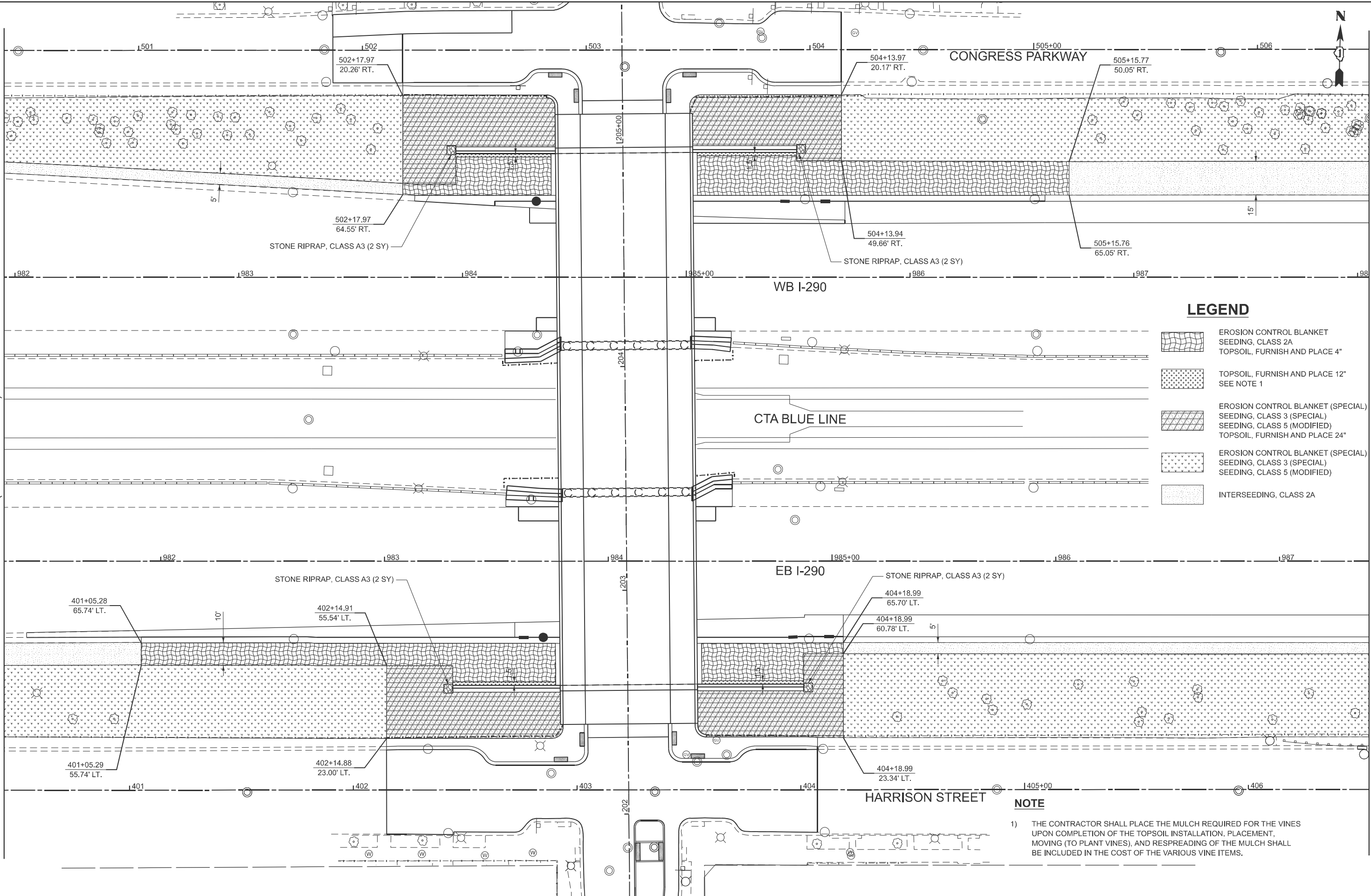


MODEL: Keeler LS (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0108543\D162U41-shp-L.S.dgn

MATCHLINE STA. 981+30 (EASTBOUND I-290)

MATCHLINE STA. 987+40 (EASTBOUND I-290)



USER NAME	= kdc
DESIGNED	- KDC
DRAWN	- KDC
CHECKED	- DJK
DATE	- 8/29/2025

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

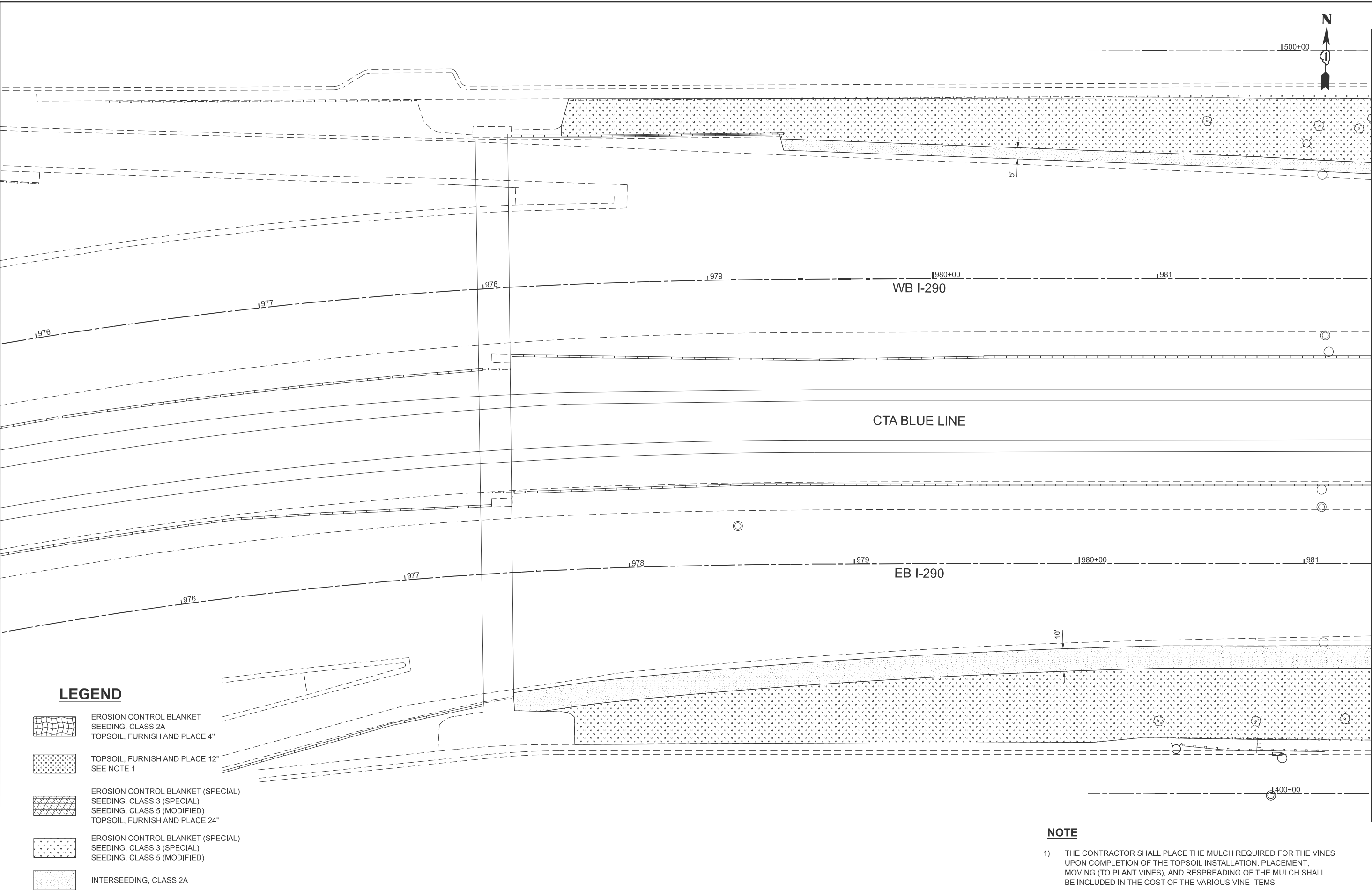
I-290 AT KEELER AVENUE
LANDSCAPING PLAN

SCALE: 1"=20'

SHEET 1 OF 4 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	101
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: I-290 Eastbound Ext - PR I-290 - A [Sheet]
FILE NAME: c:\bms\civiltech-pw\kyle.dwg\0108543\0162041-shd-L.S.dgn

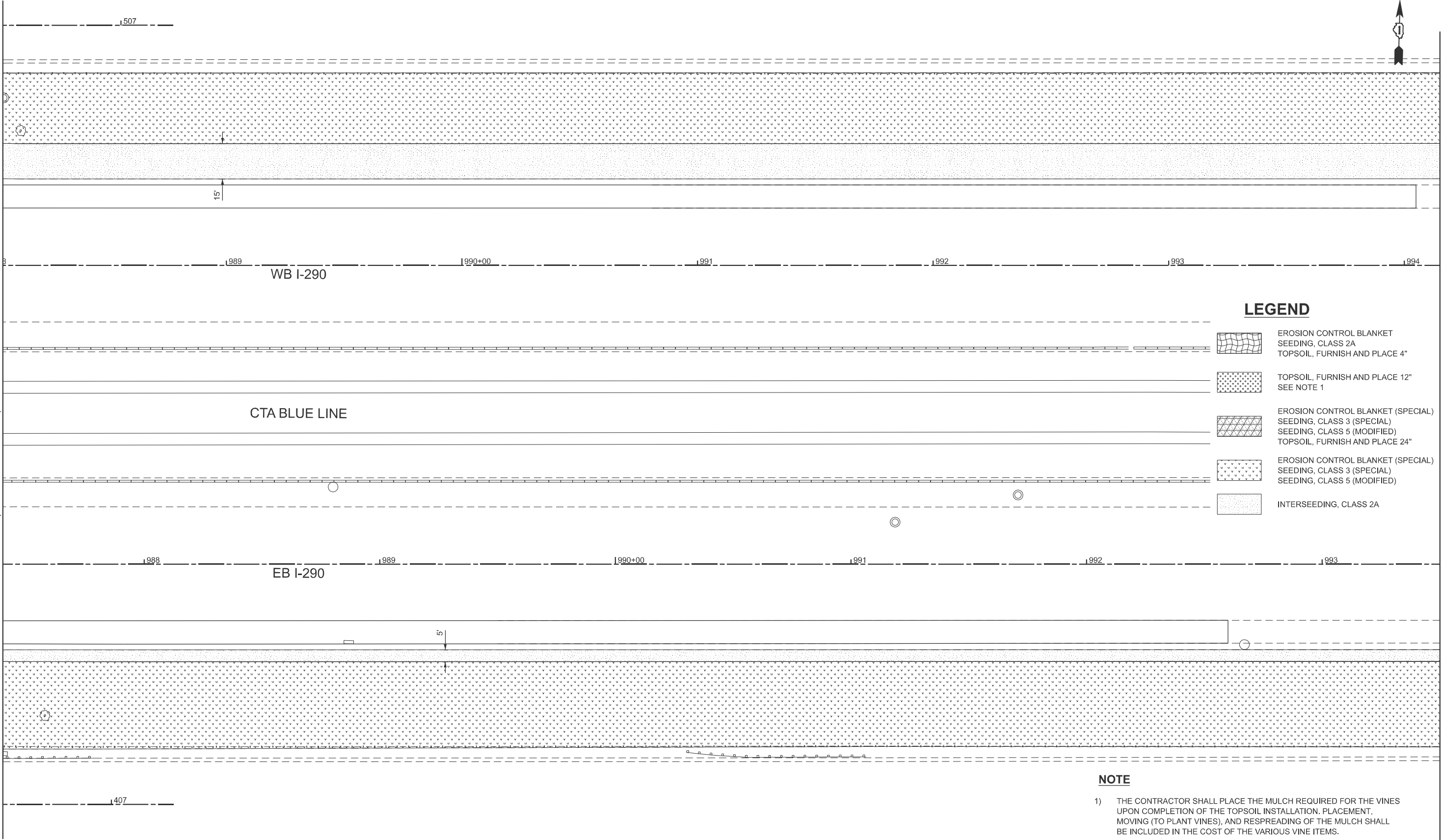


USER NAME = kdc				DESIGNED - KDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				I-290 AT KEELER AVENUE LANDSCAPING PLAN				F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				DRAWN - KDC	REVISED -									290	FAI 290 22 KEELER BR	COOK	283	101A
				CHECKED - DJK	REVISED -									CONTRACT NO. 62U41				
PLOT DATE = 9/3/2025				DATE - 8/29/2025	REVISED -									ILLINOIS FED. AID PROJECT				
								SCALE: 1"=20'				SHEET 2 OF 4 SHEETS						

MODEL: I-290 Eastbound Ext - PR I-290 - B (Sheet)
FILE NAME: c:\bms\chiltech\p\kyle.dbr\0108543\0162041-shd-L.S.dgn

MATCHLINE STA. 987+40 (EASTBOUND I-290)

MATCHLINE STA. 993+50 (EASTBOUND I-290)



PLOT DATE = 9/2/2025	USER NAME = kdc	DESIGNED - KDC	REVISED -
		DRAWN - KDC	REVISED -
		CHECKED - DJK	REVISED -
	DATE - 8/29/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

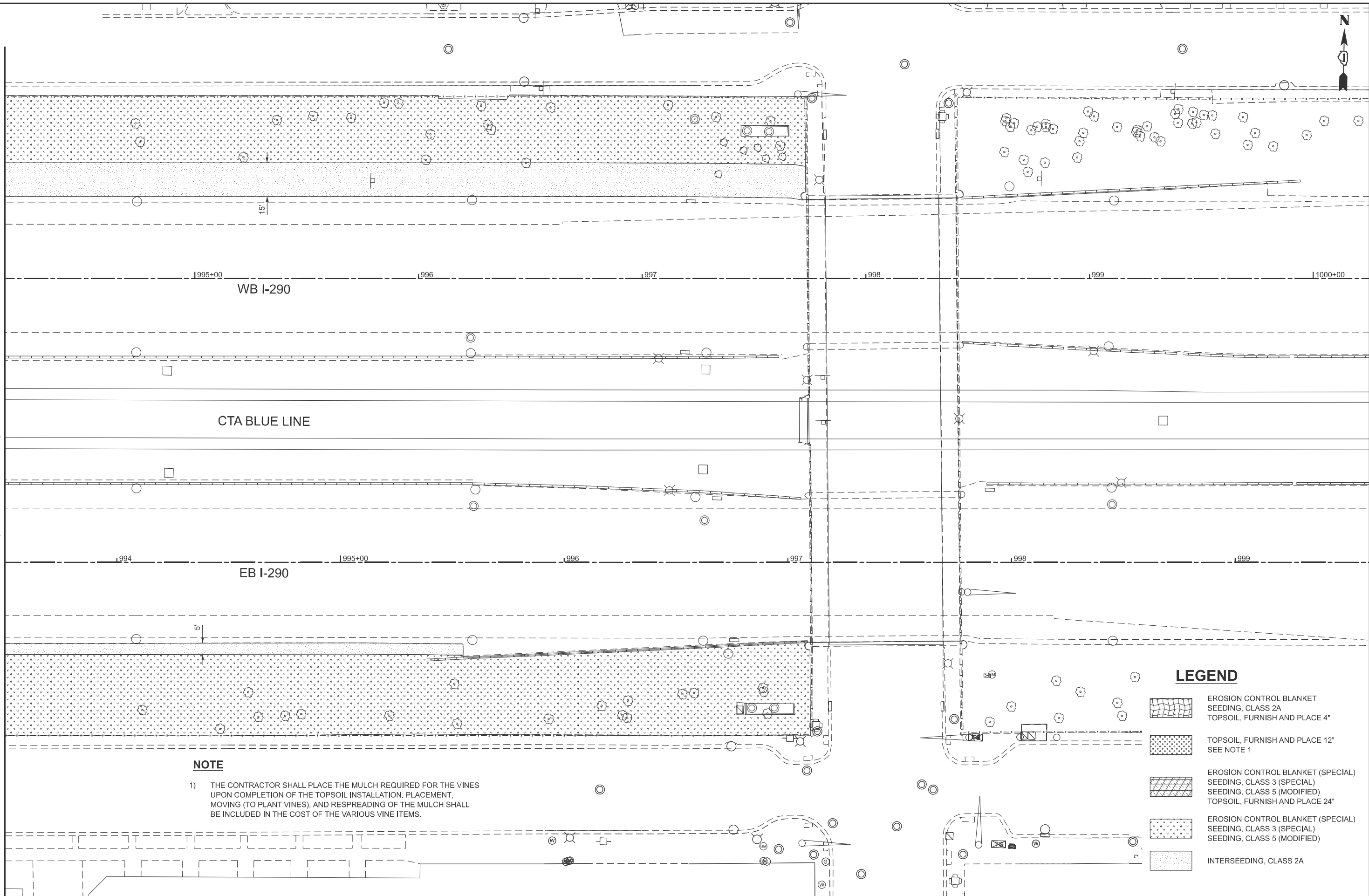
I-290 AT KEELER AVENUE
LANDSCAPING PLAN

SCALE: 1"=20' SHEET 3 OF 4 SHEETS

FAJ RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	101B
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: I-290 Eastbound Ext - PR I-290 - C (Sheet)
FILE NAME: c:\bms\chiltech-pw\kyle.dary\0108543\0162U41-sht-I-LS.dgn

MATCHLINE STA. 993+50 (EASTBOUND I-290)



NOTE

- 1) THE CONTRACTOR SHALL PLACE THE MULCH REQUIRED FOR THE VINES UPON COMPLETION OF THE TOPSOIL INSTALLATION. PLACEMENT, MOVING (TO PLANT VINES), AND RESPREADING OF THE MULCH SHALL BE INCLUDED IN THE COST OF THE VARIOUS VINE ITEMS.

LEGEND

 EROSION CONTROL BLANKET
SEEDING, CLASS 2A
TOPSOIL, FURNISH AND PLACE 4"

 TOPSOIL, FURNISH AND PLACE 12"
SEE NOTE 1

 EROSION CONTROL BLANKET (SPECIAL)
SEEDING, CLASS 3 (SPECIAL)
SEEDING, CLASS 5 (MODIFIED)
TOPSOIL, FURNISH AND PLACE 24"

 EROSION CONTROL BLANKET (SPECIAL)
SEEDING, CLASS 3 (SPECIAL)
SEEDING, CLASS 5 (MODIFIED)

 INTERSEEDING, CLASS 2A

USER NAME = kdc	DESIGNED - KDC	REVISED -
	DRAWN - KDC	REVISED -
	CHECKED - DJK	REVISED -
	DATE - 8/29/2025	REVISED -
PLOT DATE = 9/2/2025		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
LANDSCAPING PLAN

SCALE: 1"=20' SHEET 4 OF 4 SHEETS

F&I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	101C
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK (62U41)

YEAR	MONTH	START DATE	END DATE	TURF WORK	TREE WORK (EXISTING TREES)	INTERIM COMPLETION DATES	
YEAR ONE	JAN	1	10			PHASE I (1- ONE)	
		11	20				
		21	31				
	FEB	1	10		REMOVE TREES (TREE OF HEAVEN, GROWING WITHIN FENCE, DEAD TREES, ETC.) PRUNE TREES (REMOVE DEAD BRANCHES)		
		11	20				
		21	28				
	MARCH	1	10	MOW CYCLE (1ST)			
		11	20		MULCH PLACEMENT, 4" (AROUND EXISTING TREES PER SPECIAL PROVISION)		
		21	31	WEED CONTROL, BROADLEAF IN TURF (1.5 OZ/ACRE)			
	APRIL	1	10		BASAL TREATMENT (VOLUNTEER SAPLINGS: BUCKTHORN, SIBERIAN ELM, GREENASH, ETC.)		
		11	20				
		21	30	MOW CYCLE (2ND)			
	MAY	1	10		BASAL TREATMENT - NEW VOLUNTEERS		
		11	20				
		21	31	MOW CYCLE (3RD)			
	JUNE	1	10	TEMPORARY SEED (SPRING OR SUMMER MIX) - WEATHER DEPENDENT			
		11	20		PHASE II (2 - TWO)		
		21	30	MOW CYCLE (4TH)			
	JULY	1	10			BASAL TREATMENT - IF NECESSARY	
		11	20				
		21	31	MOW CYCLE (5TH)			
	AUG	1	10			BASAL TREATMENT - IF NECESSARY	
		11	20	WEED CONTROL, AQUATIC & WEED CONTROL, BROADLEAF IN TURF (1 OZ/ACRE)			
		21	31				
	SEPT	1	10	MOW CYCLE (6TH)			
		11	20	TEMPORARY SEED (FALL MIX)			
		21	30				
	OCT	1	10			WINTER BREAK	
		11	20				
		21	31				
	NOV	1	10				
		11	20				
		21	30				
	DEC	1	10				
		11	20				
		21	31				

MODEL: I-290 at Keeler Avenue.dgn
FILE NAME: I-290 at Keeler Avenue.dgn

CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK (62U41)
(CONTINUED)

YEAR	MONTH	START DATE	END DATE	TURF WORK	TREE WORK (PLANTING OF NEW TREES)	INTERIM COMPLETION DATES
YEAR TWO	JAN	1	10			WINTER BREAK
		11	20			
		21	31			
	FEB	1	10			
		11	20			
		21	28			
	MARCH	1	10			PHASE III (3 - THREE)
		11	20	WEED CONTROL, BROADLEAF IN TURF (SPOT SPRAY ROSETTES - IF NECESSARY)		
		21	31			
	APRIL	1	10	MOWING CYCLE (1ST) - ALL AREAS TO A HEIGHT OF 4"		
		11	20	INTERSEEDING, CLASS 2A		
		21	30	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL (ROUND 1) (AREAS TO BE SEEDED WITH NATIVE SEEDING, CLASS 4A & 5 (MOD))		
	MAY	1	10			PHASE IV (4 - FOUR)
		11	20	MOWING CYCLE (2ND) - ALL AREAS TO A HEIGHT OF 4"		
		21	31			
	JUNE	1	10	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL (ROUND 2) AREAS TO BE SEEDED WITH NATIVE SEEDING, CLASS 4A & 5 (MOD)		
		11	20	MOW CYCLE (3RD) - MOW TURF GRASS TO A HEIGHT OF 4"		
		21	30			
	JULY	1	10	MOW CYCLE (4TH) - ALL TO A HEIGHT OF 4"		PHASE V (5 - FIVE)
		11	20			
		21	31	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL (ROUND 3) (AREAS TO BE SEEDED WITH NATIVE SEEDING, CLASS 4A & 5 (MOD))		
	AUG	1	10			
		11	20	MOW CYCLE (5TH) - ALL TO A HEIGHT OF 4"		
		21	31	SEED COMPLETED CONSTRUCTION AREAS: SEEDING, CLASS 2A (TURF AREAS) - DO NOT SEED AREAS TO BE PLANTED WITH VINES TEMPORARY SEED (FALL MIX) FOR ENTIRE NATIVE AREAS	PRIOR TO PERMANENT SEEDING LOCATIONS WHERE VINES OR TREES ARE TO BE PLANTED: PLANT EVERGREEN TREES AND PLANT ALL DECIDUOUS TREES (BOTH FALL AND SPRING DUG) PLACE MULCH BED FOR VINES ONLY (VINES WILL BE INSTALLED IN THE SPRING)	PHASE VI (6 - SIX)
	SEPT	1	10	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL SPOT SPRAY IF NECESSARY - (AREAS FOR NATIVE SEEDING, CLASS 4A & 5 (MOD))		PHASE VII (7 - SEVEN)
		11	20			
		21	30			
	OCT	1	10	MOW CYCLE (6TH) - ALL TO A HEIGHT OF 4"		
		11	20			
		21	31			
	NOV	1	10	MOW CYCLE (7TH) NATIVE AREAS - AS CLOSE TO THE GROUND AS POSSIBLE & RAKE OFF CUTTINGS		PHASE VIII (8 - EIGHT)
		11	20			
		21	30	SEEDING, CLASS 3A (SPECIAL) & SEEDING, CLASS 5 (MOD) ONCE SOIL TEMPERATURES ARE CONSISTENLY BELOW 50°		
	DEC	1	10			
		11	20			
		21	31			WINTER BREAK

MODEL: LS_Calendar-1 [Sheet]
FILE NAME: c:\bms\civil\sch-p\kyle.dary\62108543\62108541-sht-calendar-LS.dgn

	USER NAME = kdc	DESIGNED - KDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 AT KEELER AVENUE CALENDAR OF LANDSCAPE CONSTRUCTION			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - KDC	REVISED -					290	FAI 290 22 KEELER BR	COOK	283	101E
		CHECKED - DJK	REVISED -					CONTRACT NO. 62U41				
	PLOT DATE = 9/2/2025	DATE - 8/29/2025	REVISED -		SCALE:	SHEET 2	OF 3 SHEETS	ILLINOIS FED. AID PROJECT				

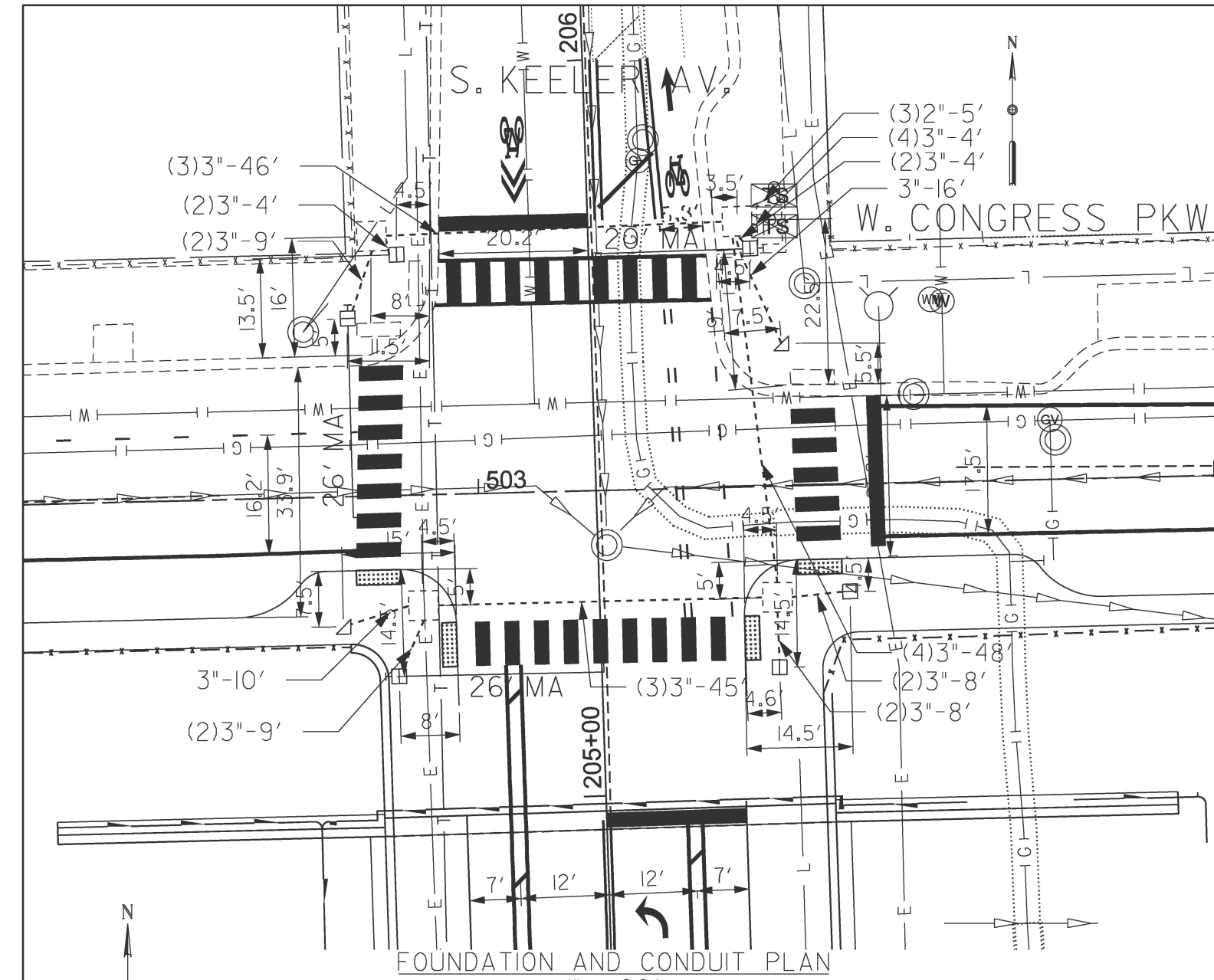
MODEL: LS_Calendar-2 [Sheet]
FILE NAME: c:\bns\civil\sch-pw\kyle.dary\d0108543\D162U41-sht-calendar-LS.dgn

CALENDAR OF LANDSCAPE CONSTRUCTION AND ESTABLISHMENT WORK (62U41)
(CONTINUED)

YEAR	MONTH	START DATE	END DATE	TURF WORK		TREE WORK (ESTABLISHMENT OF NEWLY PLANTED TREES)	INTERIM COMPLETION DATES
YEAR THREE	JAN	1	10				WINTER BREAK
		11	20				
		21	31				
	FEB	1	10				
		11	20				
		21	28				
	MARCH	1	10				PHASE IX (9 - NINE)
		11	20	WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL (AREAS TO BE SEEDED WITH NATIVE SEEDING, CLASS 3A (SPECIAL) & 5 (MOD) (SPOT SPRAY ROSETTES & ANYTHING GREEN - IF NECESSARY)			
		21	31				PHASE X (10 - TEN)
	APRIL	1	10	MOW CYCLE (1ST) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		PLANT VINES	
		11	20				
		21	30				
	MAY	1	10		SUPPLEMENTAL WATERING OF NATIVE AREAS EVERY THREE DAYS FOR 15 - 20 MINUTES (WEATHER DEPENDENT)	WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XI (11 - ELEVEN)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	31	MOW CYCLE (2ND) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	JUNE	1	10		SUPPLEMENTAL WATERING OF NATIVE AREAS EVERY THREE DAYS FOR 15 - 20 MINUTES (WEATHER DEPENDENT)	WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XII (12 - TWELVE)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	30	MOW CYCLE (3RD) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	JULY	1	10		SUPPLEMENTAL WATERING OF NATIVE AREAS EVERY THREE DAYS FOR 15 - 20 MINUTES (WEATHER DEPENDENT)	WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XIII (13 - THIRTEEN)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	31	MOW CYCLE (4TH) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	AUG	1	10		SUPPLEMENTAL WATERING OF NATIVE AREAS EVERY THREE DAYS FOR 15 - 20 MINUTES (WEATHER DEPENDENT)	WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XIV (14 - FOURTEEN)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	31	MOW CYCLE (5TH) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	SEPT	1	10			WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XV (15 - FIFTEEN)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	30	MOW CYCLE (6TH) TURF AREAS TO HEIGHT OF 4" NATIVE AREAS TO A HEIGHT OF 6" WHEN REACHES A HEIGHT OF 10"		SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	OCT	1	10			WATER TREES - PART OF ESTABLISHMENT WORK & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	PHASE XVI (16 - SIXTEEN)
		11	20			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
		21	31			SUPPLEMENTAL WATERING OF TREES & REMOVE WEEDS FROM NEWLY INSTALLED TREES & VINES	
	NOV	1	10			PLANT TREE REPLACEMENTS IF NECESSARY	
		11	20				
		21	30				

USER NAME = kdc	DESIGNED - KDC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	I-290 AT KEELER AVENUE CALENDAR OF LANDSCAPE CONSTRUCTION	F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN - KDC	REVISED -			290	FAI 290 22 KEELER BR	COOK	283	101F	
	CHECKED - DJK	REVISED -			CONTRACT NO. 62U41					
PLOT DATE = 9/2/2025	DATE - 8/29/2025	REVISED -			ILLINOIS FED. AID PROJECT					
SCALE:		SHEET 3 OF 3 SHEETS								

MODEL: TS04 (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\010854\A1D12U41-sht-1a02.dgn



FOUNDATION AND CONDUIT PLAN

1" = 20'

REMOVAL LEGEND

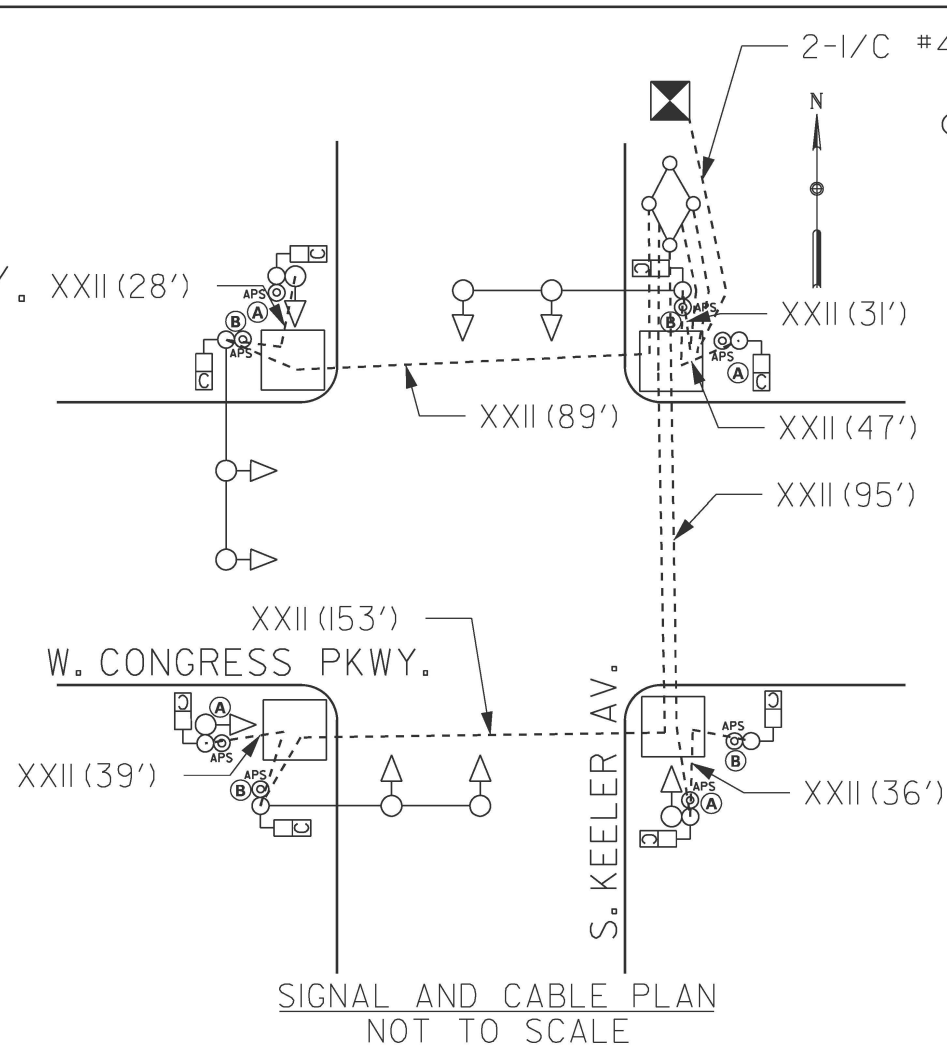
- A - BREAK DOWN FOUNDATION
- B - BREAK DOWN MANHOLE/HANDHOLE
- C - REMOVE EXISTING CONTROLLER AND CABINET
- D - REMOVE SIGNAL HEAD
- E - REMOVE PEDESTRIAN HEAD
- F - REMOVE POLE/POST (WITH ARM WHERE APPLICABLE)
- // - ABANDON CONDUIT

W. CONGRESS PKWY.

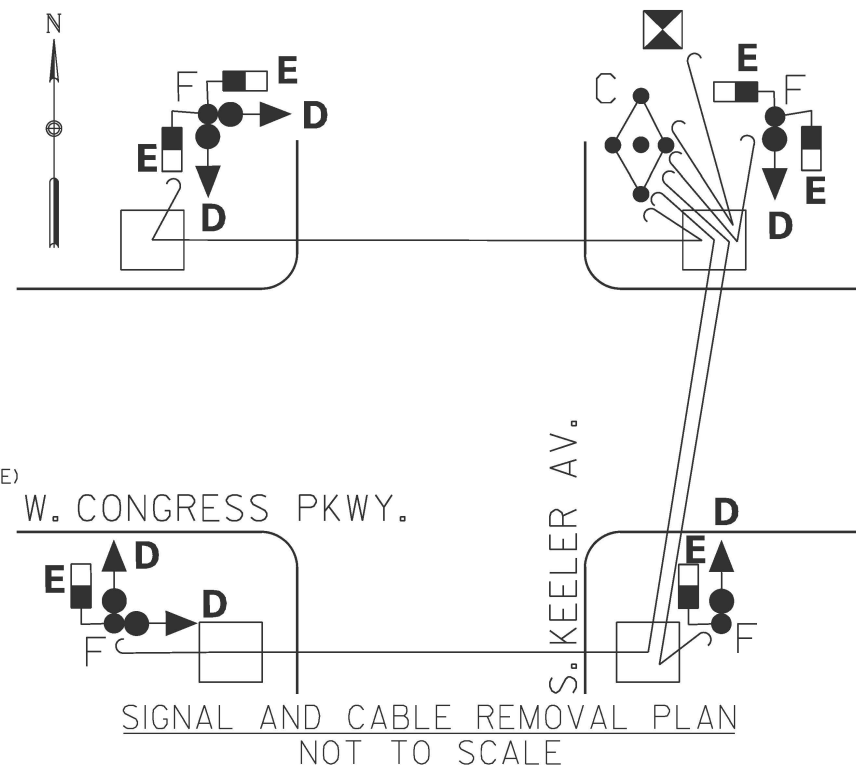
S. KEELER AV.

