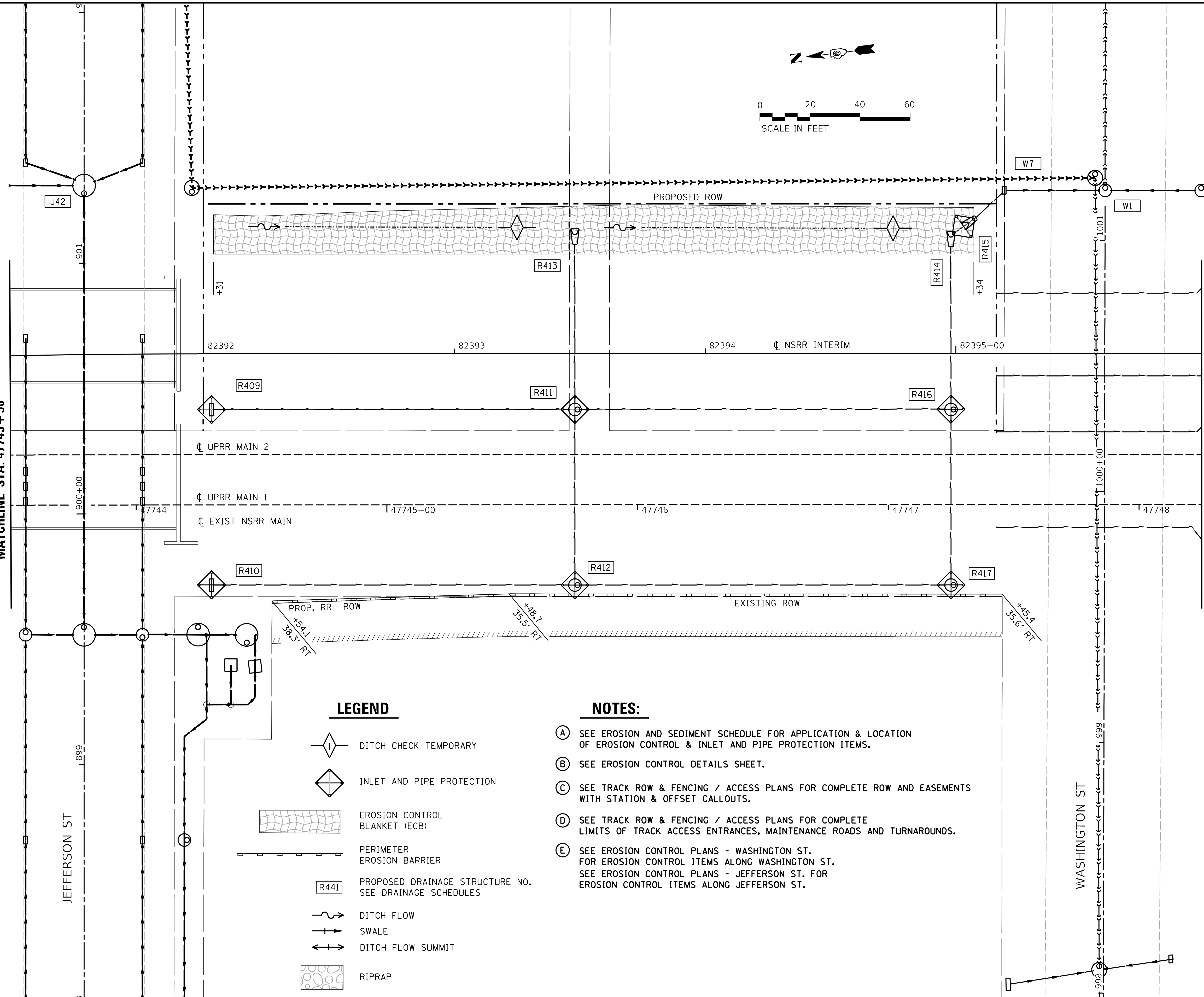


LEGEND

- DITCH CHECK TEMPORARY
- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- R441 — PROPOSED DRAINAGE STRUCTURE NO. SEE DRAINAGE SCHEDULES
- DITCH FLOW
- SWALE
- DITCH FLOW SUMMIT
- RIPRAP

NOTES:

Ⓐ SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.

Ⓑ SEE EROSION CONTROL DETAILS SHEET.

Ⓒ SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS.

Ⓓ SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.

Ⓔ SEE EROSION CONTROL PLANS - WASHINGTON ST. FOR EROSION CONTROL ITEMS ALONG WASHINGTON ST.
SEE EROSION CONTROL PLANS - JEFFERSON ST. FOR EROSION CONTROL ITEMS ALONG JEFFERSON ST.

MODEL: Sheet 5
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheets\D609L0179B-SHT-Track-Erosion Control.dgn

HANSON

USER NAME = Pop00275	DESIGNED - CLG	REVISED -	
	DRAWN - CLG	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL PLANS – TRACK – 9

SCALE: SHEET 9 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	201
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		

PROPOSED ROW

R516 R420 R423 R427

+43

82396 ℄ NSRR INTERIM 82397 82398 82399 82400+00 82401

R418 R421 R424 R428

℄ UPRR MAIN 2

℄ UPRR MAIN 1

47749 47750+00 47751 47752 47753

℄ EXIST NSRR MAIN

MATCHLINE STA. 47748+25

MATCHLINE STA. 47753+75

R515 R422 R425 R429

EXISTING ROW

+40

ADAMS ST

LEGEND

- DITCH CHECK TEMPORARY
- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- R441 — PROPOSED DRAINAGE STRUCTURE NO. SEE DRAINAGE SCHEDULES
- DITCH FLOW
- SWALE
- DITCH FLOW SUMMIT
- RIPRAP

NOTES:

(A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.

(B) SEE EROSION CONTROL DETAILS SHEET.

(C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS.

(D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.

0 20 40 60

SCALE IN FEET

MODEL: Sheet 6
FILE NAME: pw:\\hansonsmc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CADD\Rail\Usable Segment III\Sheet\D609L0179B-SHT-Track-Erosion_Control.dgn

HANSON

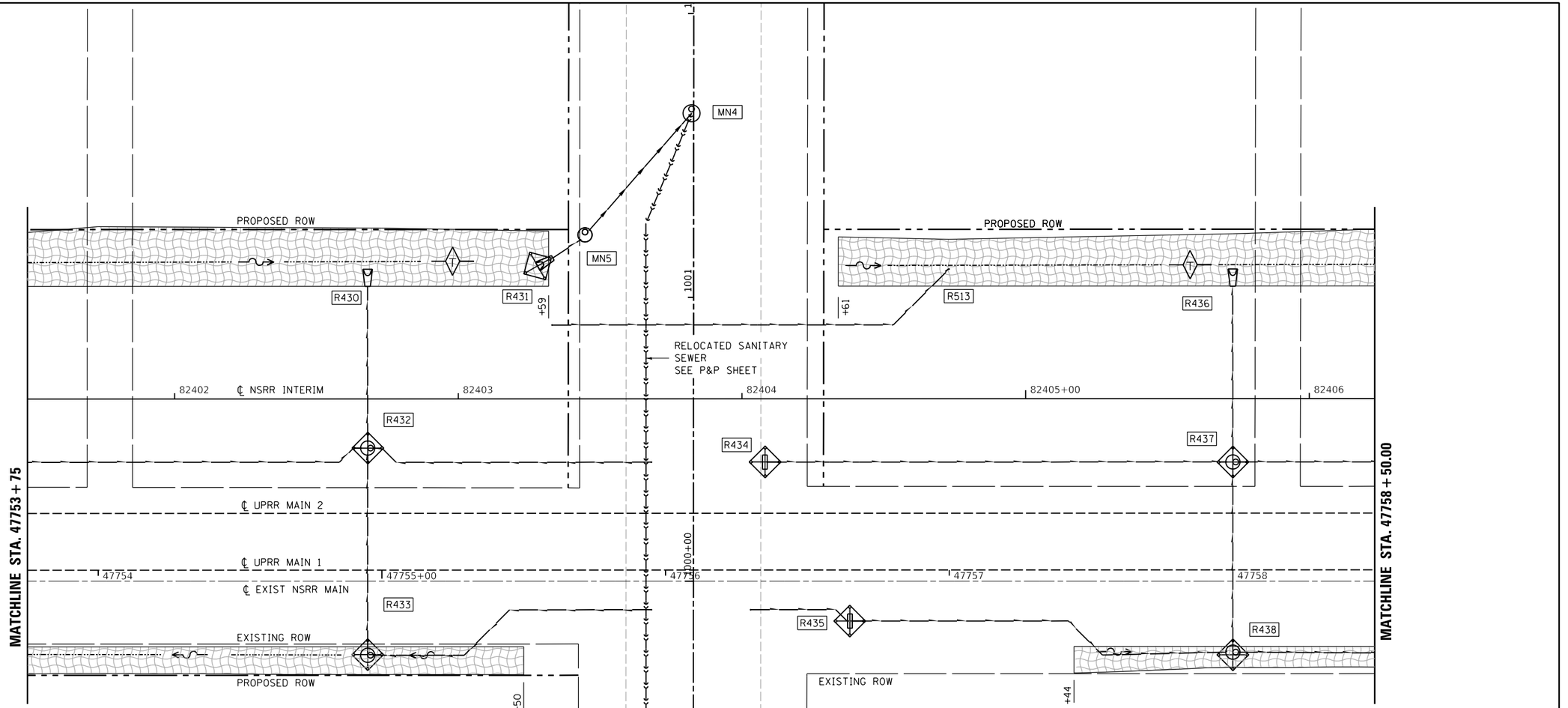
USER NAME = Pop00275	DESIGNED - CLG	REVISED -
	DRAWN - CLG	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL PLANS – TRACK – 10

SCALE: SHEET 10 OF 12 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	202
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



LEGEND

- DITCH CHECK TEMPORARY
- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- R441 — PROPOSED DRAINAGE STRUCTURE NO. SEE DRAINAGE SCHEDULES
- DITCH FLOW
- SWALE
- DITCH FLOW SUMMIT
- RIPRAP

NOTES:

(A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.

(B) SEE EROSION CONTROL DETAILS SHEET.

(C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS.

(D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.

(E) SEE EROSION CONTROL PLANS - MONROE ST. FOR EROSION CONTROL ITEMS ALONG MONROE ST.

N

0 20 40 60

SCALE IN FEET

HANSON

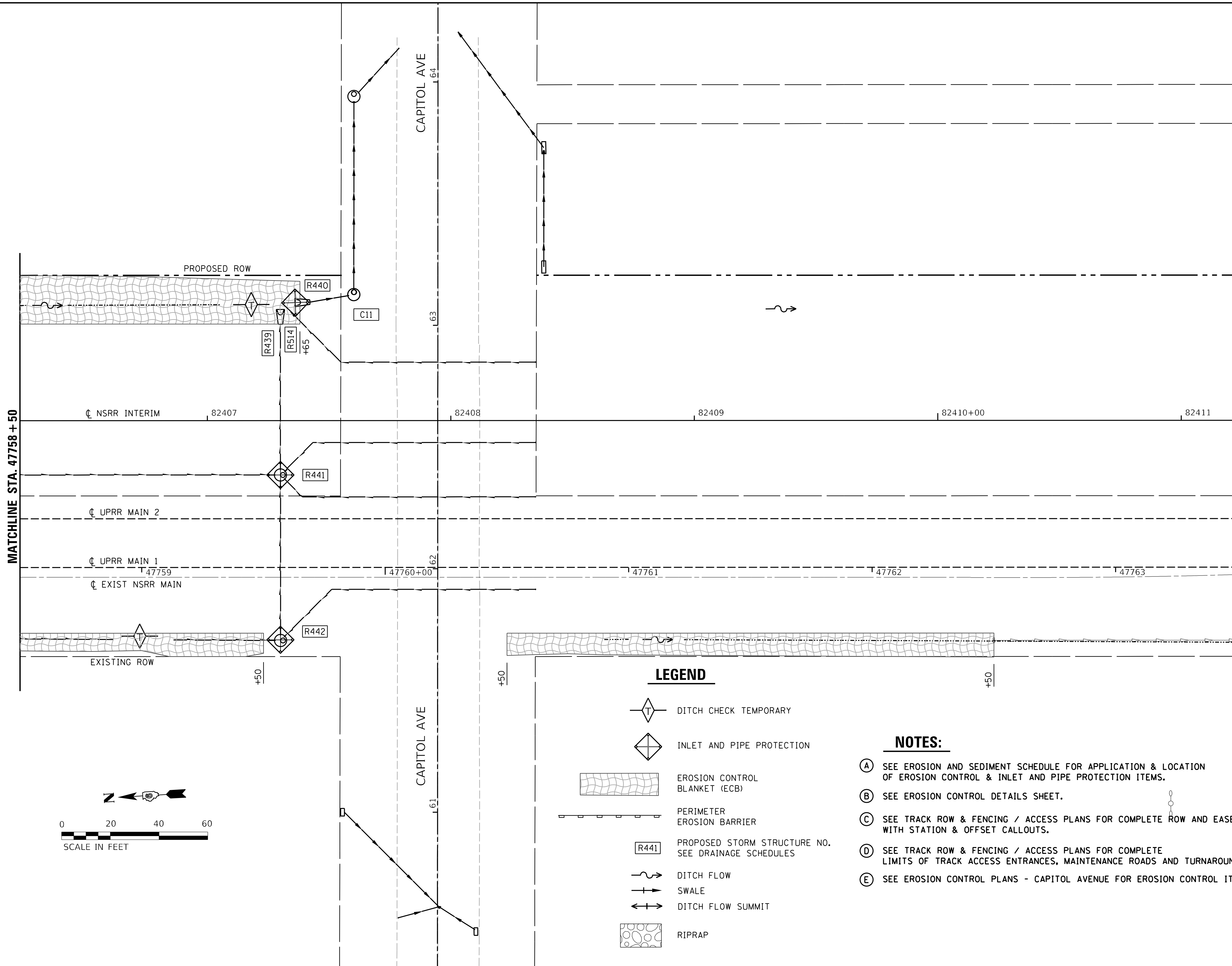
USER NAME = Pop00275	DESIGNED - CLG	REVISED -
	DRAWN - CLG	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL PLANS – TRACK – 11

SCALE: | SHEET 11 OF 12 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	203
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- DITCH CHECK TEMPORARY
- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET (ECB)
- PERIMETER EROSION BARRIER
- R441 PROPOSED STORM STRUCTURE NO. SEE DRAINAGE SCHEDULES
- DITCH FLOW
- SWALE
- DITCH FLOW SUMMIT
- RIPRAP

NOTES:

(A) SEE EROSION AND SEDIMENT SCHEDULE FOR APPLICATION & LOCATION OF EROSION CONTROL & INLET AND PIPE PROTECTION ITEMS.

(B) SEE EROSION CONTROL DETAILS SHEET.

(C) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE ROW AND EASEMENTS WITH STATION & OFFSET CALLOUTS.

(D) SEE TRACK ROW & FENCING / ACCESS PLANS FOR COMPLETE LIMITS OF TRACK ACCESS ENTRANCES, MAINTENANCE ROADS AND TURNAROUNDS.

(E) SEE EROSION CONTROL PLANS - CAPITOL AVENUE FOR EROSION CONTROL ITEMS ALONG CAPITOL AVE.

HANSON	USER NAME = Pop00275	DESIGNED - CLG	REVISED -
		DRAWN - CLG	REVISED -
	PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

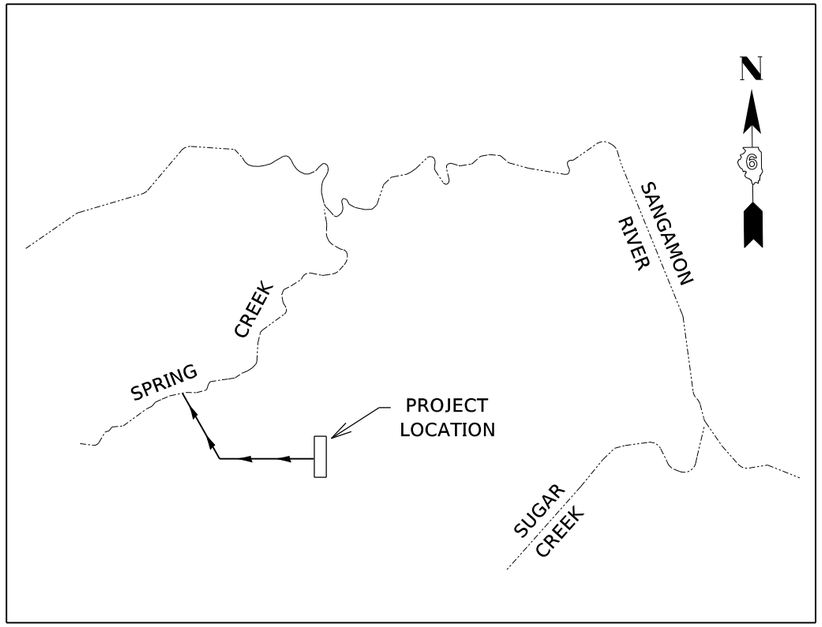
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL PLANS – TRACK – 12

SCALE: | SHEET 12 OF 12 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	204
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

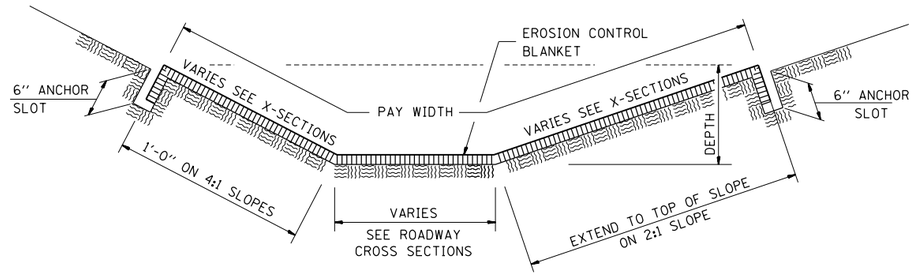
MODEL: Sheet 8
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\D609L0179B-SHT-Track-Erosion Control.dgn



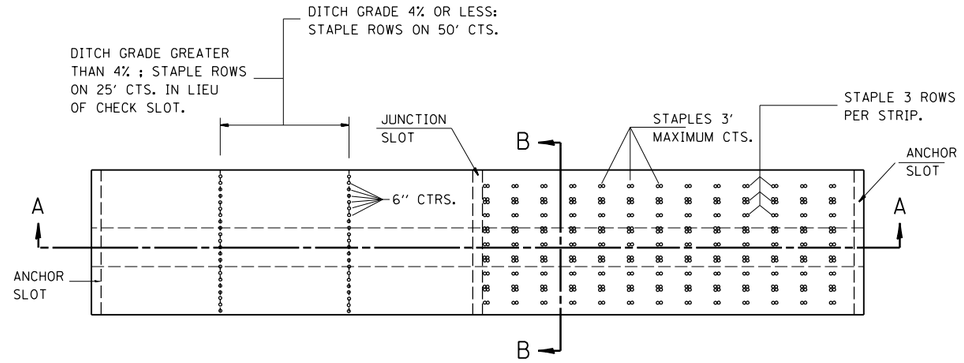
STORM WATER DISCHARGE SCHEMATIC

INTENDED SEQUENCE

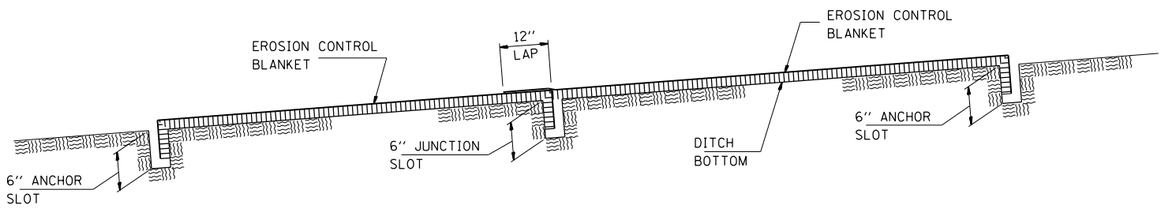
1. PLACEMENT OF THE PERIMETER EROSION BARRIER PRIOR TO ANY COMMENCEMENT OF OTHER WORK. SEE STANDARD 280001.
2. PLACEMENT OF INLET AND PIPE PROTECTION ON EXISTING STRUCTURES PRIOR TO COMMENCEMENT OF ANY WORK. PLACEMENT OF INLET AND PIPE PROTECTION AFTER CONSTRUCTION OF PROPOSED STRUCTURES. SEE STANDARD 280001
3. PLACEMENT OF TEMPORARY SEEDING ON GRADED SURFACES NOT HAVING PERMANENT SEEDING APPLIED.
4. PLACEMENT OF EROSION CONTROL BLANKET AFTER FINAL GRADING OF AREAS REQUIRING SUCH PROTECTION.
5. ONGOING MAINTENANCE OF EROSION CONTROL ELEMENTS PER SWPPP AND CITY OF SPRINGFIELDS EROSION CONTROL ORDINANCE.
6. REMOVE TEMPORARY EROSION CONTROL ELEMENTS AFTER FINAL GRADING AND PERMANENT SEEDING IS ESTABLISHED AS PER THE SWPPP AND APPROVED BY THE ENGINEER.



EROSION CONTROL BLANKET SECTION B–B



PLAN VIEW & STAPLING LAYOUT FOR EROSION CONTROL BLANKET PLACEMENT IN DITCH



EROSION CONTROL BLANKET SECTION A–A

HANSON

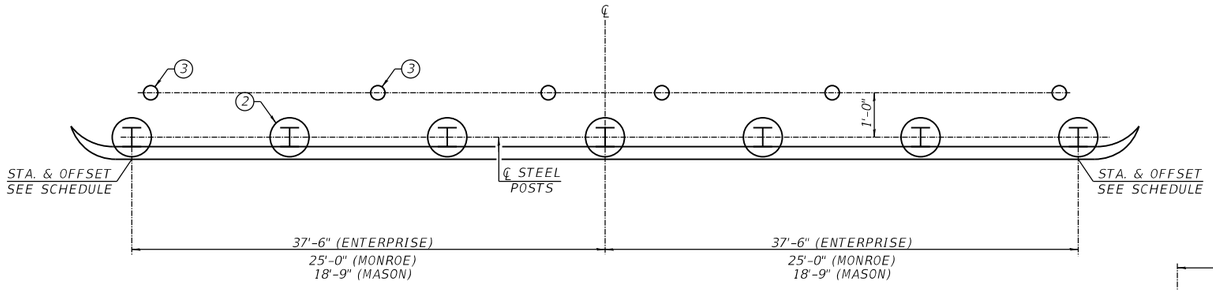
FILE NAME = D609L0179B-EROSION-US3-DETAILS-01.dgn	USER NAME = Pop00275	DESIGNED - CLG	REVISED -
		DRAWN - CLG	REVISED -
	PLOT SCALE = 60.0000 ' / in.	CHECKED - MNM	REVISED -
PLAN1	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
EROSION CONTROL – DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

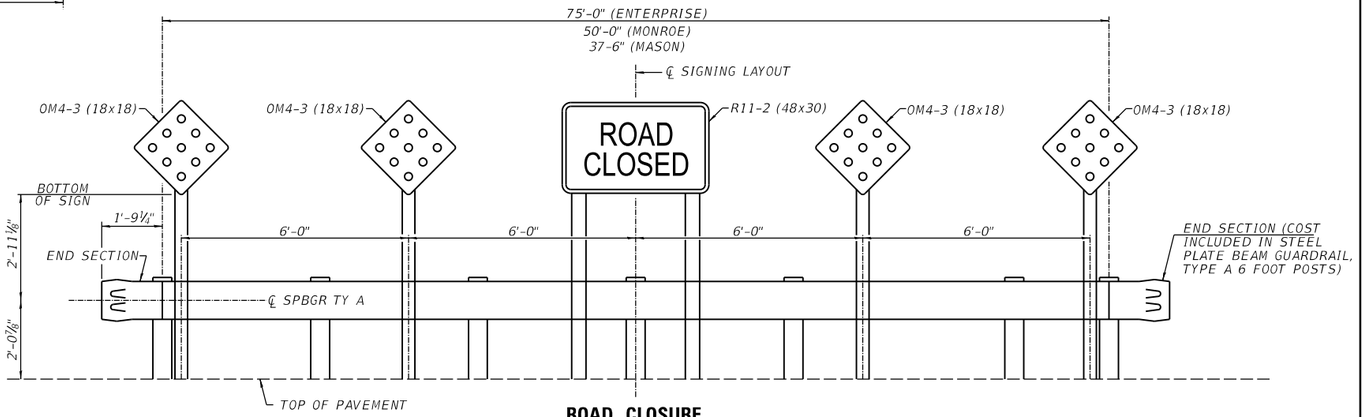
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	205
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



PLAN VIEW – STEEL PLATE BEAM GUARDRAIL LOCATION

(FOR ROAD CLOSURE)

1. LOCATION WILL BE VERIFIED WITH FIELD ENGINEER PRIOR TO PLACEMENT
2. CORE 12" DIAMETER HOLE IN EXISTING PAVEMENT FOR GUARDRAIL POSTS. BACKFILL WITH AGGREGATE AND BRING FLUSH WITH EXISTING PAVEMENT WITH 2" THICK HMA MIXTURE. COST INCLUDED IN CONTRACT PRICE FOR SPBGR TYPE A.
3. CORE 6" DIAMETER HOLE IN EXISTING PAVEMENT FOR SIGN POSTS. BACKFILL WITH AGGREGATE AND BRING FLUSH WITH EXISTING PAVEMENT WITH 2" THICK HMA MIXTURE. COST INCLUDED IN COST OF SIGN PANEL ASSEMBLY.

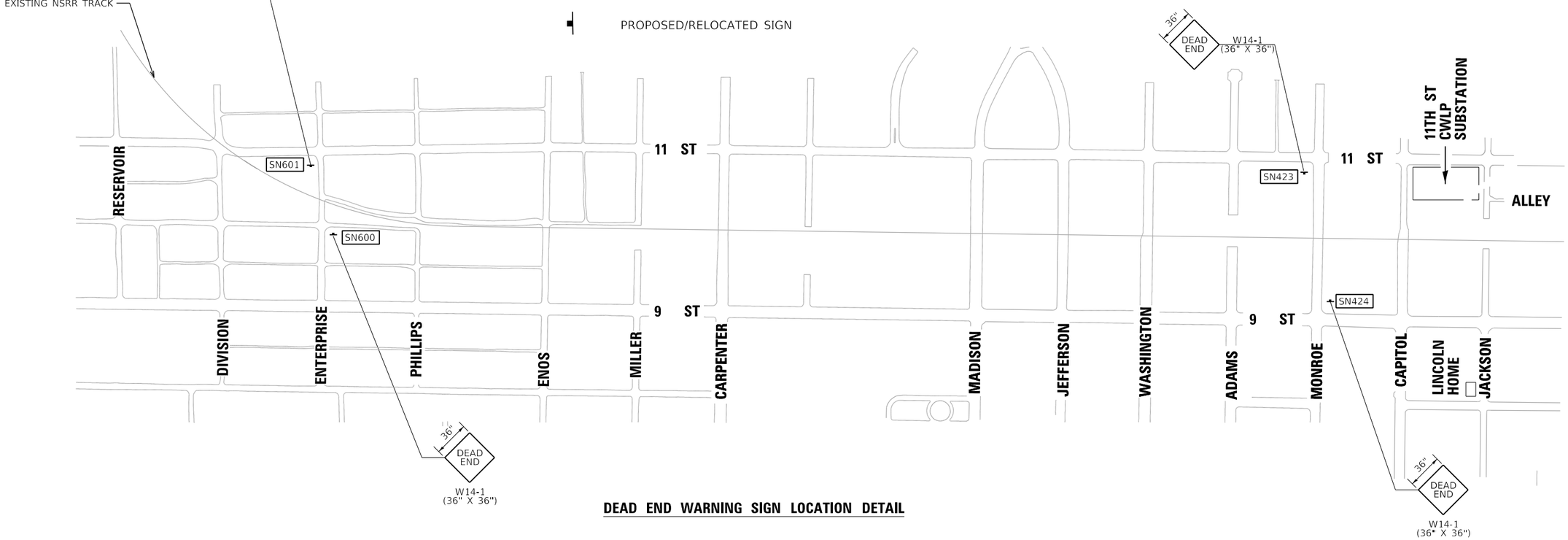


ROAD CLOSURE
ELEVATION VIEW

LEGEND

SNXXX — SIGN REFERENCE NUMBER SEE SIGN SCHEDULE

PROPOSED/RELOCATED SIGN



DEAD END WARNING SIGN LOCATION DETAIL

USER NAME = Pop00275	DESIGNED - DJP	REVISED -	
	DRAWN - DJP	REVISED -	
PLOT SCALE = 4.00 ' / In.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ROAD CLOSURE DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

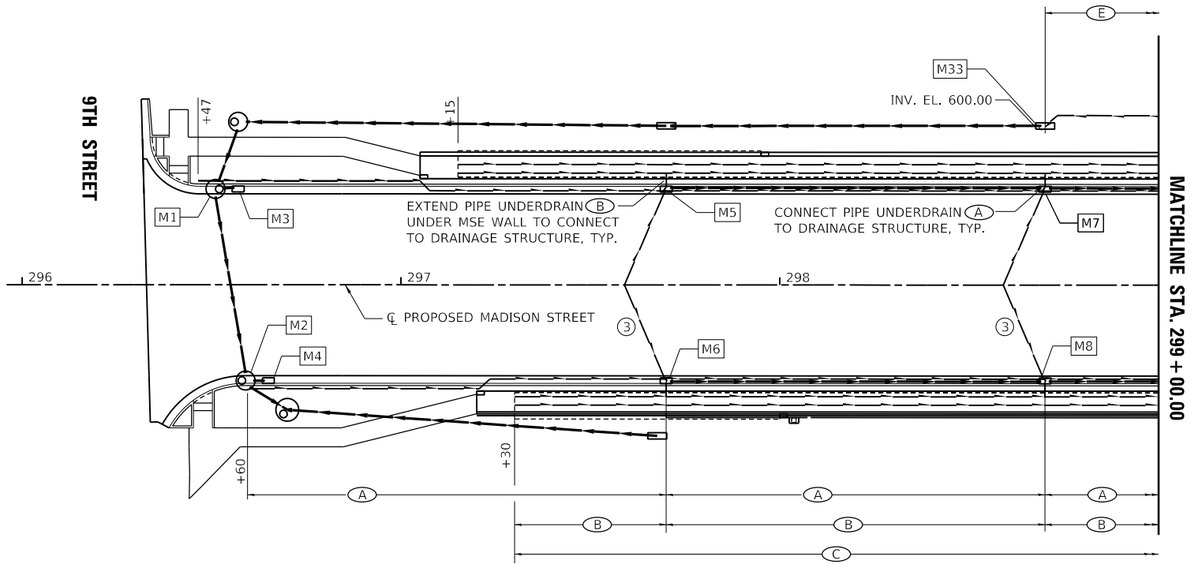
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	206
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

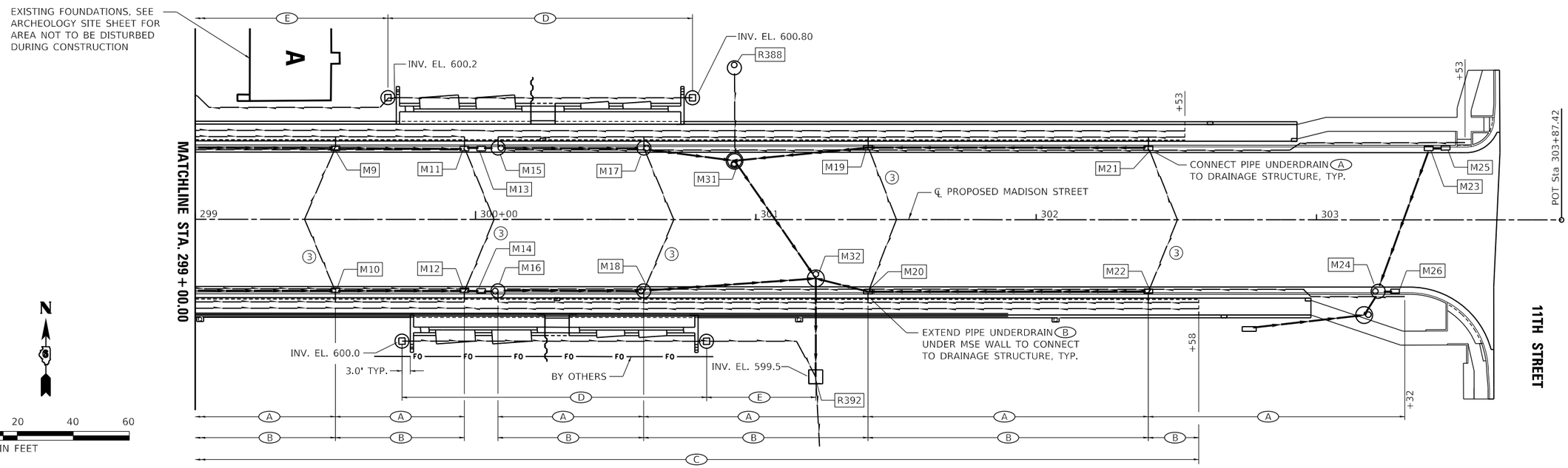
LEGEND

- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED PIPE UNDERDRAIN
- M14 — DRAINAGE STRUCTURE NO. SEE DRAINAGE SCHEDULES.
- PROPOSED STORM SEWER
- PROPOSED CLEANOUT
- (A) — PIPE UNDERDRAINS TYPE 1, 4" LOCATION - OUTSIDE OF ROADWAY SUBGRADE SEE TYPICAL SECTIONS.
- (B) — PIPE UNDERDRAIN FOR STRUCTURES 4" LOCATION - BELOW MSE WALL SEE TYPICAL SECTIONS.
- (C) — PIPE UNDERDRAINS FOR STRUCTURES 4" LOCATION APPROX. AT MIDHEIGHT OF MSE WALL ABOVE ADJACENT MEDIAN SURFACE ELEVATION. SEE TYPICAL SECTIONS.
- (D) — PIPE UNDERDRAIN FOR STRUCTURES 6" LOCATION - BACK OF ABUTMENT SEE STRUCTURE PLANS.
- (E) — PIPE UNDERDRAIN FOR STRUCTURES 6" (SPECIAL)

NOTES:

1. LEFT SIDE UNDER DRAIN LIMITS SIMILAR TO RIGHT EXCEPT WHERE NOTED.
2. ALL FITTINGS, TEES, CONNECTIONS AND CLEANOUTS INCLUDED IN THE CONTRACT UNIT PRICE FOR PIPE UNDERDRAIN.
3. TRANSVERSE DRAIN, SEE DETAILS - DRAINAGE AND SEWER DETAILS SHEETS.
4. SEE SIDEWALK / DITCH PROFILES SHEET.
5. (C) OUTLETS THROUGH A HOLE IN MSE WALL FOR DETAILS & LOCATIONS, SEE STRUCTURE PLANS.
6. TEE PIPE UNDERDRAIN (C) . SEE STRUCTURE PLANS.
7. ALL PROPOSED DRAINAGE STRUCTURES SHOWN FOR REFERENCE. ONLY PIPE UNDERDRAINS OUTLET STRUCTURES ARE LABELED. SEE PLAN AND PROFILE FOR DRAINAGE PLAN LAYOUT.





HANSON	USER NAME = Pop00275	DESIGNED - MNM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS PIPE UNDERDRAIN PLAN – MADISON STREET
		DRAWN - RSJ	REVISED -		
	PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	207
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

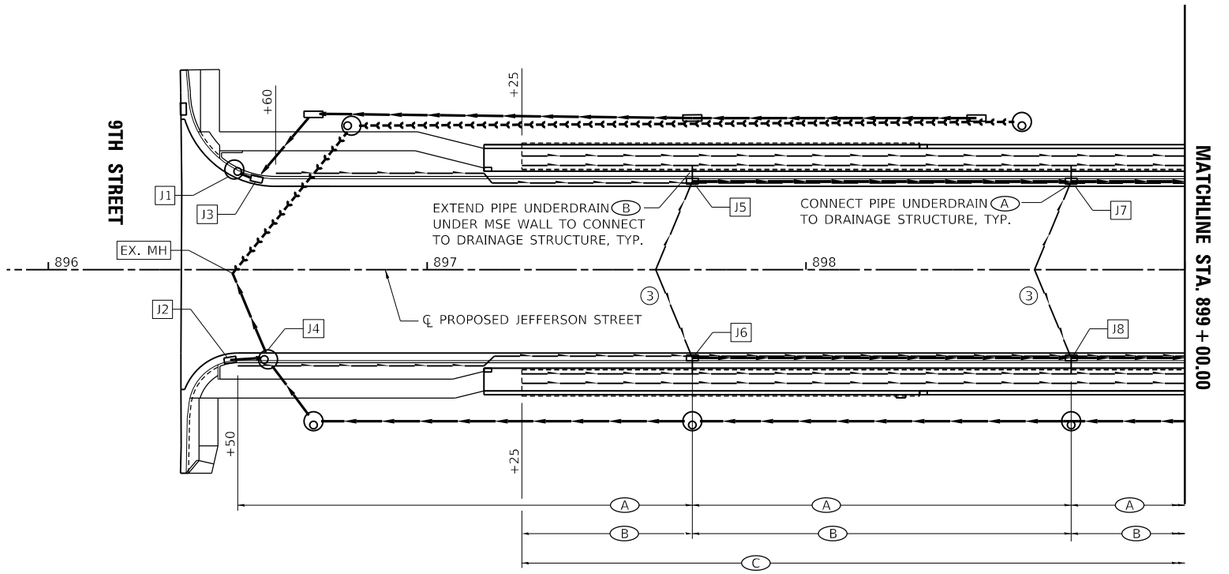
MODEL: Default
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\RoadUsable Segment III\Madison\Sheet\D6690.01795-SHT-Mad-PipeUnderdrains.dgn

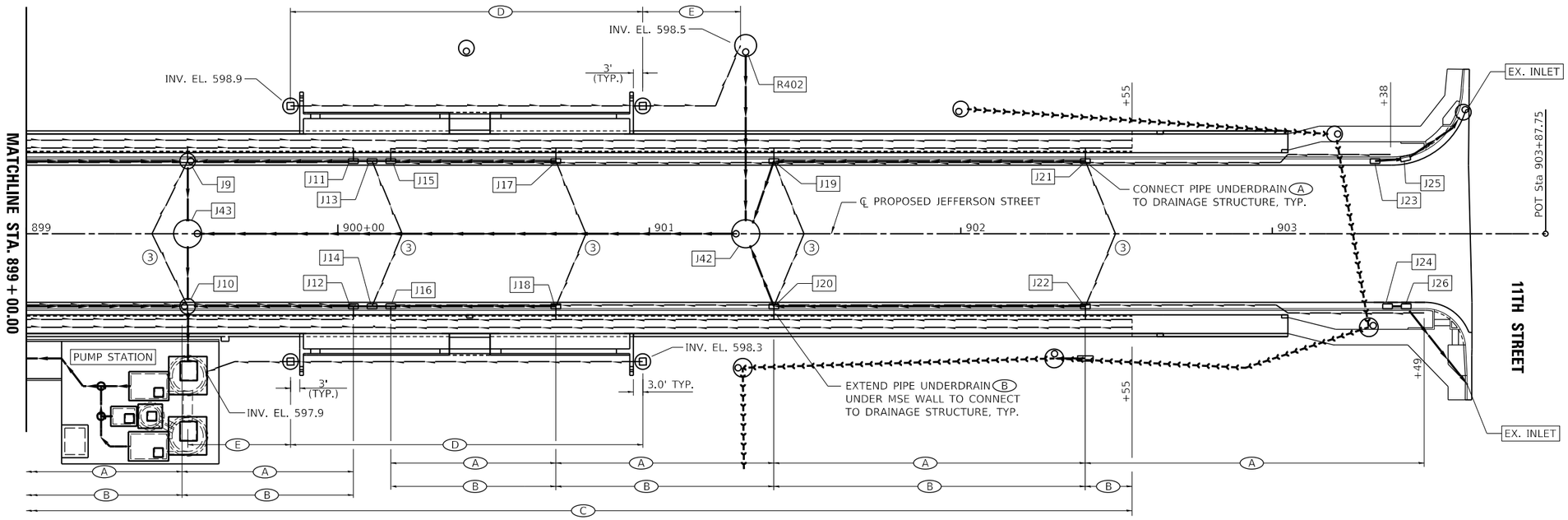
LEGEND

- PROPOSED INLET
- PROPOSED MANHOLE
- PROPOSED PIPE UNDERDRAIN
- J14 — DRAINAGE STRUCTURE NO. SEE DRAINAGE SCHEDULES.
- PROPOSED STORM SEWER
- PROPOSED CLEANOUT
- (A) — PIPE UNDERDRAINS TYPE 1, 4" LOCATION - OUTSIDE OF ROADWAY SUBGRADE SEE TYPICAL SECTIONS.
- (B) — PIPE UNDERDRAIN FOR STRUCTURES 4" LOCATION - BELOW MSE WALL SEE TYPICAL SECTIONS.
- (C) — PIPE UNDERDRAINS FOR STRUCTURES 4" LOCATION APPROX. AT MIDHEIGHT OF MSE WALL ABOVE ADJACENT MEDIAN SURFACE ELEVATION. SEE TYPICAL SECTIONS.
- (D) — PIPE UNDERDRAIN FOR STRUCTURES 6" LOCATION - BACK OF ABUTMENT SEE STRUCTURE PLANS.
- (E) — PIPE UNDERDRAIN FOR STRUCTURES 6" (SPECIAL)

NOTES:

1. LEFT SIDE UNDER DRAIN LIMITS SIMILAR TO RIGHT EXCEPT WHERE NOTED.
2. ALL FITTINGS, TEES, CONNECTIONS AND CLEANOUTS INCLUDED IN THE CONTRACT UNIT PRICE FOR PIPE UNDERDRAIN.
3. TRANSVERSE DRAIN, SEE DETAILS - DRAINAGE AND SEWER DETAILS SHEETS.
4. SEE SIDEWALK / DITCH PROFILES SHEET.
5. (C) OUTLETS THROUGH A HOLE IN MSE WALL FOR DETAILS & LOCATIONS, SEE STRUCTURE PLANS.
6. TEE PIPE UNDERDRAIN (C) . SEE STRUCTURE PLANS.
7. ALL PROPOSED DRAINAGE STRUCTURES SHOWN FOR REFERENCE. ONLY PIPE UNDERDRAINS OUTLET STRUCTURES ARE LABELED. SEE PLAN AND PROFILE FOR DRAINAGE PLAN LAYOUT.





HANSON

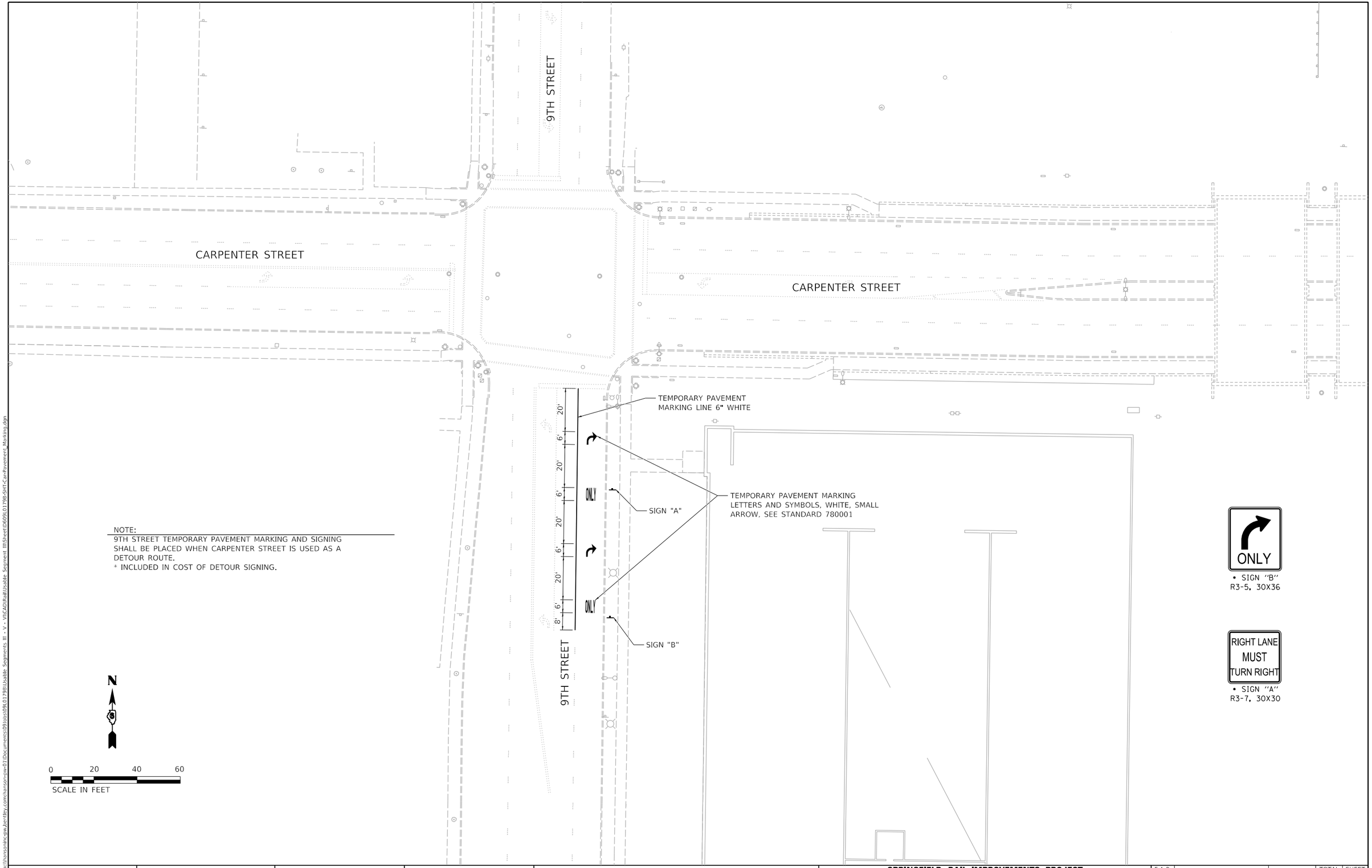
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PIPE UNDERDRAIN PLAN – JEFFERSON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	208
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



NOTE:
9TH STREET TEMPORARY PAVEMENT MARKING AND SIGNING SHALL BE PLACED WHEN CARPENTER STREET IS USED AS A DETOUR ROUTE.
* INCLUDED IN COST OF DETOUR SIGNING.

• SIGN "B"
R3-5, 30X36

• SIGN "A"
R3-7, 30X30

FINAL

MODEL: Sheet 1
FILE NAME: pw:\hansonllnc-pw.bentley.com:hanson-pw-01\Documents\09Joss\09L0179B\Usable Segments III - V - VI\CADD\Rail\Usable Segment III\Sheet\09L0179B-SHT-Ca-Pavement Marking.dgn

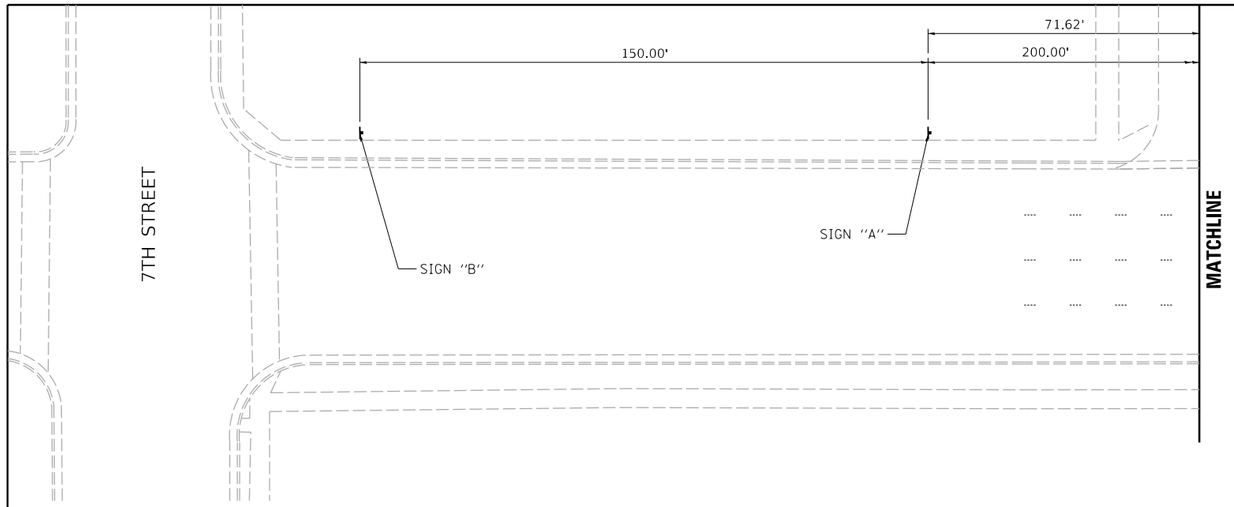
USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - DJP	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 12/6/2021	DATE - 12/6/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY PAVEMENT MARKING – 9TH STREET

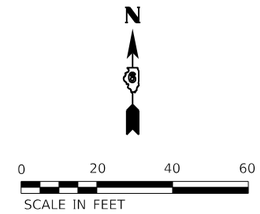
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	209
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

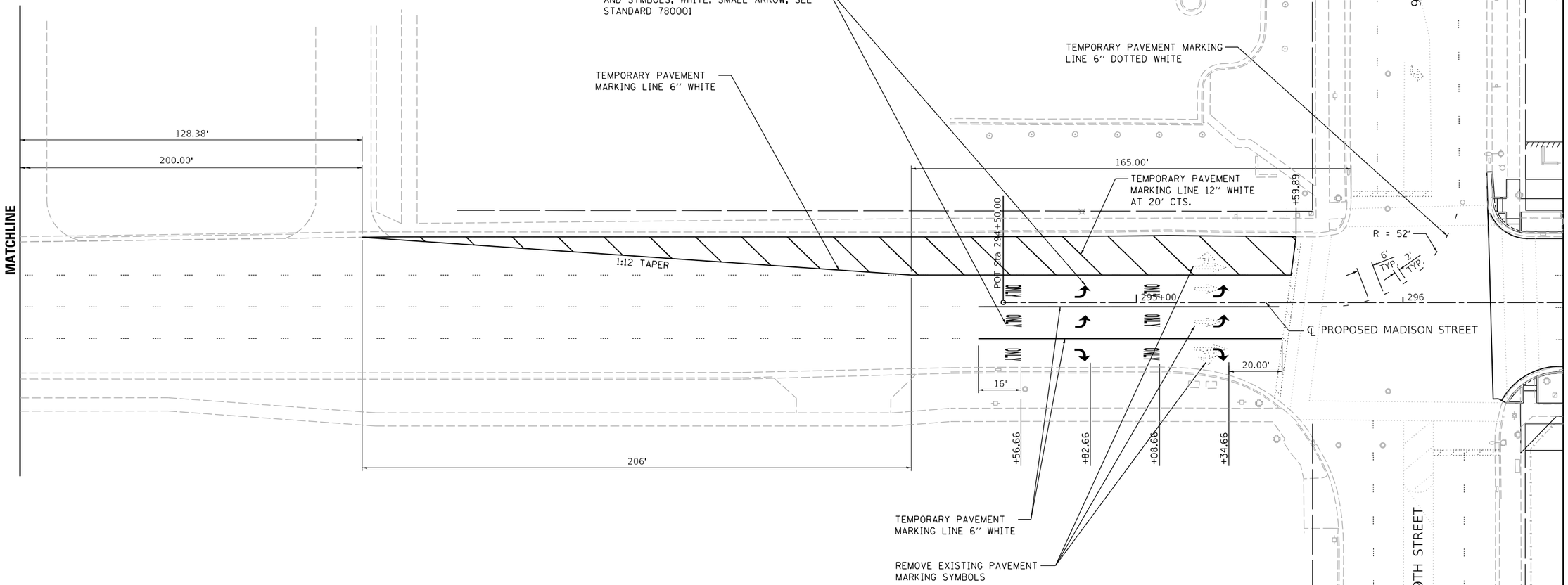


• SIGN "A"
W4-2L, 48X48
ORANGE HI-REFLECTIVITY FIELD,
BLACK BORDER AND LETTERING

• SIGN "B"
W21-5L, 48X48
ORANGE HI-REFLECTIVITY FIELD,
BLACK BORDER AND LETTERING



NOTE:
MADISON STREET TEMPORARY PAVEMENT MARKING AND SIGNING SHALL BE IN PLACE WHEN MADISON STREET IS DETOURED.
• INCLUDED IN COST OF DETOUR SIGNING.



FINAL

MODEL: Sheet 2
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HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - DJP	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 12/6/2021	DATE - 12/6/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY PAVEMENT MARKING – MADISON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	210
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW, SEE STANDARD 780001

9TH STREET

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

SN100

SN106

30' TYP.

10' TYP.

POT Sta 294+50.00

84.53'

295+80

59.34'

296

297

298

8.00' TYP.

10' (TYP.)

30' (TYP.)

12.00'

12.00'

12.00'

12.00'

℄ PROPOSED MADISON STREET

MODIFIED URETHANE PAVEMENT MARKING LINE 6" WHITE

SN101

MATCHLINE STA. 298 + 50.00

SNXXX SIGN REFERENCE NUMBER SEE SIGN SCHEDULE

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

9TH STREET

N

0 20 40 60

SCALE IN FEET

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

MODIFIED URETHANE PAVEMENT MARKING LINE 4" DOTTED WHITE

SN109

11TH STREET

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

MATCHLINE STA. 298 + 50.00

3' (TYP)

9' (TYP.)

ONLY

+06

+06

+30

+58

+10

+62

+14

4' MIN.

POT Sta 303+87.42

299

300+00

301

302

303

℄ PROPOSED MADISON STREET

10' (TYP.)

30' (TYP.)

MODIFIED URETHANE PAVEMENT MARKING LINE 6" WHITE (TYP.)

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW SEE STANDARD 780001

11TH STREET

MODEL: Default
FILE NAME: pw:\\hansonlic-pw.bentley.com:hanson-pw-01\Documents\09\pos\09L0179B\Usable Segments III - V - VI\CAD\Road\Usable Segment III\Madison\Sheet\D609L0179B-SHT-Mad-Pavement_Marking.dgn

HANSON

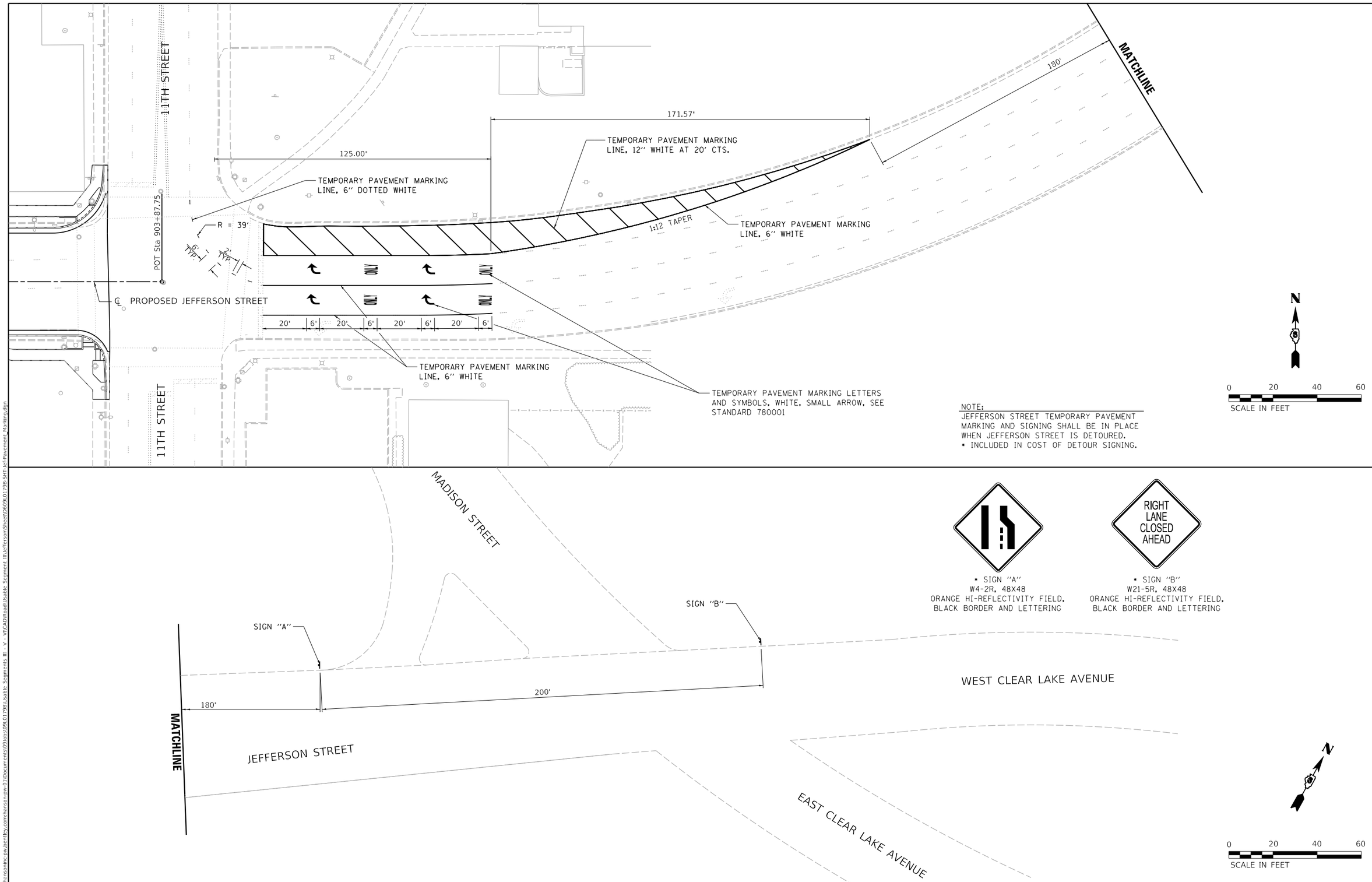
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - DJP	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – MADISON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	211
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



FINAL

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HANSON	USER NAME = Pop00275	DESIGNED - MNM	REVISED -
		DRAWN - DJP	REVISED -
	PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
	PLOT DATE = 12/6/2021	DATE - 12/6/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY PAVEMENT MARKING – JEFFERSON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	212
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

9TH STREET

SN201

SN200 & SN203

MODIFIED URETHANE PAVEMENT MARKING LINE 6" WHITE

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINES, 12" WHITE AT 20' CTS.

+75.74
18.00' LT.

SN211

SN208

RELOCATE SIGNS TO BLOCK WEST OF 9TH ST.

8.00' (TYP.)

4' MIN.

SN207

4.00'
12.00'
12.00'
4.00'

10' (TYP.)

30' (TYP.)

896 897 898 899 900+00 901

℄ PROPOSED JEFFERSON STREET

MATCHLINE STA. 901+50.00

SN205

+67.39
18.00' RT.

MODIFIED URETHANE PAVEMENT MARKING LINES, 12" WHITE AT 20' CTS.

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

SNXXX SIGN REFERENCE NUMBER SEE SIGN SCHEDULE

MATCHLINE STA. 901+50.00

MODIFIED URETHANE PAVEMENT MARKING LINES, 12" WHITE AT 20' CTS.

MODIFIED URETHANE PAVEMENT MARKING LINE, 4" WHITE

SN214 & SN224

+75.74
22.00 LT.

11TH STREET

POT Sta 903+87.75

4.00'
12.00'
12.00'
4.00'

+25.22
18.00' LT.

10' (TYP.)

30' (TYP.)

902 903

℄ PROPOSED JEFFERSON STREET

+25.86
18.00' RT.

8.19

MODIFIED URETHANE PAVMENT MARKING LINE 6" WHITE

SN223

MODIFIED URETHANE PAVEMENT MARKING LINES, 12" WHITE AT 20' CTS.

MODIFIED URETHANE PAVEMENT MARKING LINE, 4" WHITE

11TH STREET

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW. SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINE, 4" WHITE

20'

103'

30' TYP.

10' TYP.

N

0 20 40 60

SCALE IN FEET

MODEL: Sheet 1
FILE NAME: pw:\\hansonlic-pw.bentley.com:hanson-pw-01\Documents\09L0179B\Usable Segments III - V - VI\CAD\Road\Usable Segment III\Jefferson\Sheet\D609L0179B-SHT-Jef-Pavement_Marking.dgn

HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - DJP	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – JEFFERSON STREET

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	213
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

N

0 20 40 60

SCALE IN FEET

9TH STREET

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW. SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINE 5" DBL. YELLOW

MODIFIED URETHANE PAVEMENT MARKING LINE 4" DOTTED WHITE

6' 20' 6' 20' 6' 20' 6' 20'

ONLY

+41.93 +71 +23 +47.45

4' MIN.

9.00' (TYP.)

3.00' (TYP.)

8.00' TYP.

MODIFIED URETHANE PAVEMENT MARKING LINE 6" WHITE

ONLY 12.00' ONLY 12.00' ONLY 13.00' ONLY ONLY

2.00' TYP.

6.00' TYP.

℄ PROPOSED WASHINGTON STREET

13.00

MATCHLINE STA. 999+00.00

+98 +38 +90

SN312 SN313

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW. SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINE 4" DOTTED WHITE

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW. SEE STANDARD 780001

SNXXX SIGN REFERENCE NUMBER SEE SIGN SCHEDULE

9TH STREET

MODIFIED URETHANE PAVEMENT MARKING LETTERS AND SYMBOLS, WHITE, SMALL ARROW. SEE STANDARD 780001

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE, TYP.

8' 65' 50'

1000+69.98 20.75' LT +77.98

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE, TYP.

14.00'

MODIFIED URETHANE PAVEMENT MARKING LINE 5" DBL. YELLOW

MODIFIED URETHANE PAVEMENT MARKING LINE 24" WHITE

11TH STREET

MATCHLINE STA. 999+00.00

SN311

+47.01 13.50' 15.00' 15.00'

POT Sta 1003+94.76

999 1000+00 1001 1002 1003

12.00' 6' 6'

+39.08

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 6" SOLID 45° TO PAVEMENT @ 8' CTRS.

+70.98

+70 +16

4' MIN.

MODIFIED URETHANE PAVEMENT MARKING LINE 6" WHITE

8.00' (TYP.)

1'

SN300

50' 65' 8'

MODIFIED URETHANE PAVEMENT MARKING LINE 8" WHITE

+32.08 1000+40.08 20.73' RT

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

MODIFIED URETHANE PAVEMENT MARKING LINE 4" WHITE

11TH STREET

HANSON

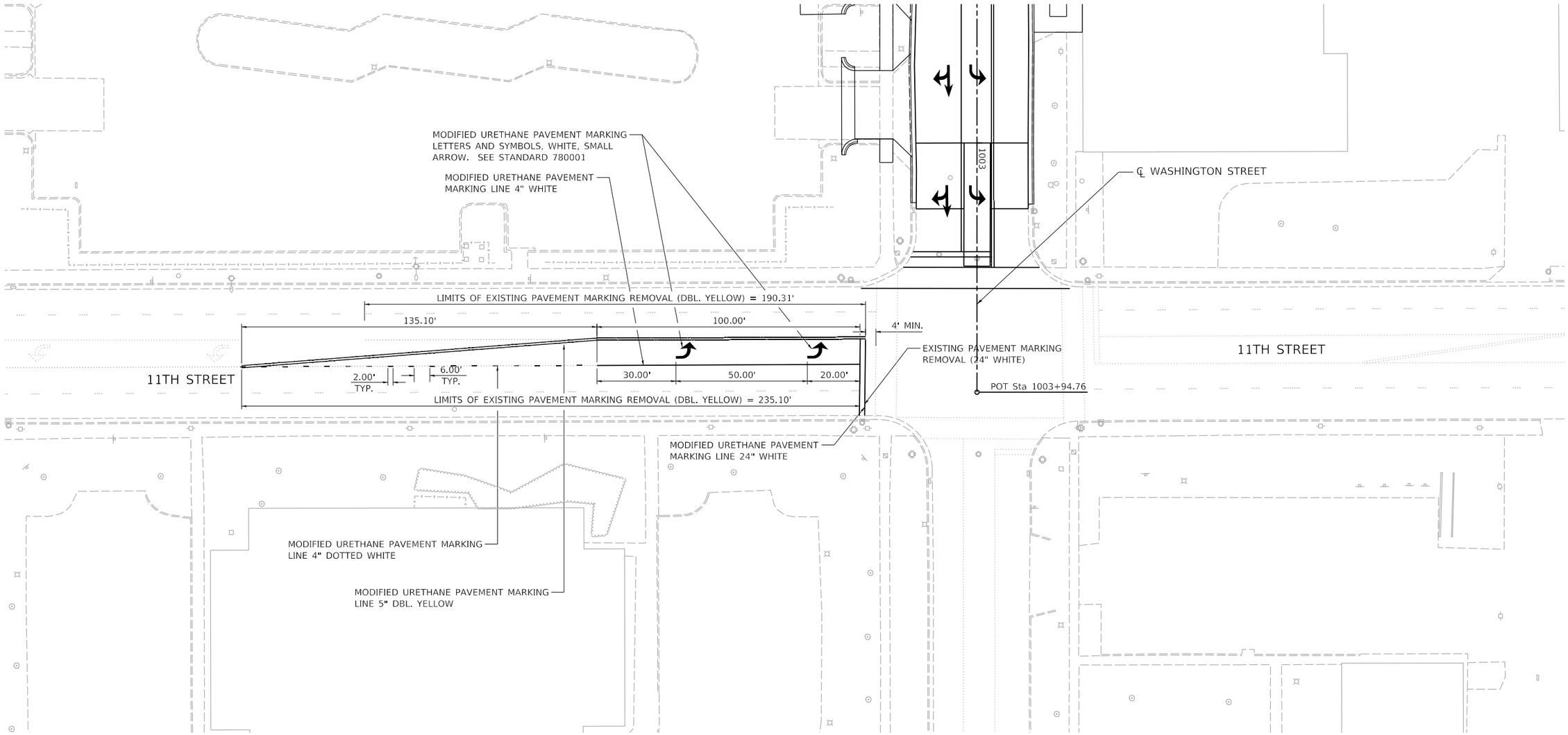
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - JAP	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - JWM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – WASHINGTON STREET – 1

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	214
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



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HANSON

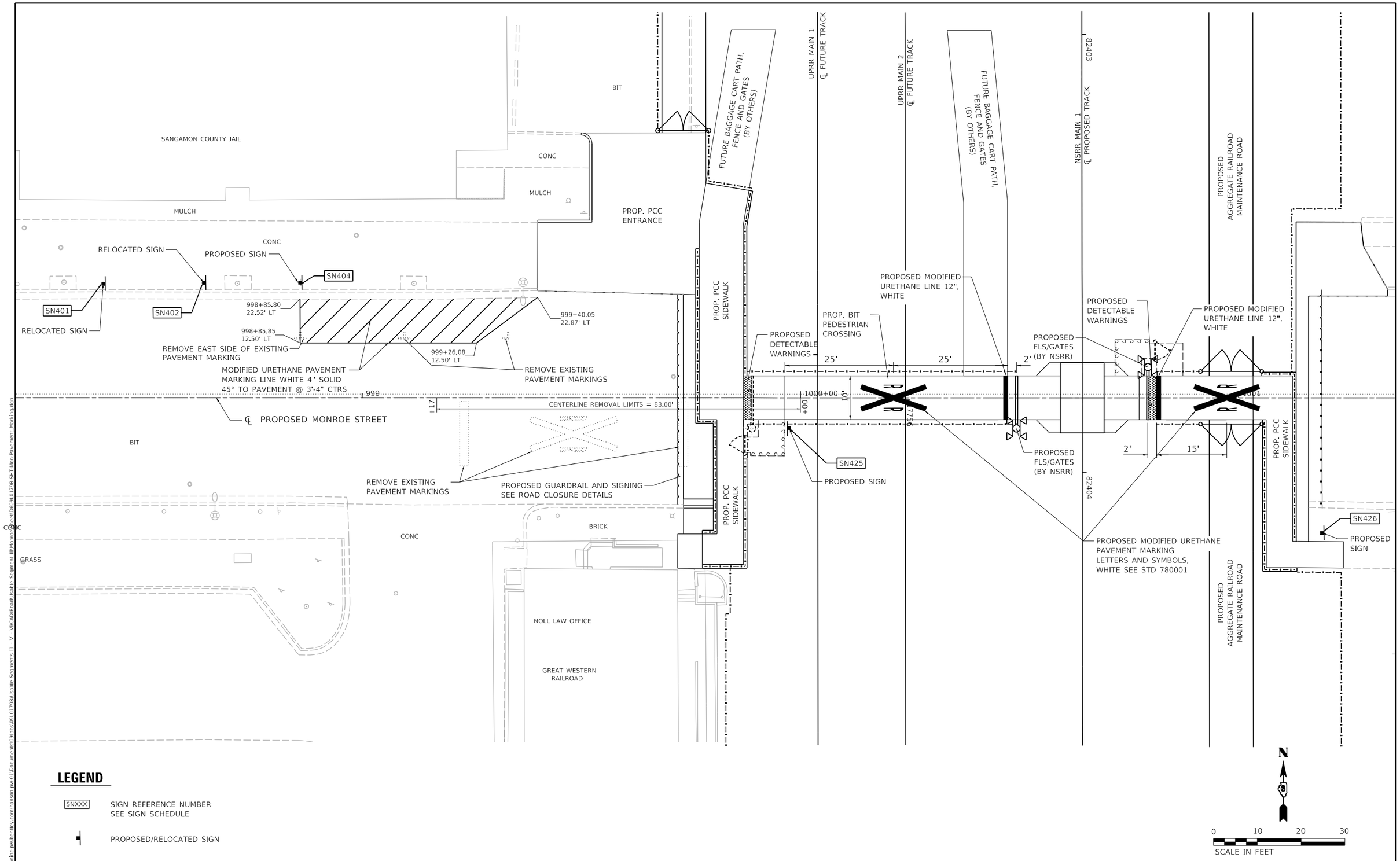
USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - JAP	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - JWM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – WASHINGTON STREET – 2

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	215
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



LEGEND

SNXXX	SIGN REFERENCE NUMBER SEE SIGN SCHEDULE
	PROPOSED/RELOCATED SIGN

HANSON	USER NAME = Pop00275	DESIGNED - MNM	REVISED -
		DRAWN - JAP	REVISED -
	PLOT SCALE = 20.00 ' / In.	CHECKED - JWM	REVISED -
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – MONROE STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	216
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

LIMITS OF HMA CROSSING

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 6" SOLID 45° TO PAVEMENT @ 8' CTRS

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 8" SOLID

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 4" SOLID

RELOCATED FLS/GATE BY OTHERS

62+75.84 20.75' LT

62+69.88 15.00' LT

61+91.55 15.00' LT

SEE BRICK PAVER LAYOUT DETAIL SHEETS FOR PAVEMENT MARKING ON BRICK PAVEMENT

61+77.56 15.00' LT

+77.56

+44.90

8'

62

63

64

1'

MODIFIED URETHANE PAVEMENT MARKING LINE YELLOW 5" DOUBLE SOLID

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 24" STOP BAR

+37.90

+55.90

+65.90

+76.90

+83.90

62+83.90 0.00' RT

℄ PROPOSED CAPITOL AVENUE

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 8" SOLID

61+91.55 15.00' RT

62+69.91 15.00' RT

MODIFIED URETHANE PAVEMENT MARKING LINE WHITE 4" SOLID

62+45.95 20.76' RT

RELOCATED FLS/GATE BY OTHERS

STANDARD YELLOW CONCRETE PARKING BLOCK

EDGE OF PARKING LOT

2.5'

1'

PAINT PAVEMENT MARKING LINE, 4"-YELLOW (TYPICAL) AT 45°

PAINT PAVEMENT MARKING LINE, 4"-YELLOW (TYPICAL)

3'-4"

9.0'

18.0'

PARKING SPACE AND PARKING BLOCK DETAIL

6 SPACES @ 9' EACH = 54.00'

2 SPACES @ 9' EACH = 18.00'

1.37'

PROPOSED 18' PARKING STALL LINE PAINT PAVEMENT MARKING LINE, 4"-YELLOW

PAINT PAVEMENT MARKING LINE, 4"-YELLOW (TYPICAL) AT 45°

PROPOSED PARKING STALL AND PARKING BLOCK SEE DETAIL FOR LAYOUT

PROPOSED 1.00' HEIGHT YELLOW MARKING LETTERS AND SYMBOLS - 12 SF TOTAL MATCH EXISTING MARKINGS

N

0 10 20 30

SCALE IN FEET

MODEL: Sheet 1
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HANSON

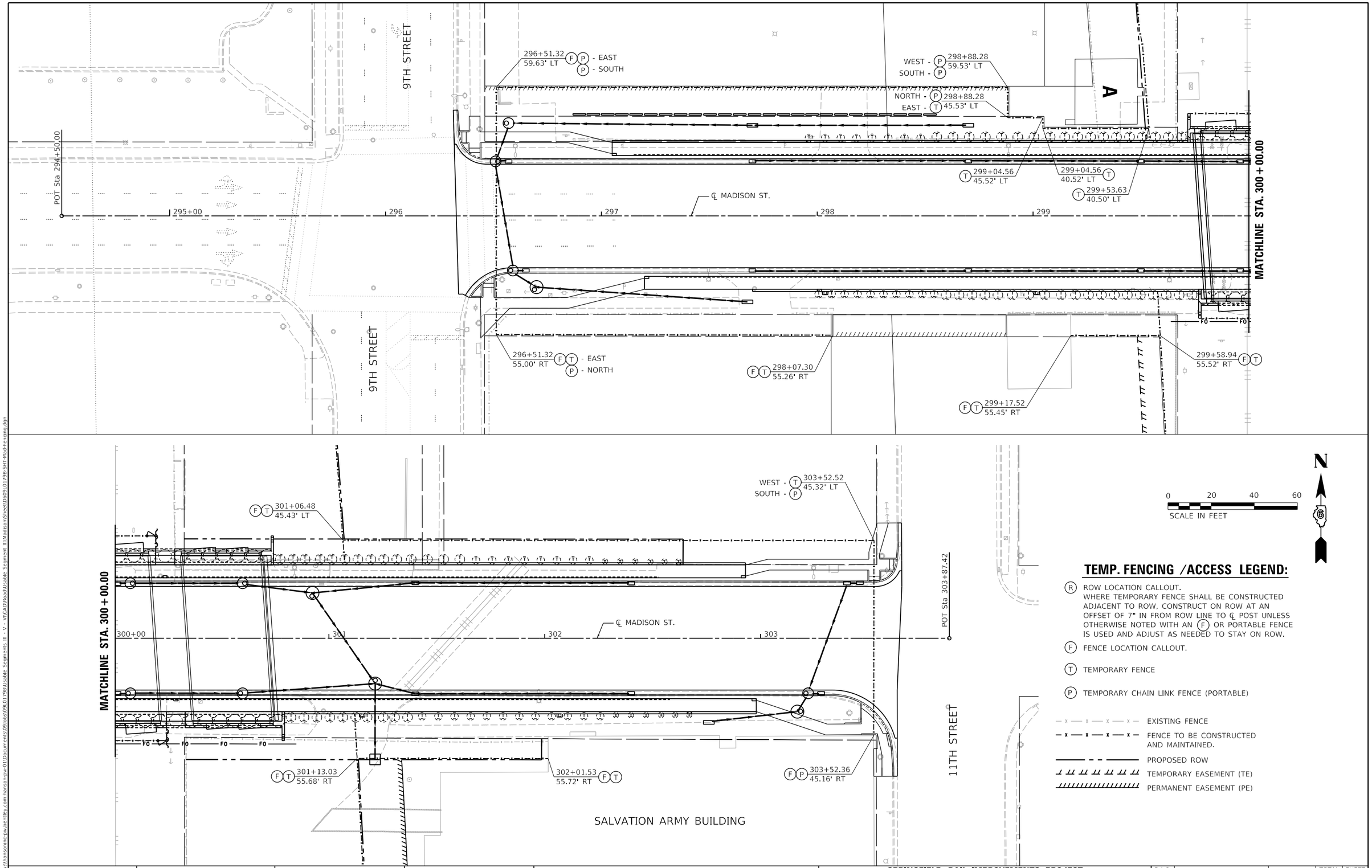
USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - JAP	REVISED -	
PLOT SCALE = 20.00 ' / in.	CHECKED - JWM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PAVEMENT MARKING PLANS – CAPITOL AVENUE

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	217
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



TEMP. FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE TEMPORARY FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F) OR PORTABLE FENCE IS USED AND ADJUST AS NEEDED TO STAY ON ROW.
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (P) TEMPORARY CHAIN LINK FENCE (PORTABLE)
- EXISTING FENCE
- FENCE TO BE CONSTRUCTED AND MAINTAINED.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

HANSON

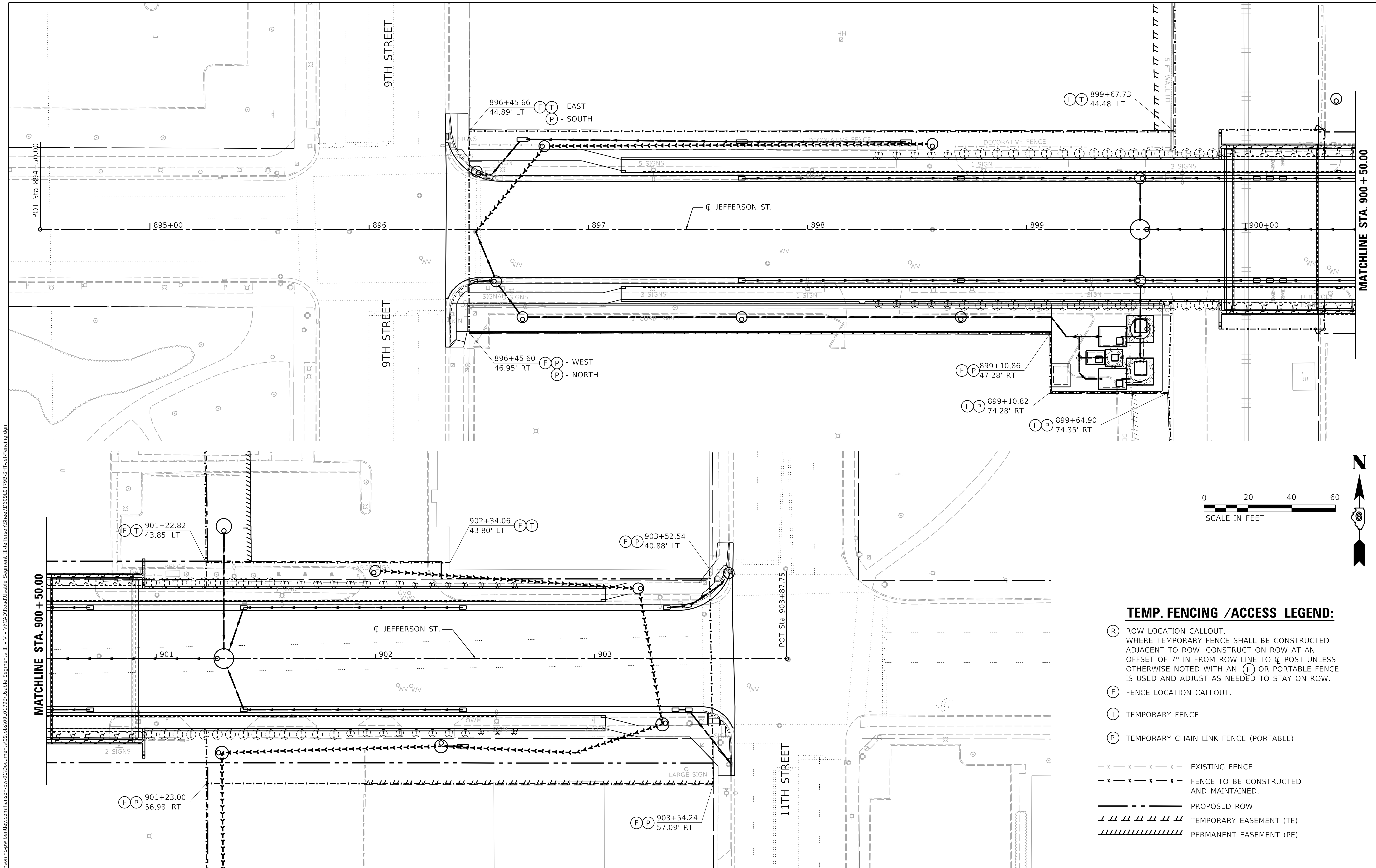
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY FENCING AND ACCESS PLAN – MADISON STREET

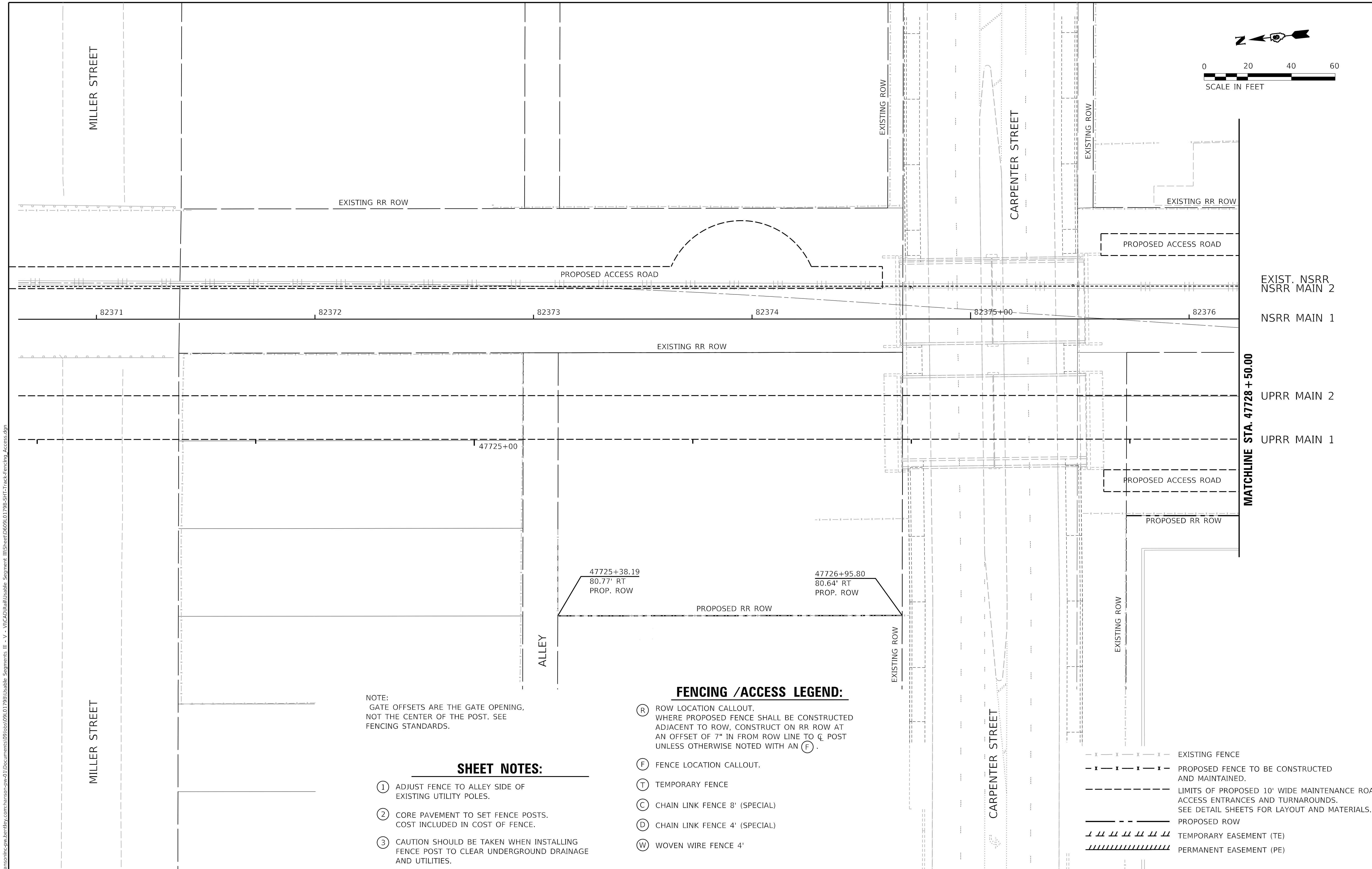
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	218
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



9TH STREET
896+45.66 44.89' LT (F)(T) - EAST (P) - SOUTH
896+45.60 46.95' RT (F)(P) - WEST (P) - NORTH
(F)(T) 899+67.73 44.48' LT
(F)(P) 899+10.86 47.28' RT
(F)(P) 899+10.82 74.28' RT
(F)(P) 899+64.90 74.35' RT
POT Sta 894+50.00
895+00
896
897
898
899
900+00
℄ JEFFERSON ST.
DECORATIVE FENCE
MATCHLINE STA. 900+50.00
(F)(T) 901+22.82 43.85' LT
902+34.06 43.80' LT (F)(T)
(F)(P) 903+52.54 40.88' LT
(F)(P) 901+23.00 56.98' RT
(F)(P) 903+54.24 57.09' RT
901
902
903
POT Sta 903+87.75
11TH STREET
LARGE SIGN
0 20 40 60
SCALE IN FEET
N
TEMP. FENCING /ACCESS LEGEND:
(R) ROW LOCATION CALLOUT. WHERE TEMPORARY FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F) OR PORTABLE FENCE IS USED AND ADJUST AS NEEDED TO STAY ON ROW.
(F) FENCE LOCATION CALLOUT.
(T) TEMPORARY FENCE
(P) TEMPORARY CHAIN LINK FENCE (PORTABLE)
EXISTING FENCE
FENCE TO BE CONSTRUCTED AND MAINTAINED.
PROPOSED ROW
TEMPORARY EASEMENT (TE)
PERMANENT EASEMENT (PE)

HANSON	USER NAME = Pop00275	DESIGNED - MNM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS TEMPORARY FENCING AND ACCESS PLAN – JEFFERSON STREET	F.A.P. RTE. 67,67A	SECTION 20-00491-00-BR
		DRAWN - RSJ	REVISED -			COUNTY SANGAMON	TOTAL SHEETS 509 / SHEET NO. 219
	PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -			09L0179B	CONTRACT NO. 93762
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -		SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.	ILLINOIS	FED. AID PROJECT



NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

SHEET NOTES:

1. ADJUST FENCE TO ALLEY SIDE OF EXISTING UTILITY POLES.
2. CORE PAVEMENT TO SET FENCE POSTS. COST INCLUDED IN COST OF FENCE.
3. CAUTION SHOULD BE TAKEN WHEN INSTALLING FENCE POST TO CLEAR UNDERGROUND DRAINAGE AND UTILITIES.

