

03-10-2023 LETTING ITEM 109

INDEX OF SHEETS

SEE SHEET NO. 2 FOR INDEX OF SHEETS AND LIST OF ILLINOIS DOT HIGHWAY STANDARDS

UTILITY TYPE:

SEWER
SANGAMON COUNTY WATER RECLAMATION DISTRICT
(217) 528-0491
ATTN: JASON JACOBS

UTILITY TYPE:

SEWER
SPRINGFIELD CWLP (SEWER DEPT.)
(217) 789-2244
ATTN: JASON HANNAH

UTILITY TYPE:

WATER
SPRINGFIELD CWLP (WATER DEPT.)
(217) 789-2022
ATTN: MICHAEL JOHNSON

UTILITY TYPE:

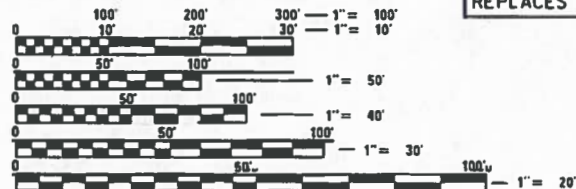
ELECTRIC
SPRINGFIELD CWLP (ELECTRIC DEPT.)
(217) 757-8520 x2163
ATTN: BRAD BIXBY

UTILITY TYPE:

TELEPHONE
AT&T
(217) 381-2793
ATTN: MIKE OSMOND

UTILITY TYPE:

CABLE TV
COMCAST
(224) 229-5862
ATTN: MARTHA GIERAS



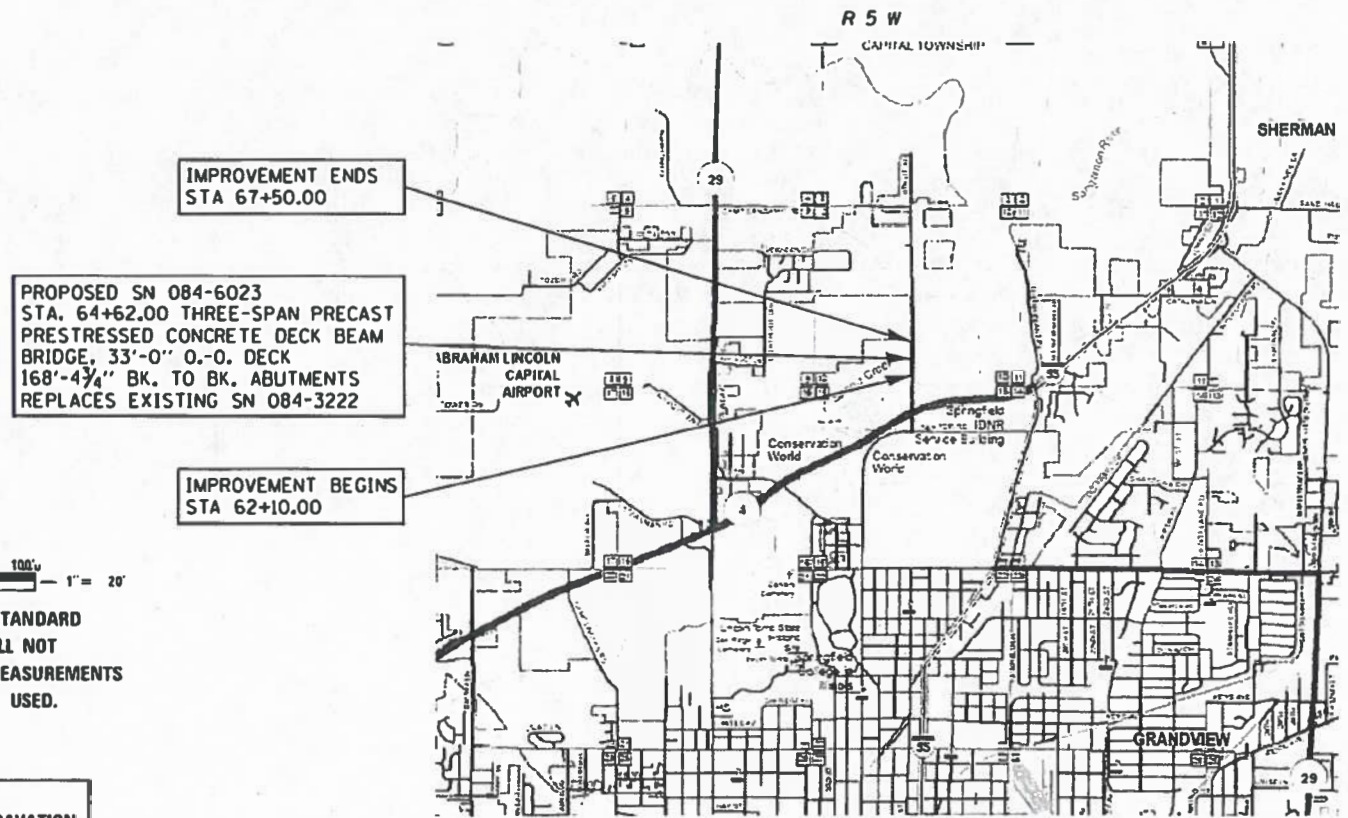
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
**PLANS FOR PROPOSED
FEDERAL-AID PROJECT**

FAU 8067 (NORTH 8TH ST)
OVER SPRING CREEK
SECTION 15-00483-00-BR
PROJECT NO. 813T(526)
CITY OF SPRINGFIELD
SANGAMON COUNTY
JOB NUMBER C-96-235-16
FUNDING: FEDERAL & MFT

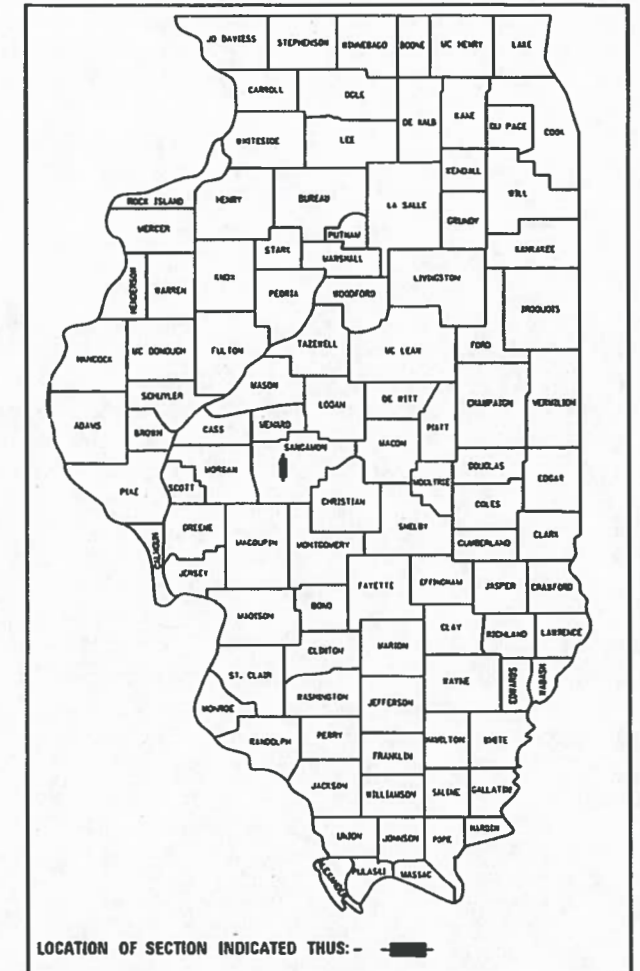


LAYOUT
Net Length of Section = 540.00 Feet = 0.102 Miles
SCALE IN MILES
FUNCTIONAL CLASSIFICATION : MAJOR COLLECTOR
DESIGN SPEED 40 MPH
CURRENT ADT= 1,000 (2012)



Kimberly S. Cummins 10/18/22
ILLINOIS PROFESSIONAL NO. 56816
(Expires 11/30/23)

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	1
FEDERAL AID PROJECT		ILLINOIS	CONTRACT NO. 93799	



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED October 18, 2022

Ruth Bata
CITY OF SPRINGFIELD, ILLINOIS

PASSED December 20, 2022

David C. King
DISTRICT SIX ENGINEER OF
LOCAL ROADS AND STREETS

RELEASED FOR
BID BASED ON
LIMITED REVIEW December 20, 2022

John P. Mearns
REGION FOUR ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

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2	INDEX OF SHEETS, GENERAL NOTES, AND HIGHWAY STANDARDS,
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LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-04	NAME PLATE FOR BRIDGES
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601001-05	PIPE UNDERDRAINS
601101-02	CONCRETE HEADWALL FOR PIPE UNDERDRAINS
602301-04	INLET, TYPE A
602402-03	PRECAST MANHOLE, TYPE A 5' (1.52M) DIAMETER
602601-06	PRECAST REINFORCED CONCRETE FLAT SLAB TOP
602701-02	MANHOLE STEPS
604001-05	FRAME AND LIDS TYPE 1
604006-05	FRAME AND GRATE TYPE 3
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
630001-12	STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631032-10	TRAFFIC BARRIER TERMINAL, TYPE 6A
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A

COMMITMENTS

THE BRIDGE BAT ASSESSMENT EXPIRES 8/3/2023. A VALID ASSESSMENT IS REQUIRED PRIOR TO PERFORMING ANY WORK BELOW THE EXISTING BRIDGE DECK SURFACE.

GENERAL NOTES

- ANY REFERENCE TO THE STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE EDITION, AS INDICATED BY THE SUB-NUMBER, LISTED IN THE INDEX OF SHEETS, OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AS DIRECTED BY THE ENGINEER.
SEEDING, CLASS 2 (SPECIAL) = 0.50 ACRES
- ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES, MUNICIPALITIES, AND FIELD INSPECTION. SEE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO ANY UTILITY LINES AND EXISTING IMPROVEMENTS TO REMAIN THAT ARE DAMAGED AS A RESULT OF THE WORK.
- WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A SAW CUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. SAW CUTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE TYPE OF WORK ENCOUNTERED.
- EXISTING RIPRAP BELOW THE PROPOSED PIPE CULVERT EXTENSION RT SHALL BE REMOVED 12" BELOW THE PROPOSED PIPE AND CAPPED WITH A 12" LAYER OF FA 6. THE REMOVAL WIDTH SHALL BE CENTERED ON THE PIPE CULVERT. FA 6 WILL BE PAID FOR AT THE CONTRACT BID PRICE PER TON FOR GRANULAR EMBANKMENT, SPECIAL.
- THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS OF PIPES BEFORE ORDERING THESE ITEMS.
- LAYOUT OF EROSION CONTROL ITEMS MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- ALL WASTE MATERIAL FROM EXCAVATION SHALL BE DISPOSED OF BY THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THE PROJECT:

LOCATION	NORTH 8TH ST	NORTH 8TH ST
MIXTURE USE	SURFACE LIFT & INCIDENTAL HMA SURFACING	BINDER LIFT
AC/PG:	PG 64-22	PG 64-22
DESIGN AIR Voids	4.0 @ NDESIGN = 50	4.0 @ NDESIGN = 50
MIXTURE COMPOSITION (GRADATION)	IL 9.5	IL 19.0
FRICTION AGGREGATE	MIX "C"	N/A
QUALITY MANAGEMENT PROGRAM	OC/OA	OC/OA
SUBLOT SIZE	N/A	N/A
MATERIAL TRANSFER DEVICE REQUIRED:	NO	NO

APPLICATION RATES

GRANULAR MATERIALS	2.05 TON/CU YD
STONE RIPRAP	1.5 TON/CU YD
BITUMINOUS MATERIALS (PRIME COAT)	0.25 LB/SQ FT (ON AGG)
BITUMINOUS MATERIALS (TACK COAT)	0.025 LB/SQ YD (FOG COAT BETWEEN HMA LIFTS)
BITUMINOUS MATERIALS (TACK COAT)	0.05 LB/SQ FT (ON ENTRANCE PAVEMENT)
HOT-MIX ASPHALT	112 LB/SQ YD/INCH
TEMPORARY EROSION CONTROL SEEDING	100 LB/ACRE

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**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

INDEX OF SHEETS, GENERAL NOTES, AND HIGHWAY STANDARDS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	2
CONTRACT NO. 93799				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE					
				SN 084-6023 1SBP					
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FEDERAL 20% LOCAL 0010					
20200100	EARTH EXCAVATION	CU YD	440	440					
20300100	CHANNEL EXCAVATION	CU YD	860	860					
20400800	FURNISHED EXCAVATION	CU YD	485	485					
20800150	TRENCH BACKFILL	CU YD	7	7					
21000300	GRANULAR EMBANKMENT, SPECIAL	TON	117	117					
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	27	27					
28000400	PERIMETER EROSION BARRIER	FOOT	797	797					
28000500	INLET AND PIPE PROTECTION	EACH	1	1					
28100207	STONE RIPRAP, CLASS A4	TON	540	540					
28200200	FILTER FABRIC	SQ YD	660	660					
31101000	SUBBASE GRANULAR MATERIAL, TYPE B	TON	344	344					
40600275	BITUMINOUS MATERIAL (PRIME COAT)	POUND	1,736	1,736					
40600290	BITUMINOUS MATERIAL (TACK COAT)	POUND	441	441					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	19	19					

• SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS



JOB # 2424
 FILE NAME = 2424-shr-S00.dgn
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 PLOT DATE = 10/17/2022

DESIGNED - TSH
 DRAWN - TSH
 CHECKED - CGF
 DATE - 10/17/2022

REVISED -
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**CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	3
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE				
				SN 084-6023 1SBP				
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FEDERAL 20% LOCAL				
				0010				
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	312	312				
40604050	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	TON	65	65				
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	144	144				
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SO FT	829	829				
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	50	50				
48101200	AGGREGATE SHOULDERS, TYPE B	TON	80	80				
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1				
50200100	STRUCTURE EXCAVATION	CU YD	109	109				
50200300	COFFERDAM EXCAVATION	CU YD	89	89				
50201101	COFFERDAM (TYPE 1)(LOCATION - 1)	EACH	1	1				
50201102	COFFERDAM (TYPE 1)(LOCATION - 2)	EACH	1	1				
50300100	FLOOR DRAINS	EACH	9	9				
50300225	CONCRETE STRUCTURES	CU YD	246.5	246.5				
50300255	CONCRETE SUPERSTRUCTURE	CU YD	40.5	40.5				

• SPECIAL PROVISIONS
 Δ SPECIALTY ITEMS



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 PLOT DATE = 10/17/2022

DESIGNED - TSH
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 CHECKED - CGF
 DATE - 10/17/2022

REVISED -
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**CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAL RTE. 8067	SECTION 15-00483-00-BR	COUNTY SANGAMON	TOTAL SHEETS 44	SHEET NO. 4
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 93799				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE					
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 084-6023 ISBP					
				80% FEDERAL 20% LOCAL 0010					
50300260	BRIDGE DECK GROOVING	SQ YD	640	640					
50300280	CONCRETE ENCASEMENT	CU YD	3.4	3.4					
50300300	PROTECTIVE COAT	SQ YD	930	930					
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	81.8	81.8					
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	5,478	5,478					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	58,450	58,450					
Δ 50900405	STEEL RAILING, TYPE TP-1	FOOT	169	169					
Δ 50901050	STEEL RAILING, TYPE SM	FOOT	197	197					
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1,320	1,320					
51202305	DRIVING PILES	FOOT	1,320	1,320					
51203610	TEST PILE STEEL HP12X63	EACH	4	4					
51500100	NAME PLATES	EACH	1	1					
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	1					
54248510	CONCRETE COLLAR	CU YD	0.7	0.7					

• SPECIAL PROVISIONS

Δ SPECIALTY ITEMS



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 PLOT DATE = 10/17/2022

DESIGNED - TSH
 DRAWN - TSH
 CHECKED - CGF
 DATE - 10/17/2022

REVISED -
 REVISED -
 REVISED -
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CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B067	15-00483-00-BR	SANGAMON	44	5
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE					
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 084-6023 ISBP					
				80% FEDERAL 20% LOCAL 0010					
542A0217	PIPE CULVERTS, CLASS A, TYPE 1 12"	FOOT	38	38					
542A0241	PIPE CULVERTS, CLASS A, TYPE 1 36"	FOOT	54	54					
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	73	73					
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	47	47					
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	110	110					
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1					
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	2	2					
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	0.9	0.9					
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	117	117					
△ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	37.5	37.5					
△ 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	25.0	25.0					
△ 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	2	2					
△ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	2	2					
△ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3					

• SPECIAL PROVISIONS

△ SPECIALTY ITEMS



JOB = 2424
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 PLOT DATE = 10/17/2022

DESIGNED - TSH
 DRAWN - TSH
 CHECKED - CGF
 DATE - 10/17/2022

REVISED -
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**CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS**

SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE. 8067	SECTION 15-00483-00-BR	COUNTY SANGAMON	TOTAL SHEETS 44	SHEET NO. 6
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE					
				SN 084-6023 ISBP					
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FEDERAL 20% LOCAL 0010					
67100100	MOBILIZATION	L SUM	1	1					
△ 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	3	3					
△ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2,160	2,160					
△ 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16					
• X0323265	REMOVE EXISTING RIPRAP	SQ YD	46	46					
• X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.50	0.50					
• X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	508	508					
• X5427600	REMOVE AND RELOCATE END SECTIONS	EACH	1	1					
• X7011800	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	1					
• Z0016702	DETOUR SIGNING	L SUM	1	1					
# Z0076600	TRAINEES	HOUR	1000						
# Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	1000						

• SPECIAL PROVISIONS #0042
 △ SPECIALTY ITEMS



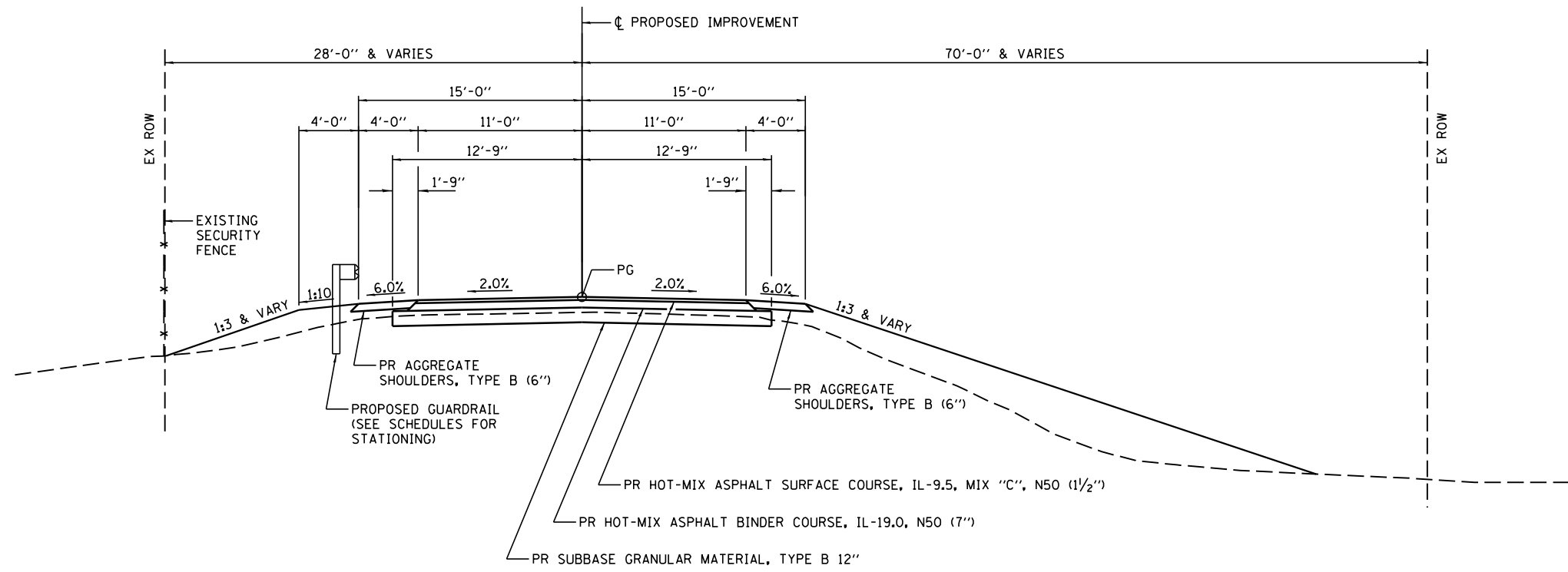
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**CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS**

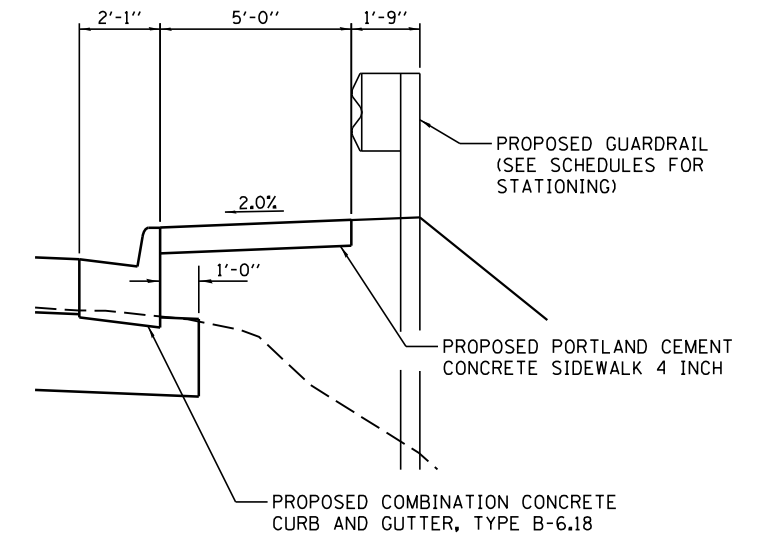
SUMMARY OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAY RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
B067	15-00483-00-BR	SANGAMON	44	7
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	



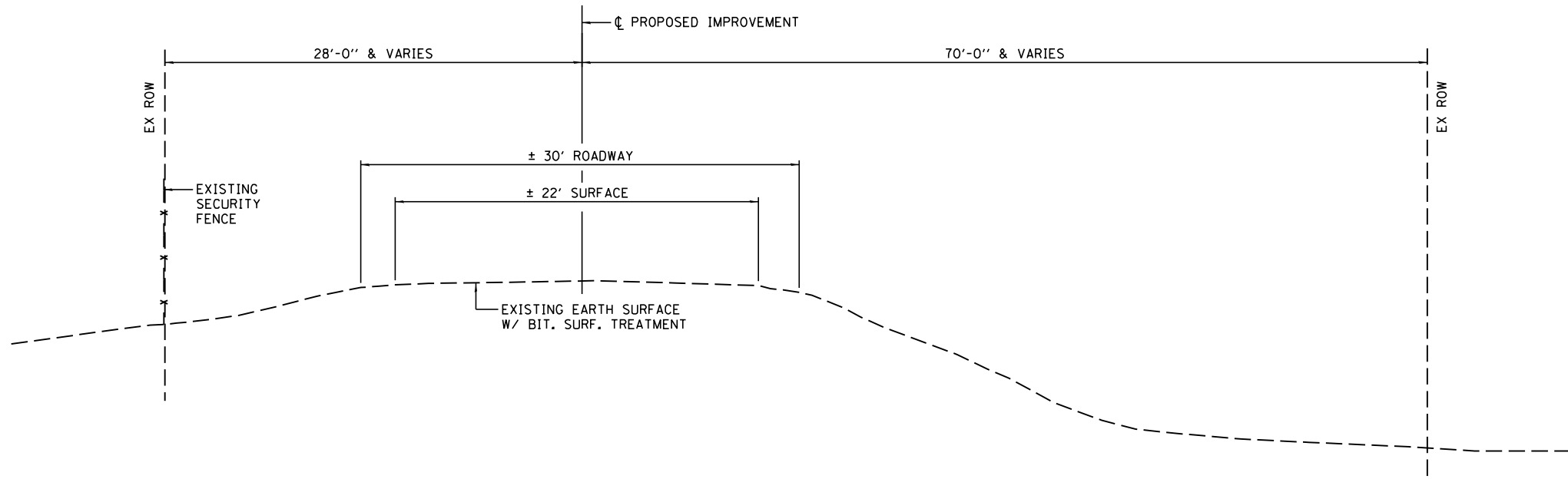
PROPOSED TYPICAL CROSS SECTION (SOUTH APPROACH)
 STA. 62+10.00 TO STA. 63+77.80



DETAIL AT CURB & SIDEWALK
 CONSTRUCT SIDEWALK RT STA 62+75.00 TO STA 63+72.03

BRIDGE OMISSION
 STA 63+77.80 TO STA 65+46.20

APPROACH PAVEMENTS
 STA 63+48.90 TO STA 63+78.90
 STA 65+45.10 TO STA 65+75.10



EXISTING TYPICAL CROSS SECTION (SOUTH APPROACH)
 STA. 62+10.00 TO STA. 63+84.81



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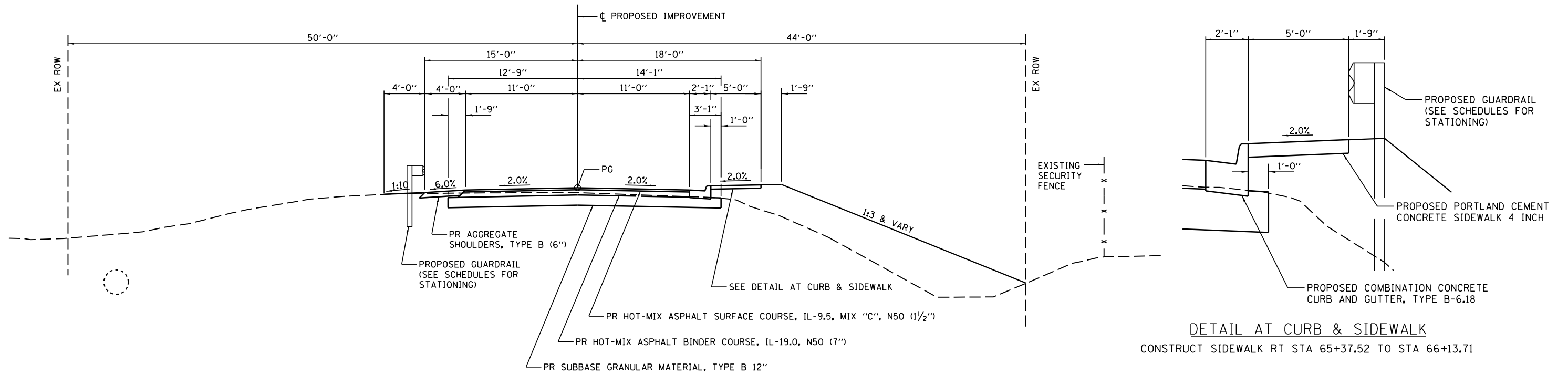
CITY OF SPRINGFIELD
 8TH STREET IMPROVEMENTS

TYPICAL CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	8
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 93799



PROPOSED TYPICAL CROSS SECTION (SOUTH APPROACH)

STA. 65+46.20 TO STA. 67+50.00

BRIDGE OMISSION

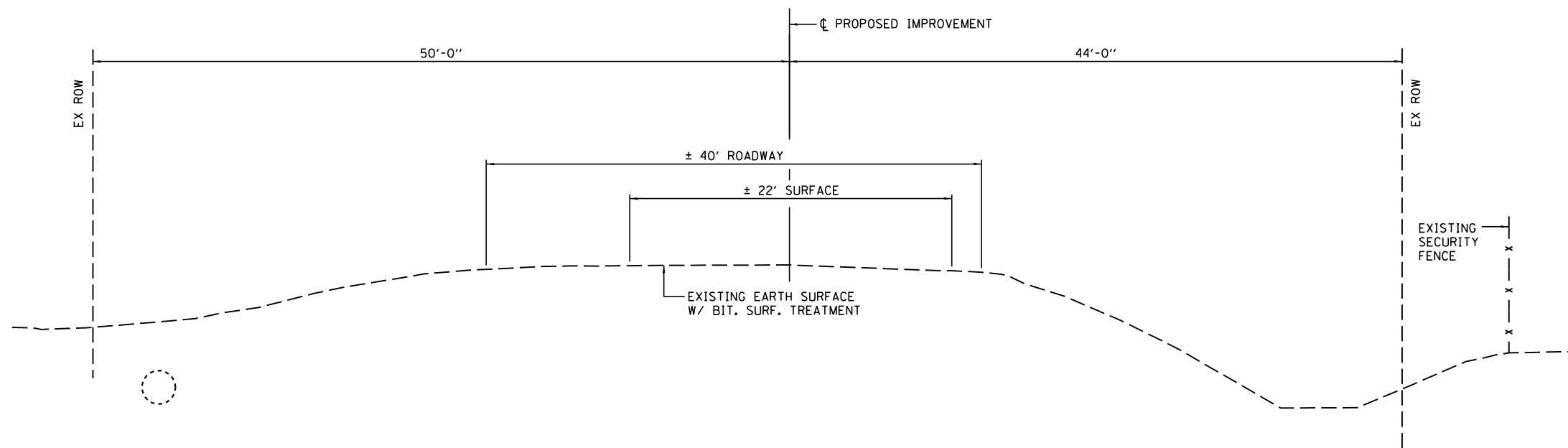
STA 63+77.80 TO STA 65+46.20

APPROACH PAVEMENTS

STA 63+48.90 TO STA 63+78.90
STA 65+45.10 TO STA 65+75.10

DETAIL AT CURB & SIDEWALK

CONSTRUCT SIDEWALK RT STA 65+37.52 TO STA 66+13.71



EXISTING TYPICAL CROSS SECTION (SOUTH APPROACH)

STA. 65+40.54 TO STA. 67+50.00

EARTHWORK

LOCATION	20200100 EARTH EXCAVATION	EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	20400800 FURNISHED EXCAVATION EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
JN LINE	CU YD	CU YD	CU YD	CU YD
STA 62+25.00 TO STA 63+78.04	245	185 (1)	455	-270
STA 65+36.25 TO STA 67+50.00	195	150 (1)	355	-205
ENTRANCE REMOVAL BACKFILL	0	0 (1)	10	-10
TOTAL	440	335	820	-485
CHANNEL EXCAVATION	*860	645 (1)	0	860

(1) SHRINKAGE = 25%

SAW CUTS SHALL NOT BE MEASURED FOR PAYMENT, BUT SHALL BE INCLUDED IN THE COST FOR EARTH EXCAVATION.

REMOVAL OF EXISTING OIL AND CHIP SURFACE AND EXISTING SHOULDER AGGREGATE SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

*EXCAVATED CHANNEL MATERIAL CONTAINING EXISTING RIPRAP SHALL NOT BE USED FOR EARTH EMBANKMENT AND SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

ENTRANCE LT 63+65.00 SHALL BE BACKFILLED WITH CLEAN EMBANKMENT AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITY = 10 CU YD

PAVEMENT

LOCATION	40600275			40600290			40604050	40603080
	BITUMINOUS MATERIALS (PRIME COAT) ON AGGREGATE			BITUMINOUS MATERIALS (TACK COAT) FOG COAT BETWEEN LIFTS			HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "C", N50	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
	# APPS	RATE	POUND	# APPS	RATE	POUND	TON	TON
STA 62+10.00 TO STA 63+48.90	1	0.250	769.00	2	0.025	154.00	28.70	138.12
STA 65+75.10 TO STA 67+50.00	1	0.250	967.00	2	0.025	193.00	36.09	173.47
TOTAL			1,736.00			347.00	64.79	311.59
USE			1,736			*347	65	312

* SEE ENTRANCES SCHEDULE FOR ADDITIONAL QUANTITY

ENTRANCES

LOCATION	TYPE	WIDTH	LENGTH	44000200	40600982	40600290	40800050
				DRIVEWAY PAVEMENT REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT	BITUMINOUS MATERIALS (TACK COAT)	INCIDENTAL HOT-MIX ASPHALT SURFACING
				FOOT	FOOT	SQ YD	SQ YD
LT STA 63+65.00	CE	HMA	17.0	17.0	49.37		
LT STA 66+46.48	CE	HMA	12.7	30		8.67	37.40
RT STA 66+38.83	CE	HMA	22.4	33		9.95	56.06
TOTAL					49.37	18.70	93.50
USE					50	19	*94

* SEE PAVEMENT SCHEDULE FOR ADDITIONAL QUANTITY

20800150 TRENCH BACKFILL

LOCATION	PIPE SIZE	CU YD
RT STA 63+32.00	12"	1.91
RT STA 65+80.65	12"	4.80
TOTAL		6.70
USE		7

21000300 GRANULAR EMBANKMENT, SPECIAL

LOCATION	AVG WIDTH*		TON
			FOOT
RT STA 65+30.00 TO STA 65+91.65	BEDDING	6.67	31.21
RT STA 65+30.00 TO STA 65+91.65	HAUNCHING	10.33	85.71
TOTAL			116.9
USE			117

X2501000 SEEDING, CLASS 2 (SPECIAL)

LOCATION	ACRE
LT STA 62+10.00 TO STA 63+91.00	0.04
LT STA 65+37.00 TO STA 66+36.00	0.03
LT STA 66+56.00 TO STA 67+50.00	0.01
RT STA 62+10.00 TO STA 63+75.00	0.12
RT STA 65+26.00 TO STA 66+22.00	0.05
RT STA 66+56.00 TO STA 67+50.00	0.03
TOTAL	0.27
USE	0.50

28000400 PERIMETER EROSION BARRIER

LOCATION	FOOT
LT STA 62+10.00 TO STA 63+91.00	181
LT STA 65+40.00 TO STA 66+36.00	96
LT STA 66+58.00 TO STA 67+50.00	97
RT STA 62+10.00 TO STA 63+84.00	175
RT STA 64+76.00 TO STA 66+25.00	149
RT STA 66+51.00 TO STA 67+50.00	99
TOTAL	797

28000500 INLET AND PIPE PROTECTION

LOCATION	EACH
RT STA 66+74.00	1
TOTAL	1

28000250 TEMPORARY EROSION CONTROL SEEDING

LOCATION	POUND
LT STA 62+10.00 TO STA 63+91.00	4.1
LT STA 65+37.00 TO STA 66+36.00	2.5
LT STA 66+56.00 TO STA 67+50.00	0.9
RT STA 62+10.00 TO STA 63+75.00	11.7
RT STA 65+26.00 TO STA 66+22.00	5.2
RT STA 66+56.00 TO STA 67+50.00	2.5
TOTAL	26.9
USE	27

31101000 SUBBASE GRANULAR MATERIAL, TYPE B

LOCATION	TON
STA 62+10.00 TO STA 63+48.90	275.12
STA 65+75.10 TO STA 67+50.00	343.62
TOTAL	618.74
USE	619

42400100 PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH

LOCATION	SQ FT
RT STA 62+75.00 TO STA 63+72.03	479.34
RT STA 65+37.52 TO STA 66+13.71	349.88
TOTAL	829.22
USE	829

48101200 AGGREGATE SHOULDERS, TYPE B

LOCATION	TON
LT STA 62+10.00 TO STA 63+55.90	22.16
LT STA 65+80.07 TO STA 66+17.50	5.68
LT STA 66+17.50 TO STA 66+40.10	5.72
LT STA 66+52.80 TO STA 66+82.80	6.05
LT STA 66+82.80 TO STA 67+50.00	10.20
RT STA 62+10.00 TO STA 62+70.00	9.11
RT STA 66+17.84 TO STA 66+27.60	3.36
RT STA 66+50.00 TO STA 66+77.90	6.85
RT STA 66+77.90 TO STA 67+50.00	10.95
TOTAL	80.08
USE	80



JOB = 2424
 FILE NAME = 2424-sht-Schedules.dgn
 PLOT SCALE = 20.0000' / in.
 PLOT DATE = 10/24/2022

DESIGNED - TSH
 DRAWN - TSH
 CHECKED - CGF
 DATE - 10/6/2022

REVISED -
 REVISED -
 REVISED -
 REVISED -

**CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS**

SCHEDULE OF QUANTITIES

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	10
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 93799

