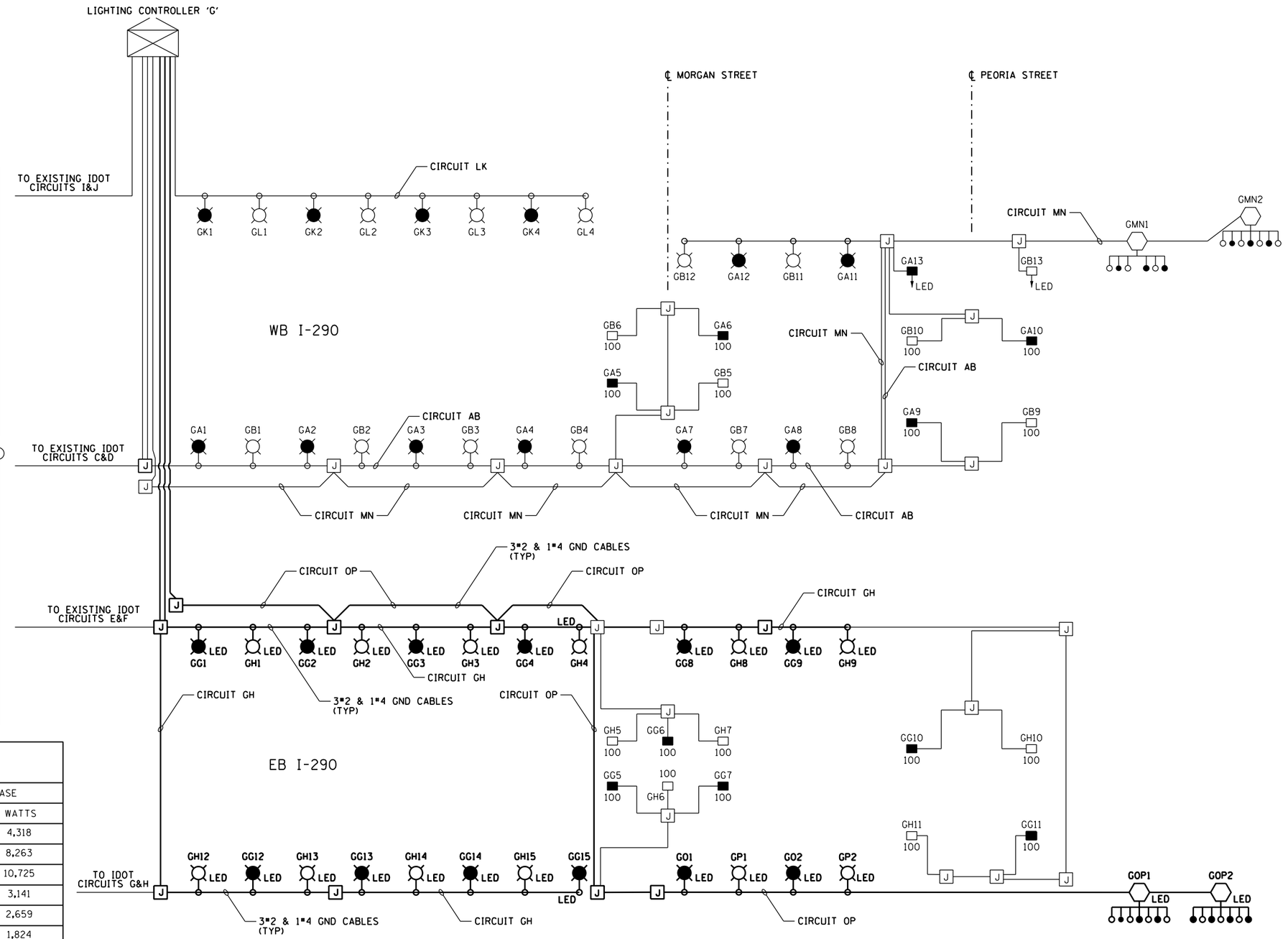
SYMBOLS LEGEND

- IDOT LIGHTING CONTROLLER
- J — JUNCTION BOX
- 100 — UNDERPASS LIGHTING UNIT, 100 WATT HPS LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- HIGH MAST LIGHT TOWER, 400 WATT HPS LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- LIGHTING UNIT (150W LUMINAIRE) (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- LIGHTING UNIT (400W LUMINAIRE) (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- LED — UNDERPASS LIGHTING UNIT LED LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- LED — LIGHTING UNIT (LED LUMINAIRE) (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)
- LED — HIGH MAST LIGHT TOWER, LED LUMINAIRE (BLACK PHASE - SOLID SYMBOL, RED PHASE - OPEN SYMBOL)



LOAD TABLE
LIGHTING CONTROLLER ''G''

CIRCUIT	BLACK PHASE AMPS	BLACK PHASE WATTS	CIRCUIT	RED PHASE AMPS	RED PHASE WATTS
A	17.99	4,318	B	17.99	4,318
C	33.09	7,942	D	34.43	8,263
E	45.01	10,801	F	44.69	10,725
G	14.00	3,360	H	13.09	3,141
I	11.43	2,743	J	11.08	2,659
K	7.60	1,824	L	7.60	1,824
M	13.30	3,192	N	11.40	2,736
O	13.55	3,252	P	13.55	3,252
TOTAL	142.4	34,108	TOTAL	140.3	33,666

E-12

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-sht-Light-12	DESIGNED - PFD	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - WDS	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT LIGHTING CONTROLLER 'G'
EXISTING WIRING DIAGRAM - PART 2

SCALE: N.T.S. | SHEET 12 OF 17 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	401
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

SYMBOLS LEGEND

IDOT LIGHTING CONTROLLER

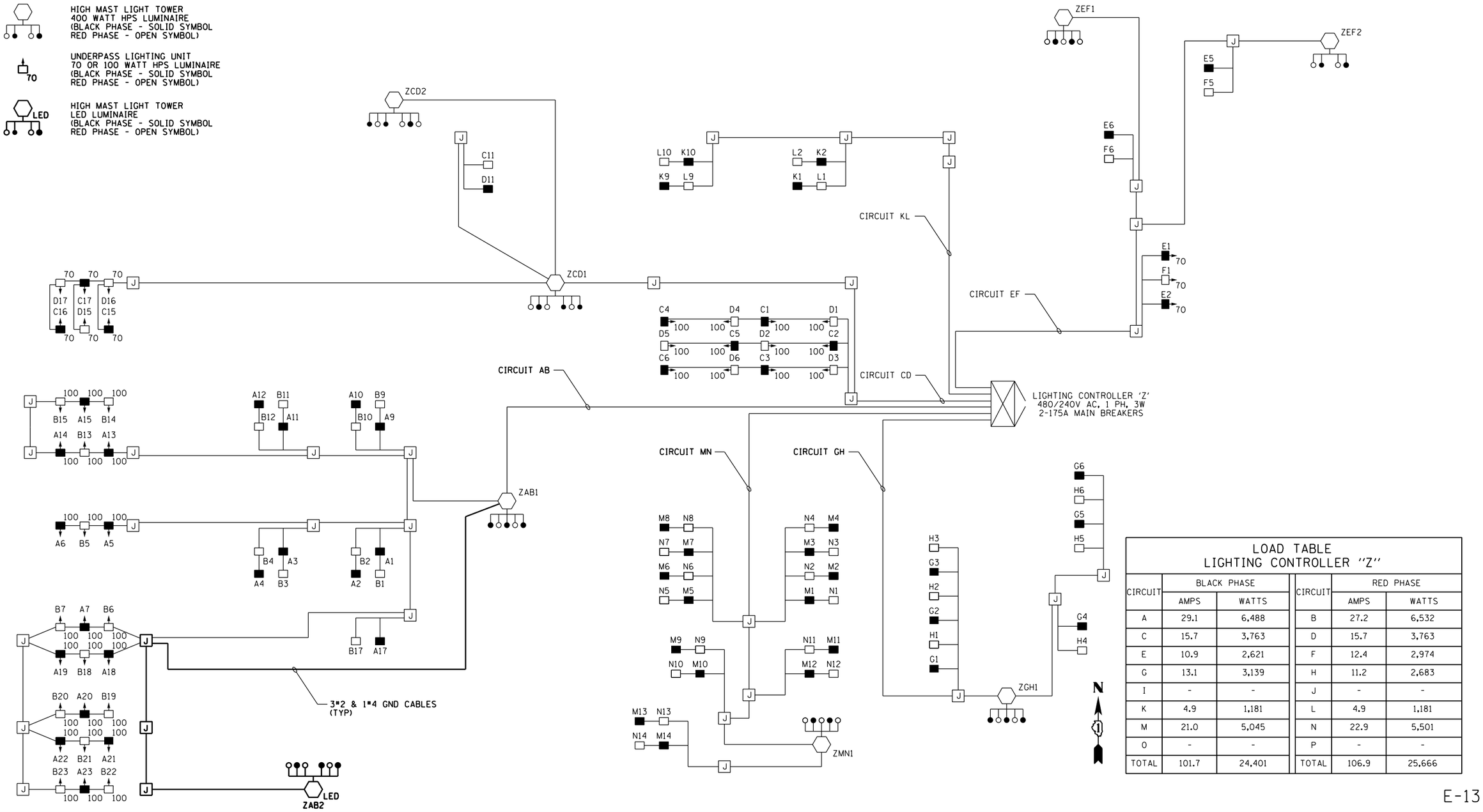
J — JUNCTION BOX

UNDERPASS LIGHTING UNIT
55 WATT LPS LUMINAIRE
(BLACK PHASE - SOLID SYMBOL
RED PHASE - OPEN SYMBOL)

HIGH MAST LIGHT TOWER
400 WATT HPS LUMINAIRE
(BLACK PHASE - SOLID SYMBOL
RED PHASE - OPEN SYMBOL)

70 — UNDERPASS LIGHTING UNIT
70 OR 100 WATT HPS LUMINAIRE
(BLACK PHASE - SOLID SYMBOL
RED PHASE - OPEN SYMBOL)

LED — HIGH MAST LIGHT TOWER
LED LUMINAIRE
(BLACK PHASE - SOLID SYMBOL
RED PHASE - OPEN SYMBOL)



LOAD TABLE
LIGHTING CONTROLLER ''Z''

CIRCUIT	BLACK PHASE		CIRCUIT	RED PHASE	
	AMPS	WATTS		AMPS	WATTS
A	29.1	6,488	B	27.2	6,532
C	15.7	3,763	D	15.7	3,763
E	10.9	2,621	F	12.4	2,974
G	13.1	3,139	H	11.2	2,683
I	-	-	J	-	-
K	4.9	1,181	L	4.9	1,181
M	21.0	5,045	N	22.9	5,501
O	-	-	P	-	-
TOTAL	101.7	24,401	TOTAL	106.9	25,666

E-13

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303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
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D160X76-sht-Light-13	DESIGNED - PFD	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 40.0000 '/ in.	CHECKED - WDS	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT LIGHTING CONTROLLER 'Z'
EXISTING WIRING DIAGRAM

SCALE: N.T.S. | SHEET 13 OF 17 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	402
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

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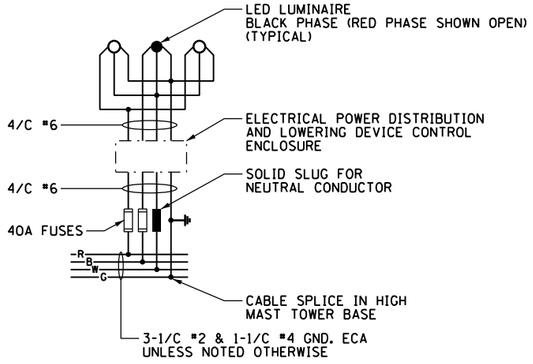
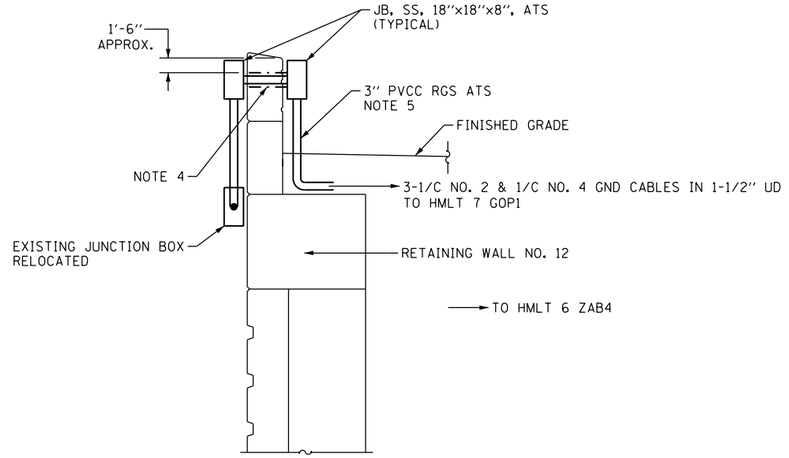
HIGH MAST LIGHT TOWER FOUNDATION SCHEDULE								
HIGH MAST LIGHT TOWER IDENTIFICATION	HIGH MAST LIGHT TOWER FOUNDATION LOCATION			HIGH MAST LIGHT TOWER FOUNDATION ELEVATIONS			HIGH MAST TOWER HEIGHT	REMARKS AND NOTES
	STATION	OFFSET	BASELINE	TOP ELEVATION	BOTTOM ELEVATION	DESIGN DEPTH (FT)		
7 GOP1	1502+85.44	42.66' RT	PR RAMP ES	596.64	558.14	38.5	130'	NOTES 1, 2 & 8
7 GOP2	1506+33.16	46.68' RT	PR RAMP ES	595.15	552.65	42.5	150'	NOTES 1, 2 & 8
6 ZAB2	1509+53.00	75.38' RT	PR RAMP ES	595.92	553.42	42.5	150'	NOTES 1, 2 & 8



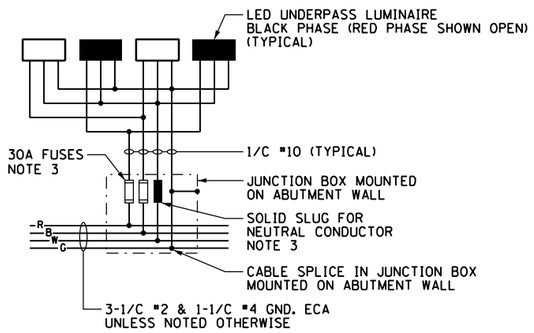
TYPICAL HIGH MAST LIGHT TOWER WIRING DIAGRAM

NOT TO SCALE



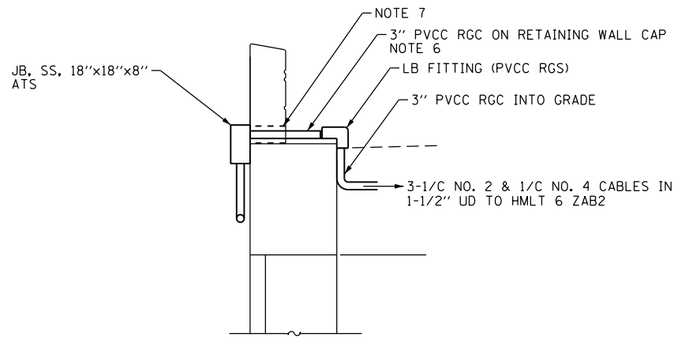
CONDUIT SLEEVE THROUGH RETAINING WALL NO. 12 DETAIL – SIDE VIEW

NTS LOOKING EAST



TYPICAL UNDERPASS LIGHTING UNIT WIRING DIAGRAM

NOT TO SCALE



CONDUIT ROUTING THROUGH EXISTING RETAINING WALL #13

NOT TO SCALE

NOTES:

1. SEE IDOT STANDARDS BE-506 AND BE-511 FOR LIGHT TOWER FOUNDATION DETAILS.
2. THE SCHEDULE ON THIS DRAWING REPLACES THE "SHAFT LENGTH (D) TABLE" SHOWN ON IDOT STANDARDS BE-506 AND BE-511.
3. THE FUSES, FUSE HOLDERS, AND SOLID SLUGS SHALL BE PROVIDED ACCORDING TO ARTICLE 1065.01 OF THE IDOT STANDARDS. THE COST OF PROVIDING THE FUSES, FUSE HOLDERS, AND SOLID SLUGS IN THE JUNCTION BOX WILL NOT BE PAID FOR SEPARATELY AND WILL BE INCLUDED IN THE COST OF THE NO. 2 CABLES.
4. ROUTE THE 3-1/C NO. 2 & 1/C NO. 4 GND CABLES 3-INCH PVCC COATED RIGID STEEL CONDUIT THROUGH THE 5-INCH PVC CONDUIT SLEEVE EMBEDDED IN THE RETAINING WALL. THE COST OF THE CONDUIT SLEEVE SHALL BE INCLUDED IN THE COST OF THE RETAINING WALL. SEE THE STRUCTURAL PLANS FOR THE LOCATION OF THE PVC CONDUIT SLEEVE.
5. PROVIDE A 3-INCH PVCC COATED RIGID STEEL CONDUIT AND 90-DEGREE ELBOW ATTACHED TO STRUCTURE FROM THE JUNCTION BOX TO BELOW FINAL GRADE. ROUTE THE UNIT DUCT FROM LIGHT TOWER 7 GOP1 THROUGH THE CONDUIT BELOW TO THE JUNCTION BOX AS SHOWN ON DRAWING E-08.
6. 3" CONDUIT SHALL BE SECURELY FASTENED ON TOP OF THE EXISTING RW#13 CAP USING PVC COATED CONDUIT CLAMPS ANCHORED INTO THE CAP. ALL WORK AND MATERIALS TO SECURE THIS CONDUIT TO THE RW#13 CAP SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
7. CORE DRILL THROUGH THE EXISTING RETAINING WALL NO. 13 PARAPET WALL FOR ROUTING 3-INCH CONDUIT AS SHOWN. LOCATE THE EXISTING REBAR EMBEDDED IN THE WALL PRIOR TO DRILLING TO AVOID CUTTING THROUGH THE EXISTING STRUCTURAL STEEL. THE CONTRACTOR SHALL PROVIDE A WATERPROOF SEALANT AROUND THE CONDUIT. THE COST TO CORE DRILL THROUGH THE EXISTING WALL WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE 3" PVCC RGC PAY ITEM.
8. BASED ON THE HIGH SQUEEZE POTENTIAL OF THE CLAY SOILS, THE USE OF TEMPORARY CASING WILL BE REQUIRED IN ORDER TO PROPERLY CONSTRUCT THE DRILLED SHAFTS. CASING MAY BE PULLED OR LEFT IN PLACE, AS DETERMINED BY THE CONTRACTOR, AT NO COST TO THE DEPARTMENT.

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USER NAME = myersc	DRAWN - CAM	REVISED -
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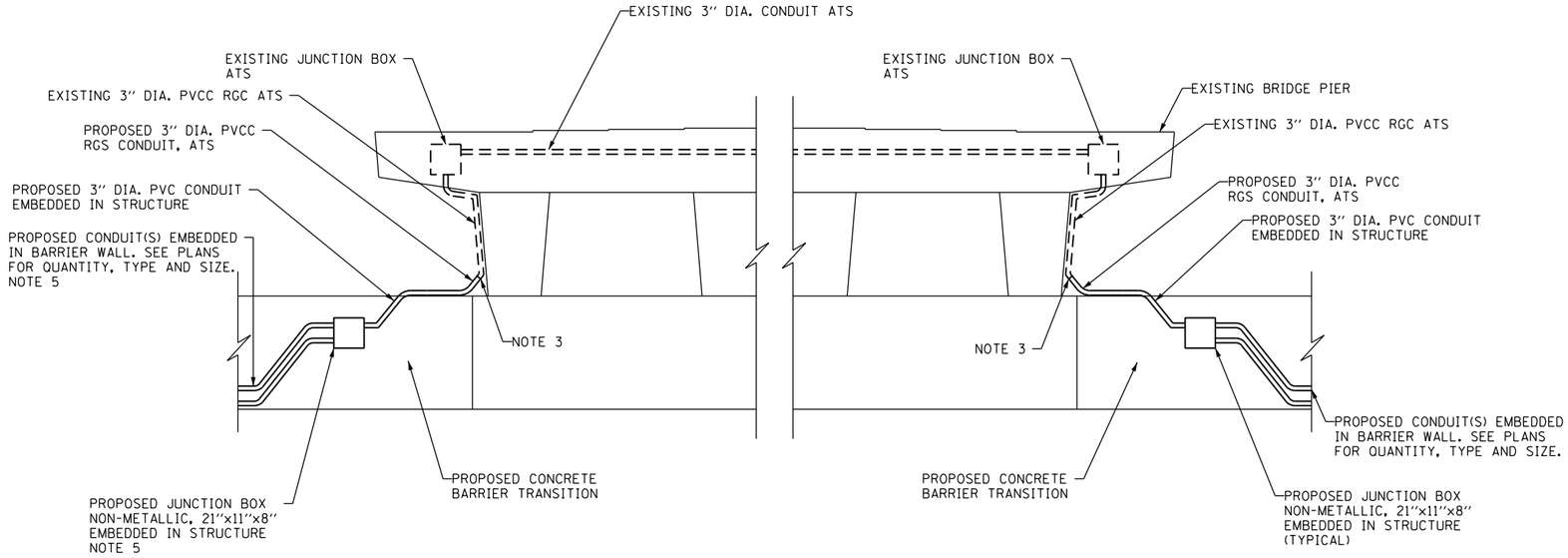
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS

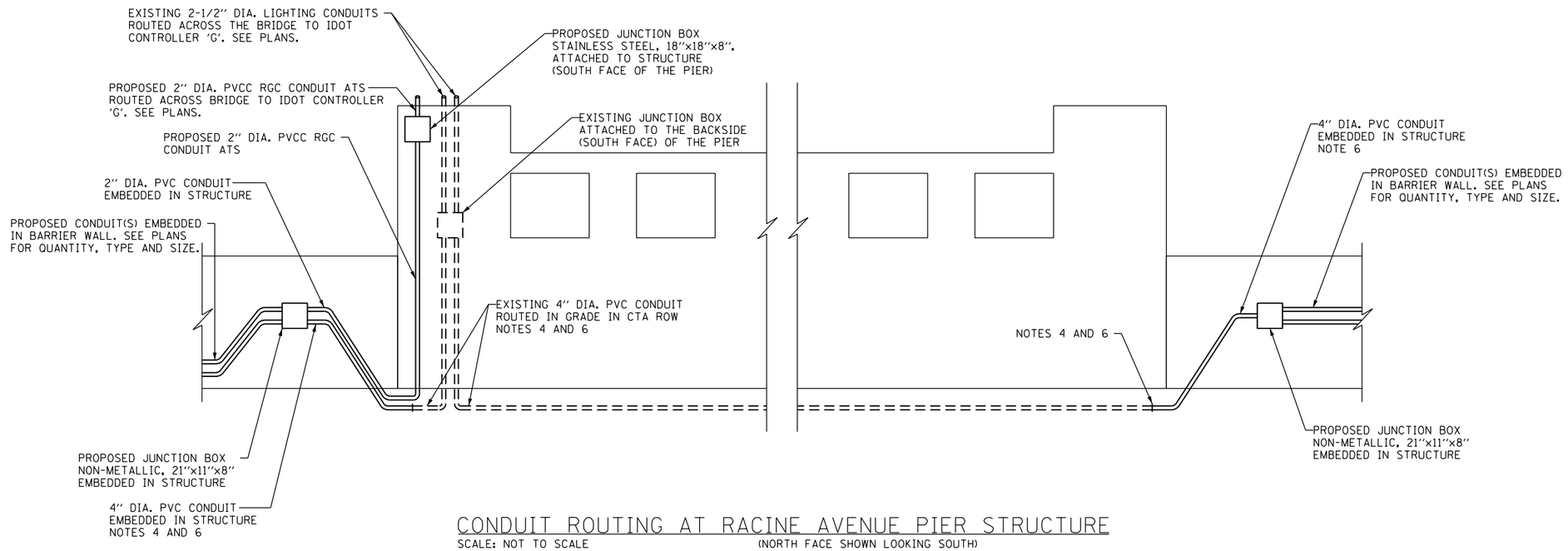
SCALE: N.T.S. | SHEET 14 OF 17 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	403
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



CONDUIT ROUTING AT MORGAN STREET PIER STRUCTURE

SCALE: NOT TO SCALE NOTE 5 (SOUTH FACE SHOWN LOOKING NORTH)



CONDUIT ROUTING AT RACINE AVENUE PIER STRUCTURE

SCALE: NOT TO SCALE (NORTH FACE SHOWN LOOKING SOUTH)

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. EXISTING ELECTRICAL SYSTEMS, WHEN DEPICTED ON THE PLANS, ARE INTENDED TO INDICATE THE GENERAL EQUIPMENT INSTALLATIONS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO CONFIRM AND ASCERTAIN THE EXACT CONDITION, SIZE, TYPE, QUANTITY AND LOCATION OF THE EXISTING ELECTRICAL EQUIPMENT. ANY DISCREPANCIES BETWEEN THE EXISTING ELECTRICAL EQUIPMENT IN THE FIELD AND THE DEPICTION OF THE EXISTING ELECTRICAL EQUIPMENT SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER FOR RESOLUTION. FAILURE TO VERIFY THE CONDITIONS, DIMENSIONS AND DETAILS OF THE EXISTING ELECTRICAL EQUIPMENT TO CONFIRM THAT THE NEW EQUIPMENT IS COMPATIBLE WITH THE EXISTING EQUIPMENT AND CAN BE PROPERLY INSTALLED AND CONNECTED AS SHOWN ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR PROVIDING A SAFE, COMPLETE AND FULLY FUNCTIONAL ELECTRICAL SYSTEM.
3. INTERCEPT THE EXISTING 3" PVCC RGS CONDUIT ROUTED DOWN THE PIER WITH THE PROPOSED CONDUIT EXITING OUT THE TOP OF THE BARRIER WALL TO CREATE A CONTINUOUS CONDUIT RUN.
4. INTERCEPT EXISTING CONDUIT BELOW GRADE IN CTA ROW AND ROUTE TO JUNCTION BOX EMBEDDED IN STRUCTURE.
5. PORTIONS OF THE CONDUIT AND EMBEDDED JUNCTION BOX INSTALLATION INFORMATION SHOWN ON THIS DETAIL APPLIES TO THE WORK SHOWN ON THE PLANS AT THE PEORIA STREET PIER STRUCTURE.
6. EXISTING CONDUIT DIAMETER TO BE VERIFIED PRIOR TO BEGINNING WORK. ADJUST NEW CONDUIT DIAMETER AND QUANTITY TO MATCH EXISTING AS REQUIRED.

AECOM
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D160X76-sht-Light-15	DESIGNED - PFD	REVISED -
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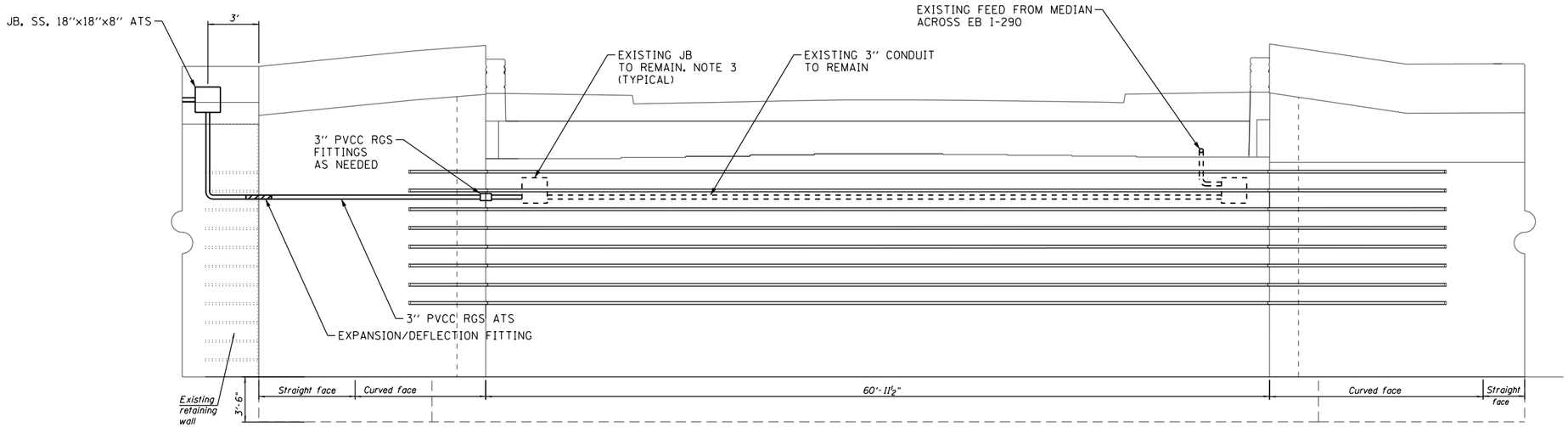
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. | SHEET 15 OF 17 SHEETS | STA. | TO STA.

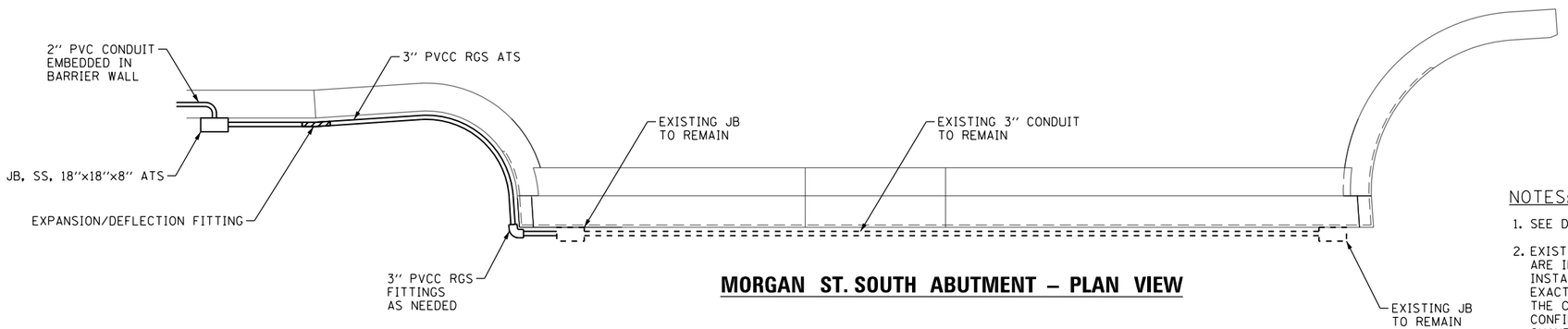
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	404
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



SOUTHEAST WINGWALL ELEVATION
(Shown straight face)

MORGAN ST. SOUTH ABUTMENT ELEVATION
(Looking South)

SOUTHWEST WINGWALL ELEVATION
(Shown straight face)



MORGAN ST. SOUTH ABUTMENT – PLAN VIEW

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. EXISTING ELECTRICAL SYSTEMS, WHEN DEPICTED ON THE PLANS, ARE INTENDED TO INDICATE THE GENERAL EQUIPMENT INSTALLATIONS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO CONFIRM AND ASCERTAIN THE EXACT CONDITION, SIZE, TYPE, QUANTITY AND LOCATION OF THE EXISTING ELECTRICAL EQUIPMENT. ANY DISCREPANCIES BETWEEN THE EXISTING ELECTRICAL EQUIPMENT IN THE FIELD AND THE DEPICTION OF THE EXISTING ELECTRICAL EQUIPMENT SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER FOR RESOLUTION. FAILURE TO VERIFY THE CONDITIONS, DIMENSIONS AND DETAILS OF THE EXISTING ELECTRICAL EQUIPMENT TO CONFIRM THAT THE NEW EQUIPMENT IS COMPATIBLE WITH THE EXISTING EQUIPMENT AND CAN BE PROPERLY INSTALLED AND CONNECTED AS SHOWN ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR PROVIDING A SAFE, COMPLETE AND FULLY FUNCTIONAL ELECTRICAL SYSTEM.
3. DRILL EXISTING JUNCTION BOX AND CONNECT A PROPOSED 3" PVC COATED RIGID GALVANIZED CONDUIT TO IT.

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D160X76-sht-Light-16	DESIGNED - PFD	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
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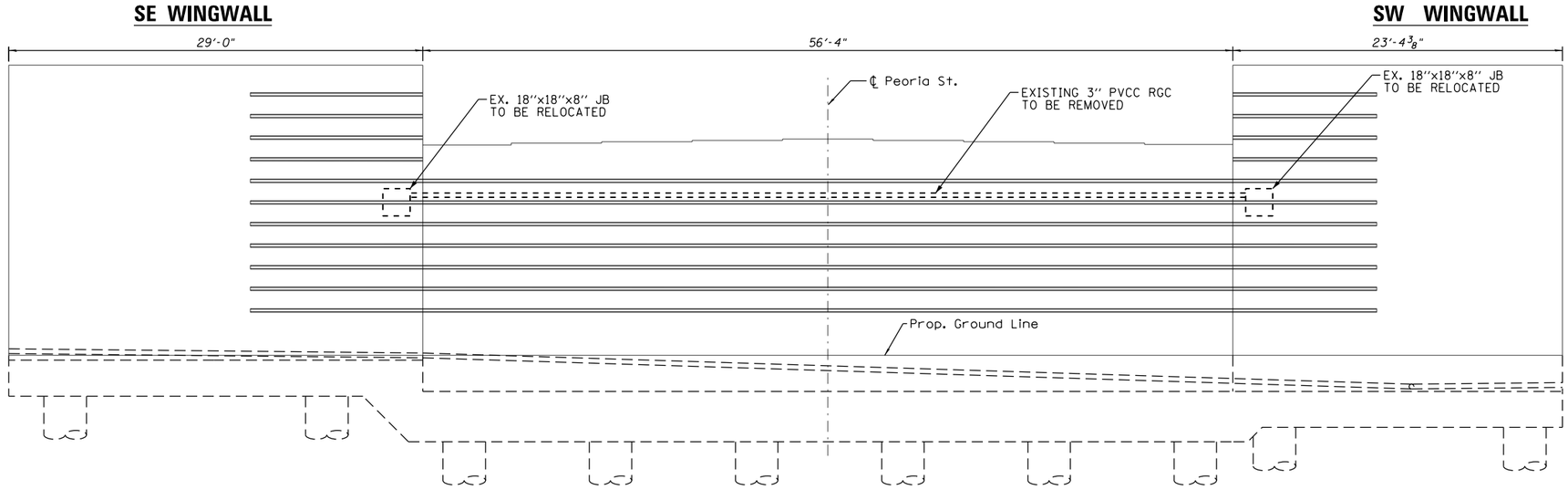
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MORGAN STREET ABUTMENT
CONDUIT ROUTING DETAILS

SCALE: N.T.S. | SHEET 16 OF 17 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	405
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

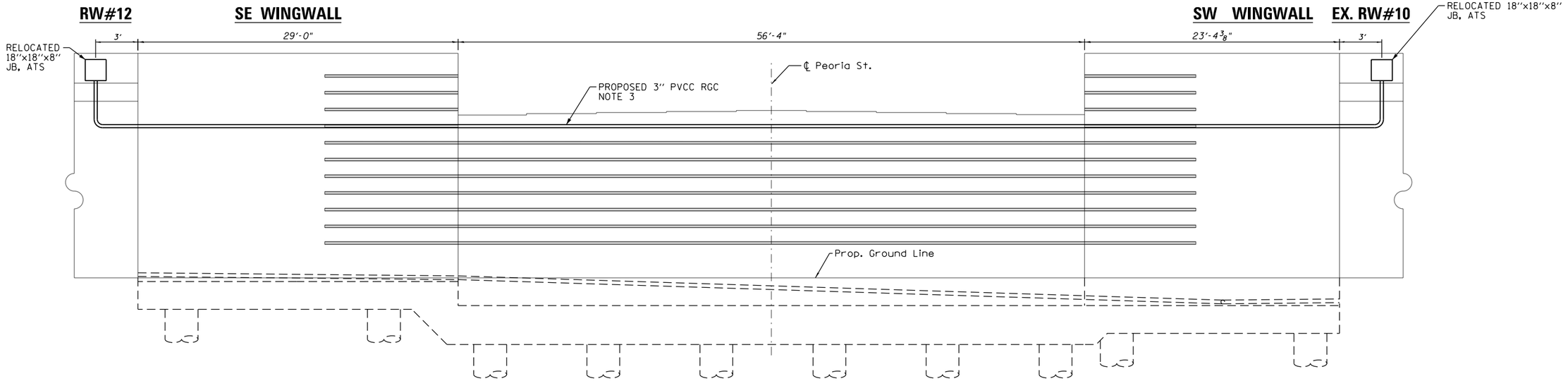


PEORIA ST. EXISTING SOUTH ABUTMENT

(Looking South) NTS

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. EXISTING ELECTRICAL SYSTEMS, WHEN DEPICTED ON THE PLANS, ARE INTENDED TO INDICATE THE GENERAL EQUIPMENT INSTALLATIONS INVOLVED AND SHALL NOT BE CONSTRUED AS AN EXACT REPRESENTATION OF THE FIELD CONDITIONS. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO CONFIRM AND ASCERTAIN THE EXACT CONDITION, SIZE, TYPE, QUANTITY AND LOCATION OF THE EXISTING ELECTRICAL EQUIPMENT. ANY DISCREPANCIES BETWEEN THE EXISTING ELECTRICAL EQUIPMENT IN THE FIELD AND THE DEPICTION OF THE EXISTING ELECTRICAL EQUIPMENT SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER FOR RESOLUTION. FAILURE TO VERIFY THE CONDITIONS, DIMENSIONS AND DETAILS OF THE EXISTING ELECTRICAL EQUIPMENT TO CONFIRM THAT THE NEW EQUIPMENT IS COMPATIBLE WITH THE EXISTING EQUIPMENT AND CAN BE PROPERLY INSTALLED AND CONNECTED AS SHOWN ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR PROVIDING A SAFE, COMPLETE AND FULLY FUNCTIONAL ELECTRICAL SYSTEM.
3. INSTALL HORIZONTAL CONDUIT NEAR THE TOP OF THE ABUTMENT IN THE ABUTMENT'S CONCRETE REVEAL.



PEORIA ST. PROPOSED SOUTH ABUTMENT DETAIL

(Looking South) NTS

E-17

FILE PATH = pw:\\617479-PWINT.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000.CAD\016.Electrical\Sheets\60X76.Contract\D160X76-sht-Light-17

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303 EAST WACKER DRIVE, SUITE 1400
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PHONE: (312) 373-7700 FAX: (312) 373-6800

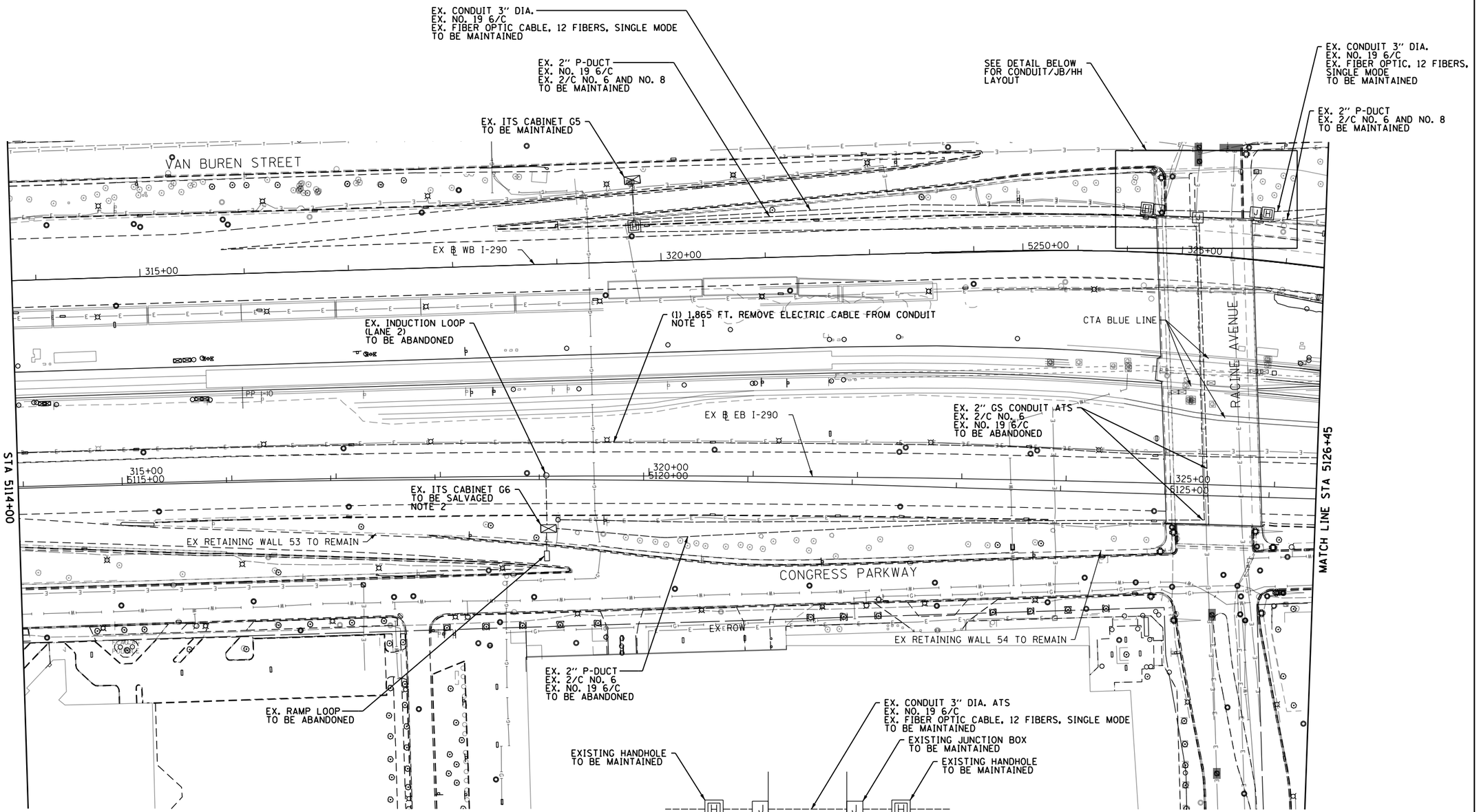
D160X76-sht-Light-17	DESIGNED - PFD	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 10.0000 ' / in.	CHECKED - WDS	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEORIA STREET ABUTMENT
CONDUIT ROUTING DETAILS

SCALE: N.T.S. | SHEET 17 OF 17 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	406
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		



NOTES:

1. DISCONNECT EXISTING NO. 19 100-PAIR CABLE IN THE JUNCTION BOX NEAR STA. 309+00 AND REMOVE THE CABLE IN THE MEDIAN WALL TO THE EAST. LEAVE SLACK IN THE JUNCTION BOX TO SPLICE TO FUTURE CABLE WHEN INSTALLED (SEE SHEET ITS-05).

2. REMOVE EXISTING SURVEILLANCE EQUIPMENT (SALVAGE) WHERE NOTED AND TURN OVER TO IDOT DISTRICT ONE. THIS WORK WILL NOT PAID FOR SEPARATELY AND WILL BE INCLUDED IN THE COST OF THE "REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT" PAY ITEM.

ITS-01

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CHICAGO, IL 60601-5276
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D160X76-SHT-ITS-01	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EASTBOUND I-290
EXISTING/MAINTAINING ITS PLAN

SCALE: 1"=50' | SHEET 1 OF 14 SHEETS | STA. 5114+00 | TO STA. 5126+45

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	407
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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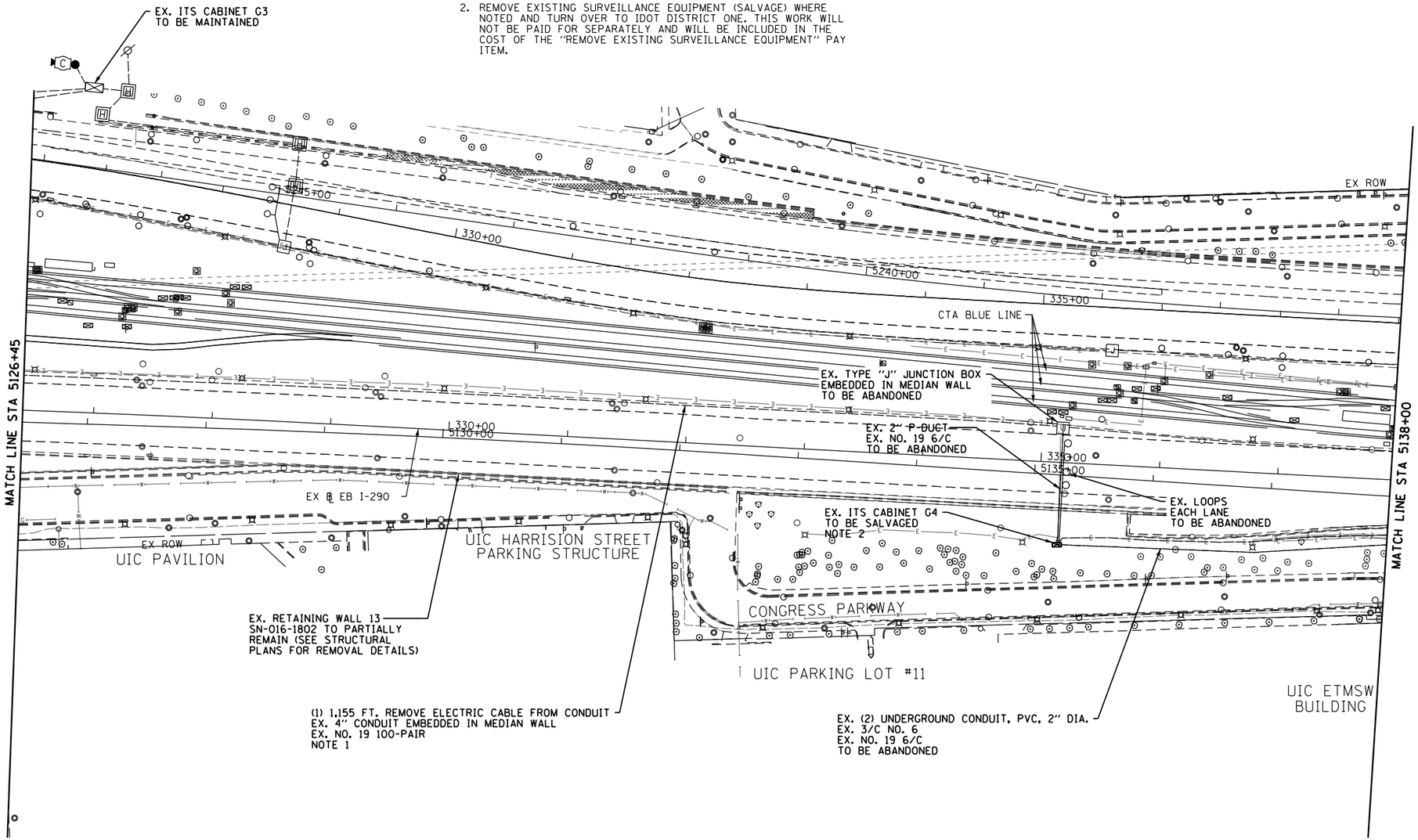
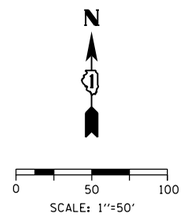
NOTES:

1. ALL EXISTING EQUIPMENT ATTACHED TO OR PART OF AN EXISTING STRUCTURE TO BE DEMOLISHED SHALL BE REMOVED AS PART OF THE STRUCTURAL REMOVAL PAY ITEMS, UNLESS OTHERWISE NOTED.

2. REMOVE EXISTING SURVEILLANCE EQUIPMENT (SALVAGE) WHERE NOTED AND TURN OVER TO IDOT DISTRICT ONE. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND WILL BE INCLUDED IN THE COST OF THE "REMOVE EXISTING SURVEILLANCE EQUIPMENT" PAY ITEM.





ITS-02

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-SHT-ITS-02	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

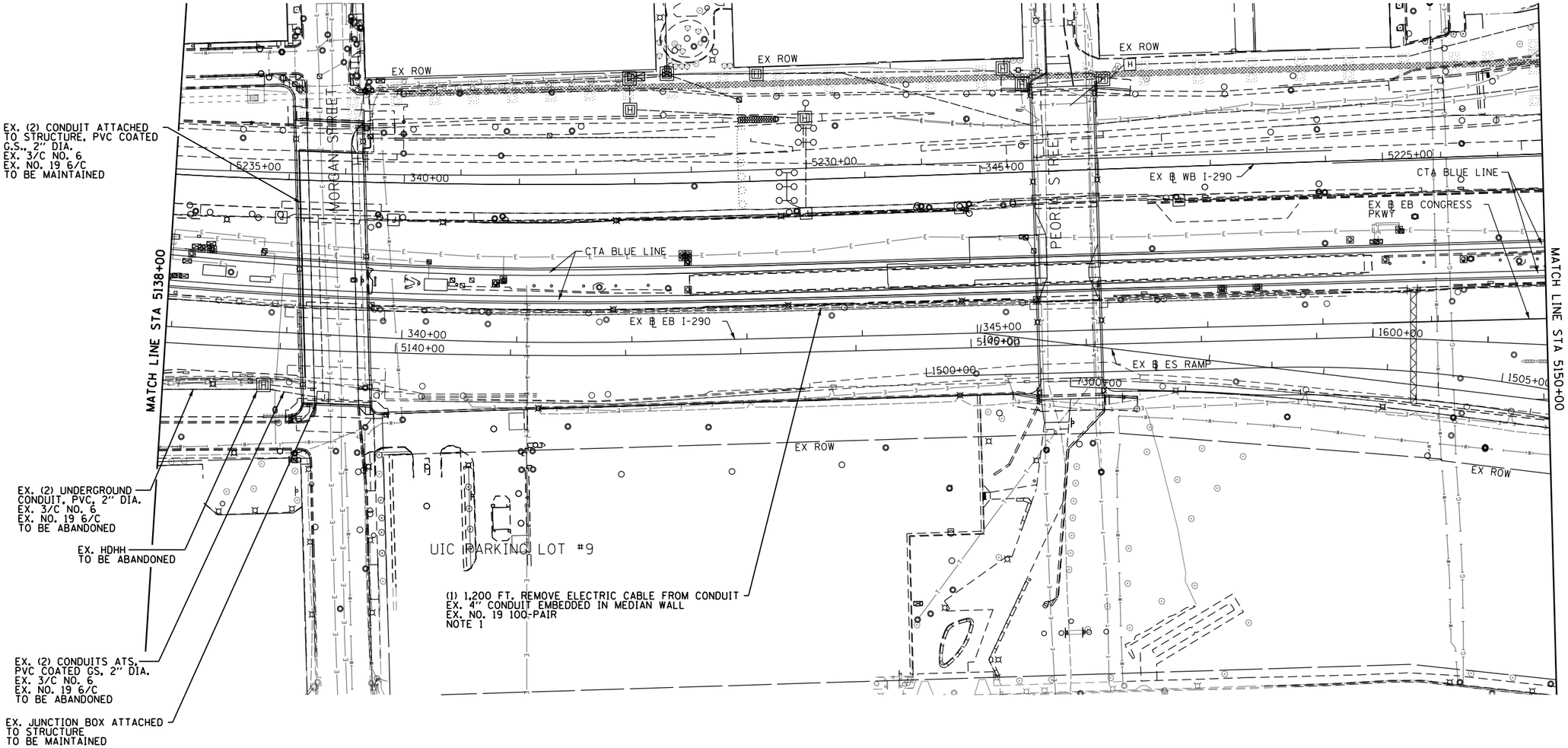
EASTBOUND I-290
EXISTING/MAINTAINING ITS PLAN

SCALE: 1"=50' | SHEET 2 OF 14 SHEETS | STA. 5126+45 TO STA. 5138+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	408
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

NOTES:

1. ALL EXISTING EQUIPMENT ATTACHED TO OR PART OF AN EXISTING STRUCTURE TO BE DEMOLISHED SHALL BE REMOVED AS PART OF THE STRUCTURAL REMOVAL PAY ITEMS, UNLESS OTHERWISE NOTED.



ITS-03

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-SHT-ITS-03	DESIGNED - MJL	REVISED -
USER NAME = mgersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EASTBOUND I-290
EXISTING/MAINTAINING ITS PLAN

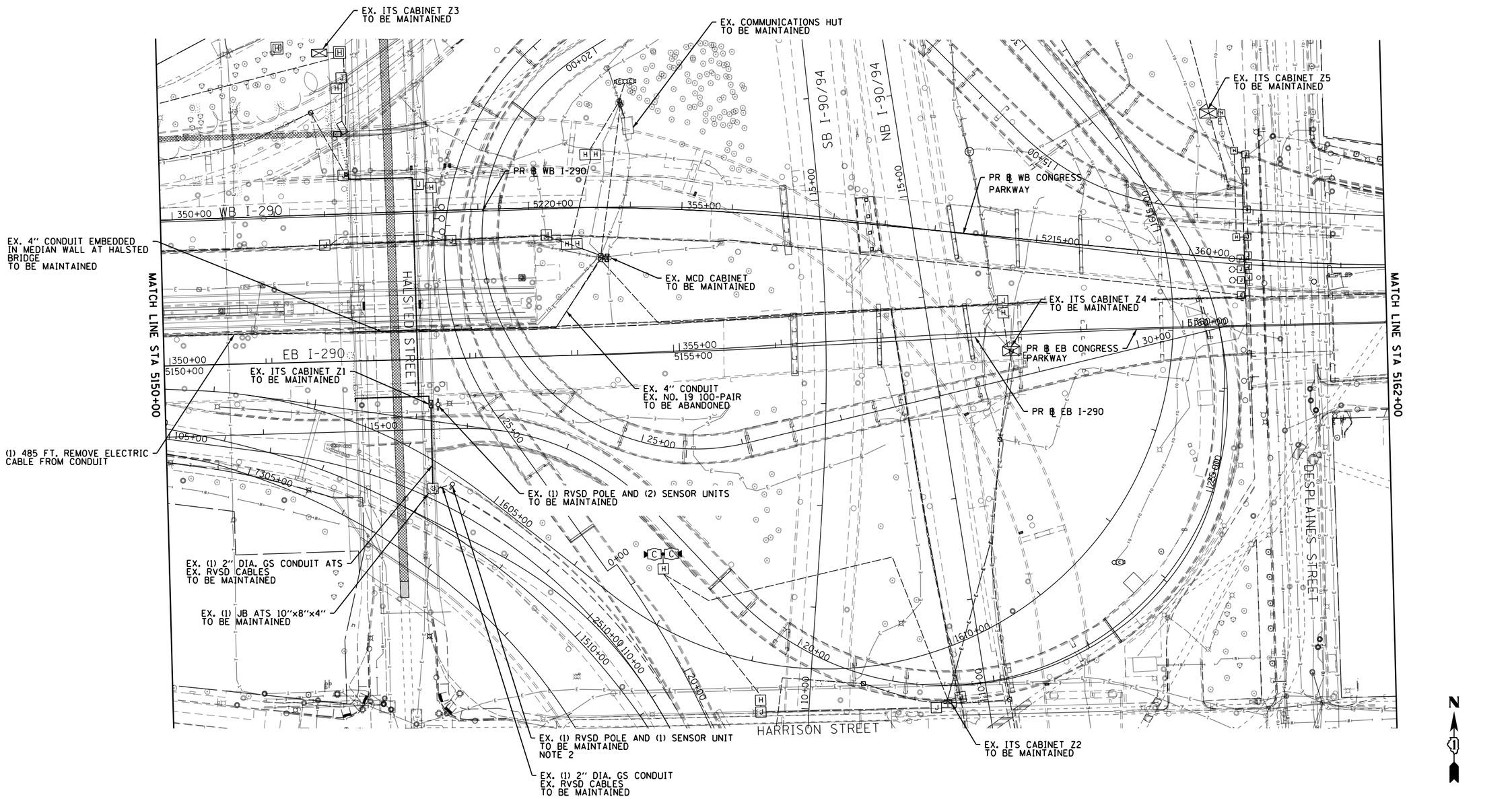
SCALE: 1"=50' | SHEET 3 OF 14 SHEETS | STA. 5138+00 TO STA. 5150+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	409
		CONTRACT NO. 60X76		
		ILLINOIS	FED. AID PROJECT	

NOTES:

1. ALL EXISTING EQUIPMENT ATTACHED TO OR PART OF AN EXISTING STRUCTURE TO BE DEMOLISHED SHALL BE REMOVED AS PART OF THE STRUCTURAL REMOVAL PAY ITEMS, UNLESS OTHERWISE NOTED.

2. REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT (SALVAGE) WHERE NOTED AND TURN OVER TO IDOT DISTRICT 1. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND WILL BE INCLUDED IN THE COST OF "REMOVE EXISTING TRAFFIC SURVEILLANCE EQUIPMENT" PAY ITEM.



ITS-04

AECOM 303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800	D160X76-SHT-ITS-04	DESIGNED - MJL	REVISED -
	USER NAME = myersc	DRAWN - CAM	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
	PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

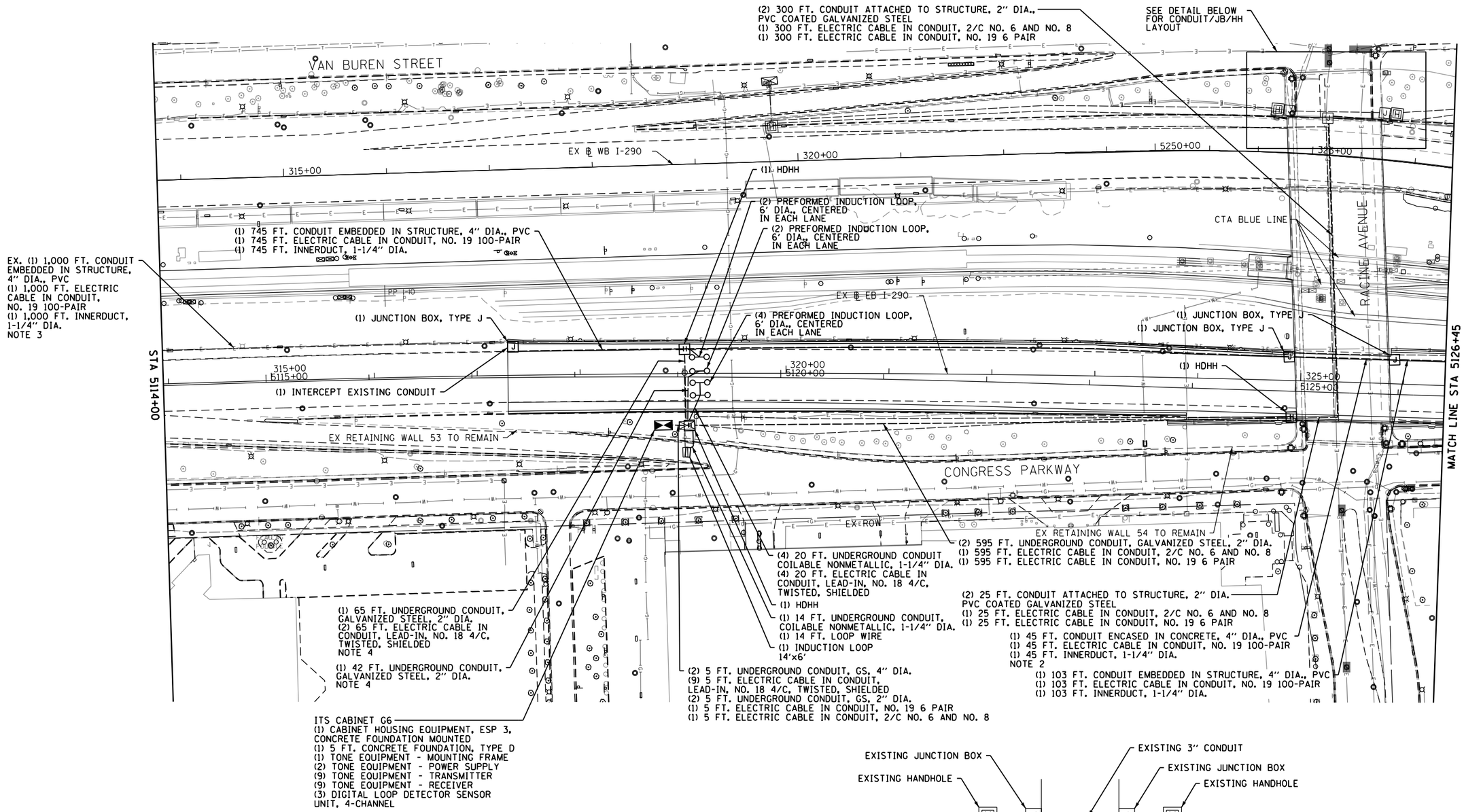
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

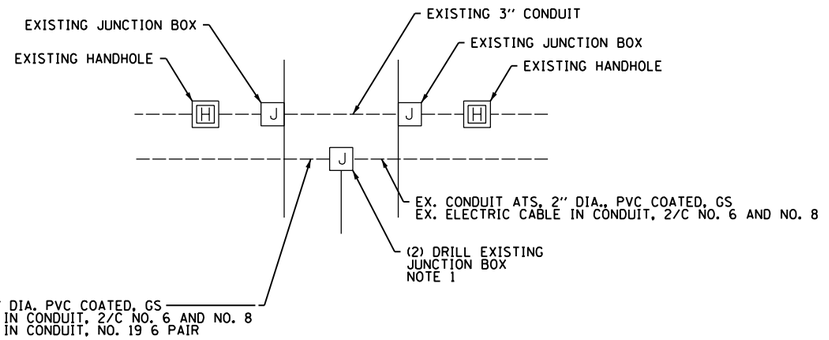
EASTBOUND I-290
EXISTING/MAINTAINING ITS PLAN

SCALE: 1"=50' | SHEET 4 OF 14 SHEETS | STA. 5150+00 TO STA. 5162+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	410
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

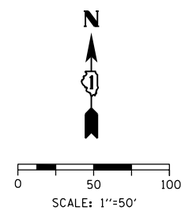
FILE PATH = pw:\\617479-PWINT.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000.CAD\006.Roadway\Sheets\60X76-SHT-ITS-04





NOTES:

1. SPLICE 2/C NO. 6 AND NO. 8 CABLES TO THE MATCHING CABLES RUNNING ACROSS THE RACINE AVENUE BRIDGE.
2. SEE DETAIL ON SHEET ITS-11.
3. SPLICE NO. 19 100-PAIR TO THE MATCHING CABLE IN THE EXISTING JUNCTION BOX NEAR STA 309+00. REFER TO THE SPECIAL PROVISIONS.
4. UNDERGROUND CONDUIT TO BE INSTALLED IN COORDINATION WITH THIS CONTRACT'S CONSTRUCTION WORK AND STAGING. STUB AND CAP CONDUIT BETWEEN STAGING INSTALLATIONS.



DETAIL

ITS-05

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-SHT-ITS-05	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

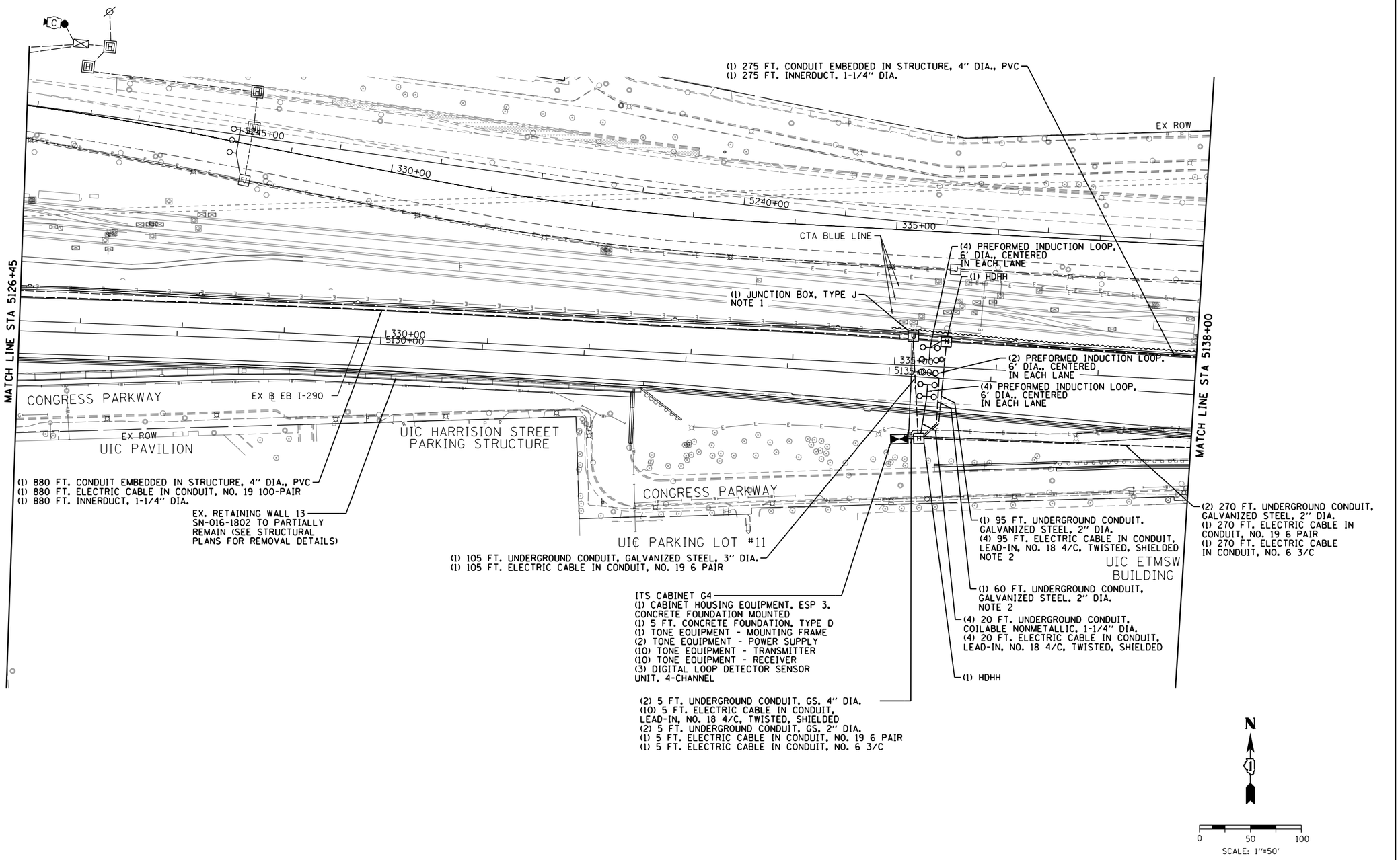
EASTBOUND I-290
PROPOSED ITS PLAN

SCALE: 1"=50' | SHEET 5 OF 14 SHEETS | STA. 5114+00 | TO STA. 5126+45

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	411
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

NOTES:

1. THE NO. 19 6 PAIR CABLE FROM CABINET G4 IS TO BE SPLICED INTO THE NO. 19 100-PAIR CABLE IN THE EMBEDDED JUNCTION BOX, TYPE J.
2. UNDERGROUND CONDUIT TO BE INSTALLED IN COORDINATION WITH THIS CONTRACT'S CONSTRUCTION WORK AND STAGING. STUB AND CAP CONDUIT BETWEEN STAGING INSTALLATIONS.



ITS-06

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

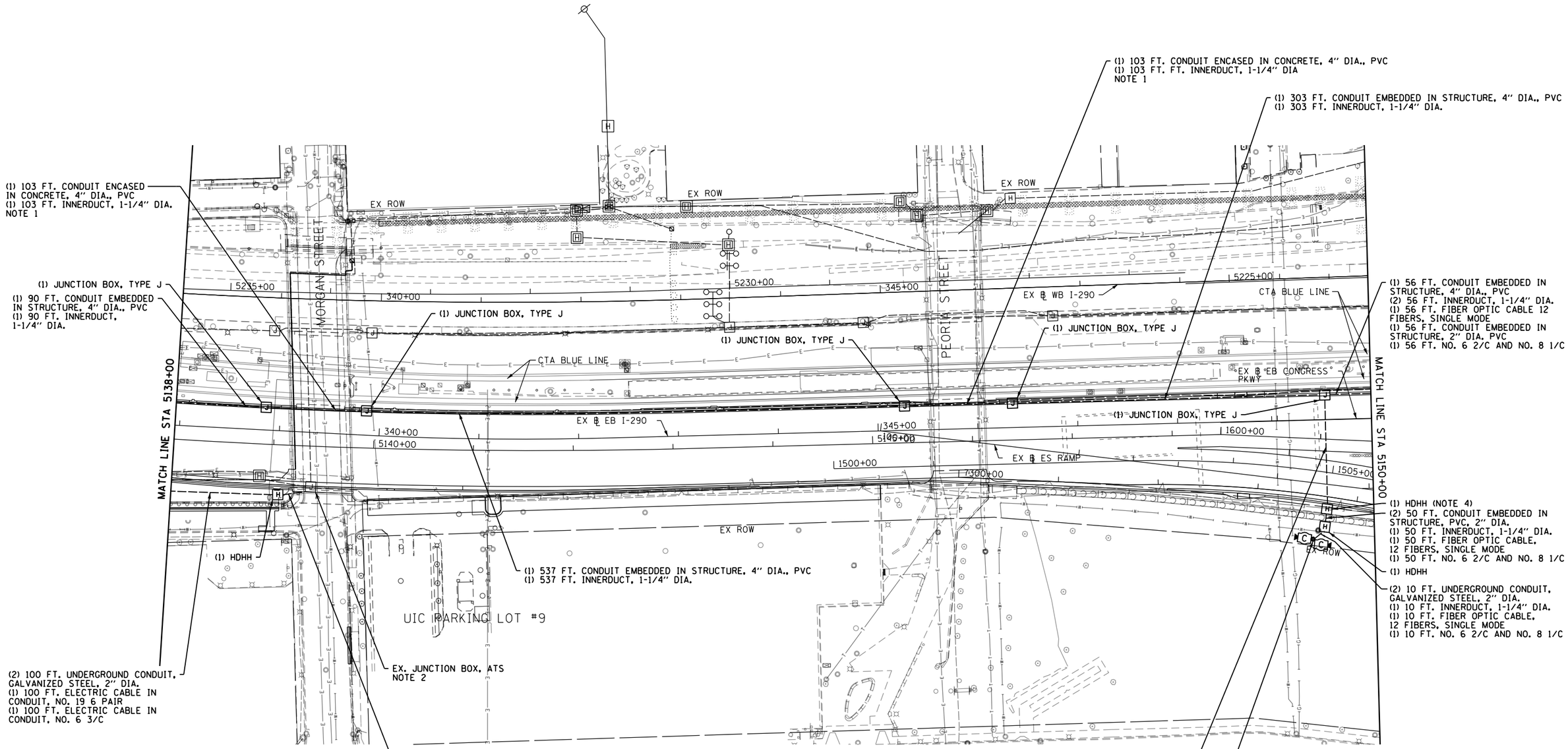
D160X76-SHT-ITS-06	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EASTBOUND I-290
PROPOSED ITS PLAN

SCALE: 1"=50' | SHEET 6 OF 14 SHEETS | STA. 5126+45 | TO STA. 5138+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	412
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SEE DETAIL ON SHEET ITS-11.
2. THE NO. 6 3/C ELECTRIC CABLES AND THE NO. 19 6 PAIR CABLE ARE TO BE SPLICED INTO THE CORRESPONDING EXISTING CABLES IN THE JUNCTION BOX.
3. CONTACT IDOT DISTRICT ONE TRAFFIC SYSTEMS CENTER FOR FIBER OPTIC CABLE ASSIGNMENTS.
4. PROVIDE A DEFLECTION FITTING FOR THE CONDUITS BETWEEN THE HANDHOLE AND CONDUIT EMBEDDED IN THE RETAINING WALL.

