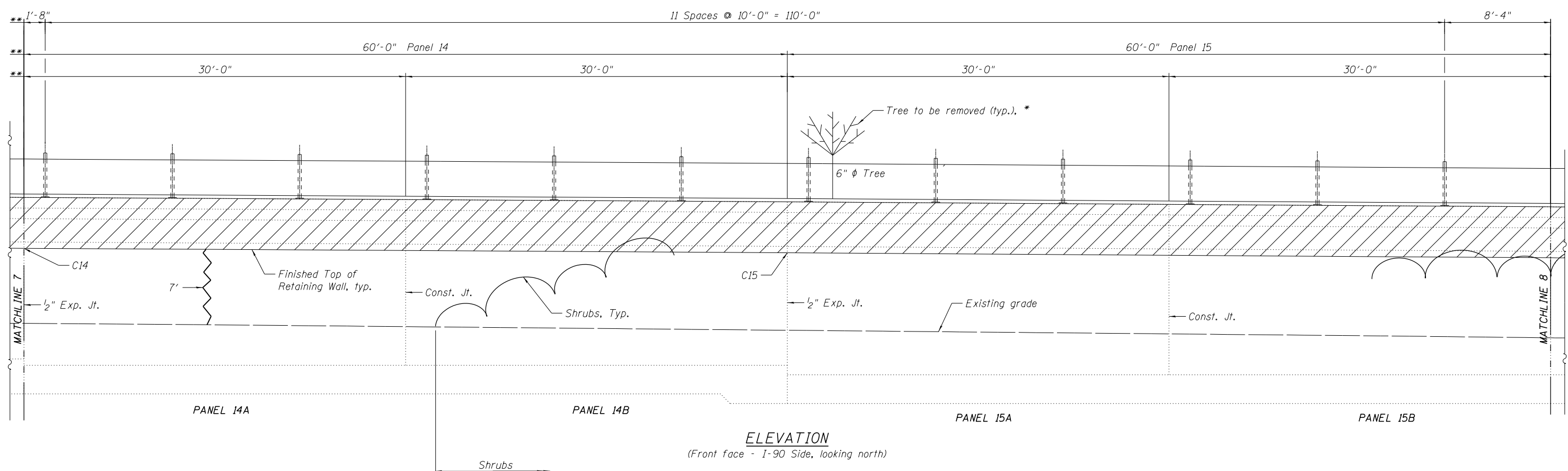
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	558
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

FILE NAME = *FILE*



ELEVATION
(Front face - I-90 Side, looking north)

* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



ELEVATION
(Front face - I-90 Side, looking north)

exp U.S. Services Inc.
Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN EG	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

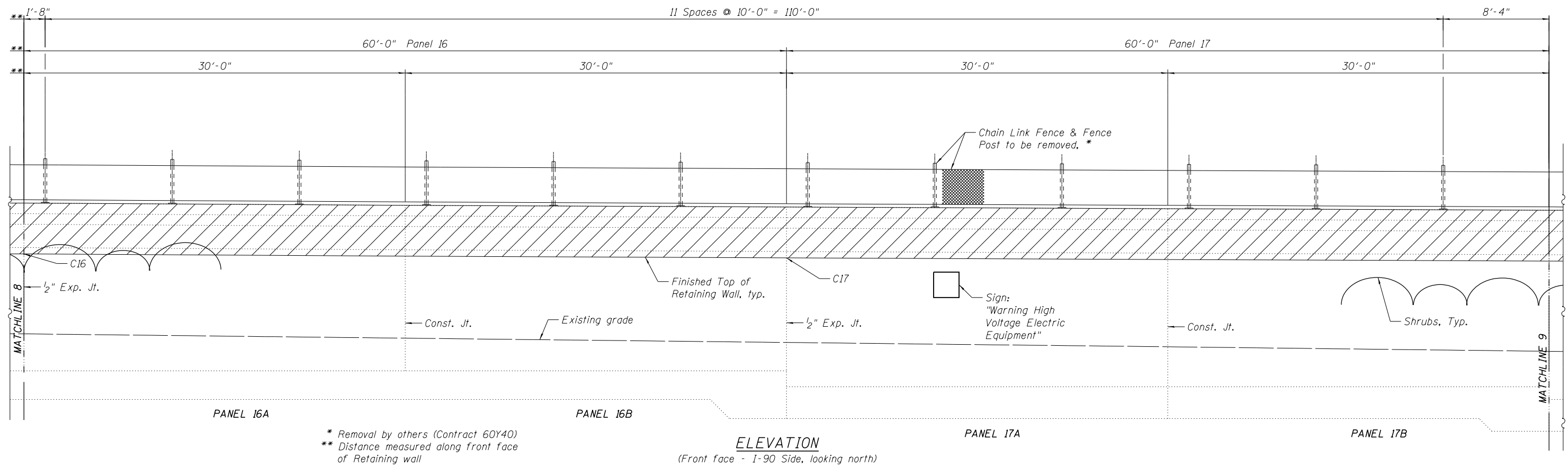
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
STRUCTURAL REPAIRS (4 OF 7)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	559
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60Y39	

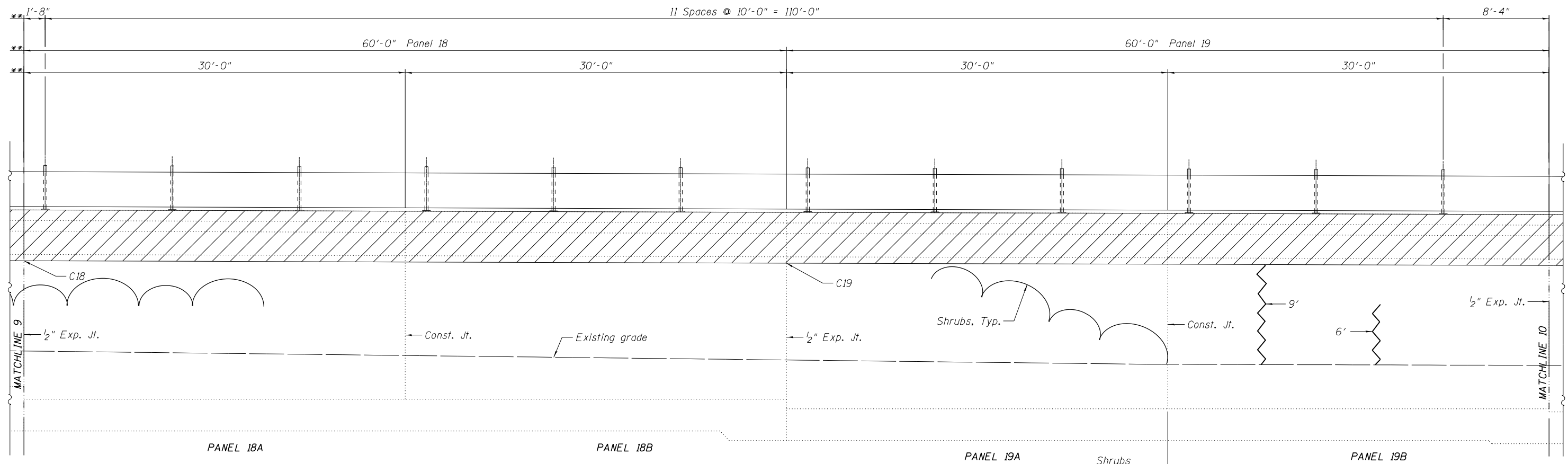
FILE NAME = *FILE*

SHEET NO. 6 OF 9 SHEETS



ELEVATION
(Front face - I-90 Side, looking north)

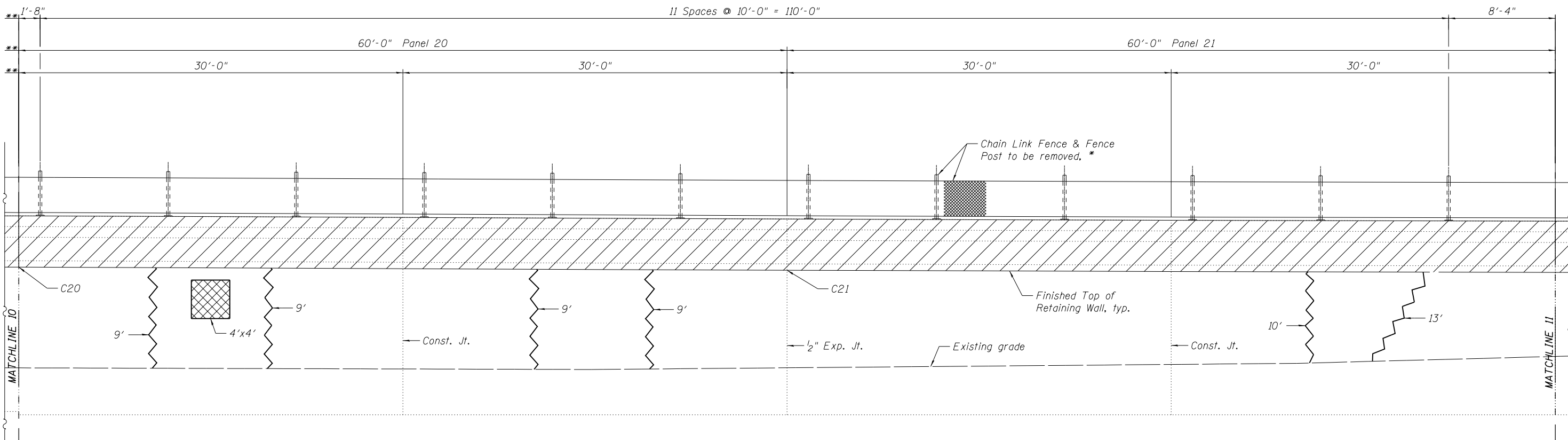
* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



ELEVATION
(Front face - I-90 Side, looking north)

USER NAME = *USER*	DESIGNED STD	REVISED
CHECKED KK		REVISED
PLOT SCALE = *SCALE*	DRAWN EG	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	560
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				



PANEL 20A

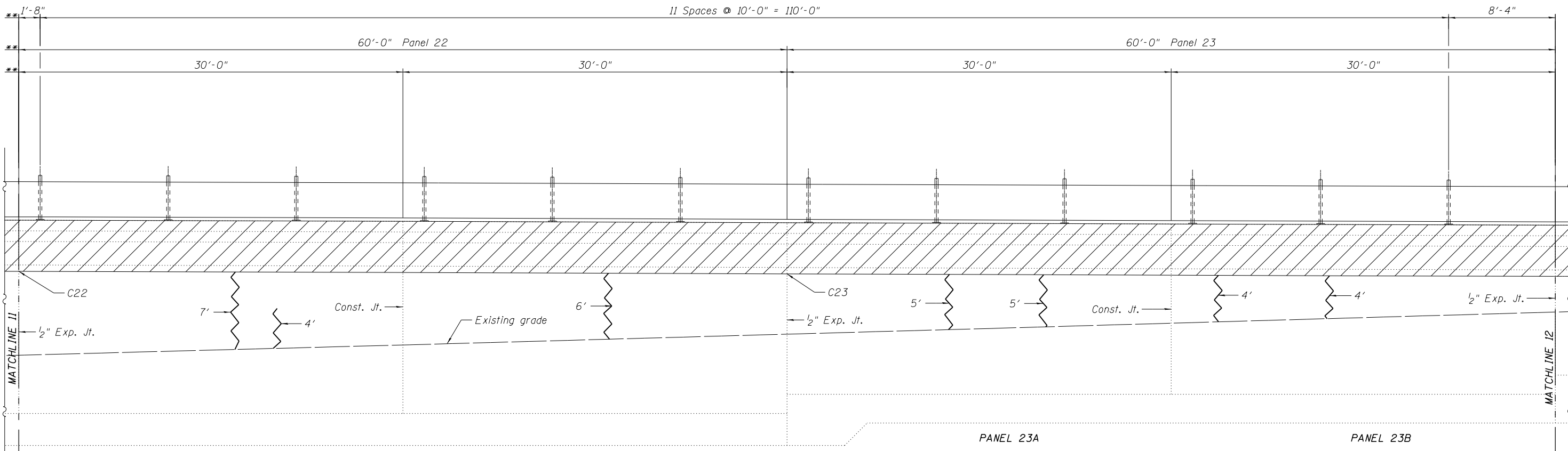
PANEL 20B

ELEVATION
(Front face - I-90 Side, looking north)

PANEL 21A

PANEL 21B

* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



PANEL 22A

PANEL 22B

ELEVATION
(Front face - I-90 Side, looking north)

PANEL 23A

PANEL 23B

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Chicago, IL
BUILDINGS-EARTH & ENVIRONMENT-ENERGY
INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = *USER*	DESIGNED STD	REVISED
PLLOT SCALE = *SCALE*	CHECKED KK	REVISED
PLLOT DATE = *DATE*	DRAWN EG	REVISED
	DATE 01/19/2018	REVISED

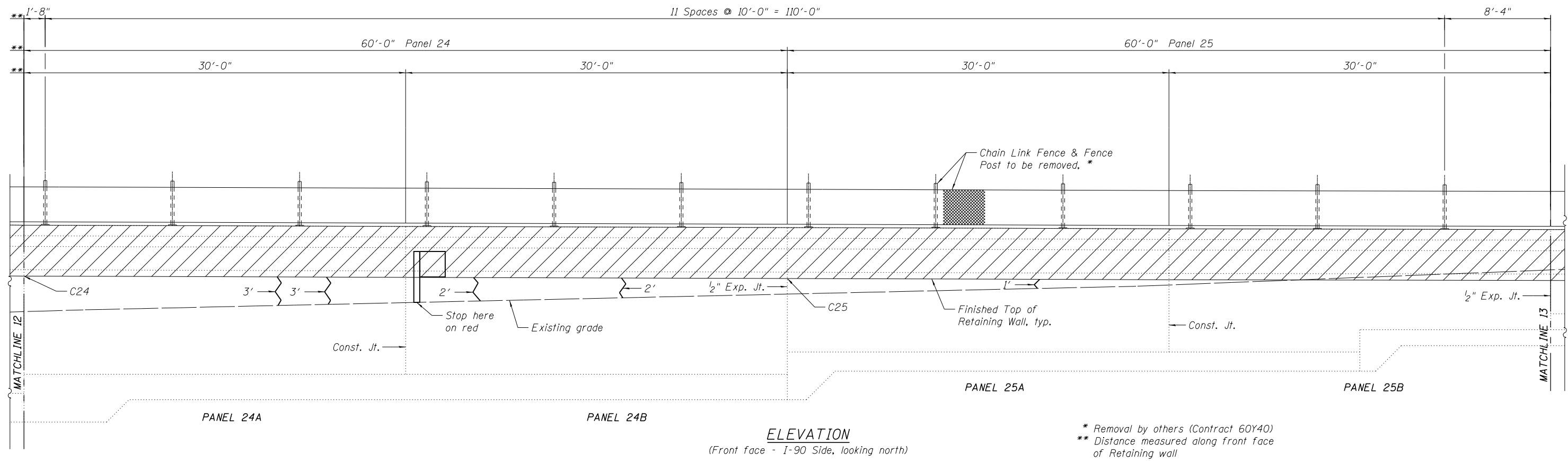
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
STRUCTURAL REPAIRS (6 OF 7)

SHEET NO. 8 OF 9 SHEETS

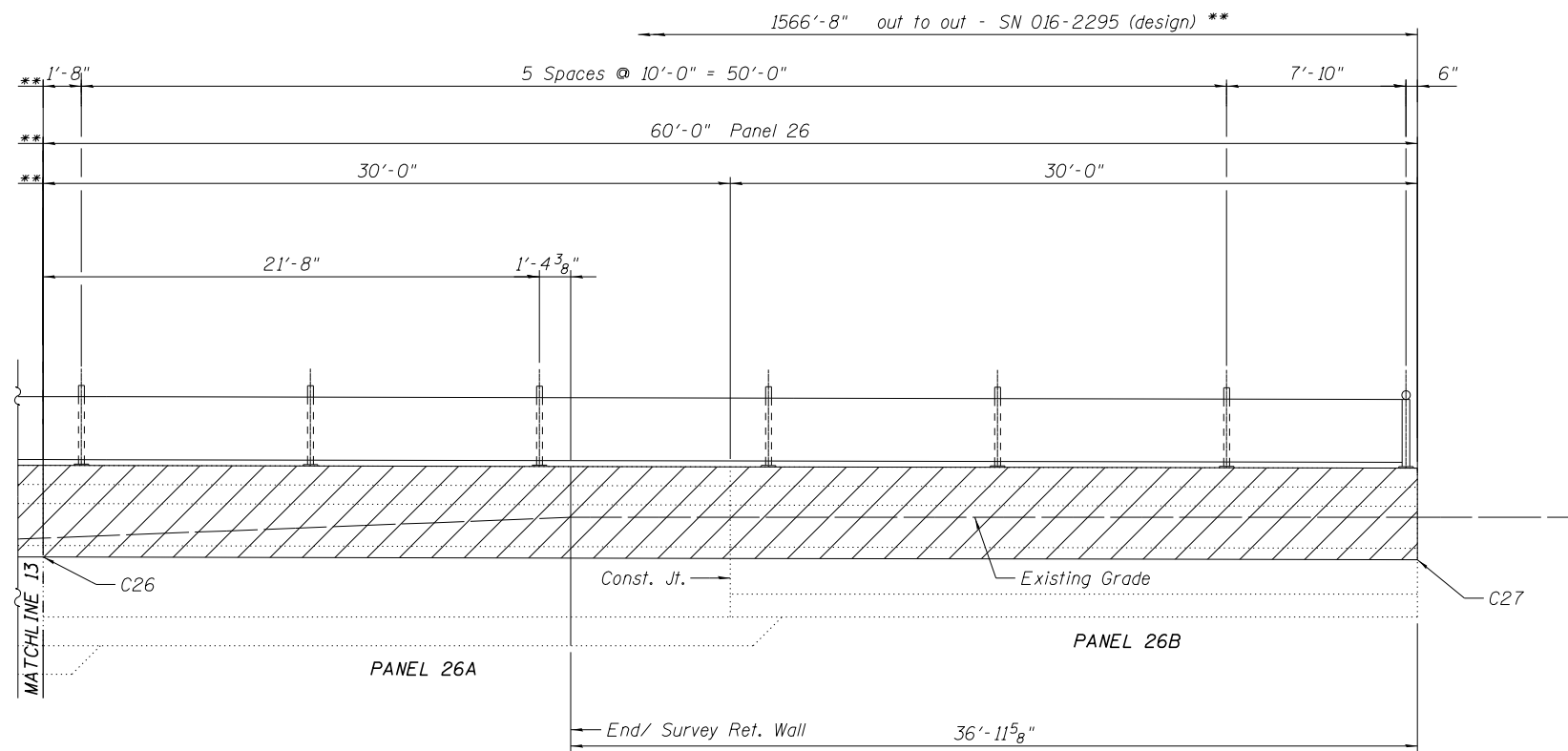
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	561
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

FILE NAME = *FILEL*



ELEVATION
(Front face - I-90 Side, looking north)

* Removal by others (Contract 60Y40)
** Distance measured along front face of Retaining wall



ELEVATION
(Front face - I-90 Side, looking north)

exp U.S. Services Inc. <small>Chicago, IL</small> BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY	USER NAME = *USER*	DESIGNED STD	REVISED
	PLOT SCALE = *SCALE*	CHECKED KK	REVISED
	PLOT DATE = *DATE*	DRAWN EG	REVISED
		DATE 01/19/2018	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING RETAINING WALL REPAIR PLANS
SN 016-2295
STRUCTURAL REPAIRS (7 OF 7)

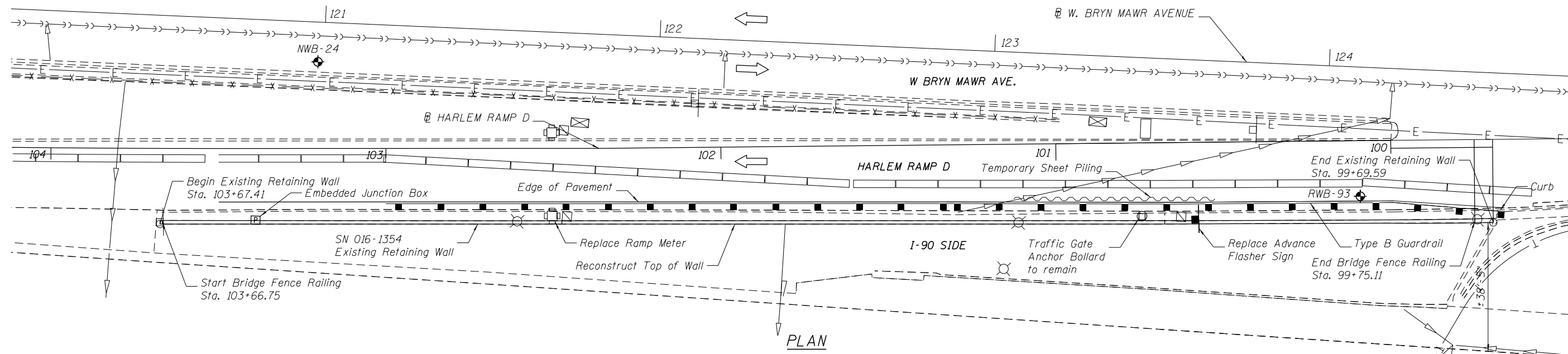
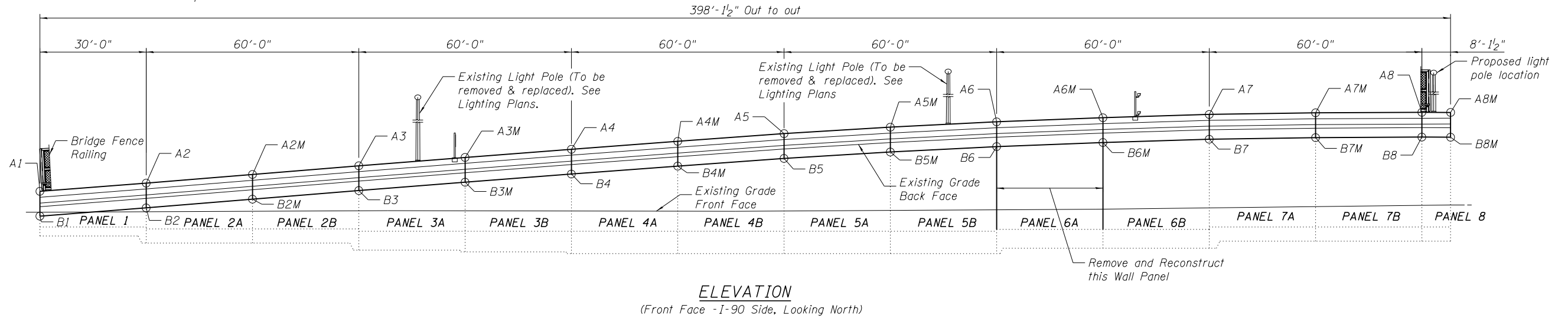
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	562
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				

Bench Mark: "X" Cut on SW bolt of LP "FHB" on north side of WB I-90, 3rd pole west of CTA bridge west of Harlem Ave.

Existing Structure: The existing structure SN 016-1354 is located along the WB I-90 entrance ramp at Harlem Avenue. The wall was constructed in 1958 and is a cast-in-place concrete cantiliver wall on spread footing. Total length of the wall is approximately 398 feet and the maximum height is approximately 12 feet above existing grade on the side facing WB I-90, and approximately 18 inches high on the side facing the ramp. A chain link fence between two feet and three feet high is mounted to the top of the wall. Three corbels that project 6 3/4 inches towards the ramp side of the wall support light poles and junction boxes. Top portion of existing wall will be removed to allow for construction of F-Type barrier. Traffic will be maintained on entrance ramp.