FOUNDATION REMOVAL PLAN

NOT TO SCALE

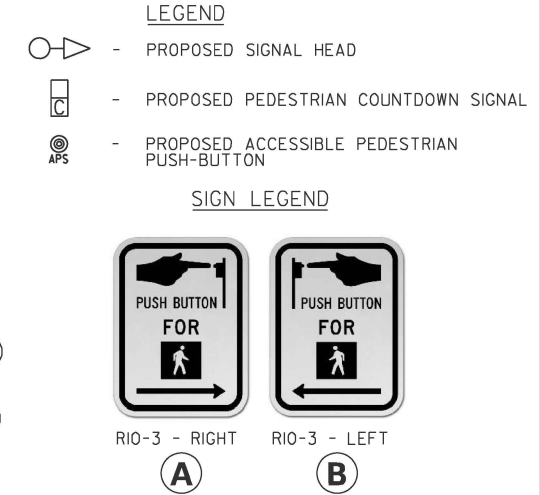


SIGNAL AND CABLE PLAN
NOT TO SCALE



SIGNAL AND CABLE REMOVAL PLAN
NOT TO SCALE

NO.	DATE	REVISION
SUPERSEDES DRAWING NO. : XXXXX		DATED: XX-XX-XX
OUC NO. _____		DATE _____
APPROX. ADDRESS _____		DATE _____
WORK ORDER NO. _____		DATE _____
COST ALLOCATION ACCOUNT _____		
APPROPRIATION ACCOUNT _____		MATERIAL _____ LABOR _____
TRAFFIC CONTROL SIGNALS S. KEELER AV. AND W. CONGRESS PKWY.		
DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING ELECTRICAL SECTION		
DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER: LEP
TRAFFIC ENGINEER:	ELEC. DESIGN ENGR.	DWG. NO.
ENGINEER OF ELECTRICITY:		14778
SUPT. OF CONSTRUCTION:		
DEPUTY COMMISSIONER:		
SIZE: 22" 34"	SCALE: AS NOTED	DATE: 7/21/2025
FAI RTE.	SECTION	COUNTY
290	FAI 290 22 KEELER BR	COOK
		TOTAL SHEETS 283
		SHEET NO. 102
CONTRACT NO. 62U41		
ILLINOIS FED. AID PROJECT		



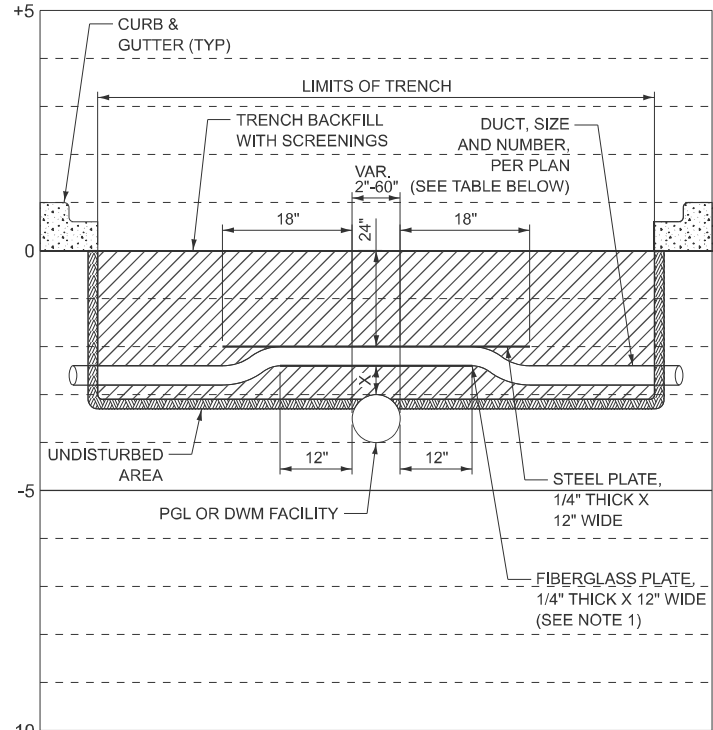
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

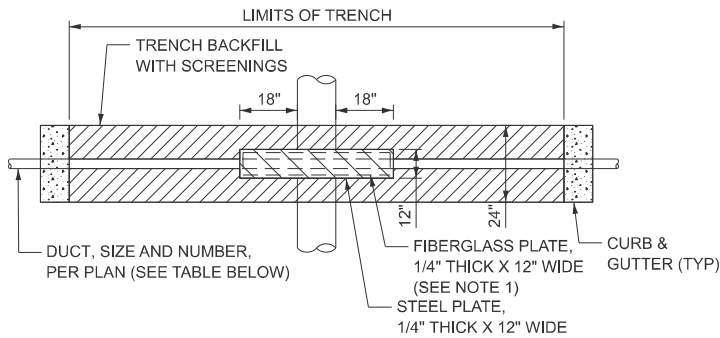
I-290 AT KEELER AVENUE
TRAFFIC CONTROL SIGNALS - KEELER AVENUE AT CONGRESS PARKWAY

SCALE: 1"=20' SHEET 1 OF 2 SHEETS

SHALLOW CONDUIT PROTECTION DETAIL



PROFILE VIEW
NOT TO SCALE

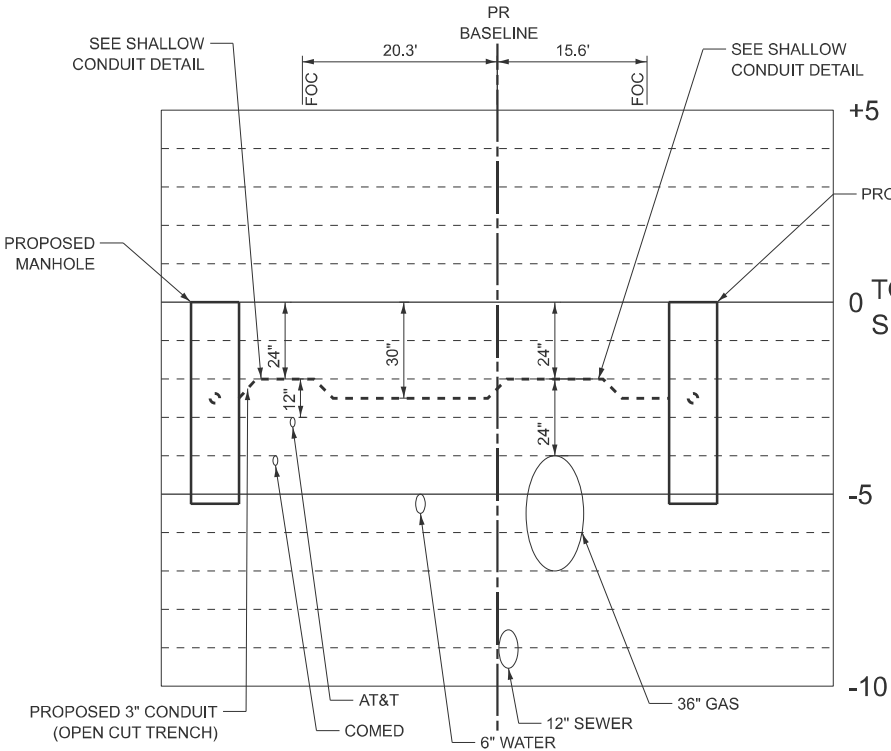


PLAN VIEW
NOT TO SCALE

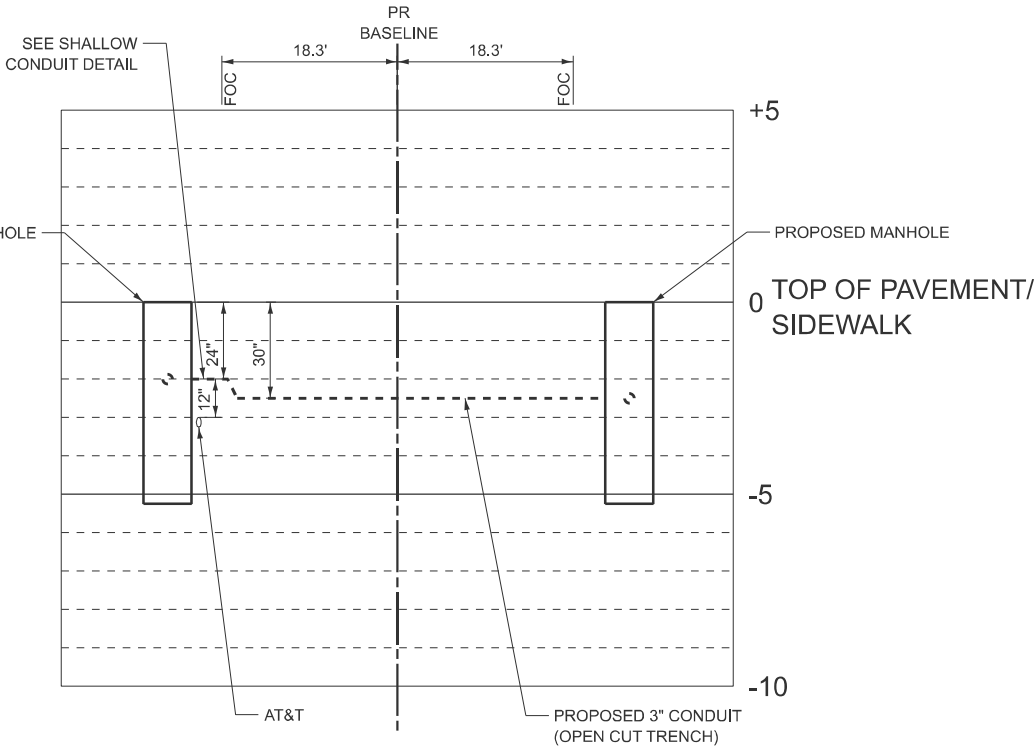
SIZE	OUTSIDE DIAMETER	VERTICAL CLEARANCE (X) CONDUIT OVER METALLIC GAS MAINS (TWO PLATE)	VERTICAL CLEARANCE (X) CONDUIT OVER PLASTIC GAS MAINS & DWM MAINS (ONE PLATE)
1-1/4"	1.66"	9.84"	10.09"
2"	2.375"	9.13"	9.38"
3"	3.5"	8"	8.25"

NOTES:

- FIBERGLASS PLATE TO BE PROVIDED ONLY WHEN CROSSING METALLIC GAS MAINS OF ANY SIZE.
- INSTALLATION PROCEDURE:
 - ALL WORK SHALL BE COMPLETED IN THE PRESENCE OF A CDOT AND UTILITY INSPECTOR.
 - EXPOSE UTILITY BY HAND DIGGING AND/OR VACUUM EXCAVATOR.
 - BACKFILL UTILITY AS REQUIRED.
 - INSTALL FIBERGLASS PLATE (IF REQUIRED).
 - INSTALL DUCT.
 - BACKFILL TO TOP OF DUCT.
 - INSTALL STEEL PLATE.
 - BACKFILL TO BOTTOM OF PAVEMENT STRUCTURE.
 - CONCRETE OR ASPHALT RESTORATION.



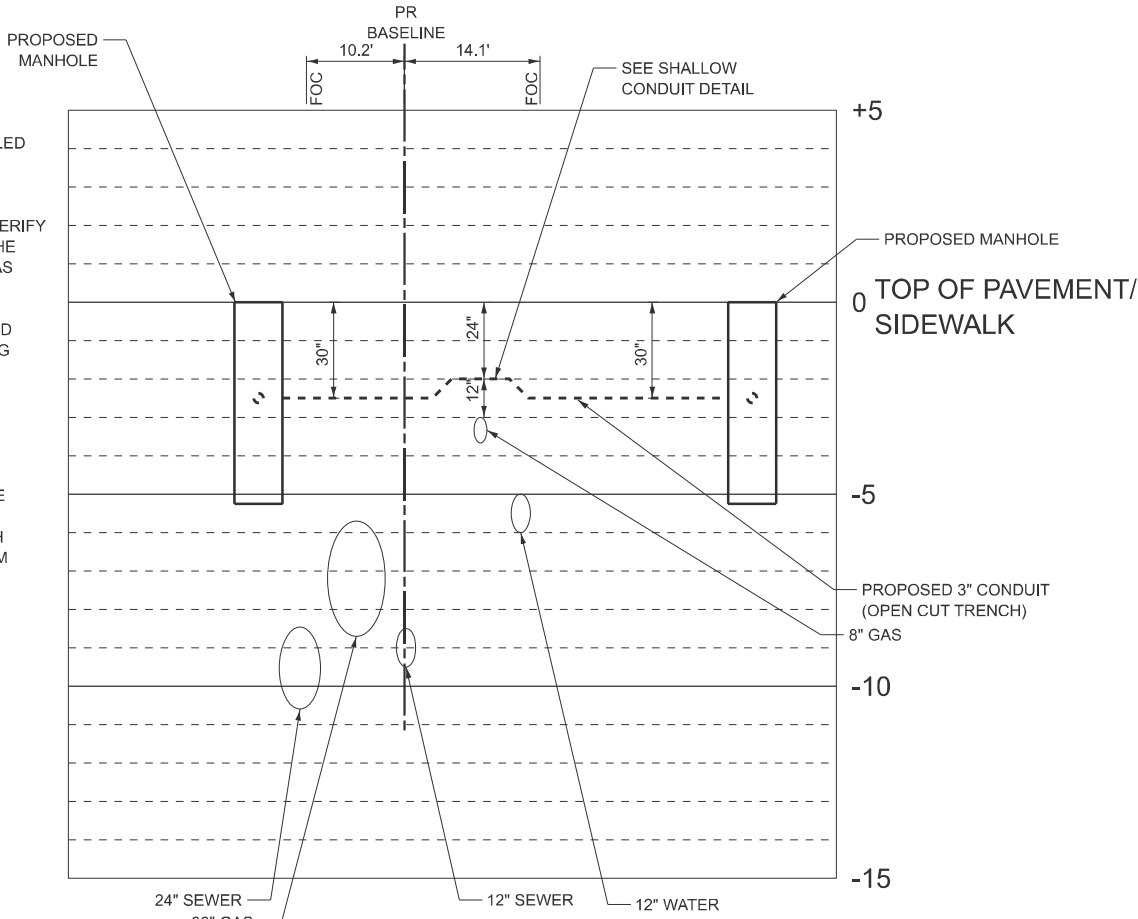
PROPOSED CONDUIT PROFILE ON KEELER AVE.
AT CONGRESS PKWY. (NORTH LEG, LOOKING NORTH)



PROPOSED CONDUIT PROFILE ON KEELER AVE.
AT CONGRESS PKWY. (SOUTH LEG, LOOKING NORTH)

UTILITY CROSSING NOTES:

- ALL PROPOSED CONDUIT TO BE INSTALLED VIA OPEN CUT TRENCH WITH 30" DEPTH OF COVER UNLESS OTHERWISE NOTED. PROPOSED CONDUIT MAY BE INSTALLED WITH A MINIMUM DEPTH OF COVER OF 24" IN ORDER TO CLEAR AN EXISTING UTILITY WHERE REQUIRED.
- FOR ALL GAS MAIN CROSSINGS, CONTRACTOR TO FIELD VERIFY THE DEPTH OF THE EXISTING GAS MAIN AND MAINTAIN THE MINIMUM VERTICAL CLEARANCE OF 18-INCHES FOR 16" GAS MAINS OR LESS, OR VERTICAL CLEARANCE OF 24-INCHES FOR 18" GAS MAINS AND LARGER. USE EXTREME CAUTION NEAR ALL GAS FACILITIES. HAND EXCAVATION IS REQUIRED TO LOCATE AND EXPOSE GAS MAIN(S) PRIOR TO CROSSING AND WORKING WITHIN 3 FEET OF ALL GAS FACILITIES.
- TRENCH WIDTH MUST NOT EXCEED 3' WHEN CONDUIT INSTALLATION WILL EXPOSE AN EXISTING UTILITY.
- THE ASSUMED COVER OVER PRIVATE DRAINS AND CATCH BASIN OUTLETS ARE 4.0' AND 3.0', RESPECTIVELY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION AND DEPTH OF ALL PRIVATE DRAINS AND CATCH BASIN OUTLETS PRIOR TO CONSTRUCTION. CONTACT DWM AT (312)747-4680 FOR ANY CONFLICTS OR REPAIR WORK.
- SEE GENERAL NOTES 29-31 FOR PEOPLES GAS REQUIREMENTS.



PROPOSED CONDUIT PROFILE ON CONGRESS PKWY.
AT KEELER AVE. (EAST LEG, LOOKING WEST)

NO.		DATE		REVISION	
SUPERSEDES		DRAWING NO. : XXXXX		DATED: XX-XX-XX	
OUC NO.				DATE	
APPROX. ADDRESS				DATE	
WORK ORDER NO.				DATE	
COST ALLOCATION ACCOUNT					
APPROPRIATION ACCOUNT		MATERIAL		LABOR	
TRAFFIC CONTROL SIGNALS S. KEELER AV. AND W. CONGRESS PKWY.					
DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING ELECTRICAL SECTION					
DRAFTSMAN:		CHIEF DRAFTSMAN:		ENGINEER: LEP	
TRAFFIC ENGINEER:		ELEC. DESIGN ENGR.		DWG. NO. 14778 A	
ENGINEER OF ELECTRICITY:					
SUPT. OF CONSTRUCTION:					
DEPUTY COMMISSIONER:					
SIZE: 22" 34"		SCALE: AS NOTED		DATE: 4/9/2025	
F.A.I. RTE.		SECTION		COUNTY	
290		FAI 290 22 KEELER BR		COOK	
				283	
				103	
				CONTRACT NO. 62U41	
				ILLINOIS	
				FED. AID PROJECT	



USER NAME = kdc

DESIGNED - LEP

REVISED -

DRAWN - LEP

REVISED -

CHECKED - JJE

REVISED -

PLOT DATE = 8/22/2025

DATE = 8/29/2025

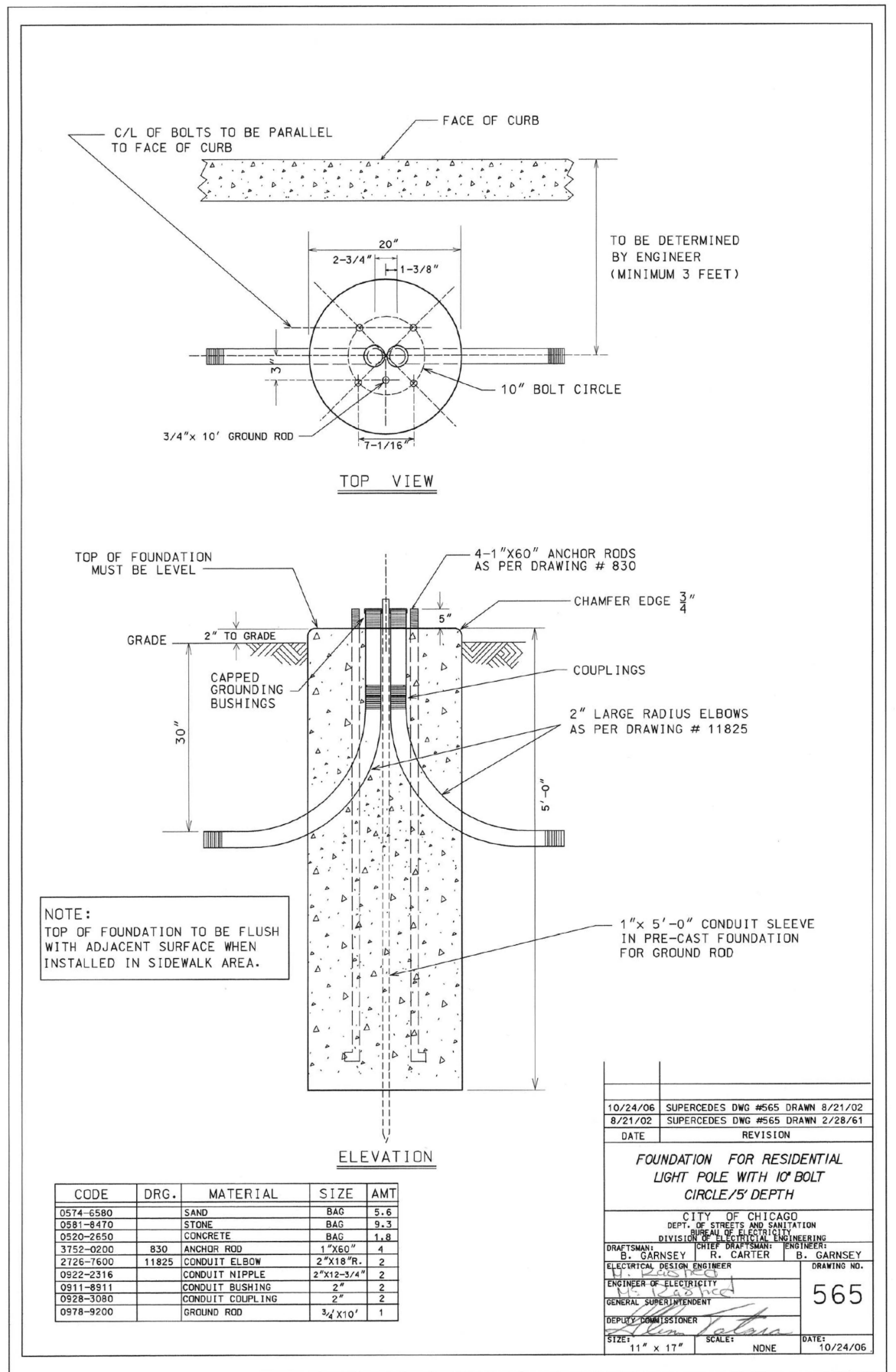
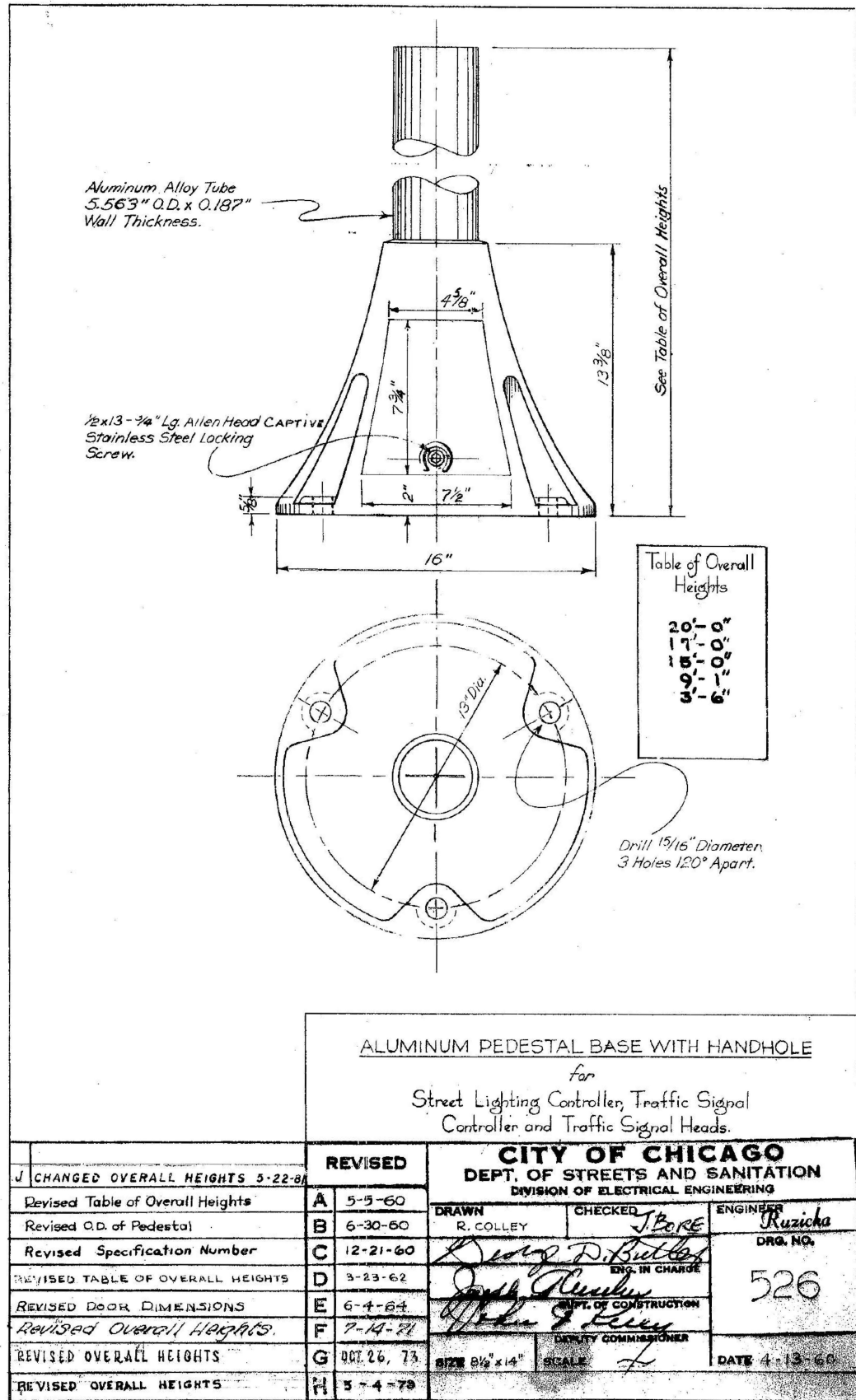
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC CONTROL SIGNALS - KEELER AVENUE AT CONGRESS PARKWAY

SCALE: NONE SHEET 2 OF 2 SHEETS

MODEL: T502 (Sheet)
FILE NAME: c:\msd\civiltech-pw\kyle.dwg\0139765D162U41 - Details 01.dgn



J:\ALL 2\STANDARD\565.DGN 12/11/2006 10:56:45 AM



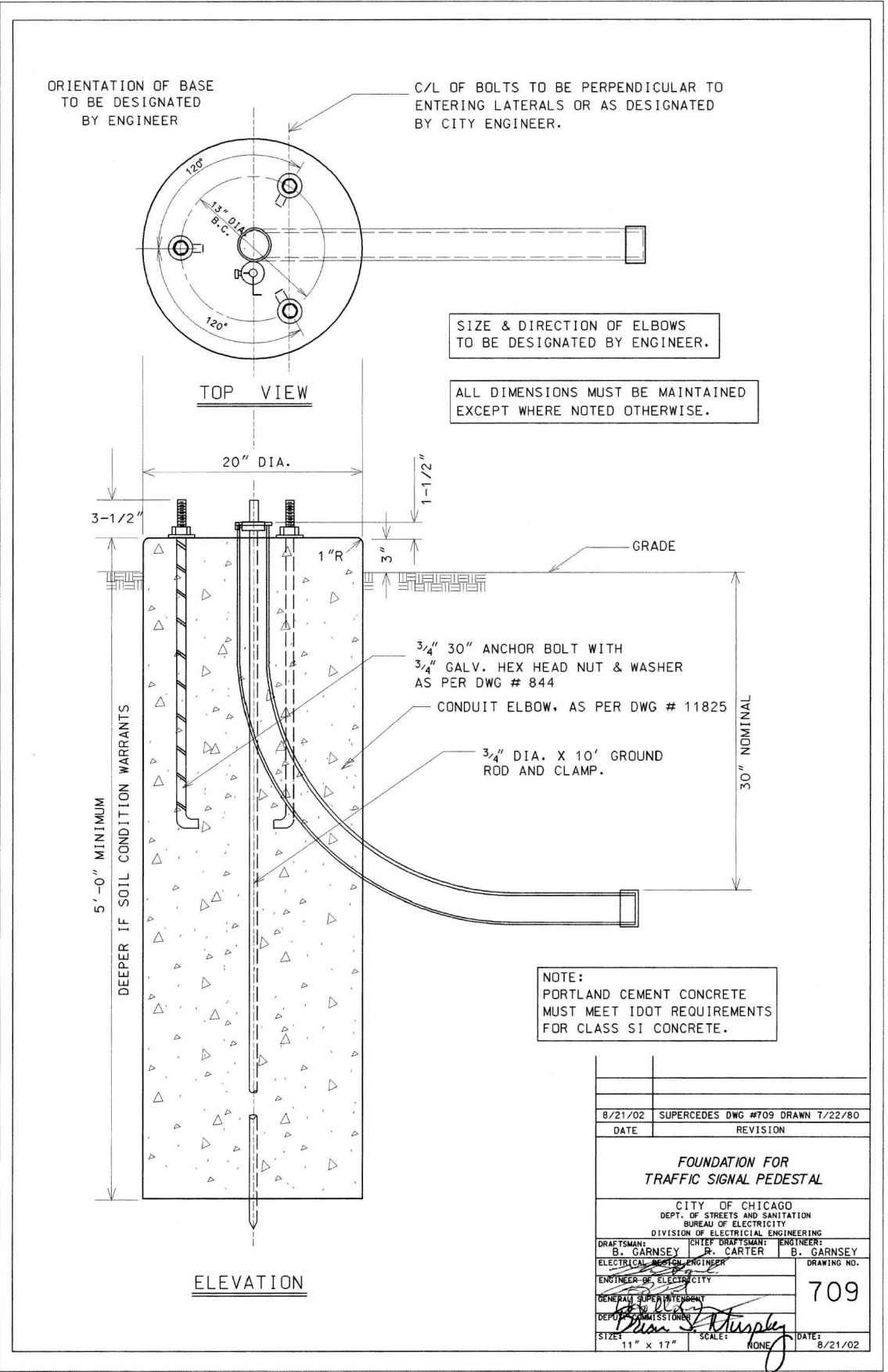
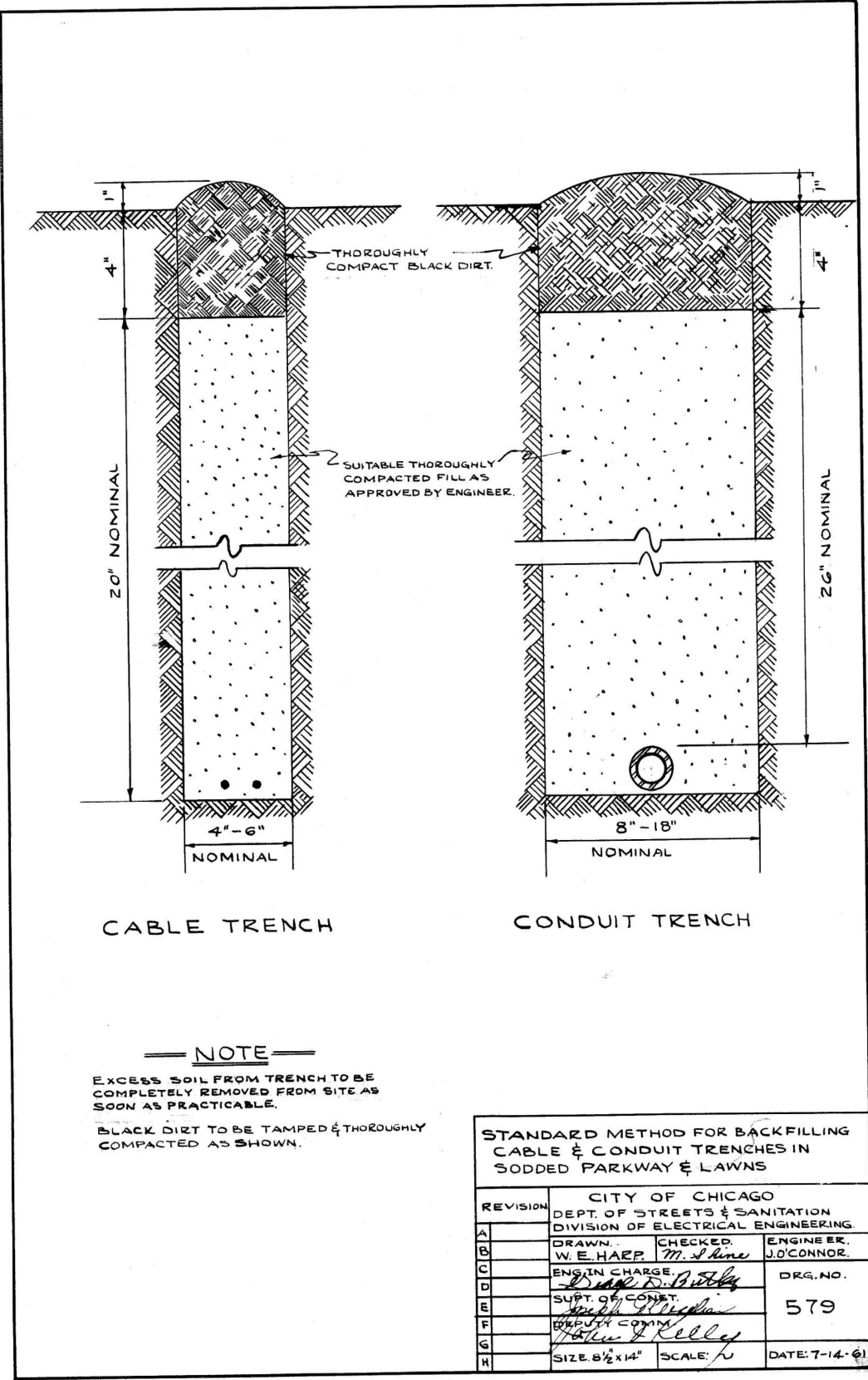
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 1 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	104
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



MODEL: TS02 (Sheet)
FILE NAME: c:\msdcs\civiltech\pw\kyle.dwg\10139765D\62U41 - Details 02.dgn



USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 2 OF 15 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	105
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: TS02 (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dwg 1307650162141 - Details 03.dgn



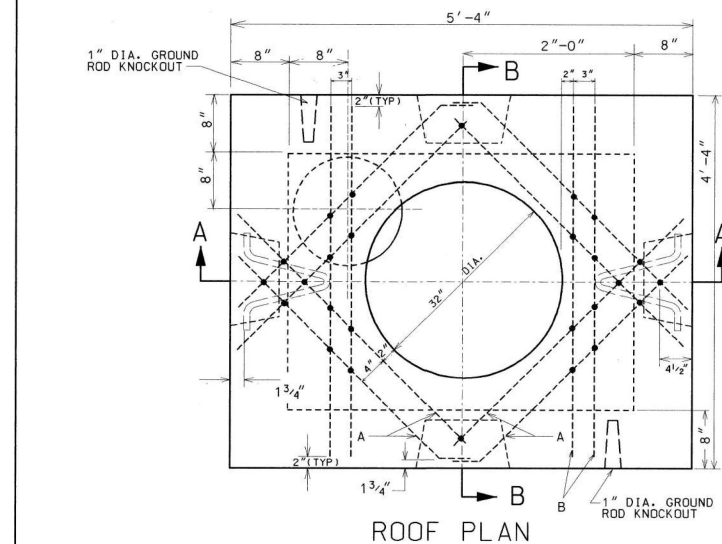
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

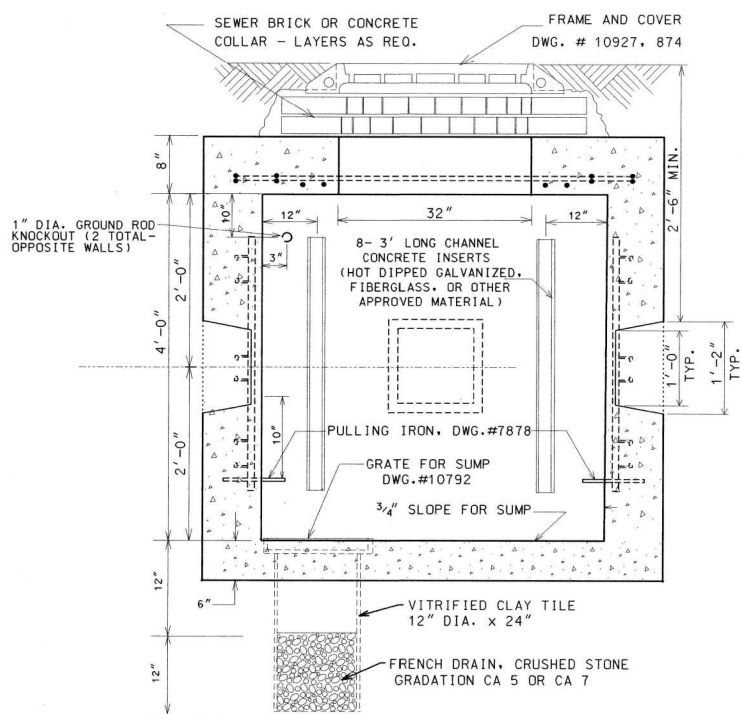
I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 3 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	106
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



ROOF PLAN

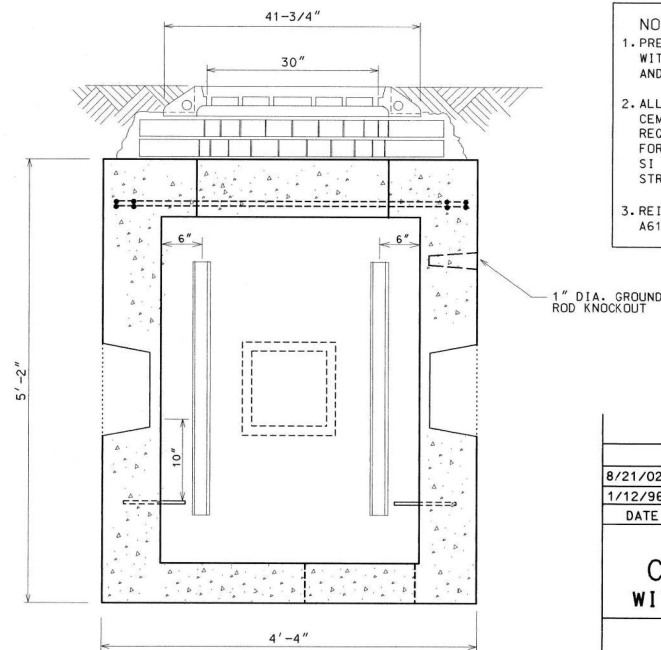


SECTION A-A

EXCAVATION (CONSTRUCTION INFORMATION)	
COMPLETE MANHOLE	5.0 CU. YDS.
NEW ROOF ONLY	2.0 CU. YDS.
SHEETING MANHOLE	150.0 SQ. FT.

#5 REINFORCING BARS			
BAR	LENGTH	NO. OF RODS	TOTAL FT.
A	2'-9"	8	22'-0"
B	4'-0"	4	16'-0"

MATERIALS FOR ROOF ONLY	
CONCRETE	0.5 CU. YDS.
REINFORCING BARS #5	38'



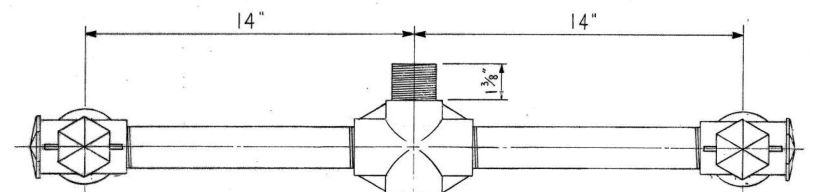
SECTION B-B

DRG.	MATERIAL	CODE	SIZE	No. Req.
	FORM FOR MANHOLE	17-6674-6000 17-6648-5320	3x4x4	1
	CONDUIT END BELL		AS REQ.	
	TILE, SEWER	39-4038-3200	12"/24"	
	SLAB BOLSTER		2"	20'
	BAR, REINFORCING	20-5472-9650	5/8" x 38'	
	TIE WIRE	13-9938-6106	#20GA. 35'	
7878	PULLING IRON	02-4483-6970	3/4" x 2	
	CONCRETE	05-3267-2940	3 CU. YDS	
	SEWER BRICK	05-1452-9720	STD.	50
10792	GRATE FOR SUMP	02-4368-7100	15" x 1	
	GROUND ROD	09-7796-9200	3/4" x 10'	1
	GROUND ROD CLAMP	09-2636-3240	3/4"	1
	CRUSHED STONE	05-9057-5471	3/4" ONE BAG	
874	MANHOLE FRAME	02-4299-5524	30"	1
10927	MANHOLE COVER	02-4574-5040	30"	1
	CONC. CHANNEL INSERT	02-4574-5040	3'	8

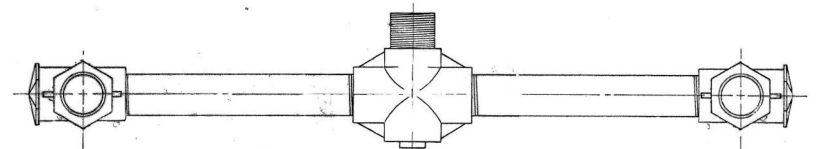
NOTES:

1. PRECAST MANHOLES MUST BE PROVIDED WITH CHANNEL INSERTS, PULLING IRONS, AND CONDUIT KNOCK-OUTS.
2. ALL CONCRETE MUST BE PORTLAND CEMENT CONCRETE MEETING DOT REQUIREMENTS FOR CLASS PC CONCRETE FOR PRE-CAST STRUCTURES, OR CLASS SI CONCRETE FOR CAST-IN-PLACE STRUCTURES.
3. REINFORCING BARS MUST MEET ASTM A615 GRADE 60.