ITS-07

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-SHT-ITS-07	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EASTBOUND I-290
PROPOSED ITS PLAN

SCALE: 1"=50' | SHEET 7 OF 14 SHEETS | STA. 5138+00 | TO STA. 5150+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	413
		CONTRACT NO. 60X76		
		ILLINOIS	FED. AID PROJECT	

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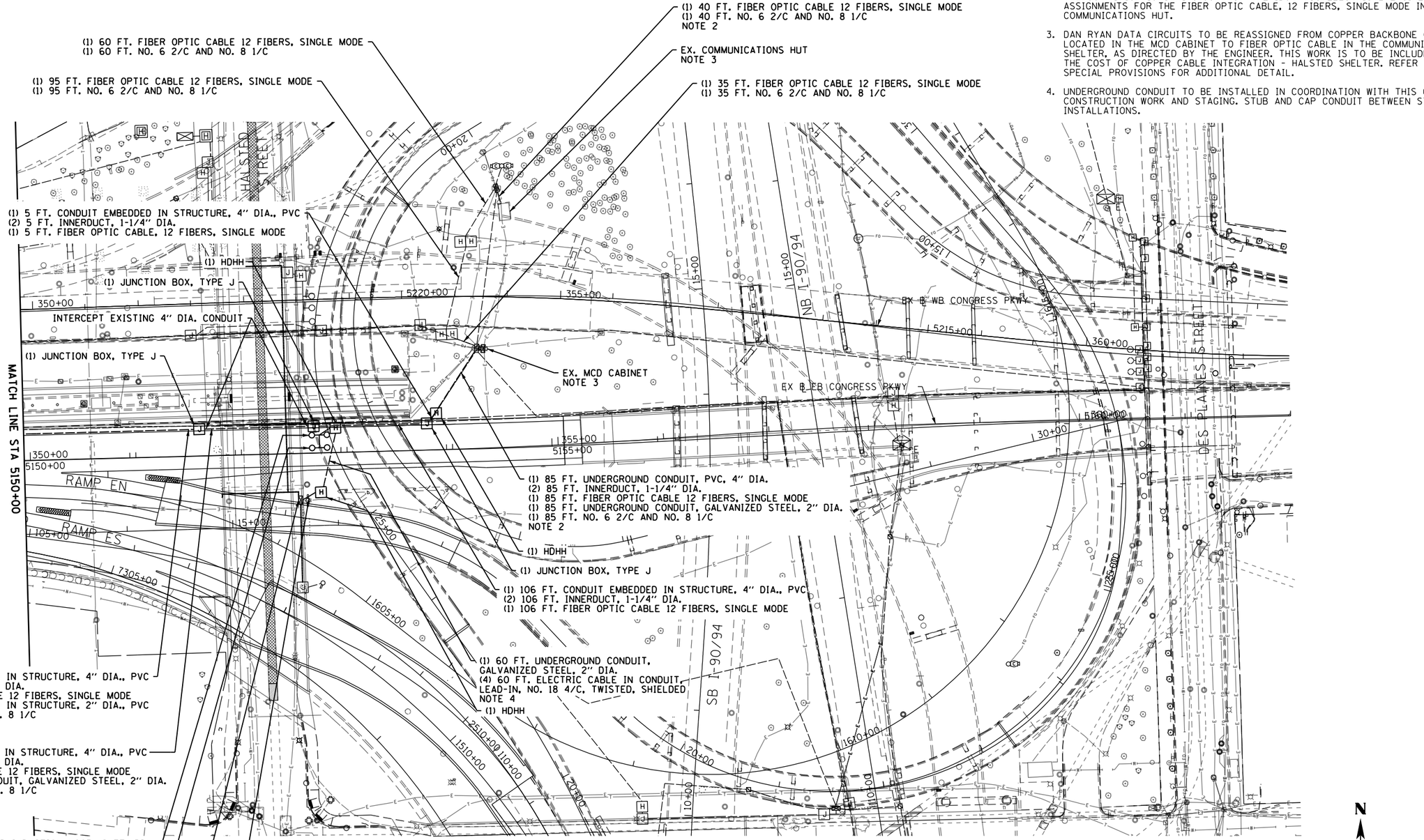
NOTES:

1. SEE DETAIL ON SHEET ITS-11.
2. THE CCTV CAMERA SITE FIBER OPTIC CABLE AND POWER CABLES TERMINATE IN THE COMMUNICATIONS HUT. CONTACT THE IDOT TSC ELECTRICAL ENGINEER FOR ASSIGNMENTS FOR THE FIBER OPTIC CABLE, 12 FIBERS, SINGLE MODE IN THE COMMUNICATIONS HUT.
3. DAN RYAN DATA CIRCUITS TO BE REASSIGNED FROM COPPER BACKBONE CABLE LOCATED IN THE MCD CABINET TO FIBER OPTIC CABLE IN THE COMMUNICATION SHELTER, AS DIRECTED BY THE ENGINEER. THIS WORK IS TO BE INCLUDED IN THE COST OF COPPER CABLE INTEGRATION - HALSTED SHELTER. REFER TO THE SPECIAL PROVISIONS FOR ADDITIONAL DETAIL.
4. UNDERGROUND CONDUIT TO BE INSTALLED IN COORDINATION WITH THIS CONTRACT'S CONSTRUCTION WORK AND STAGING. STUB AND CAP CONDUIT BETWEEN STAGING INSTALLATIONS.



ITS-08

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-SHT-ITS-08	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

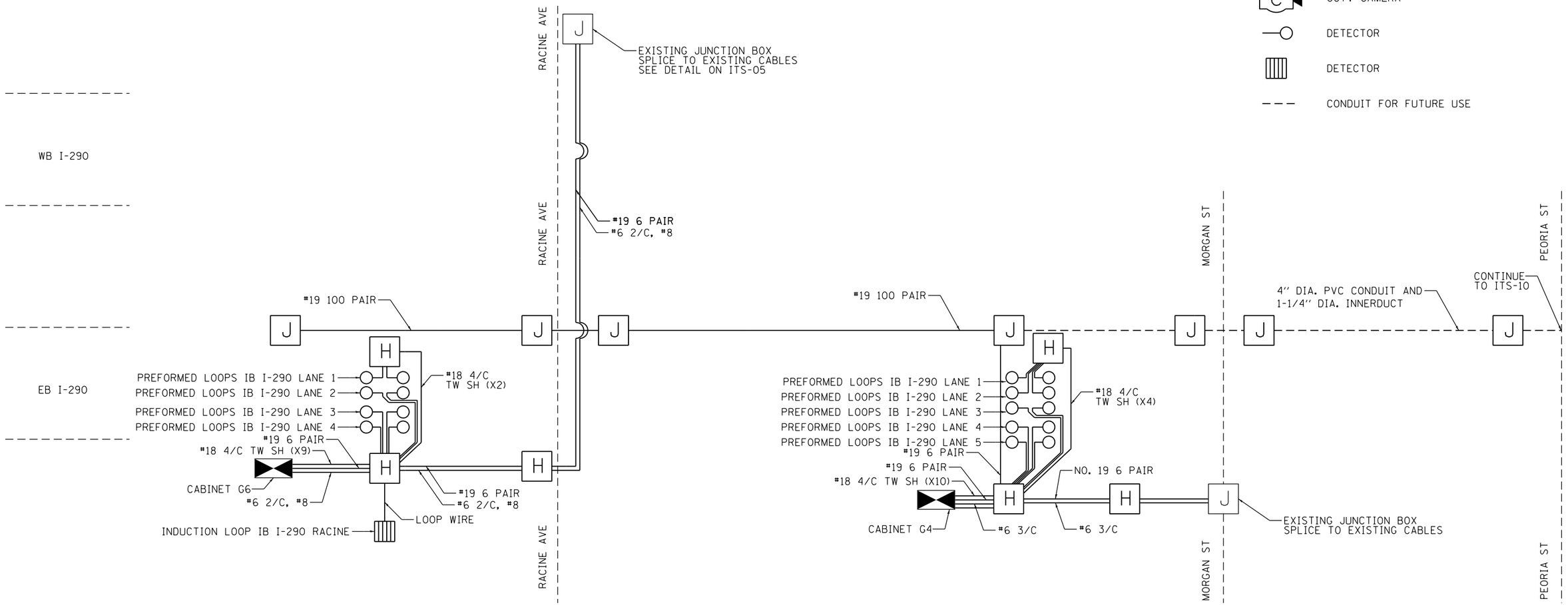
EASTBOUND I-290
PROPOSED ITS PLAN

SCALE: 1"=50' | SHEET 8 OF 14 SHEETS | STA. 5150+00 | TO STA. 5162+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	414
		CONTRACT NO. 60X76		
		ILLINOIS	FED. AID PROJECT	

SYMBOLS LEGEND

- H — HEAVY DUTY HANDHOLE
- J — JUNCTION BOX
- CONTROLLER CABINET
- H H — DOUBLE HANDHOLE
- C — CCTV CAMERA
- DETECTOR
- DETECTOR
- CONDUIT FOR FUTURE USE



NOT TO SCALE

ITS-09

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

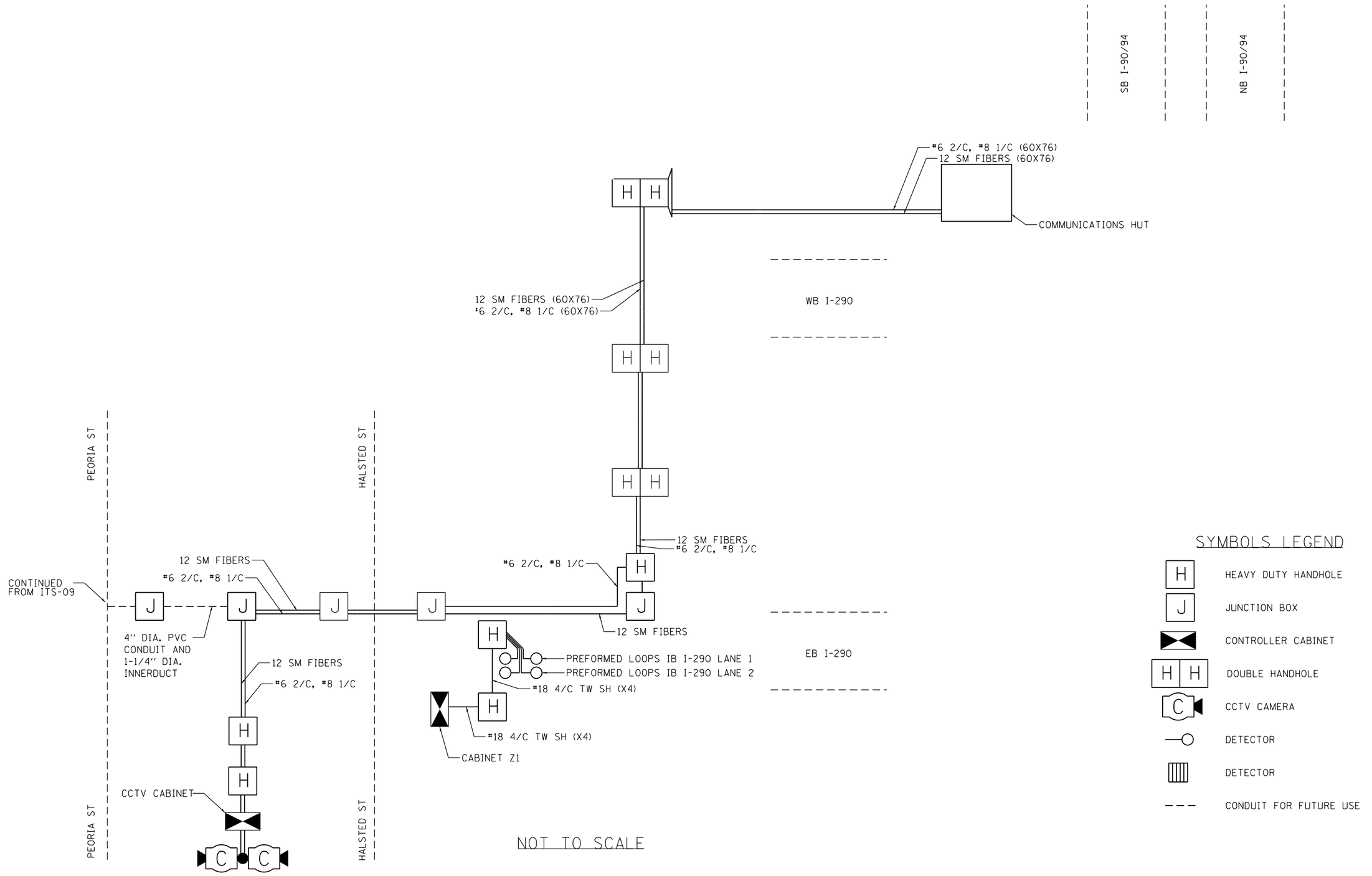
D160X76-sht-ITS-09	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM 1

SCALE: N.T.S. | SHEET 9 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	415
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



ITS-10

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

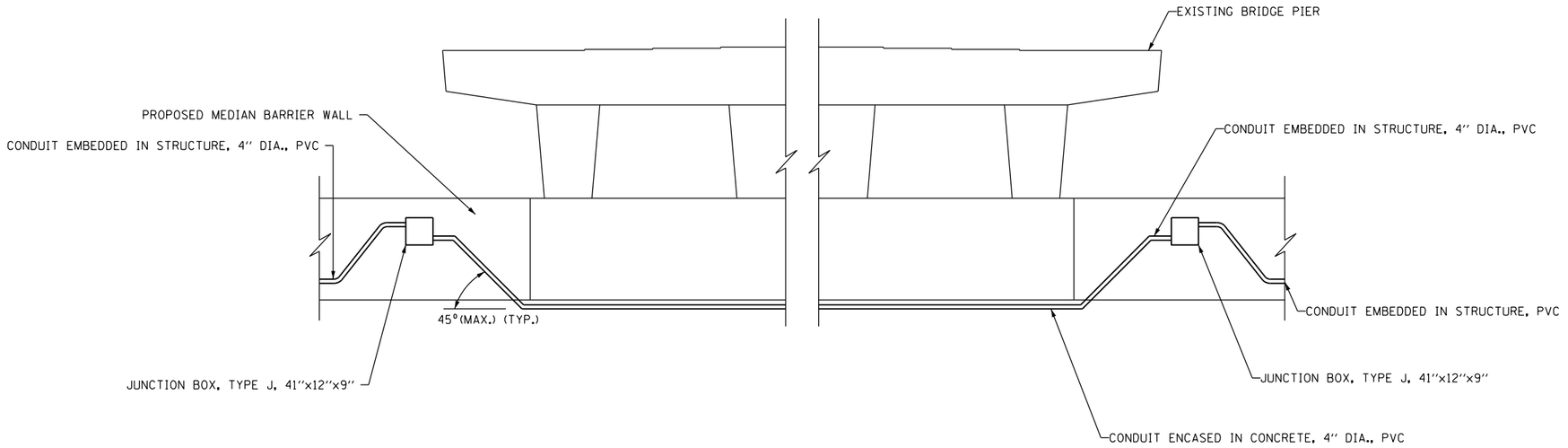
D160X76-sht-ITS-10	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIRING DIAGRAM 2

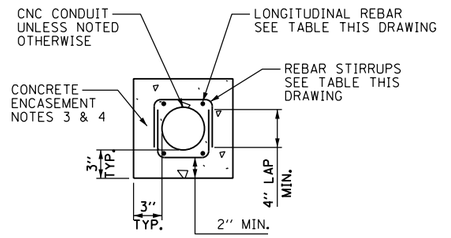
SCALE: N.T.S. | SHEET 10 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	416
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



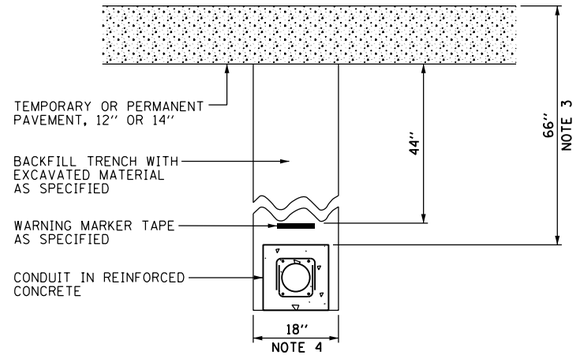
CONDUIT ROUTING AROUND MORGAN, PEORIA, AND RACINE PIER STRUCTURE

SCALE: NOT TO SCALE (NORTH FACE SHOWN LOOKING NORTH)

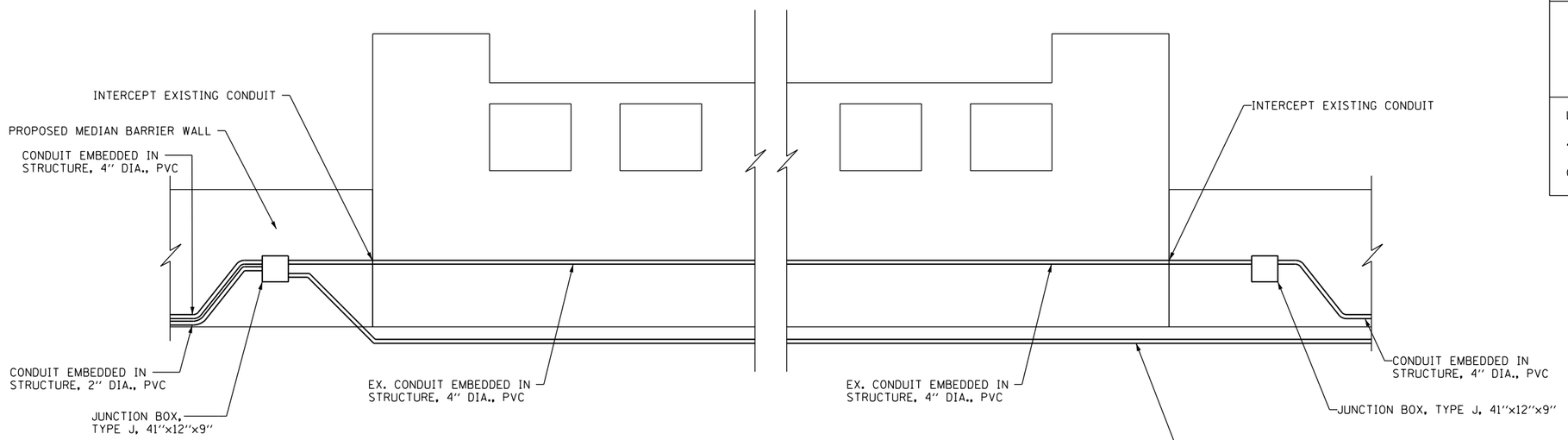


CONDUIT ENCASED IN REINFORCED CONCRETE DETAIL

SCALE: NOT TO SCALE



TYPICAL CONDUIT UNDER PAVEMENT



CONDUIT ROUTING AT HALSTED STREET PIER STRUCTURE

SCALE: NOT TO SCALE (NORTH FACE SHOWN LOOKING NORTH)

CONDUIT REINFORCEMENT TABLE		
CONCRETE CROSS-SECTIONAL AREA SQ. INCHES	LONGITUDINAL REBAR BARS	REBAR STIRRUPS
LESS THAN 450	#4	#3 AT 12" SPACING
451 TO 650	#5	#3 AT 12" SPACING
GREATER THAN 651	#6	#3 AT 12" SPACING

NOTES:

1. JUNCTION BOXES ARE EMBEDDED IN STRUCTURE.
2. LIGHTING/ELECTRICAL DETAILS SHOW JUNCTION BOXES IN SIMILAR LOCATIONS. MAINTAIN THREE (3) FOOT HORIZONTAL SEPARATION BETWEEN ELECTRICAL AND ITS JUNCTION BOXES EMBEDDED IN STRUCTURE.
3. PROVIDE MINIMUM CLEARANCE SHOWN FROM TOP OF ENCASED CONDUIT TO FINISHED GRADE FOR ALL ENCASED CONDUITS, REGARDLESS OF SIZE. CONTRACTOR MUST INSTALL ENCASED CONDUITS SUCH THAT THEY WILL CLEAR ALL UNDERGROUND OBSTACLES.
4. TRENCH MUST HAVE MINIMUM WIDTH SHOWN FOR ALL ENCASED CONDUITS DETAILED ON THIS DRAWING. THE CONTRACTOR MUST INCREASE TRENCH WIDTH FOR ADDITIONAL CONDUITS, AS DIRECTED BY THE ENGINEER, AT NO ADDITIONAL COST.

ITS-11

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-sht-ITS-11	DESIGNED - MJL	REVISED -
USER NAME = myersc	DRAWN - CAM	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - ME	REVISED -
PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS CONDUIT DETAIL AT STRUCTURES

SCALE: N.T.S. | SHEET 11 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	417
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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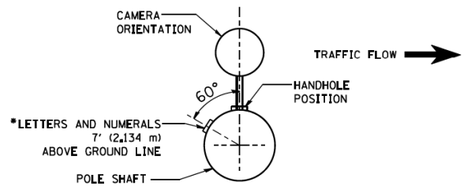
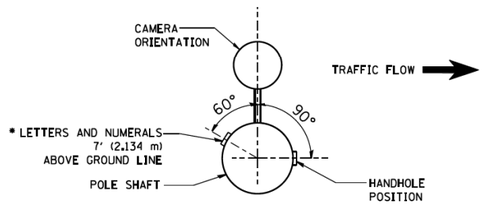
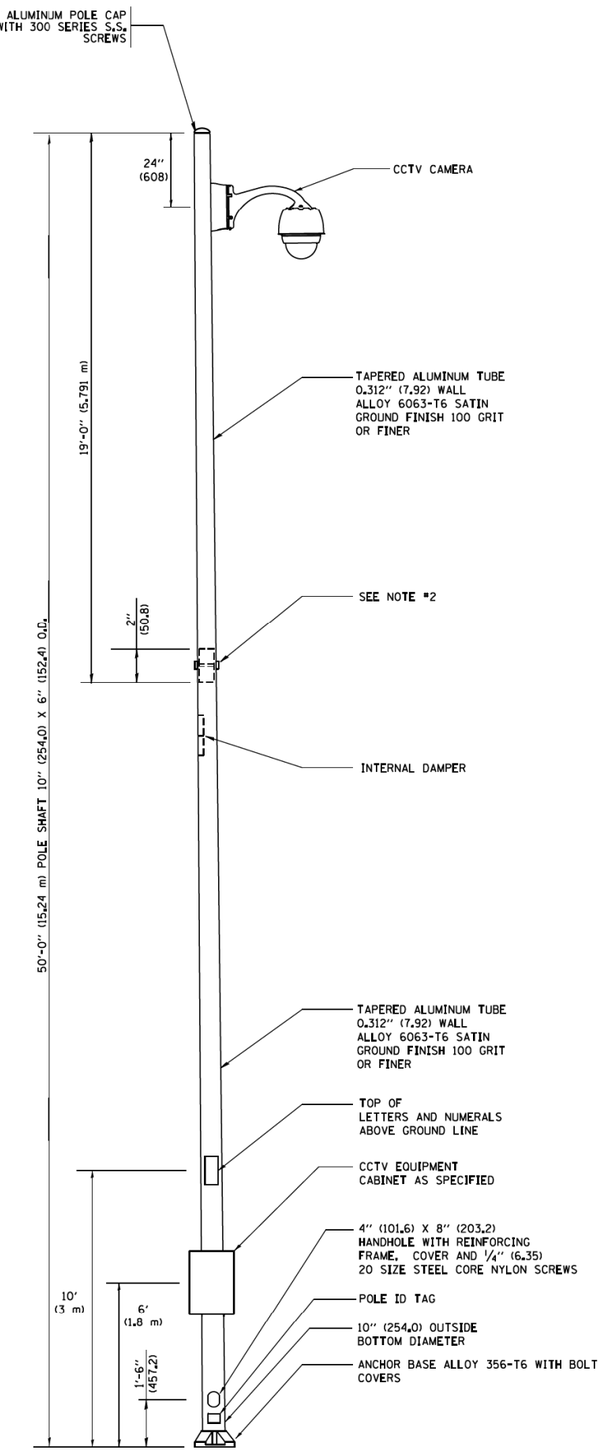


POSITION OF HANDHOLE AND CAMERA NUMBER FOR POLE MOUNTED ON BRIDGE PARAPET OR BARRIER WALL

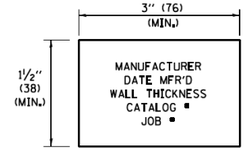


POSITION OF HANDHOLE AND CAMERA NUMBER



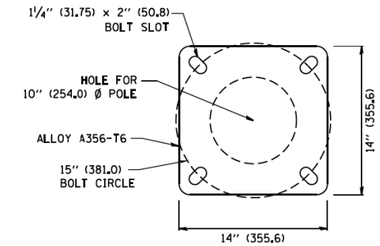
NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
3. THE POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
4. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR. BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
5. POLES WILL BE INSTALLED IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.
6. POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.



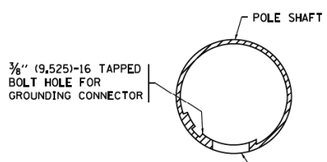
POLE ID TAG

NTS



POLE BASE PLATE DETAIL

15 INCH (381.0) BOLT CIRCLE



HANDHOLE DETAIL

(N.T.S.)

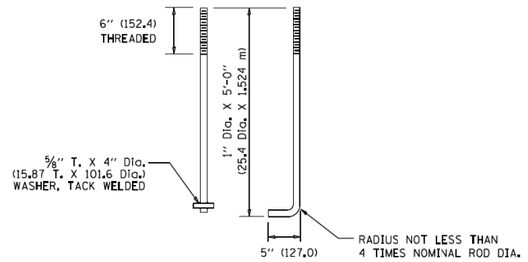
ITS-12

FILE NAME = c:\pw_work\pwidot\drivakosgn\d0108315\be1000.dgn	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 09-06-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CCTV CAMERA STRUCTURE 50' (15.24 m) MOUNTING HEIGHT				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - R. TOMSONS 09-03-03									814	418
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - R. TOMSONS 02-27-13							BE-1000	CONTRACT NO.		
	PLOT DATE = 6/5/2014	DATE -	REVISED - R. TOMSONS 05-04-14		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

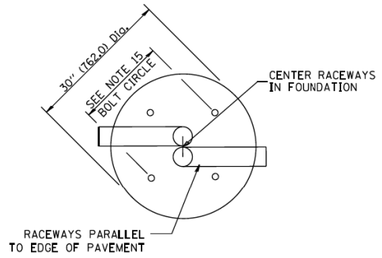
be1000.dgn 6/5/2014 11:35:28 AM U:\users\drivakosgn

CCTV CAMERA POLE FOUNDATION DEPTH TABLE

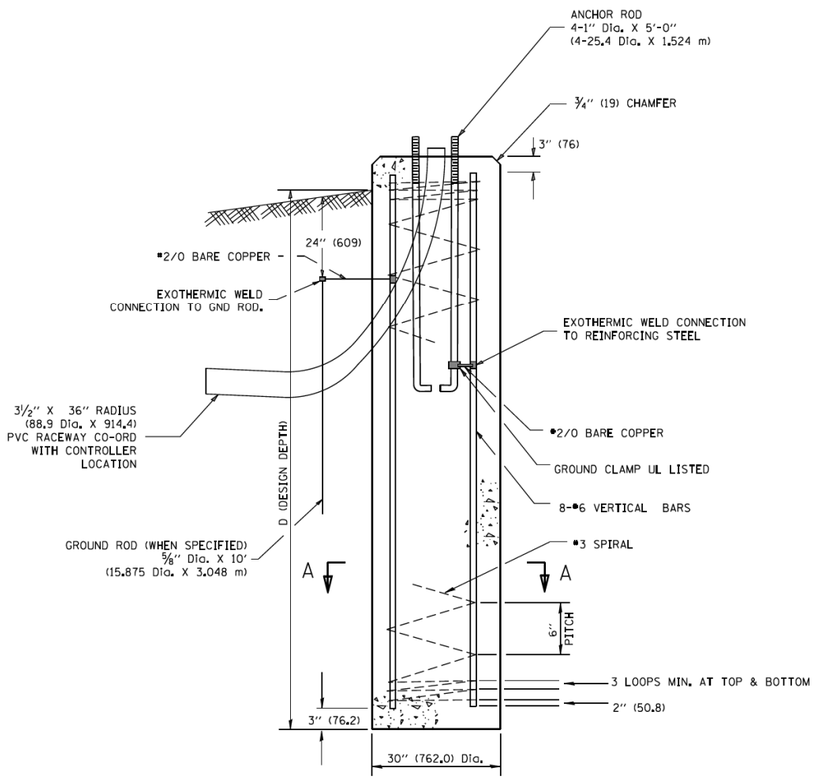
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)
MEDIUM CLAY Qu = 0.75 TON/SQ.FT	9'-6" (2.09 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)
LOOSE SAND Ø = 34°	9'-0" (2.74 m)
MEDIUM SAND Ø = 37.5°	8'-3" (2.52 m)
DENSE SAND Ø = 40°	7'-9" (2.36 m)



ANCHOR ROD DETAIL



TOP VIEW



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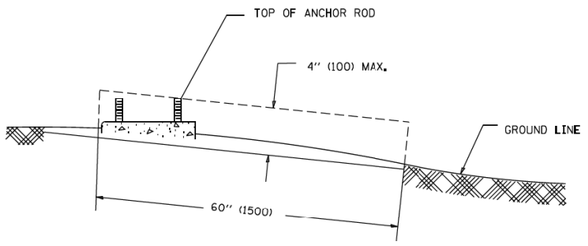
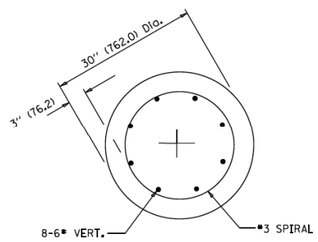


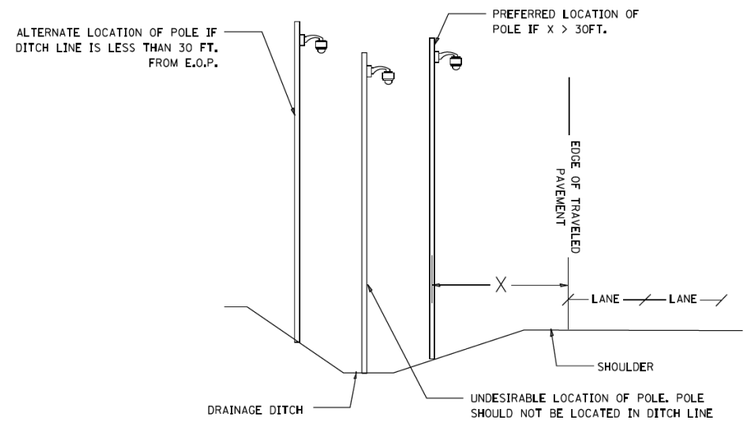
FOUNDATION EXTENSION DETAIL



SECTION A-A

NOTES

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
5. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
6. THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
7. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
9. ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
11. ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
12. THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
15. ANCHOR ROD BOLT CIRCLE TO BE COORDINATED WITH CAMERA STRUCTURE



CAMERA POLE PLACEMENT

ITS-13

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CCTV CAMERA STRUCTURE FOUNDATION
50' (15 – 24m) MOUNTING HEIGHT

SCALE: NONE | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			814	419
	BE-1001	CONTRACT NO.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

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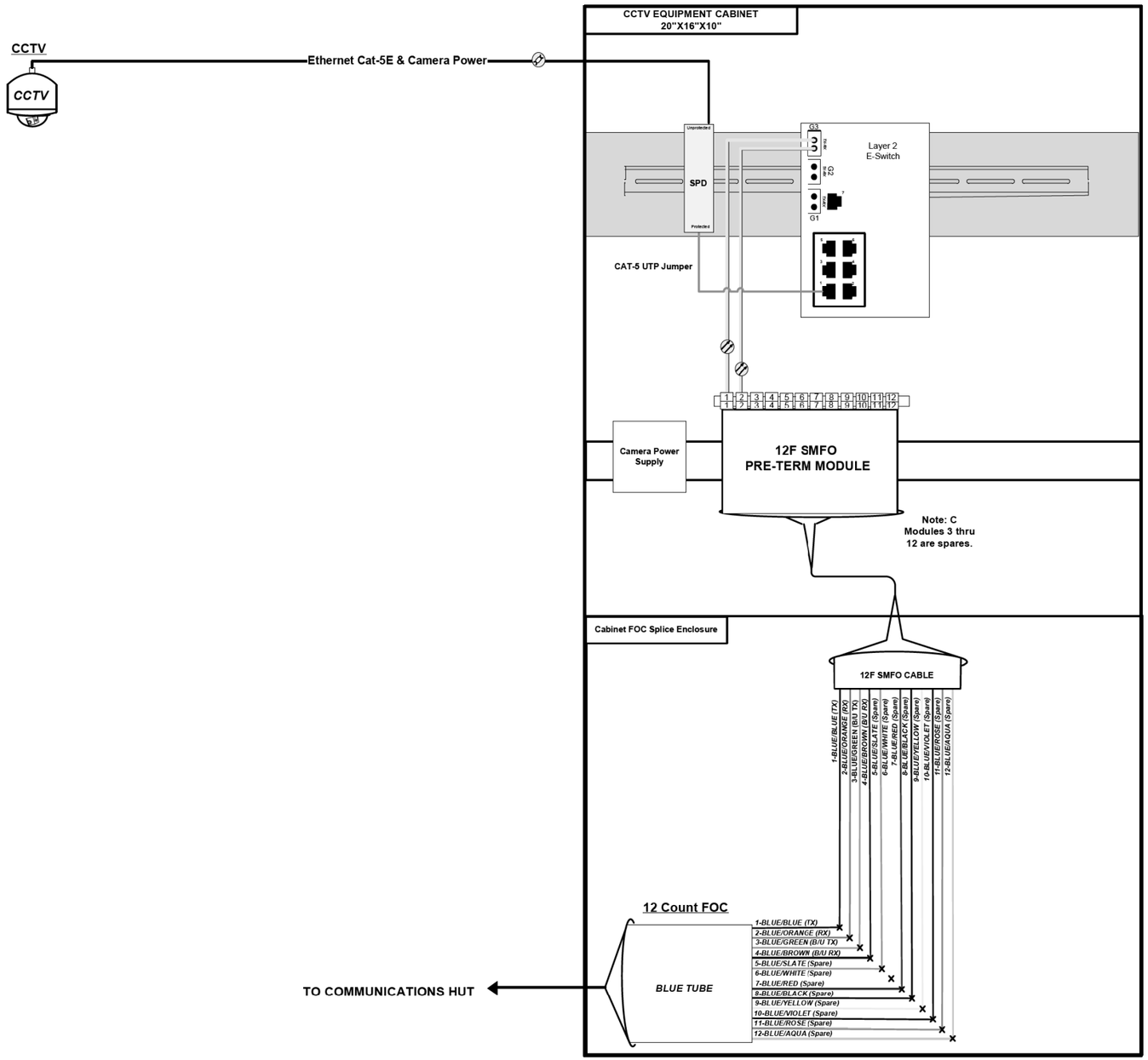

KEY

- PTZ Camera
- Later 2 Ethernet Switch
- Pre-Term Connection Module
- Surge Protection Device
- Fiber Optic Splice
- Fiber Optic Jumper
- Fiber Cable Location
- Copper Comm. Cable
- 12 Count FOC

COMMUNICATIONS DETAIL
CCTV

ITS-14

FILE PATH = pw:\\6174479-PWINT.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase II\000_CAD\006_Roadway\Sheets\160X76_Contract\D160X76-sht-ITS-14

AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160X76-sht-ITS-14	DESIGNED - PFD	REVISED -
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PLOT DATE = 5/8/2017	DATE - 5/10/17	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS CONDUIT DETAIL AT STRUCTURES

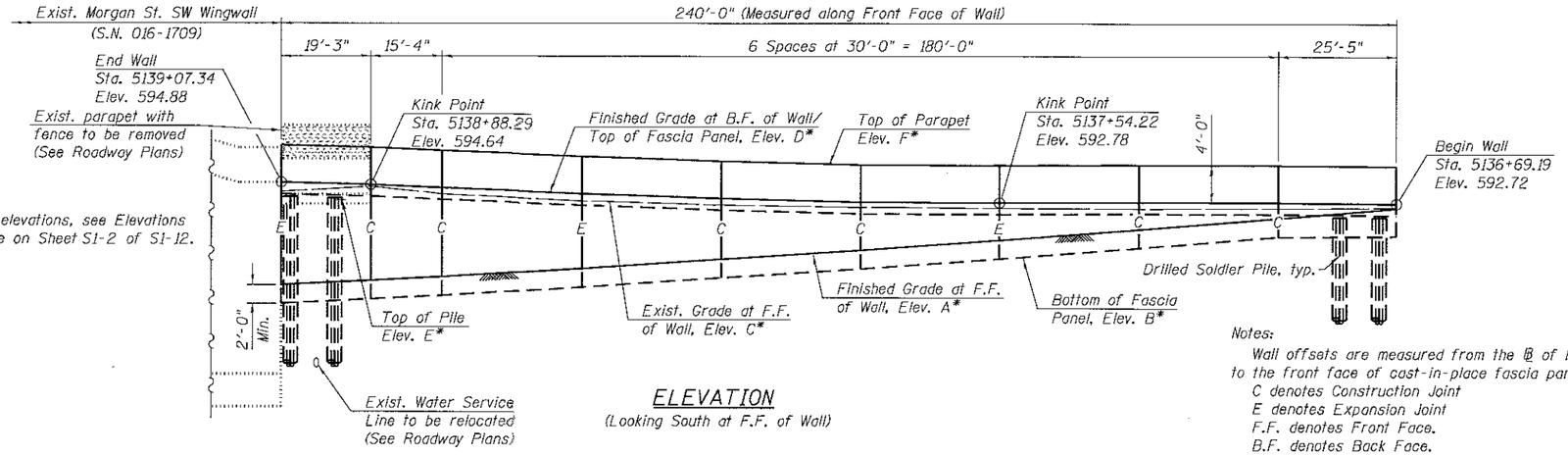
SCALE: N.T.S. | SHEET 14 OF 14 SHEETS | STA. | TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	420
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elevation 593.07.

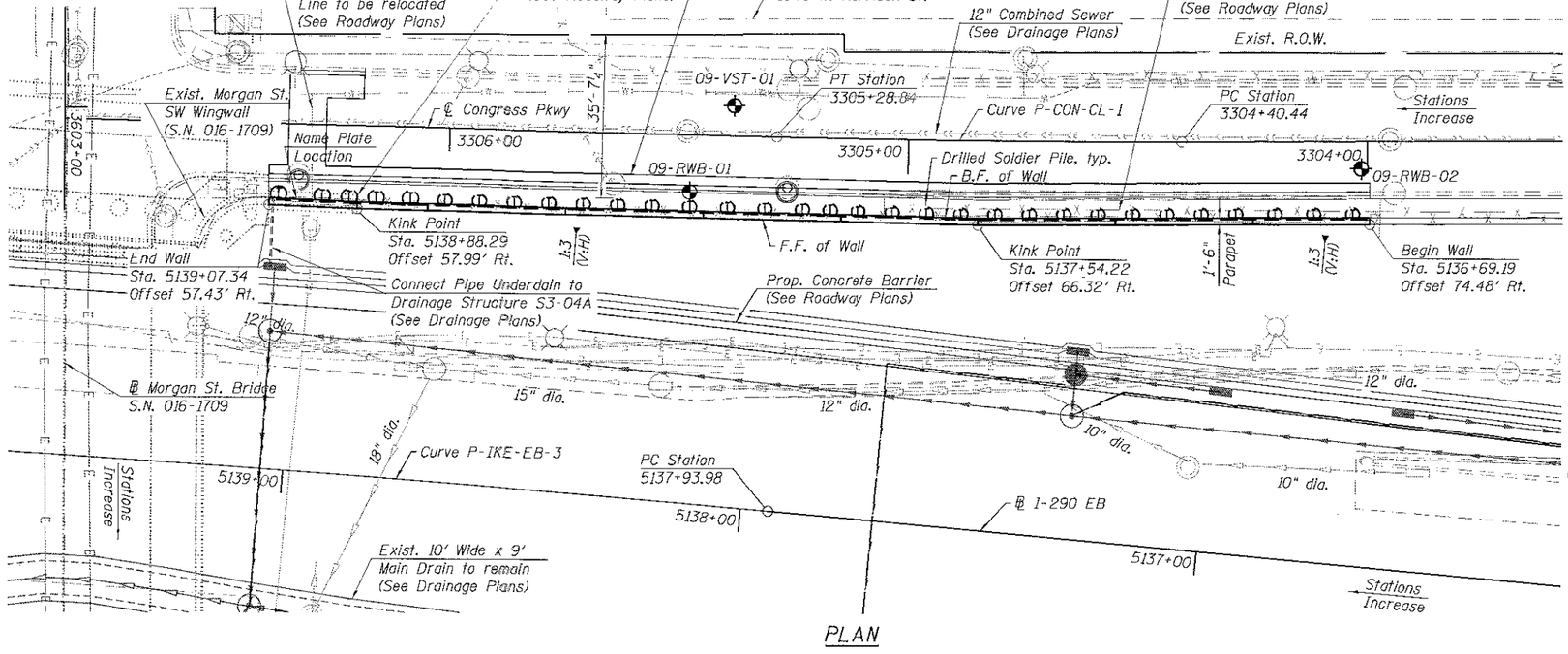
Existing Structure: None.

Traffic on I-290 EB is to be maintained during construction. Traffic on Congress Parkway will be closed and detoured during construction.



ELEVATION
(Looking South at F.F. of Wall)

Notes:
Wall offsets are measured from the ℄ of F.A.I. Rte. 290 EB to the front face of cast-in-place fascia panels.
C denotes Construction Joint
E denotes Expansion Joint
F.F. denotes Front Face.
B.F. denotes Back Face.
Wall to be built along straight chords between kink points.
For details and limits of Stainless Steel Cable Plant Support System, see Sheet S1-8 of S1-12.



PLAN

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications 7th Edition with 2015 and 2016 Interim Specifications

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

SOLDIER PILES

fy = 50,000 psi (AASHTO M270 Gr. 50)

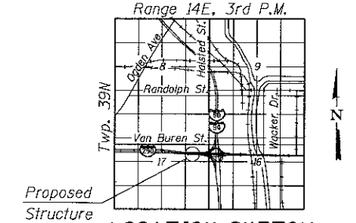
MATTHEW D. SANTEFORD 081-007244 LICENSED STRUCTURAL ENGINEER OF STATE OF ILLINOIS

05/8/17

MATTHEW D. SANTEFORD, P.E. / S.E.
NO. 081-007244
EXP. DATE 11/30/2018

APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures



LOCATION SKETCH

LEGEND:

- Ex. Chain Link Fence — X — X — X —
- Combined Sewer
- Electric — E — E — E
- Ex. Storm Sewer
- Prop. Storm Sewer
- Water — W — W
- Ex. ITS Cable
- Soil Boring
- Existing Manhole
- Proposed Manhole

GENERAL PLAN AND ELEVATION
RETAINING WALL 9 ALONG
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 5136+69.19 TO STATION 5139+07.34
STRUCTURE NO. 016-1728

USER NAME = mkwilson	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 32.00 '/ in.	DRAWN - RVV	REVISED -	
PLOT DATE = 5/8/2017	CHECKED - WJC/MDS	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S1-1 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	421
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

2. Reinforcement bars designated (E) shall be epoxy coated.

3. Concrete Sealer shall be applied to exposed surfaces of the panels and parapet.

4. The Contractor shall exercise extreme caution during proposed wall construction to make certain that construction activities and loads will not have detrimental effects on the existing buildings and utilities. See Special Provision for Construction Vibration Monitoring.

5. The contractor shall provide vibration and displacement monitoring at the locations specified in the Special Provision for Construction Vibration Monitoring, to ensure that removal/construction activities in the vicinity of the structures do not have detrimental effects on building foundations. No additional compensation shall be provided to the Contractor for alternative means and methods, or additional precautionary measures, required during removal/construction activities to satisfy these requirements. See Contract Special Provisions for details.

6. In addition to vibration and displacement monitoring, the contractor shall monitor ground movement by means of slope indicators. At least one inclinometer shall be utilized near each of the buildings adjacent to Retaining Wall 9 (S.N. 016-1728). See Special Provision for Construction Vibration Monitoring for details.

7. Slipforming of the parapets is not allowed.

8. Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The contractor will not be compensated for issues related to the groundwater elevation.

9. The Contractor shall provide a method to assure the soldier piles achieve at least the plan tip elevations. The soldier pile locations and elevations shall meet the tolerances provided in the Special Provisions. Any additional measures required to satisfy the construction tolerances will not be paid for separately but shall be included in Drilling and Setting Soldier Piles (in Soil).

10. Soldier piles shall be cleaned and given one shop coat of Inorganic Zinc Rich Primer. Cost included with Furnishing Soldier Piles (W Section).

11. The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater spoils resulting from Contractor's means and methods. No additional cost will be paid for this effort.

ELEVATIONS TABLE

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F	Elevation G
5136+69.19	74.48' Rt.	592.20	589.22	592.26	592.72	591.22	596.72	577.93
5136+94.49	72.06' Rt.	591.13	589.13	592.19	592.80	591.30	596.80	577.86
5137+24.36	69.19' Rt.	589.91	587.91	592.14	592.83	591.33	596.83	577.81
5137+54.22	66.32' Rt.	588.74	586.74	592.18	592.78	591.28	596.78	577.76
5137+84.15	64.30' Rt.	587.64	585.64	592.27	592.82	591.32	596.82	577.73
5138+13.86	62.31' Rt.	586.69	584.69	592.51	593.22	591.72	597.22	577.69
5138+43.49	60.47' Rt.	585.68	583.68	592.96	593.74	592.24	597.74	577.53
5138+73.13	58.79' Rt.	584.74	582.74	593.64	594.30	592.80	598.30	577.26
5138+88.29	57.99' Rt.	584.35	582.35	594.42	594.64	593.14	598.64	577.12
5139+07.34	57.43' Rt.	583.88	581.88	593.88	594.88	593.38	598.88	576.96

Elevation A- Finished Grade at Front Face of Wall
Elevation B- Bottom of Fascia Panel
Elevation C- Existing Grade at Front Face of Wall
Elevation D- Finished Grade at Back Face of Wall / Top of Fascia Panel
Elevation E- Top of Pile
Elevation F- Top of Parapet
Elevation G- Finished Grade at Front Face of Barrier

TOTAL BILL OF MATERIAL

Item	Unit	Total Quantity
Structure Excavation	Cu. Yd.	165
Concrete Superstructure	Cu. Yd.	51.7
Stud Shear Connectors	Each	511
Reinforcement Bars, Epoxy Coated	Pound	15,550
Name Plates	Each	1
Furnishing Soldier Piles (W Section)	Foot	1,645
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	12,668
Untreated Timber Lagging	Sq. Ft.	1,411
Concrete Structures (Retaining Wall)	Cu. Yd.	77.0
Concrete Sealer	Sq. Ft.	3,576
Geocomposite Wall Drain	Sq. Yd.	112
Slope Inclinometer	Each	1
Stainless Steel Cable Plant Support System	L. Sum	1
Pipe Underdrain for Structures 4"	Foot	256

INDEX OF SHEETS

CURVE DATA

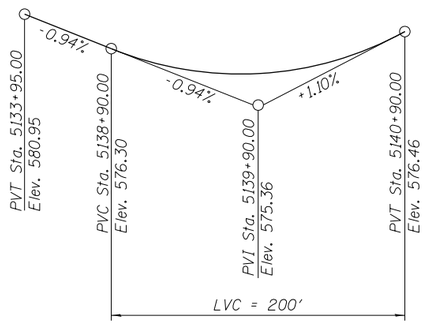
(I-290 EB)

Prop. Curve P-IKE-EB-3
P.I. Sta. = 5140+53.06
Δ = 5° 12' 17"
D = 1° 00' 19"
R = 5,700.00'
T = 259.08'
L = 517.80'
E = 5.88'
e = 2.00%
T.R. = 72'
S.E. Run = 96'
P.C. Sta. = 5137+93.98
P.T. Sta. = 5143+11.78

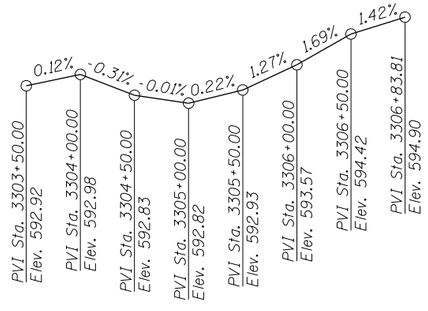
CURVE DATA

(Congress Pkwy)

Prop. Curve P-CON-CL-1
P.I. Sta. = 3304+84.64
Δ = 1° 37' 06"
D = 1° 49' 50"
R = 3,130.00'
T = 44.21'
L = 88.41'
E = 0.31'
e = NC
T.R. = NA
S.E. Run = NA
P.C. Sta. = 3304+40.44
P.T. Sta. = 3305+28.84



PROFILE GRADE
(Along ℄ I-290 EB)



PROFILE GRADE
(Along ℄ Congress Parkway EB)

STATION 5136+69.19 TO 5139+07.34
BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. RTE. 290-SEC. 2014-002R&B
LOADING HL-93
STRUCTURE NO. 016-1728

NAME PLATE

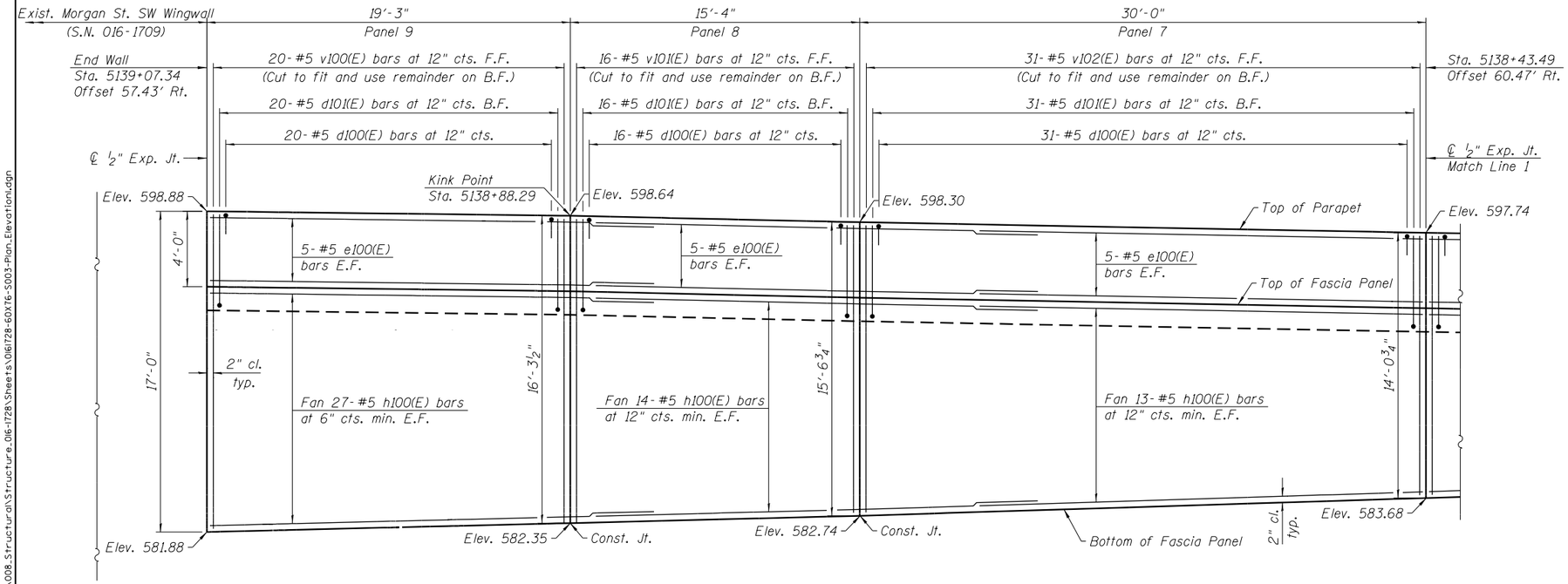
See Std. 515001

TranSystems	USER NAME = vljanachione	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 0.2 '' / in.	DRAWN - RVV	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

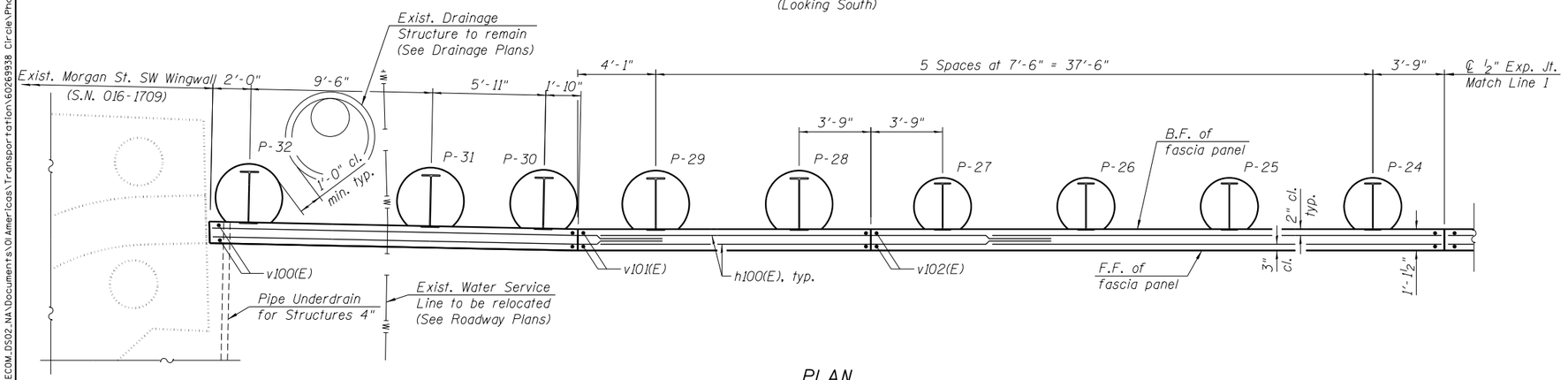
GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-2 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	422
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



ELEVATION

(Looking South)



PLAN

(Parapet not shown for clarity)

Notes:

For soldier pile wall cross sections and details, see Sheet S1-6 of S1-12.

For soldier pile layout, sections and details and Bill of Material, see Sheet S1-7 of S1-12.

Based on the high squeeze potential of the clay soils, the use of temporary casing will be required down to Elev. 552.0 in order to properly construct the drilled shafts. Casing may be pulled or left in place, as determined by the contractor. Cost included with Drilling and Setting Soldier Piles (in soil).

TranSystems

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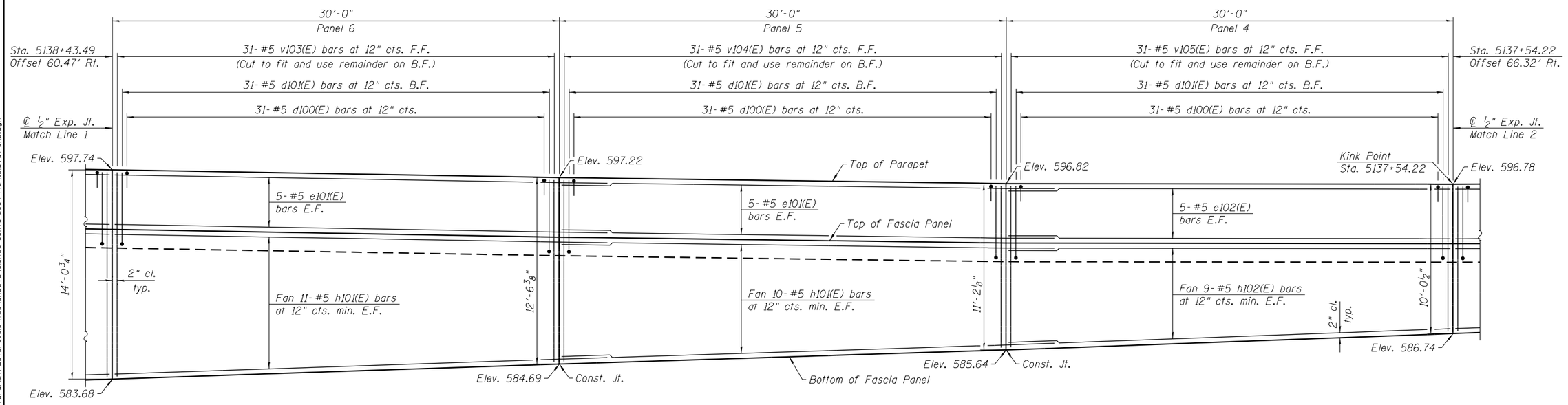
	CHECKED - TLR	REVISED -
PLOT SCALE = 7.0 '' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

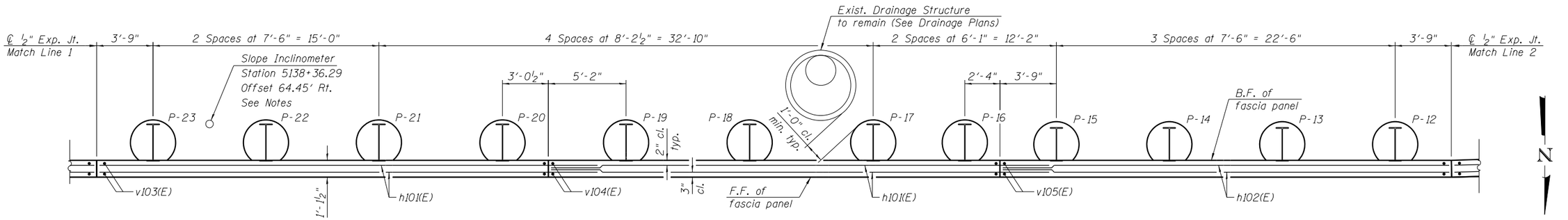
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION I
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-3 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	423
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		



ELEVATION
(Looking South)



PLAN
(Parapet not shown for clarity)

Notes:

For soldier pile wall cross sections and details, see Sheet S1-6 of S1-12.

For soldier pile layout, sections and details and Bill of Material, see Sheet S1-7 of S1-12.

Based on the high squeeze potential of the clay soils, the use of temporary casing will be required down to Elev. 552.0 in order to properly construct the drilled shafts. Casing may be pulled or left in place, as determined by the contractor. Cost included with Drilling and Setting Soldier Piles (in soil).

In addition to vibration and displacement monitoring, the Contractor shall monitor movements with Slope Inclinometers. All inclinometers shall be installed prior to drilling. See special provisions for Slope Inclinometers.

TranSystems

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	CHECKED - TLR	REVISED -
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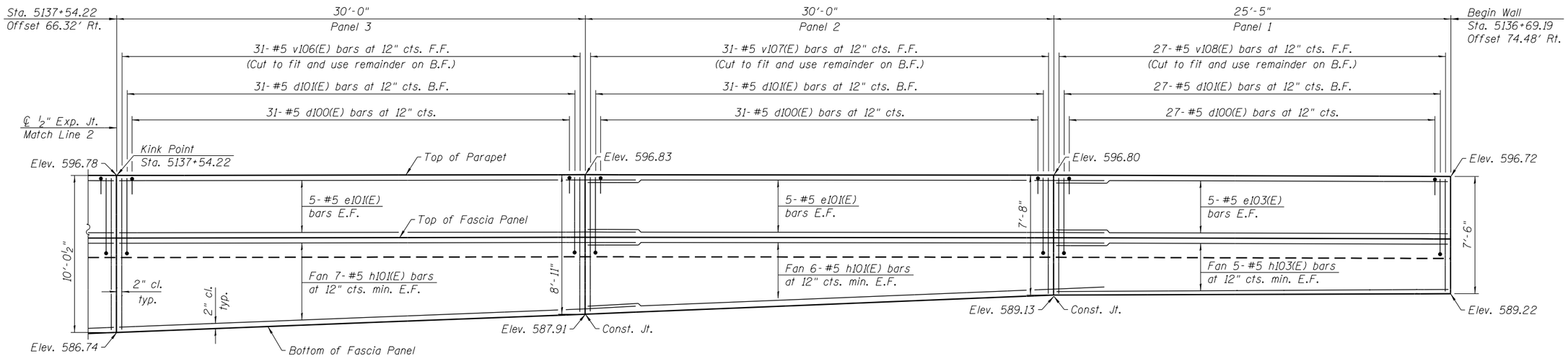
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

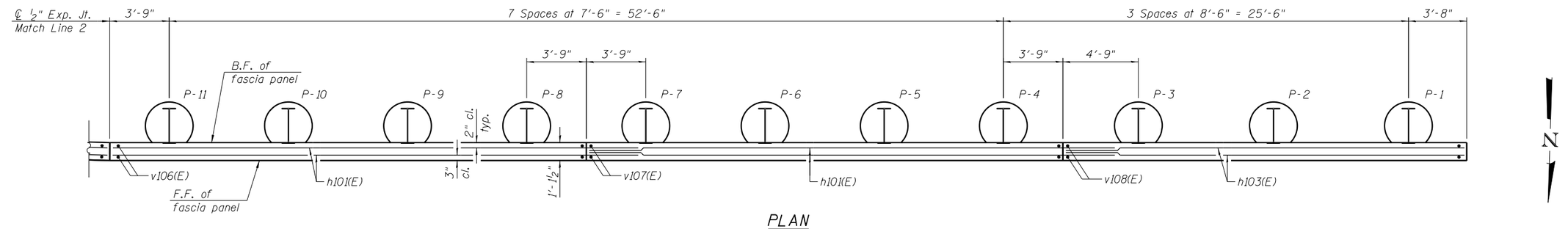
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION II
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-4 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	424
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



ELEVATION
(Looking South)



PLAN
(Parapet not shown for clarity)

Notes:

For soldier pile wall cross sections and details, see Sheet S1-6 of S1-12.

For soldier pile layout, sections and details and Bill of Material, see Sheet S1-7 of S1-12.

Based on the high squeeze potential of the clay soils, the use of temporary casing will be required down to Elev. 552.0 in order to properly construct the drilled shafts. Casing may be pulled or left in place, as determined by the contractor. Cost included with Drilling and Setting Soldier Piles (in soil).

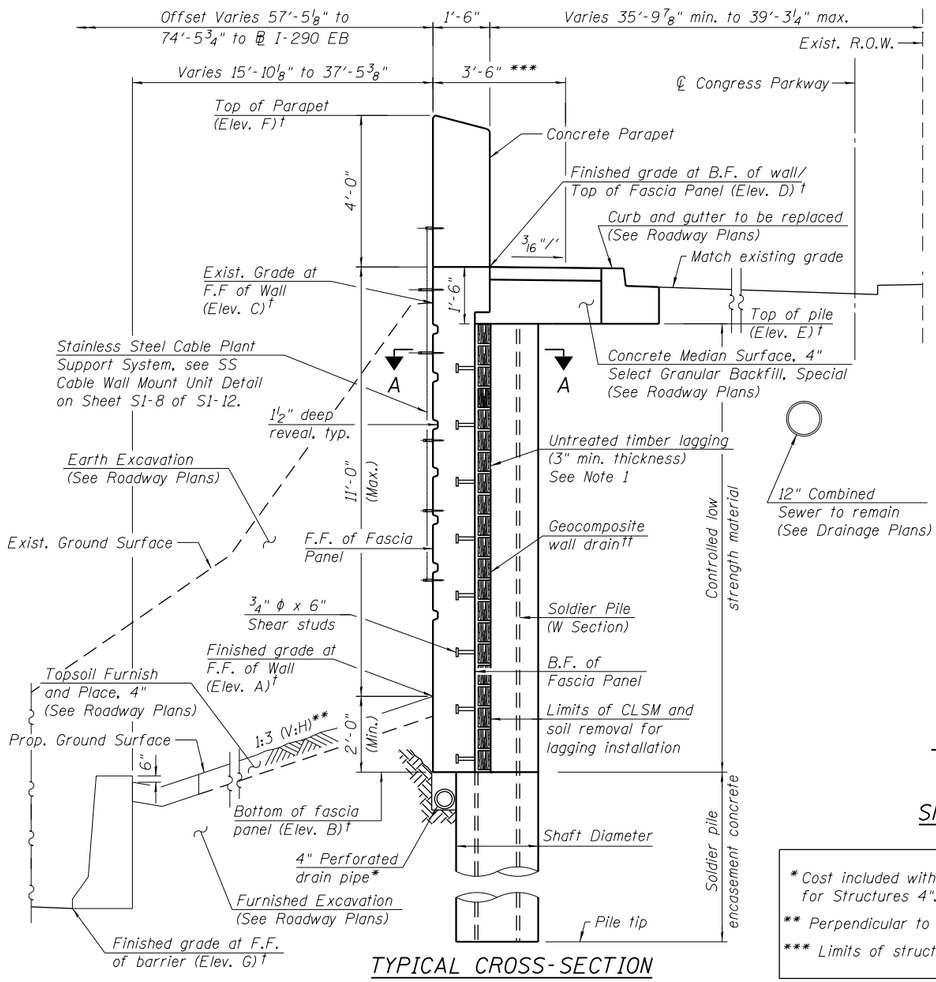
TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 7.0 '' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

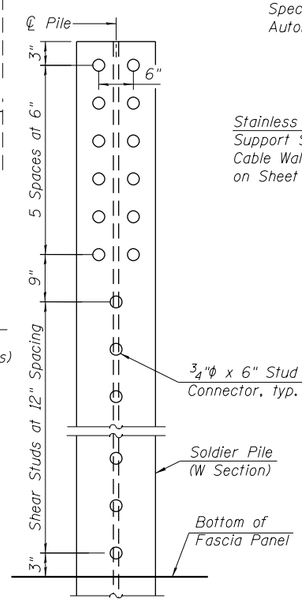
PLAN AND ELEVATION III
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-5 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	425
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

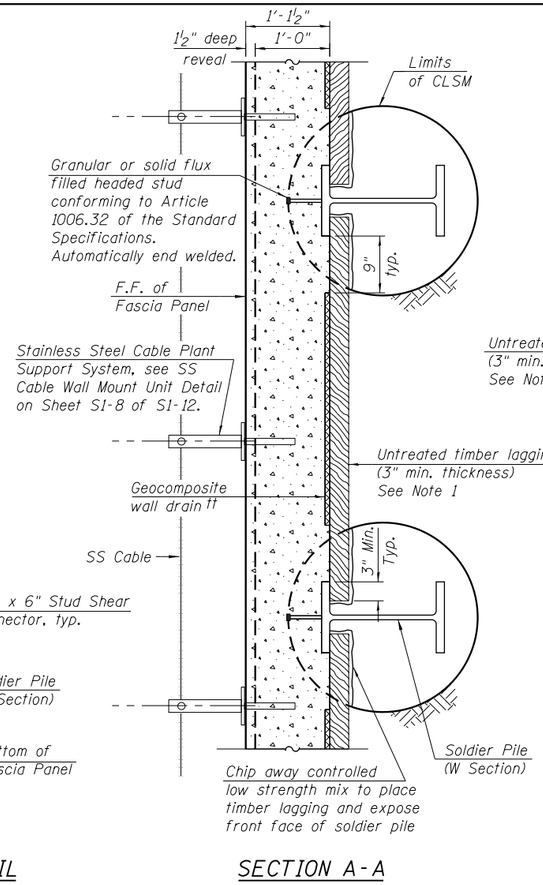


TYPICAL CROSS-SECTION

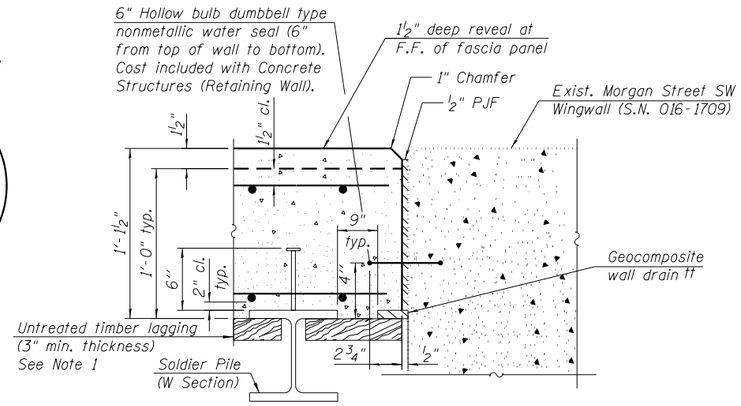
(Looking upstation, East)



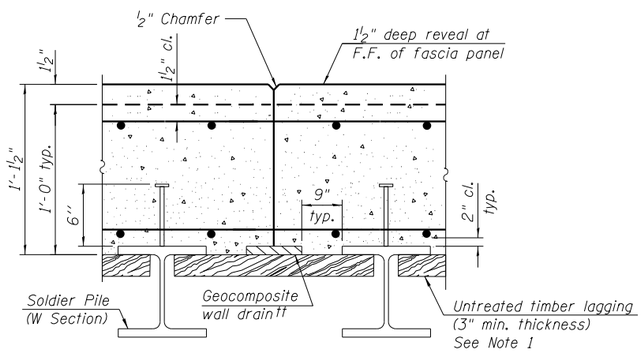
SHEAR STUD DETAIL



SECTION A-A



EXPANSION JOINT DETAIL AT MORGAN ST. WINGWALL



CONSTRUCTION JOINT DETAILS

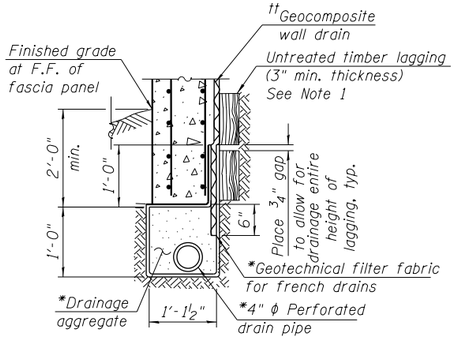
* Cost included with Pipe Underdrains for Structures 4".