FENCING /ACCESS LEGEND:

(R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).

(F) FENCE LOCATION CALLOUT.

(T) TEMPORARY FENCE

(C) CHAIN LINK FENCE 8' (SPECIAL)

(D) CHAIN LINK FENCE 4' (SPECIAL)

(W) WOVEN WIRE FENCE 4'

EXISTING FENCE

PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.

LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.

PROPOSED ROW

TEMPORARY EASEMENT (TE)

PERMANENT EASEMENT (PE)

MODEL: Sheet 1

HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 1

SCALE: | SHEET 1 OF 8 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	220
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		

EXISTING ROW
REYNOLDS STREET
EXISTING ROW
47731+95.20 158.81' LT (F C)
47731+94.92 152.81' LT (F C)
CHAIN LINK GATES (SPECIAL), 8'x24' DOUBLE
CHAIN LINK GATES (SPECIAL), 8'x16' DOUBLE
47731+92.71 120.00' LT PROP. ROW
47731+93.82 128.84' LT (F C)
PROPOSED RR ROW
PROPOSED FENCE
47731+10.89 120.00' LT (R)
47731+11.46 119.27' LT (F C)
47731+43.63 119.31' LT (F C)
47731+59.90 119.40' LT (F C)
47731+93.39 119.42' LT (F C)
PROPOSED FENCE
EXISTING RR ROW
EXISTING RR ROW
PROPOSED ACCESS ROAD
PROPOSED ACCESS ROAD
TS Sta. 82376+28.17
SC Sta. 82376+90.17
CURVE 320
CS Sta. 82380+89.90
CURVE 321
47731+10.76 101.00' LT (F C)
82377
82378
82379
82380+00
82381
EXIST. NSRR NSRR MAIN 2
NSRR MAIN 1
NSRR MAIN 2
EXIST. NSRR NSRR MAIN 1
MATCHLINE STA. 47728+50.00
MATCHLINE STA. 47733+50.00
EXISTING RR ROW
UPRR MAIN 2
UPRR MAIN 1
UPRR MAIN 2
UPRR MAIN 1
LOT 1
47730+00
PROPOSED ACCESS ROAD
PROPOSED ACCESS ROAD
PROPOSED RR ROW
TS Sta. 47728+55.33
SC Sta. 47729+17.33
CURVE 184C_4
CS Sta. 47733+21.11
CURVE 184C_4
PROPOSED RR ROW
47728+55.33 35.00' RT PROP. ROW
44729+56.47 34.42' RT (F W)
PROPERTY LINE
PROPERTY LINE
LOT 3
LOT 4
LOT 5
LOT 6
EXISTING ROW
REYNOLDS STREET
EXISTING ROW

NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (D) CHAIN LINK FENCE 4' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

N

0 20 40 60
SCALE IN FEET

HANSON

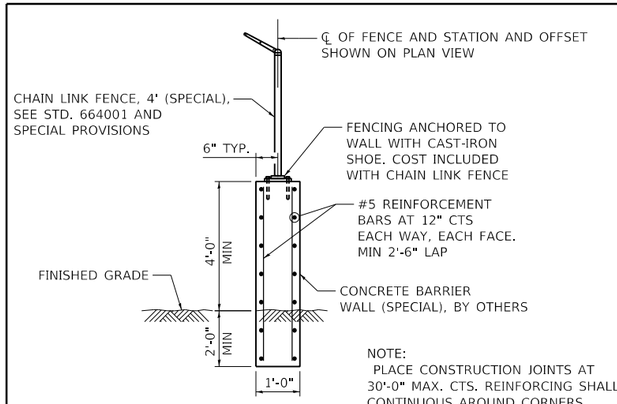
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 2

SCALE: | SHEET 2 OF 8 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	221
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



SECTION A–A

FENCING / ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (D) CHAIN LINK FENCE 4' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

N

0 20 40 60
SCALE IN FEET

HANSON

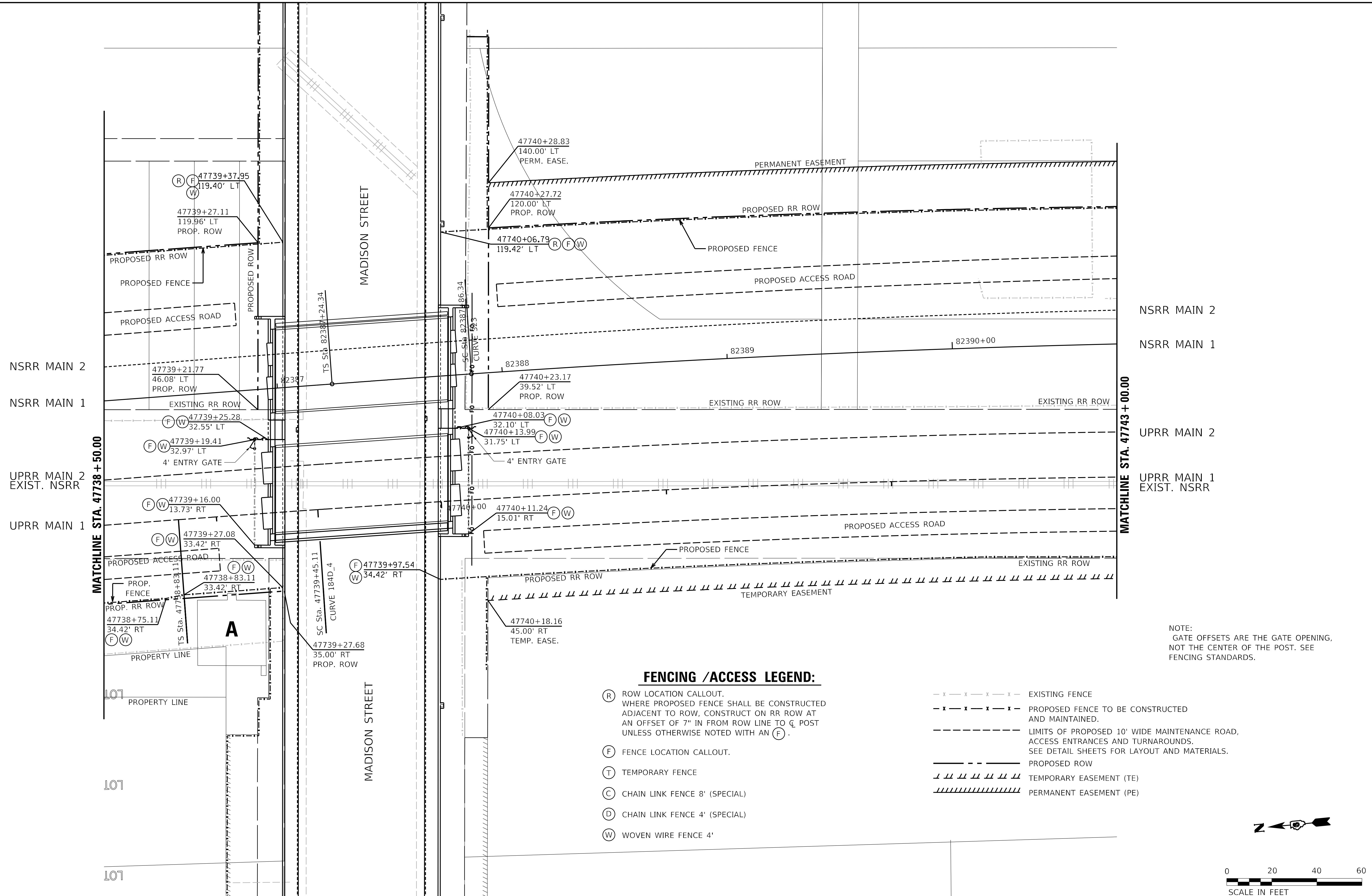
USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 3

SCALE: | SHEET 3 OF 8 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	222
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (D) CHAIN LINK FENCE 4' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

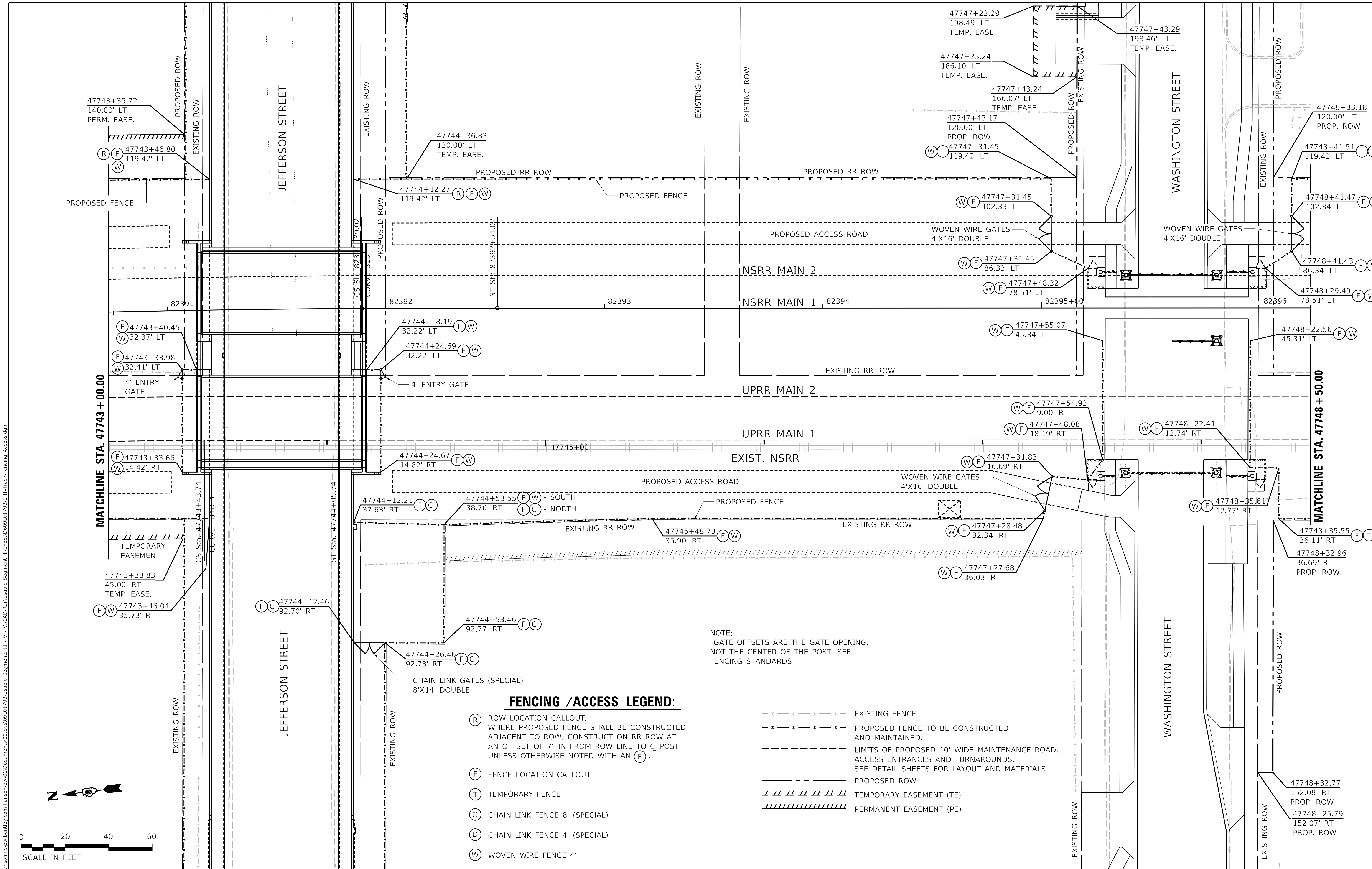
- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

0 20 40 60
SCALE IN FEET

HANSON	USER NAME = Pop00275	DESIGNED - MNM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS FENCING AND ACCESS PLAN – TRACK – 4
		DRAWN - RSJ	REVISED -		
	PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -		
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -		SCALE: SHEET 4 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	223
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		

MODEL: Sheet 4
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\D609L0179B-SHT-Track-Fencing Access.dgn



JEFFERSON STREET
WASHINGTON STREET
MATCHLINE STA. 47743+00.00
MATCHLINE STA. 47748+50.00
PROPOSED ROW
EXISTING ROW
PROPOSED RR ROW
PROPOSED FENCE
PROPOSED ACCESS ROAD
NSRR MAIN 2
NSRR MAIN 1
UPRR MAIN 2
UPRR MAIN 1
EXIST. NSRR
EXISTING RR ROW
4' ENTRY GATE
WOVEN WIRE GATES
4'X16' DOUBLE
CHAIN LINK GATES (SPECIAL)
8'X14' DOUBLE
TEMPORARY EASEMENT
47743+35.72
140.00' LT
PERM. EASE.
47743+46.80
119.42' LT
47744+36.83
120.00' LT
TEMP. EASE.
47744+12.27
119.42' LT
47747+23.29
198.49' LT
TEMP. EASE.
47747+23.24
166.10' LT
TEMP. EASE.
47747+43.29
198.46' LT
TEMP. EASE.
47747+43.24
166.07' LT
TEMP. EASE.
47747+43.17
120.00' LT
PROP. ROW
47747+31.45
119.42' LT
47748+33.18
120.00' LT
PROP. ROW
47748+41.51
119.42' LT
47747+31.45
102.33' LT
47748+41.47
102.34' LT
47747+31.45
86.33' LT
47748+41.43
86.34' LT
47747+48.32
78.51' LT
47748+29.49
78.51' LT
47747+55.07
45.34' LT
47748+22.56
45.31' LT
47743+40.45
32.37' LT
47743+33.98
32.41' LT
47744+18.19
32.22' LT
47744+24.69
32.22' LT
47747+54.92
9.00' RT
47747+48.08
18.19' RT
47748+22.41
12.74' RT
47743+33.66
14.42' RT
47744+24.67
14.62' RT
47747+31.83
16.69' RT
47748+35.61
12.77' RT
47744+12.21
37.63' RT
47744+53.55
38.70' RT
- SOUTH
- NORTH
47745+48.73
35.90' RT
47747+28.48
32.34' RT
47748+35.55
36.11' RT
47748+32.96
36.69' RT
PROP. ROW
47747+27.68
36.03' RT
47743+33.83
45.00' RT
TEMP. EASE.
47743+46.04
35.73' RT
47744+12.46
92.70' RT
47744+53.46
92.77' RT
47744+26.46
92.73' RT
47748+32.77
152.08' RT
PROP. ROW
47748+25.79
152.07' RT
PROP. ROW
82391
82392
82393
82394
82395+00
82396
47745+00
CS Sta. 82391+89.02
CURVE 323
ST Sta. 82392+51.02
CS Sta. 47743+43.74
CURVE 1840_4
ST Sta. 47744+05.74
NOTE:
GATE OFFSETS ARE THE GATE OPENING,
NOT THE CENTER OF THE POST. SEE
FENCING STANDARDS.
FENCING /ACCESS LEGEND:
(R) ROW LOCATION CALLOUT.
WHERE PROPOSED FENCE SHALL BE CONSTRUCTED
ADJACENT TO ROW, CONSTRUCT ON RR ROW AT
AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST
UNLESS OTHERWISE NOTED WITH AN (F).
(F) FENCE LOCATION CALLOUT.
(T) TEMPORARY FENCE
(C) CHAIN LINK FENCE 8' (SPECIAL)
(D) CHAIN LINK FENCE 4' (SPECIAL)
(W) WOVEN WIRE FENCE 4'
EXISTING FENCE
PROPOSED FENCE TO BE CONSTRUCTED
AND MAINTAINED.
LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD,
ACCESS ENTRANCES AND TURNAROUNDS.
SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
PROPOSED ROW
TEMPORARY EASEMENT (TE)
PERMANENT EASEMENT (PE)
N
0 20 40 60
SCALE IN FEET

MODEL: Sheet 5
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\09L0179B-SHT-Track-Fencing Access.dgn

HANSON

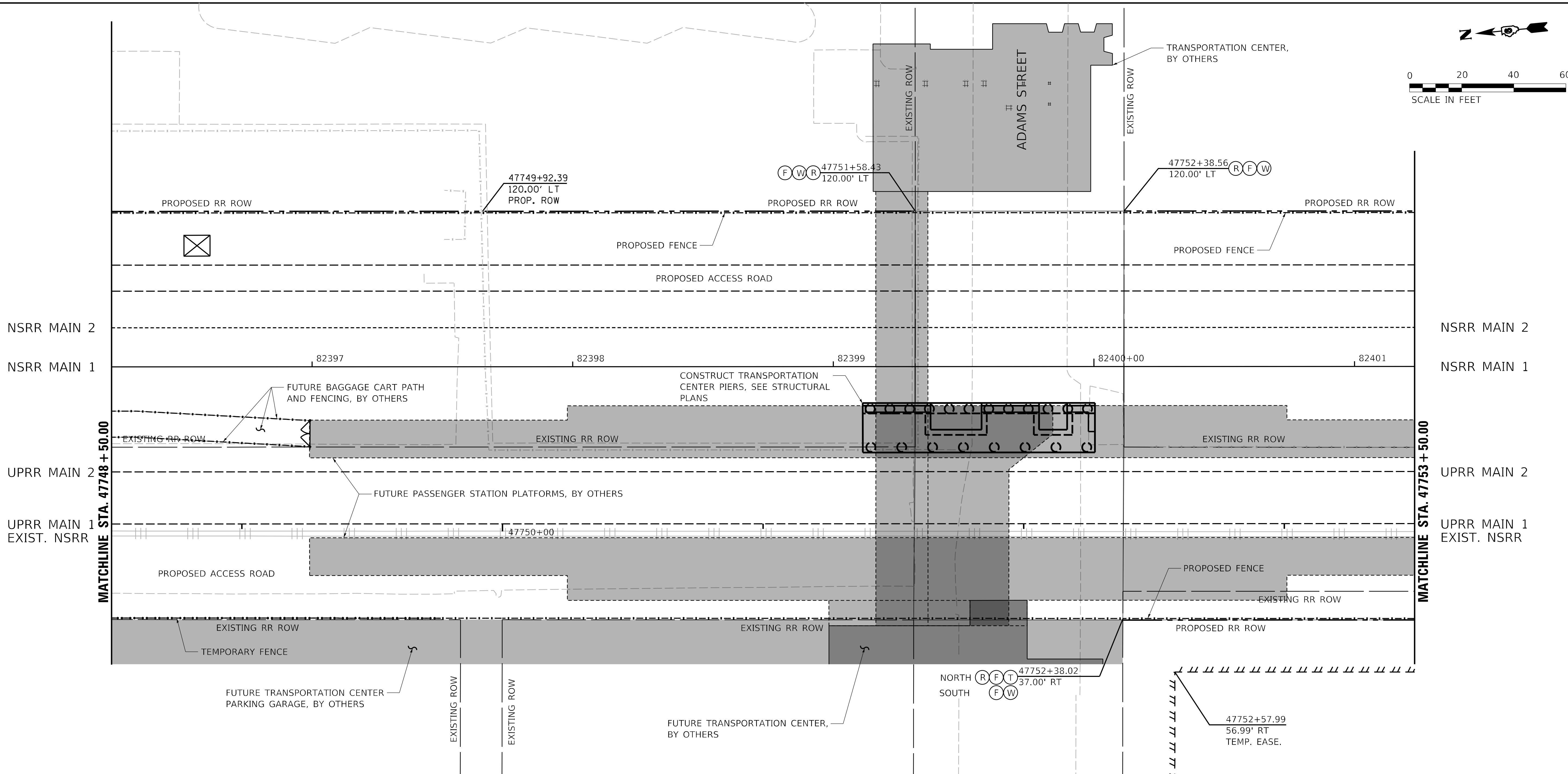
USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 5

SCALE: SHEET 5 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	224
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

MODEL: Sheet 6
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\D09L0179B-SHT-Track-Fencing Access.dgn

HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN - TRACK - 6

SCALE: SHEET 6 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	225
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		

0 20 40 60
SCALE IN FEET

EXISTING ROW
PROPOSED ROW
EXISTING ROW
MONROE STREET
EXISTING ROW
PROPOSED ROW
EXISTING ROW

W F 47755+66.83 119.42' LT
47755+65.83 120.00' LT PROP. ROW
F W 47756+49.78 119.42' LT
47756+55.84 120.00' LT
PROPOSED RR ROW
PROPOSED FENCE
W F 47755+66.81 108.20' LT
47756+49.70 109.32' LT W F
W F 47756+04.08 108.17' LT
WOVEN WIRE GATES 4'X16' DOUBLE
PROPOSED ACCESS ROAD
PROPOSED ACCESS ROAD
PROPOSED FENCE
EXISTING ROW
EXISTING ROW
W F 47756+03.90 87.33' LT
47756+15.90 87.16' LT W F
NSRR MAIN 2
W F 47756+03.89 77.33' LT
47756+15.89 77.32' LT W F
NSRR MAIN 1
82402
82403
82404
82405+00
82406
NSRR MAIN 2
NSRR MAIN 1
W F 47756+03.86 45.36' LT
47756+15.86 45.35' LT W F
EXISTING RR ROW
EXISTING RR ROW
47755+61.97 14.97' RT W F
UPRR MAIN 2
UPRR MAIN 2
FUTURE BAGGAGE CART PATH AND FENCING, BY OTHERS
FUTURE PASSENGER STATION PLATFORM, BY OTHERS
W F 47756+03.80 16.16' RT
47756+15.80 16.00' RT W F
W F 47755+60.33 24.84' RT
47756+23.80 16.00' RT W F
UPRR MAIN 1 EXIST. NSRR
47755+00
UPRR MAIN 1 EXIST. NSRR
MATCHLINE STA. 47753+50.00
MATCHLINE STA. 47758+50.00
W F 47755+48.82 24.84' RT
47756+48.71 20.00' RT W F
47756+59.07 20.00' RT F W
WOVEN WIRE GATES 4'X16' DOUBLE
PROPOSED ACCESS ROAD
EXISTING RR ROW
PROPOSED FENCE
PROPOSED ACCESS ROAD
F W 47757+41.81 21.00' RT
PROPOSED FENCE
PROPOSED RR ROW
47756+59.07 21.00' F W
EXISTING RR ROW
TEMPORARY EASEMENT
W F 47755+48.82 36.47' RT
47755+69.26 37.05' RT PROP. ROW
47757+17.80 36.58' RT TEMP. EASE.
47757+41.80 36.00' RT
47757+17.79 41.58' RT TEMP. EASE.
47757+95.59 41.58' RT TEMP. EASE.
47757+95.59 37.45' RT TEMP. EASE.
TEMPORARY EASEMENT
47756+49.73 74.57' RT TEMP. EASE.
47755+39.24 57.05' RT TEMP. EASE.
47756+69.73 74.57' RT TEMP. EASE.
47755+39.22 77.25' RT TEMP. EASE.
TEMP. EASE.
47755+69.21 77.26' RT TEMP. EASE.
MONROE STREET
47756+69.64 116.98' RT TEMP. EASE.
47756+49.64 116.97' RT TEMP. EASE.
EXISTING ROW
EXISTING ROW

FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (D) CHAIN LINK FENCE 4' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

MODEL: Sheet 7
FILE NAME: p:\hansonmc-piw.bentley.com\hanson-piw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\D609L0179B-SHT-Track-Fencing_Access.dgn

HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 7

SCALE: | SHEET 7 OF 8 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	226
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

47760+62.34 F C
182.26' LT

47760+62.29 F C
163.07' LT

CHAIN LINK GATES (SPECIAL),
8'X24' DOUBLE

47760+62.23 F C
139.07' LT

47760+62.18
120.00' LT
PROP. ROW

47759+81.85
120.00' LT
PROP. ROW

W F 47759+66.63
119.42' LT

47760+62.18 F C
119.48' LT

47760+76.68 W C
119.41' LT

47761+26.89 F C
119.42' LT

PROPOSED RR ROW

PROPOSED RR ROW

47760+76.63 W P
102.42' LT

PROPOSED FENCE

W F 47759+66.63
102.24' LT

EXISTING FENCE

+40.47

PROPOSED ACCESS ROAD

WOVEN WIRE GATES
4'X16' DOUBLE

WOVEN WIRE GATES
4'X16' DOUBLE

PROPOSED ACCESS ROAD

EXISTING ACCESS ROAD

W F 47759+66.62
86.24' LT

47760+76.62 W F
86.42' LT

CAPITOL AVENUE

NSRR MAIN 2

NSRR MAIN 2

W F 47759+81.53
78.45' LT

47760+61.69 W F
78.57' LT

NSRR MAIN 1

82407

82408

82409

82410+00

82411

NSRR MAIN 1

W F 47759+88.33
45.33' LT

47760+54.83 W F
45.33' LT

EXISTING RR ROW

EXISTING RR ROW

UPRR MAIN 2

MATCHLINE STA. 47758+50.00

W F 47759+88.28
9.00' RT

47760+54.78 W F
9.00' RT

W F 47759+80.57
18.09' RT

47760+61.61 W F
18.12' RT

UPRR MAIN 1
EXIST. NSRR

47760+00

MATCHLINE STA. 47763+50.00

UPRR MAIN 2

UPRR MAIN 1
EXIST. NSRR

W F 47759+67.15
17.34' RT

47760+75.92 W F
18.16' RT

WOVEN WIRE GATES
4'X16' DOUBLE

PROPOSED ACCESS ROAD

WOVEN WIRE GATES
4'X16' DOUBLE

PROPOSED ACCESS ROAD

EXISTING ACCESS ROAD

PROPOSED FENCE

W F 47759+63.82
32.99' RT

PROPOSED FENCE

EXISTING RR ROW

EXISTING RR ROW

+40.47

47758+88.44
37.46' RT
TEMP. EASE.

W F 47759+63.25
36.02' RT

47759+58.49
37.15' RT
TEMP. EASE.

47761+09.95 W F
36.03' RT

47760+79.64 W F
36.03' RT

TEMPORARY EASEMENT

47759+33.44
46.60' RT
TEMP. EASE.

47759+33.44
37.15' RT
TEMP. EASE.

47759+71.48
41.60' RT
TEMP. EASE.

47758+88.44
46.59' RT
TEMP. EASE.

47760+79.12 W F
33.84' RT

TEMPORARY EASEMENT

CAPITOL AVENUE

47759+71.31
117.07' RT
TEMP. EASE.

47759+81.31
117.07' RT
TEMP. EASE.

NOTE:
GATE OFFSETS ARE THE GATE OPENING, NOT THE CENTER OF THE POST. SEE FENCING STANDARDS.

FENCING /ACCESS LEGEND:

- (R) ROW LOCATION CALLOUT. WHERE PROPOSED FENCE SHALL BE CONSTRUCTED ADJACENT TO ROW, CONSTRUCT ON RR ROW AT AN OFFSET OF 7" IN FROM ROW LINE TO ℄ POST UNLESS OTHERWISE NOTED WITH AN (F).
- (F) FENCE LOCATION CALLOUT.
- (T) TEMPORARY FENCE
- (C) CHAIN LINK FENCE 8' (SPECIAL)
- (D) CHAIN LINK FENCE 4' (SPECIAL)
- (W) WOVEN WIRE FENCE 4'

- EXISTING FENCE
- PROPOSED FENCE TO BE CONSTRUCTED AND MAINTAINED.
- LIMITS OF PROPOSED 10' WIDE MAINTENANCE ROAD, ACCESS ENTRANCES AND TURNAROUNDS. SEE DETAIL SHEETS FOR LAYOUT AND MATERIALS.
- PROPOSED ROW
- TEMPORARY EASEMENT (TE)
- PERMANENT EASEMENT (PE)

N

0 20 40 60

SCALE IN FEET

HANSON

USER NAME = Pop00275	DESIGNED - MNM	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
FENCING AND ACCESS PLAN – TRACK – 8

SCALE: | SHEET 8 OF 8 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	227
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

MODEL: Sheet 8
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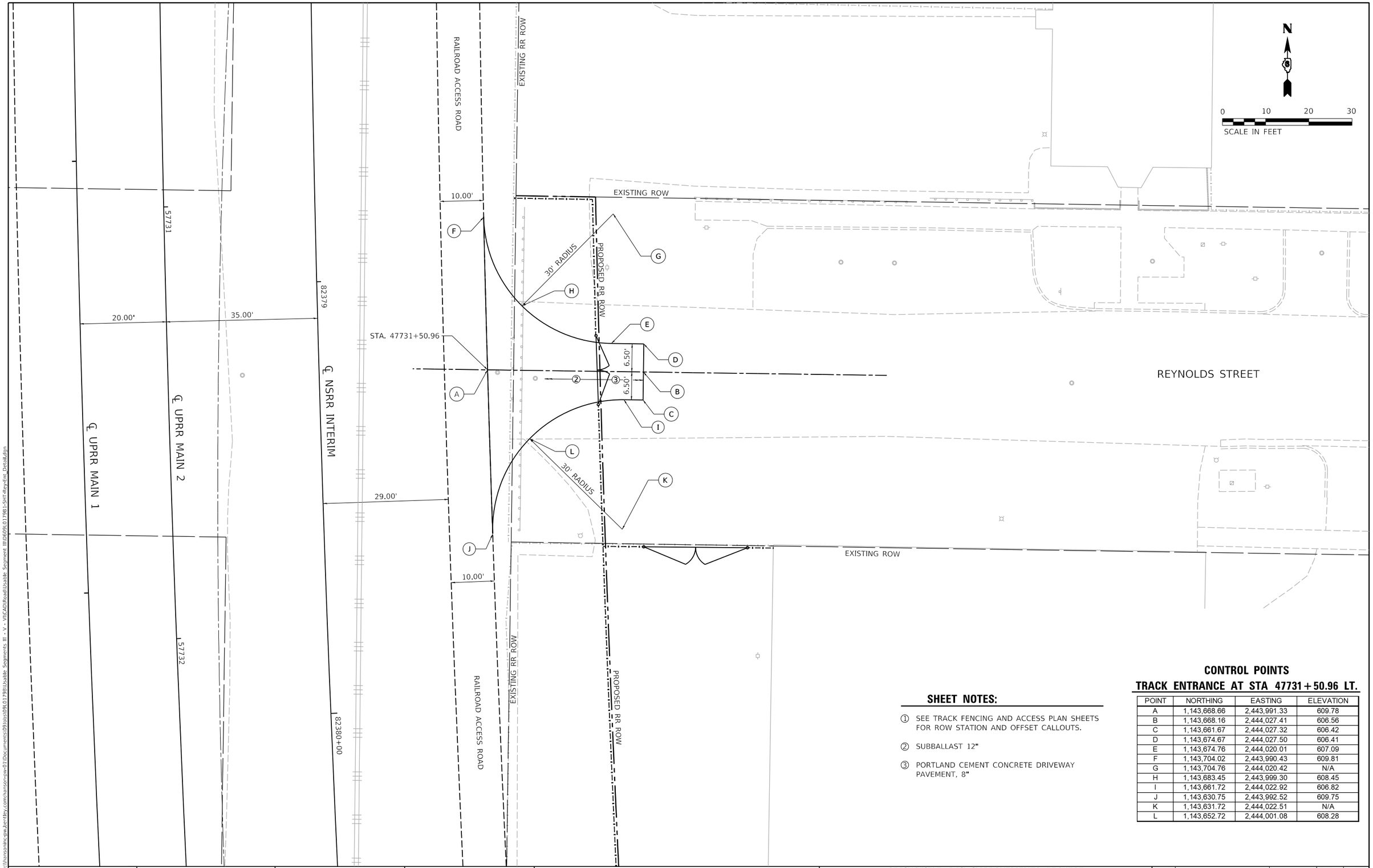


SHEET NOTES:

1. SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.
2. SUBBALLAST 12"
3. PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8"

CONTROL POINTS
TRACK ENTRANCE AT STA 47731+50.96 LT.

POINT	NORTHING	EASTING	ELEVATION
A	1,143,668.66	2,443,991.33	609.78
B	1,143,668.16	2,444,027.41	606.56
C	1,143,661.67	2,444,027.32	606.42
D	1,143,674.67	2,444,027.50	606.41
E	1,143,674.76	2,444,020.01	607.09
F	1,143,704.02	2,443,990.43	609.81
G	1,143,704.76	2,444,020.42	N/A
H	1,143,683.45	2,443,999.30	608.45
I	1,143,661.72	2,444,022.92	606.82
J	1,143,630.75	2,443,992.52	609.75
K	1,143,631.72	2,444,022.51	N/A
L	1,143,652.72	2,444,001.08	608.28

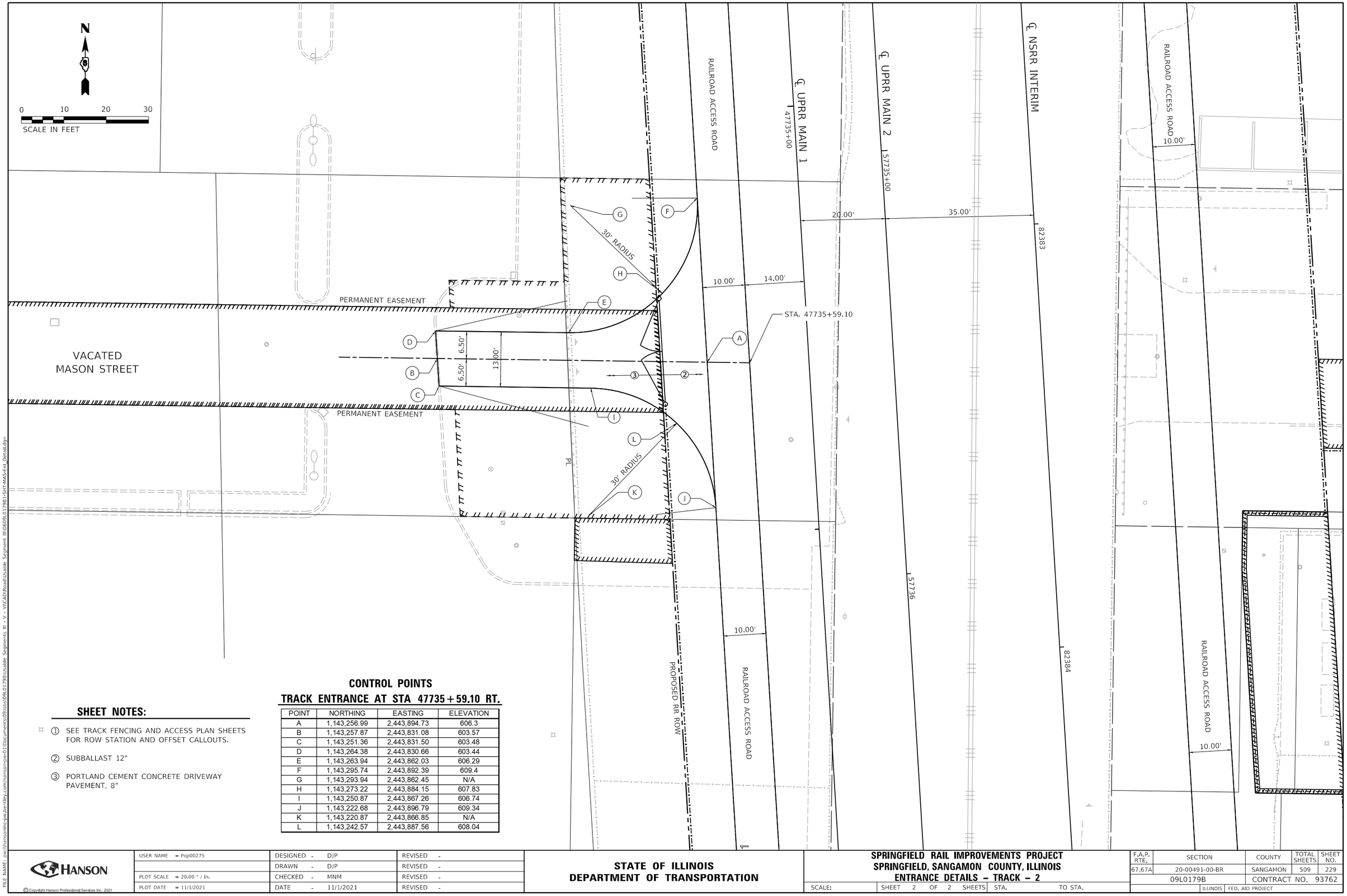
USER NAME = Pop00275	DESIGNED - DJP	REVISED -
	DRAWN - DJP	REVISED -
PLOT SCALE = 20.00 ' / in.	CHECKED - MNM	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ENTRANCE DETAILS – TRACK – 1

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	228
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



SHEET NOTES:

① SEE TRACK FENCING AND ACCESS PLAN SHEETS FOR ROW STATION AND OFFSET CALLOUTS.

② SUBBALLAST 12"

③ PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8"

CONTROL POINTS
TRACK ENTRANCE AT STA 47735+59.10 RT.

POINT	NORTHING	EASTING	ELEVATION
A	1,143,256.99	2,443,894.73	606.3
B	1,143,257.87	2,443,831.08	603.57
C	1,143,251.36	2,443,831.50	603.48
D	1,143,264.38	2,443,830.66	603.44
E	1,143,263.94	2,443,862.03	606.29
F	1,143,295.74	2,443,892.39	609.4
G	1,143,293.94	2,443,862.45	N/A
H	1,143,273.22	2,443,884.15	607.83
I	1,143,250.87	2,443,867.26	606.74
J	1,143,222.68	2,443,896.79	609.34
K	1,143,220.87	2,443,866.85	N/A
L	1,143,242.57	2,443,887.56	608.04

MODEL: Default
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HANSON

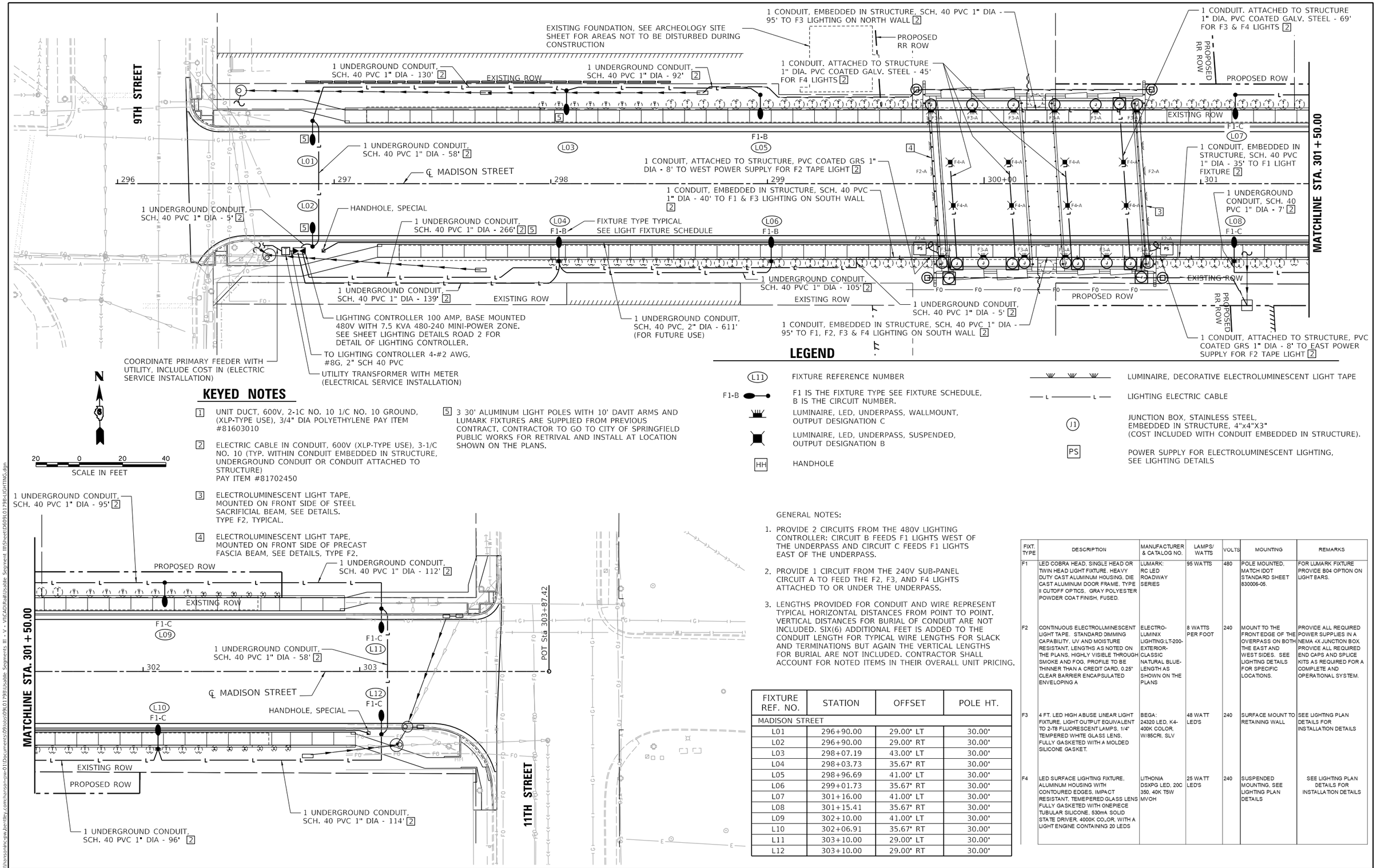
USER NAME = Pop00275	DESIGNED - DJP	REVISED -	
	DRAWN - DJP	REVISED -	
PLOT SCALE = 20.00 ' / in.	CHECKED - MNM	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
ENTRANCE DETAILS – TRACK – 2

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	229
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



KEYED NOTES

1. UNIT DUCT, 600V, 2-1C NO. 10 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA POLYETHYLENE PAY ITEM #81603010
2. ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 10 (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE) PAY ITEM #81702450
3. ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF STEEL SACRIFICIAL BEAM, SEE DETAILS. TYPE F2, TYPICAL.
4. ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF PRECAST FASCIA BEAM, SEE DETAILS, TYPE F2.
5. 3 30' ALUMINUM LIGHT POLES WITH 10' DAVIT ARMS AND LUMARK FIXTURES ARE SUPPLIED FROM PREVIOUS CONTRACT. CONTRACTOR TO GO TO CITY OF SPRINGFIELD PUBLIC WORKS FOR RETRIVAL AND INSTALL AT LOCATION SHOWN ON THE PLANS.

LEGEND

- (L11) — FIXTURE REFERENCE NUMBER
- F1-B — F1 IS THE FIXTURE TYPE SEE FIXTURE SCHEDULE, B IS THE CIRCUIT NUMBER.
- LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION C
- LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION B
- HH — HANDHOLE
- LUMINAIRE, DECORATIVE ELECTROLUMINESCENT LIGHT TAPE
- LIGHTING ELECTRIC CABLE
- (J1) — JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 4"x4"X3" (COST INCLUDED WITH CONDUIT EMBEDDED IN STRUCTURE).
- PS — POWER SUPPLY FOR ELECTROLUMINESCENT LIGHTING, SEE LIGHTING DETAILS

GENERAL NOTES:

1. PROVIDE 2 CIRCUITS FROM THE 480V LIGHTING CONTROLLER: CIRCUIT B FEEDS F1 LIGHTS WEST OF THE UNDERPASS AND CIRCUIT C FEEDS F1 LIGHTS EAST OF THE UNDERPASS.
2. PROVIDE 1 CIRCUIT FROM THE 240V SUB-PANEL CIRCUIT A TO FEED THE F2, F3, AND F4 LIGHTS ATTACHED TO OR UNDER THE UNDERPASS.
3. LENGTHS PROVIDED FOR CONDUIT AND WIRE REPRESENT TYPICAL HORIZONTAL DISTANCES FROM POINT TO POINT. VERTICAL DISTANCES FOR BURIAL OF CONDUIT ARE NOT INCLUDED. SIX(6) ADDITIONAL FEET IS ADDED TO THE CONDUIT LENGTH FOR TYPICAL WIRE LENGTHS FOR SLACK AND TERMINATIONS BUT AGAIN THE VERTICAL LENGTHS FOR BURIAL ARE NOT INCLUDED. CONTRACTOR SHALL ACCOUNT FOR NOTED ITEMS IN THEIR OVERALL UNIT PRICING.

FIXTURE REF. NO.	STATION	OFFSET	POLE HT.
MADISON STREET			
L01	296+90.00	29.00' LT	30.00'
L02	296+90.00	29.00' RT	30.00'
L03	298+07.19	43.00' LT	30.00'
L04	298+03.73	35.67' RT	30.00'
L05	298+96.69	41.00' LT	30.00'
L06	299+01.73	35.67' RT	30.00'
L07	301+16.00	41.00' LT	30.00'
L08	301+15.41	35.67' RT	30.00'
L09	302+10.00	41.00' LT	30.00'
L10	302+06.91	35.67' RT	30.00'
L11	303+10.00	29.00' LT	30.00'
L12	303+10.00	29.00' RT	30.00'

FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	LED COBRA HEAD, SINGLE HEAD OR TWIN HEAD LIGHT FIXTURE. HEAVY DUTY CAST ALUMINUM HOUSING. DIE CAST ALUMINUM DOOR FRAME, TYPE II CUTOFF OPTICS. GRAY POLYESTER POWDER COAT FINISH, FUSED.	LUMARK: RC LED ROADWAY SERIES	95 WATTS	480	POLE MOUNTED, MATCH IDOT STANDARD SHEET 830006-05.	FOR LUMARK FIXTURE PROVIDE B04 OPTION ON LIGHT EARS.
F2	CONTINUOUS ELECTROLUMINESCENT LIGHT TAPE. STANDARD DIMMING CAPABILITY. UV AND MOISTURE RESISTANT. LENGTHS AS NOTED ON THE PLANS. HIGHLY VISIBLE THROUGH SMOKE AND FOG. PROFILE TO BE THINNER THAN A CREDIT CARD, 0.25" CLEAR BARRIER ENCAPSULATED ENVELOPING A	ELECTRO-LUMINIX LIGHTING:LT-200-EXTERIOR-CLASSIC NATURAL BLUE- LENGTH AS SHOWN ON THE PLANS	8 WATTS PER FOOT	240	MOUNT TO THE FRONT EDGE OF THE OVERPASS ON BOTH THE EAST AND WEST SIDES. SEE LIGHTING DETAILS FOR SPECIFIC LOCATIONS.	PROVIDE ALL REQUIRED POWER SUPPLIES IN A NEMA 4X JUNCTION BOX. PROVIDE ALL REQUIRED END CAPS AND SPLICE KITS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
F3	4 FT. LED HIGH ABUSE LINEAR LIGHT FIXTURE, LIGHT OUTPUT EQUIVALENT TO 2-T8 FLUORESCENT LAMPS, 1/4" TEMPERED WHITE GLASS LENS, FULLY GASKETED WITH A MOLDED SILICONE GASKET.	BEGA: 24320 LED, K4-400K COLOR, W/85CRI, SLV	48 WATT LED'S	240	SURFACE MOUNT TO RETAINING WALL	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS
F4	LED SURFACE LIGHTING FIXTURE, ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMEPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDS	LITHONIA DSXPG LED, 20C 350, 40K T5W MVOH	25 WATT LED'S	240	SUSPENDED MOUNTING, SEE LIGHTING PLAN DETAILS	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS

USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN – MADISON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	230
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet 1
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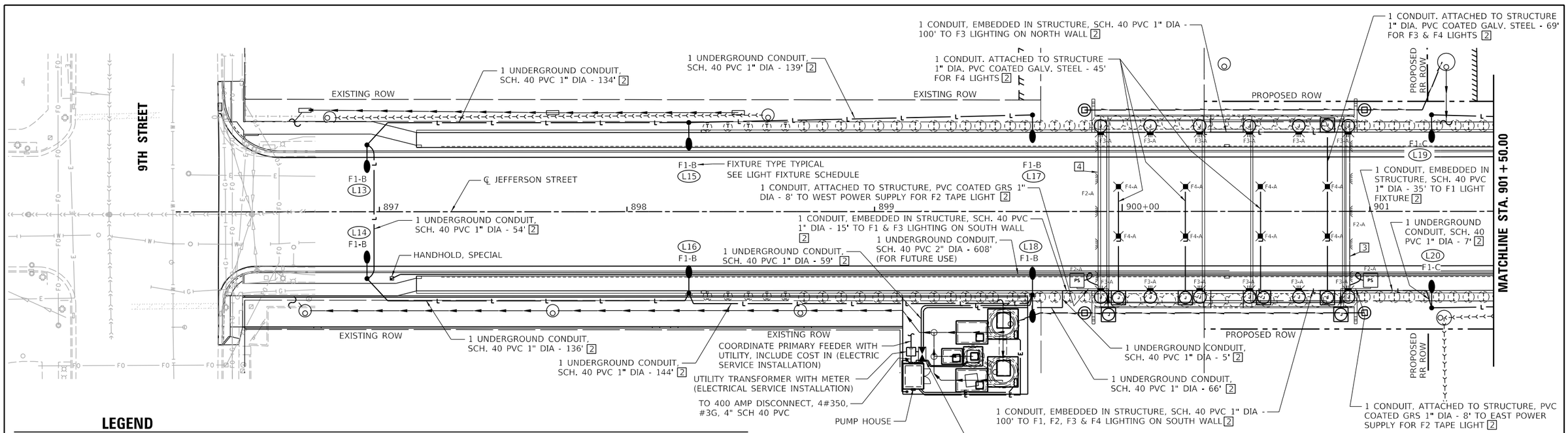


LEGEND

- L11 — FIXTURE REFERENCE NUMBER
- F1-B — F1 IS THE FIXTURE TYPE SEE FIXTURE SCHEDULE, B IS THE CIRCUIT NUMBER.
- LUMINAIRE, LED, UNDERPASS, WALLMOUNT, OUTPUT DESIGNATION C
- LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION B
- HH — HANDHOLE
- J1 — JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 4"x4"X3" (COST INCLUDED WITH CONDUIT EMBEDDED IN STRUCTURE).
- PS — POWER SUPPLY FOR ELECTROLUMINESCENT LIGHTING, SEE LIGHTING DETAILS
- LUMINAIRE, DECORATIVE ELECTROLUMINESCENT LIGHT TAPE
- E — ELECTRICAL CABLE (COST INCLUDED WITH PUMP STATION ELECTRICAL WORK)
- L — LIGHTING ELECTRIC CABLE

N

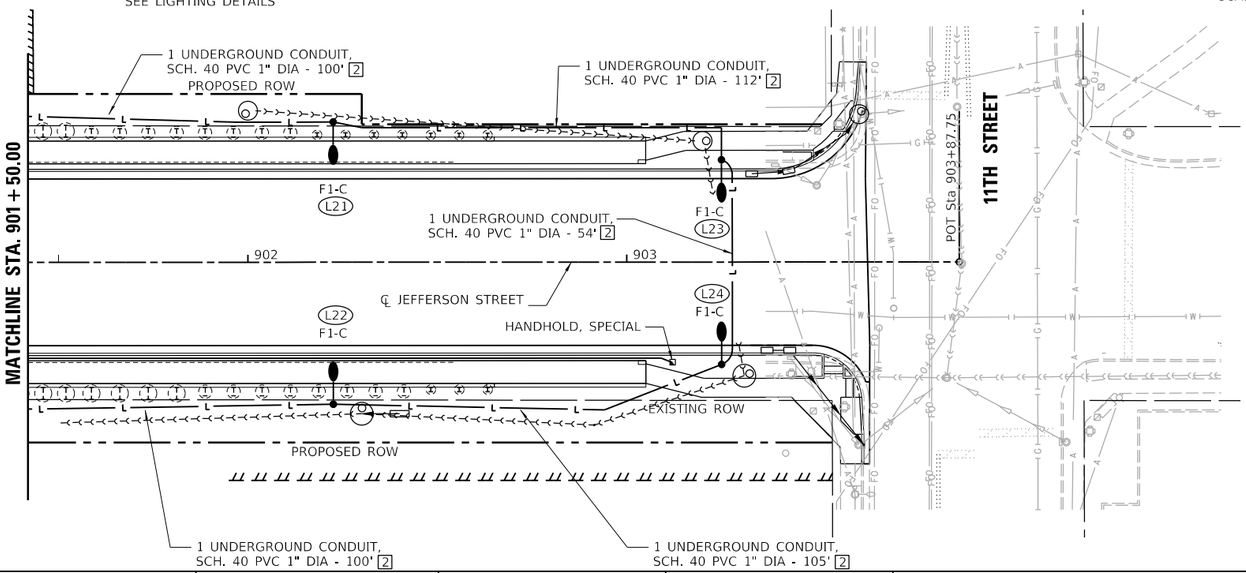
20 0 20 40
SCALE IN FEET

KEYED NOTES

1. UNIT DUCT, 600V, 2-1C NO. 10 1/C NO. 10 GROUND, (XLP-TYPE USE), 3/4" DIA POLYETHYLENE PAY ITEM #81603010
2. ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 10 (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE) PAY ITEM #81702450
3. ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF STEEL SACRIFICIAL BEAM, SEE DETAILS. TYPE F2, TYPICAL.
4. ELECTROLUMINESCENT LIGHT TAPE, MOUNTED ON FRONT SIDE OF PRECAST FASCIA BEAM, SEE DETAILS, TYPE F2.

GENERAL NOTES:

1. PROVIDE 2 CIRCUITS FROM THE 480V LIGHTING CONTROLLER: CIRCUIT B FEEDS F1 LIGHTS WEST OF THE UNDERPASS AND CIRCUIT C FEEDS F1 LIGHTS EAST OF THE UNDERPASS
2. PROVIDE 1 CIRCUIT FROM THE 240V SUB PANEL CIRCUIT A TO FEED THE F2, F3, AND F4 LIGHTS ATTACHED TO OR UNDER THE UNDERPASS.
3. LENGTHS PROVIDED FOR CONDUIT AND WIRE REPRESENT TYPICAL HORIZONTAL DISTANCES FROM POINT TO POINT. VERTICAL DISTANCES FOR BURIAL OF CONDUIT ARE NOT INCLUDED. SIX(6) ADDITIONAL FEET IS ADDED TO THE CONDUIT LENGTH FOR TYPICAL WIRE LENGTHS FOR SLACK AND TERMINATIONS BUT AGAIN THE VERTICAL LENGTHS FOR BURIAL ARE NOT INCLUDED. CONTRACTOR SHALL ACCOUNT FOR NOTED ITEMS IN THEIR OVERALL UNIT PRICING.



FIXTURE REF. NO.	STATION	OFFSET	POLE HT.
JEFFERSON STREET			
L13	896+95.00	27.00' LT	30.00'
L14	896+95.00	27.00' RT	30.00'
L15	898+25.00	36.00' LT	30.00'
L16	898+25.00	33.00' RT	30.00'
L17	899+63.79	39.00' LT	30.00'
L18	899+63.79	33.67' RT	30.00'
L19	901+25.00	39.00' RT	30.00'
L20	901+25.00	39.00' RT	30.00'
L21	902+22.50	37.00' LT	30.00'
L22	902+22.50	37.50' RT	30.00'
L23	903+25.00	27.00' LT	30.00'
L24	903+25.00	27.00' RT	30.00'

FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	LED COBRA HEAD, SINGLE HEAD OR TWIN HEAD LIGHT FIXTURE, HEAVY DUTY CAST ALUMINUM HOUSING, DIE CAST ALUMINUM DOOR FRAME, TYPE II CUTOFF OPTICS, GRAY POLYESTER POWDER COAT FINISH, FUSED.	LUMARK: RC LED ROADWAY SERIES	95 WATTS	480	POLE MOUNTED, MATCH IDOT STANDARD SHEET 830006-05.	FOR LUMARK FIXTURE PROVIDE B04 OPTION ON LIGHT BARS.
F2	CONTINUOUS ELECTROLUMINESCENT LIGHT TAPE. STANDARD DIMMING CAPABILITY, UV AND MOISTURE RESISTANT, LENGTHS AS NOTED ON THE PLANS. HIGHLY VISIBLE THROUGH SMOKE AND FOG. PROFILE TO BE THINNER THAN A CREDIT CARD, 0.25" CLEAR BARRIER ENCAPSULATED ENVELOPING A	ELECTRO-LUMINIX LIGHTING:LT-200-EXTERIOR-CLASSIC NATURAL BLUE- LENGTH AS SHOWN ON THE PLANS	8 WATTS PER FOOT	240	MOUNT TO THE FRONT EDGE OF THE OVERPASS ON BOTH THE EAST AND WEST SIDES. SEE LIGHTING DETAILS FOR SPECIFIC LOCATIONS.	PROVIDE ALL REQUIRED POWER SUPPLIES IN A NEMA 4X JUNCTION BOX. PROVIDE ALL REQUIRED END CAPS AND SPLICE KITS AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.
F3	4 FT. LED HIGH ABUSE LINEAR LIGHT FIXTURE, LIGHT OUTPUT EQUIVALENT TO 2-T8 FLUORESCENT LAMPS, 1/4" TEMPERED WHITE GLASS LENS, FULLY GASKETED WITH A MOLDED SILICONE GASKET.	BEGA: 24320 LED, K4-400K COLOR, W/85CRI, SLV	48 WATT LED'S	240	SURFACE MOUNT TO RETAINING WALL	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS
F4	LED SURFACE LIGHTING FIXTURE, ALUMINUM HOUSING WITH CONTOURED EDGES, IMPACT RESISTANT, TEMEPERED GLASS LENS FULLY GASKETED WITH ONEPIECE TUBULAR SILICONE, 530mA SOLID STATE DRIVER, 4000K COLOR, WITH A LIGHT ENGINE CONTAINING 20 LEDS	LITHONIA DSXPG LED, 20C 350, 40K T5W MVOH	25 WATT LED'S	240	SUSPENDED MOUNTING, SEE LIGHTING PLAN DETAILS	SEE LIGHTING PLAN DETAILS FOR INSTALLATION DETAILS

HANSON

USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN – JEFFERSON STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	231
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

MODEL: Sheet 2
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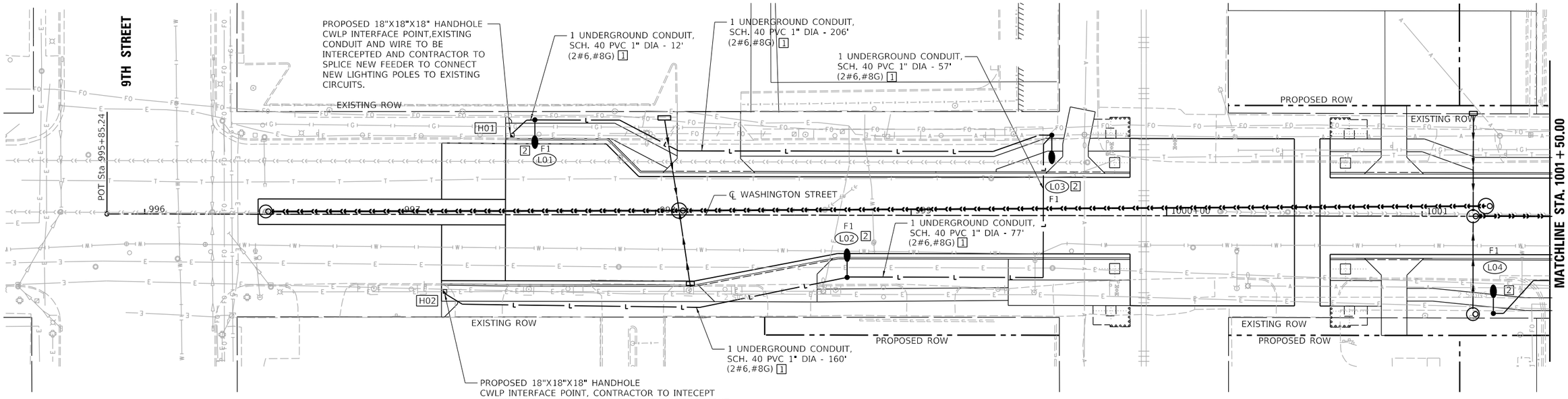
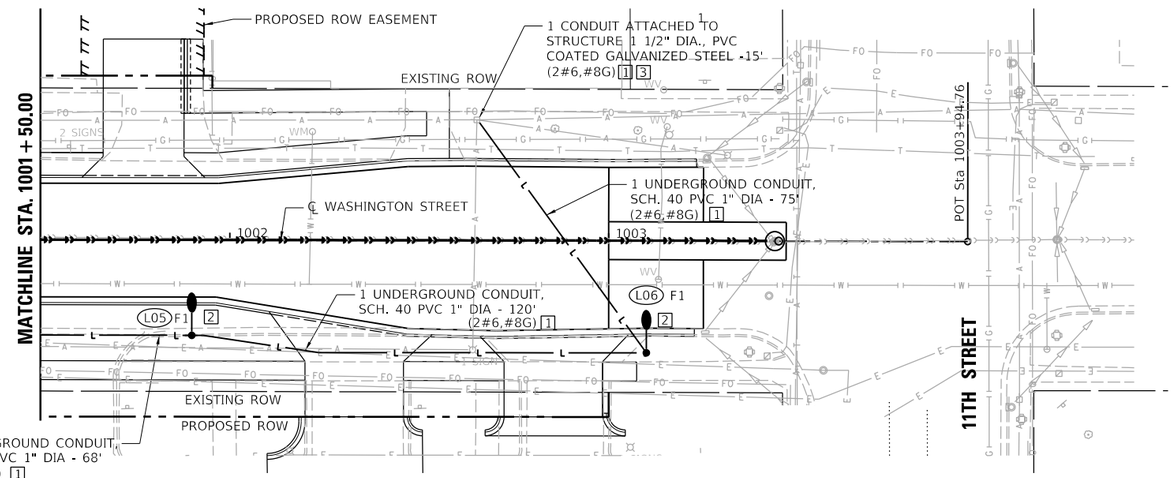


HANDHOLE REF. NO.	STATION	OFFSET	SIZE
WASHINGTON STREET			
H01	997+50.00	36.00' RT	18"X18"X18"
H02	997+50.00	37.00' LT	18"X18"X18"

FIXTURE REF. NO.	STATION	OFFSET	POLE HT.	NOTES
WASHINGTON STREET				
L01	997+53.00	37.09' LT	27.00'	
L02	998+75.00	24.33' RT	27.00'	
L03	999+55.00	31.48' LT	27.00'	
L04	1001+28.00	38.00' RT	27.00'	
L05	1001+90.00	25.10' RT	27.00'	
L06	1003+10.00	29.60' RT	27.00'	



KEYED NOTES

1 ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1-1/C NO. 6 (PAY ITEM #81702130), 1-1/C NO. 8 (PAY ITEM #81702120) (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE)

2 CONTRACTOR TO PROVIDE AND INSTALL WIRE, CONDUIT, FOUNDATION, LIGHT POLE, AND FIXTURE PER THE CWLP STANDARDS.

3 VERTICAL RUN UP EXISTING POWER POLE. LEAVE 10' OF SLACK WIRE TO CONNECT TO ELECTRICAL SYSTEM. COORDINATE WITH CWLP ON CONNECTING TO ELECTRICAL SYSTEM. ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 6 (PAY ITEM #81702130), 1-1/C NO. 8 (PAY ITEM #81702120) (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE)

LEGEND

- (L11) FIXTURE REFERENCE NUMBER
- LIGHT POLE
- ELECTRICAL HANDHOLE
- L LIGHTING ELECTRIC CABLE

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	27' HIGH ROUND 16 FLUTED DECORATE R100 STEEL POLE LIGHTING FIXTURE. TEARDROP RENAISSANCE WITH MAST DEC DOUBLE BENT 5FT FOR RN20 LUMINAIRE, HOUSING WITH DECROATIVE CROWN, WEATHERPROOF, 250W HPS, TYPE 3 DISTRIBUTION.	LUMEC: RN20-250HPS=THA3-ACDR-QTA/240-SMA-CR1-RC-BKTX	250W HPS 3000K	MVOLT	POLE CATALOG: LUMEC: R100D-005-27-GFII-BKTX	PHOTO EYE RECETPACLE AND PHOTO EYE. BOLTED TO 30" FOUNDATION WITH REBAR CAGE.

GENERAL NOTE

1. SEE LIGHTING DETAILS-ROAD-4 SHEET LIGHT POLE AND FOUNDATION DETAIL.
2. LENGTHS PROVIDED FOR CONDUIT AND WIRE REPRESENT TYPICAL HORIZONTAL DISTANCES FROM POINT TO POINT. VERTICAL DISTANCES FOR BURIAL OF CONDUIT ARE NOT INCLUDED. SIX(6) ADDITIONAL FEET IS ADDED TO THE CONDUIT LENGTH FOR TYPICAL WIRE LENGTHS FOR SLACK AND TERMINATIONS BUT AGAIN THE VERTICAL LENGTHS FOR BURIAL ARE NOT INCLUDED. CONTRACTOR SHALL ACCOUNT FOR NOTED ITEMS IN THEIR OVERALL UNIT PRICING.

N

20 0 20 40
SCALE IN FEET

MODEL: Sheet 5
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HANSON

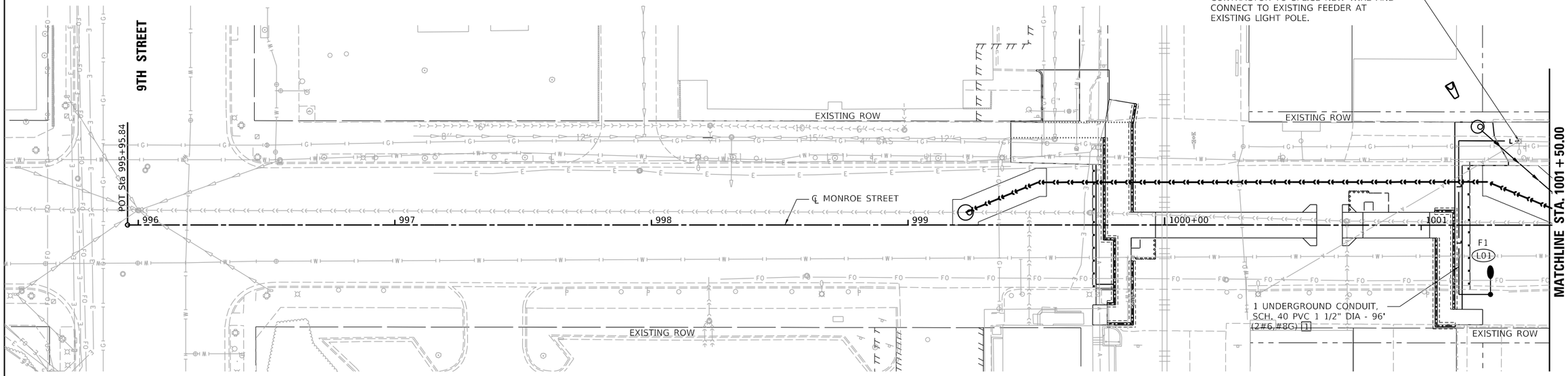
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN – WASHINGTON STREET

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	232
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



FIXTURE REF. NO.	STATION	OFFSET	POLE HT.	NOTES
MONROE STREET				
L01	1001+27.00	27.00' RT	27.00'	

KEYED NOTES

[1] ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 6 (PAY ITEM #81702130), 1-1/C NO. 8 (PAY ITEM #81702120) (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE)

[2] CONTRACTOR TO PROVIDE AND INSTALL WIRE, CONDUIT, FOUNDATION, LIGHT POLE, AND FIXTURE PER THE CWLP STANDARDS.

GENERAL NOTE

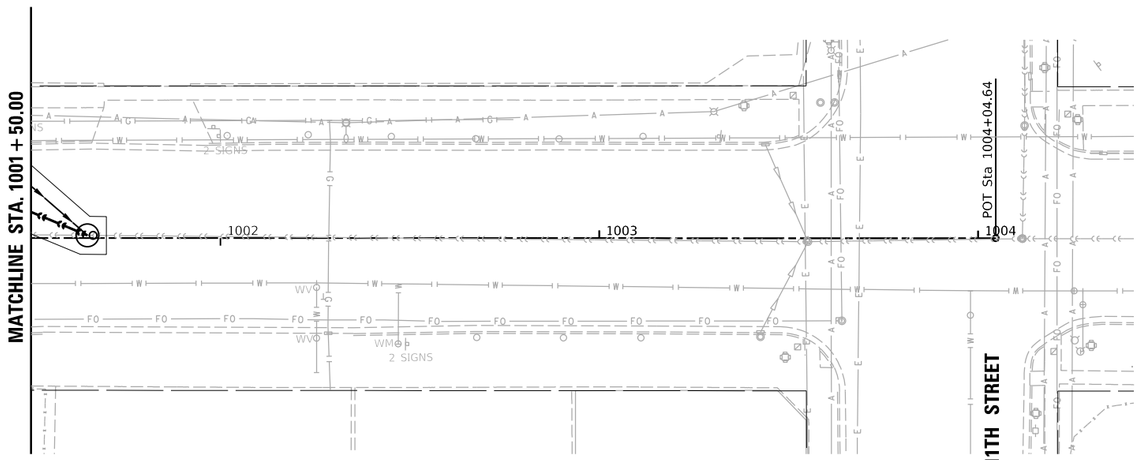
1. SEE LIGHTING DETAILS-ROAD-4 SHEET LIGHT POLE AND FOUNDATION DETAIL.