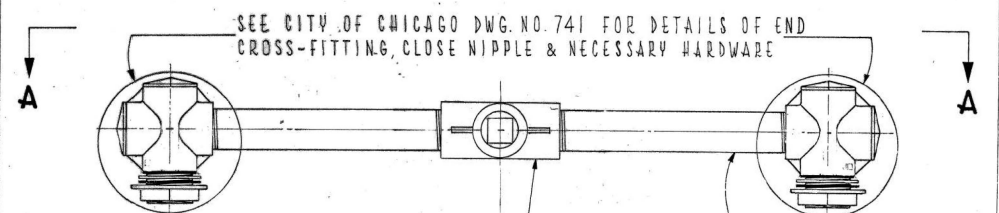
8/21/02	SUPERCEDES DWG. 729 DATED JAN 12, 1996
1/12/96	SUPERCEDES DWG. 729 DATED NOV. 21, 1973
DATE	REVISION
3' x 4' x 4'	
CONCRETE MANHOLE	
WITH 30" FRAME AND COVER	
CITY OF CHICAGO	
DEPT. OF STREETS AND SANITATION	
BUREAU OF ELECTRICITY	
DIVISION OF ELECTRICAL ENGINEERING	
DRAFTSMAN:	CHIEF DRAFTSMAN: ENGINEER:
B. GARNSEY	R. CARTER B. GARNSEY
ELECTRICAL DESIGN ENGINEER	DRAWING NO.
ENGINEER OF ELECTRICITY	729
GENERAL SUPERINTENDENT	
DEPUTY COMMISSIONER	
SIZE: 17" x 22"	SCALE: NONE
DATE: 8/21/02	



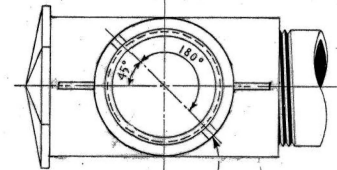
TOP VIEW A-A



TOP VIEW B-B

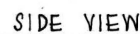
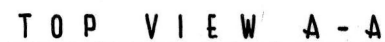


FRONT VIEW



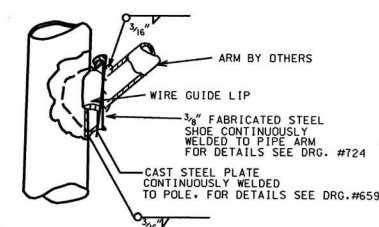
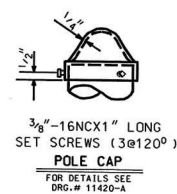
SECTION C-C

TRAFFIC SIGNAL UPPER & LOWER BRACKET ARM ASSEMBLY			
CITY OF CHICAGO			
DEPT. OF STREETS & SANITATION			
BUREAU OF ELECTRICITY			
DIVISION OF ELECTRICAL ENGINEERING			
REVISED	DRAWN: E. GERULIS	CHECKED: D.C. / M.S.	ENGINEER: E. COCCI
A 1-23-1981	END OF FILE		DWG. NO.
B			740
C			
D			
E			
F			
CHANGE TYPE TA CONDUIT TO CENTER CROSS & DELETE CENTER CONDUIT			
SIZE: 3/4" x 1/2"	SCALE: AS NOTED	DATE: 8-21-74	

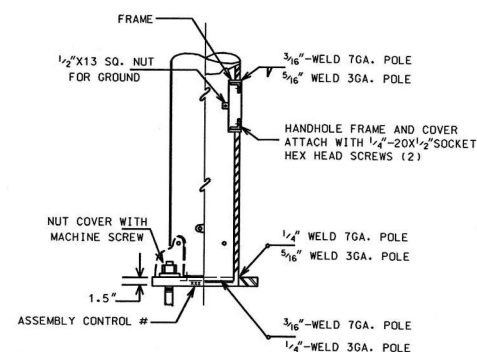


TRAFFIC SIGNAL BRACKET ARM ASSEMBLY

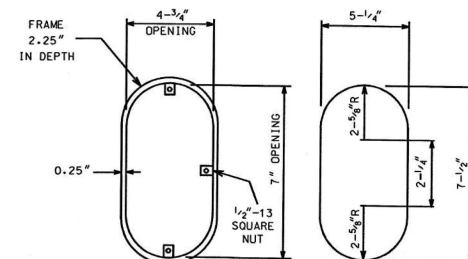
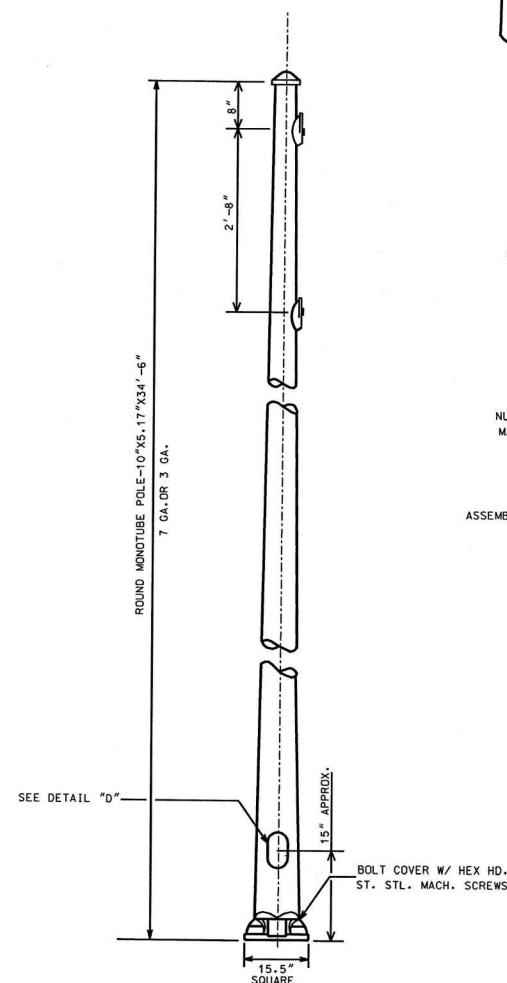
CITY OF CHICAGO			
DEPT. OF STREETS & SANITATION			
BUREAU OF ELECTRICITY			
DIVISION OF ELEC. ENGINEERING			
REVISED	DRAWN: E. GERULIS	CHECKED: D.C. / m.s.	ENGINEER: L. CUCCI
A 1-23-81	ENG. OF ELEC.	DWG. NO.	
B 12-6-85	Supt. of Const. <i>Promer, Wildoff</i>		741
C	Asst. Engr. <i>Frank R. Ruckler</i>		
D	Deputy Engr. <i>Charles E. Buchholz</i>		
E	SIZE: 1" = 1'		
F	SCALE: 1/2" = 1"	DATE: 8-21-74	



SECTION AT POLE PLATE



DETAIL "D"

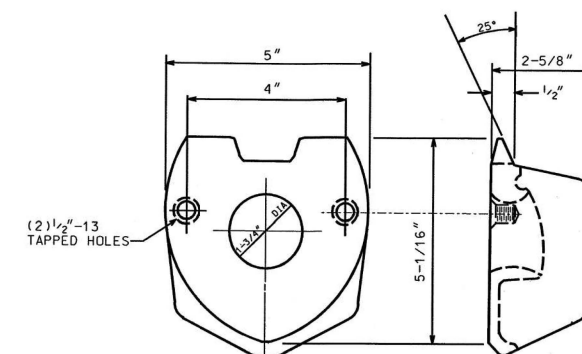


FRAME

DOOR

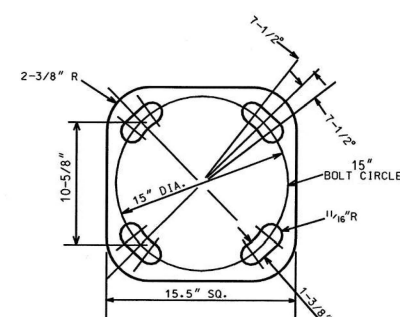
HANDHOLE

DETAIL



2 BOLT MAST ARM ATTACHMENT

FOR DETAILS SEE DRG.# 659 MATERIAL: CAST STEEL

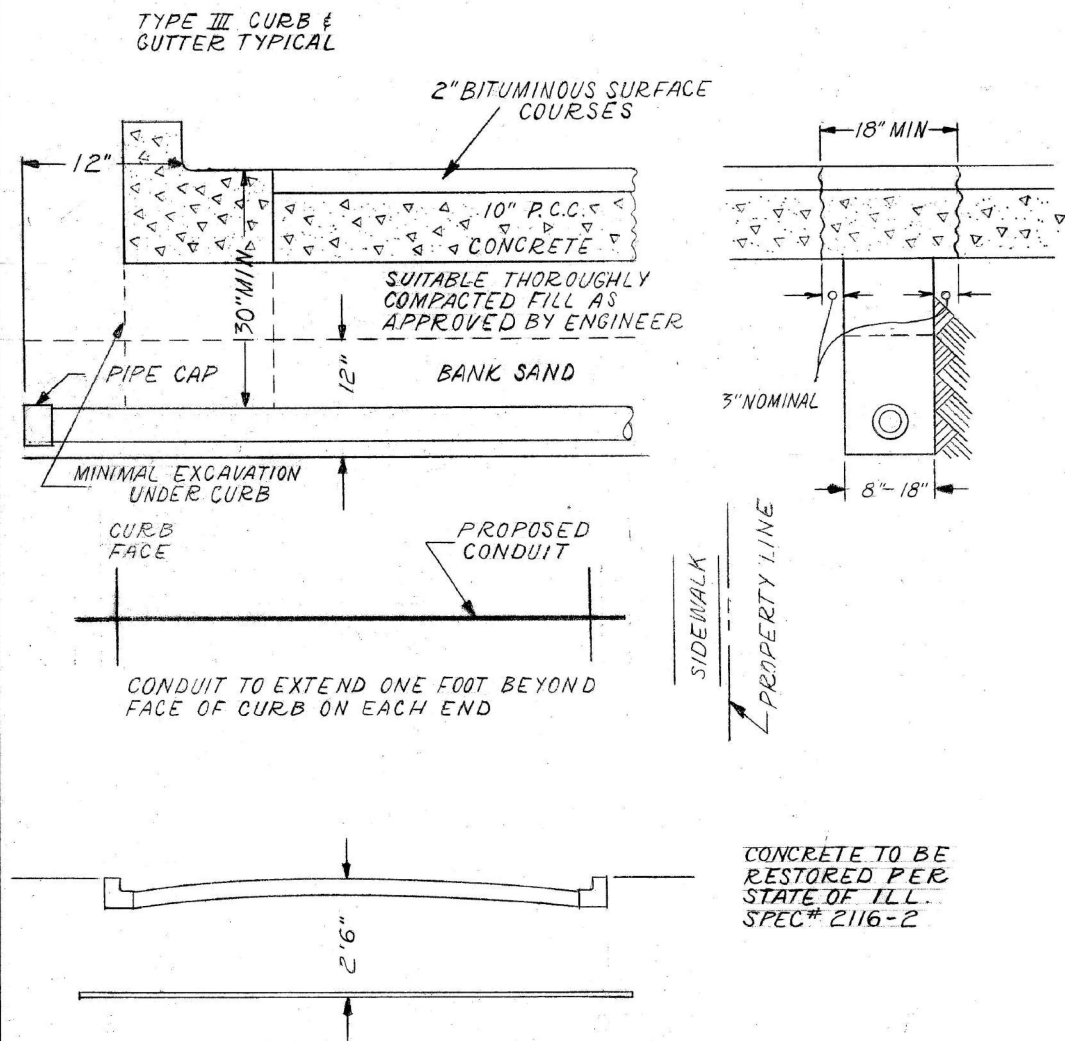


DETAIL "A"

BOLT SLOTS

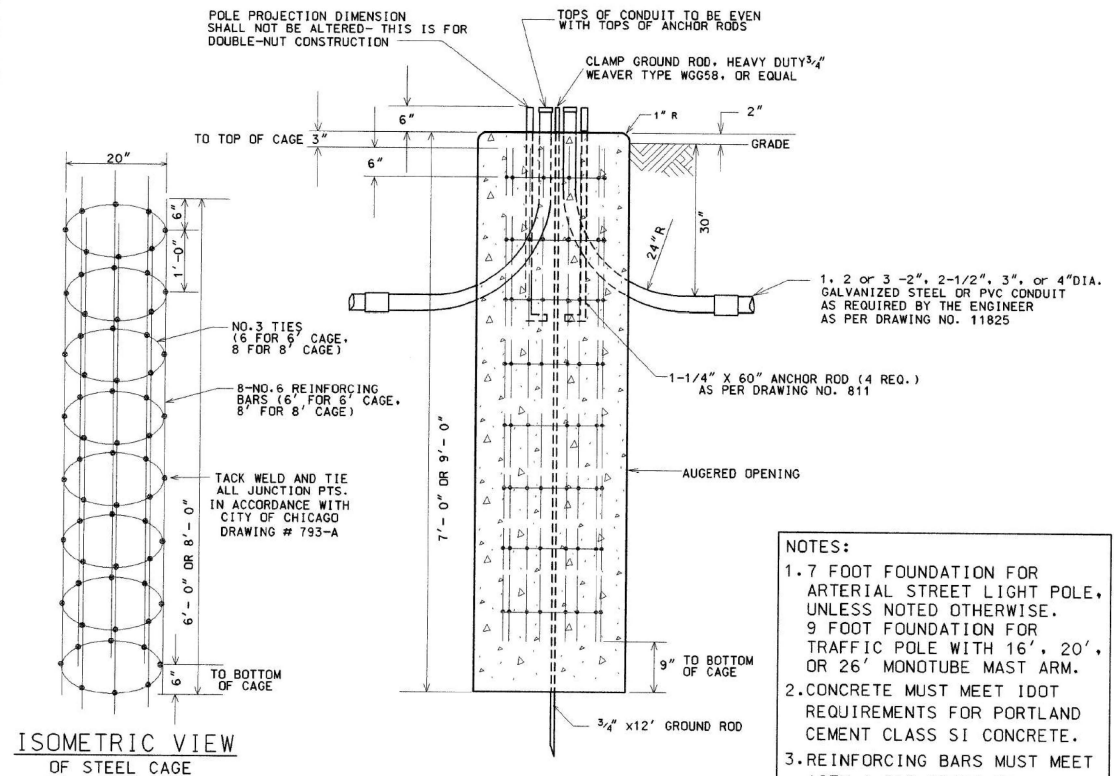
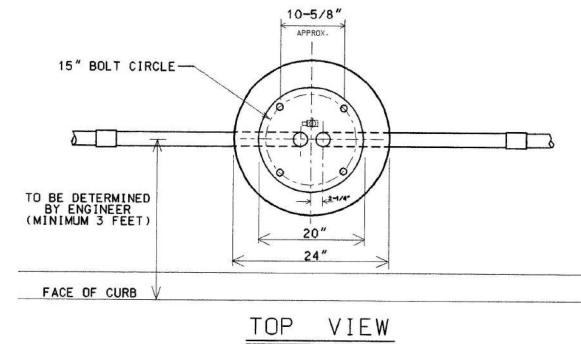
5.17"x10.0" STEEL/34'-6" POLE 7 DR 3 GAUGE		
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
DRAFTSMAN: ROBERT IVY	CHIEF DRAFTSMAN: ROBERT CARTER	ENGINEER: RON POOL
SUPERVISING ENGINEER: <i>ELEC. DESIGN ENGR.</i>		DWG. NO. 808
ENGINEER OF ELECTRICITY:		
GEN'L. SUPT. OF ELECTRICITY: <i>Chas. W. Murphy</i>		10-03-01
DEPUTY COMMISSIONER: <i>Chas. W. Murphy</i>		

CONDUIT INSTALLATION UNDER PAVED STREET



INSTALLATION METHOD OF
INSTALLING CONDUIT UNDER
PAVED ROADWAY

CITY OF CHICAGO		
DEPT. OF STREETS AND SANITATION		
BUREAU OF ELECTRICITY		
DIVISION OF ELECTRICAL ENGINEERING		
DRAWN	CHECKED	ENGINEER
A.M. JOHNSON	R. SYCKOWSKI	R.L. MARTIN
ENGINEER OF ELECTRICITY		DRG. NO.
813		
DEPT. OF CONST.		DATE
3-13-81		
SIZE	SCALE	DATE
8 1/2" X 14"	N.T.S.	3-13-81



- NOTES:
- 1.7 FOOT FOUNDATION FOR ARTERIAL STREET LIGHT POLE, UNLESS NOTED OTHERWISE.
 - 9 FOOT FOUNDATION FOR TRAFFIC POLE WITH 16', 20', OR 26' MONOTUBE MAST ARM.
 2. CONCRETE MUST MEET IDOT REQUIREMENTS FOR PORTLAND CEMENT CLASS SI CONCRETE.
 3. REINFORCING BARS MUST MEET ASTM A-615 GRADE 60.

NOTE: HOLE FOR FOUNDATION MUST BE AUGURED IN UNDISTURBED SOIL

CODE	COMMODITY	SIZE	QUANTITY
05-3267-2940	REDI-MIX CONCRETE	CU. YD.	0.82 OR 1.05
09-4001-	ELBOW, LARGE RADIUS	2", 2-1/2", 3", 4"	VARIES
37-8180-0200	ANCHOR ROD	1-1/4" X 60"	4
05-5054-6910	RE-BAR CAGE	20" X 6' (or 8')	1
09-7796-9200	GROUND ROD	3/4" X 12'-0"	1
09-2636-3240	GROUND ROD CLAMP	3/4"	1
09-2092-	GROUND BUSHING	2", 2-1/2", 3" OR 4"	VARIES

8/21/02	SUPERCEDES DWG #818 DRAWN 4/21/81
DATE	REVISION
FOUNDATION FOR 34'-6" ARTERIAL STREET LIGHT OR TRAFFIC SIGNAL POLE - 3 OR 7 GAUGE WITH 15" BOLT CIRCLE	
CITY OF CHICAGO	
DEPT. OF STREETS AND SANITATION	
BUREAU OF ELECTRICITY	
DIVISION OF ELECTRICAL ENGINEERING	
DRAFTSMAN:	ENGINEER:
B. GARNSEY	R. CARTER
ELECTRICAL DETAIL ENGINEER	DRAWING NO.
ENGINEER OF ELECTRICITY	818
GENERAL SUPERINTENDENT	
DEPUTY COMMISSIONER	
SIZE: 11" X 17"	SCALE: NONE
DATE: 8/21/02	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 5 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	108
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

MODEL: TS DET 6 [Sheet]
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0130765\0162\41 - Details 06.dgn



USER NAME	= kdc	DESIGNED	- LEP	REVISED	-
		DRAWN	- LEP	REVISED	-
		CHECKED	- JJE	REVISED	-
PLOT DATE	= 8/12/2025	DATE	- 8/13/2025	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 6 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	109
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

PROPOSED	PRESENT	
		SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED
		SIGNAL OPTICALLY PROGRAMMED
		SIGNAL, PEDESTRIAN, COUNTDOWN
		SIGNAL, PEDESTRIAN, DON'T WALK/WALK
		SIGNAL FACE ARROW, 12" COLOR AS NOTED
		SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION
		PUSH BUTTON, PEDESTRIAN
		SIGN,ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED
		MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED
		CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)
		CONTROLLER,STREET LIGHTING. POLE MOUNTED (DWG. #11940)
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE
		POLE, CITY STEEL, ANCHOR BASE, 34'6", 7 GA. 10" DI A. AND 15"B.C. 24"x7' FND. W/1 1/4" ANCHOR RODS DRG. #818.
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA. 10" DIA. AND 15" B.C. 24"x9' FND. W/1 1/4" ANCHOR RODS DRG. #818 (16',20'or 26'M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 34"-6", 3GA., 11" DIA. AND 17 30"x9' FND. W/1 1/4" ANCHOR RODS DRG. #816. (30' M.A.)
		POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA. 12 1/2" DIA. AND 16 1/2"B.C. 30"x11' FND. W/1 1/2" ANCHOR RODS DRG.#817. (35',40'or 44' M.A.)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4" B. C. ON 30"x9' FND. W/ 11/4" ANCHOR RODS DRG. #816.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.
		POLE,CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719.
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6", 29'-6" 7 GA., AND ALUMINUM RESIDENTIAL DAVIT AND FND. WITH 10" B.C. AND 1" ANCHOR RODSDWG#565 (CONCRETE) OR DWG.#936 (HELIX).
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 3 GA.,AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #565 (CONCRETE) OR DWG.#936 (HELIX).
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.-24"x7, WITH 1" ANCHOR RODS DRG. #691.
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"x 7' WITH 1" ANCHOR RODS DWG. #691.
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.
		POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 7 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 3 GA., TAPERED TUBULAR. (DWG. #658)
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)
		COLUMN,ELEVATED STRUCTURE
		POLE, WOOD. (SIZE AS NOTED)
		POLE, FOUNDATION WITH ELBOWS AS INDICATED.(SIZE AS NOTED)
		POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS
		RESIDENTIAL STREET LIGHTING CONTROLLER

PROPOSED	PRESENT	
		MANHOLE, 3'X4'X4' 24" F & C (DWG.#730) (A) 30" F & C (DWG#729) (B)
		MANHOLE, 4'X6'X6' 24" F & C (DWG.#732) (C) 30" F & C (DWG#733) (D)
		HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866) 24" F & C (E). (DWG#871) 30" F & C (F)
		HANDHOLE, CIRCULAR WITH 24"FRAME & COVER,30"I.D. (#867) (G)
		FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"x5' (DWG. #709)
		FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972
		FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)
		FOUNDATION,CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880)
		FOUNDATION, TRANSCLOSURE; TRANSCLOSURE HOUSING. (DWG.# 583 & #891)
		CONTROLLER,UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861)
		MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL.BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A.; S= SEWER JUNCTION BOX, IN PAVEMENT (DWG. #815)
		DETECTOR LOOP IN PAVEMENT
		CONDUIT or P.V.C., NUMBER,SIZE & TYPE. (AS NOTED)
		CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED)
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI-CUTOFF
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 310W LAMP, 240V
		LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF
		LUMINAIRE, H.P.S.V. 150W LAMP, 240V
		LUMINAIRE, H.P.S.V. 150W LAMP, 120V
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V, (ALLEY LIGHT)
		LUMINAIRE, H.P.S.V. 250W LAMP, 120V
		LUMINAIRE, H.P.S.V. 400W LAMP, 240V, (FLOOD LIGHT)
		TERMINAL, CABINET F.A. & P.C.
		FIRE ALARM BOX, MOUNTED
		FIRE ALARM BOX, POLE MOUNTED
		CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 10/C-#12 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 14/C-#14, 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 19/C-#12 600V, EPR IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED,IN CONDUIT
		CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
		WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL
		WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL
		CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR
		WIRE, F.A. & P.C. AERIAL, 1/C-#10, NUMERAL DENOTES QUANTITY
		CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT

C.M.H. LUMINAIRES		
PROPOSED	PRESENT	
		LUMINAIRE, C.M.H. 315W LAMP, 240V
		LUMINAIRE, C.M.H. 315W LAMP, 240V, (FLOOD)
		LUMINAIRE, C.M.H. 210W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 120V, (ALLEY)
		LUMINAIRE, C.M.H. 90W LAMP, 240V
		LUMINAIRE, C.M.H. 90W LAMP, 240V (ACORN)
		LUMINAIRE, C.M.H. 60W LAMP, 240V (ACORN)

H.P.S.V. ORNAMENTAL LUMINAIRES			
PROPOSED	PRESENT		
		310W PENDANT	(240V)
		400W PENDANT	(240V)
		250W PENDANT	(240V)
		150W ACORN	(120V)
		150W ACORN	(240V)
		50W ACORN	(240V)
		100W ACORN	(240V)
		150W GLOBE	(240V)
		100W GLOBE	(240V)
		50W GLOBE	(240V)

L.E.D. LUMINAIRES		
PROPOSED	PRESENT	
		(400W HPSV EQUIVALENT), 240V
		(100W HPSV EQUIVALENT), 240V, ACORN
		(310W HPSV EQUIVALENT), 240V
		(100/150W HPSV EQUIVALENT), 240V ACORN
		(250W HPSV EQUIVALENT), 240V
		(50W HPSV EQUIVALENT), 240V, ACORN

F	01-08-14	ADDED LED LUMINAIRES	A.VIEU
E	09-19-13	ADDED CMH LUMINAIRES	A.VIEU
D	02-06-04	REVISED/REDRAW	R.POOL/B.I.
C	04-01-02	REVISED/REDRAW	R.POOL/B.I.
B	12-4-01	ADDED ORNAMENTAL SYMBOLS	
A	8-6-96	REDRAWN	
DATE		REVISION	
SUPERSEDES DWG. #			
WORK ORDER NO. _____ DATE _____			
COST ALLOCATION ACCOUNT _____			
APPROPRIATION ACCOUNT { MATERIAL _____			
{ LABOR _____			
STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING			
CITY OF CHICAGO DEPT. OF TRANSPORTATION DIVISION OF ENGINEERING ELECTRICAL SECTION			
DRAFTSMAN: R. IVY		CHIEF DRAFTSMAN: R. CARTER	ENGINEER: R. POOL/R.C/W.T.
SUPERVISING ENGINEER:		ELEC. DESIGN ENGR.	DWG. NO. 826
ENGINEER OF ELECTRICITY:			
GEN'L SUPT. OF CONSTRUCTION:			
DEPUTY COMMISSIONER:			
SIZE: 22" 36"		SCALE: NONE	DATE: 09-19-13

MODEL: TS DET 7 (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dwg
DETAILS 07.dgn



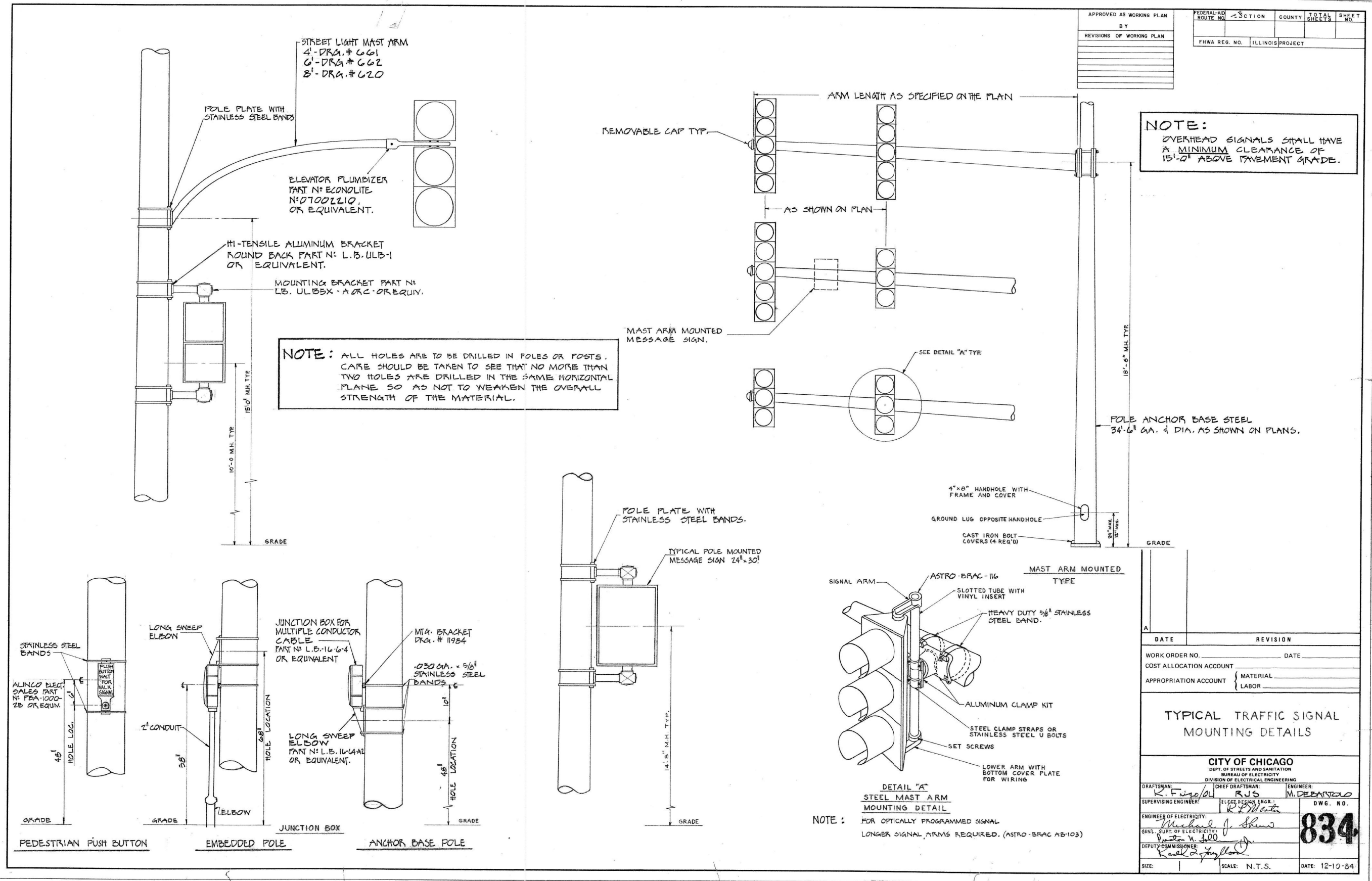
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 7 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	110
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



INSTALLATION NOTES

- STEP 1 COAT EXPOSED PORTION OF ANCHOR BOLTS WITH APPROVED ANTI RUSTING GREASE ("NO-DX" OR EQUAL).
- STEP 2 INSTALL LOWER LEVELLING NUTS & WASHERS. SET AT PROPER GRADE WITH HAND LEVEL, USE TABLE FOR APPROPRIATE DIMENSIONS.
- STEP 3 MOUNT POLE OR PEDESTAL, ATTACH TOP WASHERS & NUTS HAND TIGHT.
- STEP 4 PLUMB POLE OR PEDESTAL AFTER ALL MASTARMS, STREET LIGHTS, TRAFFIC SIGNALS & OTHER APPURTENANCES ARE ATTACHED TO POLE & TIGHTEN ALL NUTS.
- STEP 5 ATTACH NUT COVERS WHERE REQUIRED.
- STEP 6 DO NOT GROUT IN SPACE BETWEEN BOTTOM OF POLE & TOP OF FOUNDATION. TOP OF FOUNDATION OR SURFACE OF SIDEWALK MUST BE LEFT CLEAN AND SMOOTH.
- STEP 7 POLE OR PEDESTAL IS TO BE PERFECTLY PLUMB, NO "RAKE" IS TO BE LEFT.

IF NECESSARY:
ANCHOR BOLT TO BE TRIMMED WITH SAW.
DO NOT BURN, AS THIS DRASTICALLY REDUCES
THE TENSILE STRENGTH OF ANCHOR BOLT.
COAT ANCHOR BOLT WITH RUST-OLEUM HARD HAT ZINC RICH
COMPOUND.

T A B L E

UNIT	ANCHOR BOLT SIZE								ALUM. PED.
	1"		1 ¼"		1 ½"		¾"		
	POLE GAUGES								
	7 GA.	3 GA.	7 GA.	3 GA.	7 GA.	3 GA.	7 GA.	3 GA.	
A	7/16"	7/16"	1/8"	1 5/16"	1/8"	7/8"	¾"	3/4"	
B	1"	1"	1 ¼"	1 ¼"	1 ½"	1 ½"	¾"	3/4"	
C	¼"	¼"	5/16"	5/16"	3/8"	3/8"	3/16"	3/16"	
D	5/32"	5/32"	¼"	¼"	¼"	¼"	5/32"	5/32"	
E	1"	1"	1 ¼"	1 ½"	1 ½"	1 ¾"	5/8"	5/8"	

NOTE:
BOLT COVER
NOT SHOWN

TOP OF CONDUIT BUSHING TO BE
AT SAME GRADE AS TOP OF BOLT

ALL MEASUREMENTS ARE TO BE
GOVERNED BY REAR BOLT DUE TO
POSSIBLE SLOPE OF SIDEWALK

TOP OF FINISHED FOUNDATION

2 3/4" FOR 3/4" ANCHOR BOLTS

5" FOR 1" ANCHOR BOLTS

5 3/4" FOR 1 1/4" ANCHOR BOLTS

6 1/2" FOR 1 1/2" ANCHOR BOLTS

A ANCHOR BOLT
B HEXAGON NUT
C LOCK WASHER
D FLAT WASHER
E BASE PLATE
F FLAT WASHER
G HEXAGON NUT

GRADE OF SIDEWALK

REAR NUT TO BE SET TO GRADE OF
SIDEWALK OR TOP OF FOUNDATION

CONSTRUCTION METHOD FOR "DOUBLE-NUT" INSTALLATION OF POLES AND PEDESTALS

CITY OF CHICAGO

DEPT. OF STREETS AND SANITATION

BUREAU OF ELECTRICITY

DIVISION OF ELECTRICAL ENGINEERING

DRAWN BY:

EUGENE GERULIS

CHIEF DRAFTSMAN:

E. J. S.

ENGINEER:

M. J. S.

SUPERVISING ENGINEER:

ELEC. DESIGN ENGR.

ENGINEER OF ELECTRICITY:

Michael A. Shive

GEN. L. SUPE. OF ELECTRICITY

DEPUTY COMMISSIONER:

Ronald A. Hymel

837

SIZE: 22

30

SCALE: 1" = 1'

DATE: 6-7-85

16" x 21"

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 8 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	111
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

MODEL: TS DET 9 (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dwg(130765)0162141 - Details 09.dgn



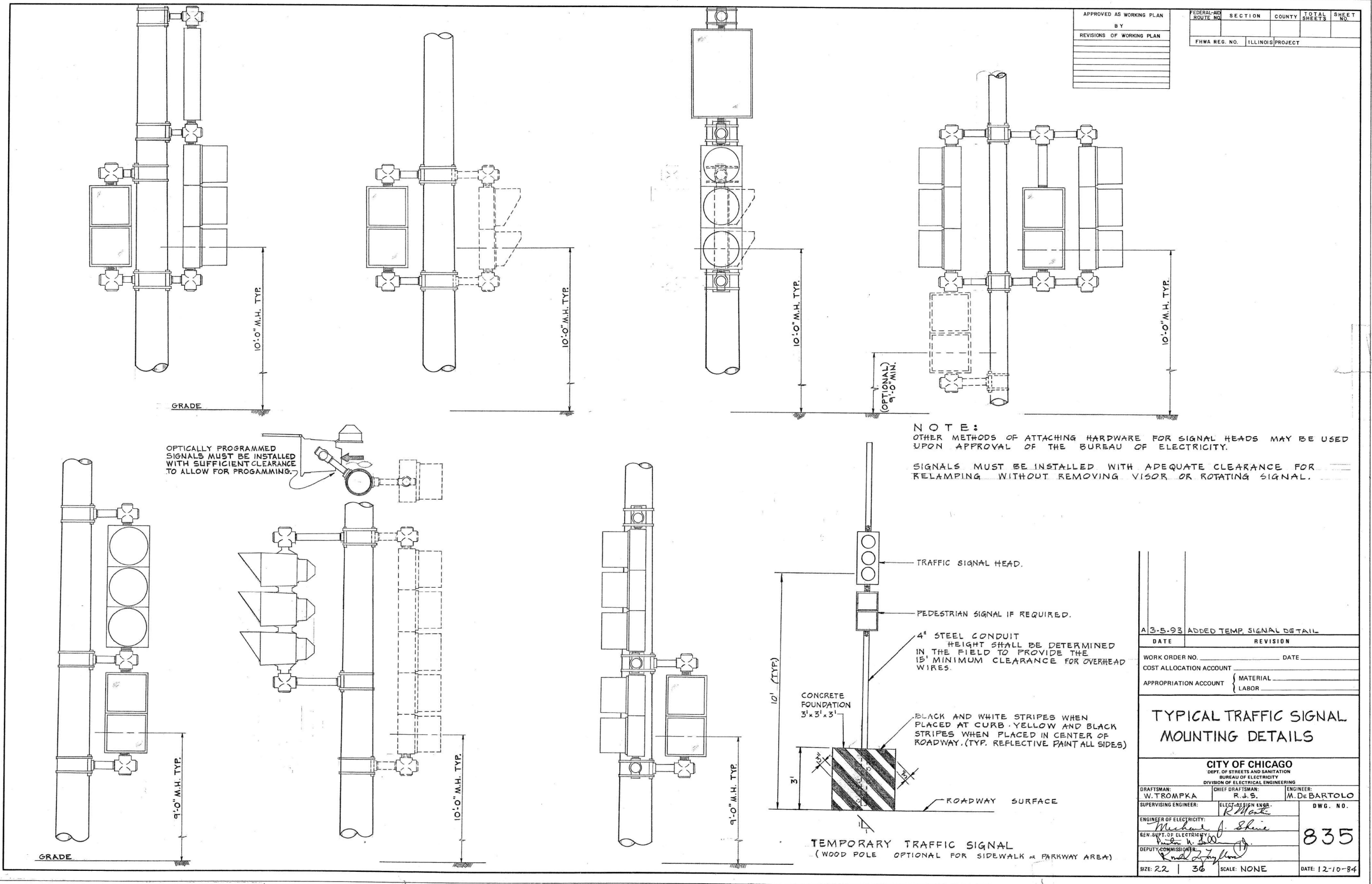
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 9 OF 15 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	112
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



MODEL: TS DET 12 (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0130765\0162\41 - Details 12.dgn



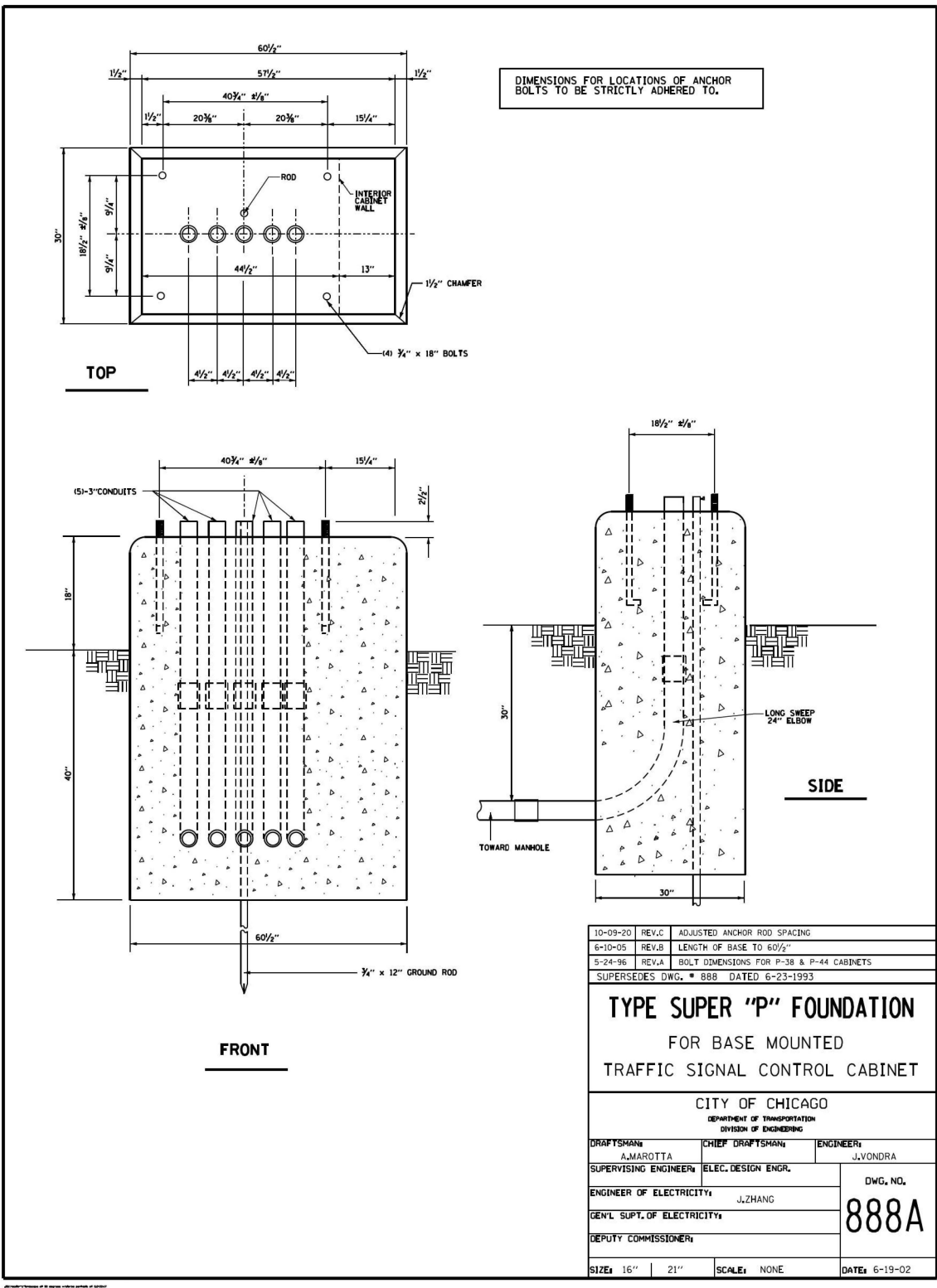
USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 12 OF 15 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	115
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				