** Perpendicular to ℄ I-290 EB

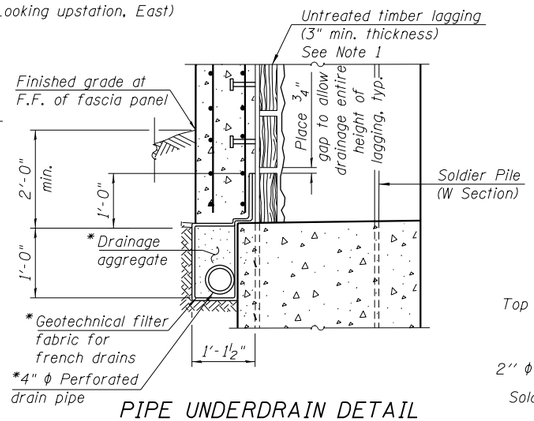
*** Limits of structure excavation

† See Elevations Table on Sheet S1-2.

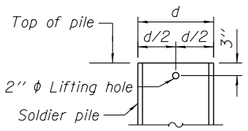
†† Geocomposite wall drain thickness shall not exceed 15/16".



PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES



PIPE UNDERDRAIN DETAIL AT SOLDIER PILE

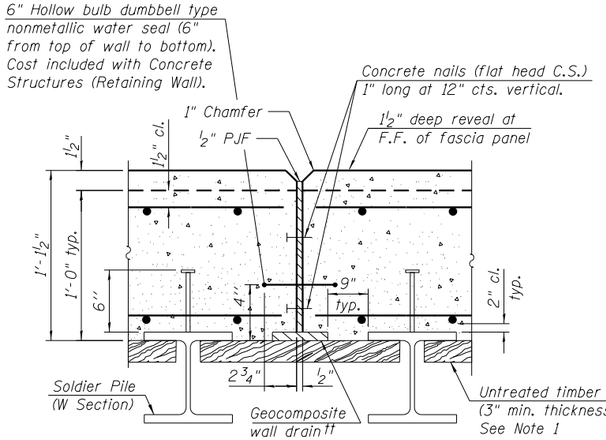


LIFTING HOLE DETAIL

Notes:

The Contractor is responsible for the design and performance of the lagging system, the deflection of the lagging shall be limited to 1" maximum using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi, until the concrete facing is installed. The Contractor shall submit design calculations and details prepared by an Illinois Licensed Structural Engineer for the attachment of the lagging to the shaft for approval by the Engineer. Alternative equivalent systems may be submitted for approval by the Engineer.

Install lagging and Geocomposite Wall Drain from top down as excavation proceeds. Minimize over-excavation and backfill voids with dry loose sand.



EXPANSION JOINT DETAILS

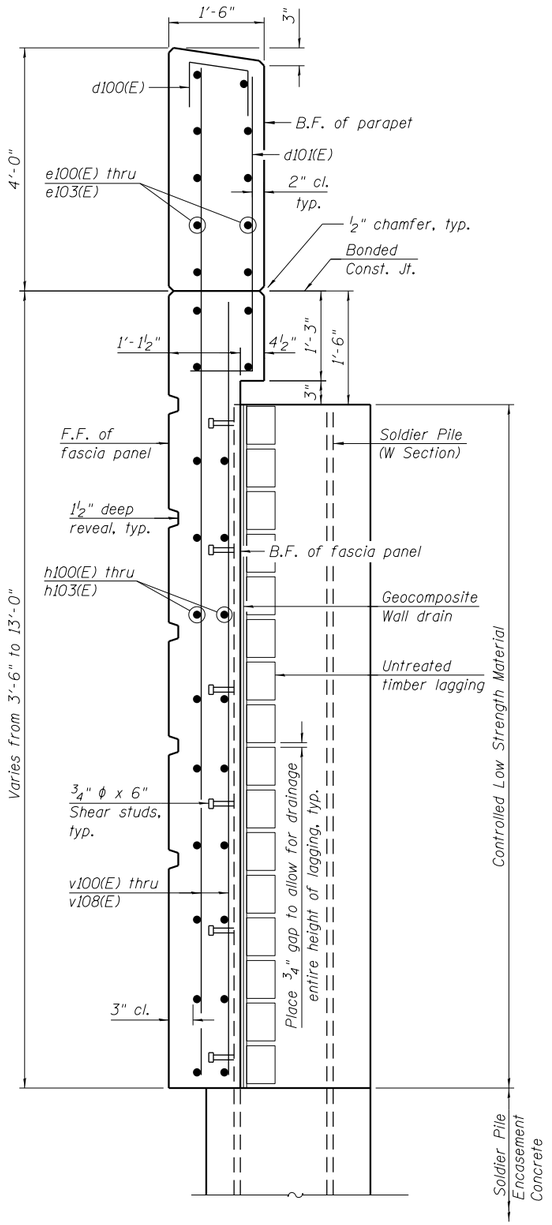
USER NAME = wjcollett1	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0.2 '/ in.	DRAWN - RVV	REVISED -	
PLOT DATE = 6/28/2017	CHECKED - WJC/MDS	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS I
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-6 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	426
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



TYPICAL SOLDIER PILE
WALL CROSS SECTION

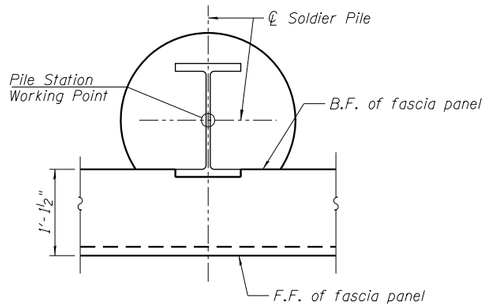
PILE LAYOUT

Pile	Station at Working Point	Offset	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Auger ϕ	Pile Tip El.	Pile Length
P-1	5136+73.05	76.31′ Rt.	596.73	591.23	589.21	W27X84	3′-0"	551.23	40′-0"
P-2	5138+81.51	75.50′ Rt.	596.76	591.26	589.18	W27X84	3′-0"	551.26	40′-0"
P-3	5136+89.97	74.68′ Rt.	596.79	591.29	589.15	W27X84	3′-0"	551.29	40′-0"
P-4	5136+98.43	73.87′ Rt.	596.81	591.31	588.98	W27X84	3′-0"	546.31	45′-0"
P-5	5137+05.90	73.16′ Rt.	596.81	591.31	588.67	W27X84	3′-0"	546.31	45′-0"
P-6	5137+13.37	72.44′ Rt.	596.82	591.32	588.37	W27X84	3′-0"	546.32	45′-0"
P-7	5137+20.83	71.72′ Rt.	596.83	591.33	588.06	W27X84	3′-0"	546.33	45′-0"
P-8	5137+28.30	71.01′ Rt.	596.82	591.32	587.76	W27X84	3′-0"	546.32	45′-0"
P-9	5137+35.76	70.29′ Rt.	596.81	591.31	587.47	W27X84	3′-0"	546.31	45′-0"
P-10	5137+43.23	69.57′ Rt.	596.80	591.30	587.18	W27X84	3′-0"	546.30	45′-0"
P-11	5137+50.69	68.86′ Rt.	596.79	591.29	586.89	W27X84	3′-0"	546.29	45′-0"
P-12	5137+58.11	68.25′ Rt.	596.78	591.28	586.60	W27X84	3′-0"	546.28	45′-0"
P-13	5137+65.59	67.74′ Rt.	596.79	591.29	586.33	W27X84	3′-0"	546.29	45′-0"
P-14	5137+73.07	67.24′ Rt.	596.80	591.30	586.05	W27X84	3′-0"	546.30	45′-0"
P-15	5137+80.56	66.73′ Rt.	596.81	591.31	585.78	W27X84	3′-0"	546.31	45′-0"
P-16	5137+86.63	66.44′ Rt.	596.85	591.35	585.57	W30X90	3′-0"	536.35	55′-0"
P-17	5137+92.70	66.03′ Rt.	596.93	591.43	585.37	W30X90	3′-0"	536.43	55′-0"
P-18	5138+00.81	65.48′ Rt.	597.04	591.54	585.12	W30X90	3′-0"	536.54	55′-0"
P-19	5138+08.91	64.95′ Rt.	597.15	591.65	584.86	W30X90	3′-0"	536.65	55′-0"
P-20	5138+17.01	64.42′ Rt.	597.27	591.77	584.59	W30X90	3′-0"	536.77	55′-0"
P-21	5138+25.11	63.91′ Rt.	597.41	591.91	584.31	W30X90	3′-0"	536.91	55′-0"
P-22	5138+32.52	63.45′ Rt.	597.54	592.04	584.06	W30X90	3′-0"	537.04	55′-0"
P-23	5138+39.92	63.00′ Rt.	597.67	592.17	583.81	W30X90	3′-0"	537.17	55′-0"
P-24	5138+47.33	62.56′ Rt.	597.81	592.31	583.56	W30X90	3′-0"	537.31	55′-0"
P-25	5138+54.73	62.12′ Rt.	597.95	592.45	583.33	W30X90	3′-0"	537.45	55′-0"
P-26	5138+62.14	61.70′ Rt.	598.09	592.59	583.09	W30X90	3′-0"	537.59	55′-0"
P-27	5138+69.55	61.29′ Rt.	598.23	592.73	582.85	W30X90	3′-0"	537.73	55′-0"
P-28	5138+76.97	61.02′ Rt.	598.39	592.89	582.64	W33X118	3′-6"	527.89	65′-0"
P-29	5138+84.38	60.63′ Rt.	598.55	593.05	582.45	W33X118	3′-6"	528.05	65′-0"
P-30	5138+90.18	60.36′ Rt.	598.66	593.16	582.31	W33X118	3′-6"	528.16	65′-0"
P-31	5138+96.03	60.19′ Rt.	598.74	593.24	582.16	W33X118	3′-6"	528.24	65′-0"
P-32	5139+05.43	59.92′ Rt.	598.86	593.36	581.93	W33X118	3′-6"	528.36	65′-0"

BILL OF MATERIAL

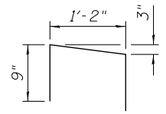
Bar	No.	Size	Length	Shape
d100(E)	249	#5	2′-8"	⌐
d101(E)	249	#5	5′-9"	⌐
e100(E)	30	#5	23′-7"	——
e101(E)	40	#5	33′-2"	——
e102(E)	10	#5	29′-8"	——
e103(E)	10	#5	25′-1"	——
h100(E)	108	#5	23′-7"	——
h101(E)	68	#5	33′-2"	——
h102(E)	18	#5	29′-8"	——
h103(E)	10	#5	25′-1"	——
v100(E)	20	#5	28′-7"	——
v101(E)	16	#5	27′-2"	——
v102(E)	31	#5	24′-9"	——
v103(E)	31	#5	21′-9"	——
v104(E)	31	#5	18′-11"	——
v105(E)	31	#5	16′-5"	——
v106(E)	31	#5	14′-2"	——
v107(E)	31	#5	11′-11"	——
v108(E)	27	#5	10′-6"	——

Structure Excavation	Cu. Yd.	165
Concrete Superstructure	Cu. Yd.	51.7
Stud Shear Connectors	Each	511
Reinforcement Bars, Epoxy Coated	Pound	15,550
Furnishing Soldier Piles (W Section)	Foot	1,645
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	12,668
Untreated Timber Lagging	Sq. Ft.	1,411
Concrete Structures (Retaining Wall)	Cu. Yd.	77.0
Concrete Sealer	Sq. Ft.	3,576
Geocomposite Wall Drain	Sq. Yd.	112
Slope Inclinometer	Each	1
Pipe Underdrain for Structures 4"	Foot	256



SOLDIER PILE WORKING POINT

BAR d101(E)



BAR d100(E)

Minimum Bar Laps	
Bar	Lap
#5	3′-2"

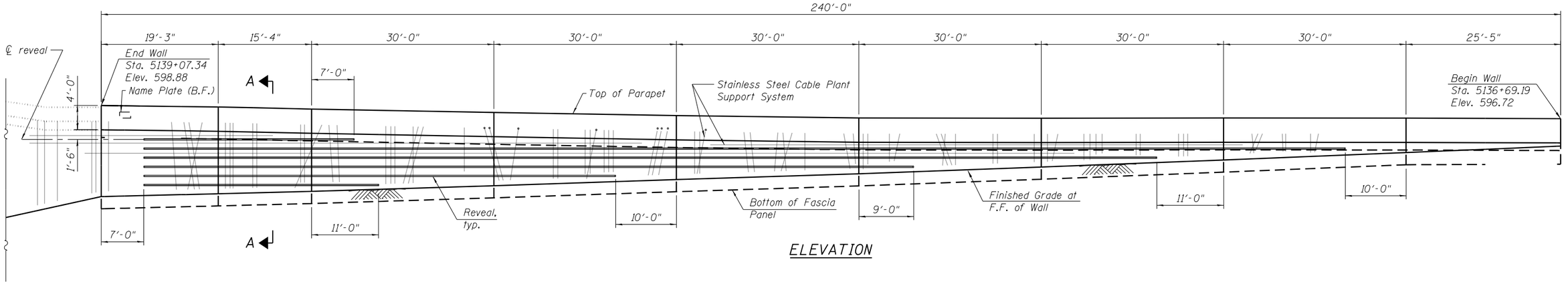
TranSystems

USER NAME = wjcolletti	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = Ø2 '1' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 6/15/2017	CHECKED - WJC/MDS	REVISED -

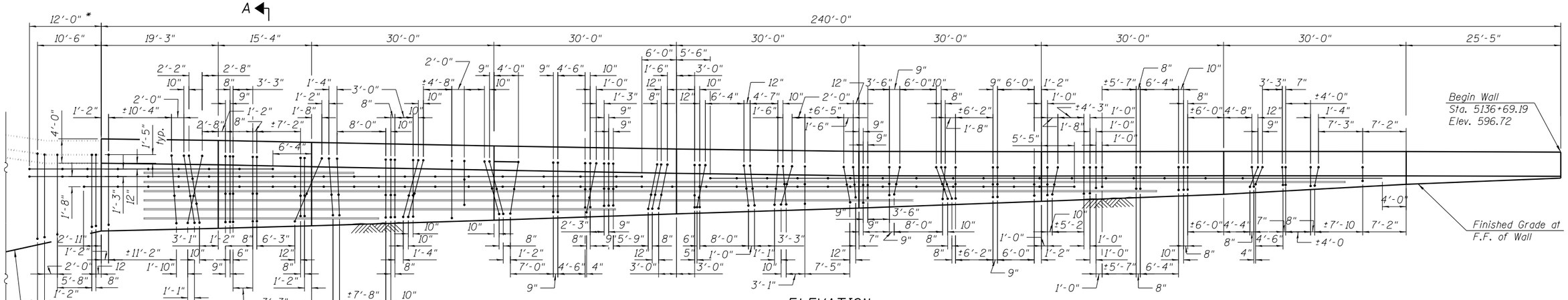
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS II
RETAINING WALL 9 (STRUCTURE NO. 016–1728)
SHEET NO. S1-7 OF S1-12 SHEETS

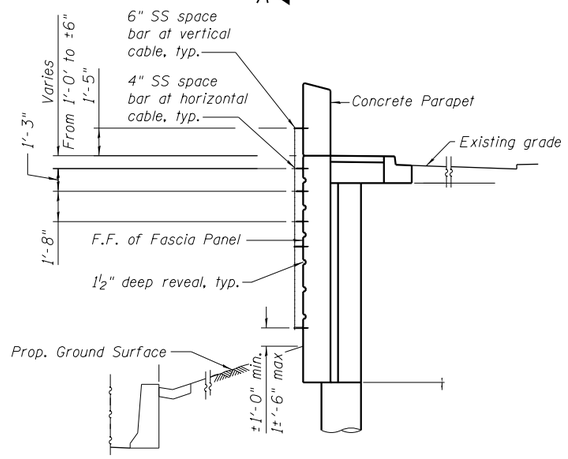
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	427
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		



ELEVATION

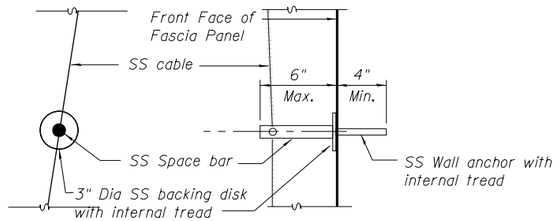


ELEVATION

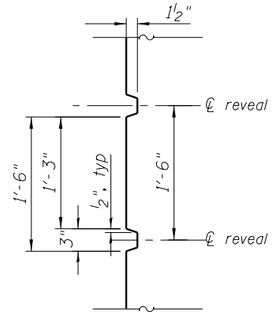


SECTON A

*Extend Stainless Steel Cable Plant Support System on existing wingwall



SS CABLE WALL MOUNT UNIT DETAIL



TYPICAL REVEAL DETAIL

Notes:

Reveals in Concrete Facing of Soldier Pile Wall will not be paid separately and will be included in the cost of the pay item Concrete Structures (Retaining Wall).

Contractor to submit shop drawings showing reveal layout for the proposed Retaining Wall 9.

Stainless steel cable system will be paid at a lump sum price for Stainless Steel Cable Plant Support System.

Locate bottom anchor 1'-0" minimum to 1'-6" maximum above finished grade.

Line up anchors as shown on elevation where possible, maintaining 6'-0" maximum spacing between anchor points.

Maintain minimum 6" between achors & control joint, and between anchors & reveals.

BILL OF MATERIAL

Item	Unit	Total
Stainless Steel Cable Plant Support System	L. Sum	1

Tran Systems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 16:8 ':' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS
RETAINING WALL 9 (STRUCTURE NO. 016–1728)
SHEET NO. S1-8 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	428
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9928

BORING LOG 09-RWB-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 592.77 ft
North: 1897829.07 ft
East: 1169716.82 ft
Station: 5138+17.30
Offset: 67.7001 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	592.0	9-inch thick CONCRETE --PAVEMENT--						
	591.3	Dark brown GRAVELLY SAND --BASE COURSE--						
		Very loose to loose, brown SANDY LOAM to SAND --FILL-- --Moist--		1	1	7 7 9	NP	13
			5	2	2	2 1 2	NP	23
				3	3	0 2 2	NP	20
	584.8	Stiff to very stiff, gray SILTY CLAY, trace gravel						
			10	4	4	1 4 4	2.13 B	19
				5	5	2 3 3	1.00 N/6	
	579.8	Very soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel --L_L(%)=38, P_L(%)=18-- --%Gravel=1.0-- --%Sand=7.6-- --%Silt=50.1-- --%Clay=41.2-- --A-6 (19)--						
			15	6	6	0 0 0	0.08 B	35
				7	7	0 0 0	0.08 B	26
			20	8	8	0 0 1	0.16 B	29
			25	9	9	0 0 0	0.16 B	29
				10	10	0 0 0	0.16 B	26
				11	11	0 0 1	0.25 B	27
			30	12	12	0 0 0	0.25 B	28
				13	13	1 2 2	0.25 B	25
			35	14	14	0 2 3	0.33 B	26

GENERAL NOTES

Begin Drilling: 10-21-2013 Complete Drilling: 10-21-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: P&N Logger: F. Bozga Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9928

BORING LOG 09-RWB-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 592.77 ft
North: 1897829.07 ft
East: 1169716.82 ft
Station: 5138+17.30
Offset: 67.7001 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45	15	15	1 2 3	0.49 B	28
	541.0	Very stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel						
			50	16	16	1 4 5	0.74 B	21
			55	17	17	6 11 14	7.22 B	13
			60	18	18	6 9 14	3.28 B	20
	526.0	Dense, gray SILTY LOAM, trace gravel						
			65	19	19	5 13 21	> 4.50 P	13
	521.0	Hard, gray SILTY CLAY LOAM, trace gravel						
			70	20	20	13 13 18	NP	11
	517.8	Boring terminated at 75.00 ft	75	21	21	17 22 35	8.61 B	13

GENERAL NOTES

Begin Drilling: 10-21-2013 Complete Drilling: 10-21-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: P&N Logger: F. Bozga Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 02.0000 '/ in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS I
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-9 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	429
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

10:35:36 PM- pw:\\617479-PWINT.aecomonline.local:AECOM_DS02_NA\Documents\01 Americas\Transportation\60269938 Circle\Phase_II\000_CAD\008_Structural\Structure_016-1728\Sheets\016-1728-60X76-S010-Boring_2.dgn

BORING LOG 09-RWB-02

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9928

WEI Job No.: 1100-04-01

Client: **AECOM**
Project: **Circle Interchange Reconstruction**
Location: **Section 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 592.53 ft
North: 1897819.70 ft
East: 1169570.52 ft
Station: 5136+72.06
Offset: 86.2604 RT

SOIL AND ROCK DESCRIPTION

Elevation (ft)	Description
592.3	3-inch thick ASPHALT --PAVEMENT--
591.6	8-inch thick CONCRETE --PAVEMENT--
	Loose, black and brown SANDY LOAM, trace gravel, slag, and brick fragments --FILL--
589.5	Loose, black and brown SILTY LOAM, trace gravel and brick fragments --FILL--
587.0	Medium stiff to very stiff, gray SILTY CLAY , trace gravel
579.5	Very soft to soft, gray CLAY to SILTY CLAY, trace gravel
	--In-Situ Vane Shear, 18.0 feet-- --$S_{u\,undis}$ = 725.2 psf-- --$S_{u\,remold}$ = 259.0 psf-- --Sensitivity = 2.80--
	--In-Situ Vane Shear, 33.0 feet-- --$S_{u\,undis}$ = 593.9 psf-- --$S_{u\,remold}$ = 440.3 psf-- --Sensitivity = 1.24--

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	4, 6, 3	NP	16
2	3, 3, 2	NP	20
3	1, 1, 2	0.41 B	23
4	2, 3, 9	2.13 B	24
5	2, 2, 2	0.74 B	23
6	0, 2, 1	0.25 B	20
7	0, 0, 0	0.25 B	25
1 (vane)			
8	1, 1, 1	0.16 B	26
9	0, 1, 2	0.33 B	27
10	0, 1, 1	0.08 B	26
11	0, 1, 1	0.33 B	28
12	0, 1, 2	0.16 B	28
2 (vane)			
13	0, 0, 1	< 0.25 P	26
14	0, 0, 1	0.33 B	27

Depth (ft): 5, 10, 15, 20, 25, 30, 35, 40

GENERAL NOTES

Begin Drilling **10-17-2013** Complete Drilling **10-17-2013**
Drilling Contractor **Wang Testing Services** Drill Rig **CME-55 TMR**
Driller **R&J** Logger **A. Tomaras** Checked by **C. Marin**
Drilling Method **3.25" HSA to 35', mud rotary thereafter, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **Rotary wash**
At Completion of Drilling **unable to measure**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 11000401.GPJ WANGENG.GDT 6/17/16

BORING LOG 09-RWB-02

Wang Engineering
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WEI Job No.: 1100-04-01

Client: **AECOM**
Project: **Circle Interchange Reconstruction**
Location: **Section 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 592.53 ft
North: 1897819.70 ft
East: 1169570.52 ft
Station: 5136+72.06
Offset: 86.2604 RT

SOIL AND ROCK DESCRIPTION

Elevation (ft)	Description
540.8	Very stiff to hard, gray CLAY to SILTY CLAY LOAM, trace gravel
	--L_L(%)=33, P_L(%)=15-- --%Gravel=4.4-- --%Sand=18.3-- --%Silt=47.5-- --%Clay=29.8-- --A-6 (12)--
525.8	Medium dense, gray SILT, trace gravel --Moist--
	--HARD DRILLING-- *--Possible Cobbles--*
520.8	Hard, gray SILTY CLAY LOAM to SILTY LOAM, trace gravel
517.5	Boring terminated at 75.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
15	2, 2, 7	0.41 B	28
16	2, 3, 4	0.41 B	23
17	5, 7, 18	3.94 B	18
18	7, 12, 18	4.76 B	17
19	12, 15, 19	6.07 B	13
20	14, 9, 14	NP	22
21	30, 34, 48	4.10 S	11

Depth (ft): 45, 50, 55, 60, 65, 70, 75, 80

GENERAL NOTES

Begin Drilling **10-17-2013** Complete Drilling **10-17-2013**
Drilling Contractor **Wang Testing Services** Drill Rig **CME-55 TMR**
Driller **R&J** Logger **A. Tomaras** Checked by **C. Marin**
Drilling Method **3.25" HSA to 35', mud rotary thereafter, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **Rotary wash**
At Completion of Drilling **unable to measure**
Time After Drilling **NA**
Depth to Water **NA**

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 11000401.GPJ WANGENG.GDT 6/17/16

TranSystems	USER NAME = vljanachione	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 0:2.0000 ':' / in.	DRAWN - RVV	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS II
RETAINING WALL 9 (STRUCTURE NO. 016–1728)
SHEET NO. S1-10 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	430

CONTRACT NO. 60X76
ILLINOIS FED. AID PROJECT

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BORING LOG 09-VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 592.47 ft
North: 1897809.96 ft
East: 1169707.60 ft
Station: 5138+09.37
Offset: 87.3373 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	592.2	3-inch thick, ASPHALT --PAVEMENT--						
	591.2	12-inch thick, CONCRETE --PAVEMENT--						
	591.0	3-inch thick, CRUSHED STONE --BASE COURSE--						
		Loose to medium dense, brown, fine SAND						
		--FILL-- --Moist--		1	5 8 8	NP	13	
			5	2	4 3 2	NP	19	
	587.0	Medium stiff, gray SILTY CLAY, trace gravel						
				3	2 2 3	0.98 B	24	
			10	4	2 2 3	0.98 B	25	
				5	2 2 2	0.98 B	22	
	579.5	Very soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel						
			15	6	1 1 1	< 0.25 P	38	
		--In-Situ Vane Shear, 18.5 feet-- $S_{u\,undis}$ = 568.7 psf-- $S_{u\,remold}$ = 258.5 psf-- --Sensitivity = 2.2--	20	1	VS			
		--In-Situ Vane Shear, 23.5 feet-- $S_{u\,undis}$ = 620.4 psf-- $S_{u\,remold}$ = 310.2 psf-- --Sensitivity = 2.0--	25	2	VS			
		--In-Situ Vane Shear, 28.5 feet-- $S_{u\,undis}$ = 723.8 psf-- $S_{u\,remold}$ = 361.9 psf-- --Sensitivity = 2.0--	30	3	VS			
		--In-Situ Vane Shear, 33.5 feet-- $S_{u\,undis}$ = 620.4 psf-- $S_{u\,remold}$ = 361.9 psf-- --Sensitivity = 1.71--	35	4	VS			
		--In-Situ Vane Shear, 38.5 feet-- $S_{u\,undis}$ = 672.1 psf-- $S_{u\,remold}$ = 413.6 psf-- --Sensitivity = 1.62--	40	5	VS			

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

GENERAL NOTES

Begin Drilling: 10-14-2014 Complete Drilling: 10-14-2014
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: K&K Logger: D. Kolpacki Checked by: CLM (-Coord)
Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 4.50 ft
At Completion of Drilling: ▼ unable to measure
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 09-VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 592.47 ft
North: 1897809.96 ft
East: 1169707.60 ft
Station: 5138+09.37
Offset: 87.3373 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	551.7	Stiff to hard, gray SILTY CLAY LOAM, trace gravel						
		--In-Situ Vane Shear, 43.5 feet-- $S_{u\,undis}$ = 1085.7 psf-- $S_{u\,remold}$ = 620.4-- --Sensitivity = 1.75--	45	6	VS			
		--In-Situ Vane Shear, 48.5 feet-- $S_{u\,undis}$ = 1085.7 psf-- $S_{u\,remold}$ = 672.1 psf-- --Sensitivity = 1.62--	50	7	VS			
		--In-Situ Vane Shear, 54.5 feet-- $S_{u\,undis}$ = >3100 psf-- $S_{u\,remold}$ = NA-- --Sensitivity = NA--	55	8	VS			
	532.5	Boring terminated at 60.00 ft	60	7		9 11 14	4.35 B	14

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

GENERAL NOTES

Begin Drilling: 10-14-2014 Complete Drilling: 10-14-2014
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: K&K Logger: D. Kolpacki Checked by: CLM (-Coord)
Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 4.50 ft
At Completion of Drilling: ▼ unable to measure
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS III
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-11 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	431
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG VST-05

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.13 ft
North: 1897881.32 ft
East: 1169174.65 ft
Station: 5132+73.09
Offset: 49.755 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		Loose, brown fine SAND --FILL--						
	588.9							
		Stiff, gray SILTY CLAY, trace gravel --FILL--	5		1	5 5 3	1.56 S	16
	586.4							
		Medium stiff to very stiff, gray SILTY CLAY, trace sand and gravel	10		2	3 4 6	2.78 B	23
			15		3	2 2 4	0.82 B	13
	577.4							
		--In-Situ Vane Shear, 17.5 feet-- $S_{u\,undis}$ = 1070.2 psf-- $S_{u\,remold}$ = 480.5 psf-- --Sensitivity = 2.2--			1	VS		
		--In-Situ Vane Shear, 19.5 feet--	20		2			
		--$S_{u\,undis}$ = 513.3 psf-- --$S_{u\,remold}$ = 349.5 psf-- --Sensitivity = 1.5--			VS			
		--In-Situ Vane Shear, 22.0 feet-- --$S_{u\,undis}$ = 469.6 psf-- --$S_{u\,remold}$ = 267.6 psf-- --Sensitivity = 1.8--			3	VS		
		--In-Situ Vane Shear, 24.5 feet--	25		4	VS		
		--In-Situ Vane Shear, 24.5 feet-- --$S_{u\,undis}$ = 486.0 psf-- --$S_{u\,remold}$ = 267.6 psf-- --Sensitivity = 1.8--						
		--In-Situ Vane Shear, 27.0 feet-- --$S_{u\,undis}$ = 540.6 psf-- --$S_{u\,remold}$ = 322.2 psf-- --Sensitivity = 1.7--			5	VS		
		--In-Situ Vane Shear, 29.5 feet--	30		6	VS		
		--In-Situ Vane Shear, 29.5 feet-- --$S_{u\,undis}$ = 737.2 psf-- --$S_{u\,remold}$ = 371.3 psf-- --Sensitivity = 2.0--						
		--In-Situ Vane Shear, 32.0 feet-- --$S_{u\,undis}$ = 589.7 psf-- --$S_{u\,remold}$ = 404.1 psf-- --Sensitivity = 1.5--			7	VS		
		--In-Situ Vane Shear, 34.5 feet--	35		8	VS		
		--In-Situ Vane Shear, 34.5 feet-- --$S_{u\,undis}$ = 600.6 psf-- --$S_{u\,remold}$ = 447.8 psf-- --Sensitivity = 1.3--						
		--In-Situ Vane Shear, 37.0 feet-- --$S_{u\,undis}$ = 742.6 psf-- --$S_{u\,remold}$ = 502.4 psf-- --Sensitivity = 1.5--			9	VS		
		--In-Situ Vane Shear, 39.5 feet--	40		10			

GENERAL NOTES

Begin Drilling: 12-03-2015 Complete Drilling: 12-03-2015
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&N Logger: A. Kurnia Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

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BORING LOG VST-05

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.13 ft
North: 1897881.32 ft
East: 1169174.65 ft
Station: 5132+73.09
Offset: 49.755 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--$S_{u\,undis}$ = 917.3 psf-- --$S_{u\,remold}$ = 666.2 psf-- --Sensitivity = 1.4--			VS			
		--In-Situ Vane Shear, 42.0 feet-- --$S_{u\,undis}$ = 917.3 psf-- --$S_{u\,remold}$ = 567.9 psf-- --Sensitivity = 1.6--			11	VS		
	548.1	--In-Situ Vane Shear, 44.5 feet-- --$S_{u\,undis}$ = 764.5 psf-- --$S_{u\,remold}$ = 371.3 psf-- --Sensitivity = 2.1--	45		12	VS		
		Boring terminated at 45.00 ft	50					
			55					
			60					

GENERAL NOTES

Begin Drilling: 12-03-2015 Complete Drilling: 12-03-2015
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&N Logger: A. Kurnia Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 6/17/16

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 02.0000 '/ in.	DRAWN - RVV	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

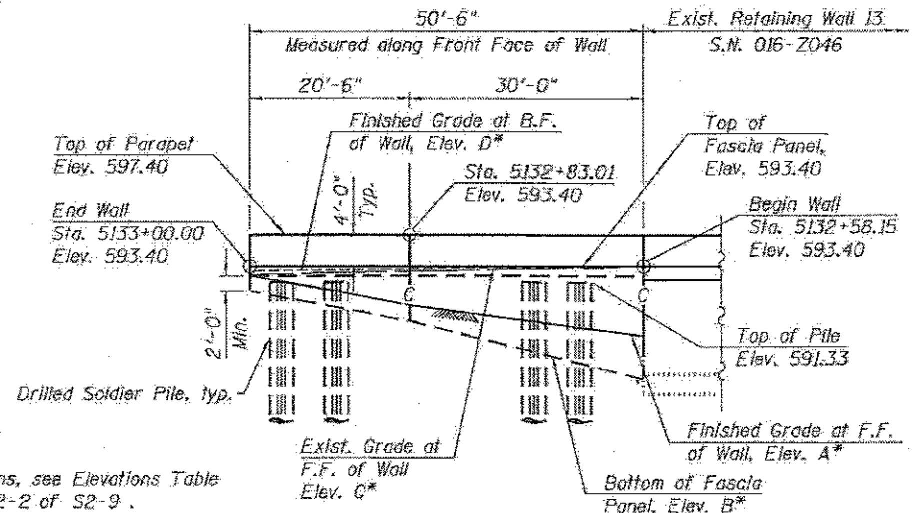
BORING LOGS IV
RETAINING WALL 9 (STRUCTURE NO. 016-1728)
SHEET NO. S1-12 OF S1-12 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	432
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elevation 593.07.

Existing Structure: Existing Retaining Wall 13. Constructed in 1955 under U.I. 261 (101) F.A. Route 131; Section 2525-103. Reinforced concrete wall on timber piles. Total length of 974'-3" from Racine Avenue to Morgan Street. Height varies 2'-1" to 17'-11". The existing retaining wall is to be removed from Station 5132+58.15 to the east. See Existing Retaining Wall 13 Plans (SN 016-Z046).

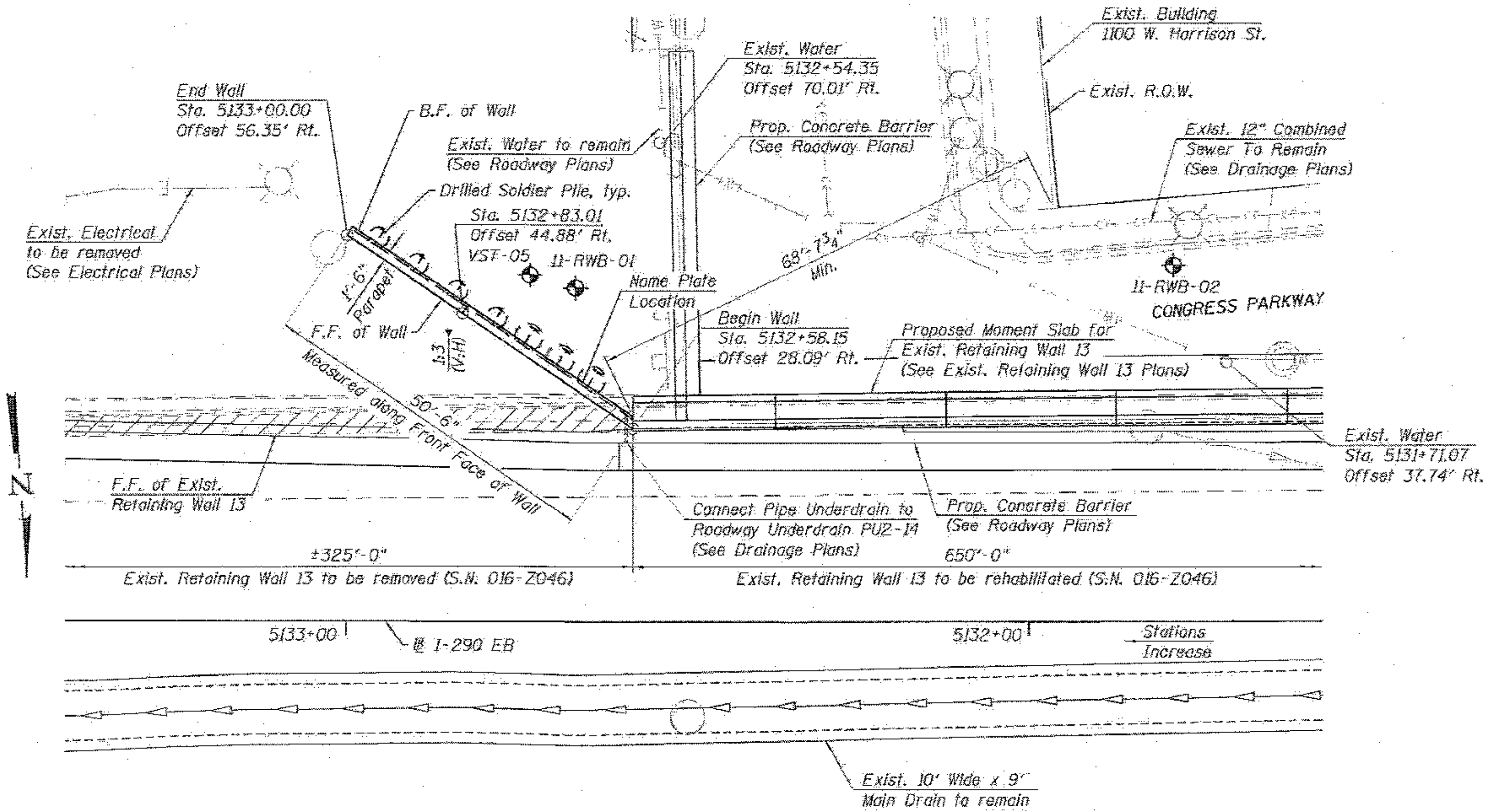
Traffic is to be maintained during construction.



* For elevations, see Elevations Table on Sheet S2-2 of S2-9 .

ELEVATION

(Looking Southwest at F.F. of Wall, Proposed Concrete Barrier not shown for clarity.)



PLAN

LEGEND:

- Ex. Chain Link Fence — X — X — X — X
- Combined Sewer
- Electric — E — E — E
- Ex. Storm Sewer
- Prop. Storm Sewer
- Water — W —
- Ex. ITS Cable
- Soil Boring
- Exist. Retaining Wall 13 to be removed (See Exist. Retaining Wall 13 Plans)

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications 7th Edition with 2015 and 2016 Interim Specifications

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

SOLDIER PILES

fy = 50,000 psi (AASHTO M270 Gr. 50)

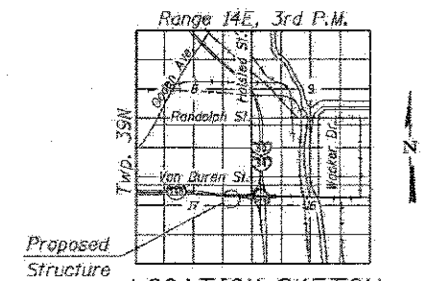
APPROVED
For Structural Adequacy Only

Engineer of Bridges & Structures

MATTHEW D. SANTEFORD 081-007244 LICENSED STRUCTURAL ENGINEER OF STATE OF ILLINOIS

06/27/2017

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2018



LOCATION SKETCH

Notes:
Wall offsets are measured from the ℄ of F.A.I. Rte. 290 EB to the front face of cast-in-place fascia panels.
C denotes Construction Joint
E denotes Expansion Joint
F.F. denotes Front Face.
B.F. denotes Back Face.
See Exist. Retaining Wall 13 (S.N. 016-Z046) plans for additional details.

GENERAL PLAN AND ELEVATION
RETAINING WALL 11 ALONG
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 5132+58.15 TO STATION 5133+00.00
STRUCTURE NO. 016-1800

TranSystems

USER NAME = wjcollette	DESIGNED - WJC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - TLR	REVISED -	
PLOT SCALE = 24.00 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 6/26/2017	CHECKED - TLR/MDS	REVISED -	SHEET NO. S2-1 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	433
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

2. Reinforcement bars designated (E) shall be epoxy coated.

3. Concrete Sealer shall be applied to exposed surfaces of the panels and parapet.

4. Any portions of existing retaining wall foundations interfering with the new construction shall be removed.

5. The Contractor shall exercise extreme caution during existing wall removal and proposed wall construction to make certain that removal/construction activities and loads will not have detrimental effects on the existing buildings and utilities. See Special Provision for Construction Vibration Monitoring.

6. The contractor shall provide vibration and displacement monitoring at the locations specified in the Special Provision for Construction Vibration Monitoring, to ensure that removal/construction activities in the vicinity of the structures do not have detrimental effects on building foundations. No additional compensation shall be provided to the Contractor for alternative means and methods, or additional precautionary measures, required during removal/construction activities to satisfy these requirements. See Contract Special Provisions for details.

7. In addition to vibration and displacement monitoring, the contractor shall monitor ground movement by means of slope indicators. At least one inclinometer shall be utilized near each of the buildings adjacent to Retaining Wall 11 (S.N. 016-1800). See Special Provision for Construction Vibration Monitoring for details.

8. Slipforming of the parapets is not allowed.

9. Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The contractor will not be compensated for issues related to the groundwater elevation.

10. The Contractor shall provide a method to assure the soldier piles achieve at least the plan tip elevations. The soldier pile locations and elevations shall meet the tolerances provided in the Special Provisions. Any additional measures required to satisfy the construction tolerances will not be paid for separately but shall be included in Drilling and Setting Soldier Piles (in Soil).

11. Soldier piles shall be cleaned and given one shop coat of Inorganic Zinc Rich Primer. Cost included with Furnishing Soldier Piles (W Section).

12. The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater spoils resulting from Contractor's means and methods. No additional cost will be paid for this effort.

ELEVATIONS TABLE

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E
5132+58.15	28.09' Rt.	584.54	579.03	593.33	593.35	581.03
5132+83.01	44.88' Rt.	588.43	586.43	592.76	593.09	581.00
5133+00.00	56.35' Rt.	592.20	590.20	592.38	592.83	580.96

Elevation A- Finished Grade at Front Face of Wall
Elevation B- Bottom of Fascia Panel
Elevation C- Existing Grade at Front Face of Wall
Elevation D- Finished Grade at Back Face of Wall
Elevation E- Finished Grade at Front Face of Barrier

TOTAL BILL OF MATERIAL

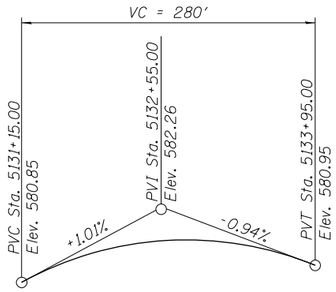
Item	Unit	Total Quantity
Structure Excavation	Cu. Yd.	36
Concrete Superstructure	Cu. Yd.	10.9
Stud Shear Connectors	Each	48
Reinforcement Bars, Epoxy Coated	Pound	4,420
Name Plates	Each	1
Furnishing Soldier Piles (W Section)	Foot	415
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	4,108
Untreated Timber Lagging	Sq. Ft.	291
Concrete Structures (Retaining Wall)	Cu. Yd.	19.0
Concrete Sealer	Sq. Ft.	754
Geocomposite Wall Drain	Sq. Yd.	24
Slope Inclinometer	Each	1
Pipe Underdrains For Structures 4"	Foot	55

INDEX OF SHEETS

STATION 5132+58.15 TO 5133+00.00
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RTE. 290-SEC. 2014-002R&B
LOADING HL-93
STRUCTURE NO. 016-1800

NAME PLATE

See Std. 515001



PROFILE GRADE

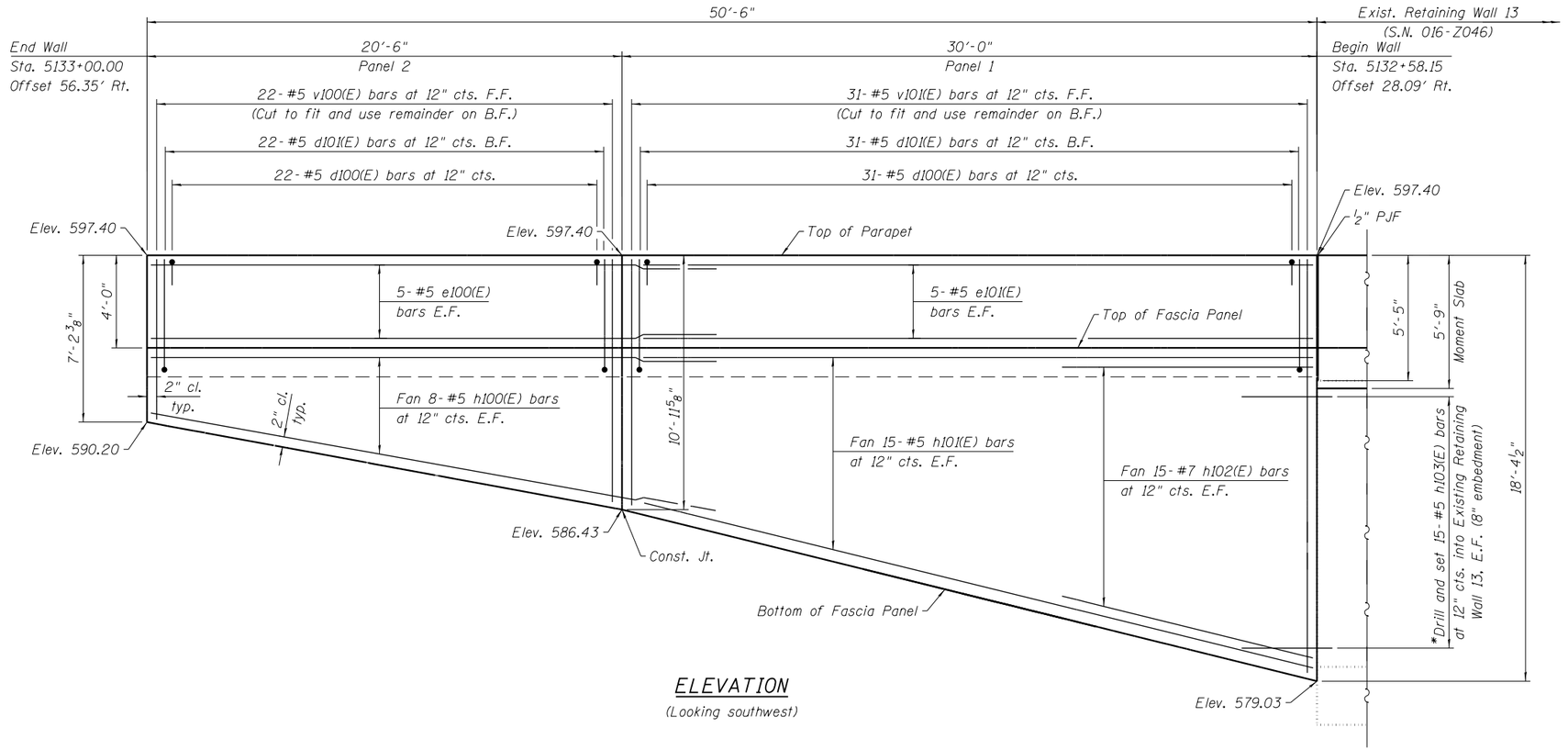
(Along ℄ I-290 EB)

TranSystems	USER NAME = wjcollett1	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 0:2.0000 '' / in.	DRAWN - WJC	REVISED -
	PLOT DATE = 6/27/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-2 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	434
		CONTRACT NO. 60X76		
		ILLINOIS	FED. AID PROJECT	



ELEVATION

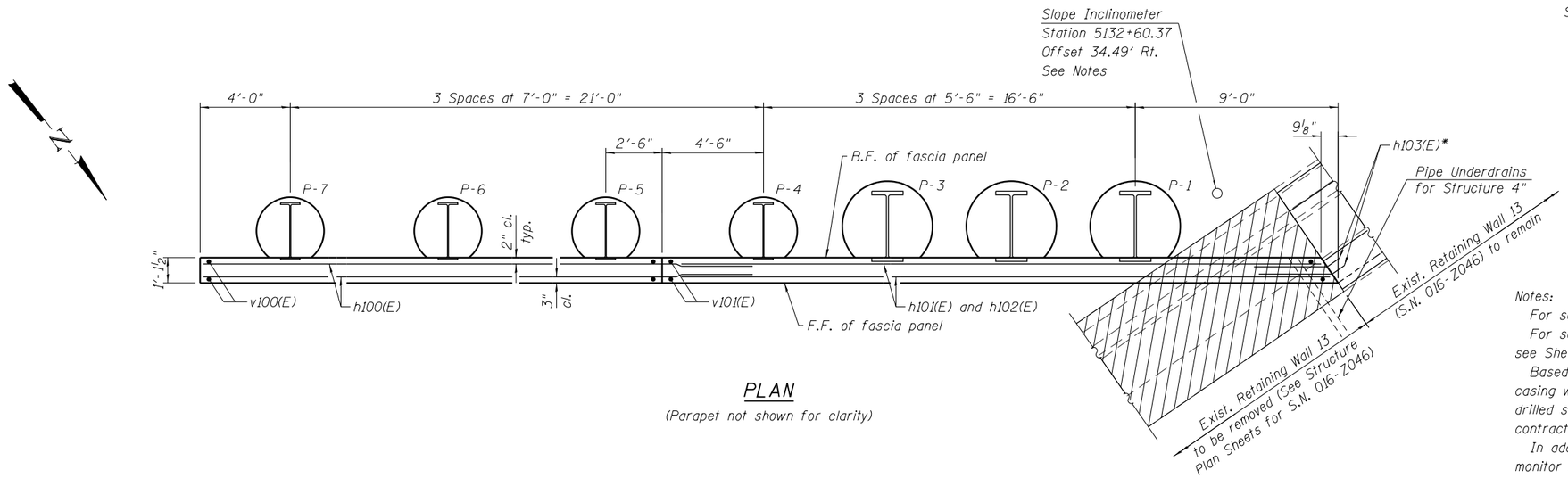
(Looking southwest)

LEGEND:

E.F. = Each Face
B.F. = Back Face
F.F. = Front Face

Existing Retaining Wall 13 Removal (See Existing Retaining Wall 13 (S.N. 016-Z046) Plans)

*Note: Drill and epoxy grout. Cost included with Concrete Structures (Retaining Wall). Installation per Section 584 of the Standard Specifications.



PLAN

(Parapet not shown for clarity)

Notes:

For soldier pile wall cross section and details, see Sheet S2-4 of S2-9.

For soldier pile layout, sections and details and Bill of Material, see Sheet S2-5 of S2-9.

Based on the high squeeze potential of the clay soils, the use of temporary casing will be required down to Elev. 560.0 in order to properly construct the drilled shafts. Casing may be pulled or left in place, as determined by the contractor. Cost included with Drilling and Setting Soldier Piles (in soil).

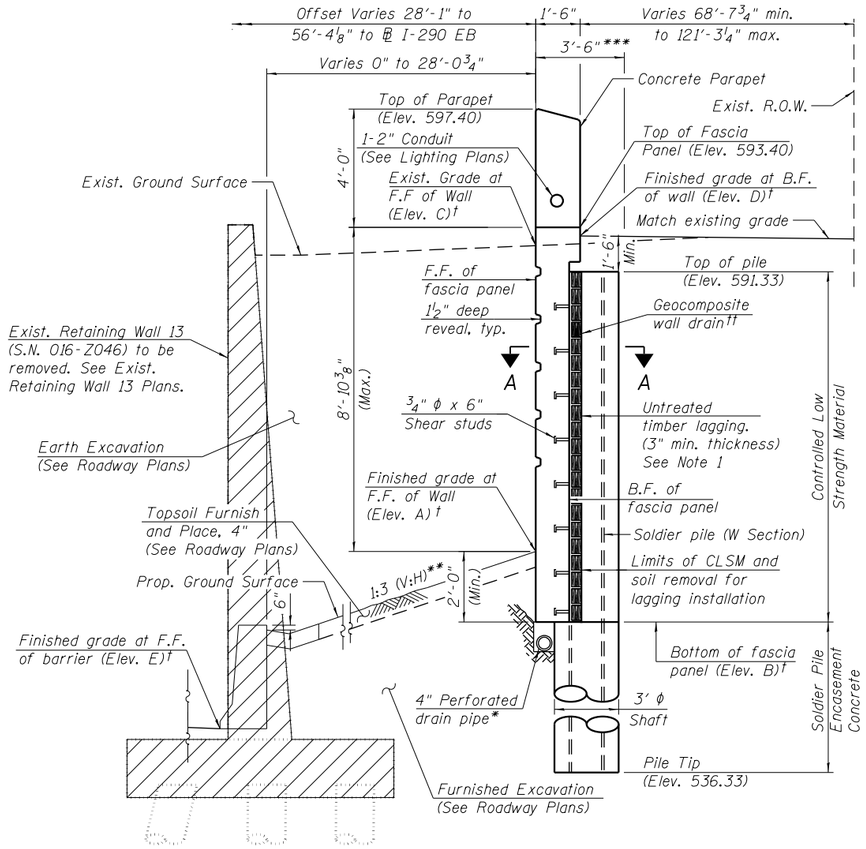
In addition to vibration and displacement monitoring, the Contractor shall monitor movements with Slope Inclinometers. All inclinometers shall be installed prior to drilling. See special provisions for Slope Inclinometers.

TranSystems	USER NAME = wjcollett1	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 6.00 ' / in.	DRAWN - WJC	REVISED -
	PLOT DATE = 6/27/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

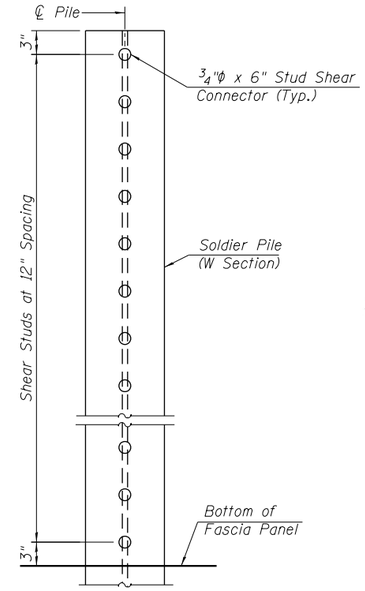
PLAN AND ELEVATION
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-3 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	435
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

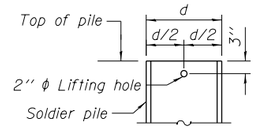


TYPICAL CROSS-SECTION

(Looking upstation, Southeast)



SHEAR STUD DETAIL



LIFTING HOLE DETAIL

SUGGESTED WALL CONSTRUCTION SEQUENCE

Work with Existing Retaining Wall 13 (S.N. 016-Z046) plans.

1. Drill and set soldier piles.
2. Remove portion of Existing Retaining Wall 13 and excavate to install timber lagging.
3. Construct concrete fascia panels and parapet.

Notes:

1. The Contractor is responsible for the design and performance of the lagging system, the deflection of the lagging shall be limited to 1" maximum using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi, until the concrete facing is installed. The Contractor shall submit design calculations and details prepared by an Illinois Licensed Structural Engineer for the attachment of the lagging to the shaft for approval by the Engineer. Alternative equivalent systems may be submitted for approval by the Engineer.
2. Install lagging and Geocomposite Wall Drain from top down as excavation proceeds. Minimize over-excavation and backfill voids with dry loose sand.

LEGEND:

Limits of Removal

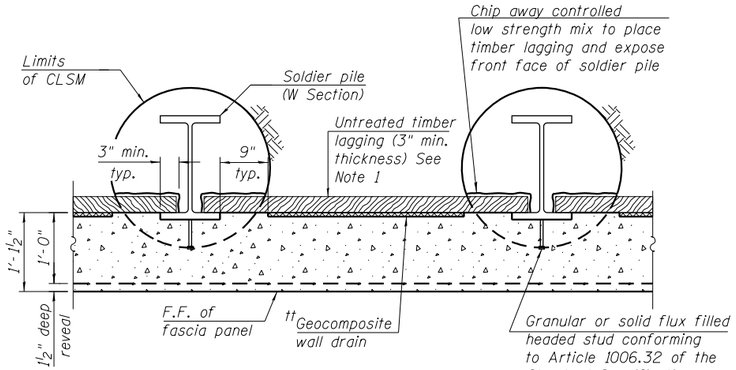
* Cost included with Pipe Underdrains for Structures 4".

** Perpendicular to ℄ I-290 EB

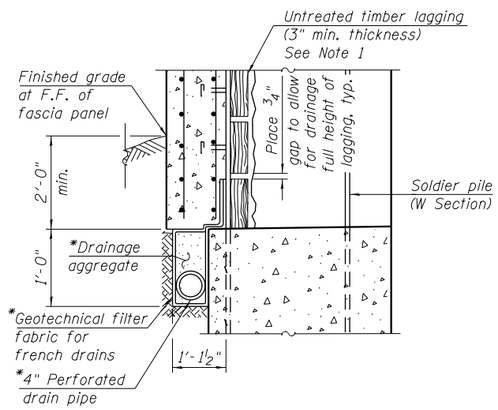
*** Limits of Structure Excavation

† See Elevations Table on Sheet S2-2.

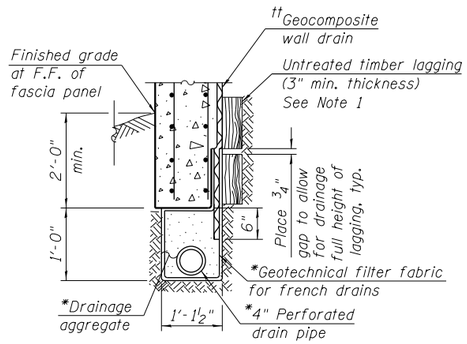
†† Geocomposite wall drain thickness shall not exceed 15/16".



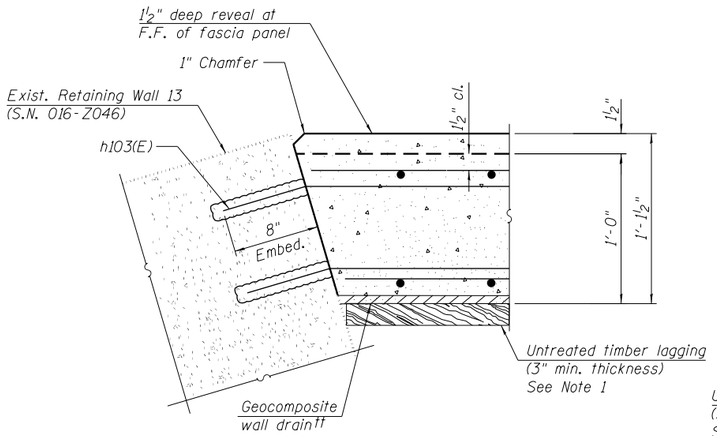
SECTION A-A



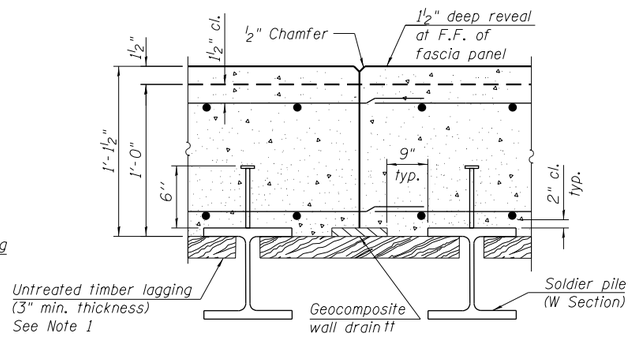
PIPE UNDERDRAIN DETAIL AT SOLDIER PILE



PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES



CONSTRUCTION JOINT DETAIL AT EXISTING RETAINING WALL 13



CONSTRUCTION JOINT DETAILS

USER NAME = wjcolletti	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0.2 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 6/28/2017	CHECKED - TLR/MDS	REVISED -	

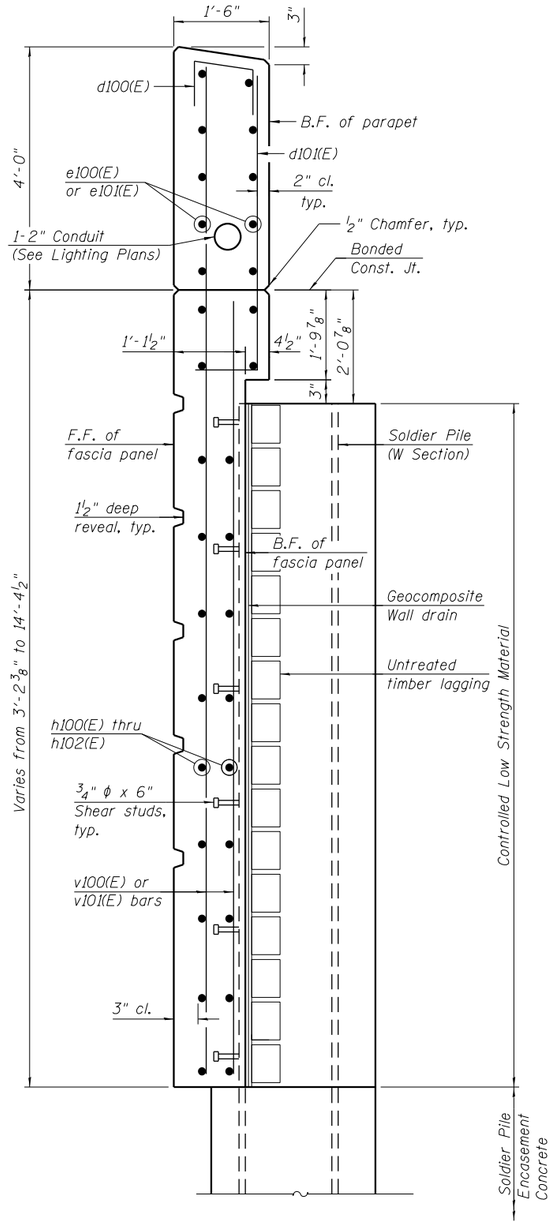
TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS I
RETAINING WALL 11 (STRUCTURE NO. 016-1800)

SHEET NO. S2-4 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	436
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



TYPICAL SOLDIER PILE
WALL CROSS SECTION

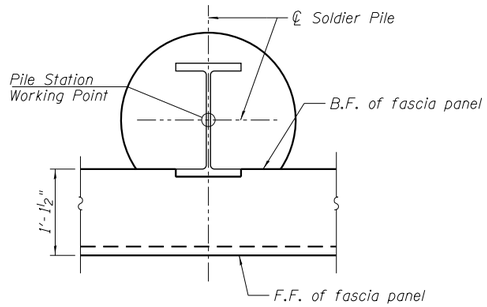
PILE LAYOUT

Pile	Station at Working Point	Offset	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Auger ϕ	Pile Tip El.	Pile Length
P-1	5132+64.20	35.21' Rt.	597.40	591.33	581.25	W36X361	4'-0"	526.33	65'-0"
P-2	5132+68.76	38.29' Rt.	597.40	591.33	582.61	W36X361	4'-0"	526.33	65'-0"
P-3	5132+73.32	41.36' Rt.	597.40	591.33	583.96	W36X361	4'-0"	526.33	65'-0"
P-4	5132+77.99	44.27' Rt.	597.40	591.33	585.32	W30X90	3'-0"	536.33	55'-0"
P-5	5132+83.79	48.18' Rt.	597.40	591.33	586.89	W30X90	3'-0"	536.33	55'-0"
P-6	5132+89.59	52.1' Rt.	597.40	591.33	588.18	W30X90	3'-0"	536.33	55'-0"
P-7	5132+95.40	56.02' Rt.	597.40	591.33	589.47	W30X90	3'-0"	536.33	55'-0"

BILL OF MATERIAL

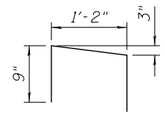
Bar	No.	Size	Length	Shape
d100(E)	53	#5	2'-8"	
d101(E)	53	#5	6'-3"	
e100(E)	10	#5	23'-8"	
e101(E)	10	#5	29'-8"	
h100(E)	16	#5	25'-11"	
h101(E)	30	#5	28'-8"	
h102(E)	30	#7	13'-1"	
h103(E)	30	#5	3'-11"	
v100(E)	22	#5	13'-6"	
v101(E)	31	#5	24'-8"	

Structure Excavation	Cu. Yd.	36
Concrete Superstructure	Cu. Yd.	10.9
Stud Shear Connectors	Each	48
Reinforcement Bars, Epoxy Coated	Pound	4,420
Furnishing Soldier Piles (W Section)	Foot	415
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	4,108
Untreated Timber Lagging	Sq. Ft.	291
Concrete Structures (Retaining Wall)	Cu. Yd.	19.0
Concrete Sealer	Sq. Ft.	754
Geocomposite Wall Drain	Sq. Yd.	24
Slope Inclinometer	Each	1
Pipe Underdrains For Structures 4"	Foot	55

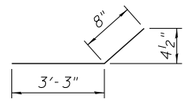


SOLDIER PILE WORKING POINT

BAR d101(E)



BAR d100(E)



BAR h103(E)

Minimum Bar Laps	
Bar	Lap
#5	3'-2"
#7	5'-0"

TranSystems

USER NAME = wjcollett1	DESIGNED - WJC	REVISED -
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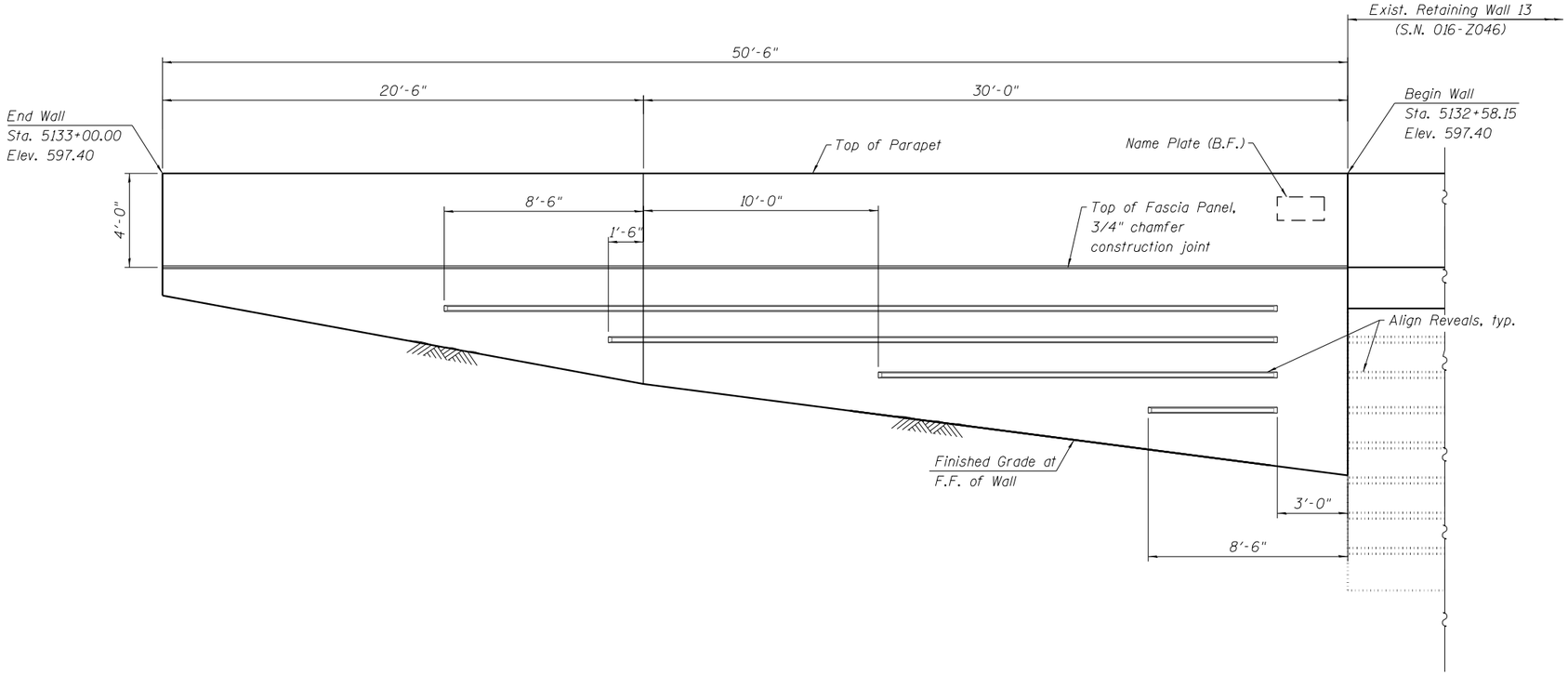
PLOT SCALE = 02.0000 '1' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 6/27/2017	CHECKED - TLR/MDS	REVISED -

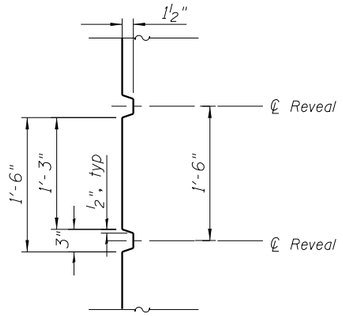
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTIONS AND DETAILS II
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-5 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	437
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



ELEVATION



TYPICAL REVEAL DETAIL

Notes:

Reveals in Concrete Fascia Panels of Soldier Pile Wall will not be paid separately and will be included in the cost of the pay item Concrete Structures (Retaining Wall).