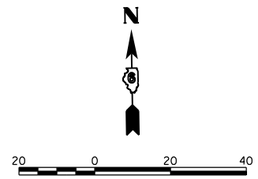
2. LENGTHS PROVIDED FOR CONDUIT AND WIRE REPRESENT TYPICAL HORIZONTAL DISTANCES FROM POINT TO POINT. VERTICAL DISTANCES FOR BURIAL OF CONDUIT ARE NOT INCLUDED. SIX(6) ADDITIONAL FEET IS ADDED TO THE CONDUIT LENGTH FOR TYPICAL WIRE LENGTHS FOR SLACK AND TERMINATIONS BUT AGAIN THE VERTICAL LENGTHS FOR BURIAL ARE NOT INCLUDED. CONTRACTOR SHALL ACCOUNT FOR NOTED ITEMS IN THEIR OVERALL UNIT PRICING.

LEGEND

L11	FIXTURE REFERENCE NUMBER
	LIGHT POLE
— L — L —	LIGHTING ELECTRIC CABLE

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	27' HIGH ROUND 16 FLUTED DECORATE R100 STEEL POLE LIGHTING FIXTURE. TEARDROP RENAISSANCE WITH MAST DEC DOUBLE BENT 5FT FOR RN20 LUMINAIRE, HOUSING WITH DECROATIVE CROWN, WEATHERPROOF, 250W HPS, TYPE 3 DISTRIBUTION.	LUMEC: RN20-250HPS=THA3-ACDR-QTA/240-SMA-CR1-RC-BKTX	250W HPS 3000K	MVOLT	POLE CATALOG: LUMEC: R100D-005-27-GFII-BKTX	PHOTO EYE RECETPACLE AND PHOTO EYE. BOLTED TO 30" FOUNDATION WITH REBAR CAGE.





HANSON

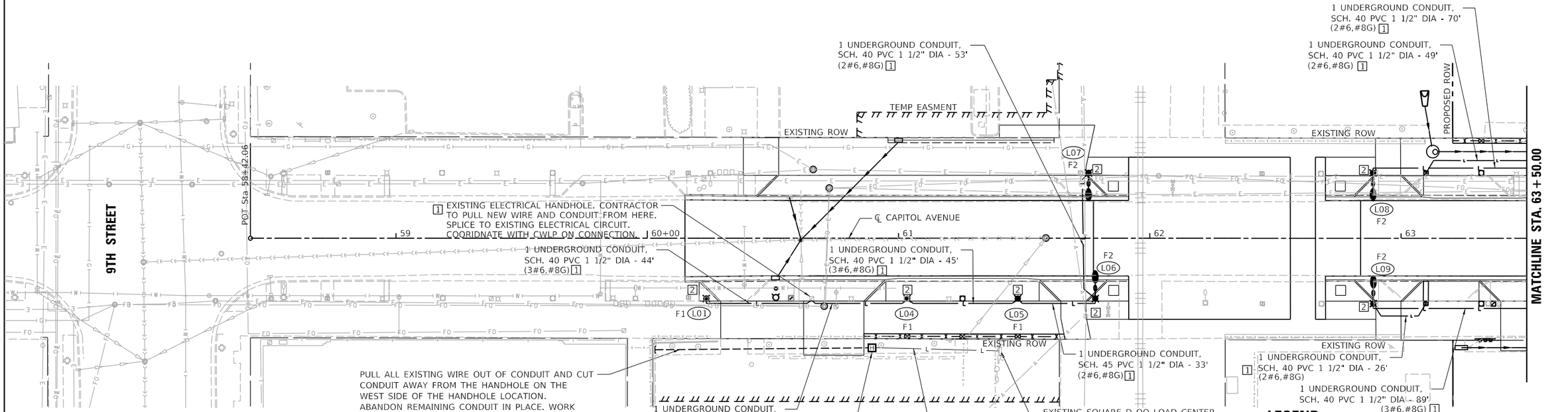
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN – MONROE STREET

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	233
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



FIXTURE REF. NO.	STATION	OFFSET	POLE HT.	NOTES
CAPITOL AVENUE				
L01	60+23.50	24.00' RT	10.50'	
L04	61+03.46	24.00' RT	10.50'	
L05	61+47.46	24.00' RT	10.50'	
L06	61+78.29	24.00' RT	27.00'	
L07	61+75.59	26.00' LT	27.00'	
L08	62+88.83	26.00' LT	27.00'	
L09	62+88.96	26.00' RT	27.00'	
L10	63+72.92	26.00' RT	27.00'	
L11	63+53.92	26.00' LT	10.50'	
L12	63+97.92	26.00' LT	27.00'	
L13	64+03.92	26.00' RT	10.50'	
L14	64+47.47	26.00' RT	10.50'	
L15	64+93.47	26.00' LT	10.50'	

GENERAL NOTE

1. SEE LIGHTING DETAILS-ROAD-4 SHEET LIGHT POLE AND FOUNDATION DETAIL.
2. LENGTHS PROVIDED FOR CONDUIT AND WIRE REPRESENT TYPICAL HORIZONTAL DISTANCES FROM POINT TO POINT. VERTICAL DISTANCES FOR BURIAL OF CONDUIT ARE NOT INCLUDED. SIX(6) ADDITIONAL FEET IS ADDED TO THE CONDUIT LENGTH FOR TYPICAL WIRE LENGTHS FOR SLACK AND TERMINATIONS BUT AGAIN THE VERTICAL LENGTHS FOR BURIAL ARE NOT INCLUDED. CONTRACTOR SHALL ACCOUNT FOR NOTED ITEMS IN THEIR OVERALL UNIT PRICING.

KEYED NOTES

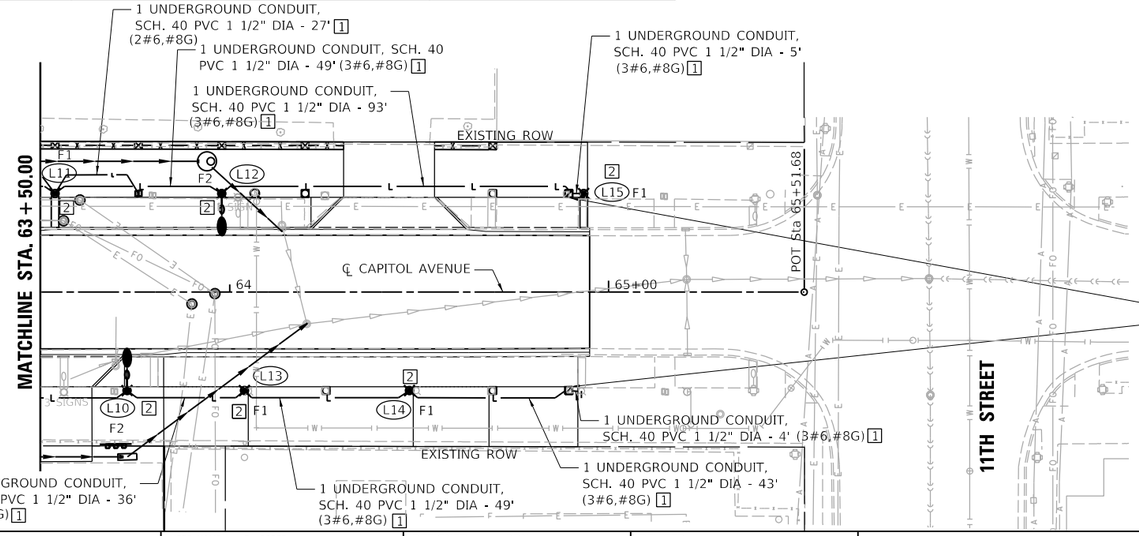
[1] ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 1/C NO. 6 (PAY ITEM #81702130), 1-1/C NO. 8 (PAY ITEM #81702120) (TYP. WITHIN CONDUIT EMBEDDED IN STRUCTURE, UNDERGROUND CONDUIT OR CONDUIT ATTACHED TO STRUCTURE)

[2] CONTRACTOR TO PROVIDE AND INSTALL WIRE, CONDUIT, FOUNDATION, LIGHT POLE, AND FIXTURE PER THE CWLP STANDARDS.

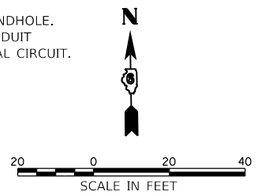
LEGEND

(L11)	FIXTURE REFERENCE NUMBER
	LIGHT POLE, DECORATIVE, STREET LIGHT, 27FT M.H.
	LIGHT POLE, DECORATIVE, STREET LIGHT, 10.5FT M.H.
	ELECTRICAL HANDHOLE
—— L —— L ——	LIGHTING ELECTRIC CABLE
	INTERPRATIVE MARKER

LIGHTING FIXTURE SCHEDULE						
FIXT. TYPE	DESCRIPTION	MANUFACTURER & CATALOG NO.	LAMPS/ WATTS	VOLTS	MOUNTING	REMARKS
F1	10'-6" SCP CENTRAL PARKPOST HIGH ROUND 12 FLUTED DECORATIVE POLE LIGHTING FIXTURE. 150W HPS, NON-CYCLING, DECORATIVE NYC CENTRAL PARK STANDARDIZED FRAME, VANDAL RESISTANCE ALUMINUM STRUCTURE AND POLYCARBONATE GLOBE. BLACK POWDER COATED FINISH	LUMEC: SCP-NB-LEDV29B-0.7A-830-KHT5-TLR7-BK	LED 3000K	MVOLT	POLE CATALOG: LUMEC: SAL-B-10'-6"-GFI	PHOTO EYE RECETPACLE AND PHOTO EYE. BOLTED TO 24" FOUNDATION WITH REBAR CAGE.
F2	27' HIGH ROUND 16 FLUTED DECORATE R100 STEEL POLE LIGHTING FIXTURE. TEARDROP RENAISSANCE WITH MAST DEC DOUBLE BENT 5FT FOR RN20 LUMINAIRE, HOUSING WITH DECROATIVE CROWN, WEATHERPROOF, 250W HPS, TYPE 3 DISTRIBUTION.	LUMEC: RN20-250HPS=THA3-ACDR-QTA/240-SMA-CR1-RC-BKTX	250W HPS 3000K	MVOLT	POLE CATALOG: LUMEC: R100D-005-27-GFII-BKTX	PHOTO EYE RECETPACLE AND PHOTO EYE. BOLTED TO 30" FOUNDATION WITH REBAR CAGE.



PROPOSED RELOCATION OF ELECTRICAL HANDHOLE. CONTRACTOR TO PULL NEW WIRE AND CONDUIT FROM HERE. SPLICE TO EXISTING ELECTRICAL CIRCUIT. COORIDNATE WITH CWLP ON CONNECTION.



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HANSON

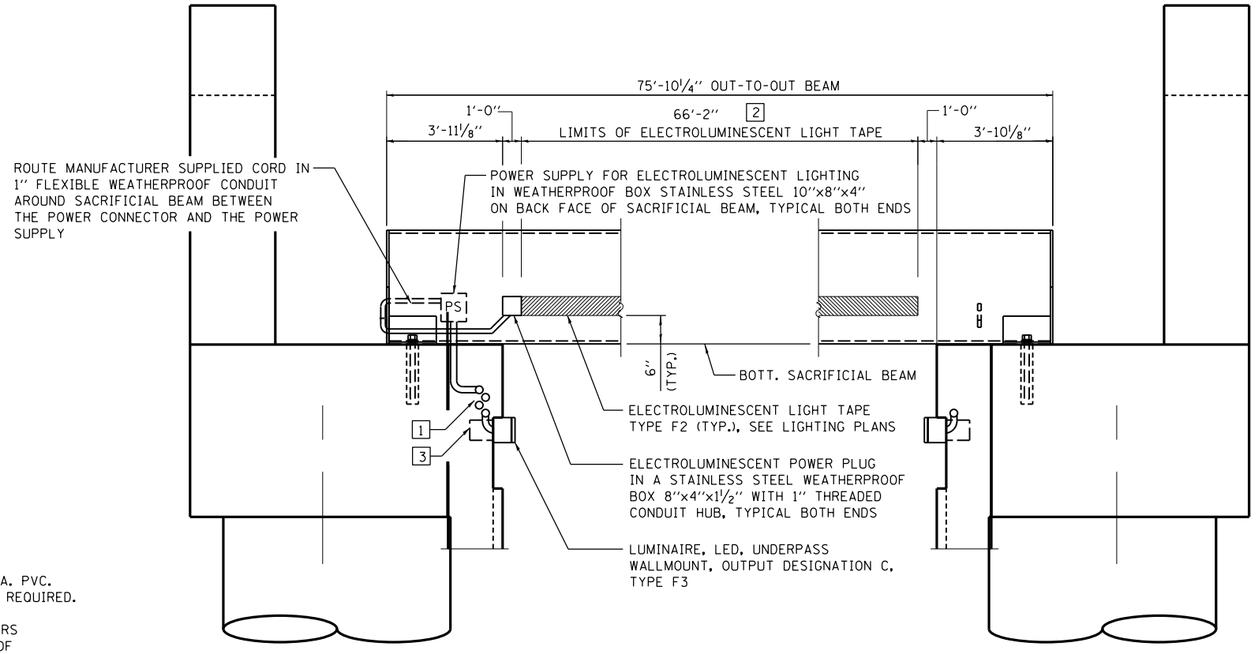
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 40.00 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING PLAN – CAPITOL AVENUE

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	234
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

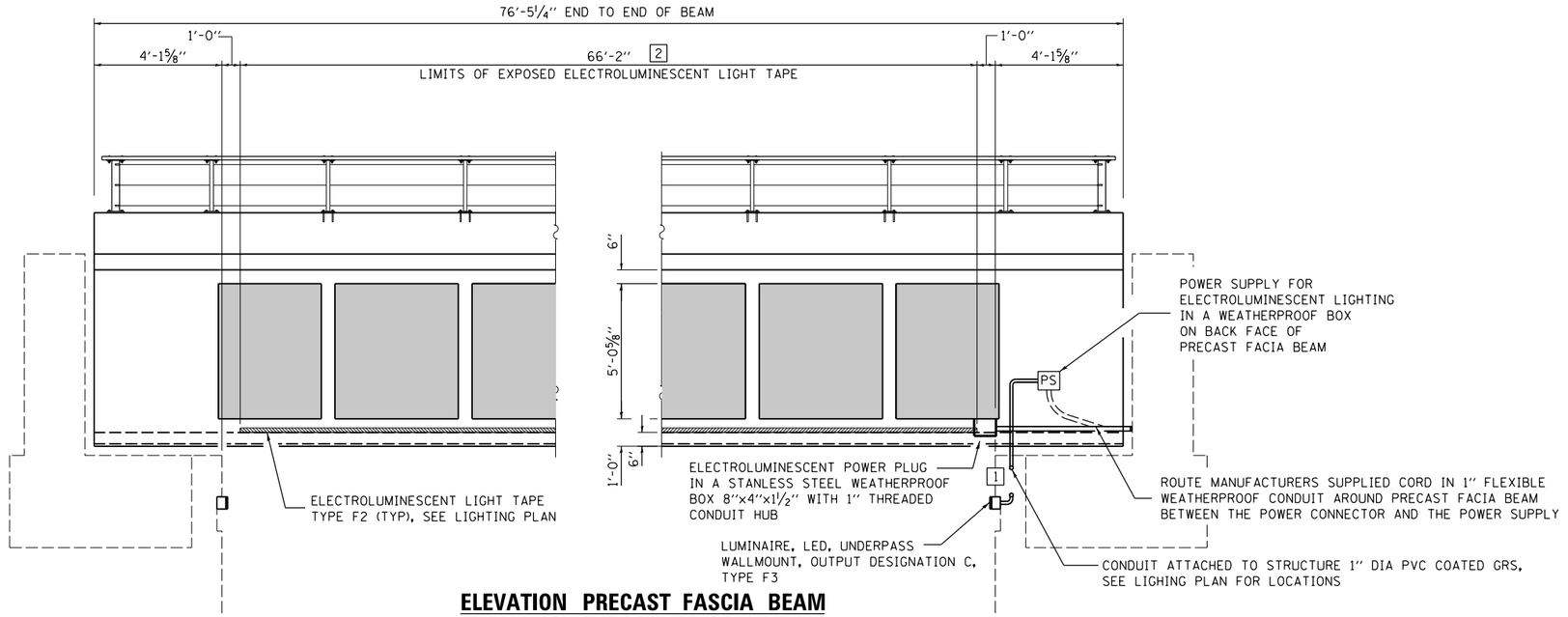


ELEVATION – STEEL SACRIFICIAL BEAM

(LOOKING WEST, NSRR BRIDGE)

KEYED NOTES:

1. TYPICAL ELECTRICAL CONDUITS EMBEDDED IN STRUCTURE 1" DIA. PVC. SEE LIGHTING PLAN FOR LOCATIONS AND NUMBER OF CONDUITS REQUIRED.
2. COORDINATE EXACT LENGTH OF LIGHT TAPE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS AND EXACT SIZE OF WEATHERPROOF J-BOX PROTECTING LIGHT TAPE POWER CONNECTOR
3. JUNCTION BOX - STAINLESS STEEL EMBEDDED IN STRUCTURE, 4"x4"x3". COST INCLUDED WITH CONDUIT EMBEDDED IN STRUCTURE.



ELEVATION PRECAST FASCIA BEAM

(LOOKING EAST, UPRR BRIDGE)

MODEL: Sheet 3
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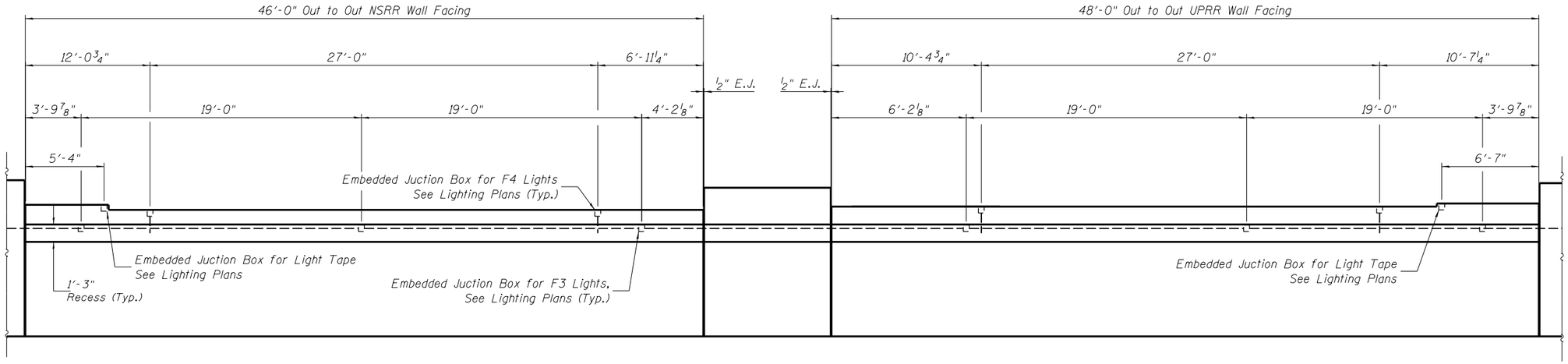
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 0.17 ' / In.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – MADISON STREET – 1

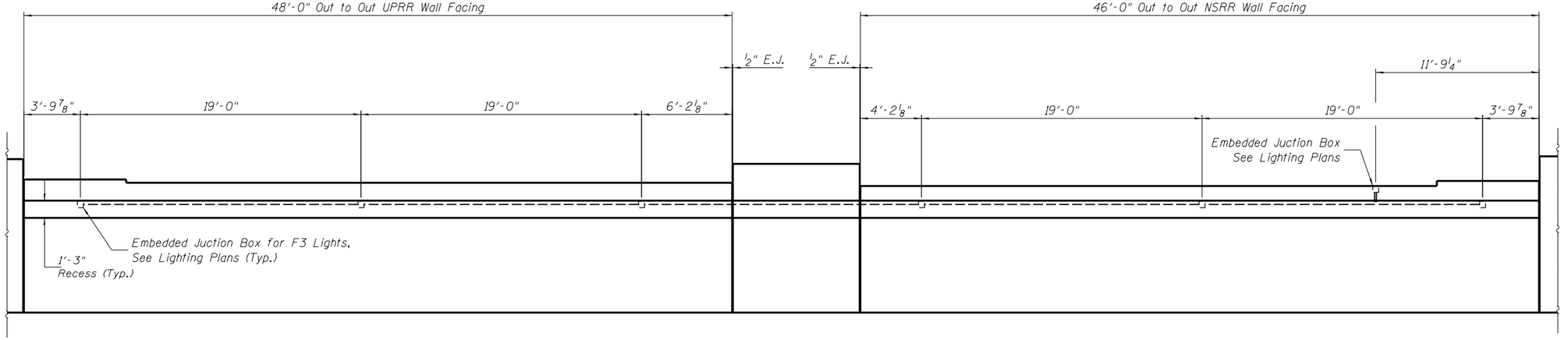
SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	235
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



ELEVATION - SOUTH ABUTMENT WALL FACINGS

(Looking South)



ELEVATION - NORTH ABUTMENT WALL FACINGS

(Looking North)

HANSON

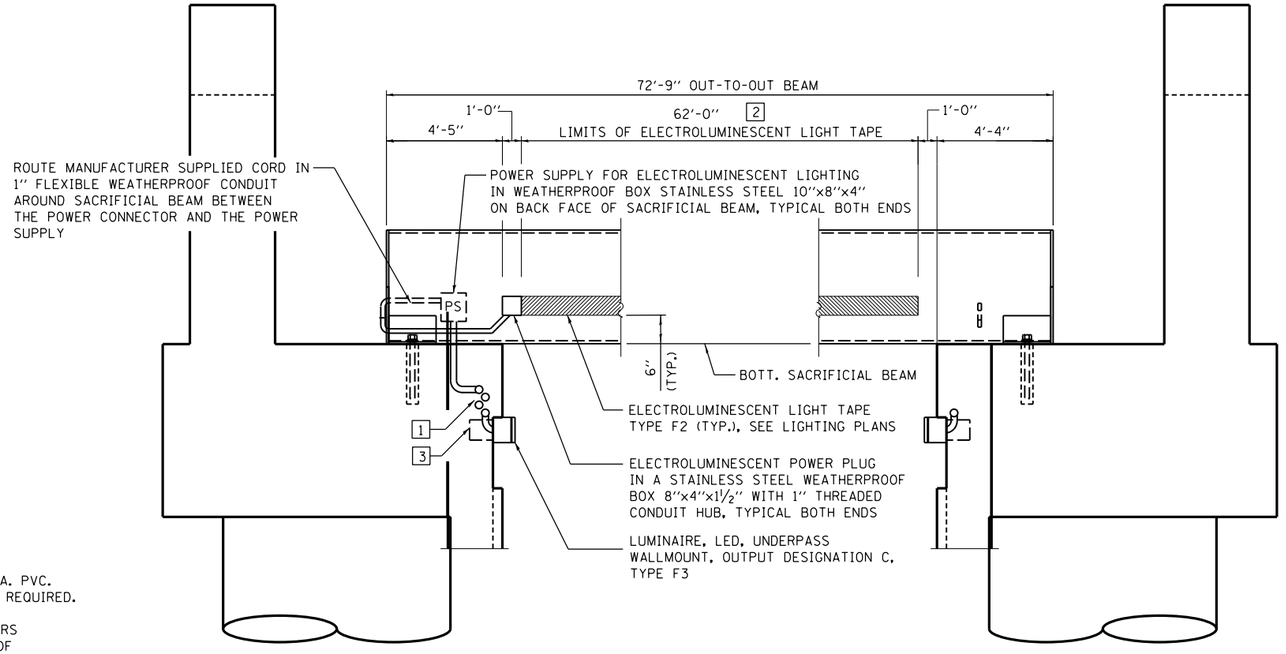
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - RDN	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – MADISON STREET – 2

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	236
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

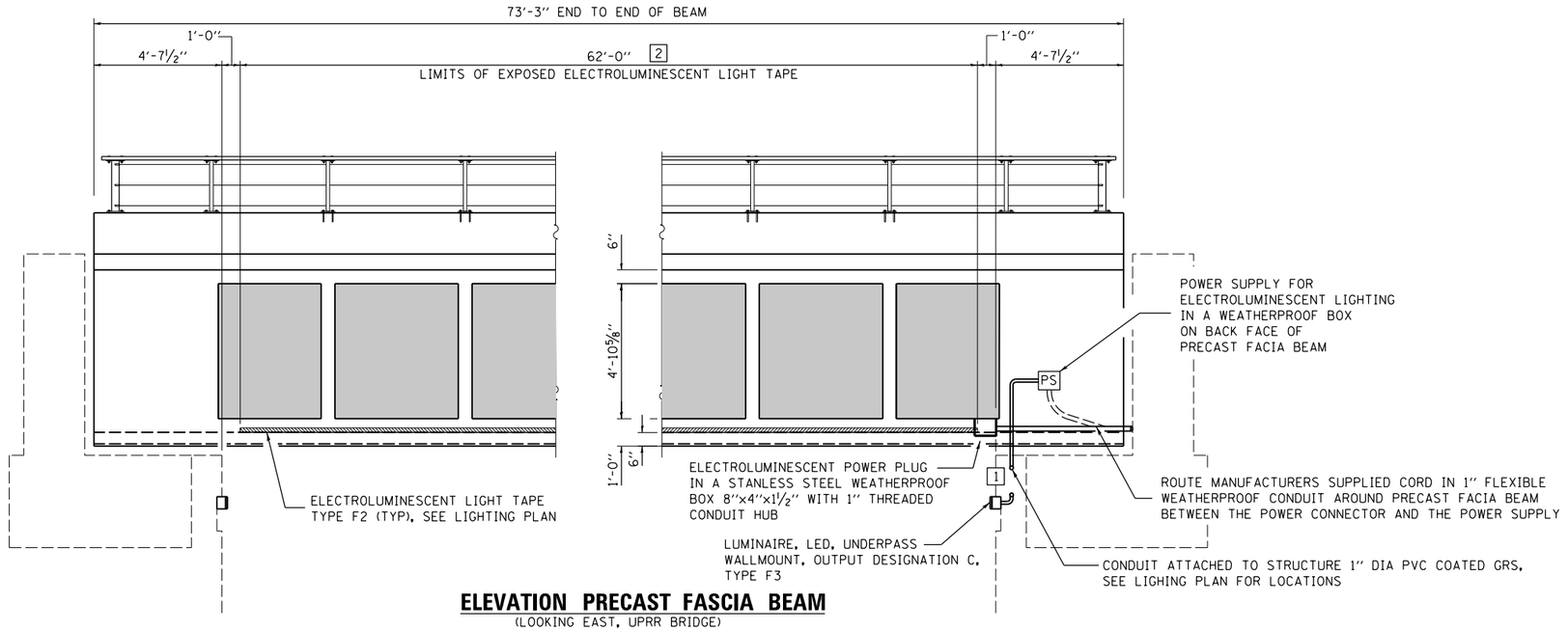


ELEVATION – STEEL SACRIFICIAL BEAM

(LOOKING WEST, NSRR BRIDGE)

KEYED NOTES:

1. TYPICAL ELECTRICAL CONDUITS EMBEDDED IN STRUCTURE 1" DIA. PVC. SEE LIGHTING PLAN FOR LOCATIONS AND NUMBER OF CONDUITS REQUIRED.
2. COORDINATE EXACT LENGTH OF LIGHT TAPE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS AND EXACT SIZE OF WEATHERPROOF J-BOX PROTECTING LIGHT TAPE POWER CONNECTOR
3. JUNCTION BOX - STAINLESS STEEL EMBEDDED IN STRUCTURE, 4"x4"x3". COST INCLUDED WITH CONDUIT EMBEDDED IN STRUCTURE.



ELEVATION PRECAST FASCIA BEAM

(LOOKING EAST, UPRR BRIDGE)

MODEL: Sheet 3B
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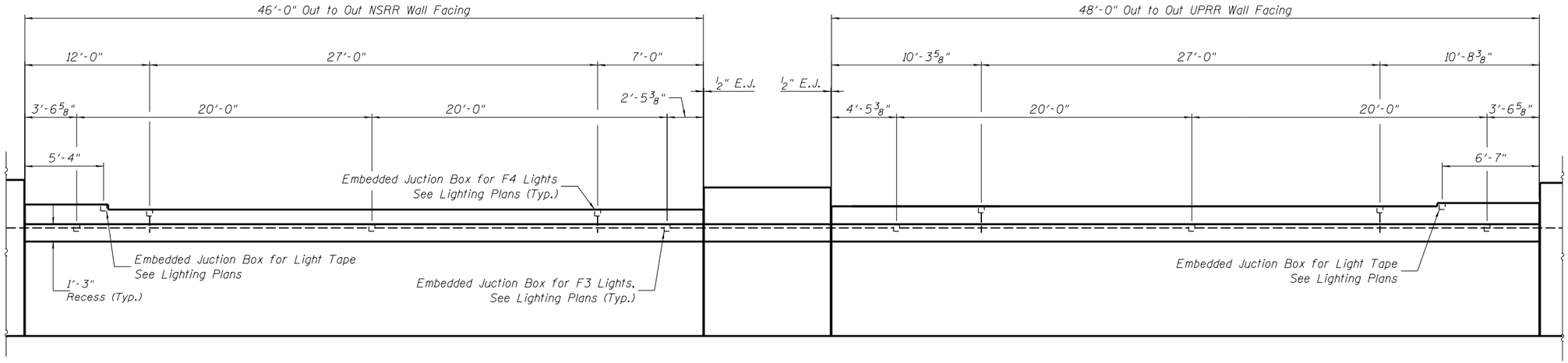
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 0.17 ' / in.	CHECKED - RDN	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – JEFFERSON STREET – 1

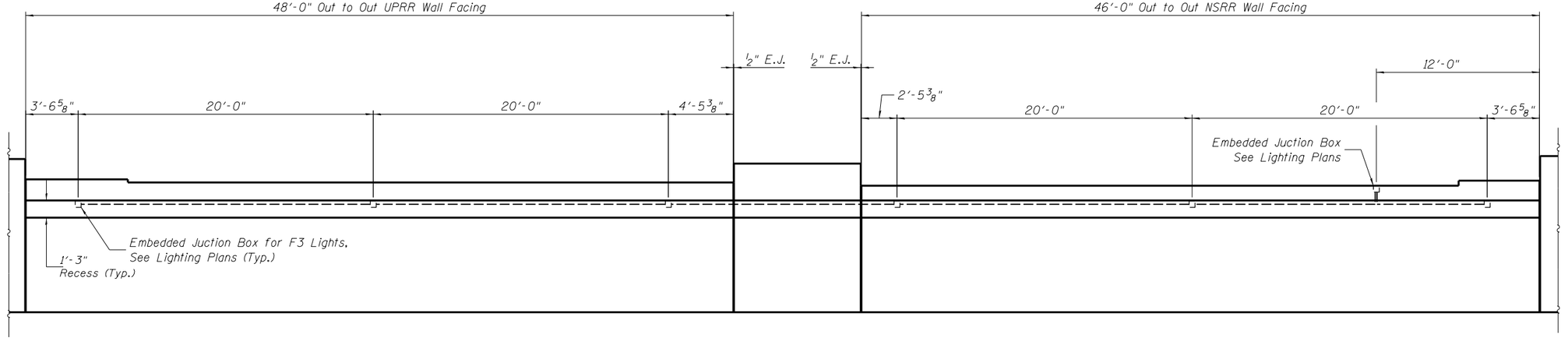
SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	237
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



ELEVATION - SOUTH ABUTMENT WALL FACINGS

(Looking South)



ELEVATION - NORTH ABUTMENT WALL FACINGS

(Looking North)

HANSON

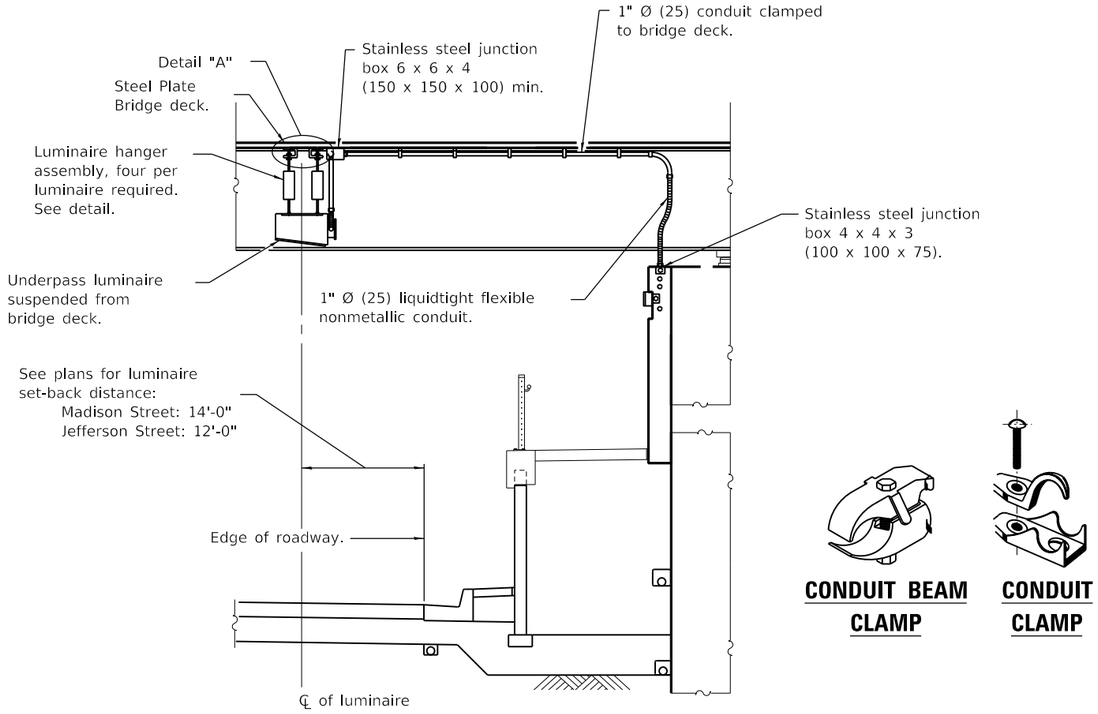
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - RDN	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – JEFFERSON STREET – 2

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

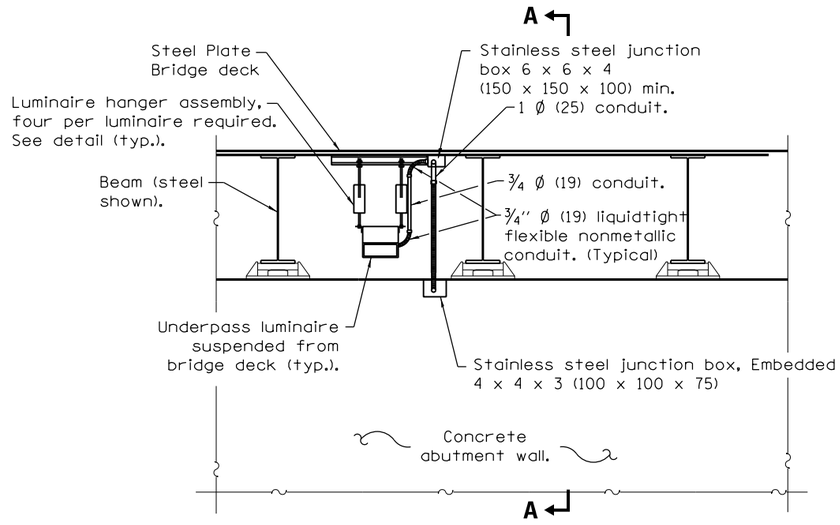
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	238
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



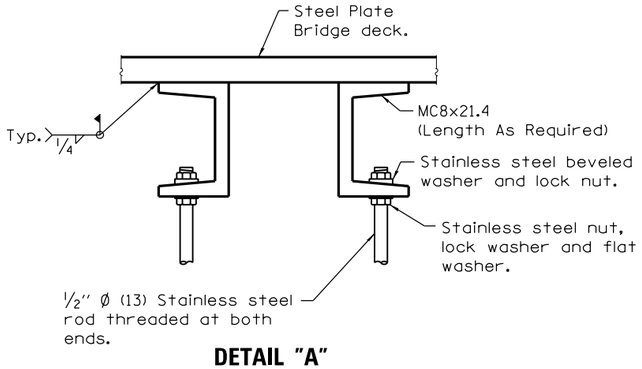
SECTION A–A

CONDUIT BEAM CLAMP

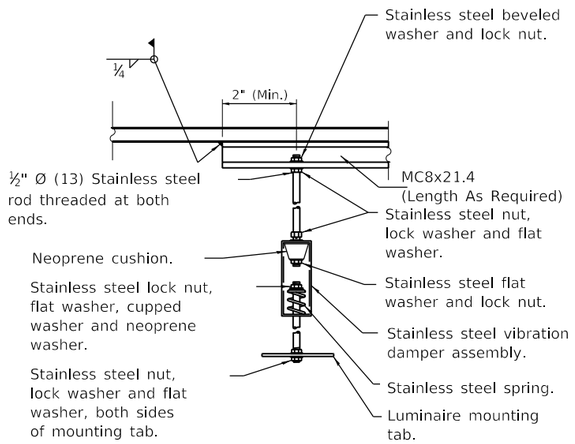
CONDUIT CLAMP



ABUTMENT WALL ELEVATION



DETAIL "A"



LUMINAIRE HANGER ASSEMBLY DETAIL

GENERAL NOTES

No field drilling of the steel plate bridge deck will be allowed.

See plans for underpass luminaire locations.

Underpass luminaires shall be centered between beams unless otherwise directed by the Engineer.

Optics of underpass luminaires shall be installed 1 inch above the bottom of the beams with no parts of the luminaire or attached conduit below the beams.

Rigid conduit may be used in lieu of flexible conduit except at abutments.

Stainless steel conduit shall be used beneath any openings in the bridge deck.

Branch circuits to luminaires shown routed from underground.

All dimensions are in inches (millimeters) unless otherwise shown.

Clamps should no be fastened to steel bridge deck directly. Contractor shall weld small plates to deck where clamps necessary and attach the clamp to the small plate. Cost included with conduit attached to structure.

BRIDGE DETAILS

HANSON

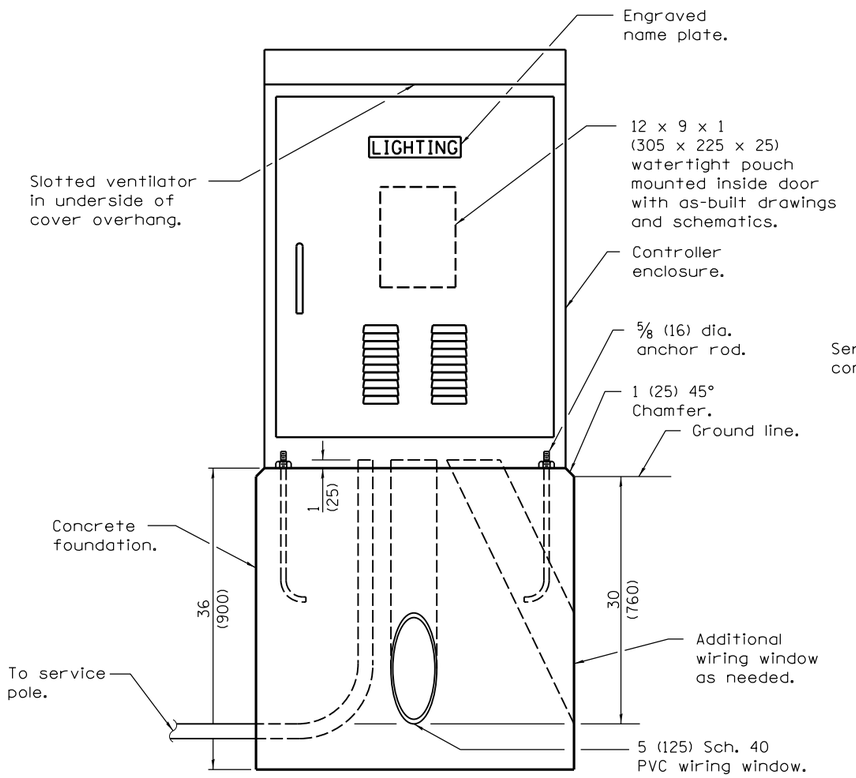
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - RDN	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

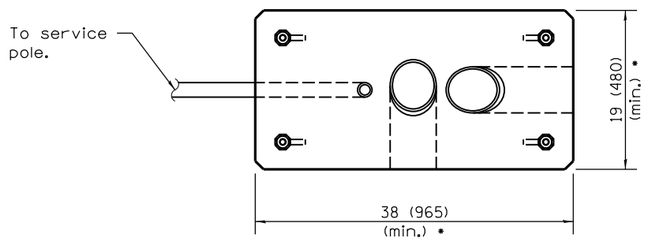
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – ROAD – 1

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	239
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

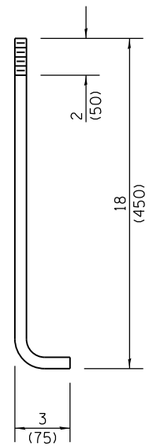


LIGHTING CONTROLLER

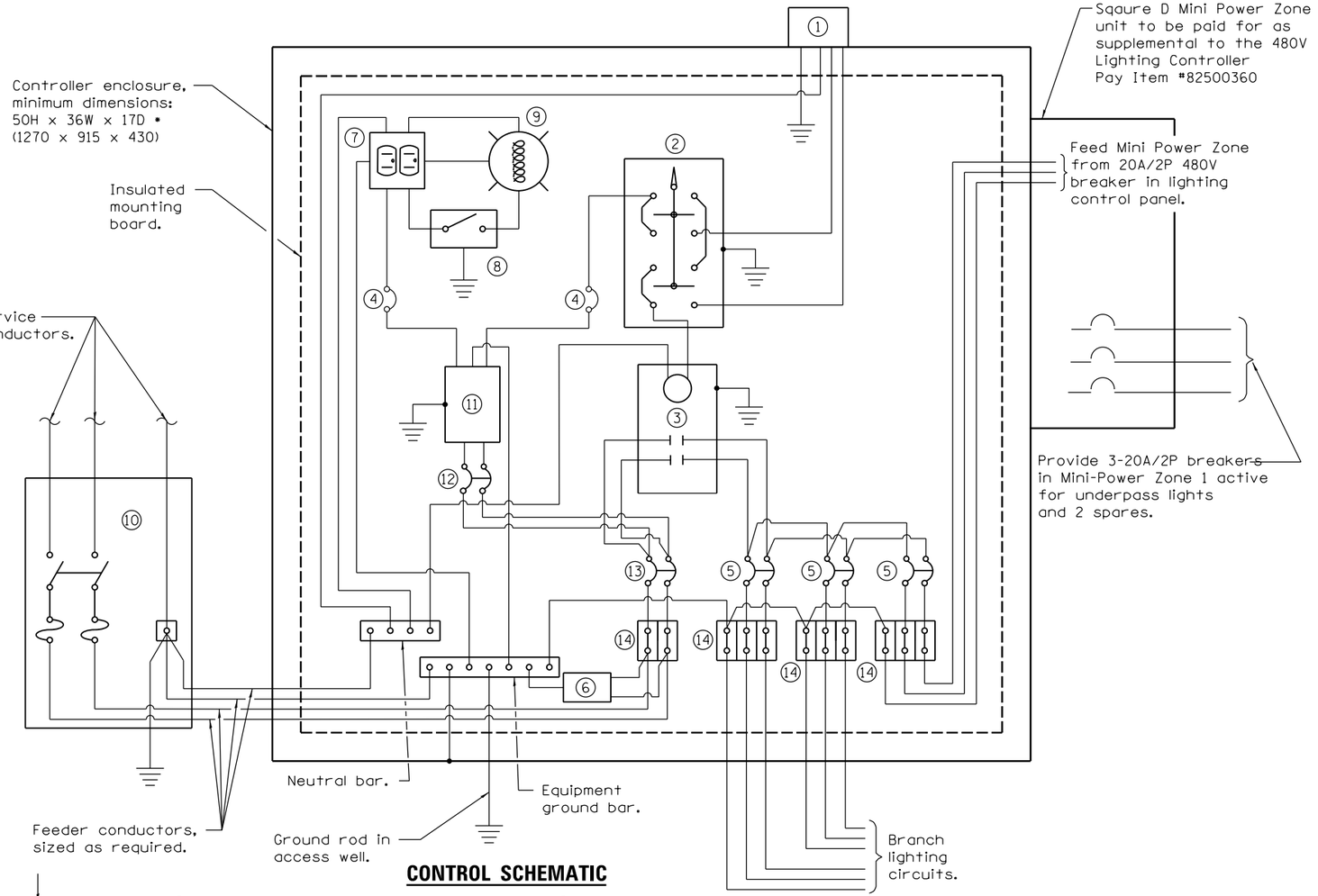


FOUNDATION (PLAN)

(Work pad not shown.)



ANCHOR ROD DETAIL



CONTROL SCHEMATIC

1. Photocell with integral surge arrester.
2. HAND-OFF-AUTO selector switch.
3. 100 amp•, electrically held contactor.
4. 15 amp, 1-pole circuit breaker.
5. 20 amp•, 2-pole circuit breaker (two spares required but not shown).
6. Surge arrester.
7. GFCI duplex receptacle.
8. Single-pole, single-throw switch.
9. Incandescent luminaire, enclosed and gasketted with 100 watt lamp.
10. Service disconnect switch - 2-pole, 3-wire, 100 amp•, fused at 100 amp•, solid neutral in NEMA 4X enclosure having lockable external handle.
11. Transformer - 1KVA•, 480V primary, 120/240V secondary, single-phase, 60Hz.
12. 15 amp, 2-pole circuit breaker.
13. 100 amp•, 2-pole circuit breaker.
14. Terminal block sized for conductors as shown on plans.

All dimensions are in inches (millimeters) unless otherwise shown.

HANSON

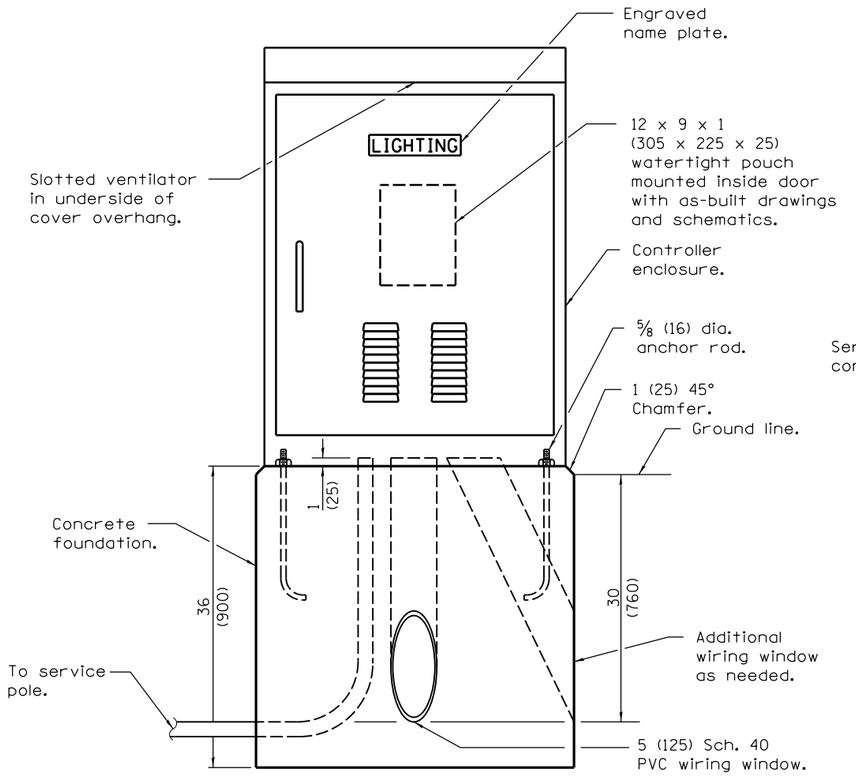
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - RDN	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

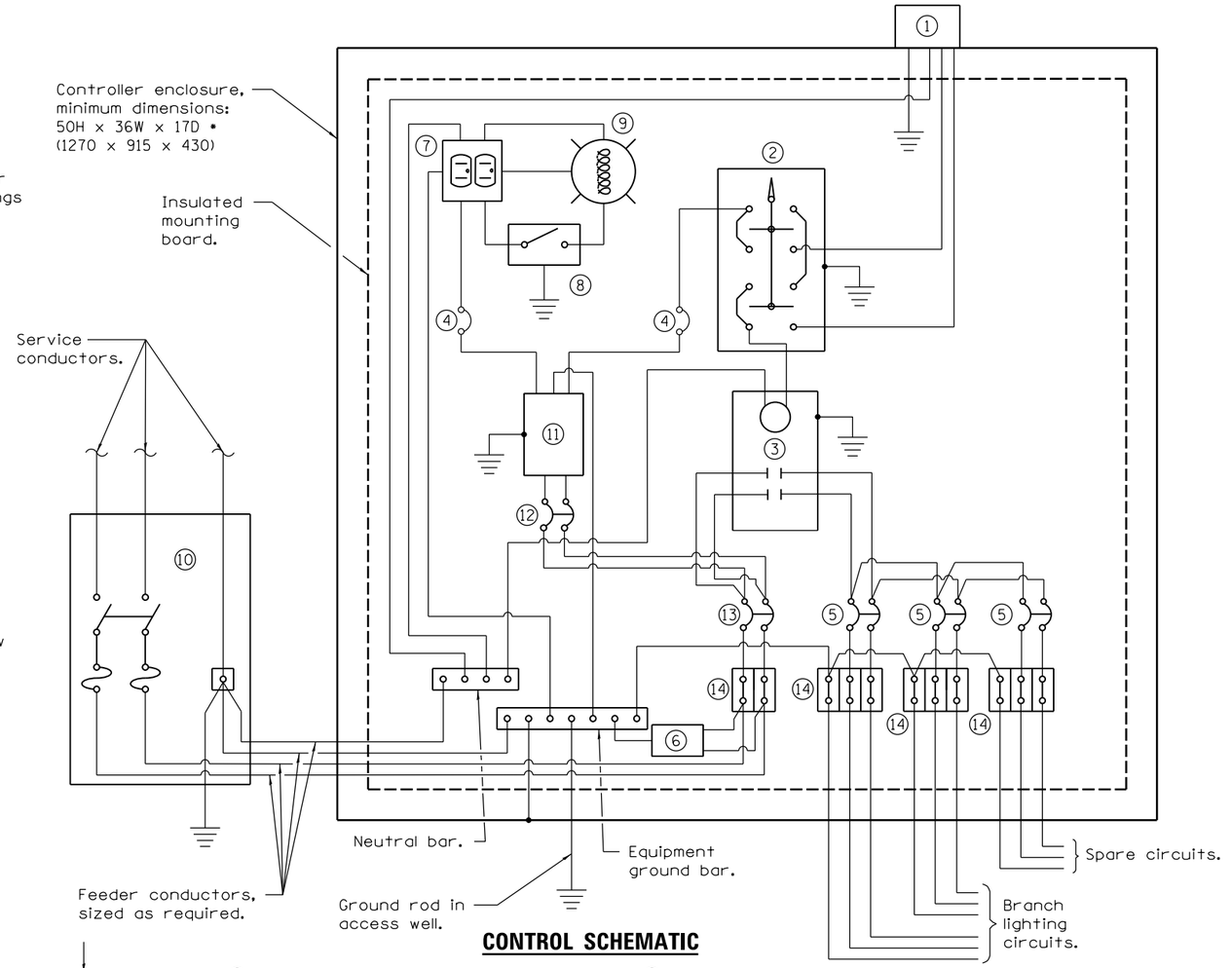
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – ROAD – 2

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	240
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



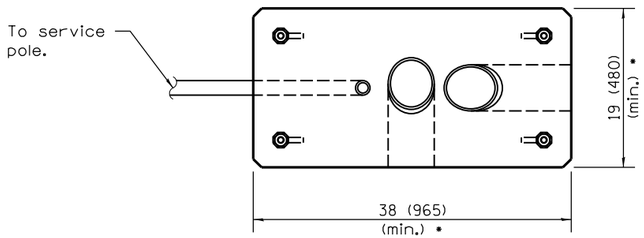
LIGHTING CONTROLLER



CONTROL SCHEMATIC

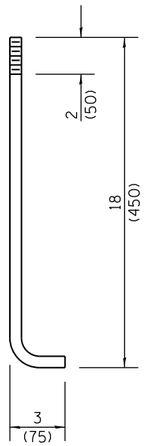
1. Photocell with integral surge arrester.
2. HAND-OFF-AUTO selector switch.
3. 100 amp•, electrically held contactor.
4. 15 amp, 1-pole circuit breaker.
5. 20 amp•, 2-pole circuit breaker (two spares required but not shown).
6. Surge arrester.
7. GFCI duplex receptacle.
8. Single-pole, single-throw switch.
9. Incandescent luminaire, enclosed and gasketted with 100 watt lamp.
10. Service disconnect switch - 2-pole, 3-wire, 100 amp•, fused at 100 amp•, solid neutral in NEMA 4X enclosure having lockable external handle.
11. Transformer - 1KVA•, 480V primary, 120/240V secondary, single-phase, 60Hz.
12. 15 amp, 2-pole circuit breaker.
13. 100 amp•, 2-pole circuit breaker.
14. Terminal block sized for conductors as shown on plans.

All dimensions are in inches (millimeters) unless otherwise shown.



FOUNDATION (PLAN)

(Work pad not shown.)



ANCHOR ROD DETAIL

HANSON

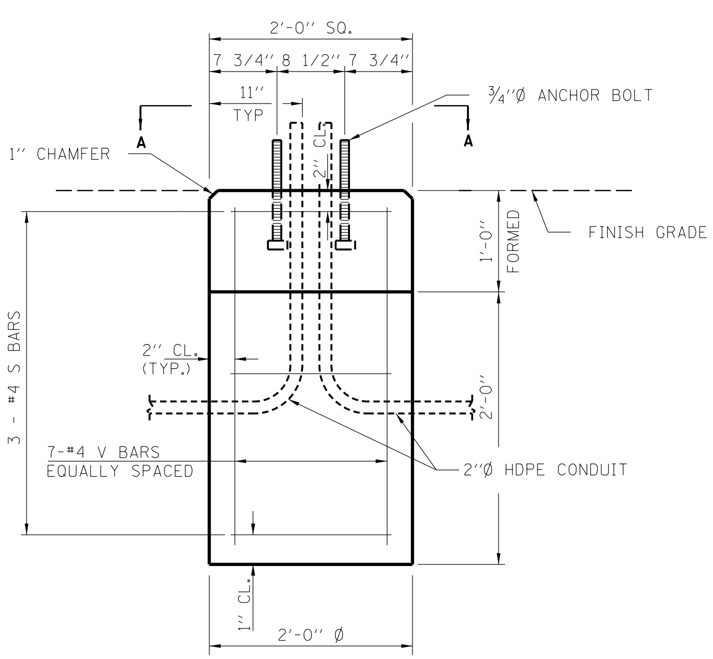
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - RDN	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
LIGHTING DETAILS – ROAD – 3

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	241
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



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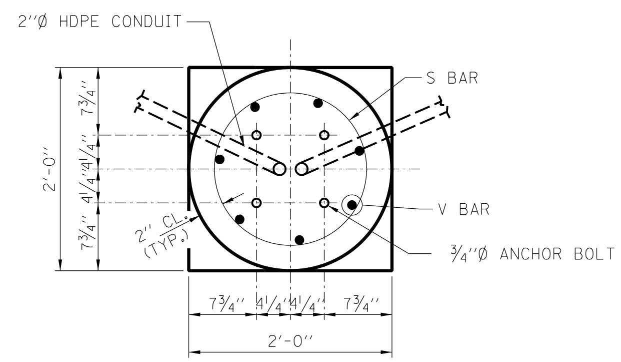
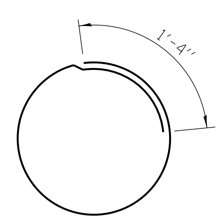


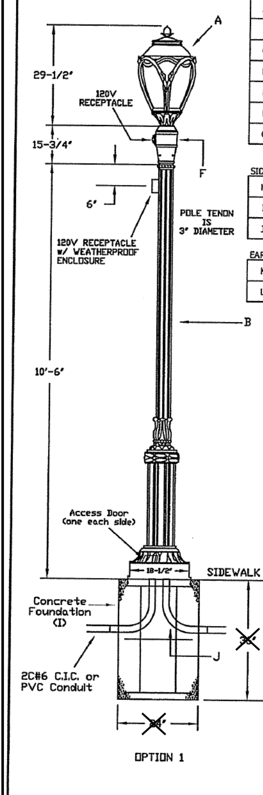
SECTION A-A



BAR S

BILL OF MATERIAL
ONE DRILLED SHAFT FOUNDATION ONLY

BAR	NO.	SIZE	LENGTH	SHAPE
S	3	#4	7'-0"	○
V	7	#4	2'-10"	──
DRILLED SHAFT CONCRETE FOUNDATION			CU.YD.	0.4
REINFORCEMENT BARS			POUND	27



STANDARD MATERIAL LIST

Sym.	Description	Notes	Stock #	Unit	2C#6 C.I.C. (1-1/2") .A	(2) #6 RHW in 2" PVC or Black Pipe .A1	(2) #4 RHW in 2" PVC or Black Pipe .B
A	LUMINAIRE, SCP CENTRAL PARK, TENON MOUNT, 150W HPS		E74-47-960	EA	1	1	1
B	Pole, Decorative Post, Aluminum, 10'-6", Black w/ Receptacle		E75-91-535	EA	1	1	1
C	LAMP, HPS 150W, 55V, NON-CYCLING	Not Shown	E20-00-331	EA	1	1	1
D	FUSE HOLDER, IN-LINE STREET LIGHTING, WEATHERPROOF	Not Shown	E15-15-050	EA	1	1	1
E	FUSE, 10AMP, TIME DELAY, 13/32" x 1-1/2", 250V	Not Shown	E15-01-013	EA	1	1	1
F	ADAPTER, 3" PHOTOCONTROL FOR SENTRY POST TOP		E70-04-430	EA	1	1	1
G	CONTROL, PHOTOELECTRIC ELECTRONIC 120V (GRAY)	Not Shown	E11-19-050	EA	1	1	1

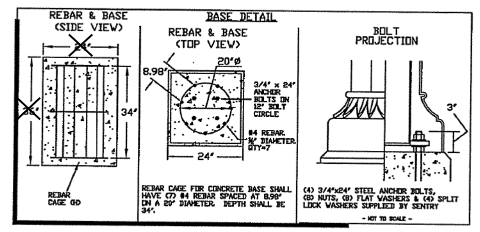
ADDITIONAL MATERIALS

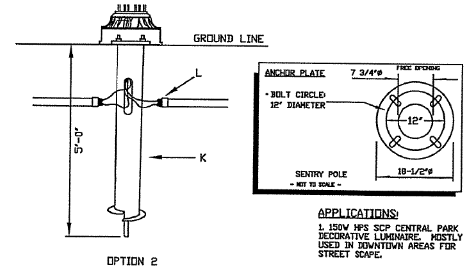
SIDEWALK INSTALLATION

Sym.	Description	Notes	Stock #	Unit	.A	.A1	.B
H	CAGE, REBAR, 20"X34", FOR STREET SCAPE POLES		E70-76-304	EA	1	1	1
I	CONCRETE (YD.)		E70-97-243	EA	1	1	1
J	BEND, PVC 2", 90-DEGREE, STANDARD RADIUS		E03-60-024	EA	2	2	2

EARTH INSTALLATION

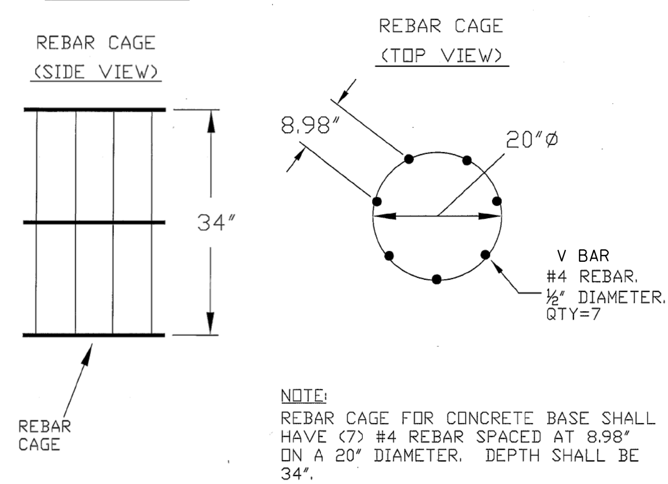
Sym.	Description	Notes	Stock #	Unit	.A	.A1	.B
K	FOUNDATION, LIGHTING, FOR DECORATIVE POST, 5FT, w/ 3/4" BOLTS		E15-00-720	EA	1	1	1
L	CAP, MULTI-OUTLET CONDUIT 1-1/2"		E07-90-150	EA	2	2	2





APPLICATIONS:
1. 150W HPS SCP CENTRAL PARK DECORATIVE LUMINAIRE. MOSTLY USED IN DOWNTOWN AREAS FOR STREET SCAPE.

DECORATIVE STREET LIGHT, SCP CENTRAL PARK, 150W HPS		CONSTRUCTION NO. SLD-15-600
CITY WATER, LIGHT AND POWER SPRINGFIELD, ILLINOIS	SCALE: NONE / DRAWN BY: RLM / DATE: 8-23-00 — FILE NO. / REV #3: 11/4/03 RLM	SYSTEM STANDARD

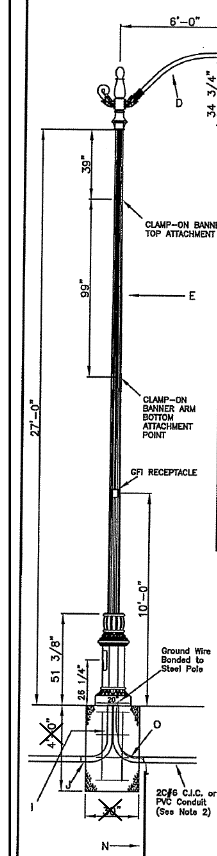


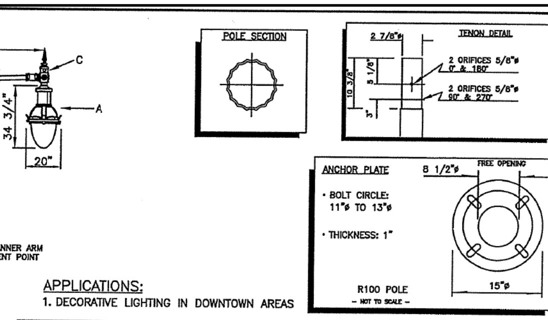
NOTE:
REBAR CAGE FOR CONCRETE BASE SHALL HAVE (7) #4 REBAR SPACED AT 8.98" ON A 20" DIAMETER. DEPTH SHALL BE 34".

REBAR CAGE FOR SENTRY 10'-0" POLE		CONSTRUCTION NO.
CITY WATER, LIGHT AND POWER SPRINGFIELD, ILLINOIS	SCALE: NONE / DRAWN BY: RLM / DATE: 11/5/04 — FILE NO. / REV #:	SYSTEM STANDARD

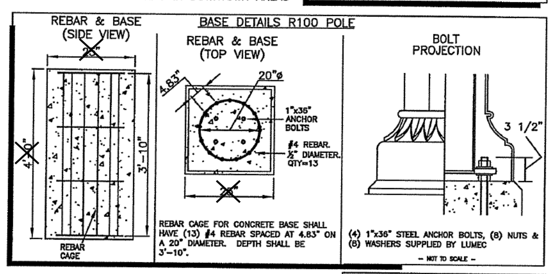
NOTE:
LIGHT POLE, DECORATIVE, STREET LIGHT, 10.5 FT. M.H. SHALL BE MANUFACTURED BY SENTRY ELECTRIC.

LIGHT POLE, DECORATIVE, STREET LIGHT, 10.5 FT M.H.





APPLICATIONS:
1. DECORATIVE LIGHTING IN DOWNTOWN AREAS

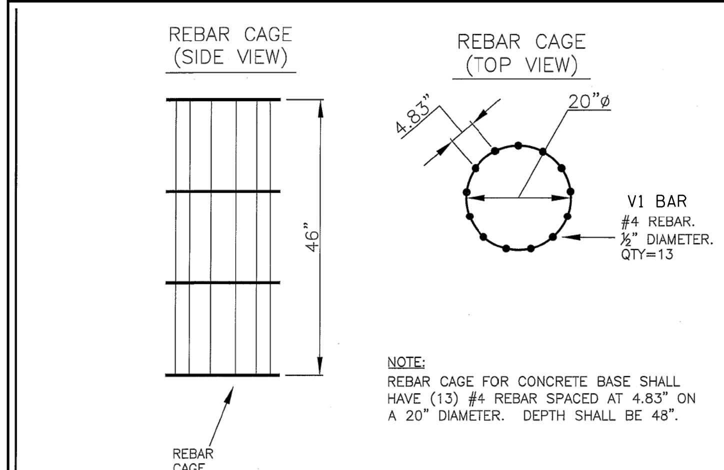


MATERIAL LIST

Sym	Description	Notes	Stock #	Unit	New Concrete Base: 2C#6 C.I.C. (1-1/2") .A	New Concrete Base: (2) #6 RHW in 2" PVC or Black Pipe .A1	New Concrete Base: (2) #4 RHW in 2" PVC or Black Pipe .B	Concrete Base Existing: 2C#6 C.I.C. (1-1/2") .N	Concrete Base Existing: (2) #6 RHW in 2" PVC or Black Pipe .N1	Concrete Base Existing: (2) #4 RHW in 2" PVC or Black Pipe .N2
A	LUMINAIRE, RN20 DECORATIVE TEARDROP, 250WHPS, RENAISSANCE		E21-20-250	EA	1	1	1	1	1	1
C	CONTROL, PHOTOELECTRIC ELECTRONIC 240V (MAROON)		E11-19-055	EA	1	1	1	1	1	1
D	MAST DEC DOUBLE BENT w/ ADAPATOR, 6FT, FOR RN20 LUMINAIRE		E22-00-025	EA	1	1	1	1	1	1
E	POLE, R100 DEC 27FT STEEL BLACK W/GFI		E29-05-155	EA	1	1	1	1	1	1
G	FUSE HOLDER, IN-LINE STREET LIGHTING, WEATHERPROOF	Not Shown	E15-15-050	EA	2	2	2	2	2	2
H	FUSE, 10AMP, TIME DELAY, 13/32" x 1-1/2", 250V	Not Shown	E15-01-013	EA	2	2	2	2	2	2
I	BEND, PVC 2", 90-DEGREE, STANDARD RADIUS	Not Shown	E03-60-024	EA	2	2	2	-	-	-
J	COUPLING, PVC 2" STRAIGHT (LONGLINE)		E11-19-118	EA	2	2	2	-	-	-
K	CONCRETE (YD.)		E70-97-243	YD	1	1	1	-	-	-
L	LAMP, HPS 250W, NON-CYCLING	Not Shown	E20-00-340	EA	1	1	1	1	1	1
M	CAGE, REBAR, 20"X46", FOR LUMEC R100 POLES		E70-76-306	EA	1	1	1	-	-	-
N	ROD, GROUND 5/8"x8' (COPPERWELD)		E31-10-016	EA	1	1	1	1	1	1
O	WIRE, BARE COPPER SD #2AWG SOLID		E45-04-002	FT	5	5	5	5	5	5

NOTES:
1. IF THE EXISTING BASE IS TO BE REUSED, IT MUST BE OF SUFFICIENT SIZE AND STRENGTH TO ACCOMODATE THE POLE, LUMINAIRE AND BANNER ARMS. CONTACT THE STANDARDS DEP'T BEFORE REUSING AN EXISTING BASE.
2. IF THE FIXTURE IS WIRED AT 240V, AN EXTRA #6 RHW CONDUCTOR IS REQUIRED TO POWER THE GFI RECEPTACLE AT 120V.

RN20 250W HPS DECORATIVE LUMINAIRE, R100 27'-0" STEEL POLE, 240V		CONSTRUCTION NO. SLD-20-600
CITY WATER, LIGHT AND POWER SPRINGFIELD, ILLINOIS	SCALE: NONE / DRAWN BY: RLM / DATE: 8/12/02 — FILE NO. / REV#6: 2/25/05 RLM	SYSTEM STANDARD

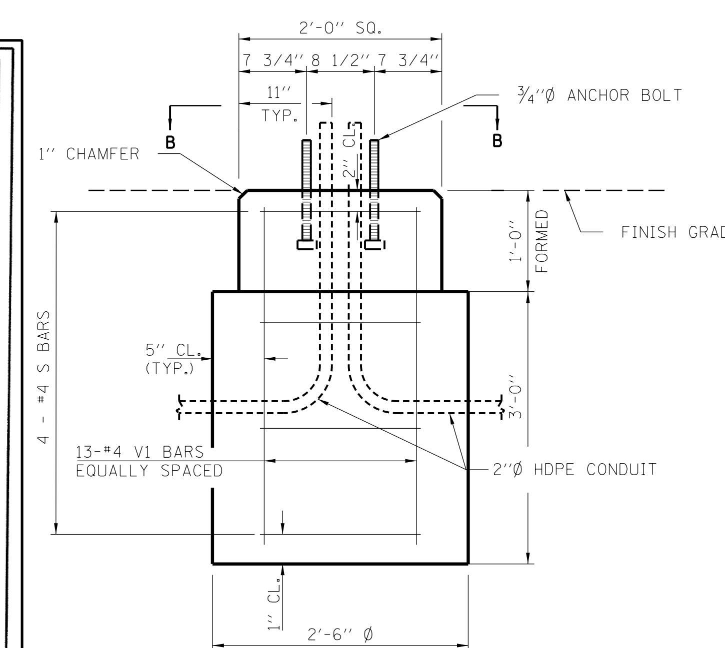


NOTE:
REBAR CAGE FOR CONCRETE BASE SHALL HAVE (13) #4 REBAR SPACED AT 4.83" ON A 20" DIAMETER. DEPTH SHALL BE 48".

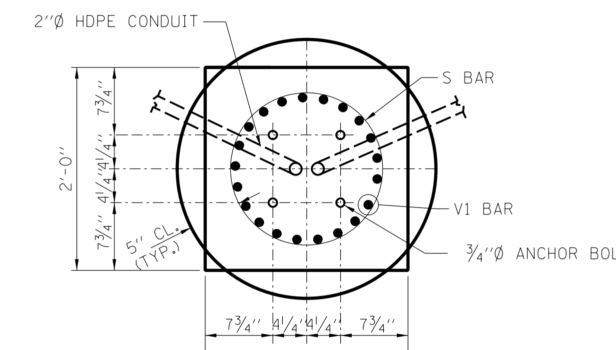
REBAR CAGE DETAIL FOR LUMEC R100 27'-0" STEEL POLE		CONSTRUCTION NO.
CITY WATER, LIGHT AND POWER SPRINGFIELD, ILLINOIS	SCALE: NONE / DRAWN BY: RLM / DATE: 11/5/04 — FILE NO. / REV#	SYSTEM STANDARD

NOTE:
LIGHT POLE, DECORATIVE, STREET LIGHT, 27 FT. M.H. SHALL BE MANUFACTURED BY LUMEC.

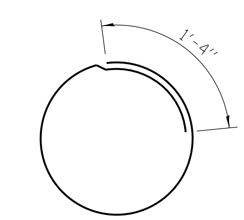
NOTE:
2" PVC CONDUIT STUB OUTS AND INSTALLATION OF ANCHOR BOLTS TO BE INCLUDED WITH THE COST OF THE DRILLED SHAFT CONCRETE FOUNDATION.



ELEVATION



SECTION B-B

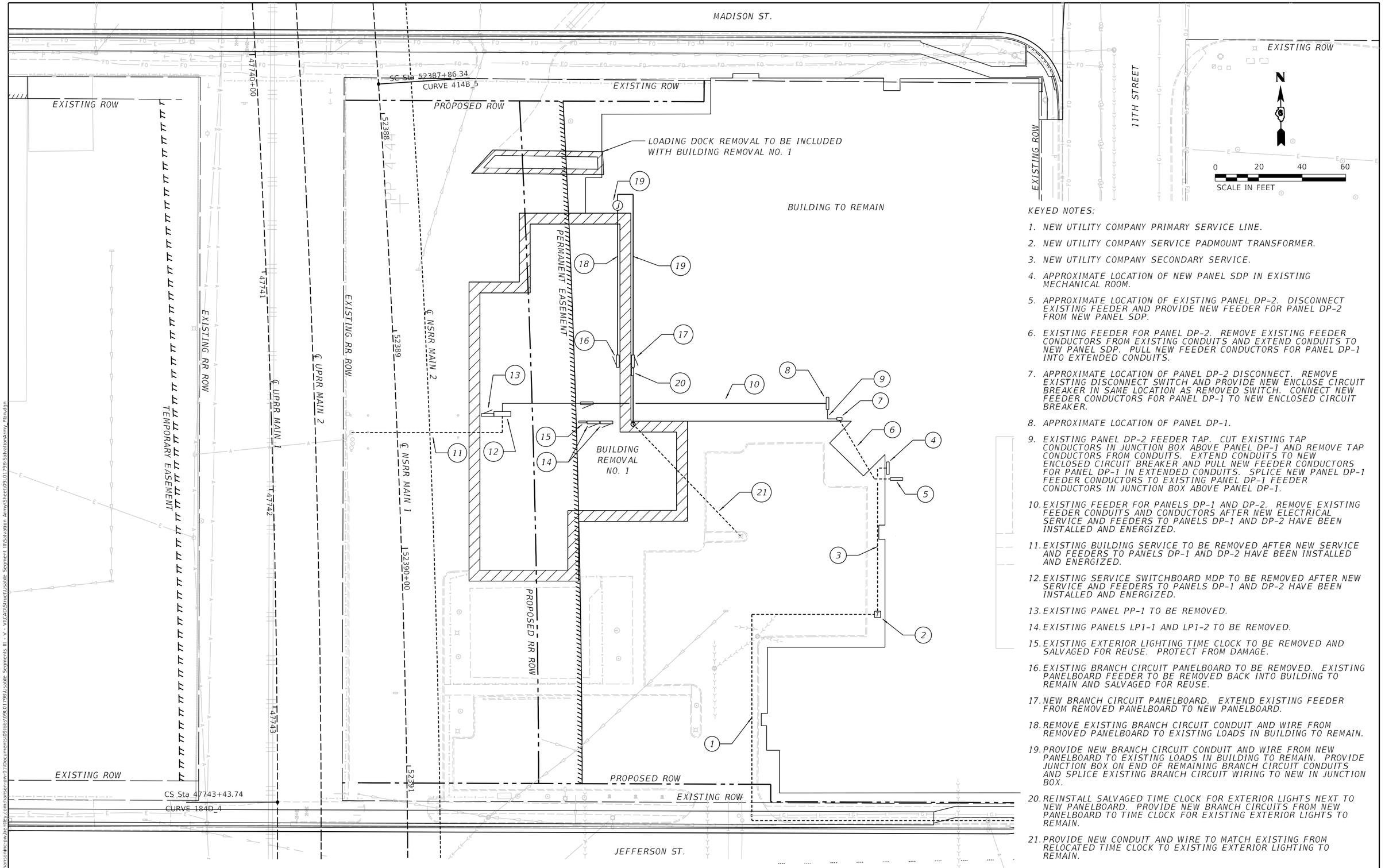


BAR S

BILL OF MATERIAL
ONE DRILLED SHAFT FOUNDATION ONLY

BAR	NO.	SIZE	LENGTH	SHAPE
S	4	#4	7'-0"	○
V1	13	#4	3'-10"	──
DRILLED SHAFT CONCRETE FOUNDATION			CU.YD.	0.7
REINFORCEMENT BARS			POUND	52

LIGHT POLE, DECORATIVE, STREET LIGHT, 27 FT M.H.