USER NAME = kdc	DESIGNED - LEP	REVISED -
	DRAWN - LEP	REVISED -
	CHECKED - JJE	REVISED -
PLOT DATE = 8/12/2025	DATE - 8/13/2025	REVISED -

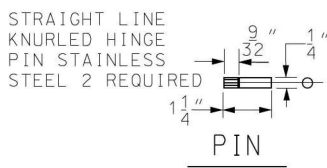
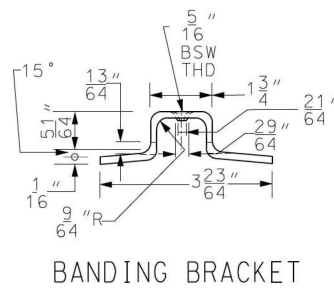
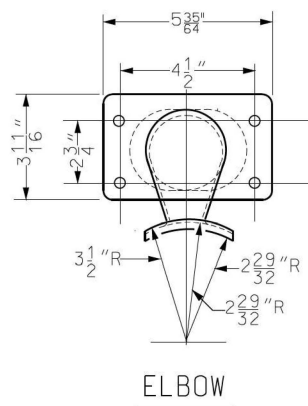
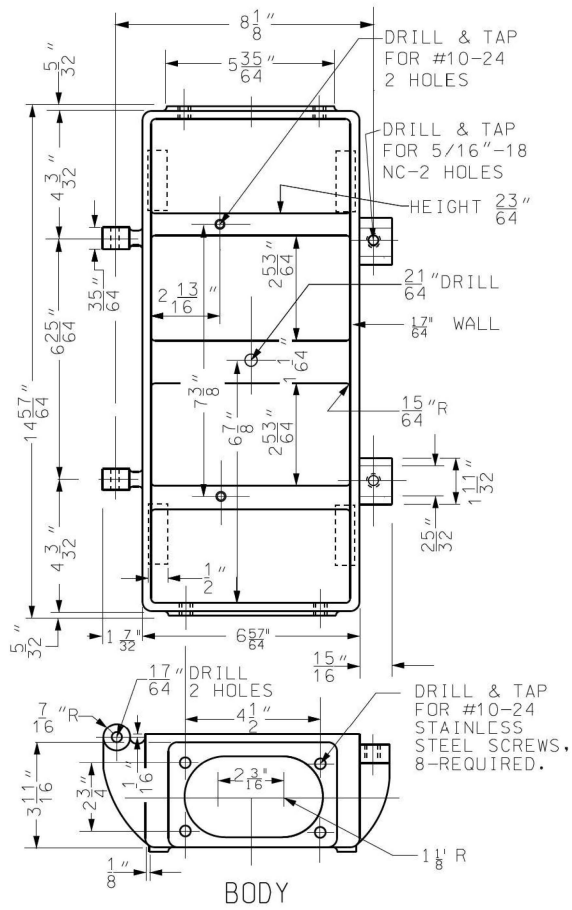
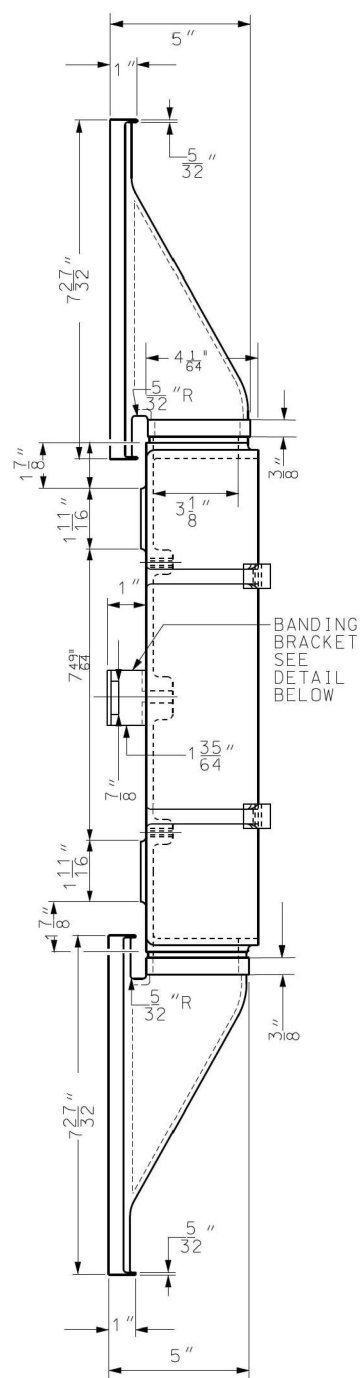
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 AT KEELER AVENUE
TRAFFIC SIGNAL CONTROLS - CDOT ELECTRICAL STANDARD DETAILS

SCALE: N.T.S. SHEET 13 OF 15 SHEETS

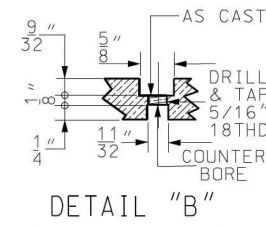
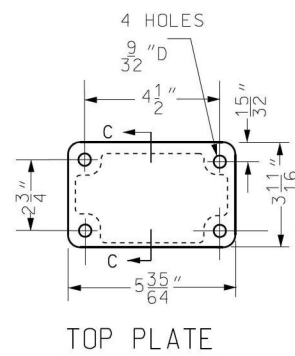
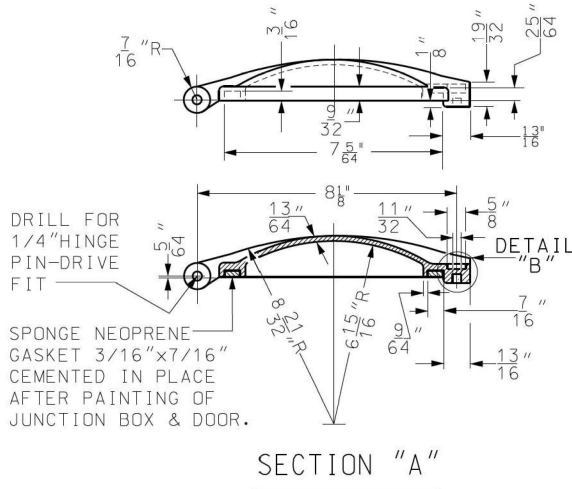
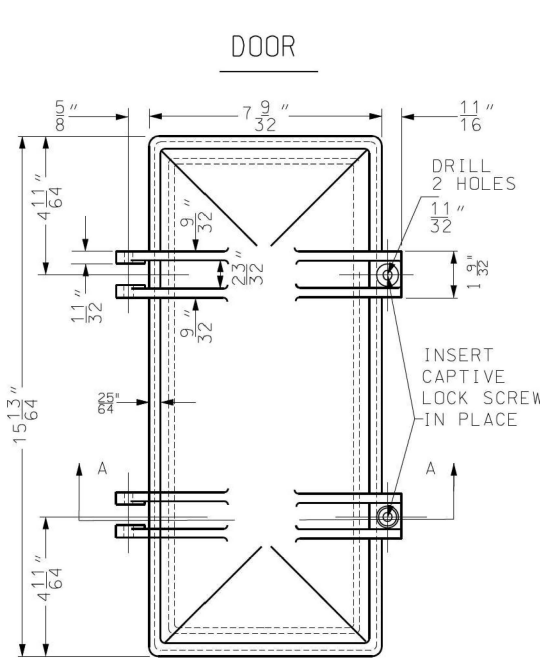
FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	116
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

DATE: 7/24/2015
FILE: N:\Specifications\MISC\New Drawings\954_07242015.dgn

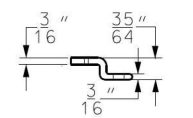


MATERIALS

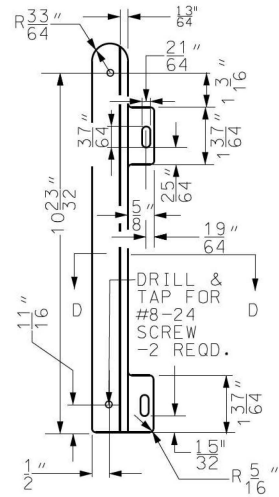
BODY, DOOR, ELBOW & PLATE: CAST ALUMINUM ALLOY. TERMINAL MTG. BRACKET: ALUMINUM ALLOY.
SCREWS, HINGE PINS, BANDING BRACKET: STAINLESS STEEL.
CORK GASKET 1/8" THICK, TO BE FURNISHED BETWEEN FLAT PLATE AND BODY
SPONGE NEOPRENE GASKET 14⁵/₆₄" x 7⁵/₆₄" x 7¹/₁₆", TO BE FURNISHED BETWEEN DOOR AND BODY



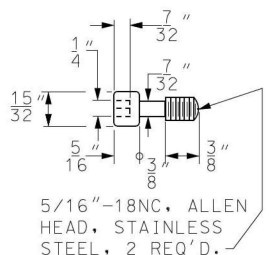
SECTION "C"



SECTION "D"



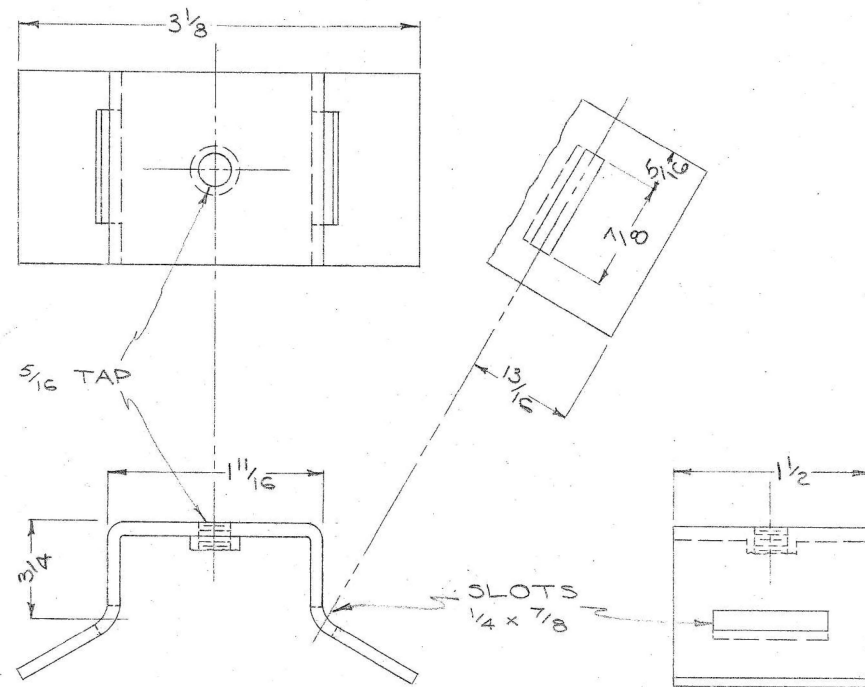
TERMINAL
"Z" BRACKET



LOCK SCREW

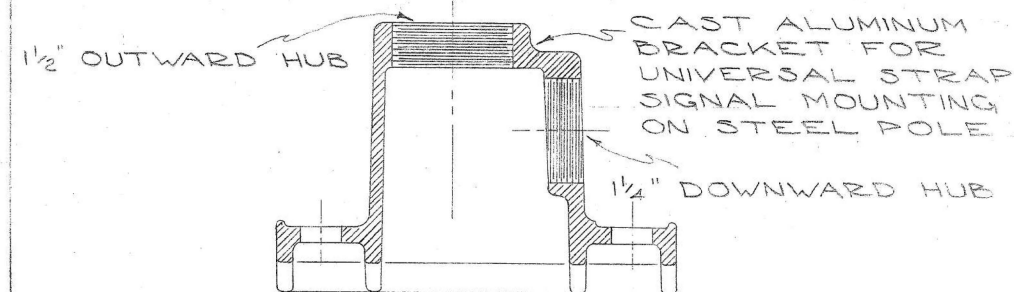
A	07/24/15	ELBOW ON TOP OF BOX ADDED.
DATE		REVISION
SUPERSEDES DWG. # 832 DATED 5-1-85		
JUNCTION BOX FOR TRAFFIC SIGNAL & FIRE ALARM		
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
DRAFTSMAN: O. LETAMENDI	CHIEF DRAFTSMAN: R.C.	ENGINEER: O. LETAMENDI
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.	
ENGINEER OF ELECTRICITY:		DWG. NO. 954
GEN'L. SUPT. OF ELECTRICITY:		
DEPT. COMMISSIONER:		
SIZE:	SCALE: NONE	DATE: 5-3-02

BANDING FITTING FOR POLE MOUNTING JUNCTION BOX



MATERIAL: STAINLESS STEEL - 4 1/16 x 1 1/2 x 3/32

BANDING FITTING FOR POLE MOUNTING SIGNALS



MATERIAL: CAST ALUMINUM

CROUSE HINDS
TL-3301-WITHOUT DOWNWARD
HUB
TL-3302 WITH 1/4" DOWNWARD
HUB

BANDING FITTINGS FOR POLE MOUNTING TRAFFIC SIGNAL

CITY OF CHICAGO
DEPT. OF STREETS AND SANITATION
DIVISION OF ELECTRICAL ENGINEERING

DESIGNED	S. NETTI	CHECKED	11/14/57	ENGINEER	
DRAWN	CHARLES J. MONTGOMERY	IN CHARGE	11/14/57	ENGINEER	
DATE	11/14/57	DEPT. OF CONST.	11/14/57	DEPT. COMM.	

7 CONDUCTOR - 7 POINT STRIP

7	COMMON WHITE	
6	WHITE DLK. TR.	E & W RED
5	BLACK - SOLID	" AMBER
4	BLUE - "	" GREEN
3	RED - "	N & S RED
2	ORANGE - "	" AMBER
1	GREEN - "	" GREEN

10 CONDUCTOR - 7 POINT STRIP

7	COMMON - WHITE	
6	RED DLK. TR.	E & W RED
5	ORANGE DLK. TR.	" AMBER
4	GREEN DLK. TR.	" GREEN
3	RED - SOLID	N & S RED
2	ORANGE - "	" AMBER
1	GREEN - "	" GREEN

SOLID BLUE
SOLID BLACK
BLUE DLK. TR. } SPLICED & TAPED

10 CONDUCTOR - 10 POINT STRIP

10	COMMON - WHITE	
9	BLUE DLK. TRACER	
8	BLACK - SOLID *	
7	BLUE - SOLID *	
6	RED DLK. TRACER	E & W RED
5	ORANGE DLK. "	" AMBER
4	GREEN DLK. "	" GREEN
3	RED - SOLID	N & S RED
2	ORANGE - SOLID	" AMBER
1	GREEN - SOLID	" GREEN

* - SOLID BLUE - GREEN LIGHT
* - SOLID BLACK - AMBER " IF USED
* - BLUE BLACK TR. RED "

14 CONDUCTOR - 10 POINT STRIP

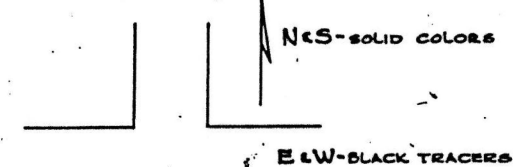
10	COMMON WHITE	
9	RED WHITE TRACER	
8	ORANGE " "	
7	GREEN " "	
6	RED BLACK TRACER	
5	ORANGE " "	
4	GREEN " "	
3	RED - SOLID	
2	ORANGE - SOLID	
1	GREEN - SOLID	

GREEN BLUE TRACER
ORANGE " " } SPLICED & TAPED
RED " "
BLACK - SOLID

14 CONDUCTOR - 14 POINT STRIP

14	COMMON WHITE	
13	BLACK	
12	RED - BLUE TRACER	
11	ORANGE - "	
10	GREEN - "	
9	RED - WHITE TRACER	
8	ORANGE - "	
7	GREEN - "	
6	RED - BLACK TRACER	
5	ORANGE - "	
4	GREEN - "	
3	SOLID RED	
2	SOLID ORANGE	
1	SOLID GREEN	

STRAIGHT CORNER



NOTE:
CONDUCTORS FOR
WALK SIGNALS &
VARIOUS MESSAGE
SIGNS AT DISCRETION
OF INSTALLER

22 CONDUCTOR - CODE 19 CODE - OMIT 19 - 21 - 22

1	WH	RED (BLACK TR. COMMON)
2	WH	RED (GREEN TR. COMMON (SPARE))
3	R	BLACK TR. NO. BOUND
4	A	" " " "
5	G	" " " "
6	R	SOLIDS 30. BOUND
7	A	" " " "
8	G	" " " "
9	BK	" " " " NEON OR ARROW
10	R	BLUE TR. EAST BOUND
11	A	" " " "
12	G	" " " "
13	R	WHITE TR. WEST BOUND
14	A	" " " "
15	G	" " " "
16	BL	SOLID - SPECIAL
17	BL	AMBER TR. "
18	BL	WHITE TR. "
19	WH	RED TR. "
20	WH	SOLID. "
21	WH	BLACK TR. "
22	BK	WHITE TR. "

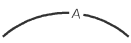
SPLIT CORNER



TRAFFIC CONTROL SIGNALS STRIP WIRING LAYOUT

REVISED	5-4-61	CITY OF CHICAGO
A	11-10-64	DEPT. OF STREETS AND SANITATION
B		DIVISION OF ELECTRICAL OPERATION
C		CHECKED
D		ENGINEER
E		DEPT. NO.
F		12268-A
G		DATE 11-8-56

MODEL: Lighting (Sheet)
FILE NAME: c:\bns\civiltech-pw\kyle.dary\0108545\0162041-sht-light-01.dgn

LIGHTING AND ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	EXISTING LIGHT POLE TO REMAIN
	EXISTING UNDERPASS LUMINAIRE TO BE REMOVED, NO SALVAGE
	EXISTING JUNCTION BOX TO REMAIN
	EXISTING JUNCTION BOX TO BE REMOVED
	EXISTING LIGHTING CONTROLLER TO REMAIN
	PROPOSED UNDERPASS LED LUMINAIRE, SUSPENDED MOUNT, OUTPUT DESIGNATION E, 10,500 MINIMUM LUMENS
	TEMPORARY WOOD POLE, 50 FT., CLASS 4
	EXISTING WOOD POLE
	EXISTING CONDUIT TO BE REMOVED
	EXISTING UNIT DUCT TO REMAIN
	EXISTING CONDUIT IN STRUCTURE TO REMAIN
	PROPOSED CONDUIT, TYPE AND SIZE AS NOTED
	PROPOSED UNIT DUCT, TYPE AND SIZE AS NOTED
	TEMPORARY AERIAL LIGHTING CABLE WITH MESSENGER WIRE, TYPE AND SIZE AS NOTED

ABBREVIATIONS	
ABBREVIATION	DESCRIPTION
AC	ALTERNATING CURRENT
A/C	AERIAL CABLE
ATS	ATTACHED TO STRUCTURE
B.O.C.	BACK OF CURB
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CM	CENTIMETER
COMED	COMMONWEALTH EDISON COMPANY
CP	CONTROL PANEL
CT	CURRENT TRANSFORMER
DA	DAVIT ARM
DC	DIRECT CURRENT
DIA	DIAMETER
DP	DISTRIBUTION PANEL
E	EXISTING UNIT TO REMAIN
EX.	EXISTING
ECA	ELECTRIC CABLE ASSEMBLY
EIS	EMBEDDED IN STRUCTURE
E.O.P.	EDGE OF PAVEMENT
F.O.C.	FACE OF CURB
FT	FEET OR FOOT
FU	FUSE
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
JB	JUNCTION BOX
KVA	KILOVOLT-AMPERE
KW	KILOWATTS
LED	LIGHT EMITTING DIODE
LP	LIGHT POLE
M	METER
MA	MAST ARM
MC	MULTI-CONDUCTOR
MM	MILLIMETER
M.H.	MOUNTING HEIGHT
MW	MESSENGER WIRE
NESC	NATIONAL ELECRIC SAFETY CODE
NO. #	NUMBER
N.T.S.	NOT TO SCALE
P	PROPOSED
PB	PUSH BUTTON
PNL	PANEL
PVC	POLYVINYL CHLORIDE
PVCC RGC	PVC COATED RIGID GALVANIZED CONDUIT
PT	POTENTIAL TRANSFORMER
R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED U.N.O.)
RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED
RECP	RECEPTACLE
RGC	RIGID GALVANIZED CONDUIT
ROW	RIGHT OF WAY
SEL SW	SELECTOR SWITCH
SPARE	SPARE
SPACE	SPACE
SS	STAINLESS STEEL
STA	STATION
T/F	TOP OF FOUNDATION
UD	UNIT DUCT
U.N.O.	UNLESS NOTED OTHERWISE
UGC, GS	UNDERGROUND CONDUCT, GALVANIZED STEEL
VAC	VOLTS. ALTERNATING CURRENT
W	WATTS
WP	WOOD POLE
XFMR	TRANSFORMER
HPS	HIGH PRESSURE SODIUM
LPS	LOW PRESSURE SODIUM
LTFM	LIQUID TIGHT FLEXIBLE METALLIC

GENERAL NOTES

- THE ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST CODES, STANDARDS AND THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS.
- THE CONTRACTOR SHALL CONTACT MEADE ELECTRIC CO. DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR TO LOCATE IDOT ELECTRICAL EQUIPMENT AND UNDERGROUND CABLES 773-287-7672.
- THE CONTRACTOR SHALL SUBMIT CDOT EQUIPMENT CATALOG CUTS TO:
CDOT
2 N. LASALLE ST., SUITE 1110
CHICAGO, IL 60602
CALL (312) 744-3600 TO COORDINATE

IDOT INDEX OF DRAWINGS

DRAWING NO.	TITLE
LT-01	IDOT LIGHTING LEGEND, ABBREVIATIONS AND GENERAL NOTES
LT-02	IDOT UNDERPASS LIGHTING STAGE 1 - TEMPORARY AND REMOVAL PLAN I-290 UNDER S KEELER AVE
LT-03	IDOT UNDERPASS LIGHTING STAGE 2 - TEMPORARY AND REMOVAL PLAN I-290 UNDER S KEELER AVE
LT-04	IDOT UNDERPASS LIGHTING PROPOSED PLAN I-290 UNDER S KEELER AVE
LT-05	MODIFIED IDOT LIGHTING CONTROLLER "J" WIRING DIAGRAM
LT-06 THRU -10	IDOT STANDARD DETAILS

BILL OF MATERIALS

ITEM NO.	DESCRIPTION	UNIT	IDOT	CDOT	TOTAL
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	-	1	1
81100320	CONDUIT ATTACHED TO STRUCTURE, 1" DIA., PVC COATED GALVANIZED STEEL	FOOT	568	-	568
81100605	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., PVC COATED GALVANIZED STEEL	FOOT	573	-	573
81100805	CONDUIT ATTACHED TO STRUCTURE, 3" DIA., PVC COATED GALVANIZED STEEL	FOOT	32	-	32
81101005	CONDUIT ATTACHED TO STRUCTURE, 4" DIA., PVC COATED GALVANIZED STEEL	FOOT	-	1000	1000
81200230	CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC	FOOT	-	1092	1092
81300220	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6" X 6" X 4"	EACH	8	-	8
81300530	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 10" X 6"	EACH	7	-	7
81300830	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 18" X 8"	EACH	6	6	12
81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	1263	-	1263
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1249	-	1249
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	687	-	687
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	2061	-	2061
81800320	AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE	FOOT	744	-	744
82110027	LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION E	EACH	8	-	8
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	-	495	495
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	210	360	570
X0326326	CABLE IN CONDUIT, TRIPLEX, 2-1/C NO. 6 AND 1-1/C NO. 8 GROUND	FOOT	-	1205	1205
X1400202	LUMINAIRE (SPECIAL)	EACH	-	10	10
X1700001	DRILL EXISTING MANHOLE, HEAVY DUTY HANDHOLE, OR MEDIAN WALL JUNCTION BOX	EACH	-	4	4
X2080251	TRENCH BACKFILL WITH SCREENINGS	FOOT	-	212	212
X6050040	REMOVING MANHOLES (SPECIAL)	EACH	-	1	1
X8000003	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	24	-	24
X8102845	UNDERGROUND CONDUIT, PVC, 4" DIA., SCHEDULE 80	FOOT	-	484	484
X8131168	JUNCTION BOX, NONMETALLIC, EMBEDDED IN STRUCTURE, 21" X 11" X 08"	EACH	4	-	4
X8300100	LIGHT POLE, ALUMINUM, WITH MAST ARM, INSTALL ONLY	EACH	-	4	4
X8301802	REMOVE TEMPORARY WOOD POLE	EACH	4	-	4
X8302151	TEMPORARY WOOD POLE, 50 FT., CLASS 4	EACH	4	-	4
X8400104	MAINTENANCE OF STREET LIGHTING SYSTEM (CITY OF CHICAGO)	L SUM	-	1	1
X8420111	REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE	EACH	8	-	8
X8440124	REMOVE EXISTING STREET LIGHTING EQUIPMENT	L SUM	-	1	1
Z0010614	CLEANING EXISTING MANHOLE OR HANDHOLE	EACH	-	2	2
	CONDUIT IN TRENCH, PVC (SCHEDULE 80), 2" DIA.	FOOT	-	300	300
	LUMINAIRE NODE, EXTERNAL	EACH	-	10	10
	MAST ARM, STREET LIGHTING, STEEL, 12 FOOT	EACH	-	6	6

IDOT-D1 STANDARDS:

STANDARD NO.	TITLE
BE-702	MISC. ELECTRICAL DETAILS SHEET A
BE-703	MISC. ELECTRICAL DETAILS SHEET B
BE-800	TEMPORARY LIGHT POLE DETAILS
BE-801	TEMPORARY AERIAL CABLE INSTALLATION
BE-901	SUSPENDED MOUNT LED UNDERPASS LUMINAIRE INSTALLATION DETAILS

CDOT INDEX OF DRAWINGS

DRAWING NO.	TITLE
LT-11	CDOT STANDARD 826 LEGEND/SYMBOLS
LT-12	CDOT ELECTRICAL GENERAL NOTES
LT-13	PULASKI ROAD OVER I-290 UNDERGROUND CONDUIT FACILITIES PLAN
LT-14	PULASKI ROAD OVER I-290 LIGHTING REMOVAL AND INSTALLATION PLAN
LT-15	UNDERGROUND CONDUIT PROFILE VIEWS
LT-16	MISCELLANEOUS ELECTRICAL DETAILS
LT-17 THRU -24	CDOT ELECTRICAL STANDARD DETAILS
LT-25 THRU -26	CDOT ELECTRICAL RECORD DRAWINGS

LT-01

	USER NAME = nsotto	DESIGNED - VN	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IDOT LIGHTING LEGEND, ABBREVIATION AND GENERAL NOTES			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - VN	REVISED -					290	FAI 290 22 KEELER BR	COOK	283	119
		CHECKED - RP	REVISED -					CONTRACT NO. 62U41				
	PLOT DATE = 8/27/2025	DATE - 08/13/2025	REVISED -		SCALE:	SHEET 1	OF 26 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\0108545\0162041-sh1-light 02.dgn



USER NAME	= kdc
PLOT DATE	= 8/12/2025

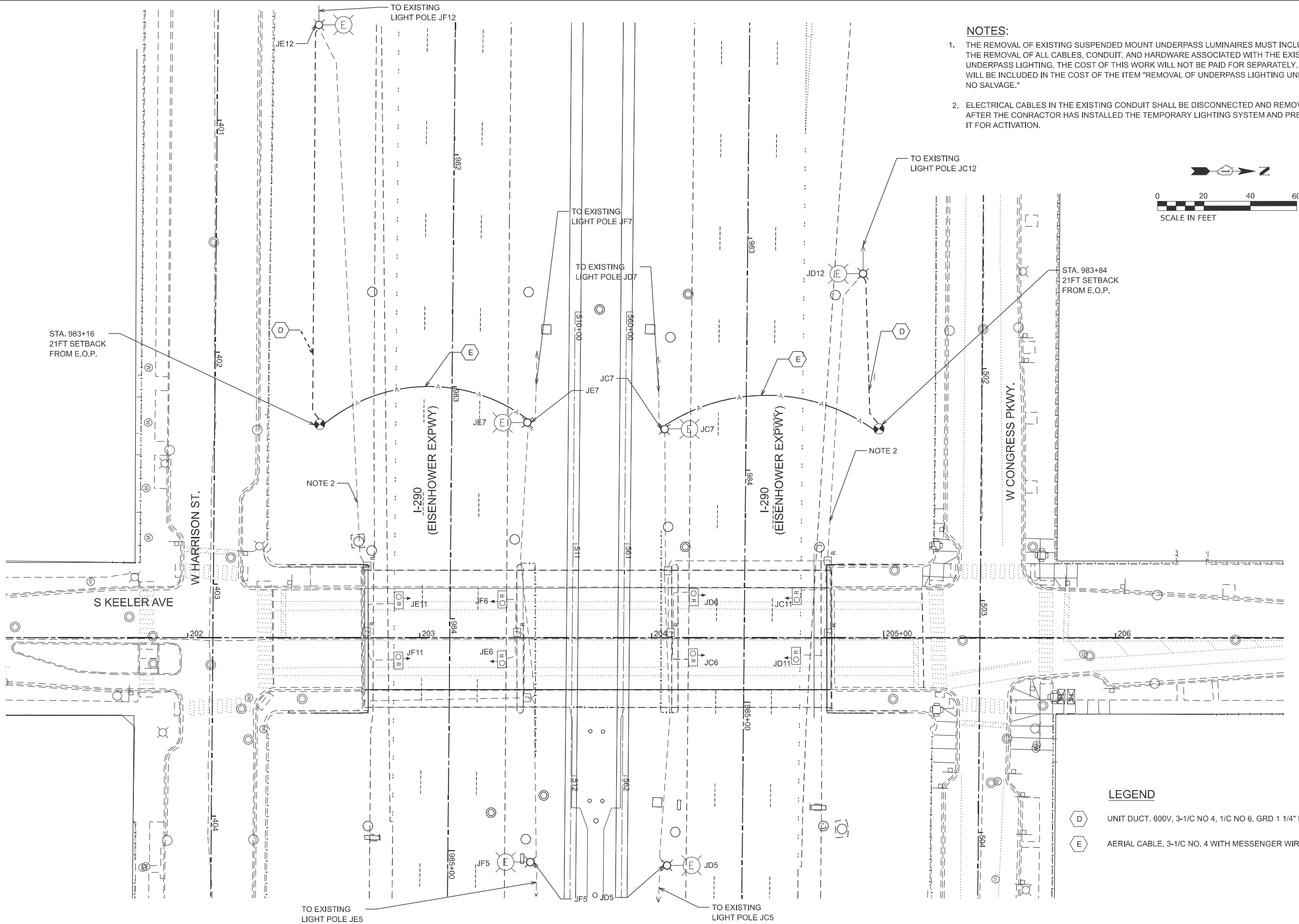
DESIGNED - VN	REVISED -
DRAWN - VN	REVISED -
CHECKED - RP	REVISED -
DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT UNDERPASS LIGHTING
STAGE 1 - TEMPORARY AND REMOVAL PLAN
I-290 UNDER S KEELER AVE

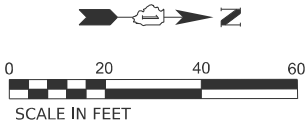
SCALE: 1:20 SHEET 2 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	120
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



NOTES:

- THE REMOVAL OF EXISTING SUSPENDED MOUNT UNDERPASS LUMINAIRES MUST INCLUDE THE REMOVAL OF ALL CABLES, CONDUIT, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE."
- ELECTRICAL CABLES IN THE EXISTING CONDUIT SHALL BE DISCONNECTED AND REMOVED AFTER THE CONRACTOR HAS INSTALLED THE TEMPORARY LIGHTING SYSTEM AND PREPARED IT FOR ACTIVATION.



LEGEND

- (D) UNIT DUCT, 600V, 3-1/C NO 4, 1/C NO 6, GRD 1 1/4" DIA
- (E) AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\0108545\0162041-shit-light 03.dgn



USER NAME	= kdc
PLOT DATE	= 8/13/2025

DESIGNED	- VN
DRAWN	- VN
CHECKED	- RP
DATE	- 08/13/2025

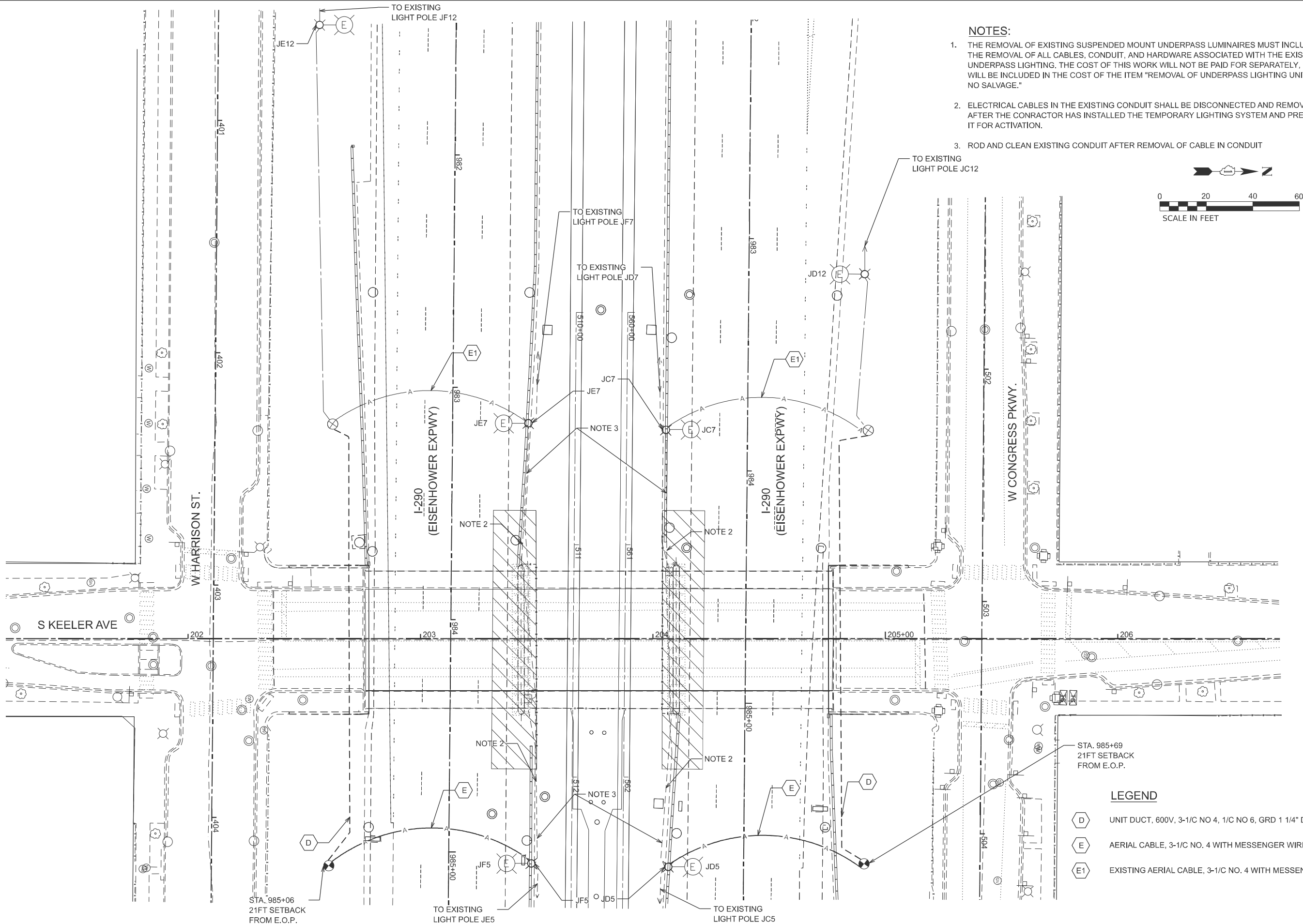
REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT UNDERPASS LIGHTING
STAGE 2 - TEMPORARY AND REMOVAL PLAN
I-290 UNDER S KEELER AVE

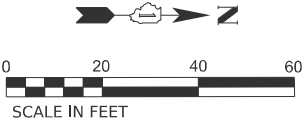
SCALE: 1:20 SHEET 3 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	121
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



NOTES:

- THE REMOVAL OF EXISTING SUSPENDED MOUNT UNDERPASS LUMINAIRES MUST INCLUDE THE REMOVAL OF ALL CABLES, CONDUIT, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. THE COST OF THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF UNDERPASS LIGHTING UNIT, NO SALVAGE."
- ELECTRICAL CABLES IN THE EXISTING CONDUIT SHALL BE DISCONNECTED AND REMOVED AFTER THE CONRACTOR HAS INSTALLED THE TEMPORARY LIGHTING SYSTEM AND PREPARED IT FOR ACTIVATION.
- ROD AND CLEAN EXISTING CONDUIT AFTER REMOVAL OF CABLE IN CONDUIT

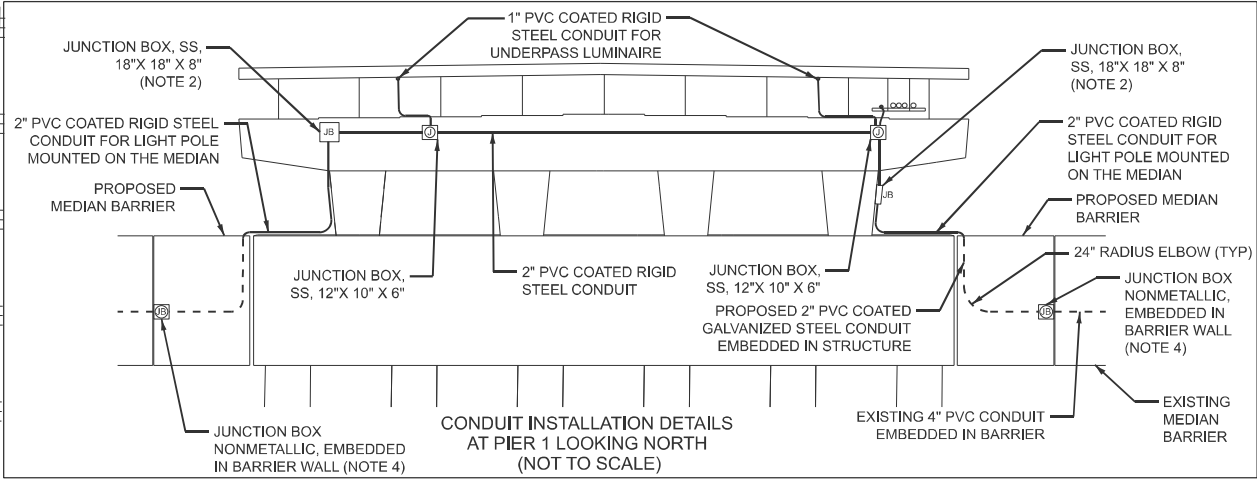


LEGEND

- UNIT DUCT, 600V, 3-1/C NO 4, 1/C NO 6, GRD 1 1/4" DIA
- AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE
- EXISTING AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE

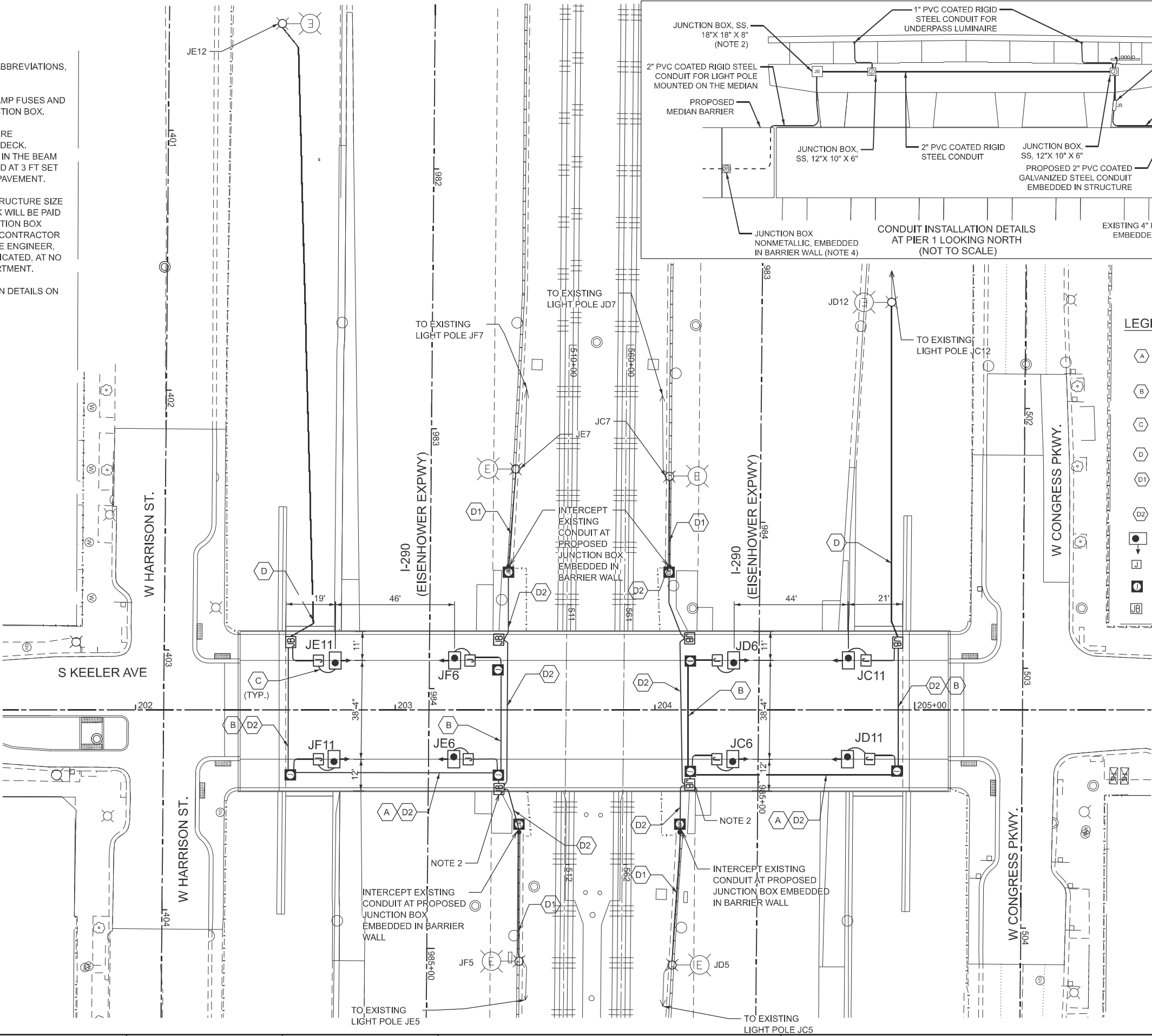
NOTES:

- SEE SHEET LT-01 FOR LEGEND, ABBREVIATIONS, AND GENERAL NOTES.
- INSTALL FUSEHOLDER WITH 30 AMP FUSES AND NEUTRAL SLUG INSIDE THE JUNCTION BOX.
- PROPOSED UNDERPASS LUMINAIRE SUSPENDED FROM THE BRIDGE DECK. LUMINAIRE SHALL BE CENTERED IN THE BEAM SPACE AND SHALL BE POSITIONED AT 3 FT SET BACK FROM EXISTING EDGE OF PAVEMENT.
- JUNCTION BOX EMBEDDED IN STRUCTURE SIZE WILL BE 21" X 11" X 8". THIS WORK WILL BE PAID PER UNIT PRICE EACH FOR JUNCTION BOX EMBEDDED IN STRUCTURE. THE CONTRACTOR MAY, WITH THE APPROVAL OF THE ENGINEER, USE BOX SIZE LARGER THAN INDICATED, AT NO ADDITIONAL COST TO THE DEPARTMENT.
- SEE CONDUIT INSTALLATION PLAN DETAILS ON THIS SHEET.