54213657 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"

LOCATION	EACH
26.50' RT STA 63+32.25 (P2)	1
TOTAL	1

54248510 CONCRETE COLLAR

LOCATION	CU YD
37.27' RT STA 65+91.66 (P7)	0.69
TOTAL	0.69
USE	0.7

542A0217 PIPE CULVERTS, CLASS A, TYPE 1 12"

LOCATION	FOOT
12.50' RT STA 63+32.00 TO 26.50' STA 63+32.25 (P1)	14
12.50' RT STA 65+80.65 TO 37.08' STA 65+80.65 (P4)	24
TOTAL	38

542A0241 PIPE CULVERTS, CLASS A, TYPE 1 36"

LOCATION	FOOT
36.03' RT STA 65+34.93 TO 37.08' STA 65+80.65 (P5)	44
37.08' RT STA 65+80.65 TO 37.27' STA 65+91.66 (P6)	10
TOTAL	54

60221100 MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID

LOCATION	EACH
37.08' RT STA 65+80.65 (S3)	1
TOTAL	1

60235700 INLETS, TYPE A, TYPE 3 FRAME AND GRATE

LOCATION	EACH
12.50' RT STA 63+32.00 (S1)	1
12.50' RT STA 65+80.65 (S2)	1
TOTAL	2

60600095 CLASS SI CONCRETE (OUTLET)

LOCATION	CU YD
RT STA 62+70.00 TO STA 62+75.00	0.44
RT STA 66+16.32 TO STA 66+21.14	0.44
TOTAL	0.88
USE	0.9

60604400 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18

LOCATION	FOOT
RT STA 62+75.00 TO STA 63+43.09	68.14
RT STA 65+69.26 TO STA 65+99.50	30.07
RT STA 65+99.50 TO STA 66+16.32	18.52
TOTAL	116.73
USE	117

63000001 STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

LOCATION	FOOT
LT STA 66+01.74 TO STA 66+26.68	37.5
TOTAL	37.5

63000003 STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS

LOCATION	FOOT
RT STA 63+31.03 TO STA 63+56.03	25.0
TOTAL	25.0

63100075 TRAFFIC BARRIER TERMINAL, TYPE 5A

LOCATION	EACH
RT STA 63+56.03 TO STA 63+69.28	1
RT STA 65+37.94 TO STA 65+51.19	1
TOTAL	2

63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A

LOCATION	EACH
LT STA 63+36.24 TO STA 63+73.74	1
LT STA 65+64.24 TO STA 66+01.74	1
TOTAL	2

63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT

LOCATION	EACH
LT STA 62+86.24 TO STA 63+36.24	1
RT STA 62+81.03 TO STA 63+31.03	1
RT STA 65+51.19 TO STA 66+01.19	1
TOTAL	3

72501000 TERMINAL MARKER - DIRECT APPLIED

LOCATION	EACH
LT STA 62+86.24	1
RT STA 62+81.03	1
RT STA 66+01.19	1
TOTAL	3

78200005 GUARDRAIL REFLECTORS, TYPE A

LOCATION	EACH
LT STA 62+86.24 TO STA 63+73.74	4
LT STA 65+64.24 TO STA 66+26.68	4
RT STA 62+81.03 TO STA 63+69.28	4
RT STA 65+37.94 TO STA 66+01.19	4
TOTAL	16

78001110 PAINT PAVEMENT MARKING - LINE 4"

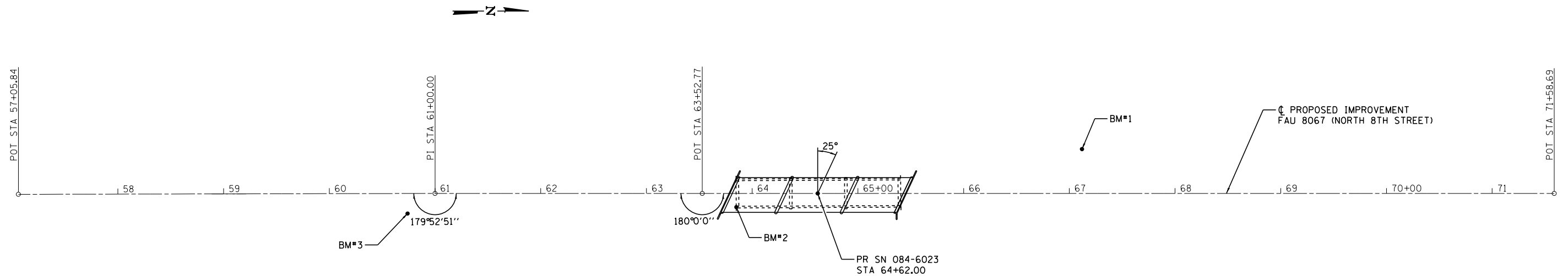
LOCATION	WHITE	YELLOW
	FOOT	FOOT
SOLID WHITE EDGE LINE		
LT STA 62+10.00 TO STA 67+50.00	540	
RT STA 62+10.00 TO STA 67+50.00	540	
DOUBLE YELLOW CENTERLINE		
STA 62+10.00 TO STA 67+50.00		1,080
SUBTOTAL	1,080	1,080
TOTAL		2,160

X0323265 REMOVE EXISTING RIPRAP

LOCATION	WIDTH	SQ YD
	FOOT	
RT STA 65+30.00 TO STA 65+91.65	6.67	45.67
TOTAL		46

X5427600 REMOVE AND RELOCATE END SECTIONS

LOCATION	SIZE	EACH
36.10' RT STA 65+34.93 (P3)	36"	1
TOTAL		1

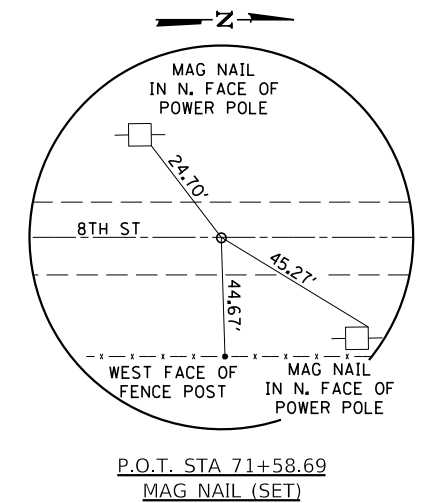
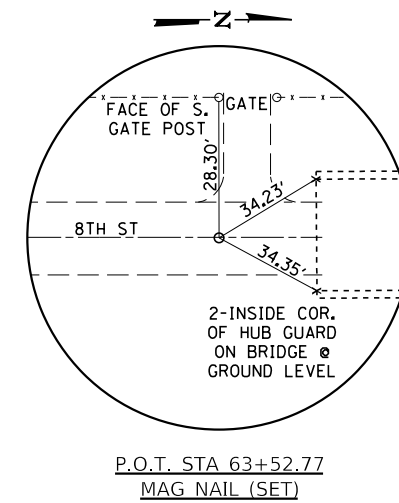
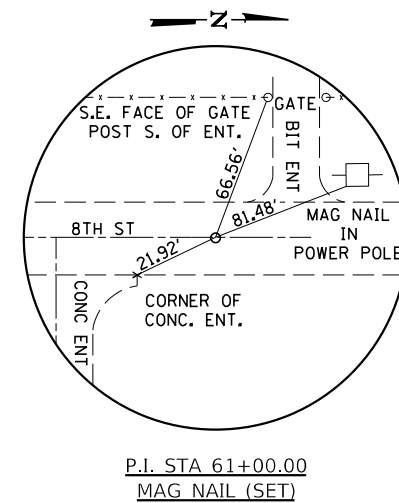
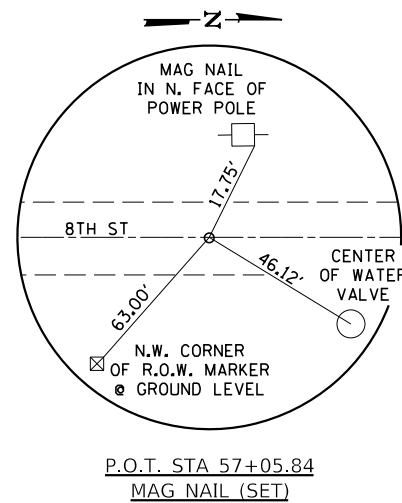


BM#3-CUT "□" ON TOP CURB
18.9' RT. STA. 60+73.8
ELEV. 532.42

BM#2-CUT "□" ON TOP CURB
12.4' RT. STA. 63+84.9
ELEV. 532.51

BM#1-MAG NAIL IN TOP OF 24" CMP
42.5' LT. STA. 67+11.4
ELEV. 526.77

CENTERLINE PROPOSED IMPROVEMENT			
CONTROL POINT	STATION	COORDINATES	
		NORTHING	EASTING
P.O.T.	57+05.84	1158008.40	2443088.78
P.I.	61+00.00	1158402.48	2443080.70
P.O.T.	63+52.77	1158655.20	2443076.05
P.O.T.	71+58.69	1159460.99	2443061.20



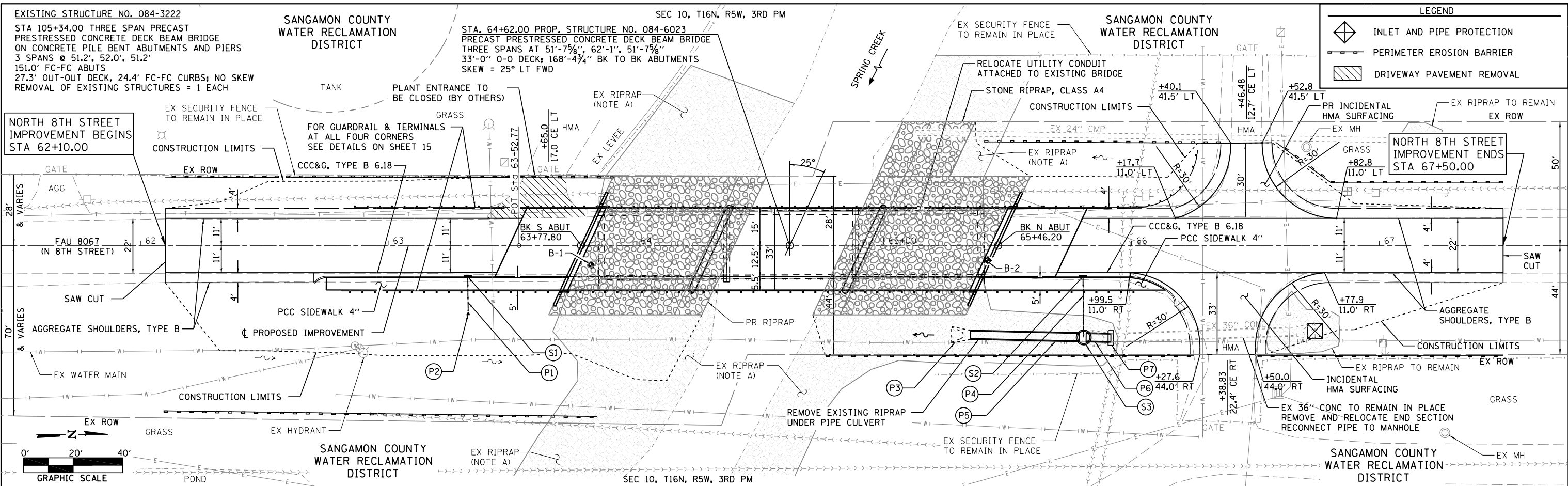
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

ALIGNMENT, CROSS TIES, AND BENCHMARKS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

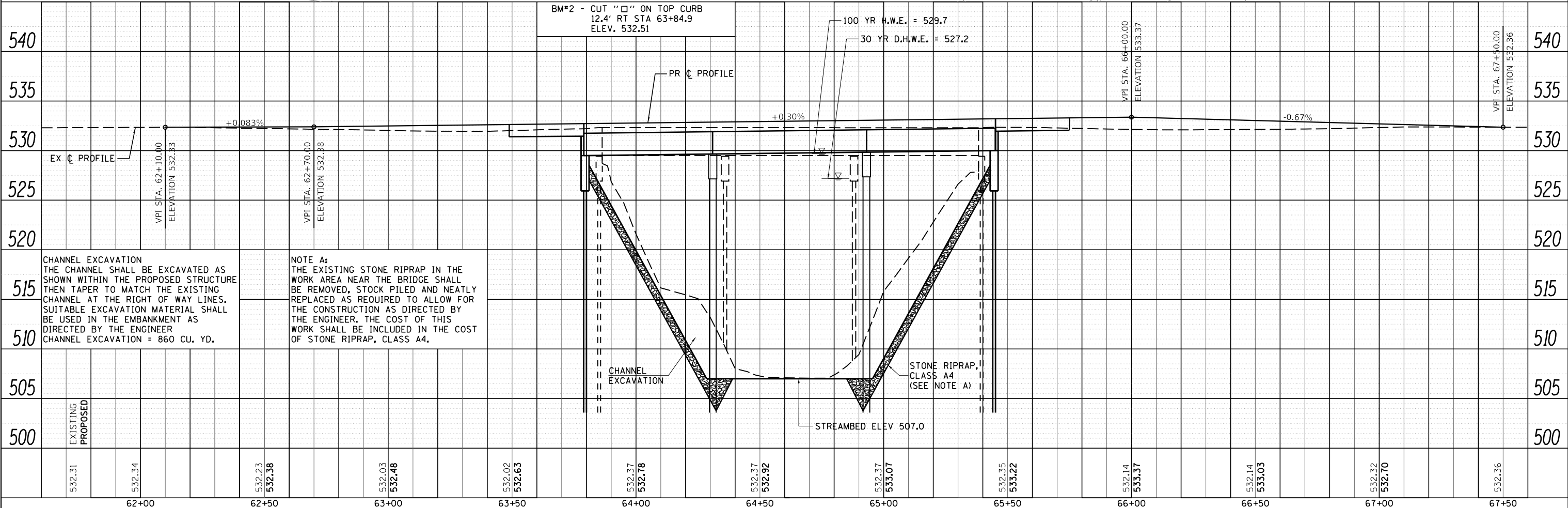
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	12
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-sht-ATB.dgn	DRAWN - TSH	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - CGF	REVISED -
PLOT DATE = 10/7/2022	DATE - 10/6/2022	REVISED -



DATE	
BY	
PLAN	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
PROFILE	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	



532.31	532.34	532.23	532.38	532.03	532.48	532.02	532.65	532.37	532.78	532.37	532.92	532.37	533.07	532.35	533.22	532.14	533.37	532.14	533.03	532.32	532.70	532.36
62+00	62+50	63+00	63+50	64+00	64+50	65+00	65+50	66+00	66+50	67+00	67+50											

CEC Cummins Engineering Corporation
 ENGINEERS & SURVEYORS

JOB = 2424
 FILE NAME = 2424-sht-plan.dgn
 PLOT SCALE = 48,0000" / 1"
 PLOT DATE = 10/11/2022

DESIGNED - TSH
 DRAWN - TSH
 CHECKED - CGF
 DATE - 10/6/2022

REVISED -
 REVISED -
 REVISED -
 REVISED -

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

PLAN AND PROFILE
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	13
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 93799	

PLAN & PROFILE
DRAINAGE DETAILS

STRUCTURES

PIPES

- (S1) 12.50' RT STA 63+32.00
INLETS, TY A, TY 3 FRAME & GRATE
℄ GRATE EL 532.10
INV EL 528.50 (S)

- (S2) 12.50' RT STA 65+80.65
INLETS, TY A, TY 3 FRAME & GRATE
℄ GRATE EL 532.92
INV EL 528.00 (S)

- (S3) 37.08' RT STA 65+80.65
MANHOLES, TYPE A 5'-DIAMETER
WITH PRECAST REINFORCED
CONCRETE FLAT SLAB TOP
& TY 1 FRAME, CLOSED LID
℄ GRATE EL 527.50
INV EL 522.00 (N)
INV EL 524.00 (W)
INV EL 522.00 (S)

- (P1) PIPE CULVERTS, CLASS A, TYPE 1 12" x 14'
USFL 12.50' RT STA 63+32.00 528.50
DSFL 26.50' RT STA 63+32.25 528.10

- (P2) PRECAST REINFORCED CONCRETE FLARED
END SECTIONS 12" (STD 542301)
26.50' RT STA 63+32.25
℄ ELEV. 528.00

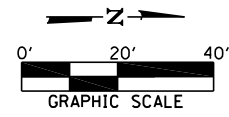
- (P3) REMOVE AND RELOCATE END SECTIONS
(36" CONCRETE)
36.10' RT STA 65+34.93
℄ ELEV. 521.00

- (P4) PIPE CULVERTS, CLASS A, TYPE 1 12" x 22'
USFL 12.50' RT STA 65+80.65 528.00
DSFL 37.08' RT STA 65+80.65 524.00

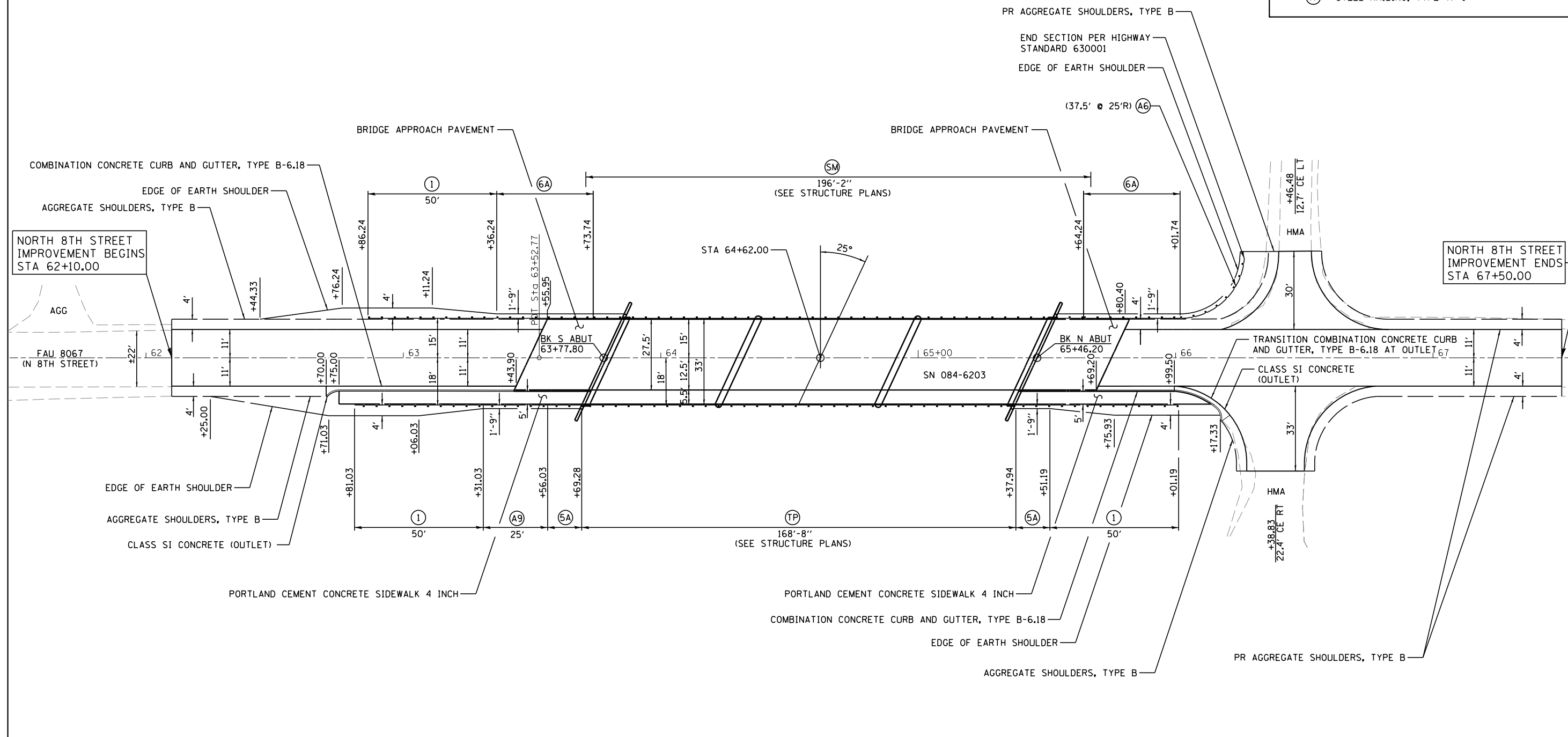
- (P5) PR PIPE CULVERTS, CL A, TY 1 36" x 44'
USFL 37.08' RT STA 65+80.65 522.00
DSFL 36.03' RT STA 65+34.93 521.00

- (P6) PIPE CULV CLASS A, TYPE 1 36" x 10'
USFL 37.27' RT STA 65+91.66 522.10
DSFL 37.08' RT STA 65+80.65 522.00

- (P7) CONCRETE COLLAR
37.27' RT STA 65+91.66



LEGEND	
(1)	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT
(5A)	TRAFFIC BARRIER TERMINAL, TYPE 5A
(6A)	TRAFFIC BARRIER TERMINAL, TYPE 6A
(A6)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS
(A9)	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS
(SM)	STEEL RAILING, TYPE SM
(TP)	STEEL RAILING, TYPE TP-1



MODEL: Default
FILE NAME: 2424-shr-guardrail.dgn



JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-shr-guardrail.dgn	DRAWN - TSH	REVISED -
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PLOT DATE = 10/6/2022	DATE - 10/6/2022	REVISED -

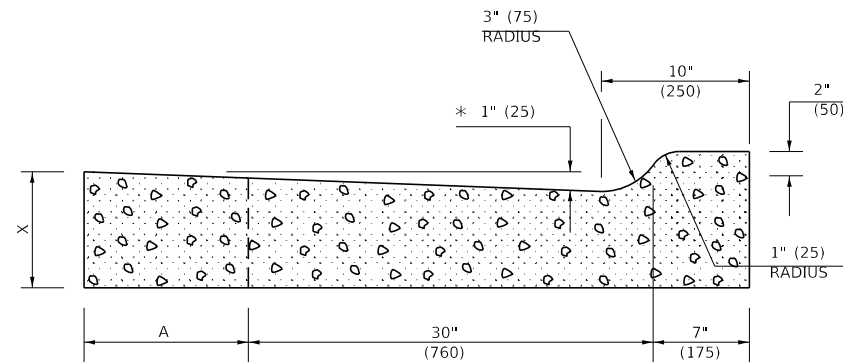
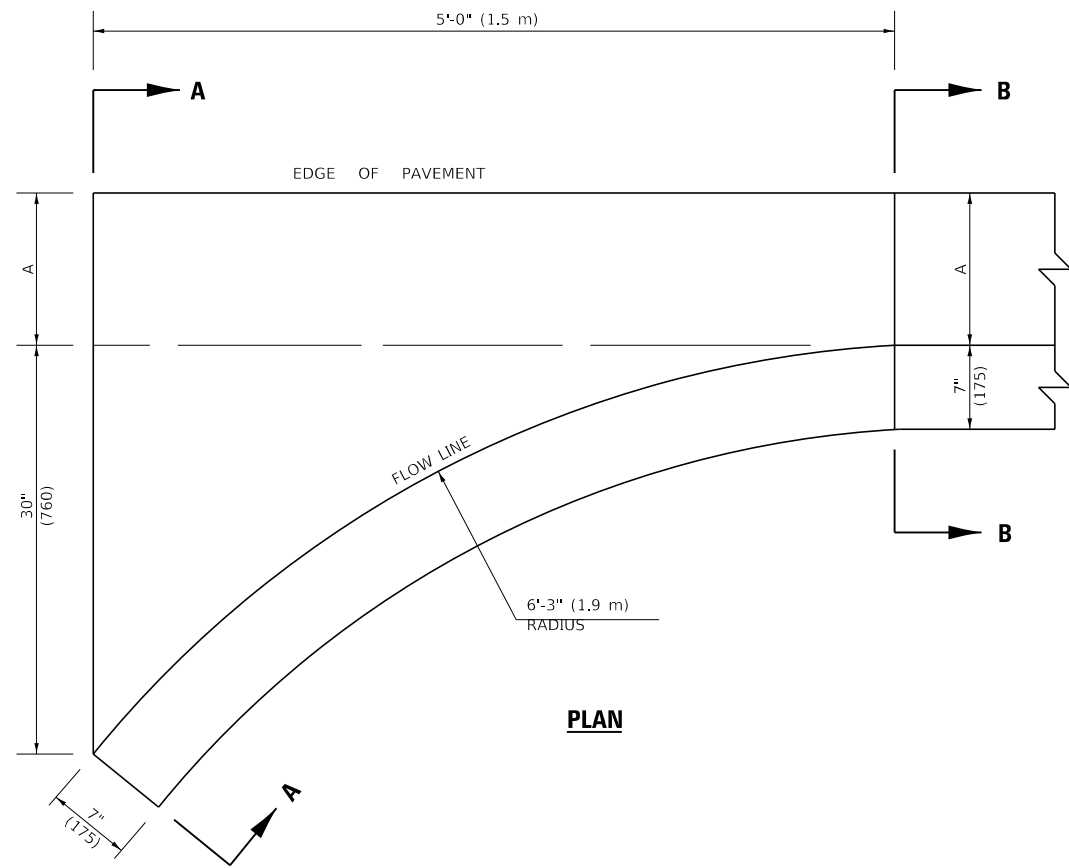
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

GUARDRAIL DETAILS

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
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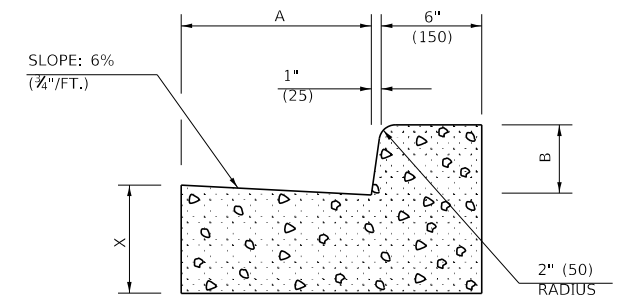
FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	15
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

CONTRACT NO. 93799



SECTION A-A

* INCREASE TO 2" (50 mm) WHERE IN THE PLANS IT IS SPECIFIED THAT THESE SPECIAL INLETS ARE TO BE CONSTRUCTED AS OUTLETS. ALL OUTLET LOCATIONS WILL BE CONFIRMED BY THE ENGINEER.



SECTION B-B

GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. WHEN OUTLET IS CONSTRUCTED ADJACENT TO FLEXIBLE PAVEMENT, THE TIE BARS SHALL BE OMITTED AND ALL CONSTRUCTION JOINTS SHALL BE PROVIDED WITH A DOWEL BAR CONFORMING TO ARTICLE 1006.11(b).
3. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU. YD. (m³) FOR CLASS SI CONCRETE (OUTLET) WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
4. CLASS SI OUTLETS SHALL BE POURED MONOLITHICALLY WITH ADJACENT COMBINATION CONCRETE CURB & GUTTER.

	B-6.12 (B-15.30)		B-9.12 (B-22.30)		B-6.18 (B-15.45)		B-9.18 (B-22.45)		B-6.24 (B-15.60)		B-9.24 (B-22.60)	
A	12" (300)	12" (300)	12" (300)	12" (300)	18" (450)	18" (450)	18" (450)	18" (450)	24" (600)	24" (600)	24" (600)	24" (600)
B	6" (150)	6" (150)	9" (225)	9" (225)	6" (150)	6" (150)	9" (225)	9" (225)	6" (150)	6" (150)	9" (225)	9" (225)
X	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)	9" (225)	10" (250)
CU. YD. (m ³) CLASS SI CONCRETE (OUTLET)	0.37 (0.28)	0.42 (0.32)	0.38 (0.29)	0.42 (0.32)	0.44 (0.34)	0.49 (0.37)	0.45 (0.34)	0.50 (0.38)	0.51 (0.39)	0.56 (0.43)	0.52 (0.40)	0.57 (0.44)

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

MODEL: Default
FILE NAME: 2424-shr-outlet.dgn

CEC Cummins
Engineering
Corporation
ENGINEERS & SURVEYORS

JOB = 2424
FILE NAME = 2424-shr-outlet.dgn
PLOT SCALE = 3/8"=1'-0" / in.
PLOT DATE = 10/6/2022

DESIGNED - TSH
DRAWN - TSH
CHECKED - CGF
DATE - 10/6/2022

REVISED -
REVISED -
REVISED -
REVISED -

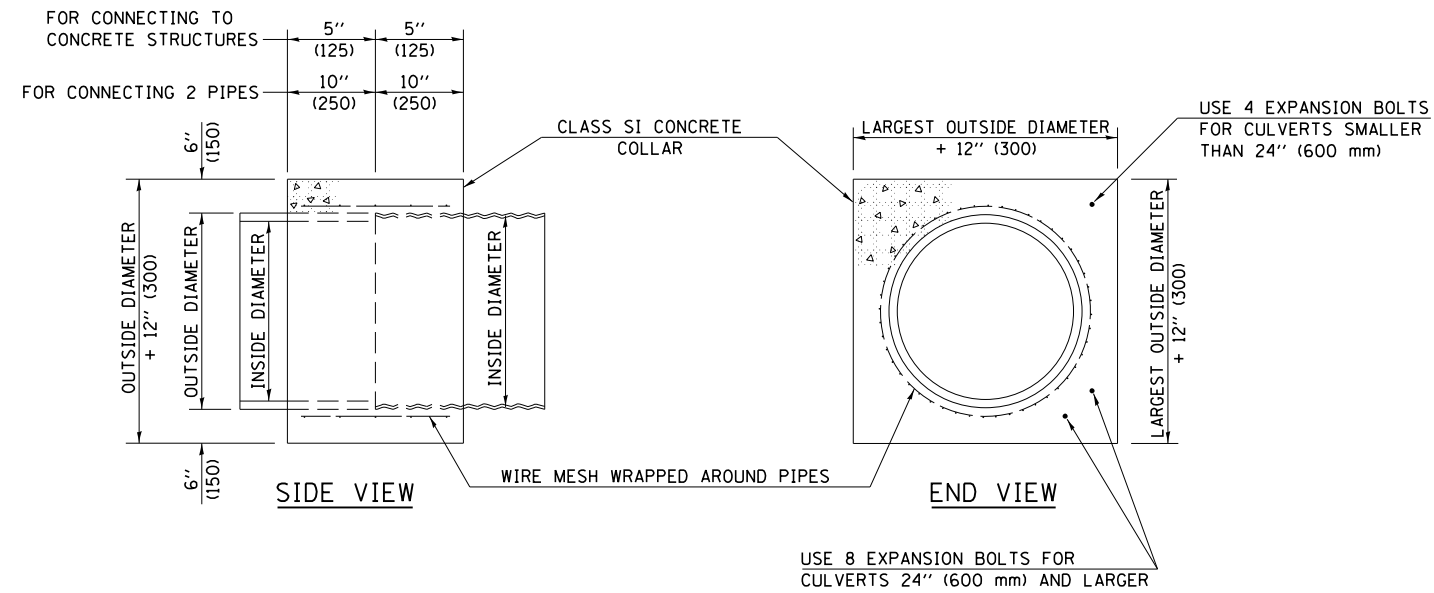
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

OUTLET - COMBINATION CONCRETE CURB & GUTTER (BARRIER CURB)

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	16
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

CONCRETE COLLAR DETAIL



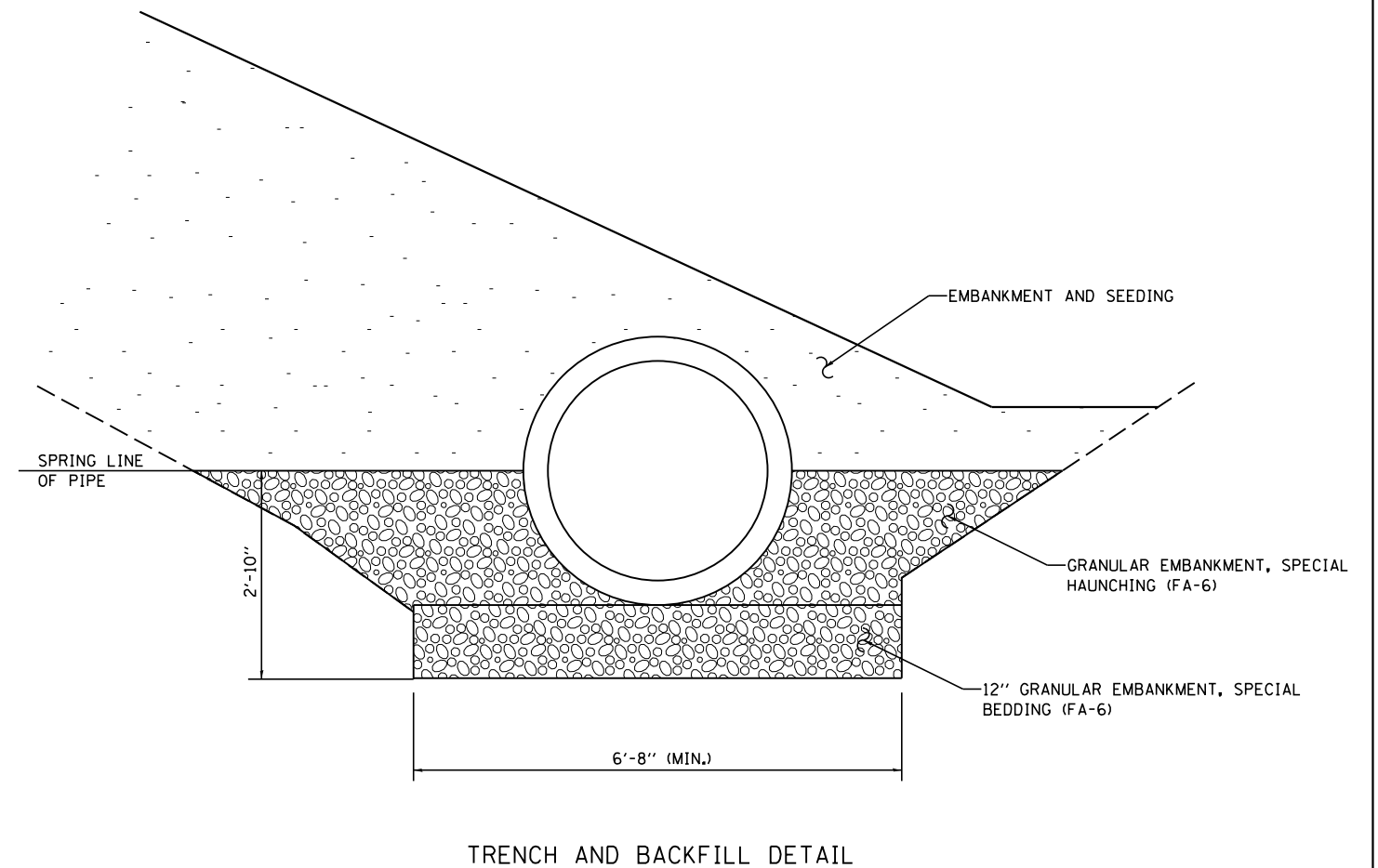
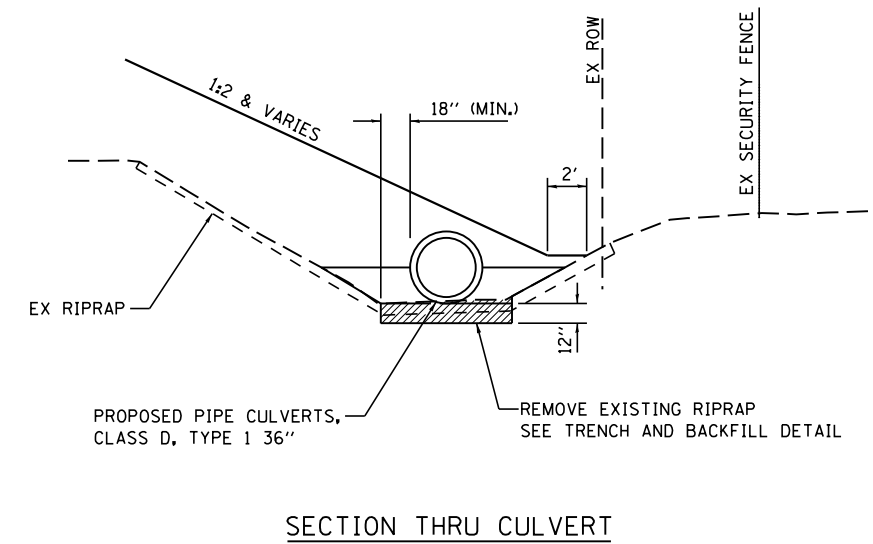
GENERAL NOTES