KEYED NOTES:

1. NEW UTILITY COMPANY PRIMARY SERVICE LINE.
2. NEW UTILITY COMPANY SERVICE PADMOUNT TRANSFORMER.
3. NEW UTILITY COMPANY SECONDARY SERVICE.
4. APPROXIMATE LOCATION OF NEW PANEL SDP IN EXISTING MECHANICAL ROOM.
5. APPROXIMATE LOCATION OF EXISTING PANEL DP-2. DISCONNECT EXISTING FEEDER AND PROVIDE NEW FEEDER FOR PANEL DP-2 FROM NEW PANEL SDP.
6. EXISTING FEEDER FOR PANEL DP-2. REMOVE EXISTING FEEDER CONDUCTORS FROM EXISTING CONDUITS AND EXTEND CONDUITS TO NEW PANEL SDP. PULL NEW FEEDER CONDUCTORS FOR PANEL DP-1 INTO EXTENDED CONDUITS.
7. APPROXIMATE LOCATION OF PANEL DP-2 DISCONNECT. REMOVE EXISTING DISCONNECT SWITCH AND PROVIDE NEW ENCLOSE CIRCUIT BREAKER IN SAME LOCATION AS REMOVED SWITCH. CONNECT NEW FEEDER CONDUCTORS FOR PANEL DP-1 TO NEW ENCLOSED CIRCUIT BREAKER.
8. APPROXIMATE LOCATION OF PANEL DP-1.
9. EXISTING PANEL DP-2 FEEDER TAP. CUT EXISTING TAP CONDUCTORS IN JUNCTION BOX ABOVE PANEL DP-1 AND REMOVE TAP CONDUCTORS FROM CONDUITS. EXTEND CONDUITS TO NEW ENCLOSED CIRCUIT BREAKER AND PULL NEW FEEDER CONDUCTORS FOR PANEL DP-1 IN EXTENDED CONDUITS. SPLICE NEW PANEL DP-1 FEEDER CONDUCTORS TO EXISTING PANEL DP-1 FEEDER CONDUCTORS IN JUNCTION BOX ABOVE PANEL DP-1.
10. EXISTING FEEDER FOR PANELS DP-1 AND DP-2. REMOVE EXISTING FEEDER CONDUITS AND CONDUCTORS AFTER NEW ELECTRICAL SERVICE AND FEEDERS TO PANELS DP-1 AND DP-2 HAVE BEEN INSTALLED AND ENERGIZED.
11. EXISTING BUILDING SERVICE TO BE REMOVED AFTER NEW SERVICE AND FEEDERS TO PANELS DP-1 AND DP-2 HAVE BEEN INSTALLED AND ENERGIZED.
12. EXISTING SERVICE SWITCHBOARD MDP TO BE REMOVED AFTER NEW SERVICE AND FEEDERS TO PANELS DP-1 AND DP-2 HAVE BEEN INSTALLED AND ENERGIZED.
13. EXISTING PANEL PP-1 TO BE REMOVED.
14. EXISTING PANELS LP1-1 AND LP1-2 TO BE REMOVED.
15. EXISTING EXTERIOR LIGHTING TIME CLOCK TO BE REMOVED AND SALVAGED FOR REUSE. PROTECT FROM DAMAGE.
16. EXISTING BRANCH CIRCUIT PANELBOARD TO BE REMOVED. EXISTING PANELBOARD FEEDER TO BE REMOVED BACK INTO BUILDING TO REMAIN AND SALVAGED FOR REUSE.
17. NEW BRANCH CIRCUIT PANELBOARD. EXTEND EXISTING FEEDER FROM REMOVED PANELBOARD TO NEW PANELBOARD.
18. REMOVE EXISTING BRANCH CIRCUIT CONDUIT AND WIRE FROM REMOVED PANELBOARD TO EXISTING LOADS IN BUILDING TO REMAIN.
19. PROVIDE NEW BRANCH CIRCUIT CONDUIT AND WIRE FROM NEW PANELBOARD TO EXISTING LOADS IN BUILDING TO REMAIN. PROVIDE JUNCTION BOX ON END OF REMAINING BRANCH CIRCUIT CONDUITS AND SPLICE EXISTING BRANCH CIRCUIT WIRING TO NEW IN JUNCTION BOX.
20. REINSTALL SALVAGED TIME CLOCK FOR EXTERIOR LIGHTS NEXT TO NEW PANELBOARD. PROVIDE NEW BRANCH CIRCUITS FROM NEW PANELBOARD TO TIME CLOCK FOR EXISTING EXTERIOR LIGHTS TO REMAIN.
21. PROVIDE NEW CONDUIT AND WIRE TO MATCH EXISTING FROM RELOCATED TIME CLOCK TO EXISTING EXTERIOR LIGHTING TO REMAIN.

MODEL: Electrical Plan
FILE NAME: pw:\\hansonimc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CADD\Struct\Usable Segment III\Salvation Army\Sheet\09L0179B-Salvation Army Plan.dgn

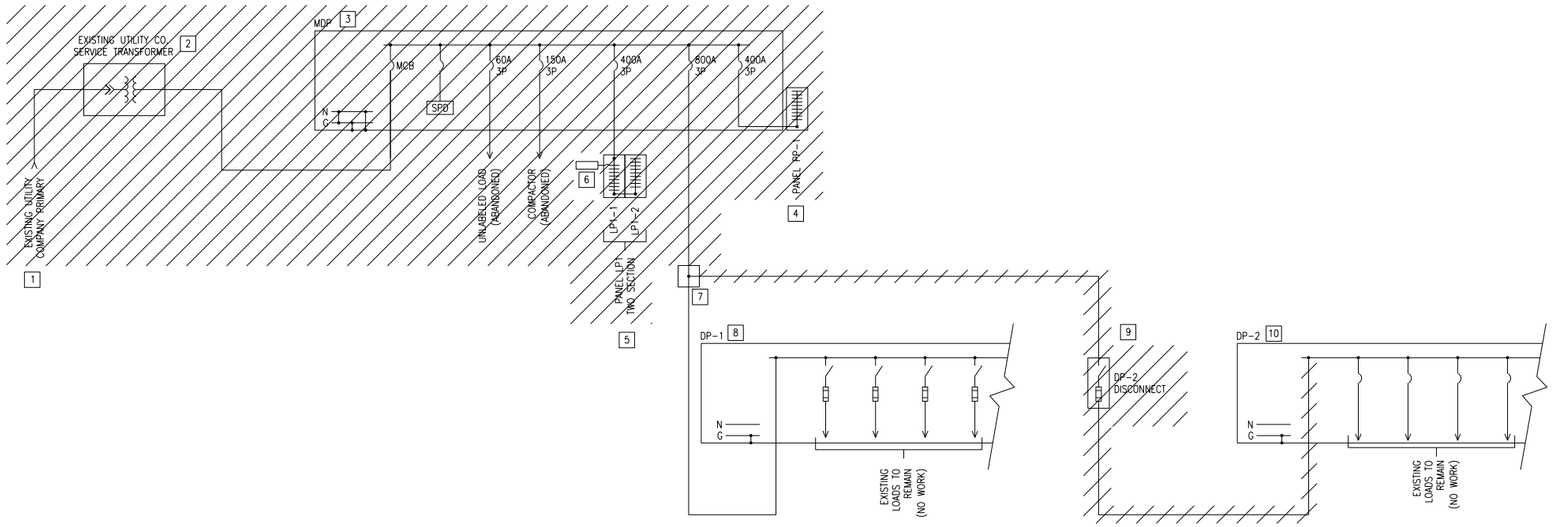
USER NAME = Pop00275	DESIGNED -	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 40.0000 '/ in.	CHECKED -	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
SALVATION ARMY ELECTRICAL PLAN

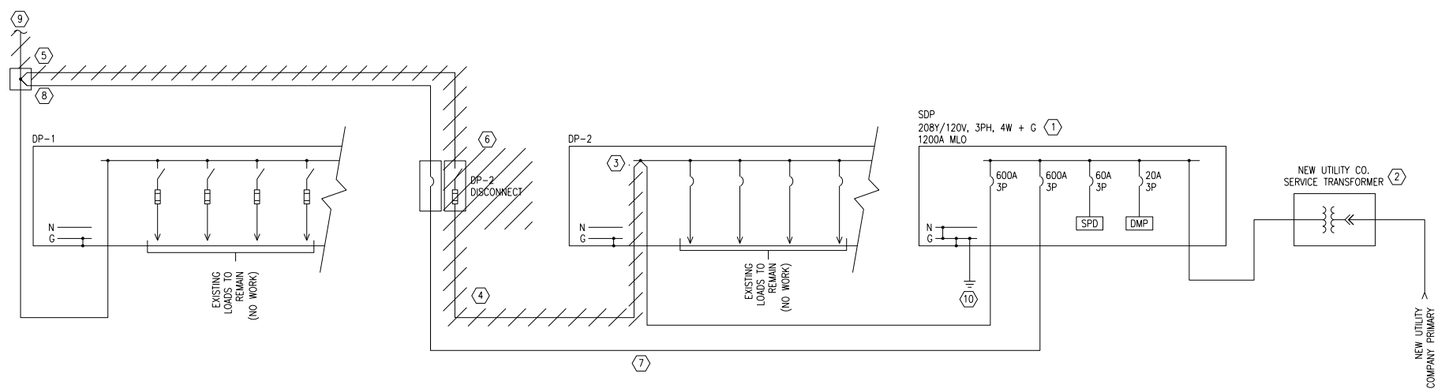
SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	243
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



EXISTING ONE LINE DIAGRAM - DEMOLITION

NOT TO SCALE



ONE LINE DIAGRAM - PROPOSED

NOT TO SCALE

GENERAL NOTES:

1. DO NOT DISCONNECT OR REMOVE EXISTING UTILITY COMPANY SERVICE AND PANEL MDP UNTIL ALL WORK TO RECONNECT PANELS DP-1 AND DP-2 HAS BEEN COMPLETED AND NEW SERVICE ENERGIZED.

2. ALL ELECTRICAL WORK SHOWN IN THE PLANS FOR THE SALVATION ARMY BUILDING SHALL BE INCLUDED WITH THE COST OF BUILDING REMOVAL NO. 1.

☐ KEYED NOTES – DEMOLITION:

1. EXISTING UTILITY COMPANY PRIMARY SERVICE TO BE REMOVED.
2. EXISTING UTILITY COMPANY PADMOUNT TRANSFORMER TO BE REMOVED.
3. EXISTING BUILDING SERVICE AND MDP TO BE REMOVED.
4. EXISTING PANEL PP-1 TO BE REMOVED.
5. EXISTING PANEL LP1 TO BE REMOVED. REMOVE EXISTING CONDUCTORS FROM EXISTING CONDUITS BELOW GRADE. EXISTING CONDUITS BELOW GRADE TO BE ABANDONED IN PLACE.
6. EXISTING TIME CLOCK FOR EXTERIOR LIGHTS TO BE REMOVED AND SALVAGED FOR REUSE. REINSTALL EXISTING TIME CLOCK NEXT TO NEW PANELBOARD IN PORTION OF EXISTING BUILDING TO REMAIN. REMOVE EXISTING CONDUCTORS SERVING EXTERIOR LIGHTING FROM EXISTING CONDUITS. CUT EXISTING CONDUITS BELOW GRADE AND EXTEND TO NEW LOCATION FOR EXISTING TIME CLOCK. CONNECT EXISTING EXTERIOR LIGHTS TO NEW CIRCUIT IN NEW PANELBOARD.
7. EXISTING JUNCTION BOX TO REMAIN. SEE PROPOSED ONE-LINE DIAGRAM FOR ADDITIONAL WORK.
8. EXISTING PANEL DP-1 TO REMAIN. SEE PROPOSED ONE-LINE DIAGRAM FOR ADDITIONAL WORK.
9. EXISTING DP-2 DISCONNECT TO BE REMOVED AND REPLACED WITH NEW ENCLOSED CIRCUIT BREAKER. SEE PROPOSED ONE-LINE DIAGRAM FOR ADDITIONAL WORK.
10. EXISTING PANEL DP-2 TO REMAIN. SEE PROPOSED ONE-LINE DIAGRAM FOR ADDITIONAL WORK.

⬡ KEYED NOTES – SEQUENCE OF WORK:

1. INSTALL NEW SERVICE DISCONNECT PANEL SDP ADJACENT TO EXISTING PANEL DP-2.
2. PROVIDE NEW UTILITY PADMOUNT TRANSFORMER AND SERVICE. CONNECT NEW SERVICE TO NEW PANEL SDP.
3. PROVIDE NEW FEEDER FROM PANEL SDP TO EXISTING PANEL DP-2. DISCONNECT EXISTING PANEL DP-2 FEEDER CONDUCTORS AND CONNECT NEW FEEDER CONDUCTORS FROM PANEL SDP TO EXISTING PANEL DP-2.
4. REMOVE EXISTING CONDUCTORS FROM EXISTING CONDUITS BETWEEN PANEL DP-2 AND DP-2 DISCONNECT IN ADJACENT BUILDING. EXISTING CONDUITS TO REMAIN FOR REUSE.
5. CUT EXISTING SUPPLY CONDUCTORS FOR DP-2 DISCONNECT AT TAP IN JUNCTION BOX ABOVE PANEL DP-1. REMOVE DP-2 DISCONNECT SUPPLY CONDUCTORS FROM EXISTING CONDUIT; EXISTING CONDUIT TO REMAIN FOR REUSE.
6. REMOVE EXISTING DP-2 DISCONNECT SWITCH AND REPLACE WITH NEW ENCLOSE CIRCUIT BREAKER. EXTEND EXISTING SUPPLY AND LOAD CONDUITS TO NEW ENCLOSED CIRCUIT BREAKER.
7. EXTEND EXISTING PANEL DP-2 FEEDER CONDUIT TO NEW PANEL SDP. PROVIDE NEW FEEDER CONDUCTORS IN EXTENDED CONDUIT BETWEEN PANEL SDP AND NEW ENCLOSED CIRCUIT BREAKER IN ADJACENT BUILDING. TERMINATE BOTH ENDS OF NEW CONDUCTORS.
8. PULL NEW FEEDER CONDUCTORS INTO EXTENDED CONDUITS BETWEEN NEW ENCLOSED CIRCUIT BREAKER AND EXISTING JUNCTION BOX ABOVE PANEL DP-1. CUT EXISTING PANEL DP-1 FEEDER CONDUCTORS IN JUNCTION BOX AND SPLICE NEW FEEDER CONDUCTORS TO EXISTING FEEDER CONDUCTORS TO PANEL DP-1 IN JUNCTION BOX. NEW PANEL DP-1 FEEDER WILL BE SMALLER THAN EXISTING FEEDER; REMOVE ANY EXISTING UNUSED FEEDER CONDUCTORS BETWEEN JUNCTION BOX AND PANEL DP-1.
9. REMOVE FEEDER CONDUCTORS AND CONDUITS BETWEEN JUNCTION BOX AND EXISTING PANEL MDP. REMOVE PANEL MDP AND EXISTING UTILITY SERVICE AFTER NEW WORK COMPLETED AND ENERGIZED..
10. NEW GROUND FIELD FOR NEW ELECTRICAL SERVICE,

MODEL: One Line Diagram
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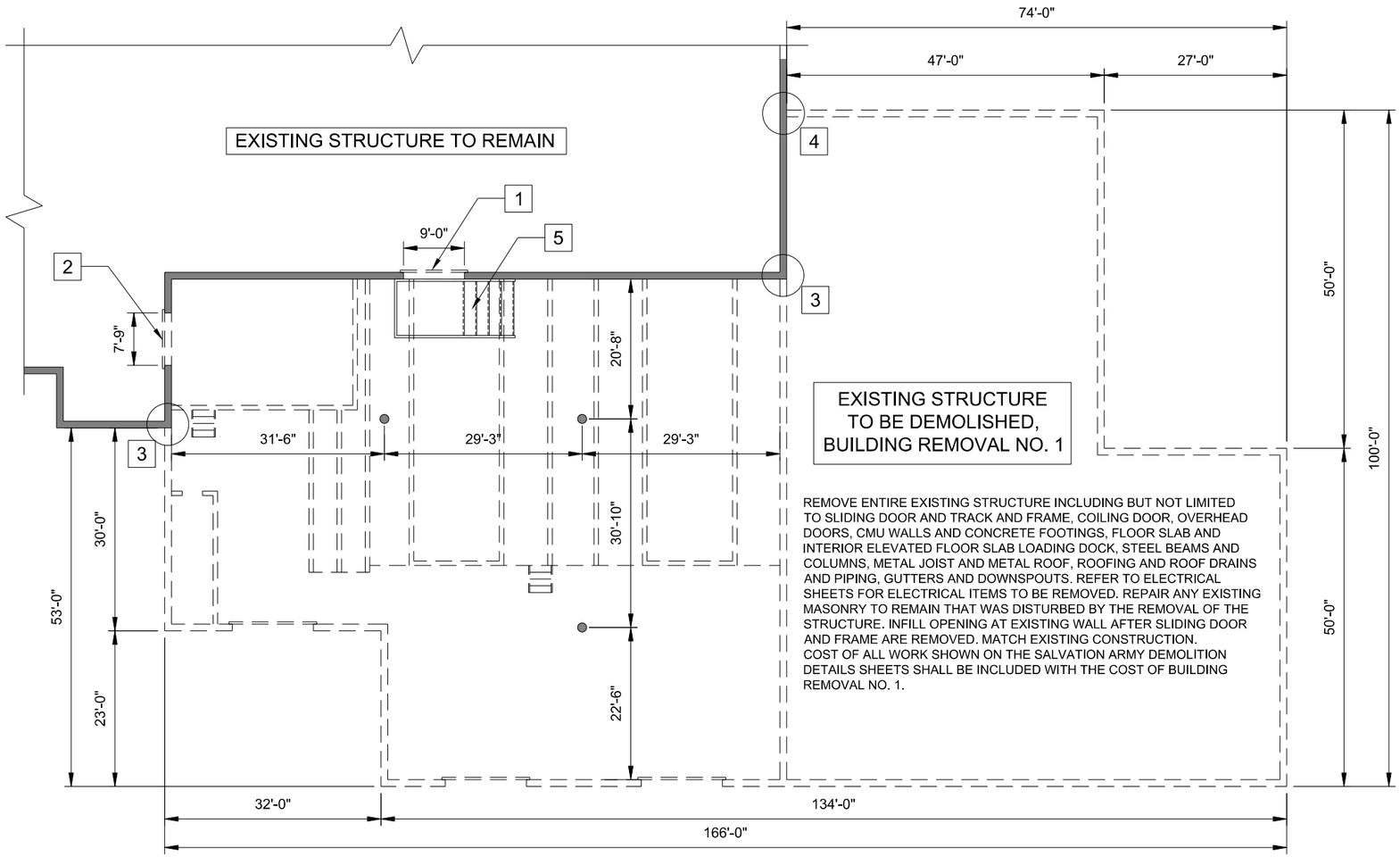
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
SALVATION ARMY ELECTRICAL ONE-LINE DIAGRAM

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	244
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



EXISTING STRUCTURE TO BE DEMOLISHED, BUILDING REMOVAL NO. 1

REMOVE ENTIRE EXISTING STRUCTURE INCLUDING BUT NOT LIMITED TO SLIDING DOOR AND TRACK AND FRAME, COILING DOOR, OVERHEAD DOORS, CMU WALLS AND CONCRETE FOOTINGS, FLOOR SLAB AND INTERIOR ELEVATED FLOOR SLAB LOADING DOCK, STEEL BEAMS AND COLUMNS, METAL JOIST AND METAL ROOF, ROOFING AND ROOF DRAINS AND PIPING, GUTTERS AND DOWNSPOUTS. REFER TO ELECTRICAL SHEETS FOR ELECTRICAL ITEMS TO BE REMOVED. REPAIR ANY EXISTING MASONRY TO REMAIN THAT WAS DISTURBED BY THE REMOVAL OF THE STRUCTURE. INFILL OPENING AT EXISTING WALL AFTER SLIDING DOOR AND FRAME ARE REMOVED. MATCH EXISTING CONSTRUCTION. COST OF ALL WORK SHOWN ON THE SALVATION ARMY DEMOLITION DETAILS SHEETS SHALL BE INCLUDED WITH THE COST OF BUILDING REMOVAL NO. 1.

DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

EXISTING TO BE REMOVED

EXISTING TO REMAIN

1. REMOVE SLIDING DOOR AND TRACK. PROVIDE A NEW 3'-0" x 7'-0" H.M. DOOR, FRAME AND HARDWARE AND FILL IN THE REST OF THE EXISTING 9'-0" WIDE x 7'-9" HIGH OPENING WITH CMU BLOCK. PAINT H.M. DOOR, FRAME AND CMU WALL INFILL. SEE SHEET SALVATION ARMY DEMOLITION DETAIL - 2.
2. REMOVE OVERHEAD COILING DOOR AND FRAME. FILL IN EXISTING 7'-9" WIDE x 7'-6" HIGH OPENING WITH CMU BLOCK. PAINT CMU WALL INFILL TO MATCH EXISTING. SEE SHEET SALVATION ARMY DEMOLITION DETAIL - 2, ELEVATION 5.
3. REPAIR EXISTING MASONRY WALL AT CORNER WITH SALVAGED MASONRY FROM DEMOLISHED MASONRY WALLS. MATCH MASONRY COLOR AS CLOSE AS POSSIBLE.
4. REPAIR EXISTING MASONRY WALL AT FACE WITH SALVAGED MASONRY FROM DEMOLISHED MASONRY WALLS. MATCH MASONRY COLOR AS CLOSE AS POSSIBLE.
5. PROVIDE NEW STEEL CHANNEL STAIR WITH BAR GRATING LANDING AND TREADS, STEEL PIPE LANDING SUPPORT AND 1-1/2" SCH. 40 STEEL PIPE RAILING AT NEW DOOR OPENING. SEE SALVATION ARMY DEMOLITION DETAIL - 2

LICENSED STRUCTURAL ENGINEER
DENNIS G. WILKINSON
081-006720
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

SIGNED: 11/1/2021

EXPIRES 11/30/2022

MODEL: Detail 1
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
SALVATION ARMY DEMOLITION DETAIL – 1

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	245
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

PROVIDE 3'-0"x7'-0"x1 3/4" THICK EXTRA HEAVY DUTY STEEL DOOR COMPLYING WITH ANSI / SDI A250.8, LEVEL 3; ANSI / SDI A250.4, LEVEL A, WITH A POLISOCYANURATE CORE. FACE TO BE METALLIC-COATED STEEL SHEET, MINIMUM THICKNESS 0.053 IN., WITH A MINIMUM A60 COATING. EDGE CONSTRUCTION MODEL 2, SEAMLESS. CLOSE ALL EDGES.

PROVIDE METALLIC-COATED STEEL SHEET FRAME, FULL PROFILE WELDED, MINIMUM THICKNESS 0.053 IN., WITH A MINIMUM A60 COATING.

PROVIDE FLOOR ANCHORS AND MASONRY JAMB ANCHORS.

APPLY MANUFACTURE'S STANDARD PRIMER. COMPLYING WITH ANSI / SDI A250.10 AND THEN PROVIDE FINISH COAT.

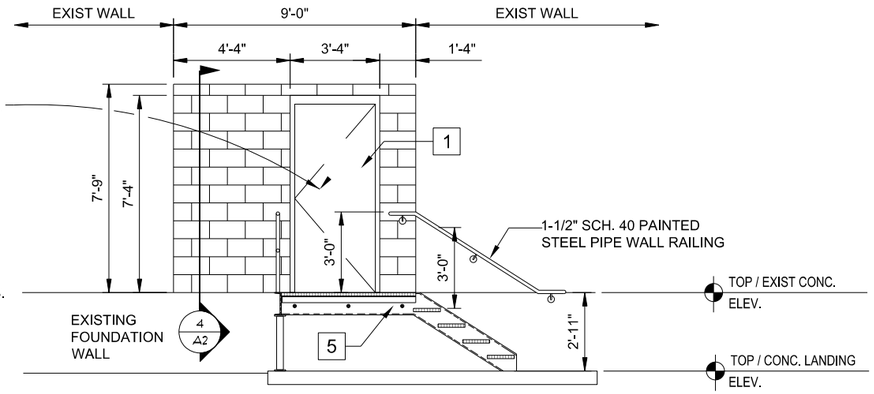
PROVIDE 3 HINGES (BHMA A156.1).

PROVIDE MORTISE LOCK (BHMA A156.13), OPERATIONAL GRADE 1; STAMPED STEEL CASE WITH STEEL OR BRASS PARTS; SERIES 1000, WITH A MIN. 3/4IN. LATCHBOLT THROW. PROVIDE LEVER TRIM. MATCH OWNERS EXISTING KEYING SYSTEM.

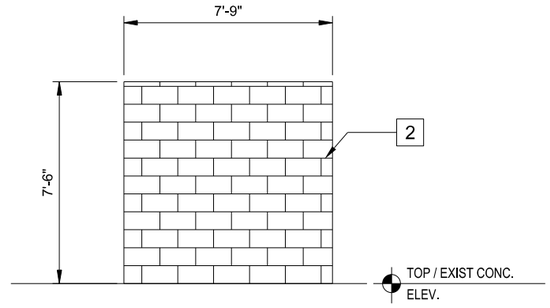
PROVIDE SURFACE CLOSURE COMPLYING WITH BHMA A156.4.

PROVIDE DOOR GASKETING 3 SIDES COMPLYING WITH BHMA A156.22.

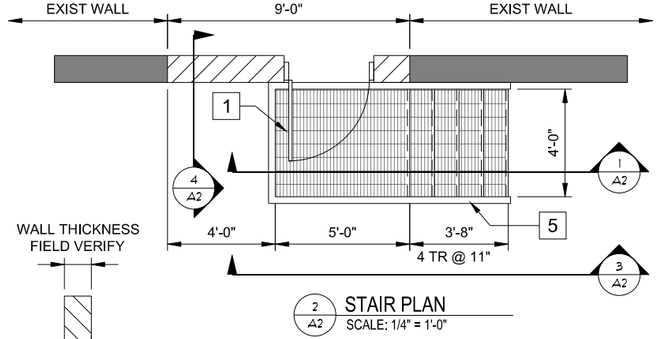
PROVIDE THRESHOLD RUNNING FULL WIDTH OF OPENING COMPLYING WITH BHMA A156.51.



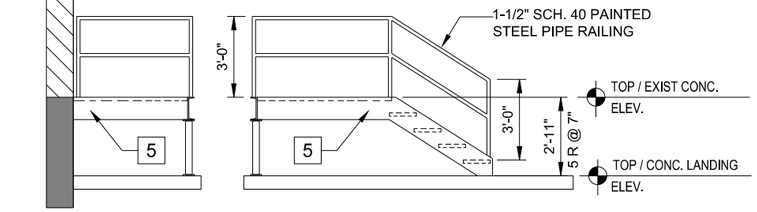
1 / A2 STAIR SECTION
SCALE: 1/4" = 1'-0"



5 / A2 NORTH WALL ELEVATION
SCALE: 1/4" = 1'-0"



2 / A2 STAIR PLAN
SCALE: 1/4" = 1'-0"



4 / A2 WALL SECTION
SCALE: 1/4" = 1'-0"

3 / A2 STAIR ELEVATION
SCALE: 1/4" = 1'-0"

NOTE: REFER TO SHEET SALVATION ARMY DEMOLITION DETAIL - 1 FOR NOTES

LICENSED STRUCTURAL ENGINEER
DENNIS G. WILKINSON
081-006720
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

SIGNED: 11/1/2021

EXPIRES 11/30/2022

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
SALVATION ARMY DEMOLITION DETAIL – 2

SCALE: | SHEET 2 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	246
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

BUILDING TO REMAIN

9TH STREET

EXISTING RR ROW

TEMPORARY EASEMENT

℄ UPRR MAIN 1

℄ NSRR MAIN 2

℄ NSRR MAIN 1

PROPOSED RR ROW

EXISTING RR ROW

EXISTING ROW

CAPITOL AVE.

EXISTING ROW

EXISTING ROW

EXISTING ROW

52405+00

52406

52407

52408

47758

47759

47760+00

[1] REMOVE ENTIRE EXISTING STRUCTURE INCLUDING BUT NOT LIMITED TO SLIDING DOOR AND TRACK AND FRAME, 2 COIL DOORS, CMU WALLS AND CONCRETE FOOTINGS AND FLOOR SLAB, METAL ROOF, ROOFING AND ROOF DRAIN AND PIPING. REMOVE ALL CONDUIT AND JUNCTION BOXES LIGHT FIXTURES AND POWER AND LIGHTING RECEPTACLES. REPAIR AND EXISTING MASONRY TO REMAIN THAT WAS DISTURBED BY THE REMOVAL OF THE STRUCTURE. INFILL OPENING AT EXISTING WALL AFTER SLIDING DOOR AND FRAME ARE REMOVED. MATCH EXISTING CONSTRUCTION.

[2] REMOVE ENTIRE EXISTING CONCRETE RAMP STRUCTURE INCLUDING BUT NOT LIMITED TO STEEL PIPE RAILING. REPAIR ANY EXISTING MASONRY TO REMAIN THAT WAS DISTURBED BY THE REMOVAL OF THE RAMP STRUCTURE.

NOTES:
COST OF ALL WORK SHOWN ON THE GATEHOUSE MEDIA DEMOLITION DETAILS SHEET SHALL BE INCLUDED IN THE COST OF BUILDING REMOVAL NO. 4.

BUILDING REMOVAL NO. 4

1

2

N

0 20 40 60

SCALE IN FEET

LICENSED STRUCTURAL ENGINEER
DENNIS G. WILKINSON
081-006720
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

SIGNED: 11/1/2021

EXPIRES 11/30/2022

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
GATEHOUSE MEDIA DEMOLITION DETAILS

SCALE: | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	247
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES:

1. CONTRACTOR SHALL COORDINATE WITH THE RAILROAD IF CONSTRUCTION ACTIVITIES ENCROACH WITHIN 25 FT OF THE ADJACENT RAIL.

2. FINAL SITE GRADING SHALL OCCUR ONLY AFTER ALL IMPROVEMENTS HAVE BEEN COMPLETED.

3. THERE ARE THREE (3) DRAINAGE STRUCTURES: ONE (1) SIX FOOT INSIDE DIAMETER STRUCTURE IDENTIFIED AS DRAINAGE STRUCTURE NO.1, AND TWO (2) 10 FOOT INSIDE DIAMETER STRUCTURES BOTH IDENTIFIED AS DRAINAGE STRUCTURES NO. 2. EACH 10 FT. INSIDE DIAMETER DRAINAGE STRUCTURE IS IDENTICAL WITH THE EXCEPTION OF THE PIPES ENTERING AND EXITING THEM. DRAINAGE STRUCTURES WILL BE BID PER EACH.

EXCAVATION AND BACKFILL NOTES:

1. DRAINAGE STRUCTURES SHALL BE EXCAVATED USING A VERTICAL SHAFT BORING MACHINE.

2. THE CONTRACTOR SHALL SUBMIT A DETAILED EXCAVATION PLAN AND DETAILED GROUT INSTALLATION AND DRAINAGE STRUCTURE INSTALLATION PLAN SEALED BY A PROFESSIONAL ENGINEER TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK. THE EXCAVATION PLAN SHALL INCLUDE DRAWINGS AND DESIGN CALCULATIONS FOR TEMPORARY OR PERMANENT CASING. THE CALCULATIONS SHALL BE PREPARED AND SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR THE SAFETY OF THE EXCAVATION.

3. ALL EXCAVATION, SHORING, TEMPORARY OR PERMANENT CASING, AGGREGATE OR CONCRETE BASE, CONCRETE PRECAST MANHOLE SECTIONS, FLAT SLAB TOP, ACCESS HATCHES, LOCKING MECHANISM, MASTIC, SEALANT, WATERPROOFING GROUT, AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EACH DRAINAGE STRUCTURE.

4. TEMPORARY OR PERMANENT CASING SHALL BE ACCORDING TO SECTION 516 OF THE STANDARD SPECIFICATIONS. GALVANIZED CMP MAY ALSO BE USED AS PERMANENT CASING. IF CMP IS USED AS A PERMANENT CASING, THE ANNULAR SPACE BETWEEN THE CMP AND THE EDGE OF THE BORING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 579.00.

5. THE STRUCTURES SHALL BE EXCAVATED AND INSTALLED ONE AT A TIME WITH EACH BEING GROUTED AND BACKFILLED COMPLETELY BEFORE COMMENCING CONSTRUCTION ON THE NEXT.

6. THE ANNULAR SPACE BETWEEN THE DRAINAGE STRUCTURE WALL AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BETWEEN THE DRAINAGE STRUCTURE AND PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT FROM THE BASE TO ELEVATION 579.00.

7. FROM ELEVATION 579.00 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE SECTION AND THE EDGE OF THE BORING WITH A TEMPORARY CASING OR BOTH SIDES OF THE PERMANENT CASING SHALL BE FILLED WITH NON-SHRINK GROUT OR CONTROLLED LOW STRENGTH MATERIAL, MIX 2.

8. THE DRAINAGE STRUCTURE SHALL BE CHECKED AFTER THE INSTALLATION OF EACH SECTION TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE ACTION TO SHIM THE STRUCTURE BACK INTO LEVEL.

9. MATERIAL REMOVED FROM THE EXCAVATION SHALL BE DISPOSED OF IN ACCORDANCE WITH SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PIPE CONNECTION NOTES:

1. ALL STORM PIPE INFORMATION IS SHOWN ON DRAINAGE SCHEDULES AND DRAINAGE DETAILS.

2. THE DRAINAGE STRUCTURES SHALL BE CONNECTED BY 36" DIAMETER CLASS 52 DUCTILE IRON PIPE.

3. ALL MATERIAL AND LABOR ASSOCIATED WITH EXCAVATING FOR AND INSTALLING THE 36" DIAMETER PIPE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR STORM SEWER CONNECTION.

4. THE PIPE SHALL BE INSTALLED BY TUNNEL EXCAVATION AFTER THE THREE DRAINAGE STRUCTURES HAVE BEEN INSTALLED AND BACKFILLED.

5. ONCE THE OPENING HAS BEEN EXCAVATED, AND THE PIPE INSTALLED, THE PIPE SHALL BE SEALED TO EACH DRAINAGE STRUCTURE WITH NON-SHRINK GROUT AND 2" DIAMETER GROUT FILL AND VENT PORTS.

6. ONCE THE GROUT HAS DRIED, THE ANNUAL SPACE BETWEEN THE ROCK AND THE PIPE SHALL BE GROUTED UNTIL THE MATERIAL EXITS THE VENT. ONCE THE GROUT HAS CURED, THE GROUT PIPES SHALL BE CUT OFF FLUSH WITH THE INTERIOR OF THE DRAINAGE STRUCTURES.

7. STORM SEWERS JACKED IN PLACE, 24" SHALL MEET THE REQUIREMENTS OF SECTION 552 OF THE STANDARD SPECIFICATIONS AND AS SPECIFIED IN THE SPECIAL PROVISIONS.

8. THE STORM SEWER SHALL HAVE A 36" DIAMETER STEEL CASING JACKED AND BORED FROM STRUCTURE J10 TO THE NORTHERN MOST DRAINAGE STRUCTURE WITH THE 24" DIAMETER STORM SEWER INSTALLED WITHIN IT. CASING SPACERS SHALL BE USED TO SUPPORT THE CARRIER PIPE WITH THE CASING. A CASING END SEAL SHALL BE USED TO SEAL THE CASING TO THE CARRIER PIPE. AT CONNECTION TO DRAINAGE STRUCTURES, GROUT BETWEEN THE CASING AND THE CARRIER PIPE.

9. THE 24" DIAMETER STORM SEWER SHALL BE SOLID WALL PS46 PIPE. THE 36" DIAMETER STEEL CASING PIPE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OR STORM SEWERS JACKED IN PLACE, 24".

PUMPING STATION NOTES:

1. THE VALVE VAULT, PUMPS, PUMP BASES, RAILS AND LIFTING CHAINS SHALL ALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMPING STATION.

2. ALL PIPING, FITTINGS, VALVES PIPE BRACING AND PIPE SUPPORT BRACKETS FROM THE PUMP BASE, THROUGH THE VALVE VAULT TO FIVE FEET OUTSIDE THE VALVE VAULT SHALL BE PAID FOR UNDER PUMP STATION MECHANICAL WORK, UNLESS OTHERWISE NOTED.

3. ALL VALVES AND FITTINGS IN THE VALVE VAULT SHALL BE SUPPORTED ON STEEL PIPE SUPPORTS.

4. THE 2" SCHEDULE 40 DRAIN AND CHECK VALVE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR PUMP STATION MECHANICAL WORK.

5. THE 6" DIAMETER DUCTILE IRON PIPE BETWEEN THE SOUTH DRAINAGE STRUCTURES, NO. 2 AND THE DRAINAGE STRUCTURE, NO. 1 SHALL BE PAID FOR UNDER PUMP STATION MECHANICAL WORK.

6. THE ¾" COPPER PIPE AND OIL FILLED GAUGE IN THE VALVE VAULT FOR DRAINAGE STRUCTURES, NO. 2 SHALL BE PAID FOR UNDER PUMP STATION MECHANICAL WORK.

DRAINAGE STRUCTURE AND VALVE VAULT NOTES:

1. THE ACCESS HATCHES CAST INTO THE LID OF DRAINAGE STRUCTURE SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE.

2. THE VALVE VAULT AND ASSOCIATED EXCAVATION AND BACKFILL SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PUMPING STATION.

3. THE VALVE VAULT SHALL CONFORM TO ASTM C-913. THE STRUCTURE SHALL BE DESIGNED FOR EARTH LOADS AND HS-20 LIVE LOAD FOR VEHICULAR TRAFFIC.

4. THE PRECAST CONCRETE LID FOR DRAINAGE STRUCTURE SHALL BE SEALED TO THE TOP BARREL SECTION WITH TWO ROWS OF BUTYL MASTIC. THE LID SHALL HAVE A FABRICATED GALVANIZED STEEL FRAME AND HATCH SYSTEM PER THE PLANS. ORIENTATION OF THE HATCH SYSTEM SHALL BE COORDINATED WITH THE PUMP MANUFACTURER.

5. AFTER INSTALLATION IS COMPLETE, IF THERE ARE WATER LEAKS AT JOINTS, THE CONTRACTOR SHALL WATERPROOF THE LEAKS USING DRILLED PORTS AROUND THE LEAK AND A HYDROPHILIC GROUT. IF REQUIRED, IT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR DRAINAGE STRUCTURE.

6. ALL PENETRATIONS THROUGH THE WALLS OF THE DRAINAGE STRUCTURES SHALL BE SEALED WITH NON-SHRINK GROUT OR LINK SEALS AS IDENTIFIED ON PLANS.

7. THE DRAINAGE STRUCTURE SHALL BE CHECKED DURING INSTALLATION AND GROUTING TO ENSURE A TRUE VERTICAL INSTALLATION. IF THE ALIGNMENT IS OFF, THE CONTRACTOR SHALL TAKE CORRECTIVE MEASURES TO SHIM THE STRUCTURE BACK TO LEVEL.

8. THE EXTERIOR AND BOTTOM OF THE VALVE VAULT SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.

DRAINAGE STRUCTURE PRECAST CONCRETE MANHOLE:

1. DRAINAGE STRUCTURES SHALL BE PRECAST REINFORCED CONCRETE MANHOLES CONFORMING TO SECTION 1042 OF THE STANDARD SPECIFICATIONS. STRUCTURES SHALL BE WATER TIGHT. THE PRECAST CONCRETE MANHOLE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

2. THE EXTERIOR AND BOTTOM OF THE BASE OF THE STRUCTURES SHALL RECEIVE TWO COATS OF ASPHALT EMULSION WATERPROOFING IN ACCORDANCE WITH SECTION 503.18 OF THE STANDARD SPECIFICATIONS.

3. THE DRAINAGE STRUCTURE SECTIONS SHALL BE A MINIMUM OF 4-FT TALL WITH THE EXCEPTION OF THE FINAL SECTION. EACH SECTION SHALL BE SEALED WITH TWO (2) STRIPS OF BUTYL RUBBER SEALANT. JOINTS IN THE BUTYL RUBBER SEALANT SHALL BE OVERLAPPED TO PREVENT GAPS.

4. THE ANNULAR SPACE BETWEEN THE STRUCTURE AND THE DRILLED SHAFT SHALL BE FILLED WITH NON-SHRINK GROUT. THE GROUT SHALL BE INSTALLED AFTER EACH BARREL SECTION IS INSTALLED FROM ELEVATION 564.17 TO 579.00. FROM ELEVATION 579.00 TO THE SURFACE, THE ANNULAR SPACE BETWEEN THE MANHOLE AND DRILLED SHAFT SHALL BE FILLED WITH CONTROLLED LOW STRENGTH MATERIAL OR NON-SHRINK GROUT.

5. THE CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR INSTALLING THE GROUT AND DRAINAGE STRUCTURES TO THE ENGINEER FOR APPROVAL BEFORE COMMENCING THE WORK. THE PLAN SHALL ADDRESS THE INSTALLATION METHOD AND BUOYANCY ISSUES DURING INSTALLATION. THIS APPROVAL WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR GROUTING AND INSTALLING THE DRAINAGE STRUCTURE.

6. IF GROUNDWATER IS PRESENT BETWEEN THE STRUCTURE AND THE DRILLED SHAFT, THE CONTRACTOR SHALL USE A GROUT FORMULATED FOR CURING UNDER WATER AND SHALL INSTALL THE GROUT FROM THE BOTTOM-UP USING A TREMIE OR PUMP.

7. THE NON-SHRINK GROUT SHALL CONFORM TO ASTM C-1107 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AFTER 28 DAYS. THE ADDITION OF AGGREGATE TO THE PREPACKAGED PRODUCT WILL BE PERMITTED AND SHALL BE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. IN LIEU OF NON-SHRINK GROUT AROUND THE DRAINAGE STRUCTURE, THE CONTRACTOR MAY USE CLASS DS CONCRETE WITH 8-10 INCH SLUMP AT POINT OF PLACEMENT.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – GENERAL NOTES

SCALE: | SHEET 1 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	248
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

GENERAL LEGEND

PLAN	
$	SINGLE POLE SWITCH
$2	TWO POLE SWITCH
$3	THREE WAY SWITCH
$4	FOUR WAY SWITCH
$	FRACTIONAL H.P. MANUAL STARTER
$WP	WEATHERPROOF SWITCH
$MC	MOMENTARY CONTACT SINGLE POLE DOUBLE THROW SWITCH
	SIMPLEX RECEPTACLE
EP	EXPLOSION PROOF SIMPLEX RECEPTACLE
	DUPLEX RECEPTACLE
WP	WEATHERPROOF DUPLEX RECEPTACLE
GFCI	DUPLEX RECEPTACLE W/GROUND FAULT INTERRUPTOR
	QUADRUPLEX RECEPTACLE
	SPECIAL PURPOSE OUTLET (IDENTIFIED ON PLANS)
	PLUG
J	JUNCTION BOX (LINE GOES TO BOX)
J EP	EXPLOSION PROOF JUNCTION BOX (LINE GOES TO BOX)
*	DISCONNECT SWITCH. * = AMPERAGE RATING.
	POWER POLE OR RISER POLE
F#	LIGHT FIXTURE. # = TYPE
F# EP	EXPLOSION PROOF LIGHT FIXTURE # = TYPE
	CONDUIT (EXPOSED)
	CONDUIT (CONCEALED OR BURIED)
OHE	OVERHEAD ELECTRIC
GROUND / HOT	# 12 THWN UNLESS OTHERWISE SPECIFIED. LONG AND SHORT HASH LINES DENOTE NUMBER OF CURRENT CARRYING WIRES. ∘(DOT) = SEPARATE GROUND WIRE.
	LIGHTING PANEL
	POWER PANEL
	PANEL OR ENCLOSURE
E	UNDERGROUND ELECTRIC
GND	GROUND CABLE
	EXOTHERMIC WELD GROUND CONNECTION
	GROUND ROD

ONE-LINE	
	SURGE PROTECTOR/TVSS DEVICE
	ELECTRIC UTILITY SERVICE METER AND BASE
	TRANSFORMER
	CABLE TERMINAL OR LUGS
G	GENERATOR
SIZE #	COMBINATION CIRCUIT BREAKER/STARTER WITH OVERLOAD PROTECTION. # = NEMA SIZE NO.
	GROUND - GROUND ROD, CHASSIS, BUS, OR AT EARTH POTENTIAL
M	MOTOR
M EP	EXPLOSION PROOF MOTOR
#	MOTOR, # = HORSEPOWER
	CIRCUIT BREAKER
MCP	ADJUSTABLE MOTOR CIRCUIT PROTECTOR TYPE BREAKER
	THERMAL-MAGNETIC CIRCUIT BREAKER
	FUSE
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	THERMAL OVERLOAD PROTECTION
	EXPLOSION PROOF CONDUIT SEAL-OFF FITTING
N O E L	TRANSFER SWITCH
	JUNCTION BOX WITH SPLICE
GND	GROUND BUS OR LUG
S/N	NEUTRAL BUS
LP	LIGHTING PANELBOARD
MMD	MICROPROCESSOR BASED METER DEVICE WITH LOCAL DISPLAY
VFD	COMBINATION MOTOR STARTER AND CIRCUIT BREAKER DISCONNECT VFD - VARIABLE FREQUENCY DRIVE

ABBREVIATIONS

AF	FRAME SIZE IN AMPS
AM	AC AMMETER
AMS	AC AMMETER SWITCH
AT	AMPS TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CBV	CABLES BY VENDOR
CKT	CIRCUIT
CR#	CONTROL RELAY NO. #
CT's	CURRENT TRANSFORMERS
DP#	DISTRIBUTION PANEL NO. #
E	EMERGENCY SIDE OF MANUAL TRANSFER SWITCH
ETM	ELAPSED TIME METER
FSL	FLOAT SWITCH CONTACT - LOW WATER CUT-OFF
FSH	FLOAT SWITCH CONTACT - HIGH WATER WARNING
FM	FLOW METER
G	GREEN INDICATING LIGHT
GFI	GROUND FAULT INTERRUPTER
GRD, GND	GROUND
K#	RELAY NO. #
KCMIL	THOUSAND CIRCULAR MILS
L.A.	LIGHTNING ARRESTOR
LP#	LIGHTING PANEL NO. #
LS	LEAK SENSOR
LSI	STATIC-TRIP FUNCTIONS: L = LONG TIME PICKUP & DELAY S = SHORT TIME PICKUP & DELAY I = INSTANTANEOUS PICKUP
LSIG	STATIC-TRIP FUNCTIONS: L = LONG TIME PICKUP & DELAY S = SHORT TIME PICKUP & DELAY I = INSTANTANEOUS PICKUP G = GROUND FAULT PICKUP & DELAY
M	METER
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OE	OVERHEAD ELECTRICAL
PE	PRESSURE ELEMENT
PIT	PRESSURE INDICATING TRANSMITTER
PT	PRESSURE TRANSDUCER
PLC	PROGRAMMABLE LOGIC CONTROLLER
P#	PUMP NO. #
R	RUN CONTACTOR
	RED INDICATING LIGHT
	RESISTANCE
SEC	TRANSFORMER SECONDARY
TE	TEMPERATURE ELEMENT
TS	TEMPERATURE SENSOR
TR#	TIMING RELAY NO. #
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
UPS	UNINTERRUPTIBLE POWER SUPPLY
UE	UNDERGROUND ELECTRICAL
VFD	VARIABLE FREQUENCY DRIVE
WP	WEATHERPROOF
XDUCER	PRESSURE TRANSDUCER
XFMR	TRANSFORMER

NOTES

1. CONTRACTOR SHALL EXAMINE THE SITE TO DETERMINE EXISTING SITE CONDITIONS. CONTRACTOR SHALL FIELD VERIFY RESPECTIVE CIRCUITS AND POWER SOURCES PRIOR TO WORKING ON, REMOVING, DISCONNECTING, RECONNECTING, INSTALLING, OR SERVICING THE RESPECTIVE EQUIPMENT OR OTHER DEVICE.
2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE NFPA 70 NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS FOR THE RESPECTIVE APPLICATION. ANY INSTALLATIONS WHICH VOID THE UL LISTING, INTERTEK TESTING SERVICES VERIFICATION/ETL LISTING (OR OTHER THIRD PARTY LISTING), AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
3. CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES WITH THE OWNER'S ANY SHUTDOWN OF EXISTING SYSTEMS SHALL BE SCHEDULED WITH AND APPROVED BY THE REPRESENTATIVE PRIOR TO SHUTDOWN. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS. ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910 OCCUPATIONAL SAFETY AND HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
4. CONTRACTOR SHALL KEEP A COPY OF THE LATEST NEC (NATIONAL ELECTRICAL CODE) IN FORCE ON SITE AT ALL TIMES DURING CONSTRUCTION FOR USE AS A REFERENCE.
5. CONTRACTOR SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.

NOTES (CONTINUED)

6. PER ILLINOIS ENVIRONMENTAL PROTECTION AGENCY TITLE 35: ENVIRONMENTAL PROTECTION, SUBTITLE C: WATER POLLUTION, CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY PART 370: ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS ALL ELECTRICAL EQUIPMENT INSTALLED IN A SEWAGE PUMP STATION WET WELL SHALL BE SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION. IN ADDITION EQUIPMENT LOCATED IN A SEWAGE WET WELL SHALL BE SUITABLE FOR USE UNDER CORROSIVE CONDITIONS.
7. LOCATE EXISTING UNDERGROUND UTILITIES AND CABLES. THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT, OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS, AND SHALL OBTAIN, FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT, WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER/RESIDENT TECHNICIAN SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION. PHONE: 1-800-892-0123. ALSO CONTACT THE OWNER'S REPRESENTATIVE FOR ASSISTANCE IN LOCATING UNDERGROUND LINES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.
8. COLOR-CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR SIZES (AWG AND/OR KCMIL) TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE OR GRAY COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6. COLOR CODING REQUIREMENTS SHALL BE POSTED ON EACH PANELBOARD WITH A WEATHERPROOF LABEL. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

480/277 VAC, 3-PHASE, 4-WIRE SYSTEM	
PHASE A	BROWN
PHASE B	ORANGE
PHASE C	YELLOW
NEUTRAL	GRAY
GROUND	GREEN

120/240 VAC, 1-PHASE, 3-WIRE SYSTEM	
PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN

9. PUMP MOTOR SIZES AND EQUIPMENT MAY VARY DEPENDING UPON MANUFACTURER. CIRCUIT BREAKERS, MOTOR STARTERS, VFD'S, CONDUITS AND WIRING SHALL BE SIZED FOR THE RESPECTIVE PUMP MOTORS AND EQUIPMENT FURNISHED. VERIFY REQUIREMENTS WITH THE RESPECTIVE PUMP MOTOR MANUFACTURER OR EQUIPMENT MANUFACTURER.
10. PROVIDE GROUNDING BUSHINGS AT ALL CONDUITS ENTERING SERVICE ENTRANCE EQUIPMENT (METER BASES, SERVICE DISCONNECTS, SERVICE PANELBOARDS, ETC.) AND THE TRANSFER SWITCH WITH BONDING CONDUCTOR FROM BUSHING TO GROUND BUS IN THE RESPECTIVE SERVICE ENTRANCE EQUIPMENT OR OTHER DEVICE.
11. LTFMC DENOTES LIQUID-TIGHT FLEXIBLE METAL CONDUIT, UL LISTED, SUNLIGHT RESISTANT AND SUITABLE FOR GROUNDING. LIQUID-TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE UL-LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID-TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO MOTORS AND TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. DO NOT INSTALL LIQUID-TIGHT, FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED. CONFIRM LIQUID-TIGHT, FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLATION.
12. ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES UL LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE TO MAINTAIN THE NEMA 4, 4X RATING. PROVIDE NEMA 4X STAINLESS STEEL HUBS FOR INTERFACE TO NEMA 4X STAINLESS STEEL ENCLOSURES.
13. COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY: CITY WATER, LIGHT & POWER (CWLP). PHONE:217-789-2323
14. CONTRACTOR SHALL PROVIDE ARC FLASH REPORT AND APPROPRIATE LABELS ON ELECTRICAL EQUIPMENT, IN CONFORMANCE WITH NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, ARTICLE 130 WORK INVOLVING ELECTRICAL HAZARDS.

HANSON

USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ/JFC	REVISED -
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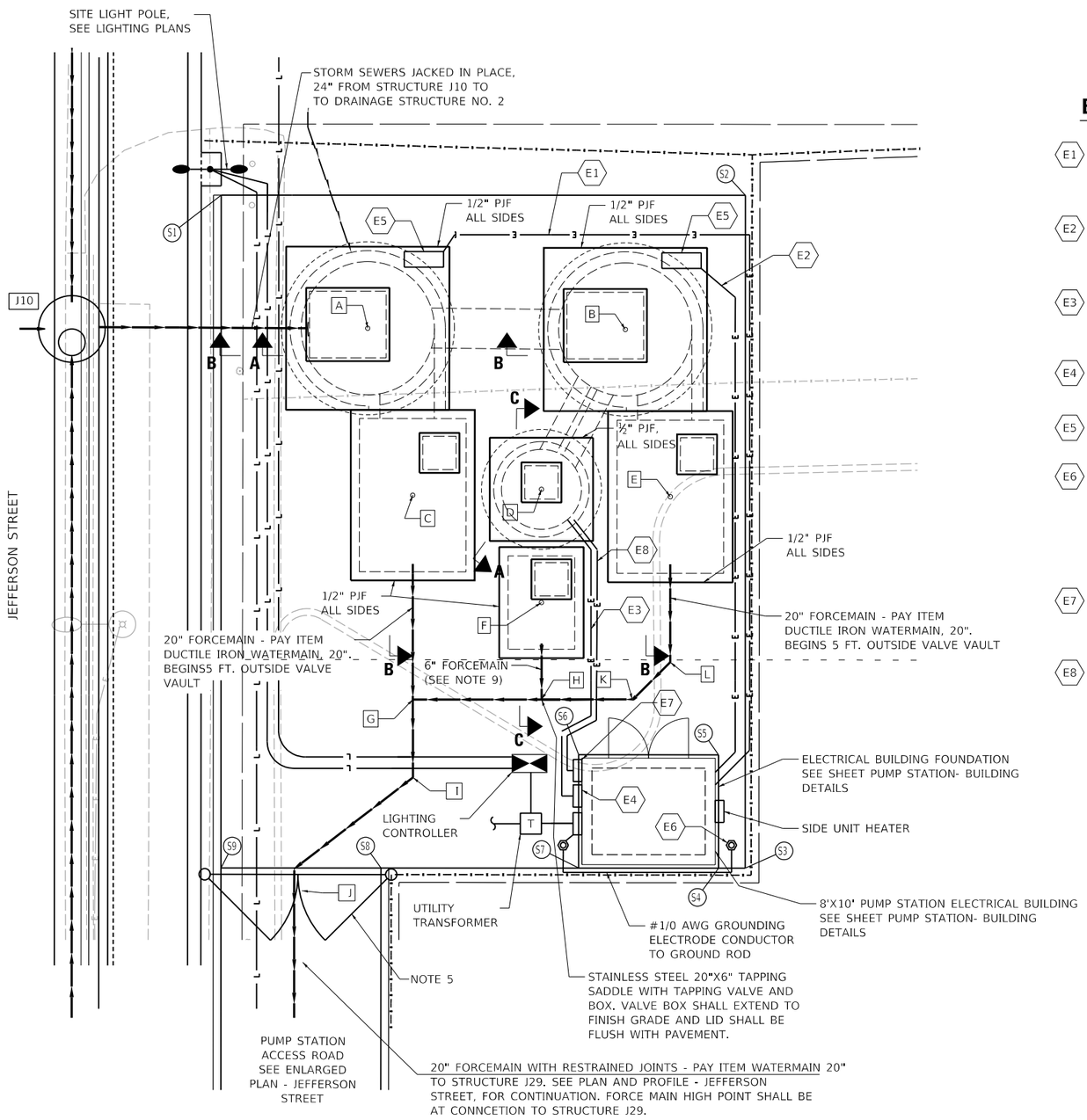
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION - ELECTRICAL LEGEND & NOTES
SCALE: SHEET 2 OF 22 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	249
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



PUMP STATION – SITE PLAN

0 5 10 15
SCALE IN FEET

ELECTRICAL NOTES

- E1 DRAINAGE STRUCTURE NO. 2 (NORTH) BUILDING TO J-BOX AT 60HP PUMP: 3-#2/0, #6 GROUND 2"C 1"C CONDUITS FOR PUMP MOTOR CONTROL
- E2 DRAINAGE STRUCTURE NO. 2 (SOUTH) BUILDING TO J-BOX AT 60HP PUMP: 3-#2/0, #6 GROUND 2"C 1"C CONDUITS FOR PUMP MOTOR CONTROL
- E3 DRAINAGE STRUCTURE NO. 1 (JOCKEY PUMP) ELECTRICAL BUILDING TO J-BOX AT PUMP: 3-#10, #10 GROUND 1"C 1"C CONDUITS FOR PUMP MOTOR CONTROL
- E4 JUNCTION BOX 24"x24"x8"D NEMA 4X S.S. ENCLOSURE FOR JOCKEY PUMP. SEE TERMINATION / JUNCTION BOX DETAIL.
- E5 JUNCTION BOX 30"x30"x12" NEMA 4X S.S. ENCLOSURE FOR MAIN PUMPS. SEE TERMINATION / JUNCTION BOX DETAIL.
- E6 ¾"x10'L COPPERCLAD GROUND ROD, TYPICAL OF 2. MINIMUM SPACING BETWEEN GROUND RODS TO BE AT LEAST THE LENGTH OF A GROUND ROD. ELECTRICAL CONTRACTOR TO TEST RESISTANCE OF GROUNDING AND IF TEST IS 25 OHMS OR HIGHER, CONTRACTOR IS TO DRIVE ANOTHER GROUND ROD WITH MINIMUM SPACING OF A GROUND ROD LENGTH.
- E7 INTRINSICALLY SAFE JUNCTION BOX / TERMINATION BOX; 24" x 24" x 8"D NEMA 4X S.S. ENCLOSURE FOR LEVEL CONTROLLER AND FLOAT SWITCHES. SEE JUNCTION BOX DETAILS.
- E8 FLOAT SWITCH CABLES IN 2.5"(MIN.) C. LEVEL TRANSDUCER CABLE IN 2" (MIN.) C.

PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 6"

POINT	NORTHING	EASTING	ELEVATION
S1	1142405.27	2443908.50	603.19
S2	1142365.94	2443907.96	603.60
S3	1142366.64	2443857.46	603.20
S4	1142368.64	2443857.49	603.30
S5	1142368.52	2443865.99	603.30
S6	1142379.02	2443866.13	603.30
S7	1142379.14	2443857.63	603.30
S8	1142393.97	2443857.84	602.66
S9	1142405.97	2443858.01	602.41

NOTES:

1. SEE SHEET PUMP STATION-PRC DETAIL FOR SECTION A-A. SEE SHEET PUMP STATION-MECHANICAL LAYOUT FOR SECTIONS B-B & C-C.
2. CONTRACTOR SHALL VERIFY THE DEPTH OF THE DISCHARGE PIPE.
3. TRENCH BACKFILL SHALL BE USED FOR THE 20" FORCE MAIN WHERE THERE IS PAVEMENT.
4. EXISTING UTILITY CONFLICTS - SEE GENERAL NOTES & REMOVAL PLANS FOR INFORMATION REGARDING ADJUSTMENTS AND REMOVAL LIMITS.
5. SEE SHEETS FENCING AND ACCESS PLAN -TRACK-5 & TEMPORARY FENCING AND ACCESS PLAN - JEFFERSON STREET.
6. SEE PLAN AND PROFILE - JEFFERSON ST. FOR FORCE MAIN LAYOUT NOT SHOWN ON THIS SHEET.
7. BURIED FORCE MAIN SHALL HAVE RESTRAINED JOINTS AT ALL FITTINGS AND CONNECTIONS.
8. ALL TEES, ELBOWS, 90° FITTINGS AND RESTRAINED JOINTS ARE TO BE INCLUDED IN THE COST PER FOOT OF WATERMAIN 20"
9. 6" DIAMETER FORCEMAIN AND FITTING SHALL BE INCLUDED IN PAY ITEM, PUMP STATION MECHANICAL WORK. CONTRACTOR TO ADD REQUIRED FITTINGS TO ADJUST FOR VERTICAL ELEVATION CHANGE.
10. CONCRETE DRIVEWAY PAVEMENT SHALL BE GRADED TO DIRECT STORM WATER RUNOFF TO THE PUMP STATION ACCESS ROAD. SHALLOW SWALES SHALL BE UTILIZED WHERE NEEDED BETWEEN STRUCTURES TO PROVIDE POSITIVE DRAINAGE.

- A ℄ DRAINAGE STRUCTURE NO. 2
  STA. 47744+24.70, 51.72' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.20
  N = 1142394.4076
  E = 2443898.3585
- B ℄ DRAINAGE STRUCTURE NO. 2
  STA. 47744+44.03, 51.81' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.40
  N = 1142375.0807
  E = 2443898.0086
- C ℄ VALVE VAULT (SERVES NORTH DRAINAGE STRUCT. NO. 2)
  STA. 47744+28.07, 64.25' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.20
  N = 1142391.2024
  E = 2443885.7869
- D ℄ DRAINAGE STRUCTURE NO. 1
  STA. 47744+37.73, 63.81' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.30
  N = 1142381.5373
  E = 2443886.0974
- E ℄ VALVE VAULT (SERVES SOUTH DRAINAGE STRUCT. NO. 2)
  STA. 47744+47.40, 64.36' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.40
  N = 1142371.8760
  E = 2443885.4104
- F ℄ VALVE VAULT (SERVES DRAINAGE STRUCT. NO. 1)
  STA. 47744+37.73, 72.31' RT (UPRR MAIN 1)
  PROPOSED LID ELEV. = 603.30
  N = 1142381.6558
  E = 2443877.5982
- G 20"x20" TEE
  STA. 47744+28.09, 79.59' RT (UPRR MAIN 1)
  N = 1142391.40, E = 2443870.44
  FL. ELEV. = 597.37
- H 20"x6" TAPPING SADDLE
  STA. 47744+37.74, 79.59' RT (UPRR MAIN 1)
  N = 1142381.74, E = 2443870.32
  FL. ELEV. = 597.26
- I 20"-45° ELBOW
  STA. 47744+28.09, 85.44' RT (UPRR MAIN 1)
  N = 1142391.47, E = 2443864.60
  FL. ELEV. = 597.43
- J 20"-45° ELBOW
  STA. 47744+19.76, 93.93' RT (UPRR MAIN 1)
  N = 1142399.92, E = 2443856.22
  FL. ELEV. = 597.57
- K 20"-45° ELBOW
  STA. 47744+44.61, 79.58' RT (UPRR MAIN 1)
  N = 1142374.88, E = 2443870.23
  FL. ELEV. = 597.18
- L 20"-45° ELBOW
  STA. 47744+47.40, 76.79' RT (UPRR MAIN 1)
  N = 1142372.05, E = 2443872.98
  FL. ELEV. = 597.14

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HANSON

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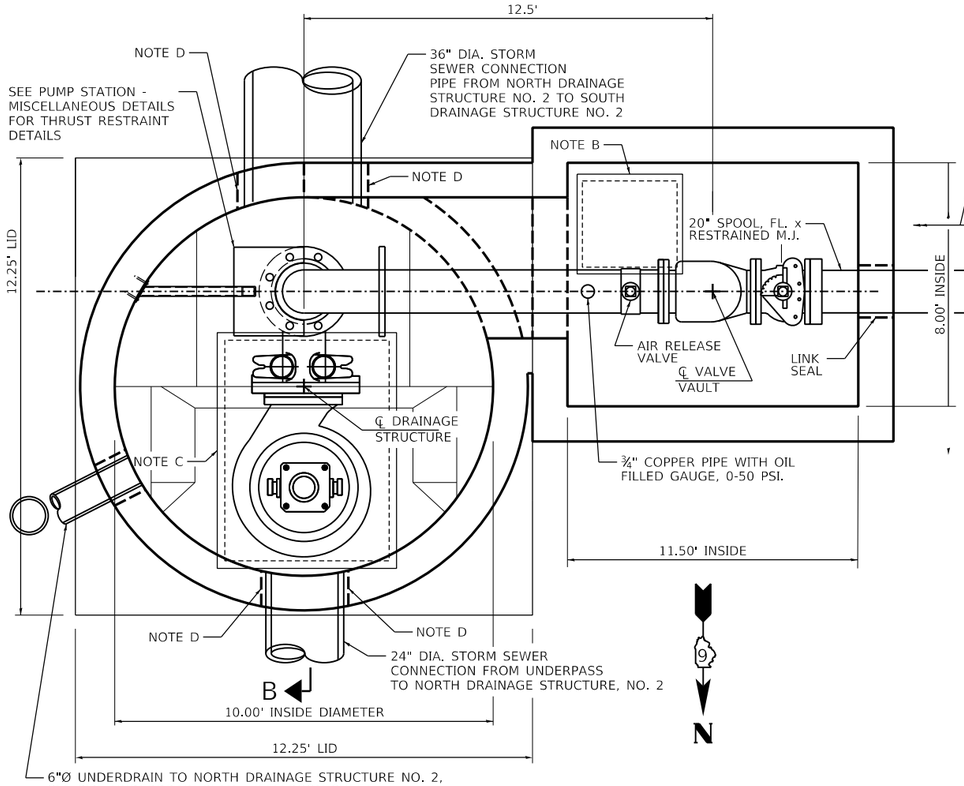
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 10.0000 ' / in.	CHECKED - LJB	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – SITE PLAN

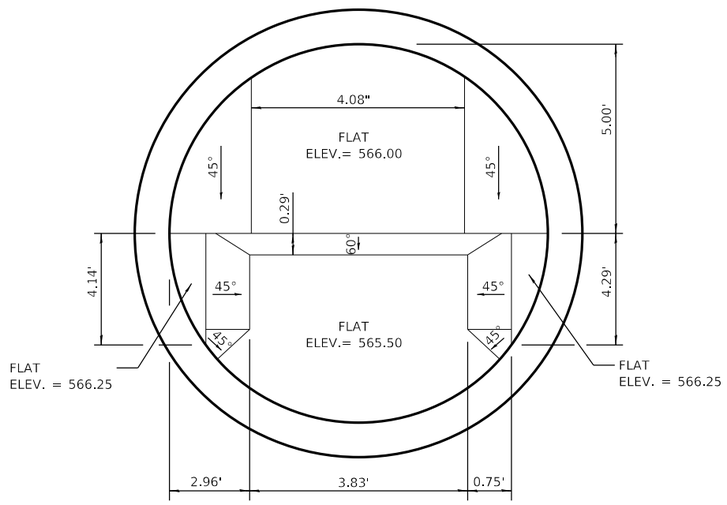
SCALE: | SHEET 3 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	250
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



MECHANICAL LAYOUT
NORTH 10' DRAINAGE STRUCTURE NO. 2 AND VALVE VAULT PLAN

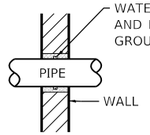
NOT TO SCALE



CHAMFER DETAIL

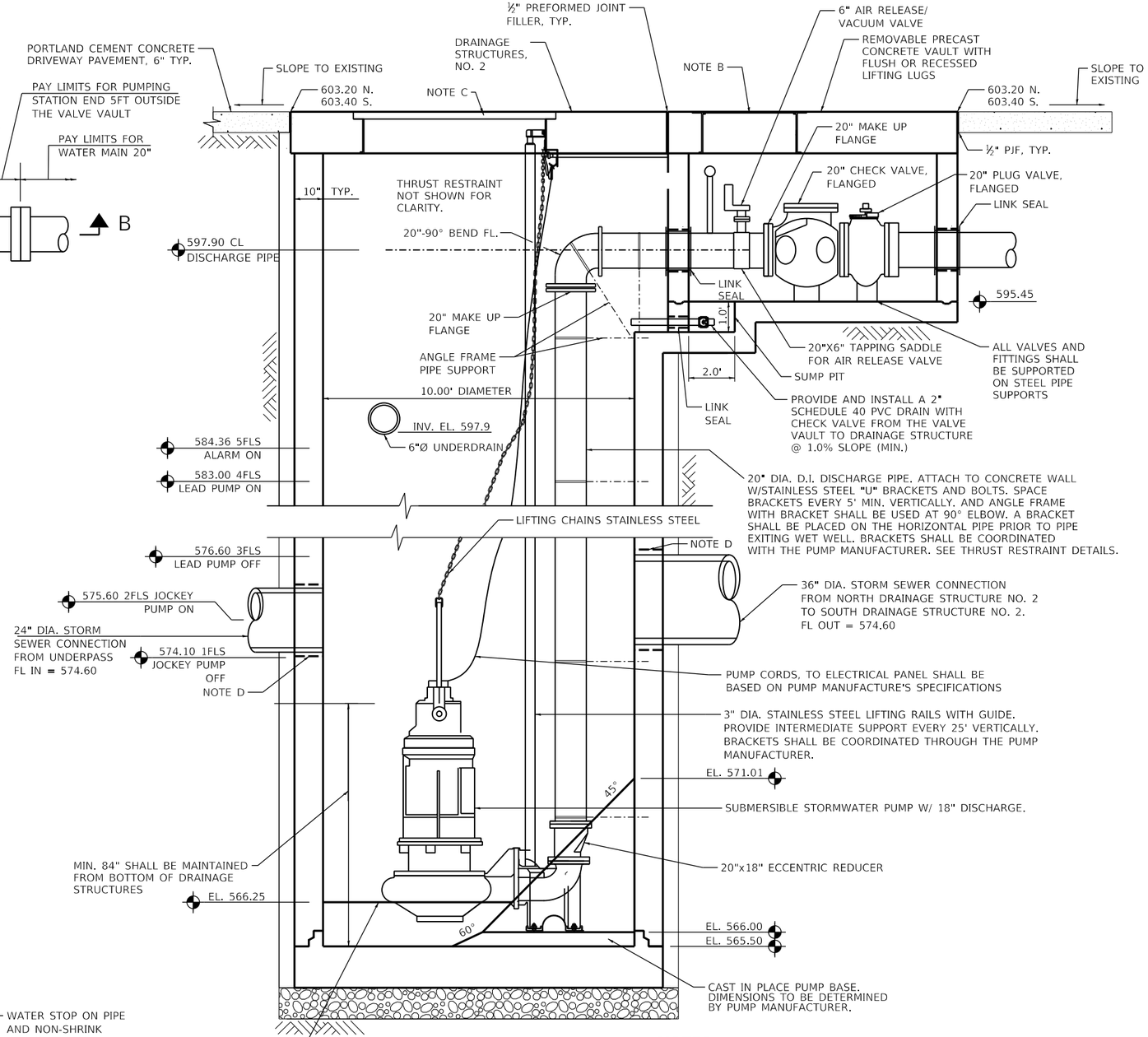
NOT TO SCALE

(ROTATION EQUIVALENT TO MECHANICAL LAYOUT ABOVE)



GROUT DETAIL

NOT TO SCALE



MECHANICAL LAYOUT
SECTION B–B

NOT TO SCALE

NOTES

A. CONTRACTOR SHALL MAINTAIN MIN. REQUIRED CLEARANCE FROM WET WELL WALL. CONTRACTOR TO VERIFY WITH PUMP MANUFACTURER.

B. 36" X 36" ALUMINUM ACCESS FRAME AND HATCH.

C. CUSTOM HATCH SYSTEM. SEE MISCELLANEOUS PUMP STATION DETAILS SHEET.

D. GROUT TYP. (SEE DETAIL THIS SHEET)

E. SOUTH DRAINAGE STRUCTURE NO. 2 AND ACCOMPANYING VALVE VAULT IDENTICAL TO NORTH DRAINAGE STRUCTURE NO. 2 EXCEPT ENTERING AND EXISTING PIPES THROUGH THE DRAINAGE STRUCTURE. THE PUMP AND DISCHARGE PIPE ARE IDENTICAL IN BOTH THE NORTH AND SOUTH DRAINAGE STRUCTURE NO. 2.