LEGEND

- ELECTRICAL CABLE 3-1/C NO.10 AND 1/C NO.10 GND IN 1" PVCC RGC
- ELECTRICAL CABLE 2-1/C NO.10 AND 1/C NO.10 GND IN 1\"PVCC RGC
- 2-1/C NO.10 AND 1-1/C NO.10 GND IN 3/4\" LIQUID-TIGHT FLEXIBLE CONDUIT
- UNIT DUCT, 600V, 3-1/C NO. 4, 1/C NO. 6, GND 1 1/4\" DIA.
- ELECTRICAL CABLE 3-1/C NO. 4, 1/C NO. 6, GND IN EXISTING 4\" CONDUIT
- ELECTRICAL CABLE 3-1/C NO. 4, 1/C NO. 6, GND IN 2\" DIA. PVCC RGC.
- LUMINAIRE, LED, UNDERPASS, SUSPENDED, OUTPUT DESIGNATION E (15.5-FT M.H.) (REFER TO BE-901 FOR LUMINAIRE MOUNTING)
- JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 6\"X6\"X4\"
- JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12\" X 10\" X 6\"
- JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18\" X 18\" X 8\"



MODEL: Lighting [Sheet]
FILE NAME: c:\bns\civiltech-pw\kyle.dary\0108545\0162041-shit-light 04.dgn

SINGH
SINGH + ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = nsotto	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
PLOT DATE = 8/27/2025	CHECKED - RP	REVISED -
	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT UNDERPASS LIGHTING
PROPOSED PLAN
I-290 UNDER S KEELER AVE

SCALE: 1"=20' SHEET 4 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	122
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

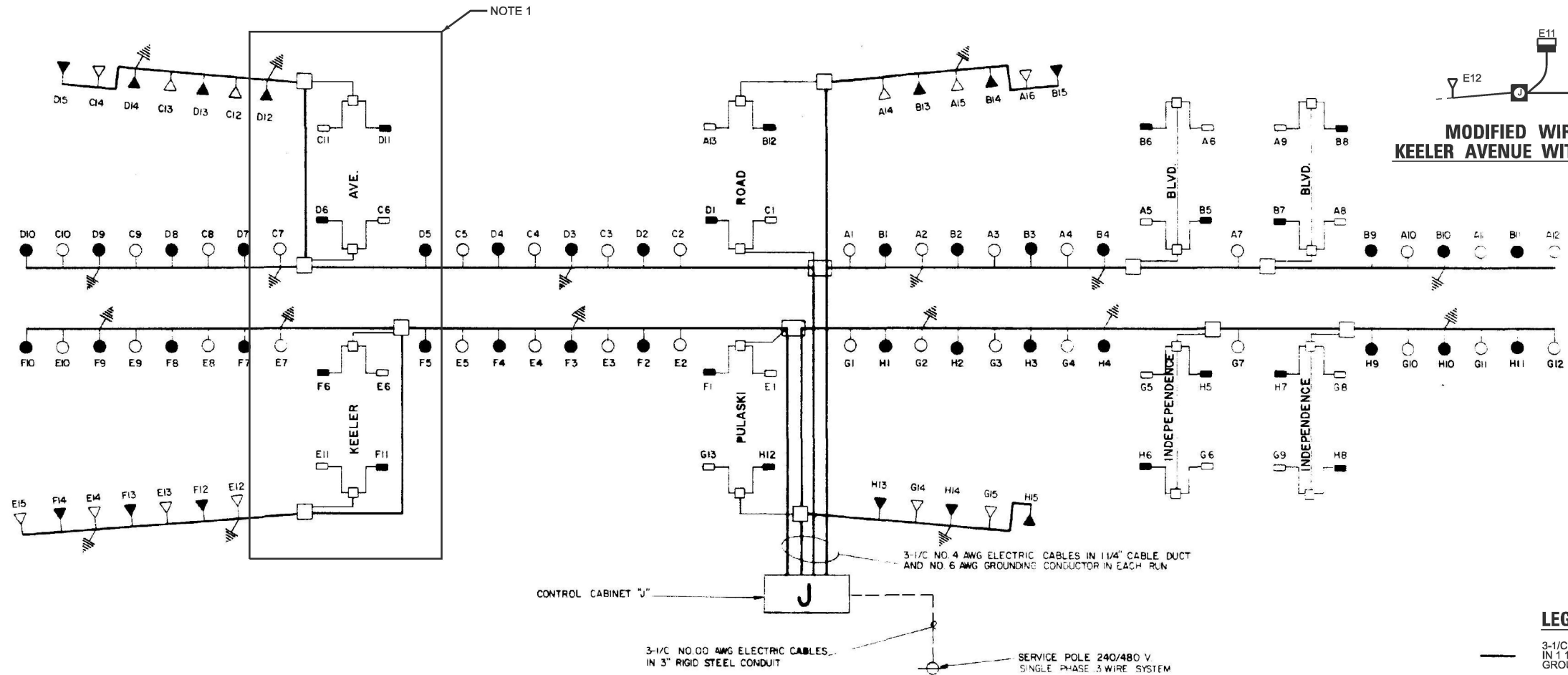
LT-04

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\eltech-pw\kyle.dwg\0108545\0102141-sht-light 05.dgn

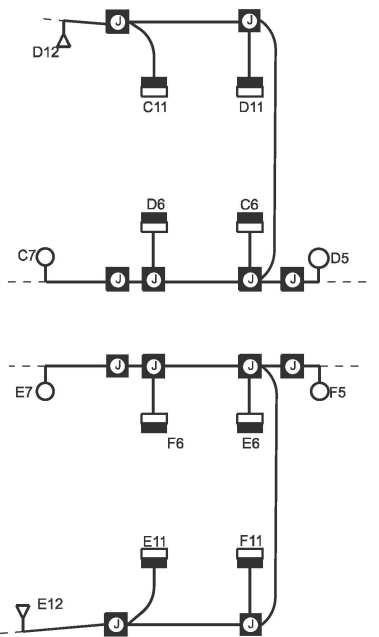
SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

NOTES

- THESE UNDERPASS ARE BEING UPGRADED AS PART OF THIS CONTRACT AND UTILIZE LED UNDERPASS LUMINAIRES. REFER TO MODIFIED WIRING DIAGRAM ON THIS SHEET.



MODIFIED WIRING DIAGRAM KEELER AVENUE WITH LED LUMINAIRES



LEGEND

- 3-1/C NO. 4 AWG ELECTRIC CABLE IN 1 1/4" CABLE DUCT AND NO. 6 AWG GROUNDING CONDUCTOR (OR AS NOTED OTHERWISE)
- 3-1/C NO. 10 AWG ELECTRIC CABLES IN 1" CONDUIT
- 400WHPs, M-C-III, LUMINAIRE ON RED CABLE
- 400WHPs, M-C-III, LUMINAIRE ON BLACK CABLE
- 200WHPs, M-C-III, LUMINAIRE ON RED CABLE
- 200WHPs, M-C-III, LUMINAIRE ON BLACK CABLE
- 55WHPs, UNDERPASS LUMINAIRE ON RED CABLE
- 55WHPs, UNDERPASS LUMINAIRE ON BLACK CABLE
- JUNCTION BOX FOR UNDERPASS LUMINAIRES
- JUNCTION BOX FOR UNDERGROUND DISTRIBUTION
- PULL BOX IN BARRIER WALL, 18" X 18" X 8"
- GROUND ROD

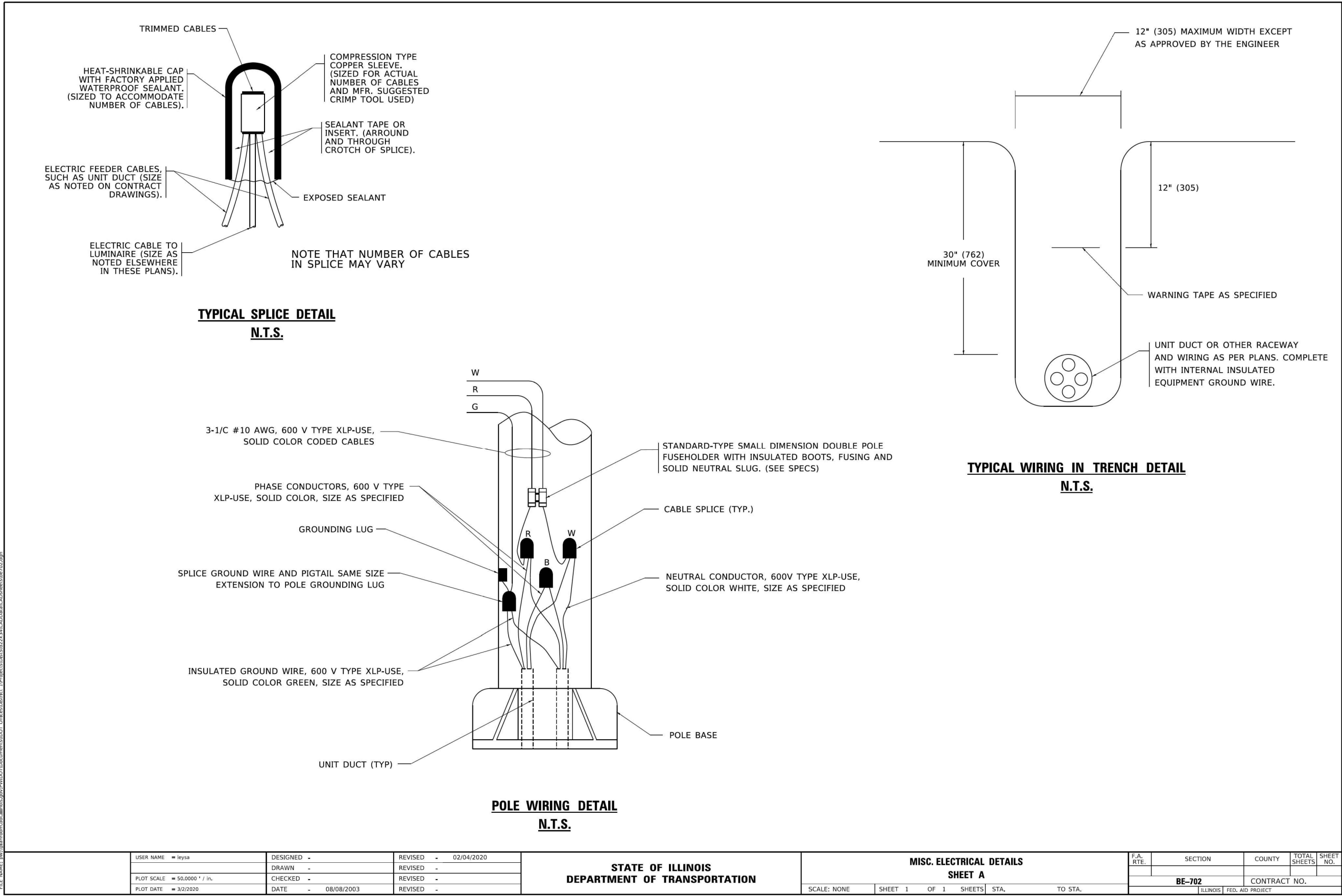
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MODIFIED IDOT LIGHTING CONTROLLER "J" WIRING DIAGRAM

SCALE: N.T.S. SHEET 5 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	123
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

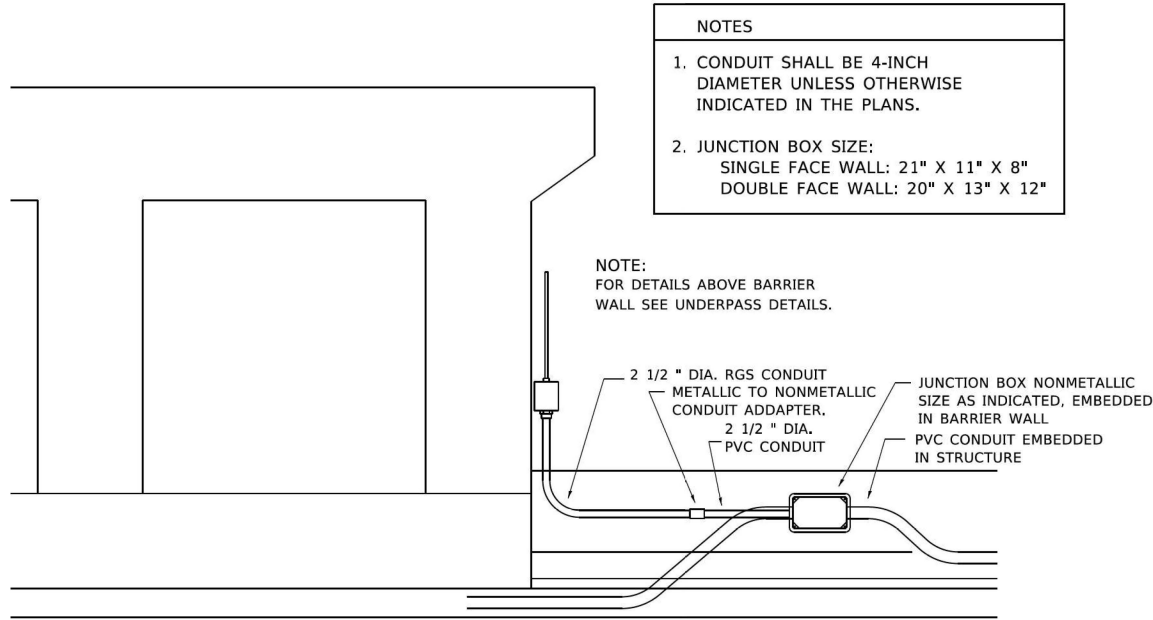
LT-05



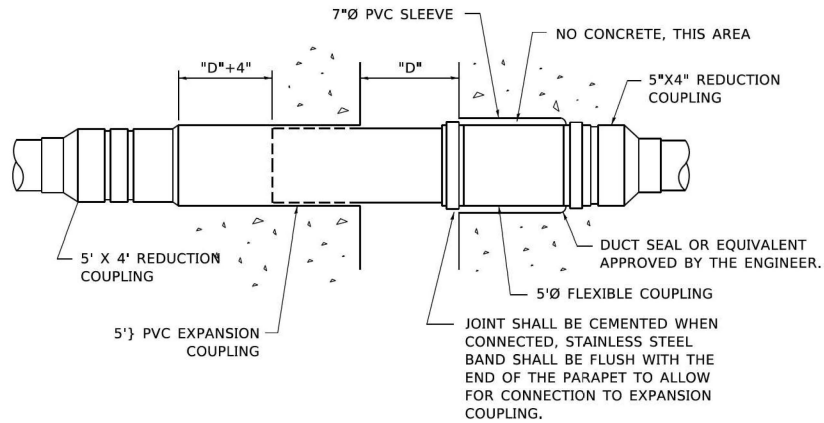
MODEL: Lighting (Sheet)
FILE NAME: c:\bms\sch\tech-pw\kyle_dary\0108545\0162141-sht-light_06.dgn

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\sch\tech-pw\kyle_dary\0108545\0102141-sht-light 06A.dgn

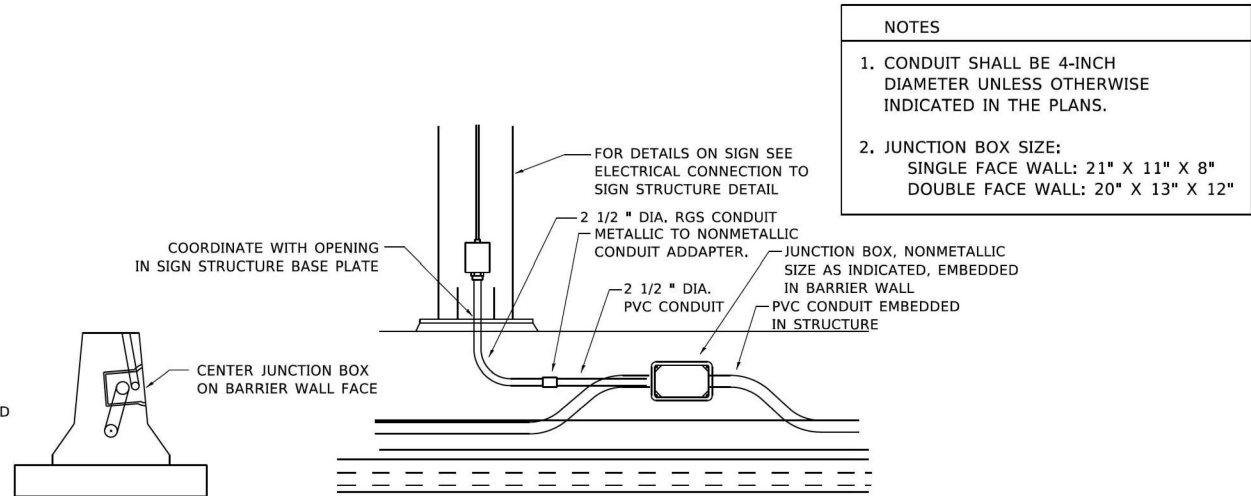
MODEL: Default
FILE NAME: p:\s\blanros\mdata\illinois\proj\2\WIDOT\Documents\DOT - Office\Detailer - 1\Projects\0108545\02141-SECAD\data\CA\Sheet\be703.dgn



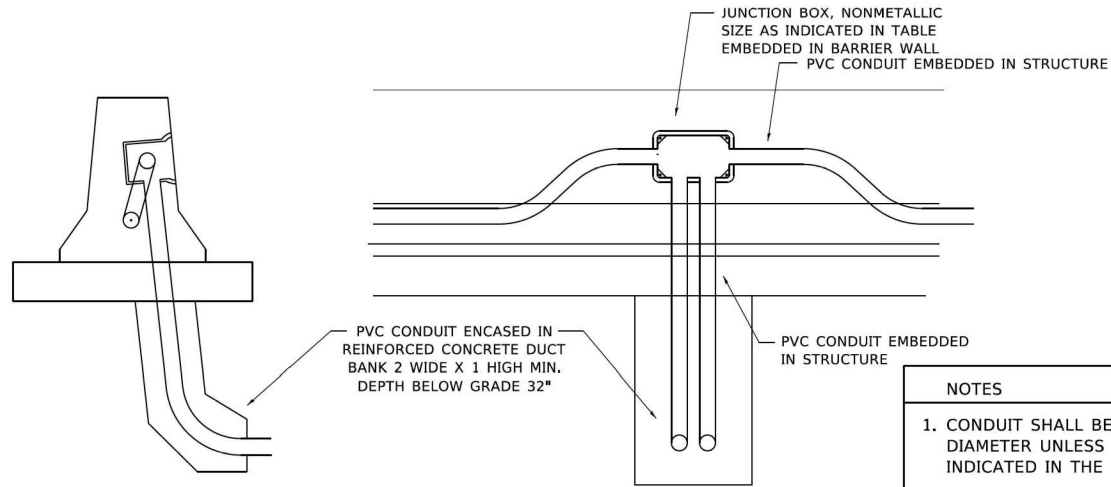
ED - BWD
ELECTRIC CONNECTION TO UNDERPASS LIGHTING



**INSTALLATION OF CONDUIT
IN BRIDGE PARAPET EXPANSION JOINT**
(N.T.S.)

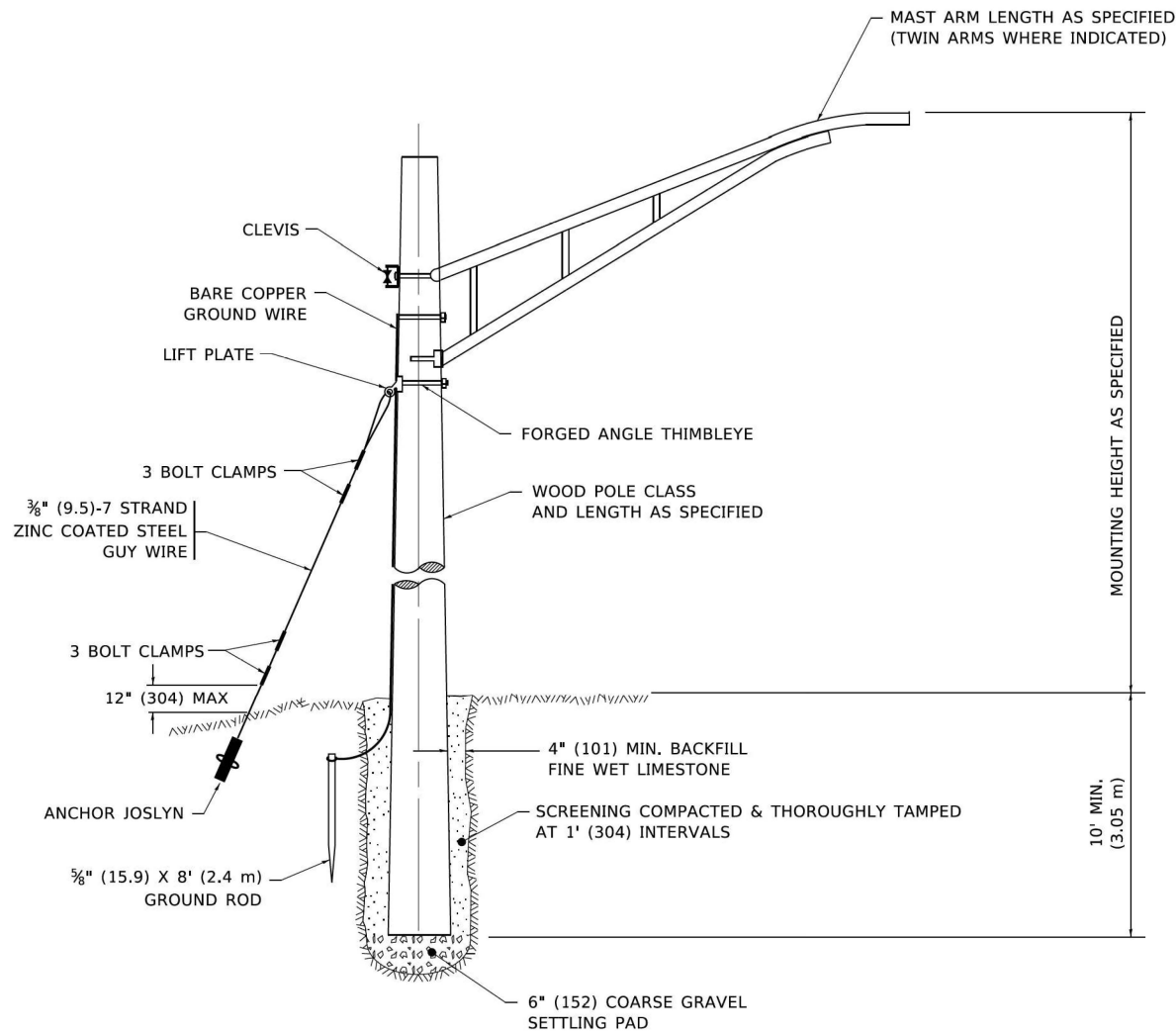


ED - SGN
JUNCTION BOX EMBEDDED IN BARRIER WALL FOR SIGN LIGHTING



ED - BW
JUNCTION BOX EMBEDDED IN BARRIER WALL

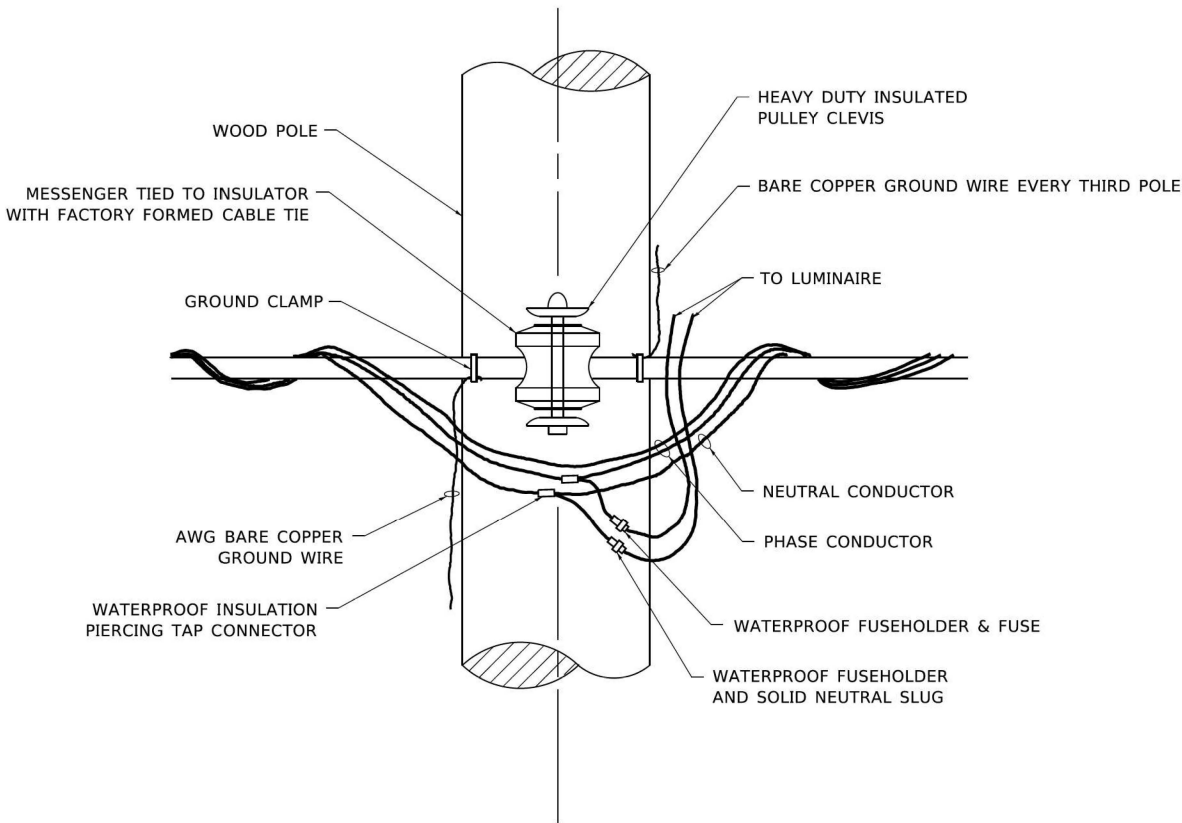
FILE NUMBER: B-100
--



TEMPORARY LIGHT POLE DETAIL

NOTE:

- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- 2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.

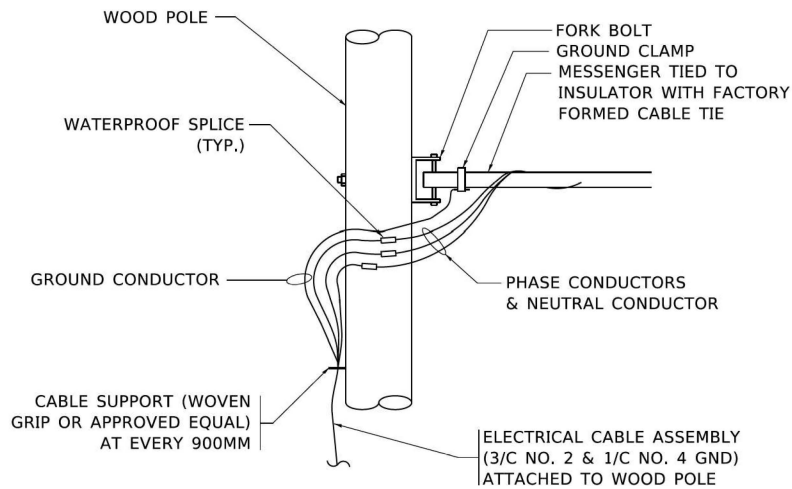


TEMPORARY LIGHT POLE ATTACHMENT DETAIL

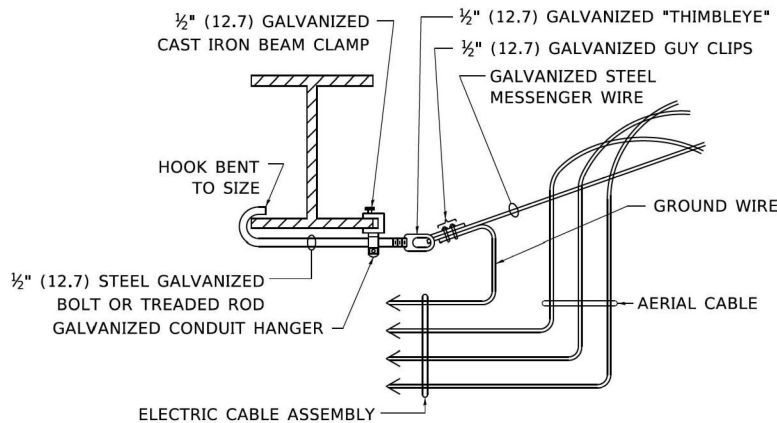
MODEL: Defog (Sheet) FILE NAME: c:\bms\sch\tech-pw\kyle.dary\0108545\0102141-sht-light 07.dgn	USER NAME = footenj		DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN -	REVISED - R.T. 07-26-16										
	PLOT SCALE = 50,0010 ' / in.		CHECKED -	REVISED -		SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.				BE-800		CONTRACT NO.		
	PLOT DATE = 4/19/2019		DATE -	REVISED -						ILLINOIS FED. AID PROJECT				

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

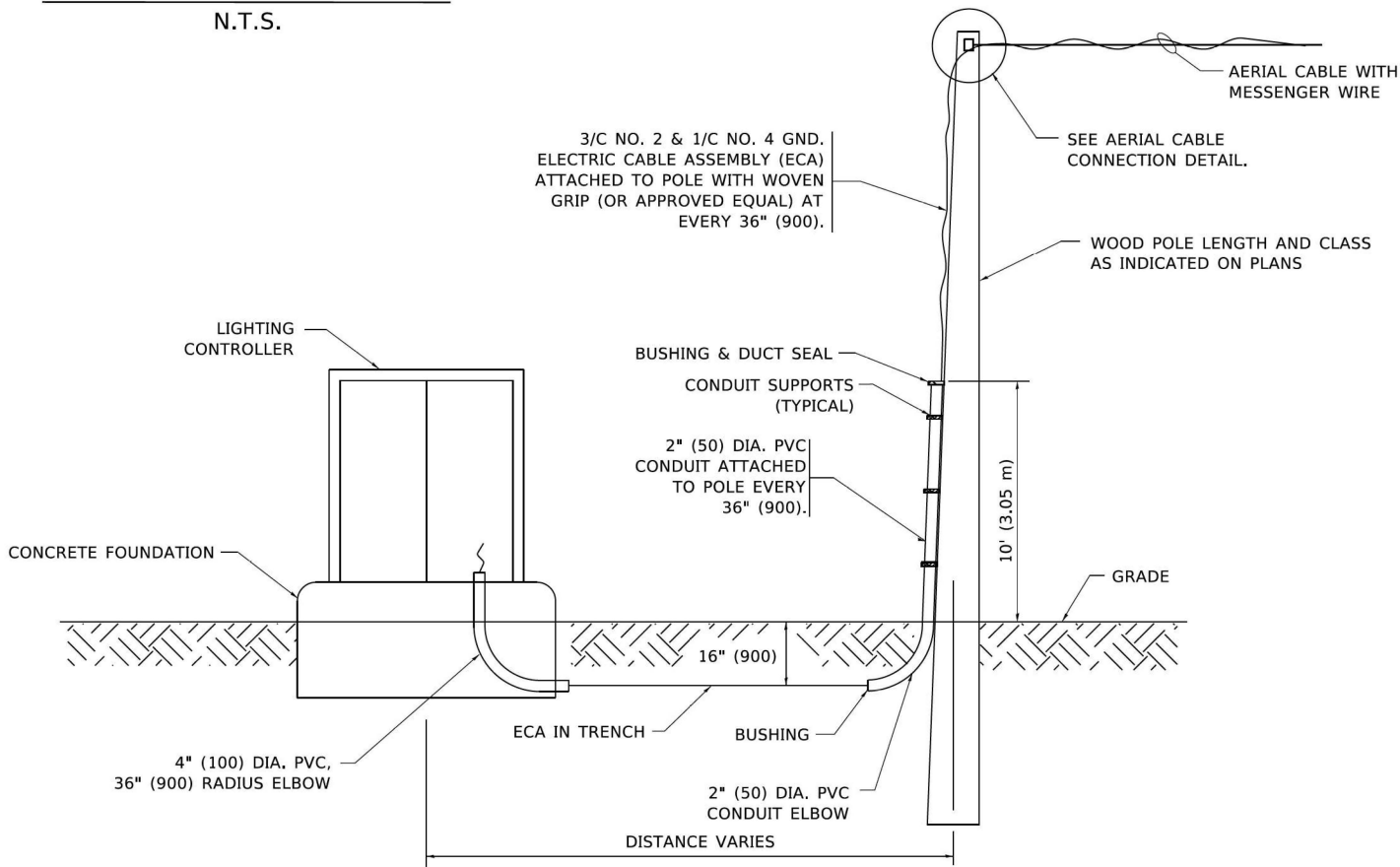
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	126
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



AERIAL CABLE CONNECTION DETAIL
N.T.S.