1. CLASS SI CONCRETE SHALL BE USED THROUGHOUT.
2. WHEN CONCRETE COLLARS ARE USED TO CONNECT PIPES OF DIFFERENT OUTSIDE DIAMETERS, THE CONCRETE COLLAR SHALL BE FORMED USING THE LARGEST OUTSIDE DIAMETER (SEE END VIEW).
3. THE WIRE MESH SHALL WEIGH NOT LESS THAN 54#/100 SQ. FT. (2.63 kg/m²). WIRE MESH WILL NOT BE PAID FOR SEPARATELY SHALL BE INCLUDED IN THE COST FOR CONCRETE COLLARS.
4. WHEN CONCRETE COLLARS ARE CONSTRUCTED ADJACENT TO AN EXISTING CONCRETE STRUCTURE (HEADWALLS, ETC.) EXPANSION BOLTS, SHALL BE USED AND WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, EACH, FOR EXPANSION BOLTS OF THE SIZE SPECIFIED IN THE PLANS.
5. CONCRETE COLLARS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE, PER CUBIC YARD (CUBIC METER), FOR CONCRETE COLLARS INCLUDING ALL MATERIAL AND LABOR SPECIFIED TO COMPLETE THE WORK IN PLACE.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

QUANTITIES FOR CONCRETE PIPES	
INSIDE DIAMETER OF PIPE	ESTIMATED CLASS SI CONCRETE REQUIRED
INCH (mm)	20" (500 mm) WIDTH CU. YD. (m ³)
4" (100)	0.14 (0.11)
6" (150)	0.16 (0.12)
8" (200)	0.19 (0.14)
10" (250)	0.22 (0.17)
12" (300)	0.25 (0.19)
15" (375)	0.30 (0.23)
18" (450)	0.35 (0.27)
24" (600)	0.45 (0.35)
30" (750)	0.57 (0.43)
36" (900)	0.69 (0.53)
42" (1050)	0.83 (0.63)
48" (1200)	0.97 (0.74)
54" (1350)	1.12 (0.86)
60" (1500)	1.28 (0.98)

CULVERT EXTENSION DETAIL



CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

CONCRETE COLLAR DETAIL & CULVERT EXTENSION DETAIL

CEC Cummins Engineering Corporation
ENGINEERS & SURVEYORS

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PLOT DATE = 10/6/2022

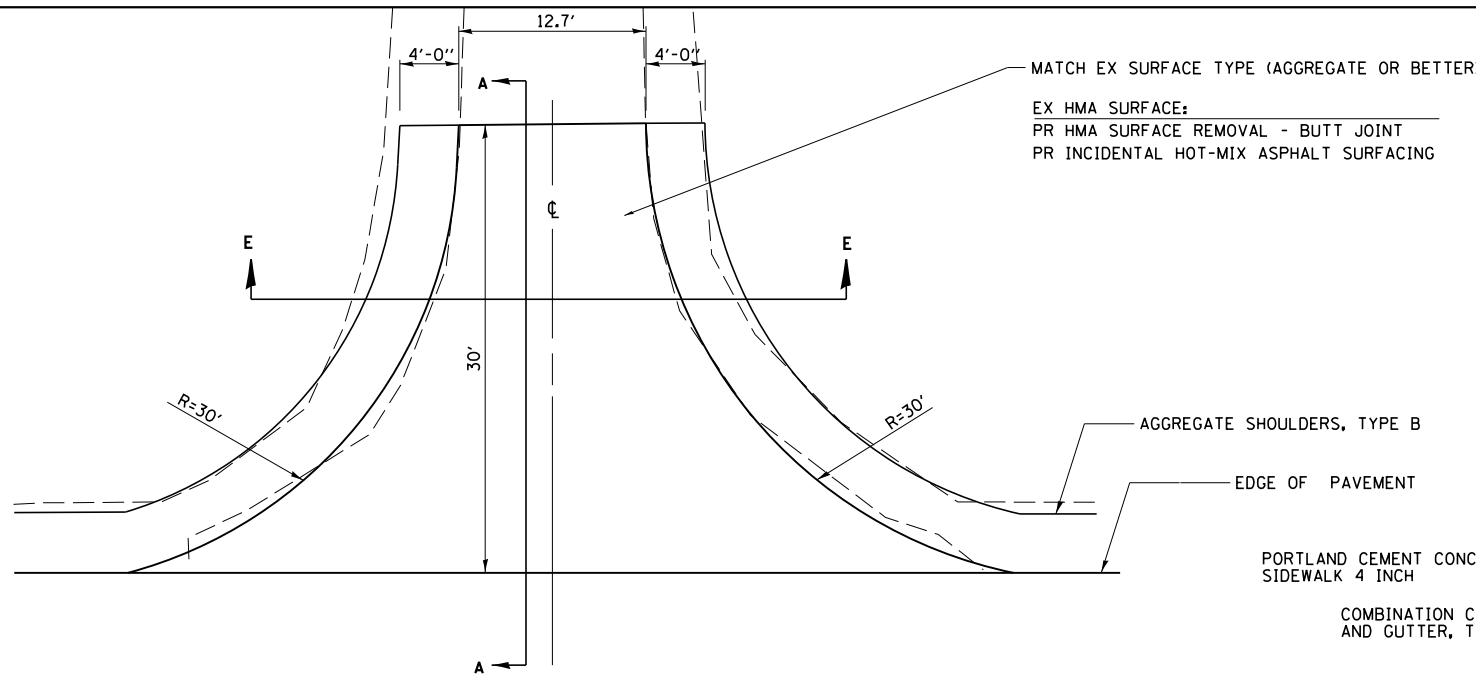
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DRAWN - TSH
CHECKED - CGF
DATE - 10/6/2022

REVISED -
REVISED -
REVISED -
REVISED -

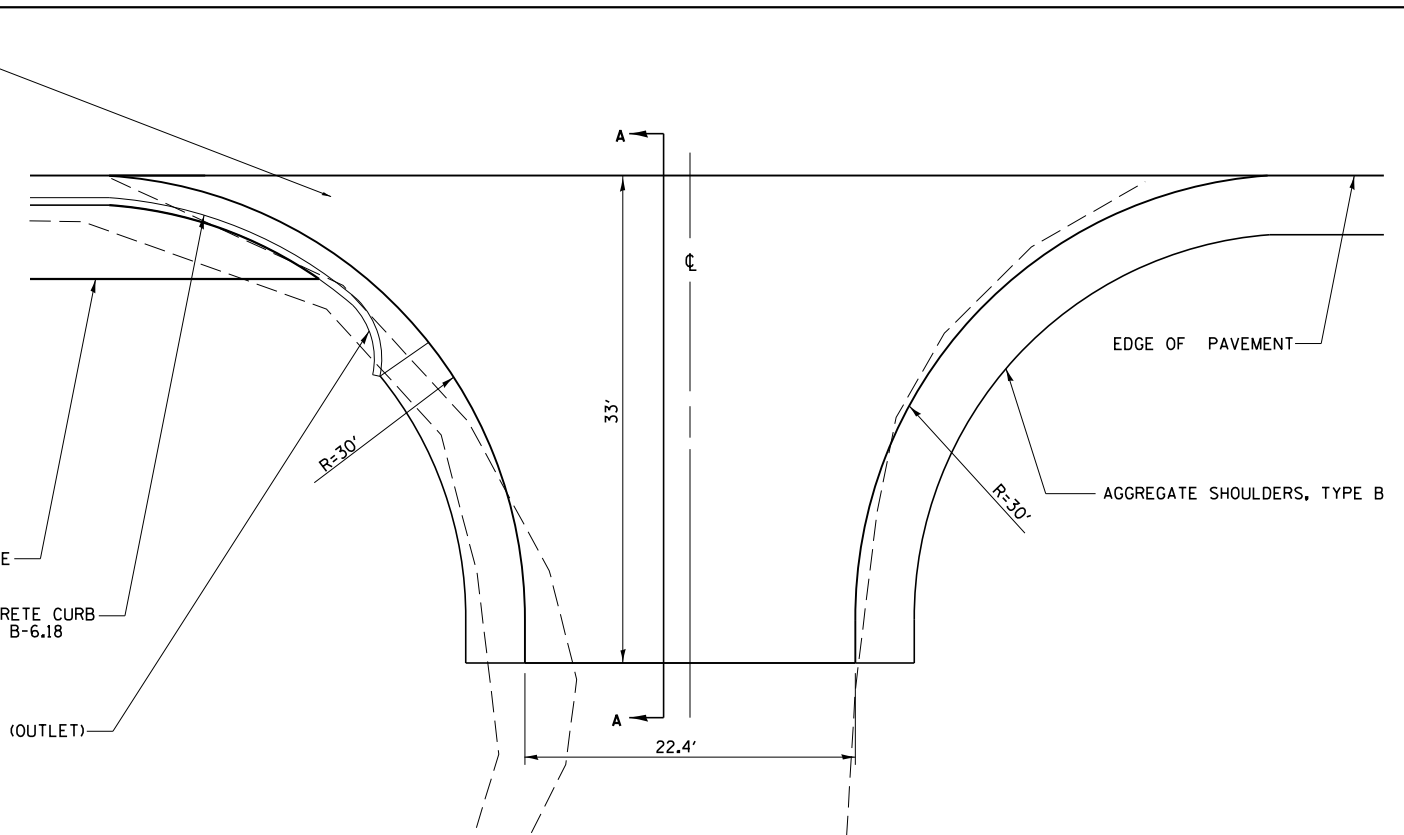
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FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

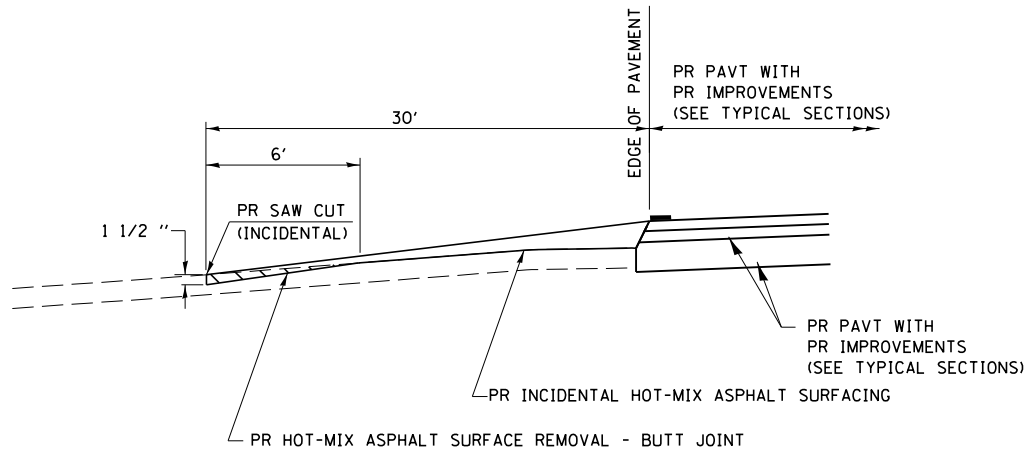
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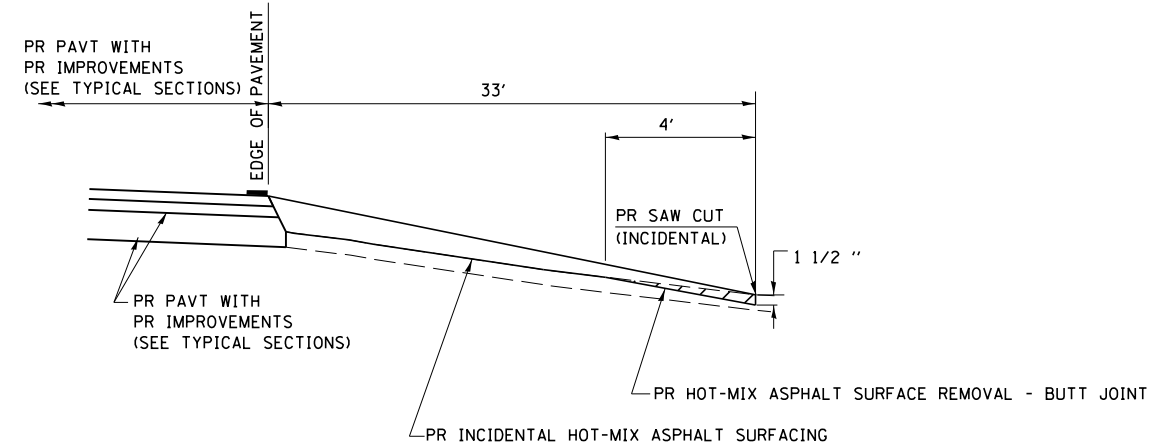
ENTRANCE DETAIL
CE LT STA 66+46.48



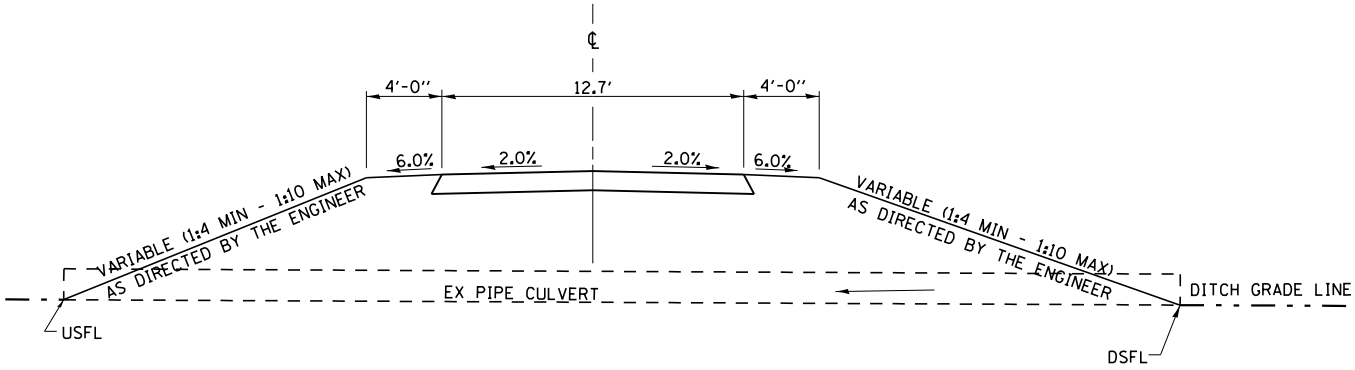
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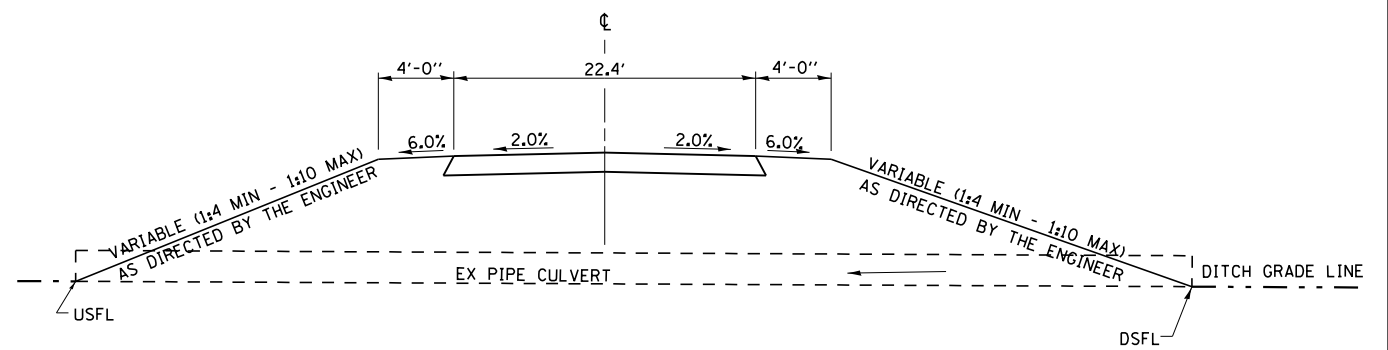
SECTION A-A FOR EX HMA
CE LT STA 66+46.48



SECTION A-A FOR EX HMA
CE RT STA 66+38.83



SECTION E - E ENTRANCE TYPICAL SECTION
CE LT STA 66+46.48



SECTION E - E ENTRANCE TYPICAL SECTION
CE RT STA 66+38.83

MODEL Default
FILE Name: 2424-entrance.dgn

CEC Cummins
Engineering
Corporation
ENGINEERS & SURVEYORS

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PLOT DATE = 10/6/2022

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CHECKED - CGF
DATE - 10/6/2022

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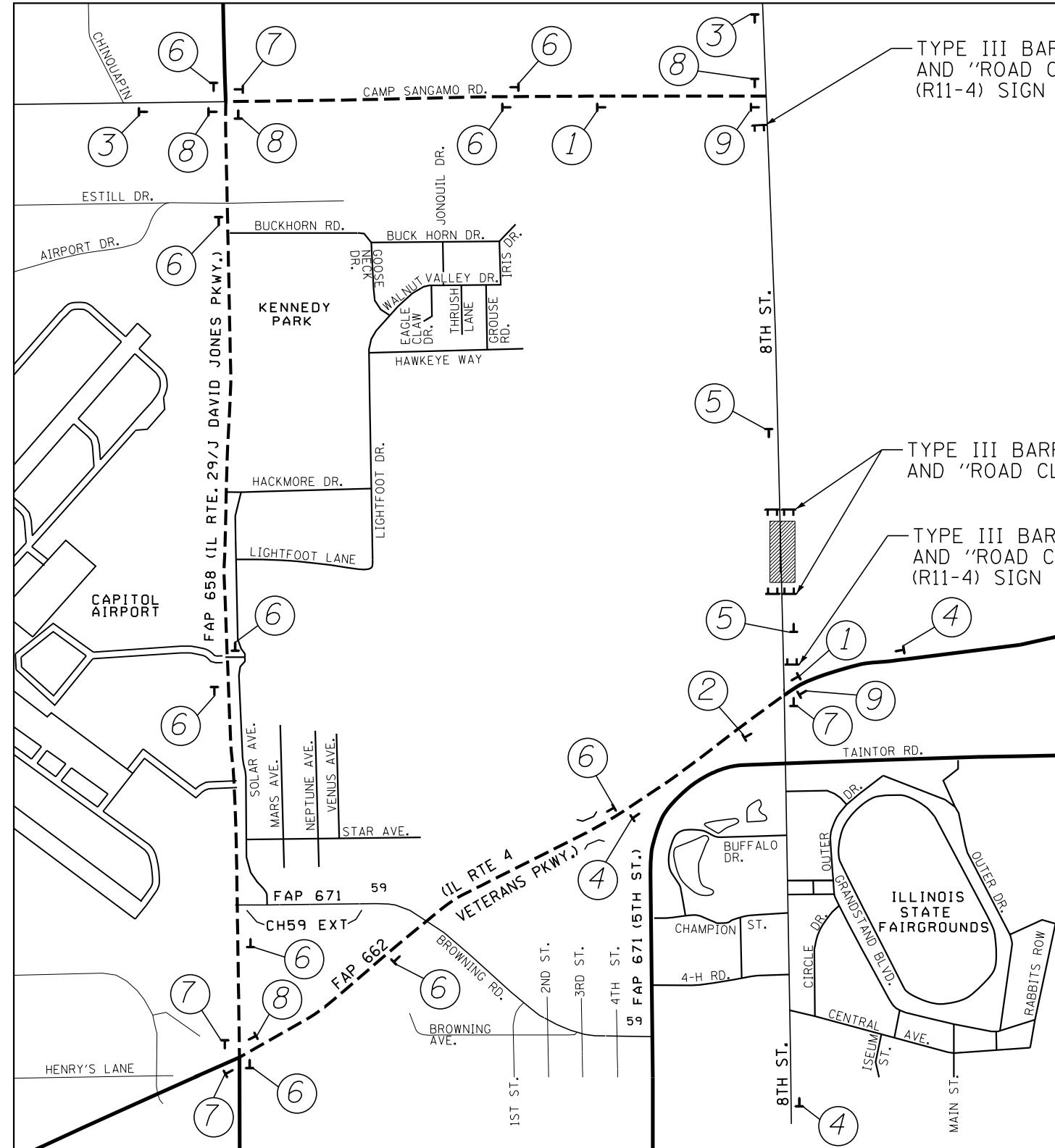
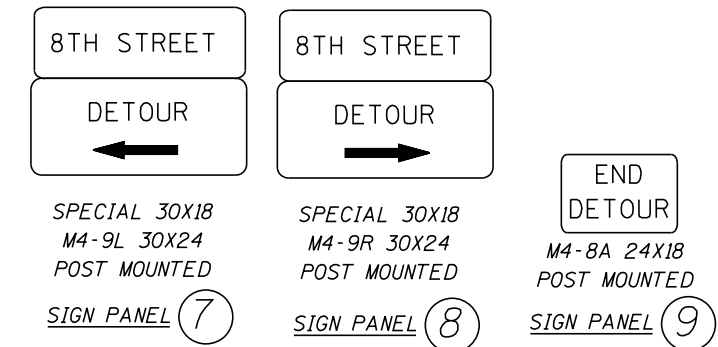
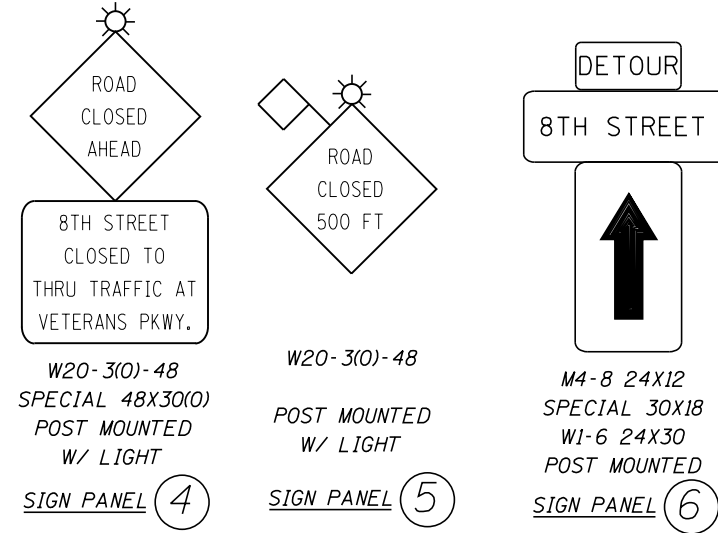
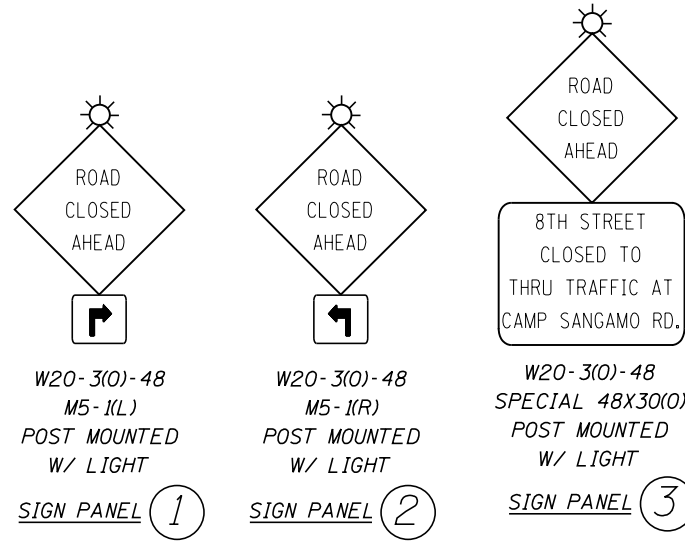
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

ENTRANCE DETAILS

SCALE: SHEET NO. OF SHEETS STA. TO STA.

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	18
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

NOTE:
ALL SIGNS TO BE BLACK TEXT ON ORANGE BACKGROUND.



TYPE III BARRICADE WITH TWO FLASHING LIGHTS AND "ROAD CLOSED TO THRU TRAFFIC" (R11-4) SIGN

TYPE III BARRICADES PER BLR21 AND "ROAD CLOSED" (R11-2) SIGN

TYPE III BARRICADE WITH TWO FLASHING LIGHTS AND "ROAD CLOSED TO THRU TRAFFIC" (R11-4) SIGN

LEGEND

- PROJECT LOCATION
- TYPE III BARRICADE
- POST MOUNTED SIGNS WITH PANEL DESIGNATION

NOT TO SCALE



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PLOT SCALE = 100.0000 ' / in.
PLOT DATE = 10/6/2022

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DRAWN - TSH
CHECKED - CGF
DATE - 10/6/2022

REVISED -
REVISED -
REVISED -
REVISED -

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

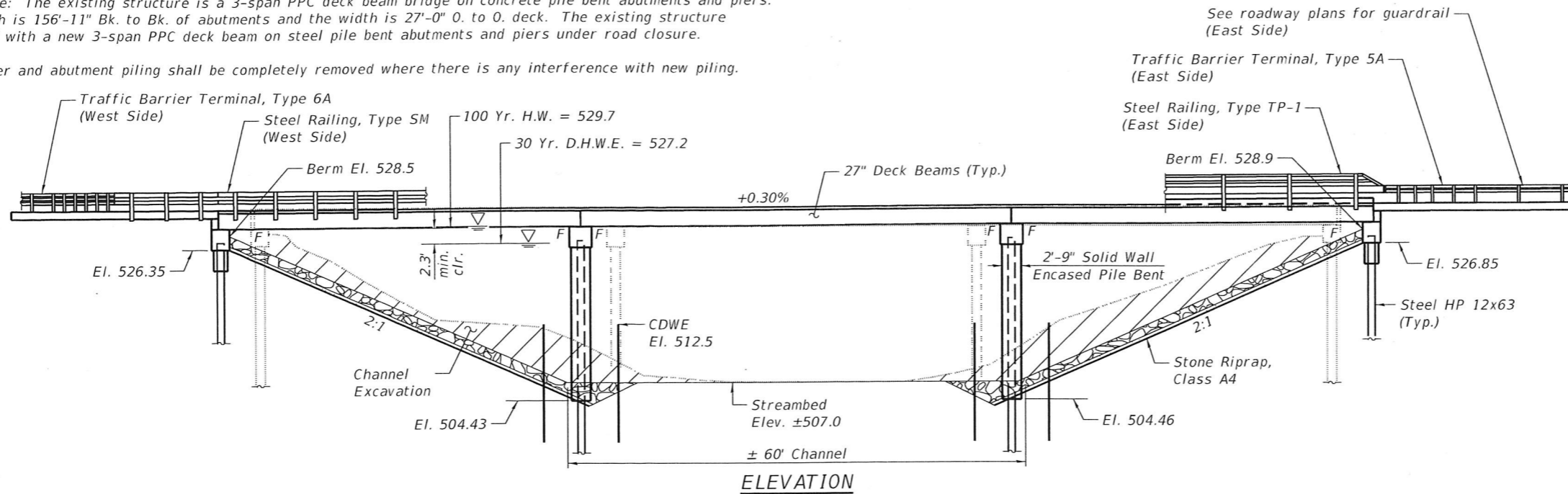
DETOUR PLAN
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	19
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	

Existing Structure: The existing structure is a 3-span PPC deck beam bridge on concrete pile bent abutments and piers. The overall length is 156'-11" Bk. to Bk. of abutments and the width is 27'-0" O. to O. deck. The existing structure is to be replaced with a new 3-span PPC deck beam on steel pile bent abutments and piers under road closure.

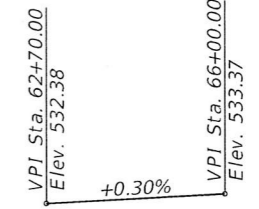
Note: Existing pier and abutment piling shall be completely removed where there is any interference with new piling.

No salvage.



INDEX OF SHEETS

1. General Plan & Elevation
2. General Data
3. Superstructure
- 4-5. Superstructure Details
- 6-9. 27"x36" PPC Deck Beam Details
10. Steel Railing, Type TP-1
11. Steel Railing, Type SM
- 12-13. Bridge Approach Slab Details
- 14-15. Abutments
16. Piers
17. HP Pile Details
- 18-19. Boring Logs



PROFILE GRADE

SPRING CREEK
 BUILT 20__ BY
 CITY OF SPRINGFIELD
 SEC. 15-00483-00-BR
 F.A.U. RTE 8067 STA 64+62
 STR. NO. 084-6023 LOADING HL-93

NAME PLATE
 See Std. 515001

DESIGN SPECIFICATIONS
 2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HL-93

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

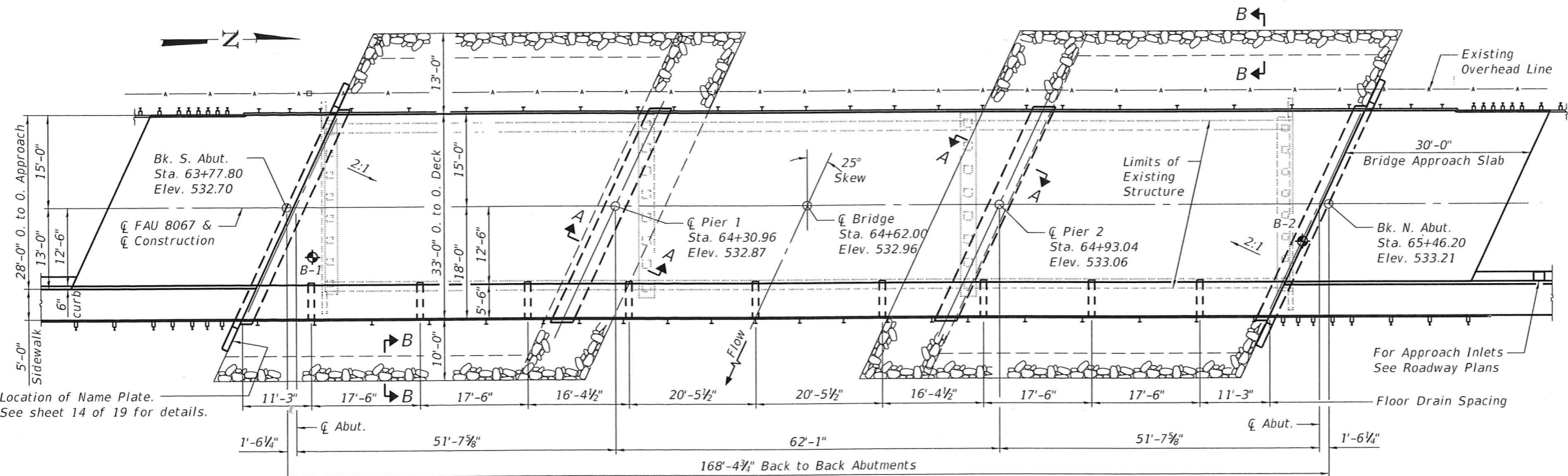
DESIGN STRESSES

(NEW) FIELD UNITS

f'c = 3,500 psi (Substructure)
 f'c = 5,000 psi (Concrete Wearing Surface)
 fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

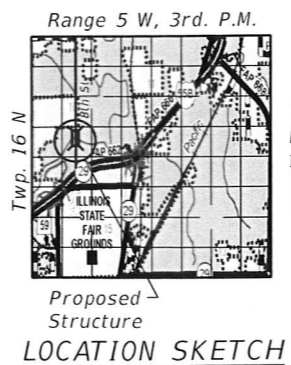
f'c = 6,000 psi
 f'ci = 5,000 psi
 f's = 270,000 psi (1/2" Ø low relax strand)
 fsi = 201,960 p.s.i. (1/2" Ø low relax strand)



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	S. Abut.	Piers	N. Abut.	Item 113
	526.35	501.6	526.85	8

PLAN



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

Michael P. Cummins 10-18-22
 ILLINOIS STRUCTURAL NO. 4822 (Expires 11/30/22)



GENERAL PLAN AND ELEVATION
 F.A.U. RTE. 8067 (NORTH 8th STREET)
 OVER SPRING CREEK
 SECTION 15-00483-00-BR
 SANGAMON COUNTY
 STA 64+62.00
 STRUCTURE NO. 084-6023

MODEL: Default
 FILE NAME: 084-6023-0000-01-02-GPE.dgn



JOB #	2424	DESIGNED	- JGY	REVISED	-
FILE NAME	084-6023-0000-01-02-GPE.dgn	CHECKED	- MDC	REVISED	-
PLOT DATE	10/18/2022	DRAWN	- SJS	REVISED	-
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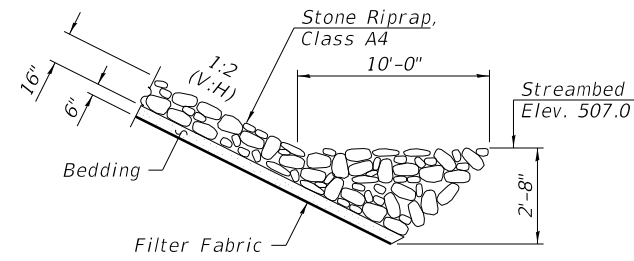
CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 084-6023

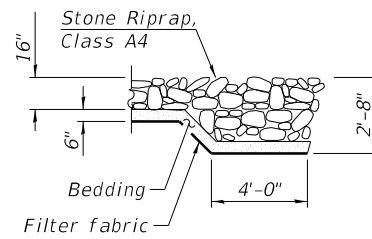
SHEET 1 OF 19 SHEETS

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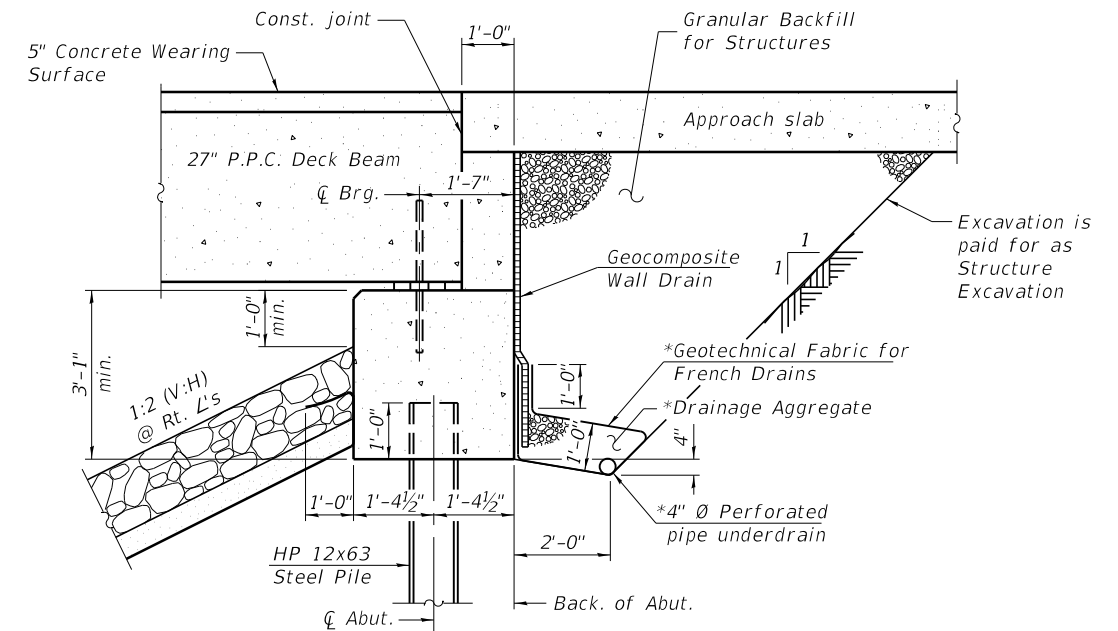
CONTRACT NO. 93799



SECTION A-A



SECTION B-B



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

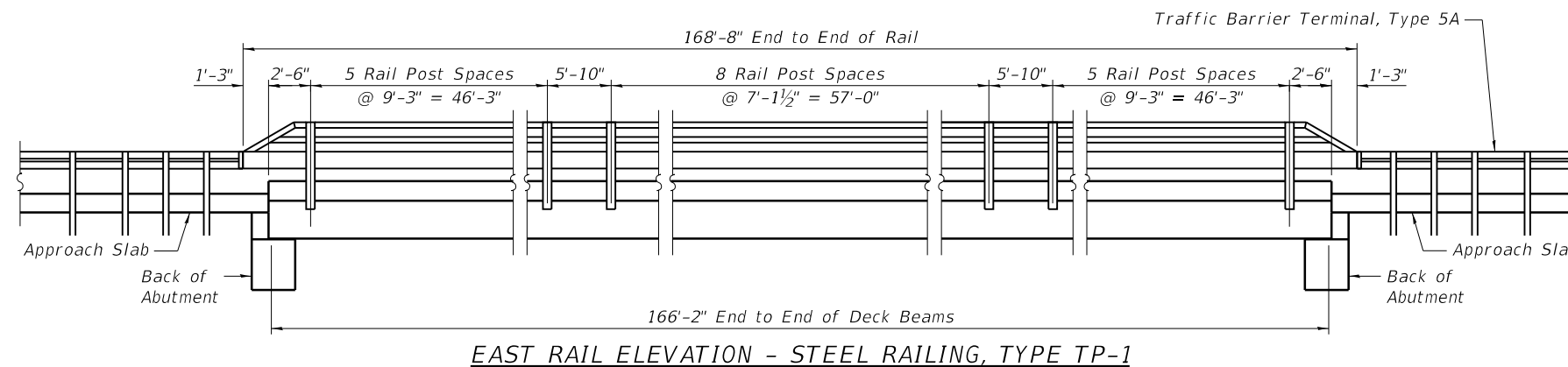
*Included in the cost of Pipe Underdrains for Structures.