HANSON

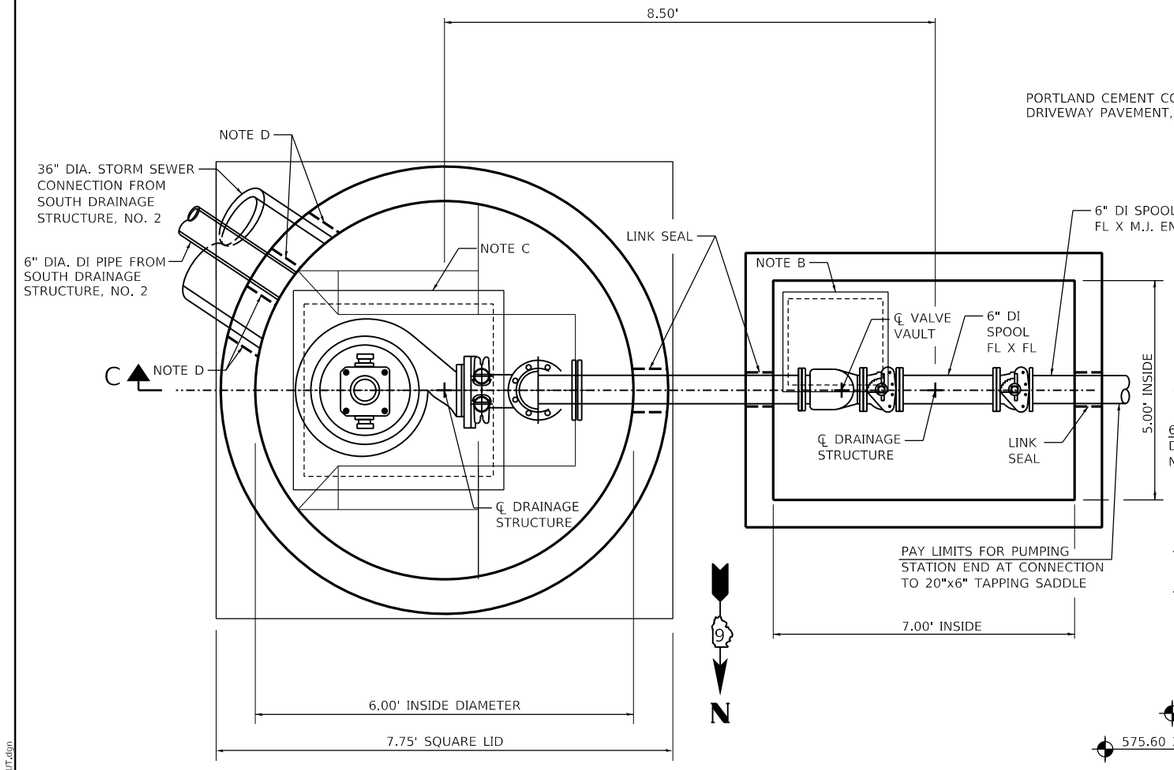
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – MECHANICAL LAYOUT

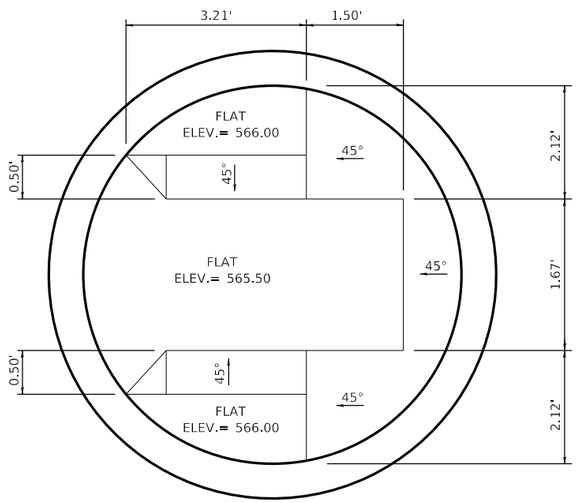
SCALE: | SHEET 4 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	251
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



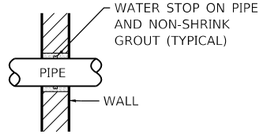
MECHANICAL LAYOUT
6' DRAINAGE STRUCTURE NO. 1 AND VALVE VAULT PLAN

NOT TO SCALE



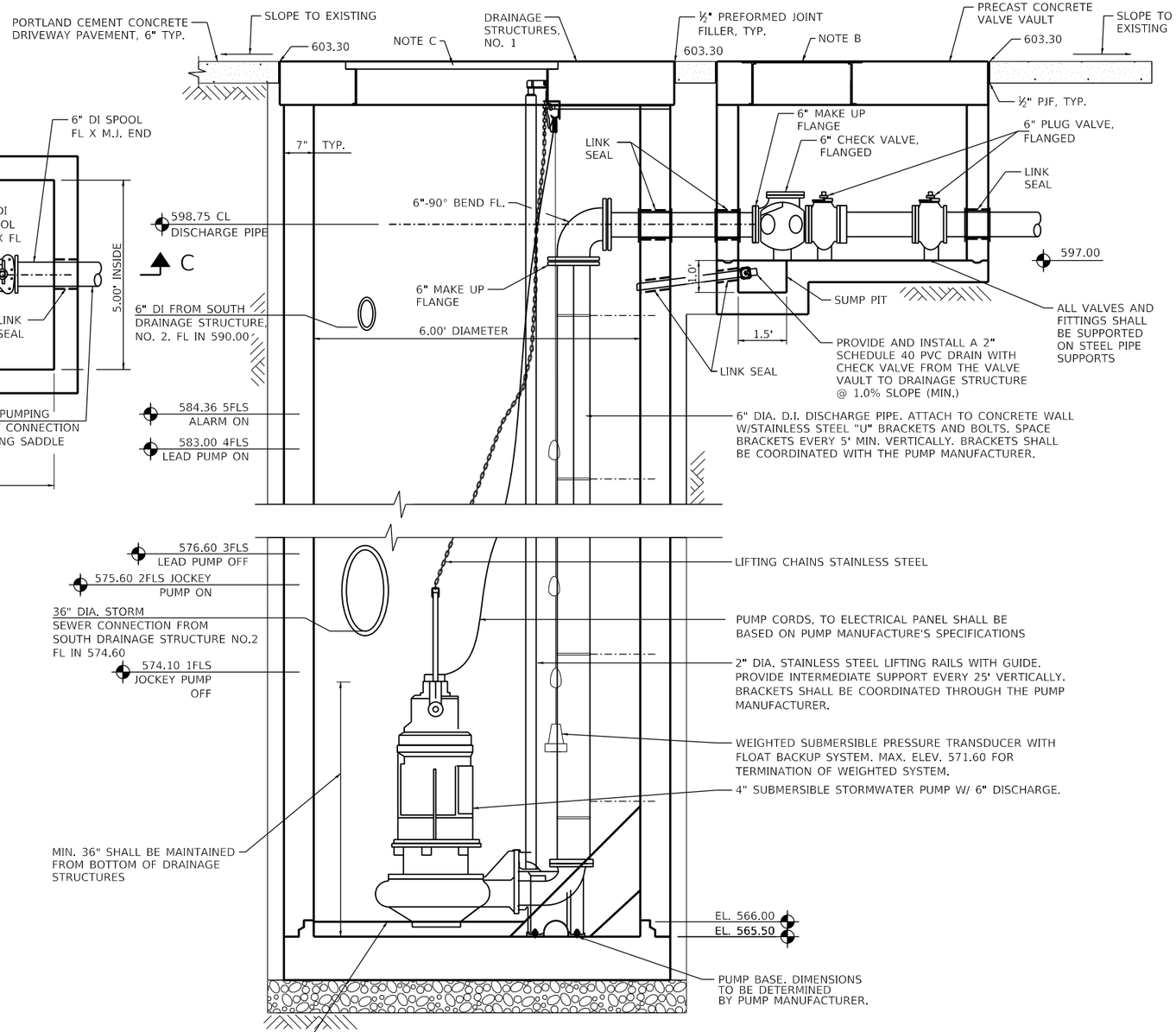
CHAMFER DETAIL

NOT TO SCALE
(ROTATION EQUIVALENT TO MECHANICAL LAYOUT ABOVE)



GROUT DETAIL

NOT TO SCALE



MECHANICAL LAYOUT
SECTION C–C

NOT TO SCALE

NOTES

A. CONTRACTOR SHALL MAINTAIN MIN. REQUIRED CLEARANCE FROM WET WELL WALL. CONTRACTOR TO VERIFY WITH PUMP MANUFACTURER.

B. 36" X 36" ALUMINUM ACCESS FRAME AND HATCH.

C. CUSTOM HATCH SYSTEM. SEE MISCELLANEOUS PUMP STATION DETAILS SHEET.

D. GROUT TYP. (SEE DETAIL THIS SHEET

USER NAME = Pop00275	DESIGNED - LJU	REVISED -	
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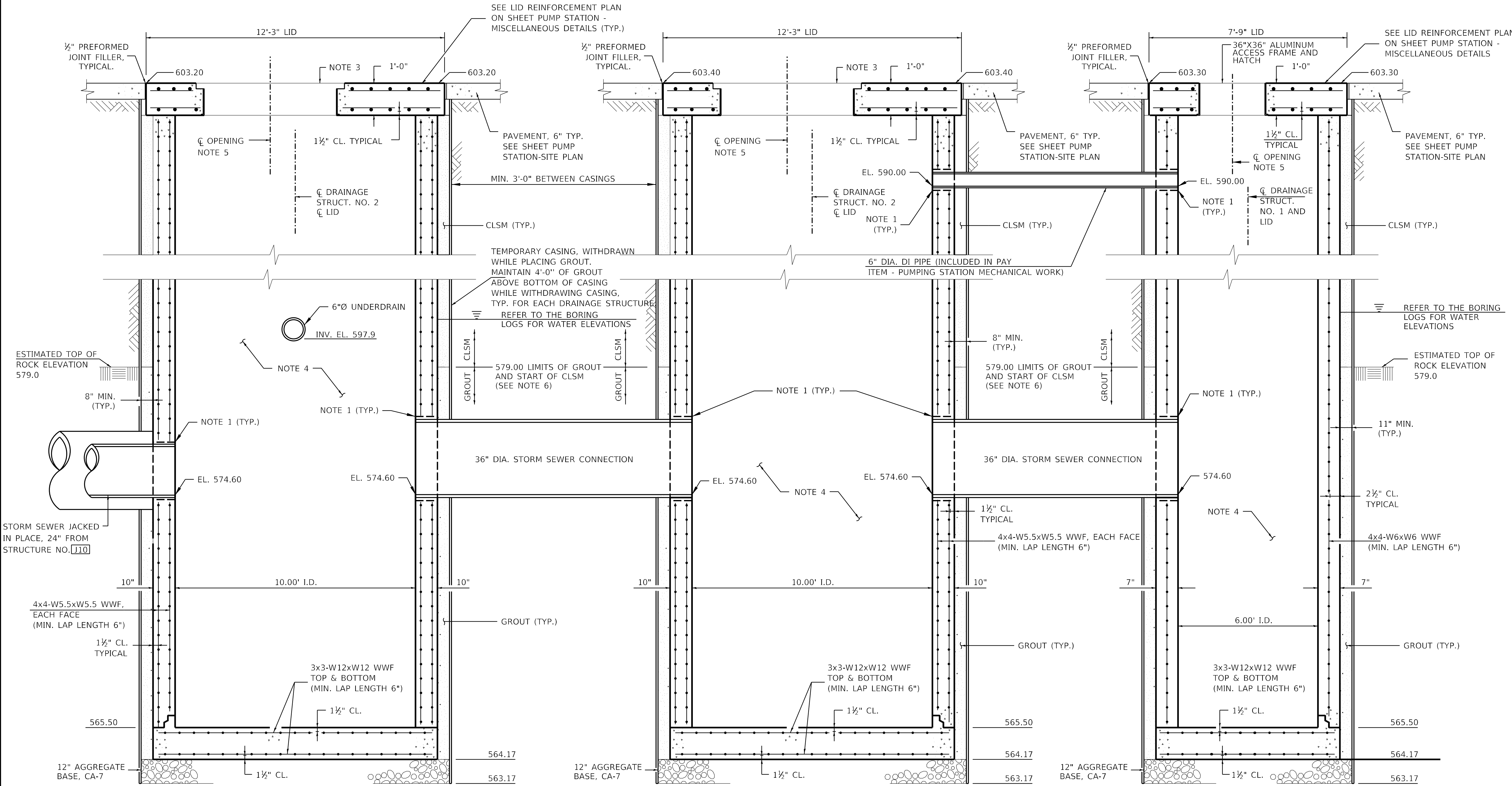
PLOT SCALE = 0.17 ' / In.	CHECKED - LJB	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – MECHANICAL LAYOUT

SCALE: | SHEET 5 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	252
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



NOT TO SCALE

PUMP MANHOLE
DRAINAGE STRUCTURE, NO. 2
PRECAST REINFORCED CONCRETE MANHOLE SECTIONS

PUMP MANHOLE
DRAINAGE STRUCTURE, NO. 2
PRECAST REINFORCED CONCRETE MANHOLE SECTIONS

PUMP MANHOLE
DRAINAGE STRUCTURE, NO. 1
PRECAST REINFORCED CONCRETE MANHOLE SECTIONS

SECTION A–A

PUMP MANHOLE NOTES

1. GROUT TYPICAL, SEE DETAIL ON SHEET PUMP STATION - MECHANICAL LAYOUT.
2. NOT USED.
3. CUSTOM HATCH SYSTEM. SEE PUMP STATION-MISCELLANEOUS DETAILS SHEET.
4. PUMPS AND PIPING REMOVED FOR CLARITY.
5. LOCATION OF THE HATCH & HINGED SIDE OF THE HATCH TO BE COORDINATED WITH THE PUMP MANUFACTURER.
6. GROUT SHALL BE PLACED BETWEEN DRAINAGE STRUCTURE AND THE TEMPORARY CASING.
7. DRAINAGE STRUCTURES ROTATED FOR CLARITY.

MODEL: Sheet 1
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheets\D609L0179B-PS13_PRC_DET.dgn

HANSON

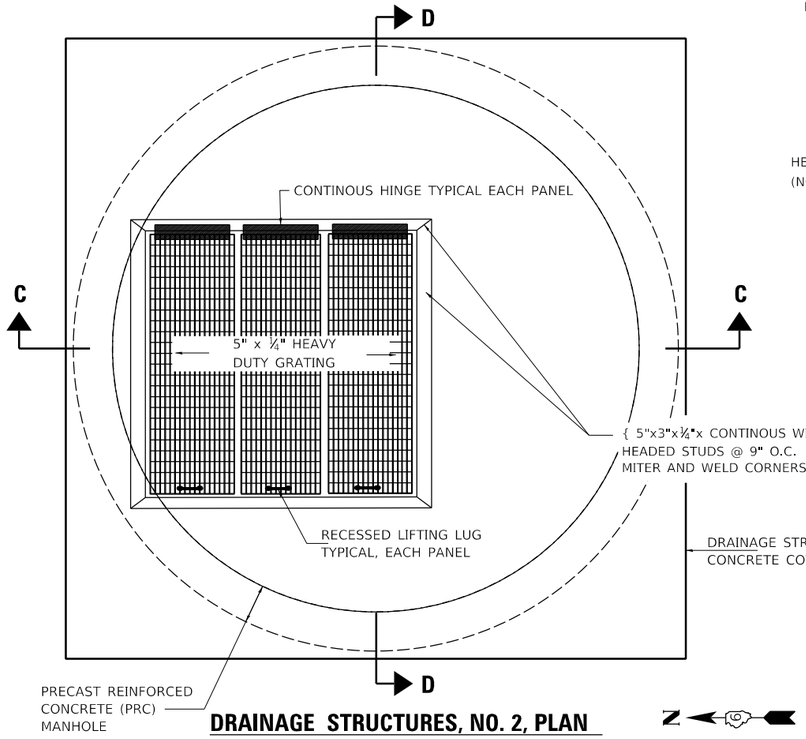
USER NAME = Pop00275	DESIGNED - LJU	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 0.17 ' / in.	CHECKED - LJB	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – PRC DETAIL

SCALE: | SHEET 6 OF 22 SHEETS | STA. | TO STA.

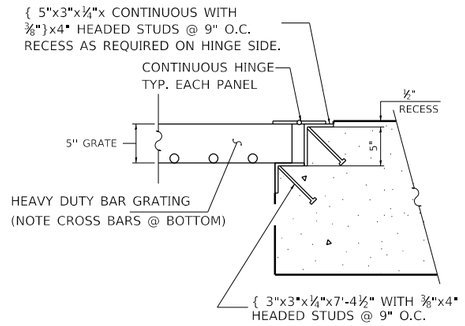
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	253
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS	FED. AID PROJECT	



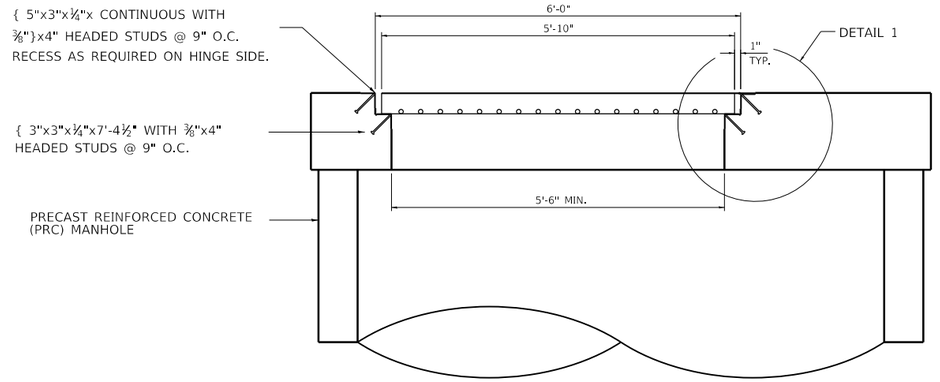
DRAINAGE STRUCTURES, NO. 2, PLAN

NOT TO SCALE

SEE SITE PLANS FOR ORIENTATION

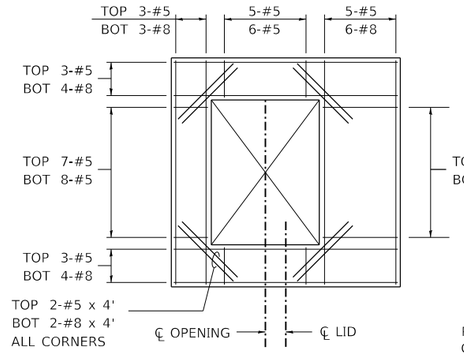


DETAIL 1



SECTION D–D

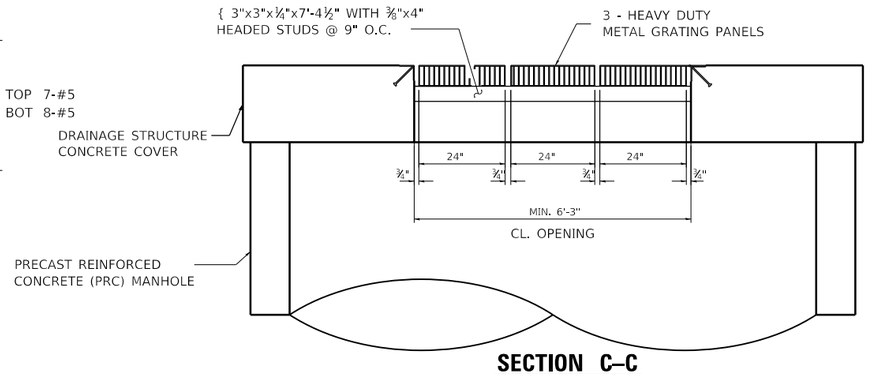
NOT TO SCALE



NOTE: 1½" CLEAR COVER ON ALL REINFORCEMENT

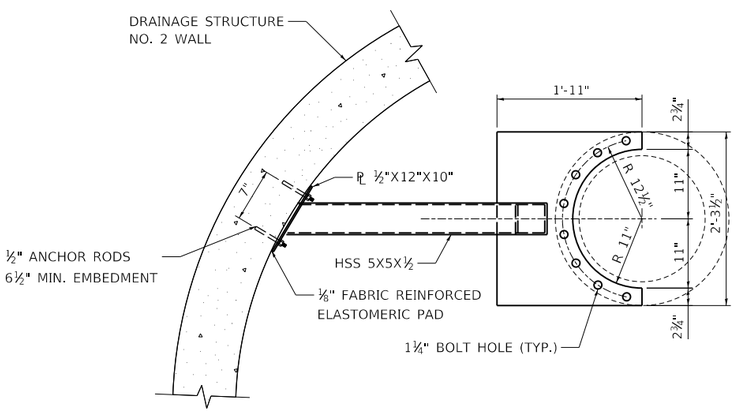
DRAINAGE STRUCTURES, NO. 2
LID REINFORCING PLAN

NOT TO SCALE

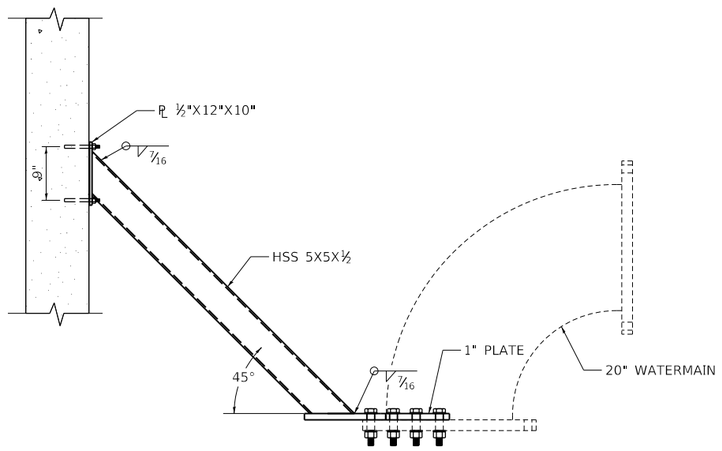


SECTION C–C

NOT TO SCALE



PLAN



ELEVATION

NOTES:

1. LOADING: LIVE LOAD= AASHTO HL-93 TRUCK LOAD AND ALTERNATE TANDEM LOAD.
2. HEAVY DUTY WELDED STEEL W-SERIES GRATING.
3. 22-W-4 GRATING; 5" X ¼" PLAIN BEARING BARS @ 1⅜" O.C. AND CROSS BARS @ 4" O.C.
4. GALVANIZED FINISH FOR GRATING, PLATE, ANGLES AND ACCESSORIES.
5. STEEL PLATE, BAR, AND ANGLES: AASHTO M270/ASTM A709, GRADE 36.
6. HEADED STUDS: AASHTO M169/ASTM A108, GRADE 1015, 1018, OR 1020 AUTOMATIC END WELDED TO BASE METAL.
7. WELD METAL: AWS D1.5
8. PROVIDE LIFTING LUG AND HINGE CONNECTION AT OPPOSITE ENDS OF EACH PANEL PER GRATING MANUFACTURERS STANDARD DETAILS CAPABLE OF SUPPORTING THE WEIGHT OF THE GRATING, AND CAPABLE OF OPENING 180°.
9. LOCATION AND ARRANGEMENT OF THE HATCH TO BE COORDINATED WITH THE PUMP MANUFACTURER
10. THE COST OF THRUST RESTRAINT SHALL BE INCLUDED IN THE COST OF PUMP STATION MECHANICAL WORK.
11. FIELD VERIFY LOCATION OF 20" WATER MAIN PIPE PRIOR TO FABRICATION OF THRUST RESTRAINT.
12. NUMBER AND ORIENTATION OF BOLT HOLES FOR 1" PLATE TO ELBOW FLANGE CONNECTION SHOWN ARE SCHEMATIC. FIELD VERIFY PRIOR TO FABRICATION.
13. ALL STEEL COMPONENTS OF THRUST RESTRAINT SHALL BE GALVANIZED.
14. ANCHOR BOLTS SHALL BE HILTI: HIT-HY200 AND HAS-B-105 (ASTM F1554 GR105) ½" OR EQUIVALENT.

THRUST RESTRAINT DETAILS

HANSON

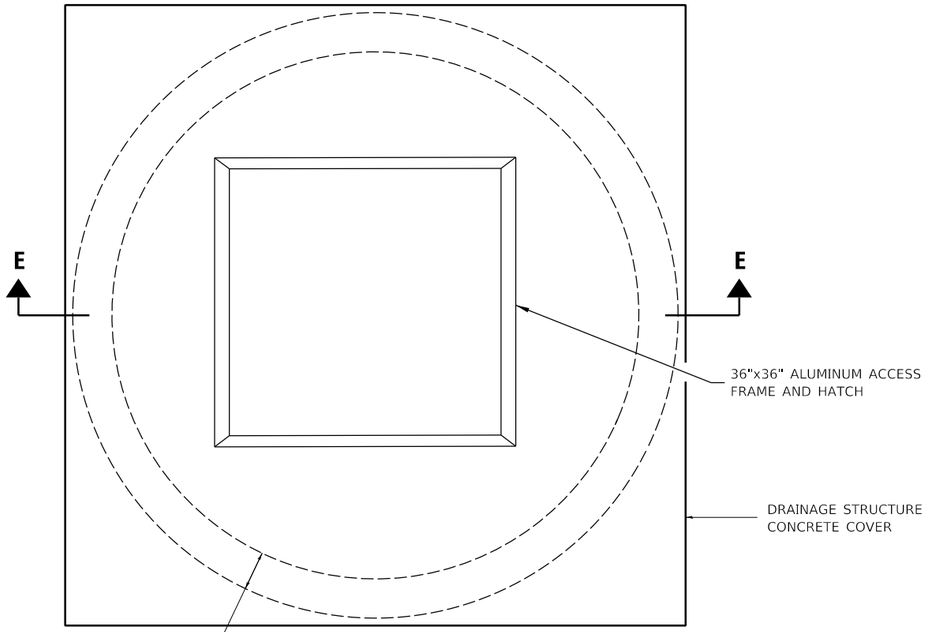
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – MISCELLANEOUS DETAILS

SCALE: | SHEET 7 OF 22 SHEETS | STA. | TO STA.

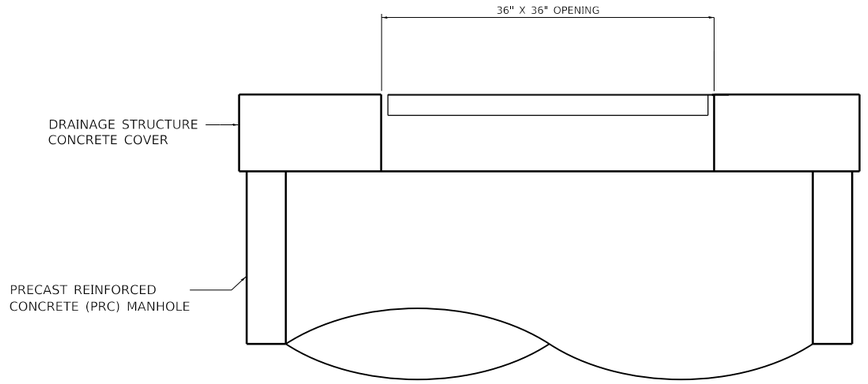
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	254
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



DRAINAGE STRUCTURE, NO. 1, PLAN

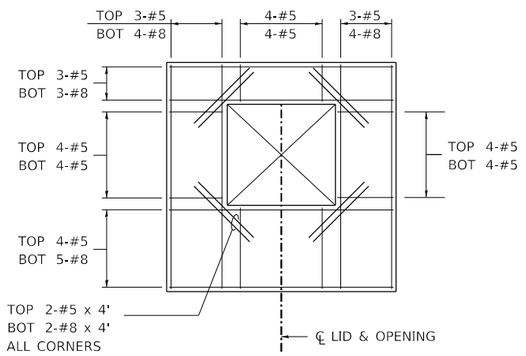
NOT TO SCALE

SEE SITE PLANS FOR ORIENTATION



SECTION E–E

NOT TO SCALE



NOTE: 1½" CLEAR COVER ON ALL REINFORCEMENT

DRAINAGE STRUCTURE, NO. 1
LID REINFORCING PLAN

NOT TO SCALE

DRAINAGE STRUCTURE, GRATING COVER NOTES:

1. LOADING: LIVE LOAD= AASHTO HL-93 TRUCK LOAD AND ALTERNATE TANDEM LOAD.
2. LOCATION AND ARRANGEMENT OF THE HATCH TO BE COORDINATED WITH THE PUMP MANUFACTURER

HANSON

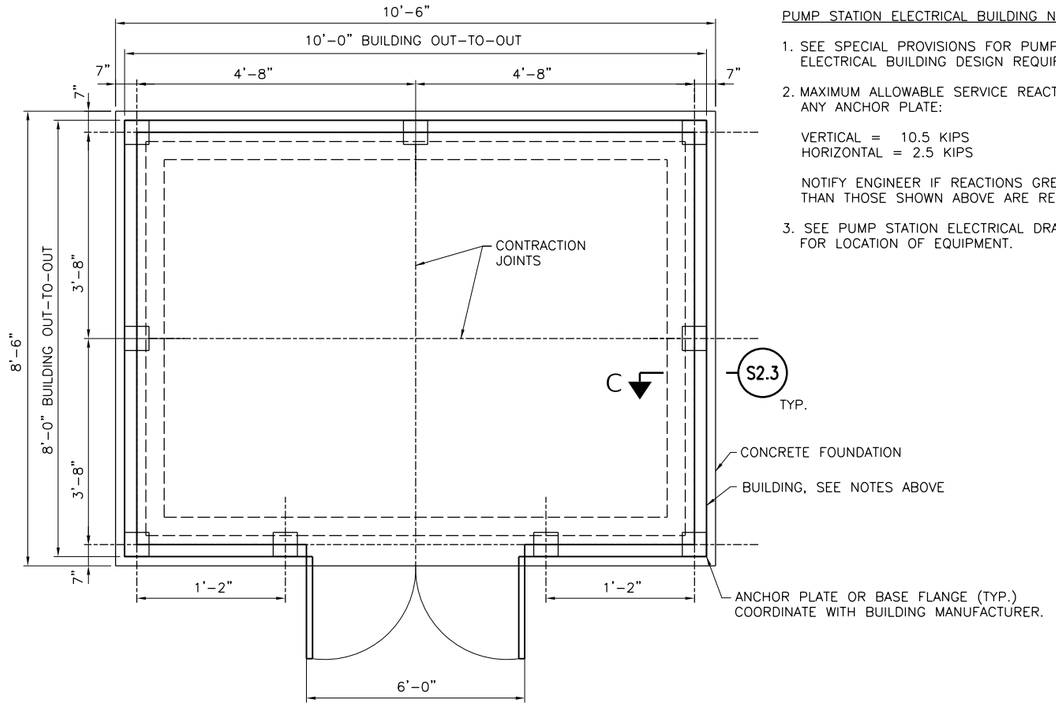
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – MISCELLANEOUS DETAILS

SCALE: | SHEET 8 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	255
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



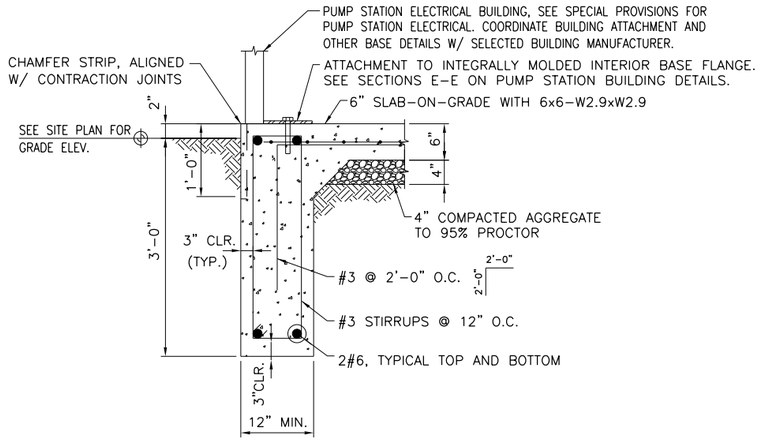
PUMP STATION ELECTRICAL BUILDING NOTES:

1. SEE SPECIAL PROVISIONS FOR PUMP STATION ELECTRICAL BUILDING DESIGN REQUIREMENTS.
2. MAXIMUM ALLOWABLE SERVICE REACTION AT ANY ANCHOR PLATE:

   VERTICAL = 10.5 KIPS
   HORIZONTAL = 2.5 KIPS

   NOTIFY ENGINEER IF REACTIONS GREATER THAN THOSE SHOWN ABOVE ARE REQUIRED.
3. SEE PUMP STATION ELECTRICAL DRAWINGS FOR LOCATION OF EQUIPMENT.

S2.1 PUMP STATION ELECTRICAL BUILDING FOUNDATION
½"=1'-0"



S2.3 TYPICAL FOUNDATION SECTION
1"=1'-0"

NOTE:
BUILDING ANCHOR TO FOUNDATION SHALL BE PER BUILDING MANUFACTURER.

HANSON

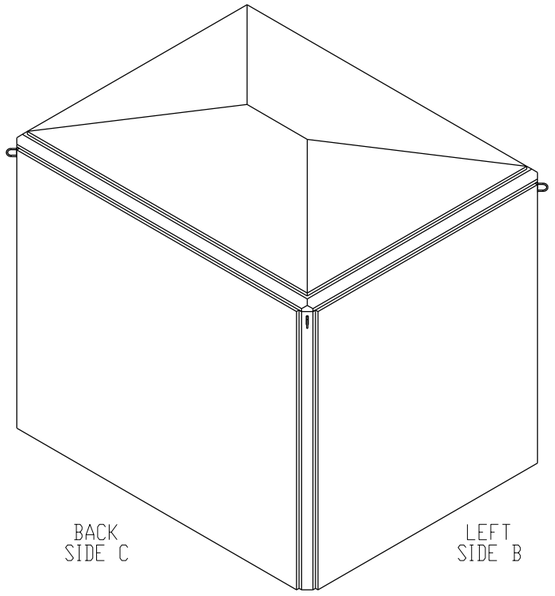
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

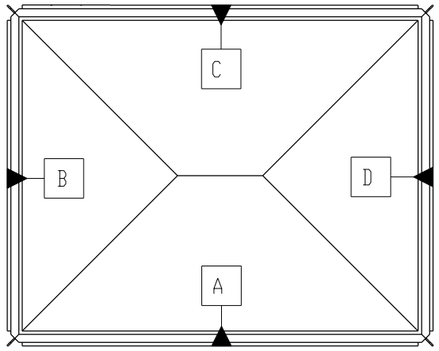
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – BUILDING DETAILS

SCALE: | SHEET 9 OF 22 SHEETS | STA. | TO STA.

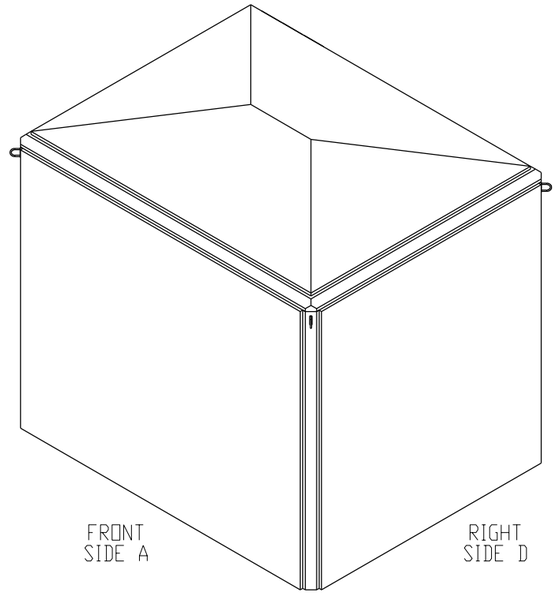
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	256
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



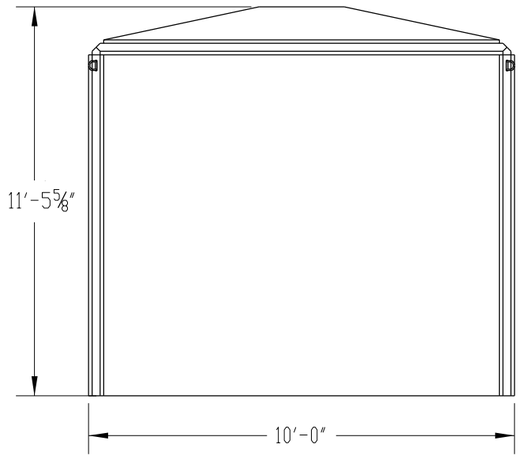
REAR ISOMETRIC



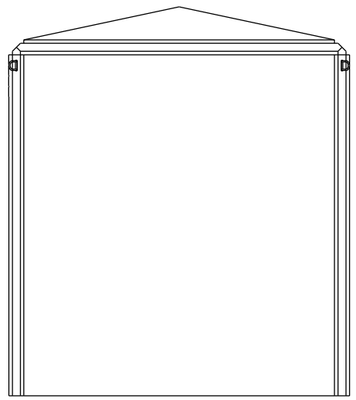
TOP VIEW



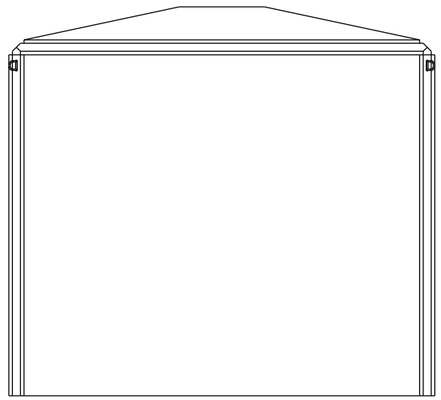
ISOMETRIC VIEW



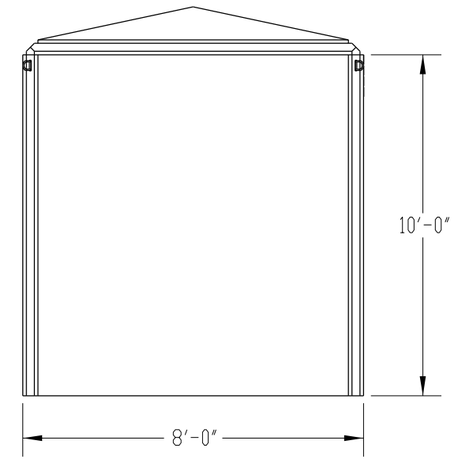
FRONT OUTSIDE VIEW
SIDE A



LEFT OUTSIDE VIEW
SIDE B



BACK OUTSIDE VIEW
SIDE C



RIGHT OUTSIDE VIEW
SIDE D

HANSON

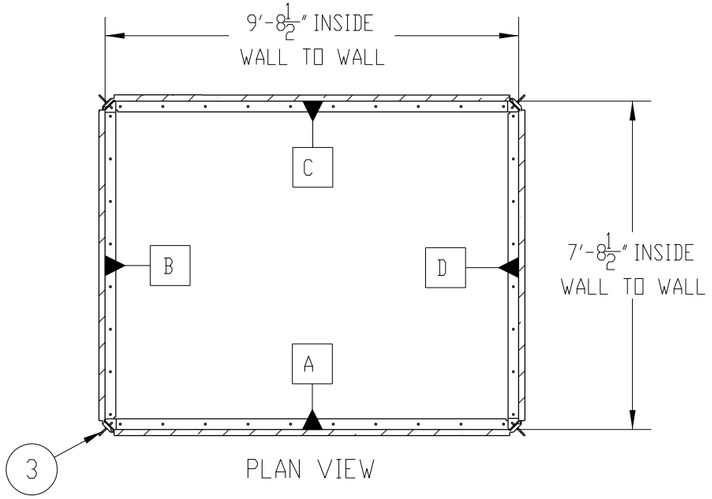
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

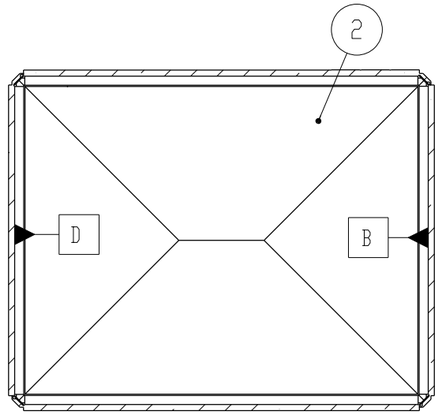
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – BUILDING DETAILS

SCALE: | SHEET 10 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	257
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

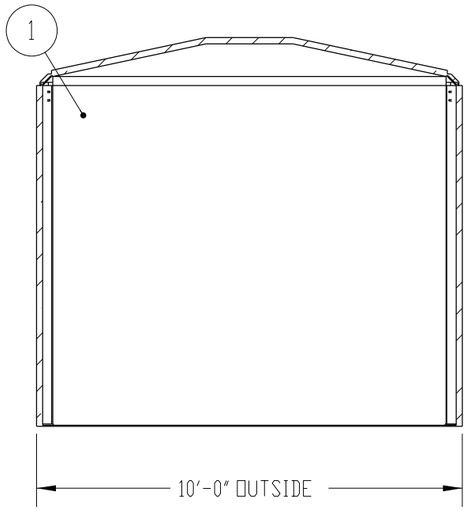


PLAN VIEW

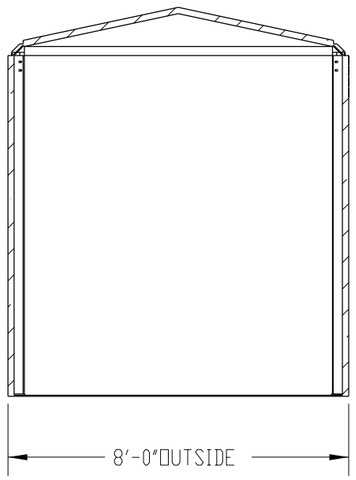


CEILING INTERIOR VIEW

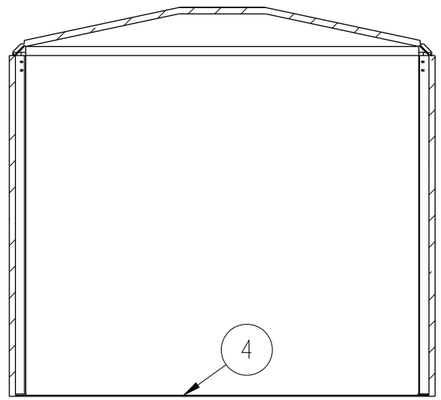
ITEMS LIST					
ITEM	QTY	PART NUMBER	DESCRIPTION	NOTES	SHIPPED LOOSE
1	-	POLYISO	1-1/2″ FOAM CORE INSULATION	ALL WALLS TYPICAL.	-
2	-	POLYISO	1-1/2″ FOAM CORE INSULATION	ROOF ONLY	-
3	4	66263-1	3/8″ SS U-BOLT	FOR OFFLOADING	-
4	3	CS-102B	CONSEAL BITUMAN BLENDED SEALANT	ROLLS OF 14′-6″ GASKET	X



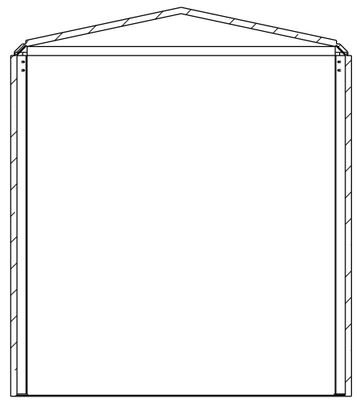
SECTION A-A
SIDE A INSIDE VIEW



SECTION B-B
SIDE B INSIDE VIEW



SECTION C-C
SIDE C INSIDE VIEW



SECTION D-D
SIDE D INSIDE VIEW

HANSON

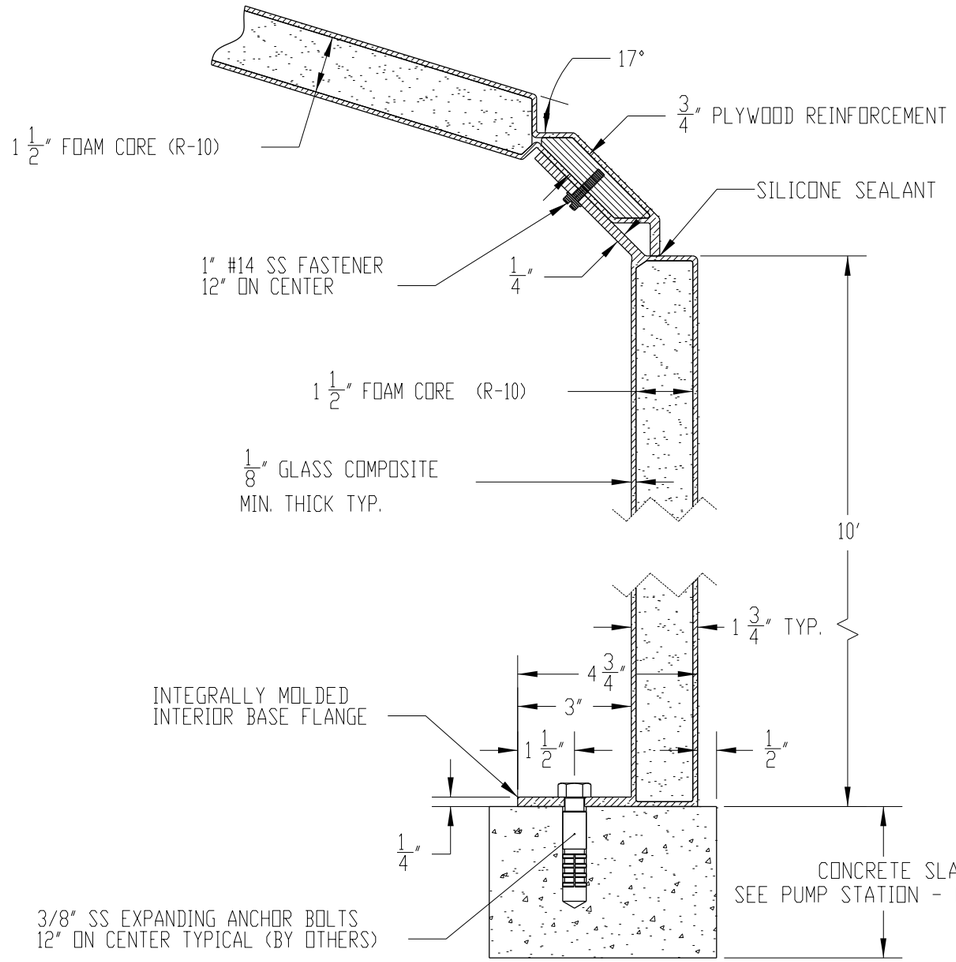
USER NAME = Pop00275	DESIGNED - LJU	REVISED -	
	DRAWN - RSJ	REVISED -	
PLOT SCALE = 0.17 ' / In.	CHECKED - LJB	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

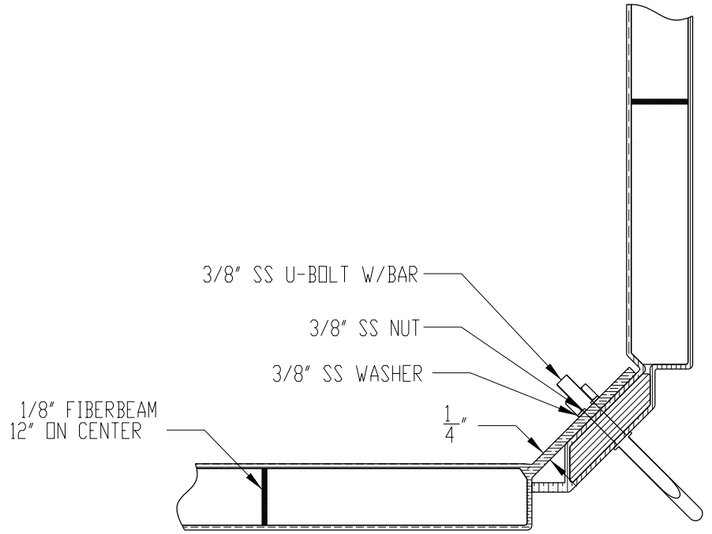
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – BUILDING DETAILS

SCALE: | SHEET 11 OF 22 SHEETS | STA. | TO STA.

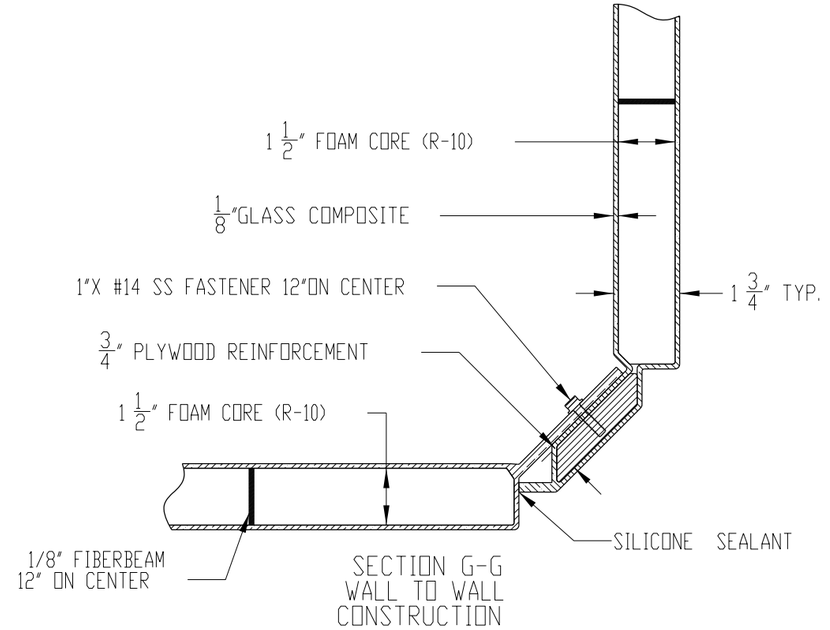
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	258
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



SECTION E-E
ROOF TO WALL CONSTRUCTION
AND FASTENING DETAIL



SECTION F-F
LIFT HOOK
ATTACHMENT



SECTION G-G
WALL TO WALL
CONSTRUCTION

HANSON

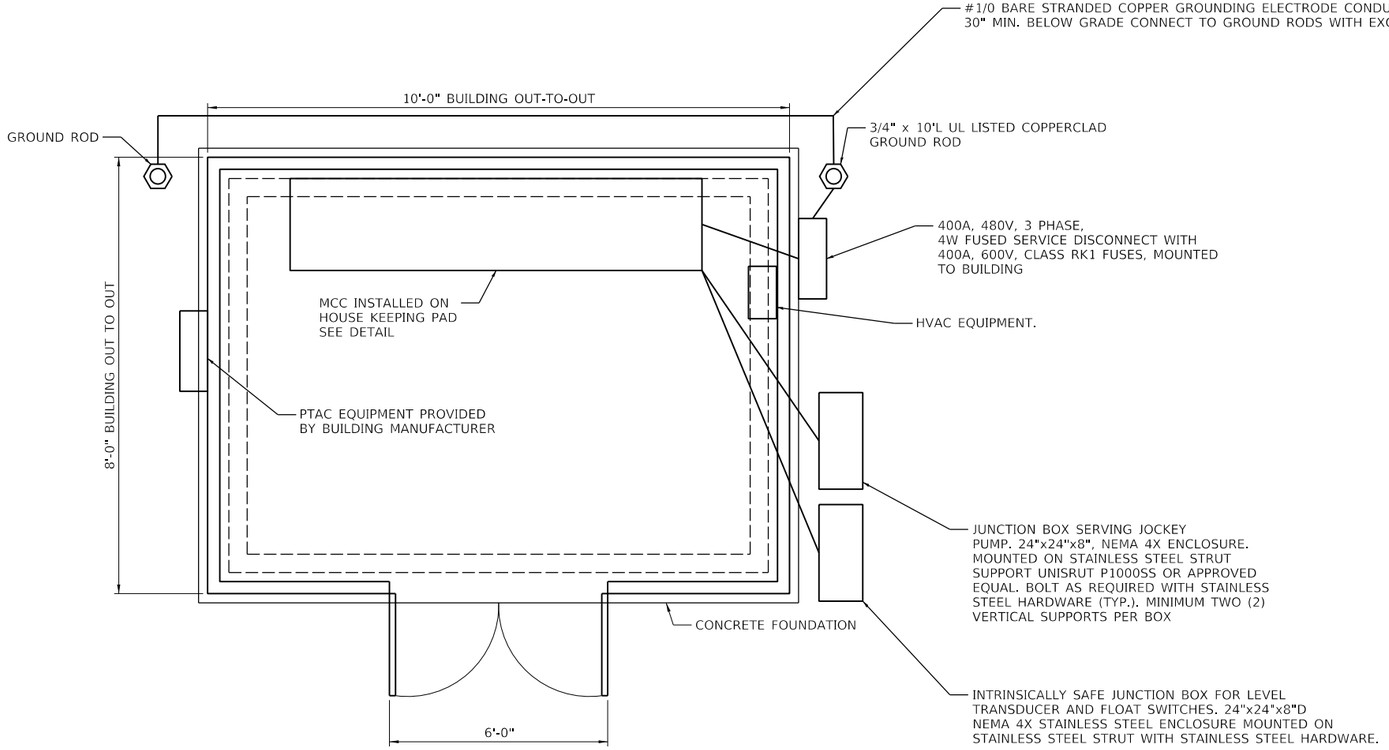
USER NAME = Pop00275	DESIGNED - LJU	REVISED -
	DRAWN - RSJ	REVISED -
PLOT SCALE = 0.17 ' / In.	CHECKED - LJB	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – BUILDING DETAILS

SCALE: | SHEET 12 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	259
	09L0179B	CONTRACT NO. 93762		
		ILLINOIS	FED. AID PROJECT	



GENERAL NOTES

1. PROVIDE A UL RATED 10 POUND CARBON DIOXIDE FIRE EXTINGUISHER, AMEREX MODEL 330 OR APPROVED EQUAL.
2. PROVIDE A UL RATED CLASS 4A:80B:C DRY CHEMICAL FIRE EXTINGUISHER, AMEREX MODEL B456 OR APPROVED EQUAL.

PUMP STATION ELECTRICAL BUILDING

HANSON

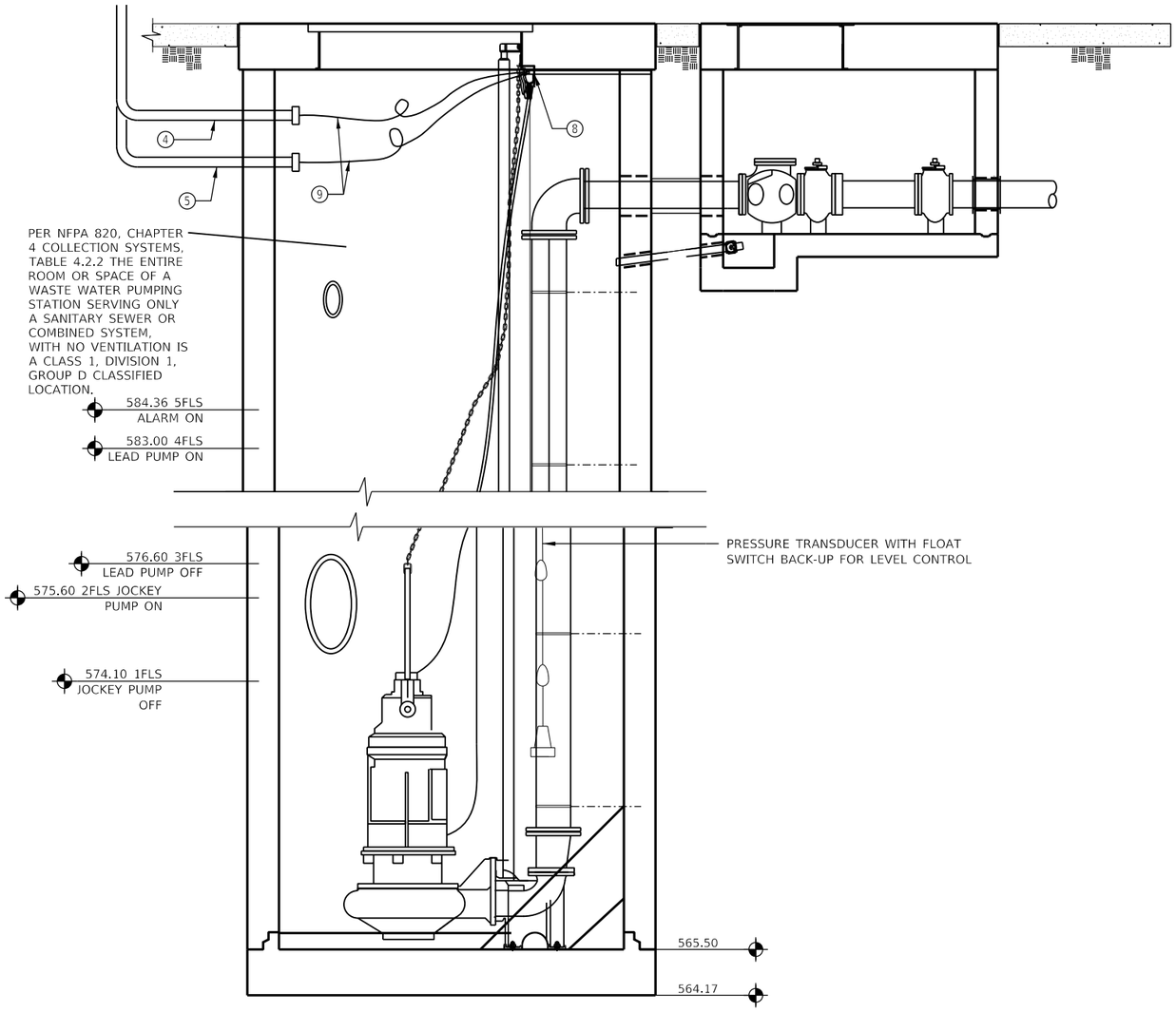
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ/JFC	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - KNL	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – ELECTRICAL BUILDING PLAN

SCALE: | SHEET 13 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	260
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



ELECTRICAL ELEVATION

6' DRAINAGE STRUCTURE NO. 1 SHOWN -
10' DRAINAGE STRUCTURE NO. 2 SIMILAR
NOT TO SCALE

NOTES:

1. SHAFT SEAL FAILURE INSPECTION SHALL BE PART OF THE PUMPS ROUTINE MAINTENANCE.
2. THE PUMP CONTROLS SHALL INCORPORATE AN ALTERNATING RELAY TO EQUALIZE PUMP WEAR AND AUTOMATICALLY PROVIDE A STAND-BY.
3. VERIFY LEVEL SWITCH ELEVATIONS AND CABLE HANGAR LOCATIONS WITH ENGINEER AND PUMP MANUFACTURER REPRESENTATIVE.

GENERAL NOTES:

1. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE WET WELL SHALL BE SUITABLE FOR USE IN CLASS I, DIV. 1, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES AND REQUIREMENTS.
2. ALL ELECTRICAL EQUIPMENT INSTALLED IN THE VALVE VAULT SHALL BE SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUP D HAZARDOUS LOCATION AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NEC ARTICLES 500, 501, & 504 AS WELL AS ALL LOCAL CODES, ORDINANCES, AND REQUIREMENTS.
3. CONTRACTOR SHALL COORDINATE INSTALLATION OF ELECTRICAL EQUIPMENT, AND WORK WITH RESPECT TO PLUMBING, MECHANICAL, CONCRETE, EXCAVATION AND ALL OTHER WORK. COORDINATE THE INSTALLATION OF CONDUITS INTO THE WET WELL. USE NON-SHRINK GROUT AS REQUIRED TO SEAL CONDUIT PENETRATIONS.
4. LEVEL SENSING PRESSURE TRANSDUCER & BACK-UP FLOATS SHALL HAVE AN FM LISTED OR UL LISTED INTRINSICALLY SAFE BARRIER (SWITCHING AMPLIFIER) SUPPLIED FOR UNIT. INTRINSICALLY SAFE WIRING SHALL HAVE LIGHT BLUE COLORED INSULATION AND KEPT PHYSICALLY ISOLATED FROM OTHER CONDUCTORS. INTRINSICALLY SAFE WIRING AND EQUIPMENT SHALL BE INSTALLED PER ANSI/ISA RP12.6, UL 698A, AND NEC 504. CONDUITS WITH INTRINSICALLY SAFE WIRING SHALL TERMINATE IN THE CONTROL PANEL AT THE INTRINSICALLY SAFE WIRING SECTION.
5. METAL CONDUIT IN DIRECT CONTACT WITH EARTH OR CONCRETE SHALL BE PVC COATED RIGID METAL FOR CORROSION PROTECTION.
6. ALL CONDUIT ENTRANCES INTO NEMA 4, 4X ENCLOSURES SHALL HAVE WATER TIGHT THREADED HUBS, UL LISTED NEMA 4, 4X FOR RESPECTIVE ENCLOSURE. PROVIDE NEMA 4X STAINLESS STEEL HUBS FOR NEMA 4X STAINLESS STEEL ENCLOSURES.
7. ALL BUSHINGS, HUBS, & FITTINGS BETWEEN CONDUITS OF DISSIMILAR METALS AND/OR BETWEEN CONDUITS AND ENCLOSURES OF A DISSIMILAR METAL SHALL BE SUITABLE FOR SUCH APPLICATIONS TO ELIMINATE THE POSSIBILITY OF GALVANIC ACTION.

SHEET LEGEND:

(3) EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT.

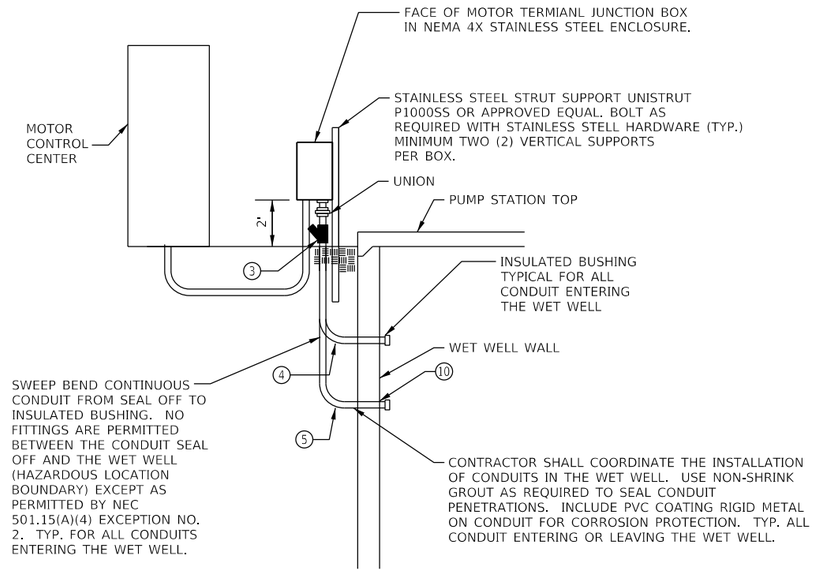
(4) SWEEP BEND CONTINUOUS CONDUIT FROM SEAL OFF TO INSULATED BUSHING. NO FITTINGS ARE PERMITTED BETWEEN THE CONDUIT SEALL AND THE WET WELL LOCATION BOUNDARY EXCEPT AS PERMITTED BY NEC 501.15(A)(4) EXCEPTION NO. 2. TYP. FOR ALL CONDUITS ENTERING THE WET WELL.

(5) CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONDUITS IN THE WET WELL. USE NON-SHRINK GROUT AS REQUIRED TO SEAL CONDUIT PENETRATIONS. INCLUDE PVC COATING ON CONDUIT FOR CORROSION PROTECTION. TYP. ALL CONDUIT ENTERING OR LEAVING THE WET WELL.

(8) HEAVY DUTY STAINLESS STEEL CABLE RACK ADEQUATELY SIZED FOR THE RESPECTIVE PUMP & LEVEL CABLES OR HEAVY DUTY NYLON SADDLE RACKS (CABLE HANGAR WITH 3" THROAT OPENING), UNDERGROUND DEVICES CAT. NO. 3SR1N. MOUNT AT IMMEDIATELY INSIDE ACCESS HATCH WITH STAINLESS STEEL STRUT SUPPORT & STAINLESS STEEL HARDWARE. PROVIDE SUFFICIENT RACKS FOR EACH PUMP CABLE & LEVEL CABLES. EACH PUMP MOTOR SHALL HAVE 10' MINIMUM SLACK CABLE TO ALLOW FOR FUTURE REMOVAL AND REINSTALLATION. LOOP SLACK CABLES AROUND SADDLE RACK AND SECURE WITH CABLE TIES.

(9) SUBMERSIBLE PUMP CABLE BY PUMP MANUFACTURER. VERIFY EACH PUMP MOTOR HAS A MINIMUM OF 10 FEET OF SLACK CABLE. (TYP. OF 3)

(10) CONDUIT HOLES SHALL BE CORED THROUGH THE STRUCTURE WALLS OR PREFORMED DURING CASTING.



CONDUIT ENTRANCE TO PUMP STATION

NOT TO SCALE

MODEL: Sheet 1
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USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ/JFC	REVISED -	
PLOT SCALE = 0.17 ' / In.	CHECKED - KNL	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – ELECTRICAL DETAILS

SCALE: | SHEET 14 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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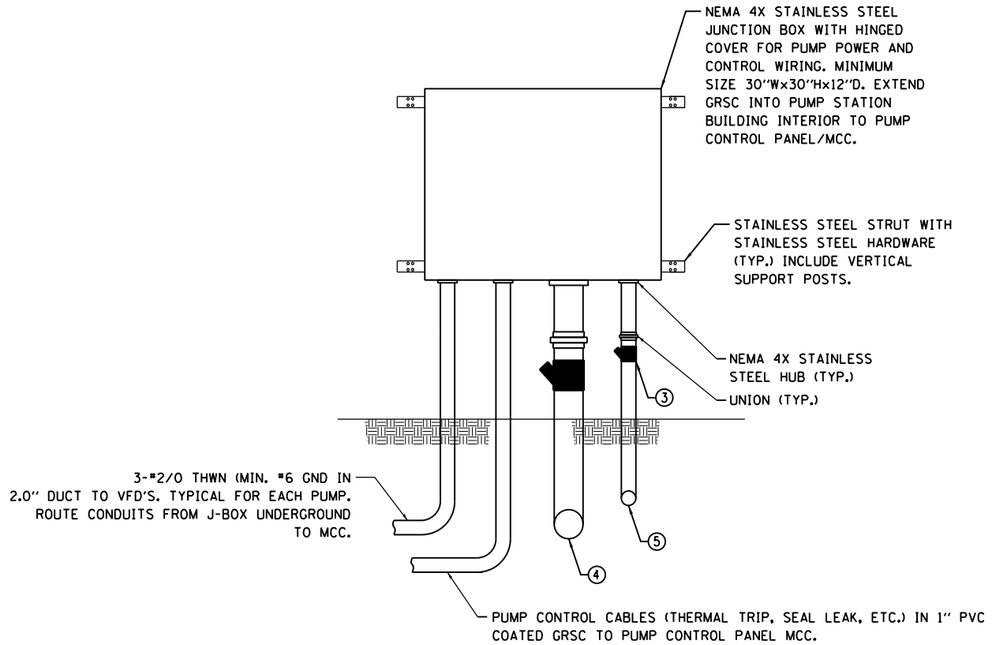
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



1/105 MAIN PUMP JUNCTION BOX ELEVATION
NOT TO SCALE (TYP. FOR 2)

SHEET LEGEND:

③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, CROUSE HINDS EYS, APPLETON EYS, ESU, EY, KILLARK ENY, EY EYS OR O-Z GEDNEY EYA, EY, OR EZS SERIES, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE.

④ SUBMERSIBLE PUMP MOTOR POWER CABLES IN 3" (MIN) PVC COATED GRSC OR PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. 3" CONDUIT SIZE IS BASED ON 1 SET OF PUMP MOTOR CABLES, EACH 1.5 INCHES IN DIAMETER. ADJUST (ENLARGE) AS REQUIRED.

⑤ SUBMERSIBLE PUMP MOTOR CONTROL CABLE IN 1.25" (MIN) PVC COATED GRSC OR PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. 1.25" CONDUIT SIZE IS BASED ON 1 SET OF PUMP MOTOR CONTROL CABLES (THERMAL TRIP, SEAL LEAK, ETC.) THAT IS 0.47 INCH IN DIAMETER. ADJUST (ENLARGE) AS REQUIRED.

NOTES:

1. PROVIDE NEMA 4X STAINLESS STEEL HUBS AT ALL CONDUIT ENTRIES TO NEMA 4X STAINLESS STEEL ENCLOSURES.
2. PROVIDE STAINLESS STEEL STRUT SUPPORTS AND HARDWARE FOR JUNCTION BOXES.
3. INTRINSICALLY SAFE CONDUCTORS SHALL MAINTAIN SEPARATION FROM POWER AND NON-INTRINSICALLY SAFE CONDUCTORS IN ACCORDANCE WITH NEC. 504.30 "SEPARATION OF INTRINSICALLY SAFE CONDUCTORS."
4. PROVIDE LISTED NEMA RATED POWER DISTRIBUTION BLOCKS / TERMINAL BLOCKS FOR SPLICES IN ENCLOSURES. INCLUDE EQUIPMENT GROUND BAR ADEQUATE FOR ALL GROUND WIRES.
5. POUR CONDUIT SEAL OFF FITTINGS PRIOR TO SEWAGE ENTERING THE WET WELL.

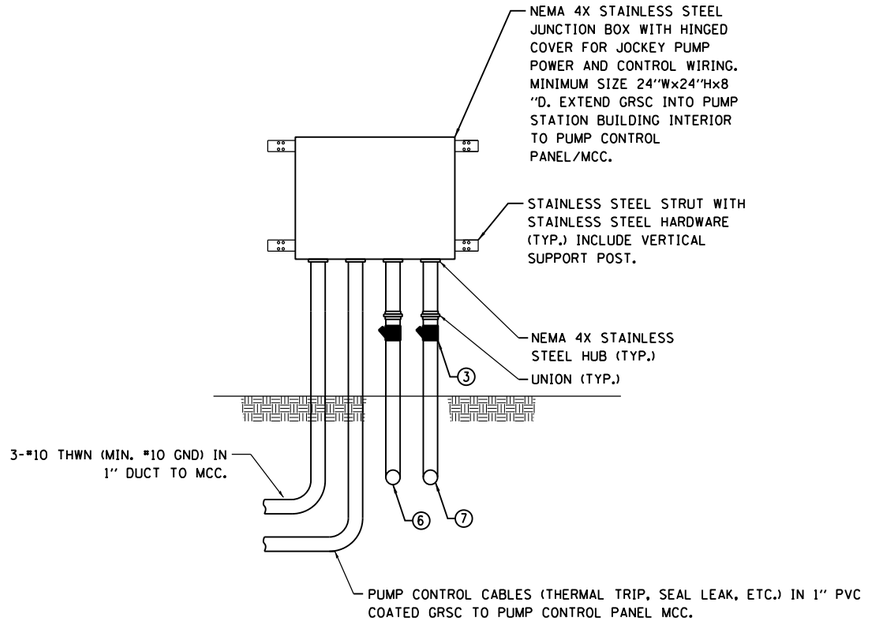
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ/JFC	REVISED -	
PLOT SCALE = 0.17 ' / in.	CHECKED - KNL	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – JUNCTION BOX ELEVATION

SCALE: | SHEET 15 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	262
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



1/105 JOCKEY PUMP JUNCTION BOX ELEVATION
NOT TO SCALE

SHEET LEGEND:

③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, CROUSE HINDS EYS, APPLETON EYS, ESU, EY, KILLARK ENY, EY EYS OR O-Z GEDNEY EYA, EY, OR EZS SERIES, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE.

⑥ JOCKEY PUMP MOTOR POWER CABLES IN 1.5" (MIN) PVC COATED GRSC OR PVC COATED RIGID ALUMINUM. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. 1.5" CONDUIT SIZE IS BASED ON 1 SET OF PUMP MOTOR CABLES, EACH 0.7 INCHES IN DIAMETER. ADJUST (ENLARGE) AS REQUIRED.

⑦ JOCKEY PUMP MOTOR CONTROL CABLE IN 1.25" (MIN) PVC COATED GRSC OR PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. 1.25" CONDUIT SIZE IS BASED ON 1 SET OF PUMP MOTOR CONTROL CABLES (THERMAL TRIP, SEAL LEAK, ETC.) THAT IS 0.47 INCH IN DIAMETER. ADJUST (ENLARGE) AS REQUIRED.

NOTES:

1. PROVIDE NEMA 4X STAINLESS STEEL HUBS AT ALL CONDUIT ENTRIES TO NEMA 4X STAINLESS STEEL ENCLOSURES.
2. PROVIDE STAINLESS STEEL STRUT SUPPORTS AND HARDWARE FOR JUNCTION BOXES.
3. INTRINSICALLY SAFE CONDUCTORS SHALL MAINTAIN SEPARATION FROM POWER AND NON-INTRINSICALLY SAFE CONDUCTORS IN ACCORDANCE WITH NEC. 504.30 "SEPARATION OF INTRINSICALLY SAFE CONDUCTORS."
4. PROVIDE LISTED NEMA RATED POWER DISTRIBUTION BLOCKS / TERMINAL BLOCKS FOR SPLICES IN ENCLOSURES. INCLUDE EQUIPMENT GROUND BAR ADEQUATE FOR ALL GROUND WIRES.
5. POUR CONDUIT SEAL OFF FITTINGS PRIOR TO SEWAGE ENTERING THE WET WELL.

MODEL: Sheet 2
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HANSON

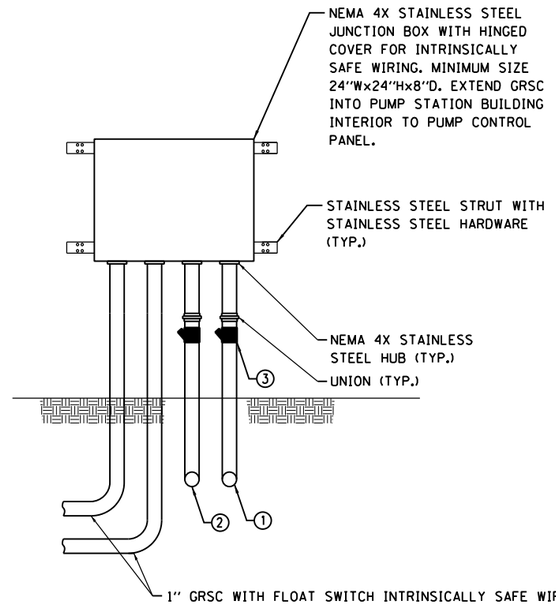
USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
	DRAWN - RSJ/JFC	REVISED -	
PLOT SCALE = 0.17 ' / in.	CHECKED - KNL	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – JUNCTION BOX ELEVATION

SCALE: | SHEET 16 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	263
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



1/105 INTRINSICALLY SAFE JUNCTION BOX ELEVATION
NOT TO SCALE

SHEET LEGEND:

① 4 MULTI-CONDUCTOR FLOAT SWITCH CABLES (WITH MAXIMUM DIAMETER OF 0.56") IN 2.5" (MIN.) PVC COATED GRSC OR PVC COATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED. INTRINSICALLY SAFE CONDUCTORS SHALL MAINTAIN SEPARATION FROM POWER AND NON-INTRINSICALLY SAFE CONDUCTORS IN ACCORDANCE WITH NEC 504.30 "SEPARATION OF INTRINSICALLY SAFE CONDUCTORS".

② SUBMERSIBLE PRESSURE TRANSDUCER CABLE IN 2" PVC COATED GRSC OR PVC LOCATED RIGID ALUMINUM CONDUIT. CONDUIT SHALL BE SIZED FOR 25% MAXIMUM FILL TO CONFORM TO EXPLOSION PROOF CONDUIT SEAL REQUIREMENTS. ADJUST (ENLARGE) AS REQUIRED. INTRINSICALLY SAFE CONDUCTORS SHALL MAINTAIN SEPARATION FROM POWER AND NON-INTRINSICALLY SAFE CONDUCTORS IN ACCORDANCE WITH NEC 504.30 "SEPARATION OF INTRINSICALLY SAFE CONDUCTORS".

③ EXPLOSION PROOF CONDUIT SEAL SUITABLE FOR CLASS I, DIVISION 1, GROUP D HAZARDOUS LOCATION, CROUSE HINDS EYS, APPLETON EYS, ESU, EY, KILLARK ENY, EY EYS OR O-Z GEDNEY EYA, EY, OR EZS SERIES, REQUIRED FOR ALL CONDUITS ENTERING OR LEAVING THE WET WELL OR VALVE VAULT INSTALLED IN CONFORMANCE WITH NEC 501 & MANUFACTURER'S DIRECTIONS. NOTE CONDUIT SEALS SHALL BE SIZED AS REQUIRED FOR THE RESPECTIVE CABLE FILL. CABLE FILL SHALL NOT EXCEED 25% FOR CONDUIT SEAL APPLICATION. CONDUIT SEALS SHALL BE THE FIRST FITTING AFTER THE CONDUIT LEAVES THE WET WELL AND EMERGES FROM GRADE.

NOTES:

1. PROVIDE NEMA 4X STAINLESS STEEL HUBS AT ALL CONDUIT ENTRIES TO NEMA 4X STAINLESS STEEL ENCLOSURES.
2. PROVIDE STAINLESS STEEL STRUT SUPPORTS AND HARDWARE FOR JUNCTION BOXES.
3. INTRINSICALLY SAFE CONDUCTORS SHALL MAINTAIN SEPARATION FROM POWER AND NON-INTRINSICALLY SAFE CONDUCTORS IN ACCORDANCE WITH NEC. 504.30 "SEPARATION OF INTRINSICALLY SAFE CONDUCTORS."
4. PROVIDE LISTED NEMA RATED POWER DISTRIBUTION BLOCKS / TERMINAL BLOCKS FOR SPLICES IN ENCLOSURES. INCLUDE EQUIPMENT GROUND BAR ADEQUATE FOR ALL GROUND WIRES.
5. POUR CONDUIT SEAL OFF FITTINGS PRIOR TO SEWAGE ENTERING THE WET WELL.

HANSON

USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ/JFC	REVISED -
PLOT SCALE = 0.17 ' / in.	CHECKED - KNL	REVISED -
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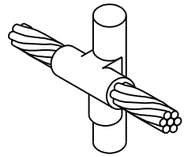
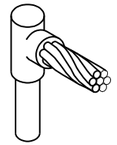
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – JUNCTION BOX ELEVATION
SCALE: | SHEET 17 OF 22 SHEETS | STA. | TO STA.

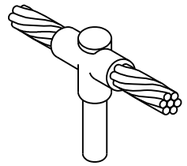
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	264
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



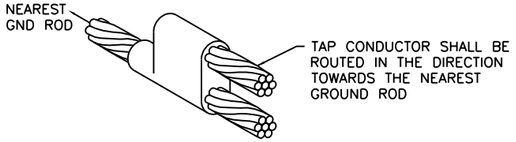
CABLE TO GROUND ROD



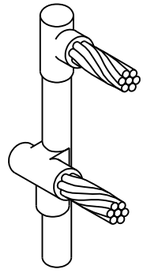
CABLE TO GROUND ROD



CABLE TO GROUND ROD



CABLE TO CABLE
HORIZONTAL PARALLEL TAP



CABLES TO GROUND ROD

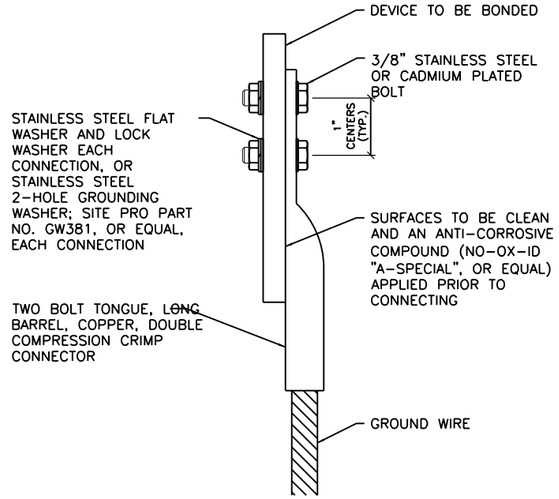
DETAIL NOTES

1. ALL BELOW GRADE CONNECTIONS TO GROUND RODS & GROUND RING CONDUCTORS SHALL BE EXOTHERMIC WELD TYPE CONNECTIONS. EXOTHERMIC WELDS SHALL BE CADWELD AS MANUFACTURED BY ERICO PRODUCTS, SOLON, OHIO, ULTRAWELD AS MANUFACTURED BY HARGER LIGHTNING PROTECTION & GROUNDING EQUIPMENT, GRAYSLAKE, IL, THERMOWELD AS MANUFACTURED BY CONTINENTAL INDUSTRIES, TULSA, OKLAHOMA, OR APPROVED EQUAL. VERIFY PROPER SIZES, MOLDS, TYPES, AND REQUIREMENTS FOR THE RESPECTIVE APPLICATION WITH THE MANUFACTURER, AND INSTALL PER THEIR DIRECTIONS.

2. FOR APPLICATIONS TO GALVANIZED STEEL OR PAINTED STEEL, REMOVE GALVANIZING AND/OR PAINT & CLEAN THE SURFACE TO EXPOSE BARE STEEL BEFORE MAKING EXOTHERMIC WELD CONNECTION.

3. INDIVIDUAL GROUNDING ELECTRODE CONDUCTORS SHALL NOT BE INSTALLED IN METAL CONDUIT. INSTALL GROUNDING ELECTRODE CONDUCTORS IN SCHED 80 PVC CONDUIT AS REQUIRED IN FOUNDATIONS, FOR PROTECTION, WHERE ENTERING ENCLOSURES, ETC. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY ENCIRCLE THE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. WHERE METAL CLAMPS ARE INSTALLED USE NYLON BOLTS, NUTS, WASHERS, & SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT.

EXOTHERMIC WELD DETAILS



2 HOLE LONG BARREL COMPRESSION LUG TABLE			
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.	PENN-UNION CAT. NO.
#8 AWG STRANDED	YA8C-2TC38	256-30695-1157	BBLU-8D-2TC38
#6 AWG SOLID	YA8C-2TC38 OR YGA6C-2TC38E2G1		
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158	BBLU-6D-2TC38
#4 AWG STRANDED	YA4C-2TC38	256-30695-1159	BBLU-4D-2TC38
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160	BBLU-2D-2TC38
#2 AWG SOLID	YA3C-2TC38	256-30695-1160	BBLU-3D-2TC38
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162	BBLU-1/0D-2TC38
#2/0 AWG STRANDED	YA26-2TC38	256-30695-1116	BBLU-2/0D-2TC38
#3/0 AWG STRANDED	YA27-2TC38	54816BE	BBLU-3/0D-2TC38
#4/0 AWG STRANDED	YA28-2TC38	256-30695-1117	BBLU-4/0D-2TC38

NOTES

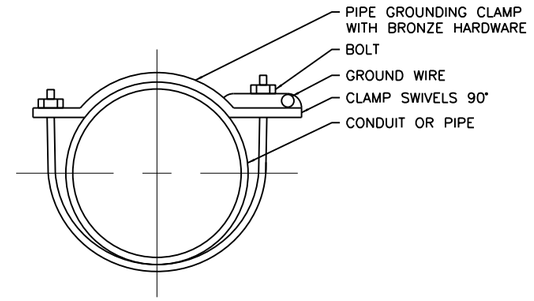
1. ALL CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.