DESIGN SPECIFICATIONS
 AASHTO LRFD Bridge Design Specifications,
 7th Edition (2014) with 2016 Interim Revisions

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)
EXISTING UNITS (ALLOWABLE)
 $f'_c = 800$ psi
 $f_y = 20,000$ psi (Reinforcement)

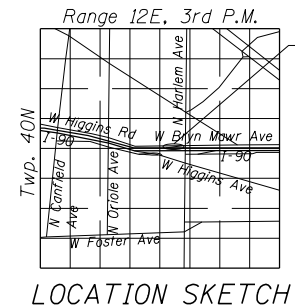


LEGEND

- > Existing Storm Sewer
- ⊗ Proposed Light Pole
- ⊕ Soil Boring Location
- ← Existing Traffic Lane
- x - Existing Fence
- E - Existing Underground Electric Line
- >->- Existing Underground Combined Sewer



Signed: *Brian L. Umbright*
 Date: 01/19/2018
 Exp: 11/30/2018
 Sheets: S-1 thru S-9



GENERAL PLAN & ELEVATION
HARLEM RAMP D / I-90
F.A.I. RTE. I-90 -
SEC. (1517 & 1415) R-2
COOK COUNTY
STATION 3114+44.98 TO 3118+42.18
STRUCTURE No. 016-1354

exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME = *USER*	DESIGNED STD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-1354 GENERAL PLAN AND ELEVATION SHEET NO. 1 OF 9 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	CHECKED KK	REVISED			I-90	(1517 & 1415) R-2	COOK	734	563
	PLOT DATE = 1-17-2018	DRAWN EG	REVISED			CONTRACT NO. 60Y39		ILLINOIS FED. AID PROJECT		

INDEX OF SHEETS

- 1 GENERAL PLAN AND ELEVATION
- 2 GENERAL NOTES AND TOTAL BILL OF MATERIAL
- 3 PARTIAL REMOVAL AND REPAIRS (1 OF 2)
- 4 PARTIAL REMOVAL AND REPAIRS (2 OF 2)
- 5 STRUCTURAL REPAIRS (1 OF 4)
- 6 STRUCTURAL REPAIRS (2 OF 4)
- 7 STRUCTURAL REPAIRS (3 OF 4)
- 8 STRUCTURAL REPAIRS (4 OF 4)
- 9 BORING LOGS (1 OF 1)

SCOPE OF WORK

- 1. Remove existing chain link fence from top of Wall.
- 2. Repair concrete and seal cracks with widths greater than 1/6" with Low Pressure Epoxy Injection.
- 3. Remove top portion of the wall to the elevations shown on this sheet.
- 4. Reconstruct top portion of the wall to the same elevations as existing (in-kind replacement except at light pole locations).

GENERAL NOTES

- 1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- 2. All exposed concrete edges shall have a 3/4" x 45° chamfer, except where shown otherwise. Chamfer on vertical edges shall be continued a minimum of one foot below finished ground level.
- 3. No concrete cutting will be permitted until the cutting limits have been outlined by the Contractor and approved by the Engineer.
- 4. It shall be Contractor's responsibility to verify the location of all utilities prior to starting construction. Contact J.U.L.I.E., 800-892-0123.
- 5. Existing reinforcement which is to be incorporated into the new construction shall be blast cleaned to grey metal, straightened (without heating), and cut to fit. Cost included with "Concrete Removal."
- 6. Structural Engineer to prepare and submit Structure Assessment Reports (SARs) for the proposed work associated with removing, modifying or reconstructing existing structures or portions thereof. Unless noted otherwise, a SAR shall be required when the Contractor's means and methods apply loads to the structure or change its structural behavior. A SAR shall be submitted to the CM for review and acceptance prior to starting the work, in accordance with the latest IDOT Guide Bridge Special Provision, "Structural Assessment Reports For Contractor's Means and Methods" prior to beginning the work covered by that SAR. Separate portions of the work may be covered by separate SARs which may be submitted at different times or as dictated by the Contractor's schedule.

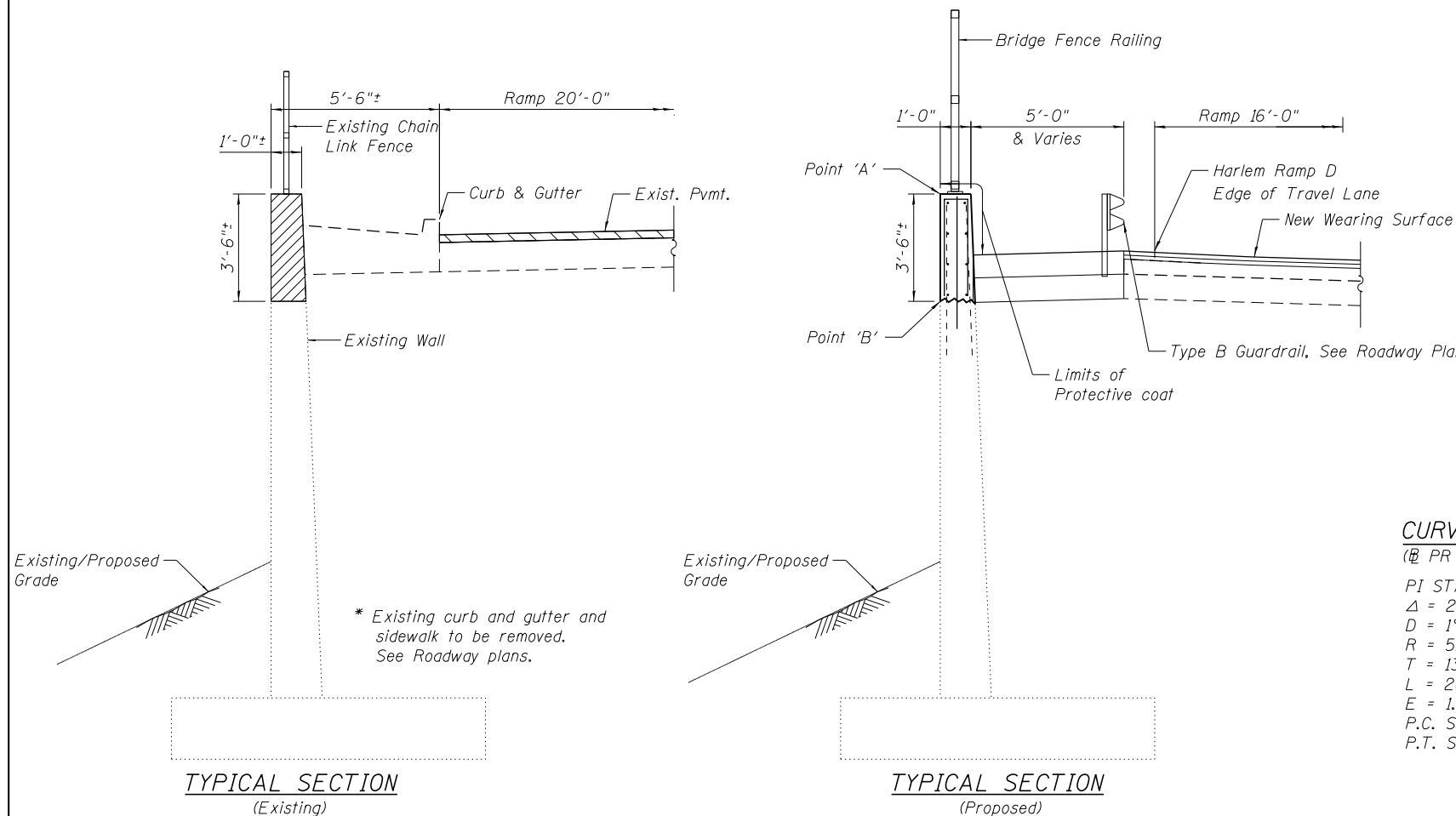
GEOOMETRIC CONTROL POINTS, STATIONS AND ELEVATIONS

Station	Control Point "A"	Finished Top of Wall Elevation* (A)	Control Point "B"	Removal Line Elevation (B)
103+67.41	A1	642.30	B1	638.80
103+37.48	A2	643.46	B2	639.96
103+07.48	A2M	644.69	B2M	641.19
102+77.48	A3	645.91	B3	642.41
102+47.48	A3M	647.09	B3M	643.59
102+17.71	A4	648.24	B4	644.74
101+87.71	A4M	649.36	B4M	645.86
101+57.71	A5	650.45	B5	646.95
101+27.71	A5M	651.36	B5M	647.86
100+97.71	A6	652.12	B6	648.62
100+67.72	A6M	652.70	B6M	649.20
100+37.72	A7	653.16	B7	649.66
100+07.72	A7M	653.39	B7M	649.89
99+77.70	A8	653.46	B8	649.96
99+69.59	A8M	653.45	B8M	649.95

* For Information Only. Contractor shall field verify existing elevations and reconstruct top of wall to match these existing elevations.

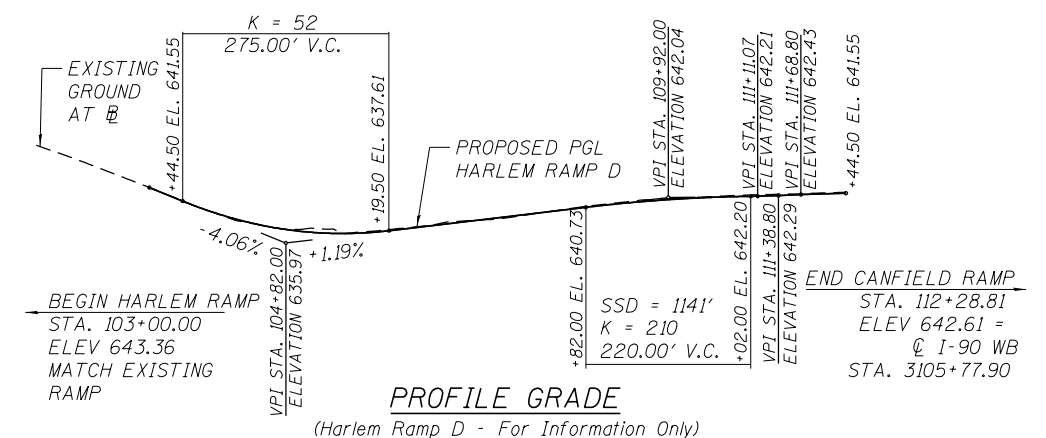
TOTAL BILL OF MATERIAL

Item	Unit	Total
CONCRETE REMOVAL	CU YD	75.3
STRUCTURE EXCAVATION	CU YD	76
CONCRETE STRUCTURES	CU YD	75.5
PROTECTIVE COAT	SQ YD	133
REINFORCEMENT BARS, EPOXY COATED	POUND	11,568
BRIDGE FENCE RAILING	FOOT	392
TEMPORARY SHEET PILING	SQ FT	2,352
EPOXY CRACK INJECTION	FOOT	193
GEOCOMPOSITE WALL DRAIN	SQ YD	49
GRANULAR BACKFILL FOR STRUCTURES	CU YD	76
PIPE UNDERDRAINS FOR STRUCTURES	FOOT	34
STRUCTURAL REPAIR OF CONCRETE	SQ FT	79
FENCE REMOVAL	FOOT	399



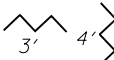


CURVE DATA

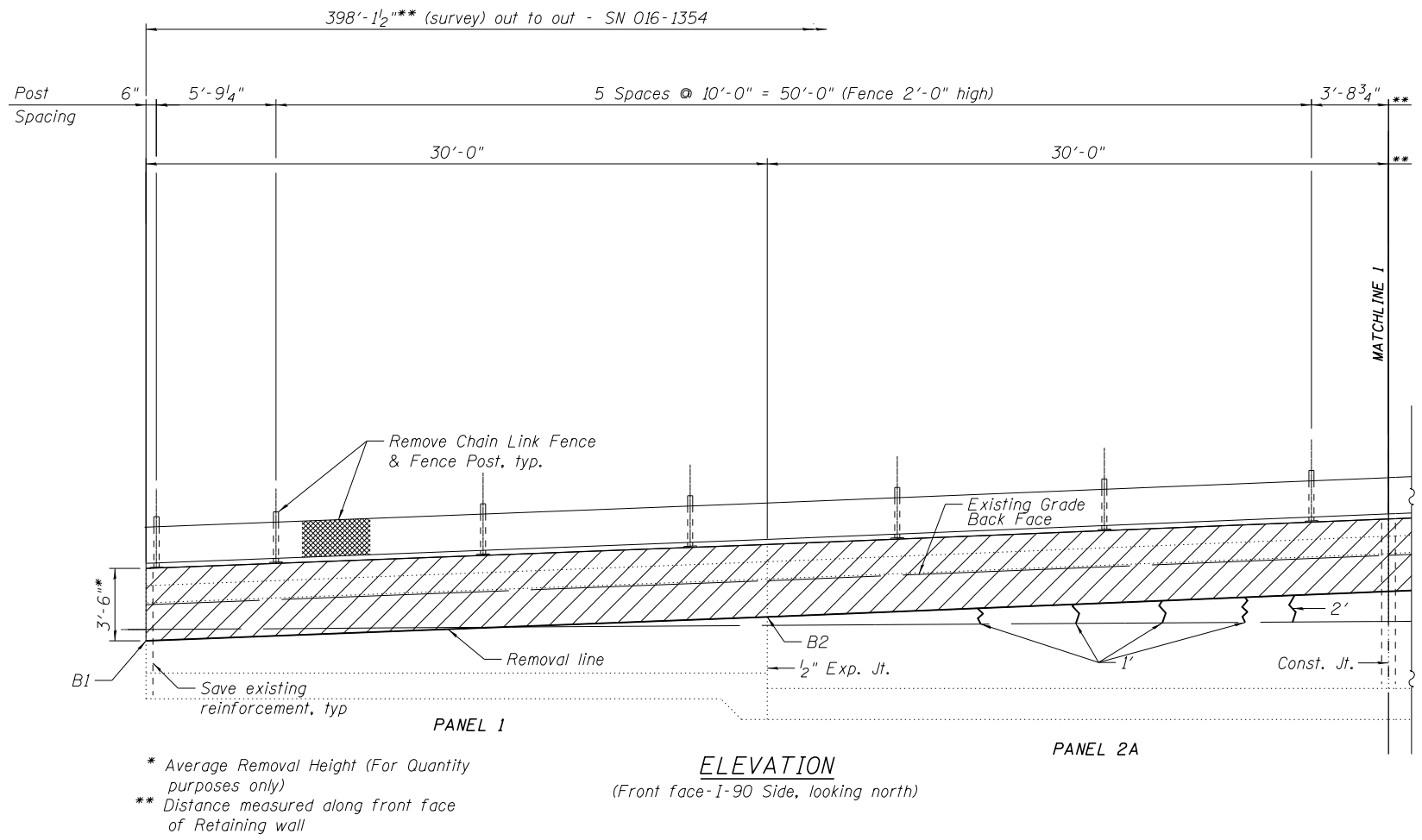
(@ PR Harlem Ramp D)
 PI STA. = 104+84.93
 $\Delta = 2^\circ 41' 55''$ (RT)
 D = 1° 00' 00"
 R = 5,730.00'
 T = 134.97'
 L = 269.89'
 E = 1.59'
 P.C. STA. = 103+49.96
 P.T. STA. = 106+19.84



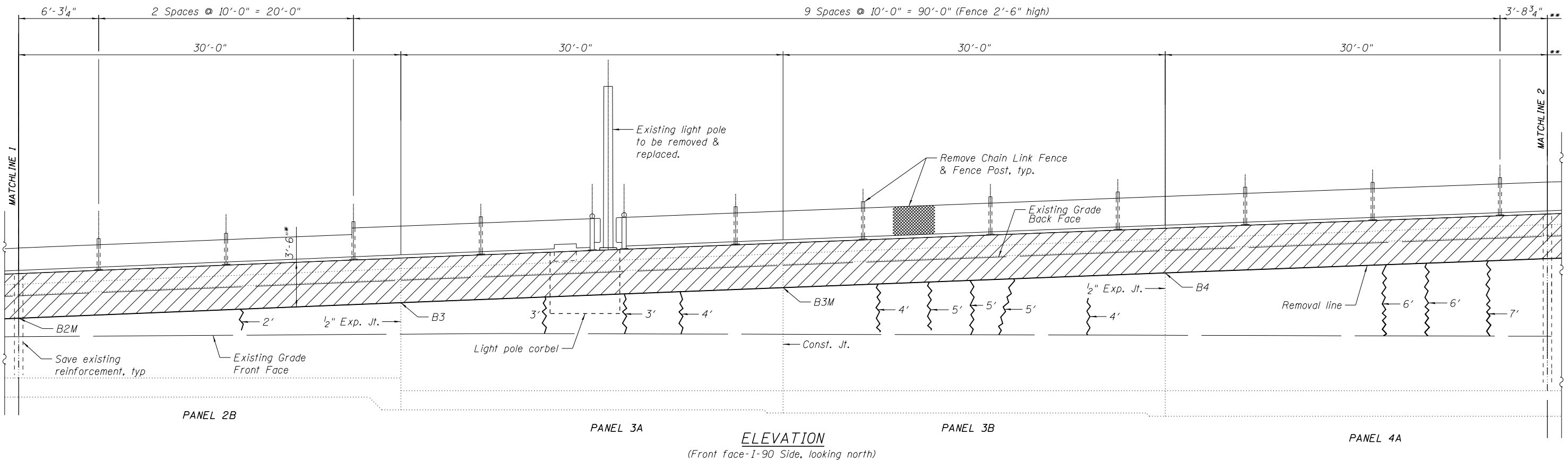
LEGEND


-  Concrete Removal
-  Structural Repair of Concrete (Depth equal to or less than 5 inches)
-  Cracks to be repaired using Epoxy Crack Injection (Repair Length indicated)

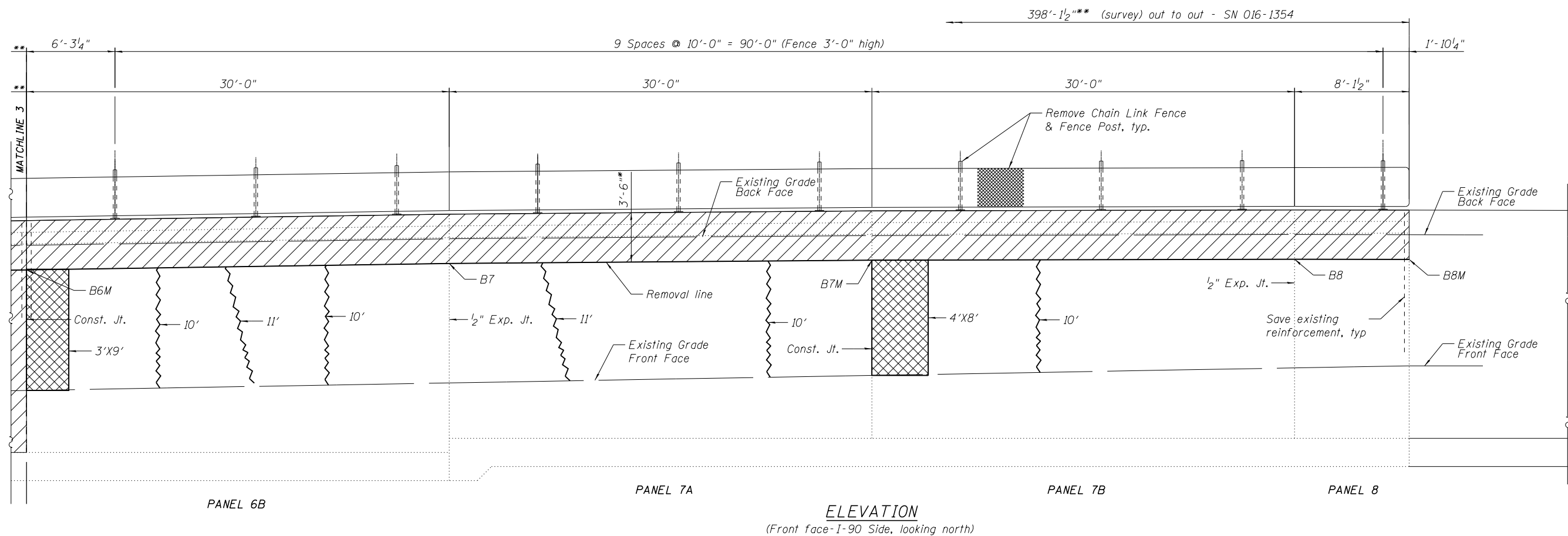
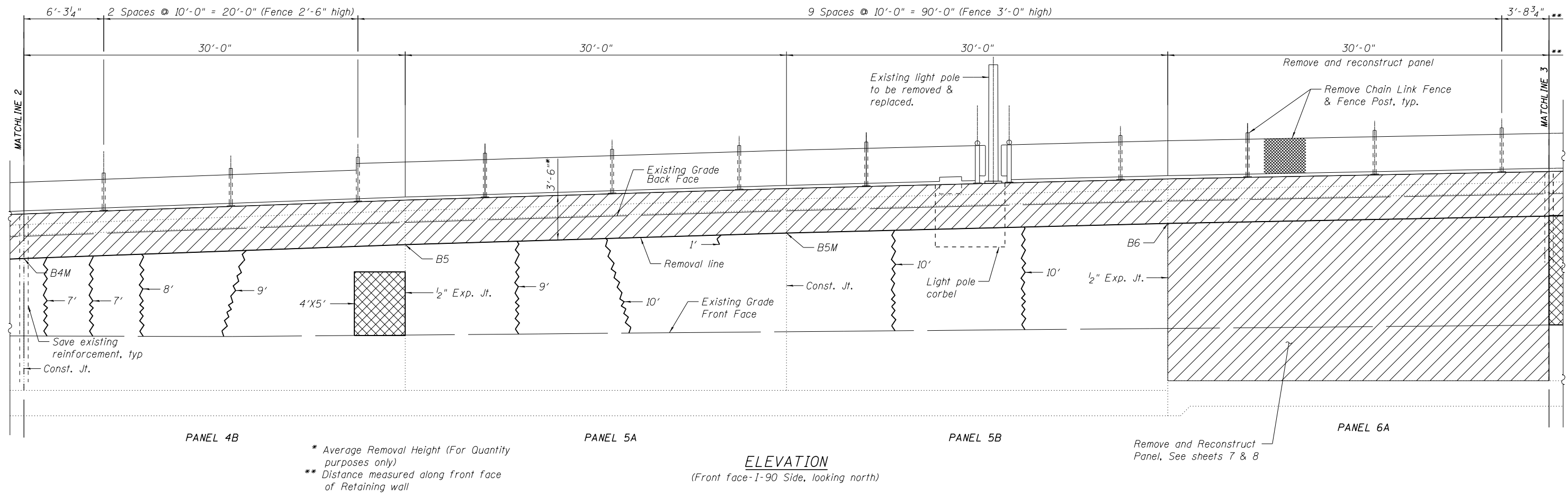
Note: Repair length indicated is the length of the crack requiring Epoxy Crack Injection. Total length of crack may be longer. Cracks, or portions of cracks within areas identified as Structural Repair of Concrete or Concrete Removal do not require Epoxy Crack Injection and are not shown on Repair Plans.