Note:

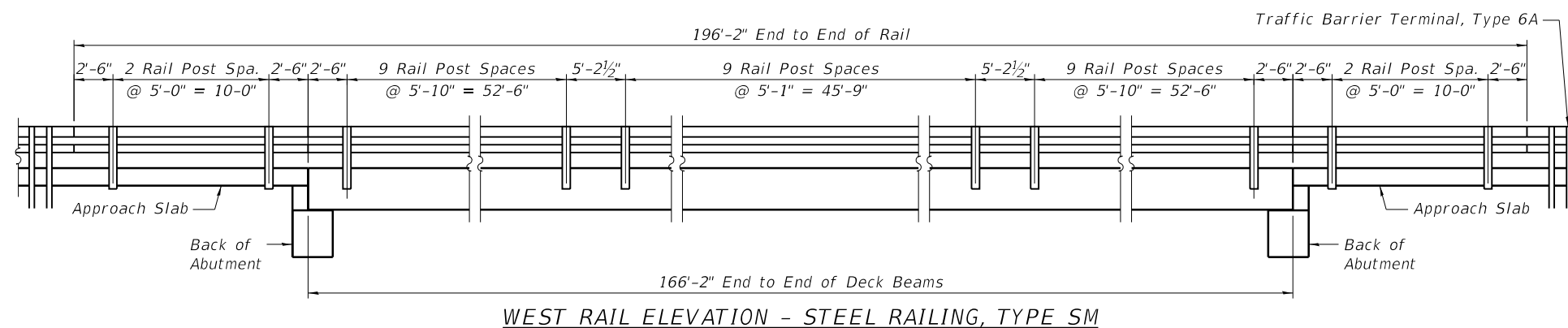
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.



EAST RAIL ELEVATION - STEEL RAILING, TYPE TP-1



WEST RAIL ELEVATION - STEEL RAILING, TYPE SM

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Ton		540	540
Filter Fabric	Sq. Yd.		660	660
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		109	109
Cofferdam Excavation	Cu. Yd.		89	89
Cofferdam (Type 1) (Location 1)	Each		1	1
Cofferdam (Type 1) (Location 2)	Each		1	1
Floor Drains	Each	9		9
Concrete Structures	Cu. Yd.		246.5	246.5
Concrete Superstructure	Cu. Yd.	40.5		40.5
Bridge Deck Grooving	Sq. Yd.	640		640
Concrete Encasement	Cu. Yd.		3.4	3.4
Protective Coat	Sq. Yd.	930		930
Concrete Superstructure (Approach Slab)	Cu. Yd.	81.8		81.8
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	5478		5478
Reinforcement Bars, Epoxy Coated	Pound	8370	50,080	58,450
Steel Railing, Type TP-1	Foot	169		169
Steel Railing, Type SM	Foot	197		197
Furnishing Steel Piles HP12x63	Foot		1320	1320
Driving Piles	Foot		1320	1320
Test Pile Steel HP12x63	Each		4	4
Name Plates	Each		1	1
Granular Backfill for Structures	Cu. Yd.		73	73
Geocomposite Wall Drain	Sq. Yd.		47	47
Pipe Underdrains for Structures 4"	Foot		110	110
Concrete Wearing Surface, 5"	Sq. Yd.	508		508
Concrete Headwalls for Pipe Drains	Each		4	4

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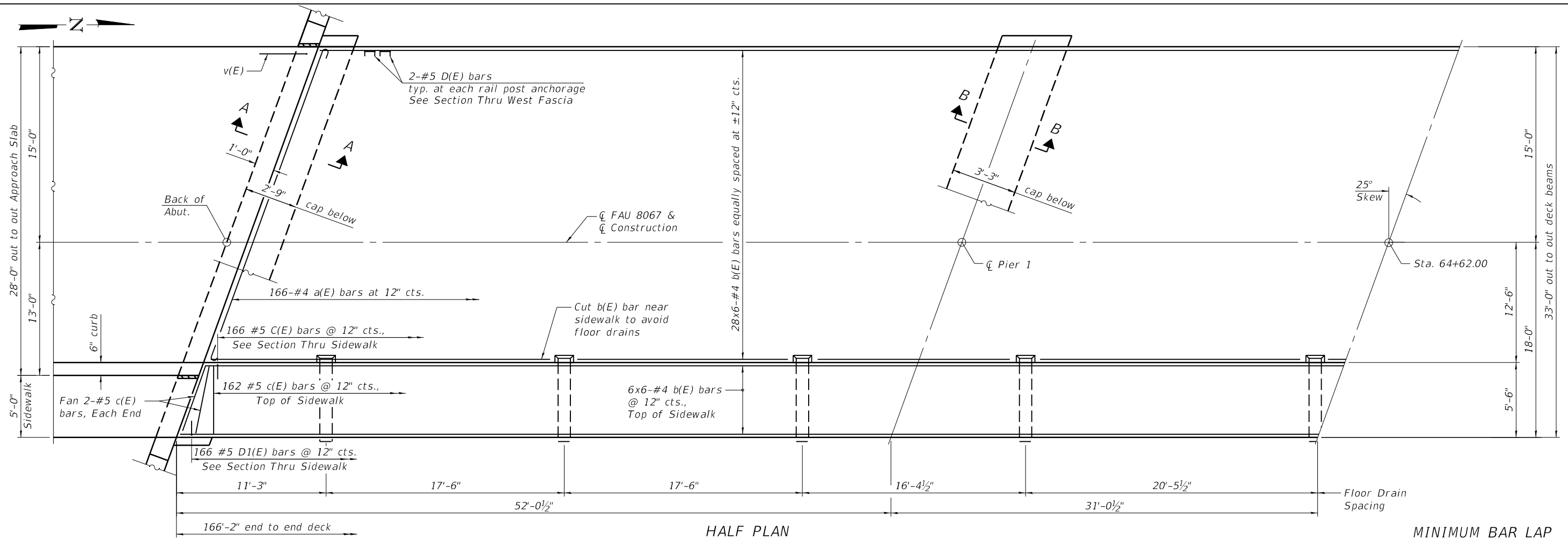
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PLLOT DATE - 12/22/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

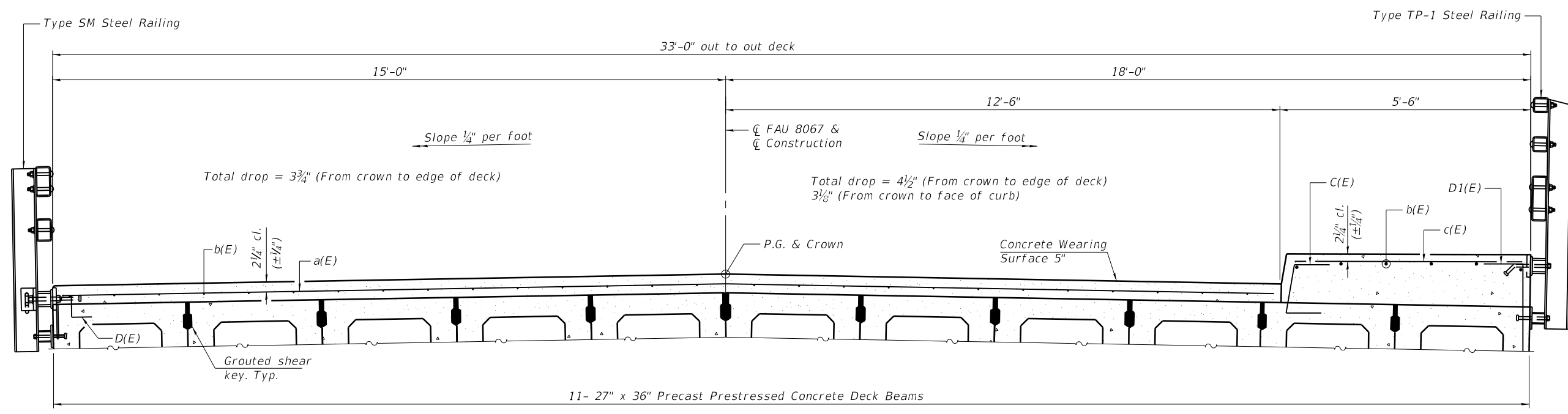
GENERAL DATA
STRUCTURE NO. 084-6023

SHEET 2 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	21
CONTRACT NO. 93799				
ILLINOIS	FEL AB PROJECT			



MINIMUM BAR LAP
#4 bar = 2'-7"



Notes:
See sheets 4 & 5 of 19 for Superstructure Details and Bill of Material.
Bars indicated thus 20 x 2-#4 etc. indicates 20 lines of bars with 2 lengths per line.
Spacing of a(E) bars shall be measured along the centerline of structure.
See sheet 4 of 19 for Sections A-A and B-B

MODEL: Default
FILE NAME: 084-6023-0000-03-05-Super.dgn

PDS-M-R34-L 2-17-2017



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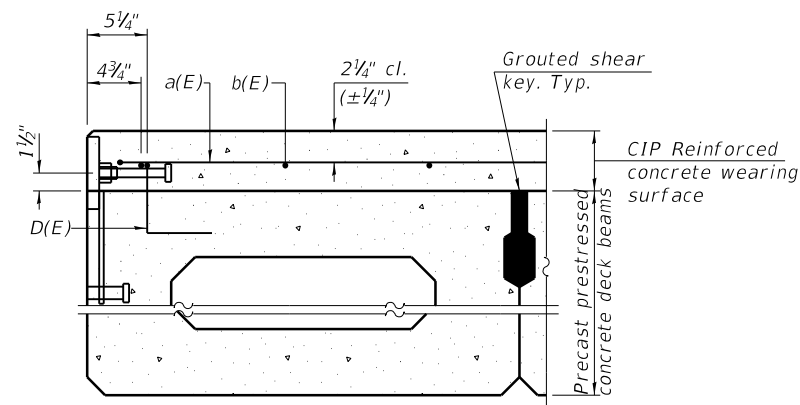
CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

SUPERSTRUCTURE
STRUCTURE NO. 084-6023

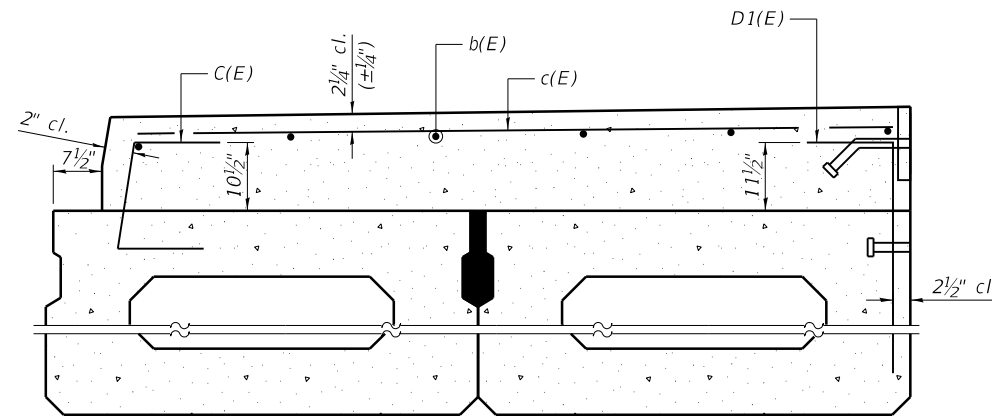
SHEET 3 OF 19 SHEETS

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CONTRACT NO. 93799				

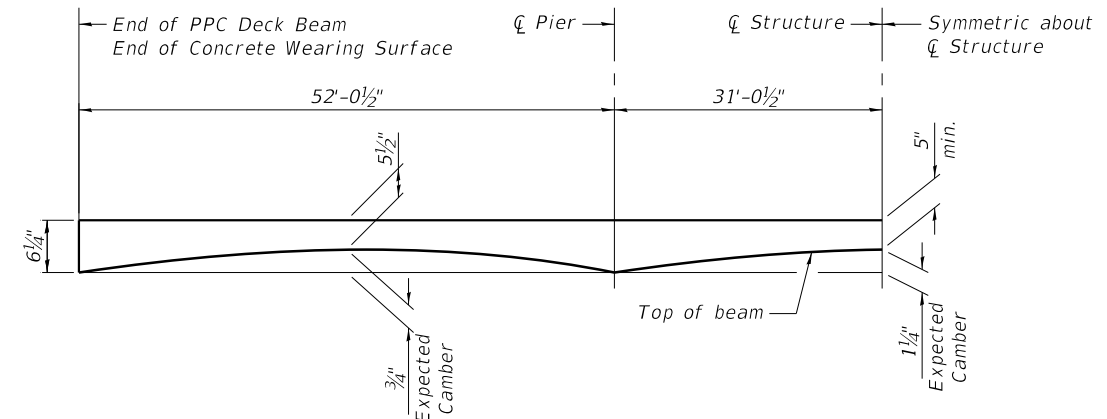
ILLINOIS FEDERAL PROJECT



SECTION THRU WEST FASCIA BEAM

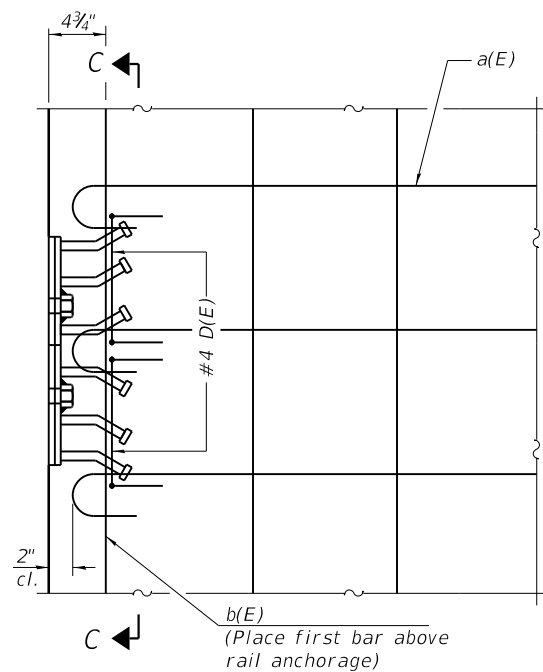


SECTION THRU EAST FASCIA BEAM



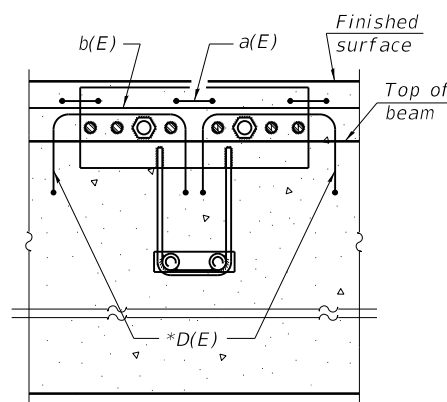
ANTICIPATED CONCRETE WEARING SURFACE PROFILE

Concrete Wearing Surface Profile shown is after anticipated deflection of beams due to dead load of wearing surface and is for information only. The Contractor shall make appropriate adjustments to account for deflection of beams due to dead load of wearing surface.



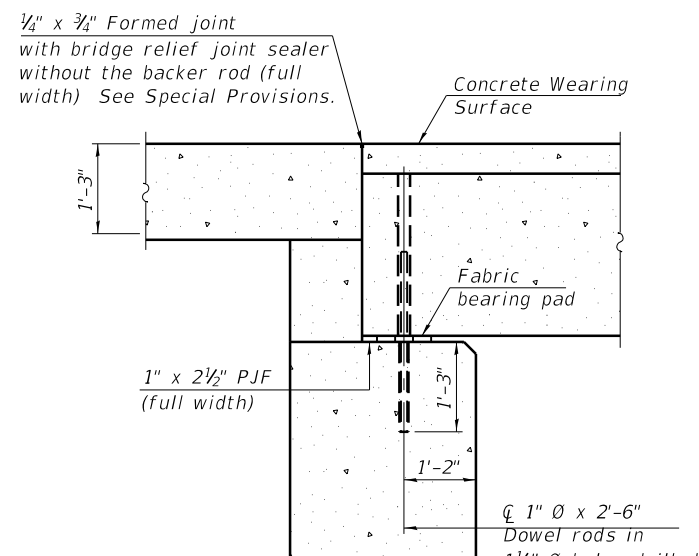
PLAN

Notes:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.



SECTION C-C

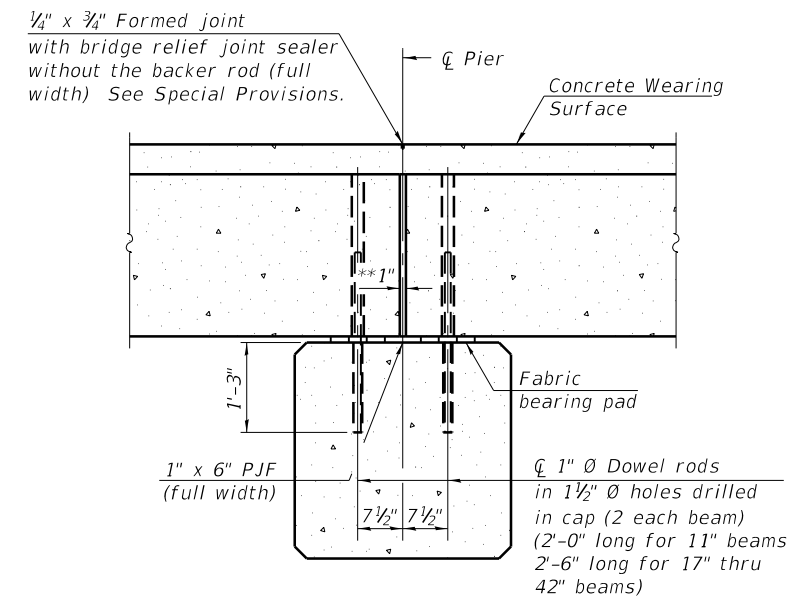
* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam. See sheets 7 & 9 of 19 for bar D(E) details.



SECTION A-A

(Dimensions are at Rt. L's)

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab.
See sheets 7 & 9 of 19 for fabric bearing pad details.



SECTION B-B

(Dimensions are at Rt. L's)

** 1" Jt. shall be filled with non-shrink grout. 1" dimension may vary to accommodate tolerance in beam lengths.

(Sheet 1 of 2)

MODEL: Default
FILE NAME: 084-6023-0000-03-05-Super.dgn

CEC Cummins
Engineering
Corporation
ENGINEERS & SURVEYORS

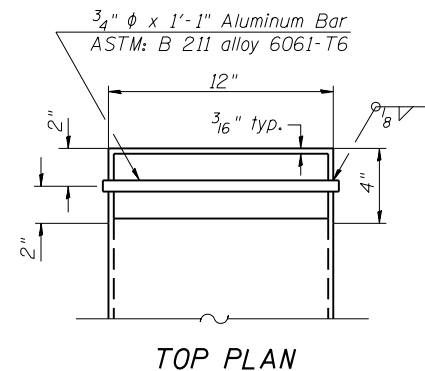
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CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

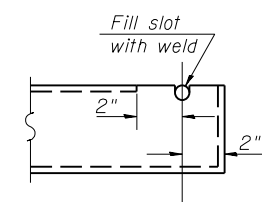
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 084-6023

SHEET 4 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 93799				
ILLINOIS	FEL AND PROJECT			

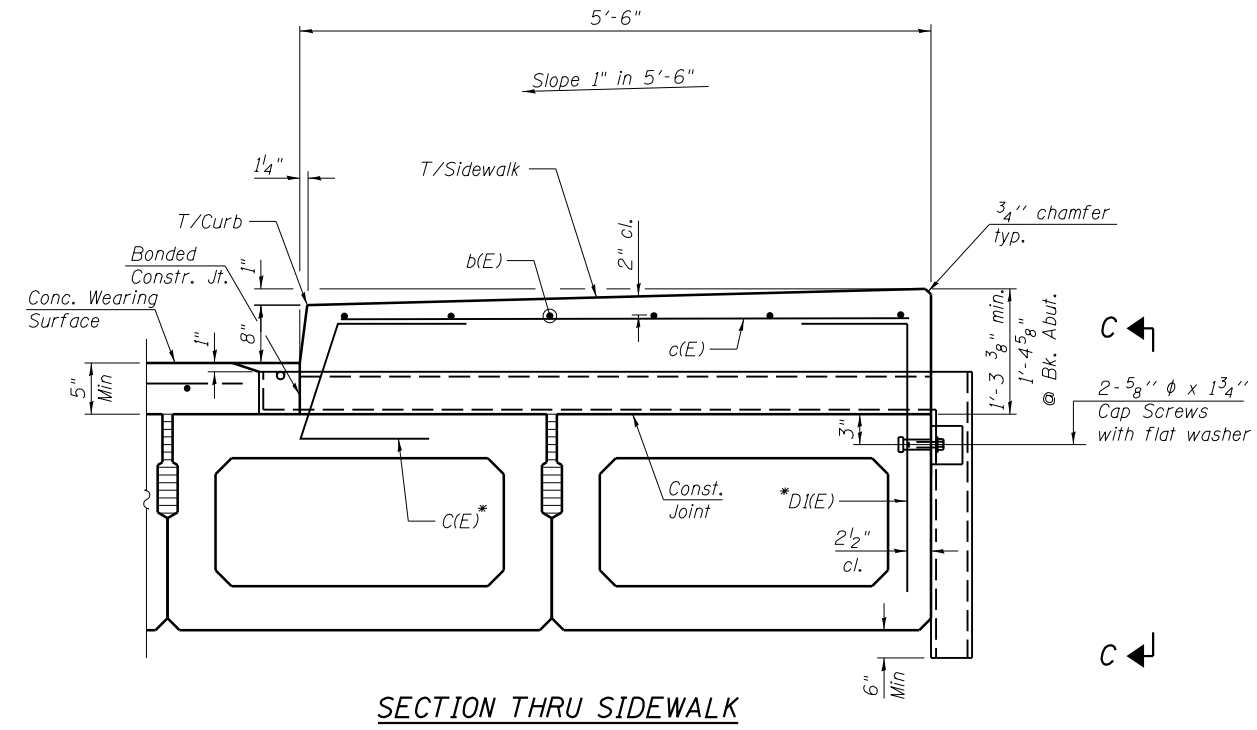


TOP PLAN

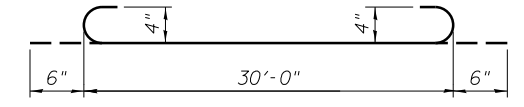


END VIEW

FLOOR DRAIN INLET DETAILS

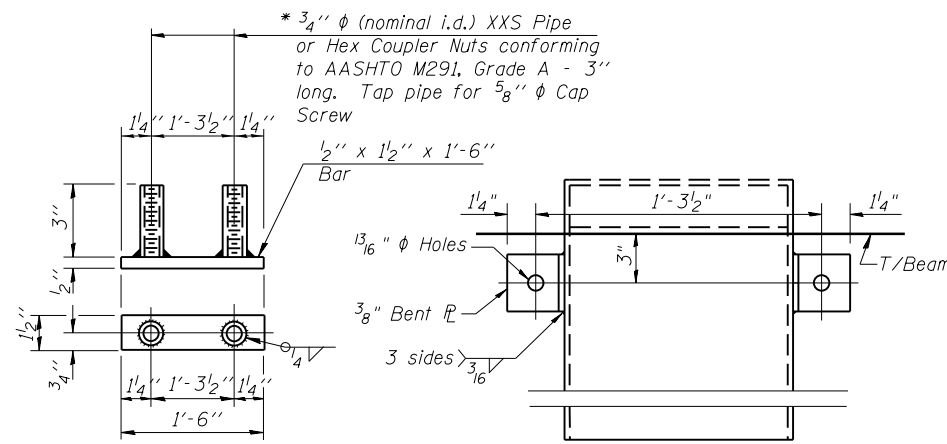


SECTION THRU SIDEWALK



BAR a(E)

*Bars c(E) and d(E) are included with the deck beams.



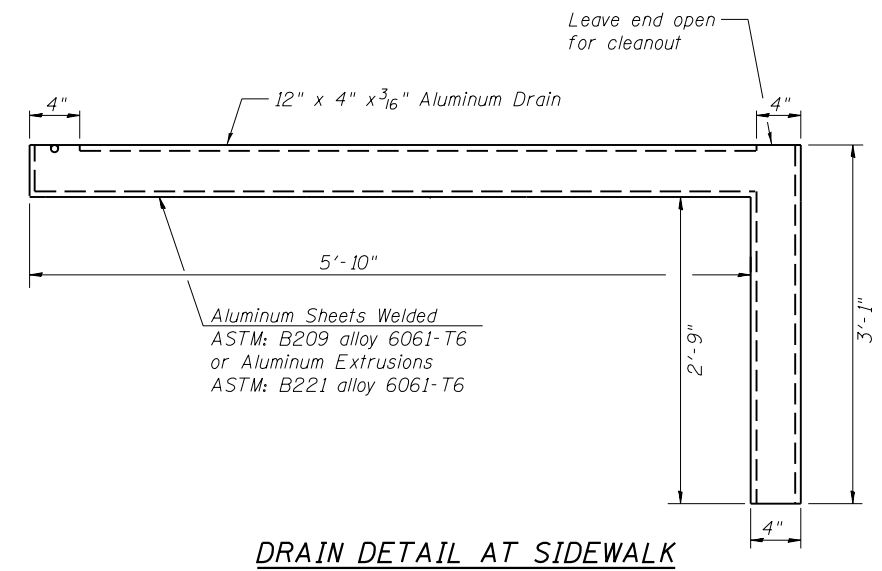
ANCHOR DEVICE

SECTION C-C

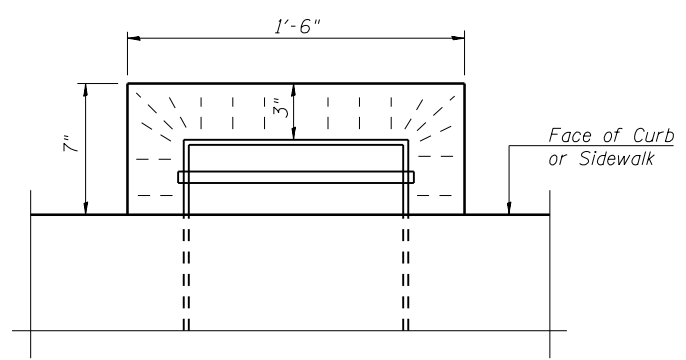
* Threaded areas shall be plugged or blocked off during casting of beam.

FLOOR DRAIN ANCHOR DETAILS

Notes:
 The exterior surfaces of the floor drains shall be coated by the manufacturer with a color that matches the concrete.
 All cap screws and washers shall be galvanized according to AASHTO M 232.
 Anchor devices shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385.



DRAIN DETAIL AT SIDEWALK



PLAN AT FLOOR DRAIN

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	166	#4	31'-0"	
b(E)	204	#4	29'-10"	
c(E)	166	#5	5'-0"	
Reinforcement Bars, Epoxy Coated			Pound	8370
Concrete Superstructure			Cu. Yds.	40.5
Concrete Wearing Surface, 5"			Sq. Yd.	508
Floor Drains			Each	9
Protective Coat			Sq. Yd.	738
Bridge Deck Grooving			Sq. Yd.	470

Bars indicated thus 28 x 2-#5 etc. indicates 28 lines of bars with 2 lengths per line. Reinforcement bars designated (E) shall be Epoxy Coated.

Sidewalk on bridge deck is paid for as Concrete Superstructure.

(Sheet 2 of 2)

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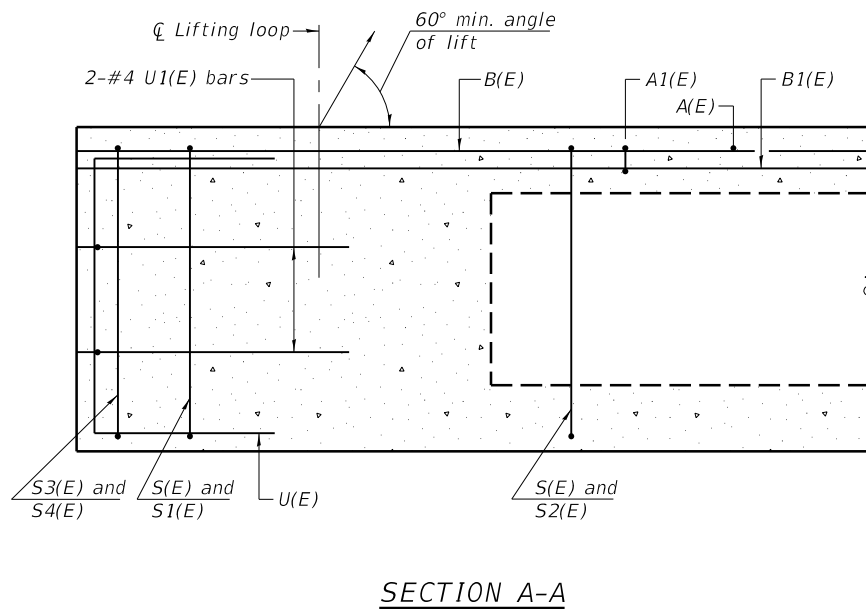
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CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS

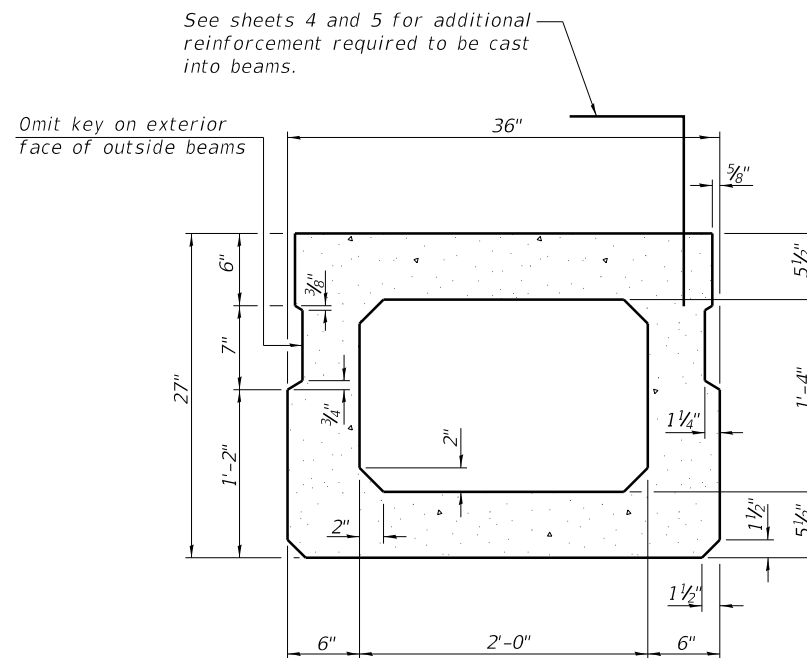
SUPERSTRUCTURE DETAILS
 STRUCTURE NO. 084-6023

SHEET 5 OF 19 SHEETS

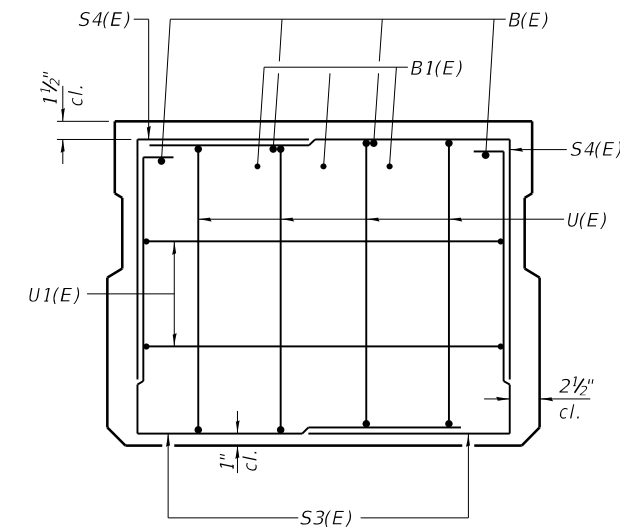
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CONTRACT NO. 93799				