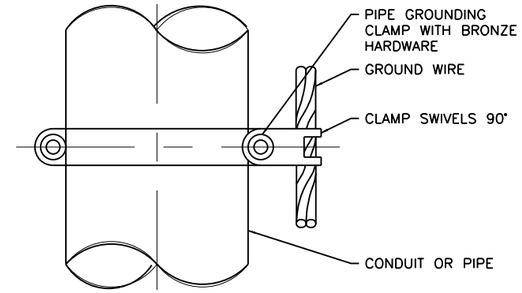
2. GROUND WIRE CONNECTIONS TO EQUIPMENT SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE OR WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.

3. GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY ENCIRCLE THE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. WHERE METAL CLAMPS ARE INSTALLED USE NYLON BOLTS, NUTS, WASHERS, & SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT.

4. ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM INC. NO-OX-ID "A-SPECIAL", BURNDY PENETROX E, OR EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

GROUNDING LUG CONNECTION DETAIL





PIPE GROUNDING CLAMP TABLE	
BURNDY CAT. NO.	PIPE SIZE
GAR3902-BU	1/2" - 1"
GAR3903-BU	1 1/4" - 2"
GAR3904-BU	2 1/2" - 3 1/2"
GAR3905-BU	4" - 5"
GAR3906-BU	6"

NOTES

1. PIPE GROUNDING CLAMPS SHALL HAVE BRONZE HARDWARE, BE CORROSION RESISTANT, SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE, & UL467 LISTED.

PIPE/CONDUIT GROUNDING CLAMP DETAIL

HANSON

USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ/JFC	REVISED -
PLOT SCALE = 2.00 ' / in.	CHECKED - KNL	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – GROUNDING DETAILS

SCALE: | SHEET 18 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	265
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

GROUNDING NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL GROUNDING AS MAY BE NECESSARY OR REQUIRED TO MAKE A COMPLETE GROUNDING SYSTEM AS REQUIRED BY THE LATEST NATIONAL ELECTRICAL CODE (NFPA 70) IN FORCE AND FAA-STD-019e (LIGHTNING AND SURGE PROTECTION, GROUNDING, BONDING, AND SHIELDING REQUIREMENTS FOR FACILITIES AND ELECTRONIC EQUIPMENT). THE RELIABILITY OF THE GROUNDING SYSTEM IS DEPENDENT ON CAREFUL, PROPER INSTALLATION AND CHOICE OF MATERIALS. IMPROPER PREPARATION OF SURFACES TO BE JOINED TO MAKE AN ELECTRICAL PATH, LOOSE JOINTS OR CORROSION CAN INTRODUCE IMPEDANCE THAT WILL SERIOUSLY IMPAIR THE ABILITY OF THE GROUND PATH TO PROTECT PERSONNEL AND EQUIPMENT AND TO ABSORB TRANSIENTS THAT CAN CAUSE NOISE IN COMMUNICATIONS CIRCUITS. THE FOLLOWING FUNCTIONS ARE PARTICULARLY IMPORTANT TO ENSURE A RELIABLE GROUND SYSTEM:

2. FURNISH AND INSTALL GROUND RODS AS DETAILED HEREIN. GROUND RODS SHALL BE MINIMUM 3/4-IN. DIAMETER BY 10-FT LONG, UL-LISTED, COPPER CLAD WITH 10-MIL MINIMUM COPPER COATING. GROUND RODS SHALL BE SPACED OR AS DETAILED ON THE RESPECTIVE PLANS, AND IN NO CASE SPACED LESS THAN ONE ROD LENGTH APART. ALL CONNECTIONS TO GROUND RODS AND THE GROUND RING SHALL BE MADE WITH EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY PENTAIR ERICO PRODUCTS, INC., THERMOWELD BY CONTINENTAL INDUSTRIES, INC., ULTRAWELD BY HARGER, OR APPROVED EQUAL. EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS AS REQUIRED FOR EACH RESPECTIVE APPLICATION. BOLTED CONNECTIONS WILL NOT BE PERMITTED AT GROUND RODS OR AT BURIED GROUNDING ELECTRODE CONDUCTORS.

3. CONTRACTOR SHALL TEST EACH MADE ELECTRODE GROUND ROD/GROUND FIELD/GROUND RING WITH AN INSTRUMENT SPECIFICALLY DESIGNED FOR TESTING GROUND FIELD SYSTEMS. IF GROUND RESISTANCE EXCEEDS 25 OHMS, CONTACT THE PROJECT ENGINEER FOR FURTHER DIRECTION. COPIES OF GROUND ROD TEST RESULTS SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE.

4. ALL PRODUCTS ASSOCIATED WITH THE GROUNDING SYSTEM SHALL BE UL-LISTED AND LABELED.

5. ALL BOLTED OR MECHANICAL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND BEFORE JOINING, SANCHEM INC. NO-OX-ID A-SPECIAL COMPOUND, BURNDY PENETROX E, OR APPROVED EQUAL.

6. METALLIC SURFACES TO BE JOINED SHALL BE PREPARED BY THE REMOVAL OF ALL NON-CONDUCTIVE MATERIAL, PER 2017 NATIONAL ELECTRICAL CODE ARTICLE 250-12. ALL COPPER BUS BARS MUST BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION.

7. METALLIC RACEWAY FITTINGS SHALL BE MADE UP TIGHT TO PROVIDE A PERMANENT LOW IMPEDANCE PATH FOR ALL CIRCUITS. METAL CONDUIT TERMINATIONS IN ENCLOSURES SHALL BE BONDED TO THE ENCLOSURE WITH UL-LISTED FITTINGS SUITABLE FOR GROUNDING. PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING SERVICE EQUIPMENT (METER BASE, CT CABINET, MAIN SERVICE BREAKER ENCLOSURE, ETC.). PROVIDE GROUNDING BUSHINGS WITH BONDING JUMPERS FOR ALL METAL CONDUITS ENTERING AN ENCLOSURE THROUGH CONCENTRIC OR ECCENTRIC KNOCKOUTS THAT ARE PUNCHED OR OTHERWISE FORMED SO AS TO IMPAIR THE ELECTRICAL CONNECTION TO GROUND. STANDARD LOCKNUTS OR BUSHINGS SHALL NOT BE THE SOLE MEANS FOR BONDING WHERE A CONDUIT ENTERS AN ENCLOSURE THROUGH A CONCENTRIC OR ECCENTRIC KNOCKOUT

8. ALL CONNECTIONS, LOCATED ABOVE GRADE, BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS SHALL BE MADE USING UL-LISTED DOUBLE COMPRESSION CRIMP TYPE CONNECTORS OR UL-LISTED BOLTED GROUND CONNECTORS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, THOMAS AND BETTS, OR EQUAL. TIGHTEN CONNECTIONS TO COMPLY WITH TIGHTENING TORQUES IN UL STANDARD 486A TO ASSURE PERMANENT AND EFFECTIVE GROUNDING.

9. ALL METAL EQUIPMENT ENCLOSURES, CONDUITS, CABINETS, BOXES, RECEPTACLES, MOTORS, ETC. SHALL BE BONDED TO THE RESPECTIVE GROUNDING SYSTEM.

10. PROVIDE ALL BOXES FOR PROPOSED OUTLETS, SWITCHES, CIRCUIT BREAKERS, ETC. WITH GROUNDING SCREWS. PROVIDE ALL PANELBOARD, SWITCHGEAR, ETC., ENCLOSURES WITH GROUNDING BARS WITH INDIVIDUAL SCREWS, LUGS, CLAMPS, ETC., FOR EACH OF THE GROUNDING CONDUCTORS THAT ENTER THEIR RESPECTIVE ENCLOSURES.

11. EACH NEW FEEDER CIRCUIT AND/OR BRANCH CIRCUIT SHALL INCLUDE AN EQUIPMENT GROUND WIRE. METAL RACEWAY OR CONDUIT SHALL NOT MEET THIS REQUIREMENT. THE EQUIPMENT GROUND WIRE FROM EQUIPMENT SHALL NOT BE SMALLER THAN ALLOWED BY 2017 NEC TABLE 250-122 MINIMUM SIZE CONDUCTORS OR GROUNDING RACEWAY AND EQUIPMENT. WHEN CONDUCTORS ARE ADJUSTED IN SIZE TO COMPENSATE FOR VOLTAGE DROP, EQUIPMENT-GROUNDING CONDUCTORS SHALL BE ADJUSTED PROPORTIONATELY ACCORDING TO CIRCULAR MIL AREA. ALL EQUIPMENT GROUND WIRES SHALL BE COPPER, EITHER BARE OR INSULATED GREEN IN COLOR. WHERE THE EQUIPMENT GROUNDING CONDUCTORS ARE INSULATED, THEY SHALL BE IDENTIFIED BY THE COLOR GREEN, AND SHALL BE THE SAME INSULATION TYPE AS THE PHASE CONDUCTORS.

12. ALL EXTERIOR METAL CONDUIT, WHERE NOT ELECTRICALLY CONTINUOUS BECAUSE OF MANHOLES, HANDHOLES, NON-METALLIC JUNCTION BOXES, ETC., SHALL BE BONDED TO ALL OTHER METAL CONDUIT IN THE RESPECTIVE DUCT RUN, AND AT EACH END, WITH A COPPER-BONDING JUMPER SIZED IN CONFORMANCE WITH 2017 NEC 250-102. WHERE METAL CONDUITS TERMINATE IN AN ENCLOSURE (SUCH AS A MOTOR CONTROL CENTER, SWITCHBOARD, ETC) WHERE THERE IS NOT ELECTRICAL CONTINUITY WITH THE CONDUIT AND THE RESPECTIVE ENCLOSURE, PROVIDE A BONDING JUMPER FROM THE RESPECTIVE ENCLOSURE GROUND BUS TO THE CONDUIT SIZED PER 2017 NEC 250-102.

13. IT IS THE INTENT OF THIS SPECIFICATION THAT ALL MOTOR FRAMES, PUMP BASES ELECTRICAL EQUIPMENT ENCLOSURES, PANEL HOUSINGS, CONDUITS, BOXES, ETC. HAVE A CONTINUOUS COPPER WIRE GROUND CONNECTION AND SHALL BE POSITIVELY BONDED TO THE RESPECTIVE GROUNDING SYSTEM. CONDUIT CONNECTORS WILL NOT BE CONSIDERED AS ADEQUATE GROUNDING.

14. PROVIDE A POSITIVE GROUND BOND FOR ALL OUTLET BOXES, ELECTRICAL EQUIPMENT ENCLOSURES, GROUNDING RECEPTACLES, TOGGLE SWITCHES, ETC. INSTALL A GROUNDING CONDUCTOR IN ALL WIRE AND CABLE RACEWAYS. GROUND CONDUCTOR TO HAVE 600-VOLT INSULATION AND BE IDENTIFIED BY A CONTINUOUS GREEN COLOR COATING. THEY SHALL BE USED SOLELY FOR GROUNDING PURPOSES AND BE ENTIRELY SEPARATE FROM WHITE GROUNDED NEUTRAL CONDUCTOR, EXCEPT AT SUPPLY SIDE OF SERVICE DISCONNECTING MEANS, WHERE GROUNDING AND NEUTRAL SYSTEMS ARE TO BE CONNECTED TO SERVICE GROUND.

15. EACH AND ALL GROUNDED CASED AND METAL PARTS ASSOCIATED WITH ELECTRICAL EQUIPMENT SHALL BE TESTED FOR CONTINUITY OF CONNECTION WITH GROUND BUS SYSTEM BY CONTRACTOR IN PRESENCE OF OWNER'S REPRESENTATIVE.

16. ALL CONNECTIONS BETWEEN THE DIFFERENT TYPES OF GROUNDING CONDUCTORS ABOVE GRADE SHALL BE MADE USING BOLTED GROUND CONNECTORS. GROUND LUGS SHALL BE PROVIDED IN ALL ENCLOSURES AND WIRING TERMINATION JUNCTION BOXES. EQUIPMENT GROUNDS AND GROUNDING CONDUCTOR SHALL BE CONNECTED TO THESE GROUND LUGS. FOR GROUND CONNECTIONS TO ENCLOSURES, CASES AND FRAMES OF ELECTRICAL EQUIPMENT NOT SUPPLIED WITH GROUND LUGS THE CONTRACTOR SHALL DRILL REQUIRED HOLES FOR MOUNTING A BOLTED GROUND CONNECTOR. ALL BOLTED GROUND CONNECTORS SHALL BE BURNDY, OR APPROVED EQUAL.

17. BOND ALL NONCURRENT-CARRYING PARTS OF METAL EQUIPMENT TO GROUND SYSTEM.

18. BUILDING STRUCTURAL STEEL SYSTEM SHALL BE BONDED TO ELECTRICAL GROUND SYSTEM.

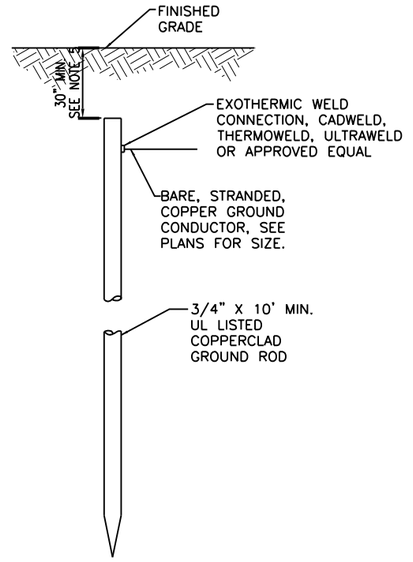
19. INSTALL GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS AND SEPARATE GROUND CONDUCTORS IN SCHEDULE 80 PVC CONDUIT OR EXPOSED WHERE ACCEPTABLE TO LOCAL CODES. WHERE GROUNDING ELECTRODE CONDUCTORS, LIGHTNING PROTECTION DOWN CONDUCTORS OR INDIVIDUAL GROUND CONDUCTORS ARE RUN IN PVC CONDUIT, DO NOT COMPLETELY ENCIRCLE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. USE NON-METALLIC REINFORCED FIBERGLASS STRUT SUPPORT. WHERE METAL CONDUIT CLAMPS ARE INSTALLED, USE NYLON BOLTS, NUTS, WASHERS AND SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT. THIS IS REQUIRED TO AVOID GIRDLING OF GROUND CONDUCTORS. GIRDLING OF A GROUND CONDUCTOR IS THE RESULT OF PLACING THE CONDUCTOR IN A RING OF MAGNETIC MATERIAL. THIS RING COULD BE A METALLIC CONDUIT, U-BOLT OR STRUT SUPPORT PIPE CLAMP, OR OTHER SUPPORT HARDWARE. THE RESULT OF GIRDLING GROUND CONDUCTORS SIGNIFICANTLY INCREASES THE INDUCTIVE IMPEDANCE OF THE GROUND CONDUCTOR. INDUCTIVE AND CAPACITIVE IMPEDANCE IS A TYPE OF RESISTANCE THAT OPPOSES THE FLOW OF ALTERNATING CURRENT. ANY INCREASE IN THE IMPEDANCE OF A GROUND CONDUCTOR REDUCES ITS ABILITY TO EFFECTIVELY MITIGATE RADIO FREQUENCY NOISE IN THE GROUND SYSTEM. THE CONDITION WHERE A GROUND CONDUCTOR IS GIRDLED DURING A LIGHTNING STRIKE RESULTS IN PHENOMENA KNOWN AS SURGE IMPEDANCE LOADING. SURGE IMPEDANCE LOADING IS A RESULT OF VOLTAGE AND CURRENT REACHING 500,000 VOLTS AND 10,000 AMPS FOR A SHORT DURATION. GIRDLING FURTHER INCREASES THE IMPEDANCE AT LIGHTNING FREQUENCIES OF 100 KILOHERTZ TO 100 MEGAHERTZ. AT THESE POWER AND FREQUENCY LEVELS ANY INCREASE IN THE IMPEDANCE OF THE GROUND CONDUCTOR MUST BE CONTROLLED. DURING LIGHTNING DISCHARGE CONDITIONS A LOW INDUCTIVE IMPEDANCE PATH IS MORE IMPORTANT THAN A LOW DC RESISTANCE PATH.

20. IF LOCAL CODES DICTATE THAT INDIVIDUAL GROUNDING CONDUCTORS MUST BE RUN IN METAL CONDUIT OR RACEWAY, THEN THE CONDUIT OR RACEWAY MUST BE BONDED AT EACH END OF THE RUN WITH A BONDING JUMPER SIZED EQUAL TO THE INDIVIDUAL GROUNDING CONDUCTOR OR AS REQUIRED BY 2017 NEC 250-102. NOTE THIS DOES NOT APPLY TO AC EQUIPMENT GROUNDING CONDUCTORS RUN WITH AC CIRCUITS.

21. NEVER REMOVE, ALTER, OR ATTEMPT TO REPAIR CONDUCTORS OR CONDUIT SYSTEMS PROVIDING GROUNDING OR ELECTRICAL BONDING FOR ANY ELECTRICAL EQUIPMENT UNTIL ALL POWER IS REMOVED FROM EQUIPMENT. WARN ALL PERSONNEL OF THE UNGROUNDED CONDITION OF THE EQUIPMENT. DISPLAY APPROPRIATE WARNING SIGNS, SUCH AS DANGER TAGS, TO WARN PERSONNEL OF THE POSSIBLE HAZARDS.

22. GROUNDING WORK AND MODIFICATIONS SHALL NOT NE PERFORMED DURING A THUNDERSTORM OR WHEN A THUNDERSTORM IS PREDICTED IN THE AREA.

23. WHERE A CONFLICT IS DETERMINED WITH RESPECT TO GROUNDING REQUIREMENTS PER MANUFACTURER INSTALLATION INSTRUCTIONS, NEC, AND/OR THE CONTRACT DOCUMENTS, CONTACT THE RESIDENT ENGINEER OR PROJECT ENGINEER FOR FURTHER DIRECTIONS.



10 FT. GROUND ROD

NOTES

1. TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.

2. THE RESISTANCE TO GROUND OF THE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.

3. COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.

4. GROUND RODS SHALL BE SPACED AS DETAILED ON THE PLANS AND SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.

5. TOP OF GROUND RODS SHALL BE 30" MINIMUM BELOW GRADE UNLESS DETAILED OTHERWISE HEREIN. GROUND RING AND/OR GROUND FIELD CONDUCTORS SHALL BE 40" MINIMUM BELOW GRADE TO BE BELOW FROST LINE (FOR SANGAMON COUNTY, ILLINOIS).

MODEL: Sheet 2
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HANSON

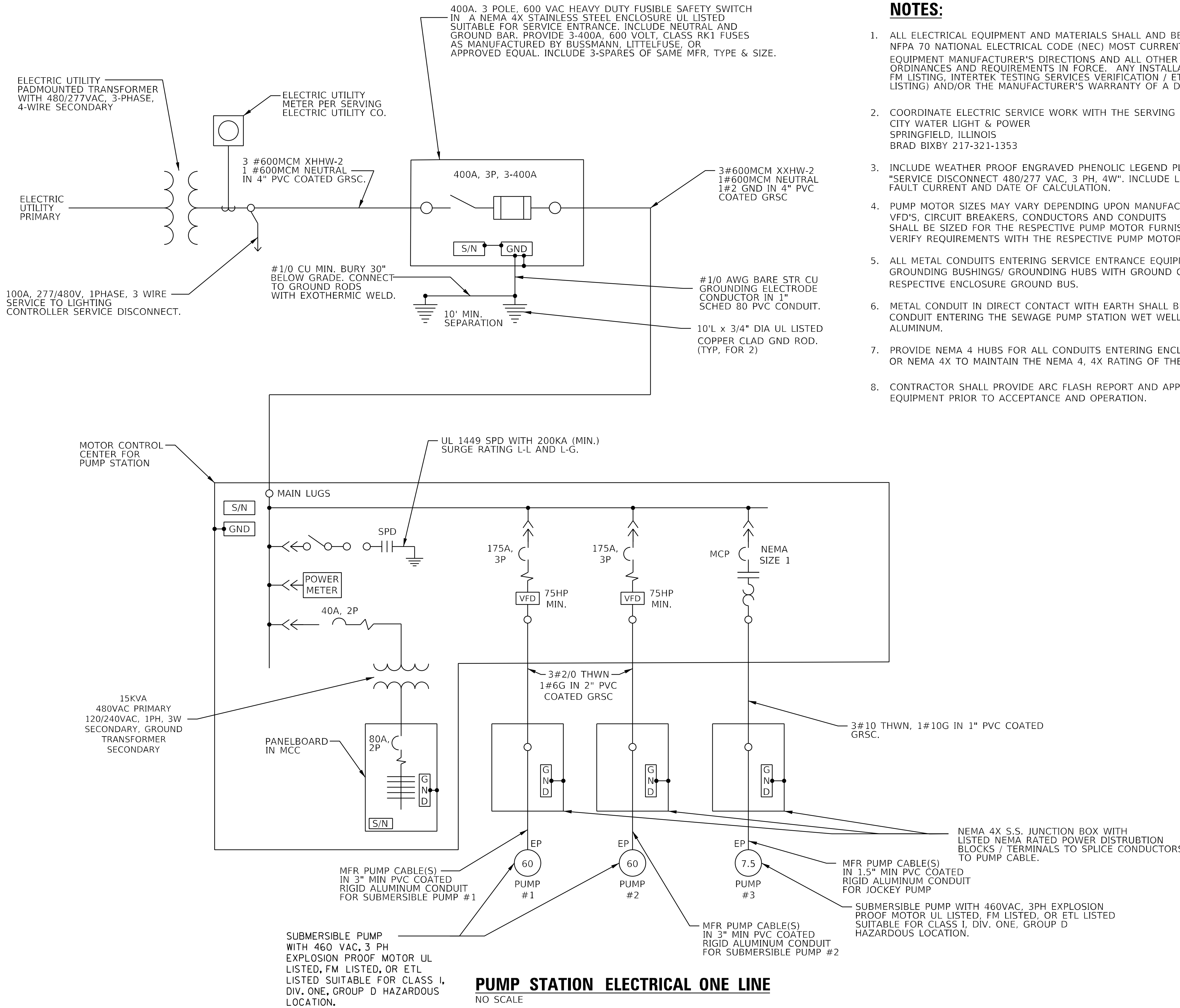
USER NAME = Pop00275	DESIGNED - RDN	REVISED -
	DRAWN - RSJ/JFC	REVISED -
PLOT SCALE = 2.00 ' / in.	CHECKED - KNL	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – GROUNDING NOTES

SCALE: | SHEET 19 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	266
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		



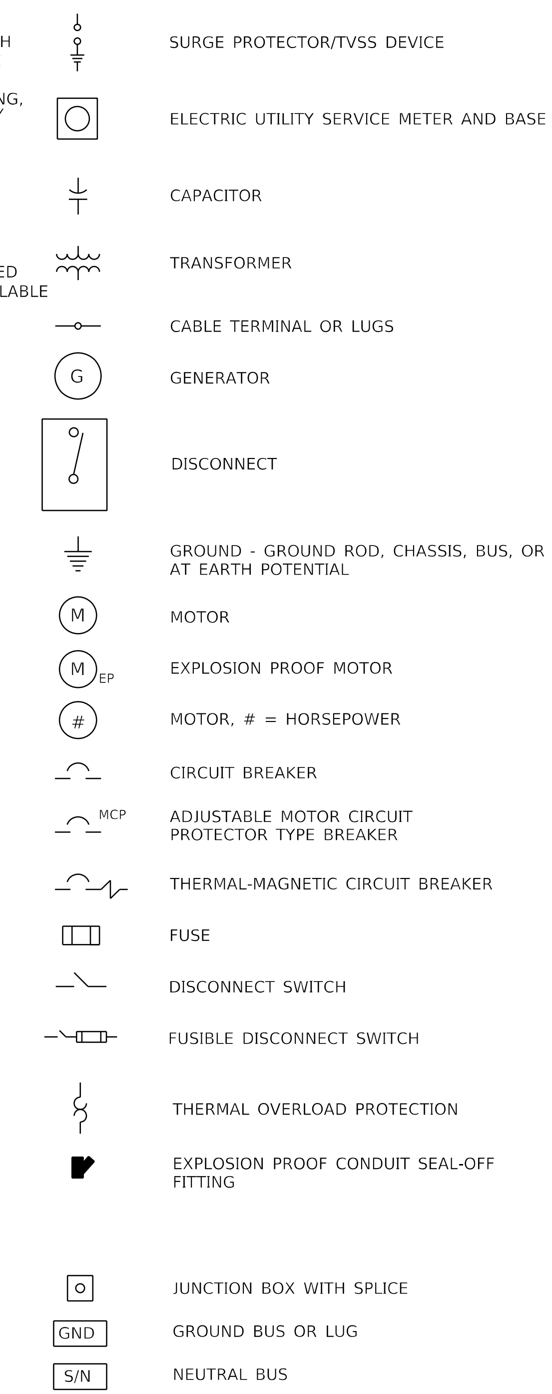
PUMP STATION ELECTRICAL ONE LINE

NO SCALE

NOTES:

1. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL AND BE INSTALLED IN CONFORMANCE WITH NFPA 70 NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, FM LISTING, INTERTEK TESTING SERVICES VERIFICATION / ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE SHALL NOT BE PERMITTED.
2. COORDINATE ELECTRIC SERVICE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY, CITY WATER LIGHT & POWER SPRINGFIELD, ILLINOIS BRAD BIXBY 217-321-1353
3. INCLUDE WEATHER PROOF ENGRAVED PHENOLIC LEGEND PLATE FOR SERVICE BREAKER LABELED "SERVICE DISCONNECT 480/277 VAC, 3 PH, 4W". INCLUDE LEGEND PLATE WITH MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF CALCULATION.
4. PUMP MOTOR SIZES MAY VARY DEPENDING UPON MANUFACTURER. PUMP MOTOR STARTERS, VFD'S, CIRCUIT BREAKERS, CONDUCTORS AND CONDUITS SHALL BE SIZED FOR THE RESPECTIVE PUMP MOTOR FURNISHED VERIFY REQUIREMENTS WITH THE RESPECTIVE PUMP MOTOR MFR.
5. ALL METAL CONDUITS ENTERING SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED USING GROUNDING BUSHINGS/ GROUNDING HUBS WITH GROUND CONDUCTOR FROM BUSHING TO RESPECTIVE ENCLOSURE GROUND BUS.
6. METAL CONDUIT IN DIRECT CONTACT WITH EARTH SHALL BE PVC COATED GRSC. METAL CONDUIT ENTERING THE SEWAGE PUMP STATION WET WELL SHALL BE PVC COATED RIGID ALUMINUM.
7. PROVIDE NEMA 4 HUBS FOR ALL CONDUITS ENTERING ENCLOSURES THAT ARE RATED NEMA 4 OR NEMA 4X TO MAINTAIN THE NEMA 4, 4X RATING OF THE ENCLOSURE.
8. CONTRACTOR SHALL PROVIDE ARC FLASH REPORT AND APPROPRIATE LABELS ON ELECTRICAL EQUIPMENT PRIOR TO ACCEPTANCE AND OPERATION.

ONE–LINE LEGEND



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HANSON

USER NAME = Pop00275	DESIGNED - RDN	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – ELECTRICAL ONE–LINE

SCALE: | SHEET 20 OF 22 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	267
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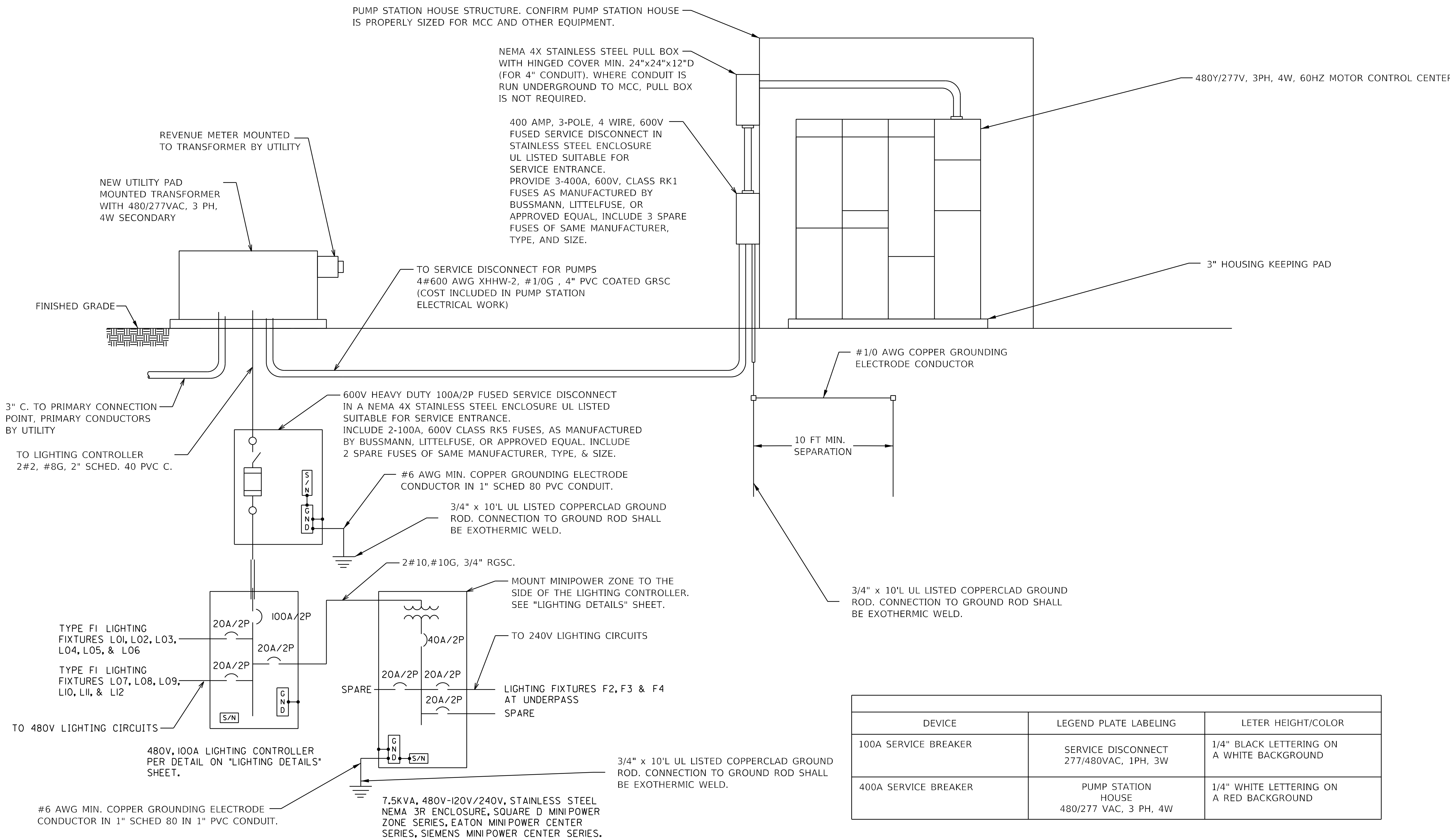
		ILLINOIS	FED. AID PROJECT	



DEVICE	LEGEND PLATE LABELING	LETER HEIGHT/COLOR
100A SERVICE BREAKER	SERVICE DISCONNECT 277/480VAC, 1PH, 3W	1/4" BLACK LETTERING ON A WHITE BACKGROUND
400A SERVICE BREAKER	PUMP STATION HOUSE 480/277 VAC, 3 PH, 4W	1/4" WHITE LETTERING ON A RED BACKGROUND

ELECTRIC SERVICE INSTALLATION DETAIL JEFFERSON ST.

NOT TO SCALE

SERVICE NOTES:

1. CONTRACTOR SHALL VERIFY AND COORDINATE SERVICE ENTRANCE WORK WITH THE SERVING ELECTRIC UTILITY COMPANY.
2. ALL METAL CONDUITS TERMINATING IN SERVICE EQUIPMENT (METER BASE & SERVICE BREAKER) SHALL HAVE GROUND BUSHING TYPE HUBS WITH BONDING JUMPERS TO THE RESPECTIVE GND BUS.
3. UNLESS OTHERWISE NOTED, WORK SHOWN ON ELECTRIC SERVICE INSTALLATION DETAIL, INCLUDING COORDINATION WITH UTILITY COMPANY, SHALL BE PAID FOR AS ELECTRIC SERVICE INSTALLATION.

LEGEND PLATE SCHEDULE NOTES:

1. LEGEND PLATES SHALL BE WEATHERPROOF, ABRASION RESISTANT, PHENOLIC ENGRAVED MATERIAL. LETTERING SHALL BE SIZED AS NOTED ABOVE. SECURE LEGNED PLATES TO EQUIPMENT WITH MACHINE SCREWS AND/OR RIVETS. CONTRACTOR SHALL FIELD VERIFY THAT THE RESPECTIVE LETTERING HEIGHT AND LEGENDS WILL FIT ON THE RESPECTIVE EQUIPMENT AND ADJUST LETTERING HEIGHT WHERE APPLICABLE. SEE SPECIFICATIONS FOR THE PUMP CONTROL PANEL FOR ADDITIONAL LEGEND PLATES REQUIRED FOR THAT PANEL.
2. FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH METER SOCKET, SERVICE DISCONNECT, PANELBOARD & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "ARC-FLASH HAZARD WARNING".
3. SEE LEGEND PLATE SCHEDULE FOR ADDITIONAL LEGEND PLATES AND LABELING REQURIEMENTS.

JEFFERSON ST. LEGEND PLATE SCHEDULE	
DEVICE	**LABEL**
SERVICE DISCONNECT FOR PUMP STATION	SERVICE DISCONNECT FOR PUMP STATION 480/277 VAC, 3 PH, 4-WIRE
SERVICE DISCONNECT FOR PUMP STATION Note: The fault current will need to be calculated and/or provided by the serving electric utility and the date of the calculation recorded for the nameplate to comply with NEC 110.24(A) “Field Marking”.	MAX AVAILABLE FAULT CURRENT CALCULATED TO BE ___ AMPS LINE TO LINE AND ___ AMPS LINE TO NEUTRAL ON __(Date)___
MOTOR CONTROL CENTER FOR PUMP STATION	JEFFERSON ST. PUMP STATION MCC 480/277 VAC, 3 PH, 4-WIRE FED FROM SERVICE DISCONNECT FOR PUMP STATION
MOTOR CONTROL CENTER FOR PUMP STATION Note: The fault current will need to be calculated and/or provided by the serving electric utility and the date of the calculation recorded for the nameplate to comply with NEC 110.24(A) “Field Marking”.	MAX AVAILABLE FAULT CURRENT CALCULATED TO BE ___ AMPS LINE TO LINE AND ___ AMPS LINE TO NEUTRAL ON __(Date)___
MOTOR CONTROL CENTER FOR PUMP STATION	COLOR CODE 480/277 VAC CONDUCTORS AS FOLLOWS: PHASE A – BROWN PHASE B – ORANGE PHASE C – YELLOW NEUTRAL – GRAY GROUND- GREEN
120/240 VAC PANELBOARD IN MCC	COLOR CODE 120/240 VAC CONDUCTORS AS FOLLOWS: PHASE A – BLACK PHASE B – RED NEUTRAL – WHITE GROUND- GREEN
JUNCTION POX FOR PUMP 1 WIRING	PUMP 1 CABLES 480 VAC, 3 PHASE
JUNCTION POX FOR PUMP 2 WIRING	PUMP 2 CABLES 480 VAC, 3 PHASE
JUNCTION POX FOR PUMP 3 WIRING	PUMP 3 CABLES 480 VAC, 3 PHASE
JUNCTION POX FOR LEVEL CONTROL AND FLOAT SWTICH WIRING	LEVEL CONTROL WIRING INTRINSICALLY SAFE
SERVICE DISCONNECT FOR LIGHTING CONTROLLER	SERVICE DISCONNECT FOR LIGHTING CONTROLLER 277/480 VAC, 1 PH, 3-WIRE
SERVICE DISCONNECT FOR LIGHTING CONTROLLER Note: The fault current will need to be calculated and/or provided by the serving electric utility and the date of the calculation recorded for the nameplate to comply with NEC 110.24(A) “Field Marking”.	MAX AVAILABLE FAULT CURRENT CALCULATED TO BE ___ AMPS LINE TO LINE AND ___ AMPS LINE TO NEUTRAL ON __(Date)___
LIGHTING CONTROLLER	LIGHTING CONTROLLER 277/480 VAC, 1 PH, 3-WIRE FED FROM SERVICE DISCONNECT FOR LIGHTING CONTROLLER
MINI POWER ZONE	MINI POWER ZONE 120/240 VAC, 1 PH, 3-WIRE FED FROM LIGHTING CONTROLLER
MINI POWER ZONE	COLOR CODE 120/240 VAC CONDUCTORS AS FOLLOWS: PHASE A – BLACK PHASE B – RED NEUTRAL – WHITE GROUND- GREEN

GENERAL NOTES:

1. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE, SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS, FURNISH ADDITIONAL LEGEND PLATES WHERE REQURIED BY CODE, FOR ADDITIONAL EQUIPMENT AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.
2. FURNISH AND INSTALL A WEATHERPROOF WARNING LABEL FOR EACH SAFETY SWITCH, PANELBOARD, LOAD CENTER, CUTOUT, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "ARC-FLASH HAZARD WARNING."
3. ALL POWER AND CONTROL CABLES IN HANDHOLES, MANHOLES, AND JUNCTION BOXES SHALL BE TAGGED TO IDENTIFY THE RESPECTIVE CABLE. CABLE TAGS SHALL BE WEATHERPROOF/WATERPROOF CORROSION RESISTANT MATERIAL.
4. FAULT FURRENT INFORMATION TO BE PROVIDED BY SERVING ELECTRIC UTILTIY COMPANY. CONTACT PROJECT ENGINEER TO CONFIRM FAULT CURRENT CALCULATIONS.
5. CONTRACTOR TO PROVIDE AN ARC FLASH REPORT AND ALL APPROPRIATE LABELS ON ELECTRICAL EQUIPMENT PRIOR TO ACCEPTANCE AND OPERATION. ARC FLASH WARNING LABELS SHALL COMPLY WITH NFPA 70E STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, ARTICLE 130 WORK INVOLVING ELECTRICAL HAZARDS, PART 130.5 ARC FLASH RISK ASSESSMENT, (H) EQUIPMENT LABELING.

HANSON

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
PUMP STATION – LEGEND PLATE SCHEDULE

SCALE: | SHEET 22 OF 22 SHEETS | STA. | TO STA.

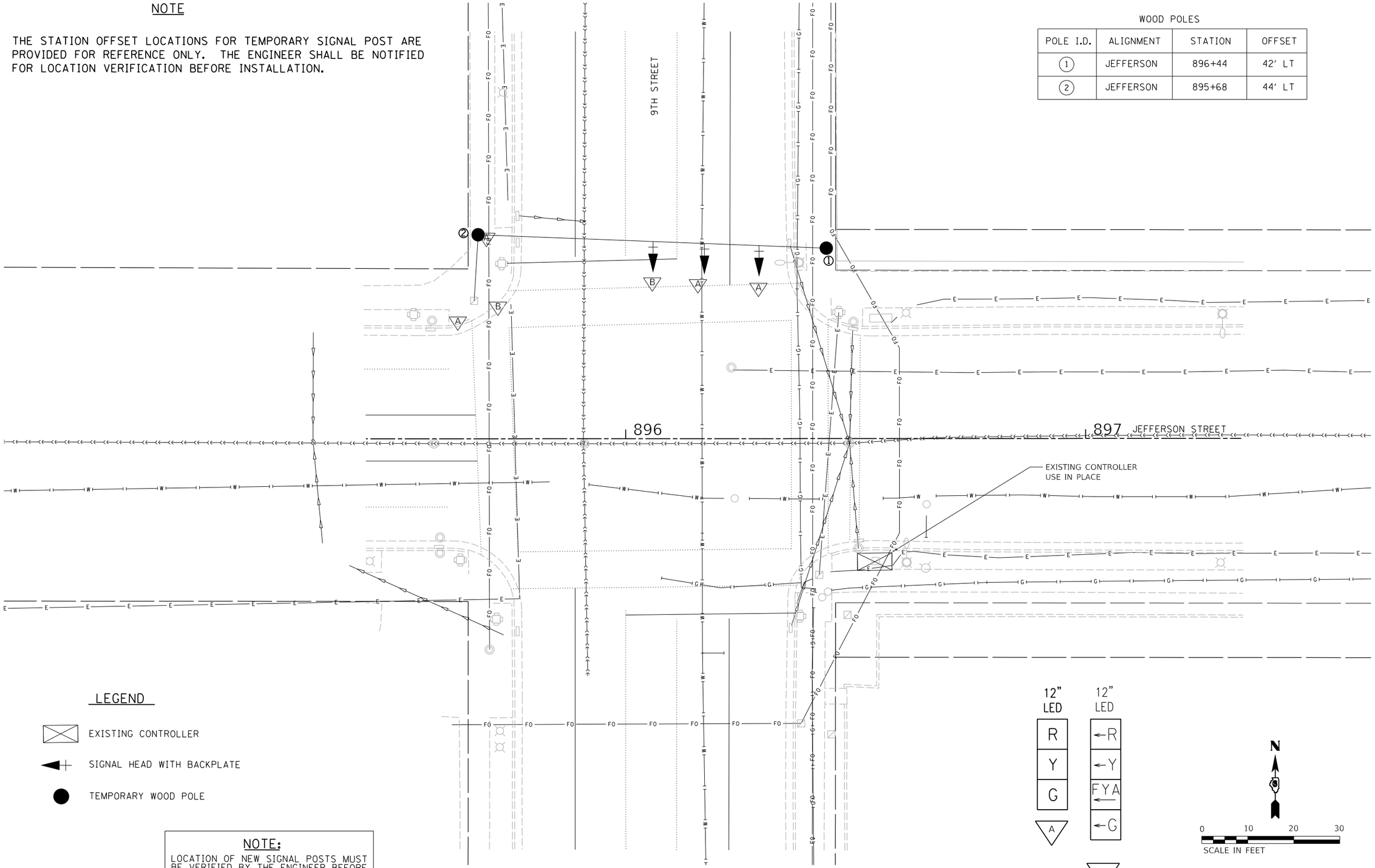
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	269
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

NOTE

1. THE STATION OFFSET LOCATIONS FOR TEMPORARY SIGNAL POST ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.

WOOD POLES

POLE I.D.	ALIGNMENT	STATION	OFFSET
①	JEFFERSON	896+44	42' LT
②	JEFFERSON	895+68	44' LT



LEGEND

- EXISTING CONTROLLER
- SIGNAL HEAD WITH BACKPLATE
- TEMPORARY WOOD POLE

NOTE:
LOCATION OF NEW SIGNAL POSTS MUST BE VERIFIED BY THE ENGINEER BEFORE INSTALLATION.

MODEL: Temp Signal Plan
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HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
	DRAWN - JAP	REVISED -
PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY SIGNAL PLAN – 9TH & JEFFERSON STREET

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	270
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

GENERAL NOTES

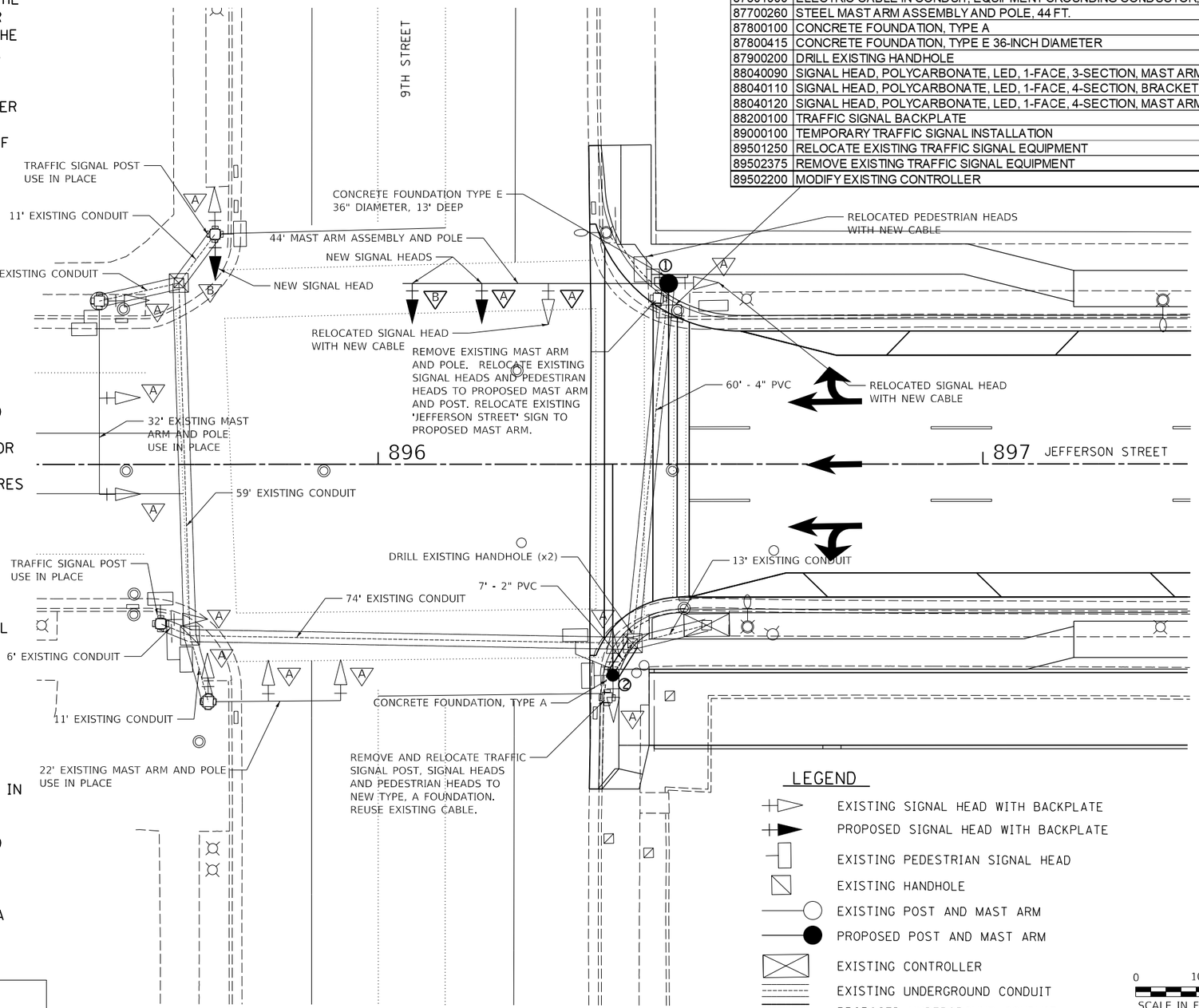
1. ALL TRAFFIC SIGNAL SECTIONS SHALL HAVE 12'' SINGLE LED LENSES.
2. THE RED SECTIONS OF THE SIGNAL HEADS SHARING THE SAME MAST ARM SHALL BE LEVEL WITH ONE ANOTHER AND MAINTAIN A 16 FT. MINIMUM CLEARANCE FROM THE HIGHEST POINT OF THE ROADWAY TO BOTTOM OF THE SIGNAL BACKPLATE.
3. THE PROPOSED MAST ARM MOUNTED TRAFFIC SIGNAL HEADS SHALL BE MOUNTED DIRECTLY OVER THE CENTER OF THEIR RESPECTIVE LANES. LEFT TURN SIGNAL HEADS MAY BE MOVED 1 FOOT TO ALLOW FOR LINE OF SIGHT FOR APPROACHING VEHICLES.
4. ALL TRAFFIC SIGNAL HEAD BRACKETS ARE TO BE GALVANIZED STEEL.
5. ALL TRAFFIC SIGNAL POSTS SHALL BE GALVANIZED STEEL.
6. THE LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY TRAFFIC COMPONENTS.
7. THE STATION OFFSET LOCATIONS FOR HANDHOLES, TRAFFIC SIGNAL POST FOUNDATIONS, AND MAST ARM FOUNDATIONS ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
8. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
9. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 2 FT. MINIMUM DEPTH OR IN AN INDIRECT ROUTE BETWEEN STRUCTURES TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR THE CONDUITS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING CITY OF SPRINGFIELD ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO FACILITIES RESULTING FROM INACCURATE LOCATING.
12. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
13. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
14. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 873.05.
15. POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE CONDUIT PAY ITEMS.
16. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS.

NOTE:
LOCATION OF NEW SIGNAL POSTS MUST BE VERIFIED BY THE ENGINEER BEFORE INSTALLATION.

MAST ARM POLES & POSTS

POLE I.D.	ALIGNMENT	STATION	OFFSET
1	JEFFERSON	896+48	30' LT
2	JEFFERSON	896+39	35' RT

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ FT	5
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	7
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	60
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	197
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	361
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	344
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	70
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	3
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
87900200	DRILL EXISTING HANDHOLE	EACH	2
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	1
88040110	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
88040120	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	3
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502200	MODIFY EXISTING CONTROLLER	EACH	1



LEGEND

- EXISTING SIGNAL HEAD WITH BACKPLATE
- PROPOSED SIGNAL HEAD WITH BACKPLATE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING HANDHOLE
- EXISTING POST AND MAST ARM
- PROPOSED POST AND MAST ARM
- EXISTING CONTROLLER
- EXISTING UNDERGROUND CONDUIT
- PROPOSED UNDERGROUND CONDUIT

N

0 10 20 30
SCALE IN FEET

MODEL: Signal Plan
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HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
	DRAWN - JAP	REVISED -
PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC SIGNAL PLAN – 9TH & JEFFERSON STREET

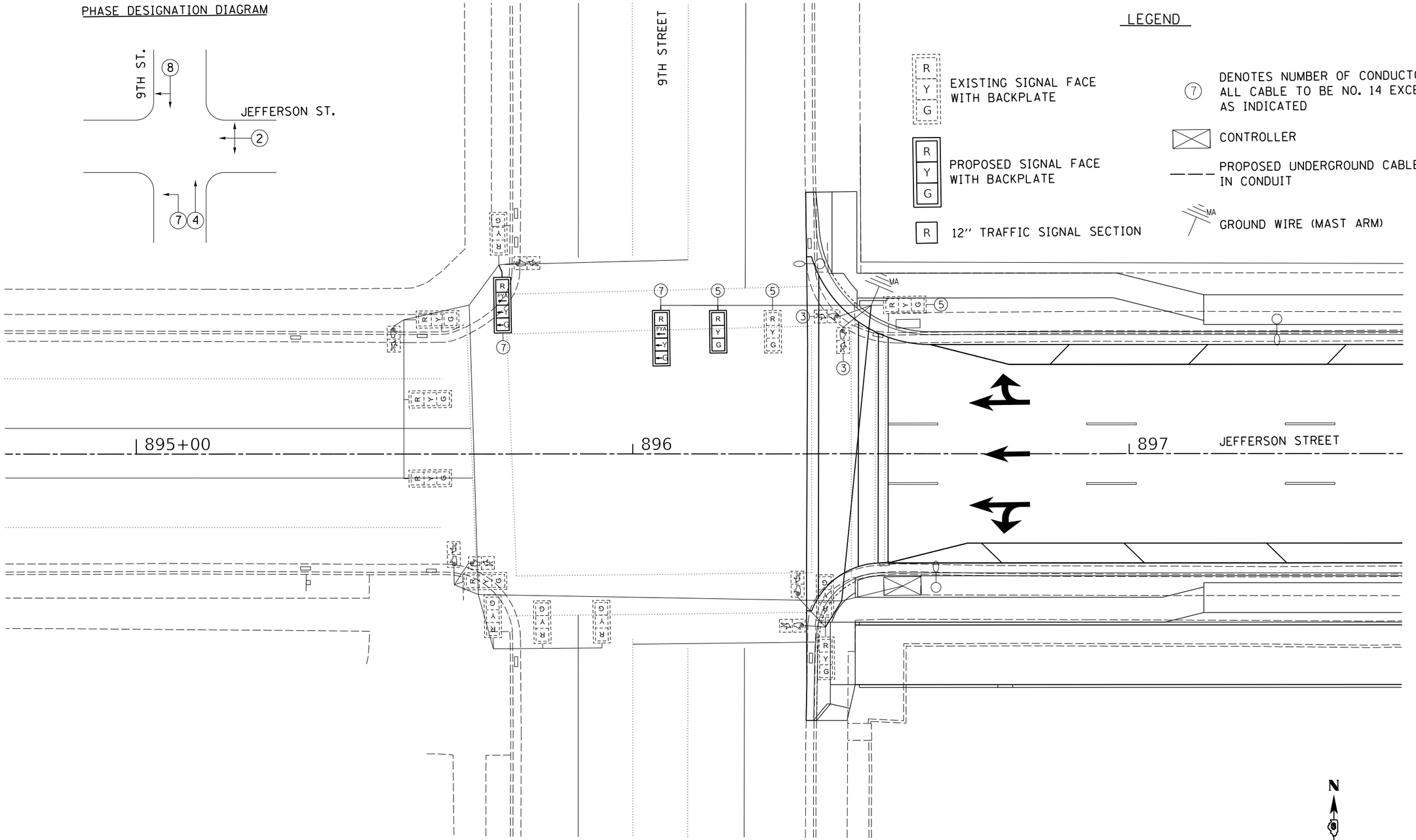
SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

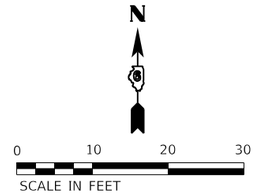
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	271
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

PHASE DESIGNATION DIAGRAM

LEGEND

- R Y G — EXISTING SIGNAL FACE WITH BACKPLATE
- R Y G — PROPOSED SIGNAL FACE WITH BACKPLATE
- R — 12'' TRAFFIC SIGNAL SECTION
- (7) — DENOTES NUMBER OF CONDUCTORS. ALL CABLE TO BE NO. 14 EXCEPT AS INDICATED
- CONTROLLER
- PROPOSED UNDERGROUND CABLE IN CONDUIT
- MA — GROUND WIRE (MAST ARM)





MODEL: Cable Plan
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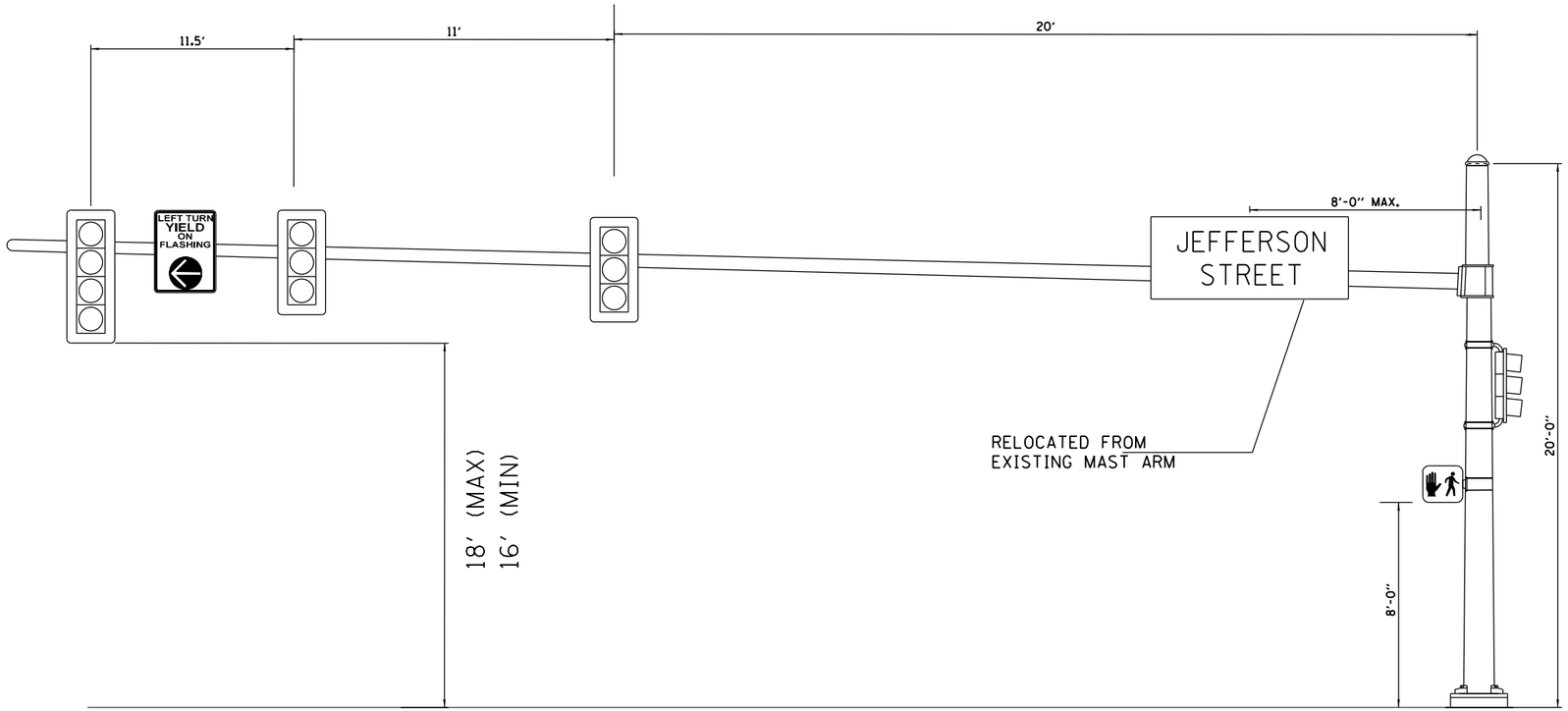
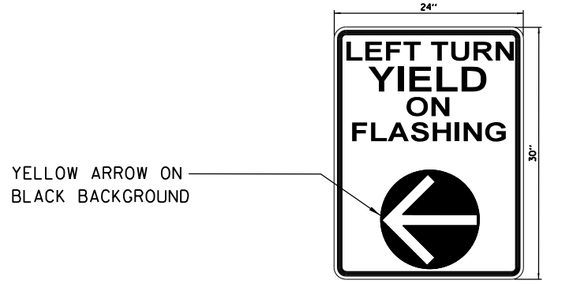
HANSON	USER NAME = Pop00275	DESIGNED - ES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS TRAFFIC CABLE PLAN – 9TH & JEFFERSON STREET
		DRAWN - JAP	REVISED -		
	PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -		SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	272
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



POLE #1
9TH STREET AND JEFFERSON STREET
NORTHBOUND 9TH STREET
NTS



SIGN PANEL-TYPE 1

SIGN BACKGROUND: WHITE
SIGN LETTERING: BLACK
1 REQUIRED

HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC LOADING PLAN – 9TH & JEFFERSON STREET

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	273
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

NOTE

1. THE STATION OFFSET LOCATIONS FOR TEMPORARY SIGNAL POST ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.

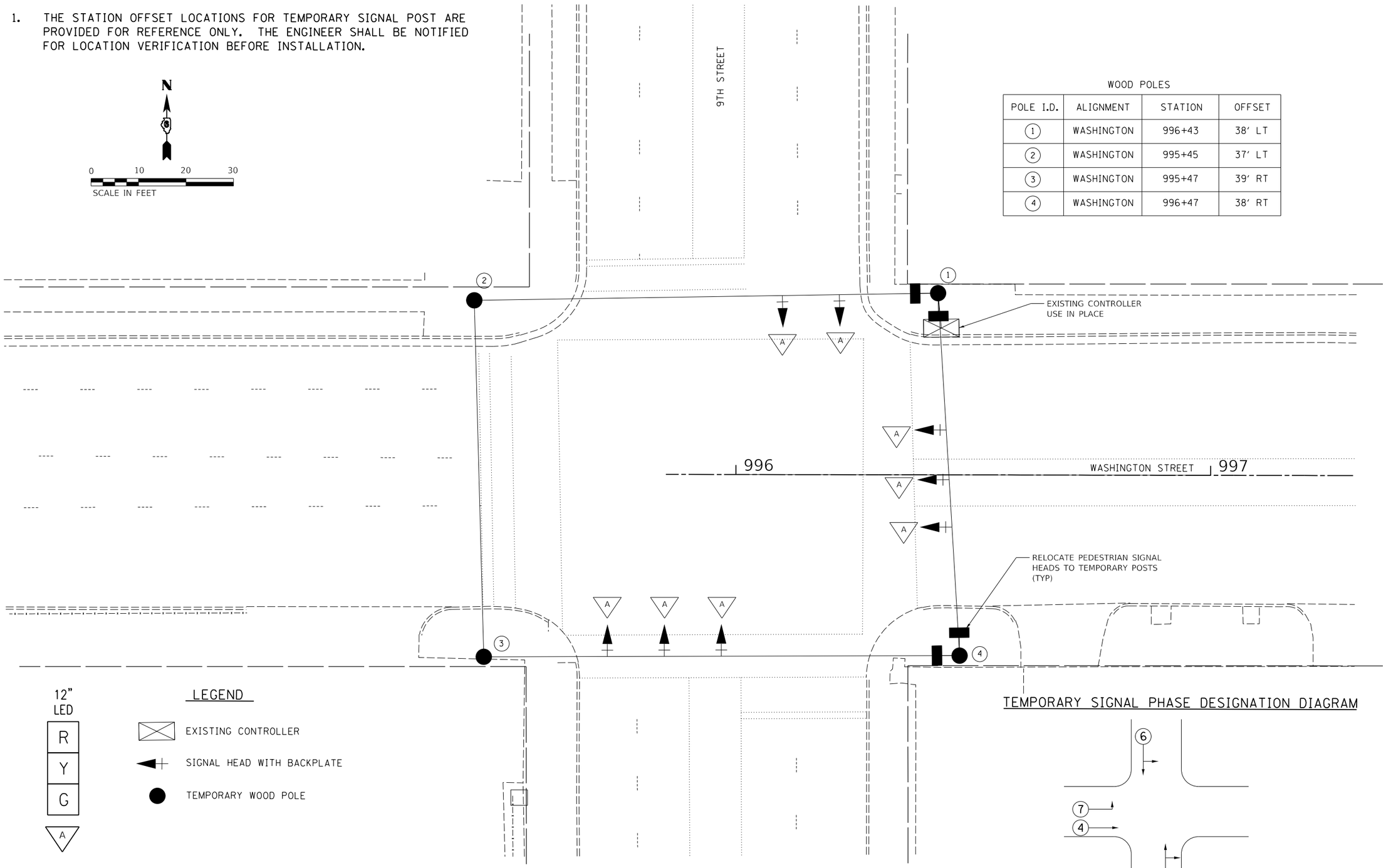
N

0 10 20 30

SCALE IN FEET

WOOD POLES

POLE I.D.	ALIGNMENT	STATION	OFFSET
(1)	WASHINGTON	996+43	38' LT
(2)	WASHINGTON	995+45	37' LT
(3)	WASHINGTON	995+47	39' RT
(4)	WASHINGTON	996+47	38' RT



12"
LED

R
Y
G

A

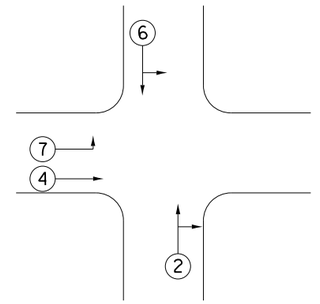
LEGEND

EXISTING CONTROLLER

SIGNAL HEAD WITH BACKPLATE

TEMPORARY WOOD POLE

TEMPORARY SIGNAL PHASE DESIGNATION DIAGRAM



MODEL: Sheet 7
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USER NAME = Pop00275	DESIGNED - ES	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TEMPORARY SIGNAL PLAN – 9TH & WASHINGTON STREET

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	274
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

12" LED | 12" LED | 12" LED

R | ←R | ←R

Y | ←Y | ←Y

G | FYA | FYA

←G

A B C

N

0 10 20 30

SCALE IN FEET

POLES AND HANDHOLES

POLE I.D.	ALIGNMENT	STATION	OFFSET
(1)	WASHINGTON	996+38	32' LT
(2)	WASHINGTON	995+38	32' LT
(3)	WASHINGTON	995+64	47' LT
(4)	WASHINGTON	996+40	33' RT
(A)	WASHINGTON	996+36	38' LT
(B)	WASHINGTON	995+52	32' LT

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ FT	43
72000200	SIGN PANEL - TYPE 2	SQ FT	15
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	33
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	52
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	282
81400100	HANDHOLE	EACH	1
81400300	DOUBLE HANDHOLE	EACH	1
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1115
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2564
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	642
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	472
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	2
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	37
87900200	DRILL EXISTING HANDHOLE	EACH	7
88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
88040110	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
88040120	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	11
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502200	MODIFY EXISTING CONTROLLER	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

NOTE:
LOCATION OF NEW SIGNAL POSTS MUST BE VERIFIED BY THE ENGINEER BEFORE INSTALLATION.

9TH STREET

WASHINGTON STREET

996

997

ONLY

DRILL EXISTING FOUNDATION

17' - 2" PVC

NEW SIGNAL HEAD

14' - 3" PVC

TYPE E FOUNDATION
30" DIA. - 10' DEPTH

24' MAST ARM ASSEMBLY
AND POLE (POLE #2)

NEW SIGNAL HEADS

86' - 4" PVC

TYPE E FOUNDATION
36" DIA. - 13' DEPTH

7' - 3" PVC

2 x 11'
4" PVC

REMOVE EXISTING SIGNAL POST AND MAST ARM. RELOCATE SIGNAL AND PEDESTRIAN HEADS. RELOCATE EXISTING 'WASHINGTON STREET' SIGN TO PROPOSED MAST ARM.

44' MAST ARM ASSEMBLY
AND POLE (POLE #1)

NEW SIGNAL HEAD

RELOCATED SIGNAL HEAD

NEW SIGNAL HEADS

78' - 4" PVC

44' MAST ARM ASSEMBLY
AND POLE (POLE #4)

7' - 2" PVC

77' - 4" PVC

NEW SIGNAL HEADS

TYPE E FOUNDATION
36" DIA. - 13' DEPTH

DRILL EXISTING
HANDHOLE (x1)

REMOVE EXISTING SIGNAL POST AND MAST ARM. RELOCATE SIGNAL AND PEDESTRIAN HEADS. RELOCATE EXISTING 'NINTH ST' SIGN TO PROPOSED MAST ARM.

15' - 3" PVC

10' - 3" PVC

9' - 2" PVC

TYPE E FOUNDATION
36" DIA. - 11' DEPTH

REMOVE EXISTING SIGNAL POST AND MAST ARM. RELOCATE SIGNAL AND PEDESTRIAN HEADS. RELOCATE EXISTING 'WASHINGTON STREET' SIGN TO PROPOSED MAST ARM.

34' MAST ARM ASSEMBLY
AND POLE (POLE #3)

LEGEND

- EXISTING SIGNAL HEAD WITH BACKPLATE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING HANDHOLE
- EXISTING CONTROLLER
- EXISTING SIGNAL POST
- PROPOSED SIGNAL HEAD WITH BACKPLATE
- PROPOSED STEEL MAST ARM ASSEMBLY
- PROPOSED HANDHOLE
- PROPOSED DOUBLE HANDHOLE
- PROPOSED UNDERGROUND CONDUIT

NOTES

1. ALL EXISTING CONDUIT AND CABLES SHALL BE REMOVED BY THE CONTRACTOR.
2. THE CONTROLLER SHALL MODIFIED TO ACCOMMODATE PROTECTED LEFTS. CONTROLLER AND CABINET WILL BE UPDATED BY OTHERS WHEN INTERCONNECT IS IMPLEMENTED.
3. ALL SIGNAL AND PEDESTRIAN HEADS (EXISTING, RELOCATED AND PROPOSED) SHALL INCLUDE NEW CABLE THAT WILL BE MEASURED IN ACCORDANCE WITH ARTICLE 873.05.
4. THE CONTRACTOR SHALL BE EXPECTED TO COOPERATE AND COORDINATE WITH THE DOWNTOWN SIGNAL MODERNIZATION PROJECT IN ORDER TO COMPLETE TESTING OF THE CENTRALIZED TRAFFIC SIGNAL MANAGMENT SYSTEM.
5. SEE TRAFFIC SIGNAL PLAN - 9TH & JEFFERSON STREET SHEET FOR ADDITIONAL NOTES.

MODEL: Sheet 3
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HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -	
	DRAWN - JAP	REVISED -	
PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -	
PLOT DATE = 11/8/2021	DATE - 11/1/2021	REVISED -	

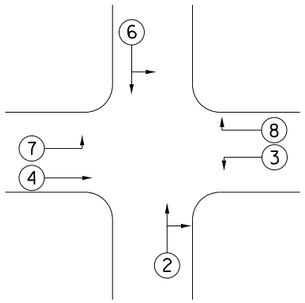
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC SIGNAL PLAN – 9TH AND WASHINGTON STREET

SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	275
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

PHASE DESIGNATION DIAGRAM



9TH STREET

WASHINGTON STREET

996

997

ONLY

ONLY

ONLY

LEGEND

EXISTING SIGNAL FACE WITH BACKPLATE

PROPOSED SIGNAL FACE WITH BACKPLATE

12'' TRAFFIC SIGNAL SECTION

DENOTES NUMBER OF CONDUCTORS. ALL CABLE TO BE NO. 14 EXCEPT AS INDICATED

CONTROLLER

PROPOSED UNDERGROUND CABLE IN CONDUIT

GROUND WIRE:
MA=MAST ARM
P=POST
HH=HANDHOLE

N

0 10 20 30

SCALE IN FEET

MODEL: Sheet 5
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USER NAME = Pop00275	DESIGNED - ES	REVISED -	
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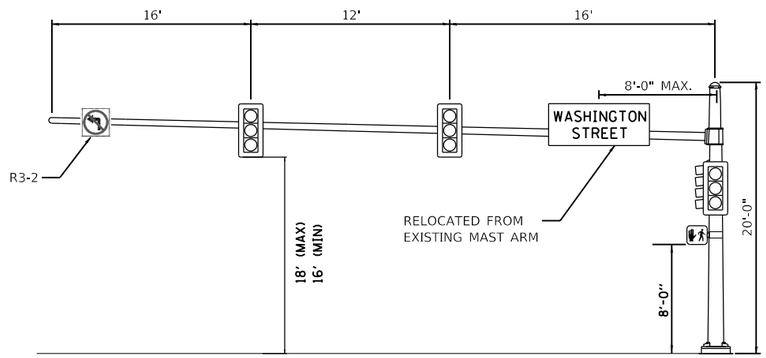
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

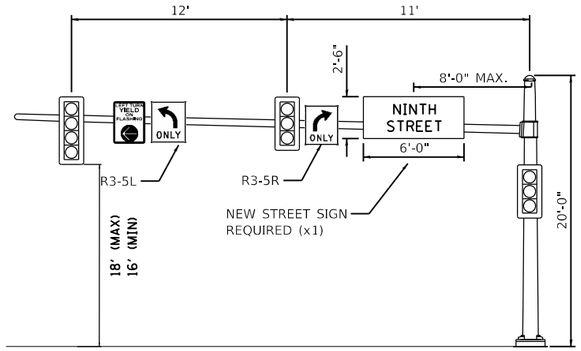
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC CABLE PLAN – 9TH & WASHINGTON STREET

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

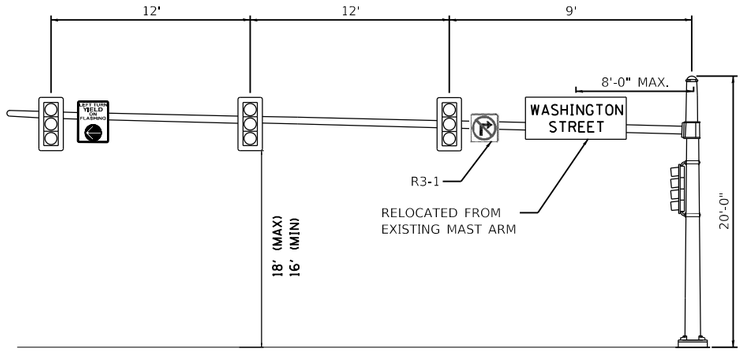
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	276
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



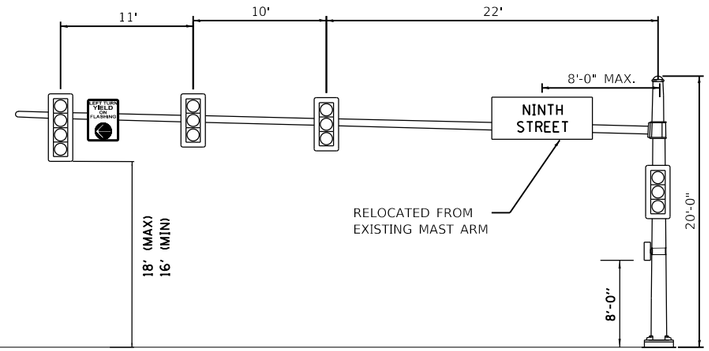
POLE #1
WASHINGTON ST. AND 9TH ST.
NORTHBOUND 9TH ST.
NTS



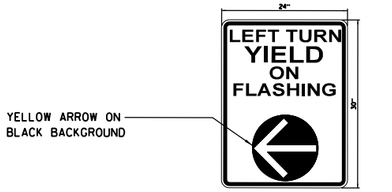
POLE #2
WASHINGTON ST. AND 9TH ST.
WESTBOUND WASHINGTON ST.
NTS



POLE #3
WASHINGTON ST. AND 9TH ST.
SOUTHBOUND 9TH ST.
NTS



POLE #4
WASHINGTON ST. AND 9TH ST.
EASTBOUND WASHINGTON ST.
NTS



SIGN PANEL-TYPE 1
SIGN BACKGROUND: WHITE
SIGN LETTERING: BLACK
2 REQUIRED

HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
	DRAWN - JAP	REVISED -
PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

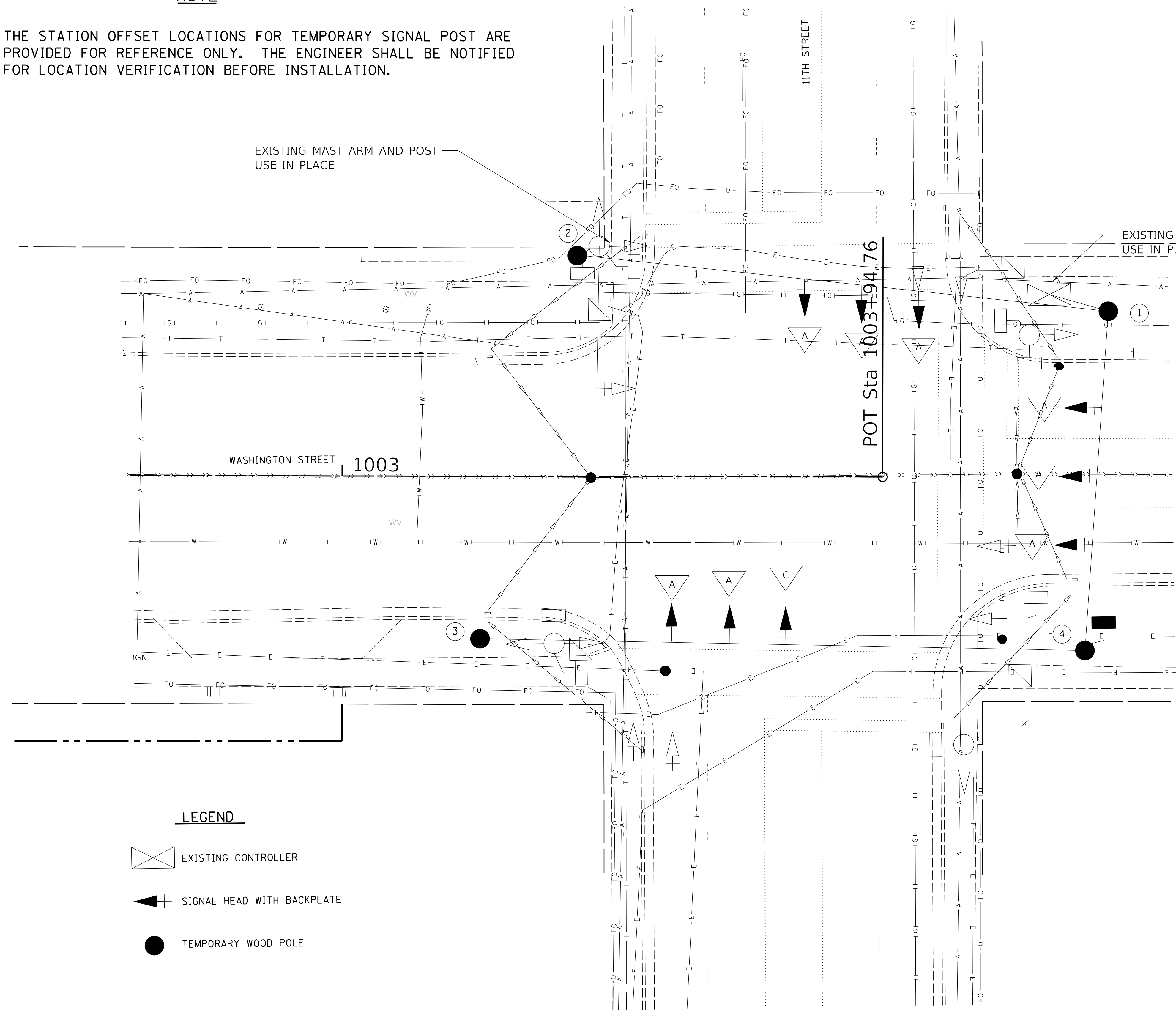
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC LOADING PLAN – 9TH & WASHINGTON STREET

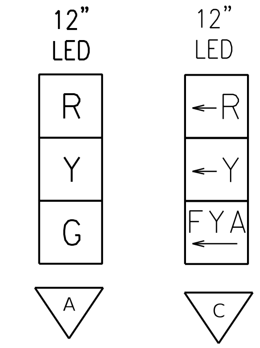
SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	277
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

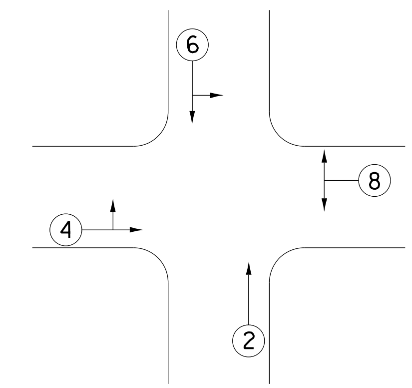
NOTE

1. THE STATION OFFSET LOCATIONS FOR TEMPORARY SIGNAL POST ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.





TEMPORARY SIGNAL PHASE DESIGNATION DIAGRAM



LEGEND

EXISTING CONTROLLER

SIGNAL HEAD WITH BACKPLATE

TEMPORARY WOOD POLE

WOOD POLES

POLE I.D.	ALIGNMENT	STATION	OFFSET
1	WASHINGTON	1004+34	29' LT
2	WASHINGTON	1003+42	39' LT
3	WASHINGTON	1003+23	28' RT
4	WASHINGTON	1004+30	30' RT

HANSON	USER NAME = Pop00275	DESIGNED - ES	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SPRINGFIELD RAIL IMPROVEMENTS PROJECT SPRINGFIELD, SANGAMON COUNTY, ILLINOIS TEMPORARY SIGNAL PLAN – 11TH & WASHINGTON STREET
		DRAWN - JAP	REVISED -		
	PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -		
	PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -		SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	278
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS	FED. AID PROJECT		

MODEL: Sheet 8
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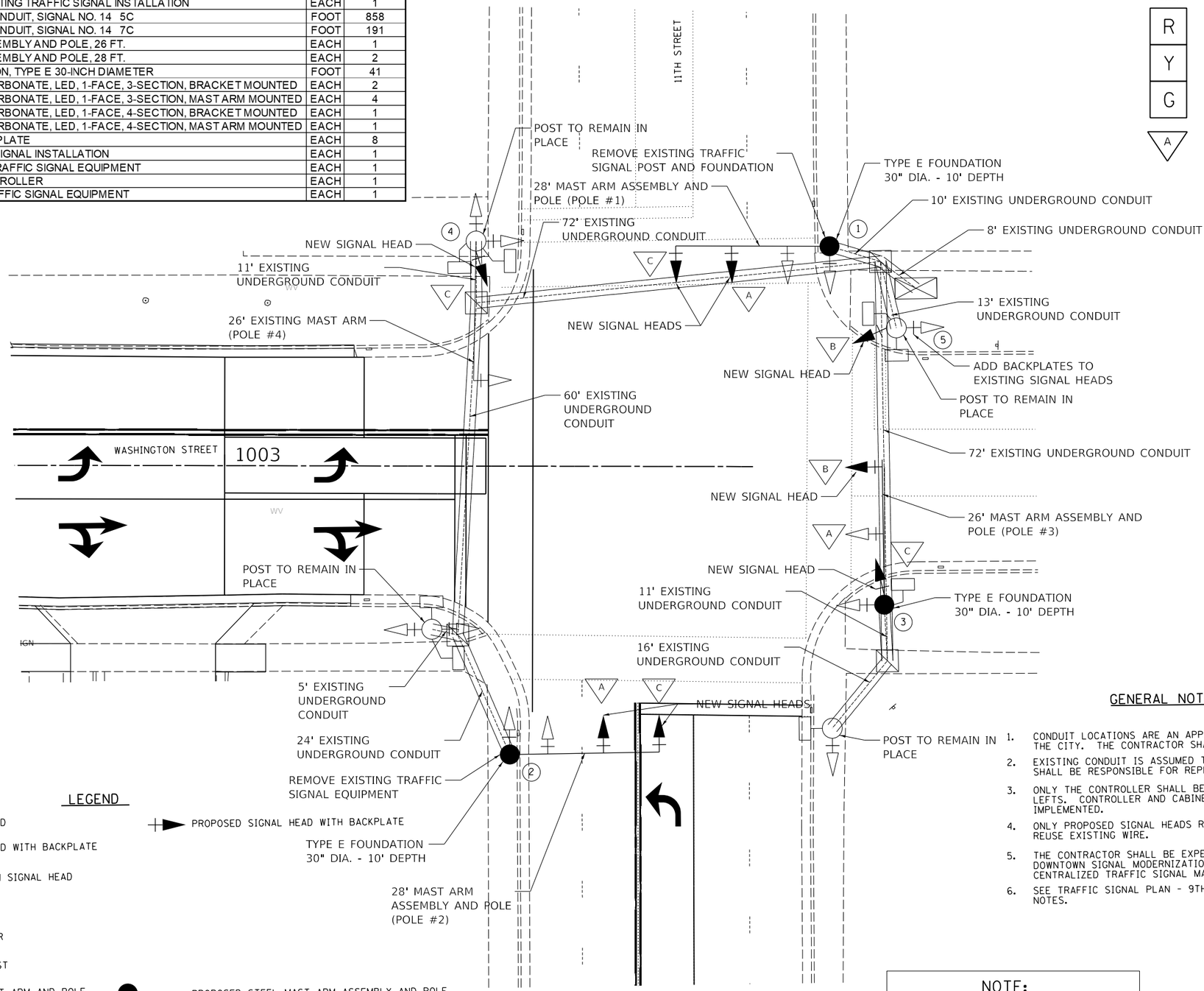
PAY ITEM	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ FT	15
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	858
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	191
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	41
88040070	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
88040090	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
88040110	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
88040120	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	8
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502200	MODIFY EXISTING CONTROLLER	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1



POLES AND HANDHOLES

POLE I.D.	ALIGNMENT	STATION	OFFSET
(1)	WASHINGTON	1004+08	40' LT
(2)	WASHINGTON	1003+51	52' RT
(3)	WASHINGTON	1004+18	25' RT

LEGEND

- EXISTING SIGNAL HEAD
- EXISTING SIGNAL HEAD WITH BACKPLATE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING HANDHOLE
- EXISTING CONTROLLER
- EXISTING SIGNAL POST
- EXISTING STEEL MAST ARM AND POLE
- EXISTING CONDUIT
- PROPOSED SIGNAL HEAD WITH BACKPLATE
- PROPOSED STEEL MAST ARM ASSEMBLY AND POLE

GENERAL NOTES

1. CONDUIT LOCATIONS ARE AN APPROXIMATION BASED OFF PREVIOUS PLANS PROVIDED BY THE CITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY QUANTITY DIFFERENCES.
2. EXISTING CONDUIT IS ASSUMED TO BE IN WORKING CONDITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING CONDUIT REQUIRED FOR PROPER FUNCTION.
3. ONLY THE CONTROLLER SHALL BE UPDATED AT THIS TIME TO ACCOMODATE PROTECTED LEFTS. CONTROLLER AND CABINET WILL BE UPDATED BY OTHERS WHEN INTERCONNECT IS IMPLEMENTED.
4. ONLY PROPOSED SIGNAL HEADS REQUIRE NEW WIRING. EXISTING SIGNAL HEADS SHALL REUSE EXISTING WIRE.
5. THE CONTRACTOR SHALL BE EXPECTED TO COOPERATE AND COORDINATE WITH THE DOWNTOWN SIGNAL MODERNIZATION PROJECT IN ORDER TO COMPLETE TESTING OF THE CENTRALIZED TRAFFIC SIGNAL MANAGMENT SYSTEM.
6. SEE TRAFFIC SIGNAL PLAN - 9TH AND JEFFERSON STREET SHEET FOR ADDITIONAL NOTES.