* Average Removal Height (For Quantity purposes only)
 ** Distance measured along front face of Retaining wall

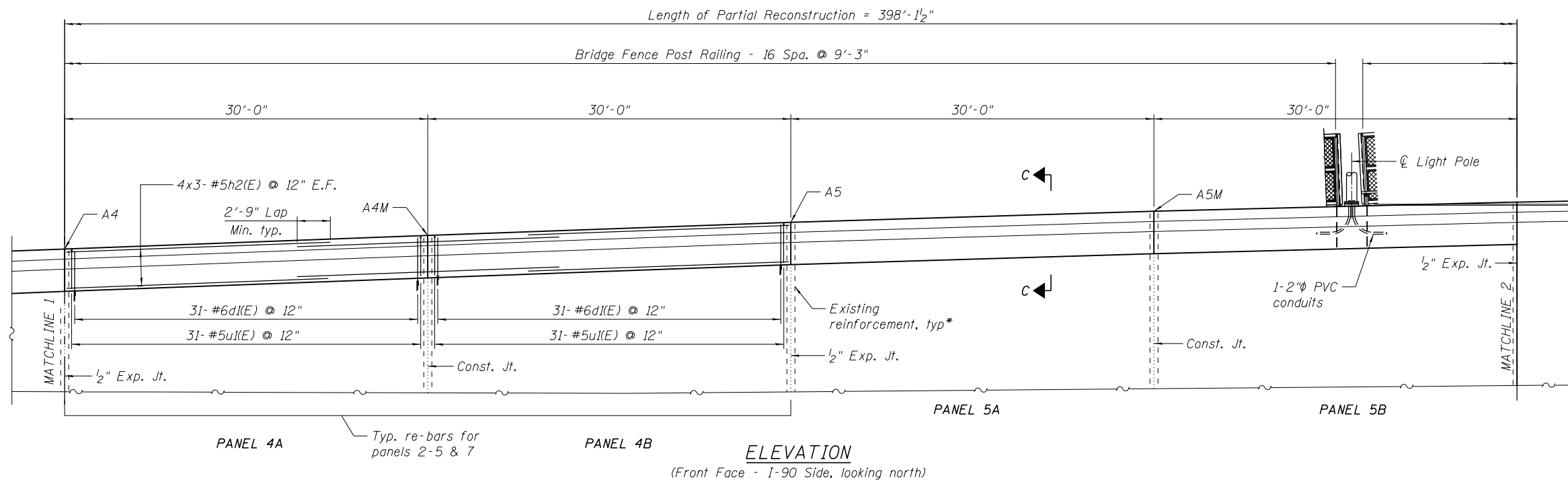
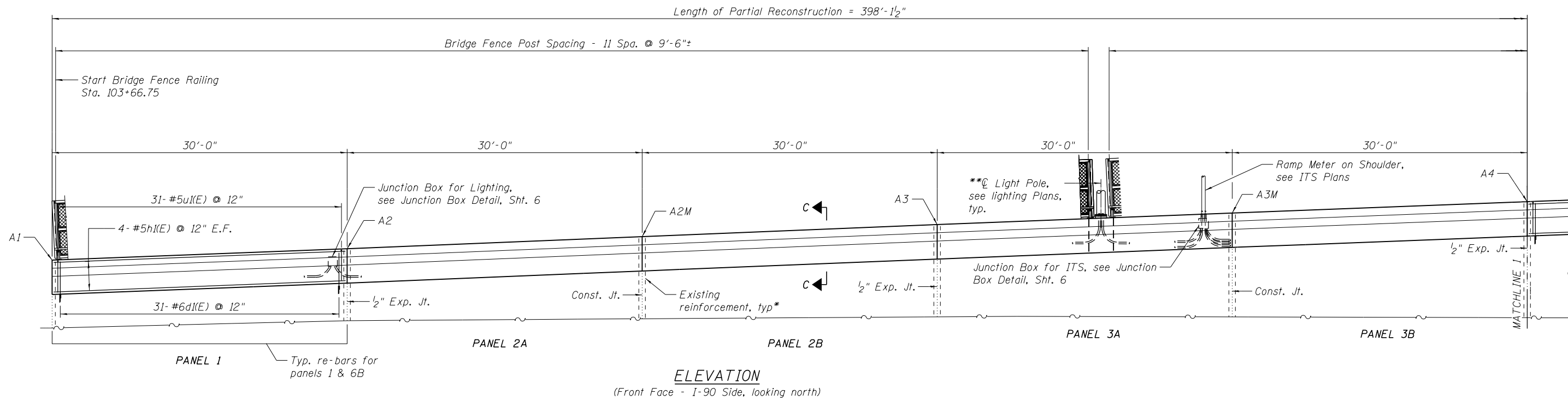


 exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME = *USER*	DESIGNED STD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-1354 PARTIAL REMOVAL & REPAIRS (1 OF 2) SHEET NO. 3 OF 9 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = *SCALE*	CHECKED KK	REVISED			I-90	(1517 & 1415) R-2	COOK	734	565
	PLOT DATE = *DATE*	DRAWN EG	REVISED			CONTRACT NO. 60Y39				
	DATE 01/19/2018	REVIS				ILLINOIS FED. AID PROJECT				



exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY	USER NAME = #USER*	DESIGNED STD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING RETAINING WALL REPAIR PLANS SN 016-1354 PARTIAL REMOVAL & REPAIRS (2 OF 2) SHEET NO. 4 OF 9 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = #SCALE*	CHECKED KK	REVISED			I-90	(1517 & 1415) R-2	COOK	734	566	
	PLOT DATE = #DATE*	DRAWN EG	REVISED			CONTRACT NO. 60Y39					
	DATE 01/19/2018	REVIS	REVISED			ILLINOIS FED. AID PROJECT					

FILE NAME = #FILE#



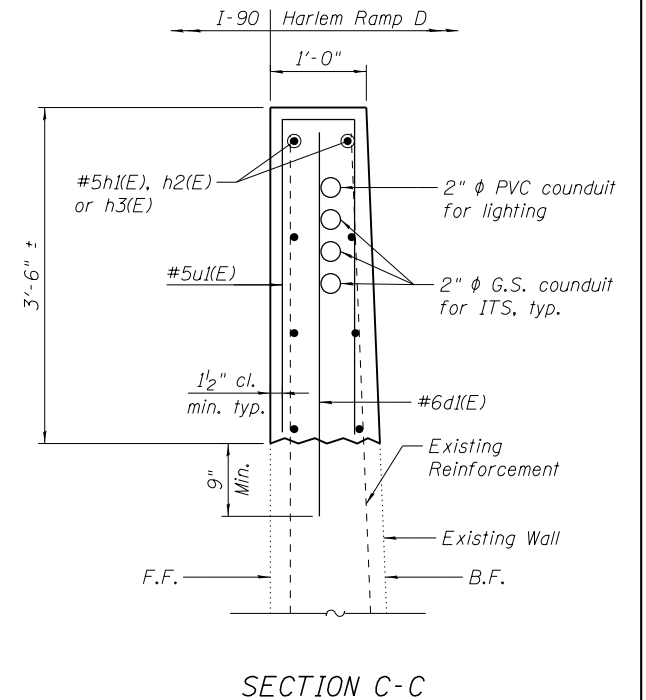
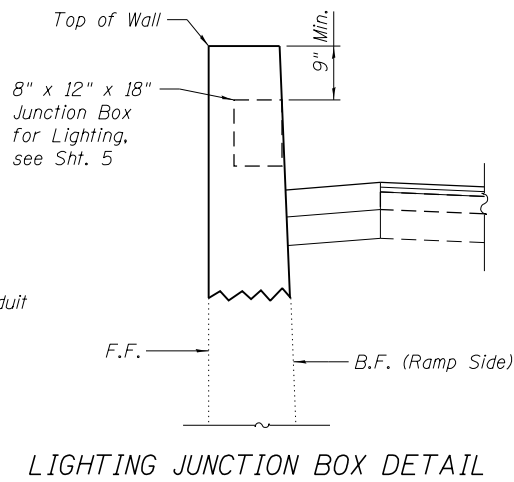
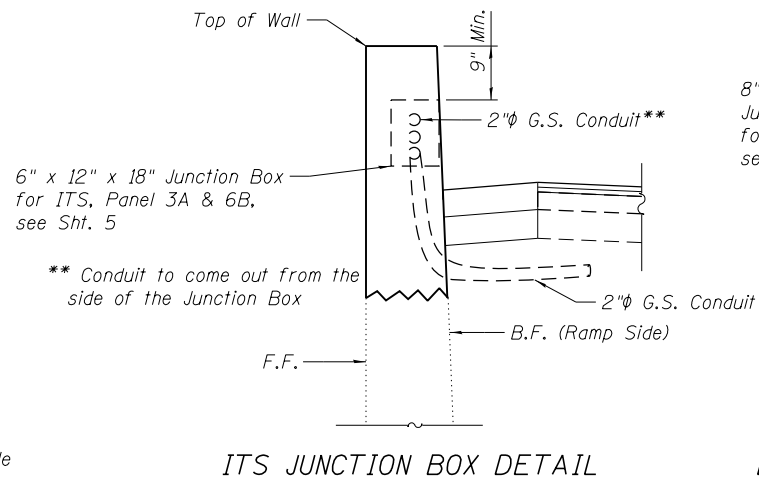
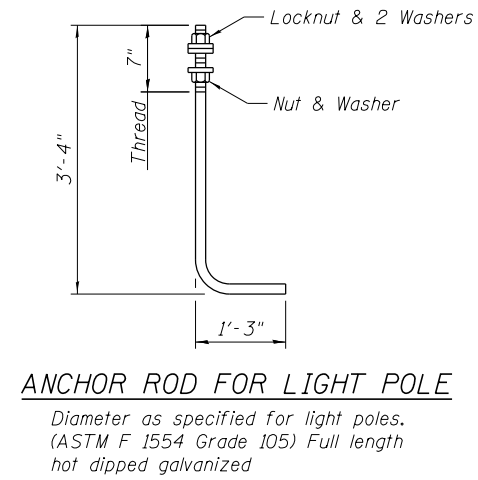
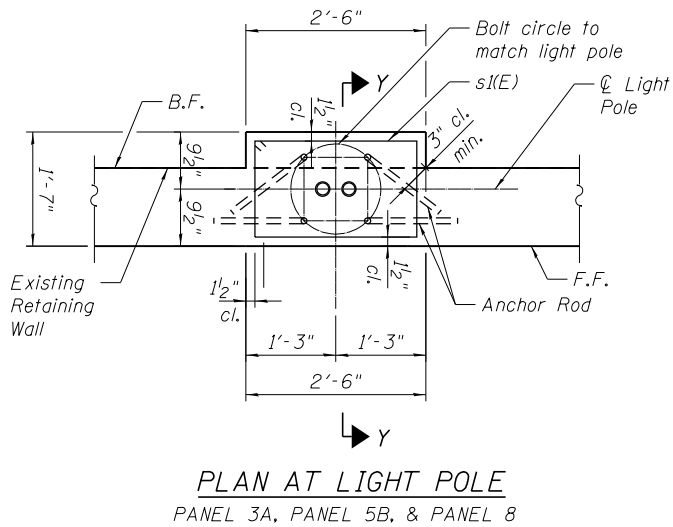
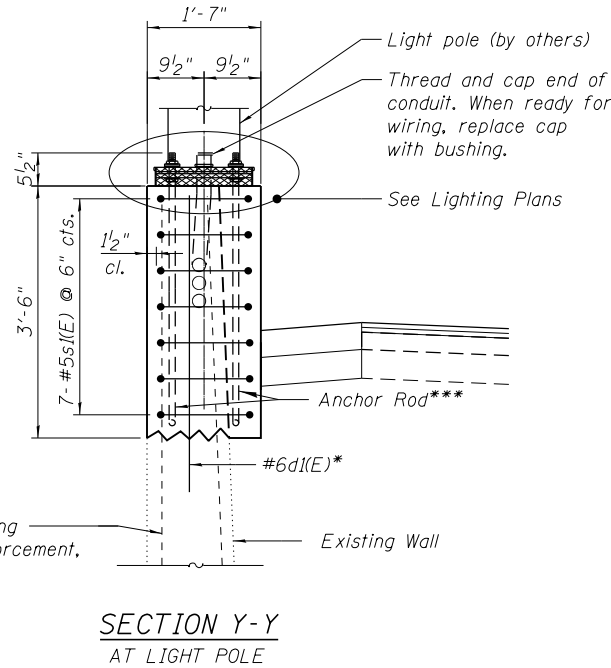
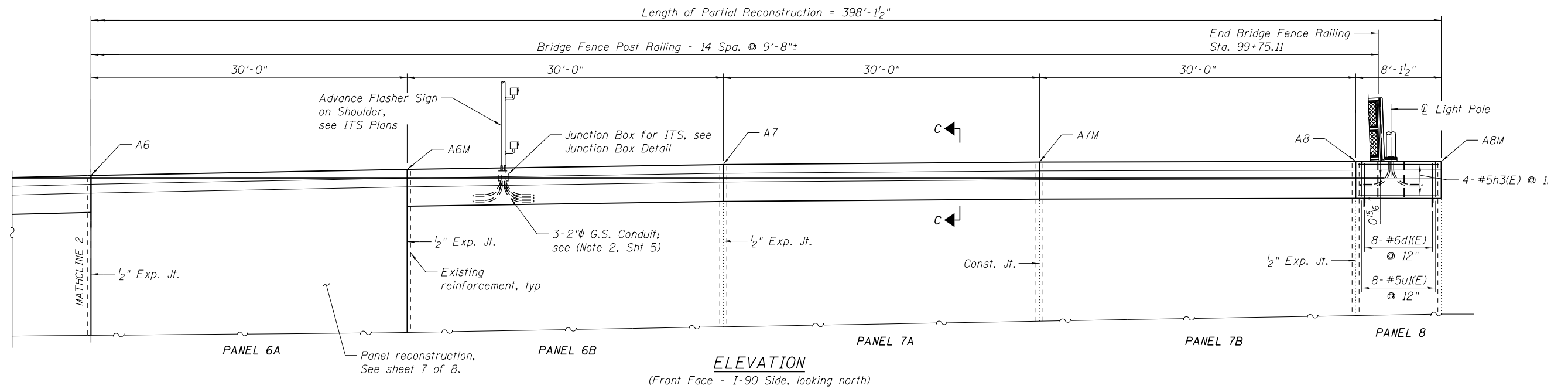
Notes:

1. Bar indicated 4x3- #5 etc. indicates 4 lines of bars with 3 lengths per line.
2. The two ITS conduits at the east end of the wall are to connect to the existing conduits to reach the telephone and electric service.
3. Space reinforcement to fit around junction boxes.
4. For Bar List see Sht. 9 of 9
5. E.F. denotes Each Face
B.F. denotes Back Face
F.F. denotes Front Face

* Existing reinforcement shall be saved, cleaned, straightened, and incorporated into the new construction.
** See Lighting plans for exact location.

USER NAME = *USER*	DESIGNED EG	REVISED
PLOT SCALE = *SCALE*	CHECKED KK	REVISED
PLOT DATE = *DATE*	DRAWN EG	REVISED
	DATE 01/19/2018	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	567
				CONTRACT NO. 60Y39
ILLINOIS FED. AID PROJECT				

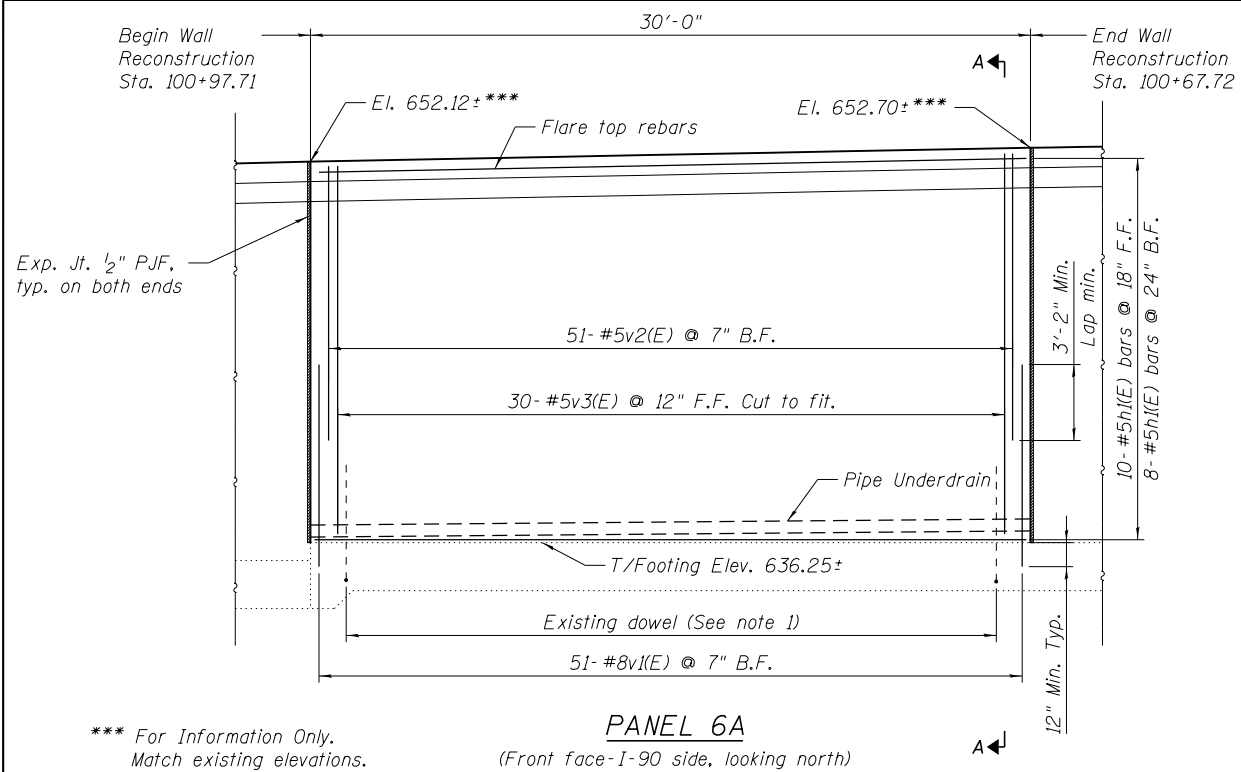


* Drill and grout #6d(E) bars 9" min into existing retaining wall. Drilling and grouting shall be performed in accordance with Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy coated.

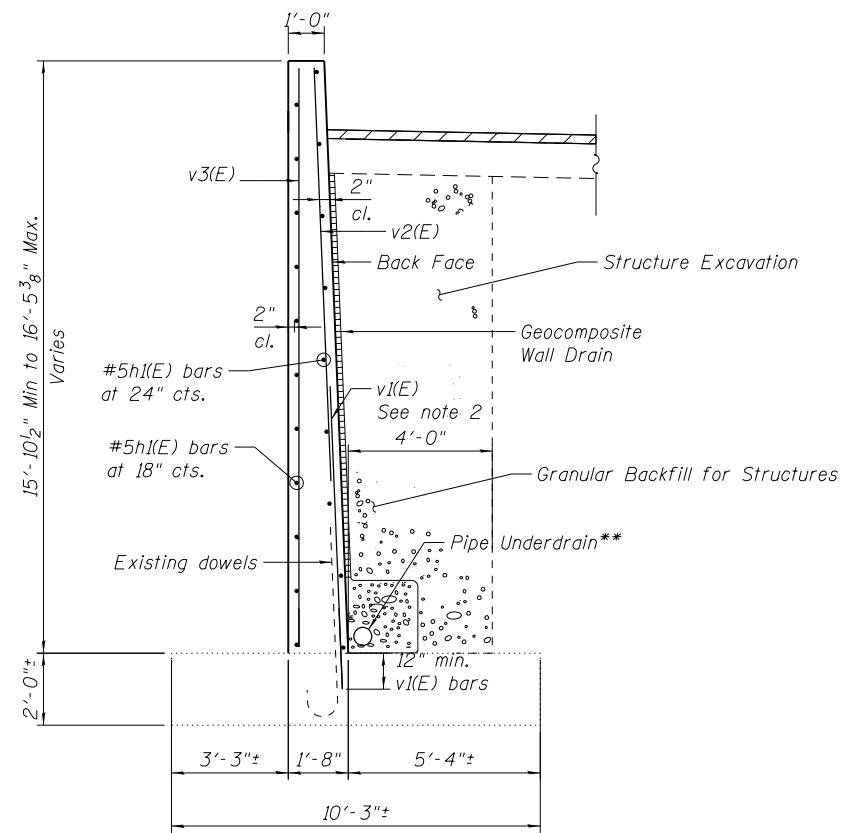
*** Anchor rods (Dia. as specified for light pole). Provide 3 flat washers, 1 regular nut & 1 locknut for each rod. See detail "Anchor Rod for Light Pole". Cost of Anchor Rod is included with Concrete Superstructure. See Plan at Light Pole for orientation of Anchor Rods.

USER NAME = *USER*	DESIGNED STD	REVISED -
PLOT SCALE = *SCALE*	CHECKED KK	REVISED -
PLOT DATE = *DATE*	DRAWN STD	REVISED -
	DATE 01/19/2018	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-90	(1517 & 1415) R-2	COOK	734	568
CONTRACT NO. 60Y39				

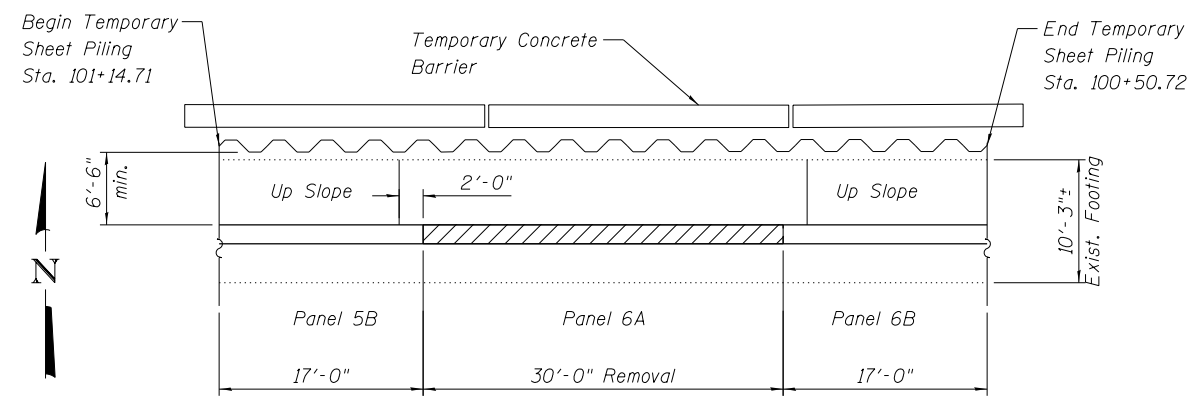


PANEL 6A
(Front face-I-90 side, looking north)



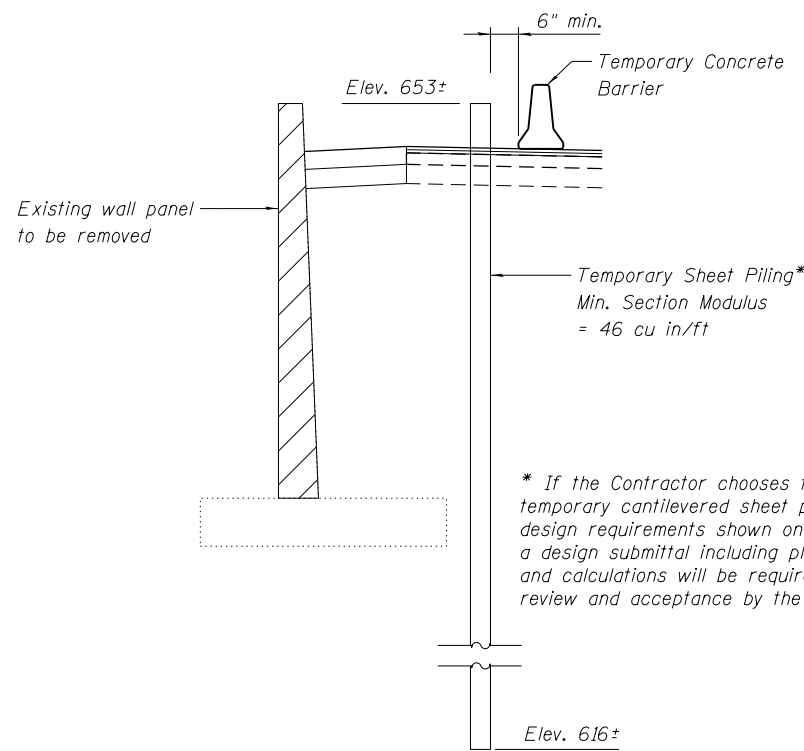
SECTION A-A

** Connect to existing underdrain behind the wall



PLAN - PANEL 6A

TEMPORARY SHEET PILING

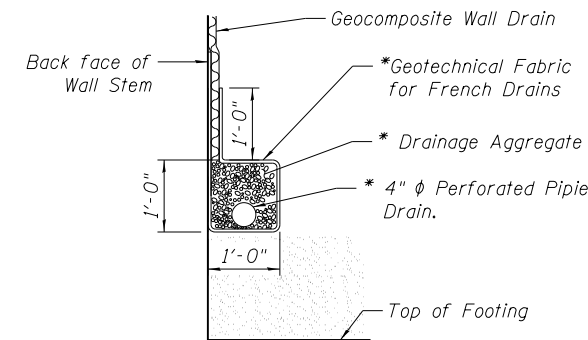


SECTION - PANEL 6A

(Showing Temporary Sheet Piling)

* If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

BAR LIST				
Bar	No.	Size	Length	Shape
d1(E)	380	#6	4'-2"	—
h1(E)	34	#5	29'-8"	—
h2(E)	120	#5	21'-9"	—
h3(E)	8	#5	7'-10"	—
s1(E)	21	#5	7'-11"	□
u1(E)	380	#5	7'-3"	□
v1(E)	51	#8	8'-5"	—
v2(E)	51	#5	12'-3"	—
v3(E)	30	#5	16'-2"	—