Contractor to submit shop drawings showing reveal layout for the proposed Retaining Wall 11 and for the first panel of Existing Retaining Wall 13.

TranSystems	USER NAME = vljanachione	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 6.00 ' / in.	DRAWN - WJC	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-6 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	438
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG 11-RWB-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.58 ft
North: 1897883.55 ft
East: 1169168.23 ft
Station: 5132+66.55
Offset: 47.9312 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.34	4-inch thick, dark brown SILTY LOAM						
	592.8	--TOPSOIL--						
		Brown SILTY CLAY LOAM			1	50/3	NP	11
		--FILL--						
		Dense to very dense, brown GRAVELLY SAND						
		--FILL--	5		2	8 37 12	NP	18
	586.6	Stiff to very stiff, brown and gray CLAY to SILTY CLAY, trace gravel			3	5 2 2	NP	28
			10		4	2 3 5	2.21 B	24
		--L_L(%)=41, P_L(%)=17-- --%Gravel=3.0-- --%Sand=13.2-- --%Silt=48.0-- --%Clay=35.8-- --A-7-6 (20)--			5	2 2 4	1.07 B	26
	580.6	Medium stiff, gray SILTY CLAY						
			15		6	2 3 4	0.90 B	21
	578.1	Very soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel			7	2 2 2	0.49 B	24
			20		8	1 2 1	0.33 B	24
			25		9	0 1 1	0.16 B	28
					10	0 1 1	0.16 B	26
					11	0 1 1	0.16 B	29
			30		12	1 1 2	0.16 B	26
					13	1 2 2	0.25 B	25
			40		14	2 2 3	0.41 B	26

GENERAL NOTES

Begin Drilling: 10-23-2013 Complete Drilling: 10-23-2013
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: P&N Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 6.00 ft
At Completion of Drilling: ▼ 52.00 ft
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/7/16

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Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG 11-RWB-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.58 ft
North: 1897883.55 ft
East: 1169168.23 ft
Station: 5132+66.55
Offset: 47.9312 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45		15	2 3 7	0.41 B	19
	546.8	Very stiff, gray SILTY CLAY, trace gravel						
			50		16	5 10 23	2.62 B	21
	541.8	Very dense, gray SILT --Saturated--						
			55		18	39 60/4	NP	17
			60		19	41 50/4	NP	19
	526.8	Hard, gray SILTY CLAY LOAM to SILTY LOAM, trace gravel	65		20	33 50/6	NP	21
			70		21	33 50/3	> 4.50 P	13
		--HARD DRILLING-- *--Possible Cobbles--*						
	518.6	Boring terminated at 75.00 ft	75		22	18 25 29	9.10 B	14
			80					

GENERAL NOTES

Begin Drilling: 10-23-2013 Complete Drilling: 10-23-2013
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: P&N Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 6.00 ft
At Completion of Drilling: ▼ 52.00 ft
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 02.0000 '' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS I
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-7 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	439
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG 11-RWB-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.19 ft
North: 1897885.77 ft
East: 1169080.64 ft
Station: 5131+78.80
Offset: 51.1460 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593	11.5-inch thick ASPHALT --PAVEMENT--						
	592.2	10-inch thick CONCRETE --PAVEMENT--						
	591.2	12-inch thick CRUSHED STONE --BASE COURSE--						
		Medium dense to very dense, gray and green GRAVELLY SAND, some slag --FILL--			1	3 3 9	NP	16
					2	50/5	NP	42
			5		3	16 9 8	NP	5
	585.2	Soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel			4	5 2 3	0.98 B	25
			10		5	2 3 2	0.83 N/6	
			15		6	3 3 2	0.57 B	24
					7	0 0 2	0.33 B	25
			20		8	0 0 0	0.25 B	27
			25		9	0 0 0	0.25 B	28
					10	0 0 1	0.25 B	27
					11	0 0 0	0.25 B	27
			30		12	0 0 2	0.25 B	27
			35		13	0 0 1	0.33 B	25
			40		14	0 1 2	0.57 B	27

GENERAL NOTES

Begin Drilling: 10-22-2013 Complete Drilling: 10-22-2013
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Rotary wash
At Completion of Drilling: ▼ unable to measure
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/7/16

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1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG 11-RWB-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.19 ft
North: 1897885.77 ft
East: 1169080.64 ft
Station: 5131+78.80
Offset: 51.1460 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			45		15	0 1 3	0.66 B	18
	546.4	Very stiff to hard, gray SILTY CLAY, trace gravel			16	3 7 9	2.67 N/6	
			50		17	8 14 22	5.41 B	20
	541.4	Very dense, gray SILT			18	38 50/5	NP	15
		--HARD DRILLING-- --Possible Cobbles--	55					
	536.2	Very dense, gray SILTY LOAM, trace gravel			19	29 50/5	NP	12
			60					
			65		20	20 30 50/4	NP	18
		--L_L(%)=NP, P_L(%)=NP-- --%Gravel=0.2-- --%Sand=20.9-- --%Silt=75.0-- --%Clay=3.9-- --A-4 (0)--						
			70		21	26 40 50/4	NP	10
	518.2	Boring terminated at 75.00 ft	75		22	20 32 48	NP	13
			80					

GENERAL NOTES

Begin Drilling: 10-22-2013 Complete Drilling: 10-22-2013
Drilling Contractor: Wang Testing Services Drill Rig:
Driller: R&N Logger: F. Bozga Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Rotary wash
At Completion of Drilling: ▼ unable to measure
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/7/16

0:36:10 PM - pw:\\6f7479-PWINT.decomonline.local:AECOM_DS02_NA\Documents\Olamericas\Transportation\60269938 Circle\Phase_IN\000_CAD\008_Structural\Structure.06-1800\Sheets\06l800-60X76-S008-Boring.2.dgn

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 02.0000 '' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS II
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-8 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	440
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

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1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG VST-05

WEI Job No.: 1100-04-01

Client ..... AECOM
Project ..... Circle Interchange Reconstruction
Location ..... Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.13 ft
North: 1897881.32 ft
East: 1169174.65 ft
Station: 5132+73.09
Offset: 49.755 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		Loose, brown fine SAND						
		--FILL--						
						5		
					1	5	1.56	16
	588.9		5			3	S	
		Stiff, gray SILTY CLAY, trace gravel						
		--FILL--						
	586.4							
		Medium stiff to very stiff, gray SILTY CLAY, trace sand and gravel				3		
					2	4	2.78	23
			10			6	B	
						2		
					3	4	0.82	13
			15			4	B	
	577.4							
		--In-Situ Vane Shear, 17.5 feet--			1	VS		
		--$S_{u\ undis}$ = 1070.2 psf--						
		--$S_{u\ remold}$ = 480.5 psf--						
		--Sensitivity = 2.2--						
		--In-Situ Vane Shear, 19.5 feet--	20		2			

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--$S_{u\ undis}$ = 513.3 psf--				VS		
		--$S_{u\ remold}$ = 349.5 psf--						
		--Sensitivity = 1.5--						
		--In-Situ Vane Shear, 22.0 feet--			3	VS		
		--$S_{u\ undis}$ = 469.6 psf--						
		--$S_{u\ remold}$ = 267.6 psf--						
		--Sensitivity = 1.8--						
		--In-Situ Vane Shear, 24.5 feet--	25		4	VS		
		--$S_{u\ undis}$ = 486.0 psf--						
		--$S_{u\ remold}$ = 267.6 psf--						
		--Sensitivity = 1.8--						
		--In-Situ Vane Shear, 27.0 feet--			5	VS		
		--$S_{u\ undis}$ = 540.6 psf--						
		--$S_{u\ remold}$ = 322.2 psf--						
		--Sensitivity = 1.7--						
		--In-Situ Vane Shear, 29.5 feet--	30		6	VS		
		--$S_{u\ undis}$ = 737.2 psf--						
		--$S_{u\ remold}$ = 371.3 psf--						
		--Sensitivity = 2.0--						
		--In-Situ Vane Shear, 32.0 feet--			7	VS		
		--$S_{u\ undis}$ = 589.7 psf--						
		--$S_{u\ remold}$ = 404.1 psf--						
		--Sensitivity = 1.5--						
		--In-Situ Vane Shear, 34.5 feet--	35		8	VS		
		--$S_{u\ undis}$ = 600.6 psf--						
		--$S_{u\ remold}$ = 447.8 psf--						
		--Sensitivity = 1.3--						
		--In-Situ Vane Shear, 37.0 feet--			9	VS		
		--$S_{u\ undis}$ = 742.6 psf--						
		--$S_{u\ remold}$ = 502.4 psf--						
		--Sensitivity = 1.5--						
		--In-Situ Vane Shear, 39.5 feet--	40		10			

GENERAL NOTES

Begin Drilling 12-03-2015 Complete Drilling 12-03-2015
Drilling Contractor Wang Testing Services Drill Rig
Driller R&N Logger A. Kurnia Checked by A. Kurnia
Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ Rotary wash
At Completion of Drilling ▼ unable to measure
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/7/16

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: (630) 953-9928
Fax:

BORING LOG VST-05

WEI Job No.: 1100-04-01

Client ..... AECOM
Project ..... Circle Interchange Reconstruction
Location ..... Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.13 ft
North: 1897881.32 ft
East: 1169174.65 ft
Station: 5132+73.09
Offset: 49.755 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--$S_{u\ undis}$ = 917.3 psf--				VS		
		--$S_{u\ remold}$ = 666.2 psf--						
		--Sensitivity = 1.4--						
		--In-Situ Vane Shear, 42.0 feet--			11	VS		
		--$S_{u\ undis}$ = 917.3 psf--						
		--$S_{u\ remold}$ = 567.9 psf--						
		--Sensitivity = 1.6--						
	548.1	--In-Situ Vane Shear, 44.5 feet--	45		12	VS		
		--$S_{u\ undis}$ = 764.5 psf--						
		--$S_{u\ remold}$ = 371.3 psf--						
		--Sensitivity = 2.1--						
		Boring terminated at 45.00 ft						
			50					
			55					
			60					

GENERAL NOTES

Begin Drilling 12-03-2015 Complete Drilling 12-03-2015
Drilling Contractor Wang Testing Services Drill Rig
Driller R&N Logger A. Kurnia Checked by A. Kurnia
Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ Rotary wash
At Completion of Drilling ▼ unable to measure
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/7/16

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 02.0000 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS III
RETAINING WALL 11 (STRUCTURE NO. 016-1800)
SHEET NO. S2-9 OF S2-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	441
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

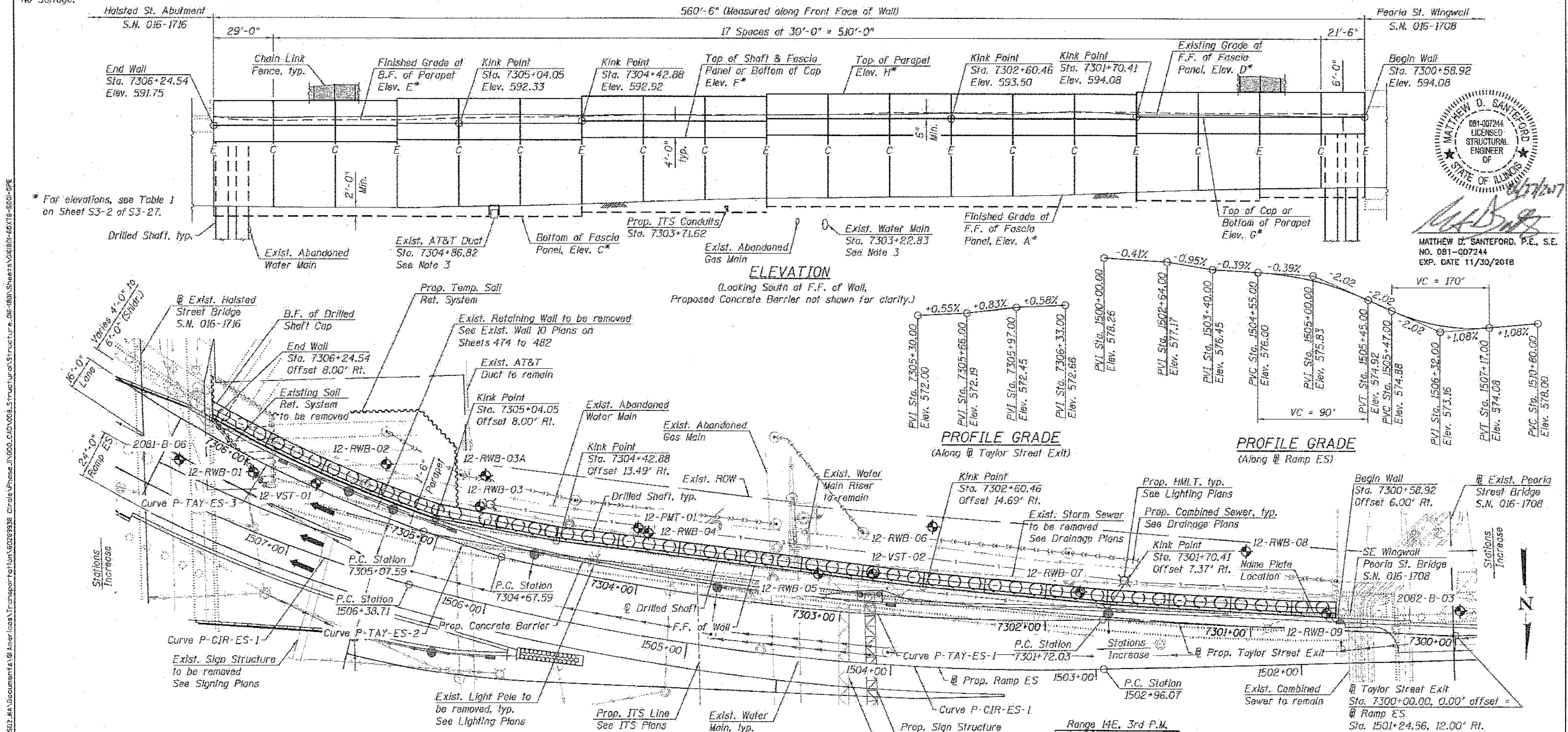
Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elev. = 593.07

Existing Structure: Existing Retaining Wall 10. Constructed in 1955 under U.I. 261 (101) F.A. Route 131; Section 2525-103. Reinforced concrete wall on timber piles. Total length of 532'-9" from Halsted Street to Peoria Street. Height varies 17'-6" to 17'-7". The existing wall is to be removed and replaced from Sta. 7300+52 to Sta. 7305+84.

I-290 EB traffic control to be utilized during construction.

No Salvage.

Notes:
1. Wall offsets are measured from the ℄ of Taylor St. Exit to the front face of cast-in-place fascia panels.
2. Wall to be built along straight chords between construction and expansion joints.
3. The Contractor shall field verify locations of existing underground utilities and drainage structures.



MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2018

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications 7th Edition with 2015 and 2016 Interim Specifications

DESIGN STRESSES

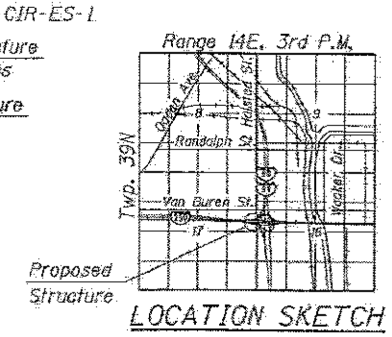
FIELD UNITS

f'c = 7,000 psi (Drilled Shafts)
f'c = 3,500 psi (All other concrete)
fy = 60,000 psi (Reinforcement)

LEGEND:

Telephone	——T——	Prop. Lighting	——L——
Electric	——E——	Prop. ITS	———
Water	——W——	Soil Boring	⊕
Fiber Optic	——FO——	C	Construction Joint
Ex. Storm Sewer	——○——	E	Expansion Joint
Prop. Storm Sewer	——●——	F.F.	Front Face
Prop. Combined Sewer	→→→	B.F.	Back Face

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
RETAINING WALL 12 ALONG TAYLOR ST. EXIT
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 7300+58.92 TO STATION 7306+24.54
STRUCTURE NO. 016-1801

USER NAME = wjpollett	DESIGNED - TLR	REVISED -	STATE OF ILLINOIS
PLOT SCALE = 48.00 ' / in.	CHECKED - MDS	REVISED -	DEPARTMENT OF TRANSPORTATION
PLOT DATE = 6/19/2017	DRAWN - TLR	REVISED -	
	CHECKED - MDS/RJC	REVISED -	SHEET NO. S3-1 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	442
		CONTRACT NO. 60X76		

ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. The Contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge and other loads applied to the structures will not have detrimental effects on the adjacent structures. Driving piles and temporary sheet piling is not allowed.
3. For drilled shaft locations where permanent casing is required as shown on the plans, the casing will be paid for under Permanent Casing. If Contractor elects to use permanent casing for ease of construction in locations where it is not required on the plans, the casing will not be paid for separately and is included in Drilled Shaft in Soil.
4. Slipforming of parapets is not allowed.
5. The Contractor shall field verify locations of existing underground utilities. The Contractor shall take precautions to protect existing utilities during construction of the wall. Any damage to the existing utilities shall be the responsibility of the Contractor.
6. Concrete for the Drilled Shafts shall be in accordance with Section 516 of Standard Specifications and shall have the minimum compressive strength of 7,000 psi at 14 days.
7. Wall to be built along straight chords between construction and expansion joints.
8. Concrete Sealer shall be applied to the exposed top and front faces of the parapet, and to the exposed front faces of cap and fascia panels.
9. Limited groundwater elevation data is available in the boring logs. In addition, groundwater may also be present in deeper granular layers. The groundwater may rise in the shafts to an elevation above the top of granular layers. The Contractor shall consider this information when choosing construction methods. The Contractor will not be compensated for issues related to the groundwater elevation.
10. Based on the high squeeze potential of the clay soils, the use of temporary casing will be required to Elevation 540.00 in order to properly construct the drilled shafts. Casing may be pulled or left in place, as determined by the Contractor at no cost to the Department.
11. Foundation Construction at Existing Obstructions applies to Drilled Shafts 30 and 53 through 55 only.
12. See Suggested Construction Sequence on Sheet S3-12 of S3-27 .
13. The Contractor shall take all necessary precautions not to contaminate groundwater during the drilled shaft construction operation. Contractor is responsible for the proper containment and disposal of the contaminated groundwater and spoils resulting from the Contractor's means and methods. No additional cost will be paid for this effort.

INDEX OF SHEETS

STATION 7300+58.92 TO 7306+24.54
BUILT 20__ BY
STATE OF ILLINOIS
F.A.I. RT. 290 SEC. 2014-002R&B
LOADING HL-93
STR. NO. 016-1801

NAME PLATE

(See Std. 515001)

TABLE 1 - WALL ELEVATIONS

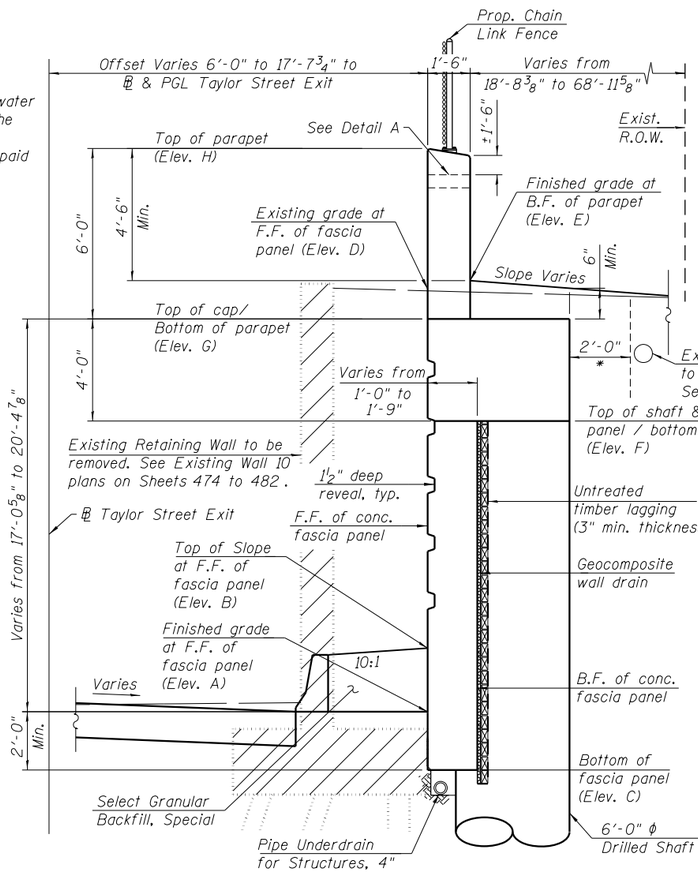
Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E	Elevation F	Elevation G	Elevation H
7300+58.92	6.00' Rt.	577.02	580.52	574.67	594.21	594.69	590.08	594.08	600.08
7300+80.42	6.26' Rt.	576.89	580.46	574.67	594.12	594.87	590.08	594.08	600.08
7301+10.42	6.63' Rt.	576.74	580.34	574.67	594.44	594.89	590.08	594.08	600.08
7301+10.42	6.63' Rt.	576.74	580.34	573.83	594.44	594.89	590.08	594.08	600.08
7301+40.41	7.00' Rt.	576.43	580.07	573.83	594.57	594.92	590.08	594.08	600.08
† 7301+70.41	7.37' Rt.	575.90	579.58	573.83	594.65	595.18	590.08	594.08	600.08
†† 7301+70.41	7.37' Rt.	575.90	579.58	572.25	594.65	595.18	589.50	593.50	599.50
7301+99.94	10.50' Rt.	575.23	579.06	572.25	595.16	595.00	589.50	593.50	599.50
7302+30.15	12.99' Rt.	574.82	578.86	572.25	594.55	595.00	589.50	593.50	599.50
7302+60.46	14.69' Rt.	574.71	578.93	572.25	594.90	594.93	589.50	593.50	599.50
7302+90.82	16.47' Rt.	574.59	578.98	572.25	594.45	594.90	589.50	593.50	599.50
7303+21.25	17.45' Rt.	574.47	578.95	572.25	594.51	594.47	589.50	593.50	599.50
† 7303+51.72	17.65' Rt.	574.31	578.81	572.25	594.44	594.41	589.50	593.50	599.50
†† 7303+51.72	17.65' Rt.	574.31	578.81	570.83	594.44	594.41	588.92	592.92	598.92
7303+82.17	17.05' Rt.	573.95	578.39	570.83	594.25	594.42	588.92	592.92	598.92
7304+12.57	15.67' Rt.	573.42	577.73	570.83	594.44	594.36	588.92	592.92	598.92
† 7304+42.88	13.49' Rt.	572.87	576.96	570.83	594.21	594.12	588.92	592.92	598.92
†† 7304+42.88	13.49' Rt.	572.87	576.96	569.83	594.21	594.12	588.33	592.33	598.33
7304+74.06	11.98' Rt.	572.45	576.39	569.83	594.50	593.83	588.33	592.33	598.33
7305+04.05	8.00' Rt.	572.09	575.59	569.83	594.47	593.60	588.33	592.33	598.33
† 7305+34.41	8.00' Rt.	571.93	575.43	569.83	593.93	593.16	588.33	592.33	598.33
†† 7305+34.41	8.00' Rt.	571.93	575.43	569.83	593.93	593.16	587.75	591.75	597.75
7305+64.79	8.00' Rt.	571.92	575.42	569.83	593.85	593.07	587.75	591.75	597.75
7305+95.17	8.00' Rt.	572.04	575.54	569.83	593.67	593.03	587.75	591.75	597.75
7306+24.54	8.00' Rt.	572.18	575.68	569.83	593.78	593.22	587.75	591.75	597.75

Elevation A - Finished Grade at Front Face of Fascia Panel
Elevation B - Top of Slope at Front Face of Fascia Panel
Elevation C - Bottom of Fascia Panel
Elevation D - Existing Grade at Front Face of Fascia Panel
Elevation E - Finished Grade at Back Face of Parapet
Elevation F - Top of Shaft & Fascia Panel / Bottom of Cap
Elevation G - Top of Cap / Bottom of Parapet
Elevation H - Top of Parapet
† Elevations just to the right of joint
†† Elevations just to the left of joint

LEGEND:

B.F. - denotes Back Face.
E.F. - denotes Each Face.
F.F. - denotes Front Face.

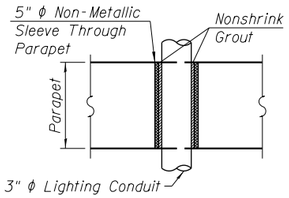
☒ Removal of Existing Structures
See Exist. Wall 10 (SN 016-2029) Plans



TYPICAL CROSS SECTION

(Looking Upstation, East)

* Limits of Structure Excavation



DETAIL A

SLEEVE THRU PARAPET

Furnishing and installing Non-Metallic Sleeve and Grout is included in the cost of Concrete Superstructure. See Lighting Plans for additional details.

TOTAL BILL OF MATERIAL

Item	Unit	Total Quantity
Structure Excavation	Cu. Yd.	1,746
Concrete Structures	Cu. Yd.	581.3
Concrete Superstructure	Cu. Yd.	183.0
Reinforcement Bars	Pound	1,201,980
Reinforcement Bars, Epoxy Coated	Pound	46,220
Mechanical Splicers	Each	1,376
Name Plates	Each	1
Permanent Casing	Foot	340
Drilled Shaft in Soil	Cu. Yd.	5,073.7
Temporary Soil Retention System	Sq. Ft.	1,209
Concrete Sealer	Sq. Ft.	12,612
Class SI Concrete (Miscellaneous)	Cu. Yd.	558.0
Crosshole Sonic Logging Access Ducts	Foot	4,845
Crosshole Sonic Logging Testing	Each	12
Slope Inclinometer	Each	1
Foundation Construction at Existing Obstructions	Each	4
Removal of Soil Retention System	L. Sum	1
Pipe Underdrain for Structures 4"	Foot	565
Chain Link Fence, 4' Attached to Structure	Foot	541

CURVE DATA

(Ramp ES)

Prop. Curve P-CIR-ES-1
P.I. Sta. = 1504+68.66
Δ = 16° 40' 30" (RT)
D = 4° 52' 05"
R = 1,177.00'
T = 172.49'
L = 342.55'
E = 12.57'
e = 5.20%
T.R. = NA
S.E. Run = 71'
P.C. Sta. = 1502+96.17
P.T. Sta. = 1506+38.71

CURVE DATA

(Ramp ES)

Prop. Curve P-CIR-ES-2
P.I. Sta. = 1510+49.08
Δ = 63° 26' 03" (RT)
D = 8° 37' 44"
R = 664.00'
T = 410.37'
L = 735.14'
E = 116.58'
e = 5.80%
T.R. = 41'
S.E. Run = 120'
P.C. Sta. = 1506+38.71
P.T. Sta. = 1513+73.85

CURVE DATA

(Taylor Street Exit)

Prop. Curve P-TAY-ES-1
P.I. Sta. = 7303+20.62
Δ = 14° 41' 14" (RT)
D = 4° 58' 09"
R = 1,153.00'
T = 148.59'
L = 295.56'
E = 9.54'
e = MATCH MAINLINE
T.R. = NA
S.E. Run = NA
P.C. Sta. = 7301+72.03
P.T. Sta. = 7304+67.59

CURVE DATA

(Taylor Street Exit)

Prop. Curve P-TAY-ES-2
P.I. Sta. = 7304+87.59
Δ = 1° 59' 16" (RT)
D = 4° 58' 09"
R = 1,153.00'
T = 20.00'
L = 40.00'
E = 0.17'
e = MATCH MAINLINE
T.R. = NA
S.E. Run = NA
P.C. Sta. = 7304+67.59
P.T. Sta. = 7305+07.59

CURVE DATA

(Taylor Street Exit)

Prop. Curve P-TAY-ES-3
P.I. Sta. = 7306+04.16
Δ = 17° 09' 39" (RT)
D = 8° 57' 09"
R = 640.00'
T = 96.57'
L = 191.69'
E = 7.24'
e = MATCH MAINLINE
T.R. = NA
S.E. Run = NA
P.C. Sta. = 7305+07.59
P.T. Sta. = 7306+99.28

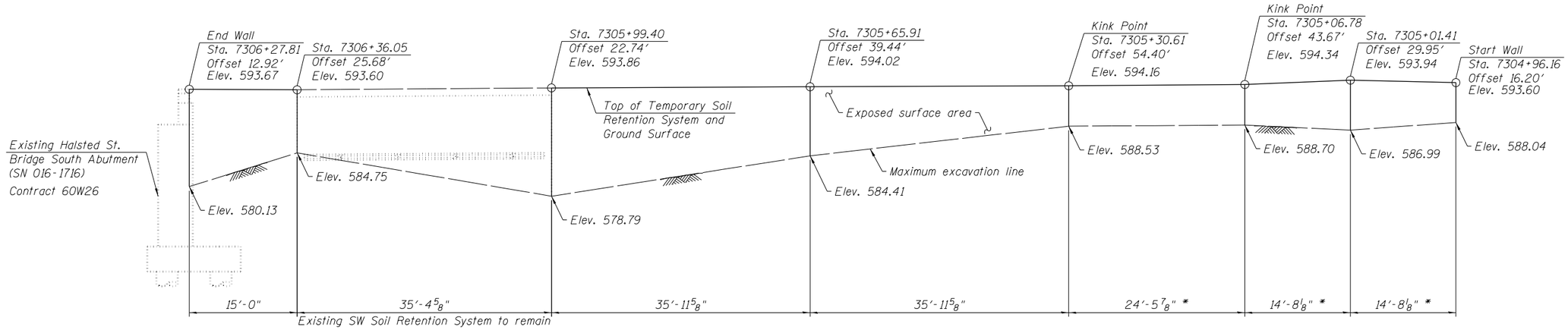
TranSystems

USER NAME = tlrevzin	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = Ø2 '1' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 5/11/2017	CHECKED - MDS/WJC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS, & BILL OF MATERIAL
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-2 OF S3-27 SHEETS

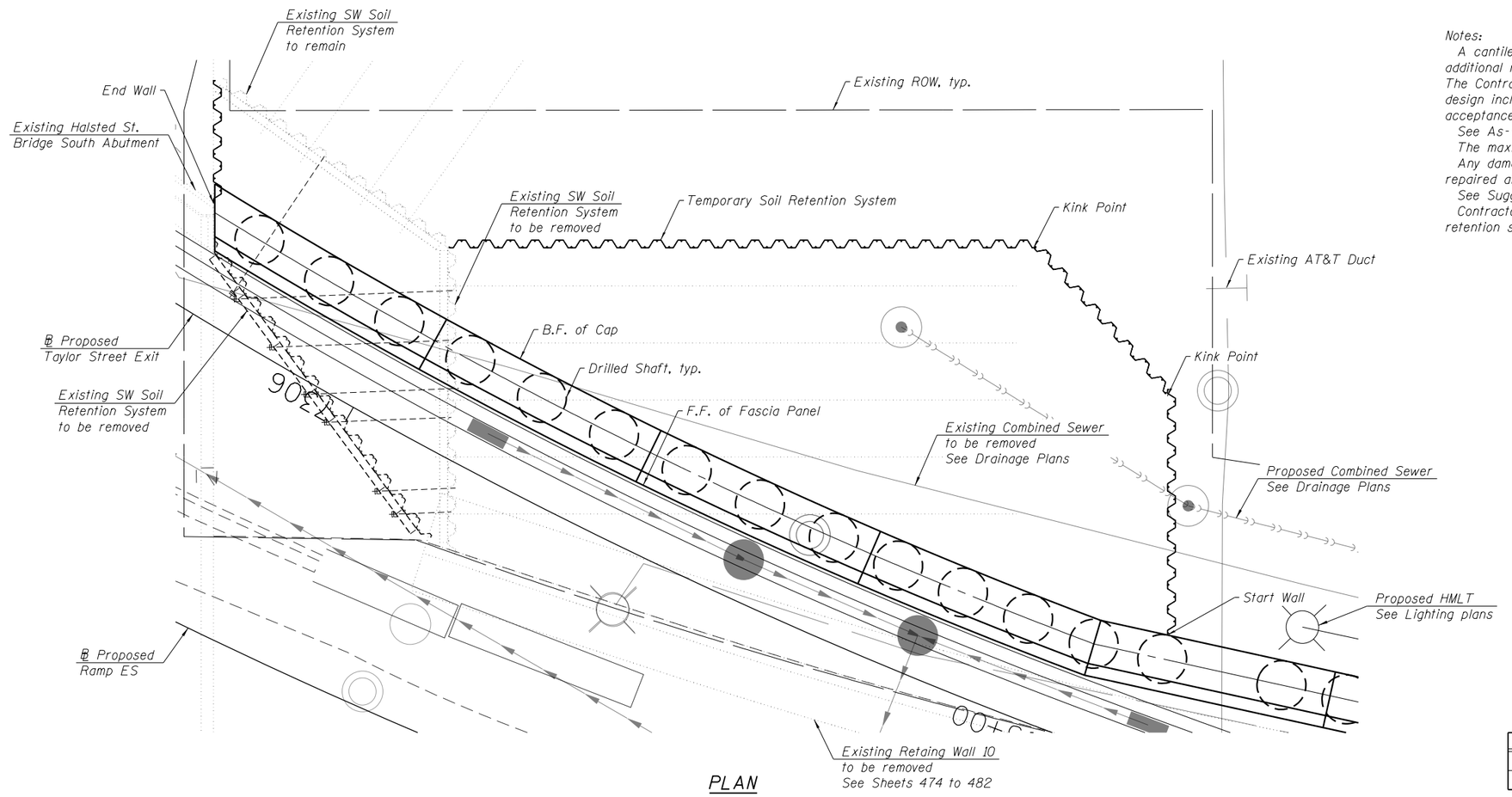
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	443
		CONTRACT NO.		60X76
		ILLINOIS FED. AID PROJECT		



ELEVATION

(Unfolded View, Measured along F.F. of Wall)

* This portion of the Temporary Soil Retention System must be removed completely prior to the installation of proposed drainage.



PLAN

Notes:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

See As-Built plans on Sheets AB-15 to AB-18 of AB-18 .

The maximum allowable excavation slope is 1:2 (V:H).

Any damage to existing utilities during construction shall be repaired at the Contractor's expense.

See Suggested Construction Sequence on Sheet S3-12 of S3-27.

Contractor shall field verify location and type of existing soil retention system at Halsted St. Bridge prior to construction.

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq. Ft.	1,209
Removal of Soil Retention System	L. Sum	1

TranSystems

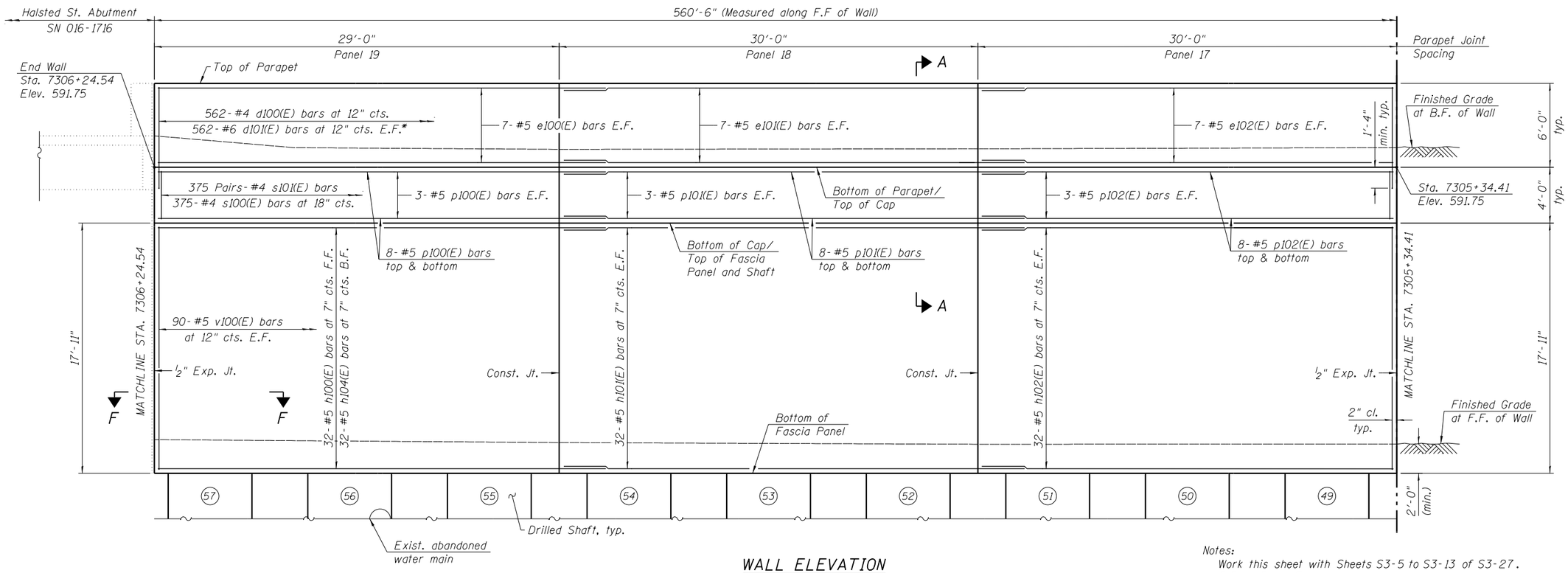
USER NAME = wjcolletti	DESIGNED - TLR	REVISED -
	CHECKED - MDS	REVISED -
PLOT SCALE = 16:0 '1' / in.	DRAWN - TLR	REVISED -
PLOT DATE = 6/19/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION SYSTEM
RETAINING WALL 12 (STRUCTURE NO. 016-1801)

SHEET NO. S3-3 OF S3-27 SHEETS

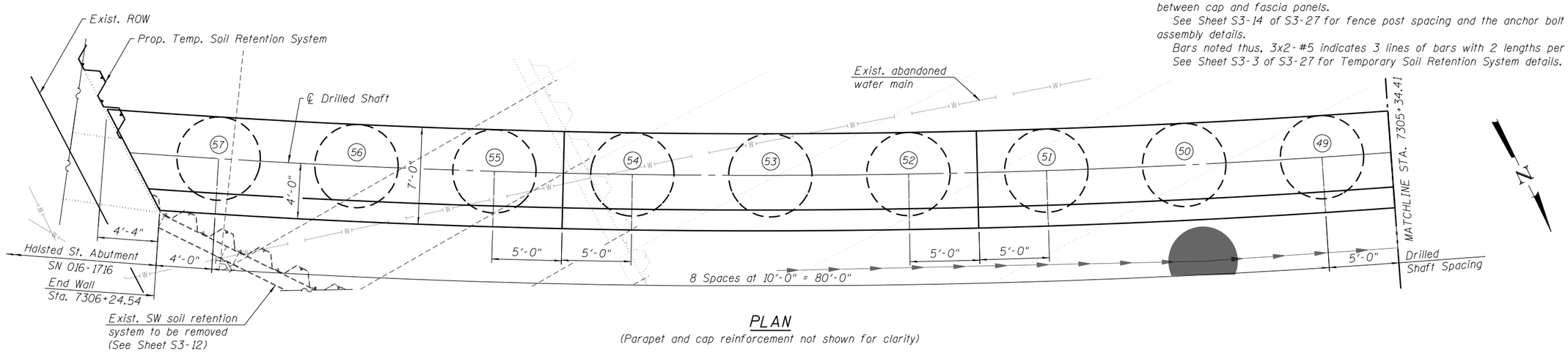
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	444
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity

Notes:
Work this sheet with Sheets S3-5 to S3-13 of S3-27.
F.F. = Front Face
B.F. = Back Face
E.F. = Each Face
Parapet concrete shall be paid for as Concrete Superstructure.
Shaft cap shall be paid for as Concrete Structures.
Concrete fascia panels shall be paid as Class SI Concrete (Miscellaneous).
Drilled shafts shall be tested in accordance with Special Provision for Crosshole Sonic Logging.
See Drilled Shaft Layout Table on Sheet S3-13 of S3-27 .
See Existing Wall 10 (SN 016-Z029) for wall removal details.
See Sheet S3-14 of S3-27 for details on architectural reveals and joint between cap and fascia panels.
See Sheet S3-14 of S3-27 for fence post spacing and the anchor bolt assembly details.
Bars noted thus, 3x2-#5 indicates 3 lines of bars with 2 lengths per line.
See Sheet S3-3 of S3-27 for Temporary Soil Retention System details.



PLAN

(Parapet and cap reinforcement not shown for clarity)

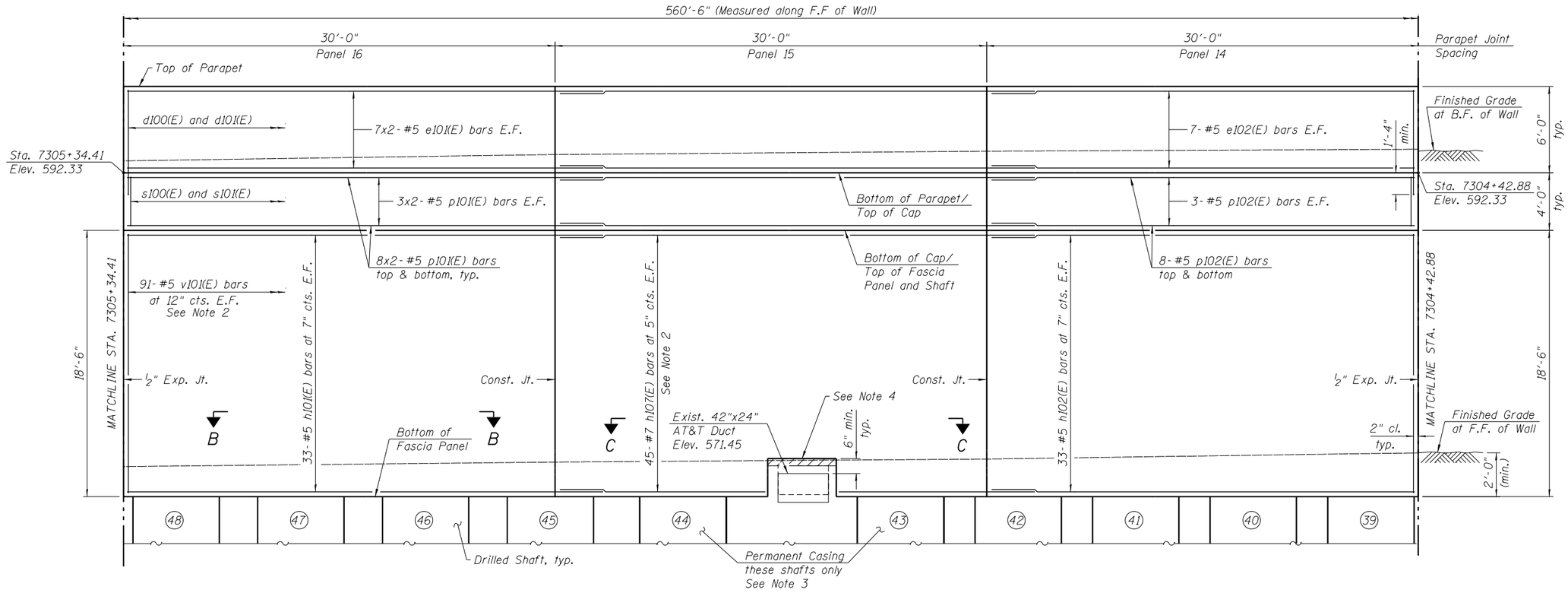
USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = 8.0 ' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

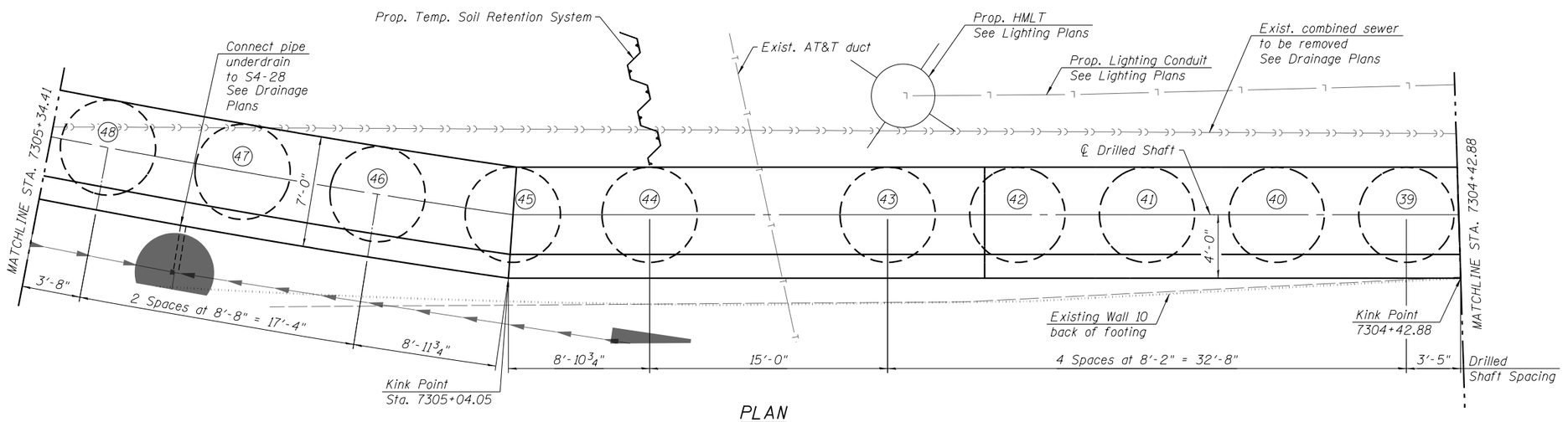
WALL ELEVATION DETAILS I
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-4 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	445
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



WALL ELEVATION

(Unfolded View. Looking South)
Drilled shaft reinforcement not shown for clarity



PLAN

(Parapet and cap reinforcement not shown for clarity)

Notes:
1. See additional notes on Sheet S3-4 of S3-27.
2. Cut h107(E) and v101(E) bars to fit around utility block out in concrete fascia panel. Panel 15 only.
3. Indicated shafts may be field adjusted up to 6" in order to avoid existing utilities with the approval of the Engineer.
4. Foam filler, according to Article 1051.09 of the Standard Specifications. Cost included with Class SI Concrete (Miscellaneous).

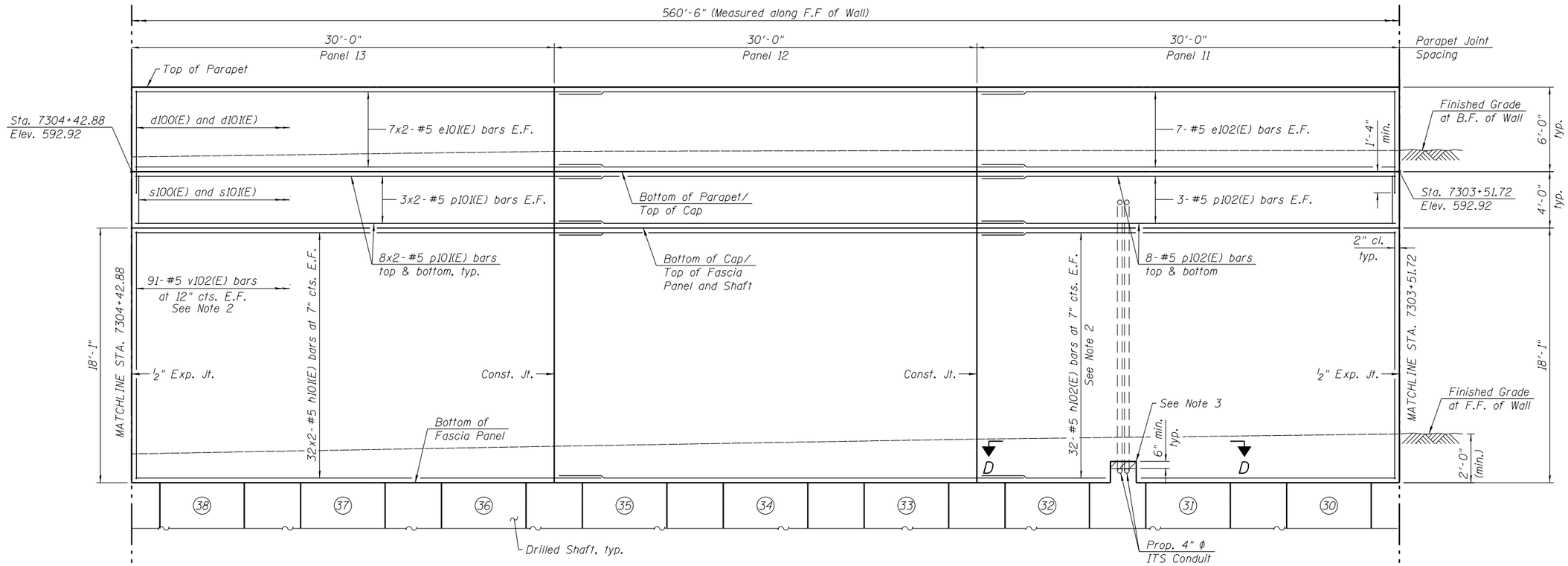
USER NAME = wjcollett1	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = 8.0 ' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 6/19/2017	CHECKED - MDS/WJC	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

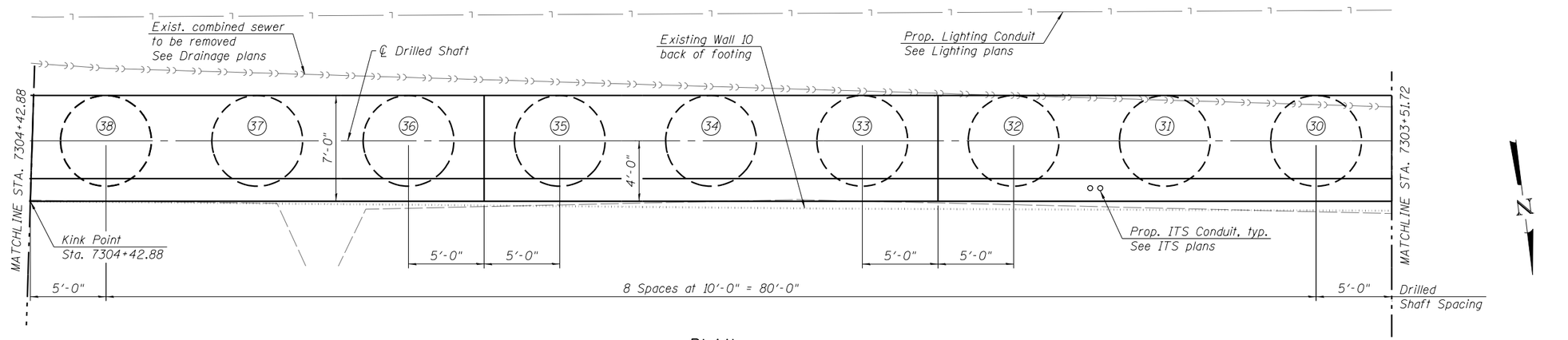
WALL ELEVATION DETAILS II
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-5 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	446
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity



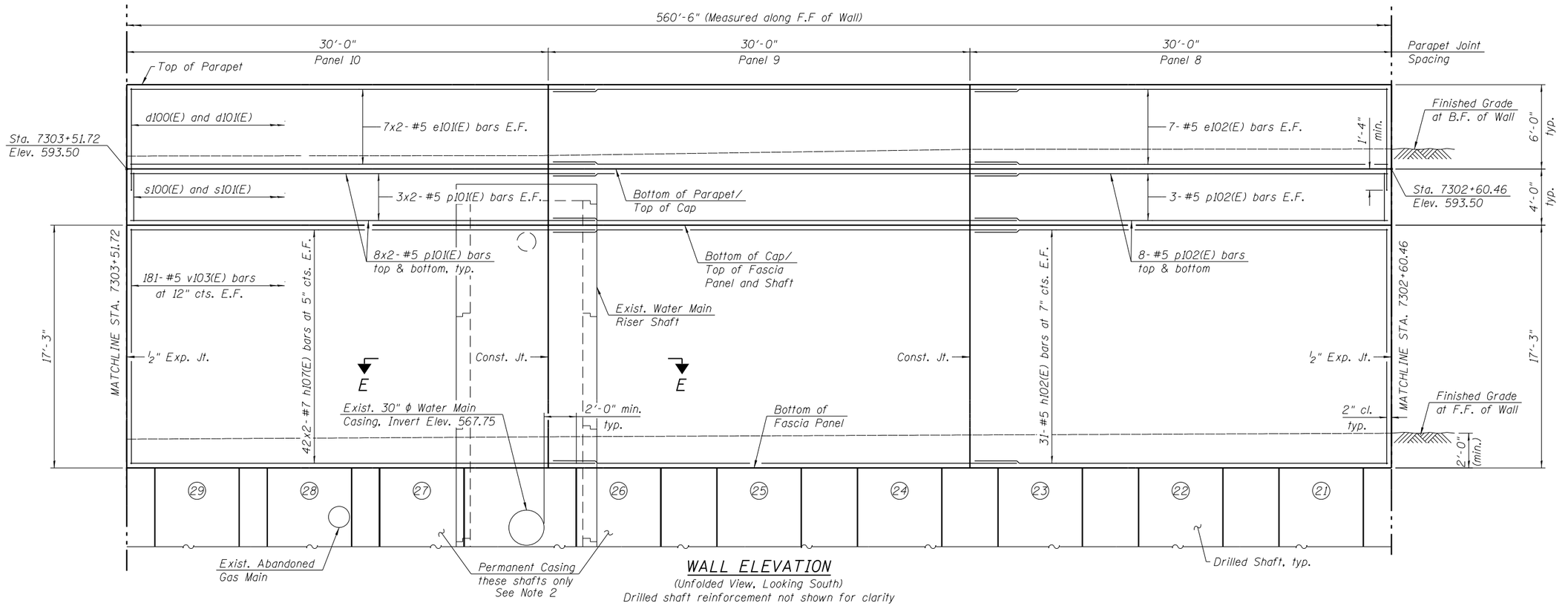
PLAN

(Parapet and cap reinforcement not shown for clarity)

Notes:
1. See additional notes on Sheet S3-4 of S3-27.
2. Cut h102(E) and v102(E) bars to fit around utility block out in concrete fascia panel. Panel 11 only.
3. Foam filler, according to Article 1051.09 of the Standard Specifications. Cost in Class SI Concrete (Miscellaneous).

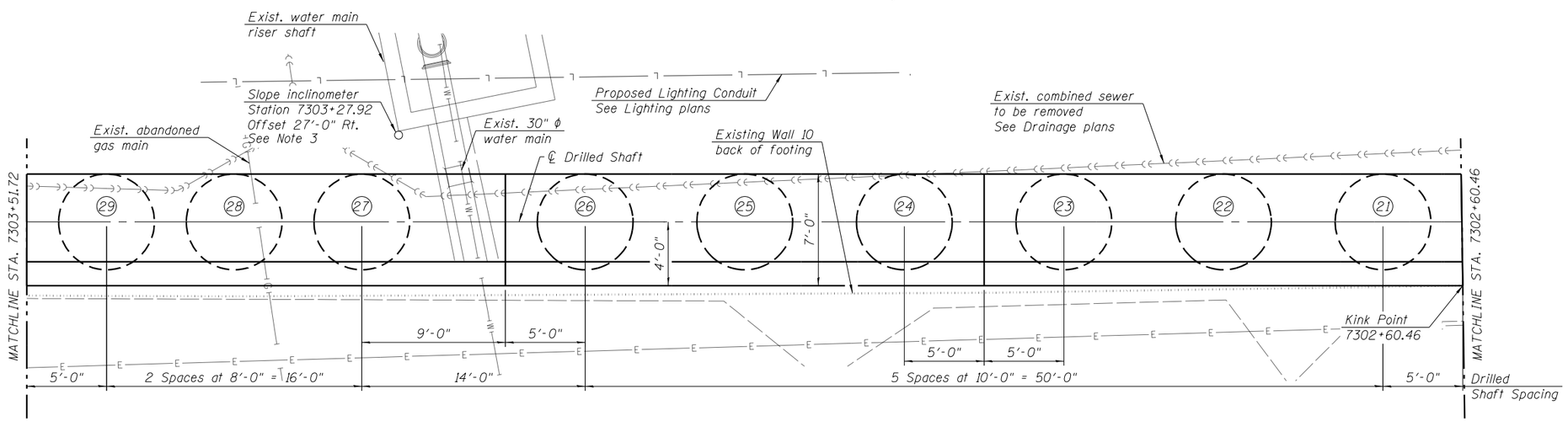
USER NAME = vljanachione	DESIGNED - TLR	REVISED -	**STATE OF ILLINOIS**
	CHECKED - MDS	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 80 '/ in.	DRAWN - TLR	REVISED -	**WALL ELEVATION DETAILS III**
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -	**RETAINING WALL 12 (STRUCTURE NO. 016–1801)**
			SHEET NO. S3-6 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	447
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity



PLAN

(Parapet and cap reinforcement not shown for clarity)

Notes:
1. See additional notes on Sheet S3-4 of S3-27.
2. Indicated shafts may be field adjusted up to 6" in order to avoid existing utilities with the approval of the Engineer.
3. In addition to vibration and displacement monitoring, the Contractor shall monitor movements with Slope Inclinometers. All inclinometers shall be installed prior to drilling. See special provision for Slope Inclinometers.

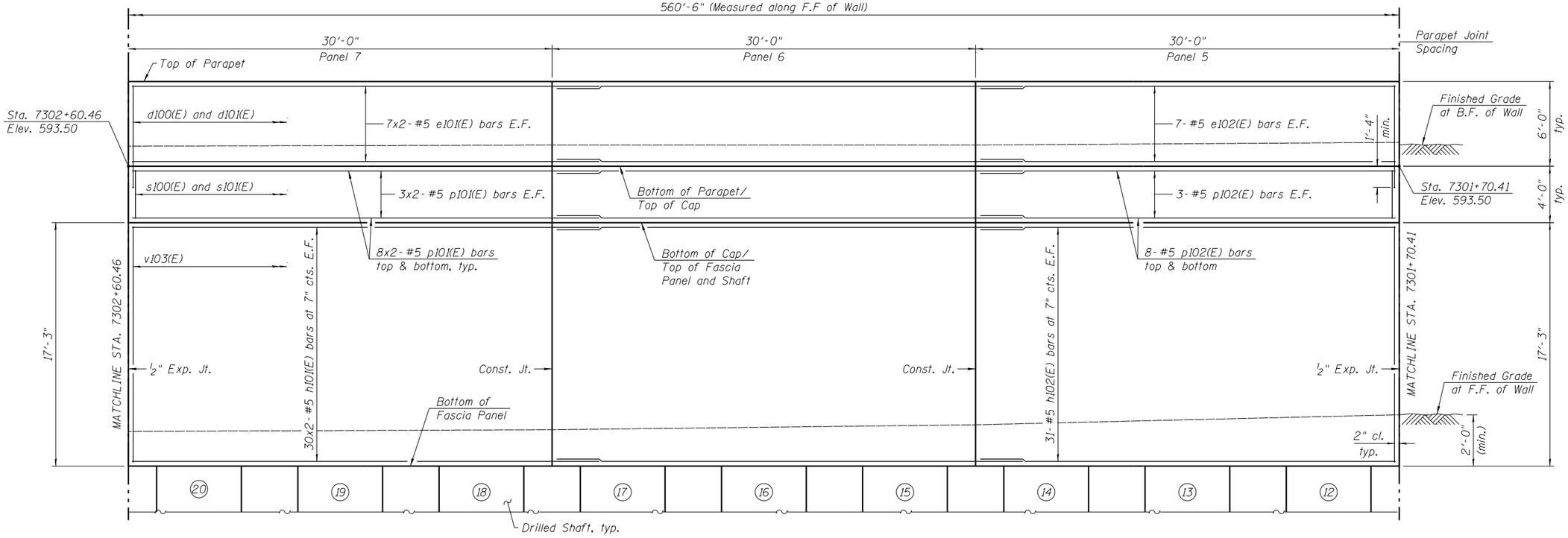
USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = 8.0 ' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATION DETAILS IV
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-7 OF S3-27 SHEETS

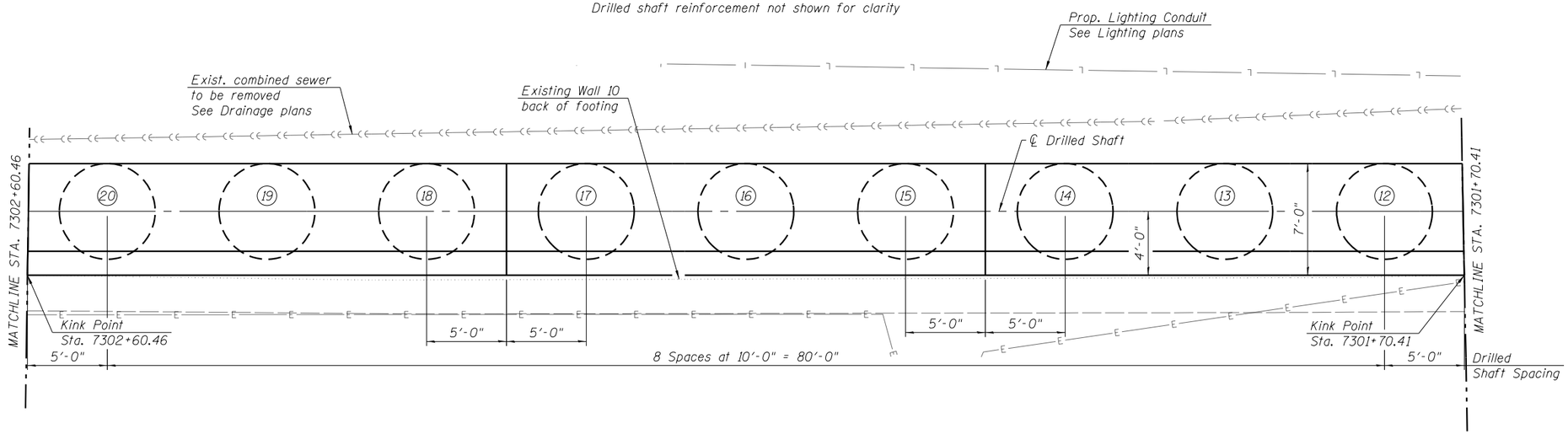
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	448
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

Notes:
See additional notes on Sheet S3-4 of S3-27.



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity



PLAN

(Parapet and cap reinforcement not shown for clarity)

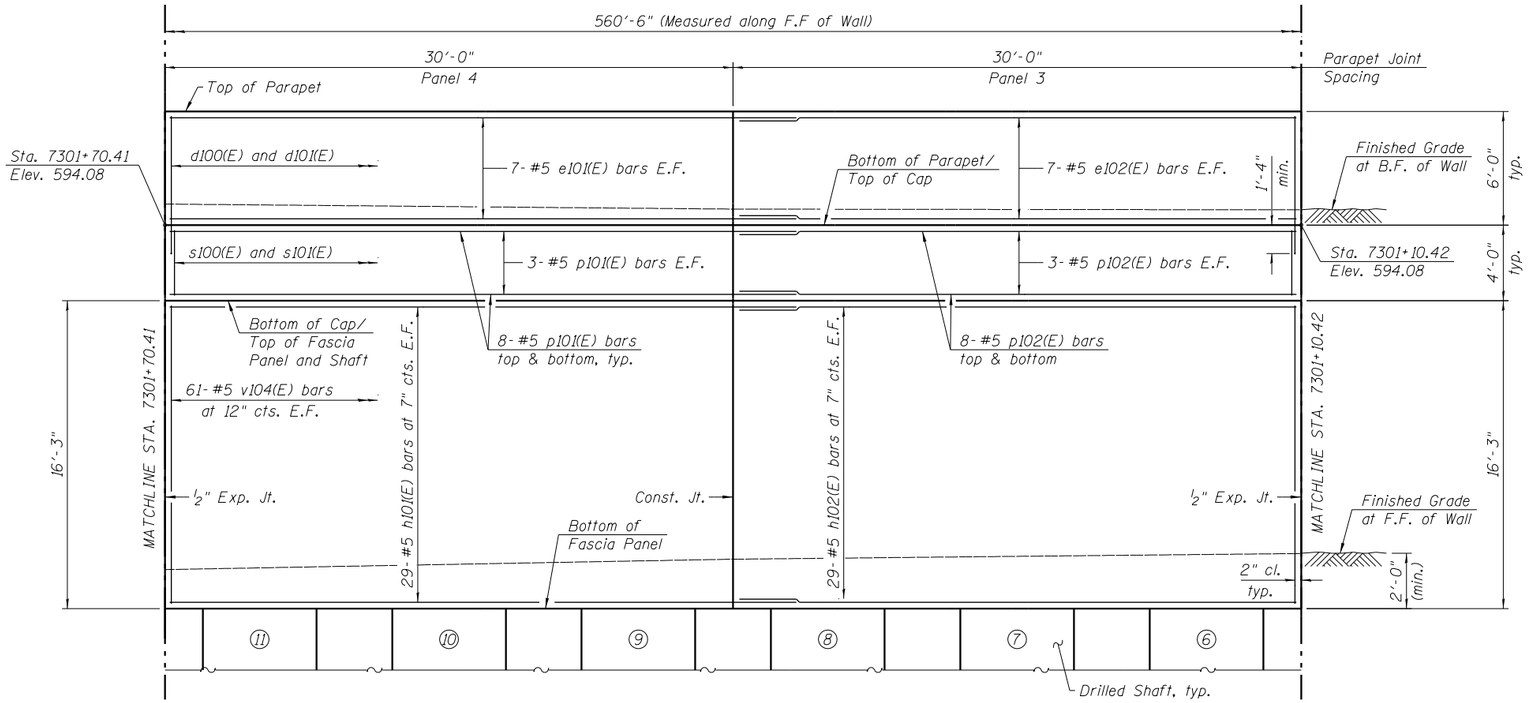
Tran Systems	USER NAME = vljanachione	DESIGNED - TLR	REVISED -
		CHECKED - MDS	REVISED -
	PLOT SCALE = 8.0 '/ in.	DRAWN - TLR	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATION DETAILS V
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-8 OF S3-27 SHEETS

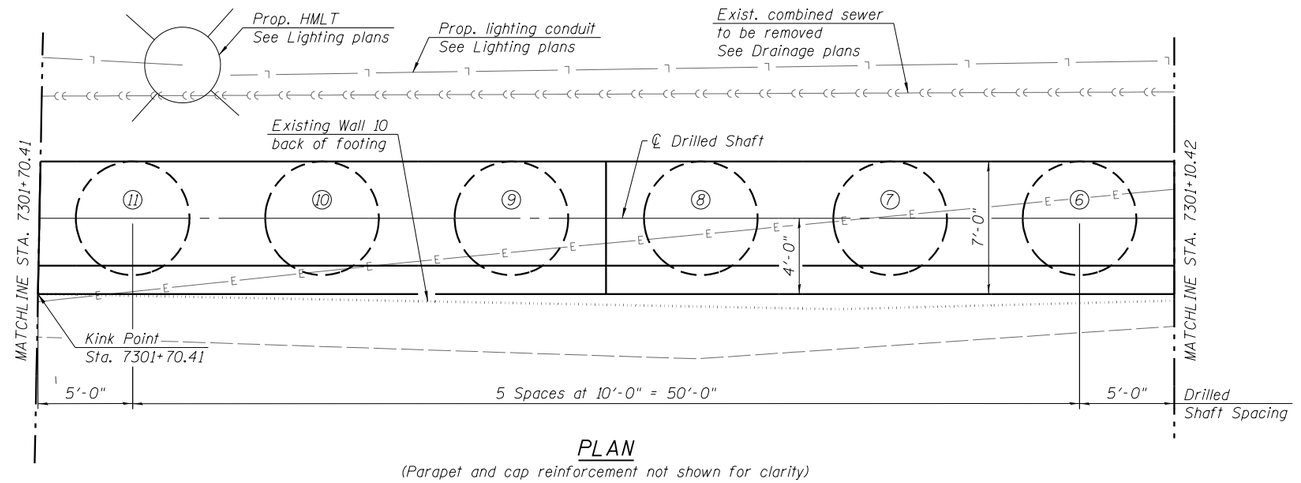
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	449
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Notes:
See additional notes on Sheet S3-4 of S3-27.