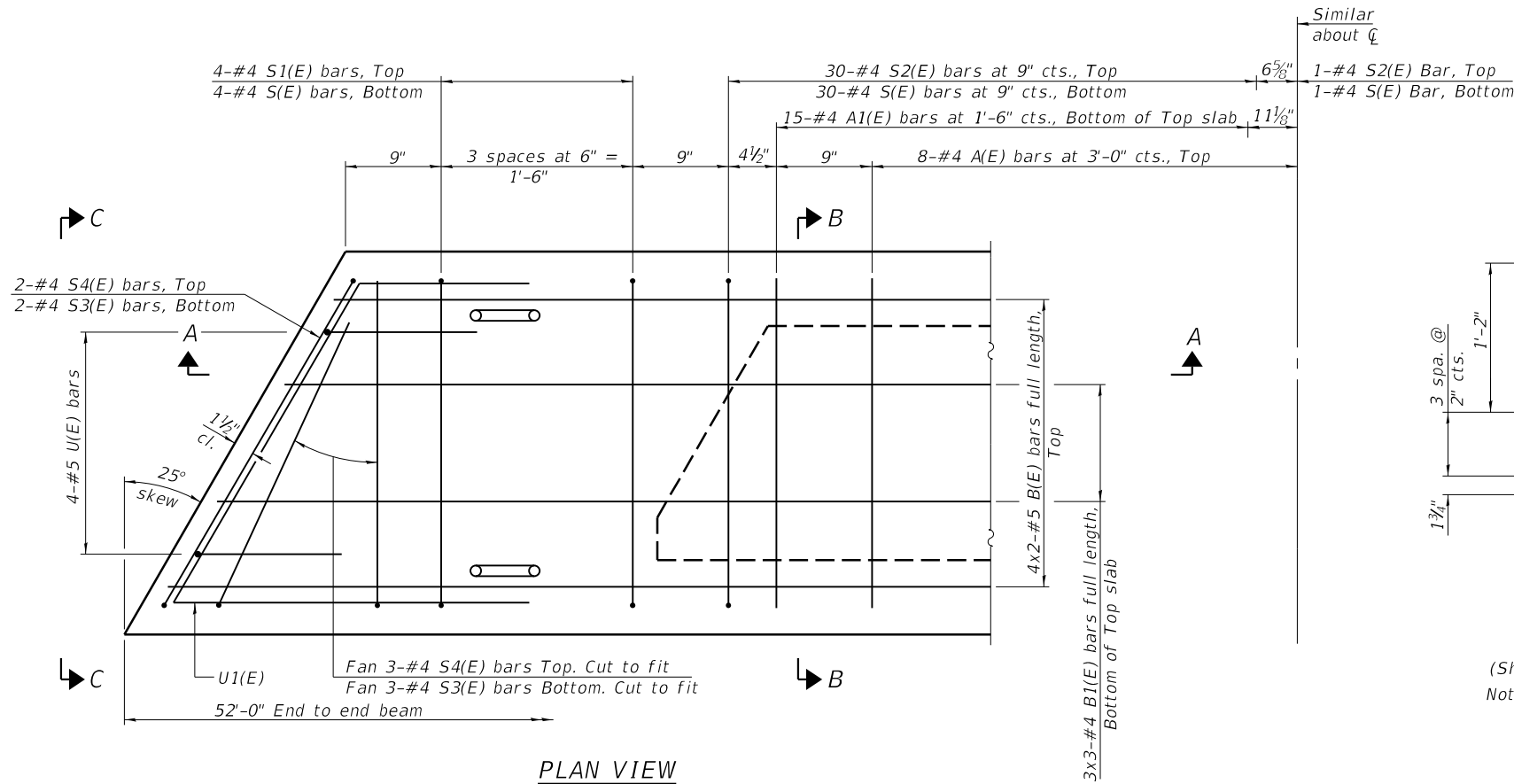
SECTION A-A



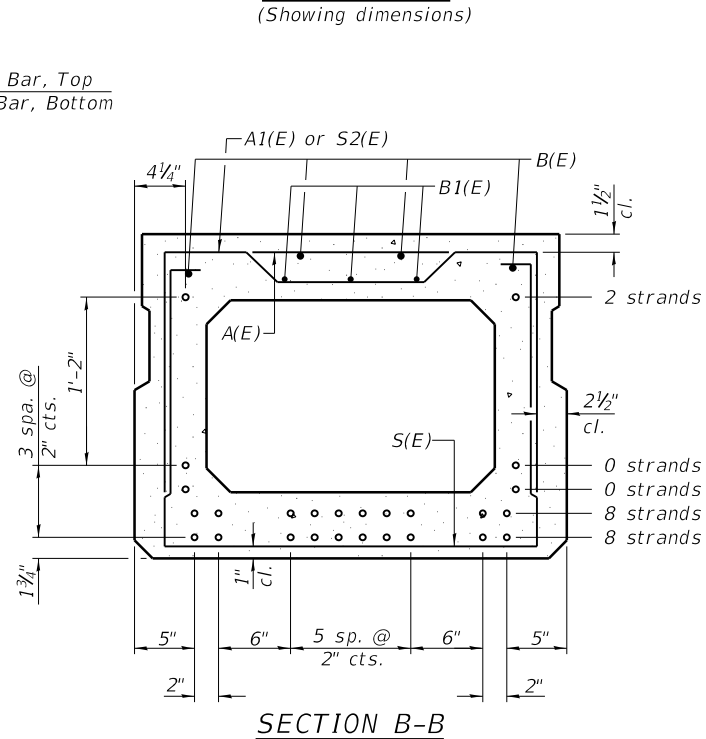
SECTION B-B
(Showing dimensions)



VIEW C-C



PLAN VIEW



SECTION B-B
(Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	15	#4	2'-7"	—
A1(E)	30	#4	2'-10"	~
B(E)	8	#5	27'-2"	—
B1(E)	9	#4	18'-7"	—
S(E)	69	#4	7'-5"	⌋
S1(E)	8	#4	5'-11"	⌋
S2(E)	61	#4	6'-2"	⌋
S3(E)	10	#4	5'-3"	⌋
S4(E)	10	#4	4'-6"	⌋
U(E)	8	#5	4'-6"	⌋
U1(E)	4	#4	6'-5"	⌋

ADDITIONAL BARS REQUIRED
FOR EXTERIOR BEAMS ONLY

Bar	No.	Size	Length	Shape
C(E)	104	#5	3'-1"	⌋
D(E)	104	#5	2'-9"	⌋
D1(E)	104	#5	2'-8"	⌋

Note:
See sheet 7 of 19 for additional details and Bill of Material.
See sheets 4 and 5 of 19 for additional reinforcement required to be cast into beams.
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.
Bars C(E), D(E) & D1(E) are included in the cost of beam.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

MODEL: Default
FILE NAME: 084-6023-0000-06-09-DeckBeam.dgn



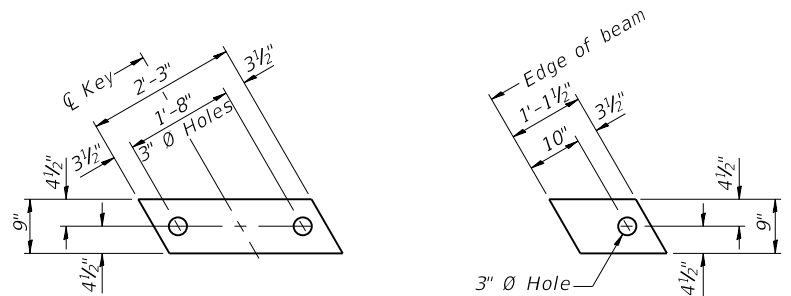
JOB #	2424	DESIGNED -	AAN	REVISED -	
FILE NAME	084-6023-0000-06-09-DeckBeam.dgn	CHECKED -	MDC	REVISED -	
PLOT DATE	10/18/2022	DRAWN -	SJS	REVISED -	
		CHECKED -	MDC	REVISED -	

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

27" x 36" PPC DECK BEAM (SPANS 1 & 3)
STRUCTURE NO. 084-6023

SHEET 6 OF 19 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	25
CONTRACT NO. 93799				
ILLINOIS		FED. AID PROJECT		

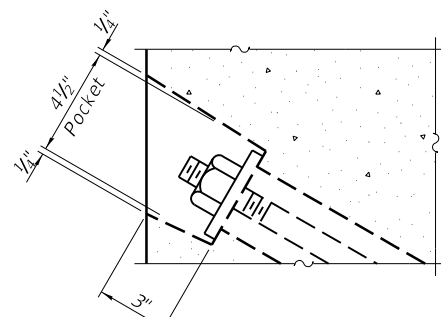


FABRIC BEARING PAD
(Interior - 40 Required)

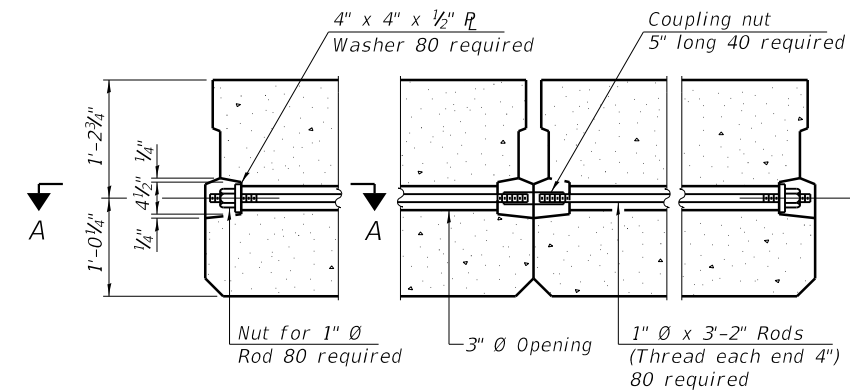
FABRIC BEARING PAD
(Exterior - 8 Required)

FIXED

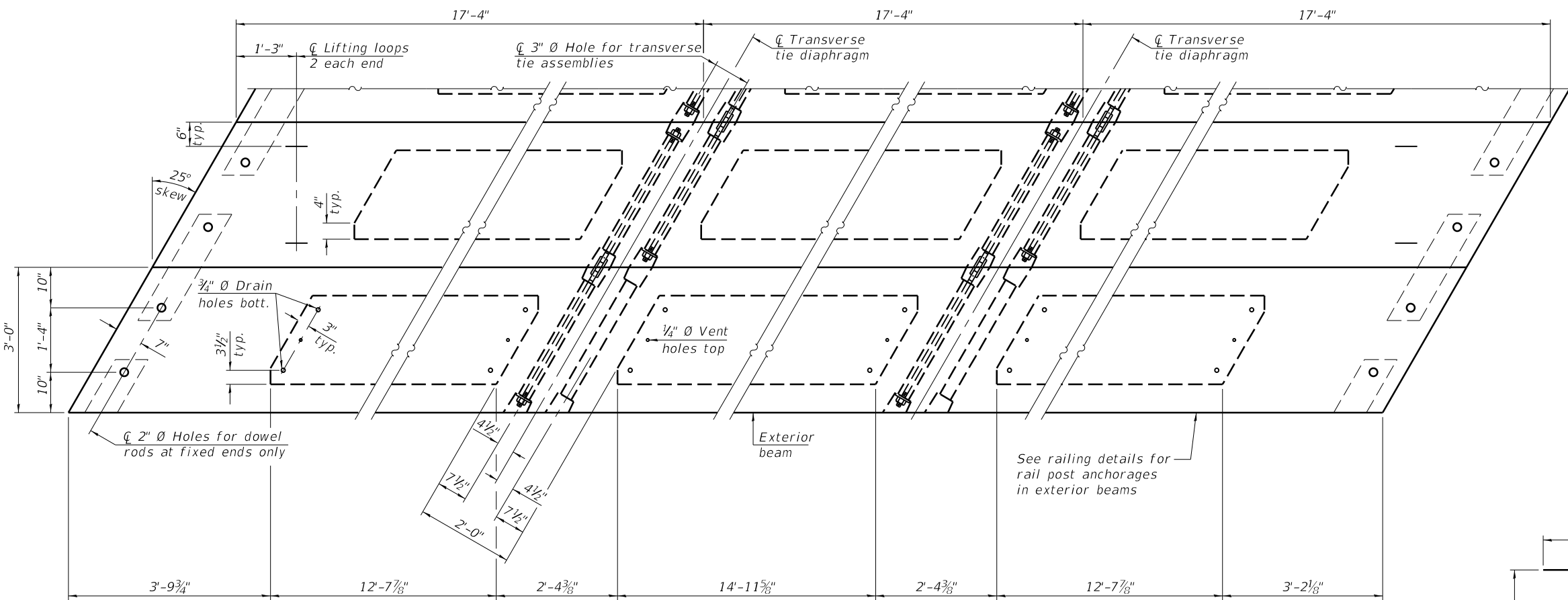
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

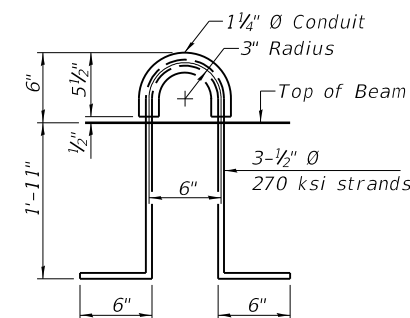


PLAN VIEW

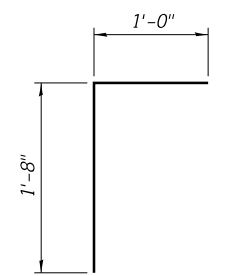
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

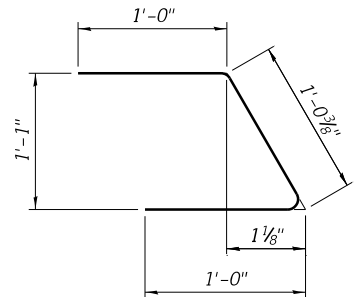
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



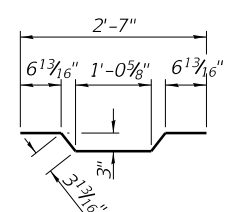
LIFTING LOOP DETAIL



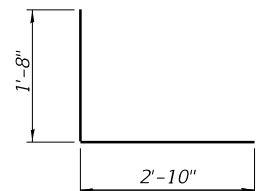
BAR D1(E)



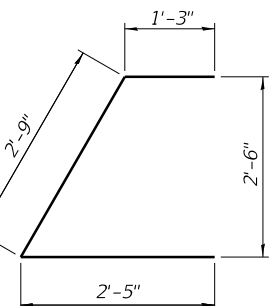
BAR C(E)



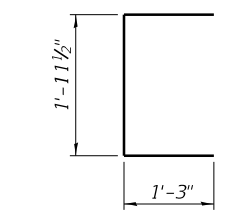
BAR A1(E)



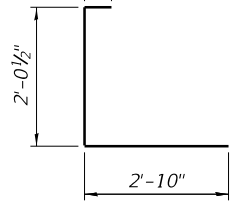
BAR S4(E)



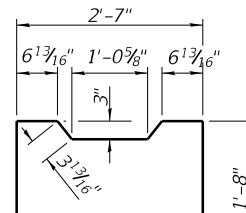
BAR U1(E)



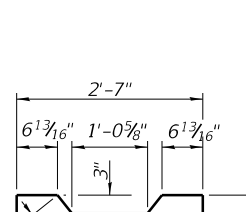
BAR U(E)



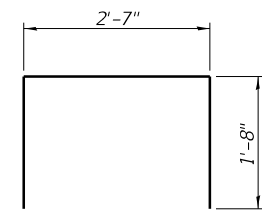
BAR S3(E)



BAR S2(E)



BAR S(E)



BAR S1(E)

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	3432
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MODEL: Default
FILE NAME: 084-6023-0000-06-09-DeckBeam.dgn



JOB #	2424
FILE NAME	084-6023-0000-06-09-DeckBeam.dgn
PLOT DATE	10/18/2022

DESIGNED	- AAN
CHECKED	- MDC
DRAWN	- SJS
CHECKED	- MDC

REVISED	-
REVISED	-
REVISED	-
REVISED	-

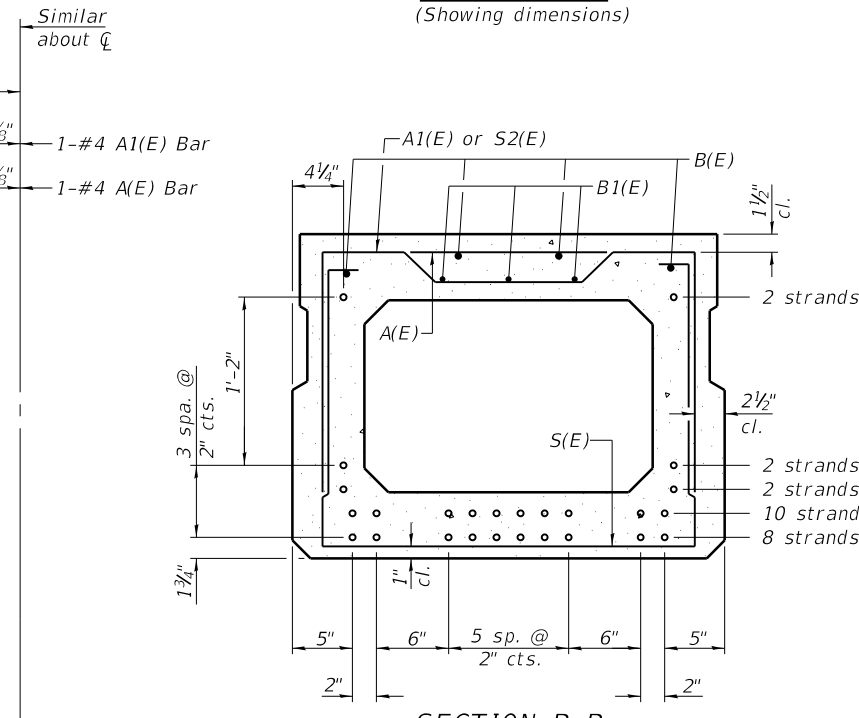
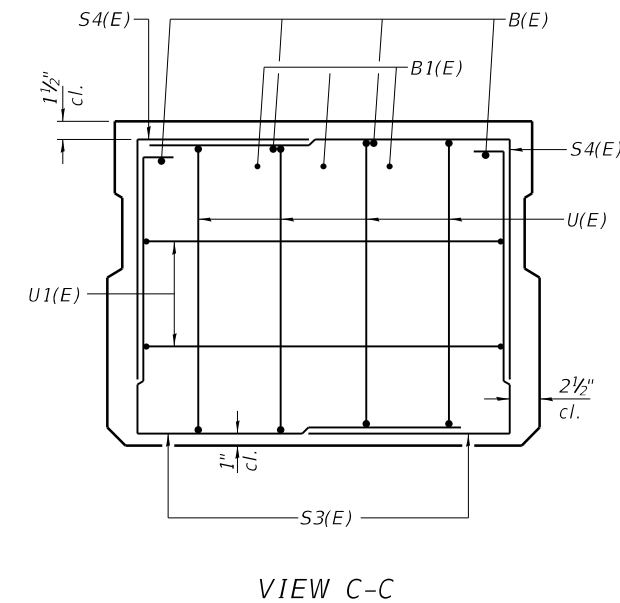
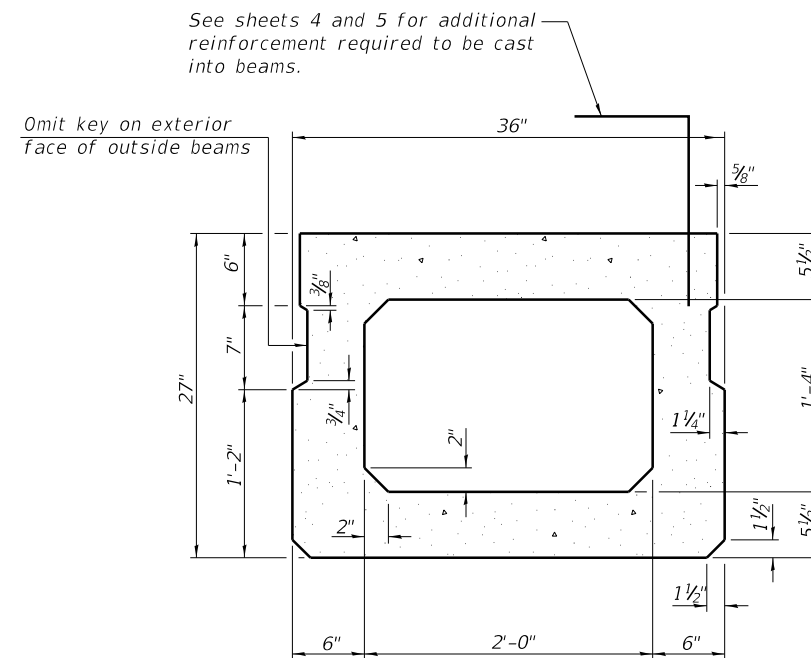
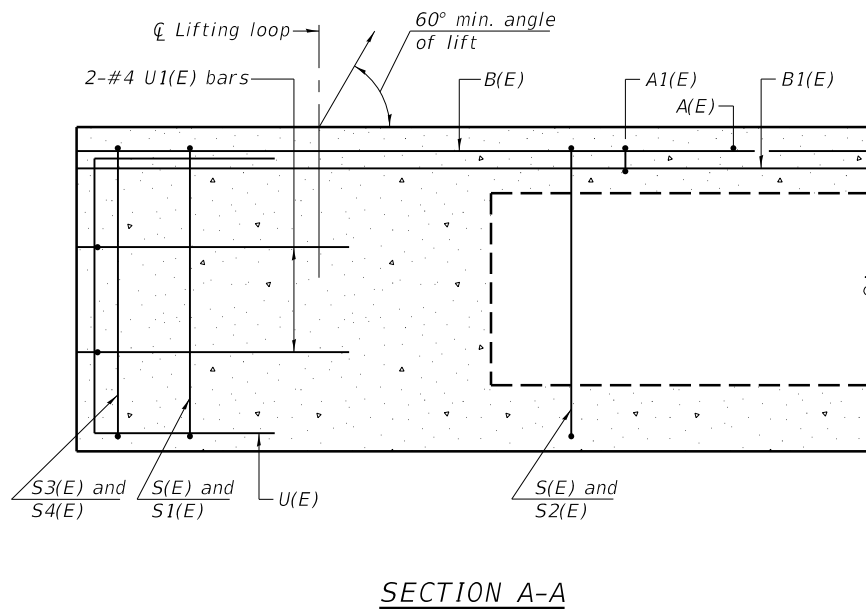
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**27" x 36" PPC DECK BEAM DETAILS (SPANS 1 & 3)
STRUCTURE NO. 084-6023**

SHEET 7 OF 19 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	26
CONTRACT NO. 93799				

ILLINOIS FED. AID PROJECT



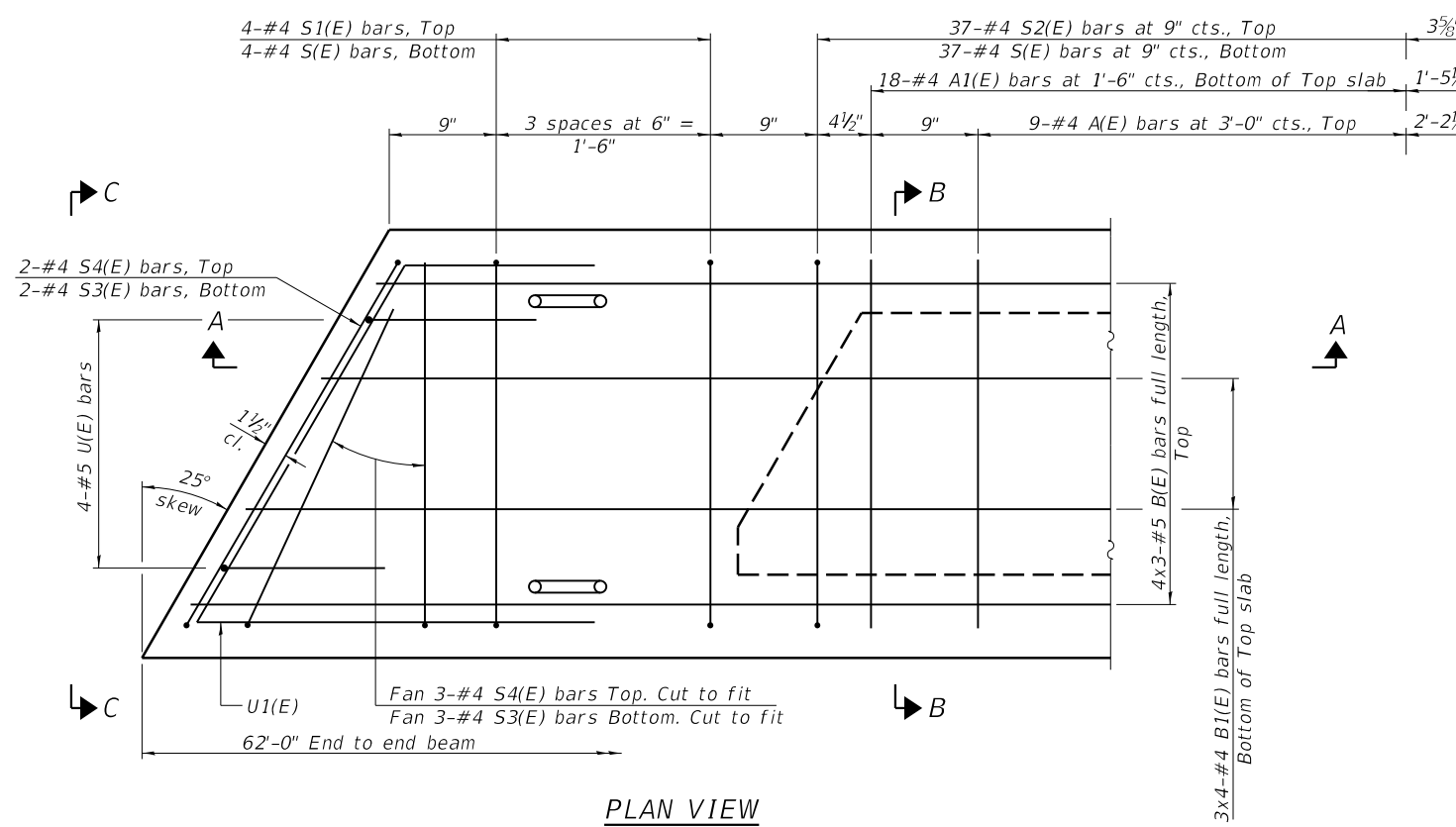
BAR LIST
ONE BEAM ONLY
(For information only)

Bar	No.	Size	Length	Shape
A(E)	19	#4	2'-7"	—
A1(E)	37	#4	2'-10"	—
B(E)	12	#5	22'-3"	—
B1(E)	12	#4	16'-11"	—
S(E)	82	#4	7'-5"	□
S1(E)	8	#4	5'-11"	□
S2(E)	74	#4	6'-2"	□
S3(E)	10	#4	5'-3"	□
S4(E)	10	#4	4'-6"	□
U(E)	8	#5	4'-6"	□
U1(E)	4	#4	6'-5"	□

ADDITIONAL BARS REQUIRED FOR EXTERIOR BEAMS ONLY

Bar	No.	Size	Length	Shape
C(E)	104	#5	3'-1"	□
D(E)	104	#5	2'-9"	□
D1(E)	104	#5	2'-8"	□

Note:
See sheet 9 of 19 for additional details and Bill of Material.
See sheets 4 and 5 of 19 for additional reinforcement required to be cast into beams.
Bars indicated thus 4x3-#5 etc. indicates 4 lines of bars with 3 lengths per line.
Bars C(E), D(E) & D1(E) are included in the cost of beam.



Similar about \bar{C}

SECTION B-B (Showing reinforcement and permissible strand locations)
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

MINIMUM BAR LAP
#4 bar = 1'-11"
#5 bar = 2'-6"

MODEL: Default
FILE NAME: 084-6023-0000-06-09-DeckBeam.dgn



JOB #	2424	DESIGNED -	AAN	REVISED -	
FILE NAME	084-6023-0000-06-09-DeckBeam.dgn	CHECKED -	MDC	REVISED -	
PLOT DATE	10/18/2022	DRAWN -	SJS	REVISED -	
		CHECKED -	MDC	REVISED -	

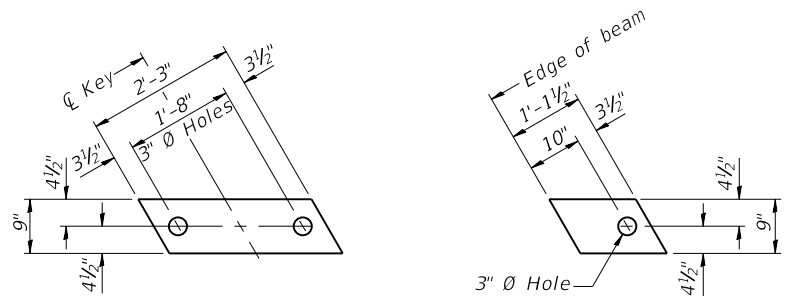
CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

27" x 36" PPC DECK BEAM (SPAN 2)
STRUCTURE NO. 084-6023

SHEET 8 OF 19 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	27
CONTRACT NO. 93799				

ILLINOIS FED. AID PROJECT

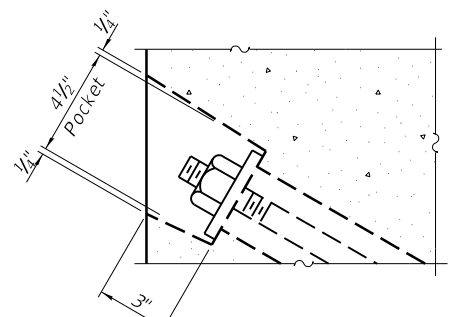


FABRIC BEARING PAD
(Interior - 20 Required)

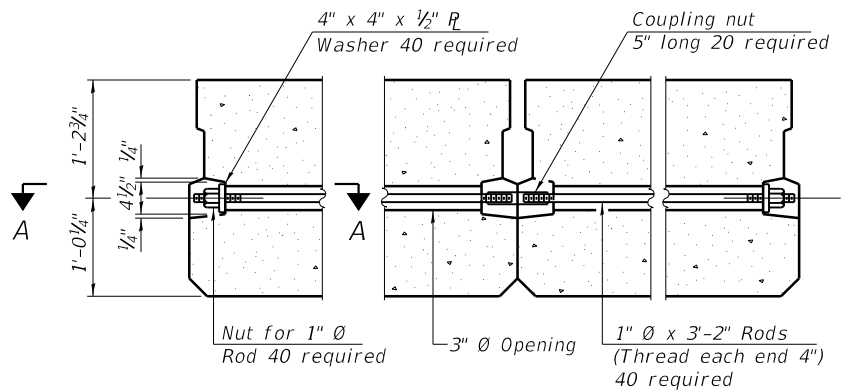
FABRIC BEARING PAD
(Exterior - 4 Required)

FIXED

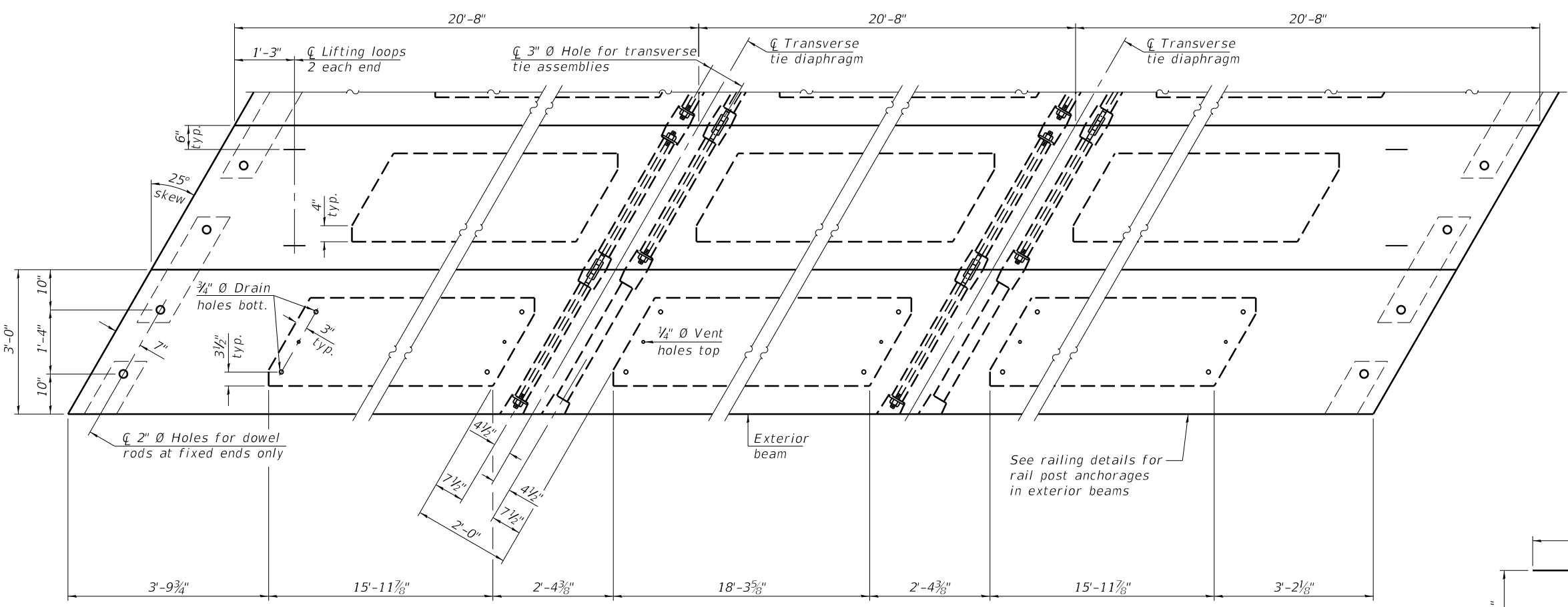
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

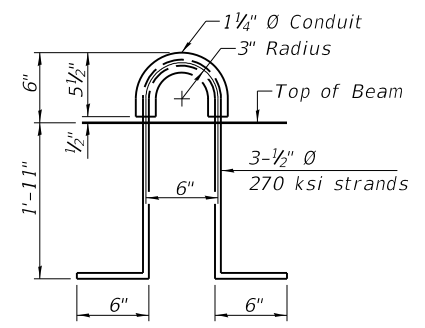


PLAN VIEW

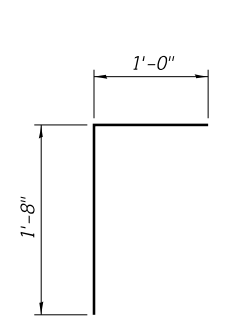
Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

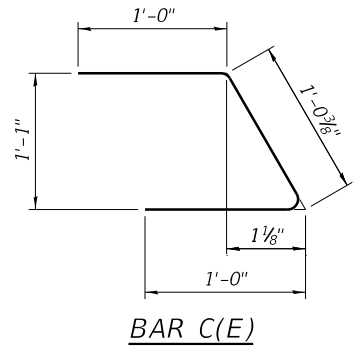
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(10) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



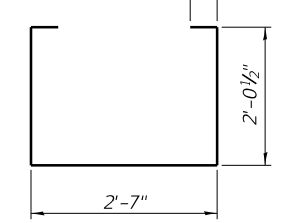
LIFTING LOOP DETAIL



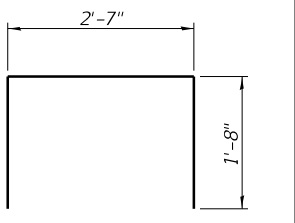
BAR D1(E)



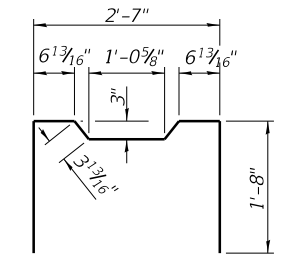
BAR C(E)



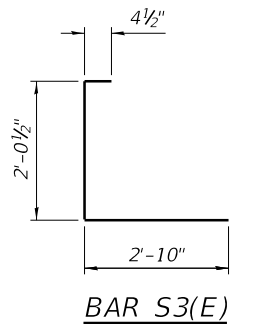
BAR S(E)



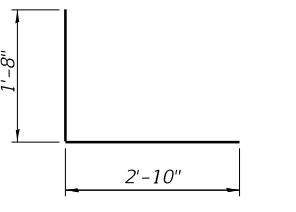
BAR S1(E)



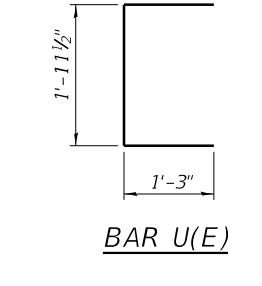
BAR S2(E)



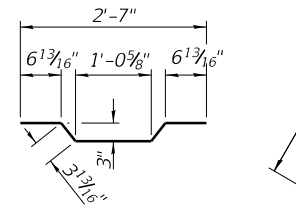
BAR S3(E)



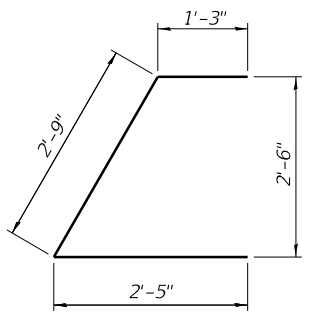
BAR S4(E)