PIPE UNDERDRAIN DETAIL

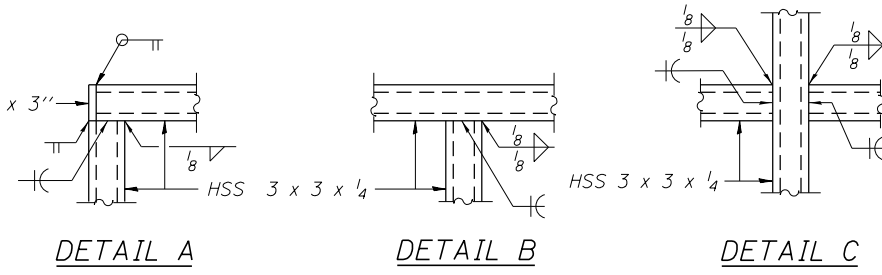
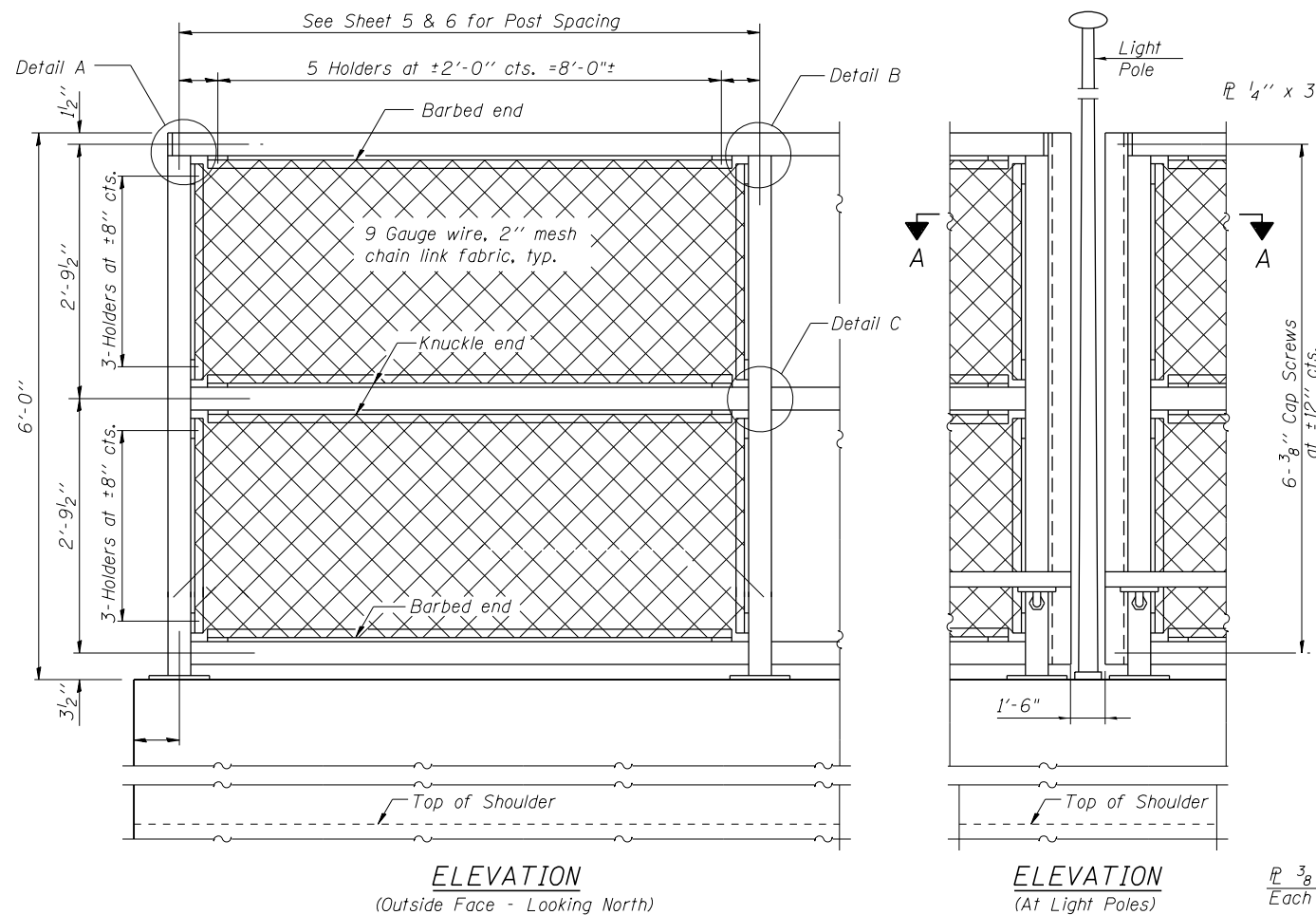
* Cost included with "Pipe Underdrains for Structures"

Notes

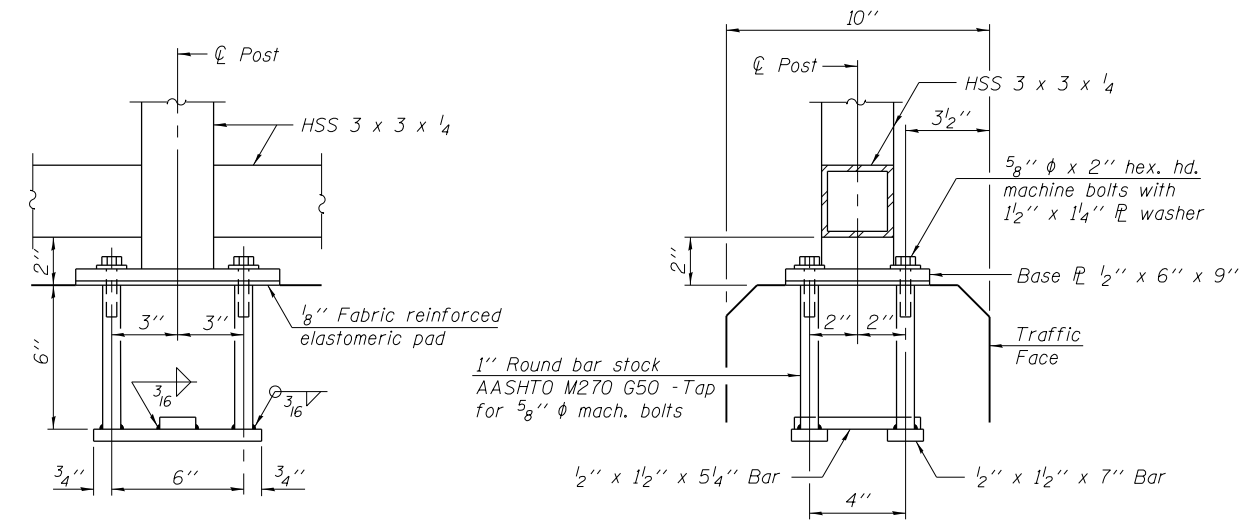
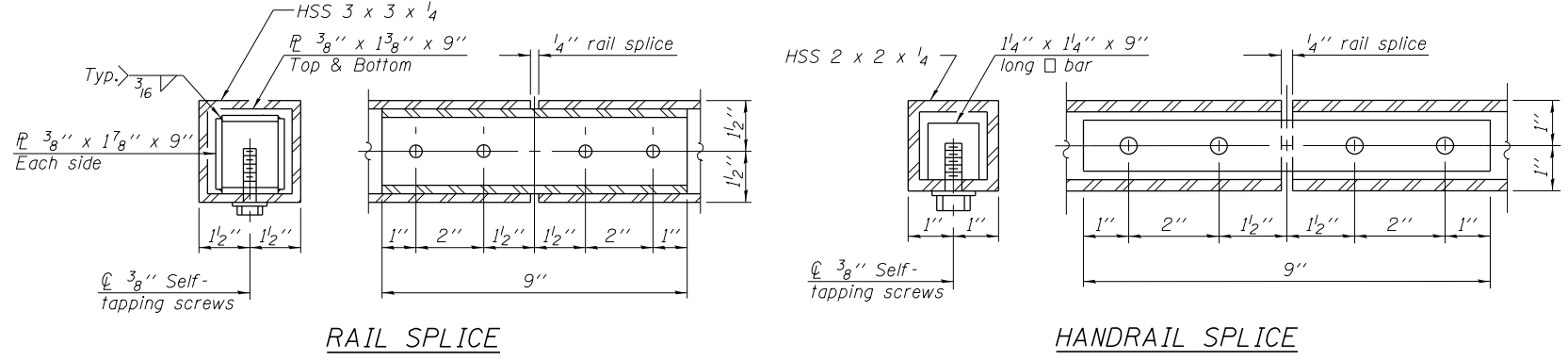
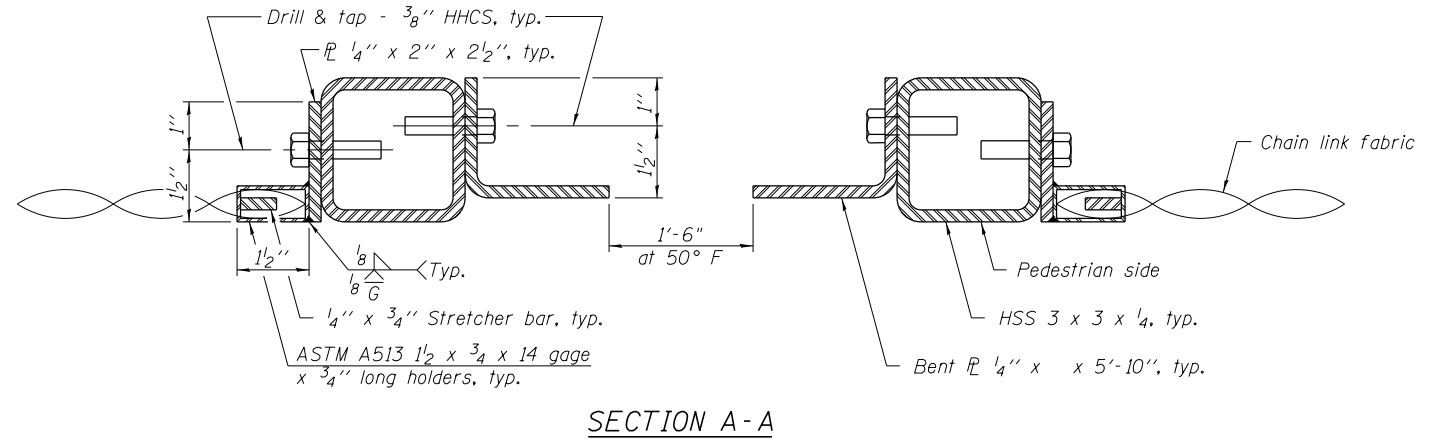
- Existing dowels extending out of the footing shall be cleaned, straightened and incorporated into the new construction.
- Drill and grout #8 v1(E) bars 12" min. into the footing. Drilling and grouting shall be performed in accordance with Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy coated.
- Bend existing vertical bars to clear concrete face (1 1/2" min.).
- B.F. indicates Back Face
F.F. indicates Front Face

USER NAME = *USER*	DESIGNED EG	REVISED
	CHECKED KK	REVISED
PLOT SCALE = *SCALE*	DRAWN EG	REVISED
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	569
			CONTRACT NO. 60Y39	

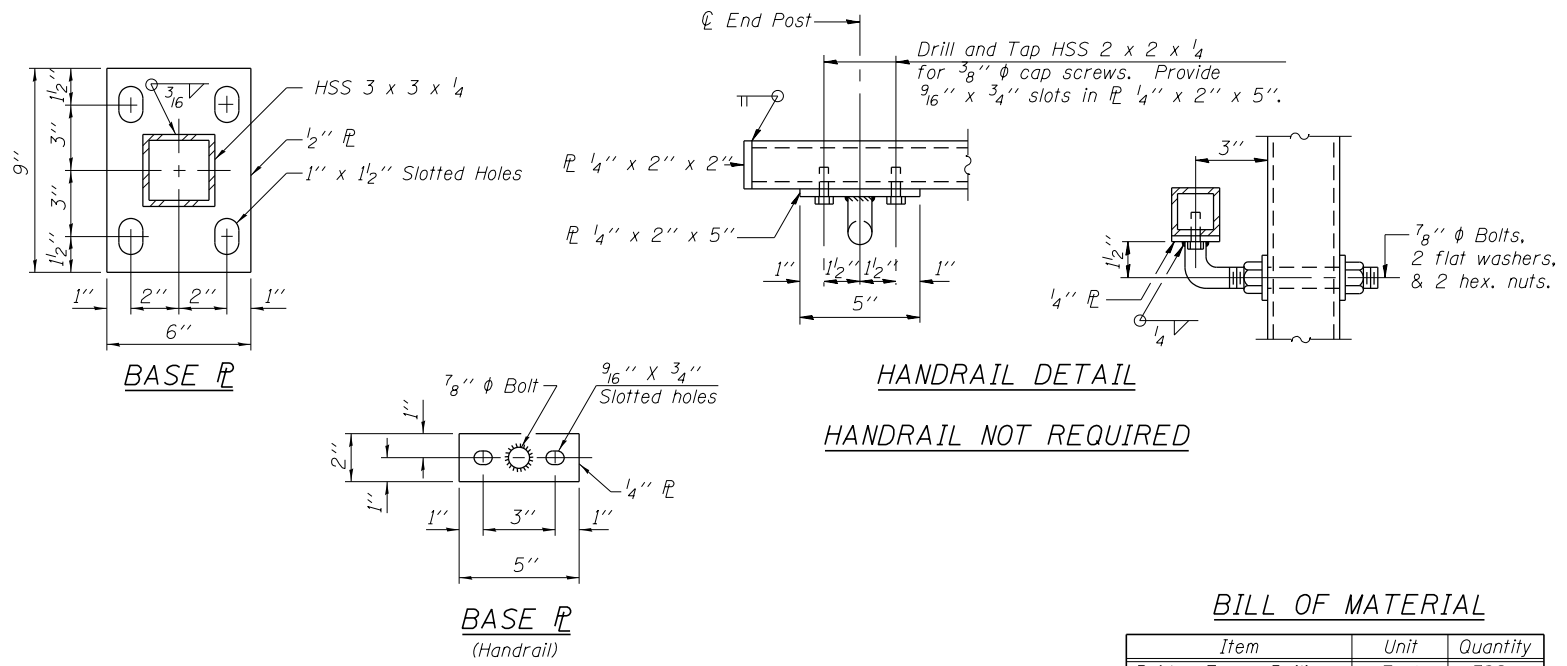


Note:
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	392



GSI Job No. 12245-A

SOIL BORING LOG

Page 1 of 1

Date 1/27/17

ROUTE FAI 90 (I-90 - Kennedy Expressway) DESCRIPTION I-90 Retaining Walls (Canfield Ave. to Harlem Ave.) LOGGED BY TC

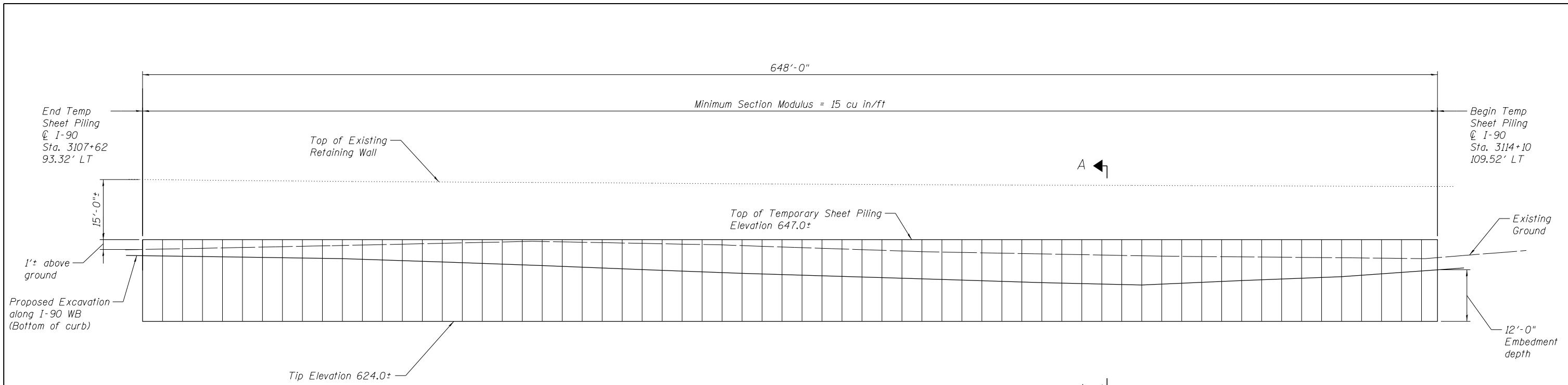
SECTION (1517 & 1415) R-3 LOCATION SE 1/4, SEC. 1, TWP. T40N, RNG. R12E, 3rd PM

COUNTY Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

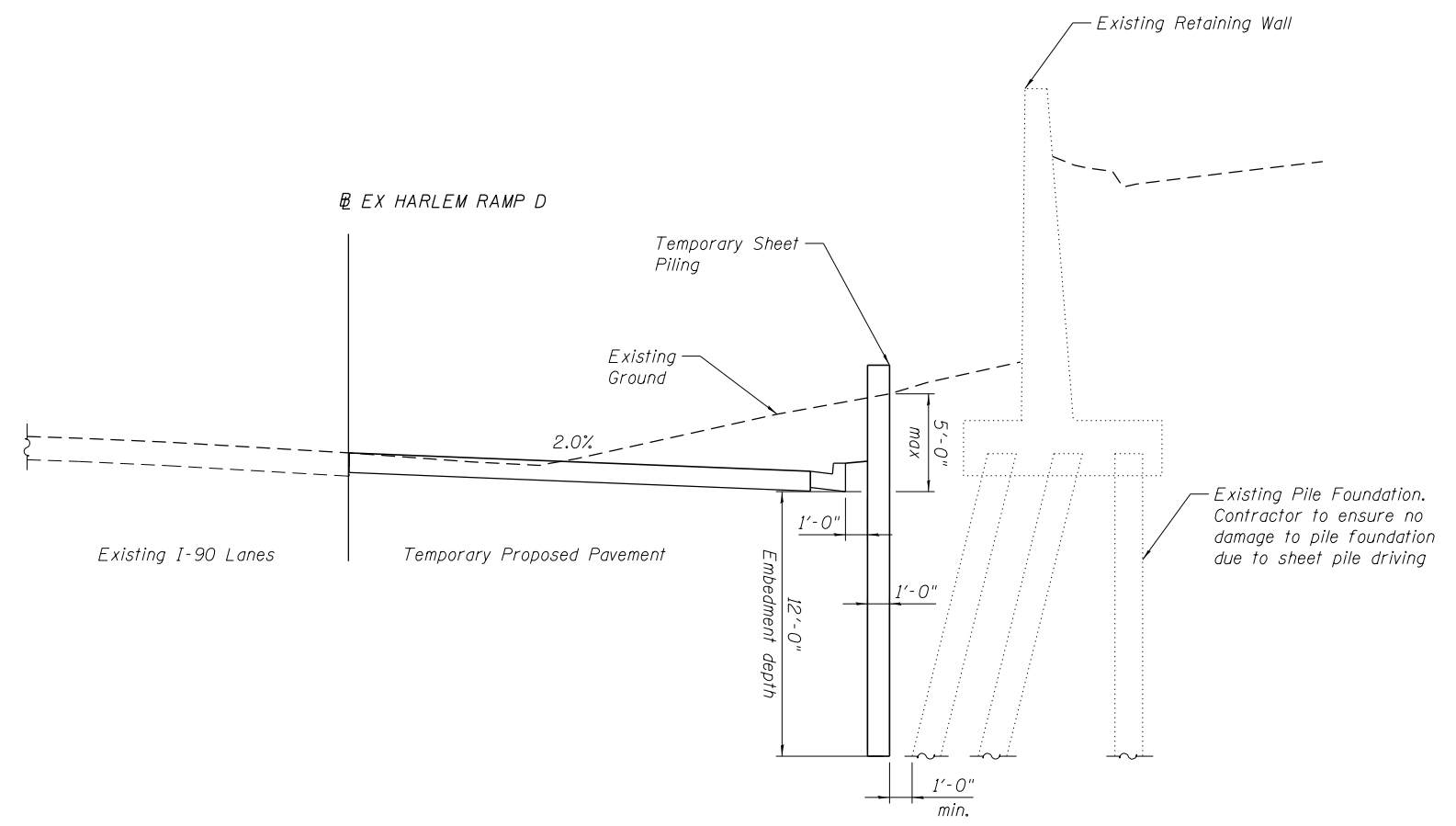
STRUCT. NO.	Station	BORING NO.	Station	Offset	Ground Surface Elev.	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After Hrs.	D E P T H (ft)	B L O W S (/6")	U C S Qu (tsf)	M O I S T (%)
					651.00					n/a	n/a								
					650.25														
							6										5		
							8		3								6	1.6	14
							11										6	B	
					648.00														
							5										4		
							6		3								4	1.5	13
							8										5	B	
					645.50														
							4										7		
							6		8								5	1.8	13
							6										5	B	
					643.00														
							6										3		
							7		3								3	1.8	14
							9										3	B	
					640.50														
							3												
							3	1.8	22										
							4	P											
							3												
							3	1.3	23										
							3	B											
							3												
							3	0.9	23										
							4	B											
							4												
							4	1.5	14										
							6	B											

Z:\PROJECTS\2017\12245-A HNTB, I-90 PHASE II\12245-A BORING LOGS\12245-A_LOG.GPJ 3/20/17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)



TEMPORARY SHEET PILING - ELEVATION



TEMPORARY SHEET PILING - SECTION A-A

TOTAL BILL OF MATERIAL

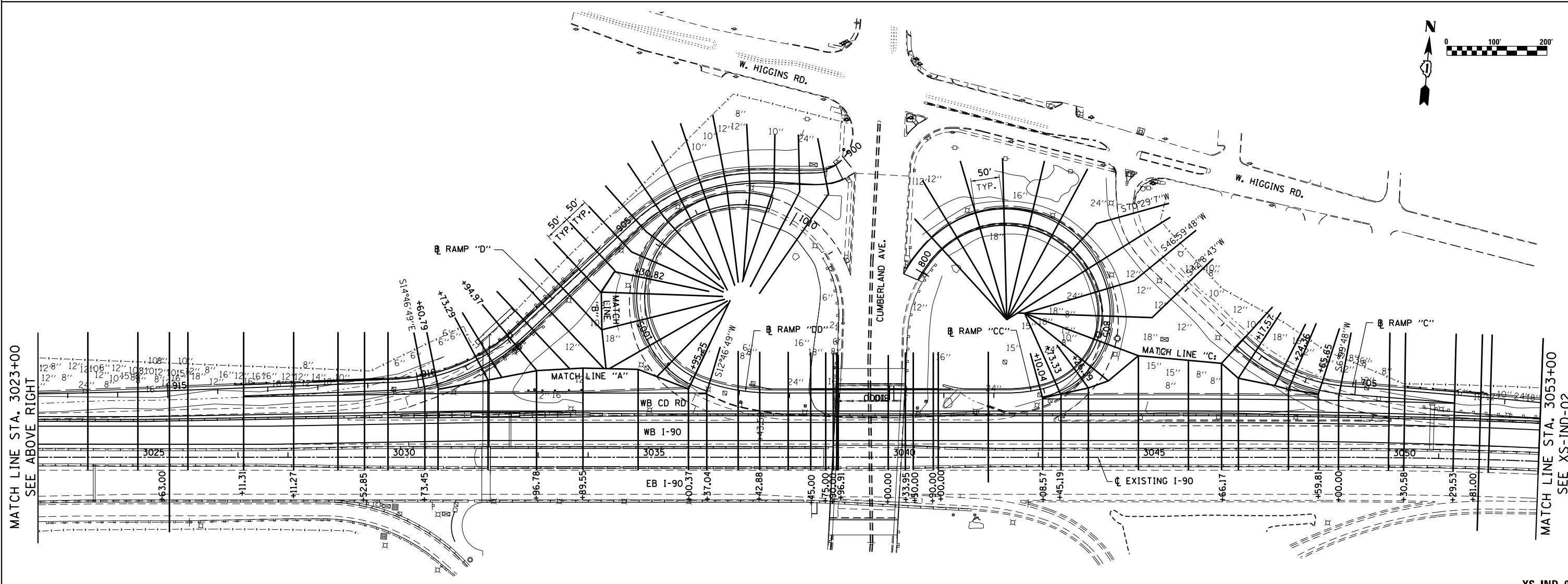
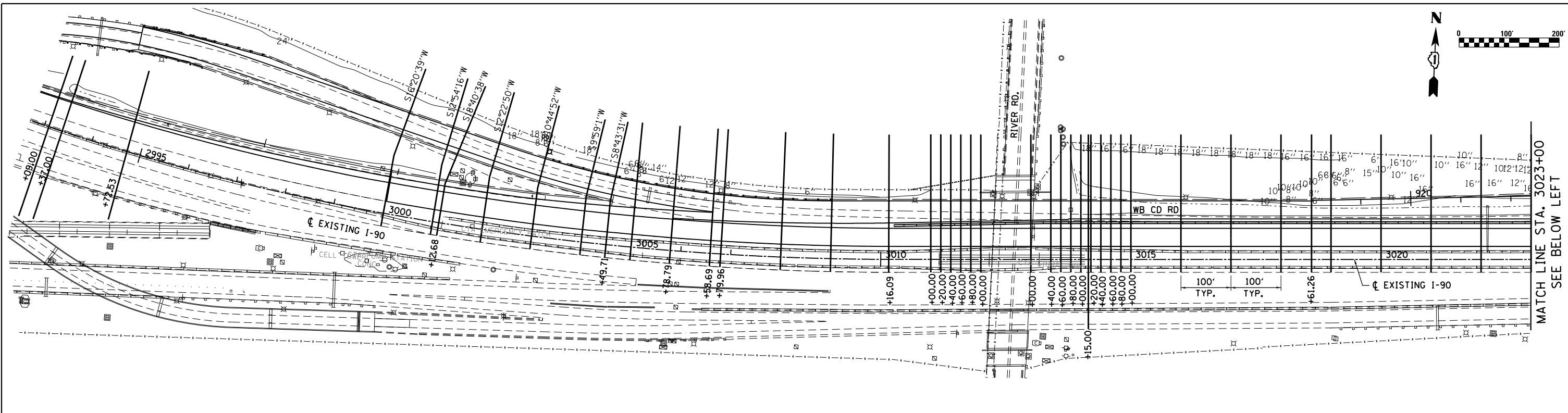
Item	Unit	Total
TEMPORARY SHEET PILING	Sq Ft	14,904

exp U.S. Services Inc. Chicago, IL BUILDINGS • EARTH & ENVIRONMENT • ENERGY INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY	USER NAME = *USER*	DESIGNED EG	REVISIONS
	PLOT SCALE = *SCALE*	CHECKED KK	REVISIONS
	PLOT DATE = *DATE*	DRAWN EG	REVISIONS
		DATE 01/19/2018	REVISIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED STAGING AND TRAFFIC CONTROL
SUGGESTED STAGING AND TRAFFIC CONTROL
TEMPORARY SHEET PILING