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity



PLAN

(Parapet and cap reinforcement not shown for clarity)

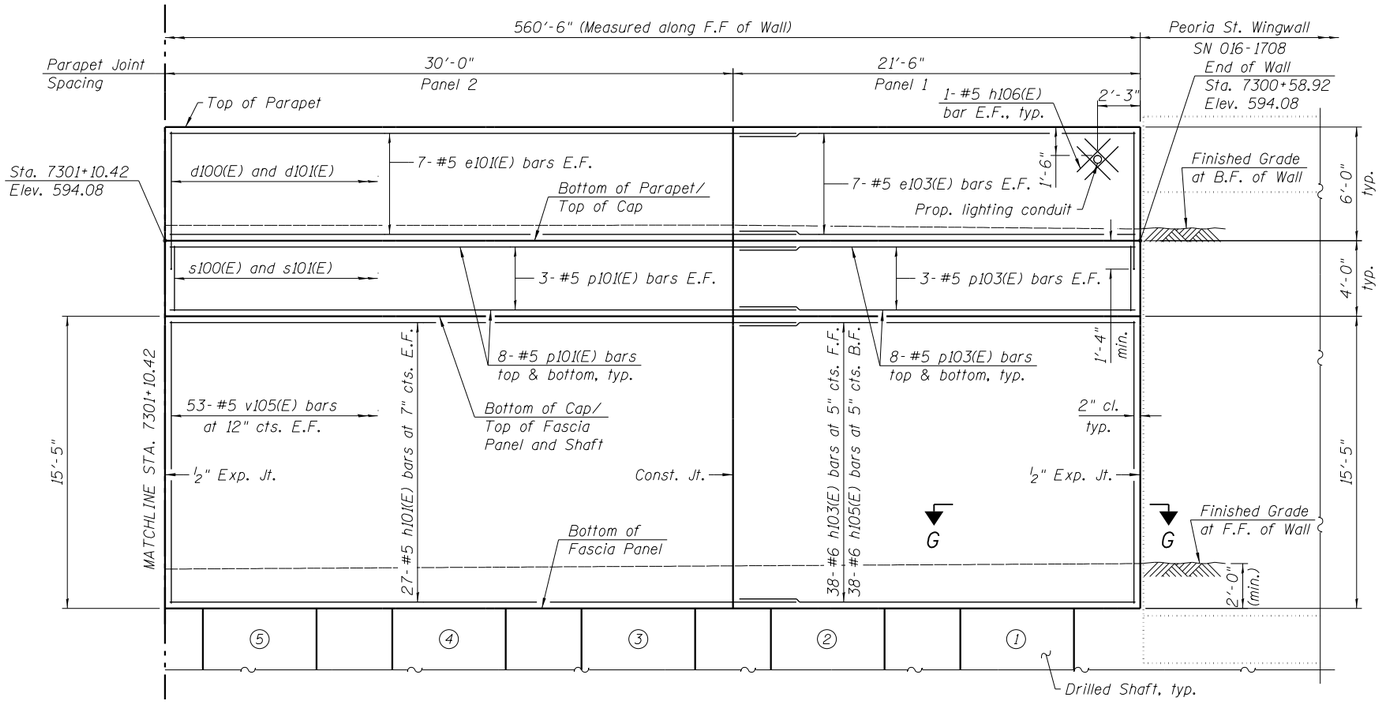
TranSystems	USER NAME = vljanachione	DESIGNED - TLR	REVISED -
		CHECKED - MDS	REVISED -
	PLOT SCALE = 8.0 '' / in.	DRAWN - TLR	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL ELEVATION DETAILS VI
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-9 OF S3-27 SHEETS

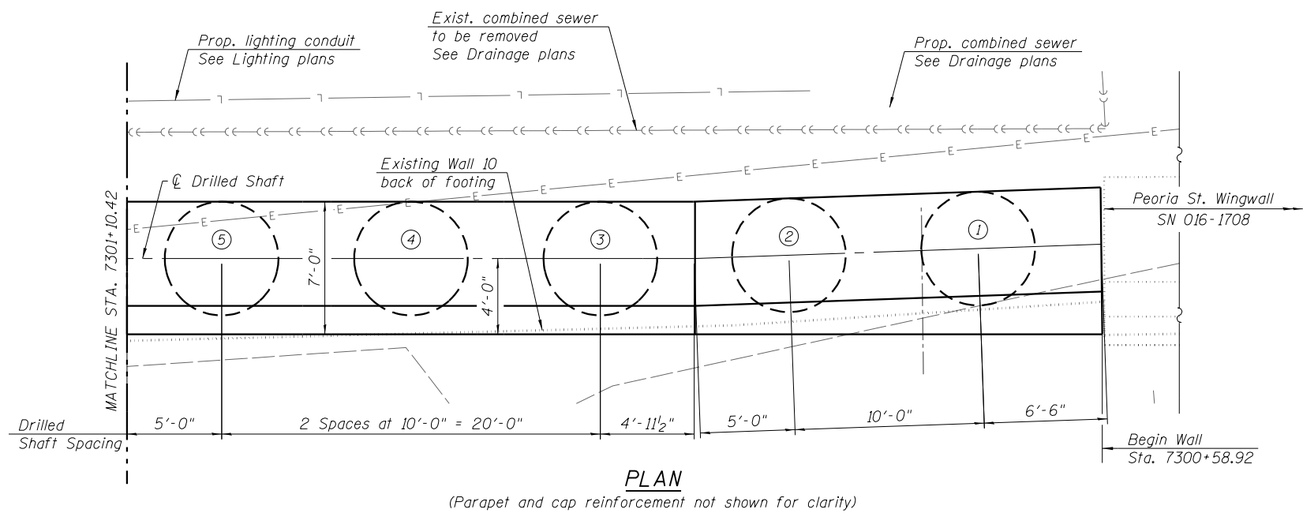
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	450
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Notes:
See additional notes on Sheet S3-4 of S3-27.



WALL ELEVATION

(Unfolded View, Looking South)
Drilled shaft reinforcement not shown for clarity



PLAN

(Parapet and cap reinforcement not shown for clarity)

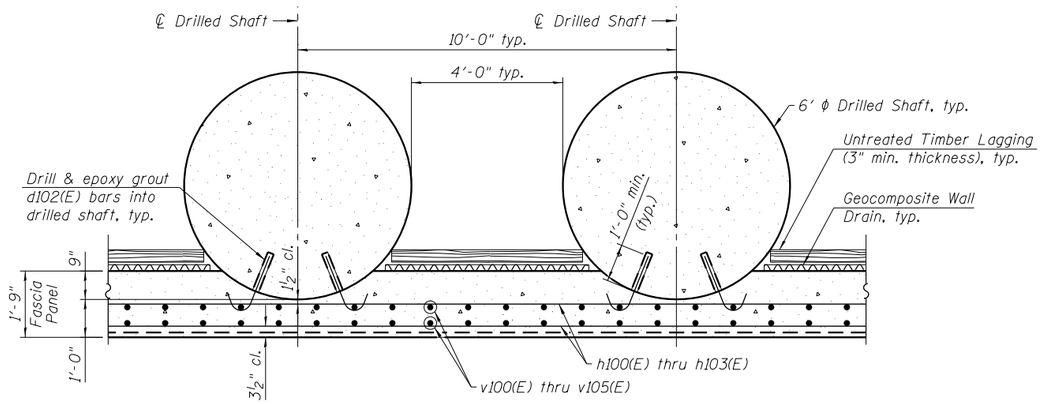
N

TranSystems	USER NAME = vljanachione	DESIGNED - TLR	REVISED -
		CHECKED - MDS	REVISED -
	PLOT SCALE = 8@ ':' / in.	DRAWN - TLR	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

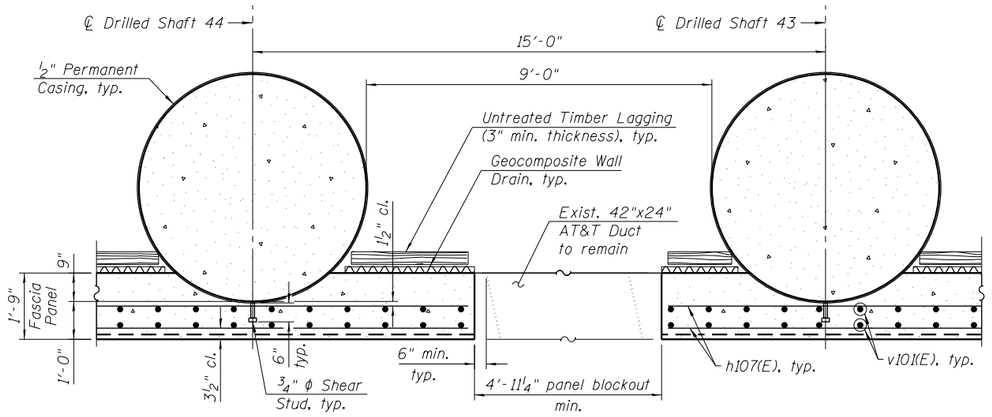
WALL ELEVATION DETAILS VII
RETAINING WALL 12 (STRUCTURE NO. 016–1801)
SHEET NO. S3-10 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	451
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



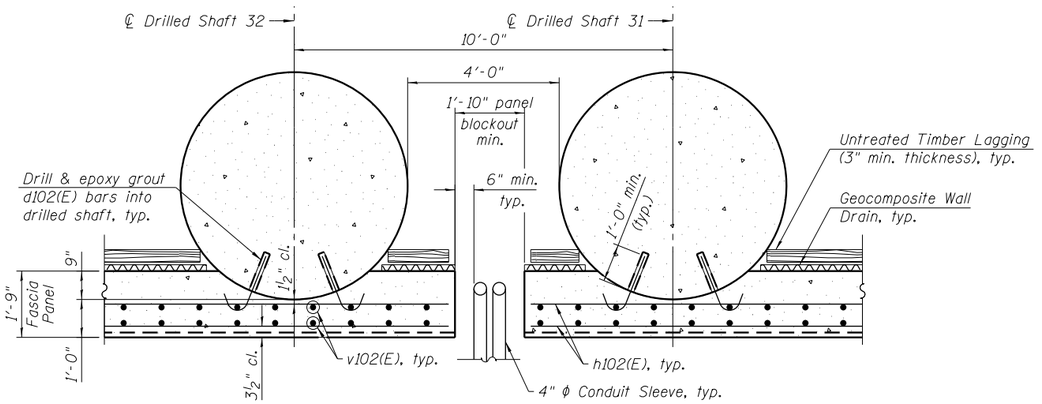
SECTION B-B

(Shaft reinforcement not shown for clarity)



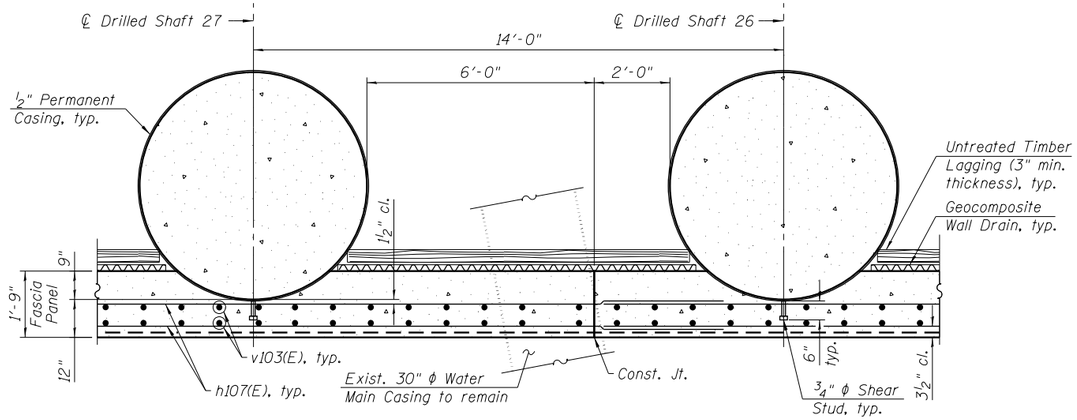
SECTION C-C

(Shaft reinforcement not shown for clarity)



SECTION D-D

(Shaft reinforcement not shown for clarity)



SECTION E-E

(Shaft reinforcement not shown for clarity)

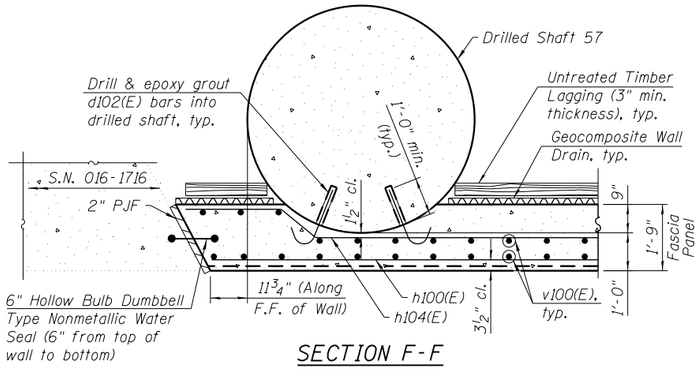
Notes:

Work this sheet with Sheets S3-4 thru S3-10 of S3-27 .

Hollow bulb dumbbell included in cost of Class SI Concrete (Miscellaneous).

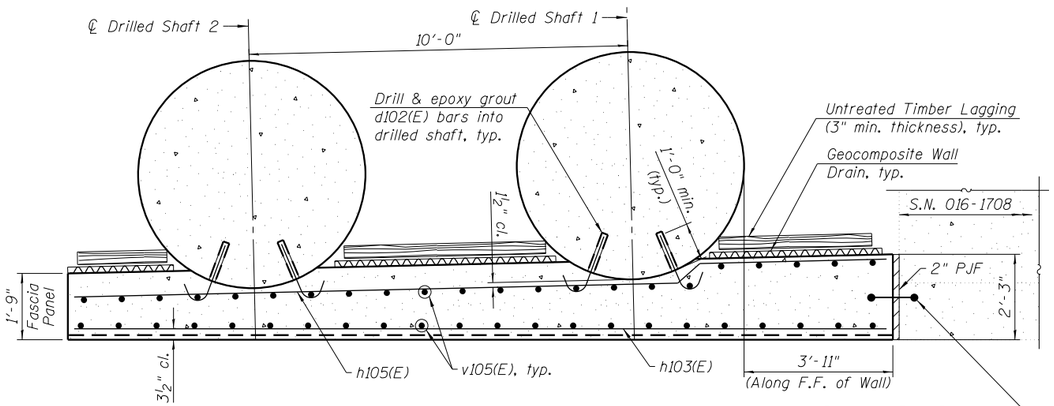
Install lagging and Geocomposite Wall Drain from top down as excavation proceeds. Minimize over-excavation and backfill voilds with dry loose sand. Cost included with Class SI Concrete (Miscellaneous).

The Contractor is responsible for the design and performance of the lagging system, the deflection of the lagging shall be limited to 1" maximum using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi, until the concrete facing is installed. The Contractor shall submit design calculations and details prepared by an Illinois Licensed Structural Engineer for the attachment of the lagging to the shaft for approval by the Engineer. Alternative equivalent systems may be submitted for approval by the Engineer. Cost included with Class SI Concrete (Miscellaneous).



SECTION F-F

(Shaft reinforcement not shown for clarity)

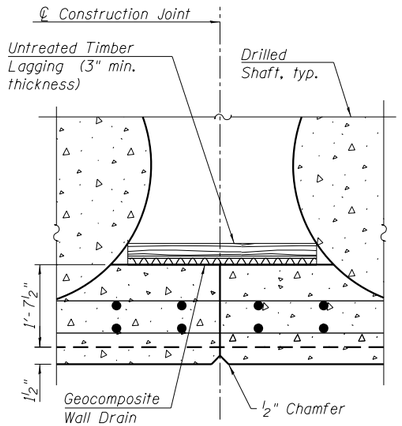


SECTION G-G

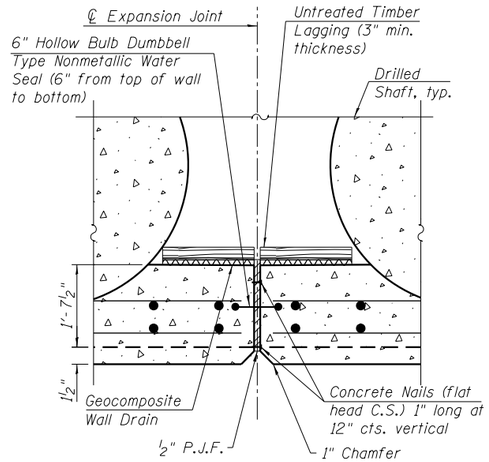
(Shaft reinforcement not shown for clarity)

USER NAME = wjcollett	DESIGNED - TLR	REVISED -	**STATE OF ILLINOIS**
	CHECKED - MDS	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 48 '-' / in.	DRAWN - TLR	REVISED -	**WALL SECTIONS AND DETAILS I**
PLOT DATE = 6/28/2017	CHECKED - MDS/WJC	REVISED -	**RETAINING WALL 12 (STRUCTURE NO. 016–1801)**
			SHEET NO. S3-11 OF S3-27 SHEETS

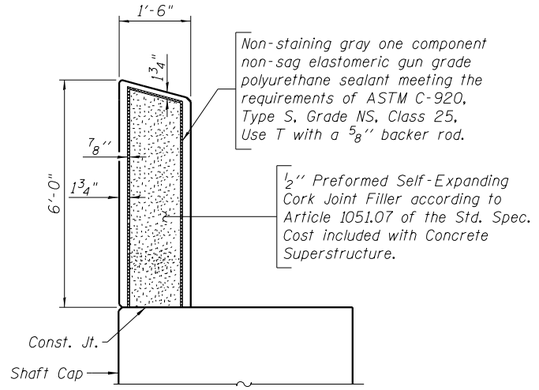
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	452
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



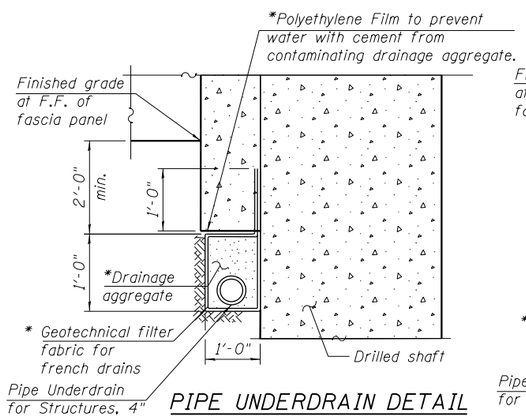
CONSTRUCTION JOINT DETAILS



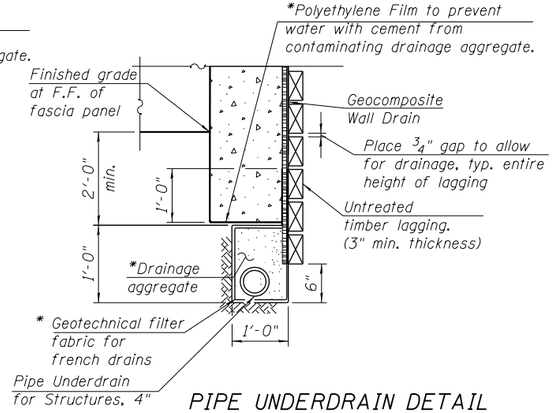
EXPANSION JOINT DETAILS



TRANSVERSE EXPANSION JOINT SECTION

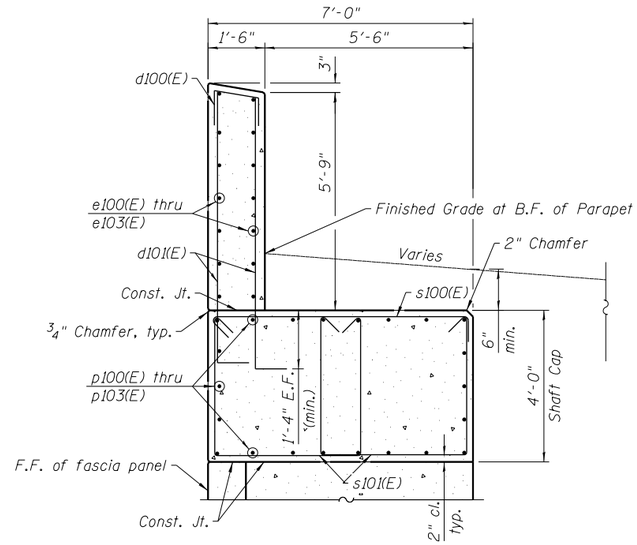


PIPE UNDERDRAIN DETAIL AT DRILLED SHAFT



PIPE UNDERDRAIN DETAIL BETWEEN DRILLED SHAFTS

* Cost included with Pipe Underdrains for Structures, 4".



SECTION A-A

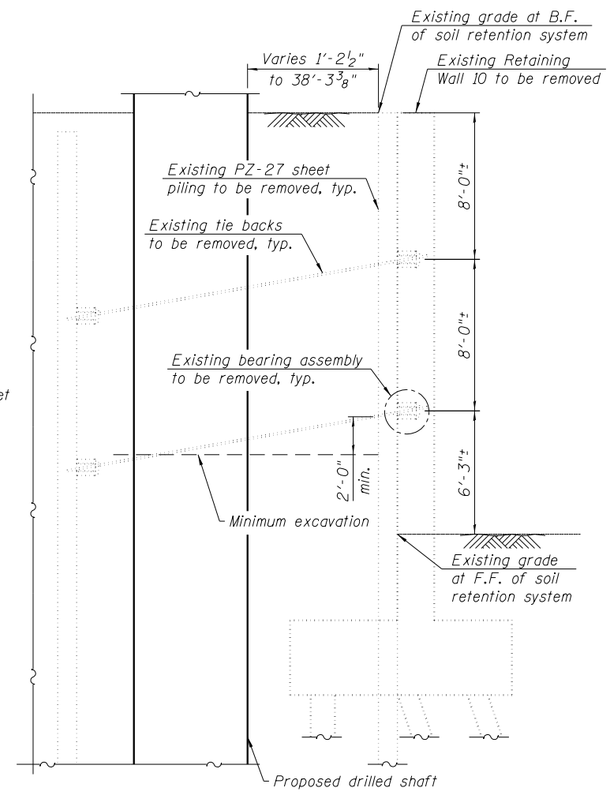
(Shaft and fascia panel reinforcement not shown for clarity)

Notes:
Work with Sheets S3-3 thru S3-11 of S3-27 .
See Sheets AB-15 to AB-18 of AB-18 for As-Built plans of Soil Retention System.

SUGGESTED WALL CONSTRUCTION SEQUENCE

Work with Existing Retaining Wall 10 (SN 016-Z029) and As-Built plans.

1. Install temporary soil retention system.
2. Excavate to remove soil retention system installed during Contract 60W26 at the south abutment of Halsted St. bridge (SN 016-1716).
3. Cut or remove steel anchors and sheet piles of existing soil retention system. See Section Thru Existing Soil Retention System.
4. Drill shafts.
5. Remove portion of existing Retaining Wall 10 and excavate to install timber lagging. See Section Thru Existing Soil Retention System.
6. Construct concrete fascia panels, cap, and parapet.



SECTION THRU EXISTING SOIL RETENTION SYSTEM

(Looking West)

USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = 8.0 '' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -	

TranSystems

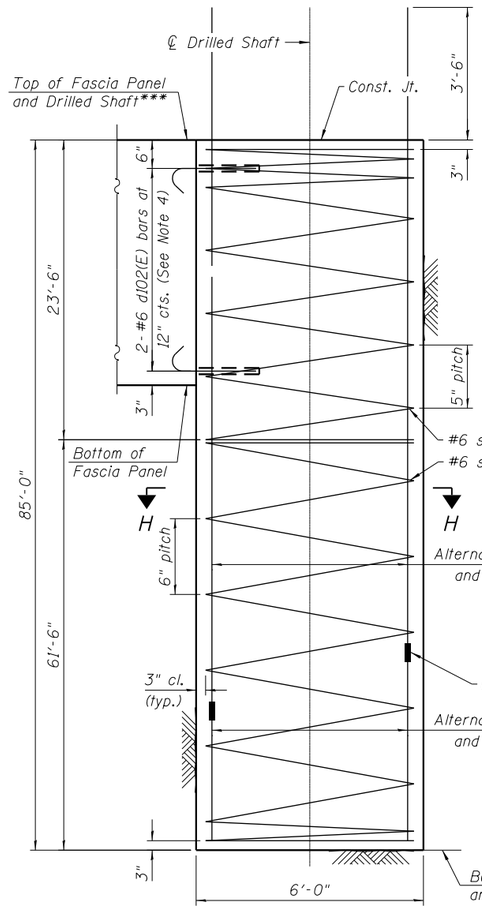
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL SECTION AND DETAILS II
RETAINING WALL 12 (STRUCTURE NO. 016–1801)
SHEET NO. S3-12 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	453
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

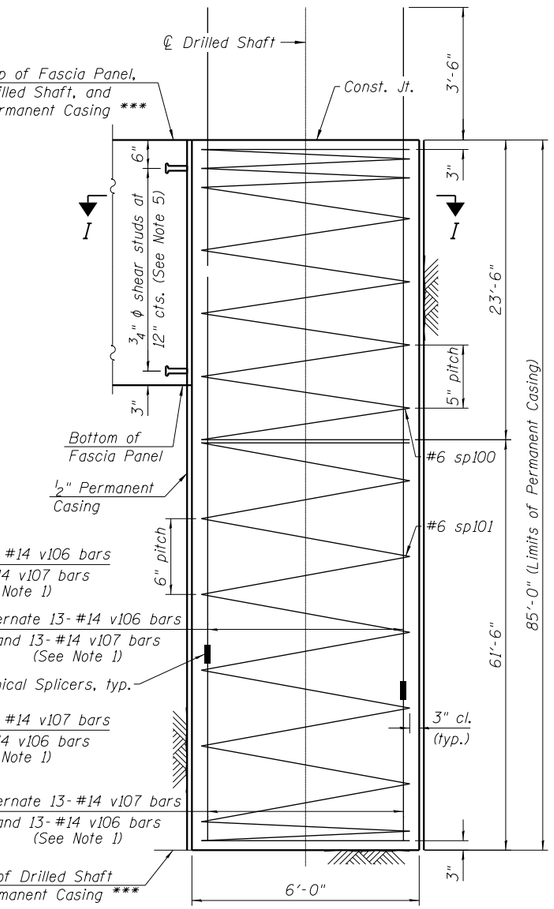
DRILLED SHAFT LAYOUT TABLE

Shaft No.	Station	Offset	Top of Shaft Elevation	Bottom of Shaft Elevation
1	7300+65.42	10.60′ Rt.	590.08	505.08
2	7300+75.41	10.38′ Rt.	590.08	505.08
3	7300+85.37	10.32′ Rt.	590.08	505.08
4	7300+95.37	10.45′ Rt.	590.08	505.08
5	7301+05.37	10.57′ Rt.	590.08	505.08
6	7301+15.37	10.69′ Rt.	590.08	505.08
7	7301+25.37	10.81′ Rt.	590.08	505.08
8	7301+35.36	10.94′ Rt.	590.08	505.08
9	7301+45.36	11.06′ Rt.	590.08	505.08
10	7301+55.36	11.18′ Rt.	590.08	505.08
11	7301+65.36	11.30′ Rt.	590.08	505.08
12	7301+74.41	11.80′ Rt.	589.50	504.50
13	7301+84.45	12.94′ Rt.	589.50	504.50
14	7301+94.52	13.99′ Rt.	589.50	504.50
15	7302+04.60	14.95′ Rt.	589.50	504.50
16	7302+14.69	15.83′ Rt.	589.50	504.50
17	7302+24.80	16.62′ Rt.	589.50	504.50
18	7302+34.93	17.32′ Rt.	589.50	504.50
19	7302+45.06	17.93′ Rt.	589.50	504.50
20	7302+55.21	18.46′ Rt.	589.50	504.50
21	7302+65.24	19.03′ Rt.	589.50	504.50
22	7302+75.39	19.67′ Rt.	589.50	504.50
23	7302+85.55	20.22′ Rt.	589.50	504.50
24	7302+95.72	20.68′ Rt.	589.50	504.50
25	7303+05.90	21.06′ Rt.	589.50	504.50
26	7303+16.08	21.34′ Rt.	589.50	504.50
27	7303+30.34	21.60′ Rt.	589.50	504.50
28	7303+38.50	21.66′ Rt.	589.50	504.50
29	7303+46.65	21.67′ Rt.	589.50	504.50
30	7303+56.84	21.61′ Rt.	588.92	503.92
31	7303+67.03	21.45′ Rt.	588.92	503.92
32	7303+77.22	21.21′ Rt.	588.92	503.92
33	7303+87.40	20.87′ Rt.	588.92	503.92
34	7303+97.57	20.45′ Rt.	588.92	503.92
35	7304+07.73	19.95′ Rt.	588.92	503.92
36	7304+17.89	19.35′ Rt.	588.92	503.92
37	7304+28.03	18.67′ Rt.	588.92	503.92
38	7304+38.16	17.89′ Rt.	588.92	503.92
39	7304+46.44	17.40′ Rt.	588.33	503.33
40	7304+54.74	17.16′ Rt.	588.33	503.33
41	7304+63.02	16.86′ Rt.	588.33	503.33
42	7304+72.46	16.20′ Rt.	588.33	503.33
43	7304+80.69	15.20′ Rt.	588.33	503.33
44	7304+95.74	13.23′ Rt.	588.33	503.33
45	7305+04.37	12.00′ Rt.	588.33	503.33
46	7305+13.12	12.00′ Rt.	588.33	503.33
47	7305+21.91	12.00′ Rt.	588.33	503.33
48	7305+30.69	12.00′ Rt.	588.33	503.33
49	7305+39.48	12.00′ Rt.	587.75	502.75
50	7305+49.60	12.00′ Rt.	587.75	502.75
51	7305+59.73	12.00′ Rt.	587.75	502.75
52	7305+69.86	12.00′ Rt.	587.75	502.75
53	7305+79.98	12.00′ Rt.	587.75	502.75
54	7305+90.11	12.00′ Rt.	587.75	502.75
55	7306+00.24	12.00′ Rt.	587.75	502.75
56	7306+10.36	12.00′ Rt.	587.75	502.75
57	7306+20.49	12.00′ Rt.	587.75	502.75



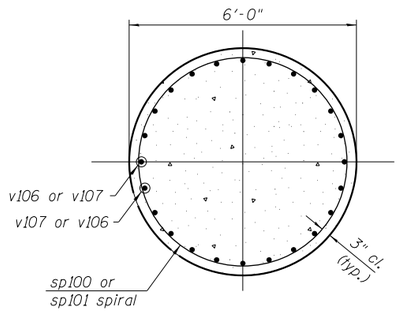
TYPICAL SHAFT ELEVATION

***See Drilled Shaft Layout Table

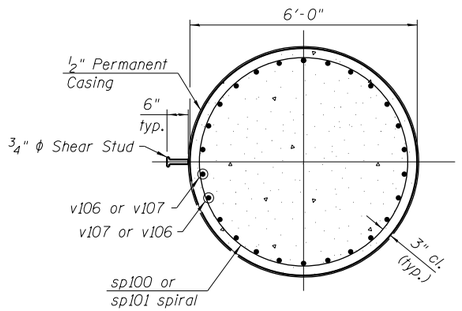


SHAFT ELEVATION

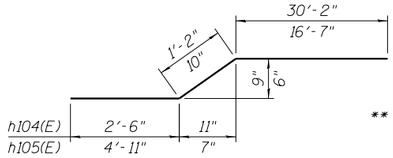
Shafts 26, 27, 43, and 44 only



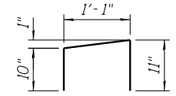
SECTION H-H



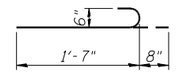
SECTION I-I



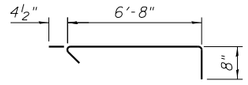
BAR h104(E)
BAR h105(E)



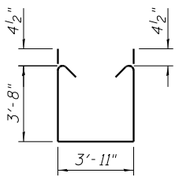
BAR d100(E)



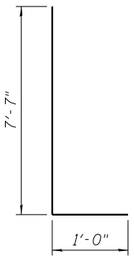
BAR d102(E)



BAR s100(E)



BAR s101(E)



BAR d101(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d100(E)	568	#4	2′-10"	
d101(E)	1136	#6	8′-7"	
** d102(E)	1890	#6	2′-3"	
e100(E)	14	#5	32′-2"	
e101(E)	154	#5	33′-2"	
e102(E)	84	#5	29′-8"	
e103(E)	14	#5	21′-2"	
** h100(E)	32	#5	32′-2"	
** h101(E)	490	#5	33′-2"	
** h102(E)	372	#5	29′-8"	
** h103(E)	38	#6	21′-10"	
** h104(E)	32	#5	33′-10"	
** h105(E)	38	#6	22′-4"	
h106(E)	8	#5	2′-6"	
** h107(E)	258	#7	33′-2"	
p100(E)	22	#5	32′-2"	
p101(E)	242	#5	33′-2"	
p102(E)	132	#5	29′-8"	
p103(E)	22	#5	21′-2"	
s100(E)	382	#4	7′-9"	
s101(E)	764	#4	12′-0"	
* sp100	57	#6	23′-4"	
* sp101	57	#6	61′-2"	
** v100(E)	180	#5	17′-7"	
** v101(E)	182	#5	18′-2"	
** v102(E)	182	#5	17′-9"	
** v103(E)	364	#5	16′-11"	
** v104(E)	122	#5	15′-11"	
** v105(E)	106	#5	15′-1"	
v106	1376	#14	42′-2"	
v107	1376	#14	46′-2"	

Structure Excavation	Cu. Yd.	1,746
Concrete Structures	Cu. Yd.	581.3
Concrete Superstructures	Cu. Yd.	183.0
** Stud Shear Connectors	Each	74
Reinforcement Bars	Pound	1,201,980
Reinforcement Bars, Epoxy Coated	Pound	46,220
Permanent Casing	Foot	340
Drilled Shaft in Soil	Cu. Yd.	5,073.7
Concrete Sealer	Sq. Ft.	12,612
Class SI Concrete (Miscellaneous)	Cu. Yd.	558.0
Crosshole Sonic Logging Testing	Each	12
Crosshole Sonic Logging Access Ducts	Foot	4,845
Slope Inclinometer	Each	1
Foundation Construction at Existing Obstructions	Each	4
Pipe Underdrain for Structures 4"	Foot	565

* Length is height of spiral

** Shown for information only. Cost included with Class SI Concrete (Miscellaneous).

Notes:

1. Splice v106 bars with v107 bars or v107 bars with v106 bars.
2. Splice sp100 and sp101 bars where they meet.
3. When splicing spiral reinforcement is necessary, the spiral shall be provided with 1 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4 or shall both terminate with a 135° standard hook.
4. Drilling and grouting of d102(E) bars shall be as per Section 584 of the Standard Specifications. Depth of embedment = 12". Cost included in Class SI Concrete (Miscellaneous).
5. Cost of shear studs included in Class SI Concrete (Miscellaneous).

Minimum Bar Laps	
Bar	Lap
#5	3′-2"
#6	3′-10"

TranSystems

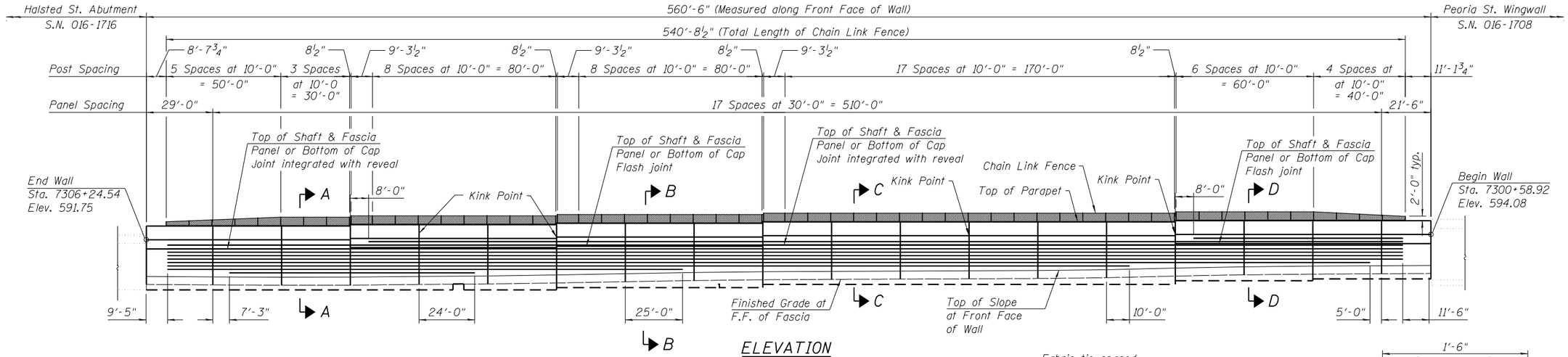
USER NAME = tlrevzin	DESIGNED - TLR	REVISED -
	CHECKED - MDS	REVISED -
PLOT SCALE = Ø.2 '/ in.	DRAWN - TLR	REVISED -
PLOT DATE = 5/11/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

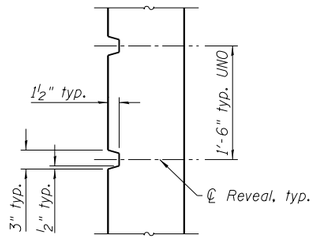
WALL SECTION AND DETAILS III
RETAINING WALL 12 (STRUCTURE NO. 016-1801)

SHEET NO. S3-13 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	454
		CONTRACT NO.		60X76
		ILLINOIS	FED. AID PROJECT	



ELEVATION
(Looking South)

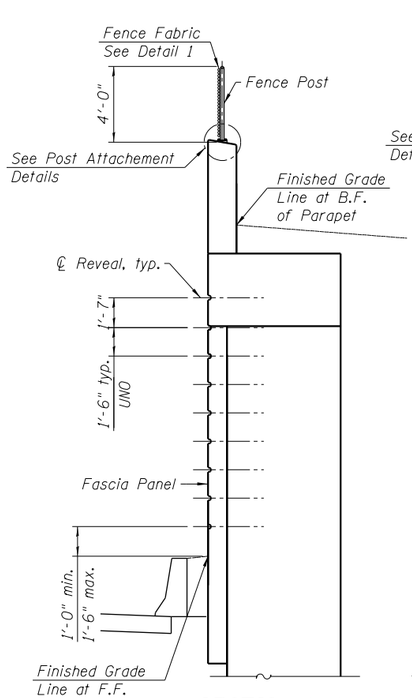


Notes:

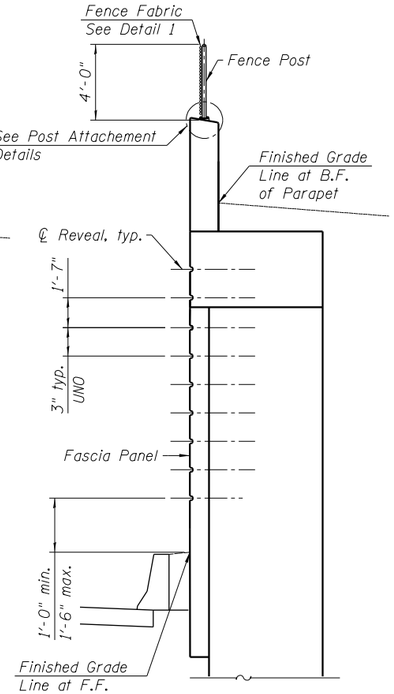
Reveals will not be paid separately and shall be included in the cost of Class SI Concrete (Miscellaneous).

For additional chain link fence details, see Standard 664001.

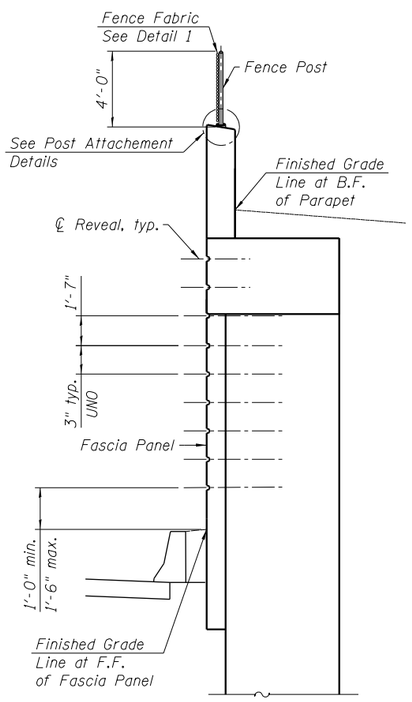
Base plate, angled plate, elastomeric pad, and post attachment assembly shall be included with Chain Link Fence, 4' Attached to Structure.



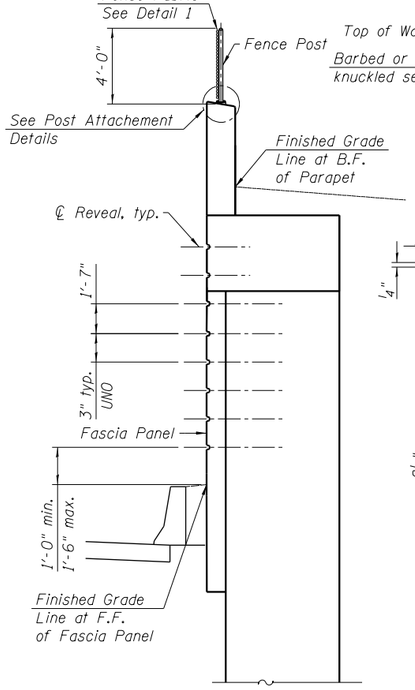
SECTION A-A



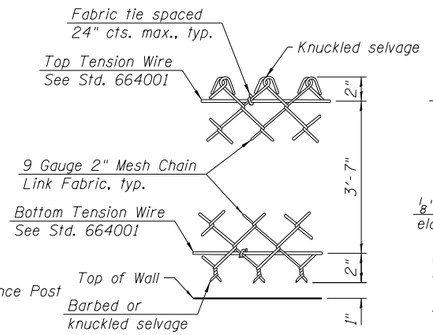
SECTION B-B



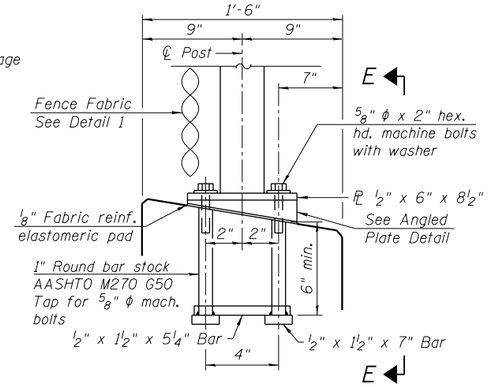
SECTION C-C

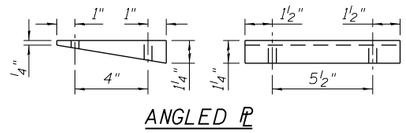


SECTION D-D

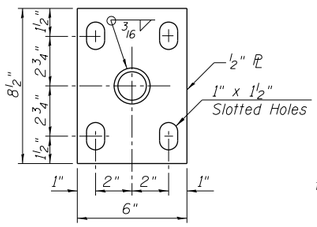


DETAIL 1

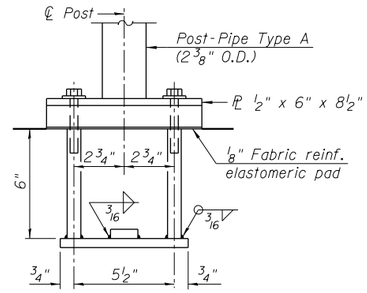




ANGLED PL



BASE PL



SECTION E-E

POST ATTACHMENT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

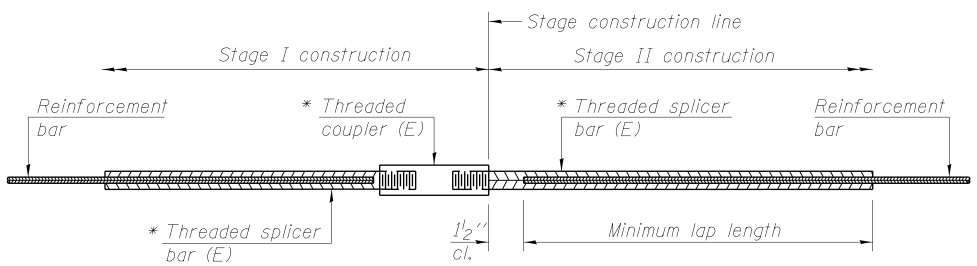
Item	Unit	Total
Chain Link Fence, 4' Attached to Structure	Foot	541

USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - MDS	REVISED -	
PLOT SCALE = 47:11 7/8 '1' / in.	DRAWN - TLR	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-14 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	455
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

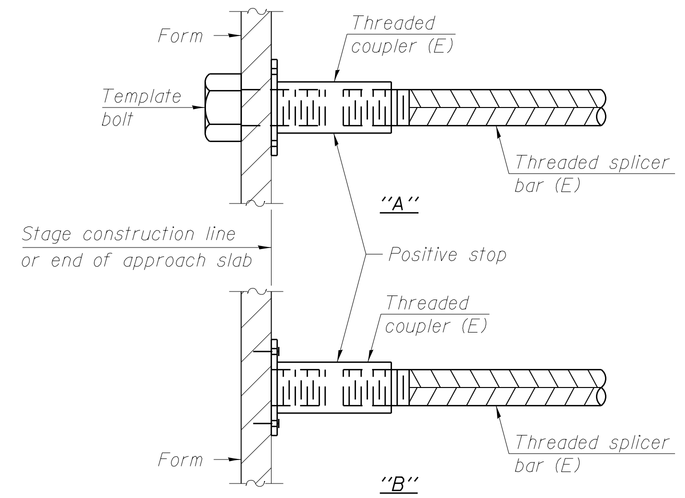
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

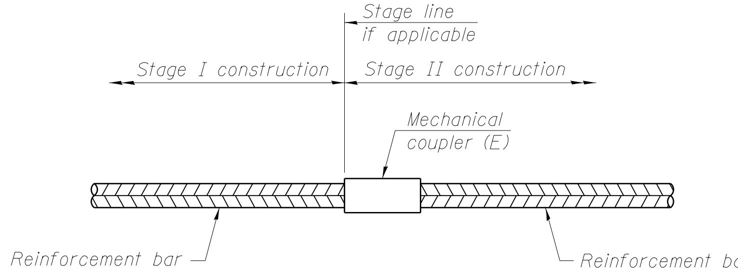
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



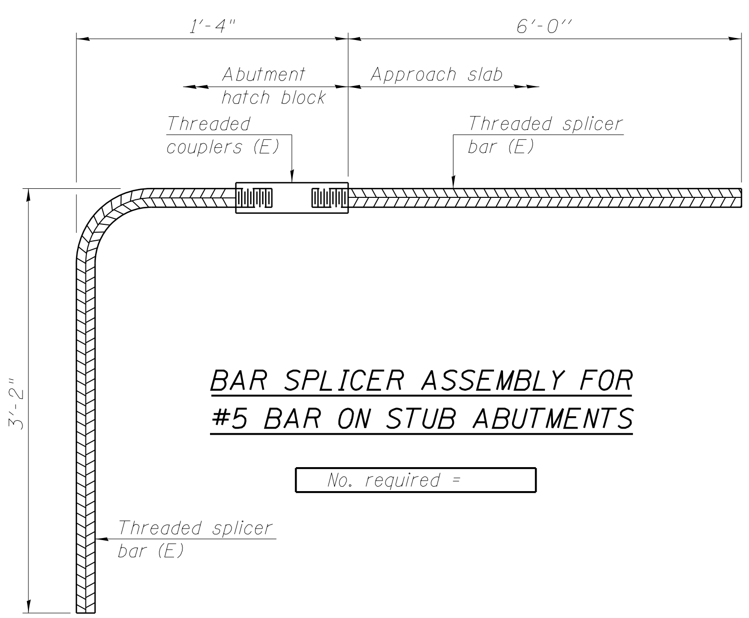
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Drilled Shaft 1	14	24
Drilled Shaft 2	14	24
Drilled Shaft 3	14	24
Drilled Shaft 4	14	24
Drilled Shaft 5	14	24
Drilled Shaft 6	14	24
Drilled Shaft 7	14	24
Drilled Shaft 8	14	24
Drilled Shaft 9	14	24
Drilled Shaft 10	14	24
Drilled Shaft 11	14	24
Drilled Shaft 12	14	24
Drilled Shaft 13	14	24
Drilled Shaft 14	14	24
Drilled Shaft 15	14	24
Drilled Shaft 16	14	24
Drilled Shaft 17	14	24
Drilled Shaft 18	14	24
Drilled Shaft 19	14	24
Drilled Shaft 20	14	24
Drilled Shaft 21	14	24
Drilled Shaft 22	14	24
Drilled Shaft 23	14	24
Drilled Shaft 24	14	24
Drilled Shaft 25	14	24
Drilled Shaft 26	14	26
Drilled Shaft 27	14	26
Drilled Shaft 28	14	24
Drilled Shaft 29	14	24
Drilled Shaft 30	14	24
Drilled Shaft 31	14	24
Drilled Shaft 32	14	24
Drilled Shaft 33	14	24
Drilled Shaft 34	14	24
Drilled Shaft 35	14	24
Drilled Shaft 36	14	24
Drilled Shaft 37	14	24
Drilled Shaft 38	14	24
Drilled Shaft 39	14	24
Drilled Shaft 40	14	24
Drilled Shaft 41	14	24
Drilled Shaft 42	14	24
Drilled Shaft 43	14	26
Drilled Shaft 44	14	26
Drilled Shaft 45	14	24
Drilled Shaft 46	14	24
Drilled Shaft 47	14	24
Drilled Shaft 48	14	24
Drilled Shaft 49	14	24
Drilled Shaft 50	14	24
Drilled Shaft 51	14	24
Drilled Shaft 52	14	24
Drilled Shaft 53	14	24
Drilled Shaft 54	14	24
Drilled Shaft 55	14	24
Drilled Shaft 56	14	24
Drilled Shaft 57	14	24



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1   6-8-15

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - MDS	REVISED -
PLOT SCALE = 0:2.0000 ' / in.	DRAWN - TLR	REVISED -
PLOT DATE = 5/9/2017	CHECKED - MDS/WJC	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
RETAINING WALL 12 (STRUCTURE NO. 016-1801)

SHEET NO. S3-15 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	456

CONTRACT NO. 60X76

ILLINOIS FED. AID PROJECT

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 12-RWB-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.72 ft
North: 1897780.69 ft
East: 1171075.09 ft
Station: 7305+94.56
Offset: 5.9839 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.4	4-inch thick, brown SILTY LOAM --TOPSOIL--						
	591.7	Hard, brown SILTY CLAY LOAM, trace gravel --FILL--			1	6 13 19	> 4.50	11
		Very loose to medium dense, brown SANDY GRAVEL --FILL--	5		2	8 13 13	NP	2
					3	3 1 2	NP	1
			10		4	2 2 1	NP	1
					5	1 1 2	NP	2
	580.7	Very soft to soft, gray CLAY to SILTY CLAY, trace gravel	15		6	1 1 2	< 0.25 P	17
					7	1 1 1	0.25 B	24
			20		8	0 0 3	0.41 B	22
					9	3 2 2	0.33 B	24
			25		10	2 2 2	0.33 B	23

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			30		11	0 0 1	0.41 B	22
					12	0 0 1	0.25 B	27
			35		13	0 0 1	0.16 B	26
					14	0 0 2	0.16 B	25
			45		15	1 2 2	0.25 B	27
			50		16	0 0 2	0.25 B	28

GENERAL NOTES

Begin Drilling: 07-19-2013 Complete Drilling: 07-19-2013
Drilling Contractor: Wang Testing Service Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 8', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 82.00 ft
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/1/14

BORING LOG 12-RWB-01
WEI Job No.: 1100-04-01
Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 593.72 ft
North: 1897780.69 ft
East: 1171075.09 ft
Station: 7305+94.56
Offset: 5.9839 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	542.0	Very stiff, gray SILTY CLAY, trace gravel and sand lenses						
			55		17	4 9 21	3.94 B	19
			60		18	6 9 13	3.77 B	16
			65		19	13 20 26	3.03 B	20
			70		20	8 7 13	2.79 B	20
	519.7	Soft to stiff, gray CLAY to SILTY CLAY, trace gravel	75		21	5 7 8	1.56 B	24

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		–L_L(%)=35, P_L(%)=20– –%Gravel=0.7– –%Sand=3.4–80 –%Silt=60.1– –%Clay=35.8– –A-6 (15)–			22	2 2 3	0.41 B	36
	512.0	Medium dense, gray SILT, trace sand lenses –Wet– –%Gravel=0.5– –%Sand=3.9– –%Silt=91.4–85 –%Clay=4.1– –A-4 (0)–	90		23	2 3 13	NP	25
	507.0	Very dense, gray LOAM to SANDY LOAM, little gravel –%Gravel=11.5– –%Sand=43.6– –%Silt=40.2–90 –%Clay=4.6– –A-4 (0)–			24	46 41 40	NP	9
	502.0	Gray SILT						
	500.0	Very dense, gray, fine SAND	95		25	46 50/5	NP	16
	497.0	Very dense, gray SILTY LOAM, some gravel			26	50/3	NP	10
			100					

GENERAL NOTES
Begin Drilling: 07-19-2013 Complete Drilling: 07-19-2013
Drilling Contractor: Wang Testing Service Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 8', mud rotary thereafter, boring
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WATER LEVEL DATA
While Drilling: ▽ 82.00 ft
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA
The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/1/14

BORING LOG 12-RWB-01
WEI Job No.: 1100-04-01
Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM
Datum: NAVD 88
Elevation: 593.72 ft
North: 1897780.69 ft
East: 1171075.09 ft
Station: 7305+94.56
Offset: 5.9839 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	490.2	–ROLLER-BIT REFUSAL– Boring terminated at 103.50 ft						
			105		27	50/2	NR	
			110					
			115					
			120					
			125					

GENERAL NOTES
Begin Drilling: 07-19-2013 Complete Drilling: 07-19-2013
Drilling Contractor: Wang Testing Service Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 8', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA
While Drilling: ▽ 82.00 ft
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA
The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/1/14

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS I
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-16 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	457
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG 12-RWB-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.80 ft
North: 1897776.68 ft
East: 1171010.55 ft
Station: 7305+36.58
Offset: 24.3228 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.0	9-inch thick, brown SILTY LOAM --TOPSOIL--						
	592.5	Very dense, brown SILTY CLAY LOAM --FILL--			1	21 38 32	NP	3
		Loose to medium dense, brown SANDY GRAVEL, trace brick fragments --FILL--	5		2	17 9 5	NP	13
					3	2 2 7	NP	7
			10		4	9 6 9	NP	10
	583.3	Very stiff, gray SILTY CLAY LOAM, trace gravel			5	4 4 6	2.46 B	18
	580.8	Soft to medium stiff, gray CLAY, trace to little gravel	15		6	2 2 2	0.67 N/6	
					7	1 1 2	0.25 B	23
			20		8	0 0 0	0.25 B	24
					9	0 2 3	0.57 B	23
			25		10	1 2 2	0.57 B	22
			30		12	1 2 2	0.25 P	24
			35		13	0 0 0	0.25 B	27
			40		14	0 0 2	0.25 P	27
			45		15	0 0 0	0.33 B	24
			50		16	3 4 5	0.25 P	19

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-05-2013 Complete Drilling: 07-09-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.80 ft
North: 1897776.68 ft
East: 1171010.55 ft
Station: 7305+36.58
Offset: 24.3228 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	542.0	Very stiff, gray SILTY CLAY, trace gravel						
			55		17	4 7 10	2.46 B	16
	537.0	Gray SILTY LOAM						
	534.3	Very stiff to hard, gray SILTY CLAY, trace to little gravel	60		18	14 15 14	NP	20
			65		19	6 10 17	3.36 B	21
		--Sand lenses--	70		20	8 12 13	3.03 B	20
			75		21	13 15 17	5.33 N/6	
	517.0	Medium stiff, gray CLAY						
	512.0	Medium dense to very dense, gray SILT --%Gravel=0.0-- --%Sand=5.1-- --%Silt=90.6-- --%Clay=4.2-- --A-4 (0)--	80		22	3 6 6	0.66 B	31
			85		23	6 6 9	NP	23
	502.0	Very dense, gray SANDY GRAVEL, trace clay pockets --Moist--	90		24	50/5"	NP	14
			95		25	50/3"	NP	15
		--Possible Cobbles--	100		26	50/3"	NP	13

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-05-2013 Complete Drilling: 07-09-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.80 ft
North: 1897776.68 ft
East: 1171010.55 ft
Station: 7305+36.58
Offset: 24.3228 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	492.0	Very dense, gray SILTY LOAM, trace gravel							
	489.3	--DIFFICULT DRILLING--				27	50/5"	NP	13
	488.8	--WEATHERED BEDROCK--	105						
		Strong, light gray, very good rock mass quality, bedded fresh DOLOSTONE, up to 14-inch beds, 8-inch joint spacing, horizontal joints with none to less than 0.2-inch greenish gray infilling, hard joint wall, with stylolitic surfaces, and moderately vuggy porosity. --Run 1 - RECOVERY=100%-- --RQD=95%--	110		C O M P O S I T E	1			
	478.8	Boring terminated at 115.00 ft	115						
			120						
			125						

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-05-2013 Complete Drilling: 07-09-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

TranSystems

USER NAME = vlganachione	DESIGNED - TLR	REVISED -	
	CHECKED - WJC	REVISED -	
PLOT SCALE = 02 '' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS II
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-17 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	458
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Wang Engineering

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BORING LOG 12-RWB-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897797.24 ft
East: 1170964.92 ft
Station: 7304+85.22
Offset: 20.3056 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.3	6-inch thick, black SILTY LOAM --TOPSOIL--						
		Dense, brown SILTY LOAM, trace gravel and roots			1	9 18 15	NP	12
	590.8	Very dense, light brown SANDY GRAVEL, trace slag --FILL--	5		2	7 23 50/3"	NP	11
					3	19 14 8	NP	6
			10		4	8 6 6	NP	8
					5	6 6 5	NP	10
	580.8	Hard, gray SILTY CLAY LOAM, trace gravel	15		6	5 5 5	4.26 B	16
	578.3	Medium stiff, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel			7	0 1 2	0.57 B	18
		--In-Situ Vane Shear, 20.0 feet-- --$S_{v\,undis}$ = 2274.8 psf-- --$S_{v\,remold}$ = 1706.1 psf-- --Sensitivity = 1.33-- --L_L(%)=27, P_L(%)=15-- --%Gravel=4.4-- --%Sand=20.5-- --%Silt=54.0-- --%Clay=21.1-- --A-6 (7)--	20		8	1 2 3	0.74 B	17
					9	2 2 4	0.90 B	19
		--In-Situ Vane Shear, 22.5 feet-- --$S_{v\,undis}$ = 1499.3 psf-- --$S_{v\,remold}$ = 1137.4 psf-- --Sensitivity = 1.32--	25		10	0 2 3	0.57 B	19

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	588.3	Very soft to soft, gray CLAY to SILTY CLAY, trace gravel			11	1 2 3	0.33 B	23
			30		12	0 2 2	0.49 B	25
			35		13	0 0 2	0.25 B	19
			40		14	0 1 2	0.16 B	27
	549.3	Gray GRAVELLY SAND	45		15	1 2 2	< 0.25 P	25
	547.1	Soft, gray CLAY to SILTY CLAY, trace gravel	50		16	1 2 3	0.25 B	30

GENERAL NOTES

Begin Drilling: 07-10-2013 Complete Drilling: 07-11-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897797.24 ft
East: 1170964.92 ft
Station: 7304+85.22
Offset: 20.3056 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	542.1	Stiff to very stiff, gray SILTY CLAY LOAM, trace gravel						
			55		17	2 4 6	1.64 B	25
			60		18	7 9 15	3.28 B	15
			65		19	5 9 13	3.28 B	21
			70		20	10 10 15	3.94 B	23
	522.1	Stiff, gray CLAY	75		21	3 3 4	1.07 B	37

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	517.1	Medium dense, gray SILT --Moist--						
			80		22	3 5 5	NP	19
	512.1	Hard, gray SILTY CLAY LOAM, trace gravel						
			85		23	7 16 37	4.50 P	13
		--L_L(%)=30, P_L(%)=17-- --%Gravel=1.5-- --%Sand=3.1-- --%Silt=67.7-- --%Clay=27.6-- --A-6 (11)--	90		24	13 19 50	7.46 B	16
	502.1	Very dense, gray SILTY LOAM, trace gravel						
			95		25	50/5"	NP	14
			100		26	5/4"	NP	11

GENERAL NOTES

Begin Drilling: 07-10-2013 Complete Drilling: 07-11-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG INC 1100401.GPJ WANGENG.GDT 1/15/14

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1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 12-RWB-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897797.24 ft
East: 1170964.92 ft
Station: 7304+85.22
Offset: 20.3056 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	488.8	--AUGER REFUSAL--	105		27	50/4"	NP	14
		Boring terminated at 105.00 ft						

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			110					
			115					
			120					
			125					

GENERAL NOTES

Begin Drilling: 07-10-2013 Complete Drilling: 07-11-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG INC 1100401.GPJ WANGENG.GDT 1/15/14

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 '/ in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS III
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-18 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	459
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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Lombard, IL 60148
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BORING LOG 12-RWB-03A

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.61 ft
North: 1897782.13 ft
East: 1170962.17 ft
Station: 7304+87.35
Offset: 35.5259 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--In-Situ Vane Shear, 18.0 feet-- --$S_{u\,undis}$ = 1292.5 psf-- --$S_{u\,remold}$ = 878.9 psf-- --Sensitivity = 1.47--	20		1			
		--In-Situ Vane Shear, 20.5 feet-- --$S_{u\,undis}$ = 1938.75 psf-- --$S_{u\,remold}$ = 1059.83 psf-- --Sensitivity = 1.83--			2			
		--In-Situ Vane Shear, 23.0 feet-- --$S_{u\,undis}$ = 2042.15 psf-- --$S_{u\,remold}$ = 1085.7 psf-- --Sensitivity = 1.88--	25		3			
		--In-Situ Vane Shear, 25.5 feet-- --$S_{u\,undis}$ = 1085.7 psf-- --$S_{u\,remold}$ = 517.0 psf-- --Sensitivity = 2.10--			4			
		--In-Situ Vane Shear, 28.0 feet-- --$S_{u\,undis}$ = 1085.7 psf-- --$S_{u\,remold}$ = 775.5 psf-- --Sensitivity = 1.40--	30		5			
		--In-Situ Vane Shear, 31.5 feet-- --$S_{u\,undis}$ = 1318.35 psf-- --$S_{u\,remold}$ = 697.95 psf-- --Sensitivity = 1.89--			6			
		--In-Situ Vane Shear, 36.5 feet-- --$S_{u\,undis}$ = 1266.65 psf-- --$S_{u\,remold}$ = 568.7 psf-- --Sensitivity = 2.23--	35		7			
		--In-Situ Vane Shear, 41.5 feet-- --$S_{u\,undis}$ = 1266.65 psf-- --$S_{u\,remold}$ = 749.65 psf-- --Sensitivity = 1.69--	40		8			
		--In-Situ Vane Shear, 46.5 feet-- --$S_{u\,undis}$ = 1421.75 psf-- --$S_{u\,remold}$ = 697.95 psf-- --Sensitivity = 2.04--	45		9			
			50					

WANGENGINC 1100401.GPJ WANGENG.GDT 1/15/14

GENERAL NOTES

Begin Drilling: 07-11-2013 Complete Drilling: 07-11-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

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BORING LOG 12-RWB-03A

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.61 ft
North: 1897782.13 ft
East: 1170962.17 ft
Station: 7304+87.35
Offset: 35.5259 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	542.6	--In-Situ Vane Shear, 51.5 feet-- --$S_{u\,undis}$ = 1887.05 psf-- --$S_{u\,remold}$ = 1318.35 psf-- --Sensitivity = 1.43--	55		10			
		Boring terminated at 52.00 ft	60					
			65					
			70					
			75					

WANGENGINC 1100401.GPJ WANGENG.GDT 1/15/14

GENERAL NOTES

Begin Drilling: 07-11-2013 Complete Drilling: 07-11-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Happel Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

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BORING LOG 12-RWB-04

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897810.15 ft
East: 1170882.71 ft
Station: 7303+98.87
Offset: 25.7750 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.6	2.5-inch thick, brown SILTY CLAY --TOPSOIL--						
		Medium dense, brown GRAVELLY SILTY LOAM --FILL--			1	24 18 11 NP 3		
	590.1	Medium dense, brown SANDY GRAVEL --FILL--	5		2	7 9 9 NP 3		
	587.6	Loose to medium dense, brown and black, SANDY LOAM, little gravel --FILL--			3	9 5 19 NP 13		
			10		4	4 2 3 NP 9		
	583.3	Very loose to loose, brown SANDY GRAVEL --FILL--			5	3 3 4 NP 6		
		--Moist--	15		6	1 1 1 NP 12		
					7	3 3 2 NP 17		
	575.1	Stiff, gray SILTY CLAY, trace gravel	20		8	2 3 3 1.31 B 15		
	573.3	Soft to stiff, gray CLAY to SILTY CLAY, trace gravel			9	0 2 2 0.57 B 19		
	547.1	Stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM, trace to little gravel	25		10	0 1 2 0.57 B 21		
			30		11	0 0 2 0.49 B 25		
					12	0 0 0 0.41 B 26		
			35		13	0 0 0 0.33 B 27		
			40		14	0 0 2 0.66 B 25		
			45		15	0 0 1 0.25 B 29		
			50		16	2 3 5 1.80 B 23		

WANGENGINC 1100401.GPJ WANGENG.GDT 1/15/14

GENERAL NOTES

Begin Drilling: 07-15-2013 Complete Drilling: 07-16-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Tomaras Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS IV
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-19 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	460
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG 12-RWB-04

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897810.15 ft
East: 1170882.71 ft
Station: 7303+98.87
Offset: 25.7750 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		–%Silt=44.8– –%Clay=46.5– –A-7-6 (30)–						
	517.1	Soft, gray SILTY CLAY						
			55	17		3 4 4	1.72 B	23
			60	18		9 8 12	2.62 B	14
			65	19		8 15 19	5.17 S	14
	527.1	Stiff to very stiff, gray CLAY, trace gravel	70	20		6 7 13	3.69 B	36
		–L_L(%)=51, P_L(%)=20– –%Gravel=2.0– –%Sand=6.7–75	75	21		0 2 5	1.56 B	20
	512.1	Very dense, gray SILTY LOAM to SILTY CLAY LOAM, little gravel						
			80	22		4 4 6	0.33 B	21
			85	23		50/3"	5.66 B	11
			90	24		36 35 22	3.12 B	13
			95	25		50/2	4.50 B	11
		–HARD DRILLING– *–Possible Cobbles–*						
	494.8	Strong, light gray, fair rock mass quality, bedded fresh	100				C	

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-15-2013 Complete Drilling: 07-16-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Tomaras Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

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BORING LOG 12-RWB-04

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.81 ft
North: 1897810.15 ft
East: 1170882.71 ft
Station: 7303+98.87
Offset: 25.7750 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		DOLOSTONE, up to 12-inch beds, 6-inch joint spacing, horizontal and vertical joints with none to less than 0.2-inch greenish gray infilling, hard joint wall, with stylolitic surfaces, and moderately vuggy porosity.						
		–Run 1 - RECOVERY=89%– –RQD=64%–	105		1			
	487.8	Boring terminated at 106.00 ft						
			110					
			115					
			120					
			125					

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-15-2013 Complete Drilling: 07-16-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: A. Tomaras Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

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BORING LOG 12-RWB-05

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.38 ft
North: 1897829.78 ft
East: 1170799.89 ft
Station: 7303+12.55
Offset: 17.3004 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.9	6-inch thick, brown SILTY LOAM –TOPSOIL–						
		Dense, brown GRAVELLY SILTY LOAM –FILL–			1	9 17 13	NP	8
	591.4	Loose to medium dense, brown SANDY GRAVEL –FILL–	5		2	9 8 8	NP	3
					3	5 5 3	NR	
			10		4	6 8 15	NP	32
					5	8 12 11	NP	12
		–Moist–	15		6	3 3 4	NP	20
		–Moist–			7	3 4 3	NP	43
	576.4	Stiff, black to gray SILTY CLAY LOAM, trace gravel	20		8	2 4 5	1.31 S	19
					9	2 2 5	1.64 B	18
			25		10	5 6 4	1.23 B	19

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / Recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	568.9	Very soft to soft, gray CLAY, trace gravel						
		–In-Situ Vane Shear, 28 feet– –$S_{u\,undis}$ = 828.8 psf– –$S_{u\,remold}$ = 233.1 psf– –Sensitivity = 3.55–			11	0 0 0	NR	
			30		12	0 0 1	< 0.25 B	25
		–In-Situ Vane Shear, 30.5 feet– –$S_{u\,undis}$ = 1061.9 psf– –$S_{u\,remold}$ = 207.5 psf– –Sensitivity = 5.13–			2			
		–In-Situ Vane Shear, 35.5 feet– –$S_{u\,undis}$ = 1087.8 psf– –$S_{u\,remold}$ = 725.2 psf– –Sensitivity = 1.50–	35		13	0 2 1	0.33 B	26
	557.1	–L_L(%)=24, P_L(%)=14– –%Gravel=42.6– –%Sand=14.2– –%Silt=32.7– –%Clay=10.4– –A-4 (1)–			3			
		Stiff, gray GRAVELLY SILTY LOAM to SILTY CLAY LOAM –In-Situ Vane Shear, 40.5 feet– –$S_{u\,undis}$ = 1964.6 psf– –$S_{u\,remold}$ = 620.4 psf– –Sensitivity = 3.16–	40		14	3 3 3	1.15 B	15
					4			
	552.1	Soft to medium stiff, gray CLAY, trace gravel	45		15	0 1 2	0.49 B	25
			50		16	0 2 3	0.74 B	25

WANGENGINC 1100401.GPJ WANGENG.GDT 11/6/14

GENERAL NOTES

Begin Drilling: 07-15-2013 Complete Drilling: 07-15-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 20', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: 18.00 ft
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS V
RETAINING WALL 12 (STRUCTURE NO. 016–1801)
SHEET NO. S3-20 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	461
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 12-RWB-05