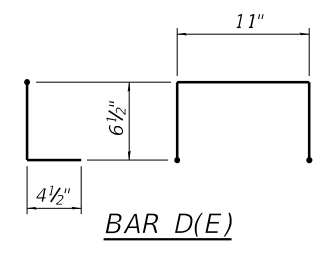
BAR U(E)



BAR A1(E)



BAR U1(E)



BAR D(E)

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	2046
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MODEL: Default
FILE NAME: 084-6023-0000-06-09-DeckBeam.dgn



JOB #	2424
FILE NAME	084-6023-0000-06-09-DeckBeam.dgn
PLOT DATE	10/18/2022

DESIGNED	- AAN	REVISED	-
CHECKED	- MDC	REVISED	-
DRAWN	- SJS	REVISED	-
CHECKED	- MDC	REVISED	-

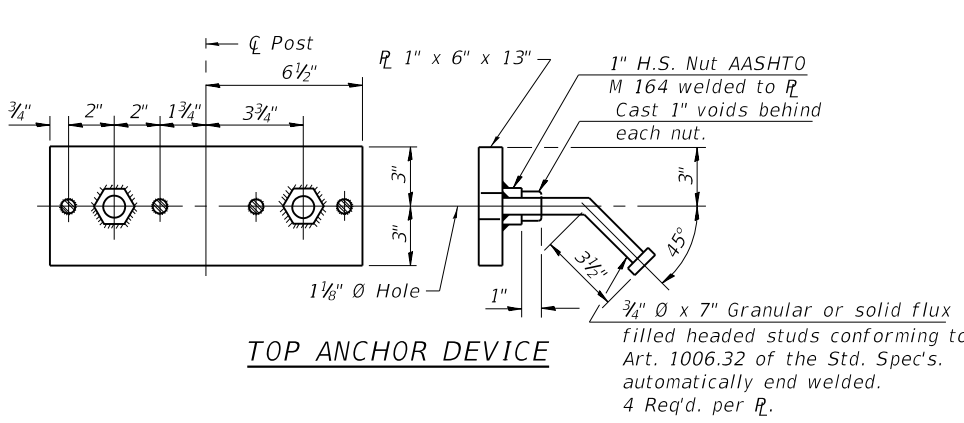
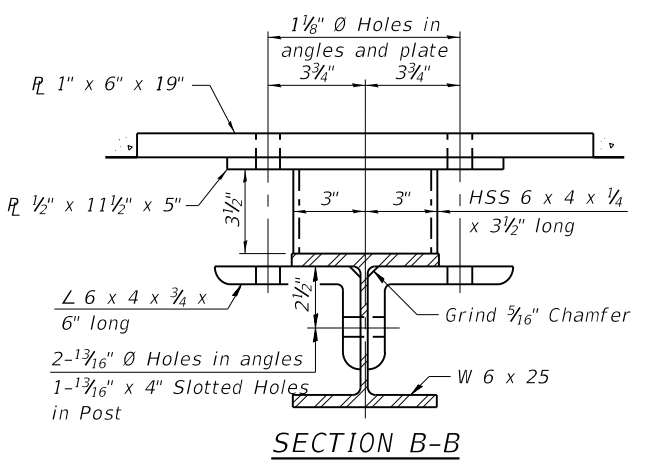
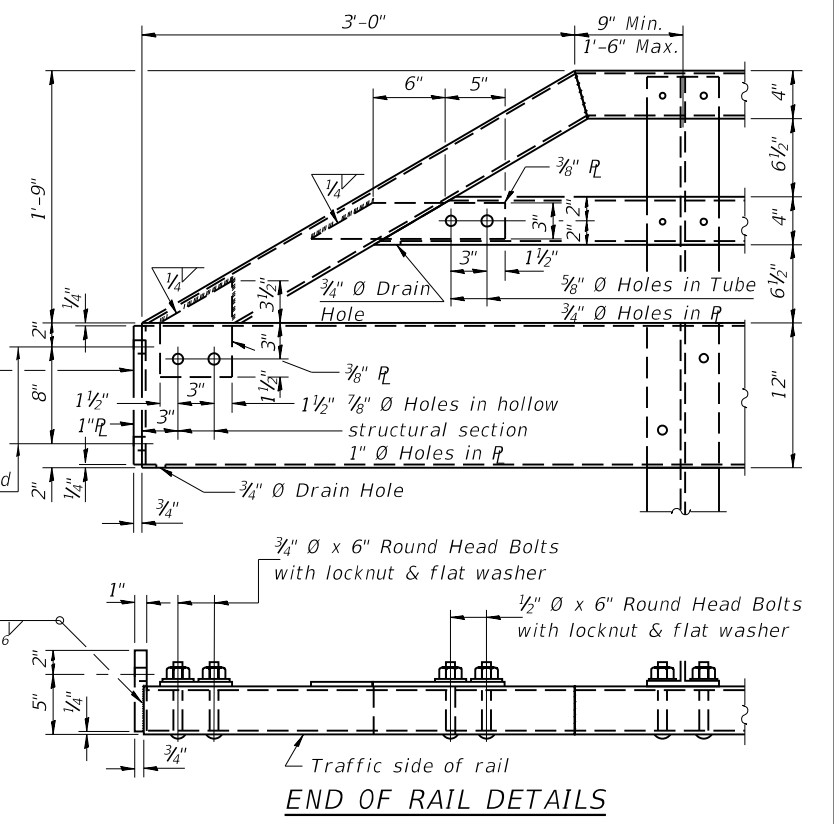
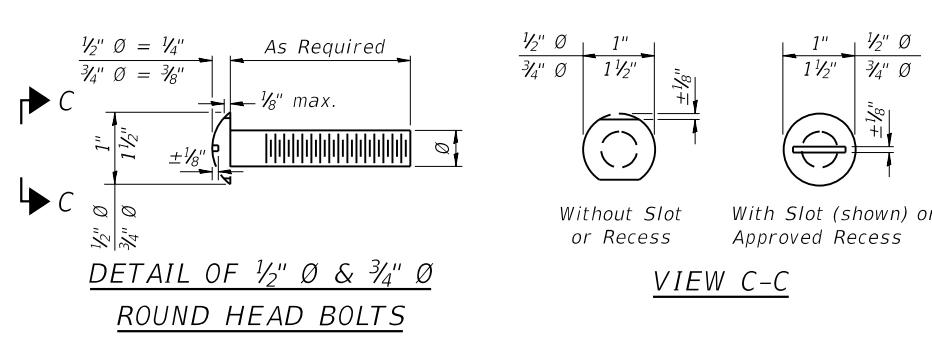
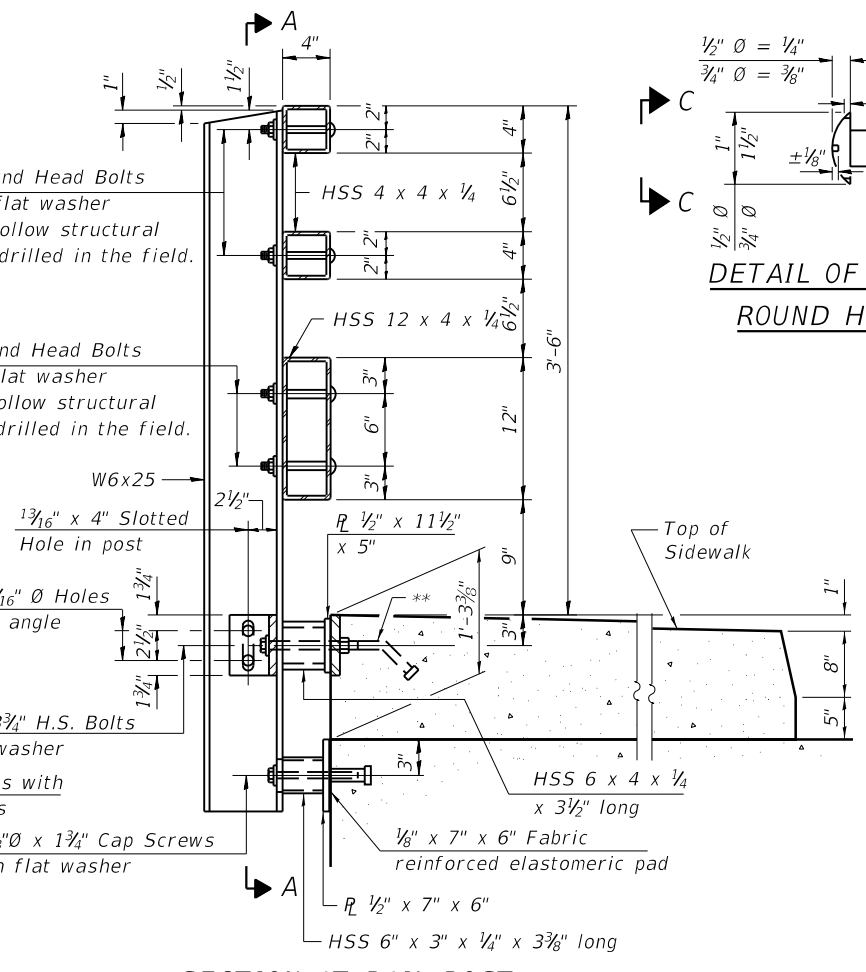
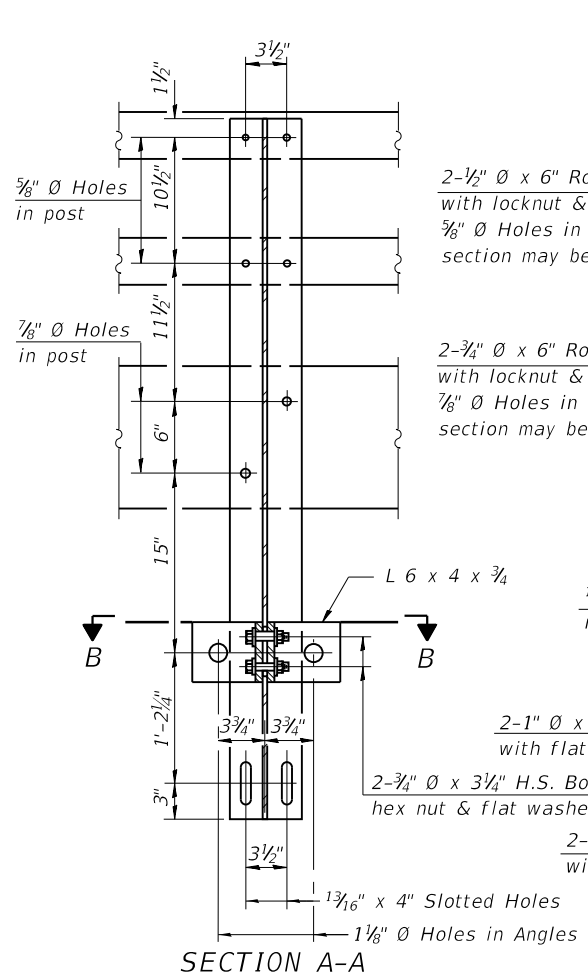
**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**27" x 36" PPC DECK BEAM DETAILS (SPAN 2)
STRUCTURE NO. 084-6023**

SHEET 9 OF 19 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	28
CONTRACT NO. 93799				

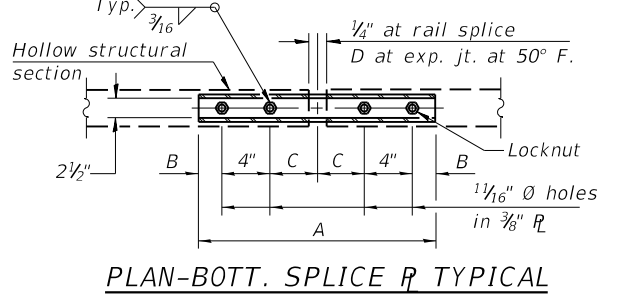
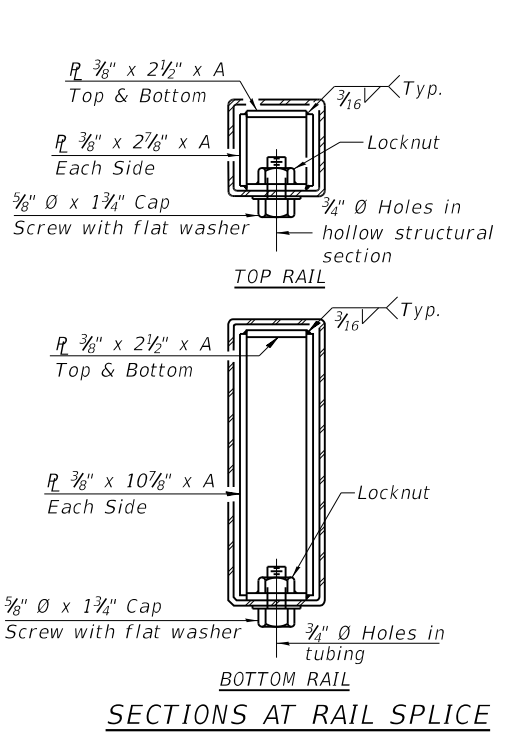
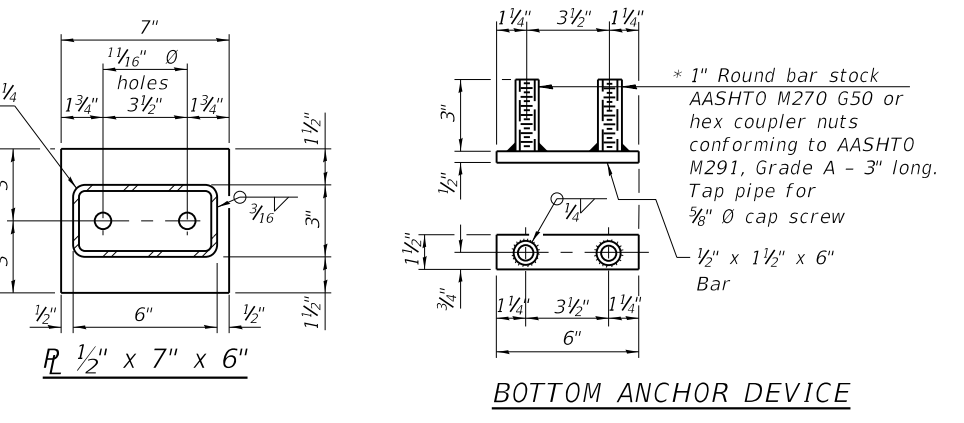
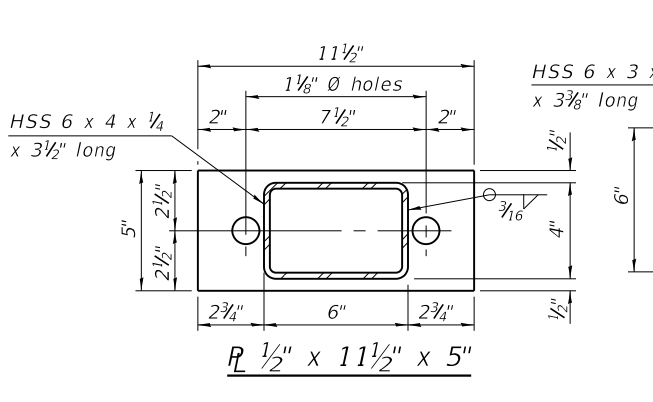
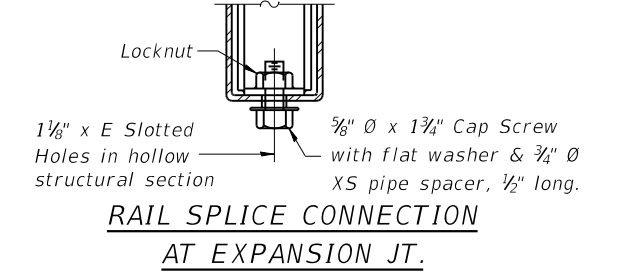
ILLINOIS FED. AID PROJECT



SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.



Notes:

For multi-span bridges, sufficient 1/4" x 6" x 1'-3 1/2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type TP-1.

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

CVN testing may be omitted for the railing.

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

** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type TP-1	Foot	169

MODEL: Default
FILE NAME: 084-6023-0000-10-11-Railing.dgn



JOB - 2424	DESIGNED - AAN	REVISED -
FILENAME - 084-6023-0000-10-11-Railing.dgn	CHECKED - MDC	REVISED -
PLLOT DATE - 10/18/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

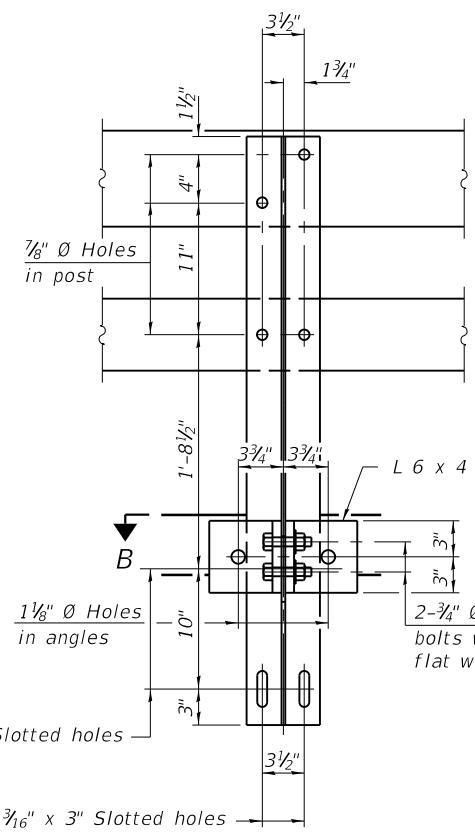
CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

STEEL RAILING, TYPE TP-1
STRUCTURE NO. 084-6023

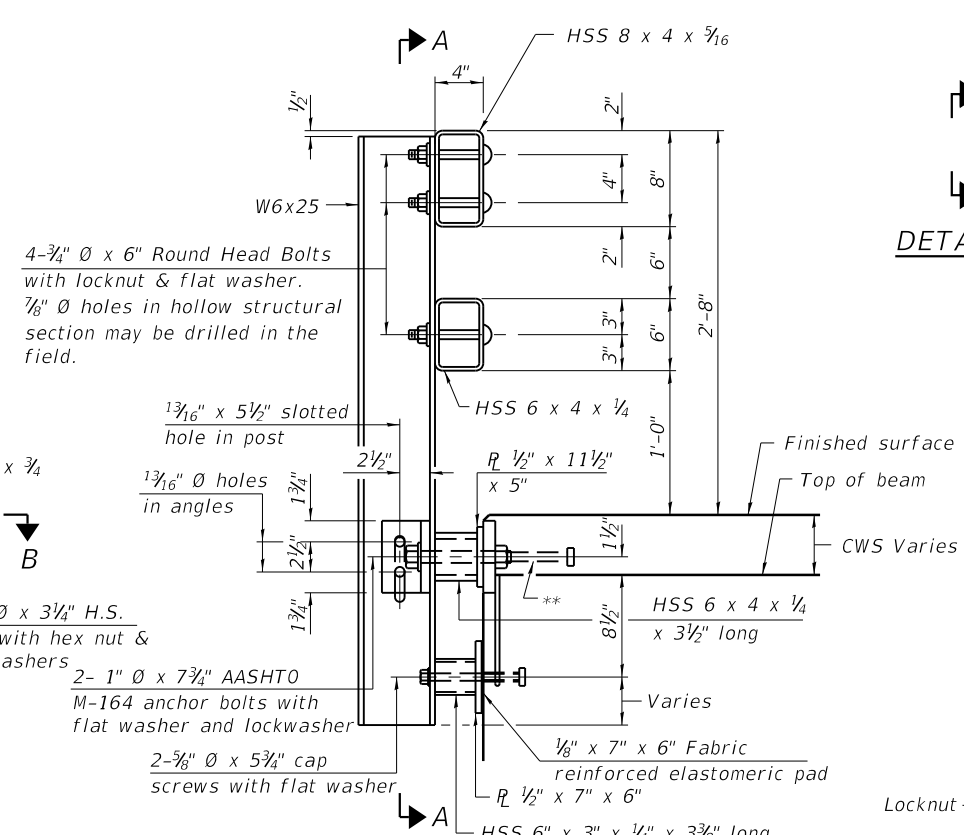
SHEET 10 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	29
CONTRACT NO. 93799				

MODEL: Default
FILE NAME: 084-6023-0000-10-11-Railing.dgn

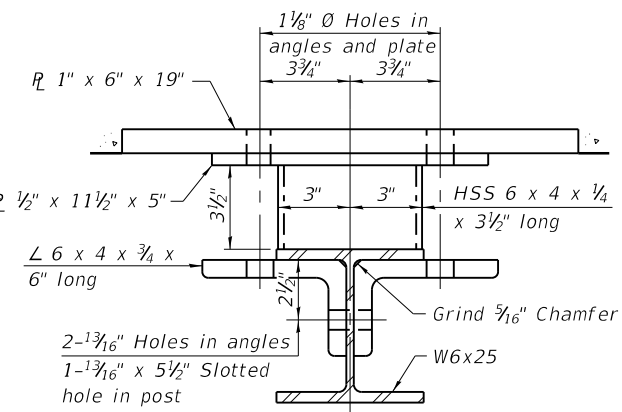


SECTION A-A

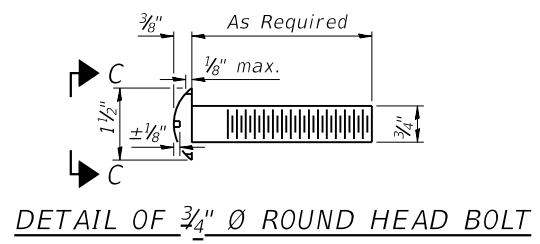
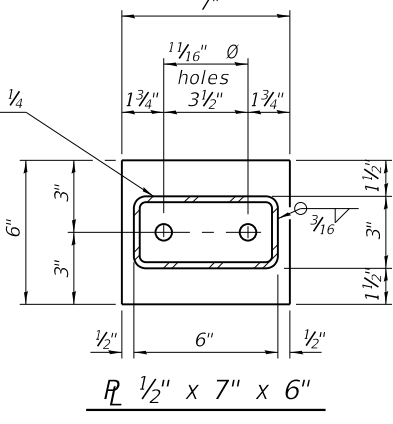
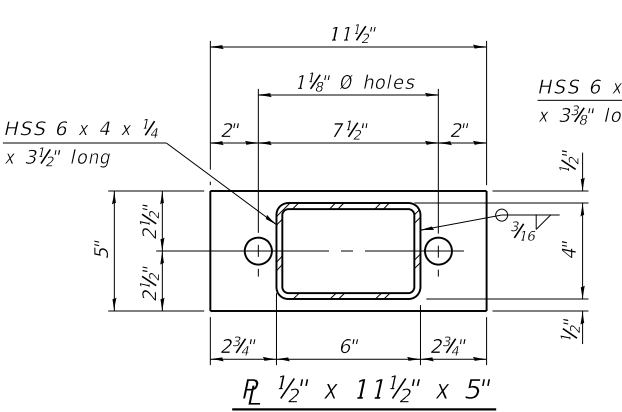


SECTION AT RAIL POST

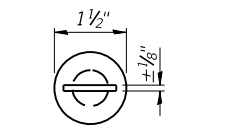
(Shown on deck beam, Similar @ Approach Slab)



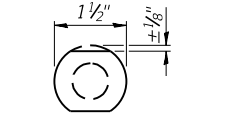
SECTION B-B



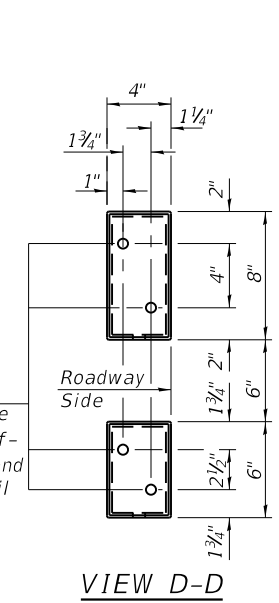
DETAIL OF 3/4" Ø ROUND HEAD BOLT



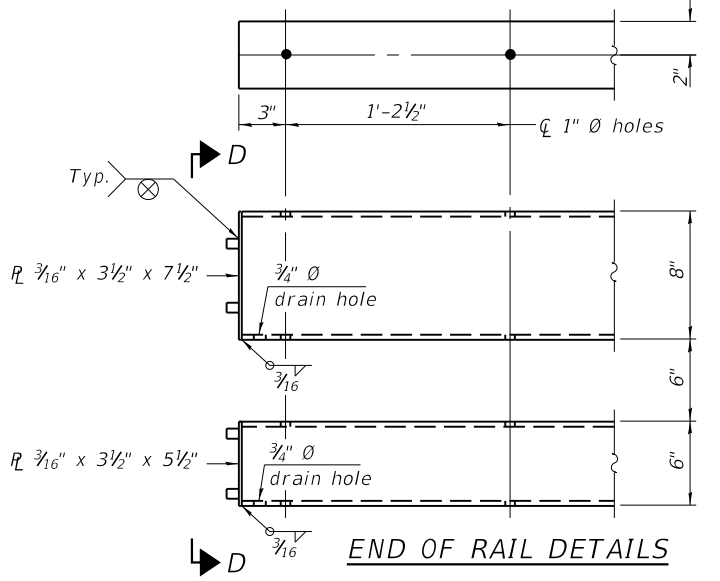
VIEW C-C



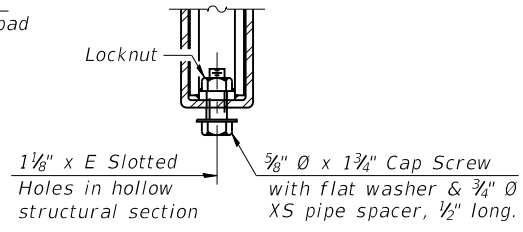
VIEW D-D



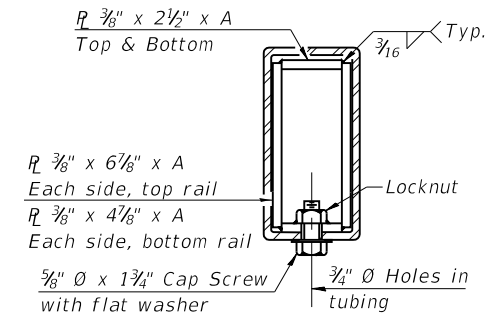
VIEW D-D



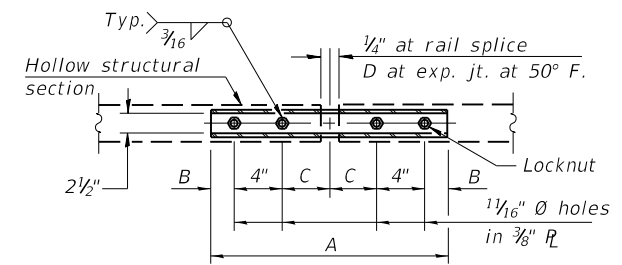
END OF RAIL DETAILS



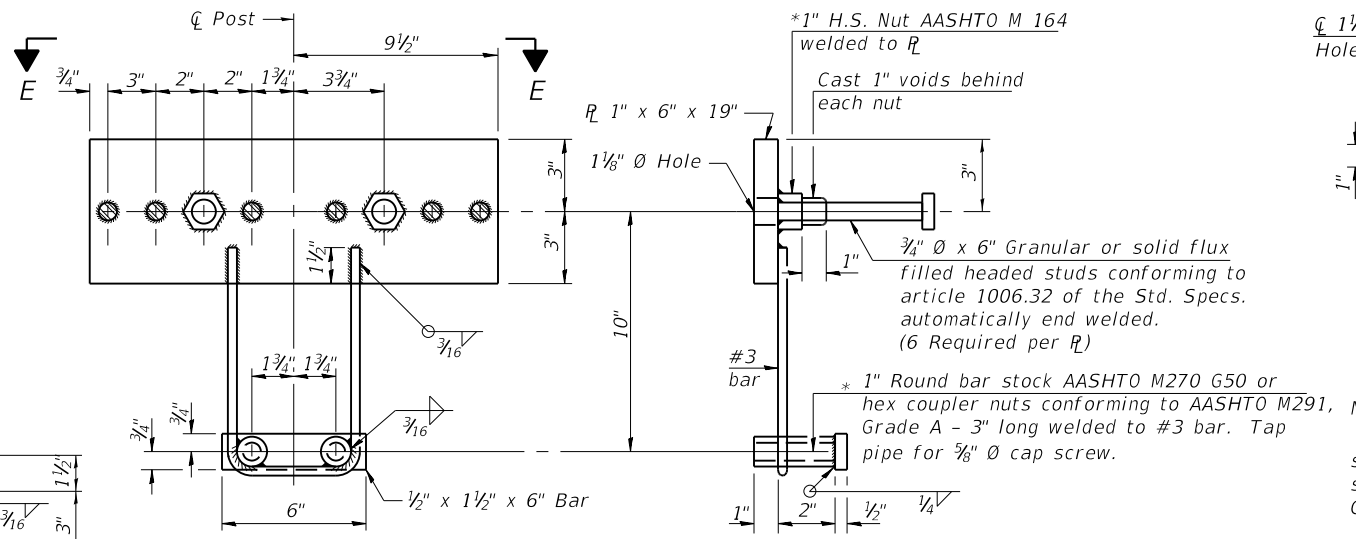
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL



ANCHOR DEVICE

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

Notes:
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans.
Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	197

R-34CWS 8-11-2017 (6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)

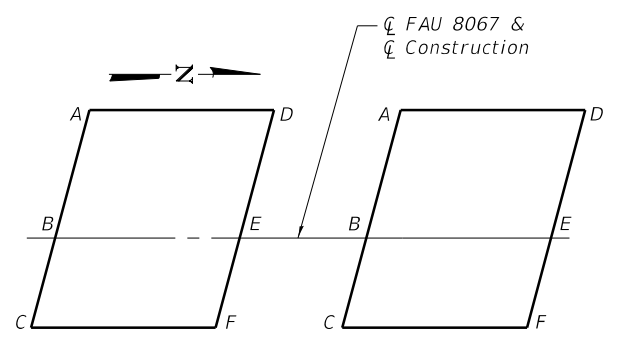
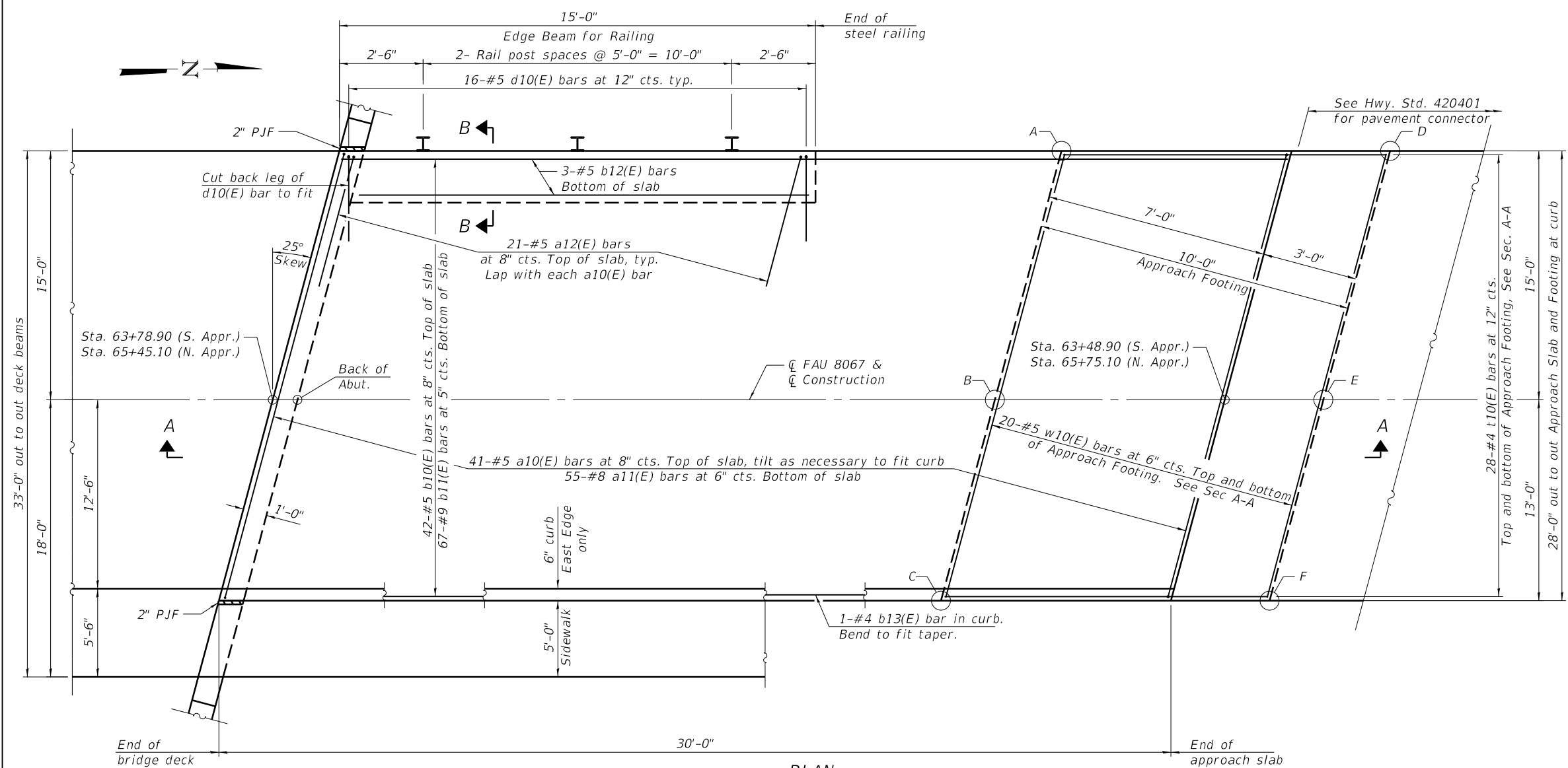


JOB	DESIGNED	CHECKED	DRAWN	CHECKED
2424	AAN	MDC	SJS	MDC
FILE NAME	084-6023-0000-10-11-Railing.dgn			
PLLOT DATE	10/18/2022			

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
STRUCTURE NO. 084-6023**

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	30



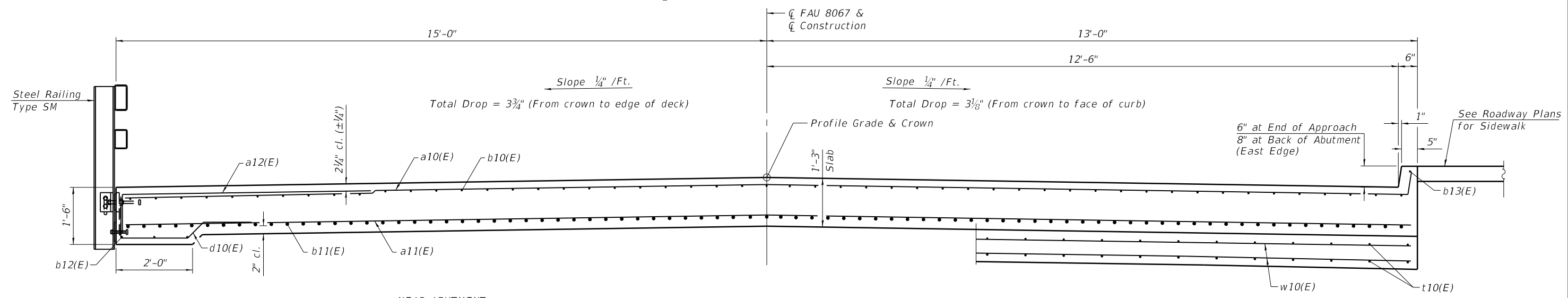
LEGEND FOR APPROACH FOOTING ELEVATIONS

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	South Approach		North Approach	
	Top	Bottom	Top	Bottom
A	531.06	530.23	531.74	530.91
B	531.35	530.52	532.03	531.20
C	531.07	530.24	531.75	530.92
D	531.09	530.26	531.77	530.94
E	531.38	531.55	532.06	531.23
F	531.10	530.27	531.78	530.95

Note:
For Sections A-A & B-B, see sheet 13 of 19.