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-90	(1517 & 1415) R-2	COOK	734	572
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	



USER NAME = *USER*	DESIGNED BAJ	REVISED -
DRAWN BAJ	REVISED -	
PLOT SCALE = *SCALE*	CHECKED MAM	REVISED -
PLOT DATE = *DATE*	DATE 01/19/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

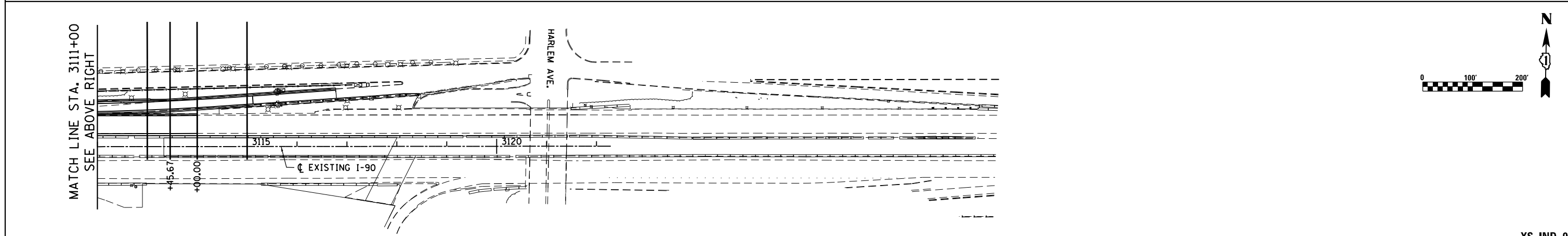
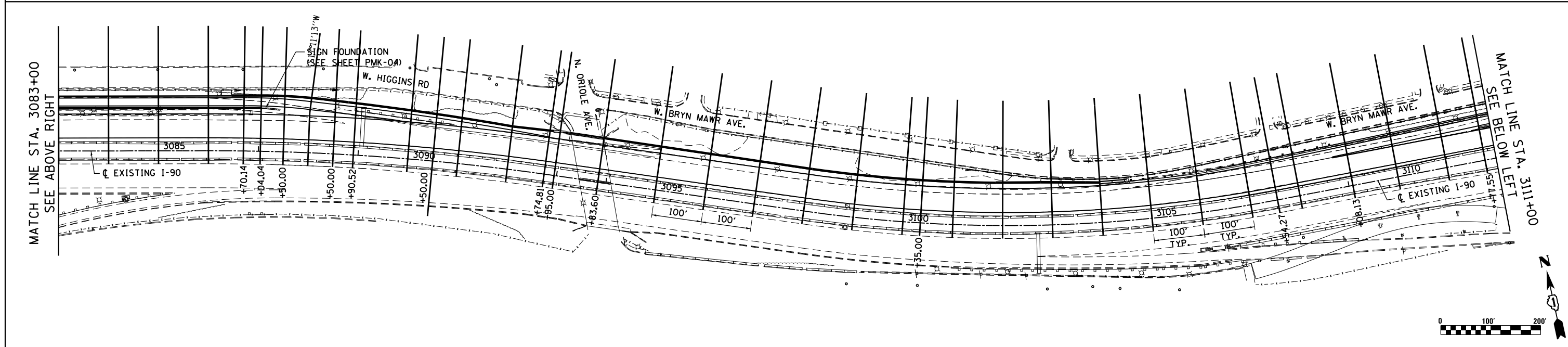
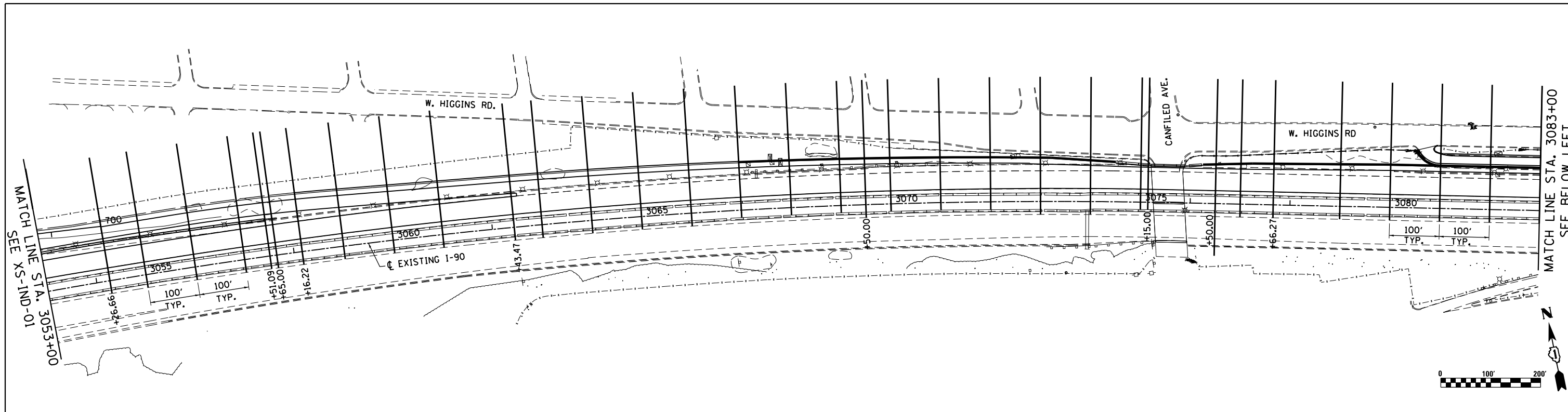
**I-90 WESTBOUND FROM HARLEM AVE TO I-190 INTERCHANGE
CROSS SECTION INDEX**

SCALE: 1"=100' SHEET NO. 1 OF 2 SHEETS STA. 2093+00 TO STA. 3053+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	573
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-IND-01

FILE NAME = #FILE#



USER NAME = *USER*	DESIGNED BAJ	REVISED -
PLOT SCALE = *SCALE*	DRAWN BAJ	REVISED -
PLOT DATE = *DATE*	CHECKED MAM	REVISED -
	DATE 01/19/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

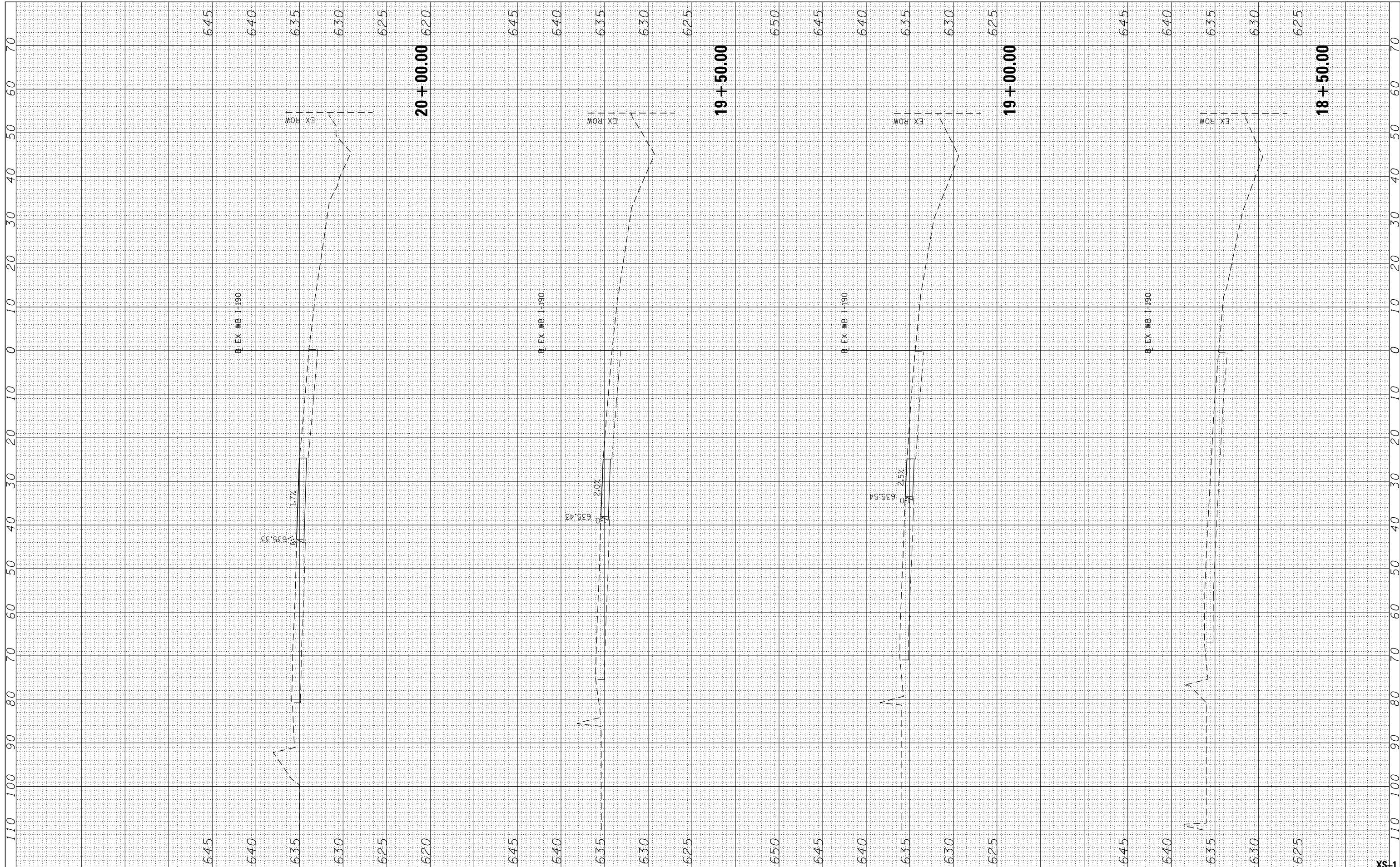
**I-90 WESTBOUND FROM HARLEM AVE TO I-190 INTERCHANGE
CROSS SECTION INDEX**

SCALE: 1"=100' SHEET NO. 1 OF 2 SHEETS STA. 3053+00 TO STA. 3115+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	574
CONTRACT NO. 60Y39				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

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 REVISIED -
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 REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

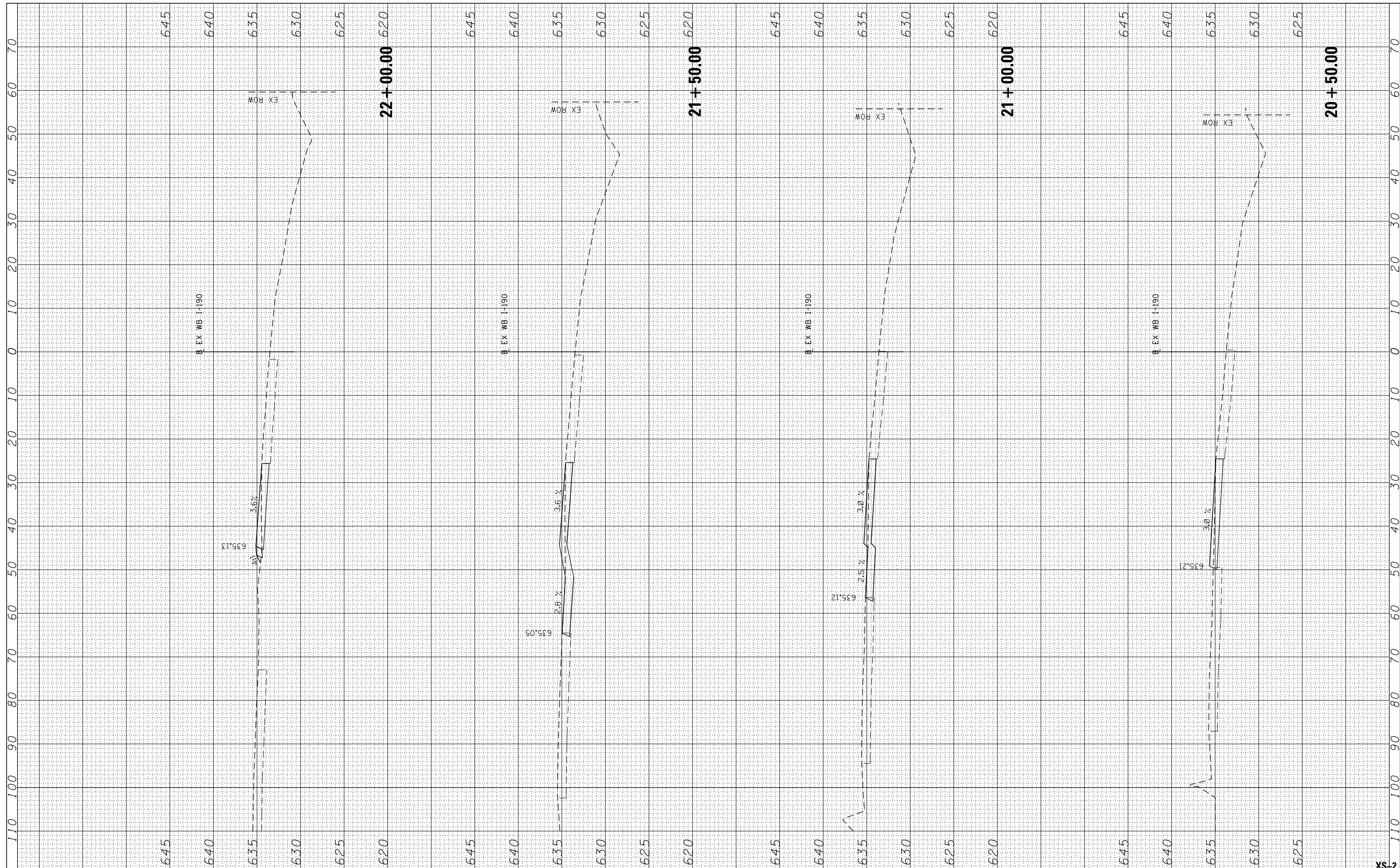
**CROSS SECTION TEMPORARY
 I-190 WB**
 SCALE: 1"=10'
 SHEET 1 OF 8 SHEETS
 STA. 18+50.00 TO STA. 20+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	575
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-1

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAM	DESIGNED - MM	REVISED -
	DRAWN - MRK	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - MM	REVISED -
PLOT DATE = 1/16/2018	DATE - 01/19/2018	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 I-190 WB**

SCALE: 1"=10' SHEET OF 8 SHEETS STA. 20+50.00 TO STA. 22+00.00

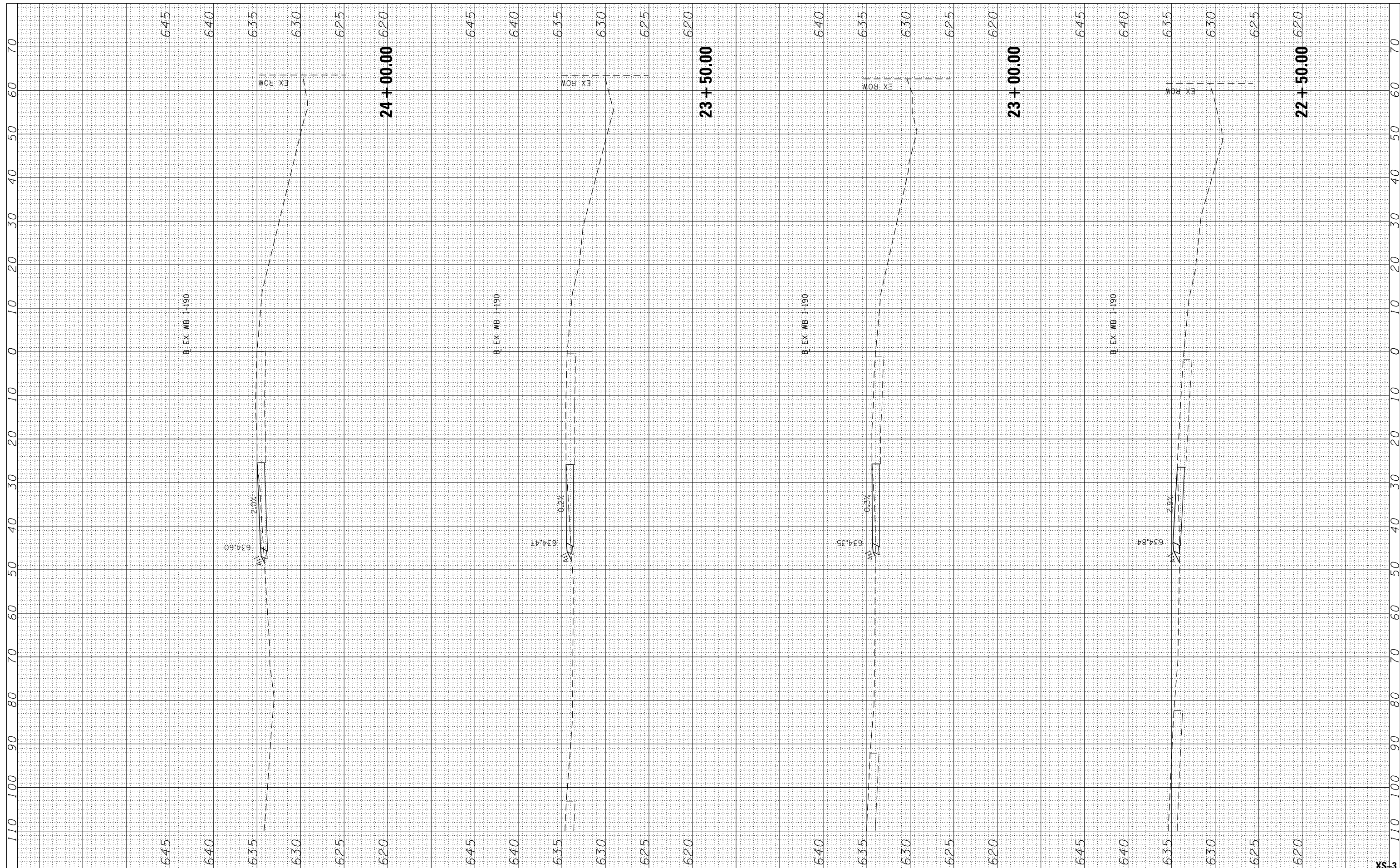
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	576
CONTRACT NO. 60Y39				

ILLINOIS FED. AID PROJECT

XS-2

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 L-190 WB**

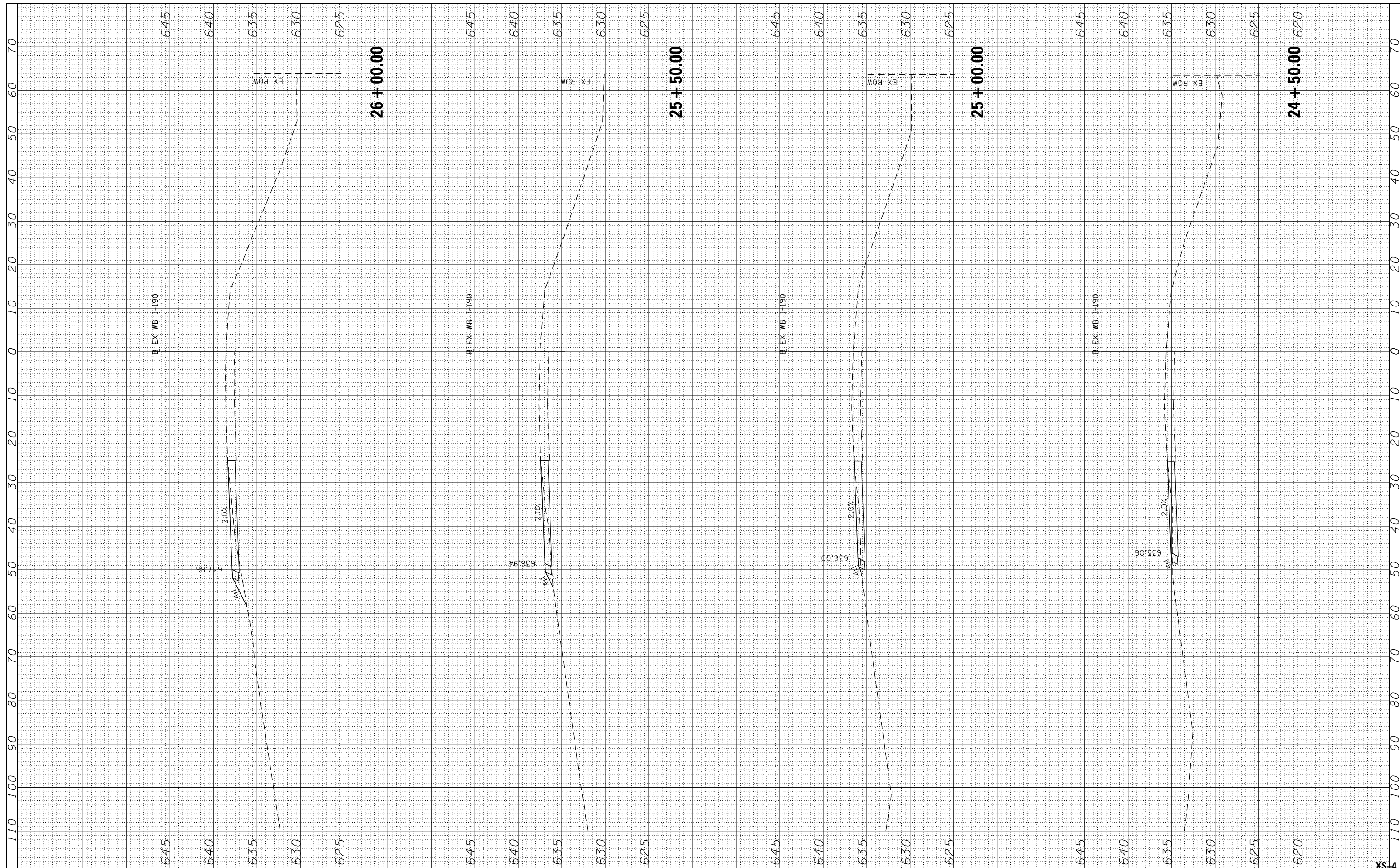
SCALE: 1"=10' SHEET OF 8 SHEETS STA. 22+50.00 TO STA. 24+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	577
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-3

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 L-190 WB**

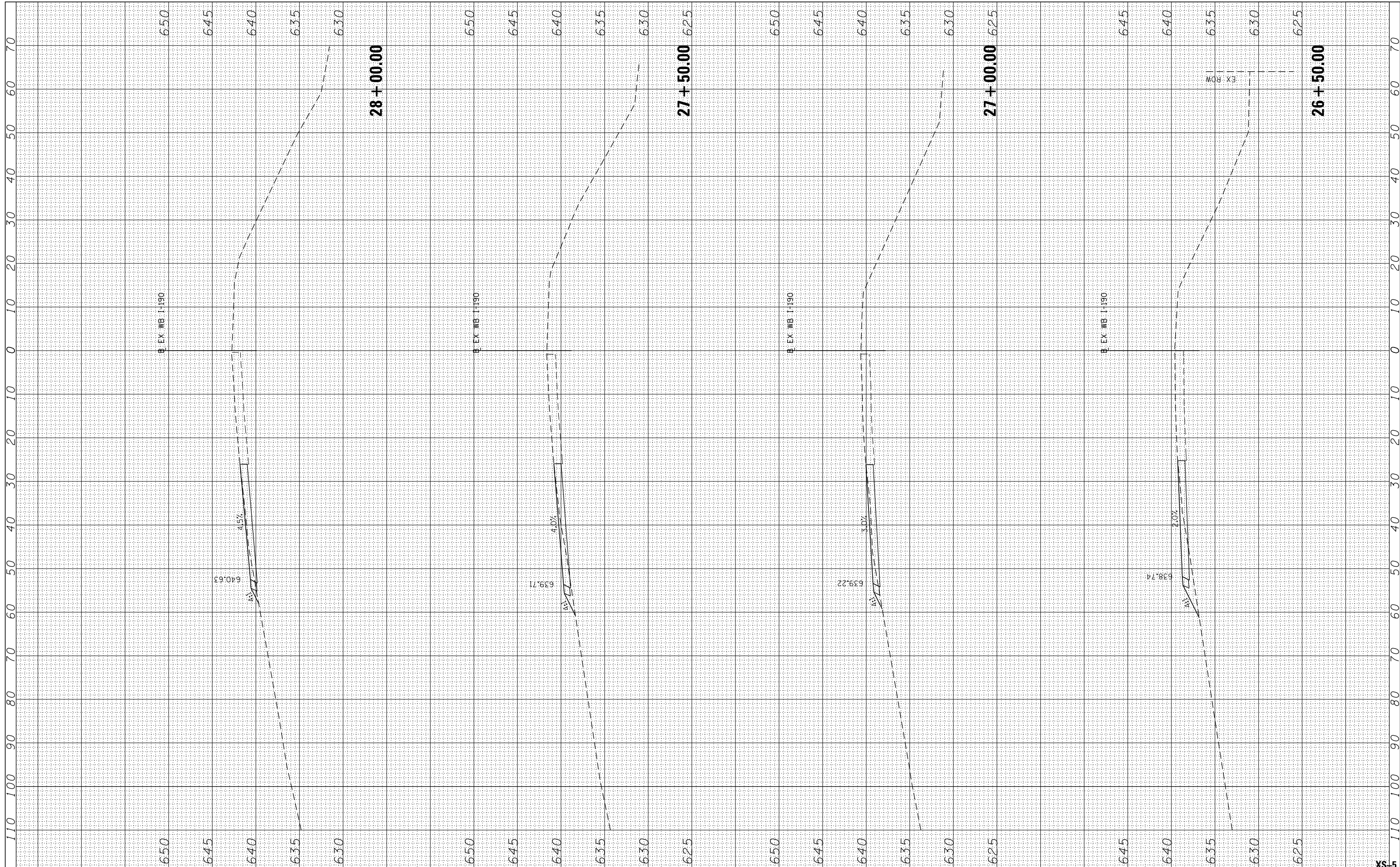
SCALE: 1"=10' SHEET OF 8 SHEETS STA. 24+50.00 TO STA. 26+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	578
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-4