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.38 ft
North: 1897829.78 ft
East: 1170799.89 ft
Station: 7303+12.55
Offset: 17.3004 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--In-Situ Vane Shear, 50.5 feet-- --$S_{u\,undis}$ = 1424.5 psf-- --$S_{u\,remold}$ = 880.6 psf-- --Sensitivity = 1.61--						
	542.6	Stiff to hard, gray SILTY CLAY to SILTY LOAM, trace gravel	55		17	3 4 5	1.72 B	21
			60		18	25 15 21	5.41 B	14
			65		19	6 13 16	3.94 B	16
			70		20	6 11 15	3.53 B	22
	522.6	Stiff, gray CLAY	75		21	2 3 4	1.39 B	30
	517.6	Medium dense, gray SILT --Moist--			22	5 5 6	NP	28
	512.6	Hard, gray SILTY CLAY LOAM, trace gravel	85		23	12 20 25	9.10 B	15
	507.6	Very dense, gray SILTY LOAM, some gravel			24	50/2	NP	7
		--HARD DRILLING-- --Possible Cobbles--	90		25	50/3	NP	11
			95		26	50/2	NP	14
	495.7	--DIFFICULT DRILLING-- --WEATHERED BEDROCK--	100					
	494.4	Boring terminated at 100.00 ft						

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	07-15-2013 Complete Drilling 07-15-2013	While Drilling	18.00 ft
Drilling Contractor	Wang Testing Services Drill Rig CME-55 TMR	At Completion of Drilling	Not Observed
Driller	R&J Logger D. Kolpacki Checked by C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA to 20', mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-06

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.76 ft
North: 1897806.93 ft
East: 1170744.24 ft
Station: 7302+57.20
Offset: 44.0821 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	594.1	8-inch thick, black and brown SILTY CLAY LOAM						
	593.4	--TOPSOIL-- Hard, brown SILTY CLAY LOAM, trace gravel --FILL--			1	7 17 22	> 4.50 P	11
		Loose to dense, brown GRAVELLY SANDY LOAM, trace roots, brick fragments & crushed stone	5		2	5 4 2	NP	4
		--FILL-- --Moist--			3	4 4 5	NP	19
		--Moist--	10		4	1 1 2	NP	21
	584.3	Stiff, gray SILTY CLAY, trace gravel			5	3 3 3	1.56 B	25
			15		6	1 2 4	1.31 B	20
	579.3	Soft to medium stiff, gray CLAY to SILTY CLAY, trace gravel			7	0 0 2	0.49 B	20
			20		8	0 0 3	0.66 B	22
					9	1 1 2	0.74 B	21
			25		10	0 1 4	0.90 B	20
			30		11	1 2 4	0.98 B	20
			35		12	0 0 0	0.66 B	24
					13	0 0 0	0.25 B	24
			40		14	0 0 0	0.33 B	25
			45		15	0 0 1	0.33 B	25
			50		16	0 0 1	0.41 B	26

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	07-17-2013 Complete Drilling 07-18-2013	While Drilling	Not Observed
Drilling Contractor	Wang Testing Services Drill Rig B-57 TMR	At Completion of Drilling	Not Observed
Driller	R&N Logger A. Tomaras Checked by C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-06

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.76 ft
North: 1897806.93 ft
East: 1170744.24 ft
Station: 7302+57.20
Offset: 44.0821 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	543.0	Very stiff to hard, SILTY CLAY to SILTY CLAY LOAM, trace gravel						
			55		17	7 10 15	3.03 B	15
			60		18	10 11 15	5.00 B	11
	533.0	Gray and black, coarse SAND, little gravel						
	530.5	Very stiff, gray SILTY CLAY, trace gravel	65		19	12 14 11	NP	14
			70		20	6 9 12	2.62 B	21
	520.8	Medium dense, gray SILT to SILTY LOAM --Moist--	75		21	3 4	NP	29
		--%Gravel=1.4-- --%Sand=13.5-- --%Silt=76.6--80 --%Clay=8.5-- --A-4 (0)--			22	5 8 13	NP	28
	513.0	Hard, gray SILTY LOAM, little gravel	85		23	28 17 25	7.54 B	12
	508.0	Very stiff, gray SILTY CLAY, trace gravel			24	10 9 16	2.46 B	20
		--L_L(%)=32, P_L(%)=17-- --%Gravel=6.4-- --%Sand=6.0--90 --%Silt=54.0-- --%Clay=33.5-- --A-6 (12)--	90					
	503.0	Very dense, gray SILTY LOAM, some gravel			25	50/3	NP	14
		--HARD DRILLING-- --Possible Cobbles--	95					
	497.8	Strong, light gray, very good rock mass quality, bedded fresh DOLOSTONE, up to 24-inch beds, 12.4-inch joint spacing, horizontal joints with none to less	100					

CORE

GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	07-17-2013 Complete Drilling 07-18-2013	While Drilling	Not Observed
Drilling Contractor	Wang Testing Services Drill Rig B-57 TMR	At Completion of Drilling	Not Observed
Driller	R&N Logger A. Tomaras Checked by C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Tran Systems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 '/ in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS VI
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-21 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	462
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG 12-RWB-06

WEI Job No.: 1100-04-01

Client AECOM
Project Circle Interchange Reconstruction
Location Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.76 ft
North: 1897806.93 ft
East: 1170744.24 ft
Station: 7302+57.20
Offset: 44.0821 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		than 0.2-inch greenish gray infilling, hard joint wall, with stylolitic surfaces, and moderately vuggy porosity.						
		--Run 1 - RECOVERY=98%-- --RQD=93%--	105		1			
	487.8	Boring terminated at 107.00 ft						
			110					
			115					
			120					
			125					

GENERAL NOTES

Begin Drilling 07-17-2013 Complete Drilling 07-18-2013
Drilling Contractor Wang Testing Services Drill Rig B-57 TMR
Driller R&N Logger A. Tomaras Checked by C. Marin
Drilling Method 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ Not Observed
At Completion of Drilling ▽ Not Observed
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG.INC 11000401.GPJ WANGENG.GDT 11/1/14

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BORING LOG 12-RWB-07

WEI Job No.: 1100-04-01

Client AECOM
Project Circle Interchange Reconstruction
Location Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.92 ft
North: 1897838.64 ft
East: 1170672.30 ft
Station: 7301+82.91
Offset: 13.4685 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	594.3	8-inch thick, brown SILTY LOAM --TOPSOIL--						
	593.6	6-inch thick, brown SILTY LOAM, little gravel and brick --FILL--			1	12 38 20	NP	5
		Loose to very dense, brown SANDY GRAVEL, trace brick fragments --FILL--	5		2	8 8 9	NP	4
					3	8 8 9	NP	34
			10		4	9 15 22	NP	17
					5	16 20 33	NP	15
			15		6	32 33 35	NP	25
					7	3 5 2	NP	21
	575.6	Very soft to soft, gray CLAY to SILTY CLAY, trace gravel	20		8	2 2 1	0.25 P	22
		--In-Situ Vane Shear, 20.5 feet-- --$S_{u\,undis}$ = 1036.0 psf-- --$S_{u\,remold}$ = 621.6 psf-- --Sensitivity = 1.66--			9	1 1 2	0.25 B	22
		--In-Situ Vane Shear, 23.0 feet-- --$S_{u\,undis}$ = 854.7 psf-- --$S_{u\,remold}$ = 753.9 psf-- --Sensitivity = 1.57--	25		10	1 1 2	0.33 B	21

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--In-Situ Vane Shear, 25.5 feet-- --$S_{u\,undis}$ = 1217.3 psf-- --$S_{u\,remold}$ = 569.8 psf-- --Sensitivity = 2.13--			3			
		--In-Situ Vane Shear, 28.0 feet-- --$S_{u\,undis}$ = 906.5 psf-- --$S_{u\,remold}$ = 181.3 psf-- --Sensitivity = 5.00--	30		4	0 1 1	0.25 B	23
		--In-Situ Vane Shear, 30.5 feet-- --$S_{u\,undis}$ = 777.0 psf-- --$S_{u\,remold}$ = 388.5 psf-- --Sensitivity = 2.00--			5			
		--L_L(%)=34, P_L(%)=17-- --%Gravel=4.7-- --%Sand=14.6--35 --%Silt=47.6-- --%Clay=33.1-- --A-6 (12)--			13	1 1 1	0.16 B	26
					6			
		--In-Situ Vane Shear, 35.5 feet-- --$S_{u\,undis}$ = 621.6 psf-- --$S_{u\,remold}$ = 103.6 psf-- --Sensitivity = 6.00--	40		14	3 6 4	0.25 B	22
		--In-Situ Vane Shear, 40.5 feet-- --$S_{u\,undis}$ = 1087.8 psf-- --$S_{u\,remold}$ = 621.6 psf-- --Sensitivity = 1.75--			7			
			45		15	1 2 2	0.41 B	25
	548.2	Very stiff, gray SILTY CLAY, trace gravel						
			50		16	5 8 7	3.03 B	13

GENERAL NOTES

Begin Drilling 07-16-2013 Complete Drilling 07-17-2013
Drilling Contractor Wang Testing Services Drill Rig CME-55 TMR
Driller R&J Logger D. Kolpacki Checked by C. Marin
Drilling Method 3.25" HSA to 20', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 16.00 ft
At Completion of Drilling ▽ Not Observed
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG.INC 11000401.GPJ WANGENG.GDT 11/1/14

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Fax: 630 953-9938

BORING LOG 12-RWB-07

WEI Job No.: 1100-04-01

Client AECOM
Project Circle Interchange Reconstruction
Location Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.92 ft
North: 1897838.64 ft
East: 1170672.30 ft
Station: 7301+82.91
Offset: 13.4685 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	543.2	Dense, gray LOAM, trace gravel						
		--Sand lenses--	55		17	36 21 20	NP	9
	538.2	Very dense, gray SILTY LOAM, little gravel						
		--%Gravel=11.3-- --%Sand=20.4-- --%Silt=59.9--60 --%Clay=8.4-- --A-4 (0)--			18	19 28 32	NP	11
	533.2	Very stiff, gray SILTY CLAY, trace gravel						
			65		19	9 10 13	3.85 B	15
			70		20	9 12 17	3.12 B	21
	523.2	Stiff, gray CLAY						
			75		21	3 5 7	1.07 B	33
	494.9	--AUGER REFUSAL-- Boring terminated at 100.00 ft	100					

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	518.2	Dense, gray LOAM, little gravel						
			80		22	14 18 19	NP	12
	513.2	Hard, gray SILTY CLAY LOAM, trace gravel						
			85		23	20 28 34	5.08 S	14
	508.2	Very dense, gray, fine SAND, trace gravel						
			90		24	50/6	NP	12
	503.7	Very dense, gray SILTY LOAM, trace gravel						
			95		25	50/6	NP	13
					26	50/6	NP	11

GENERAL NOTES

Begin Drilling 07-16-2013 Complete Drilling 07-17-2013
Drilling Contractor Wang Testing Services Drill Rig CME-55 TMR
Driller R&J Logger D. Kolpacki Checked by C. Marin
Drilling Method 3.25" HSA to 20', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling ▽ 16.00 ft
At Completion of Drilling ▽ Not Observed
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENG.INC 11000401.GPJ WANGENG.GDT 11/1/14

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - WJC	REVISED -	
PLOT SCALE = 02 '' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS VII
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-22 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	463
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

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BORING LOG 12-RWB-08

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.47 ft
North: 1897818.60 ft
East: 1170591.87 ft
Station: 7301+04.22
Offset: 36.2597 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		8-inch thick, black SILTY LOAM --TOPSOIL--						
	592.2	5-inch thick, dense, black, and brown LOAM, little red brick and slag			1	10 18 18	NP	11
	592	--FILL--						
	591	CRUSHED STONE, and brick --FILL--			2	5 5 3	NP	8
	590	Black LOAM, trace gavel and roots --BURIED TOPSOIL--			3	5 7 6	NP	17
		Loose to medium dense, brown and gray, medium SAND --Moist--			4	2 5 6	2.54 B	23
	585.6	Very stiff, gray SILTY CLAY, trace gravel			5	2 3 5	2.79 B	20
	581.5	Very soft to medium stiff, gray CLAY, trace gravel			6	0 0 2	0.66 B	21
					7	0 0 0	0.16 B	22
					8	0 0 3	0.57 B	20
					9	0 0 0	0.33 B	24
					10	0 0 0	0.33 B	25
	547.7	Stiff to very stiff, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel			11	0 0 0	0.41 B	25
					12	0 0 0	0.25 B	26
					13	0 0 0	< 0.25 P	30
					14	0 0 0	NR	
					15	0 0 2	0.33 B	25
					16	2 4 5	1.23 B	20

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	07-18-2013	Complete Drilling	07-19-2013	While Drilling	Not Observed
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR	At Completion of Drilling	Not Observed
Driller	R&N	Logger	A. Tomaras	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion	Checked by	C. Marin	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-08

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.47 ft
North: 1897818.60 ft
East: 1170591.87 ft
Station: 7301+04.22
Offset: 36.2597 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
					17	4 7 12	2.62 B	13
					18	5 8 15	1.75 P	18
					19	6 9 15	2.46 B	21
					20	7 9 11	3.12 B	26
					21	5 5 5	0.57 B	28
		trace gravel						
	517.7	Very stiff to hard, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel						
		--HARD DRILLING-- --Possible Cobbles--			22	15 20 26	5.74 S	12
					23	50/5	2.54 S	11
	505.0	Very dense, gray GRAVELLY SAND			24	17 35 37	2.54 S	16
	499.5	Strong, light gray, good rock mass quality, bedded fresh DOLOSTONE, up to 42-inch beds, 13-inch joint spacing, horizontal and vertical joints with none to less than 0.2-inch greenish gray infilling, hard joint wall, with stylolitic surfaces, and moderately vuggy porosity.			25	50/1	NR	
							CORE	
	527.6	Medium stiff to very stiff, gray CLAY, trace gravel --L_L(%)=43, P_L(%)=20-- --%Gravel=0.1-- --%Sand=2.0--70 --%Silt=47.6-- --%Clay=50.3-- --A-7-6 (24)--						
	520.3	Stiff (1.5P), gray SILTY CLAY,						

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	07-18-2013	Complete Drilling	07-19-2013	While Drilling	Not Observed
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR	At Completion of Drilling	Not Observed
Driller	R&N	Logger	A. Tomaras	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion	Checked by	C. Marin	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-08

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.47 ft
North: 1897818.60 ft
East: 1170591.87 ft
Station: 7301+04.22
Offset: 36.2597 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--Run 1 - RECOVERY=88%-- --RQD=78%--			1			
	489.5	Boring terminated at 105.00 ft	105					

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	07-18-2013	Complete Drilling	07-19-2013	While Drilling	Not Observed
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR	At Completion of Drilling	Not Observed
Driller	R&N	Logger	A. Tomaras	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion	Checked by	C. Marin	Depth to Water	NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS VIII
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-23 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	464
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG 12-RWB-09

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.05 ft
North: 1897848.66 ft
East: 1170552.39 ft
Station: 7300+63.47
Offset: 7.9476 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	594.4	8-inch thick, SILTY LOAM --TOPSOIL--						
		Dense, brown SILTY LOAM, little gravel and brick fragments --FILL--			1	5 12 19	NP	11
	591.1	Dense to medium dense, brown SANDY GRAVEL to GRAVELLY SAND --FILL--	5		2	3 5 17	NP	22
					3	22 16 13	NP	15
			10		4	22 21 14	NP	17
					5	15 21 23	NP	14
			15		6	11 14 10	NP	47
					7	1 1 2	NP	32
	576.1	Stiff, brown and gray, SILTY CLAY LOAM, trace gravel	20		8	15 4 2	1.25 P	17
	573.6	Very soft to soft, gray CLAY, trace gravel			9	3 1 1	< 0.25 P	23
		--In-Situ Vane Shear, 23.0 feet-- $-S_{u\,undis}$ = 932.4 psf-- $-S_{u\,remold}$ = 310.8 psf-- --Sensitivity = 3.00--			10	0 0 1	0.41 B	25
			25					

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--In-Situ Vane Shear, 25.5 feet-- $-S_{u\,undis}$ = 1295.0 psf-- $-S_{u\,remold}$ = 259.0 psf-- --Sensitivity = 5.00--			2			
					11	0 1 1	0.41 B	25
		--In-Situ Vane Shear, 28 feet-- $-S_{u\,undis}$ = 854.7 psf-- $-S_{u\,remold}$ = 155.4 psf-- --Sensitivity = 5.50-- $-L_L(\%)$=33, $P_L(\%)$=17-- --%Gravel=4.1-- --%Sand=14.3-- --%Silt=47.2-- --%Clay=34.4-- --A-6 (12)--			3			
					12	0 1 2	0.41 B	27
					4			
		--In-Situ Vane Shear, 30.5 feet-- $-S_{u\,undis}$ = 1087.8 psf-- $-S_{u\,remold}$ = 414.4 psf-- --Sensitivity = 2.62--			13	0 0 1	0.16 B	25
		--In-Situ Vane Shear, 35.5 feet-- $-S_{u\,undis}$ = 569.8 psf-- $-S_{u\,remold}$ = 233.1 psf-- --Sensitivity = 2.44--			5			
					14	0 0 1	0.25 B	25
		--In-Situ Vane Shear, 40.5 feet-- $-S_{u\,undis}$ = 725.2 psf-- $-S_{u\,remold}$ = 207.2 psf-- --Sensitivity = 3.5--			6			
					15	0 2 2	0.41 B	26
		--In-Situ Vane Shear, 45.5 feet-- $-S_{u\,undis}$ = 1476.3 psf-- $-S_{u\,remold}$ = 828.8 psf-- --Sensitivity = 1.78--			7			
	547.3	Stiff to hard, gray CLAY LOAM to SILTY CLAY LOAM, trace gravel			16	4 4 4	1.23 B	25
		$-L_L(\%)$=31, $P_L(\%)$=17-- --%Gravel=5.9-- --%Sand=21.8--						

GENERAL NOTES

Begin Drilling: 07-17-2013 Complete Drilling: 07-18-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 20', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 15.50 ft
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-RWB-09

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 594.05 ft
North: 1897848.66 ft
East: 1170552.39 ft
Station: 7300+63.47
Offset: 7.9476 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		--%Silt=45.3-- --%Clay=26.9-- --A-6 (8)--						
			55		17	3 4 6	1.39 B	18
	537.3	Hard, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel						
			60		18	12 23 18	4.26 S	14
	532.3	Very stiff, gray CLAY to SILTY CLAY, trace gravel						
			65		19	7 10 18	3.44 B	21
			70		20	6 9 13	2.87 B	22
	522.3	Stiff to hard, gray SILTY CLAY LOAM, trace gravel and thinly bedded silt and clay layers						
			75		21	3 5 7	1.50 P	17

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			80		22	18 34 35	> 4.50 P	12
	512.3	Very dense, gray SILTY LOAM						
	509.6	Hard, gray SILTY CLAY, trace gravel	85		23	30 46 29	NP	21
			90		24	16 23 35	5.66 B	18
	502.3	Very dense, gray, fine SAND, trace gravel --Moist--			25	50/5	NP	12
			95					
	497.6	--ROLLER BIT REFUSAL-- Boring terminated at 96.50 ft	100					

GENERAL NOTES

Begin Drilling: 07-17-2013 Complete Drilling: 07-18-2013
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&J Logger: D. Kolpacki Checked by: C. Marin
Drilling Method: 3.25" HSA to 20', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ 15.50 ft
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

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BORING LOG 12-PMT-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD
Elevation: 593.98 ft
North: 1897806.75 ft
East: 1170887.56 ft
Station: 7304+04.37
Offset: 28.2857 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			0					
		--Pressure Meter Test--		P	1	P M T		
			30					

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			0					
		--Pressure Meter Test--		P	2	P M T		
	546.0	Boring terminated at 48.00 ft	50					

GENERAL NOTES

Begin Drilling: 10-17-2014 Complete Drilling: 10-17-2014
Drilling Contractor: Wang Testing Services Drill Rig: B-57 TMR
Driller: P&P Logger: E. Datz Checked by: CLM (TIN coord)
Drilling Method: 3.25" HSA to 16', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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BORING LOG 12-VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NGVD
Elevation: 594.06 ft
North: 1897786.39 ft
East: 1171042.82 ft
Station: 7305+63.06
Offset: 2.7927 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	593.74	4-inch thick, black SILTY CLAY LOAM						
		--TOPSOIL--						
		Loose to dense, black and brown SANDY GRAVEL						
		--FILL--			1	12 14 20	NP	13
			5		2	20 20 14	NP	14
					3	6 13 13	NP	5
			10		4	7 6 7	NP	6
					5	5 4 3	NP	9
			15		6	2 2 2	NP	11
	578.6	Stiff, brown SILTY CLAY LOAM, trace gravel			7	2 3 7	1.56 B	23
	575.1	Medium stiff, gray CLAY to SILTY CLAY, trace gravel	20		8	1 2 2	0.66 B	22
		--In-Situ Vane Shear, 23 feet-- $-S_{u\,undis}$ = NA-- $-S_{u\,remold}$ = NA-- --Sensitivity = NA--	25		1	VS		
		--In-Situ Vane Shear, 28 feet-- $-S_{u\,undis}$ = 932.4-- $-S_{u\,remold}$ = 595.7-- --Sensitivity = 1.56--	30		2	VS		
		--In-Situ Vane Shear, 33 feet-- $-S_{u\,undis}$ = 982.3-- $-S_{u\,remold}$ = 620.4-- --Sensitivity = 1.58--	35		3	VS		
		--In-Situ Vane Shear, 38 feet-- $-S_{u\,undis}$ = 827.2-- $-S_{u\,remold}$ = 568.7-- --Sensitivity = 1.45--	40		4	VS		
		--In-Situ Vane Shear, 43 feet-- $-S_{u\,undis}$ = 1395.9-- $-S_{u\,remold}$ = 878.9-- --Sensitivity = 1.59--	45		5	VS		
	548.1	Stiff, gray SILTY CLAY LOAM, trace gravel						
		--In-Situ Vane Shear, 48 feet-- $-S_{u\,undis}$ = NA-- $-S_{u\,remold}$ = NA-- --Sensitivity = NA--	50		6	VS		

GENERAL NOTES

Begin Drilling: 10-16-2014 Complete Drilling: 10-16-2014
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&J Logger: F. Bozga Checked by: LM (TIN coord)
Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENG INC 1100401.GPJ WANGENG.GDT 1/5/18

BORING LOG 12-VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NGVD
Elevation: 594.06 ft
North: 1897786.39 ft
East: 1171042.82 ft
Station: 7305+63.06
Offset: 2.7927 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
					9	4 5 6	1.89 B	15
	540.1	Boring terminated at 54.00 ft	55		10	6 5 10	1.89 B	14
			60					
			65					
			70					
			75					

GENERAL NOTES

Begin Drilling: 10-16-2014 Complete Drilling: 10-16-2014
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&J Logger: F. Bozga Checked by: LM (TIN coord)
Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENG INC 1100401.GPJ WANGENG.GDT 1/5/18

BORING LOG 12-VST-02

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NGVD
Elevation: 594.36 ft
North: 1897833.32 ft
East: 1170776.32 ft
Station: 7302+88.42
Offset: 15.7787 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	594.1	3-inch thick, dark brown SILTY LOAM						
		--TOPSOIL--						
	591.4	Hard, brown SILTY CLAY LOAM, trace gravel			1	5 6 7	0.45 P	16
		--FILL--						
		Medium dense, brown SILTY LOAM, trace to little gravel	5		2	5 5 5	NP	13
		--FILL--			3	3 7 7	NP	
		--Moist--	10		4	8 10 15	NP	10
	583.9	Loose, brown SANDY GRAVEL --FILL--			5	3 3 4	NP	5
			15		6	3 3 3	NP	7
	578.9	Medium dense, brown, coarse SAND, trace gravel --FILL-- --Moist--			7	4 6 4	NP	11
	576.4	Very soft to stiff, gray SILTY CLAY to SILT CLAY LOAM, trace gravel	20		8	3 3 4	1.25 P	15
					9	1 1 2	0.25 B	23
			25		10	1 2 2	0.16 B	25
		--In-Situ Vane Shear, 23 feet-- $-S_{u\,undis}$ = NA-- $-S_{u\,remold}$ = NA-- --Sensitivity = NA--			1	VS		
	563.6	Stiff, gray SILTY CLAY to SILTY CLAY LOAM, trace gravel						
		--In-Situ Vane Shear, 28.0 feet-- $-S_{u\,undis}$ = 1034.0-- $-S_{u\,remold}$ = 620.4-- --Sensitivity = 1.67--	30		1	VS		
		--In-Situ Vane Shear, 33.0 feet-- $-S_{u\,undis}$ = 1757.8-- $-S_{u\,remold}$ = 1292.5-- --Sensitivity = 1.36--	35		2	VS		
		--In-Situ Vane Shear, 38.0 feet-- $-S_{u\,undis}$ = 2843.5-- $-S_{u\,remold}$ = 1757.8-- --Sensitivity = 1.62--	40		3	VS		
		--In-Situ Vane Shear, 43.0 feet-- $-S_{u\,undis}$ = >3102.0-- $-S_{u\,remold}$ = NA-- --Sensitivity = NA--	45		4	VS		
	544.4	Boring terminated at 50.00 ft	50		11	2 2 3	1.07 B	23

GENERAL NOTES

Begin Drilling: 10-16-2014 Complete Drilling: 10-16-2014
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: K&K Logger: D. Kolpacki Checked by: LM (TIN coord)
Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENG INC 1100401.GPJ WANGENG.GDT 1/5/18

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -
	CHECKED - WJC	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS X
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-25 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	466
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

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BORING LOG 2081-B-06

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.23 ft
North: 1897774.57 ft
East: 1171111.06 ft
Station: 7306+28.48
Offset: 17.7553 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	592.3	11-inch thick, ASPHALT --PAVEMENT--						
	591.5	10-inch thick, CONCRETE --PAVEMENT--						
	591.2	4-inch thick, VOID						
		Loose to medium dense, gray CRUSHED CONCRETE and STONE			1	4 4 3	NP	7
		--FILL--	5		2	1 1 4	NP	10
					3	4 2 2	NP	5
			10		4	3 5 5	NP	5
					5	2 2 3	NP	16
	580.2	Very soft to medium stiff, brown to gray CLAY to SILTY CLAY, trace gravel			6	3 2 2	< 0.25 P	18
			15		7	0 0 2	0.41 B	26
			20		8	0 1 2	0.49 B	26
					9	0 0 3	0.74 B	25
			25		10	1 2 3	0.49 B	18
		--L_L(%)=35, P_I(%)=16-- --%Gravel=6.3-- --%Sand=13.5-- --%Silt=48.9-- --%Clay=31.4-- --A-6 (14)--			11	0 2 2	0.49 B	24
			30		12	0 0 2	0.41 B	28
			35		13	0 2 2	0.41 B	28
					14	0 0 1	0.41 B	27
			40					
			45		15	2 2 3	0.83 N/6	
			50		16	2 2 3	< 0.25 P	29

WANGENG 1100401.GPJ WANGENG.GDT 11/18/14

GENERAL NOTES

Begin Drilling: 03-16-2013 Complete Drilling: 03-16-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&T Logger: A. Mohammed Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 2081-B-06

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.23 ft
North: 1897774.57 ft
East: 1171111.06 ft
Station: 7306+28.48
Offset: 17.7553 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	541.5	Very stiff, gray SILTY CLAY LOAM, trace gravel						
			55		17	6 6 8	2.33 N/6	
		--L_L(%)=28, P_I(%)=18-- --%Gravel=0.6-- --%Sand=4.2--60 --%Silt=72.7-- --%Clay=22.6-- --A-4(8)--			18	12 13 12	3.03 S	21
			65		19	5 7 13	3.28 B	22
			70		20	4 7 8	2.46 B	24
	521.6	Soft to stiff, gray CLAY, trace gravel			21	4 4 5	1.31 B	29
		--L_L(%)=42, P_I(%)=18-- --%Gravel=2.4-- --%Sand=3.3-- --%Silt=44.8-- --%Clay=49.5-- --A-7-6 (23)--	75					
	511.5	Very dense, gray GRAVELLY SAND			22	4 5 4	0.25 P	37
			85		23	25 50/5	NP	11
			90		24	50/6	NP	15
	501.7	Very dense, gray SILT LOAM, little gravel			25	50/6	NP	15
		--%Gravel=12.4-- --%Sand=29.7-- --%Silt=54.4--96 --%Clay=3.4-- --A-4 (0)--			26	50/6	NP	11
	493.2	Boring terminated at 100.00 ft	100					

WANGENG 1100401.GPJ WANGENG.GDT 11/18/14

GENERAL NOTES

Begin Drilling: 03-16-2013 Complete Drilling: 03-16-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&T Logger: A. Mohammed Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 2082-B-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 595.34 ft
North: 1897847.44 ft
East: 1170487.25 ft
Station: 1501+22.17
Offset: 23.8662 RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	594.3	12-inch thick CONCRETE --PAVEMENT--						
		Very stiff, black and brown SILTY CLAY LOAM, little gravel and brick fragments			1	7 7 9	2.38 B	16
	592.3	--FILL--						
		Loose to medium dense, black, brown and gray, fine SAND, some gravel and brick fragments --FILL--	5		2	7 8 10	NP	6
					3	2 2 3	NP	8
			10		4	2 2 2	NP	7
					5	6 6 4	NP	22
	579.8	Very soft, gray CLAY, some gravel			6	5 14 15	NP	19
			15		7	1 2 3	0.16 B	20
			20		8	2 1 1	0.08 B	22
					9	1 1 1	0.08 B	22
			25		10	1 2 3	0.08 B	21
			35		13	0 0 2	0.08 B	26
			40		14	1 2 2	0.08 B	24
			45		15	2 1 3	< 0.25 P	28
			50		16	1 3 3	< 0.25 P	23

WANGENG 1100401.GPJ WANGENG.GDT 11/18/14

GENERAL NOTES

Begin Drilling: 03-18-2013 Complete Drilling: 03-19-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: D. Wind Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring
backfilled upon completion

WATER LEVEL DATA

While Drilling: ▽ Not Observed
At Completion of Drilling: ▼ Not Observed
Time After Drilling: NA
Depth to Water: ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - WJC	REVISED -	
PLOT SCALE = 0.2 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS XI
RETAINING WALL 12 (STRUCTURE NO. 016-1801)
SHEET NO. S3-26 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	467
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Wang Engineering
wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 2082-B-03

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 595.34 ft
North: 1897847.44 ft
East: 1170487.25 ft
Station: 1501+22.17
Offset: 23.8662 RT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
543.3	Stiff to hard, gray SILTY CLAY, trace gravel						
		55		17	8 5 6	1.34 B	21
		60		18	7 14 15	4.84 S	15
	–L_L(%)=38, P_L(%)=15– –%Gravel=0.8– –%Sand=5.6– –%Silt=49.9– –%Clay=43.7– –A-6 (21)–			19	5 10 16	4.42 B	21
		70		20	8 11 15	4.10 B	23
		75		21	4 4 7	1.23 B	31
518.3	Very dense, gray SILTY LOAM, trace gravel						
		80		22	20 22 28	6.15 B	13
	–L_L(%)=22, P_L(%)=13– –%Gravel=7.8– –%Sand=29.1– –%Silt=51.6– –%Clay=11.5– –A-4 (3)–	85		23	23 34 40	1.64 B	16
		90		24	30 27 28	1.50 P	16
502.3	Very dense, gray GRAVELLY SANDY LOAM			25	50/1"	NP	11
	–HARD DRILLING–	95					
498.3	–AUGER REFUSAL– Boring terminated at 97.00 ft	100					

GENERAL NOTES

Begin Drilling: 03-18-2013 Complete Drilling: 03-19-2013
Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
Driller: R&N Logger: D. Wind Checked by: C. Marin
Drilling Method: 2.25" SSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: Not Observed
At Completion of Drilling: Not Observed
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 11/5/14

BORING LOG VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.55 ft
North: 1897108.36 ft
East: 1171435.63 ft
Station: 7313+90.29
Offset: 3.222 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	Very stiff, brown SILTY CLAY LOAM, trace gravel –FILL–			1	3 5 7	2.75 P	14
590.5	Medium dense, fine SAND	5		2	5 6 6	NP	7
586.8	Medium stiff to stiff, gray SILTY CLAY	10		3	2 2 2	1.31 B	26
		15		4	2 2 3	0.98 B	28
578.0	Soft, gray SILTY CLAY			5	1 2 2	0.25 P	29
575.3							
	–In-Situ Vane Shear, 19.5 feet– –$S_{u\,undis}$ = 786.3 psf– –$S_{u\,remold}$ = 371.3 psf– –Sensitivity = 2.1–	20		1	VS		
	–In-Situ Vane Shear, 22.0 feet– –$S_{u\,undis}$ = 742.6 psf– –$S_{u\,remold}$ = 305.8 psf– –Sensitivity = 2.4–			2	VS		
	–In-Situ Vane Shear, 24.5 feet–	25		3	VS		
	–$S_{u\,undis}$ = 578.8 psf– –$S_{u\,remold}$ = 382.2 psf– –Sensitivity = 1.5–						
	–In-Situ Vane Shear, 27.0 feet– –$S_{u\,undis}$ = 742.6 psf– –$S_{u\,remold}$ = 415.0 psf– –Sensitivity = 1.8–			4	VS		
	–In-Situ Vane Shear, 29.5 feet–	30		5	VS		
	–$S_{u\,undis}$ = 589.7 psf– –$S_{u\,remold}$ = 283.9 psf– –Sensitivity = 2.1–						
	–In-Situ Vane Shear, 32.0 feet– –$S_{u\,undis}$ = 1026.6 psf– –$S_{u\,remold}$ = 447.8 psf– –Sensitivity = 2.3–			6	VS		
	–In-Situ Vane Shear, 34.5 feet–	35		7	VS		
	–$S_{u\,undis}$ = 764.5 psf– –$S_{u\,remold}$ = 480.5 psf– –Sensitivity = 1.6–						
	–In-Situ Vane Shear, 37.0 feet– –$S_{u\,undis}$ = 1026.6 psf– –$S_{u\,remold}$ = 589.7 psf– –Sensitivity = 1.7–	40		8	VS		
	–Equipment Slipped–	45		9	VS		
	–In-Situ Vane Shear, 46.5 feet– –$S_{u\,undis}$ = 1070.2 psf– –$S_{u\,remold}$ = 633.4 psf– –Sensitivity = 1.7–			10	VS		
544.0	–In-Situ Vane Shear, 49.0 feet– –$S_{u\,undis}$ = 1157.6 psf–	50		11	VS		

GENERAL NOTES

Begin Drilling: 12-01-2015 Complete Drilling: 12-01-2015
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 8/4/16

BORING LOG VST-01

WEI Job No.: 1100-04-01

Client: AECOM
Project: Circle Interchange Reconstruction
Location: Section 17, T39N, R14E of 3rd PM

Datum: NAVD 88
Elevation: 593.55 ft
North: 1897108.36 ft
East: 1171435.63 ft
Station: 7313+90.29
Offset: 3.222 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	–$S_{u\,remold}$ = 611.6 psf– –Sensitivity = 2.3–						
	Boring terminated at 49.50 ft						
		55					
		60					
		65					
		70					
		75					

GENERAL NOTES

Begin Drilling: 12-01-2015 Complete Drilling: 12-01-2015
Drilling Contractor: Wang Testing Services Drill Rig: CME-55 TMR
Driller: R&N Logger: F. Bozga Checked by: A. Kurnia
Drilling Method: 2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion

WATER LEVEL DATA

While Drilling: Rotary wash
At Completion of Drilling: unable to measure
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types, the actual transition may be gradual.

WANGENGINC 1100401.GPJ WANGENG.GDT 8/4/16

TranSystems

USER NAME = vljanachione	DESIGNED - TLR	REVISED -	
	CHECKED - WJC	REVISED -	
PLOT SCALE = 0.2 ' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

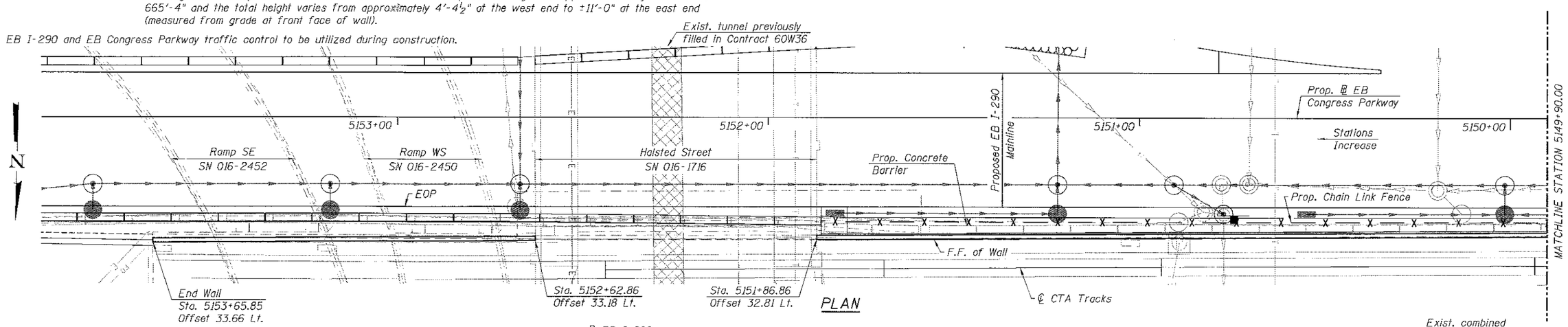
BORING LOGS XII
RETAINING WALL 12 (STRUCTURE NO. 016–1801)
SHEET NO. S3-27 OF S3-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	468
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

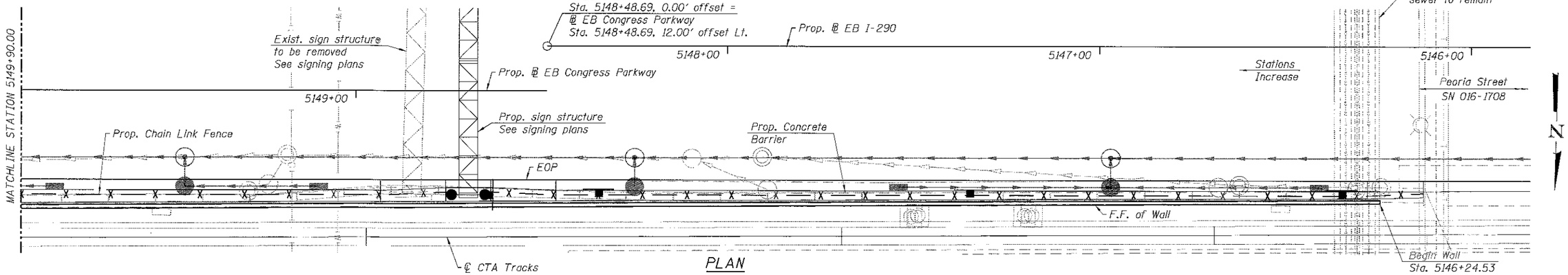
Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elev. = 593.07

Existing Structure: Existing Retaining Wall 9 was constructed in 1955 under Project U.I. 261(101) (F.A. Route 131; Section 2525-103) Existing Wall is comprised of reinforced cantilever wall on spread footing. The approximate length of wall is 665'-4" and the total height varies from approximately 4'-4½" at the west end to +11'-0" at the east end (measured from grade at front face of wall).

EB I-290 and EB Congress Parkway traffic control to be utilized during construction.



PLAN



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

EXISTING UNITS

fc = 1,200 psi

fs = 20,000 psi (Reinforcement)

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

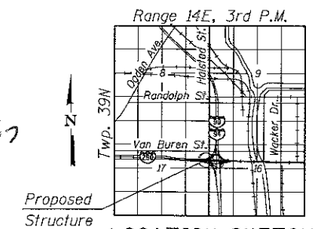
MATTHEW D. SANTEFORD 081-007244 LICENSED STRUCTURAL ENGINEER OF STATE OF ILLINOIS

05/08/17

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2018

LEGEND:

Prop. Chain Link Fence	— X — X —	Prop. Storm Sewer	——→——→——	Catch Basin	●
Combined Sewer	→→→→→→→	Water	——W——	Inlet	▬
Electric	——E——	Ex. ITS Cable	—— —— ——	Manhole	⊙
Ex. Storm Sewer	——▷——▷——	Telephone	——T——	Light Pole	☼
Gas	——G——	Fiber Optic	——FO——	Front Face	F.F.



LOCATION SKETCH

SCOPE OF WORK

Structural repair of retaining wall.

GENERAL PLAN AND ELEVATION
EXISTING RETAINING WALL 9 ALONG
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 5146+24.53 TO STATION 5153+65.85
STRUCTURE NO. 016-Z028

USER NAME = mkwilson	DESIGNED - RVV	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 28.00 ' / in.	DRAWN - RVV	REVISED -	
PLOT DATE = 5/8/2017	CHECKED - TLR/MDS	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S4-1 OF S4-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	469
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

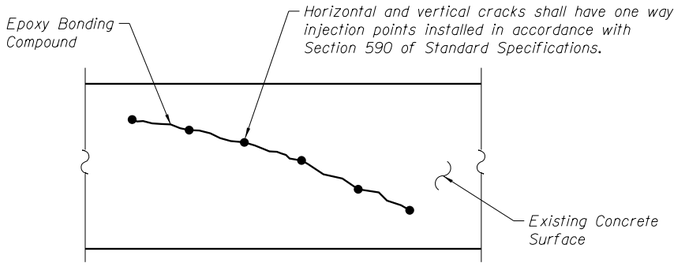
1. Wall repair locations are approximate and were determined from field inspection performed at the time of plan preparation. The necessary adjustments based on current field conditions will be made at time of construction. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.

2. Stations and offsets of Existing Retaining Wall 9 are referenced along proposed Prop. ℄ EB I-290 OR Prop. ℄ EB Congress Parkway.

3. 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

4. Existing reinforcing steel which is exposed by the concrete repair process, but is to remain embedded in the existing structure and reused, shall be cleaned to be free of existing concrete and rust, and straightened if necessary. Existing reinforcing steel which is cut, stretched or damaged by the Contractor during the concrete repair process shall be replaced by embedded reinforcing steel or anchorage, equal to or greater than the size of original reinforcing steel, at no cost to the Department. See Special Provisions for Structural Repair of Concrete.

5. The Contractor shall take precautions not to damage existing retaining wall during the construction. Any damage to the existing retaining wall shall be repaired by the Contractor at no additional cost.

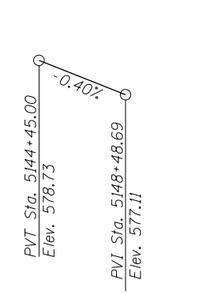


EPOXY CRACK INJECTION

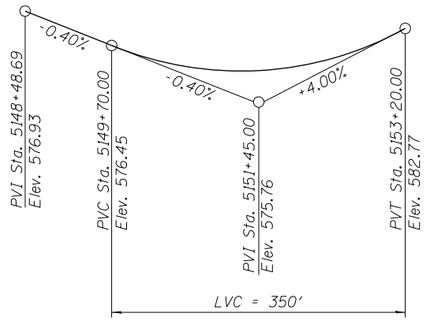
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL QUANTITY
Concrete Sealer	Sq. Ft.	3,320
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	85
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	4
Epoxy Crack Injection	Foot	70

INDEX OF SHEETS



PROFILE GRADE
(Along ℄ EB I-290)



PROFILE GRADE
(Along ℄ EB Congress Parkway)

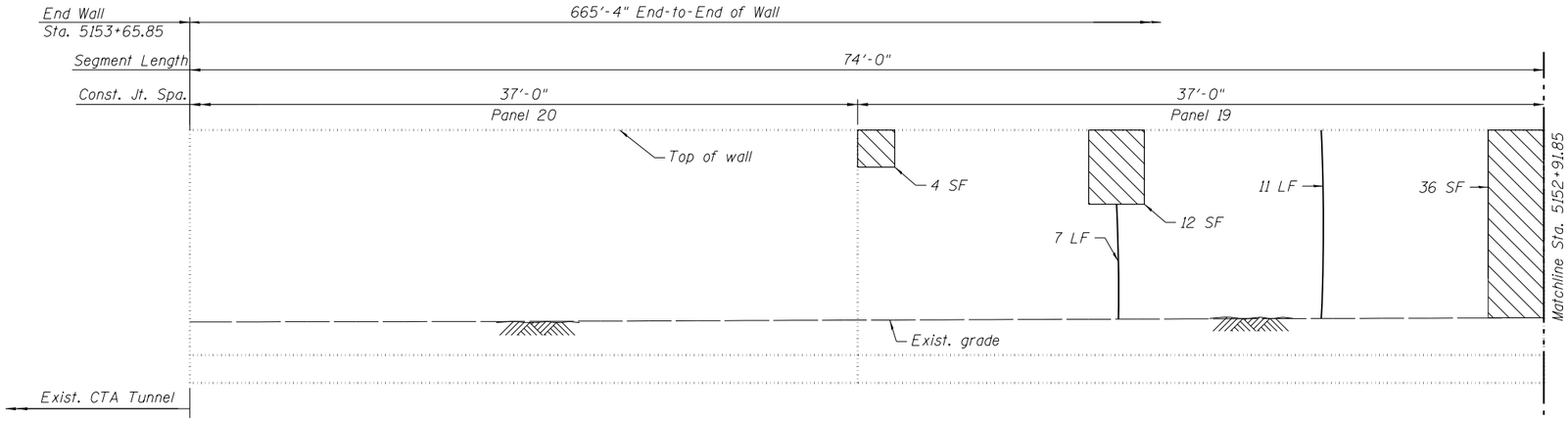
TranSystems

USER NAME = vljanachione	DESIGNED - RVV	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = Ø2 '1' / in.	DRAWN - RVV	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

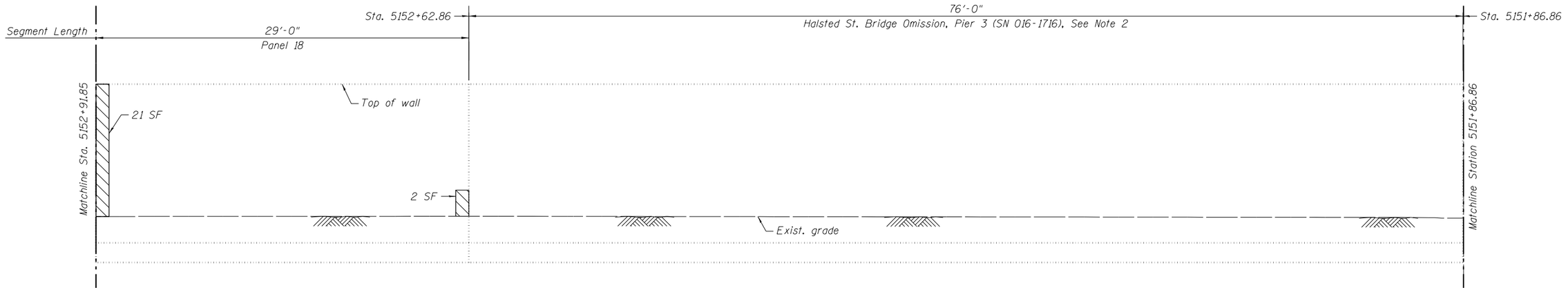
GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
EXISTING RETAINING WALL 9 (STRUCTURE NO. 016-Z028)
SHEET NO. S4-2 OF S4-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	470
		CONTRACT NO.	60X76	
		ILLINOIS FED. AID PROJECT		



ELEVATION

(Looking South)



ELEVATION

(Looking South)

LEGEND

- Area of Structural Repair of Concrete (Depth greater than 5 in.)
- Area of Structural Repair of Concrete (Depth less than 5 in.)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

Notes:

Stations are measured along the front face of the wall.

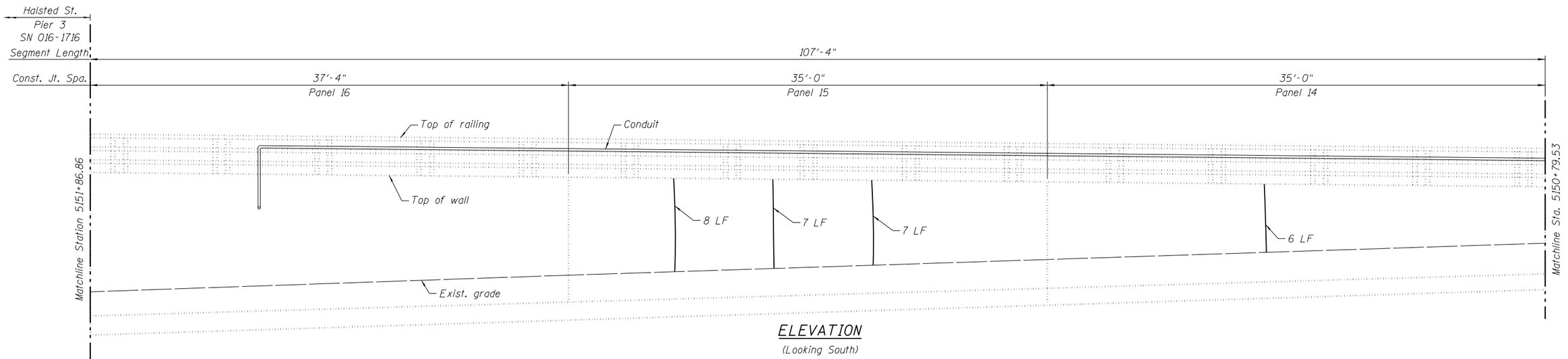
Panel 17 and portion of Panel 18 replaced by Halsted St. Bridge Pier 3 (SN 016-1716).

TranSystems	USER NAME = vljanachione	DESIGNED - RVV	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 7.0 '' / in.	DRAWN - RVV	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

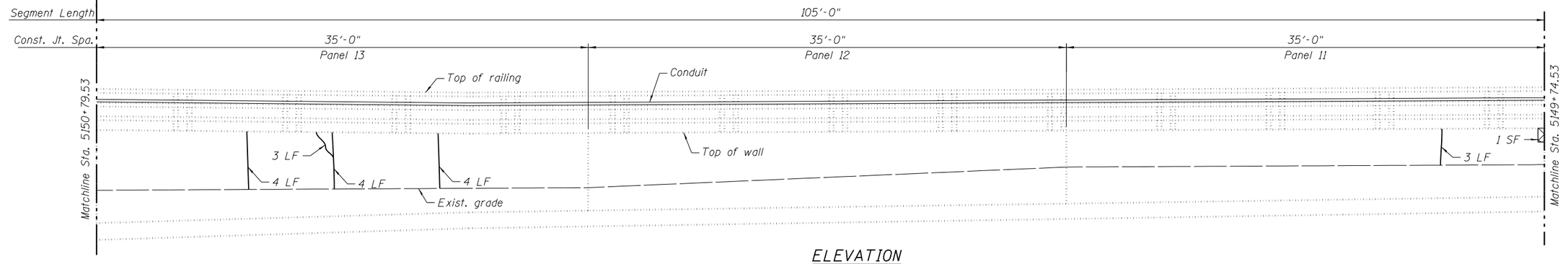
REPAIR PLANS I
EXISTING RETAINING WALL 9 (STRUCTURE NO. 016-Z028)
SHEET NO. S4-3 OF S4-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	471
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



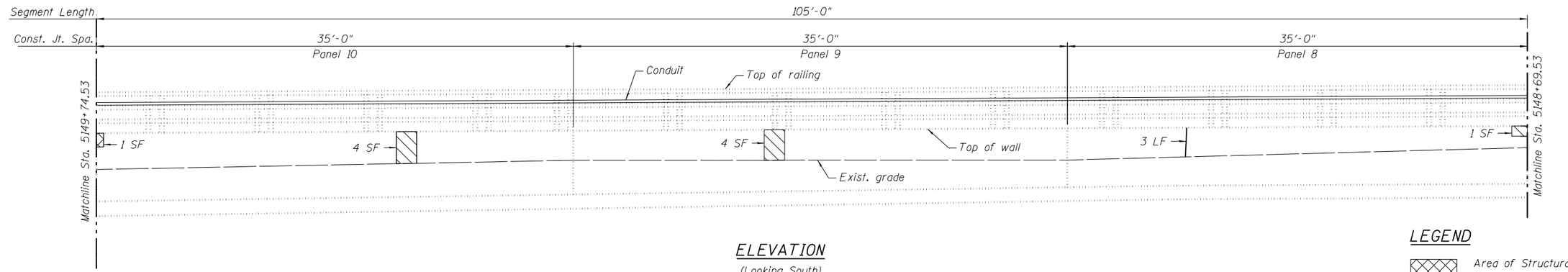
ELEVATION

(Looking South)



ELEVATION

(Looking South)



ELEVATION

(Looking South)

LEGEND

- Area of Structural Repair of Concrete (Depth greater than 5 in.)
- Area of Structural Repair of Concrete (Depth less than 5 in.)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

Notes:

Stations are measured along the front face of the wall.

USER NAME = vljanachione	DESIGNED - RVV	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 7.0 '' / in.	DRAWN - RVV	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -	

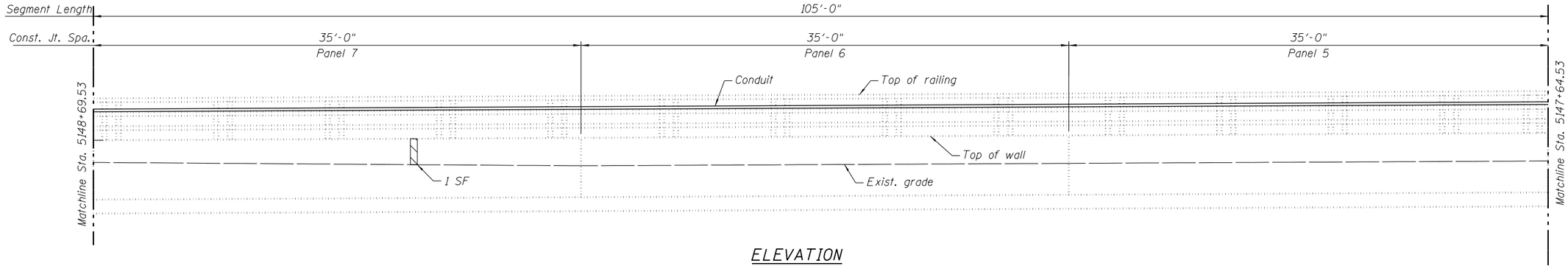
TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR PLANS II
EXISTING RETAINING WALL 9 (STRUCTURE NO. 016-Z028)

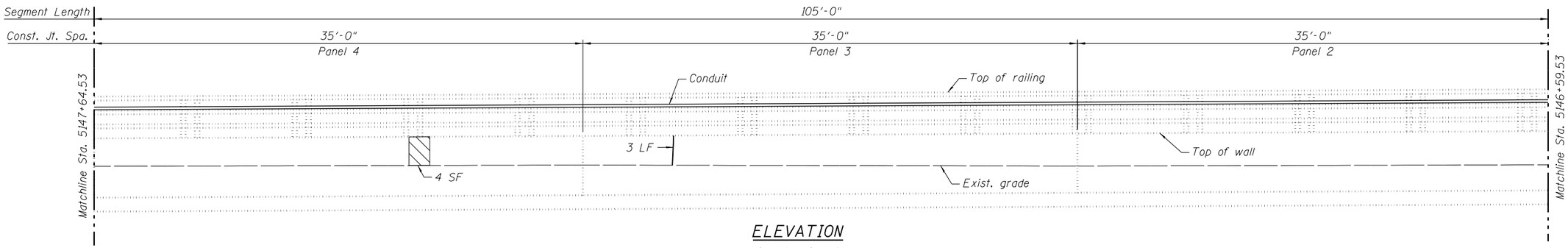
SHEET NO. S4-4 OF S4-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	472
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



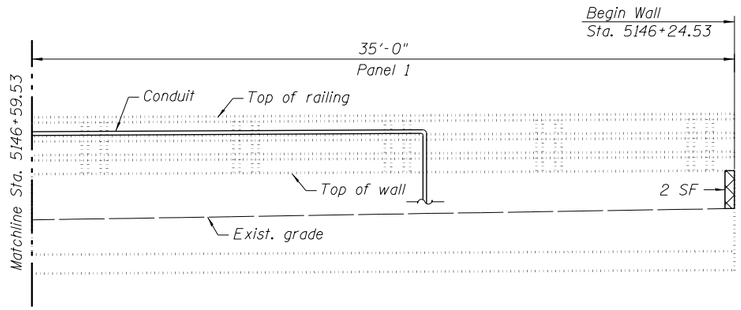
ELEVATION

(Looking South)



ELEVATION

(Looking South)



ELEVATION

(Looking South)

LEGEND

- Area of Structural Repair of Concrete (Depth greater than 5 in.)
- Area of Structural Repair of Concrete (Depth less than 5 in.)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

Notes:

Stations are measured along the front face of the wall.

TranSystems	USER NAME = vljanachione	DESIGNED - RVV	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 7.0 '/ in.	DRAWN - RVV	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - TLR/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR PLANS III
EXISTING RETAINING WALL 9 (STRUCTURE NO. 016-Z028)
SHEET NO. S4-5 OF S4-5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	473
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elev. = 593.07

Existing Structure: Existing Retaining Wall 10. Constructed in 1955 under U.I. 261 (101) F.A. Route 131; Section 2525-103. Reinforced concrete wall on timber pile. Total length of 542'-5 3/4" from Morgan Street to Peoria Street. Height varies 17'-6" to 17'-7". The existing railing and part of the wall is to be removed and replaced with a concrete parapet on moment slab.

I-290 EB traffic control to be utilized during construction.

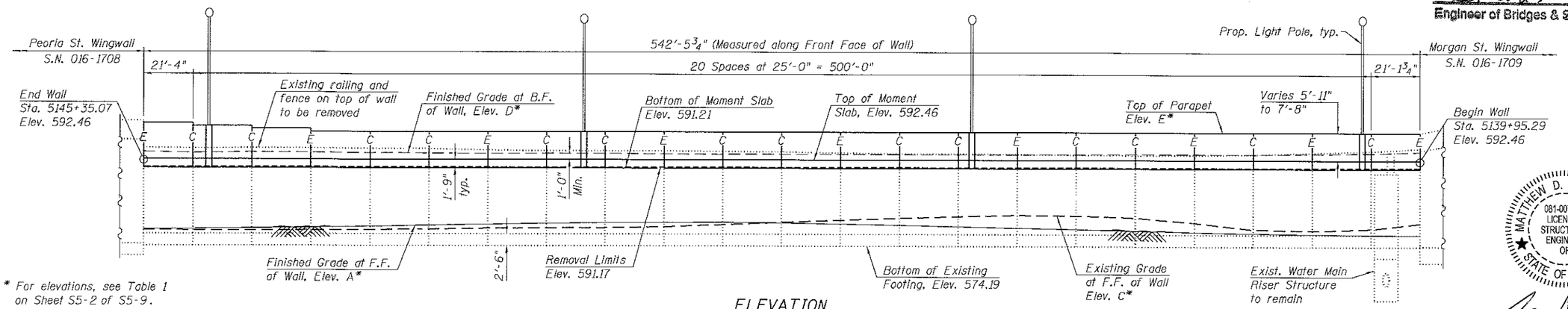
No Salvage.

SCOPE OF WORK:

1. Remove existing railing and wall to elevation specified in Elevation View.
2. Repair spalls, delaminated concrete, and cracks on the front face of existing wall.
3. Replace top portion of existing wall with parapet on top of a moment slab.

Notes:
F.F. denotes Front Face.
B.F. denotes Back Face.

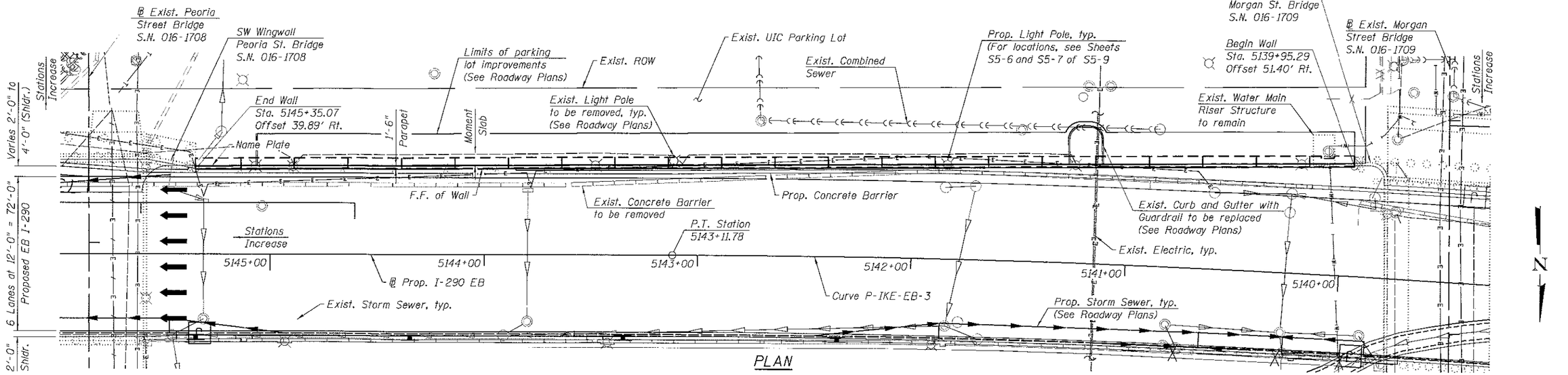
APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures



* For elevations, see Table 1 on Sheet S5-2 of S5-9.

ELEVATION

(Looking South at F.F. of Wall, Proposed Concrete Barrier and architectural reveals not shown for clarity.)



PLAN

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

2014 AASHTO LRFD Bridge Design Specifications 7th Edition with 2015 and 2016 Interim Specifications

DESIGN STRESSES

FIELD UNITS

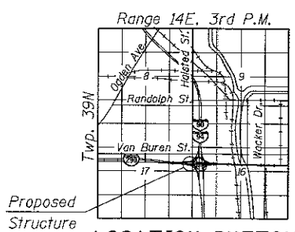
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

EXISTING UNITS

fc = 1,200 psi
fs = 20,000 psi (Reinforcement)

LEGEND:

Ex. Chain Link Fence — X —
Ex. Combined Sewer
Ex. Electric — E —
Ex. Water — W —
Ex. Storm Sewer
Prop. Storm Sewer
Light Pole



LOCATION SKETCH

MATTHEW D. SANTEFORD
081-007244
LICENSED STRUCTURAL ENGINEER OF
STATE OF ILLINOIS
05/08/17

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2018

GENERAL PLAN AND ELEVATION
EXISTING RETAINING WALL 10 ALONG
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 5139+95.29 TO STATION 5145+35.07
STRUCTURE NO. 016-2029

TranSystems

USER NAME = mkwilson	DESIGNED - JNP	REVISED -	
	CHECKED - RVV	REVISED -	
PLOT SCALE = 48.0000 ' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/8/2017	CHECKED - WJC/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S5-1 OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	474
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Plan dimensions and details relative to existing plans, Peoria Street Bridge Plans (Contract No. 60W29), and Morgan Street Bridge Plans (Contract No. 60W25) 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for work.
3. The Contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge, and other loads applied to the structures will not have detrimental effects on the adjacent building foundations. Driving piles and temporary sheet piling is not allowed. See Special Provision for Construction Vibration Monitoring.
4. Slipforming of parapets is not allowed.
5. Concrete Sealer shall be applied to the exposed surfaces of the Moment Slab, Parapet, and existing front face of the retaining wall.
6. Stations and offsets are measured from the ℄ of F.A.I. Route 290 EB to the front face of the existing wall.
7. Wall repair locations are approximate and were determined from field inspection performed at the time of plan preparation. The necessary adjustments based on current field conditions will be made at time of construction. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
8. Existing reinforcing steel which is exposed by the concrete repair process, but is to remain embedded in the existing structure and reused, shall be cleaned to be free of existing concrete and rust, and straightened if necessary. Existing reinforcing steel which is cut, stretched or damaged by the Contractor during the concrete repair process shall be replaced by embedded reinforcing steel or anchorage, equal to or greater than the size of original reinforcing steel, at no cost to the Department. See Special Provisions for Structural Repair of Concrete.
9. The Contractor shall take precautions not to damage existing retaining wall during the construction. Any damage to the existing retaining wall shall be repaired by the Contractor at no additional cost.