**AERIAL CABLE
ATTACHED TO STRUCTURE**
NOT TO SCALE



**WOOD POLE TO LIGHTING CONTROLLER
WIRING CONNECTION DETAIL**
N.T.S.

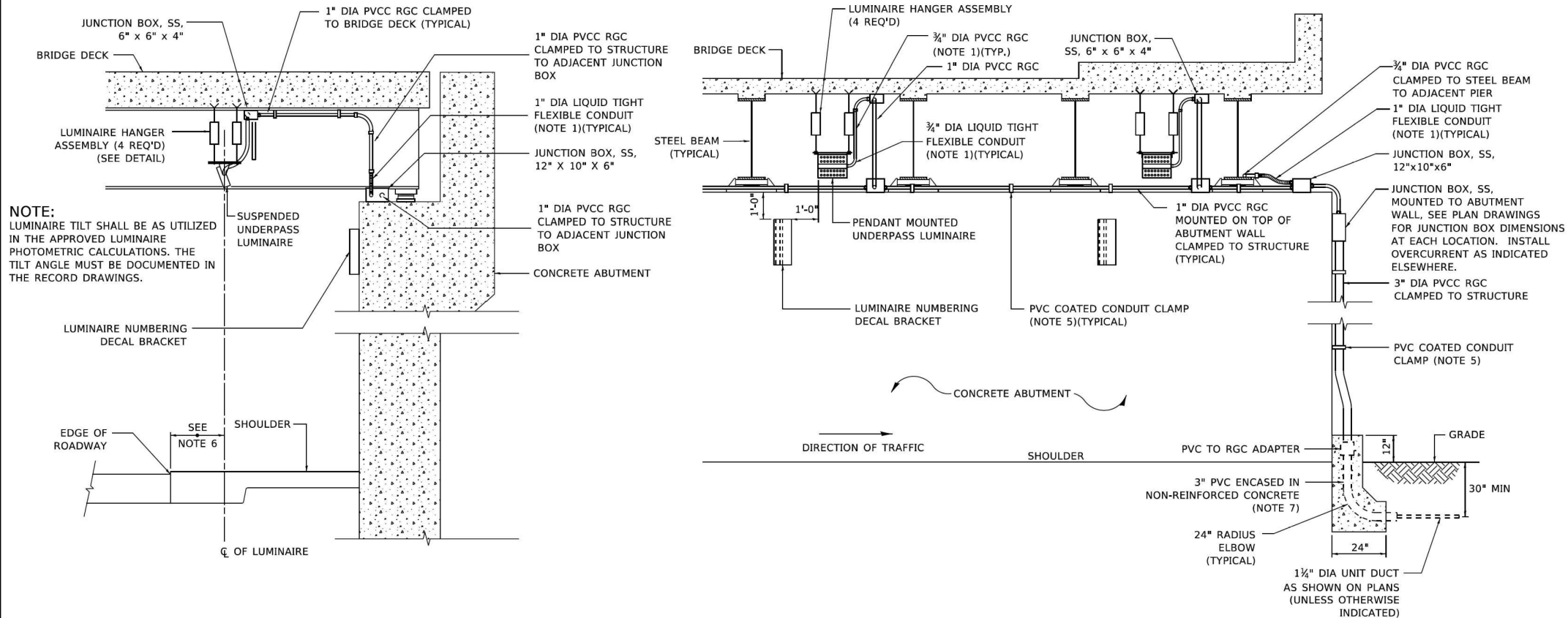
NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.

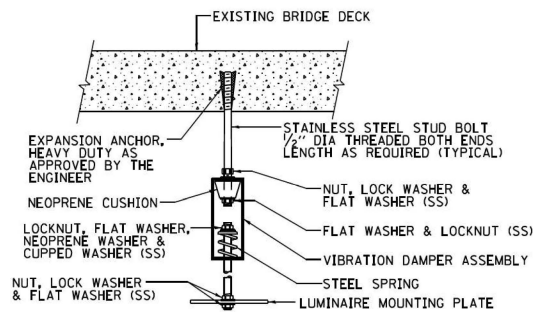
MODEL: Defeat FILE NAME: P	USER NAME = footernj	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY AERIAL CABLE INSTALLATION				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -										
	PLOT SCALE = 50,0000 ' / in.	CHECKED -	REVISED -		SCALE: NONE				BE-801				
	PLOT DATE = 4/19/2019	DATE -	REVISED -						SHEET 1	OF 1	SHEETS	STA.	TO STA.
									ILLINOIS	FED. AID PROJECT			

USER NAME = kdc			DESIGNED - VN	REVISED -
			DRAWN - VN	REVISED -
			CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025			DATE - 08/13/2025	REVISED -

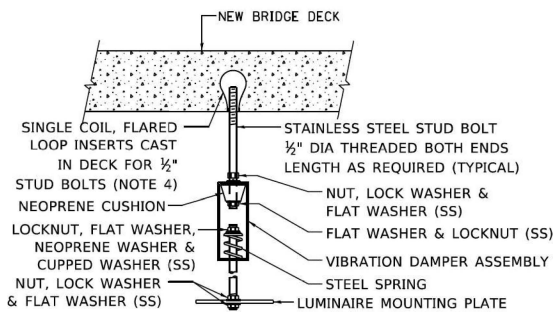
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	127
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT " DIA. CONDUIT AND " DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
 - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
 - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
 - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
 - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
 - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
 - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
 - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.
 - IN NO INSTANCE SHALL ANY UNDERPASS LUMINAIRE OR ANY OTHER ELECTRICAL EQUIPMENT BE INSTALLED BELOW THE ELEVATION OF THE BOTTOM OF THE BRIDGE BEAM WHEN OVER ANY PAVEMENT (ROADWAY OR SHOULDER).

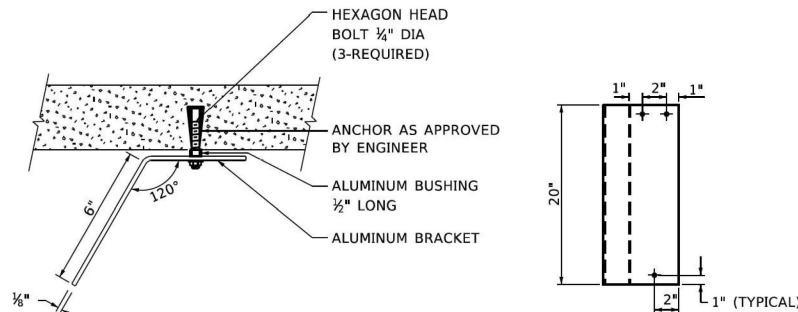


EXISTING BRIDGE DECK INSTALLATION



NEW BRIDGE DECK INSTALLATION

TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS



TOP VIEW

ELEVATION

LUMINAIRE NUMBERING DECAL BRACKET

NOT TO SCALE



**PVC COATED
CONDUIT BEAM CLAMP**
NOT TO SCALE



**PVC COATED
CONDUIT CLAMP**
NOT TO SCALE

MODEL: Default FILE NAME: c:\bms\ch\tech-pw\kyle.dary\0108545\0102141-sht-light 09.dgn	USER NAME = gaglianobt			DESIGNED -	REVISED - 12-12-05	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUSPENDED MOUNT LED UNDERPASS LUMINAIRE INSTALLATION DETAILS			F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN -			CHECKED -	REVISED -					BE-901				
	PLOT SCALE = 100.0000 ' / 1 in.			DATE -	REVISED -					ILLINOIS FED. AID PROJECT				
	PLOT DATE = 1/15/2020			DATE -	REVISED -									

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	128
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Lighting (Sheet)
FILE NAME: c:\bna\sch\tech-pw\kyle.dary\0108545\0162\41-st-light 10.dgn



USER NAME	= kdc	DESIGNED - VN	REVISED -
		DRAWN - VN	REVISED -
		CHECKED - RP	REVISED -
PLOT DATE	= 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT STANDARD 826 LEGEND/SYMBOLS

SCALE: SHEET 11 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	129
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

PROPOSED	PRESENT		PROPOSED	PRESENT		C.M.H. LUMINAIRES
		SIGNAL, TRAFFIC 3 SECTION 1-WAY ADJUSTABLE, 12" OR AS NOTED			MANHOLE, 3'x4'x4' 24" F & C (DWG.#730) (A) 30" F & C (DWG#729) (B)	PROPOSED PRESENT
		SIGNAL, TRAFFIC 3 SECTION 2-WAY ADJUSTABLE, 12" OR AS NOTED			MANHOLE, 4'x6'x6' 24" F & C (DWG.#732) (C) 30" F & C (DWG#733) (D)	
		SIGNAL OPTICALLY PROGRAMMED			HANDHOLE, HEAVY DUTY, 36" I.D. (DWG.#866) 24" F & C (E). (DWG#871) 30" F & C (F)	
		SIGNAL, PEDESTRIAN, COUNTDOWN			HANDHOLE, CIRCULAR WITH 24"FRAME & COVER,30" I.D. (#867) (G)	LUMINAIRE, C.M.H. 315W LAMP, 240V
		SIGNAL, PEDESTRIAN, DON'T WALK/WALK			FOUNDATION, CONTROLLER OR PEDESTAL, 13" B.C.,20"x5' (DWG. #709)	LUMINAIRE, C.M.H. 315W LAMP, 240V, (FLOOD)
		SIGNAL FACE ARROW, 12" COLOR AS NOTED			FOUNDATION, TRAFFIC CONTROLLER DWG. #854. F.A. TERMINAL FND. DWG. #11972	LUMINAIRE, C.M.H. 210W LAMP, 240V
		SIGNAL FACE, 1 SECTION YELLOW/GREEN ARROW DUAL INDICATION			FOUNDATION, TRAFFIC TYPE "P", BASE MOUNT. (DWG. #888)	LUMINAIRE, C.M.H. 140W LAMP, 240V
		PUSH BUTTON, PEDESTRIAN			FOUNDATION,CONTROLLER STREET LIGHT ,SPECIAL, 100A & 200A. (DWG.#876 & # 880)	LUMINAIRE, C.M.H. 140W LAMP, 120V, (ALLEY)
		SIGN,ILLUMINATED, WITH MESSAGE OR SYMBOL AS INDICATED			FOUNDATION, TRANSCLASURE; TRANSCLASURE HOUSING. (DWG.# 583 & #891)	LUMINAIRE, C.M.H. 90W LAMP, 240V
		MAST ARM, MONOTUBE, STEEL. SIZE AS INDICATED (SEE DWG. #870)			CONTROLLER,UNDERPASS LIGHTING 120V. & 240V. (DWG. #860 & #861)	LUMINAIRE, C.M.H. 90W LAMP, 240V (ACORN)
		MAST ARM, TRUSS, ALUMINUM. SIZE AS INDICATED			MANHOLE, UTILITY, E=COMMONWEALTH EDISON; T=ILL BELL TEL.; G=PEOPLES GAS; W=CITY WATER; P=CHGO PARK DISTRICT; CTA=C.T.A.; S= SEWER	
		CONTROLLER, TRAFFIC SIGNAL. PEDESTAL OR BASE MOUNTED AS INDICATED			JUNCTION BOX, IN PAVEMENT (DWG. #815)	
		CONTROLLER, STREET LIGHTING. PEDESTAL OR BASE MOUNTED. (DWG. 876 or 880)			DETECTOR LOOP IN PAVEMENT	
		CONTROLLER,STREET LIGHTING. POLE MOUNTED (DWG. #11940)			CONDUIT or P.V.C., NUMBER,SIZE & TYPE. (AS NOTED)	
		POLE, WOOD. COMMONWEALTH EDISON COMPANY, SERVICE			CONDUIT or P.V.C. ENCASED IN CONCRETE. (SECTION or NUMBER OF CONDUIT INDICATED)	
		POLE, CITY STEEL, ANCHOR BASE, 34'6",7 GA. 10" DI A. AND 15"B.C. 24"x7' FND. W/1 1/4" ANCHOR RODS DRG. #818.			LUMINAIRE, H.P.S.V. 400W LAMP, 240V, SEMI-CUTOFF	310W PENDANT (240V)
		POLE, CITY STEEL, ANCHOR BASE, 34'-6", 3 GA. 10" DIA. AND 15" B.C. 24"x9' FND. W/1 1/4" ANCHOR RODS DRG. #818 (16',20'or 26'M.A.)			LUMINAIRE, H.P.S.V. 400W LAMP, 240V, CUTOFF	400W PENDANT (240V)
		POLE, CITY STEEL, ANCHOR BASE, 34"-6", 3GA., 11" DIA. AND 17 1/4" B.C. 30"x9' FND. W/1 1/4" ANCHOR RODS DRG. #816. (30' M.A.)			LUMINAIRE, H.P.S.V. 310W LAMP, 240V	250W PENDANT (240V)
		POLE, CITY STEEL, ANCHOR BASE 34'-6", 3 GA. 12 1/2" DIA. AND 16 1/2"B.C. 30"x11' FND. W/1 1/2" ANCHOR RODS DRG.#817. (35',40'or 44' M.A.)			LUMINAIRE, H.P.S.V. 310W LAMP 240V, CUTOFF	150W ACORN (120V)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA. 10" DIA., WITH 3 GA. BAL. HSG. BASE AND 17 1/4" B. C. ON 30"x9' FND. W/ 11/4" ANCHOR RODS DRG. #816.			LUMINAIRE, H.P.S.V. 150W LAMP, 240V	150W ACORN (240V)
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 7 GA. WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DRG. #716.			LUMINAIRE, H.P.S.V. 150W LAMP, 120V	50W ACORN (240V)
		POLE,CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6", 3 GA., WITH STEEL BAL. HSG. BASE AND FND. W/10" D. B.C. AND 1" ANCHOR RODS DWG.#719.			LUMINAIRE, H.P.S.V. 250W LAMP, 120V, (ALLEY LIGHT)	100W ACORN (240V)
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6", 29'-6" 7 GA., AND ALUMINUM RESIDENTIAL DAVIT,AND FND. WITH 10" B.C. AND 1" ANCHOR RODSDWG#565 (CONCRETE) OR DWG.#936 (HELIX).			LUMINAIRE, H.P.S.V. 250W LAMP, 120V	150W GLOBE (240V)
		POLE, CITY STEEL, ANCHOR BASE, 20',27'-6",29'-6" 3 GA.,AND FND. WITH 10" B.C. AND 1" ANCHOR RODS DWG. #565 (CONCRETE) OR DWG.#936 (HELIX).			LUMINAIRE, H.P.S.V. 400W LAMP, 240V, (FLOOD LIGHT)	100W GLOBE (240V)
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 7 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.			TERMINAL, CABINET F.A. & P.C.	50W GLOBE (240V)
		POLE, CITY STEEL, ANCHR BASE, 32'-6", 3 GA., AND FND. WITH 11 1/2" B.C. AND 1" ANCHOR RODS DWG. #753.			FIRE ALARM BOX, MOUNTED	
		POLE, CITY STEEL, ANCHOR BASE, 32'-6" 7 GA., ALUM. BHB AND FND. WITH 15" B.C.-24"x7' WITH 1" ANCHOR RODS DRG. #691.			FIRE ALARM BOX, POLE MOUNTED	
		POLE, CITY STEEL, ANCHOR BASE, 32'-6", 3 GA., ALUM. BHB AND FND. WITH 15" B.C. 24"x 7' WITH 1" ANCHOR RODS DWG. #691.				
		POLE, CITY ALUMINUM, WITH ROUND BAL. HSG. BASE, 25', 28', or 30' ON FND.WITH 14" B.C., ACQUIRED FROM CHICAGO PARK DISTRICT.				
		POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 7 GA., TAPERED TUBULAR. (DWG. #658)				
		POLE, CITY STEEL, EMBEDDED, 4"x 9"x 35' 3 GA., TAPERED TUBULAR. (DWG. #658)				
		POLE, CITY STEEL, EMBEDDED. (ACQUIRED FROM CTA)				
		COLUMN,ELEVATED STRUCTURE				
		POLE, WOOD. (SIZE AS NOTED)				
		POLE, FOUNDATION WITH ELBOWS AS INDICATED.(SIZE AS NOTED)				
		POLE, ORNAMENTAL OR OTHER, AS INDICATED ON THE PLANS				
		RESIDENTIAL STREET LIGHTING CONTROLLER				

PROPOSED	PRESENT	
		CABLE, TRAFFIC SIGNAL, COMMUNICATION, 1-PAIR #14 SHIELDED, IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C- #4, 600 V. EPR. IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2 1/C-#2 or #1/0 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL POWER SUPPLY, 2/C-#10 or #6, 600V NSRI, IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 7/C-#12 or #14, 600V, EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 10/C-#12 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 14/C-#14, 600V. EPR IN CONDUIT
		CABLE, TRAFFIC SIGNAL, 19/C-#12 600V, EPR IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN PARKWAY
		CABLE, STREET LIGHT, 2 1/C-#6, 600V. RINS IN CONDUIT
		CABLE, STREET LIGHT, 2 1/C-#6 EPRN 600V. & 1 1/C-#8 GREEN, TRIPLEXED,IN CONDUIT
		CABLE, STREET LIGHT, 3 1/C-#1/0, or #2/0, or #4, 600V. EPR IN CONDUIT
		WIRE, STREET LIGHT, 2 1/C-#6, HDNS. AERIAL
		WIRE, STREET LIGHT, 2 1/C-#6 & 1 1/C #8, HDNS. AERIAL
		CABLE, STREET LIGHT AERIAL, 3 1/C-#4 or #2 SELF SUPPORTING, 600V EPR
		WIRE, F.A. & P.C. AERIAL, 1/C-#10, NUMERAL DENOTES QUANTITY
		CABLE, F.A. & P.C. AERIAL, W/ MESSENGER #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C. AERIAL, SELF SUPPORTING, #19-(NUMBER OF PAIRS AS INDICATED)
		CABLE, F.A. & P.C., IN CONDUIT, #19-(NUMBER OF PAIRS AS INDICATED)
		DOWNLIGHT ASSEMBLY. (DWG. #850)
		LIGHT, TRAFFIC SAFETY ISLAND
		FLASHING BEACON & DOWNLIGHT

PROPOSED	PRESENT	
		LUMINAIRE, C.M.H. 315W LAMP, 240V
		LUMINAIRE, C.M.H. 315W LAMP, 240V, (FLOOD)
		LUMINAIRE, C.M.H. 210W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 240V
		LUMINAIRE, C.M.H. 140W LAMP, 120V, (ALLEY)
		LUMINAIRE, C.M.H. 90W LAMP, 240V
		LUMINAIRE, C.M.H. 90W LAMP, 240V (ACORN)
		LUMINAIRE, C.M.H. 60W LAMP, 240V (ACORN)

H.P.S.V. ORNAMENTAL	LUMINAIRES	
PROPOSED	PRESENT	
		310W PENDANT (240V)
		400W PENDANT (240V)
		250W PENDANT (240V)
		150W ACORN (120V)
		150W ACORN (240V)
		50W ACORN (240V)
		100W ACORN (240V)
		150W GLOBE (240V)
		100W GLOBE (240V)
		50W GLOBE (240V)

L.E.D. LUMINAIRES		
PROPOSED	PRESENT	
		(400W HPSV EQUIVALENT), 240V
		(100W HPSV EQUIVALENT), 240V, ACORN
		(310W HPSV EQUIVALENT), 240V
		(100/150W HPSV EQUIVALENT), 240V ACORN
		(250W HPSV EQUIVALENT), 240V
		(50W HPSV EQUIVALENT), 240V, ACORN

F 01-08-14	ADDED LED LUMINAIRES	A.VIEU		
E 09-19-13	ADDED CMH LUMINAIRES	A.VIEU		
D 02-06-04	REVISED/REDRAW	R.POOL/B.I.		
C 04-01-02	REVISED/REDRAW	R.POOL/B.I.		
B 12-4-01	ADDED ORNAMENTAL SYMBOLS			
A 8-6-96	REDRAWN			
DATE	REVISION			
SUPERSEDES DWG. #				
WORK ORDER NO. _____ DATE _____				
COST ALLOCATION ACCOUNT _____				
APPROPRIATION ACCOUNT { MATERIAL _____				
{ LABOR _____				
STANDARD CODE FOR TRAFFIC SIGNALS/ STREET LIGHTING				
CITY OF CHICAGO				
DEPT. OF TRANSPORTATION				
DIVISION OF ENGINEERING				
ELECTRICAL SECTION				
DRAFTSMAN: R. IVY	CHIEF DRAFTSMAN: R. CARTER	ENGINEER: R. POOL/R.C/W.T.		
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.	DWG. NO.		
ENGINEER OF ELECTRICITY:		826		
GEN'L SUPT. OF CONSTRUCTION:				
DEPUTY COMMISSIONER:				
SIZE: 22" 36"				
SCALE: NONE	DATE: 09-19-13			

ELECTRICAL GENERAL NOTES

1.

ALL WORK FOR THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), CITY OF CHICAGO DIVISION OF ELECTRICAL OPERATIONS STANDARDS (DEO), CHICAGO ELECTRICAL CODE, IDOT STANDARD SPECIFICATIONS ADOPTED APRIL 1, 2022, AND NEMA.
2.

THE CONTRACTOR SHALL PREPARE A PRELIMINARY SCHEDULE WHEN THE CONTRACT COMMENCES WHICH ESTABLISHES THE PROJECT DATES WHEN THE EXISTING AND TEMPORARY ELECTRICAL SERVICES WILL BE TRANSFERRED TO THE NEW PERMANENT SERVICES AS SHOWN ON THE DRAWINGS. THIS SCHEDULE SHALL BE APPROVED BY THE CONTRACTOR AND RESIDENT ENGINEER, THEN FORWARDED IN WRITING TO THE CHICAGO DEPARTMENT OF TRANSPORTATION, DIVISION OF ELECTRICAL OPERATIONS (DEO), AND COMED. SUBSEQUENT UPDATING OF THE SCHEDULE MUST BE FORWARDED TO THE ABOVE LISTED ENTITIES AS CHANGES OCCUR IN THE DATES, AT LEAST FIVE (5) WORKING DAYS BEFORE THE ELECTRICAL SERVICES ARE SCHEDULED TO BE TRANSFERRED. THE CONTRACTOR SHALL NOTIFY THE CHICAGO DEPARTMENT OF TRANSPORTATION DEO AND COMED BY PHONE AND CONFIRM THE REQUEST IN WRITING. ALL ELECTRICAL SERVICE WORK DOCUMENTATION MUST BE FORWARDED TO THE CITY FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL CONTACT THE FOLLOWING PERSONNEL PRIOR TO STARTING ANY WORK ON THE PRIMARY ELECTRICAL SERVICE EQUIPMENT:

INSPECTIONAL SERVICES, CITY OF CHICAGO DIVISION OF ELECTRICAL OPERATIONS
312-746-5048,
MR. STEVE TRIBUZZI, COMED MODIFICATIONS
773-682-1521
MR. STEVE BYSTRIANSKY, JC DECAUX
773-410-6200
MR. JEFF CAIRNS, CHICAGO OFFICE OF PUBLIC SAFETY ADMINISTRATION
312-746-9840
3.

THE CONTRACTOR SHALL HANDLE COORDINATION OF ALL PROPOSED ELECTRICAL CONNECTIONS, LIGHTING UNITS, CONTROL EQUIPMENT, AND/OR ANY OTHER WORK DEEMED NECESSARY BY THE COMMISSIONER TO ASSURE THAT ANY FUTURE OR CONCURRENT CONTRACT WORK PROCEEDS AS SCHEDULED AND WITHOUT DELAY.
4.

THE CONTRACTOR SHALL COORDINATE ALL WORK AND MATERIALS WITH SPECIAL ATTENTION TO ALL OTHER CONSTRUCTION CONTRACTS.
5.

THE CONTRACTOR SHALL REFER TO THE CIVIL DRAWINGS FOR LOCATIONS OF EXISTING EQUIPMENT AND UTILITIES NOT SPECIFICALLY SHOWN ON ELECTRICAL DRAWINGS.
6.

THE CONTRACTOR SHALL REFER TO THE TRAFFIC CONTROL DRAWINGS AND STATE STANDARDS FOR TRAFFIC CONTROL RELATED TO STREET LIGHTING AND TRAFFIC SIGNAL WORK.
7.

THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE GENERAL CIVIL, SEWER AND GENERAL TRAFFIC CONTROL NOTES ON DRAWINGS AND/OR SPECIFICATIONS.
8.

THE CONTRACTOR SHALL COORDINATE WITH ROADWAY, BRIDGE, SEWER, PIPING, AND TRAFFIC CONTROL CONTRACTORS FOR STAGING AND SEQUENCE OF INSTALLATIONS, BACKFILL, AND/OR CONSTRUCTION SCHEDULING.
9.

ALL CITY OF CHICAGO LIGHTING EQUIPMENT REMOVED AS PART OF THIS CONTRACT WILL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED TO CITY'S STORAGE FACILITY LOCATED WITHIN THE CITY LIMITS IN ACCORDANCE WITH THE CONTRACT SPECIFICATION, UNLESS NOTED OTHERWISE.
10.

RECORD DRAWINGS SHOWING EXISTING STREET LIGHTING INSTALLATIONS AND CABINET LOCATIONS, ARE AVAILABLE FOR THE CONTRACTOR'S INFORMATION AT THE OFFICES OF CHICAGO DEPARTMENT OF TRANSPORTATION, DIVISION OF ELECTRICAL OPERATIONS.
11.

ALL EXISTING AREAS THAT ARE DAMAGED AS A PART OF THIS WORK, INCLUDING BUT NOT LIMITED TO FENCING, CURBS AND GUTTERS, AND SIDEWALKS, WHERE RESTORATION IS NOT COVERED BY THE APPLICABLE CONTRACT PAY ITEMS, SHALL BE RESTORED TO THE SATISFACTION OF THE COMMISSIONER AND SEPARATE PAYMENT WILL NOT BE MADE.
12.

ALL NEW ELECTRICAL EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE THE EXISTING LANDSCAPE (TREES, BUSHES, ETC.) DURING THE PROGRESSION OF WORK. IF THE CONTRACTOR HAS A CONFLICT WITH THE EXISTING LANDSCAPE HE SHALL STOP THE WORK, IMMEDIATELY NOTIFY THE RESIDENT ENGINEER, AND WAIT FOR RESOLUTION.
13.

THE EXISTING ROADWAY LIGHTING SYSTEM WITHIN THE CONSTRUCTION LIMITS OF THE PROJECT SHALL REMAIN IN OPERATION FOR THE DURATION OF THIS PROJECT UNTIL SUCH TIME THAT THE NEW LIGHTING SYSTEM HAS BEEN INSTALLED, ENERGIZED, TESTED, ADJUSTED, AND ACCEPTED BY THE COMMISSIONER. THE COST OF THIS WORK WILL BE INCLUDED AS PART OF THE MAINTAIN EXISTING LIGHTING SYSTEM PAY ITEM AND SEPARATE PAYMENT WILL NOT BE MADE.
14.

WORK FOR ELECTRICAL SYSTEMS SHALL BE COMPLETED, APPROVED, AND FULLY OPERATIONAL BEFORE A FINAL ACCEPTANCE INSPECTION FOR THE WHOLE PROJECT CAN BE SCHEDULED. LIGHTING CONTROLLERS MAY NOT BE TRANSFERRED IN GROUPS OR INDIVIDUALLY TO THE CITY FOR MAINTENANCE PURPOSES PRIOR TO CONTRACT COMPLETION UNLESS OTHERWISE DIRECTED BY THE COMMISSIONER.
15.

AT THE COMMENCEMENT OF CONTRACTOR ACTIVITIES, ELECTRICAL OR OTHERWISE, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER OPERATION AND MAINTENANCE OF ALL EXISTING LIGHTING AND POWER SYSTEMS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE COMMISSIONER.

16.

DE-ENERGIZING OF EXISTING LIGHTING UNITS WILL BE INCLUDED IN THE COST OF THE REMOVE EXISTING STREET LIGHTING EQUIPMENT PAY ITEM WORK. SEPARATE PAYMENT WILL NOT BE MADE.
17.

DISCONNECTION AND REMOVAL OF EXISTING BEAM CLAMPS, HANGERS, BRACKETS, CONDUITS, WIRES IN CONDUIT, AND AERIAL CABLES ATTACHED TO STRUCTURE AND TO EXISTING LIGHTING UNITS WILL BE INCLUDED IN THE COST OF REMOVE EXISTING STREET LIGHTING EQUIPMENT, SEPARATE PAYMENT WILL NOT BE MADE.
18.

REMOVAL OF EXISTING ELECTRICAL CABLES FEEDING EACH OF THE EXISTING LIGHTING/SIGNAL UNITS WILL BE INCLUDED IN THE COST OF REMOVE EXISTING STREET LIGHTING EQUIPMENT AND SEPARATE PAYMENT WILL NOT BE MADE.
19.

EXISTING EMBEDDED AND UNDERGROUND RACEWAYS BETWEEN EXISTING LIGHTING UNITS OR EXISTING EQUIPMENT SHALL BE ABANDONED, UNLESS NOTED OTHERWISE.
20.

THE CONTRACTOR SHALL COORDINATE WITH THE COMMISSIONER AND ALL CONCERNED ORGANIZATIONS AS TO POSSIBLE REMOVAL, REPLACEMENT, DISPLACEMENT, AND/OR METHOD OF AVOIDANCE OF EXISTING OBSTRUCTIONS OR PROPOSED CONSTRUCTION ELEMENTS REQUIRED BY NEW INSTALLATIONS.
21.

THE CONTRACTOR SHALL PROVIDE AND INSTALL ANY ADDITIONAL TEMPORARY ELECTRICAL EQUIPMENT CONNECTIONS AS NECESSARY TO MAINTAIN EXISTING LIGHTING CONTINUITY AS THE PROPOSED WORK FOR INSTALLATION AND REMOVAL OF EXISTING LIGHTING EQUIPMENT PROGRESSES. THE COST OF THIS WORK WILL BE INCLUDED IN MAINTAIN EXISTING LIGHTING SYSTEM.
22.

WHERE THE CONTRACTOR'S EXCAVATION MEETS AN OBSTRUCTION OR EXISTING FOUNDATION. THE CONTRACTOR MUST NOTIFY THE COMMISSIONER FOR DIRECTION IN WRITING PRIOR TO FURTHER EXCAVATION. THE CONTRACTOR SHALL RESTORE ANY DAMAGE TO EXISTING SYSTEMS OR UTILITIES AND REMOVE EXISTING OBSTRUCTIONS AND FOUNDATIONS TO THE SATISFACTION OF THE COMMISSIONER. THIS WORK WILL BE INCLUDED IN THE APPROPRIATE EXCAVATION PAY ITEM.
23.

THE CONTRACTOR SHALL REFER TO ALL CITY OF CHICAGO EDISON SERVICE ATLAS DRAWINGS, CHICAGO PARK DISTRICT DRAWINGS, COMED DRAWINGS, AND AT&T DRAWINGS FOR POSSIBLE UNDERGROUND WIRES, CABLES, CONDUITS, DUCT RUNS, EQUIPMENT, OR DEVICES.
24.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MARKING THE PROPOSED LOCATION OF ALL CITY LIGHT POLES, LUMINAIRES, CABINETS, JUNCTION BOXES, CONDUIT ROUTES, AND OTHER EQUIPMENT AND ITEMS FOR A CONTRACTOR REQUESTED PRE-CONSTRUCTION INSPECTION BY THE COMMISSIONER, THE CHICAGO DEPARTMENT OF TRANSPORTATION. THE EXACT LOCATIONS OF ALL ITEMS SHALL BE APPROVED BY THE CITY OF CHICAGO DIVISION OF ELECTRICAL OPERATIONS PRIOR TO STARTING WORK. ANY WORK INSTALLED WITHOUT LOCATION APPROVAL FROM THE CHICAGO DEPARTMENT OF TRANSPORTATION WILL BE SUBJECTED TO CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
25.

THE CONTRACTOR SHALL IDENTIFY EACH ELECTRIC CABLE ASSEMBLY FOR STREET LIGHTING. CABLES SHALL BE TAGGED IN ALL HANDHOLES, MANHOLES, CONTROLLER CABINETS, AND LIGHT POLE BASES.
26.

CONDUIT STUBOUTS IN EQUIPMENT FOUNDATIONS WILL NOT BE MEASURED FOR PAYMENT, BUT WILL BE CONSIDERED AS PART OF THE APPLICABLE FOUNDATION PAY ITEM. REFER TO SPECIFICATIONS.
27.

THE QUANTITIES OF RIGID GALVANIZED STEEL CONDUIT AND PVC, WHERE INDICATED ON THESE PLAN DRAWINGS, ARE APPROXIMATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND SHALL INSTALL RACEWAYS IN COMPLIANCE WITH THE SPECIFIED REQUIREMENTS.
28.

THE ELECTRIC CABLE PHASE AND NEUTRAL CONDUCTORS SHALL BE RUN CONTINUOUS WITHOUT ANY UNDERGROUND SPLICES, JUNCTION BOX SPLICES, PULL BOX SPLICES, HANDHOLE SPLICES, OR MANHOLE SPLICES. SPLICES OF ELECTRIC CABLE PHASE AND NEUTRAL CONDUCTORS WILL BE PERMITTED ONLY IN THE BASE OF THE PROPOSED LIGHT POLES AND CONTROLLERS UNLESS NOTED OTHERWISE. THIS WORK WILL BE INCLUDED IN THE ELECTRIC CABLE PAY ITEM AND SEPARATE PAYMENT WILL NOT BE MADE.
29.

WHERE DUCT RUN OR EMBEDDED CONDUIT INSTALLATIONS MUST DEVIATE FROM THAT SHOWN ON DRAWINGS AND DEVIATIONS INCREASE DUCT LENGTH OR ADD BENDS BETWEEN MANHOLES/HANDHOLES OR DEVICES, THE CONTRACTOR SHALL NOTIFY THE COMMISSIONER AND PRODUCE EVIDENCE THAT CABLES CAN BE PULLED THROUGH THE EXISTING OR PROPOSED DUCT WITHOUT EXCEEDING MAXIMUM ALLOWABLE CABLE PULLING TENSION.
30.

THE CONTRACTOR SHALL SCHEDULE A FINAL ACCEPTANCE INSPECTION WITH THE COMMISSIONER, THE CHICAGO DEPARTMENT OF TRANSPORTATION, UPON COMPLETION OF ALL PROPOSED STREET LIGHTING WORK. UPON FINAL ACCEPTANCE BY THE DEO, AND THE COMMISSIONER, THE CONTRACTOR SHALL TRANSFER ALL STREET LIGHTING, AND POWER DISTRIBUTION INSTALLATIONS TO DEO FOR MAINTENANCE PURPOSES.
31.

ALL EMPTY CONDUIT FOR FUTURE USE SHALL HAVE A PULL STRING OR CABLE INSTALLED TO ASSIST IN FUTURE CABLING. THE COST OF THE CABLE OR STRING WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONDUIT.
32.

THE CONTRACTOR IS RESPONSIBLE TO VERIFY CONDUIT INSTALLATION AGAINST EXISTING AND PROPOSED UNDERGROUND UTILITIES. THE MINIMUM HORIZONTAL CLEARANCE OF 3FT MUST BE PROVIDED BETWEEN THE PROPOSED UNDERGROUND CONDUIT AND THE EXISTING OR PROPOSED WATERMAIN. THE CONDUIT INSTALLATION MUST MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 18 INCHES WHERE IT CROSSES THE WATERMAIN.
33.

CITY CONTRACTORS ARE REQUESTED TO TAKE EXTRA PRECAUTIONS WHEN WORKING NEAR COMED OVERHEAD WIRES. THESE WIRES ARE NOT INSULATED. WHEN FIELD CONDITIONS REQUIRE COMED ASSISTANCE (SUCH AS MANHOLE FRAME & COVER ADJUSTMENTS), PLEASE CONTACT COMED, PROJECT ENGINEER, CAITLIN BALL, 773-838-2905, 6-WEEKS PRIOR TO START OF WORK.