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = **exp** U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

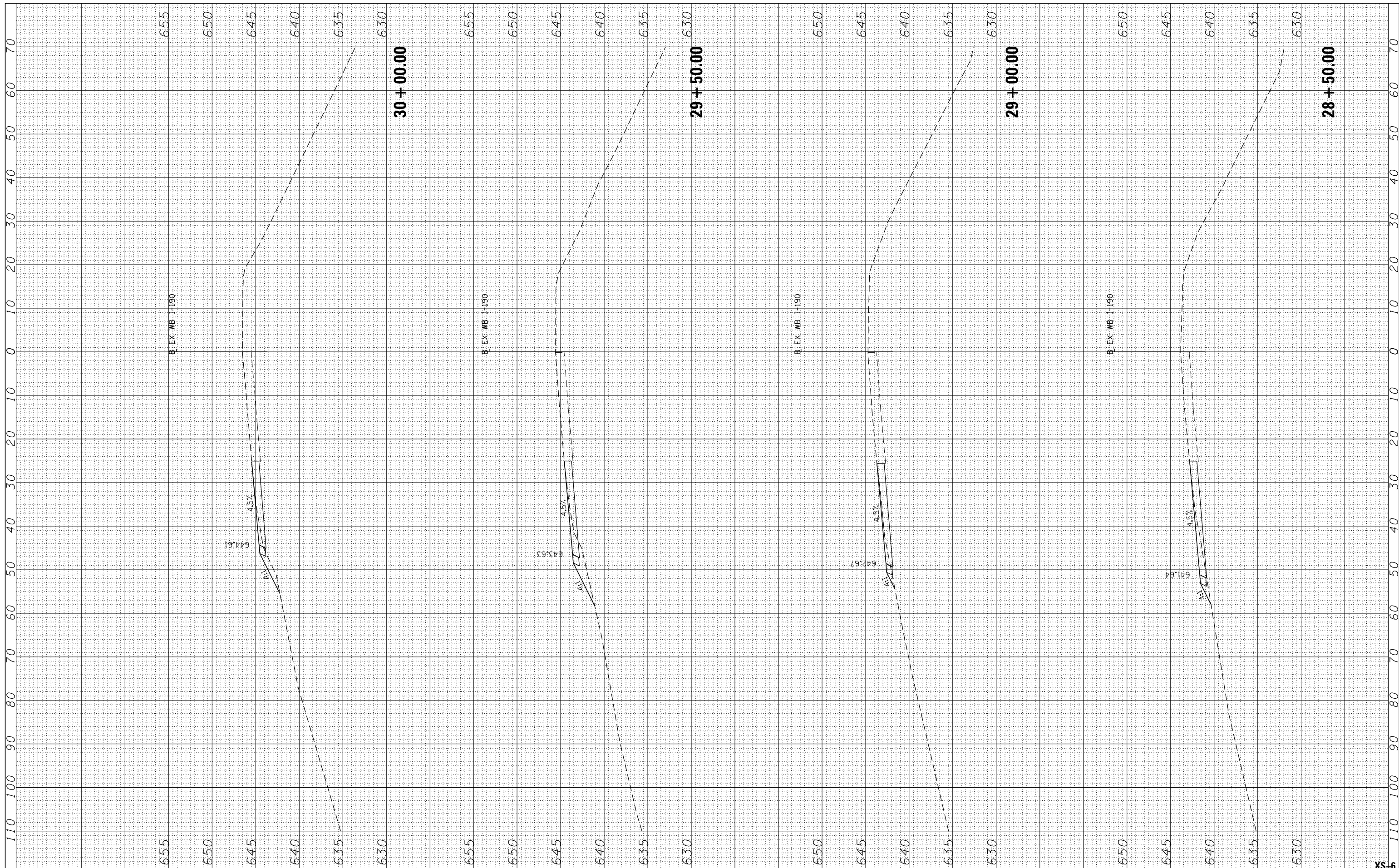
**CROSS SECTION TEMPORARY
 I-190 WB**
 SCALE: 1"=10'
 SHEET OF 8 SHEETS STA. 26+50.00 TO STA. 28+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	579
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-5

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME =	MOHAMMAM
DESIGNED -	MM
DRAWN -	MRK
CHECKED -	MM
DATE -	01/19/2018
PLOT SCALE =	20.0000' / in.
PLOT DATE =	1/16/2018

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 I-190 WB**

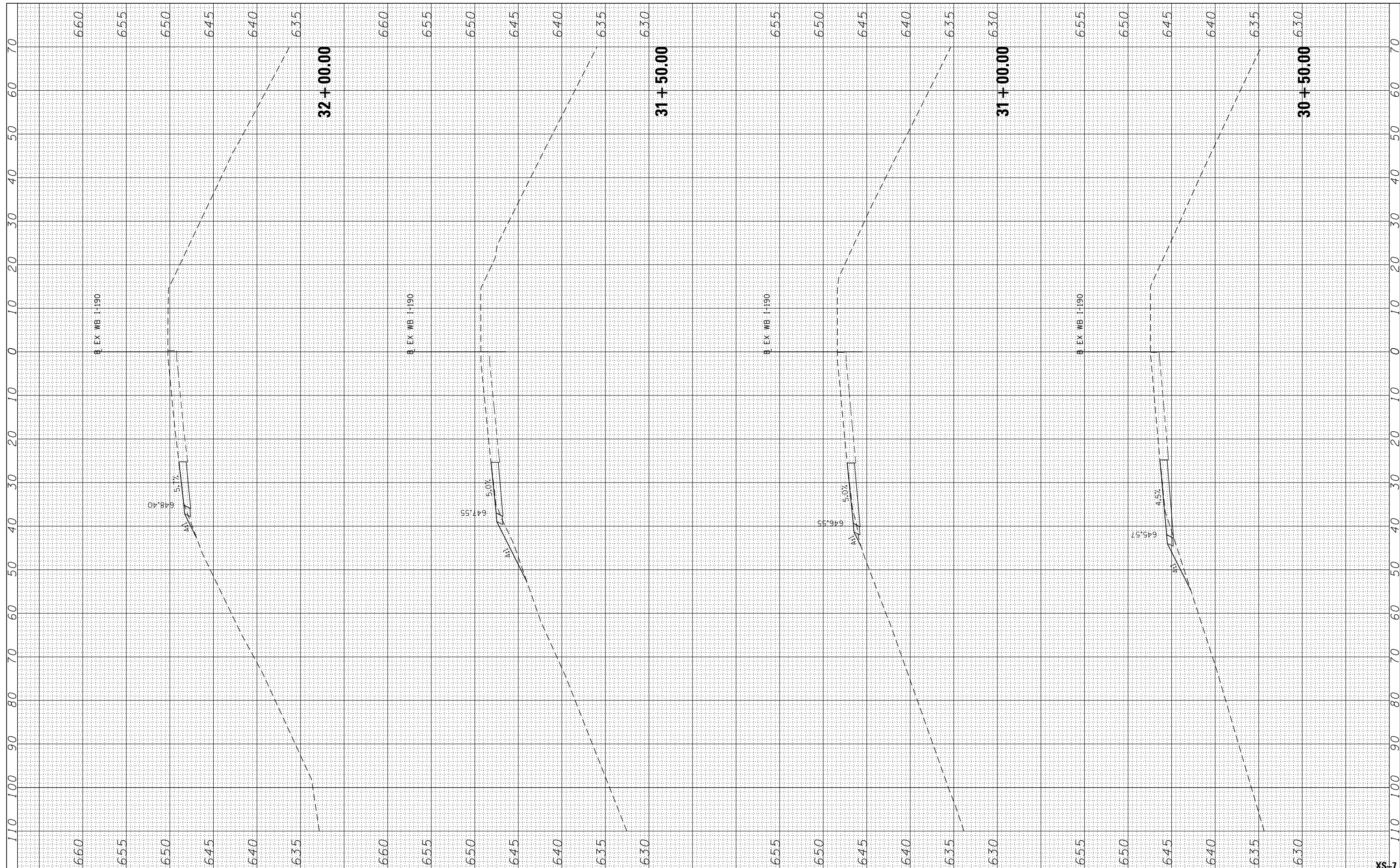
SCALE: 1"=10' SHEET OF 8 SHEETS STA. 28+50.00 TO STA. 30+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	580
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-6

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		



FILE NAME =
 U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 I-190 WB**

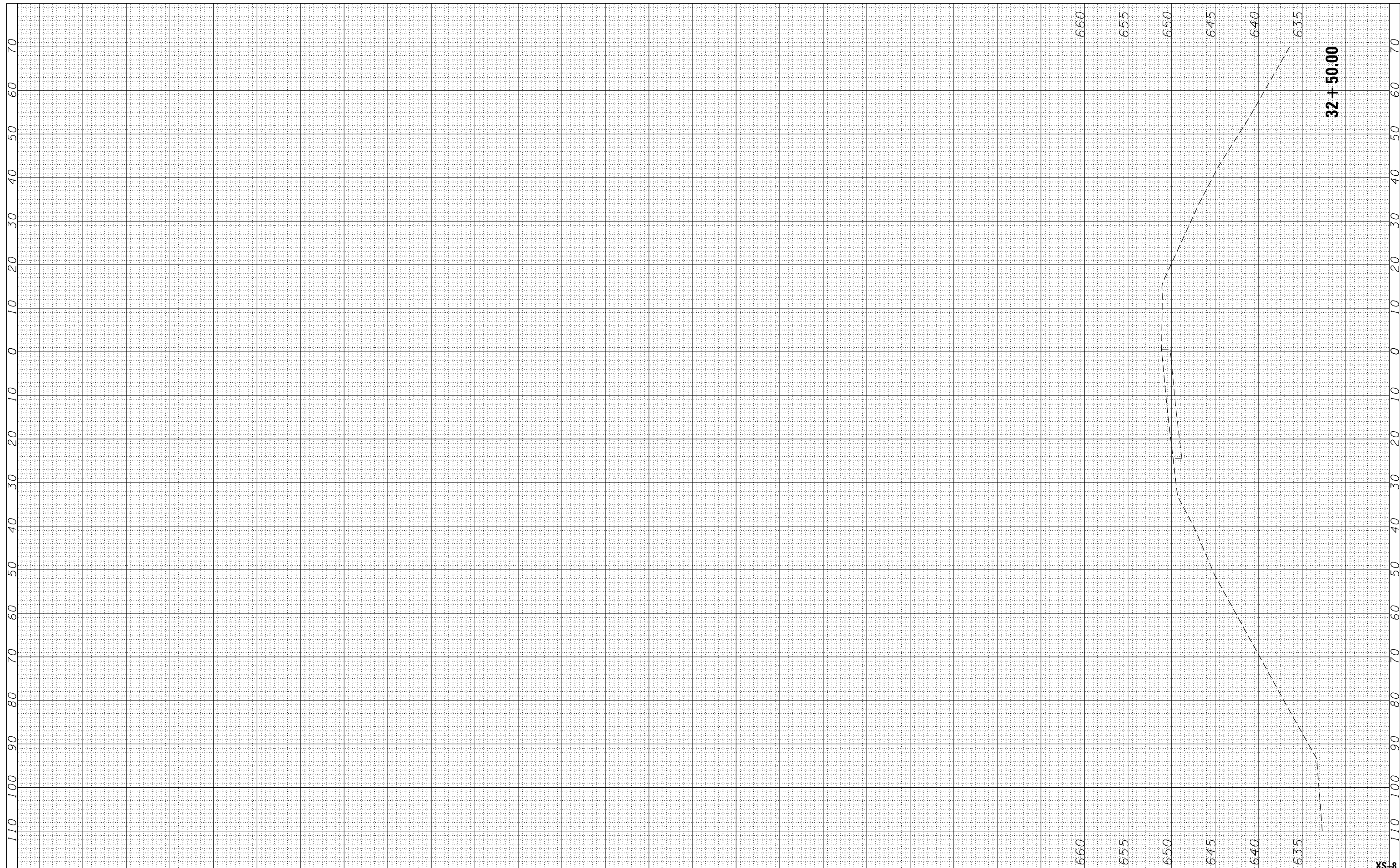
SCALE: 1"=10' SHEET OF 8 SHEETS STA. 30+50.00 TO STA. 32+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	581
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-7

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/16/2018

DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 I-190 WB**

SCALE: 1"=10' SHEET 8 OF 8 SHEETS STA. 32+50.00 TO STA. 32+50.00

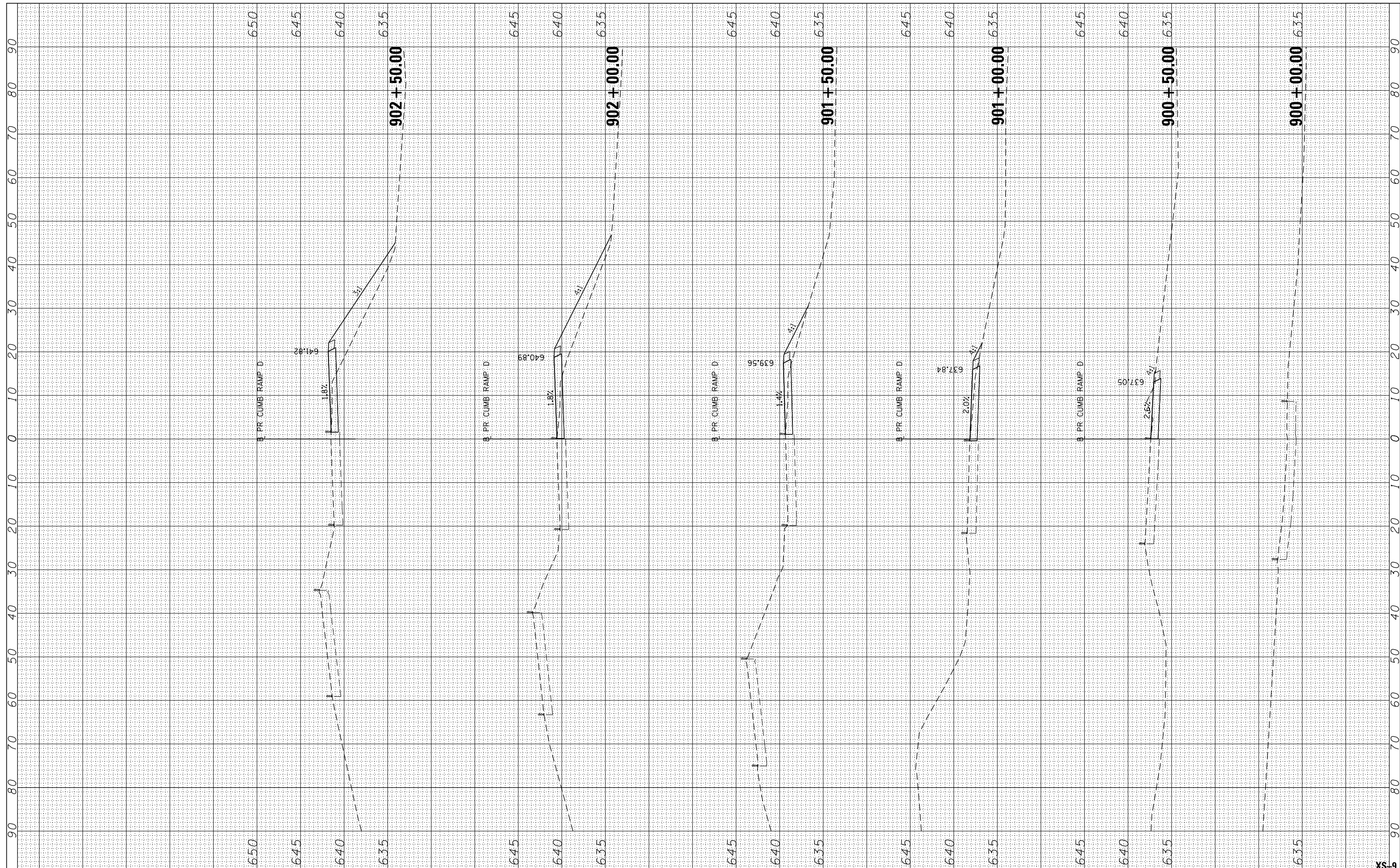
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	582
			CONTRACT NO. 60Y39	

ILLINOIS FED. AID PROJECT

XS-8

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

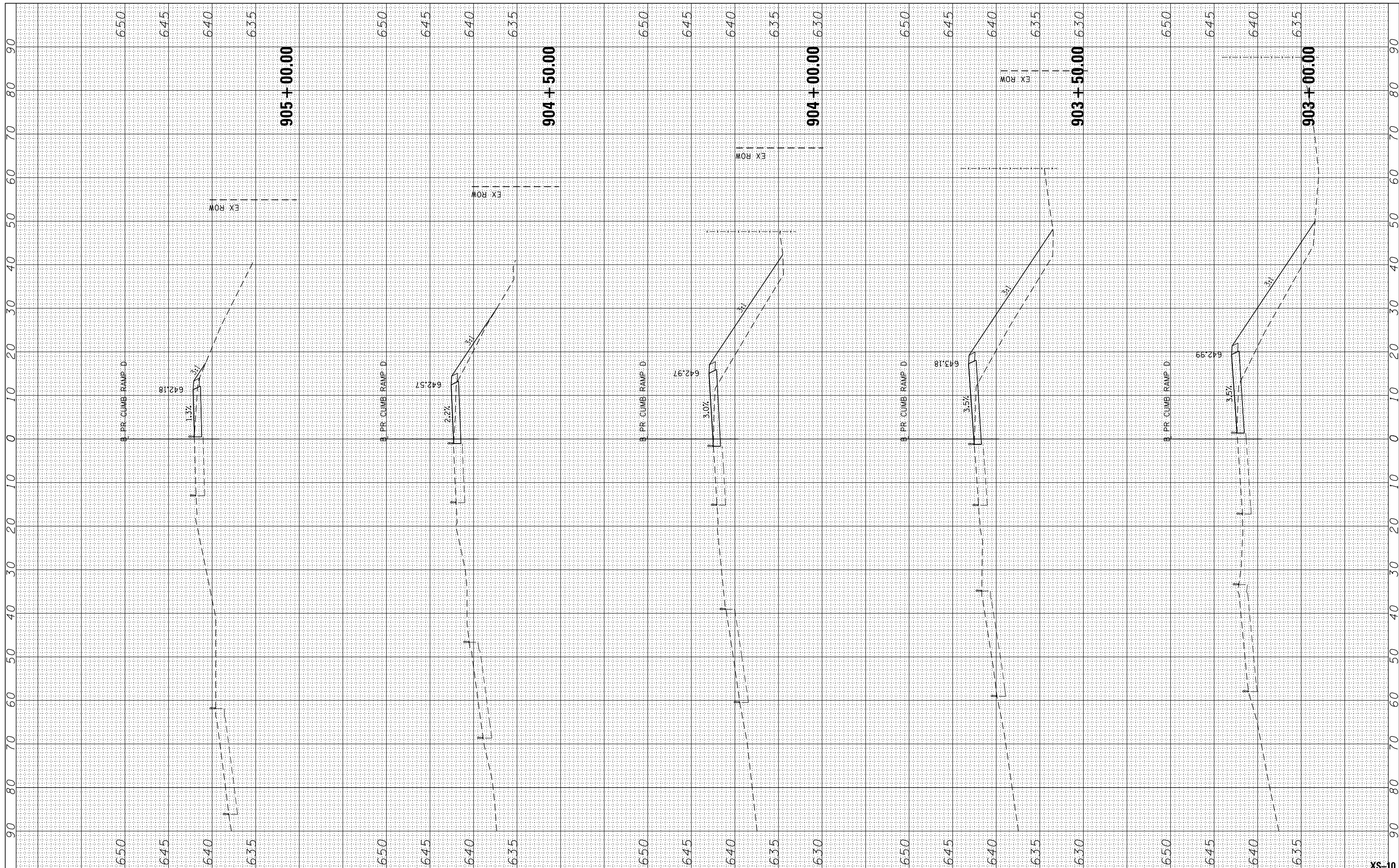
**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP D**
 SCALE: 1"=10'
 SHEET 1 OF 3 SHEETS
 STA. 900+00.00 TO STA. 902+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	583
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-9

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP D**

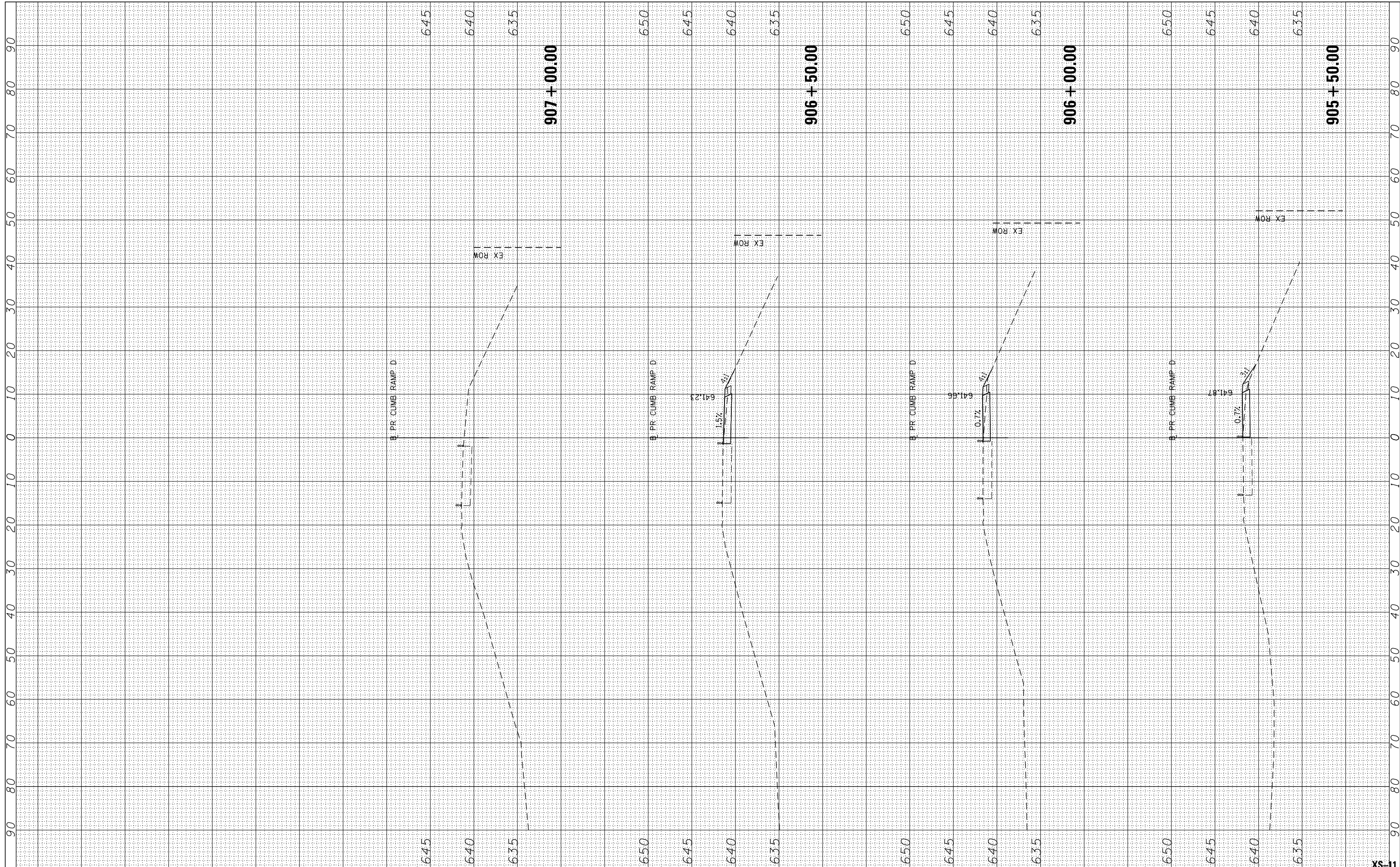
SCALE: 1"=10' SHEET 3 OF 3 SHEETS STA. 903+00.00 TO STA. 905+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	584
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-10