CURVE DATA

(I-290 EB)

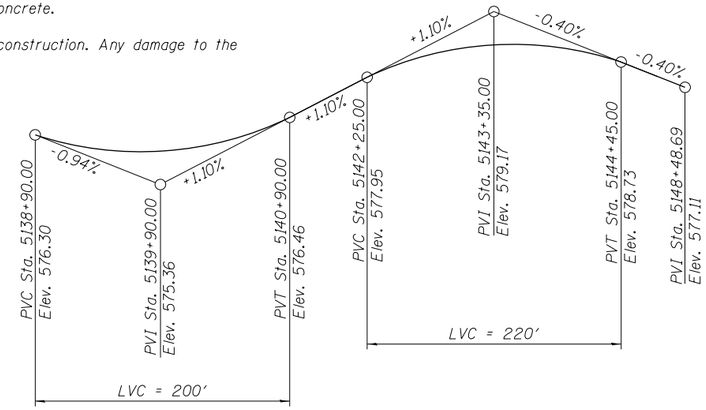
Prop. Curve P-IKE-EB-3
P.I. Sta. = 5140+53.06
Δ = 5° 12′ 17"
D = 1° 00′ 19"
R = 5,700.00′
T = 259.08′
L = 517.80′
E = 5.88′
e = 2.00%
T.R. = 72′
S.E. Run = 96′
P.C. Sta. = 5137+93.98
P.T. Sta. = 5143+11.78

INDEX OF SHEETS

TABLE 1 - WALL ELEVATIONS

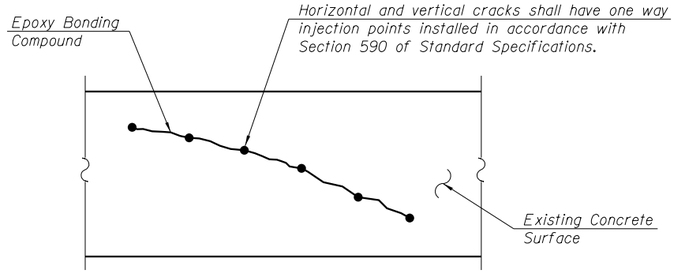
	Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E
	5139+95.29	51.40′ Rt.	576.68	581.72	579.14	594.34	598.37
	5140+16.21	50.15′ Rt.	576.73	581.35	577.99	594.01	598.37
	5140+40.96	48.79′ Rt.	576.85	580.94	577.58	593.87	598.37
	5140+65.72	47.54′ Rt.	577.03	580.66	577.85	593.73	598.37
	5140+90.49	46.36′ Rt.	577.27	580.51	579.23	593.76	598.37
	5141+15.26	45.27′ Rt.	577.54	580.42	580.29	593.76	598.37
	5141+40.05	44.37′ Rt.	577.81	581.28	580.67	593.70	598.37
	5141+64.85	43.56′ Rt.	578.09	581.99	580.81	593.63	598.37
	5141+89.65	42.79′ Rt.	578.36	582.20	580.50	593.61	598.37
	5142+14.46	42.23′ Rt.	578.63	582.40	580.11	593.65	598.37
	5142+39.27	41.70′ Rt.	578.88	582.60	579.71	593.66	598.37
	5142+64.09	41.25′ Rt.	579.10	582.78	579.21	593.65	598.37
	5142+88.91	40.99′ Rt.	579.19	582.84	578.72	593.67	598.37
	5143+13.74	40.84′ Rt.	579.15	582.79	578.24	593.72	598.37
	5143+38.74	40.77′ Rt.	579.06	582.69	578.01	593.77	598.37
	5143+63.74	40.69′ Rt.	578.92	582.54	577.97	593.78	598.37
	5143+88.74	40.56′ Rt.	578.74	582.30	577.86	593.75	598.37
	5144+13.74	40.41′ Rt.	578.51	582.02	577.70	593.80	598.37
	5144+38.74	40.29′ Rt.	578.25	581.76	577.55	593.89	598.37
†	5144+63.74	40.18′ Rt.	578.01	581.52	577.45	593.94	598.37
††	5144+63.74	40.18′ Rt.	578.01	581.52	577.45	593.94	598.95
†	5144+88.74	40.09′ Rt.	577.85	581.36	577.38	593.98	598.95
††	5144+88.74	40.09′ Rt.	577.85	581.36	577.38	593.98	599.54
†	5145+13.74	40.00′ Rt.	577.74	581.25	577.41	593.83	599.54
††	5145+13.74	40.00′ Rt.	577.74	581.25	577.41	593.83	600.12
	5145+35.07	39.89′ Rt.	577.65	581.16	577.55	594.09	600.12

Elevation A - Finished Grade at Front Face of Wall
Elevation B - Top of Slope at Front Face of Wall
Elevation C - Existing Grade at Front Face of Wall
Elevation D - Finished Grade at Back Face of Wall
Elevation E - Top of Parapet
† Elevations just to the right of joint
†† Elevations just to the left of joint



PROFILE GRADE

(Along ℄ I-290 EB)



EPOXY CRACK INJECTION

STATION 5139+95.29 TO 5145+35.07
RE-BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. RTE. 290-SEC. 2014-002R&B
LOADING HL-93
STRUCTURE NO. 016-Z029

NAME PLATE

See Std. 515001
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

TOTAL BILL OF MATERIAL

Item	Unit	Total Quantity
Removal of Existing Structures No. 1	Each	1
Concrete Removal	Cu. Yd.	92.3
Structure Excavation	Cu. Yd.	303
Concrete Superstructure	Cu. Yd.	325.5
Reinforcement Bars, Epoxy Coated	Pound	36,870
Name Plates	Each	1
Concrete Sealer	Sq. Ft.	14,428
Epoxy Crack Injection	Foot	252
Steel Railing Removal	Foot	543
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	46
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	28

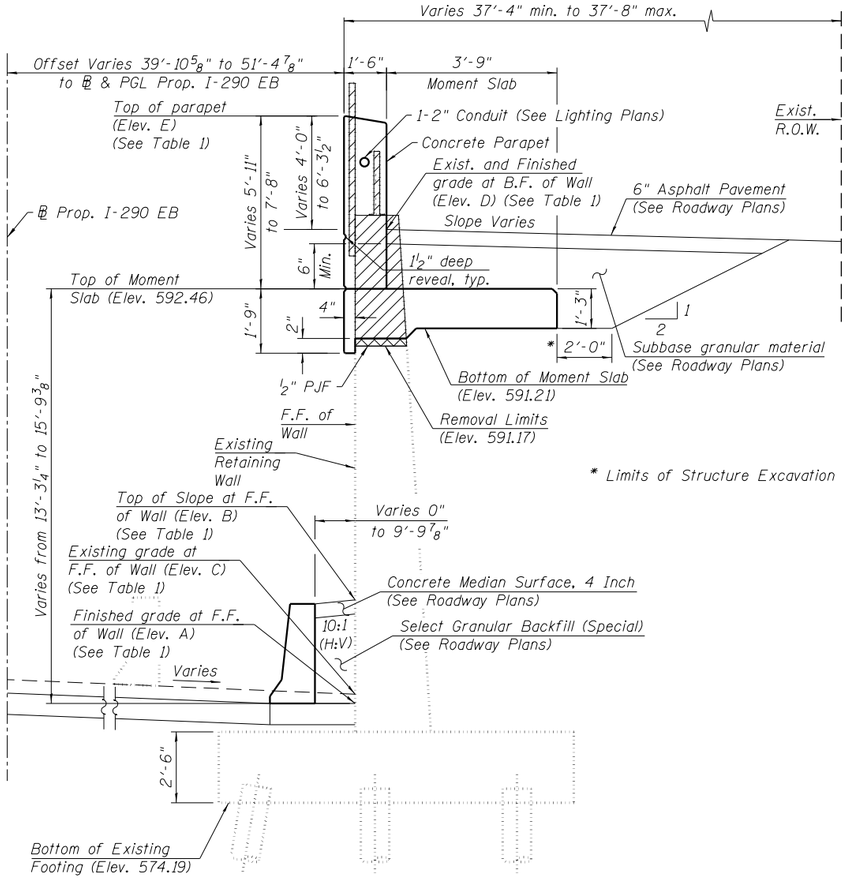
TranSystems

USER NAME = vljanachione	DESIGNED - JNP	REVISED -	
	CHECKED - RVV	REVISED -	
PLOT SCALE = 0.17 ′ / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

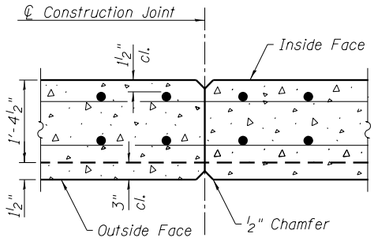
GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO.S5-2OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	475
		CONTRACT NO.	60X76	
		ILLINOIS FED. AID PROJECT		



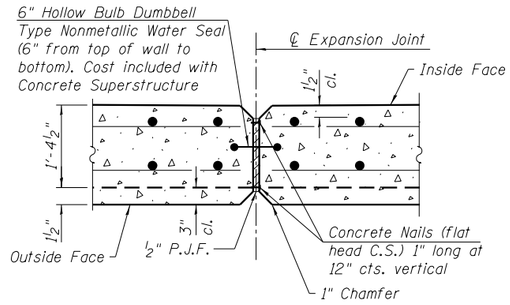
TYPICAL CROSS SECTION

(Looking Upstation, East)



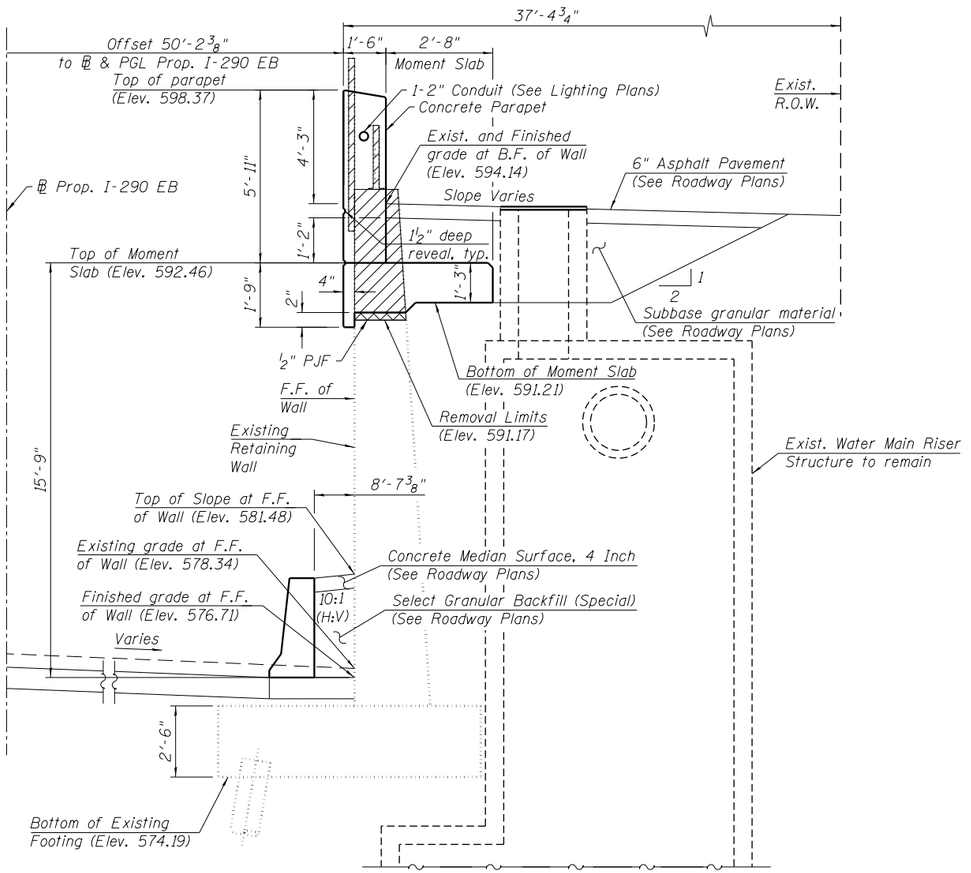
CONSTRUCTION JOINT DETAILS

(NTS)



EXPANSION JOINT DETAILS

(NTS)



CROSS SECTION AT WATER MAIN RISER STRUCTURE (STA. 5140+08.29)

(Looking Upstation, East)

Notes:
See Sheet S5-2 of S5-9 for Table 1.
1/2" PJF included in cost of Concrete Superstructure.

Tran Systems	USER NAME = wjcolletti	DESIGNED - JNP	REVISED -
		CHECKED - RVV	REVISED -
	PLOT SCALE = 0.2 '' / in.	DRAWN - JNP	REVISED -
	PLOT DATE = 6/15/2017	CHECKED - WJC/MDS	REVISED -

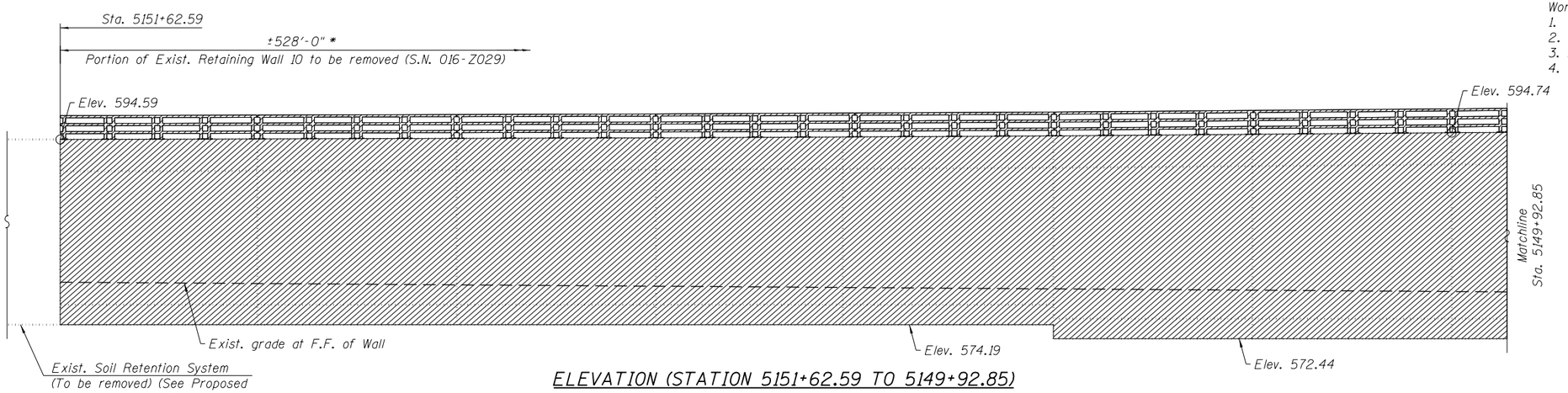
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS AND DETAILS
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO. S5-3 OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	476
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

SUGGESTED WALL CONSTRUCTION SEQUENCE

Work with Retaining Wall 12 (SN 016-1801) Plans.
1. Excavate to Removal Elevation.
2. Remove Existing Retaining Wall 10 to Removal Elevation.
3. Repair front face of existing wall.
4. Construct moment slab and parapet.



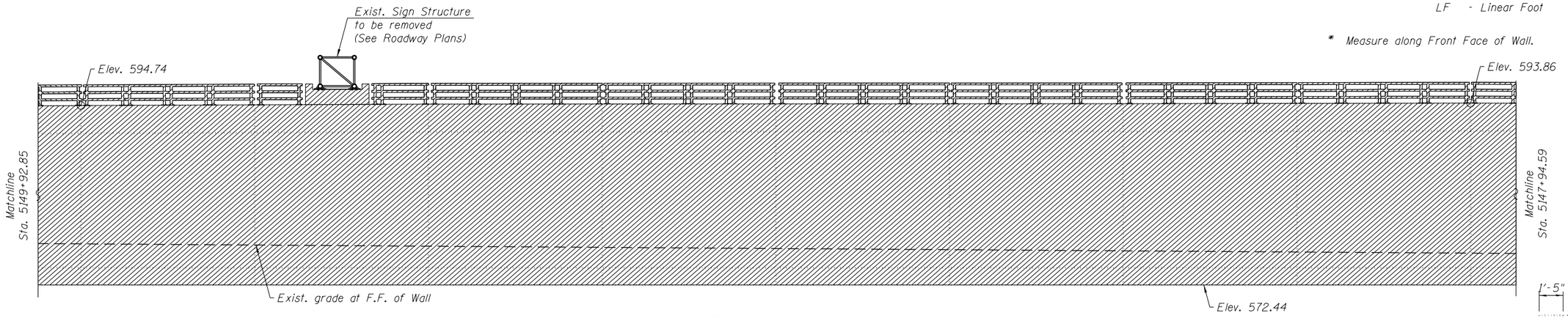
ELEVATION (STATION 5151+62.59 TO 5149+92.85)

(Looking South)

LEGEND

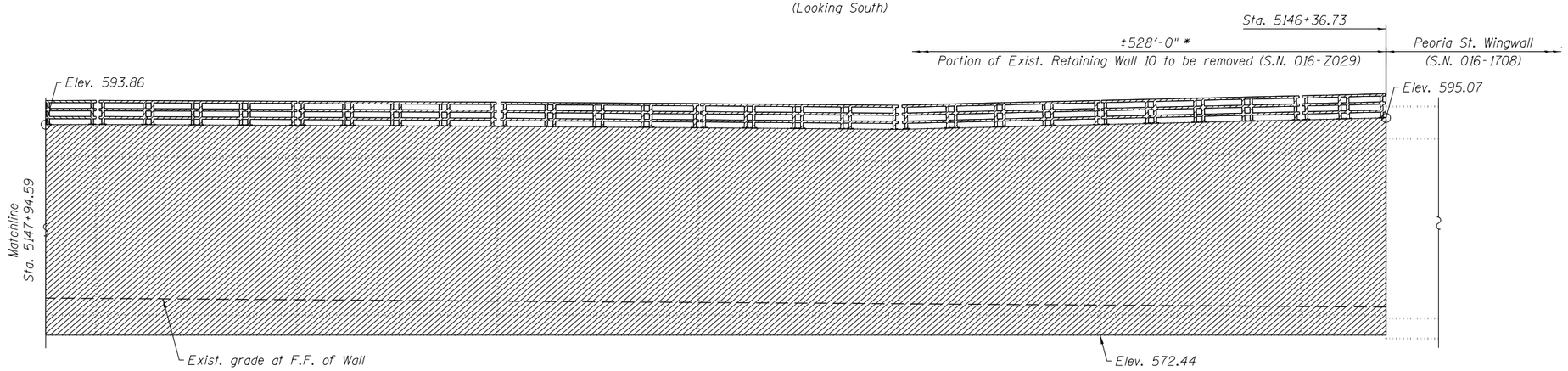
- Limits of Steel Railing Removal
- Limits of Concrete Removal
- Limits of Removal of Existing Structures No. 1
- Area of Structural repair of Concrete (Depth greater than 5 in)
- Area of Structural repair of Concrete (Depth less than 5 in)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

* Measure along Front Face of Wall.



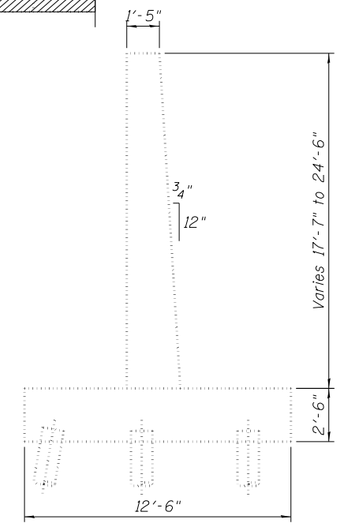
ELEVATION (STATION 5149+92.85 TO 5147+94.59)

(Looking South)



ELEVATION (STATION 5147+94.59 TO 5146+36.73)

(Looking South)



EXISTING RETAINING WALL
TYPICAL CROSS SECTION

USER NAME = vljanachione	DESIGNED - JNP	REVISED -	
	CHECKED - RVV	REVISED -	
PLOT SCALE = 16.0002 '/ in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

TranSystems

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR AND REMOVAL PLANS I
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)

SHEET NO.S5-4OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	477
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

BILL OF MATERIAL

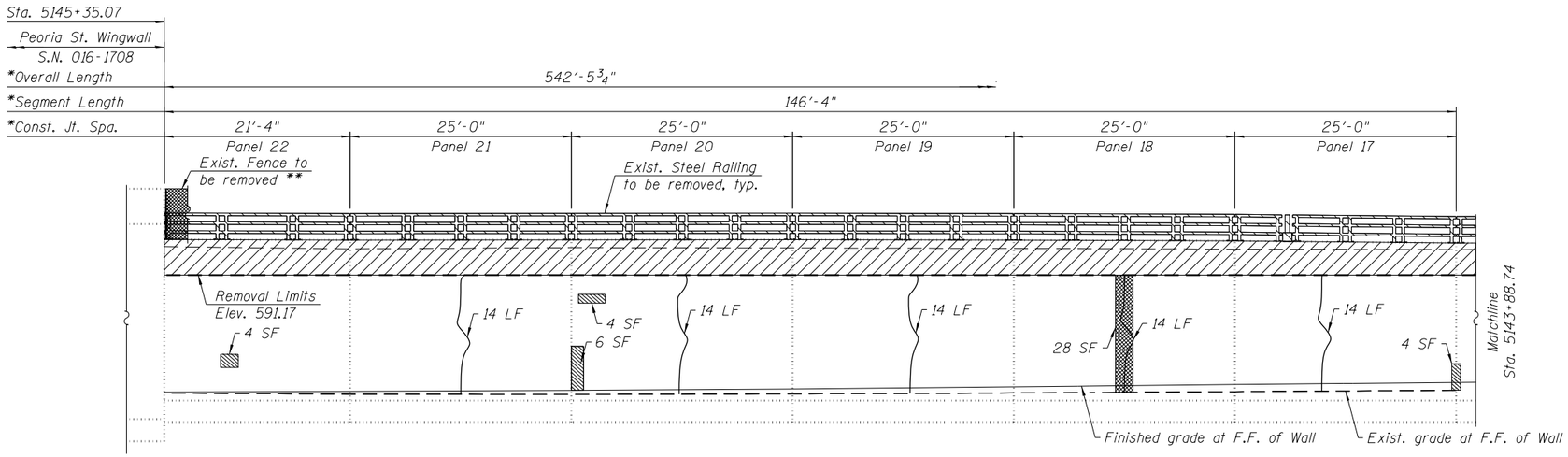
Item	Unit	Total
Removal of Existing Structures No. 1	Each	1
Concrete Removal	Cu. Yd.	92.3
Concrete Sealer	Sq. Ft.	6952
Epoxy Crack Injection	Foot	252
Steel Railing Removal	Foot	543
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	46
Structural Repair of Concrete (Depth greater than 5 inches)	Sq. Ft.	28

LEGEND

- Area of Structural repair of Concrete (Depth less than 5 in)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot
- Limits of Steel Railing Removal
- Limits of Concrete Removal
- Limits of Removal of Existing Structures No. 1
- Area of Structural repair of Concrete (Depth greater than 5 in)

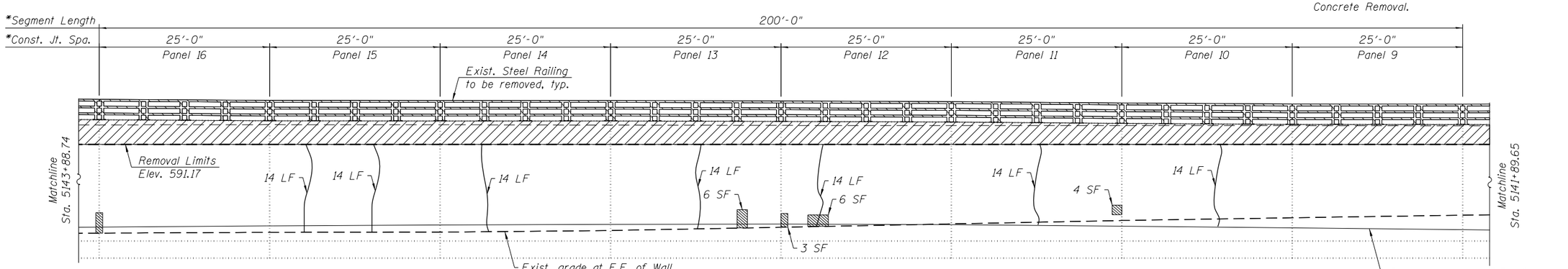
* Measure along Front Face of Wall.

** Fence removal included in cost of Concrete Removal.



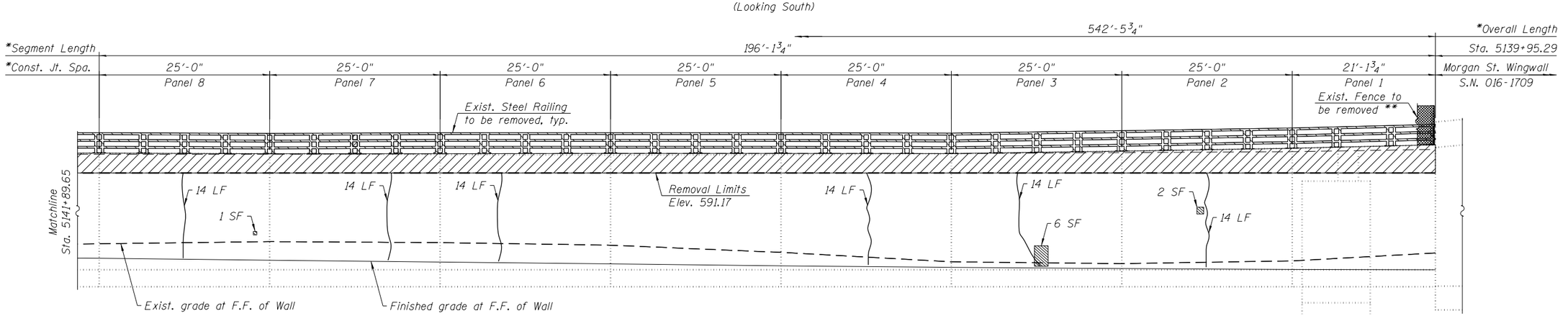
ELEVATION (STATION 5145+35.07 TO 5143+88.74)

(Looking South)



ELEVATION (STATION 5143+88.74 TO 5141+89.65)

(Looking South)



ELEVATION (STATION 5141+89.65 TO 5139+95.29)

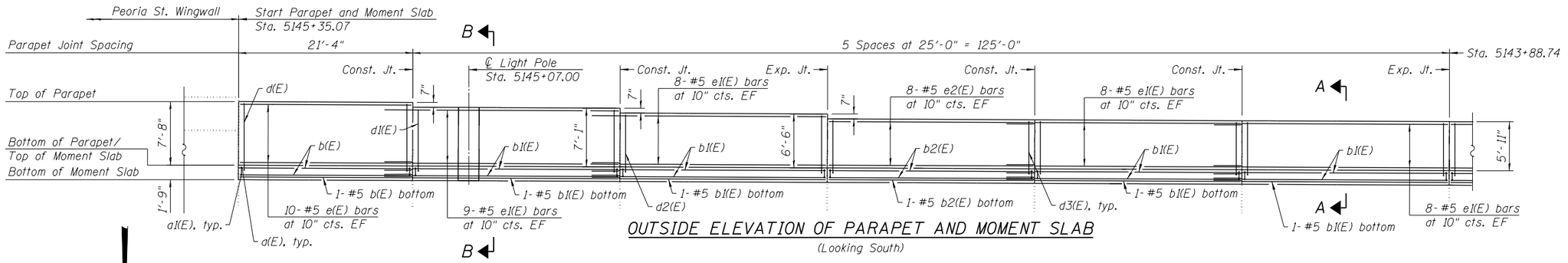
(Looking South)

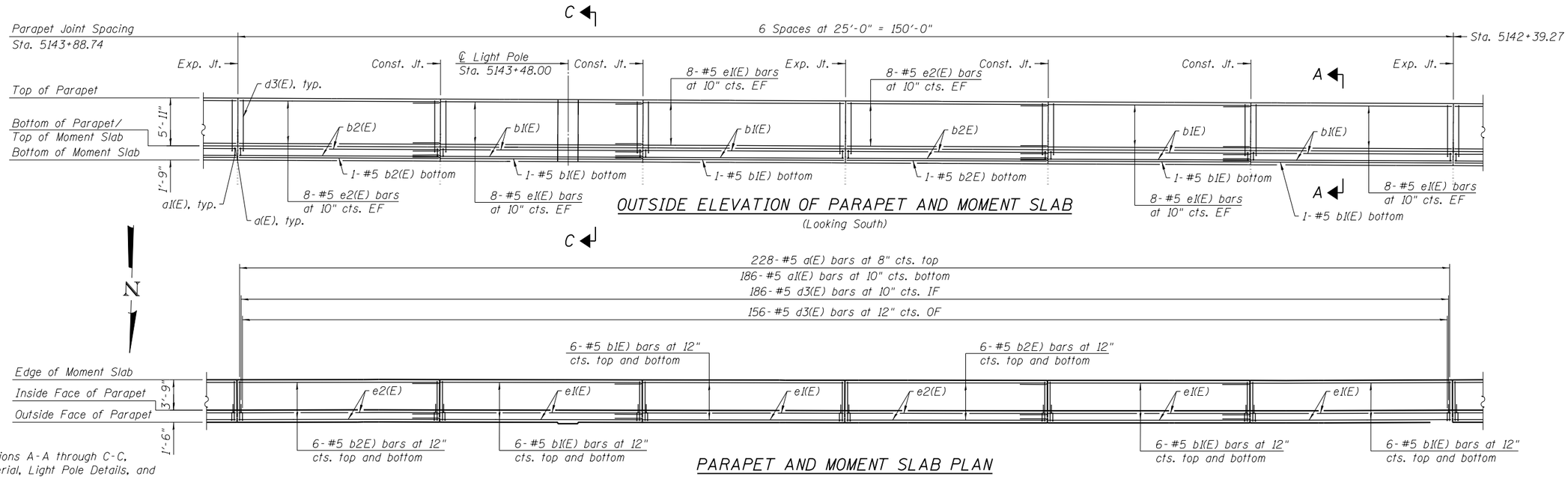
USER NAME = vljanachione	DESIGNED - JNP	REVISED -	
	CHECKED - RVV	REVISED -	
PLOT SCALE = 16.0002 ' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR AND REMOVAL PLANS II
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO.S5-5OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	478
		CONTRACT NO.		60X76
	ILLINOIS FED. AID PROJECT			





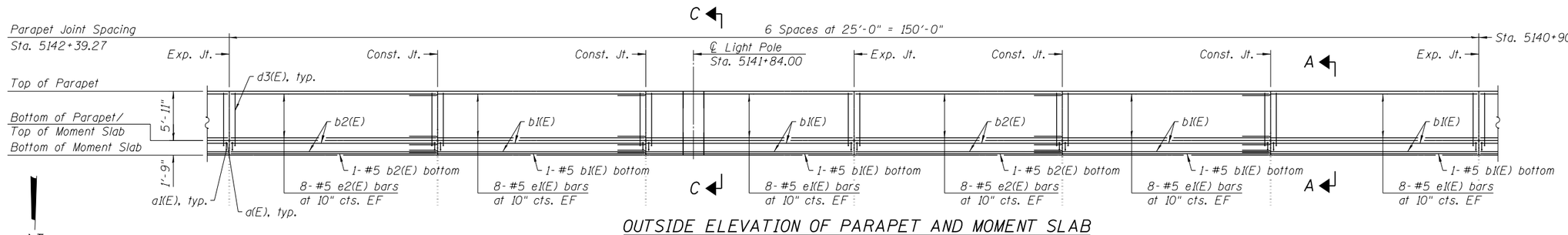
Note:
For Sections A-A through C-C, Bill of Material, Light Pole Details, and Bar Bends, see sheet S5-8 of S5-9.
For Joint Details, see Sheet S5-3 of S5-9.
EF = Each Face
IF = Inside Face
OF = Outside Face

TranSystems	USER NAME = vljanachione	DESIGNED - JNP	REVISED -
		CHECKED - RVV	REVISED -
	PLOT SCALE = 14.0000 '/ in.	DRAWN - JNP	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

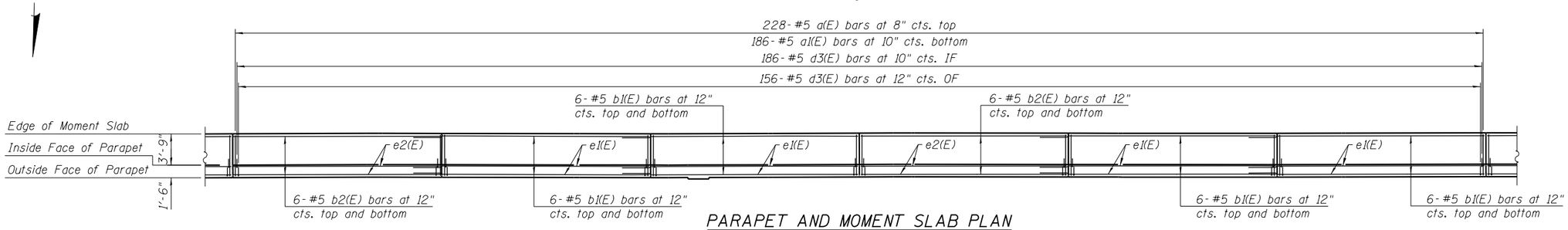
MOMENT SLAB PLAN AND ELEVATION I
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO.S5-6OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	479
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

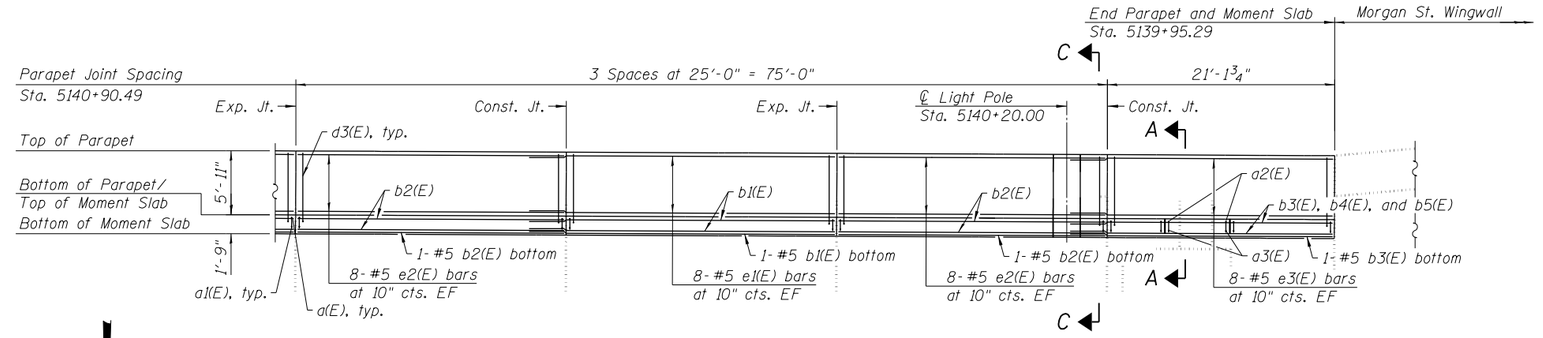


OUTSIDE ELEVATION OF PARAPET AND MOMENT SLAB

(Looking South)

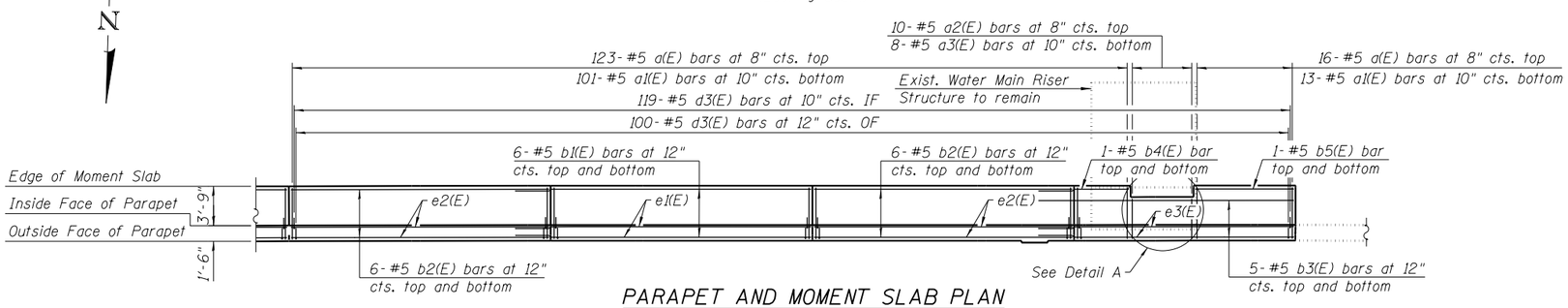


PARAPET AND MOMENT SLAB PLAN



OUTSIDE ELEVATION OF PARAPET AND MOMENT SLAB

(Looking South)



PARAPET AND MOMENT SLAB PLAN

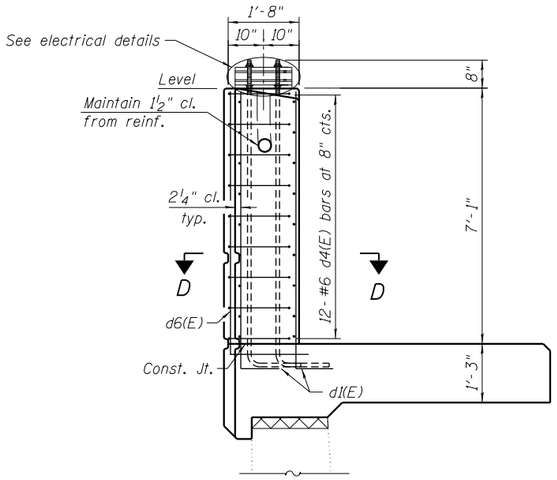
Note:
For Detail A, Sections A-A through C-C, Bill of Material, Light Pole Details, and Bar Bends, see Sheet S5-8 of S5-9 .
For Joint Details, see Sheet S5-3 of S5-9 .
EF = Each Face
IF = Inside Face
OF = Outside Face

TranSystems	USER NAME = vljanachione	DESIGNED - JNP	REVISED -
		CHECKED - RVV	REVISED -
	PLOT SCALE = 14.0000 ' / in.	DRAWN - JNP	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

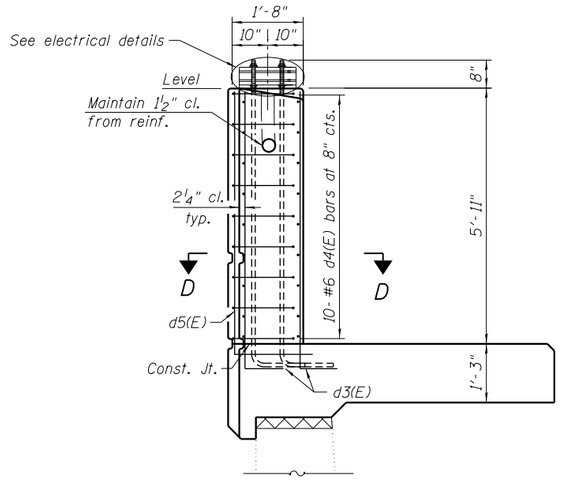
MOMENT SLAB PLAN AND ELEVATION II
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO.S5-7OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	480
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



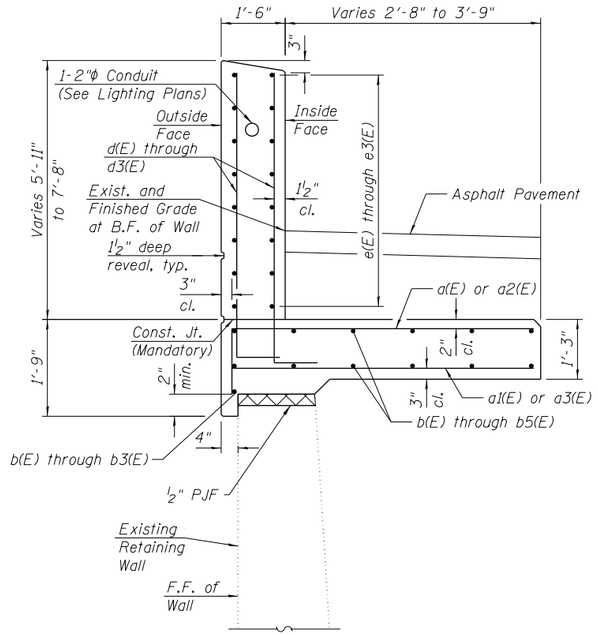
SECTION B-B

(Sta. 5145+07.00)



SECTION C-C

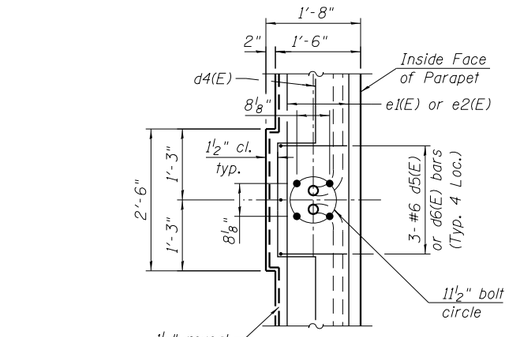
(Sta. 5140+20.00, Sta. 5141+84.00, and Sta. 5143+48.00)



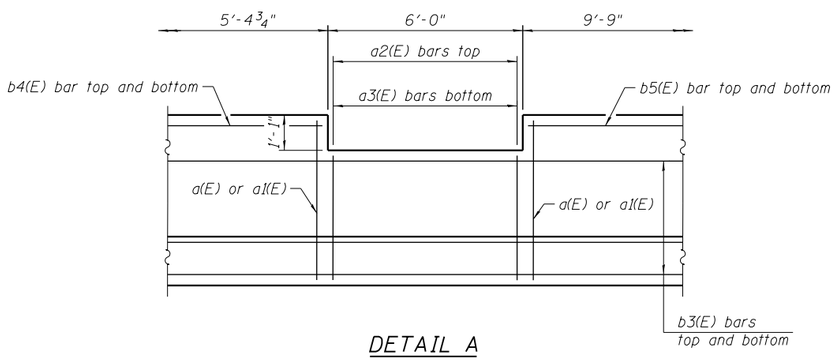
SECTION A-A

BILL OF MATERIAL

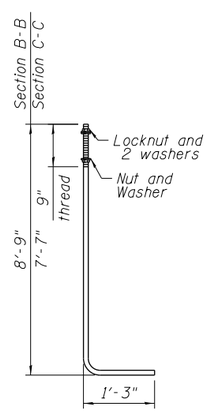
Bar	No.	Size	Length	Shape
a(E)	818	#5	6'-3"	
a1(E)	668	#5	4'-10"	
a2(E)	10	#5	5'-2"	
a3(E)	8	#5	3'-9"	
b(E)	13	#5	21'-0"	
b1(E)	169	#5	28'-2"	
b2(E)	91	#5	24'-8"	
b3(E)	11	#5	24'-4"	
b4(E)	2	#5	8'-7"	
b5(E)	2	#5	9'-5"	
d(E)	49	#5	9'-1"	
d1(E)	57	#5	8'-6"	
d2(E)	57	#5	7'-11"	
d3(E)	1074	#5	7'-4"	
d4(E)	42	#6	7'-7"	
d5(E)	9	#6	7'-11"	
d6(E)	3	#6	9'-1"	
e(E)	20	#5	21'-0"	
e1(E)	210	#5	28'-2"	
e2(E)	112	#5	24'-8"	
e3(E)	16	#5	24'-4"	
Structure Excavation		Cu. Yd.	303	
Concrete Superstructure		Cu. Yd.	325.5	
Reinforcement Bars, Epoxy Coated		Pound	36,870	
Concrete Sealer		Sq. Ft.	7476	



SECTION D-D
PARAPET DETAIL AT LIGHT POLE



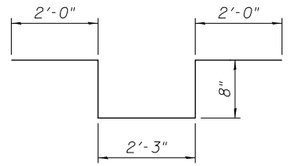
DETAIL A



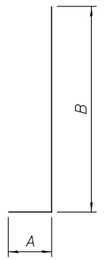
ANCHOR ROD

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

Minimum Bar Laps	
Bar	Lap
#5	3'-2"



BAR d4(E)



BARS a(E), a2(E), d(E) through d3(E), d5(E), and d6(E)

Bar	A	B
a(E)	1'-5"	4'-10"
a2(E)	1'-5"	3'-9"
d(E)	10"	8'-3"
d1(E)	10"	7'-8"
d2(E)	10"	7'-1"
d3(E)	10"	6'-6"
d5(E)	2'-0"	5'-11"
d6(E)	2'-0"	7'-1"

Notes:

For moment slab details, see Sheets S5-6 and S5-7 of S5-9 .

All edges shall be chamfered ¾".

For architectural details on the parapet see Sheet S5-9 of S5-9 .

The cost of reveal is included in cost of Concrete Superstructure.

Cost of anchor rods is included with Concrete Superstructure.

For light pole locations and bolt circle, see Electrical plans.

Tran Systems

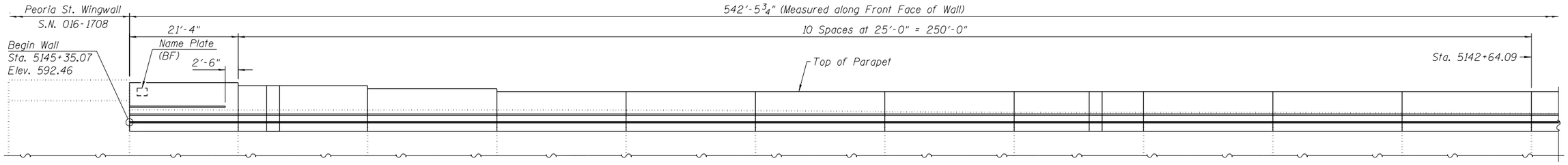
USER NAME = vijanachione	DESIGNED - JNP	REVISED -
	CHECKED - RVV	REVISED -
PLOT SCALE = 14.0000 ' / in.	DRAWN - JNP	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

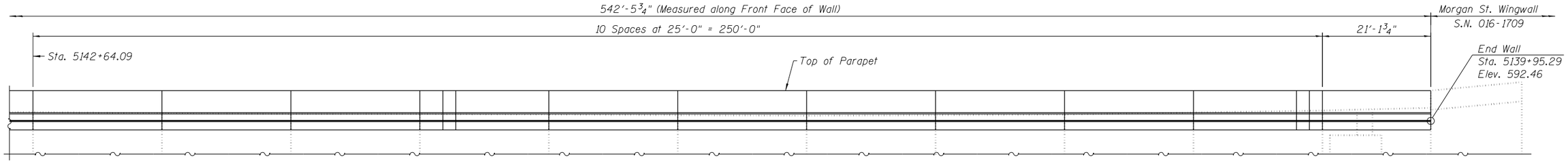
MOMENT SLAB DETAILS
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)

SHEET NO.S5-8OF S5-9 SHEETS

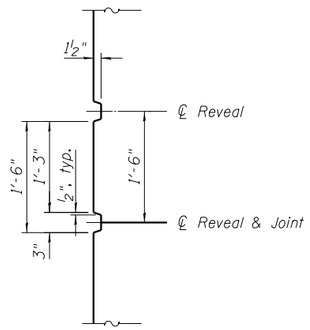
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	481
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



ELEVATION
(Looking South)



ELEVATION
(Looking South)



TYPICAL REVEAL DETAIL

Note:
The cost of reveal is included in cost of Concrete Superstructure.

TranSystems	USER NAME = vljanachione	DESIGNED - JNP	REVISED -
		CHECKED - RVV	REVISED -
	PLOT SCALE = 20.0000 ' / in.	DRAWN - JNP	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS
EXISTING RETAINING WALL 10 (STRUCTURE NO. 016-Z029)
SHEET NO. S5-9 OF S5-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	482
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

Bench Mark: Cut square on northwest corner of sign foundation at north side of Harrison Street, approximately 80' west of west line of Morgan Street. Elev. = 593.07

Existing Structure: Existing Retaining Wall 13. Constructed in 1955 under I.L. 261 (101) F.A. Route 131; Section 2525-103. Reinforced concrete wall on timber piles. Total length of 974'-3" from Racine Avenue to Morgan Street. Height varies 2'-1" to 17'-11". The existing railing and part of the wall is to be removed and replaced with a concrete parapet on moment slab.

I-290 EB traffic control to be utilized during construction.

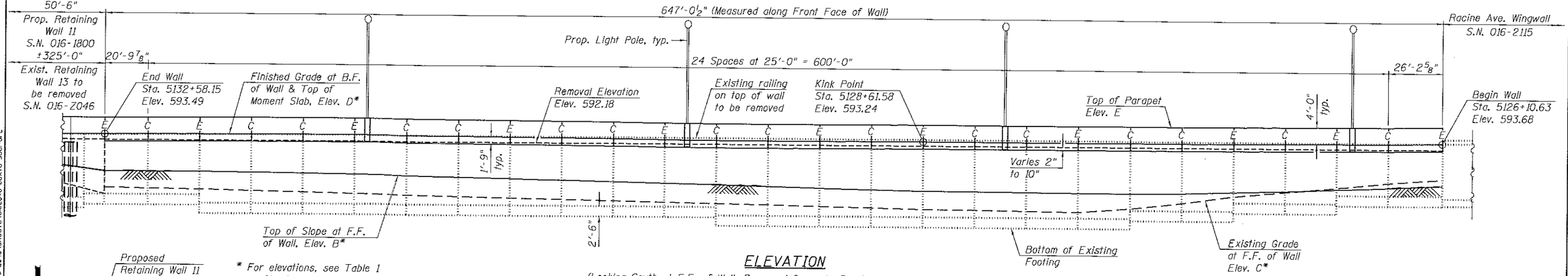
No Salvage.

SCOPE OF WORK:

1. Remove existing railing and wall to elevation specified in Elevation View.
2. Repair spalls, delaminated concrete, and cracks on the front face of existing wall.
3. Replace top portion of existing wall with parapet on top of a moment slab.

Notes:
F.F. denotes Front Face.
B.F. denotes Back Face.

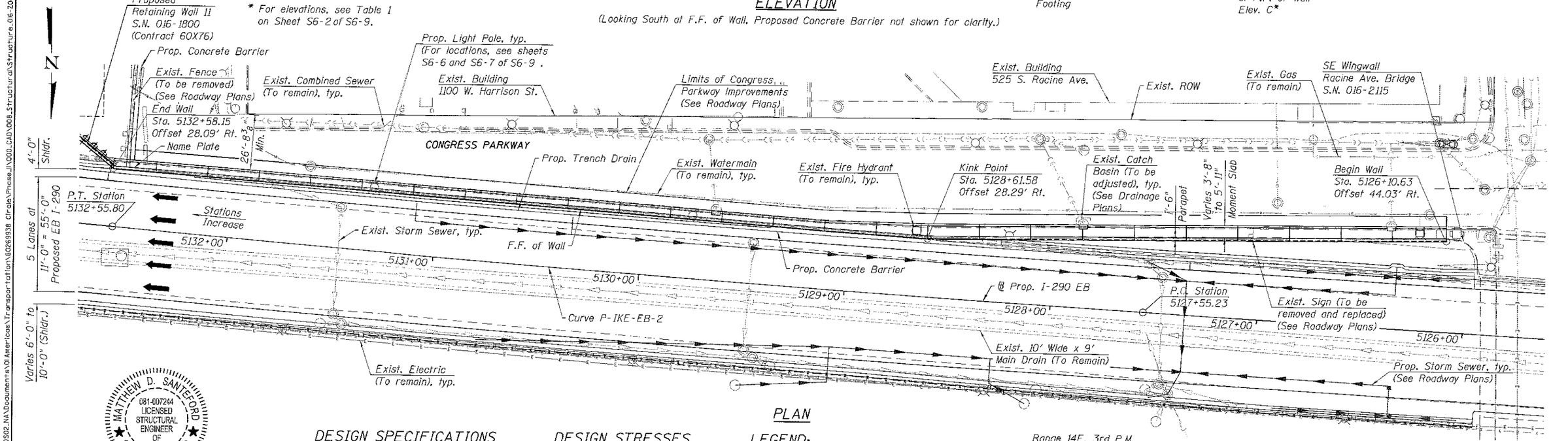
APPROVED
For Structural Adequacy Only
S. Carl Knapp
Engineer of Bridges & Structures



ELEVATION

(Looking South at F.F. of Wall. Proposed Concrete Barrier not shown for clarity.)

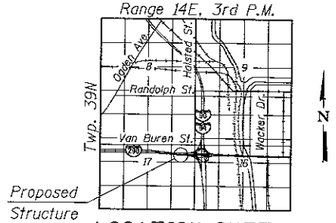
* For elevations, see Table 1 on Sheet S6-2 of S6-9.



PLAN

LEGEND:

- Ex. Chain Link Fence — x — x —
- Ex. Combined Sewer
- Ex. Electric — E —
- Ex. Gas — G —
- Ex. Water — W —
- Ex. Storm Sewer
- Prop. Storm Sewer
- Ex. Fire Hydrant
- Light Pole



LOCATION SKETCH

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

2014 AASHTO LRFD Bridge Design Specifications 7th Edition with 2015 and 2016 Interim Specifications

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

EXISTING UNITS

fc = 1,200 psi
fs = 20,000 psi (Reinforcement)

MATTHEW D. SANTEFORD
081-007244
LICENSED STRUCTURAL ENGINEER
OF
STATE OF ILLINOIS

05/08/17

MATTHEW D. SANTEFORD, P.E., S.E.
NO. 081-007244
EXP. DATE 11/30/2018

GENERAL PLAN AND ELEVATION
EXISTING RETAINING WALL 13 ALONG
F.A.I. RTE. 290 (EISENHOWER EXPRESSWAY)
SECTION 2014-002R&B
COOK COUNTY
STATION 5126+10.63 TO STATION 5132+58.15
STRUCTURE NO. 016-2046

TranSystems

USER NAME = mkwalson	DESIGNED - JNP	REVISED -
	CHECKED - RVV	REVISED -
PLOT SCALE = 48.0000 ' / in.	DRAWN - JNP	REVISED -
PLOT DATE = 5/8/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. S6-1 OF S6-9 SHEETS

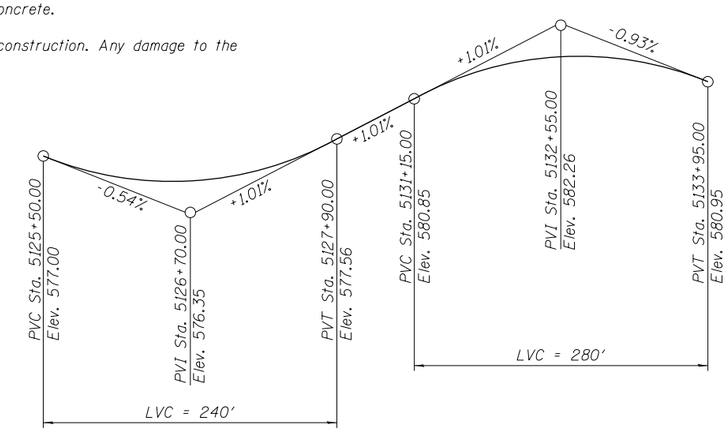
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	483
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. 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 the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for work.
3. The Contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge, and other loads applied to the structures will not have detrimental effects on the adjacent building foundations. Driving piles and temporary sheet piling is not allowed. See Special Provision for Construction Vibration Monitoring.
4. Slipforming of parapets is not allowed.
5. Concrete Sealer shall be applied to the exposed surfaces of Moment Slab, Parapet, and existing front face of the retaining wall.
6. Stations and offsets are measured from the ℄ of F.A.I. Route 290 EB to the front face of the existing wall.
7. Wall repair locations are approximate and were determined from field inspection performed at the time of plan preparation. The necessary adjustments based on current field conditions will be made at time of construction. Such variations shall not be cause for additional compensation for a change in the scope of work. However, the Contractor will be paid for the actual quantity furnished at the unit price bid for the work.
8. Existing reinforcing steel which is exposed by the concrete repair process, but is to remain embedded in the existing structure and reused, shall be cleaned to be free of existing concrete and rust, and straightened if necessary. Existing reinforcing steel which is cut, stretched or damaged by the Contractor during the concrete repair process shall be replaced by embedded reinforcing steel or anchorage, equal to or greater than the size of original reinforcing steel, at no cost to the Department. See Special Provisions for Structural Repair of Concrete.
9. The Contractor shall take precautions not to damage existing retaining wall during the construction. Any damage to the existing retaining wall shall be repaired by the Contractor at no additional cost.

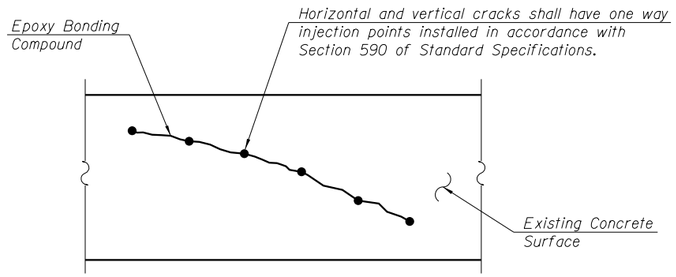
CURVE DATA

(I-290 EB)
Prop. Curve P-IKE-EB-2
P.I. Sta. = 5130+05.54
Δ = 1° 54′ 43″
D = 0° 22′ 55″
R = 15,000.00′
T = 250.31′
L = 500.57′
E = 2.09′
e = NC
T.R. = NA
S.E. Run = NA
P.C. Sta. = 5127+55.23
P.T. Sta. = 5132+55.80



PROFILE GRADE

(Along ℄ I-290 EB)



EPOXY CRACK INJECTION

STATION 5126+10.63 TO 5132+58.15
RE-BUILT 20-- BY
STATE OF ILLINOIS
F.A.I. RTE. 290-SEC. 2014-002R&B
LOADING HL-93
STRUCTURE NO. 016-Z046

NAME PLATE

See Std. 515001
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

INDEX OF SHEETS

TABLE 1 - WALL ELEVATIONS

Station	Offset	Elevation A	Elevation B	Elevation C	Elevation D	Elevation E
5126+10.63	44.03′ Rt.	576.24	583.45	585.04	593.68	597.68
5126+36.80	42.40′ Rt.	576.23	582.93	584.12	593.47	597.47
5126+61.75	40.85′ Rt.	576.26	582.45	582.84	593.44	597.44
5126+86.70	39.32′ Rt.	576.33	582.00	581.78	593.35	597.35
5127+11.65	37.79′ Rt.	576.43	581.59	580.60	593.27	597.27
5127+36.60	36.23′ Rt.	576.58	581.20	578.93	593.23	597.23
5127+61.57	34.67′ Rt.	576.77	580.99	577.52	593.21	597.21
5127+86.58	33.09′ Rt.	576.99	581.05	576.52	593.20	597.20
5128+11.58	31.47′ Rt.	577.24	581.14	576.69	593.20	597.20
5128+36.58	29.9′ Rt.	577.50	581.24	576.85	593.22	597.22
5128+61.58	28.29′ Rt.	577.74	581.24	576.93	593.24	597.24
5128+86.62	28.34′ Rt.	578.00	581.51	577.21	593.19	597.19
5129+11.67	28.36′ Rt.	578.25	581.76	577.48	593.14	597.14
5129+36.72	28.58′ Rt.	578.51	582.07	577.72	593.10	597.10
5129+61.77	28.75′ Rt.	578.76	582.38	577.94	593.10	597.10
5129+86.81	28.94′ Rt.	579.01	582.65	578.14	593.19	597.19
5130+11.86	29.08′ Rt.	579.26	582.92	578.36	593.32	597.32
5130+36.91	29.16′ Rt.	579.52	583.19	578.61	593.42	597.42
5130+61.96	29.19′ Rt.	579.77	583.92	578.86	593.50	597.50
5130+87.01	29.21′ Rt.	580.02	584.21	579.10	593.58	597.58
5131+12.06	29.2′ Rt.	580.27	583.94	579.34	593.66	597.66
5131+37.10	29.12′ Rt.	580.51	584.17	579.60	593.73	597.73
5131+62.15	29.01′ Rt.	580.70	584.35	579.87	593.76	597.76
5131+87.20	28.85′ Rt.	580.85	584.48	580.13	593.73	597.73
5132+12.25	28.65′ Rt.	580.95	584.53	580.37	593.66	597.66
5132+37.29	28.36′ Rt.	581.02	584.53	580.56	593.59	597.59
5132+58.15	28.08′ Rt.	581.03	584.54	580.71	593.49	597.49

Elevation A- Finished Grade at Front Face of Wall
Elevation B- Top of Slope at Front Face of Wall
Elevation C- Existing Grade at Front Face of Wall
Elevation D- Finished Grade at Back Face of Wall & Top of Moment Slab
Elevation E- Top of Parapet

TOTAL BILL OF MATERIAL

Item	Unit	Total Quantity
Removal of Existing Structures No. 2	Each	1
Concrete Removal	Cu. Yd.	52.8
Structure Excavation	Cu. Yd.	209
Concrete Superstructure	Cu. Yd.	313.3
Reinforcement Bars, Epoxy Coated	Pound	50,080
Name Plates	Each	1
Concrete Sealer	Sq. Ft.	20,996
Epoxy Crack Injection	Foot	497
Steel Railing Removal	Foot	648
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	61

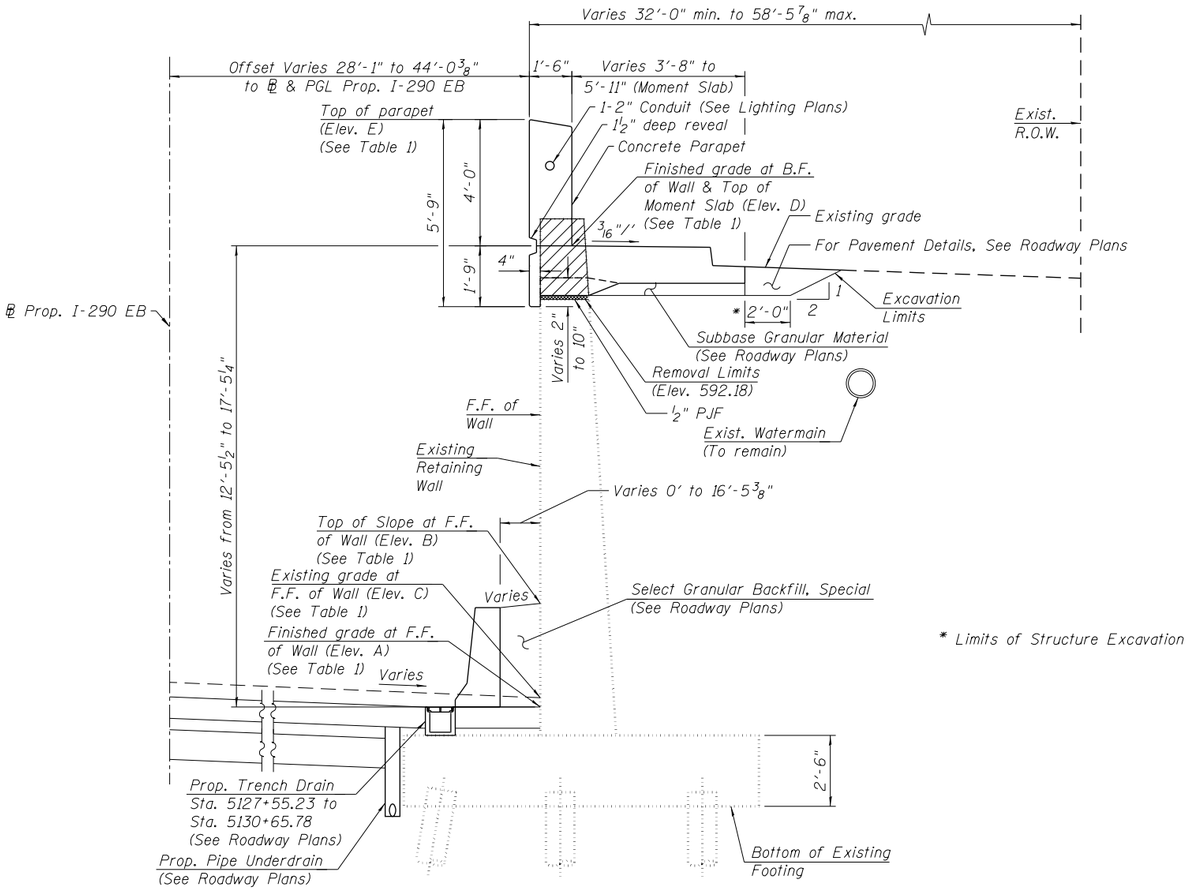
TranSystems

USER NAME = vljanachione	DESIGNED - JNP	REVISED -
	CHECKED - RVV	REVISED -
PLOT SCALE = 0.2 ' / in.	DRAWN - JNP	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS AND BILL OF MATERIAL
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-2OF S6-9 SHEETS

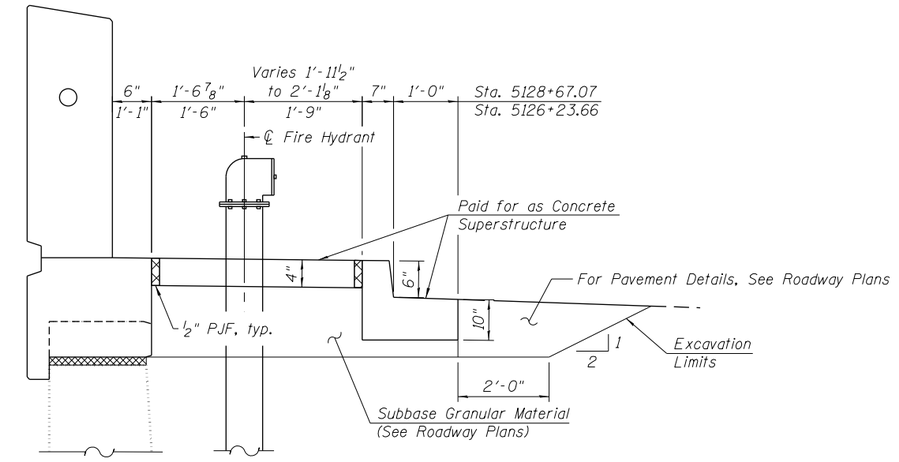
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	484
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



* Limits of Structure Excavation

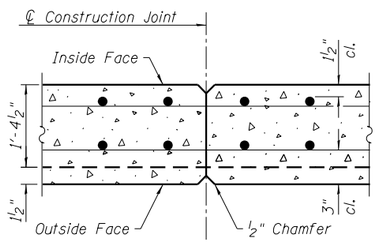
TYPICAL CROSS SECTION

(Looking Upstation, East)



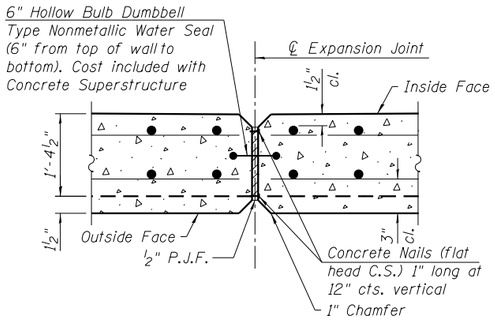
TYPICAL CROSS SECTION AT FIRE HYDRANT (STA. 5126+23.66 AND STA 5128+67.07)

(Looking Upstation, East)



CONSTRUCTION JOINT DETAILS

(NTS)



EXPANSION JOINT DETAILS

(NTS)

Notes:
See Sheet S6-2 of S6-9 for Table 1.
Cost of PJF included with Concrete Superstructure.

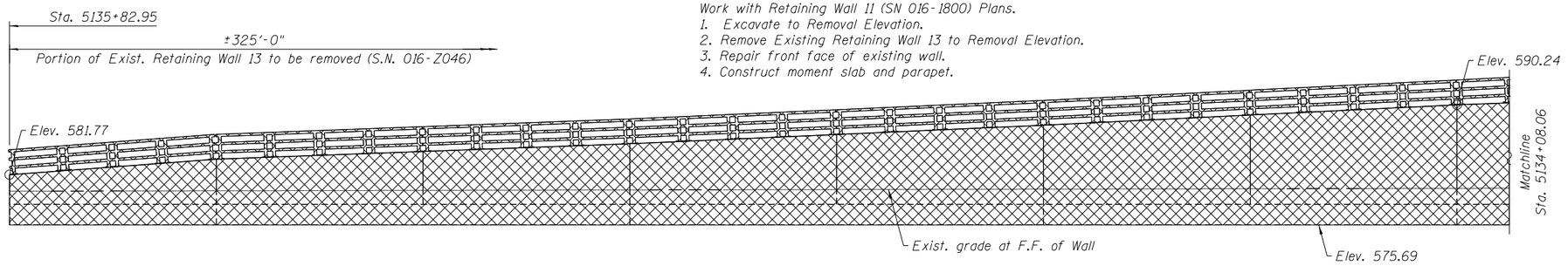
USER NAME = vljanachione	DESIGNED - JNP	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
	CHECKED - RVV	REVISED -	
PLOT SCALE = Ø2 '' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

TYPICAL CROSS SECTIONS AND DETAILS
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-30F S6-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	485
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

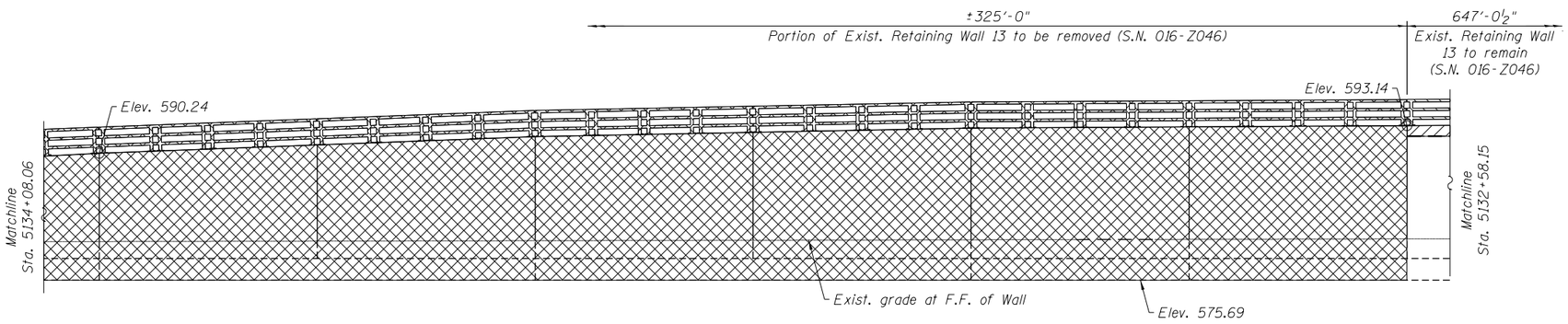
SUGGESTED WALL CONSTRUCTION SEQUENCE

Work with Retaining Wall 11 (SN 016-1800) Plans.
1. *Excavate to Removal Elevation.*
2. *Remove Existing Retaining Wall 13 to Removal Elevation.*
3. *Repair front face of existing wall.*
4. *Construct moment slab and parapet.*



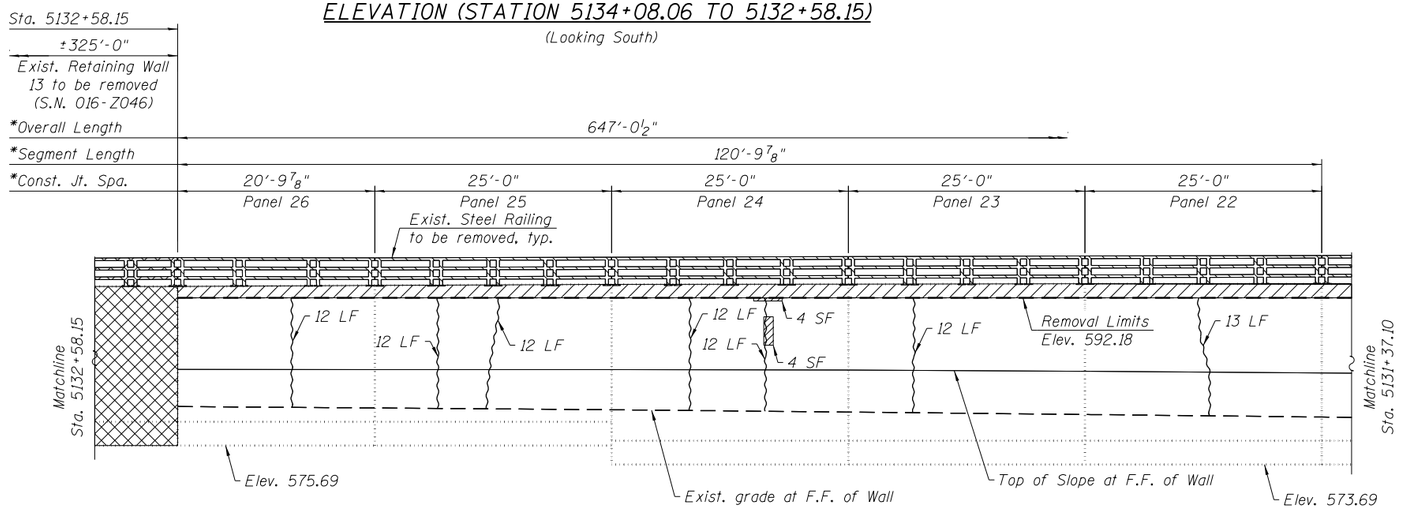
ELEVATION (STATION 5135+82.95 TO 5134+08.06)

(Looking South)



ELEVATION (STATION 5134+08.06 TO 5132+58.15)

(Looking South)



ELEVATION (STATION 5132+58.15 TO 5131+37.10)

(Looking South)

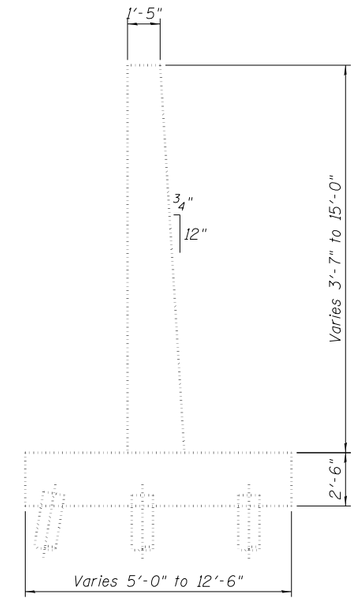
BILL OF MATERIAL

Item	Unit	Total
Removal of Existing Structures No. 2	Each	1
Concrete Removal	Cu. Yd.	52.8
Concrete Sealer	Sq. Ft.	9,608
Epoxy Crack Injection	Foot	497
Steel Railing Removal	Foot	648
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.	61

LEGEND

- Limits of Concrete Removal
- Limits of Steel Railing Removal
- Limits of Removal of Existing Structures No. 2
- Area of Structural repair of Concrete (Depth less than 5 in)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

* Measure along Front Face of Wall.