PLAN
(North Approach Slab shown, South Approach Slab similar by mirror about centerline structure)



NEAR ABUTMENT

CROSS SECTION
(Looking North)

AT APPROACH FOOTING

(Sheet 1 of 2)

MODEL: Default
FILE NAME: 084-6023-0000-12-13-ApprSlab.dgn



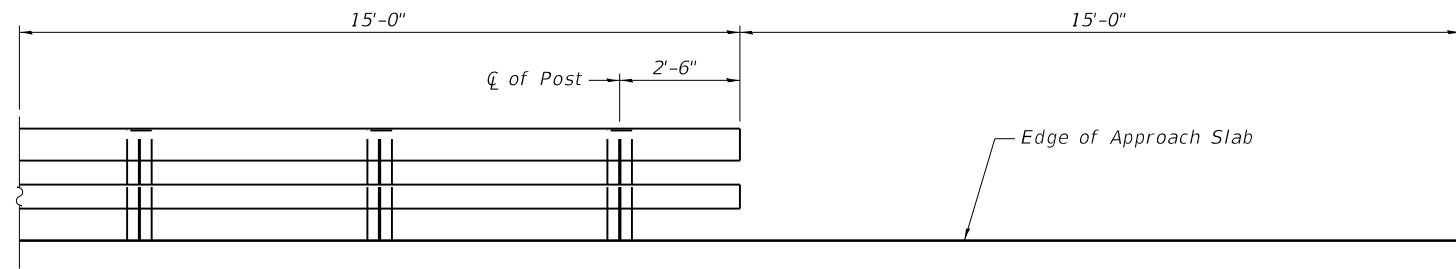
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FILENAME	084-6023-0000-12-13-ApprSlab.dgn	CHECKED	MDC	REVISED	-
PLLOT DATE	10/18/2022	DRAWN	SJS	REVISED	-
		CHECKED	MDC	REVISED	-

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 084-6023

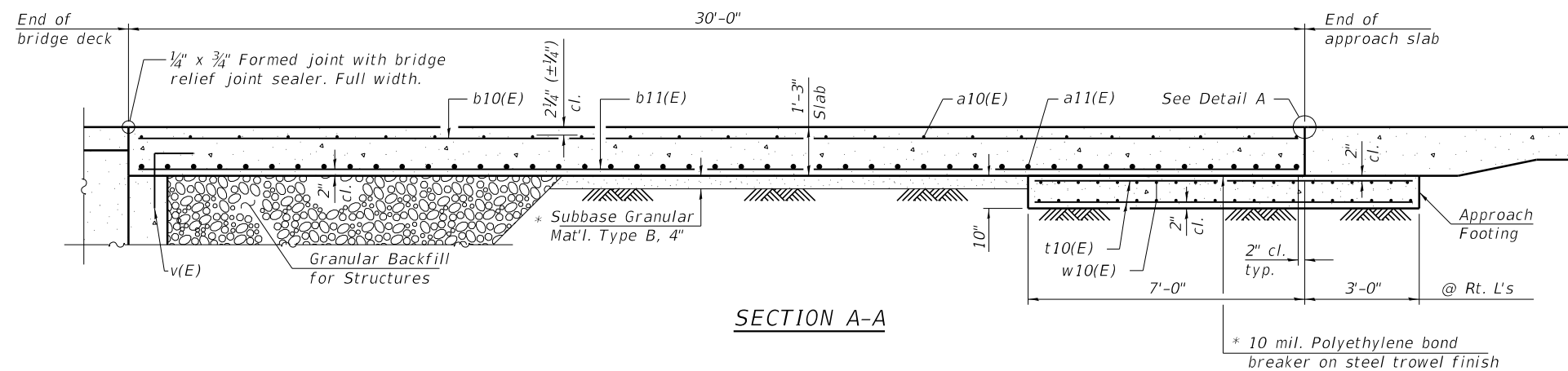
SHEET 12 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	31
CONTRACT NO. 93799				

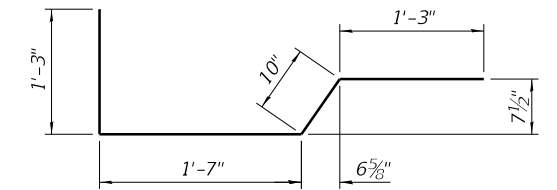


INSIDE ELEVATION OF TYPE SM RAILING
(West side of Approach Slab)

Notes:
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 19.
 For railing details, see sheet 10 and 11 of 19.



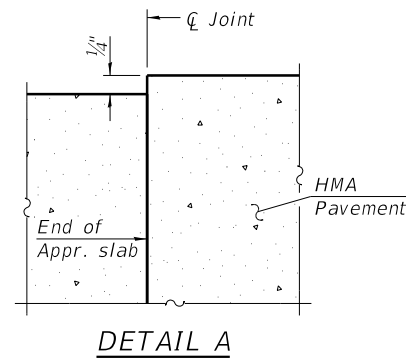
SECTION A-A



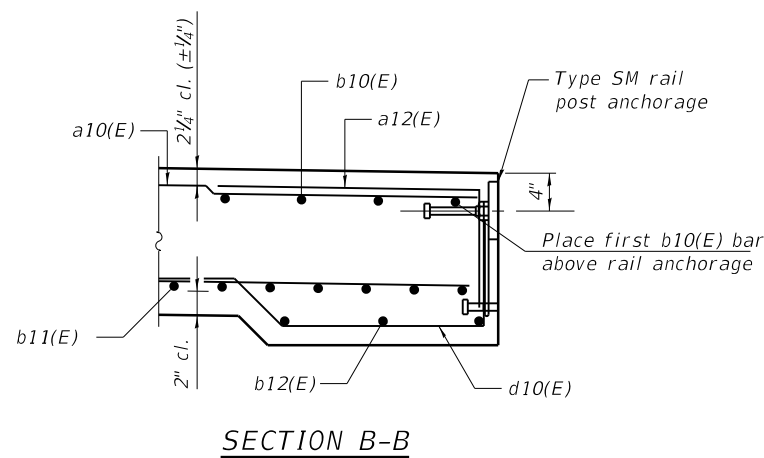
BAR d10(E)

**TWO APPROACHES
BILL OF MATERIAL**

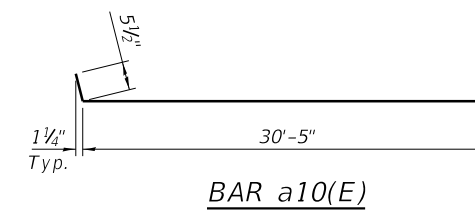
Bar	No.	Size	Length	Shape	
a10(E)	82	#5	30'-11"	┌───┐	
a11(E)	110	#8	30'-6"	┌───┐	
a12(E)	42	#5	7'-8"	┌───┐	
b10(E)	84	#5	29'-8"	┌───┐	
b11(E)	134	#9	29'-8"	┌───┐	
b12(E)	6	#5	13'-8"	┌───┐	
b13(E)	2	#4	29'-8"	┌───┐	
d10(E)	32	#5	4'-11"	┌───┐	
t10(E)	112	#4	10'-8"	┌───┐	
w10(E)	80	#5	30'-6"	┌───┐	
Concrete Superstructure (Approach Slab)				Cu. Yd.	81.8
Concrete Structures				Cu. Yd.	19.0
Reinforcement Bars, Epoxy Coated				Pound	31,780
Protective Coat				Sq. Yd.	192
Bridge Deck Grooving				Sq. Yd.	170



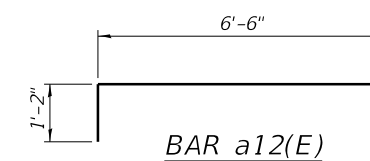
DETAIL A



SECTION B-B



BAR a10(E)



BAR a12(E)

(Sheet 2 of 2)

MODEL: Default
FILE NAME: 084-6023-0000-12-13-ApprSlab.dgn



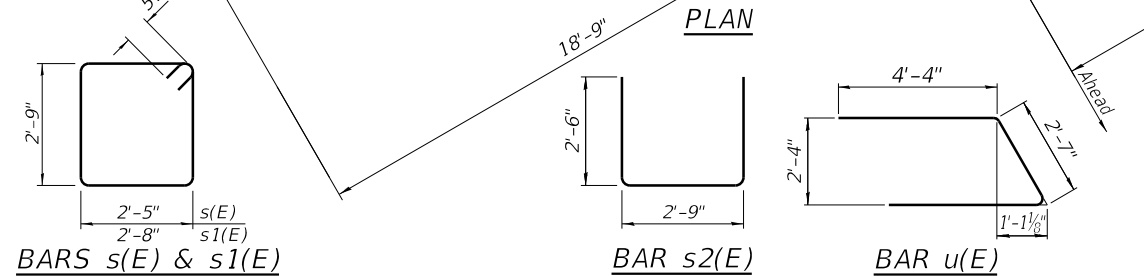
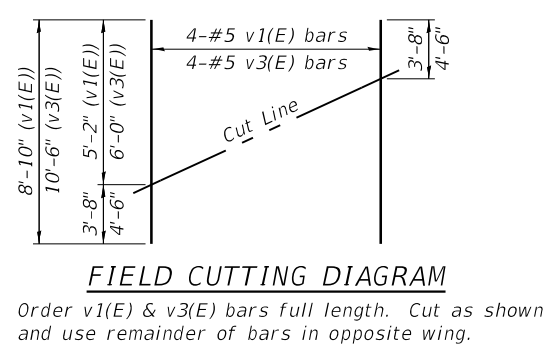
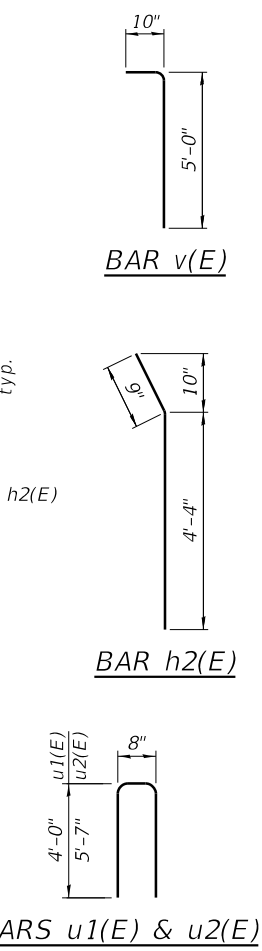
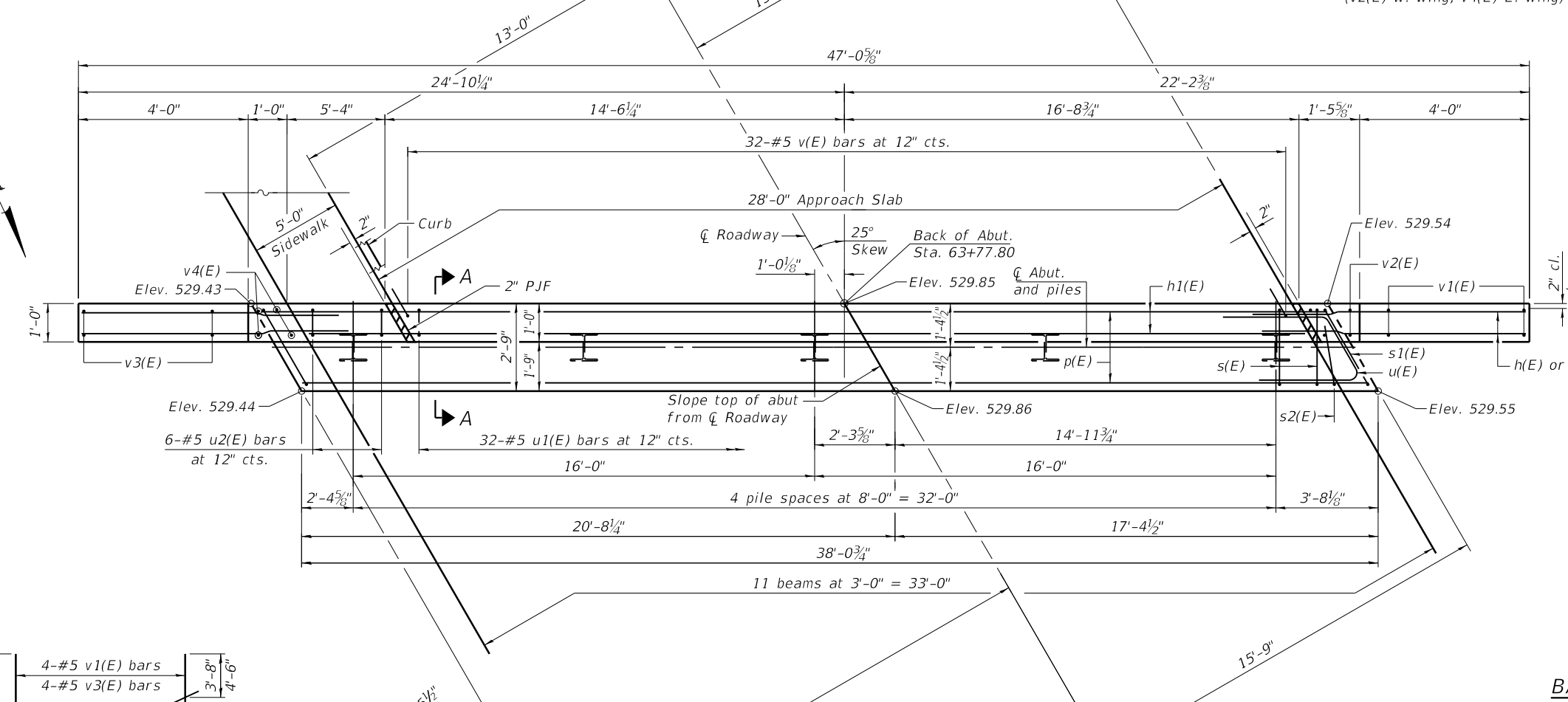
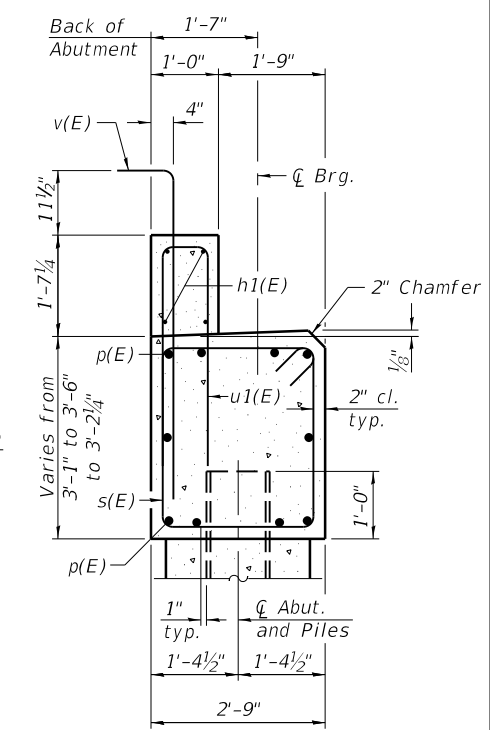
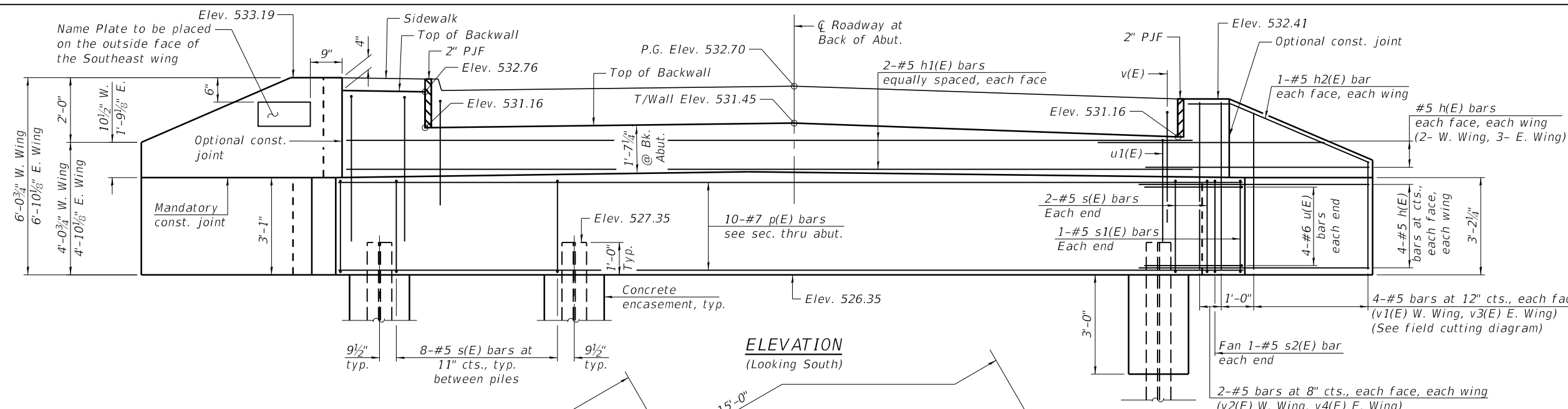
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FILENAME	084-6023-0000-12-13-ApprSlab.dgn	CHECKED	MDC	REVISED	-
PLLOT DATE	10/18/2022	DRAWN	SJS	REVISED	-
		CHECKED	MDC	REVISED	-

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 084-6023**

SHEET 13 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	32
CONTRACT NO. 93799				



PILE DATA

Type: HP 12x63
 Nominal Required Bearing: 497 kips (Refusal)
 Factored Resistance Available: 274 kips
 Est. Length: 60'
 No. Production Piles: 4
 No. Test Piles: 1*

* To be driven at a permanent location

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	26	#5	7'-2"	—
h1(E)	4	#5	36'-5"	—
h2(E)	4	#5	5'-1"	—
p(E)	10	#7	37'-8"	—
s(E)	36	#5	11'-3"	□
s1(E)	2	#5	11'-9"	□
s2(E)	2	#5	7'-9"	□
u(E)	8	#6	11'-3"	—
u1(E)	32	#5	8'-8"	—
u2(E)	6	#5	11'-10"	—
v(E)	32	#5	5'-10"	—
v1(E)	4	#5	8'-10"	—
v2(E)	4	#5	5'-8"	—
v3(E)	4	#5	10'-6"	—
v4(E)	4	#5	6'-5"	—
Structure Excavation		Cu. Yd.	56	
Concrete Structures		Cu. Yd.	17.0	
Reinforcement Bars, Epoxy Coated		Pound	2430	
Furnishing Steel		Foot	240	
Piles HP 12x63		Foot	240	
Driving Piles		Foot	240	
Test Pile Steel HP 12x63		Each	1	
Concrete Encasement		Cu. Yd.	1.7	

Notes:
 For details of piles and Concrete Encasement, see sheet 17 of 19.
 Cast backwall and tops of wingwalls after beams have been erected.

MODEL: Default
FILE NAME: 084-6023-0000-14-15-Abutments.dgn

AD-SB-L 6-15-2019

CEC Cummins Engineering Corporation
ENGINEERS & SURVEYORS

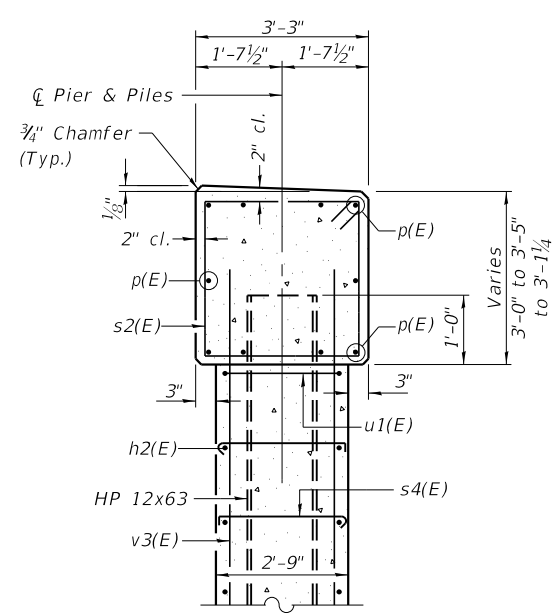
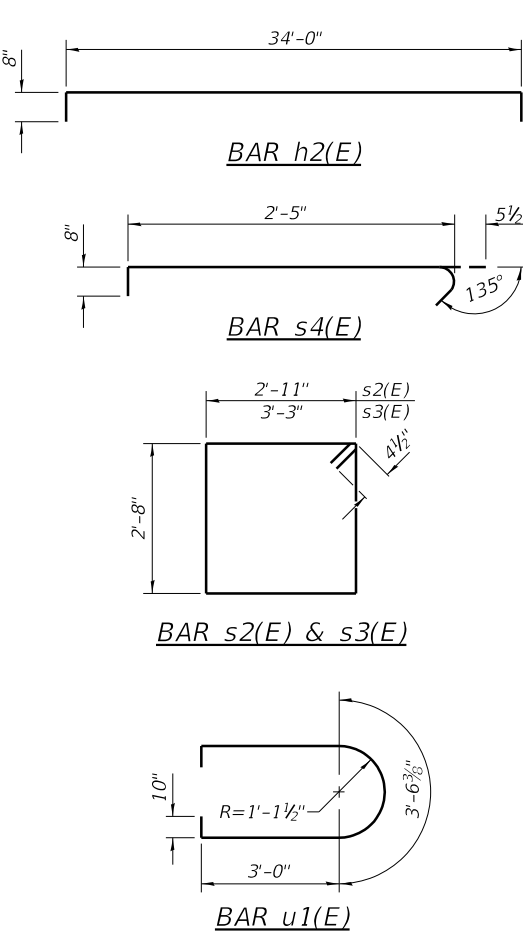
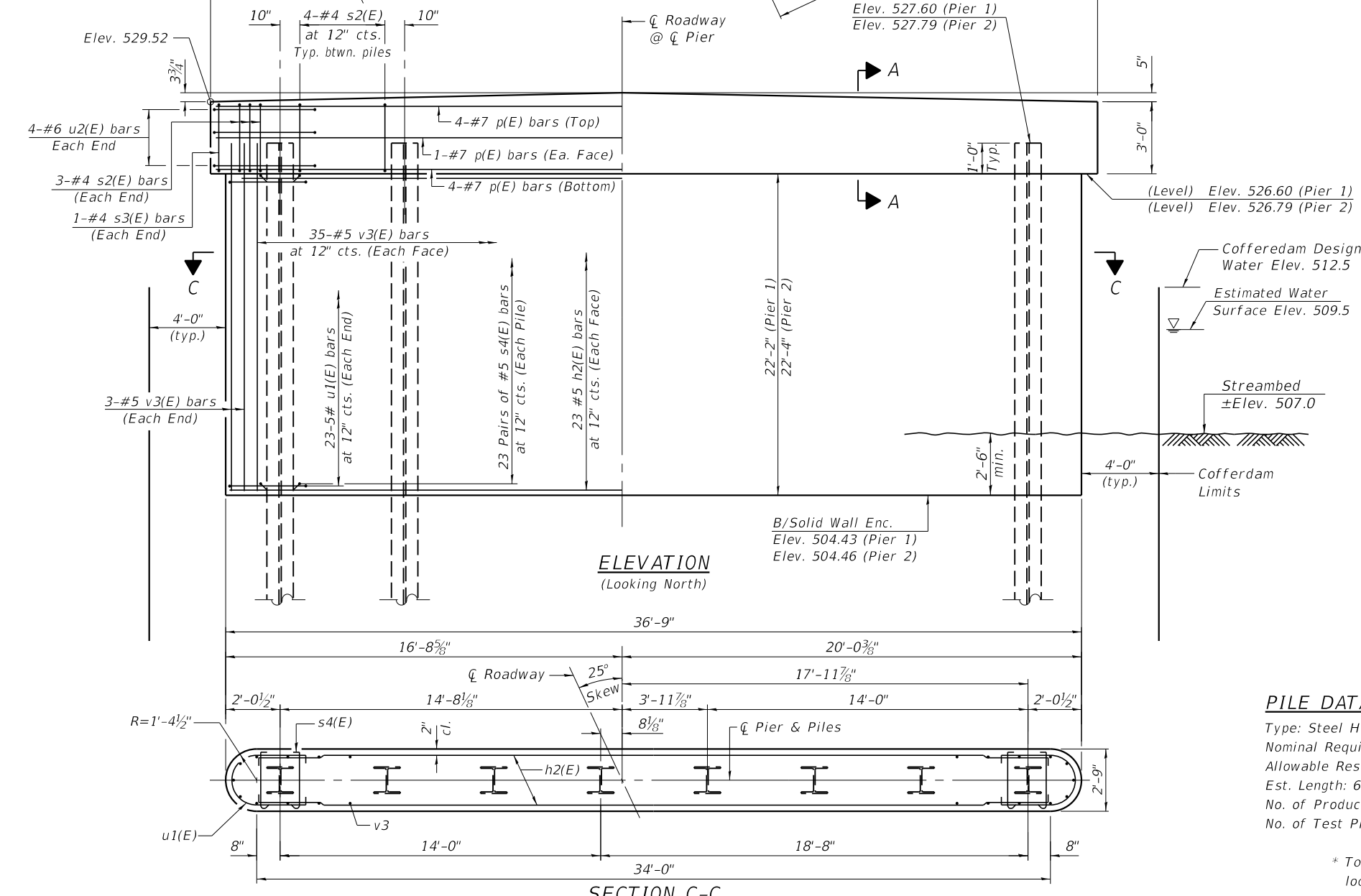
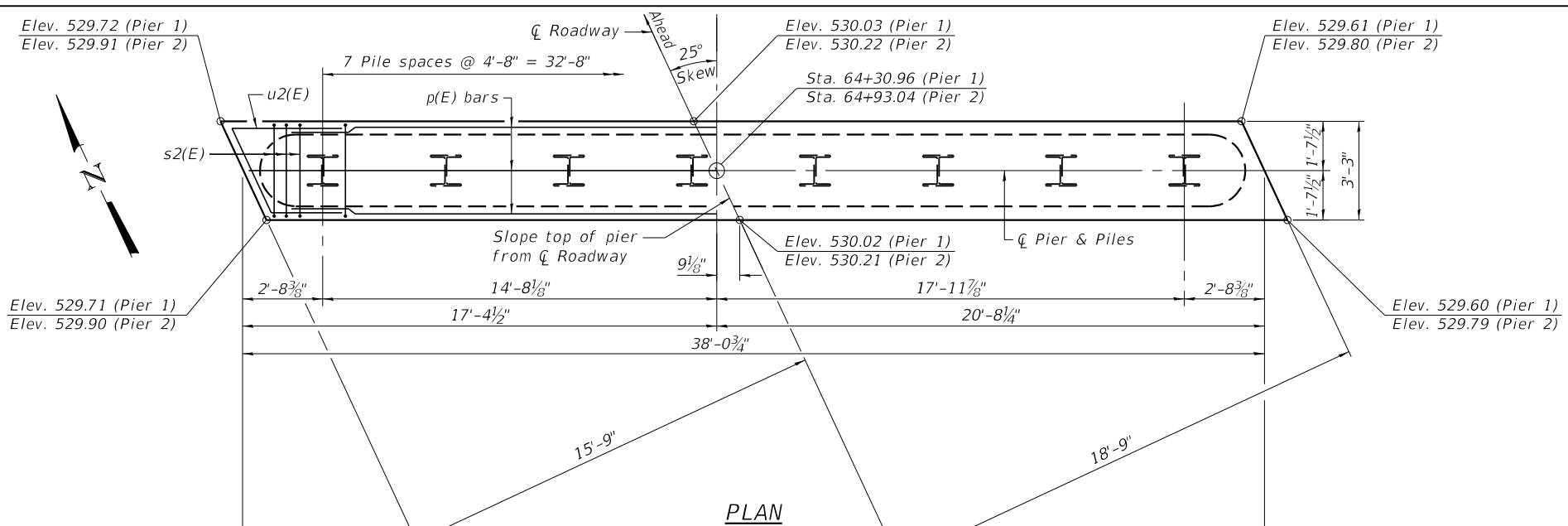
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PLLOT DATE	10/18/2022	DRAWN	SJS	REVISED	-
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**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**SOUTH ABUTMENT
STRUCTURE NO. 084-6023**

SHEET 14 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	33
CONTRACT NO. 93799				



**TWO PIERS
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h2(E)	92	#5	35'-4"	[]
p(E)	20	#7	37'-8"	—
s2(E)	68	#4	11'-11"	[]
s3(E)	4	#4	12'-7"	[]
s4(E)	736	#5	3'-7"	[]
u1(E)	92	#5	11'-3"	[]
u2(E)	16	#6	13'-2"	[]
v3(E)	152	#5	23'-10"	—
Concrete Structures			Cu. Yd.	193.5
Reinforcement Bars, Epoxy Coated			Pound	13,440
Furnishing Steel Piles HP 12x63			Foot	840
Driving Piles			Foot	840
Test Pile Steel HP 12x63			Each	2
Cofferdam (Type 1) (Location 1)			Each	1
Cofferdam (Type 1) (Location 2)			Each	1
Cofferdam Excavation			Cu. Yd.	89

PILE DATA

Type: Steel HP 12x63
 Nominal Required Bearing: 497 kips. (Refusal)
 Allowable Resistance Available: 274 kips.
 Est. Length: 60 ft.
 No. of Production Piles: 14
 No. of Test Piles: 2 *

* To be driven in a permanent location at each pier.

MODEL: Default
 FILE NAME: 084-6023-0000-16-Pier.dgn



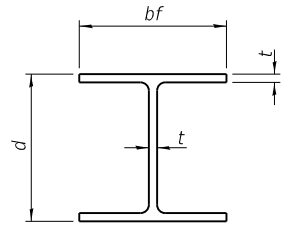
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FILE NAME - 084-6023-0000-16-Pier.dgn	CHECKED - MDC	REVISED -
PLLOT DATE - 10/18/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**PIERS
STRUCTURE NO. 084-6023**

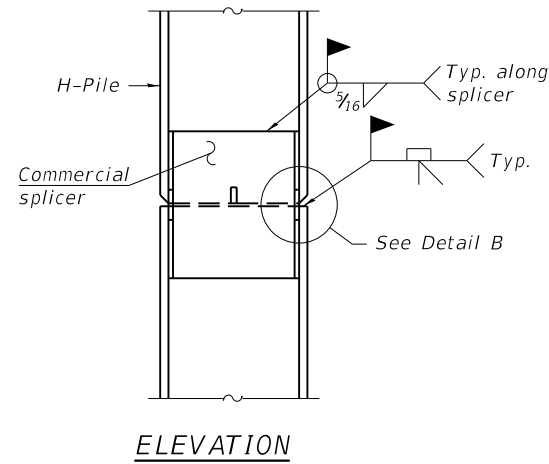
SHEET 16 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	35
CONTRACT NO. 93799				
ILLINOIS	FEL AND PROJECT			

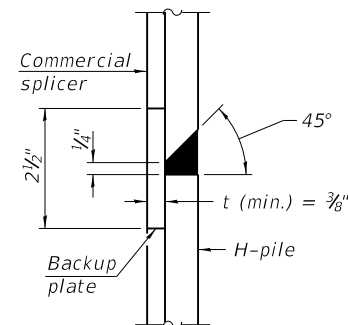


STEEL PILE TABLE

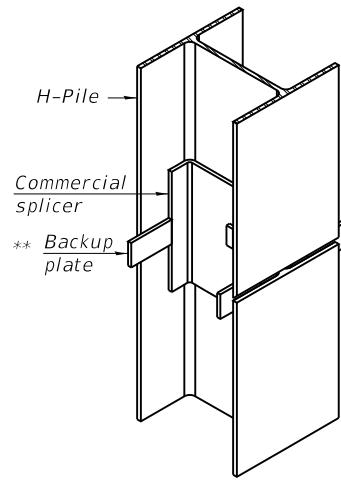
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

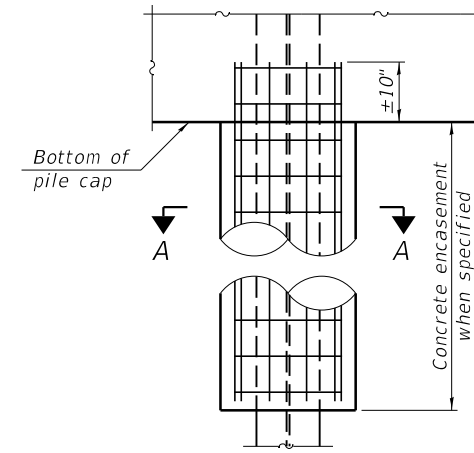


DETAIL "B"

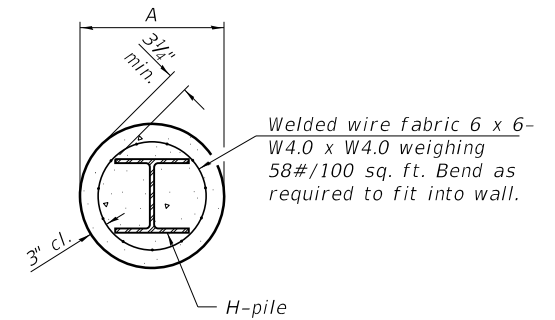


ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE

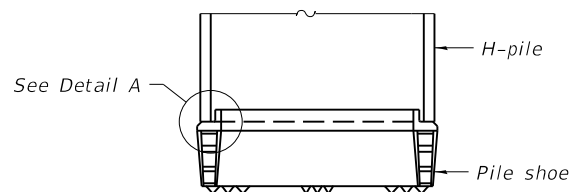


ELEVATION

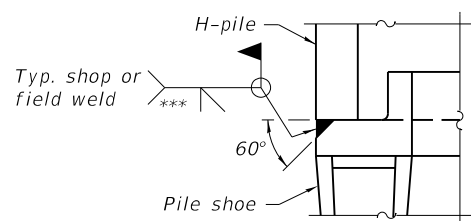


SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASUREMENT
(Forms for encasement may be omitted when soil conditions permit).