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

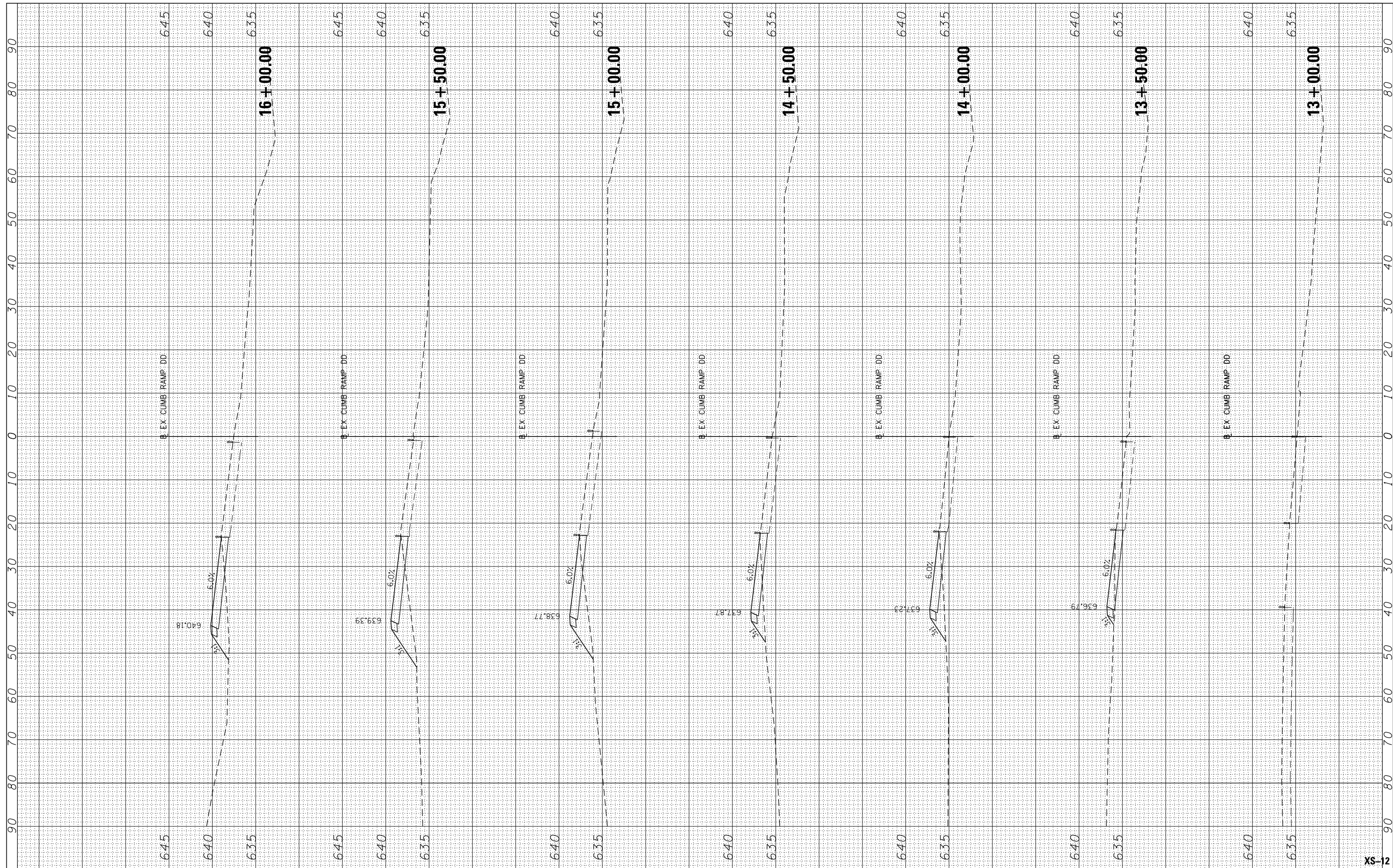
**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP D**
 SCALE: 1"=10'
 SHEET 3 OF 3 SHEETS
 STA. 905+50.00 TO STA. 907+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	585
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-11

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = **exp** U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAM
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP DD**

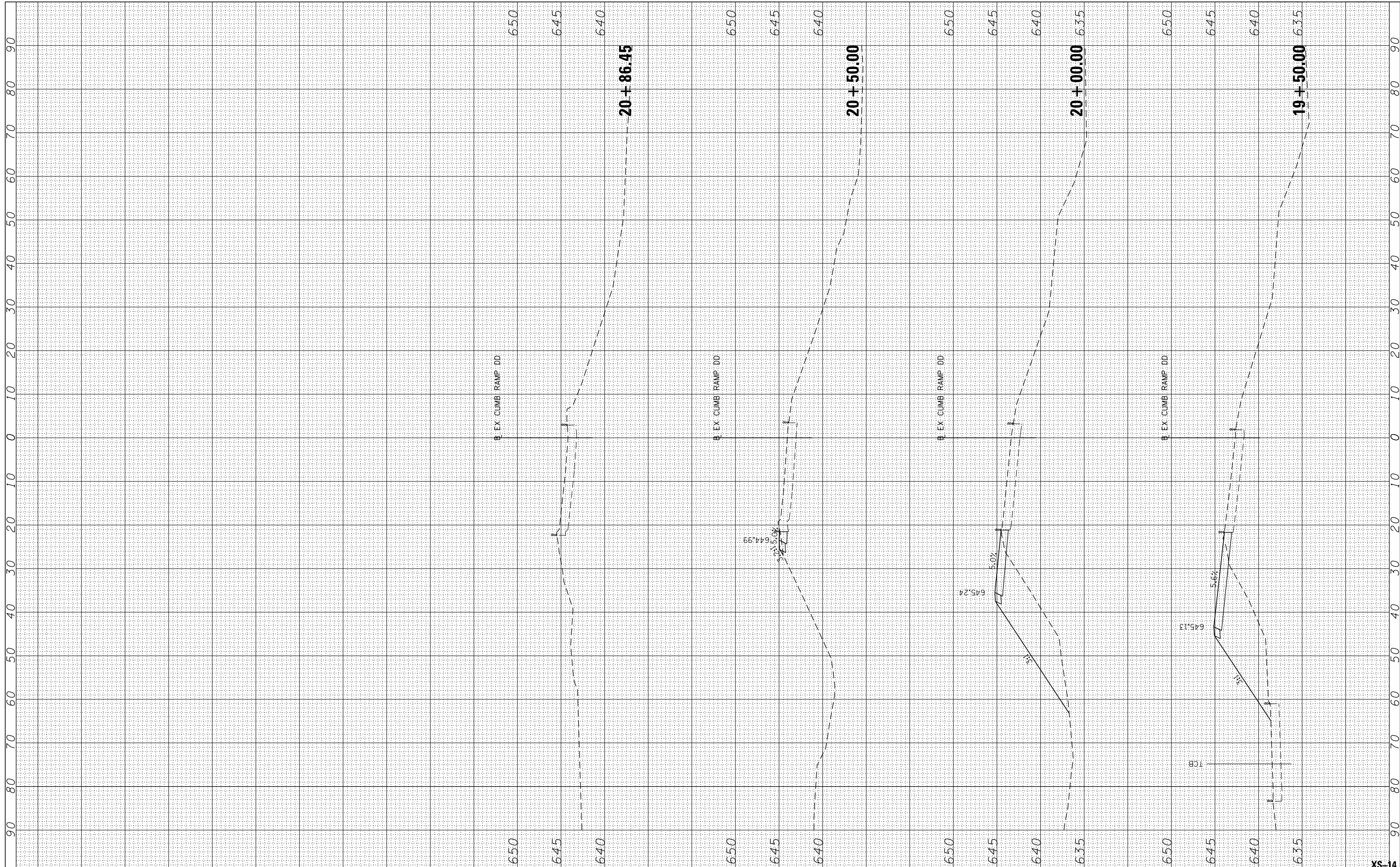
SCALE: 1"=10' SHEET 1 OF 3 SHEETS STA. 13+00.00 TO STA. 16+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	586
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-12

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME = exp U.S. Services Inc. Chicago, IL BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/16/2018

DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=10' SHEET 3 OF 3 SHEETS STA. 19+50.00 TO STA. 20+86.45

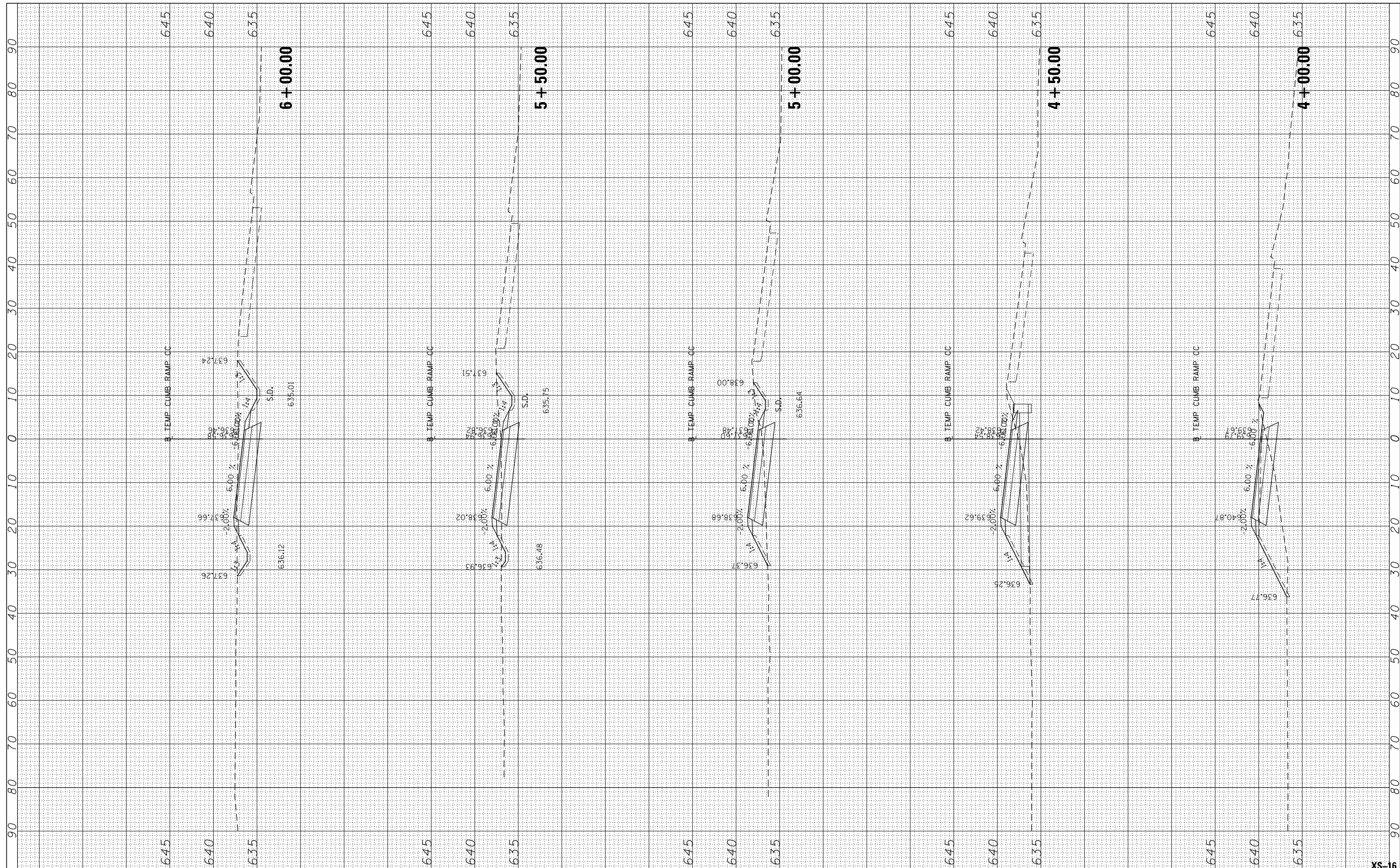
CROSS SECTION TEMPORARY
 CUMBERLAND RAMP DD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	588
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-14

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY
 #MODELNAME#

USER NAME = MOHAMMAM
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/16/2018

DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

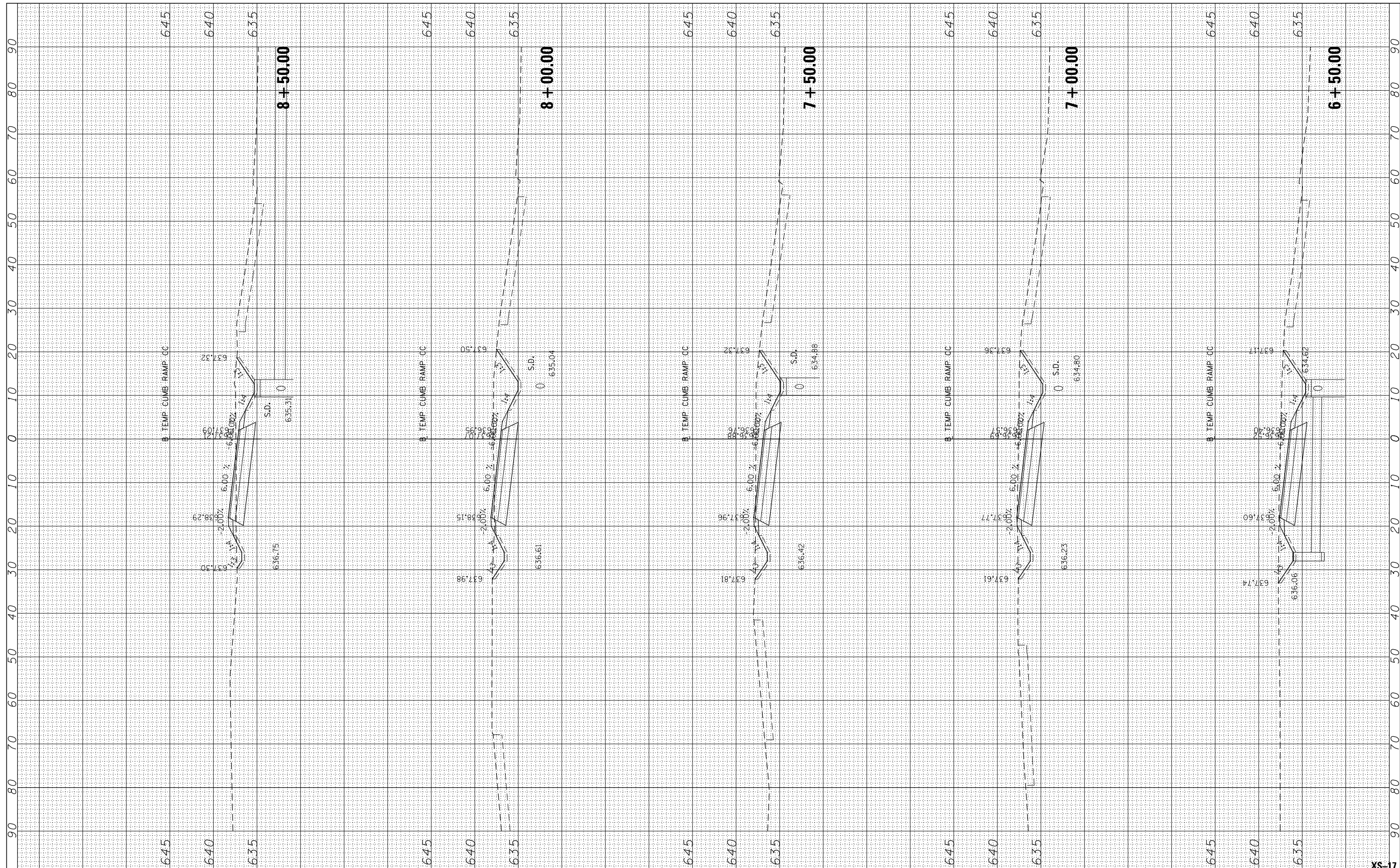
**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP CC**
 SCALE: 1"=10' SHEET 2 OF 5 SHEETS STA. 4+00.00 TO STA. 6+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	590
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-16

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTION TEMPORARY
 CUMBERLAND RAMP CC

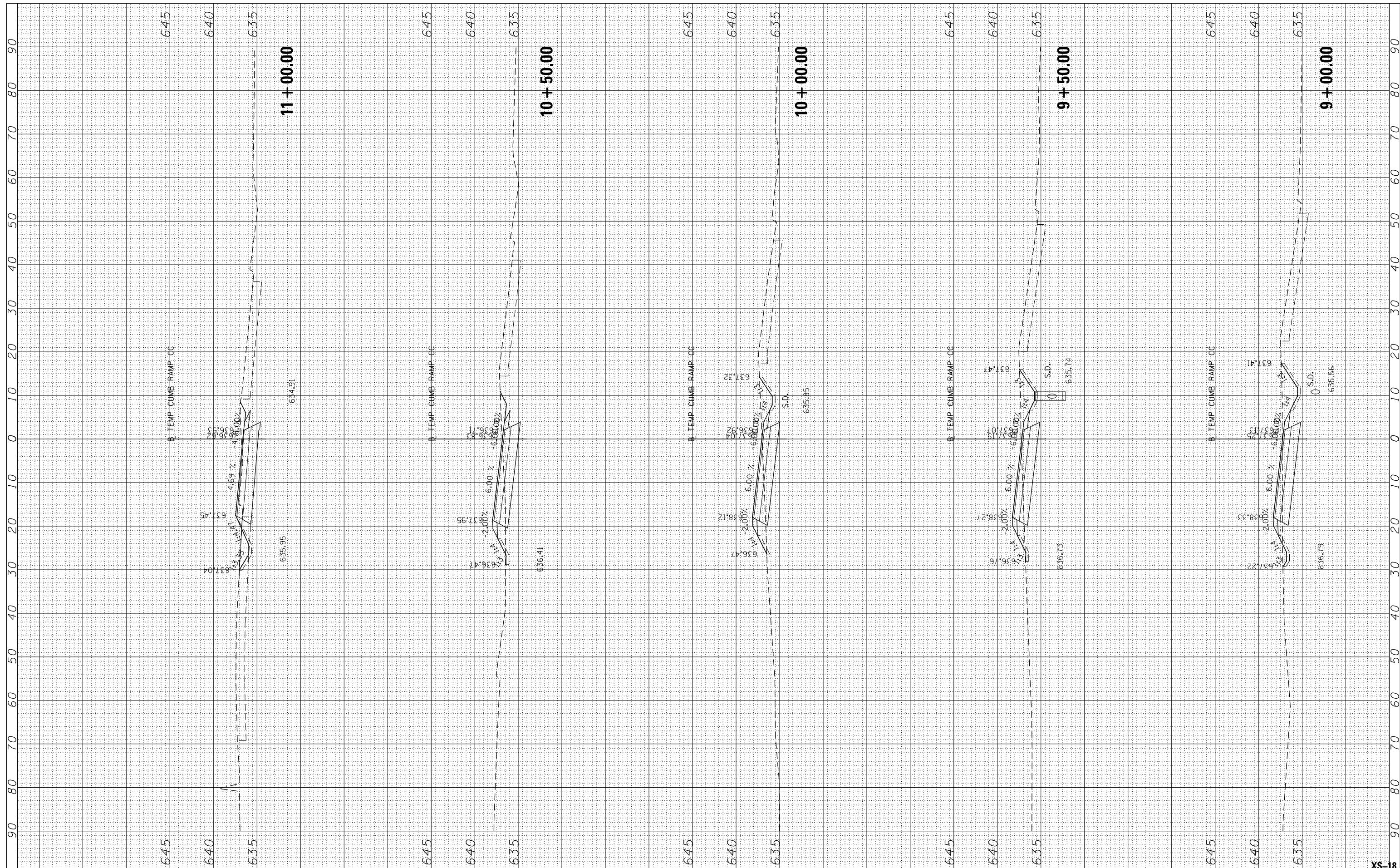
SCALE: 1"=10' SHEET 3 OF 5 SHEETS STA. 6+50.00 TO STA. 8+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	591
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-17

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTION TEMPORARY
 CUMBERLAND RAMP CC

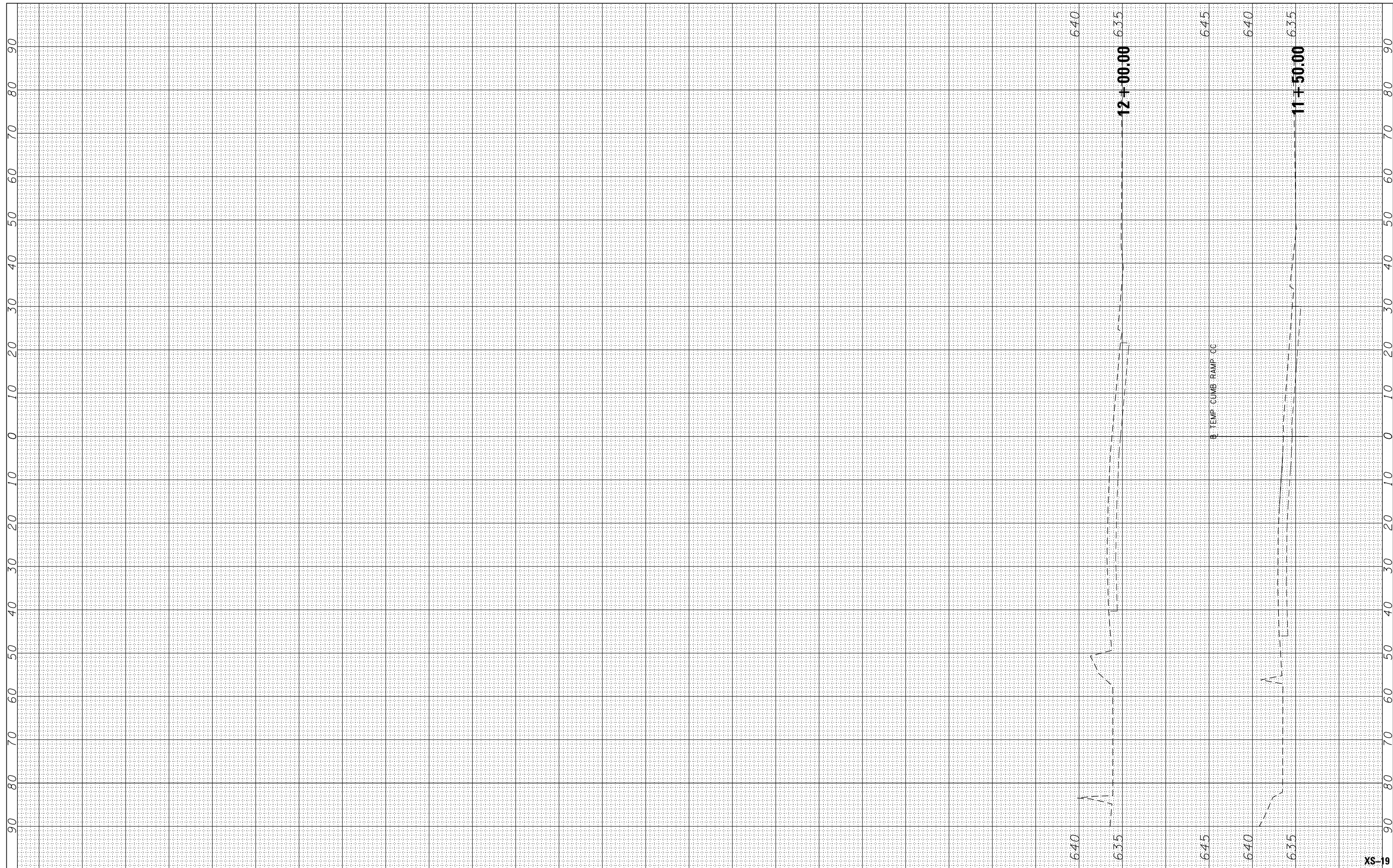
SCALE: 1"=10' SHEET 4 OF 5 SHEETS STA. 9+00.00 TO STA. 11+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	592
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-18

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK	TEMPLATE AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK	TEMPLATE AREAS CHECKED		



FILE NAME =
 exp U.S. Services Inc.
 CHICAGO, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAM	DESIGNED - MM	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - MRK	REVISED -
PLOT DATE = 1/16/2018	CHECKED - MM	REVISED -
	DATE - 01/19/2018	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP CC**