EXISTING RETAINING WALL TYPICAL CROSS SECTION

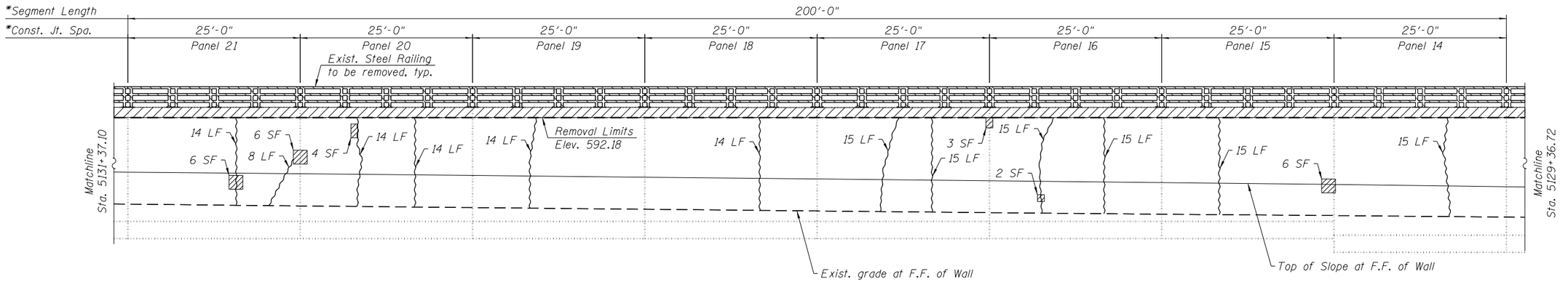
TranSystems

USER NAME = vljanachione	DESIGNED - JNP	REVISED -
	CHECKED - RVV	REVISED -
PLOT SCALE = 16.0 '/ in.	DRAWN - JNP	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

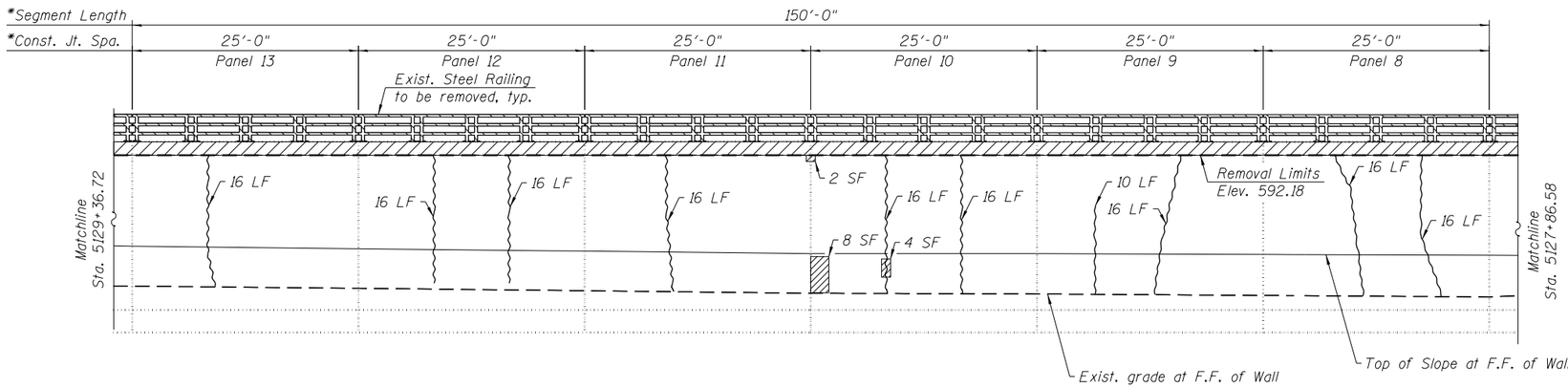
REPAIR PLANS I
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-40F S6-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	486
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			



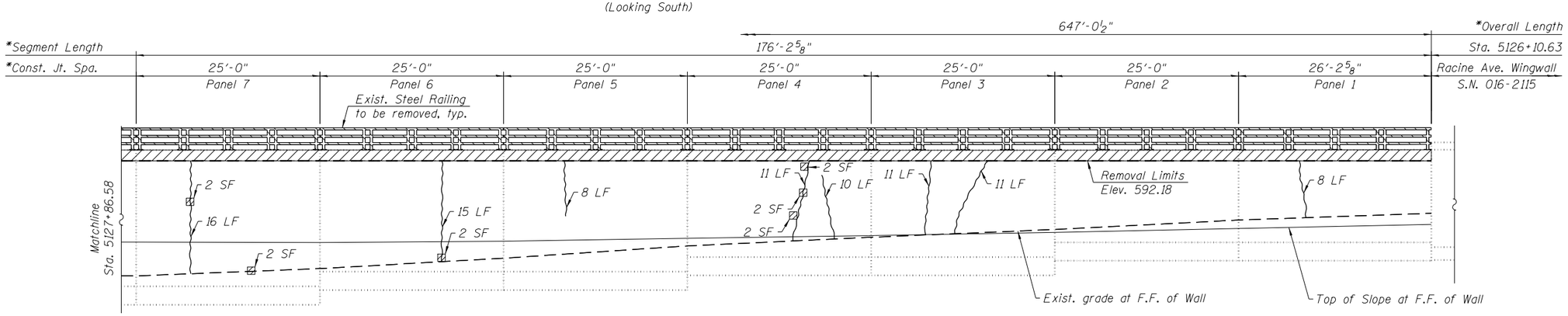
ELEVATION (STATION 5131+37.10 TO 5129+36.72)

(Looking South)



ELEVATION (STATION 5129+36.72 TO 5127+86.58)

(Looking South)



ELEVATION (STATION 5127+86.58 TO 5126+10.63)

(Looking South)

LEGEND

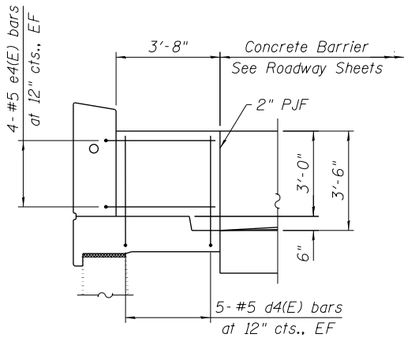
- Limits of Concrete Removal
- Limits of Steel Railing Removal
- Area of Structural repair of Concrete (Depth less than 5 in)
- Epoxy Crack Injection
- SF - Square Foot
- LF - Linear Foot

* Measure along Front Face of Wall.

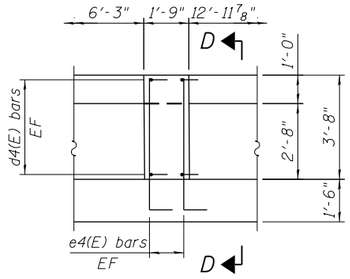
USER NAME = vljanachione	DESIGNED - JNP	REVISED -	**STATE OF ILLINOIS**
	CHECKED - RVV	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 16.0 '1' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

REPAIR PLANS II
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-5OF S6-9 SHEETS

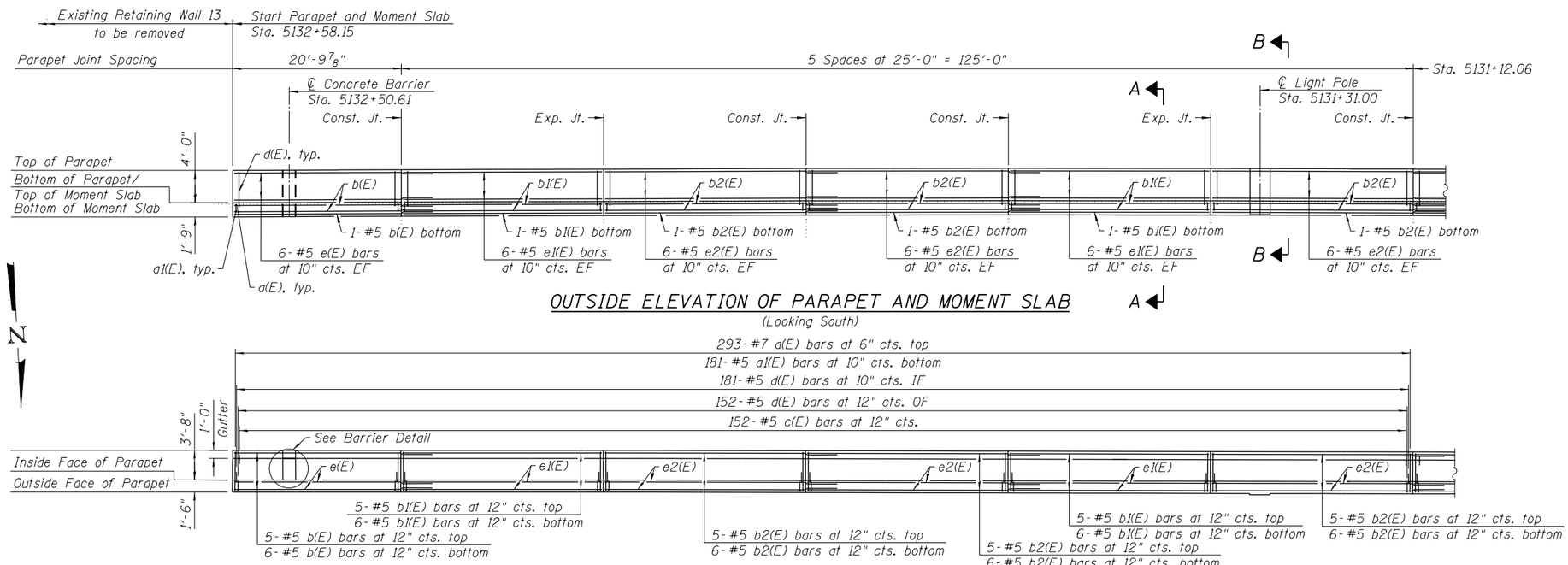
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	487
		CONTRACT NO.		60X76
		ILLINOIS FED. AID PROJECT		



SECTION D-D



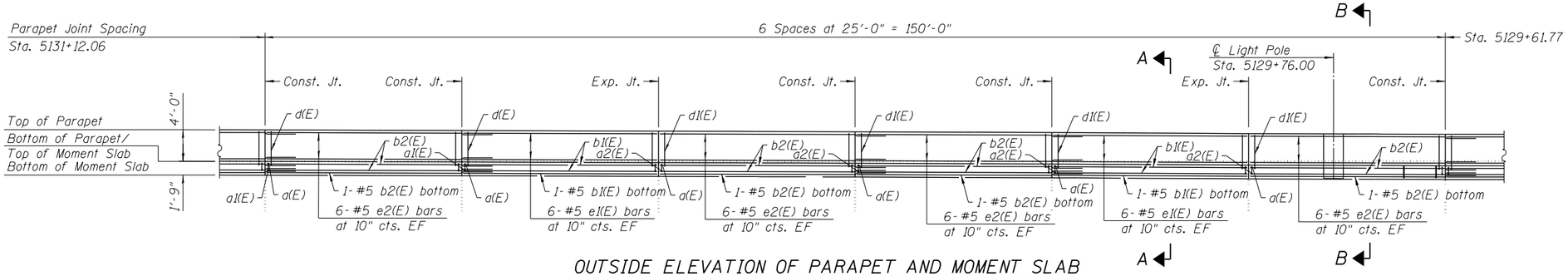
BARRIER DETAIL



OUTSIDE ELEVATION OF PARAPET AND MOMENT SLAB

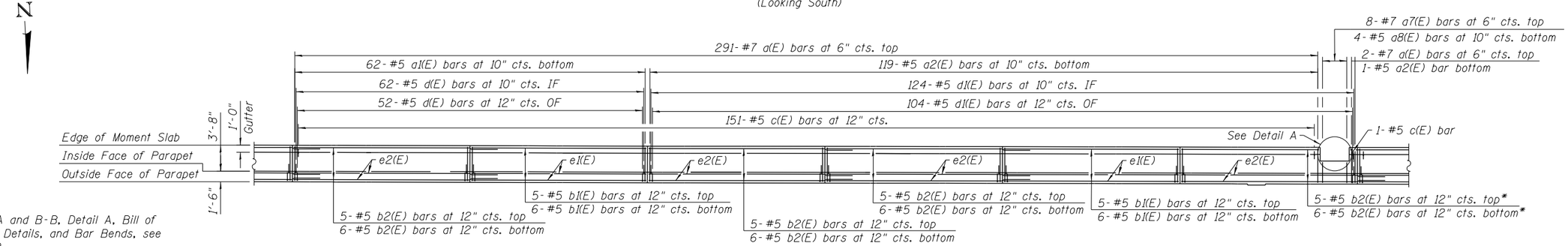
(Looking South)

PARAPET AND MOMENT SLAB PLAN



OUTSIDE ELEVATION OF PARAPET AND MOMENT SLAB

(Looking South)



PARAPET AND MOMENT SLAB PLAN

Note:
For Sections A-A and B-B, Detail A, Bill of Material, Light Pole Details, and Bar Bends, see sheet S6-8 of S6-9 .
For Joint details, see sheet S6-3 of S6-9 .
EF = Each Face
IF = Inside Face
OF = Outside Face

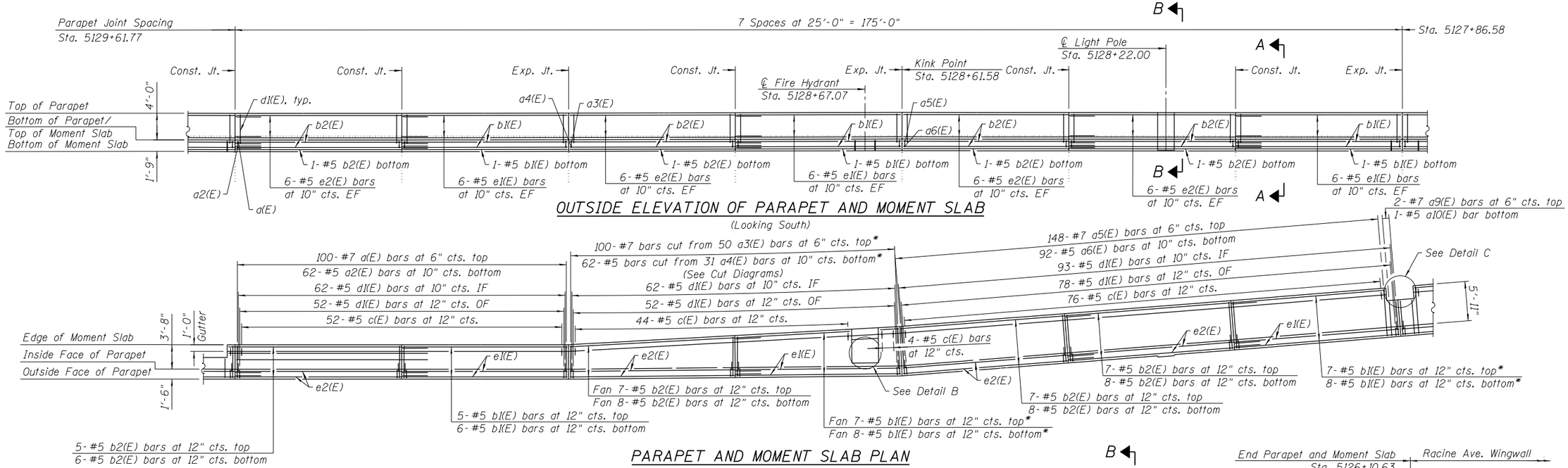
* Cut bars to fit around block out for drainage structure.

TranSystems	USER NAME = vljanachione	DESIGNED - JNP	REVISED -
		CHECKED - RVV	REVISED -
	PLOT SCALE = 16:0 ':' / in.	DRAWN - JNP	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT SLAB PLAN AND ELEVATION I
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-6OF S6-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	488
		CONTRACT NO.		60X76
	ILLINOIS FED. AID PROJECT			



Notes:
For Sections A-A and B-B, Details B through E, Bill of Material, Light Pole Details, and Bar Bends, see Sheet S6-8 of S6-9.
For Joint Details, see sheet S6-3 of S6-9 .
EF = Each Face
IF = Inside Face
OF = Outside Face

* Cut bars to fit around block out for drainage structure or fire hydrant.

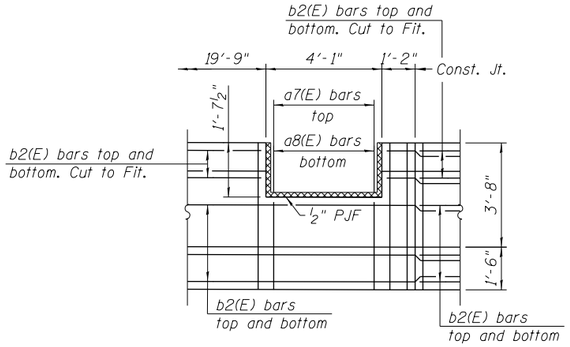
USER NAME = vljanachione	DESIGNED - JNP	REVISED -	
	CHECKED - RVV	REVISED -	
PLOT SCALE = 16.0 '' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

TranSystems

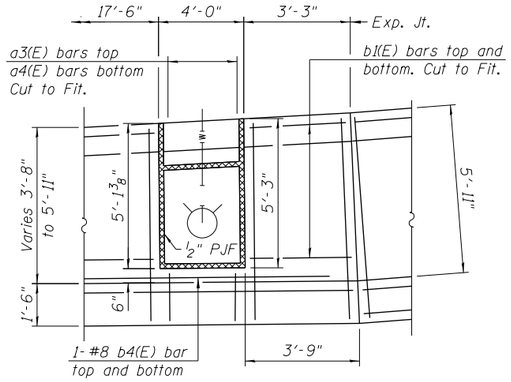
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT SLAB PLAN AND ELEVATION II
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-7OF S6-9 SHEETS

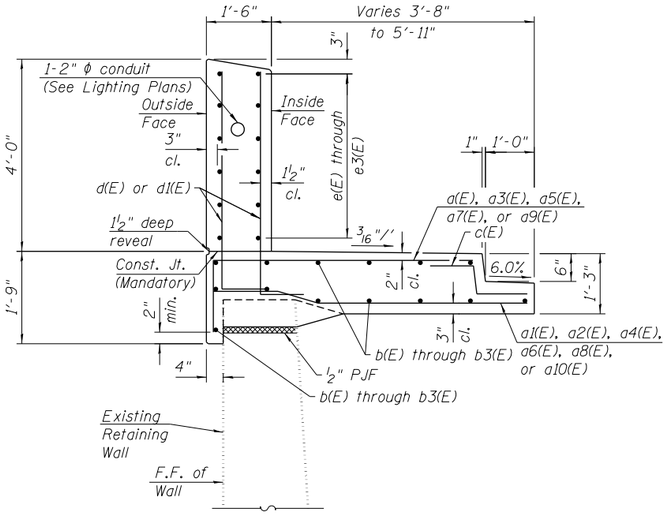
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	489
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		



DETAIL A



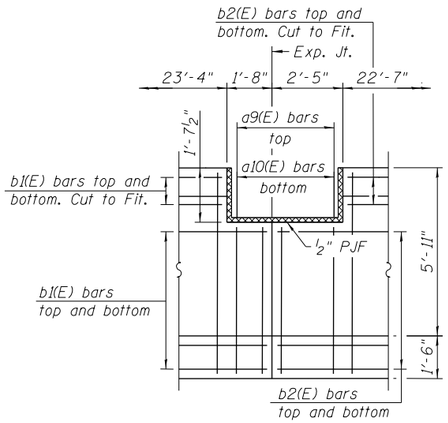
DETAIL B



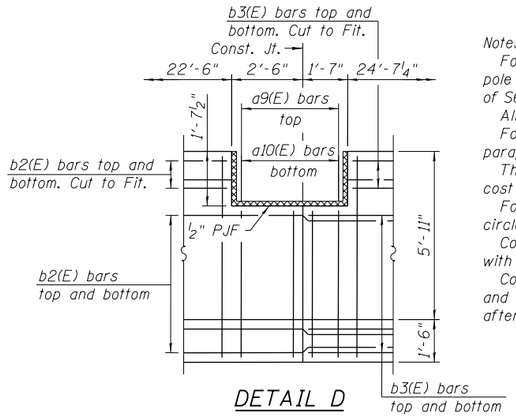
SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	686	#7	5'-2"	
a1(E)	243	#5	4'-10"	
a2(E)	182	#5	4'-11"	
a3(E)	50	#7	12'-7"	
a4(E)	31	#5	12'-1"	
a5(E)	491	#7	7'-5"	
a6(E)	305	#5	7'-2"	
a7(E)	8	#7	4'-7"	
a8(E)	4	#5	3'-3"	
a9(E)	12	#7	6'-10"	
a10(E)	6	#5	5'-6"	
b(E)	12	#5	24'-0"	
b1(E)	124	#5	24'-8"	
b2(E)	208	#5	28'-2"	
b3(E)	16	#5	25'-10"	
b4(E)	4	#8	10'-4"	
c(E)	653	#5	2'-3"	
d(E)	447	#5	5'-6"	
d1(E)	1028	#5	5'-1"	
d2(E)	12	#6	6'-0"	
d3(E)	28	#6	8'-11"	
d4(E)	10	#5	4'-9"	
e(E)	12	#5	24'-0"	
e1(E)	108	#5	24'-8"	
e2(E)	180	#5	28'-2"	
e3(E)	12	#5	25'-10"	
e4(E)	8	#5	7'-10"	
Structure Excavation			Cu. Yd.	209
Concrete Superstructure			Cu. Yd.	313.3
Reinforcement Bars, Epoxy Coated			Pound	50,080
Concrete Sealer			Sq. Ft.	11,388



DETAIL C



DETAIL D

Notes:

For moment slab details and light pole locations, see Sheets S6-6 and S6-7 of S6-9.

All edges shall be chamfered ¾".

For architectural details on the parapet see Sheet S6-9 of S6-9 .

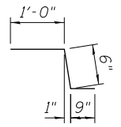
The cost of reveal is included in cost of Concrete Superstructure.

For light pole locations and bolt circle, see Electrical Plans.

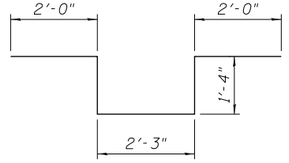
Cost of anchor rods is included with Concrete Superstructure.

Concrete around frame and grate and fire hydrants to be constructed after moment slab concrete has set.

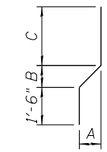
Minimum Bar Laps	
Bar	Lap
#5	3'-2"



BAR c(E)

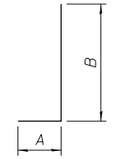


BAR d3(E)



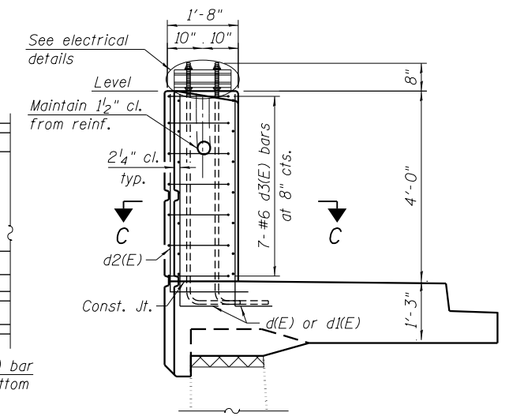
BARS a1(E), a2(E), a6(E), a8(E), and a10(E)

Bar	A	B	C
a1(E)	3"	6"	2'-9"
a2(E)	8"	1'-4"	1'-11"
a6(E)	8"	1'-4"	4'-2"
a8(E)	8"	1'-4"	3"
a10(E)	8"	1'-4"	2'-6"



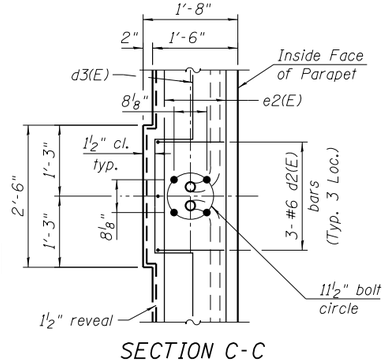
BARS a(E), a5(E), a7(E), a9(E), d(E), d1(E), d2(E), d4(E), and e4(E)

Bar	A	B
a(E)	1'-5"	3'-9"
a5(E)	1'-5"	6'-0"
a7(E)	1'-5"	3'-2"
a9(E)	1'-5"	5'-5"
d(E)	10"	4'-8"
d1(E)	10"	4'-3"
d2(E)	2'-0"	4'-0"
d4(E)	10"	3'-11"
e4(E)	3'-2"	4'-8"

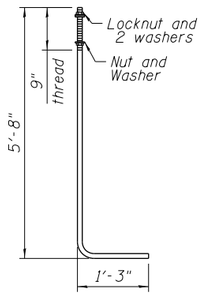


DETAIL E

SECTION B-B

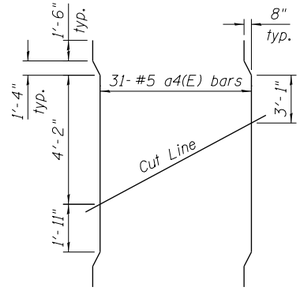


SECTION C-C
PARAPET DETAIL AT LIGHTPOLE

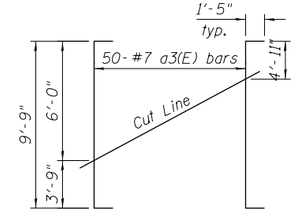


ANCHOR ROD

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



CUT DIAGRAM BAR a4(E)



CUT DIAGRAM BAR a3(E)

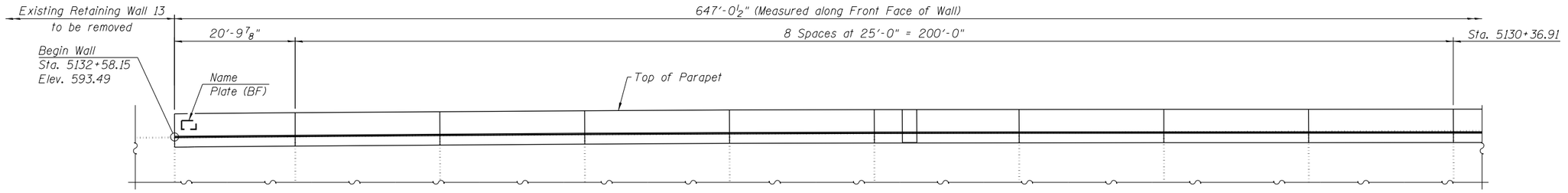
TranSystems

USER NAME = vljanachione	DESIGNED - JNP	REVISED -
	CHECKED - RVV	REVISED -
PLOT SCALE = Ø12 '1' / in.	DRAWN - JNP	REVISED -
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -

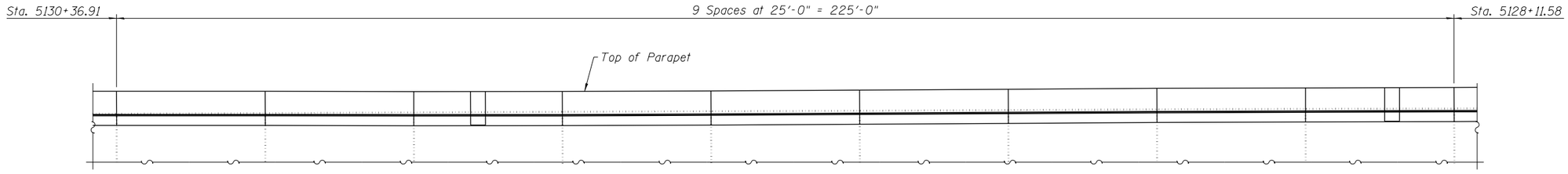
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MOMENT SLAB DETAILS
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO.S6-8OF S6-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	490
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

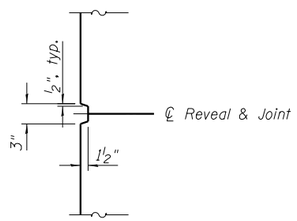


ELEVATION
(Looking South)



ELEVATION
(Looking South)

ELEVATION
(Looking South)



Note:
The cost of reveal is included in cost of Concrete Superstructure.

TYPICAL REVEAL DETAIL

USER NAME = vlganachione	DESIGNED - JNP	REVISED -	**STATE OF ILLINOIS**
	CHECKED - RVV	REVISED -	**DEPARTMENT OF TRANSPORTATION**
PLOT SCALE = 20.0 ' / in.	DRAWN - JNP	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - WJC/MDS	REVISED -	

ARCHITECTURAL DETAILS
EXISTING RETAINING WALL 13 (STRUCTURE NO. 016-Z046)
SHEET NO. S6-9 OF S6-9 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	2014-002R&B	COOK	814	491
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

INDEX OF SHEETS

SHEET NO.	
1	— TITLE SHEET
2	— SUMMARY OF LENGTH & PAVING; SUMMARY OF QUANTITIES; STABILIZED TURF SHOULDER (10-55-505); POLICY FOR FOUNDATION REMOVAL (10-55-508)
3	— DRAINAGE SUMMARY
4	— SHOULDER AND DITCH SECTIONS; PEDESTRIAN BARRIER TYPE I & II (10-55-506)
5	— LOCATION OF PROJECT
6	— CONTRACTION JOINT LAYOUT AND TYPICAL CROSS SECTIONS
7	— TYPICAL RAMP SECTION; DETAIL OF TAPER TRANSITION; CONCRETE PAVED GUTTER (10-55-517)
8	— ALIGNMENT, TIES AND BENCH MARKS
9 – 11	— PLAN OF EXISTING CONDITIONS
12	— SUPER-ELEVATION TABLE; BITUMINOUS SHOULDER CONSTRUCTION
13 – 14	— ALIGNMENT AND PROFILE
15 – 16	— DRAINAGE
17 – 18	— RAMP PLAN AND PROFILE
19 – 20	— FRONTAGE ROAD PLAN AND PROFILE
21 – 30	— CROSS SECTIONS
31	— LOCATION OF PROPOSED PROJECT BARRIERS
32	— DETAIL OF MAIN DRAIN
33–36	— TEMPORARY ROADWAY
37	— TYPICAL PLACEMENT OF BARRICADES, SIGNS, ETC. (1977T) SHEETING AND BRACING AT HALSTED ST. DETAIL OF P.C.C. SIDEWALK CONSTRUCTION (10-20)
38	— COMBINATION CURB & GUTTER T-31 (10-55-500); COMBINATION CURB & GUTTER T-34 (10-55-503); COMBINATION CURB & GUTTER T-32 (10-55-501); DETAIL OF END TRANSITION FOR T-34 CURB & GUTTER
39	— SPECIAL CLOSED LID (10-55-510); TYPE 37 GRATE (10-55-504); DETAIL OF COMBINATION CONCRETE CURB & GUTTER T-34 (10-55-511); DETAIL OF WIRE FENCING
40	— ALTERNATE DESIGN FOR LONGITUDINAL METAL JOINT (1768R); DETAIL OF P.C.C. PAVEMENT ALLEY RETURN (10-218); DETAIL OF TYPE A MANHOLE (1872.5)
41	— STANDARD OF TYPE A & B CATCH BASIN (1514R); DETAIL OF TYPE A INLET (1555R)
42	— STANDARD DESIGN FOR PAVEMENT FABRIC (2115); STANDARD DESIGN FOR BARRICADE (1328R); DETAIL OF CURB & GUTTER TYPE 1-10 (1790F)
43	— STANDARD FRAMES & GRATES TYPE 1-8 (1516.5); STANDARD FRAME & GRATES TYPE 9-15 (1517)
44	— STANDARD DESIGN FOR STEEL PLATE BEAM GUARD RAIL (1687R) STANDARD DESIGN FOR EXPRESSWAY PROJECT CONSTRUCTION SIGN (THREE WAY AGREEMENT) (2112), (1887R)
45	— W.B. EXPRESSWAY & C.T.A. STRUCTURES AT ABERDEEN ST.
46-47	— LATERAL BRACING FOR C.T.A. STRUCTURES AT ABERDEEN ST.
48	— APPROACH SLAB TO HALSTED STREET INTERCHANGE ROADWAY STRUCTURE
49-53	SUBWAY APPROACH RETAINING WALLS
54-62	RETAINING WALLS NUMBER 7,8 & 9
63	DETAILS OF RISER VAULT — GAS & WATER

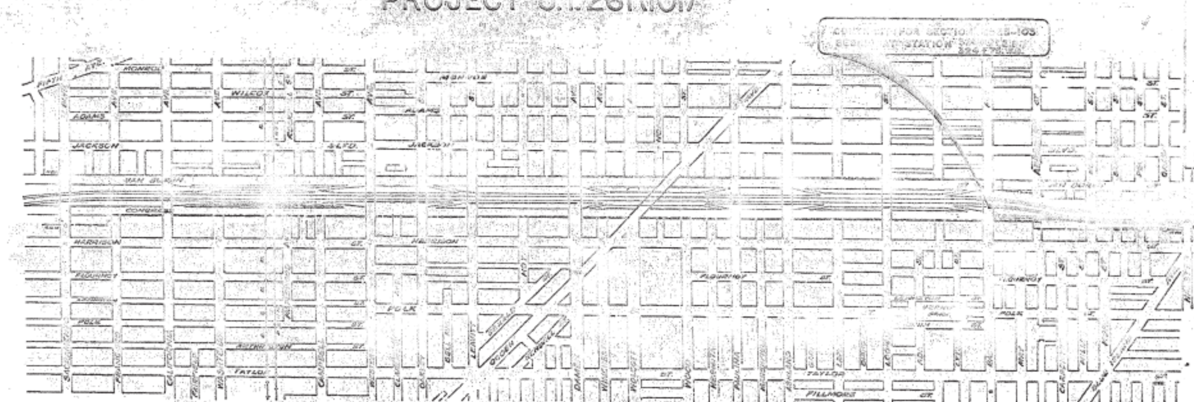
SCALES

PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS-V	1 INCH	5 FT.
CROSS-SECTIONS-H	1 INCH	10 FT.

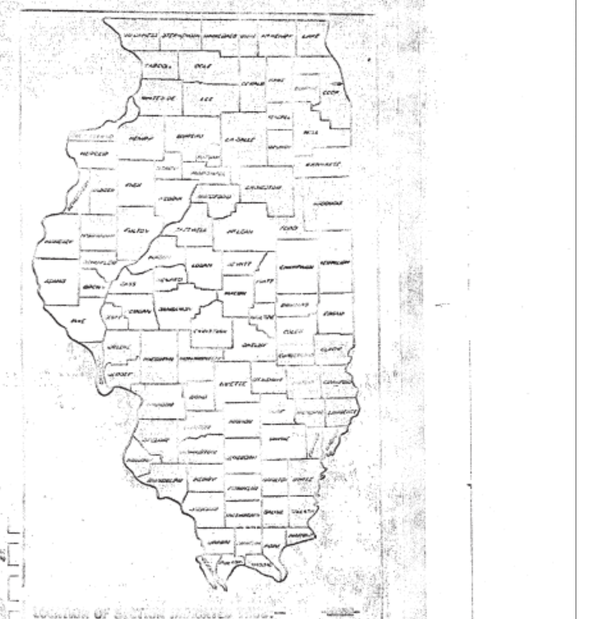
F. A. ROUTE 131 SEC. 2323-103

CONGRESS ST. EXPRESSWAY

GRADING AND PAVING
COOK COUNTY
PROJECT U.I. 261(101)



LOCATION PLAN.
NET LENGTH TO BE IMPROVED 3070. 881 FT. = 0.582 MI. E.B.
NET LENGTH TO BE IMPROVED 3077. 116 FT. = 0.583 MI. W.B.



PREPARED BY: ________ 2-24-55
EXPRESSWAY DESIGN ENGR.
EXAMINED BY: ________
DISTRICT CONSTRUCTION ENG.
EXAMINED BY: ________ 2-28-55
EXPRESSWAY ENGINEER
ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY
BY: ________
DISTRICT ENGINEER

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS
DISTRICT ENGINEER DATE

COOK COUNTY SECTION 2323-103 F.A. ROUTE 131

USER NAME = vljanachione	DESIGNED - WJC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0.2.0000 ' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-1 OF AB-18 SHEETS

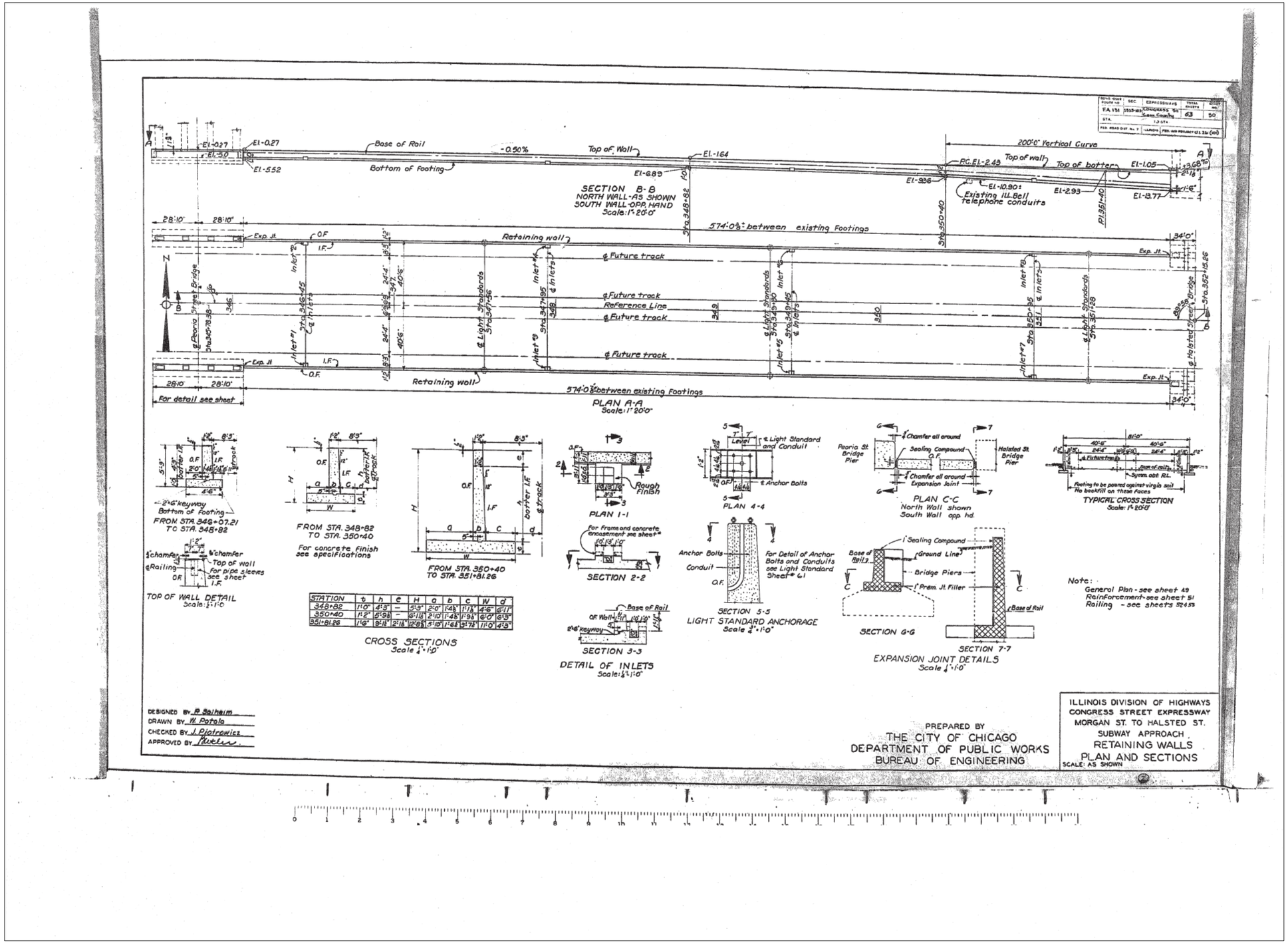
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	492

CONTRACT NO. 60X76

ILLINOIS FED. AID PROJECT

TranSystems

FOR INFORMATION ONLY



STATION	t	h	e	H	a	b	c	W	d
348+82	1'-0"	4'-5"	–	5'-3"	2'-0"	1'-4½"	1'-1½"	4'-6"	6'-11"
350+40	1'-2"	5'-5½"	–	6'-11½"	2'-10"	1'-4½"	1'-9½"	6'-0"	8'-9"
351+81.26	1'-6"	6'-11"	2'-1½"	12'-8½"	5'-10"	1'-6½"	3'-7½"	11'-0"	4'-6"

DESIGNED BY R. Salheim
DRAWN BY W. Potola
CHECKED BY J. Pjatrowicz
APPROVED BY

PREPARED BY
THE CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

ILLINOIS DIVISION OF HIGHWAYS
CONGRESS STREET EXPRESSWAY
MORGAN ST. TO HALSTED ST.
SUBWAY APPROACH
RETAINING WALLS
PLAN AND SECTIONS
SCALE: AS SHOWN

USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0:2.0000 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

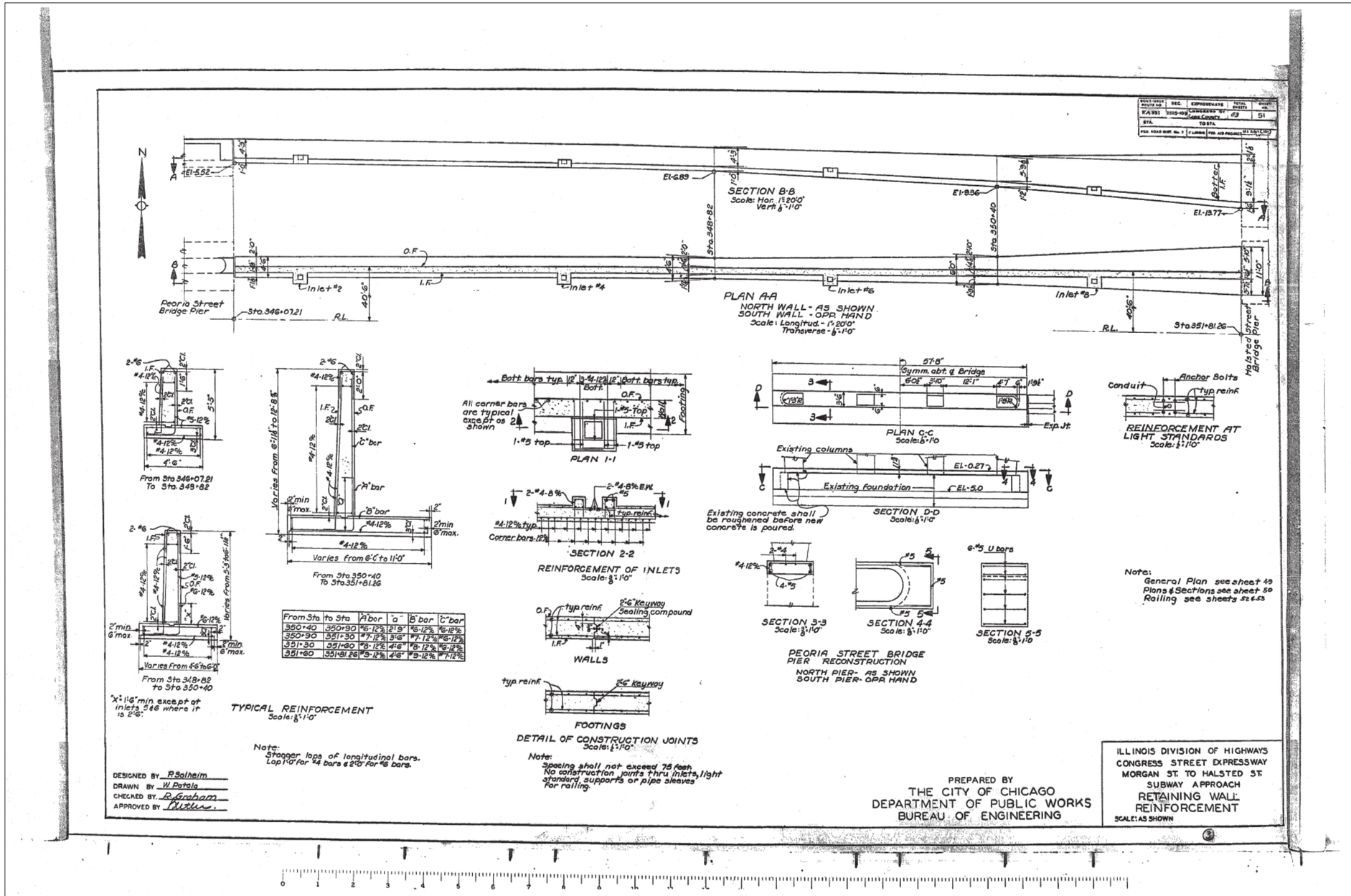
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-2 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	493
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY



From Sta	to Sta	"A" bar	"a"	"B" bar	"C" bar
350+40	350+90	#6-12%	2'-9"	#6-12%	#6-12%
350+90	351+30	#7-12%	3'-6"	#7-12%	#6-12%
351+30	351+80	#6-12%	4'-6"	#8-12%	#6-12%
351+80	351+81.26	#5-12%	4'-6"	#9-12%	#7-12%

DESIGNED BY R.Salheim
DRAWN BY W. Patala
CHECKED BY R. Graham
APPROVED BY Arthur.

PREPARED BY
THE CITY OF CHICAGO
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

ILLINOIS DIVISION OF HIGHWAYS
CONGRESS STREET EXPRESSWAY
MORGAN ST. TO HALSTED ST.
SUBWAY APPROACH
RETAINING WALL REINFORCEMENT
SCALE: AS SHOWN

BOND ISSUE ROUTE NO.	SEC.	EXPRESSWAYS	TOTAL SHEETS	SHEET NO.
F.A.RTE.	2520-103	CONGRESS "B" Cook County	23	51
STA.		TO STA.		
FED. ROAD DIST. No. 7	ILLINOIS	FED. AID PROJECT	U.S. SAVE LIVES	

TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

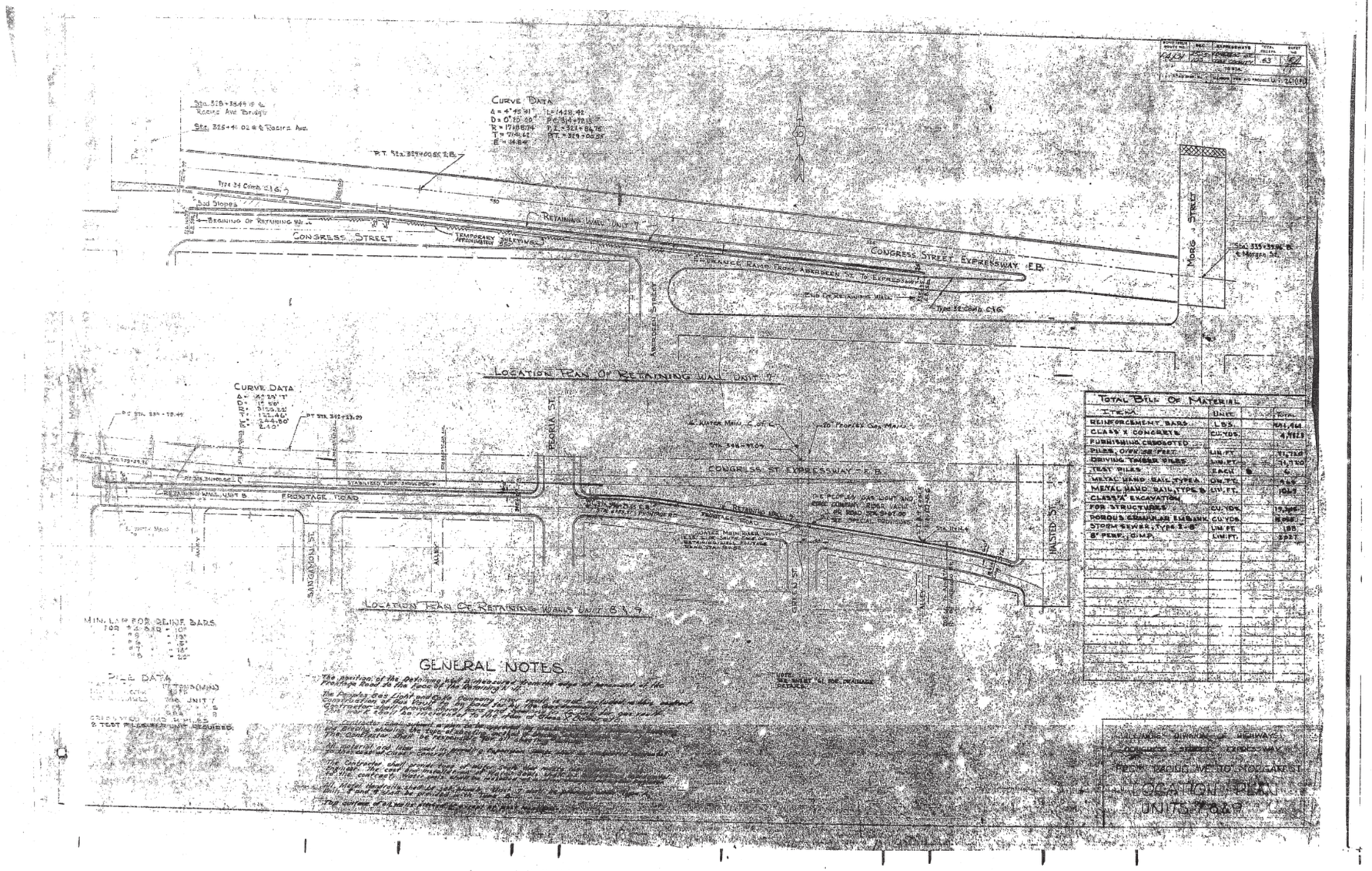
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-3 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	494
		CONTRACT NO.		60X76
	ILLINOIS	FED. AID PROJECT		

FOR INFORMATION ONLY



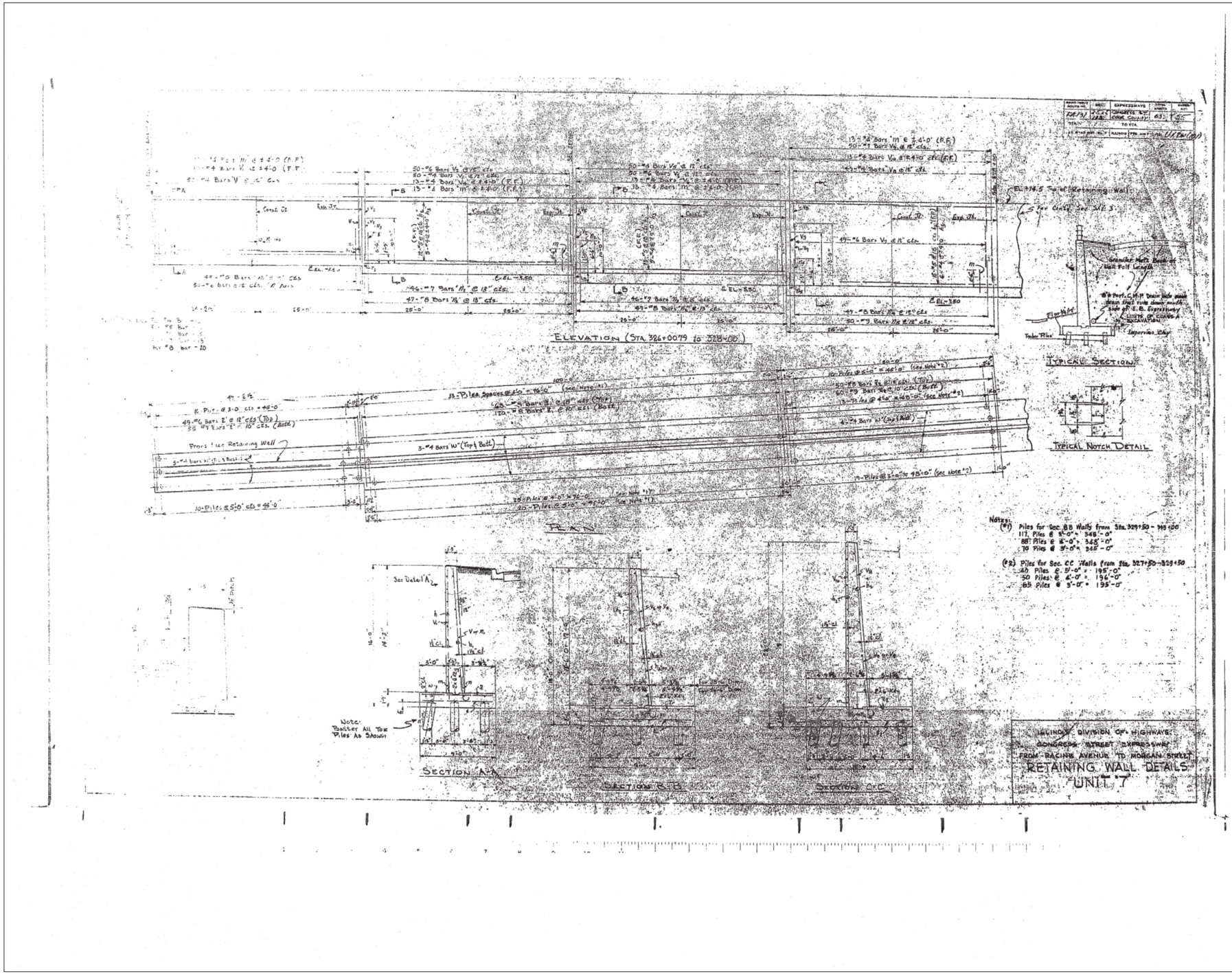
USER NAME = vljanachione	DESIGNED - WJC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0.2.0000 ' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-4 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	495
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



USER NAME = vljanachione	DESIGNED - WJC	REVISED -	**STATE OF ILLINOIS** **DEPARTMENT OF TRANSPORTATION**
	CHECKED - TLR	REVISED -	
PLOT SCALE = 02.0000 '/ in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

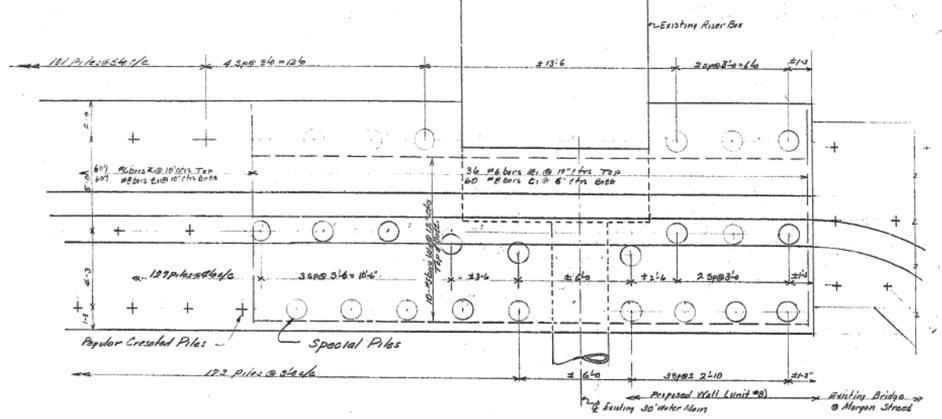
EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-5 OF AB-18 SHEETS

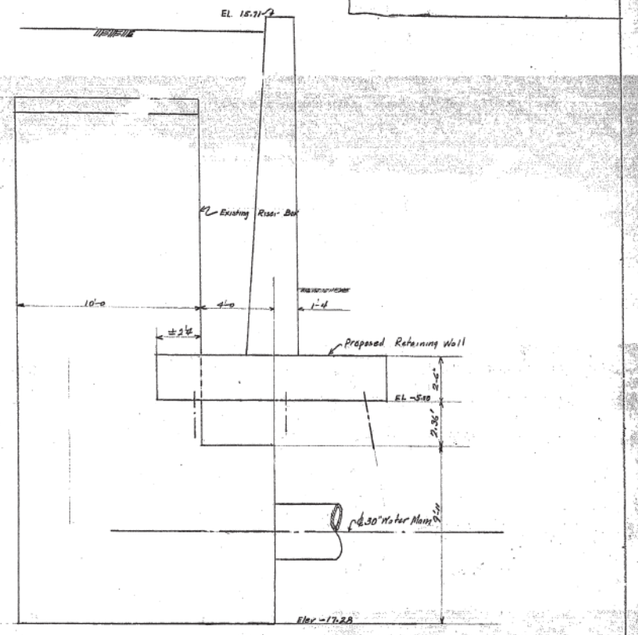
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	496
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY

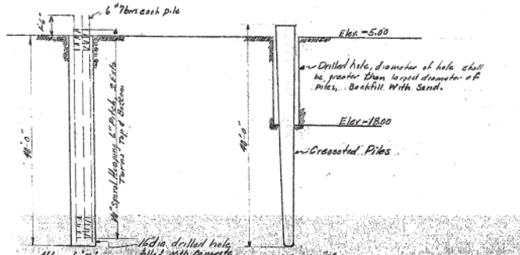
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



PLAN



SECTION AT RISER BOX



Additional Materials Required

Bar	No	Size	Length	Shape	Lbs
B1	24	#8	12-2	—	780
W4	20	5"	30-0	—	630
25 Special Piles			Lin Ft		1000

Deduct 24 Creosoted Piles

Designed	George Peterschmidt	Examined
Checked		Passed
Quantities		Approved
Checked		

F.A. RT. 131 SEC. 2525-103
COOK COUNTY
ALTERATIONS AT
30" WATER MAIN RISER BOX
CONGRESS ST. EXPRESSWAY
RETAINING WALL UNIT 8
FROM MORGAN ST. TO PEORIA ST.

TranSystems	USER NAME = vljanachione	DESIGNED - WJC	REVISED -
		CHECKED - TLR	REVISED -
	PLOT SCALE = 0:2.0000 '/ in.	DRAWN - WJC	REVISED -
	PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

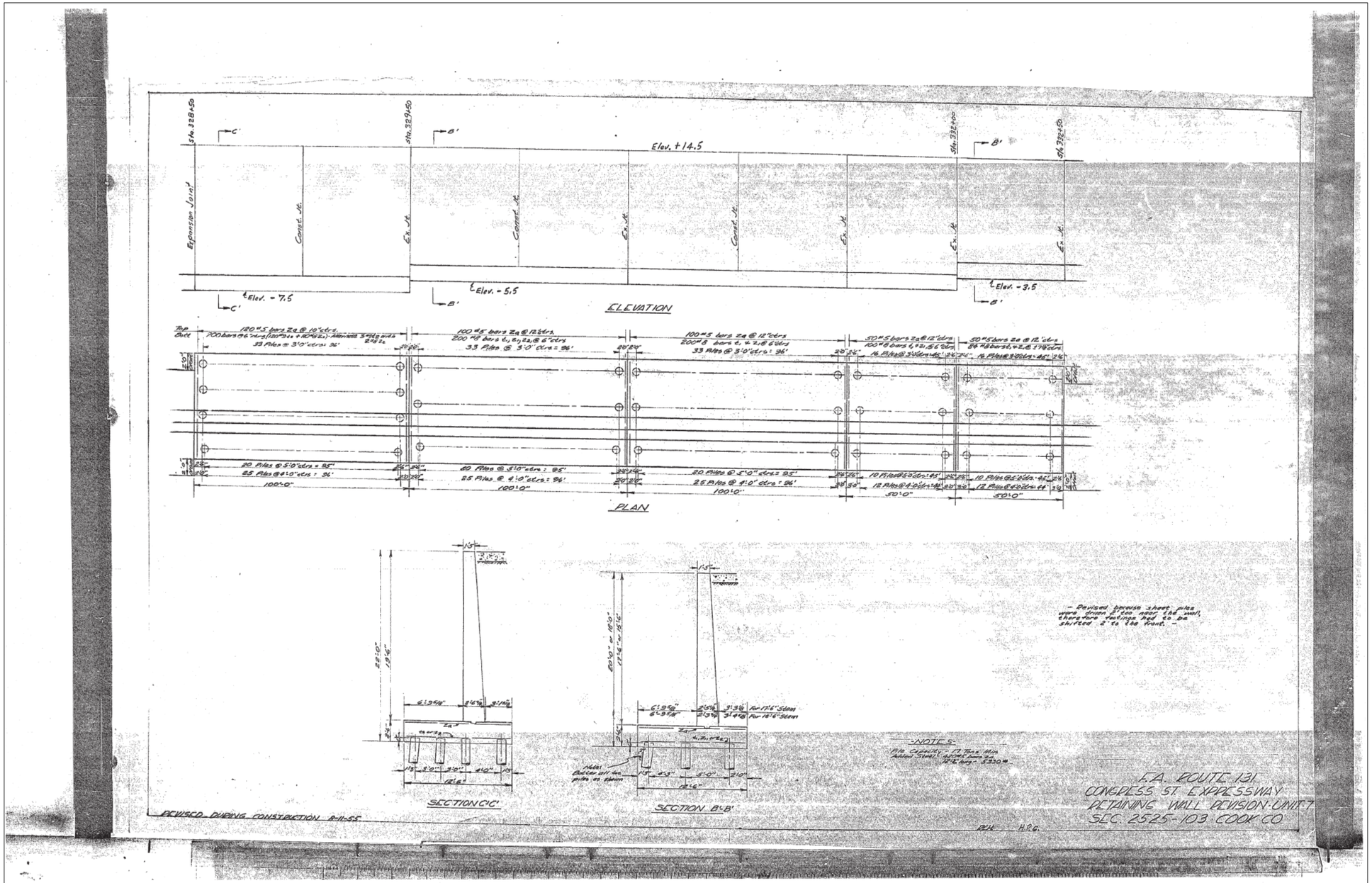
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-6 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	497
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 0.2.0000 ' ' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

TranSystems

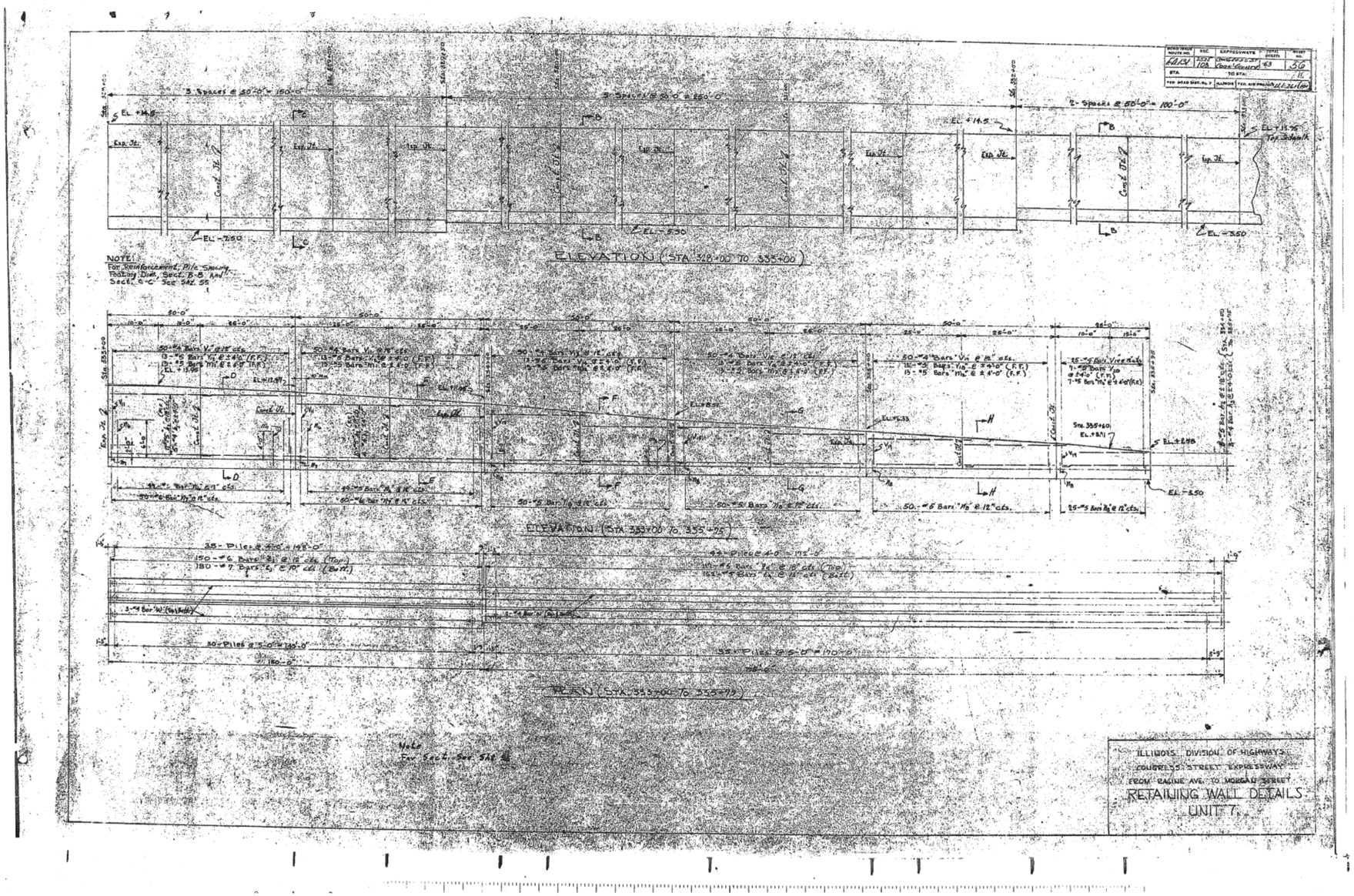
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-7 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	498
		CONTRACT NO. 60X76		
		ILLINOIS FED. AID PROJECT		

FOR INFORMATION ONLY



USER NAME = vljanachione	DESIGNED - WJC	REVISED -	
	CHECKED - TLR	REVISED -	
PLOT SCALE = 02.0000 '' / in.	DRAWN - WJC	REVISED -	
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -	

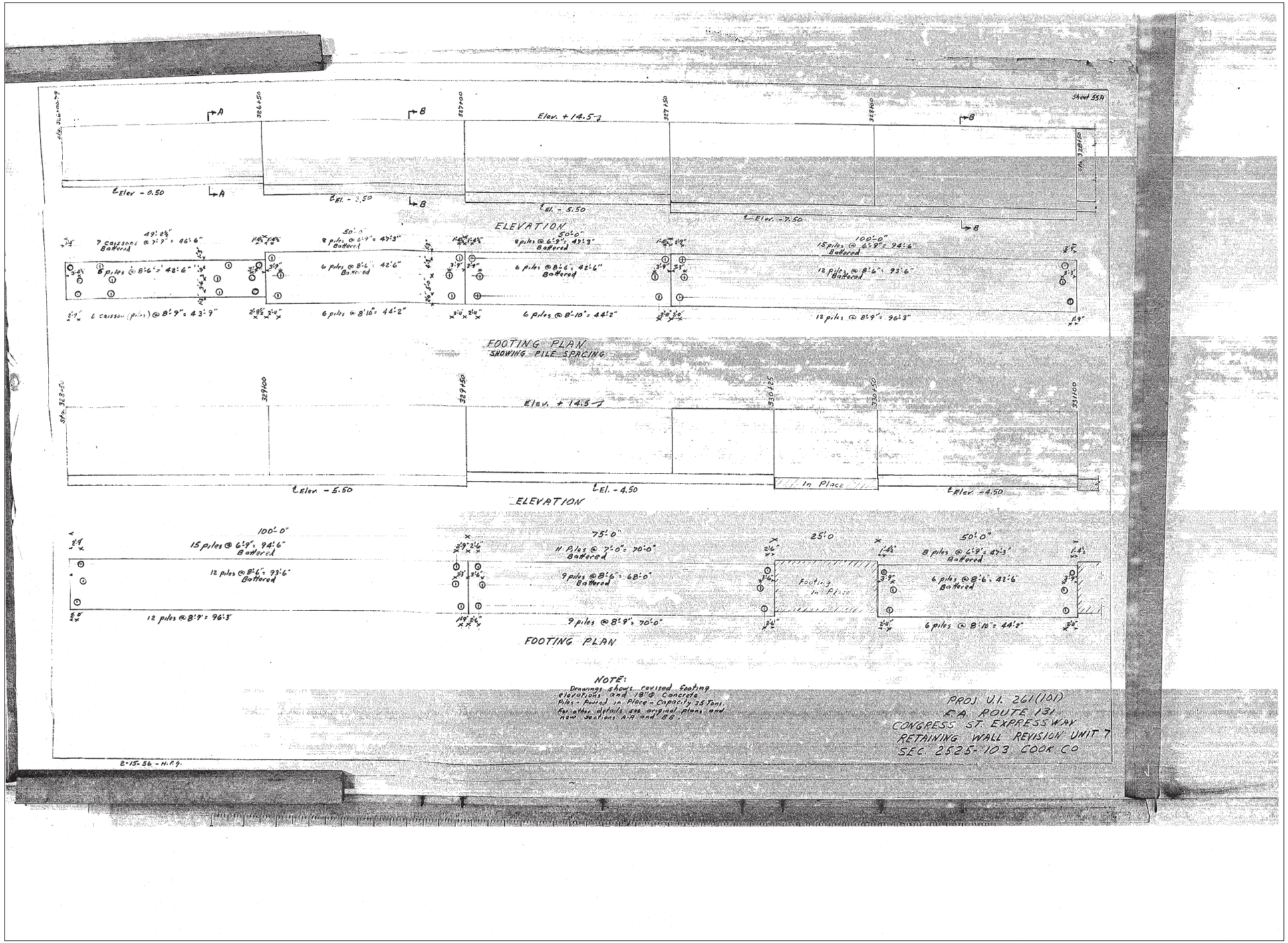
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS–BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-8 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	499
		CONTRACT NO. 60X76		
	ILLINOIS FED. AID PROJECT			

FOR INFORMATION ONLY



TranSystems

USER NAME = vljanachione	DESIGNED - WJC	REVISED -
	CHECKED - TLR	REVISED -
PLOT SCALE = 0i2.0000 'i' / in.	DRAWN - WJC	REVISED -
PLOT DATE = 5/9/2017	CHECKED - TLR	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AS-BUILTS FOR EXISTING RETAINING WALL 9, EXISTING RETAINING WALL 10, AND EXISTING RETAINING WALL 13

SHEET NO. AB-9 OF AB-18 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2014-002R&B	COOK	814	500
		CONTRACT NO. 60X76		
	ILLINOIS	FED. AID PROJECT		