NOTE:
LOCATION OF NEW SIGNAL POSTS MUST BE VERIFIED BY THE ENGINEER BEFORE INSTALLATION.

HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
	DRAWN - JAP	REVISED -
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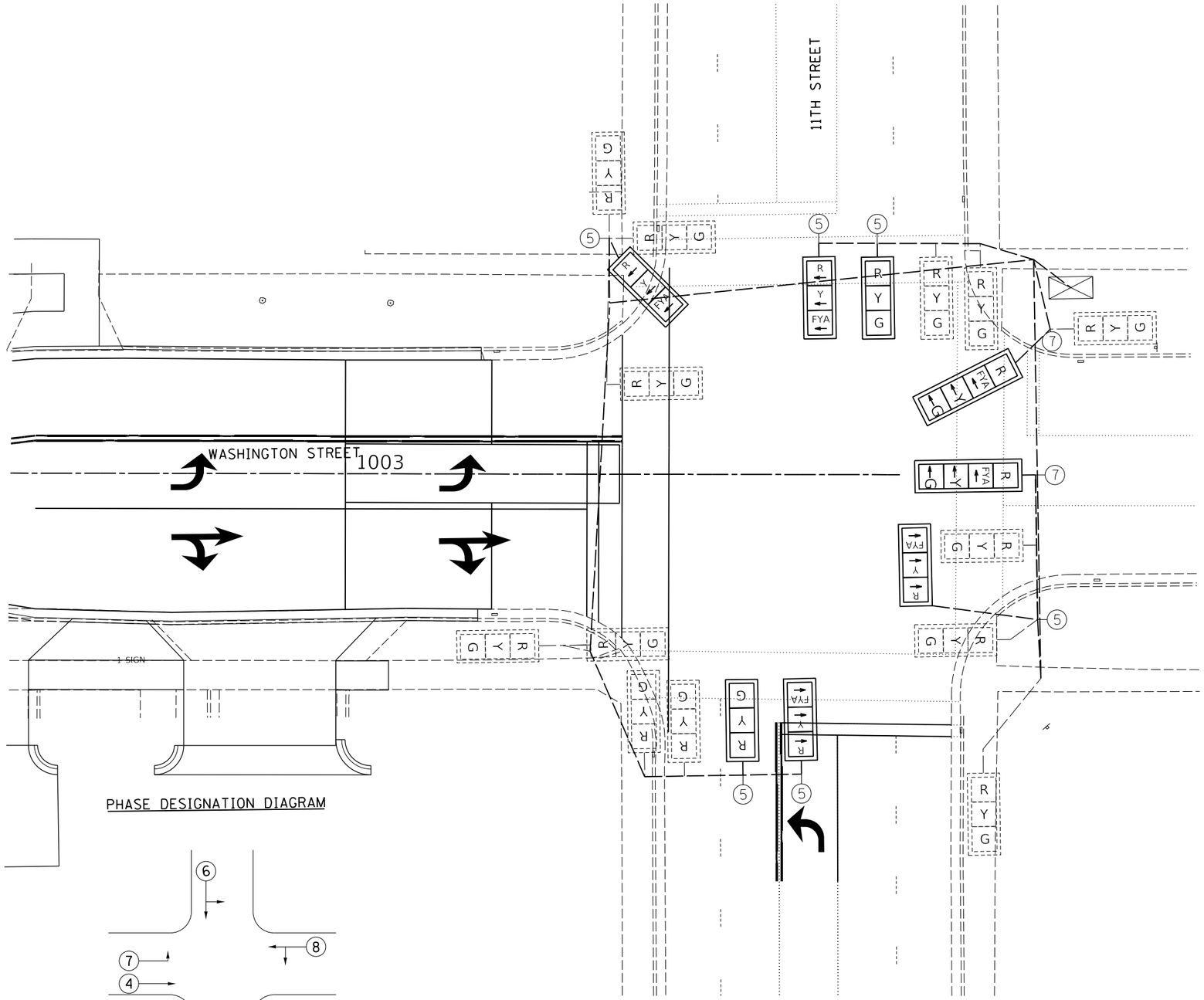
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

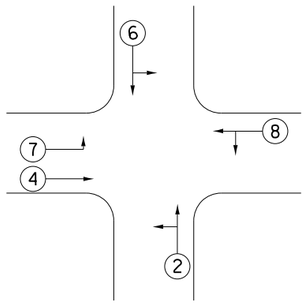
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC SIGNAL PLAN – 11TH AND WASHINGTON STREET

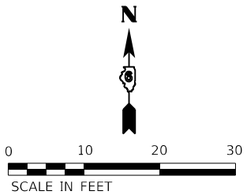
SCALE: | SHEET 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	279
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



PHASE DESIGNATION DIAGRAM





LEGEND

- EXISTING SIGNAL FACE WITH BACKPLATE
- PROPOSED SIGNAL FACE WITH BACKPLATE
- 12" TRAFFIC SIGNAL SECTION
- (7) DENOTES NUMBER OF CONDUCTORS. ALL CABLE TO BE NO. 14 EXCEPT AS INDICATED
- CONTROLLER
- UNDERGROUND CABLE IN CONDUIT

HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -
	DRAWN - JAP	REVISED -
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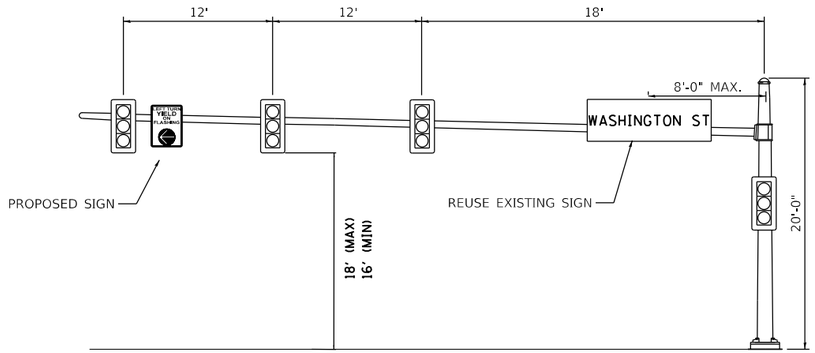
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

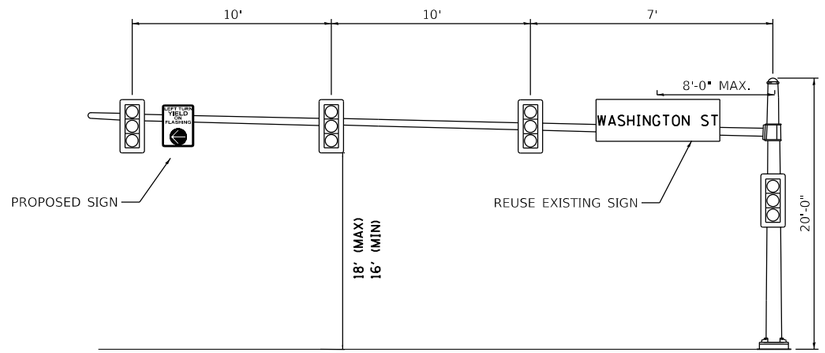
SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC CABLE PLAN – 11TH & WASHINGTON STREET

SCALE: | SHEET 3 OF 4 SHEETS | STA. | TO STA.

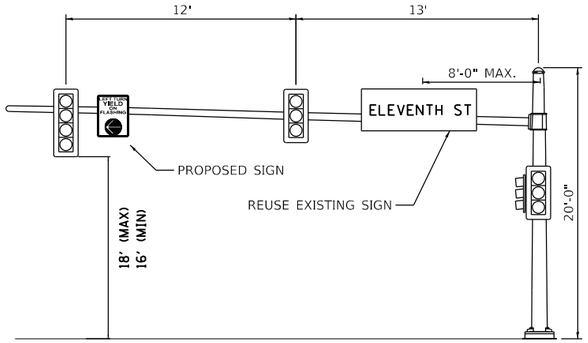
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	280
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



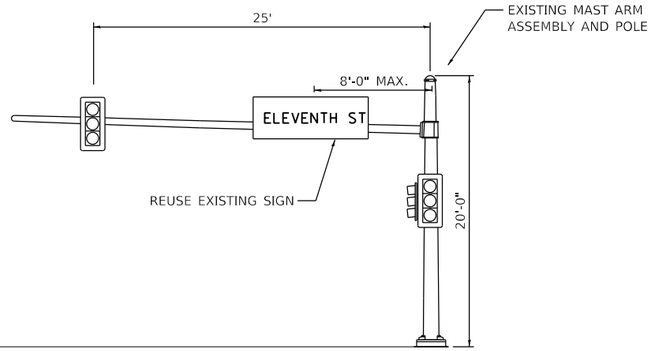
POLE #1
WASHINGTON ST. AND 11TH ST,
NORTHBOUND 11TH ST,
NTS



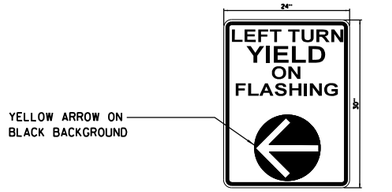
POLE #2
WASHINGTON ST. AND 11TH ST,
SOUTHBOUND 11TH ST,
NTS



POLE #3
WASHINGTON ST. AND 11TH ST,
EASTBOUND WASHINGTON ST,
NTS



POLE #4
WASHINGTON ST. AND 11TH ST,
WESTBOUND WASHINGTON ST,
NTS



SIGN PANEL-TYPE 1
SIGN BACKGROUND: WHITE
SIGN LETTERING: BLACK
3 REQUIRED

HANSON

USER NAME = Pop00275	DESIGNED - ES	REVISED -	
	DRAWN - JAP	REVISED -	
PLOT SCALE = 20.00 ' / in.	CHECKED - TA	REVISED -	
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SPRINGFIELD RAIL IMPROVEMENTS PROJECT
SPRINGFIELD, SANGAMON COUNTY, ILLINOIS
TRAFFIC LOADING PLAN – 11TH & WASHINGTON STREET

SCALE: | SHEET 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	281
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

CONTRACT NO. 93762

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS USABLE SEGMENT III

F.A.P. ROUTE 67 (MADISON STREET) & F.A.P. ROUTE 67A (JEFFERSON STREET)
AT 10TH ST. CORRIDOR / RR UNDERPASS
SECTION 20–00491–00–BR
PROJECT 8UQF(680)
RECONSTRUCTION
CITY OF SPRINGFIELD, SANGAMON COUNTY
C–96–005–21

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1–800–892–0123
OR 811

811 Know what's below. Call before you dig.

PROJECT ENGINEER: MICHAEL MENDENHALL (217)788–2450
PROJECT MANAGER: JIM MOLL (217)788–2450

VOLUME II
STRUCTURES & CROSS SECTIONS

INDEX OF SHEETS – VOLUME I

INDEX OF SHEETS – VOLUME II

FINAL PLANS

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

MODEL: Volume II Cover Sheet
FILE NAME: pw:\\hansoninc-pw.bentley.com:hanson-pw-011\Documents\09lois\09L0179B\Usable Segments III - V - VI\CAD\Rail\Usable Segment III\Sheet\D0609L0179B-SHT-Cover.dgn

USER NAME = Johns00944	DESIGNED - DJP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		
	DRAWN - DJP	REVISED -			
PLOT SCALE = 0.1667 ' / In.	CHECKED - MNM	REVISED -			
PLOT DATE = 11/1/2021	DATE - 11/1/2021	REVISED -			

SCALE: | SHEET OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	282
	09L0179B	CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

Benchmark: Chiseled 'X' on SW Bolt of Fire Hydrant SE quadrant 9th Street and Mason Street. Elevation = 605.652

Existing Structure: None

Traffic Control: Temporary Lane Closures and Complete Closures

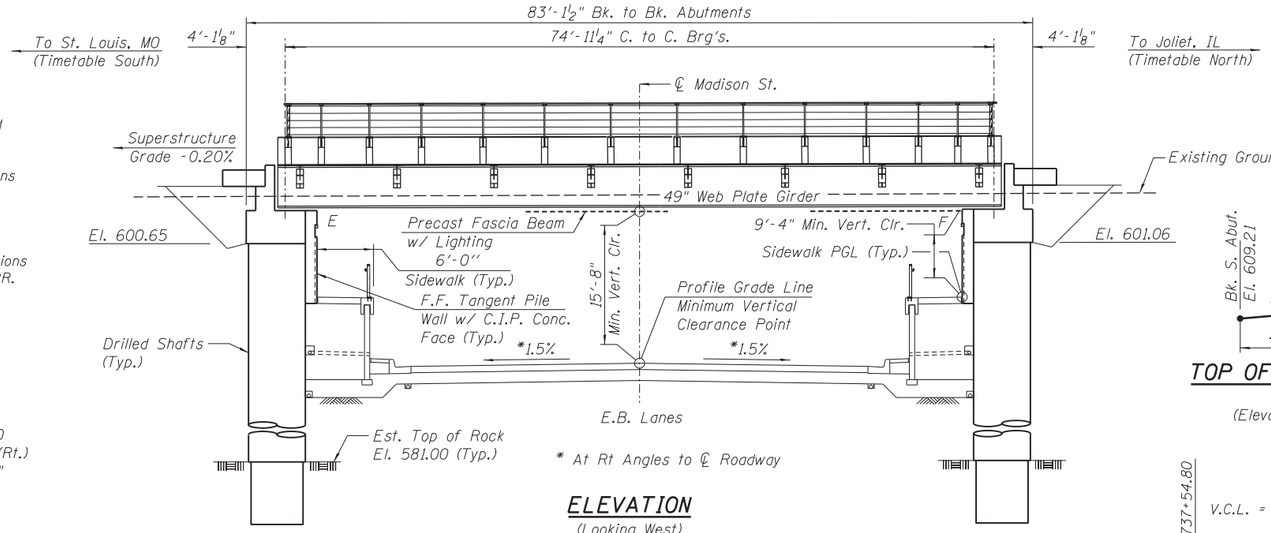
Construction Sequence: See Track Staging Plans

Railroad utilities may exist within NSRR right-of-way. Prior to the start of any construction or excavation, utility relocations will have to be coordinated with the NSRR.

CURVE DATA

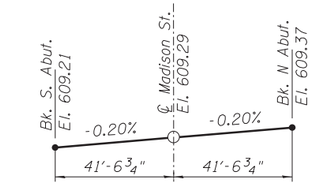
(UPRR Main 1)

P.I. Sta. = 47741+44.50
Δ = 3°-39'-15" (Rt.)
D = 00°-55'-00"
T = 199.38'
L = 398.63'
R = 6250.52'
E = 3.18'
Long Chord = 398.56'
Mid. Ord. = 3.18'
S.E. = 3/4"
S.C. Sta. = 47739+45.11
C.S. Sta. = 47743+43.74



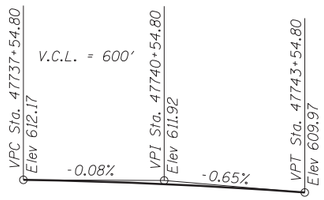
ELEVATION

(Looking West)



TOP OF BALLAST PAN GRADE

(Looking West)
(Elevations Taken along Bridge ℄)



P.G. UPRR MAIN 1 RAIL

(Along Top of Rail)

LOADING COOPER E-80

Impact: Diesel Impact
Allow 30" of Ballast Dead Load

DESIGN SPECIFICATIONS

2019 AREMA Specifications
Live Load Deflection: L/640
Composite Design for Deflection Requirements
Design Speed: 50 m.p.h.

DESIGN STRESSES

FIELD UNITS

f'c = 4,000 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (ASTM A709 Grade 50)

PRECAST UNITS

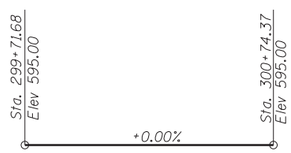
f'c = 6,500 psi
f'ci = 5,000 psi
f'pu = 270,000 psi (1/2" ϕ Low Lax Strands)
fpbt = 201,960 psi (1/2" ϕ Low Lax Strands)
fy = 60,000 psi (Reinforcement)

SEISMIC DATA

AREMA

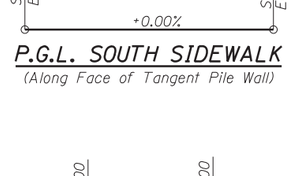
Ground Motion Level	PGA	S_s	S_1
Level 1 (100 Year)	0.010	0.025	0.005
Level 2 (475 Year)	0.040	0.090	0.035
Level 3 (2475 Year)	0.10	0.22	0.10

Soil Site Class = C



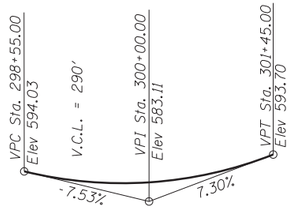
P.G.L. NORTH SIDEWALK

(Along Face of Tangent Pile Wall)



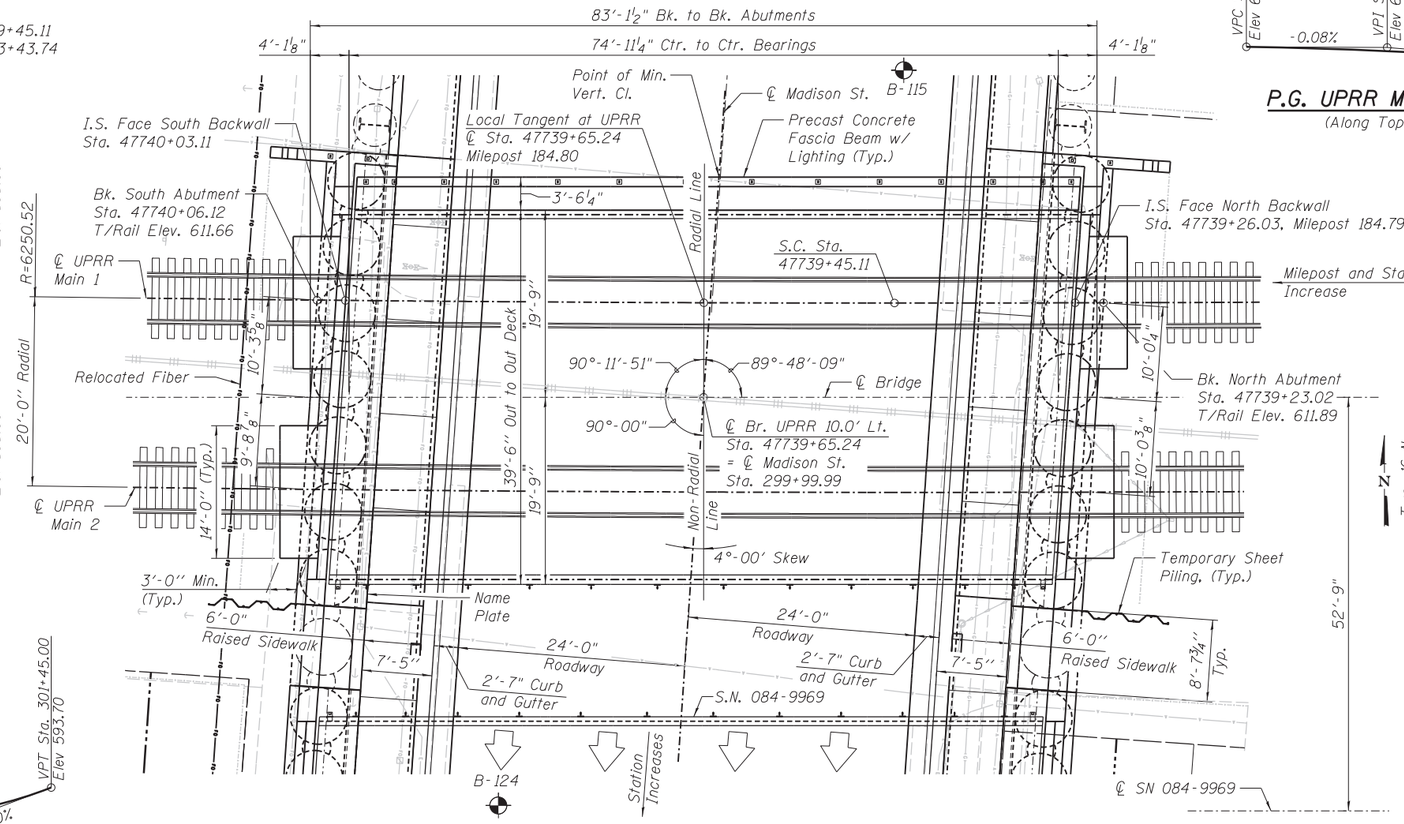
P.G.L. SOUTH SIDEWALK

(Along Face of Tangent Pile Wall)

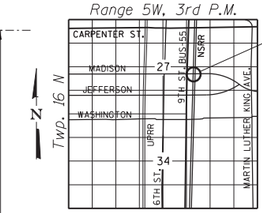


PROFILE GRADE - MADISON ST.

(Along ℄ Madison Street)



PLAN



Proposed Structure

LOCATION SKETCH

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

LICENSED STRUCTURAL ENGINEER
JARED G. THOELE
081-007841
STATE OF ILLINOIS

SIGNATURE
12/20/2021
DATE

LIC. EXP. DATE : 11/30/2022

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

GENERAL PLAN & ELEVATION
UPRR (MP 184.80) OVER MADISON ST.
F.A.P. 67 - SECTION 20-00491-00-BR
SANGAMON COUNTY
UPRR SUBDIVISION - SPRINGFIELD
STATION 47739+65.24
STRUCTURE NO. 084-9968

pw:\\hansoninc-pw.bentley.com:hanson-pw-01\Documents\09Jobs\09L01798\Usable Segments III - V - VI\CAD\Struct\Usable Segment III\Madison\Sheet\084-9968_09L01798_001_GPE.dgn

FINAL

HANSON

USER NAME = thoel01490	DESIGNED - CGP	REVISED -	
	CHECKED - MNM	REVISED -	
PLOT SCALE = 16:0.0000 '/ in.	DRAWN - RSJ	REVISED -	
PLOT DATE = 12/20/2021	CHECKED - MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 084-9968
SHEET NO. 1 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	283
		CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

1. Fasteners shall be ASTM F3125 Grade A325 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$in. ϕ, holes $\frac{15}{16}$in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel, ASTM A709, Gr. 50 = 501,110 lbs.
   ASTM A36, Gr. 36 = 77,190 lbs.
3. All structural steel shall be ASTM A709 Grade 50 unless otherwise noted on the plans.
   The deck plate shall be ASTM A36.
4. All substructure concrete shall have a compressive strength of 4,000 psi at 14 days.
5. No field welding is permitted except as specified in the contract documents.
6. Reinforcement bars designated (E) shall be epoxy coated.
7. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
8. Concrete Sealer shall be applied to the following surfaces:
   Abutments - inside face of backwall, inside face of cheekwall, top of cap, entire concrete facing attached to abutment caps and drilled shaft (except surfaces coated with surface color treatment).
   Superstructure - entire exposed surface of precast prestressed fascia beam and curb (except surfaces coated with surface color treatment), concrete railing end post.
9. Concrete Surface Color Treatment shall be applied to the following surfaces:
   Abutments - concrete facing, wingwall and cheekwall surfaces designated in plans.
   Superstructure - Precast fascia Beam surfaces designated in plans.
10. The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia girders, masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia girders and exterior cantilever support bracket shall be blue, Munsell No. 10B 3/6.
11. Waterproofing shall be applied to the backside of the abutment cap and backwall and backside of wingwalls for surfaces below ground. This shall be according to Article 503.18 of the Std. Spec. Cost included with Concrete Structures.

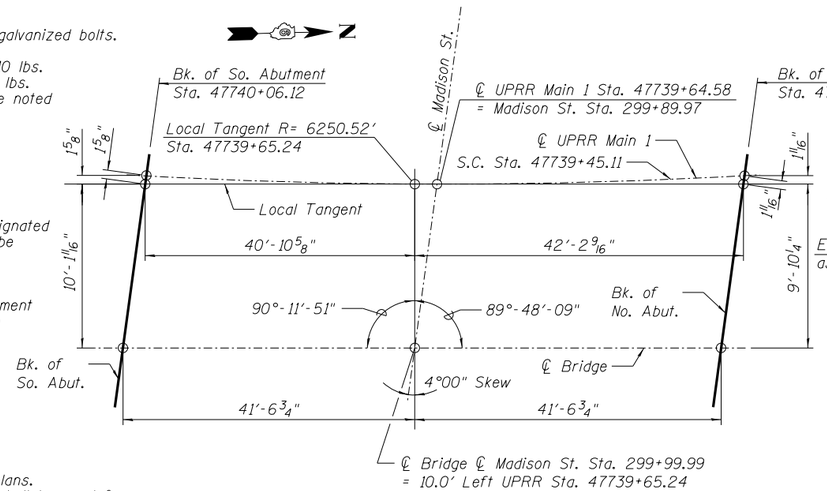
Drilled shaft cross-hole sonic log (CSL) testing:

A) Drilled shafts shall be evaluated by cross-hole sonic log testing. Testing pipes shall be installed in each drilled shaft to facilitate the logging process, which will follow completion of each shaft.

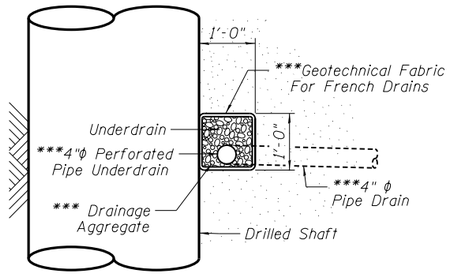
B) Furnish and install six standard 2 inch nominal diameter steel pipes (ASTM A53, Grade B) for use in CSL testing of each drilled shaft. Pipes shall be equally spaced around the interior of the reinforcing steel cage.

C) Pipes shall be fitted with a screw-on watertight shoe and cap and shall be securely fixed to the interior of the reinforcing steel cage. Watertight joints shall be used to achieve the required length. The pipes shall be filled with water and plugged or capped before concrete placement. The upper end of the pipe shall not be left open during or after concrete placement. The pipes shall extend at least 2'-6" above the top of the drilled shaft concrete. The lower end of the pipes shall extend to the bottom of the shaft. Do not extend pipes into rock sockets with smaller diameter than drilled shafts.

D) CSL testing will be completed by the Engineer at no cost to the Contractor. If CSL test results are unsatisfactory according to the Engineer, the Contractor shall propose a method of correction including designs if required to the Engineer for approval. The correction shall be at the expense of the Contractor.

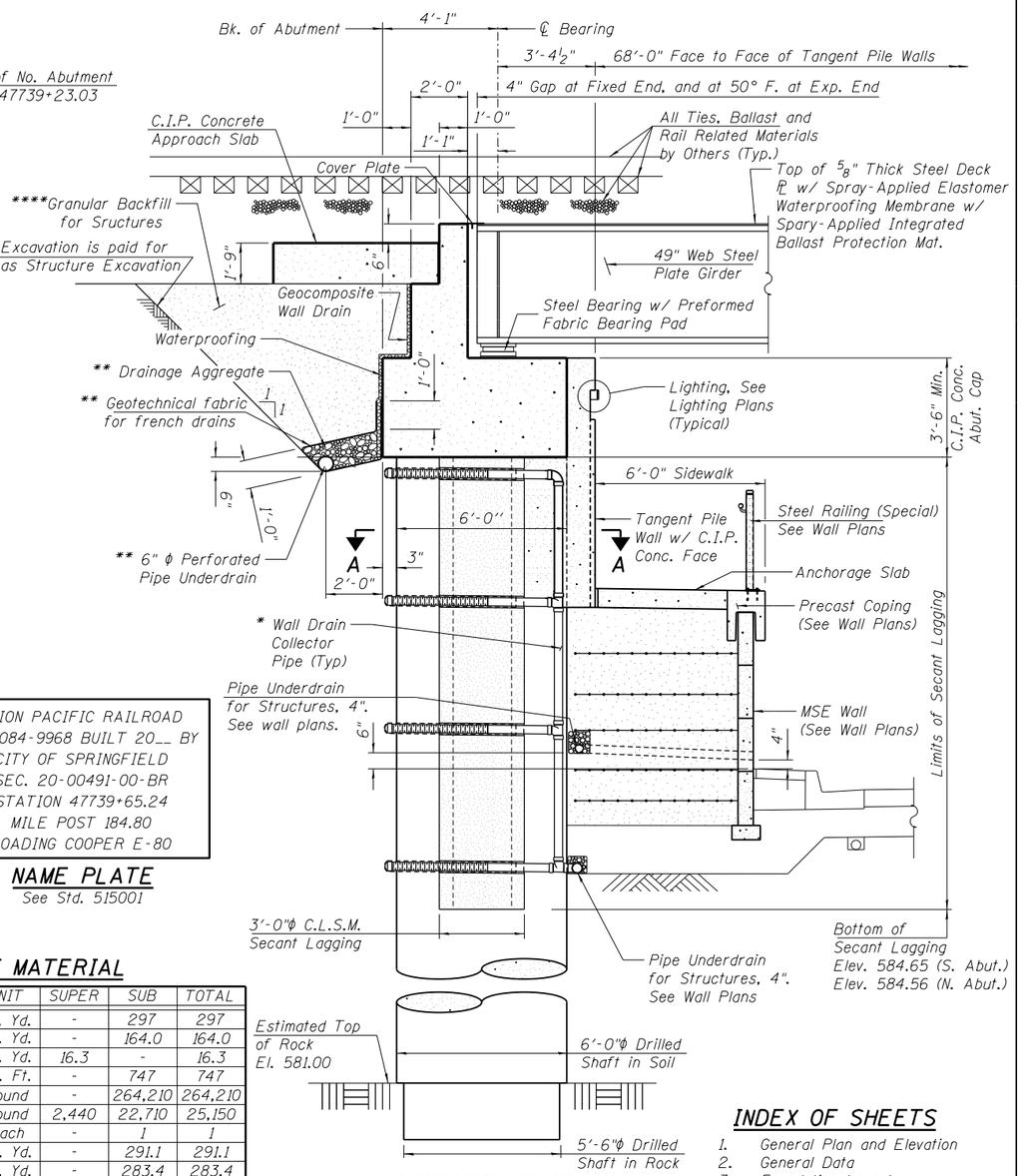


OFFSET SKETCH



PIPE UNDERDRAIN DETAIL

***Included in the cost of "Pipe Underdrains for Structures, 4". See wall plans.



ABUTMENT SECTION

(At Rt. L's to Back of Abutment)

Notes:
South Abutment Section Shown, North Similar.

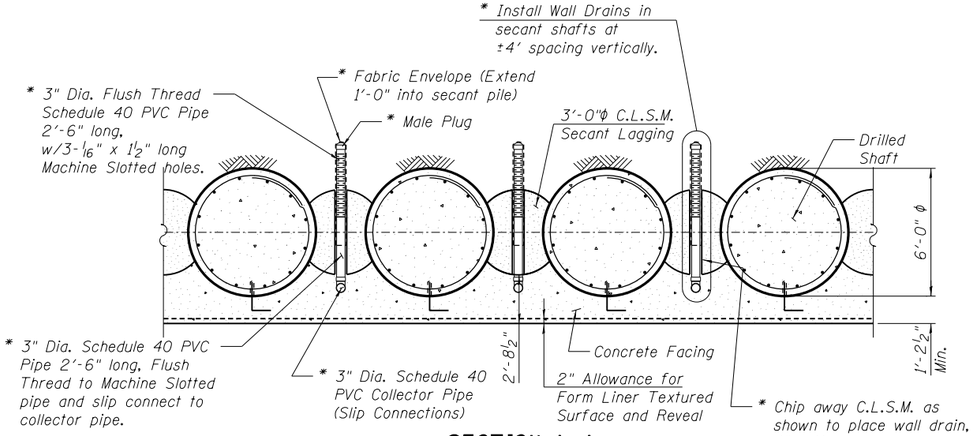
** Included in the cost of "Pipe Underdrains for Structures, 6". For additional drainage details see Roadway Plans.

**** Granular Backfill for Structures shall be placed and compacted according to Section 502.10 of the Standard Specifications.

UNION PACIFIC RAILROAD
S.N. 084-9968 BUILT 20__ BY
CITY OF SPRINGFIELD
SEC. 20-00491-00-BR
STATION 47739+65.24
MILE POST 184.80
LOADING COOPER E-80

NAME PLATE

See Std. 515001



SECTION A-A

* Included in the cost of "Pipe Underdrains for Structures, 4". See wall plans.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	-	297	297
Concrete Structures	Cu. Yd.	-	164.0	164.0
Concrete Superstructure	Cu. Yd.	16.3	-	16.3
Form Liner Textured Surface	Sq. Ft.	-	747	747
Reinforcement Bars	Pound	-	264,210	264,210
Reinforcement Bars, Epoxy Coated	Pound	2,440	22,710	25,150
Name Plates	Each	-	1	1
Drilled Shaft in Soil	Cu. Yd.	-	291.1	291.1
Drilled Shaft in Rock	Cu. Yd.	-	283.4	283.4
Secant Lagging	Cu. Ft.	-	1,379	1,379
Granular Backfill for Structures	Cu. Yd.	-	126	126
Concrete Sealer	Sq. Ft.	1,455	2,045	3,500
Geocomposite Wall Drain	Sq. Yd.	-	79	79
Crosshole Sonic Logging Access Ducts	Foot	-	635	635
Concrete Surface Color Treatment	Sq. Ft.	321	151	472
Membrane Waterproofing (Special)	Sq. Ft.	3,048	-	3,048
Furnishing and Erecting Structural Steel, Bridge No. 1	L. Sum	1	-	1
Precast Prestressed Concrete Fascia Beam, No. 1	L. Sum	1	-	1
Steel Railing (Special)	Foot	167	-	167
Pipe Underdrains for Structures, 6"	Foot	-	110	110
Pipe Underdrains for Structures, 6" (Special)	Foot	-	100	100

INDEX OF SHEETS

p:\\hansoninc-pw.bentley.com\hanson-pw-01\Documents\09Jobs\09L0179B\Usable Segments III - V - VI\CAD\Struct\Usable Segment III\Madison\Sheet\084-9968_09L0179B_002_General Data.dgn

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PLOT DATE = 12/20/2021	CHECKED - MNM	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 084-9968
SHEET NO. 2 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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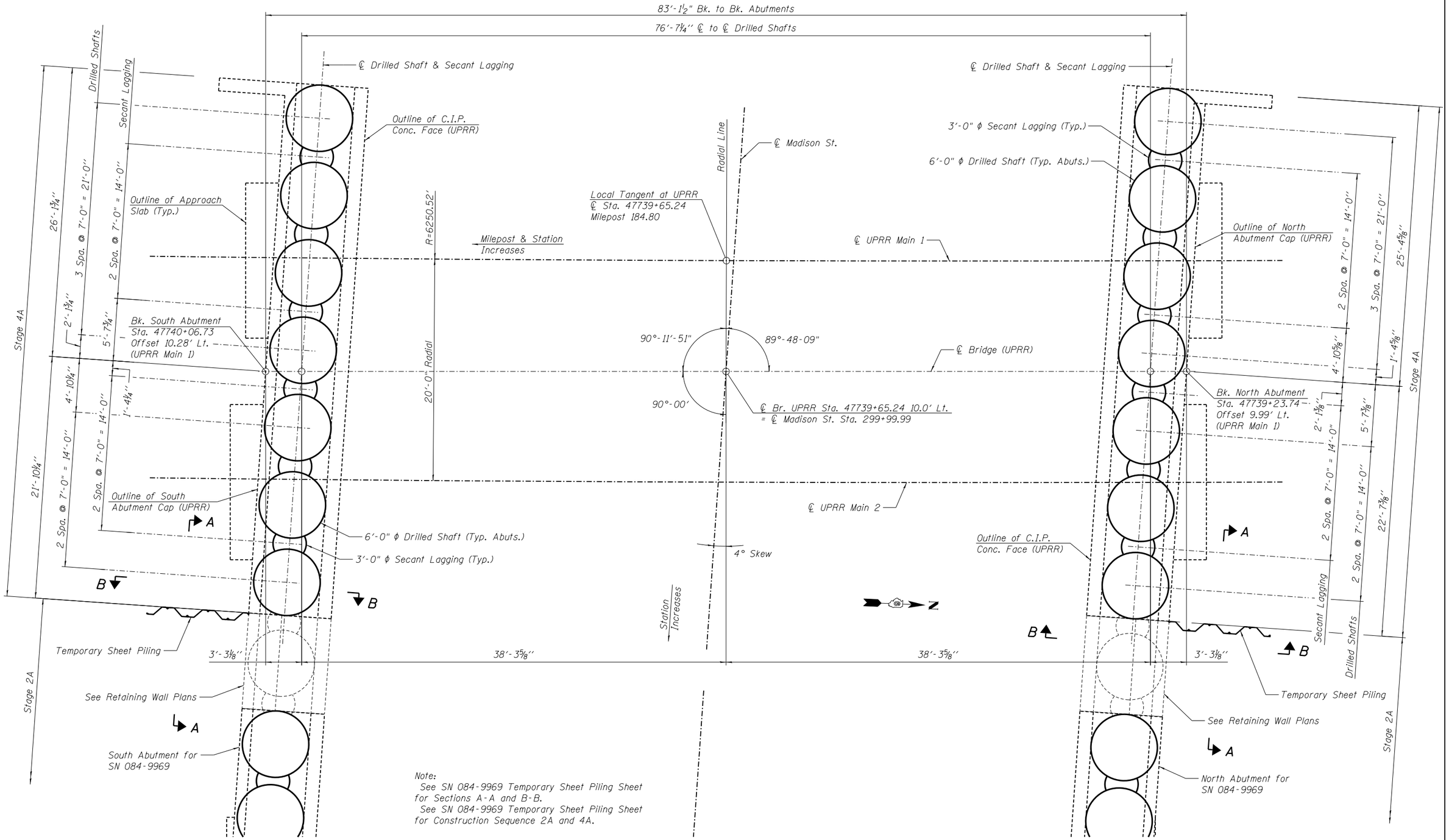
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



Note:
See SN 084-9969 Temporary Sheet Piling Sheet for Sections A-A and B-B.
See SN 084-9969 Temporary Sheet Piling Sheet for Construction Sequence 2A and 4A.

FOUNDATION LAYOUT

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PLOT DATE = 12/20/2021	CHECKED - JGT	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUNDATION LAYOUT
STRUCTURE NO. 084-9968
SHEET NO. 3 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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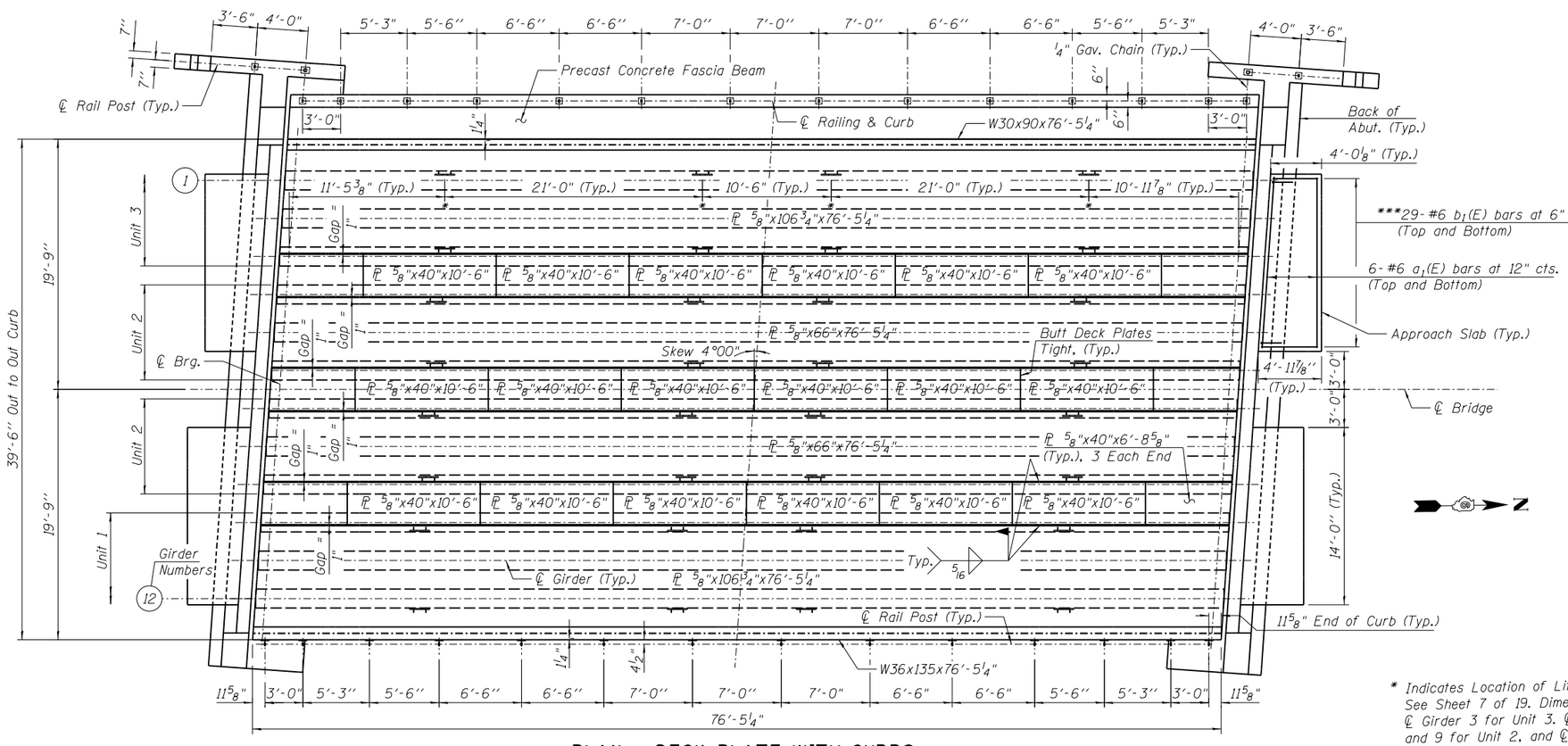
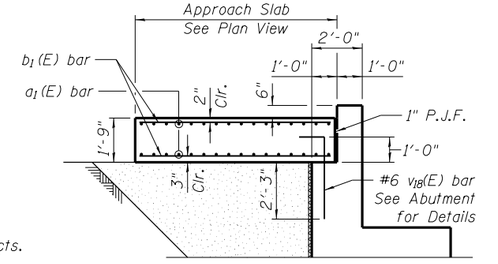


PLAN - DECK PLATE WITH CURBS

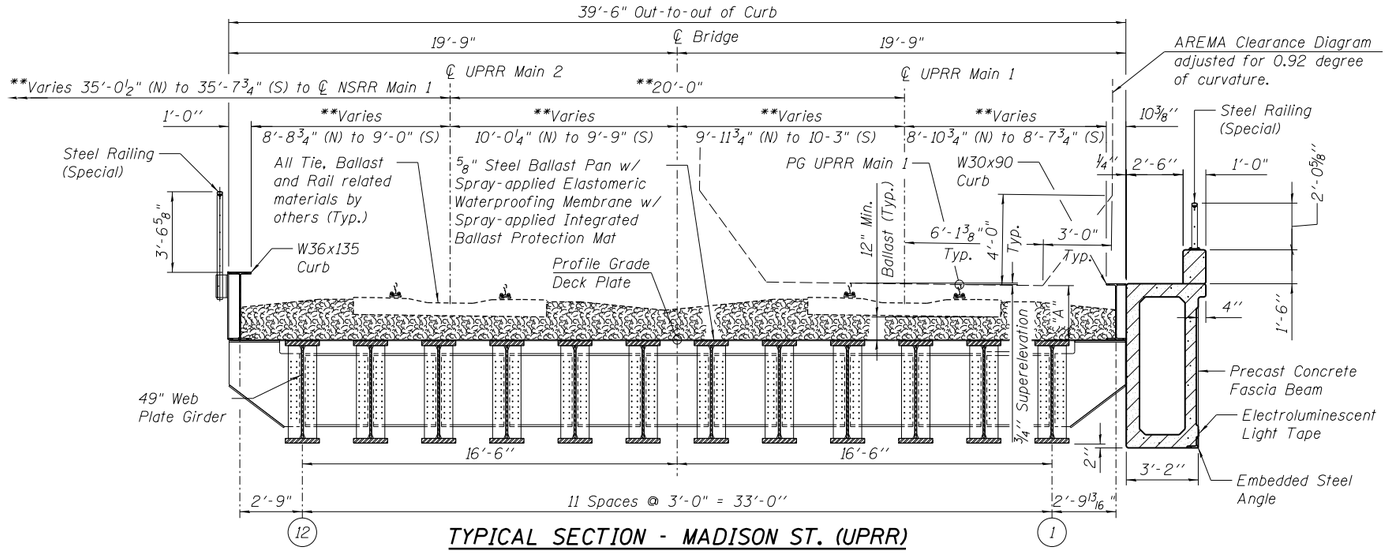


APPROACH SLAB SECTION

(Horizontal Dim. at Rt. ℄'s to back of abutment)

*** Order $b_1(E)$ bars full length. Cut to fit skew and use remainder of bars in opposite face.

* Indicates Location of Lifting Lugs. See Sheet 7 of 19. Dimensions along ℄ Girder 3 for Unit 3. ℄ Girders 6 and 9 for Unit 2, and ℄ Girder 12 for Unit 1.



TYPICAL SECTION - MADISON ST. (UPRR)

(Looking South)

** Dimensions are Rt. L's to ℄ Track

"A" = Varies 2'-6¼" (N), 2'-5⅜" (S)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_1(E)$	48	#6	13'-8"	——
$b_1(E)$	116	#6	8'-4"	——
Concrete Superstructure		Cu. Yds.	16.3	
Reinforcement Bars, Epoxy Coated		Pound	2440	

Notes:
For Steel Railing Details See Sheets 13 and 14 of 19.
For Membrane Waterproofing Details See Sheet 12 of 19.
For ¼" Galv. Chain Details, See Sheet 13 of 19. Cost of Chain and hardware included in the cost of Steel Railing (Special).

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 084-9968
SHEET NO. 4 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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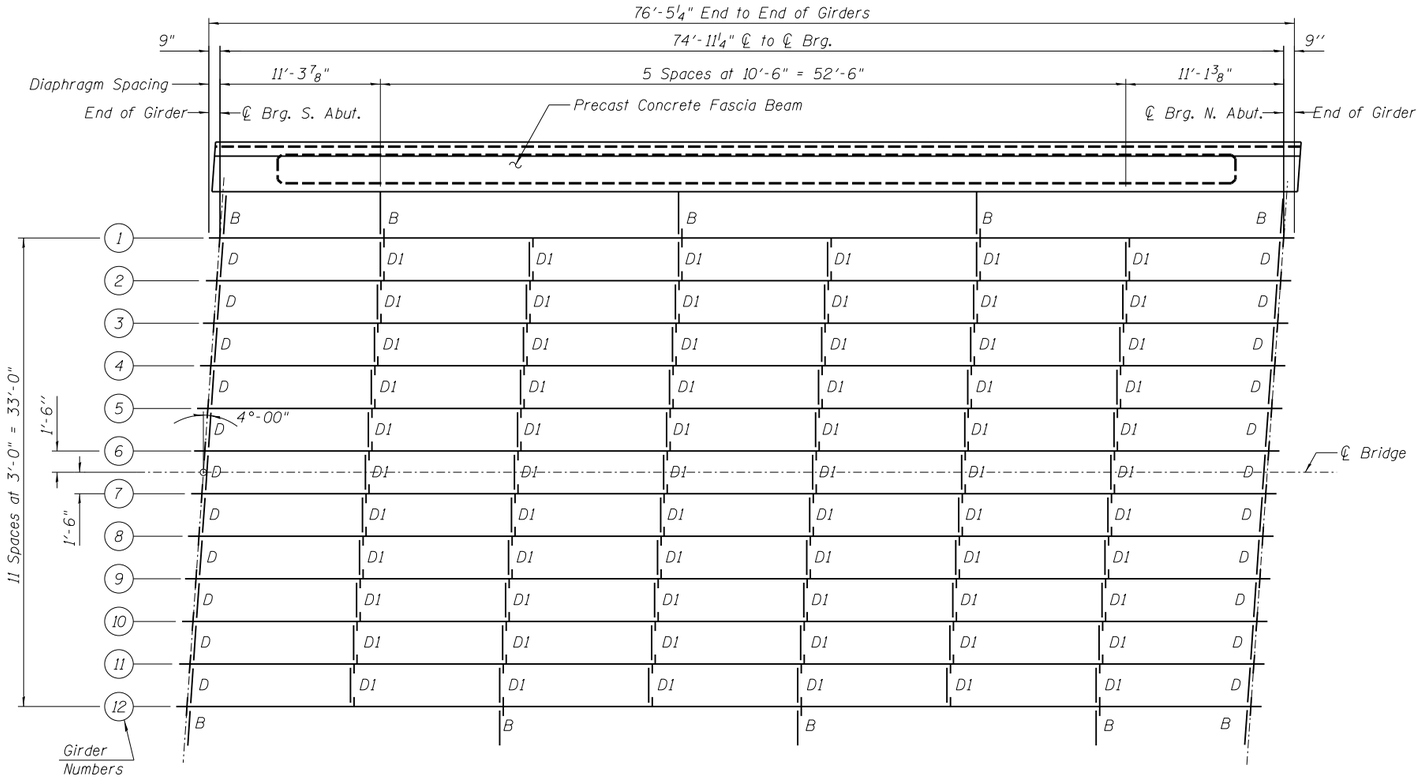
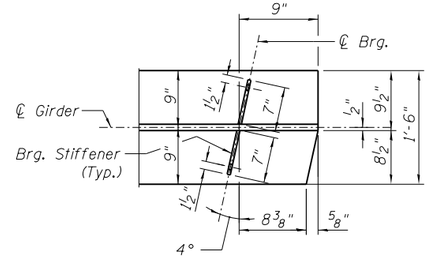
		CONTRACT NO. 93762		
		ILLINOIS	FED. AID PROJECT	



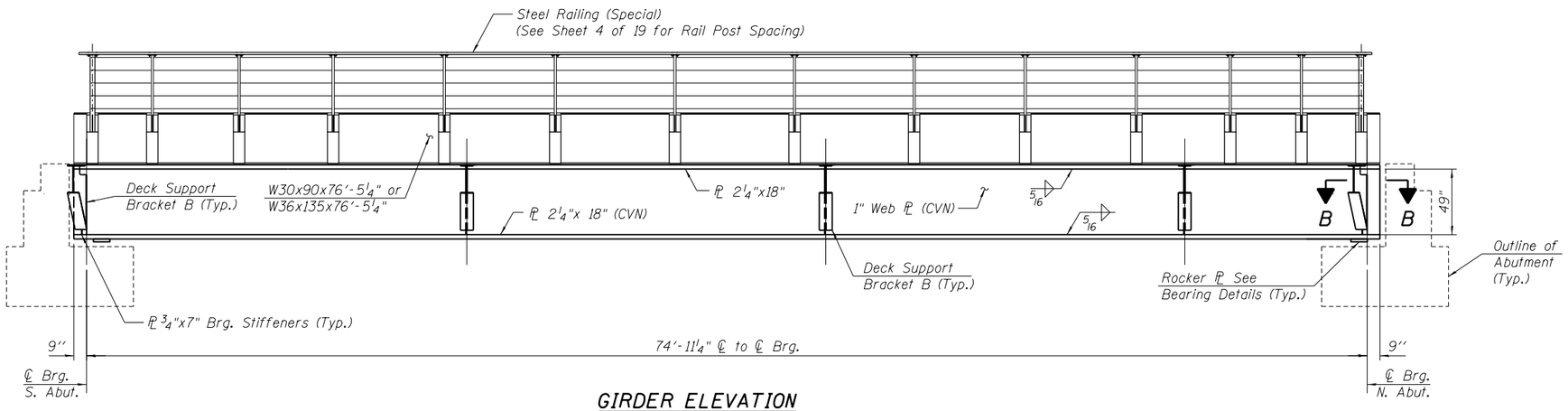
FRAMING PLAN



SECTION B-B
(Clip Top & Bottom Flange)

Notes:
All diaphragms shall be installed at the fabricators shop except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

"CVN" denotes Charpy-V-Notch impact energy requirements. Zone 2.



GIRDER ELEVATION

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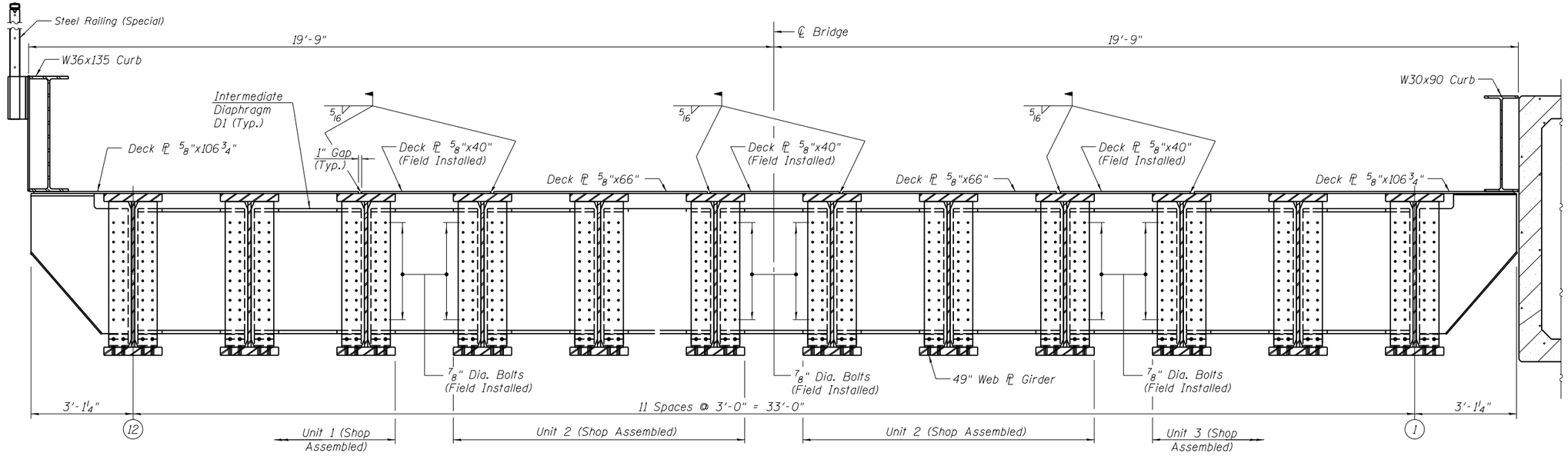
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

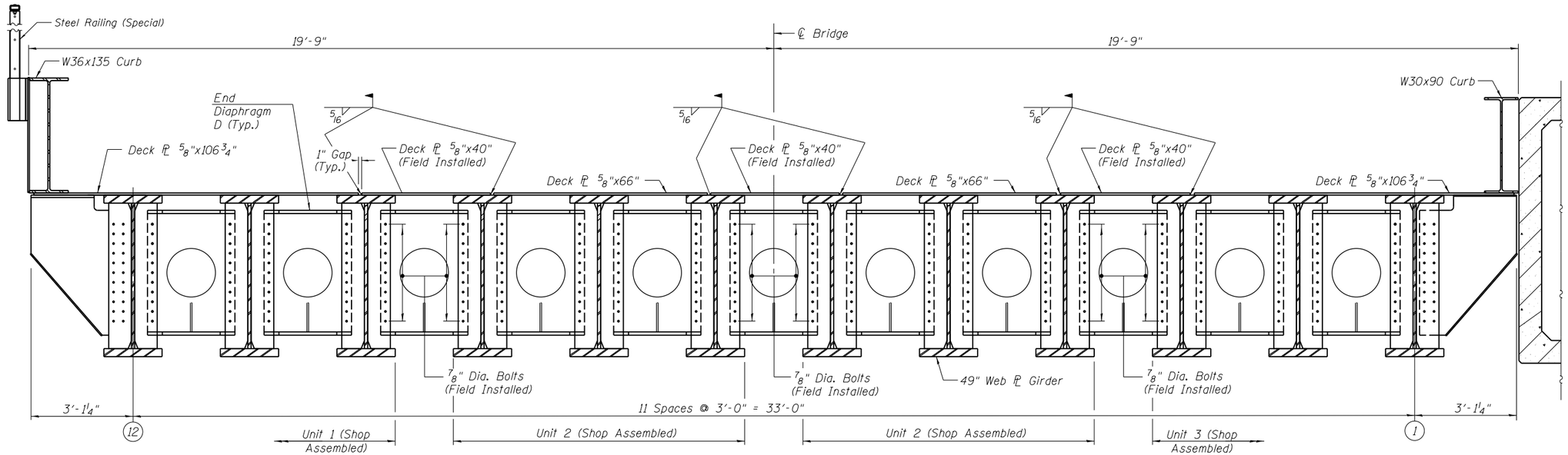
STRUCTURAL STEEL
STRUCTURE NO. 084-9968
SHEET NO. 5 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	287
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



SECTION - ASSEMBLED SPAN AT INTERIOR DIAPHRAGM

(Looking South)



SECTION - ASSEMBLED SPAN AT END DIAPHRAGM

(Looking South)

Notes:
Bolts shall be 7/8" ϕ placed in 15/16" ϕ holes unless otherwise noted.
Steel shall conform to ASTM A709 Gr. 50, unless otherwise noted.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS (1 OF 3)
STRUCTURE NO. 084-9968
SHEET NO. 6 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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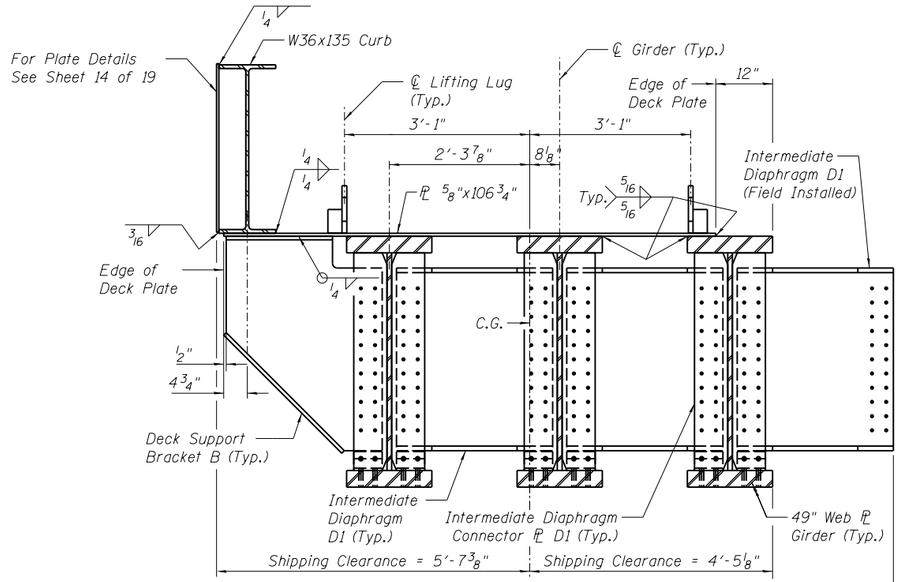
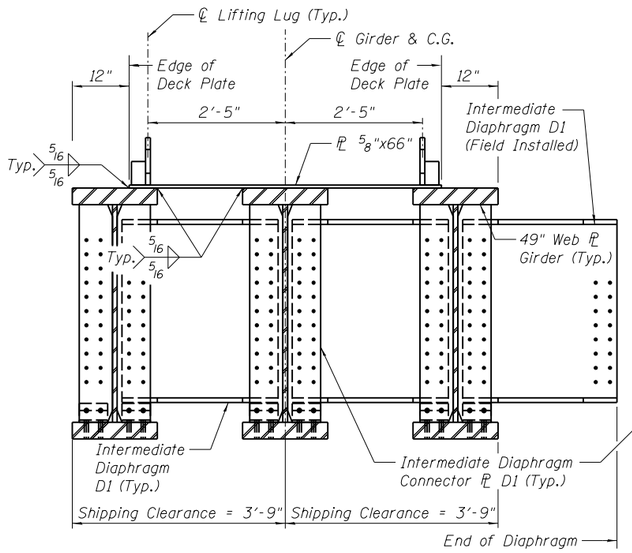
		CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		



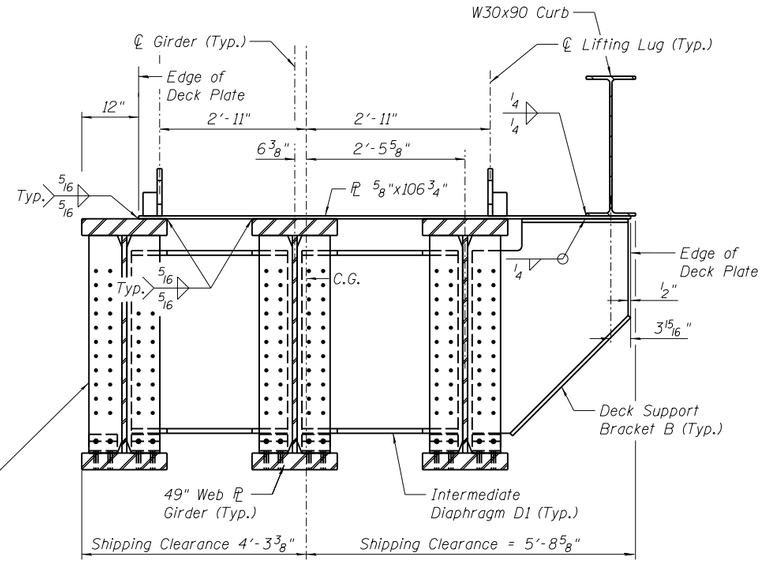
AT INTERIOR DIAPHRAGM UNIT 1

(Looking South)



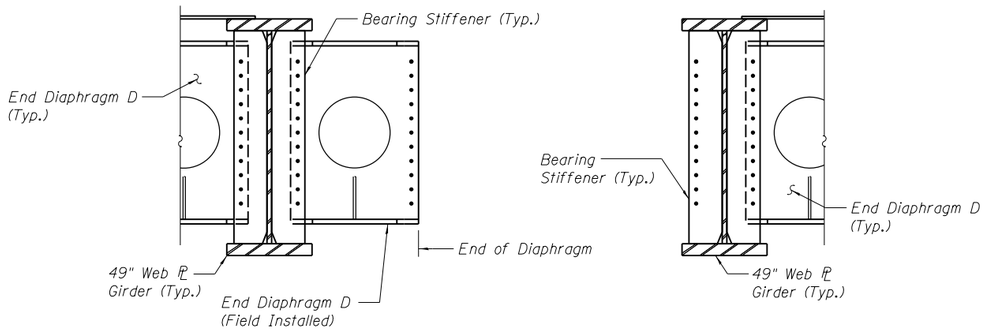
AT INTERIOR DIAPHRAGM UNIT 2

(Looking South)



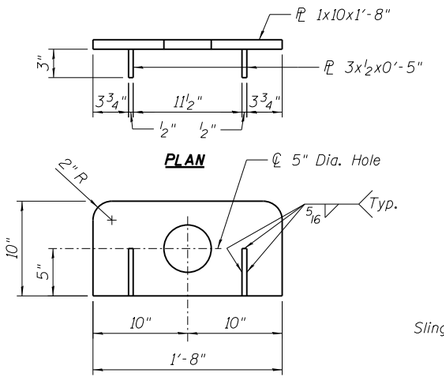
AT INTERIOR DIAPHRAGM UNIT 3

(Looking South)



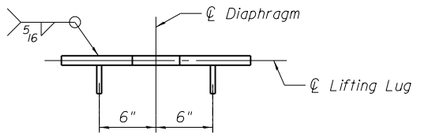
AT END DIAPHRAGM

(Partial Section shown, End Diaphragm Sections are similar to Interior Diaphragm Sections except as noted above)



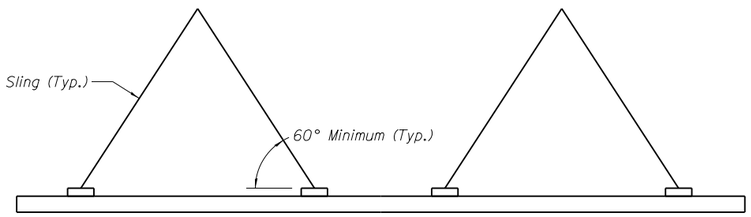
ELEVATION

LIFTING LUG



PLAN

LIFTING LUG DETAIL



TYPICAL ELEVATION

LIFTING DIAGRAM

Notes:
Bolts shall be 7/8" ϕ placed in 15/16" ϕ holes unless otherwise noted.
Steel shall conform to ASTM A709 Gr. 50, unless otherwise noted.
After assembled span is in final position, lifting lugs shall be burned or ground off in a manner that will not damage the waterproofing system.

FINAL

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STATE OF ILLINOIS
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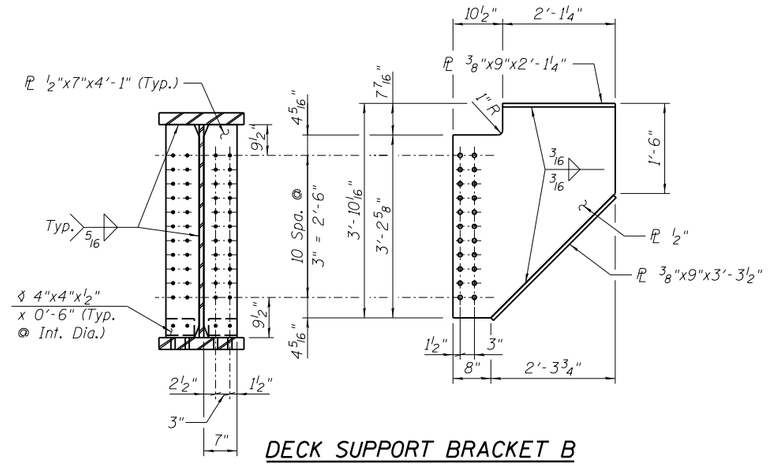
STRUCTURAL STEEL DETAILS (2 OF 3)
STRUCTURE NO. 084-9968
SHEET NO. 7 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	289
		CONTRACT NO. 93762		
		ILLINOIS	FED. AID PROJECT	

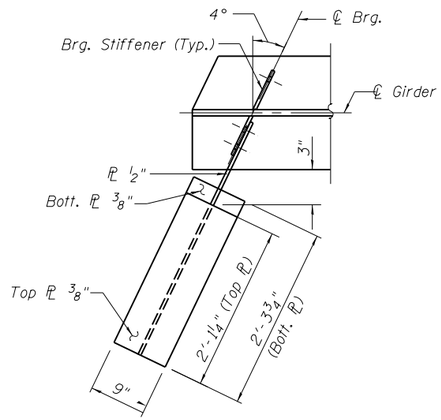
INTERIOR BEAM MOMENT & SHEAR TABLE

Description	Max Moment	Max Shear
Dead Load	1,153.6 ft.-k	61.6 k
Live Load	1,930.7 ft.-k	117.5 k
Centrifugal Force	44.0 ft.-k	2.3 k
Impact	645.7 ft.-k	39.3 k
Total	3,774.0 ft.-k	220.7 k
Section	49" Web PL Girder	
Steel	ASTM A709, Gr. 50, CVN Zone 2	
Net I	56,673 in^4	
Net S (Bott.)	1,978 in^3	
FST (Bott.)	22.9 ksi	
Gross I	63,026 in^4	
Gross S (Top)	2,356 in^3	
FSC (Top)	19.2 ksi	
(LL+I) Deflection	1.35 in	
Allowable (LL+I) Deflection	1.41 in	

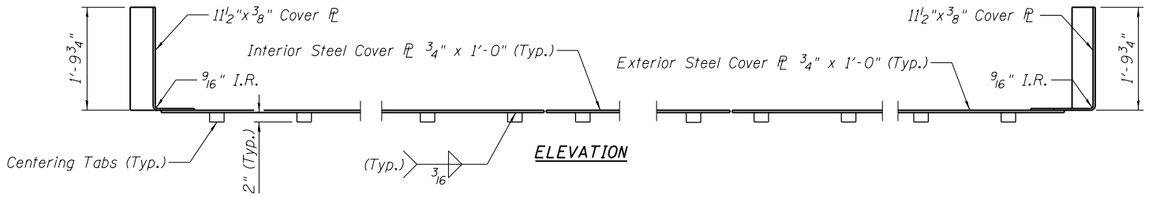
I - Non-composite moment of inertia of the steel section
S - Non-composite section modulus of the steel section
FST - Max unfactored tension stress in the section due to DL+LL+CF+Impact
FSC - Max unfactored compression stress in the section due to DL+LL+CF+Impact



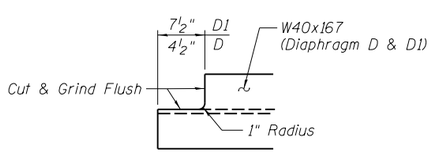
DECK SUPPORT BRACKET B



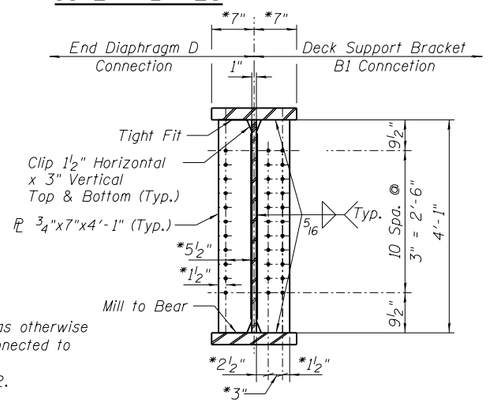
PLAN VIEW
DECK SUPPORT BRACKET B
AT END DIAPHRAGM



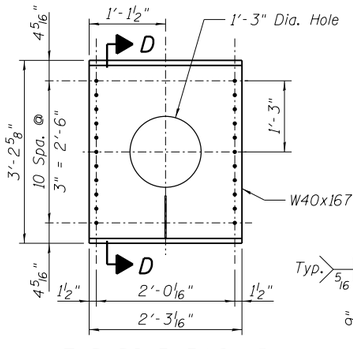
PLAN
COVER PLATES



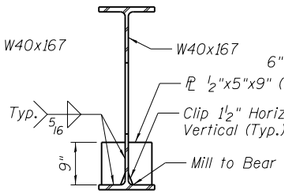
COPE DETAIL



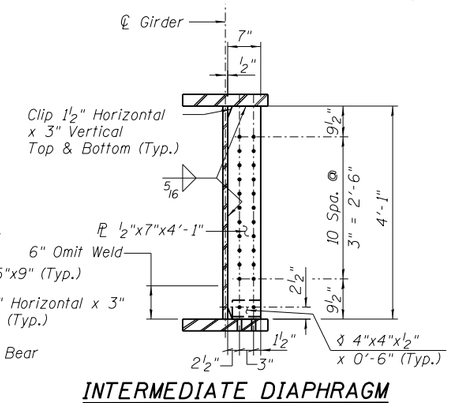
BEARING STIFFENER
*Dimesions along skew



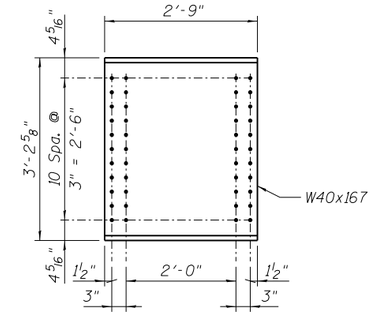
END DIAPHRAGM D



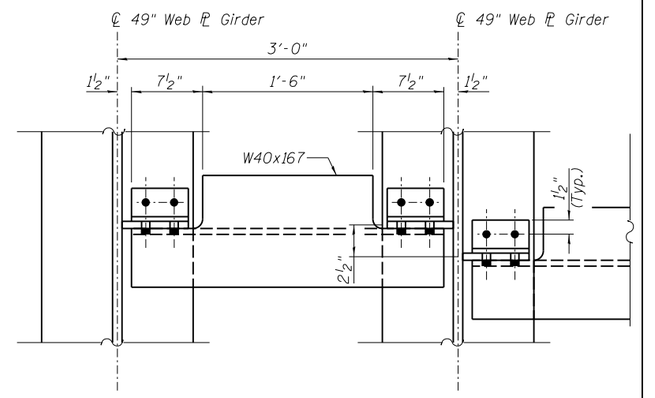
SECTION D-D



INTERMEDIATE DIAPHRAGM
CONNECTOR PLATE D1



INTERMEDIATE DIAPHRAGM D1



PLAN AT INTERMEDIATE DIAPHRAGM
(Top Flange not shown for clarity.)