SCALE: 1"=10' SHEET 5 OF 5 SHEETS STA. 11+50.00 TO STA. 12+00.00

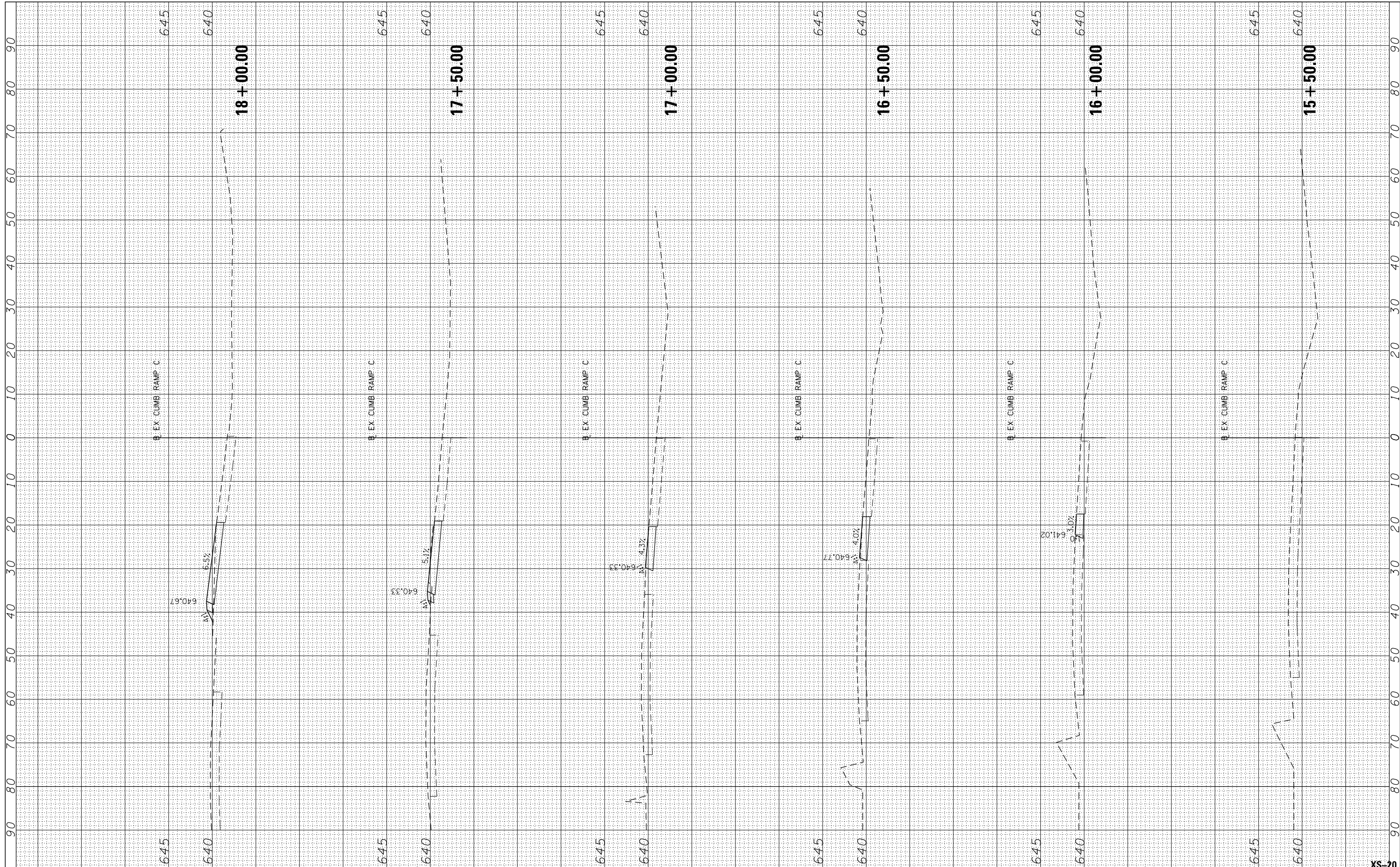
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	593
			CONTRACT NO. 60Y39	

ILLINOIS FED. AID PROJECT

XS-19

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

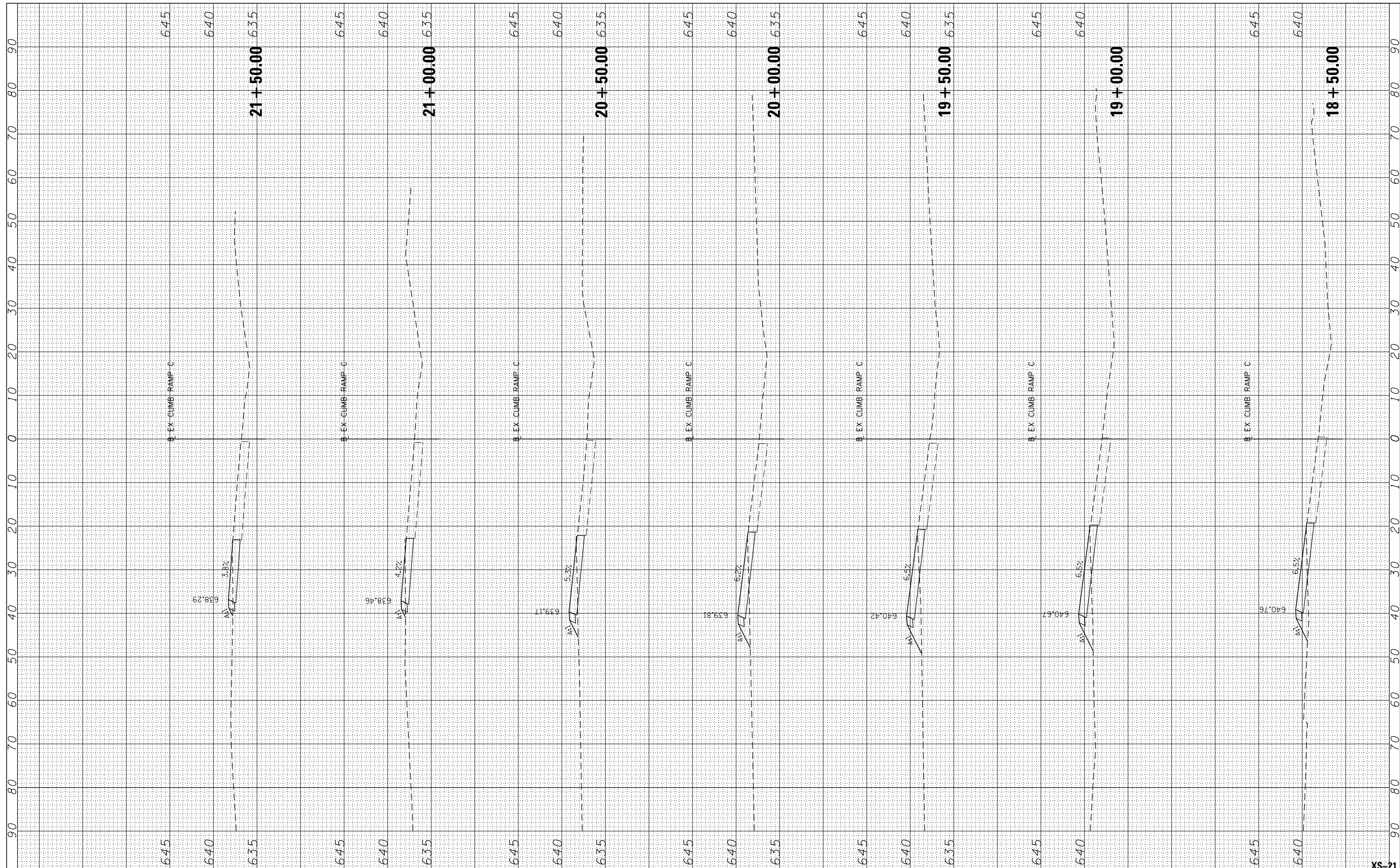
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTION TEMPORARY
 CUMBERLAND RAMP C
 SCALE: 1"=10' SHEET 1 OF 3 SHEETS STA. 15+50.00 TO STA. 18+00.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	594
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE
NOTE BOOK NO.	TEMPLATE AREAS CHECKED		



FILE NAME = **exp** U.S. Services Inc. Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAM
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/16/2018

DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP C**

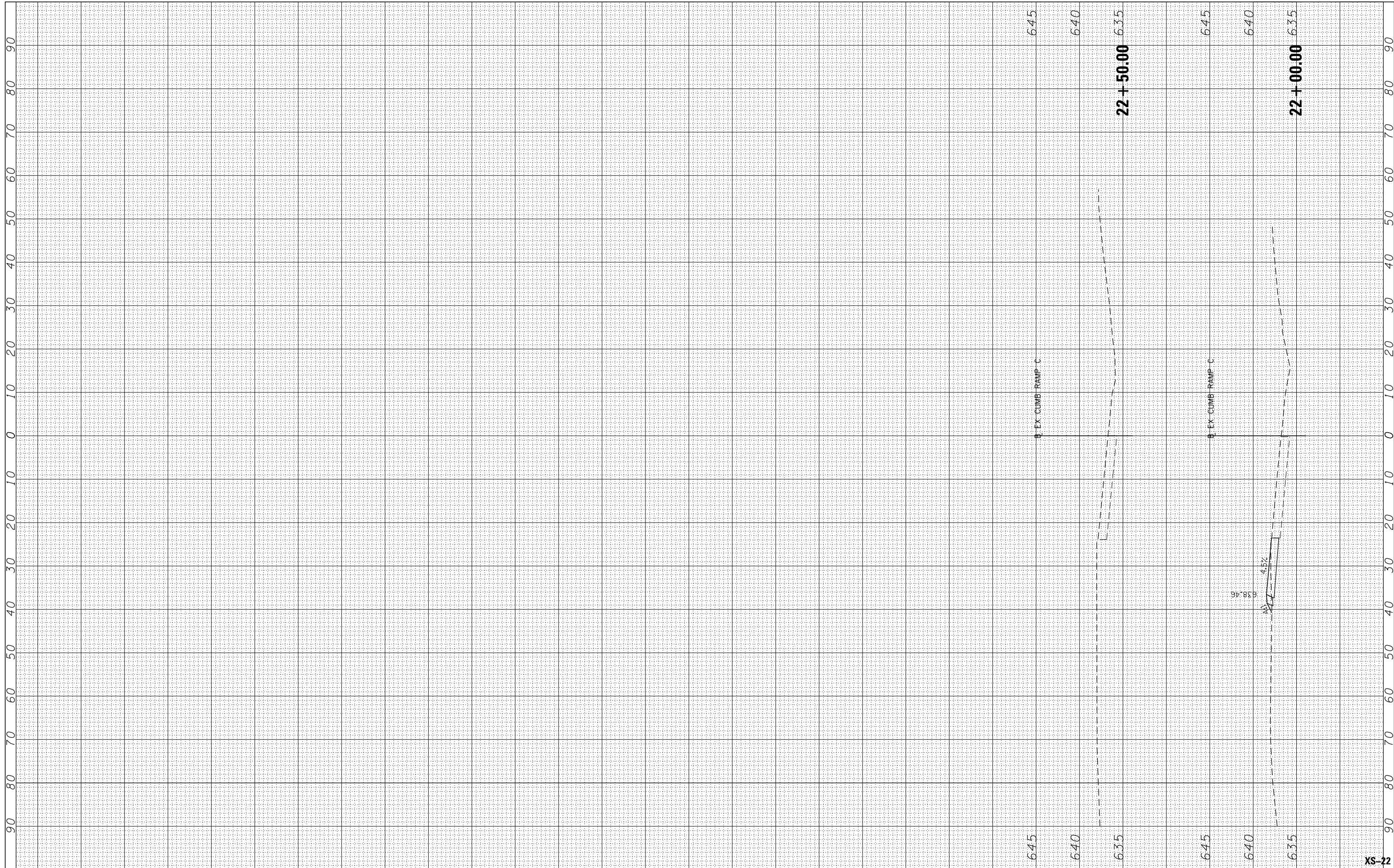
SCALE: 1"=10' SHEET 2 OF 3 SHEETS STA. 18+50.00 TO STA. 21+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	595
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-21

FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED	BY	DATE



FILE NAME = **exp** U.S. Services Inc. Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY

USER NAME = MOHAMMAMMA
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 1/16/2018

DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 CUMBERLAND RAMP C**

SCALE: 1"=10' SHEET 3 OF 3 SHEETS STA. 22+00.00 TO STA. 22+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	596
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-22

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY
 #MODELNAME#

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

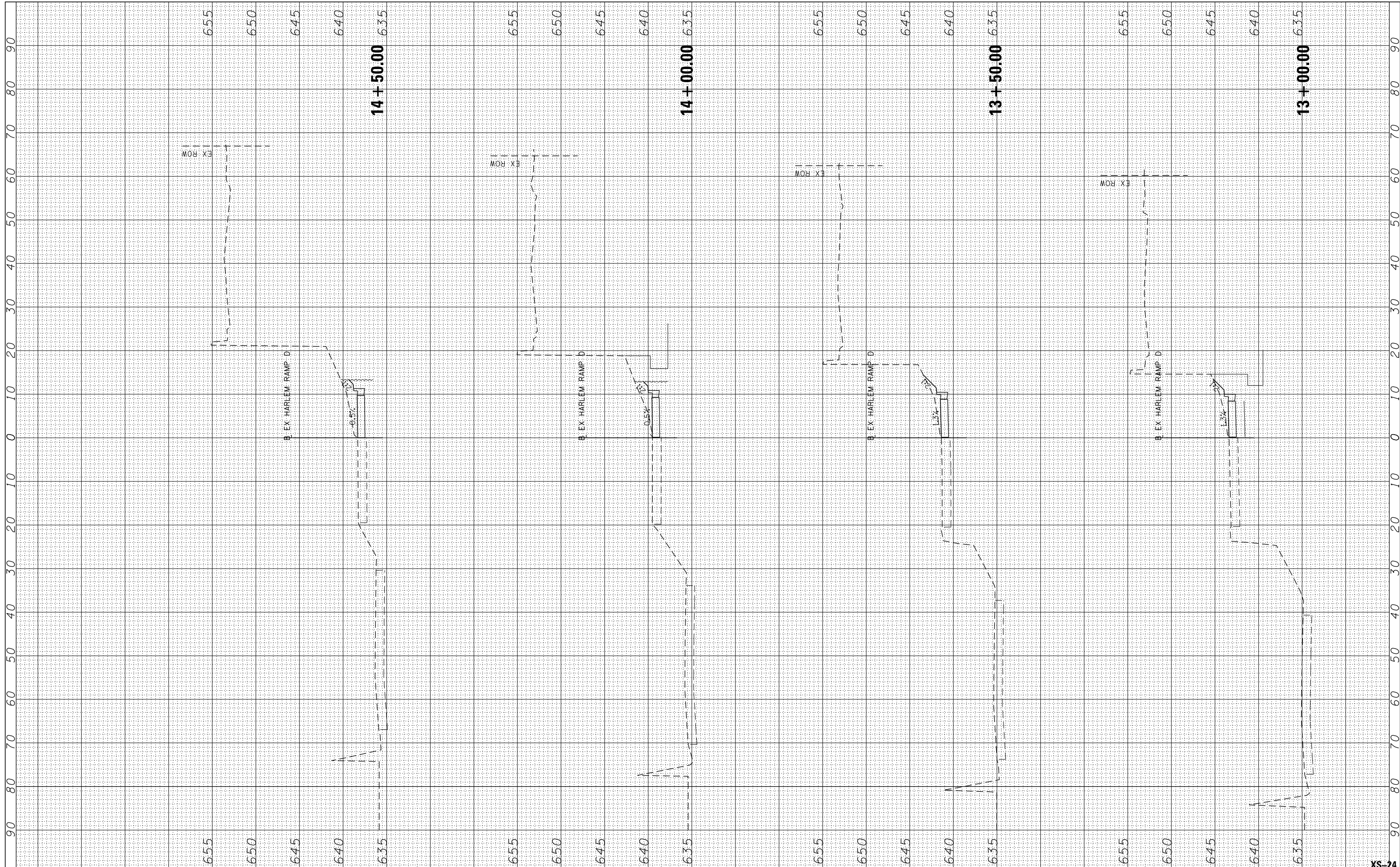
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 HARLEM RAMP D**
 SCALE: 1"=10'
 SHEET 1 OF 6 SHEETS
 STA. 11+00.00 TO STA. 12+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	597
			CONTRACT NO. 60Y39	

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY
 #MODELNAME#

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CROSS SECTION TEMPORARY
 HARLEM RAMP D

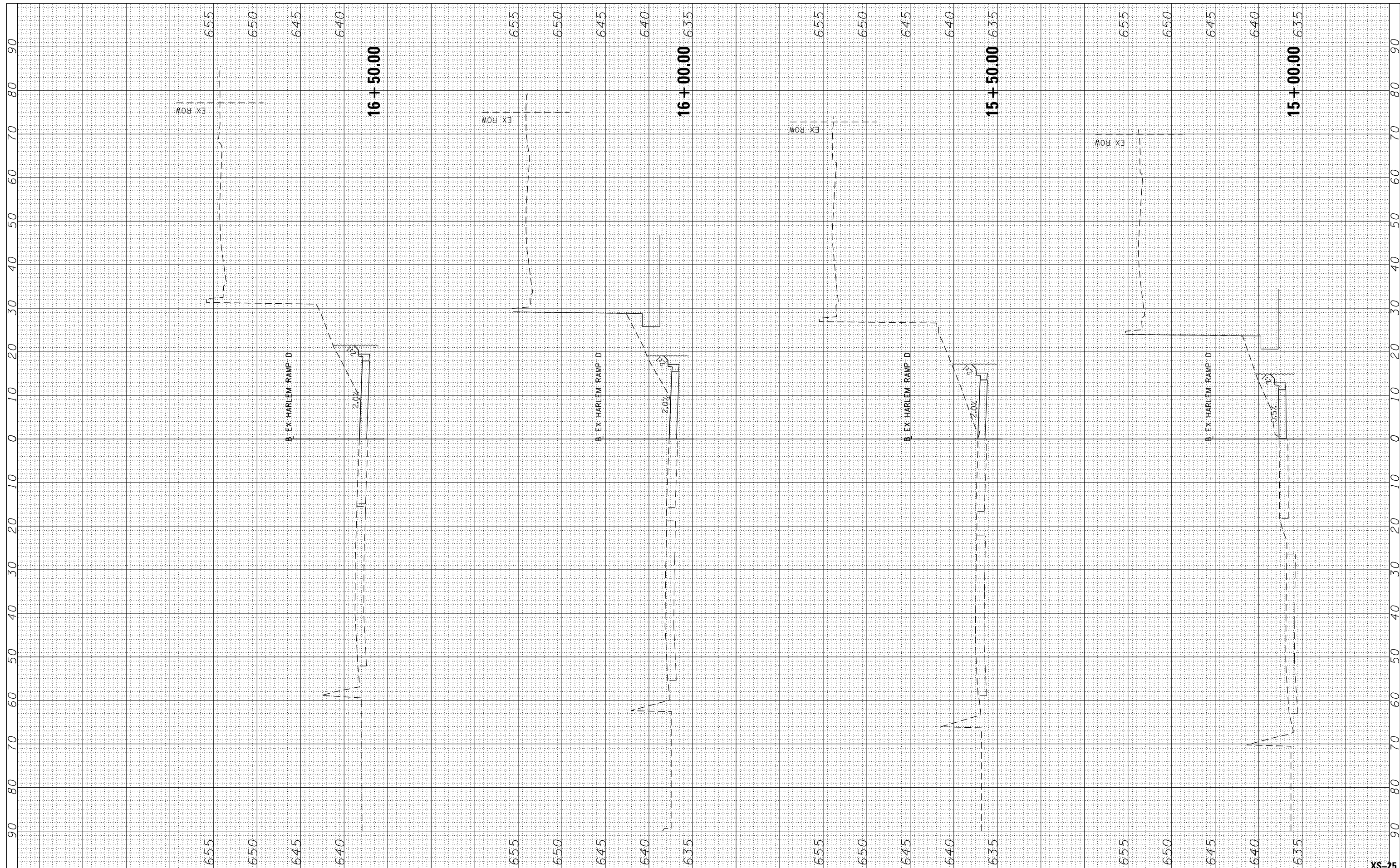
SCALE: 1"=10' SHEET 2 OF 6 SHEETS STA. 13+00.00 TO STA. 14+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	598
CONTRACT NO. 60Y39			ILLINOIS FED. AID PROJECT	

XS-24

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY
 #MODELNAME#

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISIED -
 REVISIED -
 REVISIED -
 REVISIED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 HARLEM RAMP D**

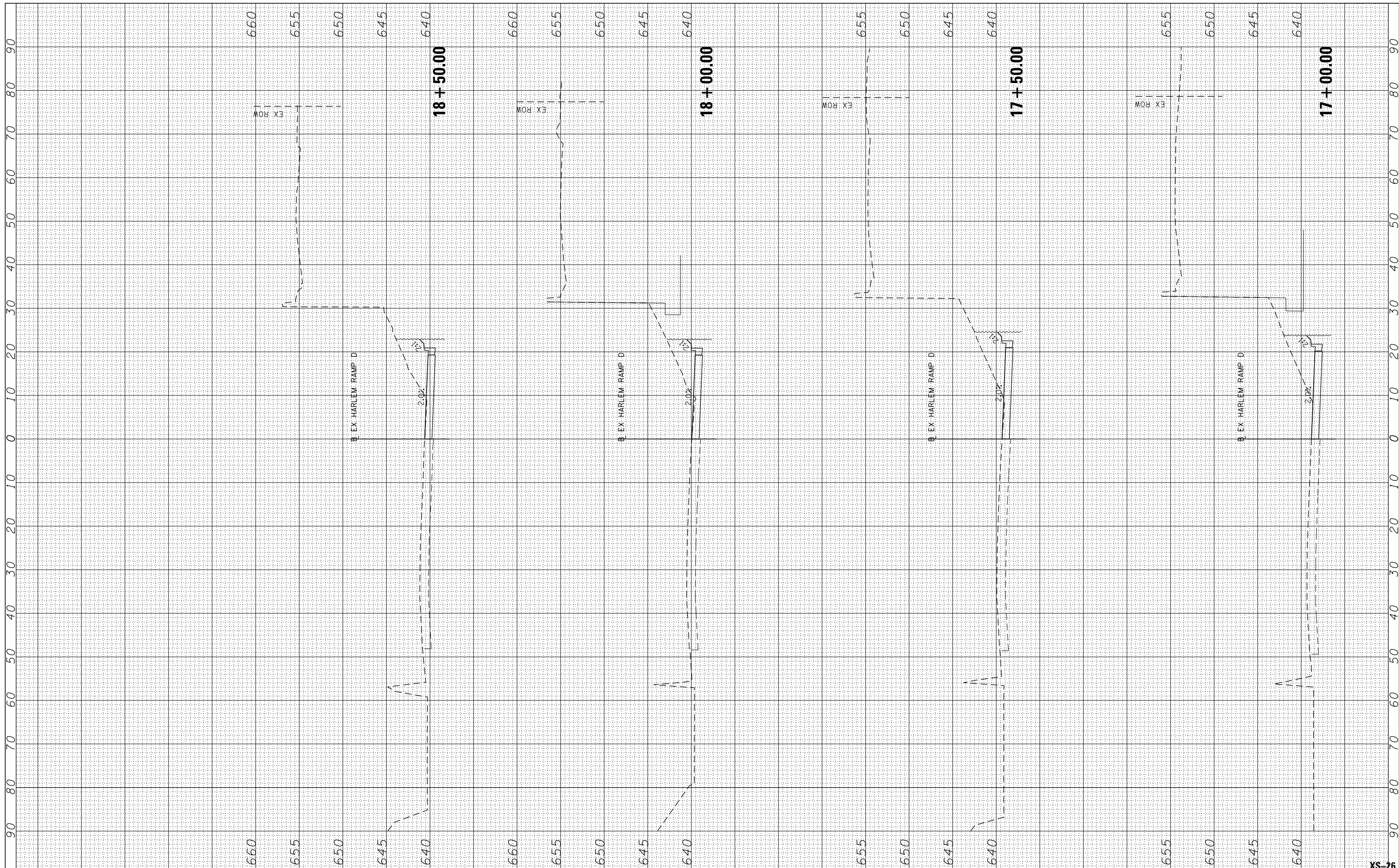
SCALE: 1"=10' SHEET 3 OF 6 SHEETS STA. 15+00.00 TO STA. 16+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	599
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-25

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



FILE NAME =
 exp U.S. Services Inc.
 Chicago, IL
 BUILDINGS-EARTH & ENVIRONMENT-ENERGY
 INDUSTRIAL-INFRASTRUCTURE-SUSTAINABILITY
 #MODELNAME#

USER NAME = MOHAMMAMMA
 DESIGNED - MM
 DRAWN - MRK
 CHECKED - MM
 DATE - 01/19/2018

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTION TEMPORARY
 HARLEM RAMP D**
 SCALE: 1"=10' SHEET 4 OF 6 SHEETS STA. 17+00.00 TO STA. 18+50.00

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90	(1517 & 1415) R-2	COOK	734	600
			CONTRACT NO. 60Y39	
ILLINOIS FED. AID PROJECT				

XS-26