MODEL: Lighting [Sheet]
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0108545\D162U41-sht-light 11.dgn



USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL GENERAL NOTES

SCALE: SHEET 12 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	130
CONTRACT NO. 62U41				
		ILLINOIS	FED. AID PROJECT	

KEY:

- A1

LIGHT POLE, 15" B.C. PARAPET MOUNTED
- D

DRILL EXISTING MANHOLE/HANDHOLE
- F

EXISTING LIGHTING CONTROLLER
- G

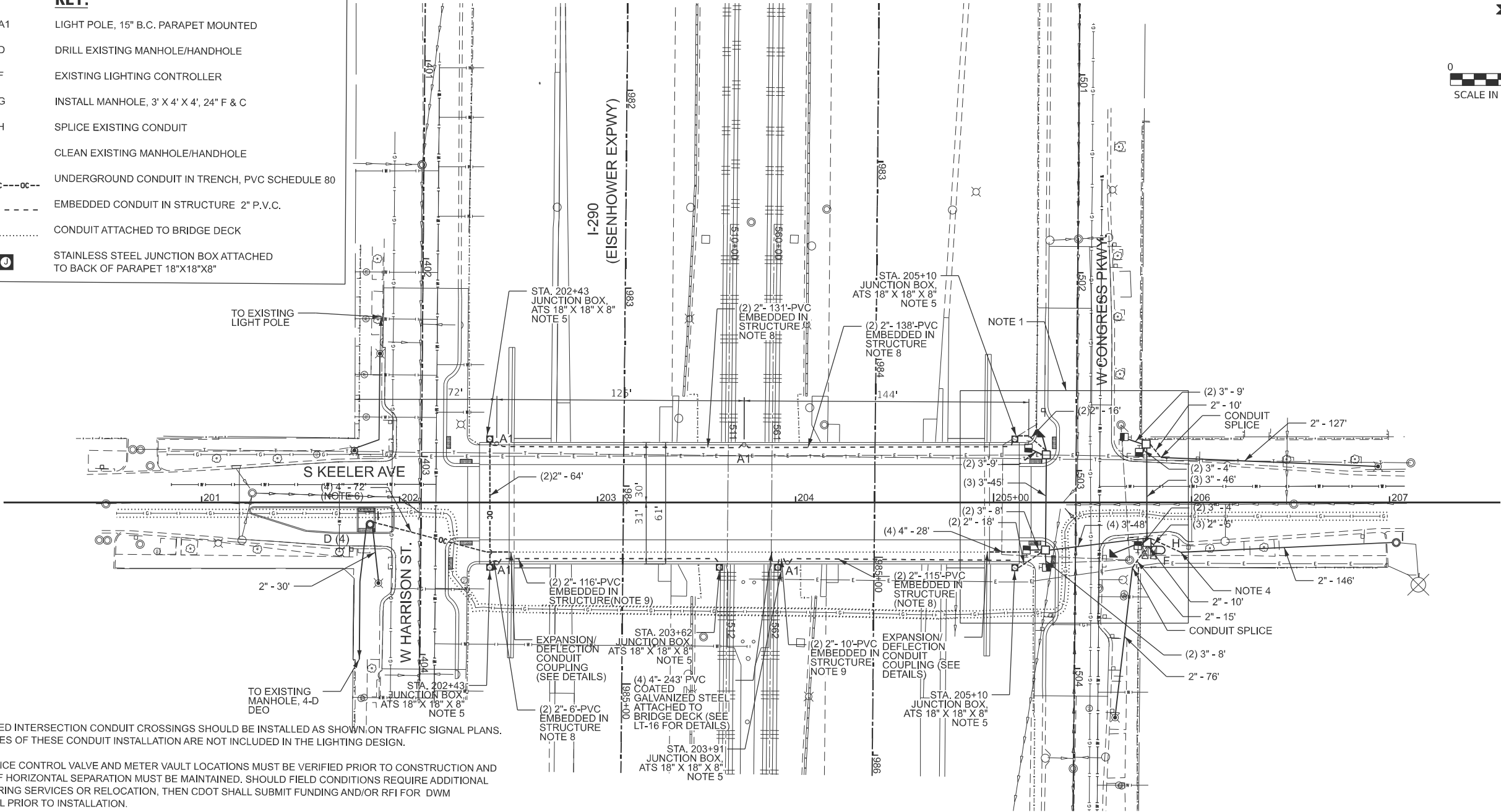
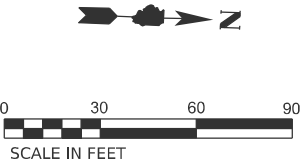
INSTALL MANHOLE, 3' X 4' X 4', 24" F & C
- H

SPLICE EXISTING CONDUIT
- I

CLEAN EXISTING MANHOLE/HANDHOLE
- OC---OC---

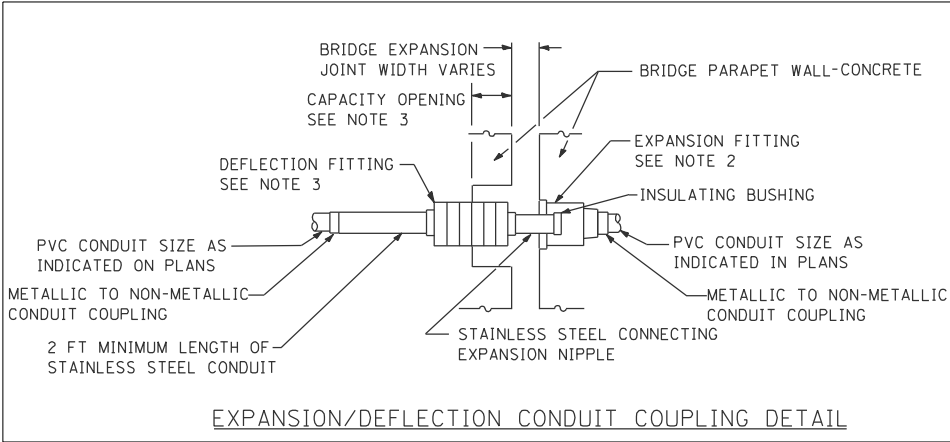
UNDERGROUND CONDUIT IN TRENCH, PVC SCHEDULE 80
- EMBEDDED CONDUIT IN STRUCTURE 2" P.V.C.
-

CONDUIT ATTACHED TO BRIDGE DECK
- STAINLESS STEEL JUNCTION BOX ATTACHED TO BACK OF PARAPET 18"X18"X8"



NOTES:

1. SIGNALIZED INTERSECTION CONDUIT CROSSINGS SHOULD BE INSTALLED AS SHOWN ON TRAFFIC SIGNAL PLANS. QUANTITIES OF THESE CONDUIT INSTALLATION ARE NOT INCLUDED IN THE LIGHTING DESIGN.
2. ALL SERVICE CONTROL VALVE AND METER VAULT LOCATIONS MUST BE VERIFIED PRIOR TO CONSTRUCTION AND 3-FEET OF HORIZONTAL SEPARATION MUST BE MAINTAINED. SHOULD FIELD CONDITIONS REQUIRE ADDITIONAL ENGINEERING SERVICES OR RELOCATION, THEN CDOT SHALL SUBMIT FUNDING AND/OR RFI FOR DWM APPROVAL PRIOR TO INSTALLATION.
3. ALL CONDUITS TO BE PVC SCHEDULE 40, UNLESS NOTED OTHERWISE, SIZE AS NOTED. CONDUITS UNDER ROADWAY OR DRIVEWAYS SHALL BE SCHEDULE 80.
4. FOR THE LIGHTING CONTROLLER SERVICE CABLES, ONCE THE PROPOSED MANHOLE AT THE NORTHEAST (NE) CORNER IS CONSTRUCTED, THE CABLES SHALL BE DISCONNECTED FROM THE LIGHTING CONTROLLER AND PULLED BACK TO THE EXISTING HANDHOLE AT STATION 207+03. AFTER THE CONDUIT FROM THE PROPOSED MANHOLE AND THE EXISTING CONDUIT HAS BEEN SPLICED, RE-INSTALL THE SERVICE CABLES, ROUTING THEM THROUGH THE NEW MANHOLE AND BACK TO THE LIGHTING CONTROLLER. THIS WORK SHALL BE PERFORMED IN A MANNER THAT ENSURES THE LIGHTING SYSTEM REMAINS OPERATIONAL THE SAME EVENING WITHOUT INTERRUPTION. THE CONTRACTOR SHALL ENSURE THE SERVICE CABLES ARE DISCONNECTED FROM THE SERVICE DISCONNECT LOCATED IN THE ALLEY NORTH OF THE INTERSECTION PRIOR TO COMMENCING THIS WORK.
5. REFER TO HIGHWAY STANDARD 812001-01 FOR DETAILS.
6. MAX TRENCH WIDTH SHALL NOT EXCEED 3 FEET WHEN CROSSING THE EXISTING DWM FACILITY. IF THE TRENCH WILL EXCEED 3 FEET IN WIDTH AT THE WATER MAIN CROSSING, TEMPORARY SUPPORT WILL BE REQUIRED. PRIOR TO APPROVAL, DWM WILL NEED TEMPORARY SUPPORT CALCULATIONS FOR THE WATER MAIN, STAMPED BY A LICENSED STRUCTURAL ENGINEER, DEMONSTRATING THAT THE EXISTING WATER FACILITIES WILL BE ADEQUATELY SUPPORTED.
7. SEE GENERAL NOTES 29-31 FOR PEOPLES GAS REQUIREMENTS.
8. PROVIDE TWO(2) CONDUITS: ONE(1) FOR LIGHTING ELECTRICAL CABLES AND ONE(1) SPARE FOR FUTURE USE. ROUTE BOTH CONDUITS INTO AND OUT OF THE LIGHT POLE FOUNDATION.
9. PROVIDE TWO(2) SPARE CONDUITS FOR FUTURE USE.



EXPANSION/DEFLECTION CONDUIT COUPLING NOTES:

1. THE CONTRACTOR SHALL INSTALL A CONDUIT EXPANSION/DEFLECTION COUPLING AT THE JOINT LOCATIONS IN THE CONCRETE PARAPET ON THE BRIDGE CAPABLE OF ACCEPTING THE LONGITUDINAL MOVEMENT. ALL METALLIC PARTS OF THE COUPLING SHALL BE MADE OF STAINLESS STEEL OR AS APPROVED BY THE ENGINEER. ANY NON-STAINLESS METAL SHALL BE HOT DIP GALVANIZED AND COATED TO PREVENT ANY REACTION WITH THE CONCRETE. THE COST OF THE COUPLING SHALL BE PART OF AND INCLUDED WITH THE CONDUIT SYSTEM.
2. THE BARREL IN THE EXPANSION FITTING TYPE SHALL BE IN THE CONCRETE ON ONE SIDE OF THE EXPANSION JOINT. ONE HALF THE LENGTH OF THE DEFLECTION FITTING SHALL BE EMBEDDED IN THE CONCRETE ON THE OTHER SIDE OF THE COUPLING.
3. A CAVITY OPENING 3" LARGER IN DIAMETER THAN THE DEFLECTION FITTING SHALL BE PROVIDED IN THE CONCRETE TO ENSURE PROPER PERFORMANCE OF THE COUPLING.
4. CAREFUL ATTENTION TO JOINT MOVEMENT OVER A RANGE OF TEMPERATURES SHALL BE COORDINATED WITH THE SELECTION AND INSTALLATION OF THE COUPLING TO ENSURE THE RANGE OF MOVEMENT OF THE COUPLING IS NOT EXCEEDED AT TEMPERATURE EXTREMES.
5. ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE CAREFULLY FOLLOWED TO ENSURE OPTIMUM PERFORMANCE OF THE EXPANSION/DEFLECTION COUPLING.
6. THE CONTRACTOR SHALL INSTALL COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND SHALL BE RESPONSIBLE TO DETERMINE THE PROPER NUMBER OF COUPLINGS REQUIRED. SEE STRUCTURAL DRAWINGS FOR THE EXPANSION JOINT LOCATIONS

MODEL: Lighting [Sheet]
FILE NAME: c:\bms\civiltech-pw\kyle.dary\0108545\0162U41-sht-light 12.dgn



USER NAME = nsotto	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/27/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNDERGROUND CONDUIT FACILITIES PLAN

SCALE: SHEET 13 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	131
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



ATLAS NO. F-24
GROUP NO. 4
(10) LED LUM.
(9) LED ACORN
240V - 200A

ATLAS NO. F-24
GROUP NO. 8
(13) LED LUM.
(13) LED ACORN
240V - 200A

ATLAS NO. F-24
GROUP NO. 4
(11) LED LUM.
(9) LED ACORN
240V - 200A

ATLAS NO. F-24
GROUP NO. 8
(14) LED LUM.
(13) LED ACORN
240V - 200A

STREET LIGHTING INSTALLATION PLAN
N.T.S.

INSTALLATION KEY:

- G - INSTALL POLE, STREET LIGHTING, ALUMINUM 15" BOLT CIRCLE, 29.5' ARTERIAL WITH 12' DAVIT ARM AS PER DRAWING NO. 971, 946; INSTALL 149W, 240V LED CUT-OFF STREET LIGHTING LUMINAIRE WITH NODE (35' MOUNTING HEIGHT).
- G1- INSTALL 12' MAST ARM AS PER DRAWING NO. 839; INSTALL 149W ARTERIAL LED LUMINAIRE WITH NODE

NOTES:

- FOR THE LIGHTING CONTROLLER SERVICE CABLES, ONCE THE PROPOSED MANHOLE AT THE NORTHEAST (NE) IS CONSTRUCTED, THE CABLES SHALL BE DISCONNECTED FROM THE LIGHTING CONTROLLER AND PULLED BACK TO THE EXISTING HANDHOLE AT STATION 207+03. AFTER THE CONDUIT FROM THE PROPOSED MANHOLE AND THE EXISTING CONDUIT HAS BEEN SPLICED, RE-INSTALL THE SERVICE CABLES, ROUTING THEM THROUGH THE NEW MANHOLE AND BACK TO THE LIGHTING CONTROLLER. THIS WORK SHALL BE PERFORMED IN A MANNER THAT ENSURES THE LIGHTING SYSTEM REMAINS OPERATIONAL THE SAME EVENING WITHOUT INTERRUPTION. THE CONTRACTOR SHALL ENSURE THE SERVICE CABLES ARE DISCONNECTED FROM THE SERVICE DISCONNECT LOCATED IN THE ALLEY NORTH OF THE INTERSECTION PRIOR TO COMMENCING THIS WORK.
- SEE GENERAL NOTES 29 AND 30 FOR PEOPLES GAS REQUIREMENTS.

STREET LIGHTING REMOVAL PLAN
N.T.S.

NOTES:

- E1- EXISTING LIGHT POLE TO REMAIN IN PLACE
- E2- EXISTING LIGHT POLE TO BE REMOVED AND RELOCATED
- R1- REMOVE EXISTING MAST ARM, NODE, AND LUMINAIRE FROM TRAFFIC SIGNAL POLE
- R2- REMOVE EXISTING LIGHT POLE, MAST ARM, NODE, AND LUMINAIRE
- H1- BREAKDOWN MANHOLE

ALL LUMINAIRES, NODES, MAST ARMS, CONTROLLERS, AND POLES REMOVED SHALL REMAIN PROPERTY OF CITY OF CHICAGO AND SHALL BE DELIVERED BY THE CONTRACTOR TO 2451 S. ASHLAND

LT-14

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0108545\0162041-sht-light 13.dgn

SINGH
SINGH + ASSOCIATES, INC.
CONSULTING ENGINEERS

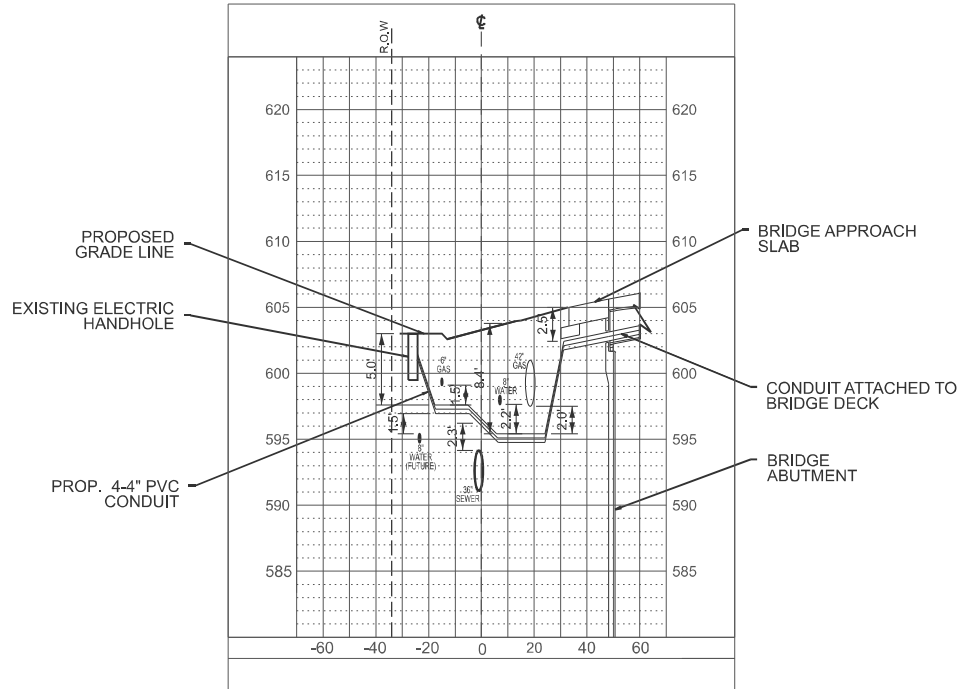
PLOT DATE = 8/12/2025	USER NAME = kdc	DESIGNED - VN	REVISED -
		DRAWN - VN	REVISED -
		CHECKED - RP	REVISED -
	DATE - 08/13/2025	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

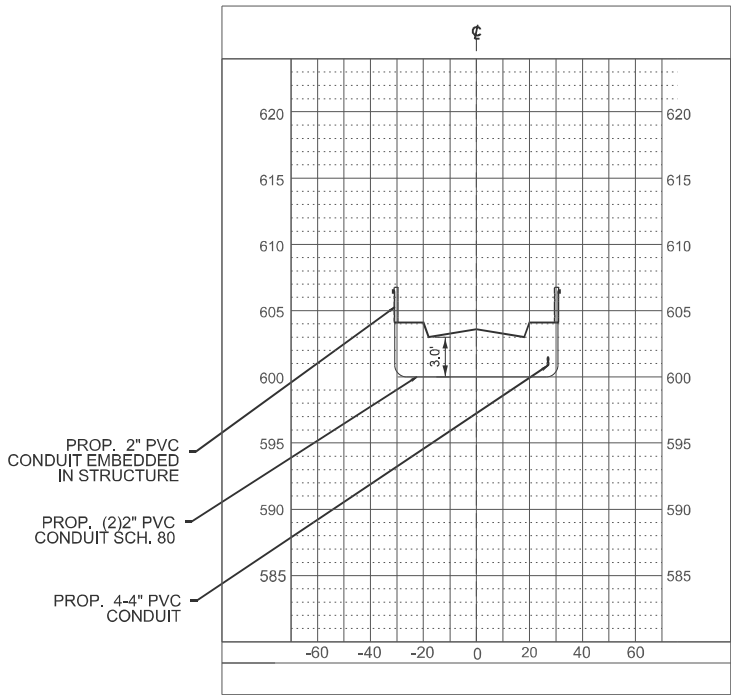
LIGHTING REMOVAL AND INSTALLATION PLAN

SCALE: SHEET 14 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	132
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



PROPOSED EAST LEG CONDUIT CROSS SECTION AT WEST HARRISON STREET AND SOUTH KEELER AVENUE LOOKING WEST



PROPOSED NORTH LEG CONDUIT CROSS SECTION AT S. KEELER AVE. AND W. HARRISON ST. LOOKING NORTH

NOTES:

- 1. SEE GENERAL NOTES 29-31 FOR PEOPLES GAS REQUIREMENTS.

MODEL: Lighting [Sheet]
FILE NAME: c:\bns\civiltech-pw\kyle.dary\0108545\0162U41-sht-light 13A.dgn

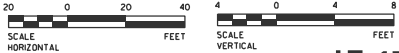


USER NAME = nsotto	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/27/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

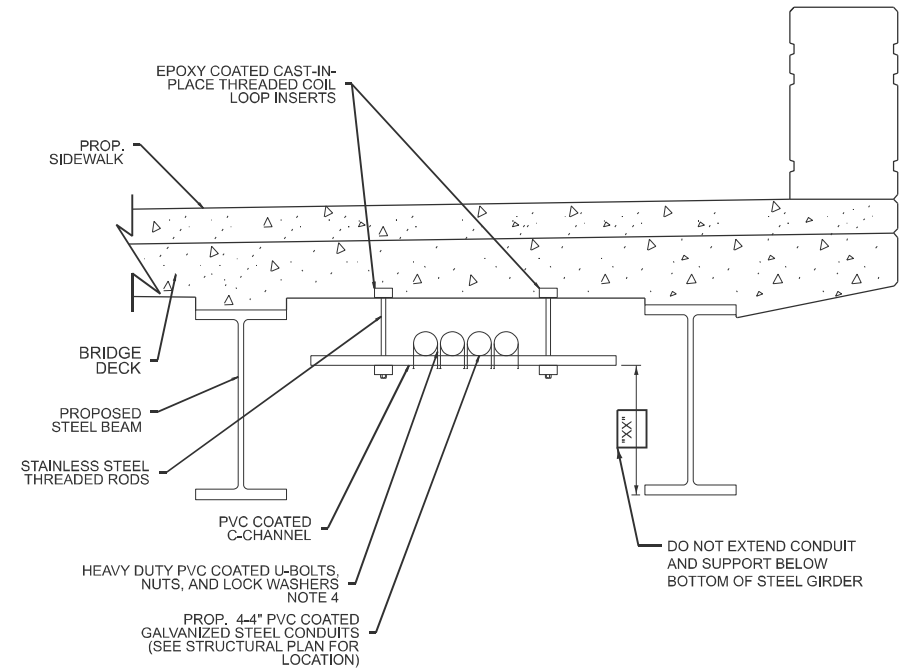
UNDERGROUND CONDUIT PROFILE VIEWS

SCALE: SHEET 15 OF 26 SHEETS STA. TO STA.

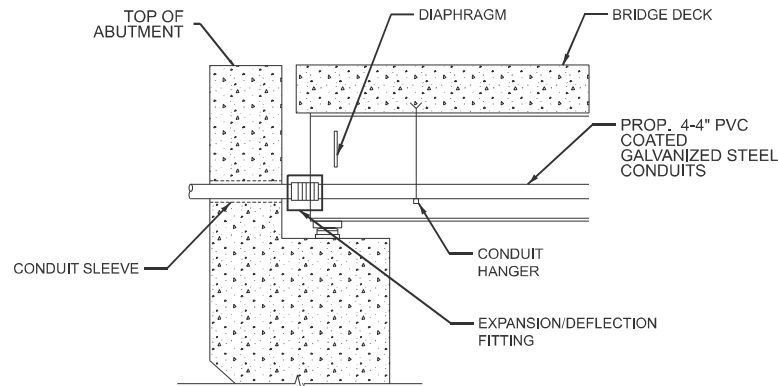


LT-15

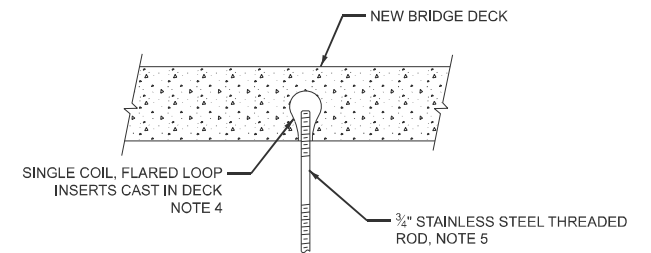
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	133
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



TYPICAL CONDUIT SUPPORT
ATTACHED TO BRIDGE DECK DETAILS
(NOT TO SCALE)



TYPICAL CONDUIT INSTALLATION
THROUGH ABUTMENT WALL
(NOT TO SCALE)



BRIDGE DECK THREADED ROD
INSTALLATION ANCHOR DETAIL
(NOT TO SCALE)

NOTES:

1. SEE STRUCTURAL PLANS FOR LOCATION OF CONDUITS ATTACHED TO BRIDGE DECK.
2. SEE PLANS FOR PROPOSED CONDUIT ROUTING.
3. ALL MOUNTING HARDWARE FOR CONDUIT SUPPORTS AND PVC COATED RIGID STEEL MUST BE PVC COATED.
4. THE CONTRACTOR MUST USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN PENDANT MOUNTING THREADED RODS TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE INSERTS LOCATIONS WITH THE BRIDGE CONTRACTOR.
5. THE CONTRACTOR MUST COORDINATE THREADED ROD END SIZES WITH THE C-CHANNEL AND FLARED LOOP INSERT WITH MANUFACTURERS.
6. THE CONDUIT SUPPORT SYSTEM ATTACHED TO THE BRIDGE DECK, INCLUDING THE INSERTS, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PRICE FOR THE "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS

LT-16

SINGH
SINGH + ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

SCALE: SHEET 16 OF 26 SHEETS STA. TO STA.

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	134
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Lighting [Sheet]
FILE NAME: c:\bms\civiltech-pw\kyle.dary\d0108545\D162U41-sht-light-138.dgn

MODEL: Lighting (Sheet)
FILE NAME: c:\bmsch\tech-pw\kyle.dary\01085450102141-stc-light 14.dgn

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc
PLOT DATE = 8/12/2025

DESIGNED - VN
DRAWN - VN
CHECKED - RP
DATE - 08/13/2025

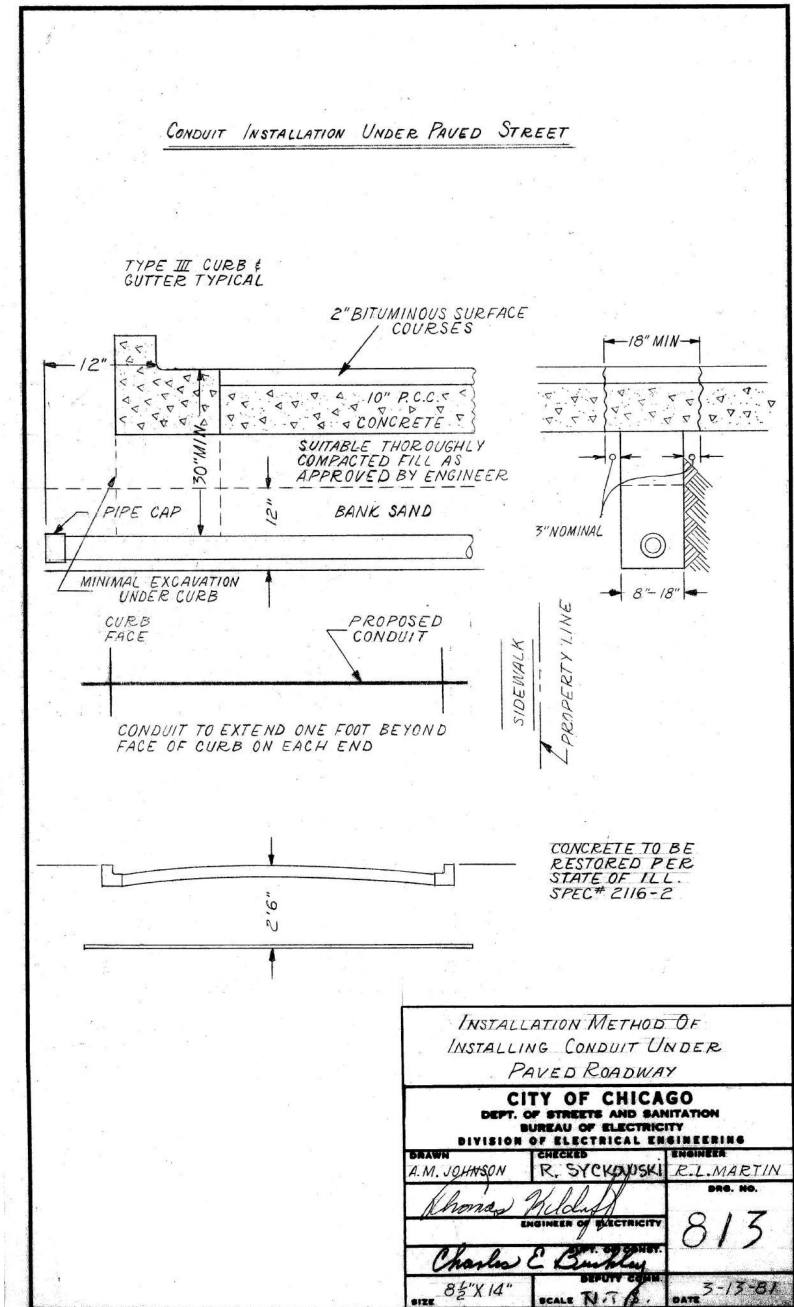
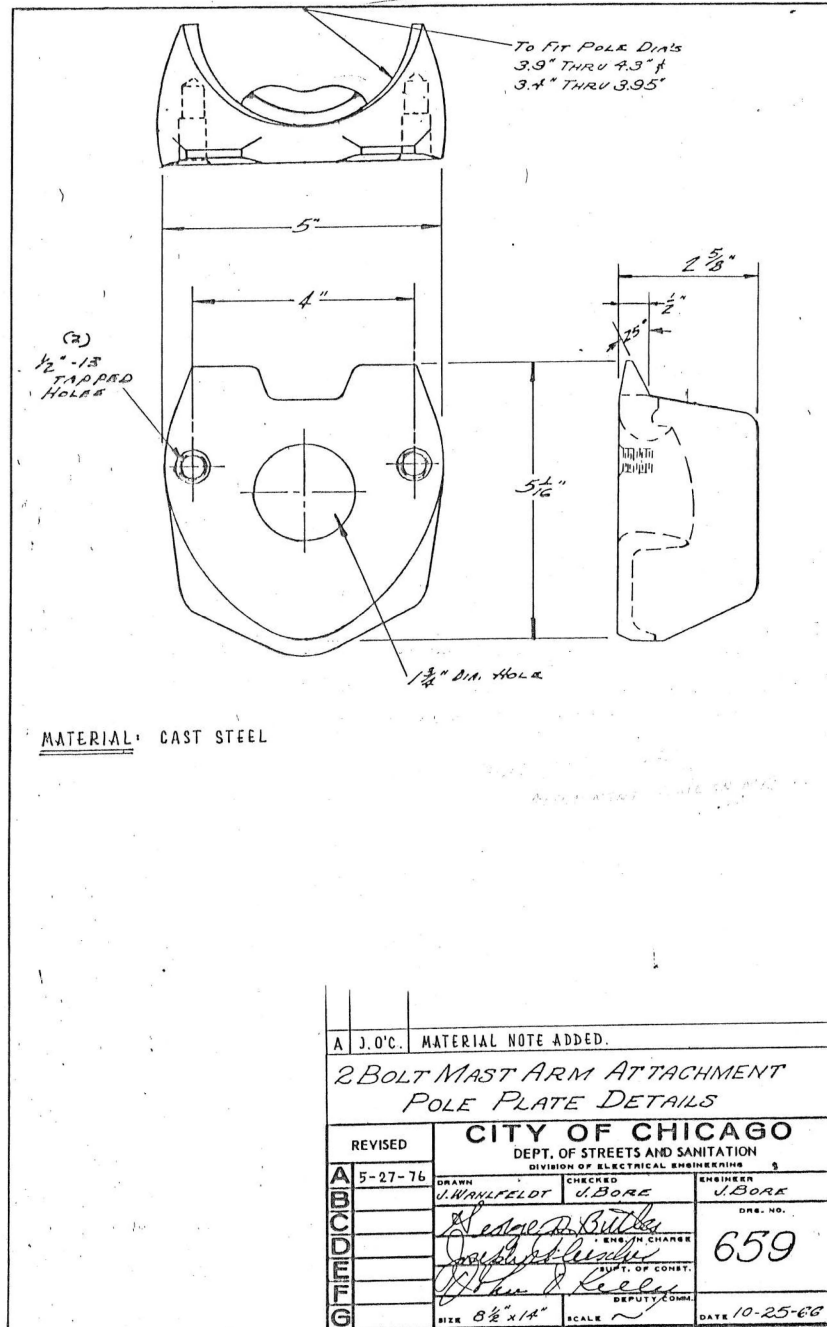
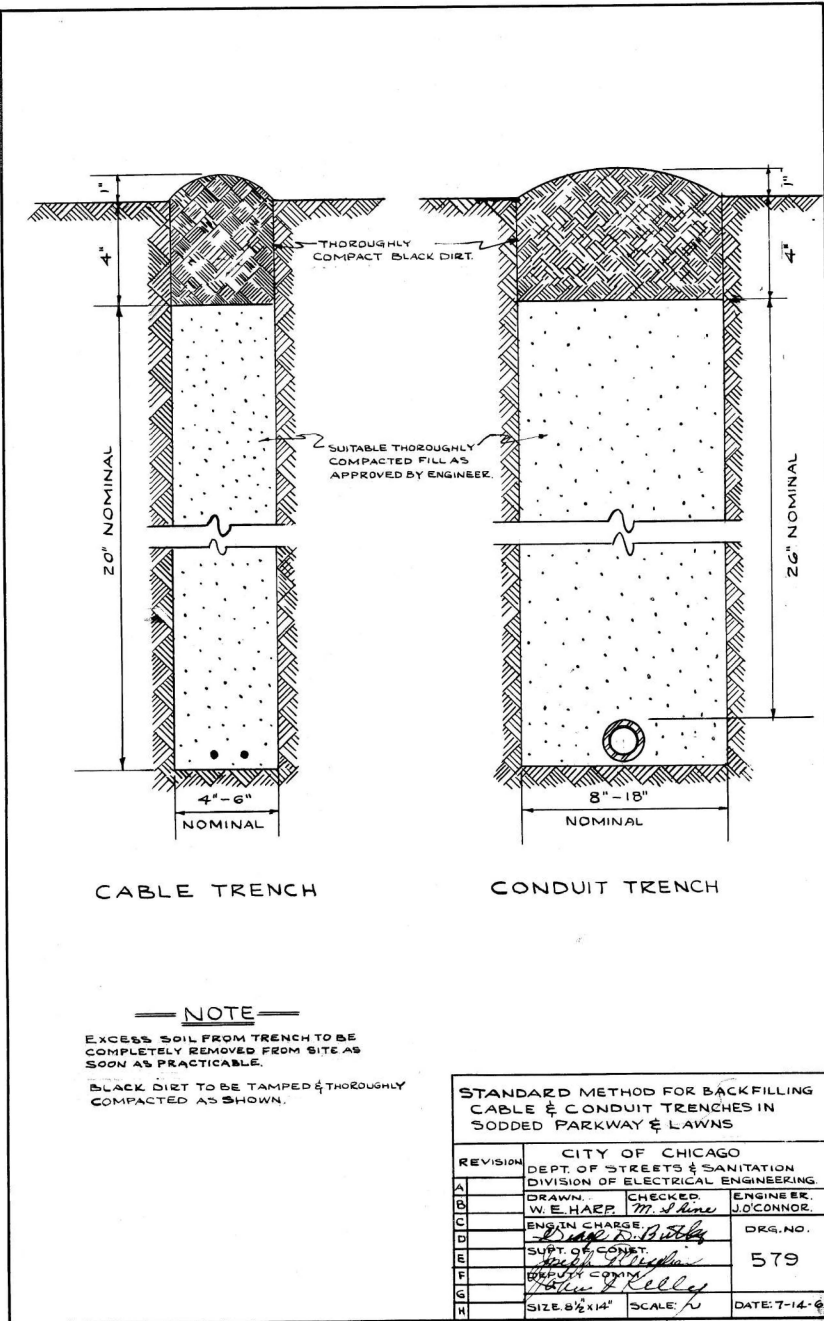
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

SCALE: SHEET 17 OF 26 SHEETS STA. TO STA.

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	135
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



LT-17

MODEL: Lighting (Sheet)
FILE NAME: c:\bns\sch\tech-pw\kyle.dwg 10/05/05 01:02:41 - sheet 15.dgn

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc
PLOT DATE = 8/12/2025

DESIGNED - VN
DRAWN - VN
CHECKED - RP
DATE - 08/13/2025

REVISED -
REVISED -
REVISED -
REVISED -

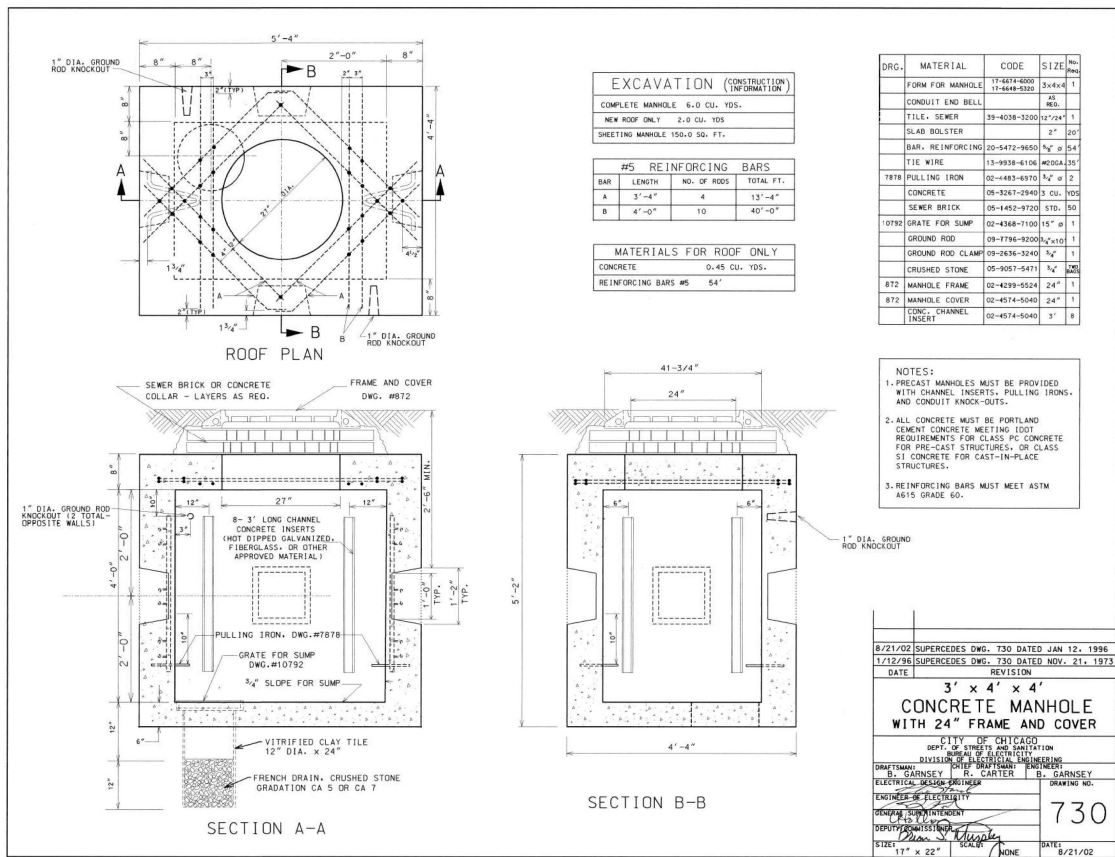
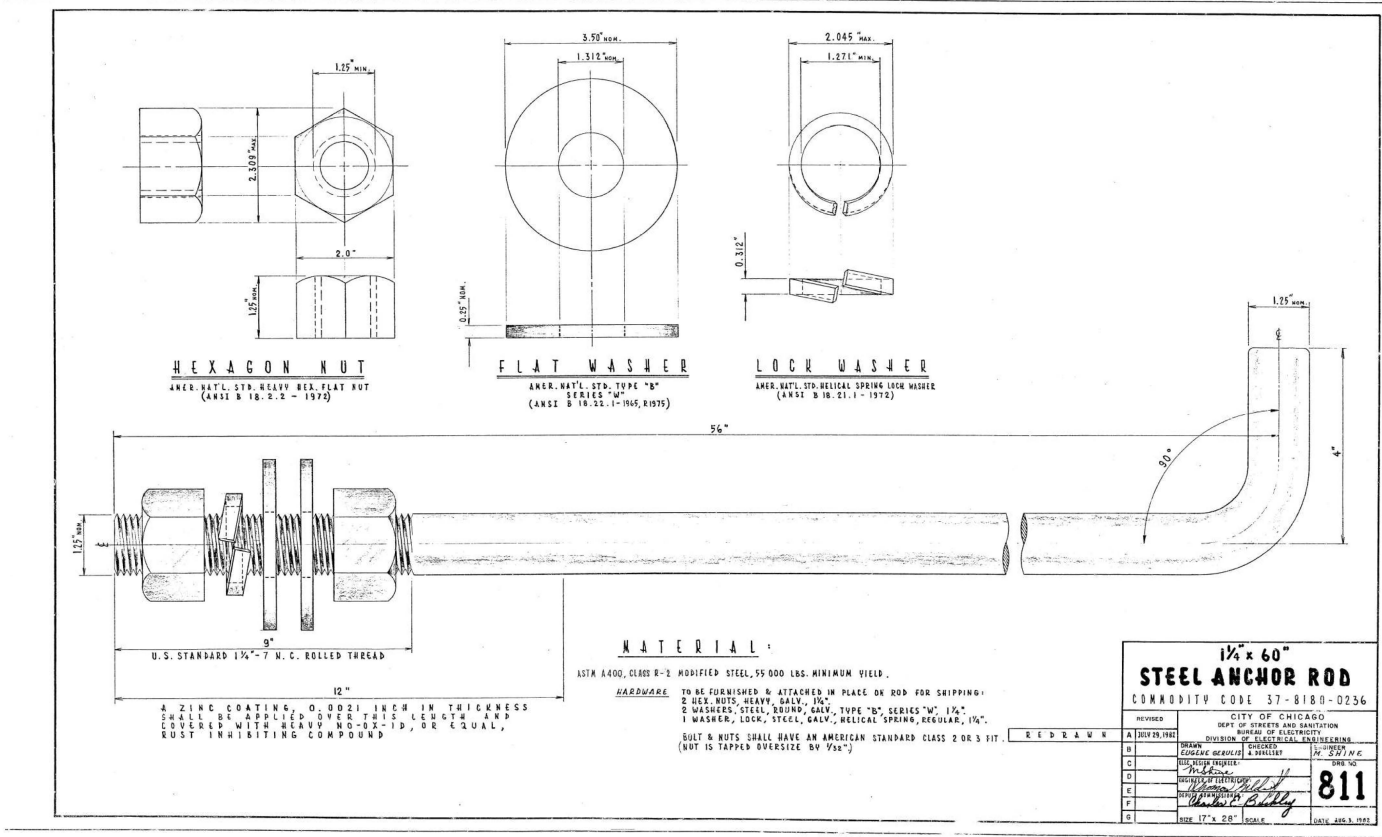
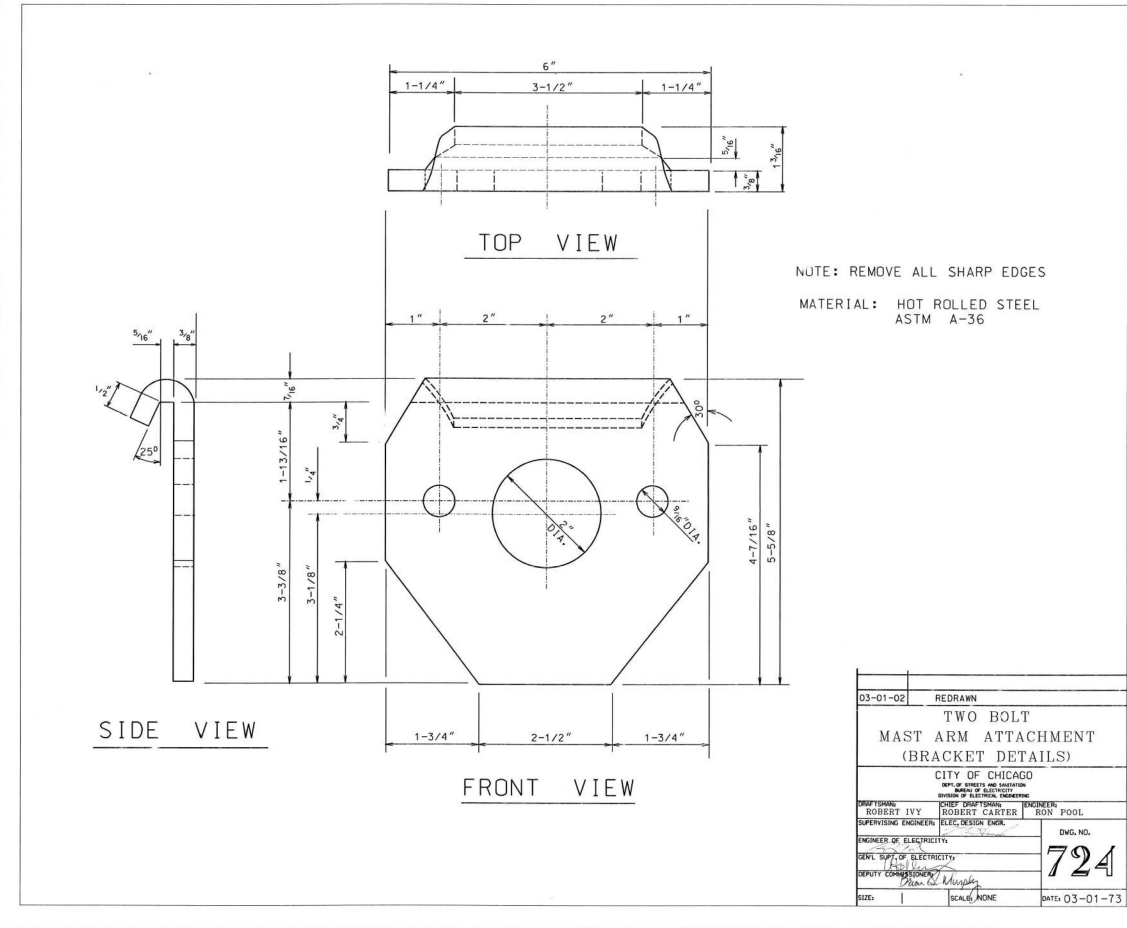
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

SCALE: SHEET 18 OF 26 SHEETS STA. TO STA.