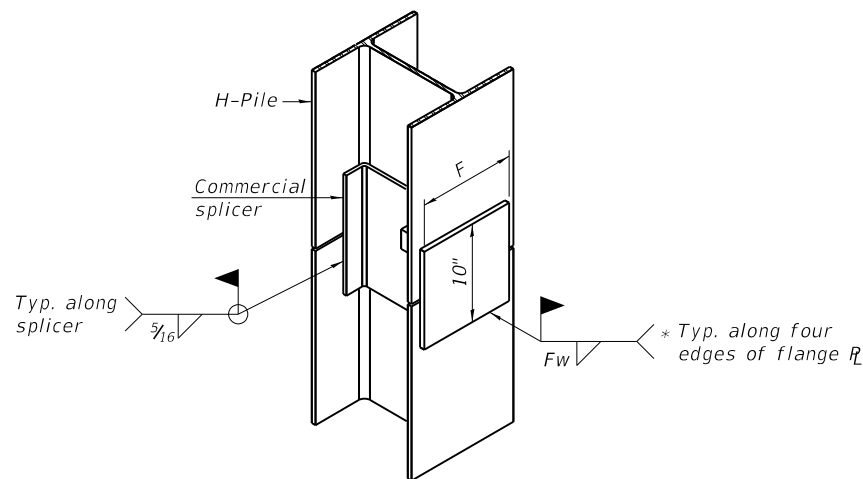
ELEVATION



DETAIL A

SHOE ATTACHMENT

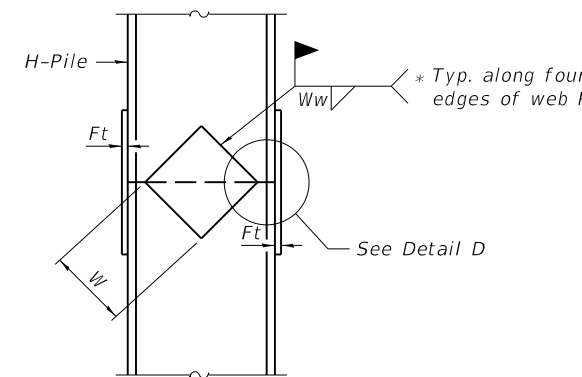
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



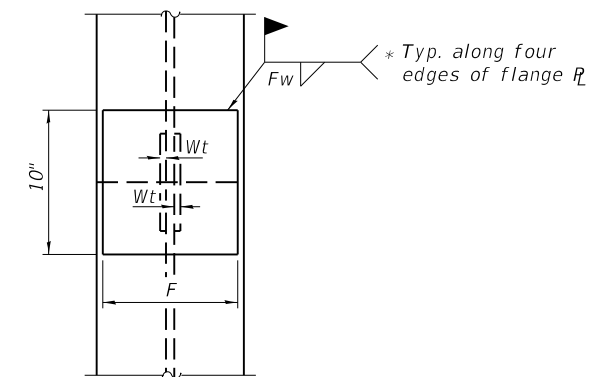
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

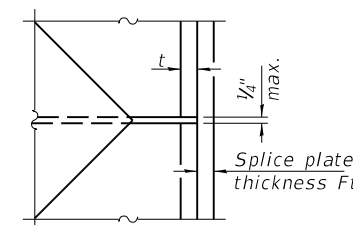
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

MODEL: Default
FILE NAME: 084-6023-0000-17-PileDetails.dgn

F-HP 8-11-2017



JOB NO.	2424
FILE NAME	084-6023-0000-17-PileDetails.dgn
PLLOT DATE	10/11/2022

DESIGNED	- AAN	REVISED	-
CHECKED	- MDC	REVISED	-
DRAWN	- SJS	REVISED	-
CHECKED	- MDC	REVISED	-

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

**HP PILE DETAILS
STRUCTURE NO. 084-6023**

SHEET 17 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	36
CONTRACT NO. 93799				

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: FAU 8067 over Spring Creek
 Section: 15-00483-00-BR
 County: Sangamon
 Structure No: 084-3222
 Station: 63+82
 Offset: 8' R

Boring: B-1
 Page: Page 1 of 2
 Date of Boring: September 29, 2017
 Drilled By: Felipe Contreras
 Checked By: Daniel E. Tappendorf
 MET Project No: 73082

Surface Water Elevation: 510.6 ft. Ground Water Elevation: when drilling: 506.2 ft. at completion: Caved at 521.2 ft.	DEPTH (ft.)	BLOW S (6")	QU (tsf)	MC (%)		DEPTH (ft.)	BLOW S (6")	QU (tsf)	MC (%)
Ground Surface Elevation: 531.2'									
8" of Asphalt				16					
Brown silty CLAY (CL) - Fill Elev. 529.2 ft.							2 3 4	0.8B	26
Black silty CLAY (OL) with gravel and asphalt fragments - Fill Elev. 498.2 ft.	1	-	12		Gray mottled brown silty CLAY (CL)	30			
	2						3 2 3	1.3B	26
	4		7						
	6								
	3		15						
Brown and gray mixed silty CLAY (CL) - Fill Elev. 519.2 ft.			2.2B	22			2 2 3	0.4B	31
Dark brown silty CLAY (CL) with asphalt millings - Fill Elev. 514.2 ft.	1	-	29		Gray silty CLAY (CL) with white shells	40	1 2 3	0.4B	29
	3		27						
	2		26						
Brown silty CLAY (CL) Elev. 506.7 ft.	2		1.1B	26	Gray silty CLAY (CL)	45	2 2 3	0.8B	24
	1		31						
	1		27						
Gray mottled brown silty CLAY (CL)	2		0.8B	28	Gray silty CLAY (CL) with sand	50	2 2 3	0.2B	20
	2								
	2								

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample
 MC- Moisture Content - Percent of dry weight
 Qu- Unconfined Compressive Strength- tons per square foot (tsf)

Type Failure
 Qu test
 B-Bulge
 S-Shear
 P-Penetrometer

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: FAU 8067 over Spring Creek
 Section: 15-00483-00-BR
 County: Sangamon
 Structure No. 084-3222
 Station: 63+82
 Offset: 8' R

Boring: B-1
 Page: Page 2 of 2
 Date of Boring: September 29, 2017
 Drilled By: Felipe Contreras
 Checked By: Daniel E. Tappendorf
 MET Project No: 73082

Surface Water Elevation: 510.6 ft. Ground Water Elevation: when drilling: 506.2 ft. at completion: Caved at 521.2 ft.	DEPTH (ft.)	BLOW S (6")	QU (tsf)	MC (%)		DEPTH (ft.)	BLOW S (6")	QU (tsf)	MC (%)
Ground Surface Elevation: 531.2									
Gray sandy CLAY (CL) Elev. 471.7 ft.	55	1 2 3	-	22	Gray soft SHALE	80			
	60	26 50/3"	-	16					
	65	32 50/3"	-	18					
END OF BORING @ ELEV: 467.2 ft.	65								

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample
 MC- Moisture Content - Percent of dry weight
 Qu- Unconfined Compressive Strength- tons per square foot (tsf)

Type Failure
 Qu test
 B-Bulge
 S-Shear
 P-Penetrometer

MODEL: Default
 FILE NAME: 084-6023-0000-18-19-Boring.dgn



JOB	-	2424	DESIGNED	-	AAN	REVISED	-
FILE NAME	-	084-6023-0000-18-19-Boring.dgn	CHECKED	-	MDC	REVISED	-
PILOT DATE	-	10/11/2022	DRAWN	-	SJS	REVISED	-
			CHECKED	-	MDC	REVISED	-

CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS

SOIL BORING LOGS
 STRUCTURE NO. 084-6023

SHEET 18 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	37
CONTRACT NO. 93799				

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: FAU 8067 over Spring Creek
 Section: 15-00483-00-BR
 County: Sangamon
 Structure No. 084-3222
 Station: 65+42
 Offset: 6' R

Boring: B-2
 Page: Page 1 of 2
 Date of Boring: September 29, 2017
 Drilled By: Felipe Contreras
 Checked By: Daniel E. Tappendorf
 MET Project No: 73082

Surface Water Elevation: 510.6 ft. Ground Water Elevation: when drilling: 504.1 ft. at completion: Caved at 516.1 ft.	D E P T H (ft.)	B L O W S (6")	Q _u (tsf)	MC (%)		D E P T H (ft.)	B L O W S (6")	Q _u (tsf)	MC (%)	
Ground Surface Elevation: 531.1 ft.					8" of Asphalt					
		-	-	21	Gray varved SILT and CLAY (CL-ML) Elev: 501.6 ft.		2 4 5	2.4B	27	
		5 5 7	-	19			30			
							4 5 7	1.9B	30	
	5				Gray silty CLAY (CL) Elev: 498.1 ft.					
		2 3 4	0.8S	22						
					Dark brown silty CLAY (CL) - Fill Elev: 521.6 ft.		7 11 15	2.2B	20	
							3 4 5	1.8B	32	
	10				Dark brown clayey SILT (OL) with some organics Elev: 488.1 ft.					
		4 6 10	3.0B	20						
							3 4 5	3.0B	61	
					Brown silty CLAY (CL) Elev: 511.6 ft.					
		3 4 4	1.7B	23						
							2 3 3	1.0B	25	
	15				Gray silty CLAY (CL) Elev: 509.1 ft.					
		4 5 7	2.6B	23						
					Gray varved SILT and CLAY (CL-ML) Elev: 516.6 ft.					
		3 4 5	1.6B	27						
	20				Gray clayey SILT (ML) Elev: 526.6 ft.					
		3 4 5	1.8B	26						
					Gray varved SILT and CLAY (CL-ML) Elev: 521.6 ft.					
		4 5 6	2.8B	27						
	25				Gray varved SILT and CLAY (CL-ML) Elev: 516.6 ft.					
		3 5 7	3.0B	28						

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample
 MC- Moisture Content - Percent of dry weight
 Qu- Unconfined Compressive Strength- tons per square foot (tsf)
 Type Failure Qu test
 B-Bulge
 S-Shear
 P-Penetrometer

BRIDGE FOUNDATION SOIL BORING LOG

MET Midwest Engineering and Testing, Inc.

Route: FAU 8067 over Spring Creek
 Section: 15-00483-00-BR
 County: Sangamon
 Structure No. 084-3222
 Station: 65+42
 Offset: 6' R

Boring: B-2
 Page: Page 2 of 2
 Date of Boring: September 29, 2017
 Drilled By: Felipe Contreras
 Checked By: Daniel E. Tappendorf
 MET Project No: 73082

Surface Water Elevation: 510.6 ft. Ground Water Elevation: when drilling: 504.1 ft. at completion: Caved at 516.1 ft.	D E P T H (ft.)	B L O W S (6")	Q _u (tsf)	MC (%)		D E P T H (ft.)	B L O W S (6")	Q _u (tsf)	MC (%)	
Ground Surface Elevation: 531.1 ft.										
					Gray fine clayey SAND (SC) Elev: 471.1 ft.					
		2 3 7	-	21						
					Gray soft SHALE Elev: 467.1 ft.					
		19 44 50/3"	-	16						
					END OF BORING @ ELEV: 467.1 ft.					
		29 50/4"	-	17						

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample
 MC- Moisture Content - Percent of dry weight
 Qu- Unconfined Compressive Strength- tons per square foot (tsf)
 Type Failure Qu test
 B-Bulge
 S-Shear
 P-Penetrometer

MODEL: Default
 FILE NAME: 084-6023-0000-18-19-Boring.dgn



JOB - 2424	DESIGNED - AAN	REVISED -
FILE NAME - 084-6023-0000-18-19-Boring.dgn	CHECKED - MDC	REVISED -
PILOT DATE - 10/11/2022	DRAWN - SJS	REVISED -
	CHECKED - MDC	REVISED -

CITY OF SPRINGFIELD
 NORTH 8TH STREET IMPROVEMENTS

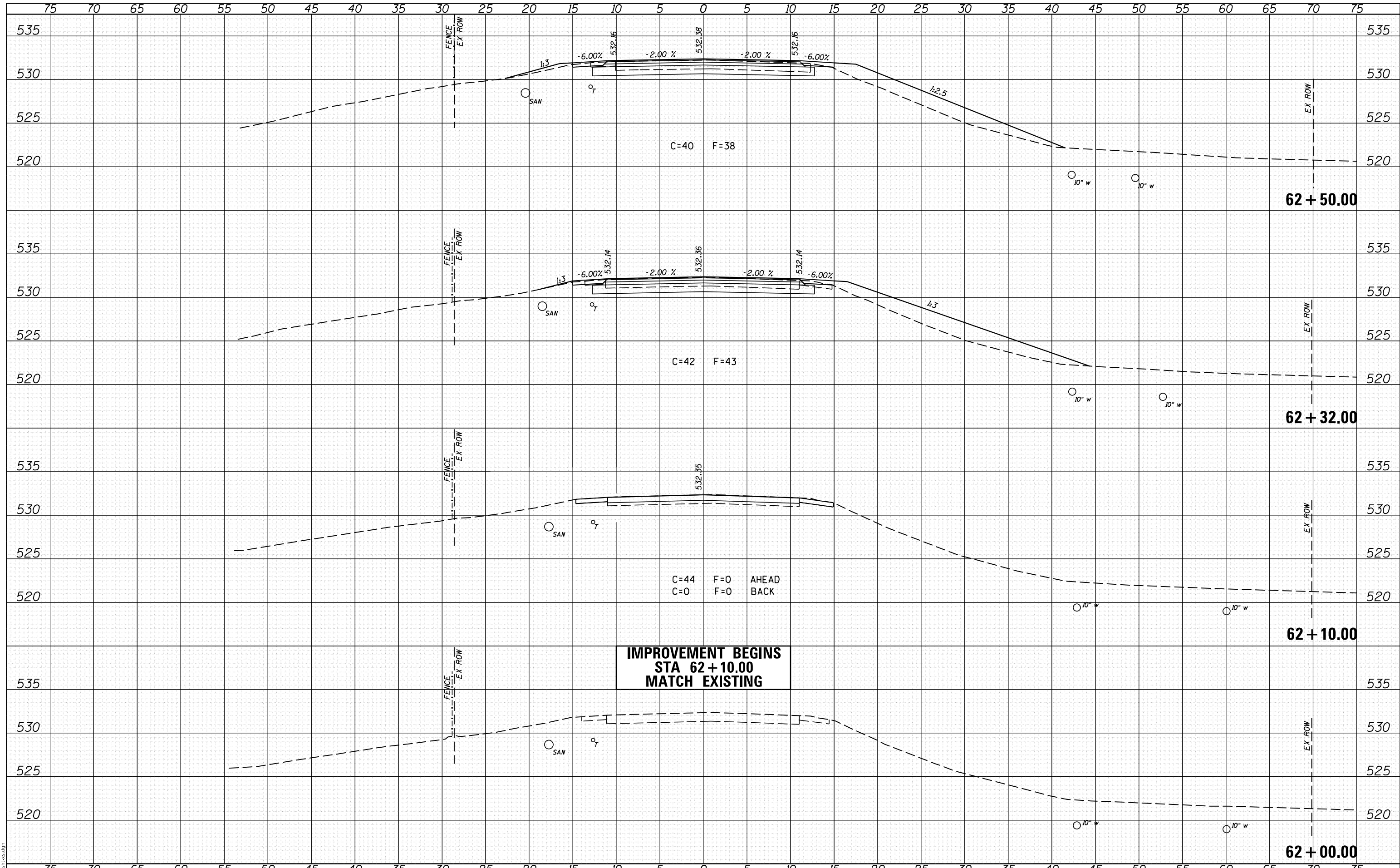
SOIL BORING LOGS
 STRUCTURE NO. 084-6023

SHEET 19 OF 19 SHEETS

FAU RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	38
CONTRACT NO. 93799				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	



MODEL: Default
FILE NAME: 2424-sh1-10.dgn

CEC Cummins Engineering Corporation
ENGINEERS & SURVEYORS

JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-sh1-10.dgn	DRAWN - TSH	REVISED -
PLOT SCALE = 10.0000' / 1"	CHECKED - CGF	REVISED -
PLOT DATE = 10/7/2022	DATE - 10/7/2022	REVISED -

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

CROSS SECTIONS

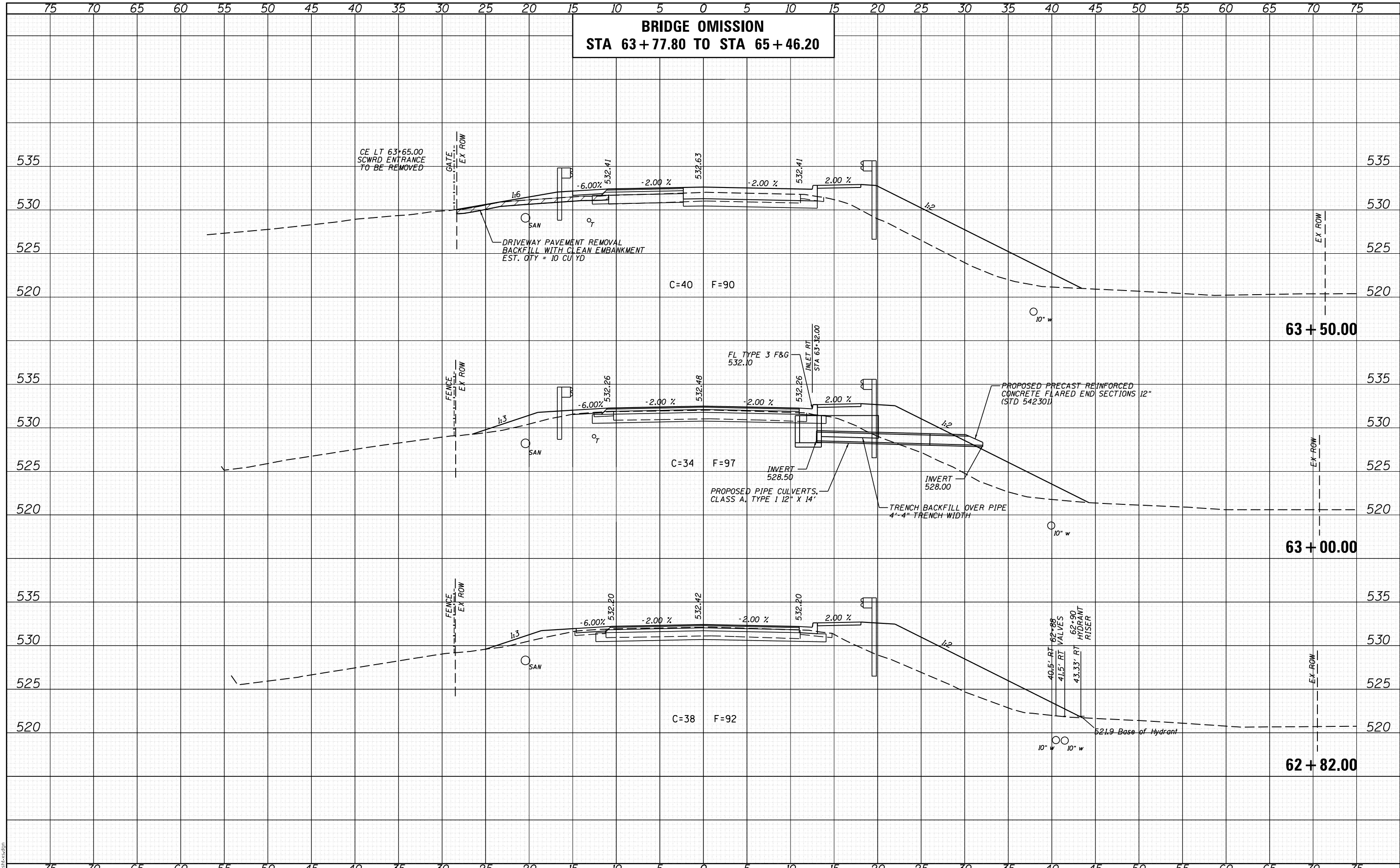
SCALE: SHEET NO. OF SHEETS STA. 62+00.00 TO STA. 62+50.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	39
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 93799

**BRIDGE OMISSION
STA 63+77.80 TO STA 65+46.20**

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



MODEL: Definit
FILE NAME: 2424-shr-15.dgn



JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-shr-15.dgn	DRAWN - TSH	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - CGF	REVISED -
PLOT DATE = 10/7/2022	DATE - 10/7/2022	REVISED -

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

CROSS SECTIONS

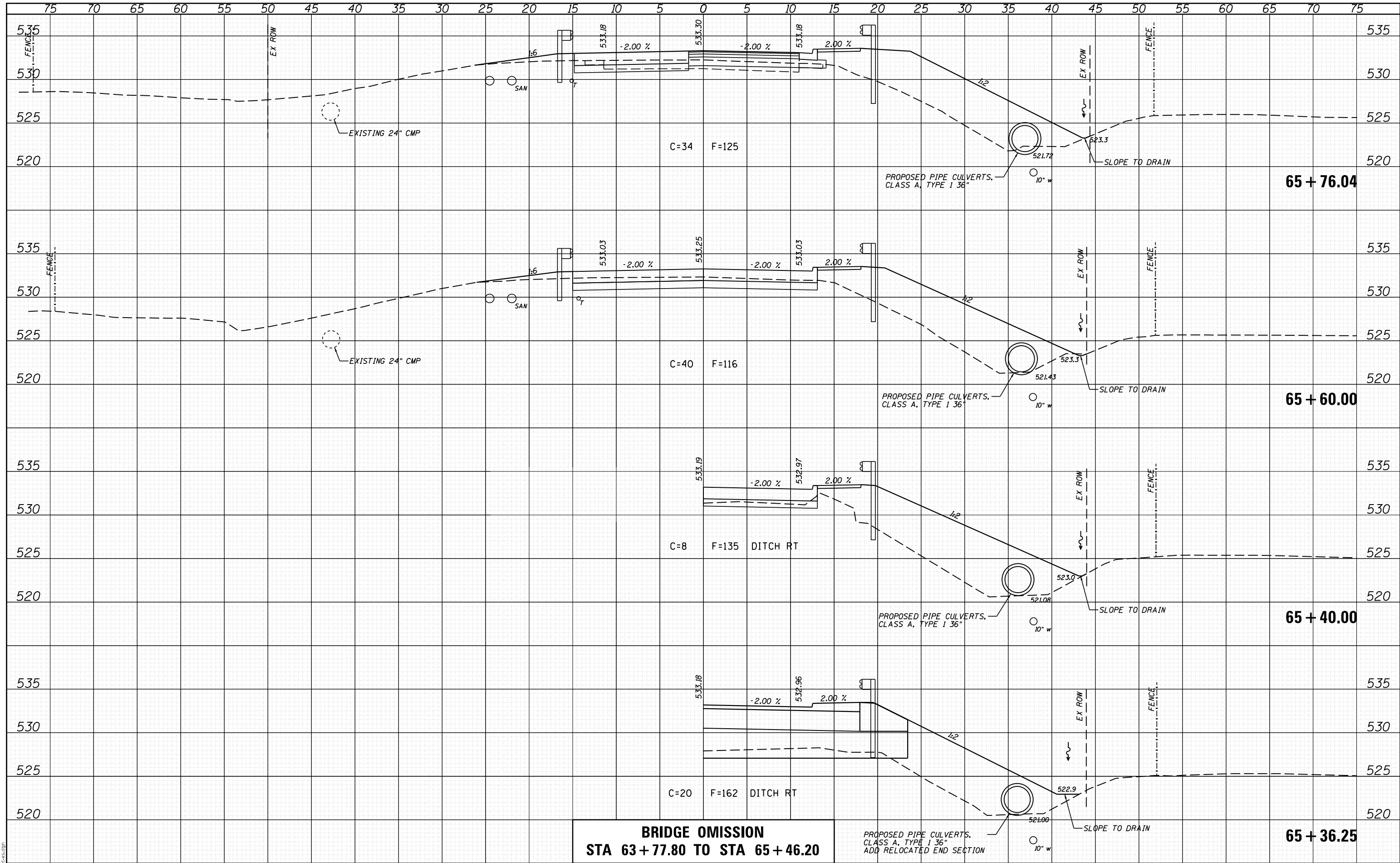
SCALE:	SHEET NO.	OF	SHEETS	STA. 62+82.00 TO STA. 63+50.00
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	40
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 93799

DATE	
BY	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



BRIDGE OMISSION
STA 63+77.80 TO STA 65+46.20

CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS

CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 65+36.25 TO STA. 65+76.04

JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-sh1-x.s.dgn	DRAWN - TSH	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - CGF	REVISED -
PLOT DATE = 10/7/2022	DATE - 10/7/2022	REVISED -

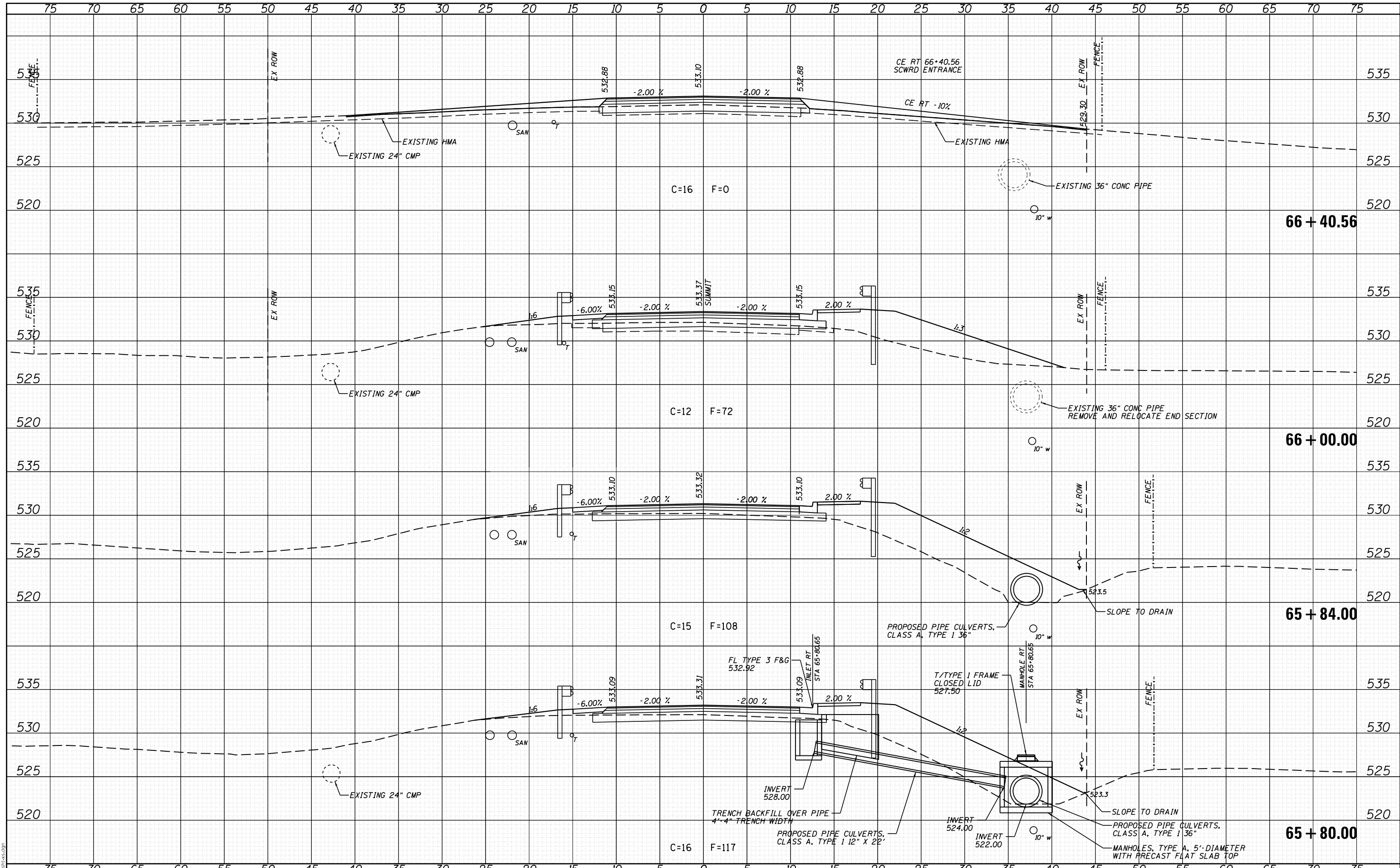
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	41
				CONTRACT NO. 93799
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



MODEL: Definit
 FILE NAME: 2424-sh1-x.s.dgn

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

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



MODEL: Definit
FILE NAME: 2424-shr.dwg

CEC Cummins
Engineering
Corporation
ENGINEERS & SURVEYORS

JOB = 2424
FILE NAME = 2424-shr-x.s.dgn
PLOT SCALE = 10.0000' / 1"
PLOT DATE = 10/7/2022

DESIGNED - TSH
DRAWN - TSH
CHECKED - CGF
DATE - 10/7/2022

REVISED -
REVISED -
REVISED -
REVISED -

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

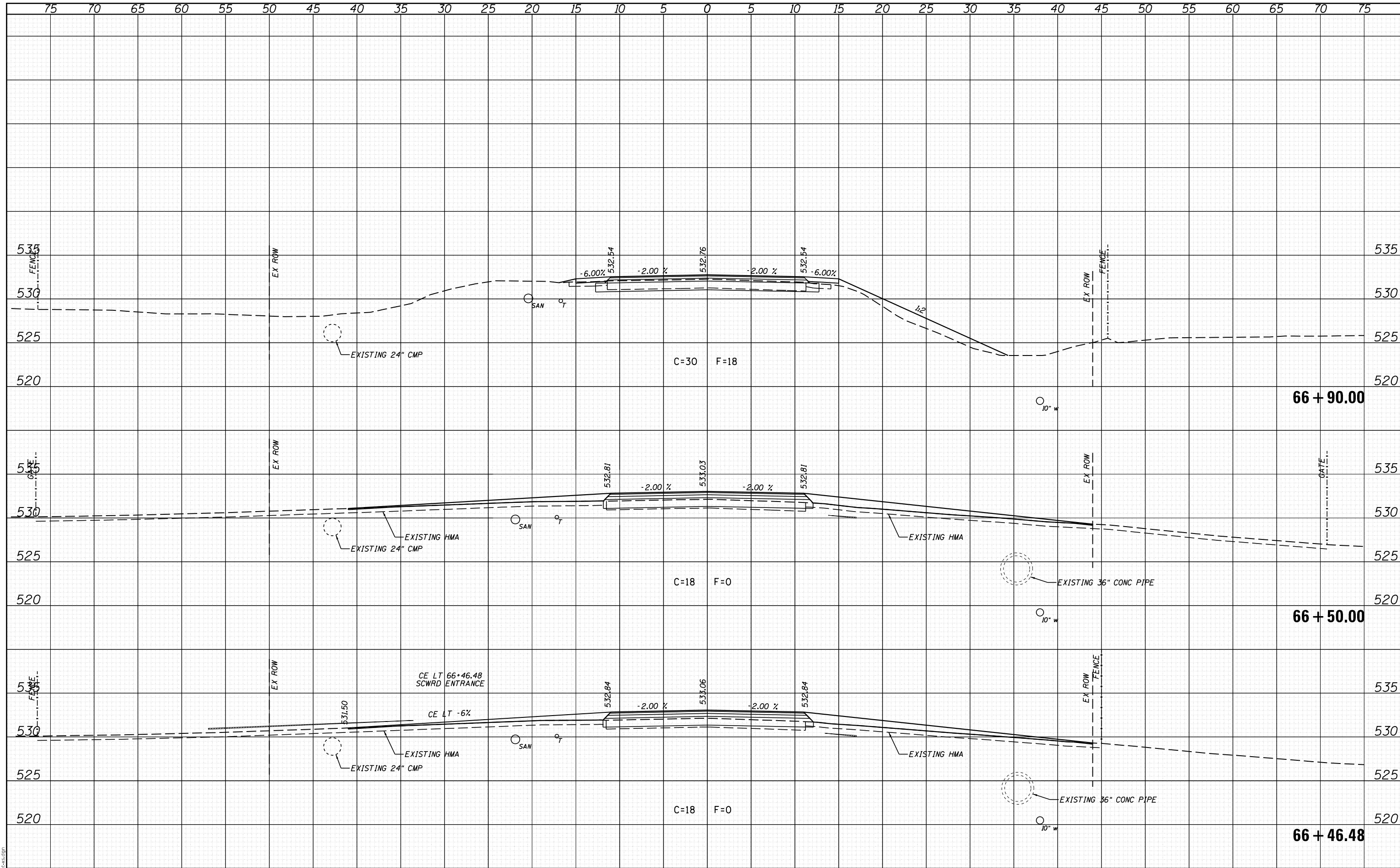
CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 65+80.00 TO STA. 66+40.56

F.A.U. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	42
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 93799	

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

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



MODEL: Definit
FILE NAME: 2424-sht-15.dgn

CEC Cummins
Engineering
Corporation
ENGINEERS & SURVEYORS

JOB = 2424
FILE NAME = 2424-sht-15.dgn
PLOT SCALE = 10.0000' / 1"
PLOT DATE = 10/7/2022

DESIGNED - TSH
DRAWN - TSH
CHECKED - CGF
DATE - 10/7/2022

REVISED -
REVISED -
REVISED -
REVISED -

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

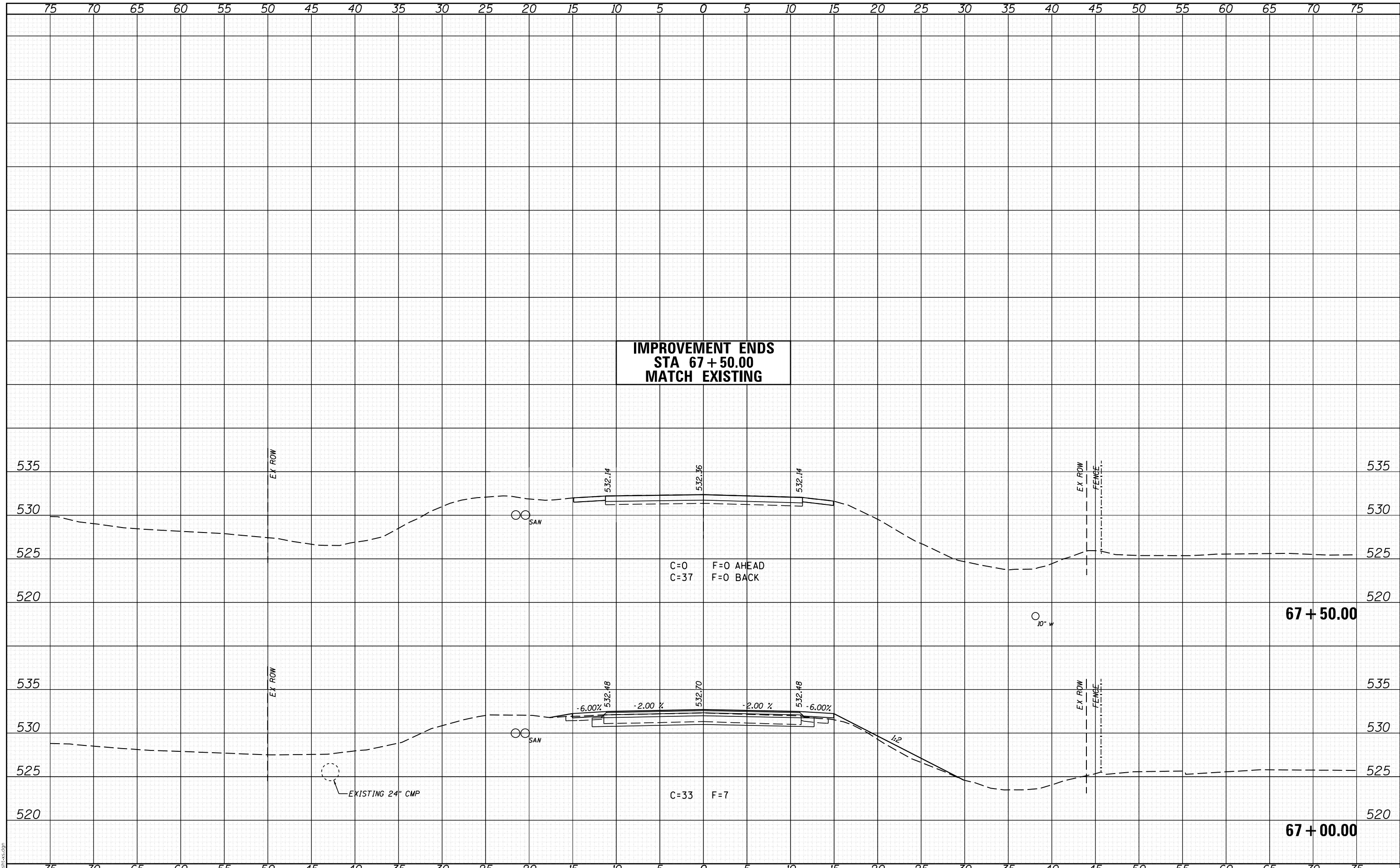
CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 66+46.48 TO STA. 66+90.00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	43
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



**IMPROVEMENT ENDS
STA 67+50.00
MATCH EXISTING**

C=0 F=0 AHEAD
C=37 F=0 BACK

C=33 F=7

**CITY OF SPRINGFIELD
NORTH 8TH STREET IMPROVEMENTS**

CROSS SECTIONS

SCALE: SHEET NO. OF SHEETS STA. 67+00.00 TO STA. 67+50.00

JOB = 2424	DESIGNED - TSH	REVISED -
FILE NAME = 2424-sh1-x.s.dgn	DRAWN - TSH	REVISED -
PLOT SCALE = 10.0000' / in.	CHECKED - CGF	REVISED -
PLOT DATE = 10/7/2022	DATE - 10/7/2022	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
8067	15-00483-00-BR	SANGAMON	44	44
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 93799	



MODEL: Definit
FILE NAME: 2424-sh1-x.s.dgn