Notes:
All diaphragms shall be installed at the fabricators shop except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.
Bolts shall be 7/8" ϕ placed in 15/16" ϕ holes unless otherwise noted.
Steel shall conform to ASTM A709 Gr. 50, unless otherwise noted.

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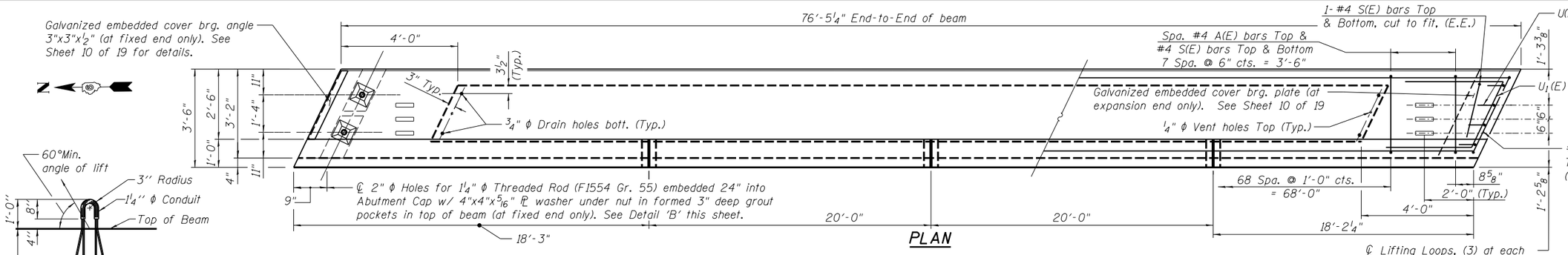
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS (3 OF 3)
STRUCTURE NO. 084-9968
SHEET NO. 8 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	290
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



BAR LIST ONE BEAM ONLY

(For Fabrication Only)

Bar	No.	Size	Length	Shape
A(E)	83	#4	5'-3"	
B(E)	60	#7	40'-6"	
B_1(E)	8	#4	17'-10"	
B_2(E)	8	#4	19'-8"	
D(E)	77	#4	5'-5"	
S(E)	174	#4	11'-8"	
U(E)	8	#4	9'-1"	
U_1(E)	10	#4	5'-4"	

MINIMUM BAR LAP

#4 bar = 2'-0"
#7 bar = 4'-8"

FINAL

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USER NAME = thoel01490	DESIGNED - JGT	REVISED -
	CHECKED - CGP	REVISED -
PLOT SCALE = 0:2.000000 ' / in.	DRAWN - RSJ	REVISED -
PLOT DATE = 12/20/2021	CHECKED - JGT	REVISED -

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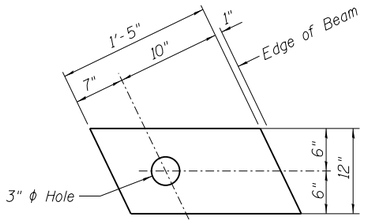
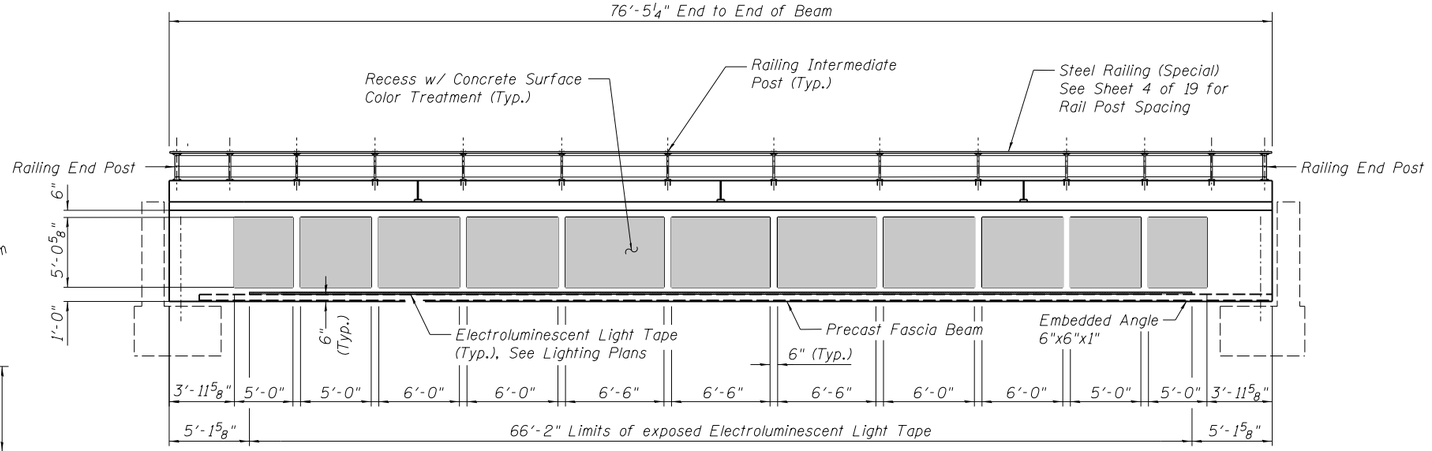
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST FASCIA BEAM
STRUCTURE NO. 084-9968
SHEET NO. 9 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	291
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

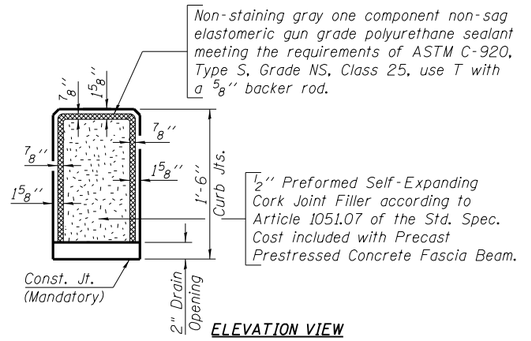


FABRIC BEARING PAD

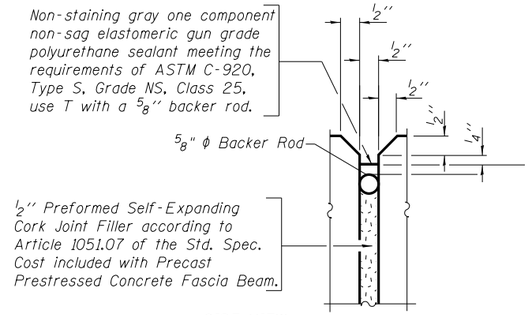


ELEVATION PRECAST FASCIA BEAM

(Looking East. Horizontal Dimensions along outside face of web)

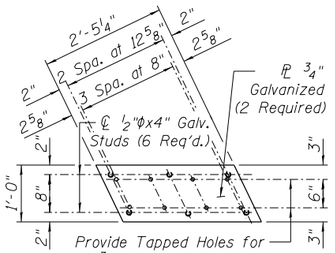


ELEVATION VIEW



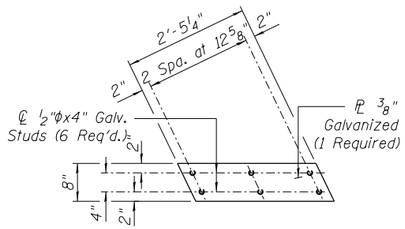
SIDE VIEW

CURB JOINT DETAILS



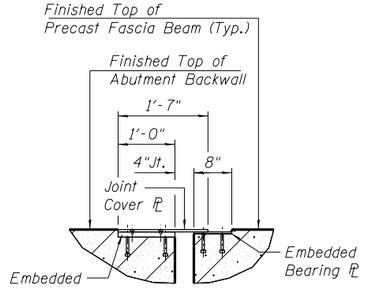
EMBEDDED ANCHOR PLATE

(1 Required at Each Abutment Backwall)

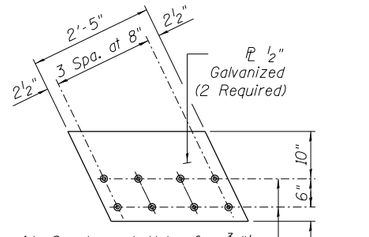


EMBEDDED BEARING PLATE

(1 Required at Expansion End of Fascia Beam)

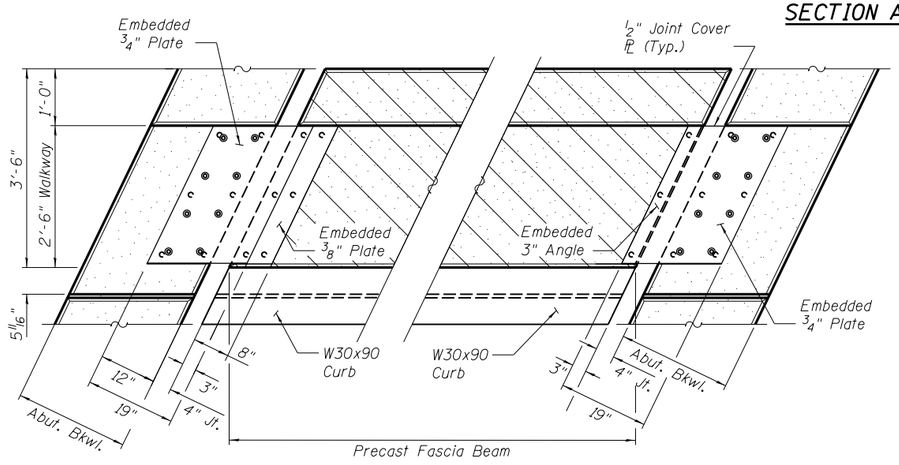


SECTION AT EXPANSION JOINT



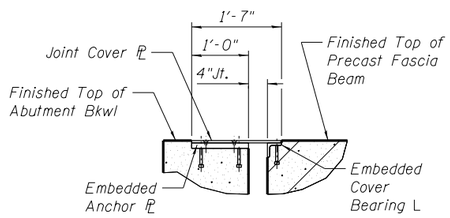
JOINT COVER PLATE

(1 Required at each Fascia Beam Joint)

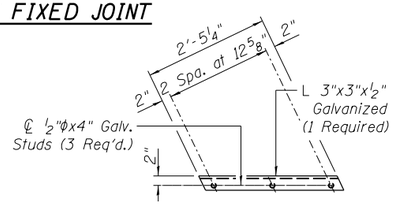


AT SOUTH ABUTMENT
PLAN - EXPANSION JT. COVER

AT NORTH ABUTMENT
PLAN - FIXED JT. COVER



SECTION AT FIXED JOINT



EMBEDDED BEARING ANGLE

(1 Required at Fixed End of Fascia Beam)

Note:

For Railing Details See Sheet 13 of 19.

All (embedded and separate) hardware, angles, bearing plates, side retainers, anchor bolts, threaded rods, nuts, washers and pintles shall be galvanized according to AASHTO M111 and ASTM 385 or M232 as applicable.

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be ½" and the nominal cross-sectional area shall be 0.153 sq. in.

Reinforcement bars shall conform to ASTM A 706, Grade 60.

Two ⅛" fabric adjusting shims of the dimensions of the bearing pad shall be provided for each bearing pad location.

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

Expansion bearing pad shall have PTFE bonded to top surface. PTFE surface shall be bonded according to manufacturers recommendations.

Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete fascia beams. Compressive strength of prestressed concrete, f'c, shall be 6500 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi. Embedded angles, Side Retainers, Anchor Bolts, plates, studs, bearing pads, Threaded Rods, Non-Shrink Grout and accessories shall be included in the cost of Precast Prestressed Concrete Fascia Beam.

Concrete curb shall be cast with the precast fascia beam and included in the cost of Precast Prestressed Concrete Fascia Beam.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts and Threaded Rods shall be installed in blockouts with Non-Shrink Grout meeting the material requirements of Article 1024.02 of the Standard Specifications. Blockouts shall be clean prior to grouting and grout installed according to manufactures recommendations. Cost for non-shrink grout shall be included in the cost of Concrete Structures.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Sealer	Sq. Ft.	1455
Concrete Surface Color Treatment	Sq. Ft.	321
Precast Prestressed Concrete Fascia Beam, No. 1	L. Sum	1

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FINAL

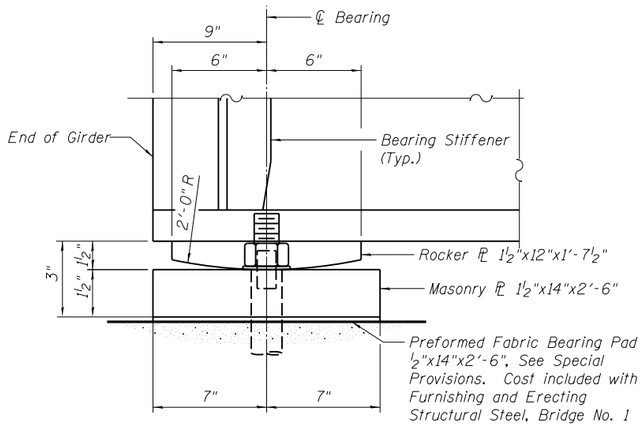
HANSON

USER NAME = thoel01490	DESIGNED - JGT	REVISED -	
	CHECKED - CGP	REVISED -	
PLOT SCALE = 0:2.000000 ':' / in.	DRAWN - RSJ	REVISED -	
PLOT DATE = 12/20/2021	CHECKED - JGT	REVISED -	

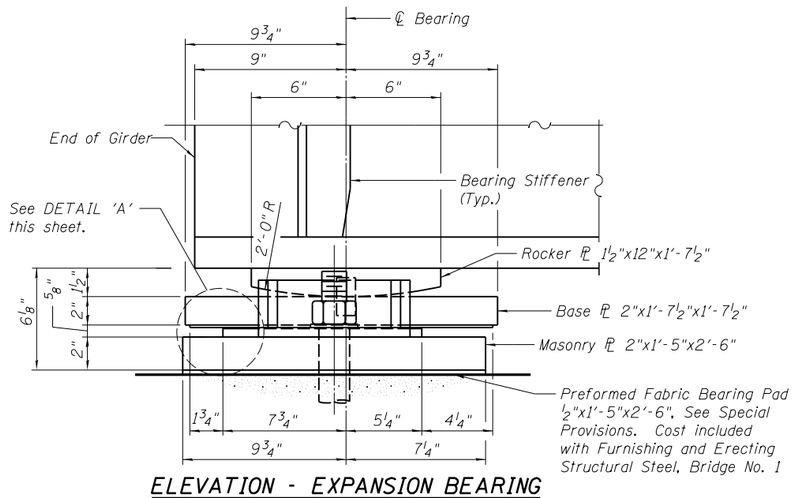
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST FASCIA BEAM DETAILS
STRUCTURE NO. 084-9968
SHEET NO. 10 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67.67A	20-00491-00-BR	SANGAMON	509	292
		CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		



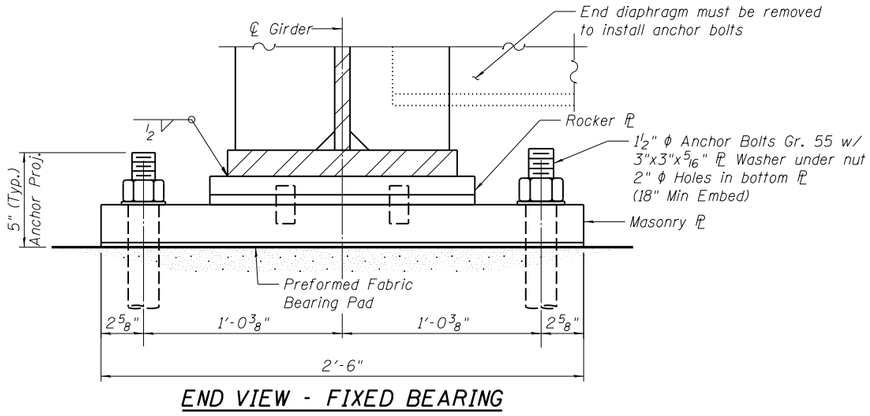
ELEVATION - FIXED BEARING



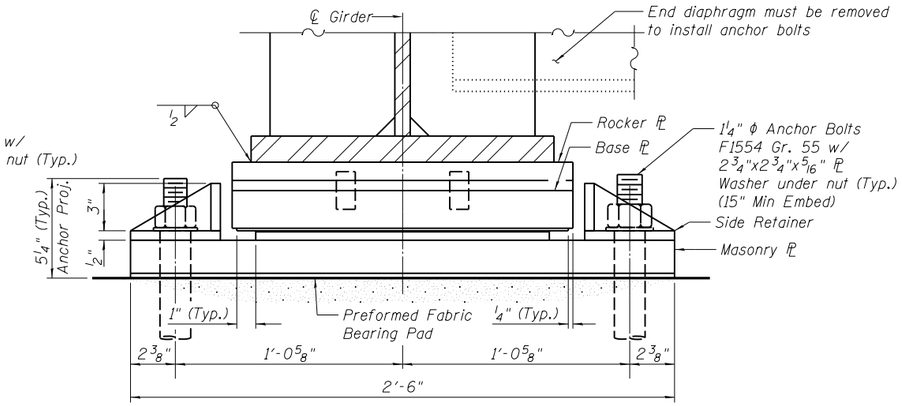
ELEVATION - EXPANSION BEARING

Notes:

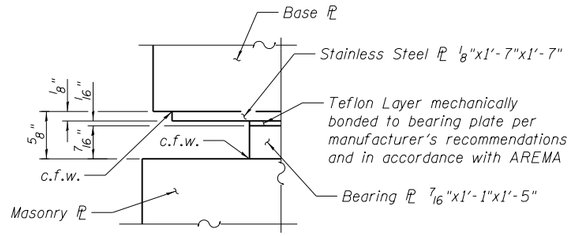
1. *The structural steel plates of the Bearing Assembly shall conform to the requirements of ASTM A709, Grade 50.*
2. *Teflon Layer shall be composed of virgin unfilled TFE resin, unfilled TFE sheets, or unfilled TFE fabric. Filler material, such as milled glass fibers, will not be allowed. Teflon layer shall conform to the requirements of AREMA Chapter 15.*
3. *The bearing assembly shall be according to Section 521 of the Standard Specifications where applicable. The bearing assembly and anchor bolts will not be paid for separately but included in the weight of Structural Steel for payment as "Furnishing and Erecting Structural Steel, Bridge No. 1".*
4. *Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.*
5. *Anchor bolts shall be installed in blockouts with Non-Shrink Grout meeting the material requirements of Article 1024.02 of the Standard Specifications. Blockouts shall be clean prior to grouting and grout installed according to manufactures recommendations. Cost for non-shrink grout shall be included in the cost of Concrete Structures.*
6. *Two ⅛" adjusting shims shall be provided for each bearing assembly in addition to all other plates or shims and placed as shown on bearing details.*



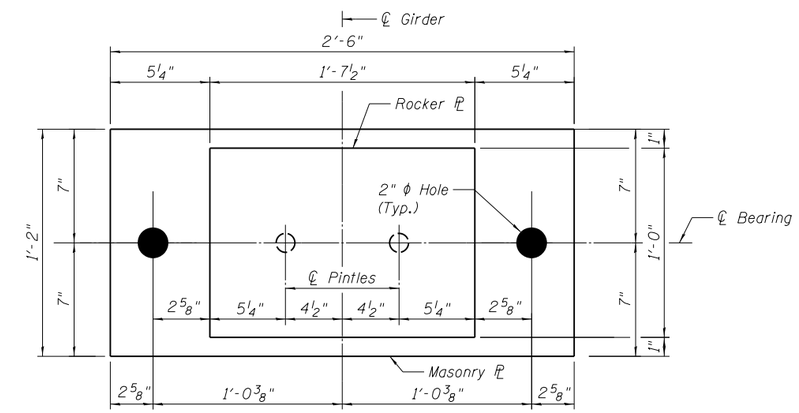
END VIEW - FIXED BEARING



END VIEW - EXPANSION BEARING

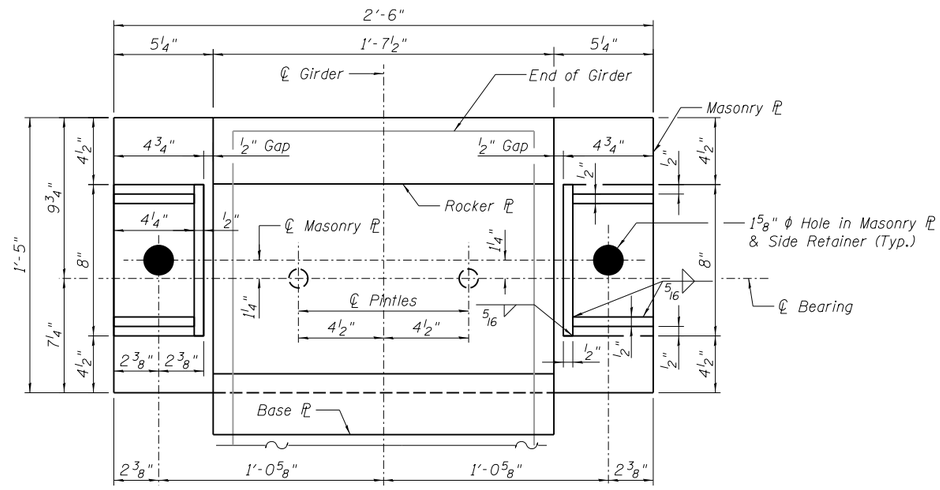


DETAIL 'A'



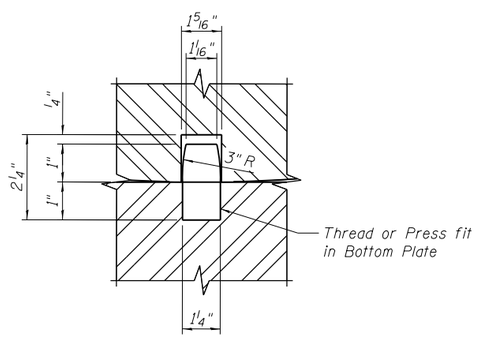
PLAN VIEW - FIXED BEARING

(N. Abutment Bearings - 12 required)

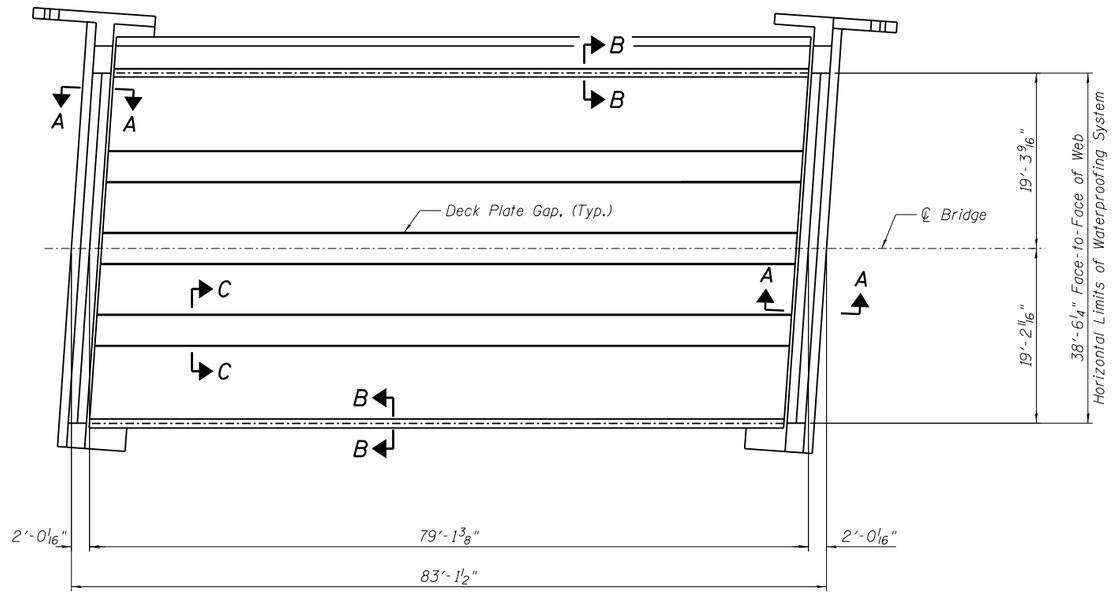


PLAN VIEW - EXPANSION BEARING

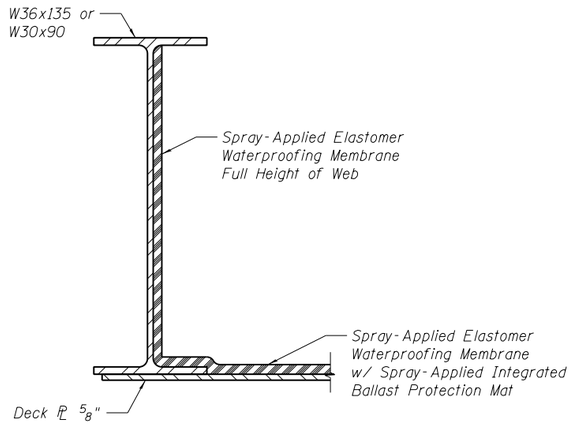
(S. Abutment Bearings - 12 required)



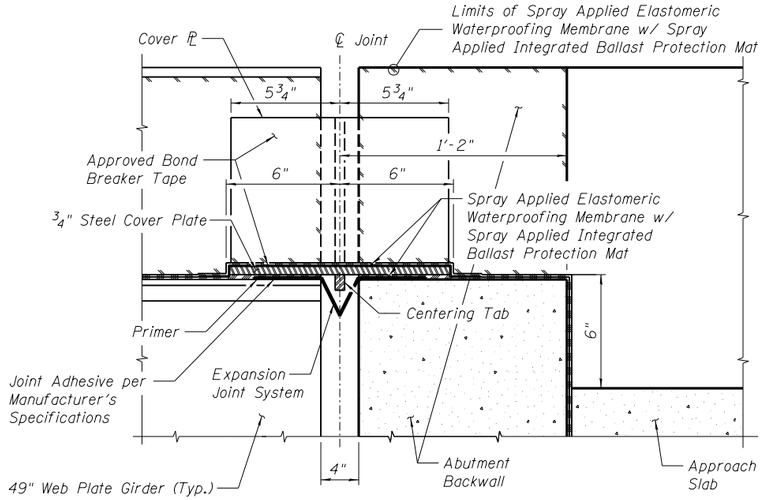
PINTLE DETAIL



WATERPROOFING LIMITS PLAN

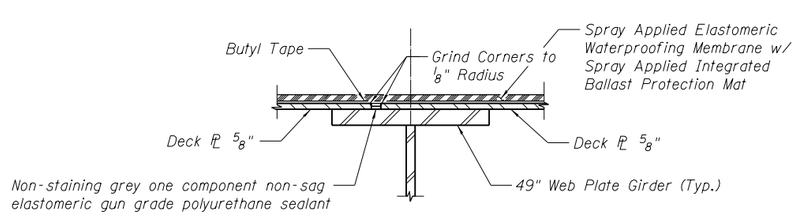


SECTION B-B



Note:
1. Bridge deck membrane continuous thru joint.
2. Typical Joint Detail shown for information only. Waterproofing installer shall determine final details in accordance with the manufacturer's recommendations.

SECTION A-A



SECTION C-C

Notes:

1. Prepare surfaces and apply in accordance with Manufacturer's recommendations.
2. Structural steel cover plates shall be galvanized.
3. Cost of adhesive and bond breaker tape shall be included in the cost of "Membrane Waterproofing (Special)".
4. The cover plate is included in the weight of the Structural Steel and will be paid for as "Furnishing and Erecting Structural Steel, Bridge No. 1".
5. For cover plate details see Sheet 8 of 19.
6. Structural steel surfaces coated with spray-applied elastomer waterproofing membrane shall not be primed or painted.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Membrane Waterproofing (Special)	Sq. Ft.	3048

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FINAL

HANSON

USER NAME = thoel01490	DESIGNED - JGT	REVISED -
	CHECKED - CGP	REVISED -
PLOT SCALE = 0:2.000000 ':' / in.	DRAWN - RSJ	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MEMBRANE WATERPROOFING
STRUCTURE NO. 084-9968
SHEET NO. 12 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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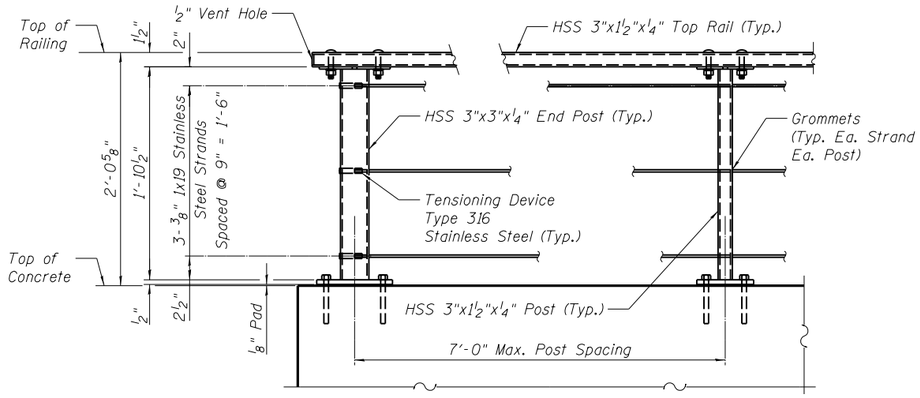
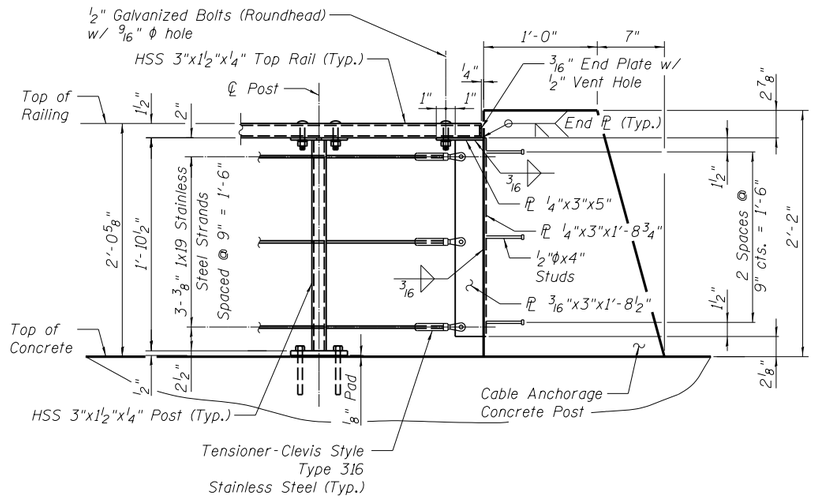
		CONTRACT NO. 93762		
		ILLINOIS	FED. AID PROJECT	



END POST

INTERMEDIATE POST



CABLE RAILING END PANEL

Notes:

Anchor rods shall be ASTM F1554, Gr. 55, galvanized steel all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. The anchor rods shall be hot-dipped galvanized according to ASTM M232, Class C.

Tube segments shall have all corners ground to remove burrs or sharp projections.

All bolts, eyebolts, nuts and washers must satisfy the requirements of ASTM A307 Gr. A unless noted otherwise.

The Anchor rods shall be installed according to Article 509.06 of the Standard Specifications. Embedment shall be 4'' min. or according to the manufactures specifications whatever is greater.

Structural steel plates and bars of the Steel Railing shall conform to the requirements of ASTM A36/36M.

Tubular steel posts shall be according to the requirements of ASTM A500, Grade B.

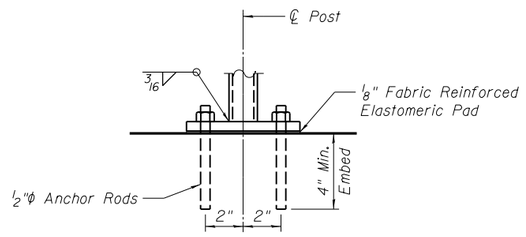
All steel rail members, with the exception of the stainless steel strand and fittings, shall be hot dipped galvanized according to 509.05 of the Standard Specifications.

All studs shall be 1/2"ϕx4" granular or solid flux filled headed studs automatically end welded to plates.

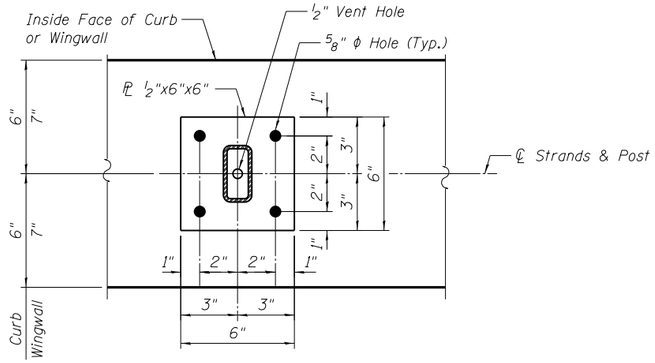
For top rail and post connection details See Sheet 14 of 19.

See Sheet 4 of 19 for rail post spacing.

See Retaining Wall Plans for chain attachment details.

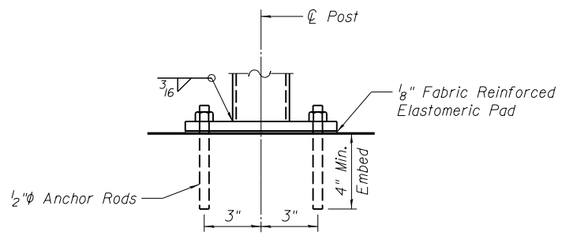


ANCHOR ROD DETAIL
INTERMEDIATE POSTS



INTERMEDIATE POST

POST DETAIL - WEST SIDE



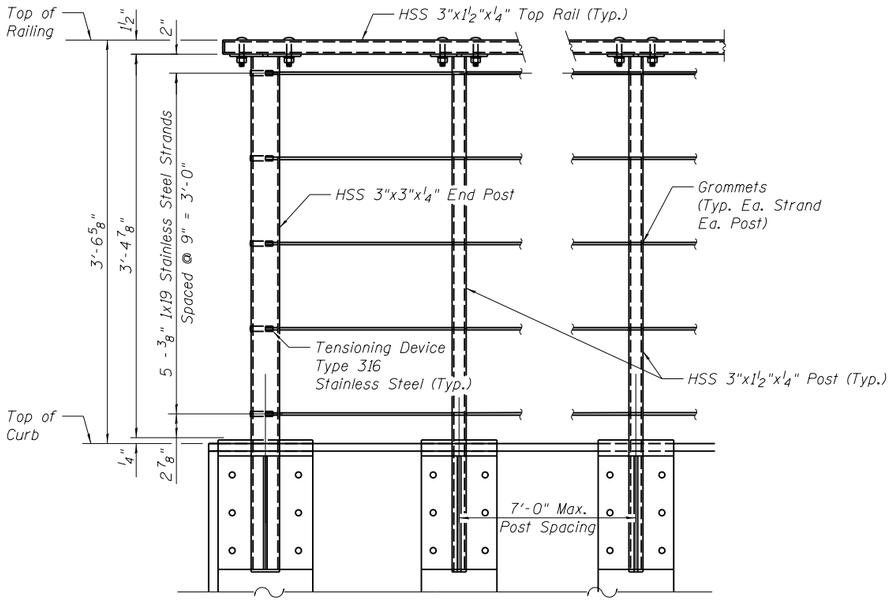
ANCHOR ROD DETAIL
END POSTS

END POST

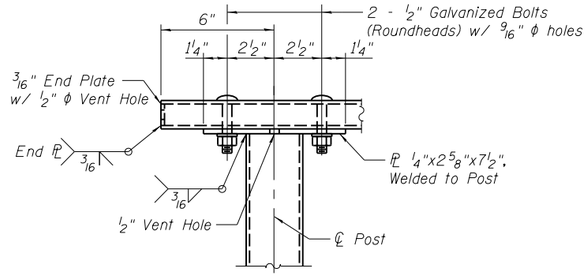
BILL OF MATERIAL

(Includes Railing along West & East side)

ITEM	UNIT	TOTAL
Steel Railing (Special)	Foot	167



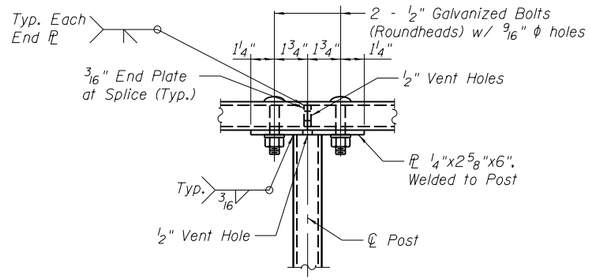
RAILING END PANEL - SUPERSTRUCTURE



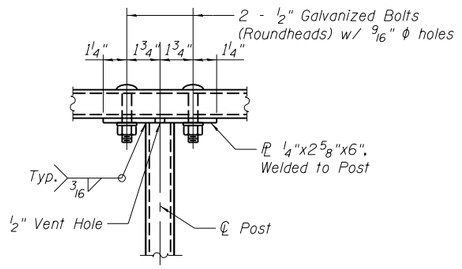
TYPICAL RAIL/END POST CONNECTION

(Strands not shown for clarity.)

Notes:
See Sheet 4 of 19 for rail post spacing.
See Sheet 13 of 19 for railing notes and anchor rod details.



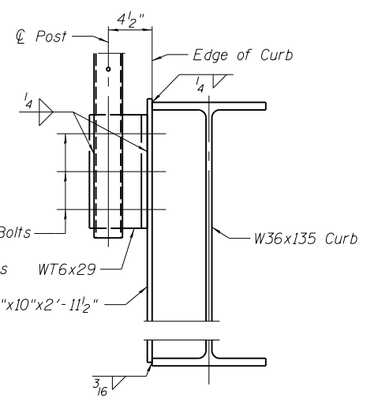
TOP RAIL - WITH SPLICE



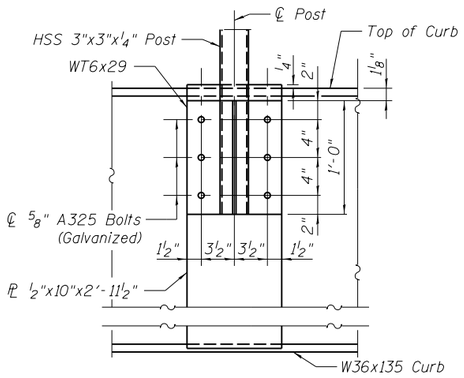
TOP RAIL - NO SPLICE

TYPICAL RAIL/POST CONNECTION

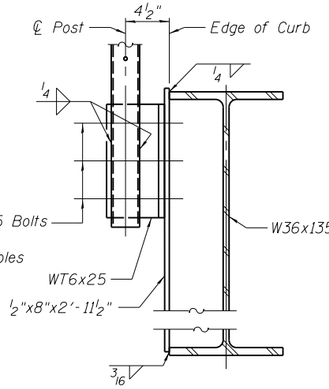
(Strands not shown for clarity.)



END POST (3")

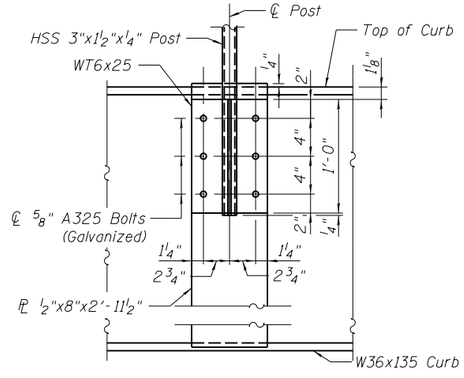


END POST (3")



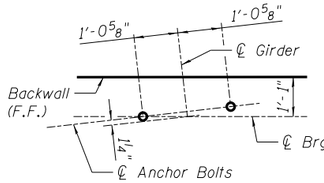
INTERMEDIATE POST (1 1/2")

(Along Superstructure)

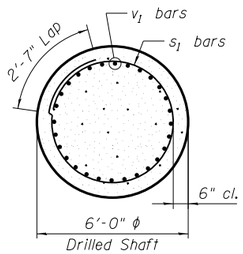


INTERMEDIATE POST (1 1/2")

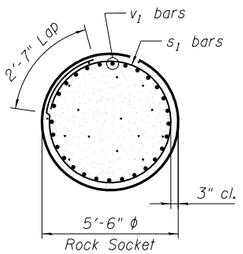
(Along Superstructure)



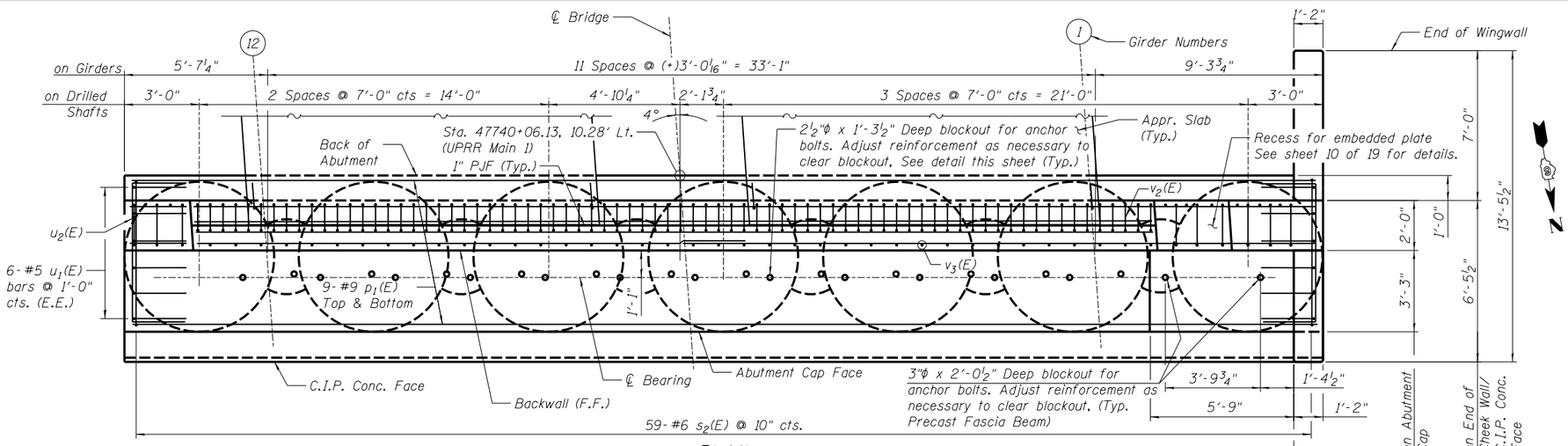
BLOCKOUT LAYOUT



SECTION B-B

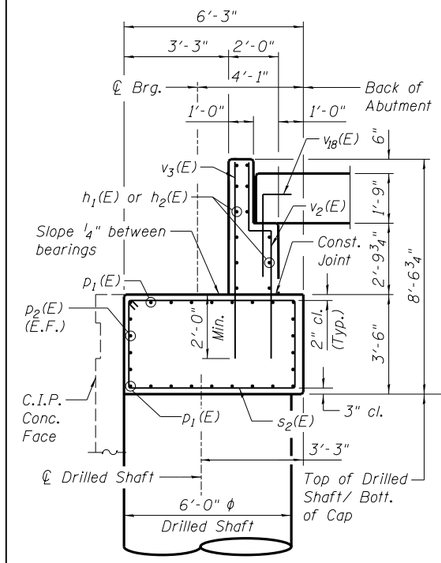


SECTION C-C

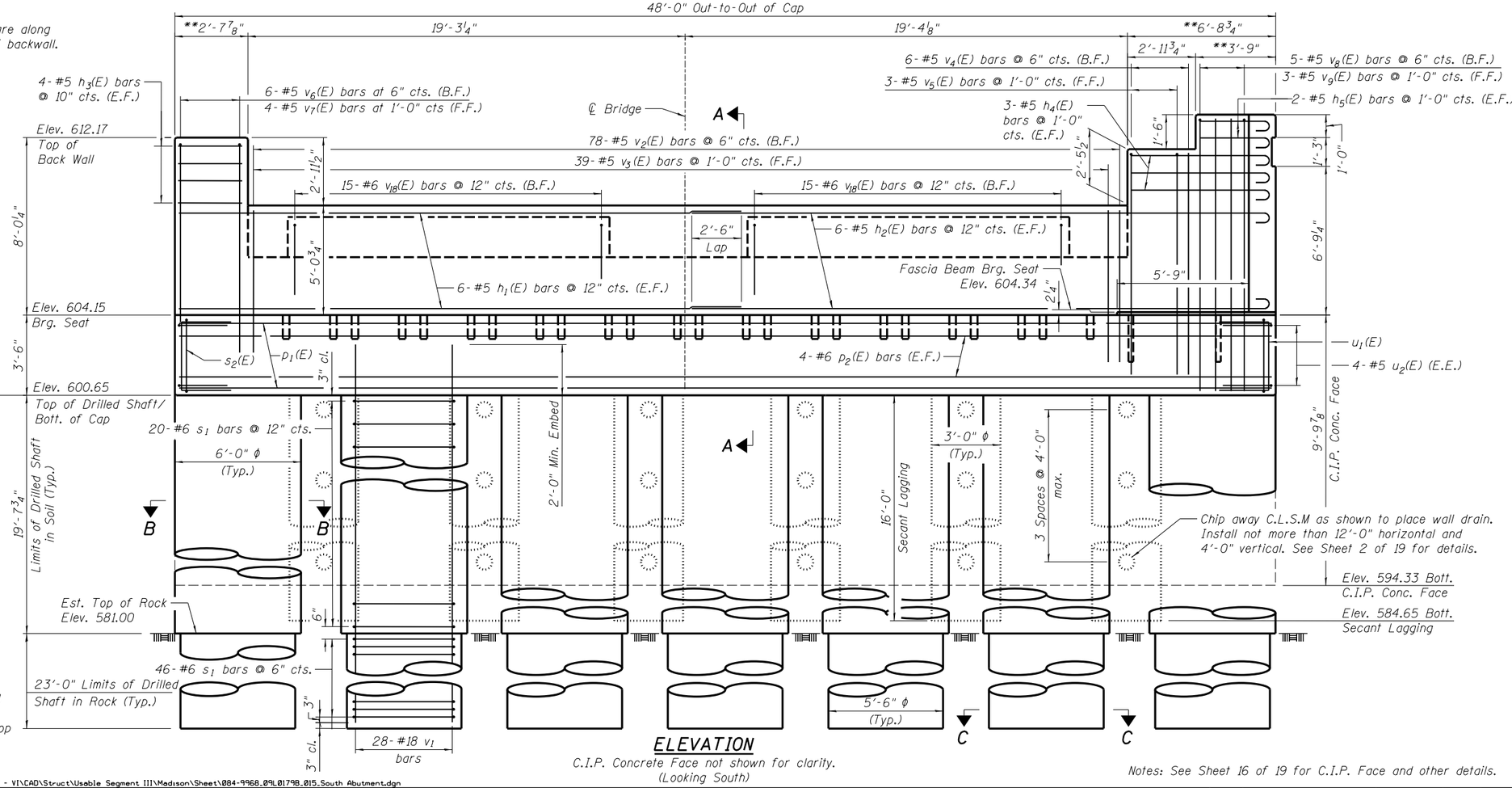


PLAN

** Dimensions are along back face of backwall.



SECTION A-A



ELEVATION

C.I.P. Concrete Face not shown for clarity. (Looking South)

* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

Notes: See Sheet 16 of 19 for C.I.P. Face and other details.

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FINAL

HANSON

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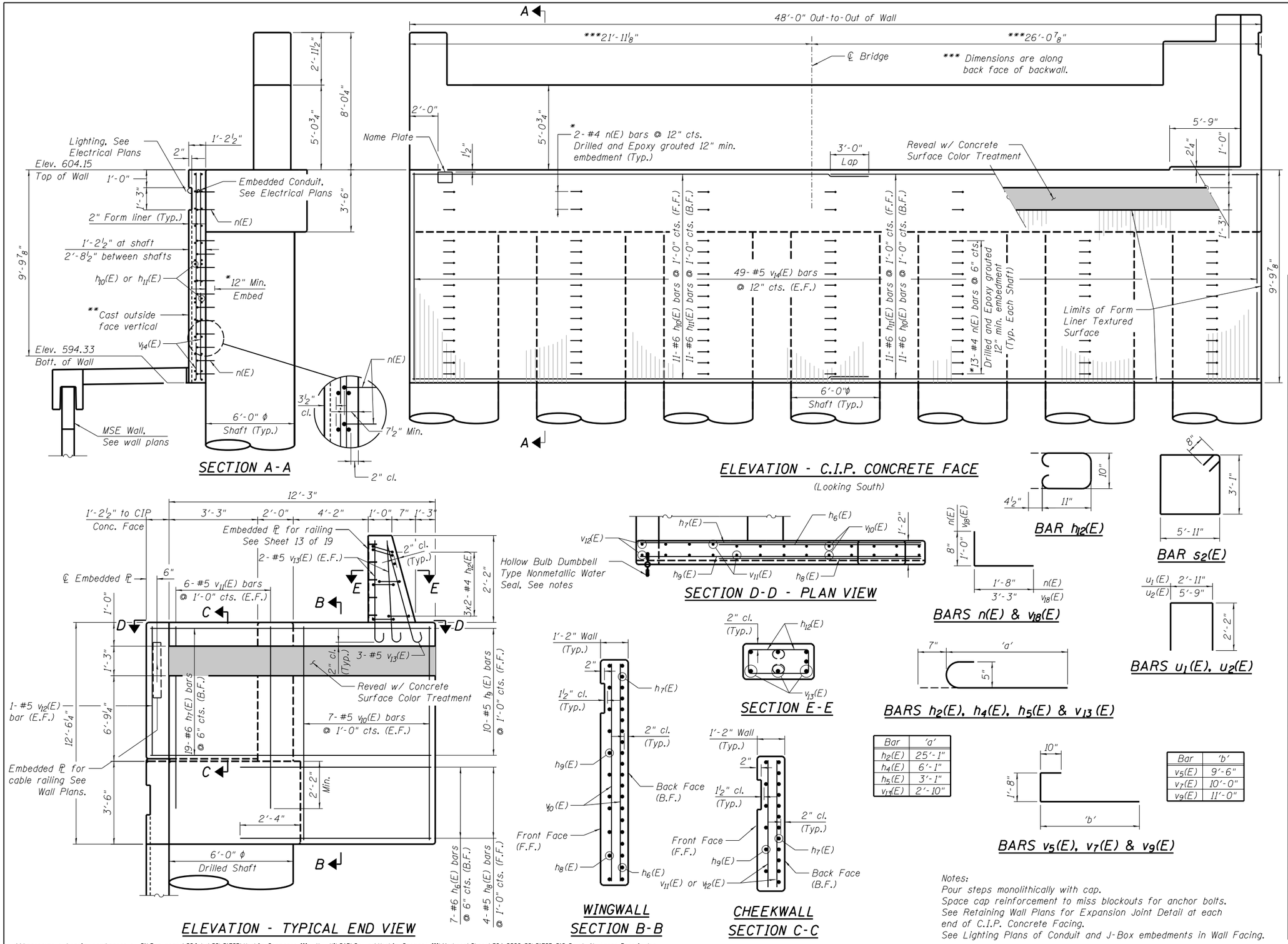
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 084-9968
SHEET NO. 15 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	297
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

ELEVATION - C.I.P. CONCRETE FACE

(Looking South)

ELEVATION - TYPICAL END VIEW

SECTION D-D - PLAN VIEW

WINGWALL SECTION B-B

SECTION E-E

CHEEKWALL SECTION C-C

BAR $h_{12}(E)$

BAR $s_2(E)$

BARS n(E) & $v_{18}(E)$

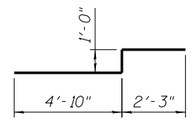
BARS $h_2(E)$, $h_4(E)$, $h_5(E)$ & $v_{13}(E)$

Bar	'a'
$h_2(E)$	25'-1"
$h_4(E)$	6'-1"
$h_5(E)$	3'-1"
$v_{13}(E)$	2'-10"

BARS $v_5(E)$, $v_7(E)$ & $v_9(E)$

Bar	'b'
$v_5(E)$	9'-6"
$v_7(E)$	10'-0"
$v_9(E)$	11'-0"

BARS $u_1(E)$, $u_2(E)$



BAR $v_2(E)$

* Bars epoxy grouted shall have an embedment sufficient to develop 1.25 times the full capacity of the reinforcement bar.

** Concrete wall face shall be cast vertically. Thickness of wall may vary due to abutment deflection. The Min. wall thickness shall be 11½".

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_1(E)$	12	#5	25'-1"	
$h_2(E)$	12	#5	25'-8"	
$h_3(E)$	8	#5	2'-4"	
$h_4(E)$	6	#5	6'-8"	
$h_5(E)$	4	#5	3'-8"	
$h_6(E)$	7	#6	8'-4"	
$h_7(E)$	19	#6	13'-1"	
$h_8(E)$	4	#5	8'-4"	
$h_9(E)$	10	#5	13'-1"	
$h_{10}(E)$	22	#6	22'-0"	
$h_{11}(E)$	22	#6	28'-8"	
$h_{12}(E)$	6	#4	3'-5"	
n(E)	105	#4	2'-4"	
$p_1(E)$	18	#9	47'-8"	
$p_2(E)$	8	#6	47'-8"	
s_1	462	#6	18'-4"	
$s_2(E)$	59	#6	19'-4"	
$u_1(E)$	12	#5	7'-3"	
$u_2(E)$	8	#5	10'-1"	
v_1	196	#18	44'-9"	
$v_2(E)$	78	#5	8'-1"	
$v_3(E)$	39	#5	7'-0"	
$v_4(E)$	6	#5	9'-6"	
$v_5(E)$	3	#5	12'-0"	
$v_6(E)$	6	#5	10'-0"	
$v_7(E)$	4	#5	12'-6"	
$v_8(E)$	5	#5	11'-0"	
$v_9(E)$	3	#5	13'-6"	
$v_{10}(E)$	14	#5	12'-2"	
$v_{11}(E)$	12	#5	11'-2"	
$v_{12}(E)$	2	#5	8'-8"	
$v_{13}(E)$	7	#5	3'-5"	
$v_{14}(E)$	98	#5	9'-5"	
$v_{18}(E)$	30	#6	4'-3"	
Structure Excavation		Cu. Yds.	150	
Concrete Structures		Cu. Yds.	82.2	
Form Liner Textured Surface		Sq. Ft.	364	
Reinforcement Bars		Pound	132,010	
Reinforcement Bars, Epoxy Coated		Pound	11,340	
Drilled Shaft in Soil		Cu. Yds.	144.0	
Drilled Shaft in Rock		Cu. Yds.	141.7	
Secant Lagging		Cu. Ft.	679	
Concrete Sealer		Sq. Ft.	1020	
Concrete Surface Color Treatment		Sq. Ft.	75	
Crosshole Sonic Logging Access Ducts		Foot	316	

Notes:
Pour steps monolithically with cap.
Space cap reinforcement to miss blockouts for anchor bolts.
See Retaining Wall Plans for Expansion Joint Detail at each end of C.I.P. Concrete Facing.
See Lighting Plans of Conduit and J-Box embedments in Wall Facing.

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FINAL

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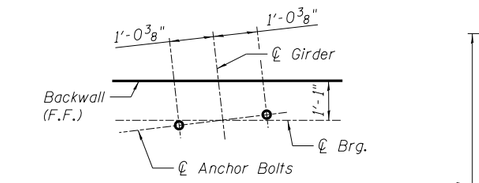
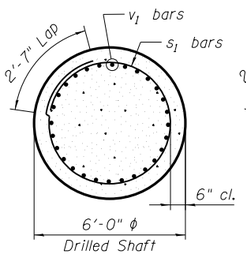
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS
STRUCTURE NO. 084-9968
SHEET NO. 16 OF 19 SHEETS

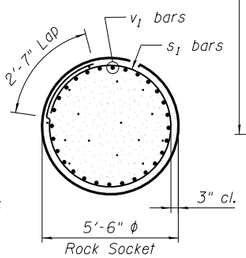
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	298
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			



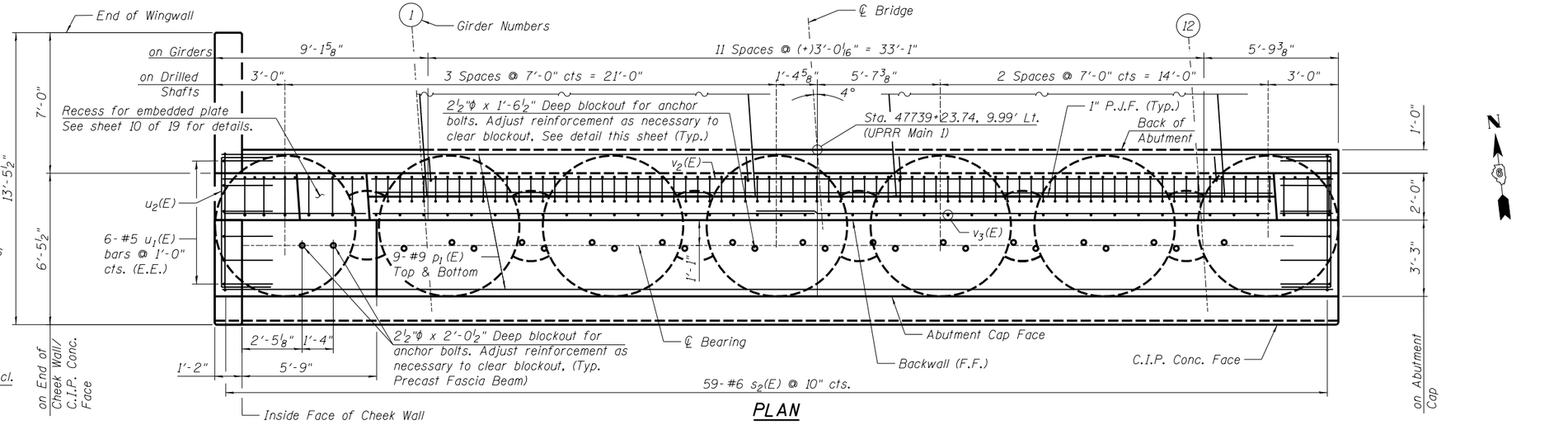
BLOCKOUT LAYOUT



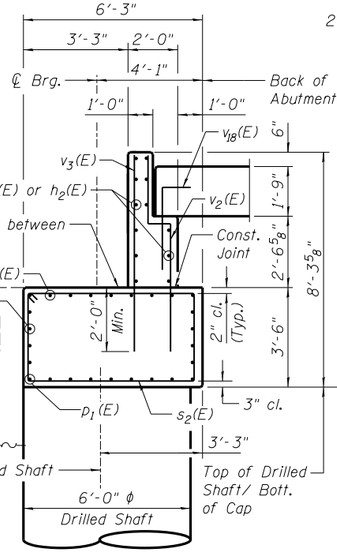
SECTION B-B



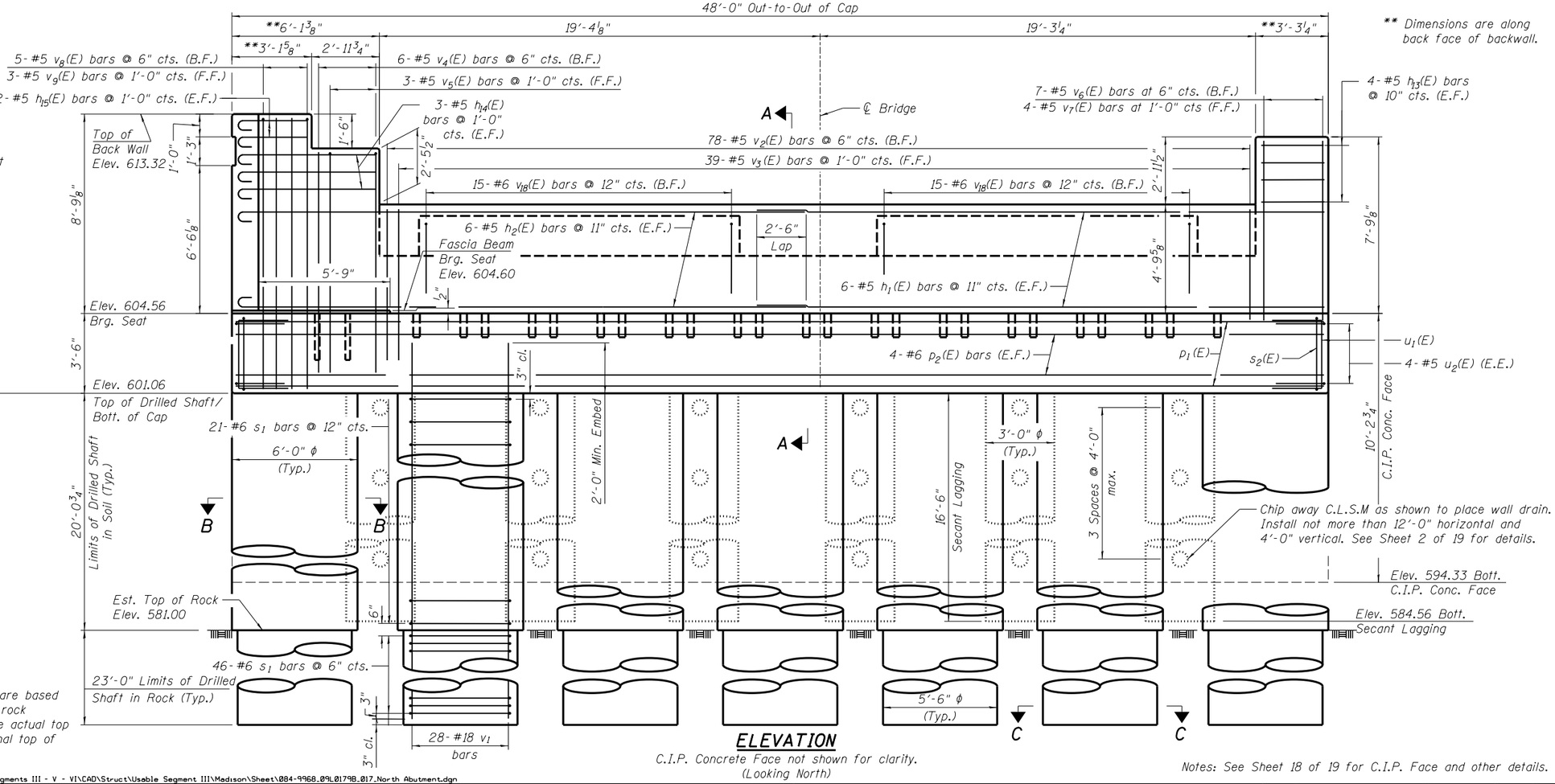
SECTION C-C



PLAN



SECTION A-A



ELEVATION

C.I.P. Concrete Face not shown for clarity. (Looking North)

* The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.

Notes: See Sheet 18 of 19 for C.I.P. Face and other details.

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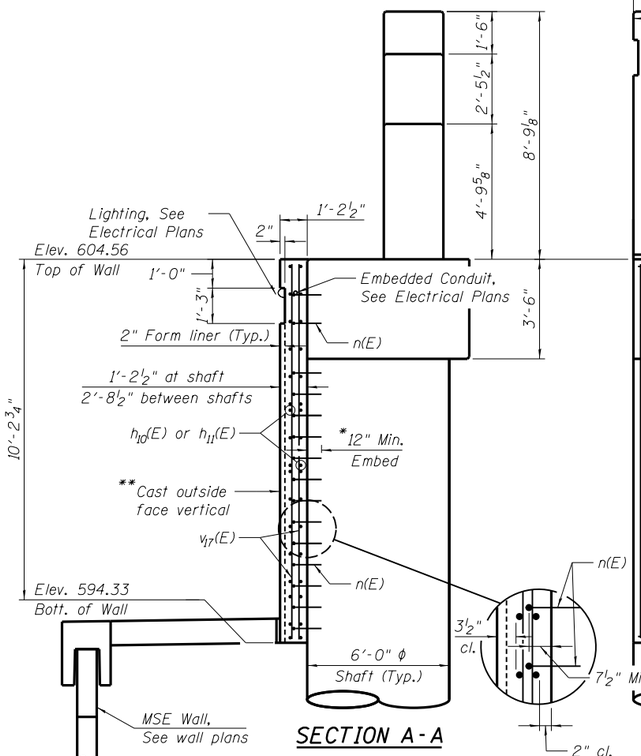
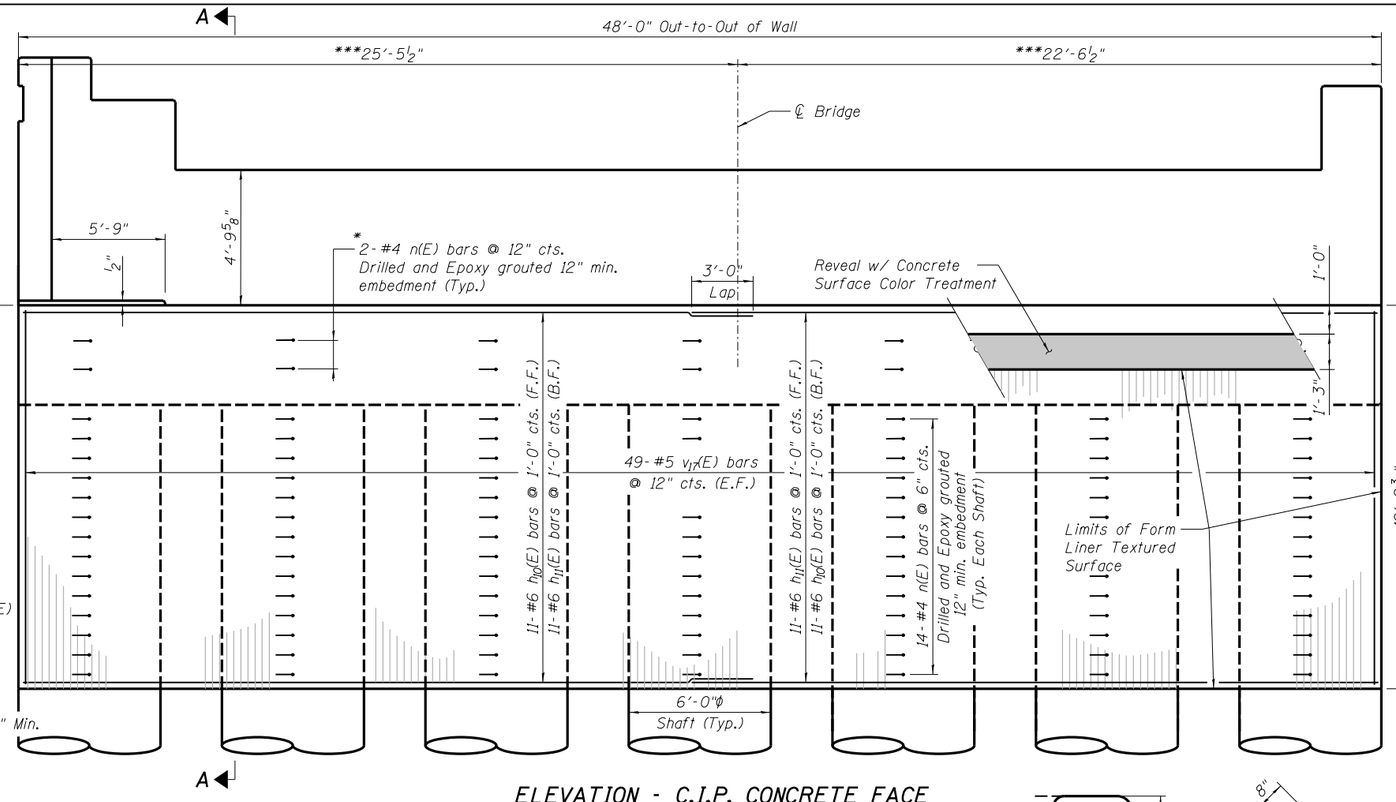
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 084-9968
SHEET NO. 17 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	299
		CONTRACT NO. 93762		
	ILLINOIS FED. AID PROJECT			

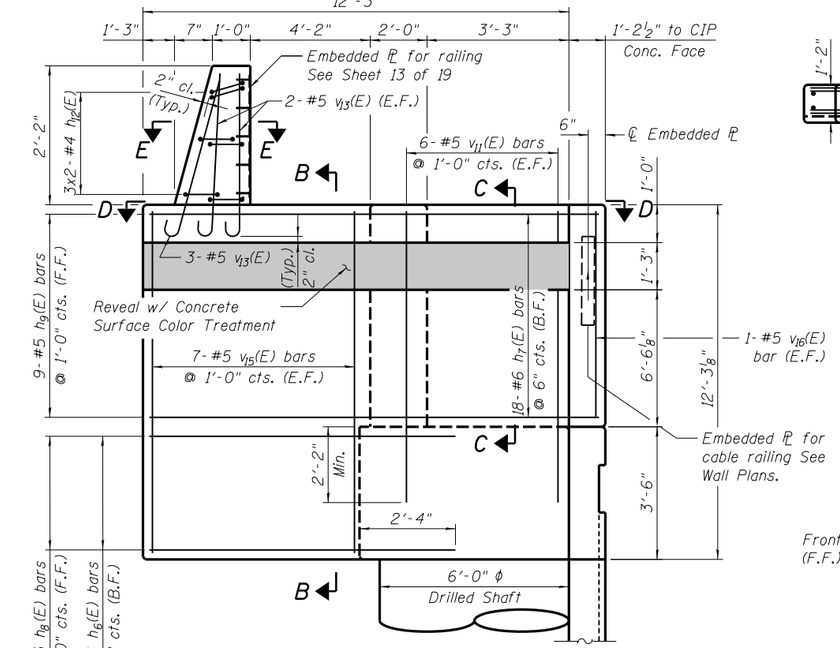


SECTION A-A

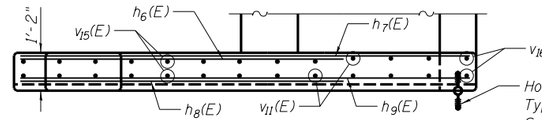


ELEVATION - C.I.P. CONCRETE FACE

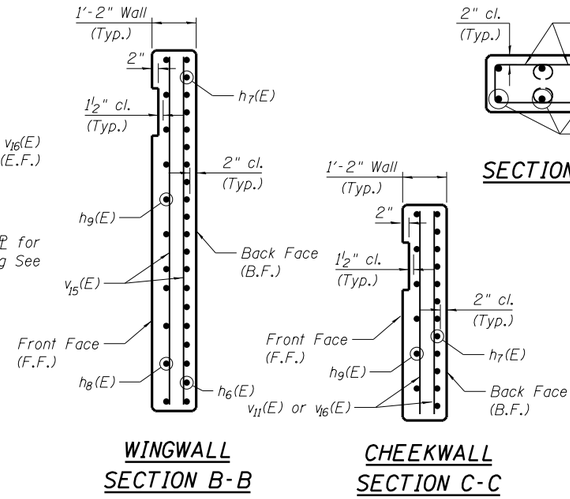
(Looking North)



ELEVATION - TYPICAL END VIEW

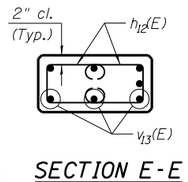


SECTION D-D - PLAN VIEW

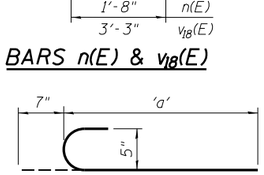


WINGWALL SECTION B-B

CHEEKWALL SECTION C-C

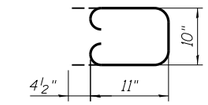


SECTION E-E

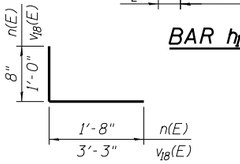


BARS h2(E), h14(E), h15(E) & v13(E)

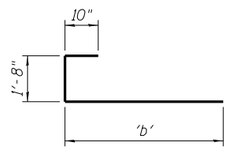
Bar	'a'
h2(E)	25'-1"
h14(E)	5'-8"
h15(E)	2'-8"
v13(E)	2'-10"



BAR h12(E)



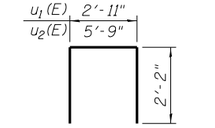
BARS n(E) & v18(E)



BARS v5(E), v7(E) & v9(E)

Bar	'b'
v5(E)	9'-6"
v7(E)	10'-0"
v9(E)	11'-0"

BAR s2(E)



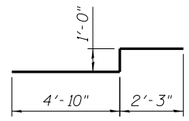
BARS u1(E), u2(E)

Notes:
Pour steps monolithically with cap.
Space cap reinforcement to miss blockouts for anchor bolts.
See Retaining Wall Plans for Expansion Joint Detail at each end of C.I.P. Concrete Facing.
See Lighting Plans of Conduit and J-Box embedments in Wall Facing.

* Bars epoxy grouted shall have an embedment sufficient to develop 1.25 times the full capacity of the reinforcement bar.

** Concrete wall face shall be cast vertically. Thickness of wall may vary due to abutment deflection. The Min. wall thickness shall be 11½".

*** Dimensions are along back face of backwall



BAR v2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	12	#5	25'-1"	
h2(E)	12	#5	25'-8"	
h6(E)	7	#6	8'-4"	
h7(E)	18	#6	13'-1"	
h8(E)	4	#5	8'-4"	
h9(E)	9	#5	13'-1"	
h10(E)	22	#6	22'-0"	
h11(E)	22	#6	28'-8"	
h12(E)	6	#4	3'-5"	
h13(E)	8	#5	2'-10"	
h14(E)	6	#5	6'-3"	
h15(E)	4	#5	3'-3"	
n(E)	112	#4	2'-4"	
p1(E)	18	#9	47'-8"	
p2(E)	8	#6	47'-8"	
s1	469	#6	18'-4"	
s2(E)	59	#6	19'-4"	
u1(E)	12	#5	7'-3"	
u2(E)	8	#5	10'-1"	
v1	196	#18	44'-9"	
v2(E)	78	#5	8'-1"	
v3(E)	39	#5	7'-0"	
v4(E)	6	#5	9'-6"	
v5(E)	3	#5	12'-0"	
v6(E)	7	#5	10'-0"	
v7(E)	4	#5	12'-6"	
v8(E)	5	#5	11'-0"	
v9(E)	3	#5	13'-6"	
v11(E)	12	#5	11'-2"	
v13(E)	7	#5	3'-5"	
v15(E)	14	#5	11'-11"	
v16(E)	2	#5	8'-5"	
v17(E)	98	#5	9'-10"	
v18(E)	30	#6	4'-3"	
Structure Excavation	Cu. Yds.	147		
Concrete Structures	Cu. Yds.	81.8		
Form Liner Textured Surface	Sq. Ft.	383		
Reinforcement Bars	Pound	132,200		
Reinforcement Bars, Epoxy Coated	Pound	11,370		
Drilled Shaft in Soil	Cu. Yds.	147.1		
Drilled Shaft in Rock	Cu. Yds.	141.7		
Secant Lagging	Cu. Ft.	700		
Concrete Sealer	Sq. Ft.	1025		
Concrete Surface Color Treatment	Sq. Ft.	76		
Crosshole Sonic Logging Access Ducts	Foot	319		

FINAL

HANSON

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT DETAILS
STRUCTURE NO. 084-9968
SHEET NO. 18 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
67,67A	20-00491-00-BR	SANGAMON	509	300
		CONTRACT NO. 93762		
		ILLINOIS FED. AID PROJECT		