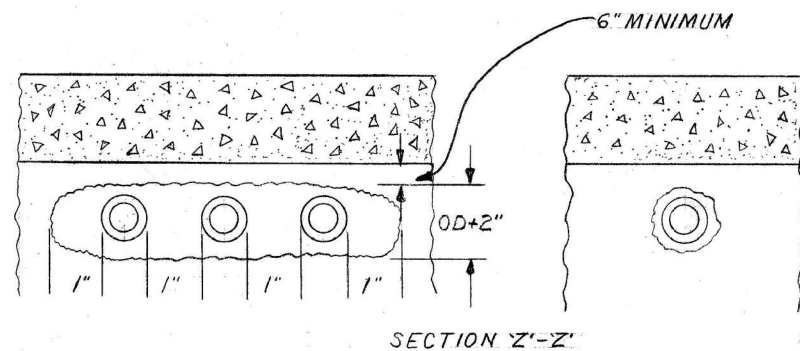
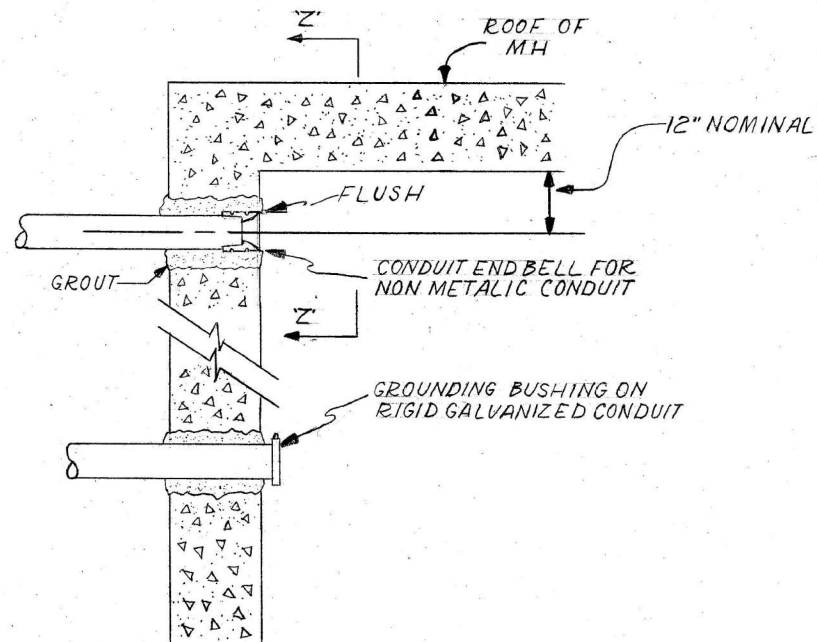
F.A.I
RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
290 FAI 290 22 KEELER BR COOK 283 136
CONTRACT NO. 62U41
ILLINOIS FED. AID PROJECT

LT-18



MODEL: Lighting (Sheet)
FILE NAME: c:\bms\chiltech-pw\kyle.dary\0108545\0102141-sht-light 16.dgn

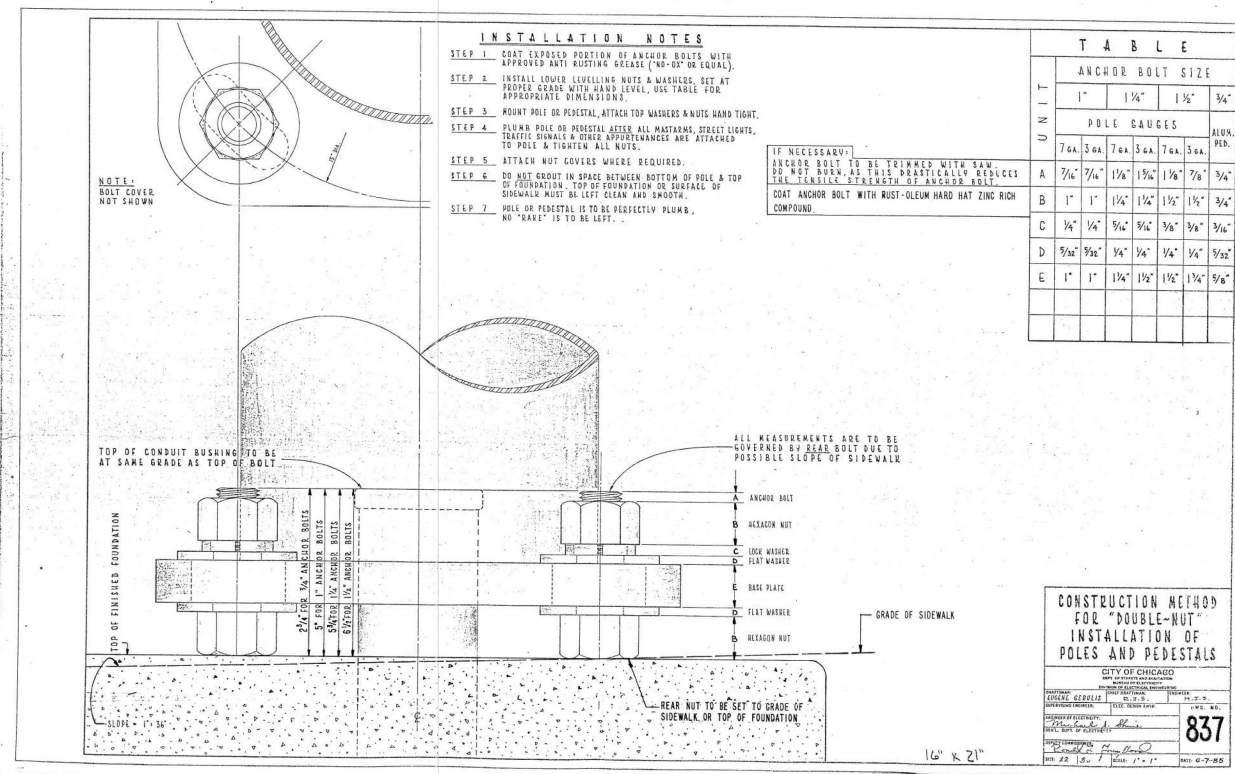
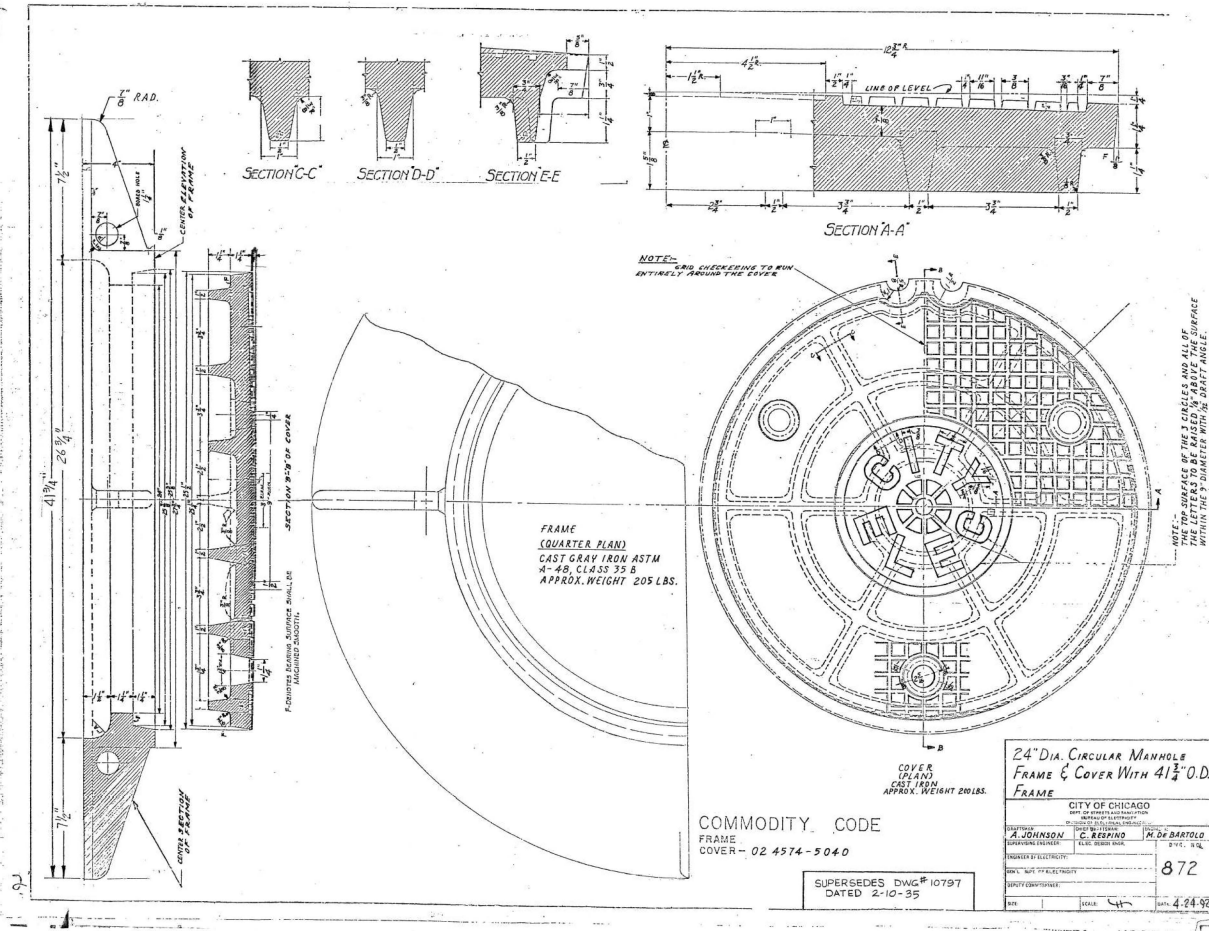
CONDUIT INSTALLATION THROUGH EXISTING MANHOLE OR HANDHOLE WALL



OPENING THROUGH WALL TO BE
KEPT TO MINIMUM SIZE TO
ADMIT CONDUIT AND SUFFICIENT
GROUT TO ASSURE SEALING
WALL.

INSTALLATION METHOD OF INSTALLING CONDUIT THRU MANHOLE WALL

CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING			
DRAWN A.M. JOHNSON	CHECKED R. SYCKOWSKI	ENGINEER R.L. MARTIN	
ENGINEER OF ELECTRICITY			DWG. NO. 814
DEPUTY CHIEF Charles E. Bumpley			DATE 3-13-81
SIZE 8 1/2" X 14"	SCALE N.T.S.		



SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

SCALE: SHEET 19 OF 26 SHEETS STA. TO STA.

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	137
CONTRACT NO. 62U41				
ILLINOIS / FED. AID PROJECT				

LT-19

MODEL: Lighting (Sheet)
FILE NAME: c:\bmsch\tech-pw\kyle.dwg
DATE: 8/12/2025

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

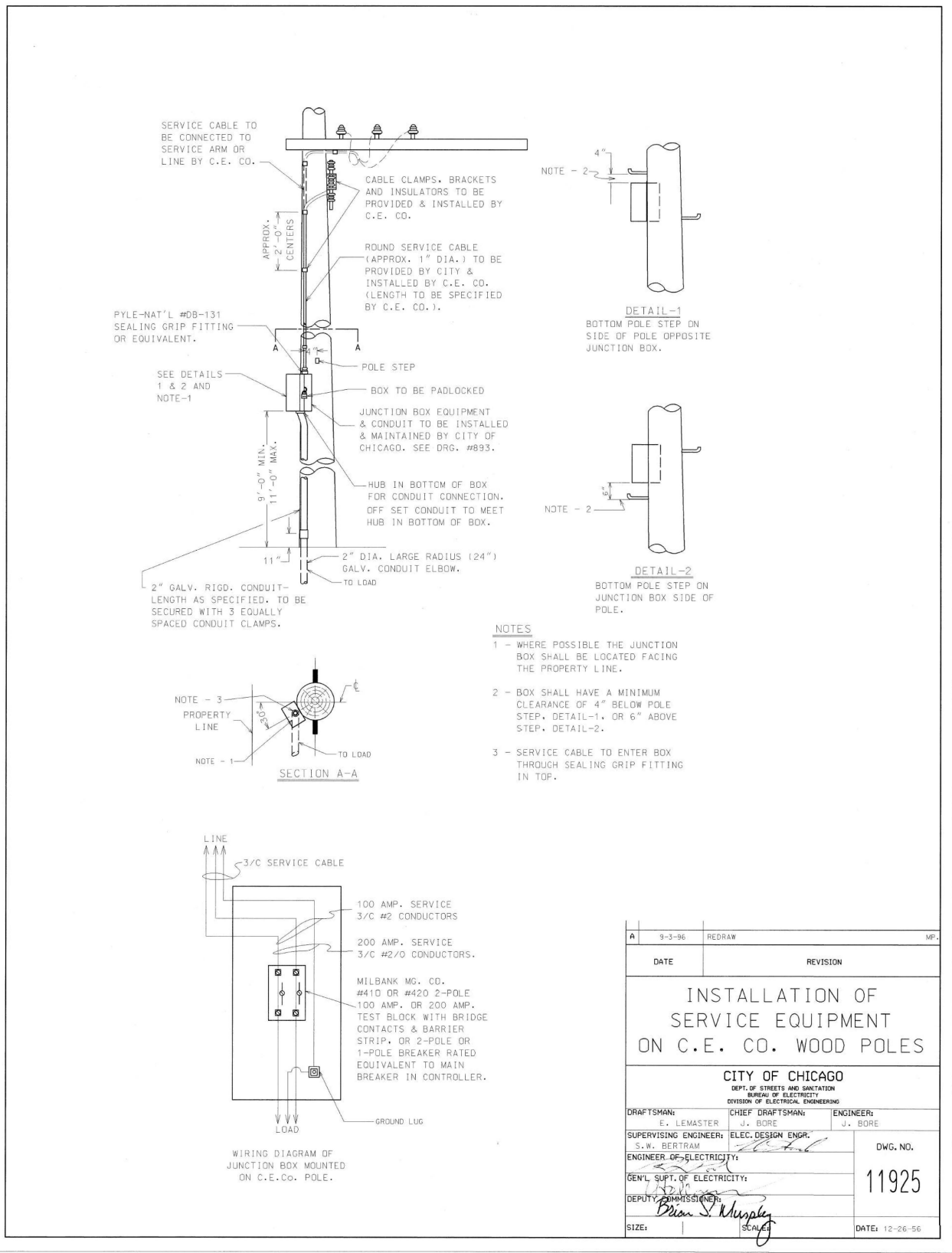
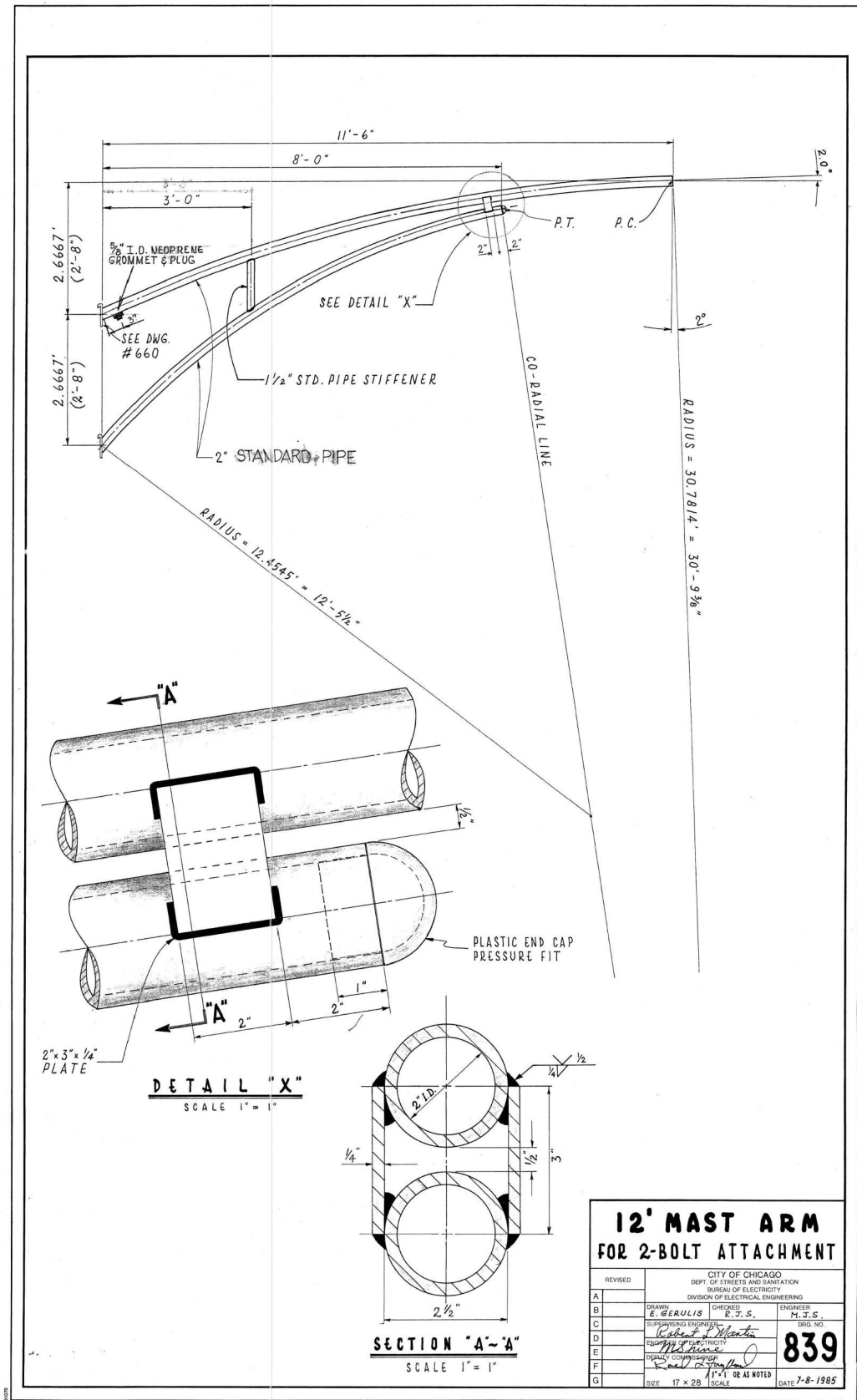
USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

SCALE: SHEET 20 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	138
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

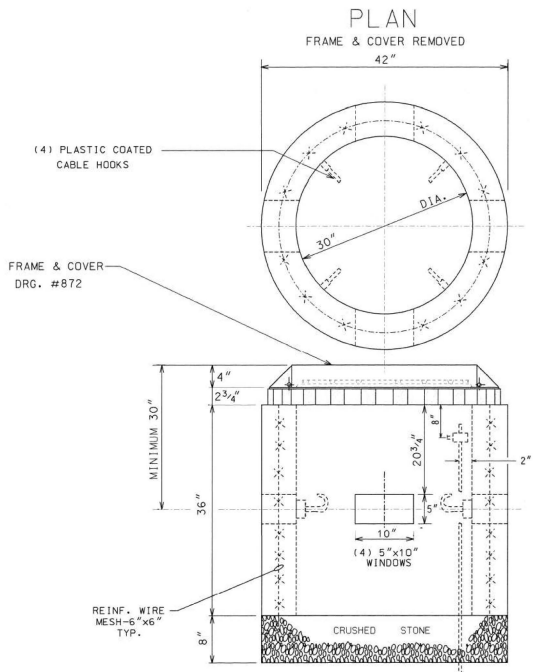
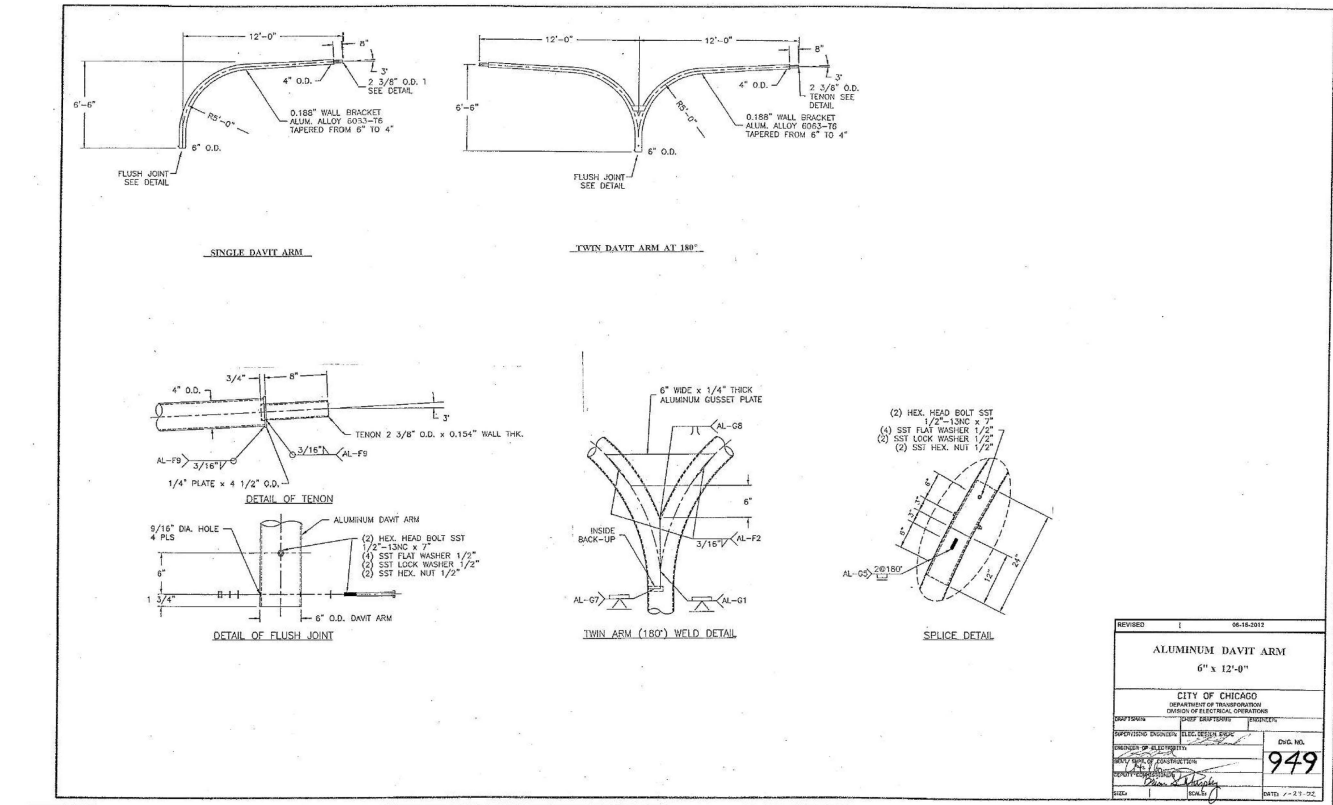


LT-20

MODEL: Lighting (Sheet)
FILE NAME: c:\bms\chiltech-pw\kyle.dary\0108565\0102141-sh-light 18.dgn

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	139
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



COMPLETE COMMODITY CODE NO. 05-6610-5310M			
CODE NO.	MATERIALS	SIZE	QUAN.
(1) 05-6610-5310	PRE-CAST HANDHOLE	30"X36"	1
(2) 05-9075-5470	STONE 3/4" CRJSHED	BAG	5
(2) 05-5082-5330	SOND TUBE	30"	1
(2) 05-5082-5342	SOND TUBE	42"	1
(2) 05-3267-2940	CONC. RED1-MIX	CU. YD.	1/2
(2) 57-0770-0000	6" X 6" MESH	36"X10'	1
05-1452-9720	BRICK		24
02-4299-5524	FRAME MANHOLE	24"	1
02-4574-5040	COVER, MANHOLE	24"	1
09-7796-9312	GROUND ROD	3/4"X12'	1
09-2630-3240	GROUND CLAMP		1

- (1) PRE-CAST HANDHOLE SHALL INCLUDE CABLE HOOKS AND CONDUIT KNOCKOUTS.
(2) THESE ITEMS ARE FOR POURED-IN-PLACE HANDHOLES ONLY.

CONSTRUCTION NOTES:

1. 8" BED OF STONE FOR DRAINAGE.
2. ALL METALLIC CONDUITS ENTERING HANDHOLE SHALL EXTEND MINIMUM 1" & MAXIMUM 3" INSIDE INNER WALL AND BE EQUIPPED WITH AN APPROVED TYPE OF THREADED GROUNDING BUSHING.

REVISION	NO.	DATE	BY	DESCRIPTION
1	12-4-95	12-4-95	12-4-95	12-4-95
30" DIA. CONCRETE HANDHOLE				
CITY OF CHICAGO				
DEPARTMENT OF TRANSPORTATION				
DIVISION OF ELECTRIC OPERATIONS				
DESIGNED BY: [Signature]				
CHECKED BY: [Signature]				
DATE: 12-4-95				

MODEL: Lighting (Sheet)
FILE NAME: c:\bnsch\tech-pw\kyle.dwg 10/8/54/5/01/22/41-st-light 19.dgn

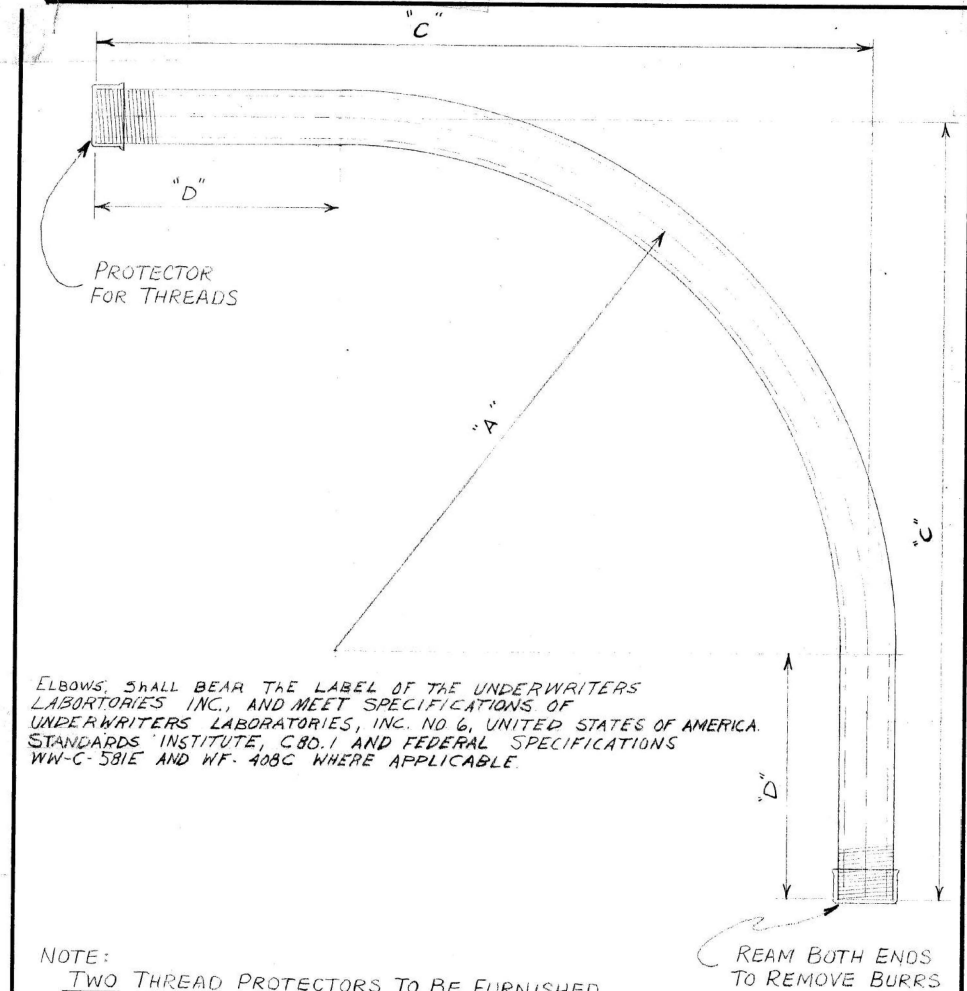
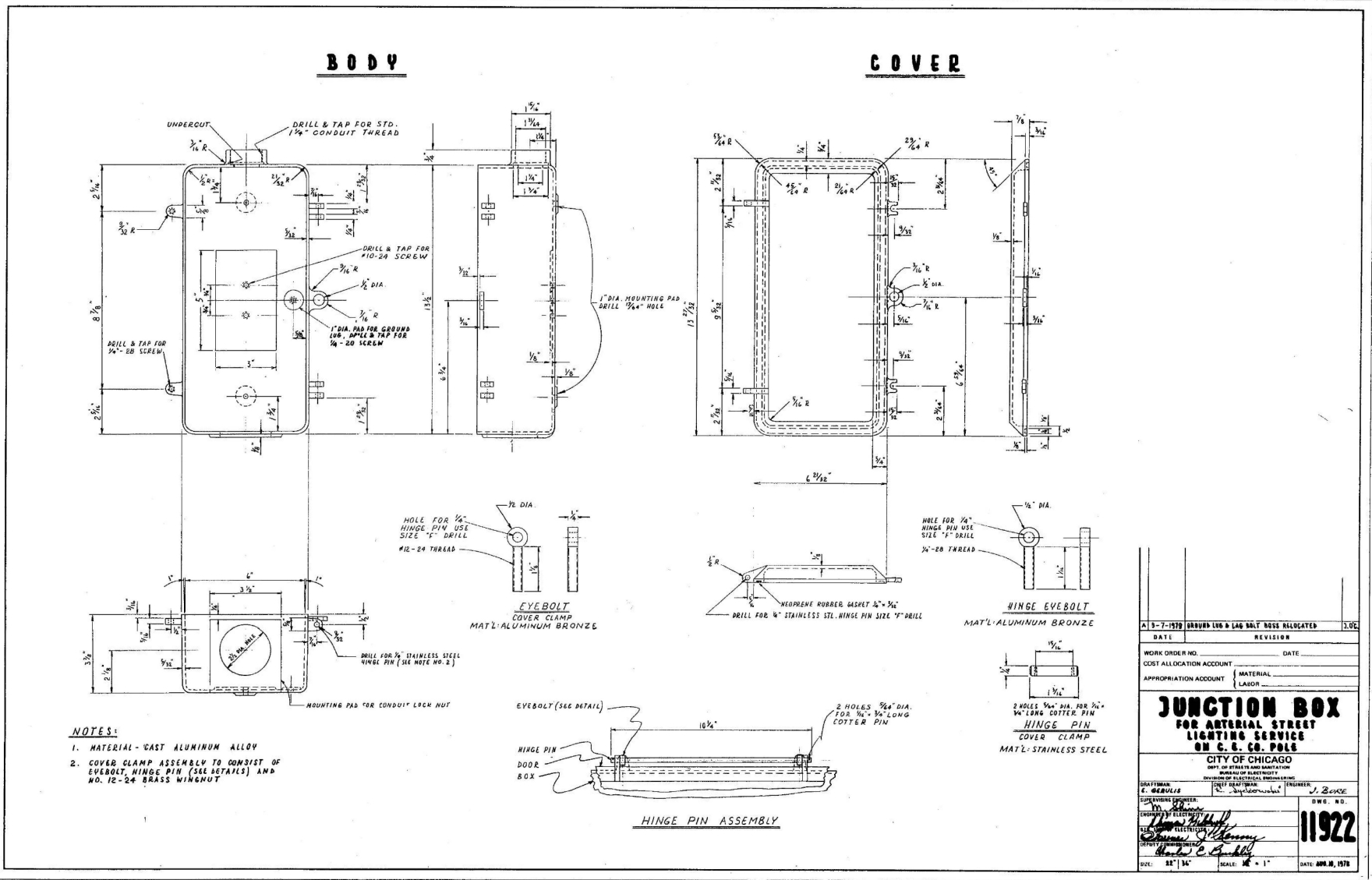


TABLE OF DIMENSIONS				
CONDUIT SIZE	A	B	C	COMMODITY CODE
1 1/4"	24"	35"	11"	09-4001-0510
1 1/2"	24"	35"	11"	09-4001-0520
2"	24"	35"	11"	09-4001-4126
2 1/2"	24"	35"	11"	09-4001-4128
3"	24"	35"	11"	09-4001-4230
4"	24"	35"	11"	09-4001-0000

B SPECIFICATIONS REVISED			
A REVISED DIMENSIONS ON 3" & 4" CONDUIT L.P.			
ELBOW, CONDUIT, RIGID GALVANIZED STEEL, LARGE RADIUS			
REVISED	CITY OF CHICAGO		
DEPT. OF STREETS AND SANITATION			
BUREAU OF ELECTRICITY			
DIVISION OF ELECTRICAL ENGINEERING			
A 7-22-71	DRAWN	CHECKED	ENGINEER
B 7-3-73	LON BUDY	M. S.	M. SHINE
C	<i>John S. [Signature]</i> IN CHARGE DIV. OF CONST.		DRG. NO.
D			
E			
F			
G	DEPT. COMM. SCALE: 3/16"		DATE 6-2-71



A 5-7-73		BUREAU LOG & LOG BOLT HOSE ALLOCATED		100
DATE	REVISION	DATE	REVISION	
WORK ORDER NO.	DATE	COST ALLOCATION ACCOUNT	MATERIAL	
APPROPRIATION ACCOUNT	LABOR			
JUNCTION BOX				
FOR ARTISAN STREET LIGHTING SERVICE ON C. & C. CO. POLE				
CITY OF CHICAGO				
DEPT. OF STREETS AND SANITATION				
BUREAU OF ELECTRICITY				
DRAWN	CHECKED	ENGINEER	DATE	NO.
E. BUDY	M. S.	M. SHINE	11/22	
11922				
DATE	SCALE	DATE	SCALE	DATE
11/22	1"	11/22	1"	11/22

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

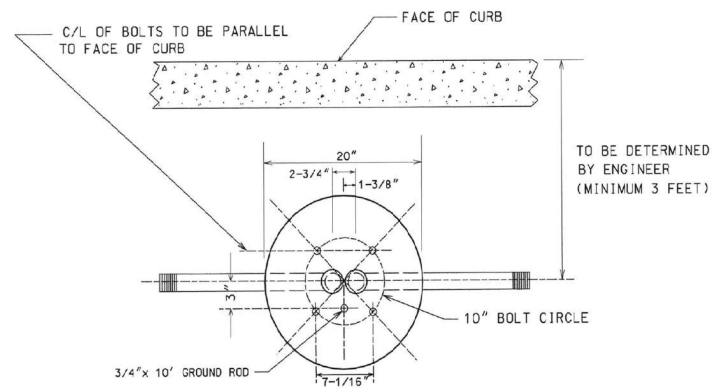
SCALE: SHEET 22 OF 26 SHEETS STA. TO STA.

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	140
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

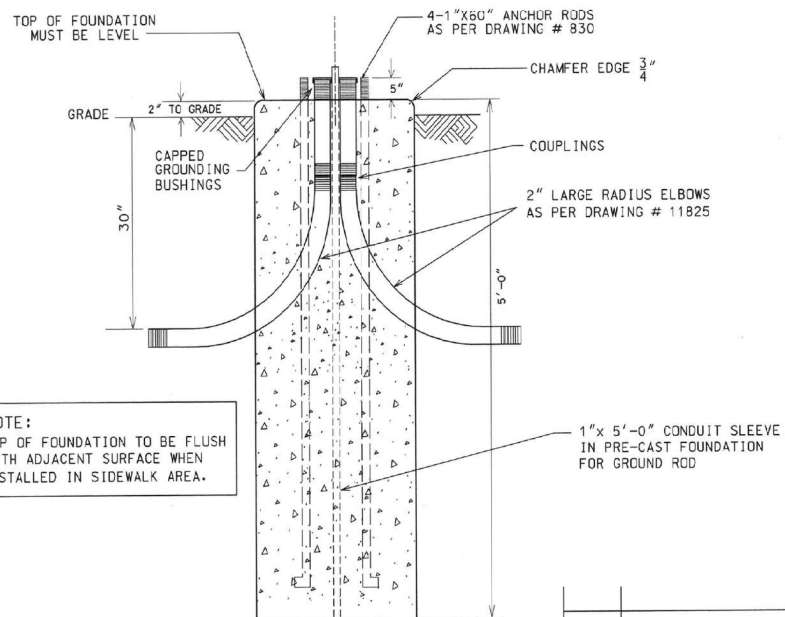
LT-22

MODEL: Lighting (Sheet)
FILE NAME: c:\bmsch\tech-pw\kyle.dwg 10/24/06 10:56:45 AM

J:\ALL_2\STANDARD\565.DGN 12/11/2009 10:56:45 AM



TOP VIEW

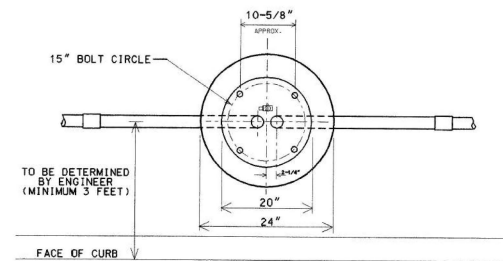


ELEVATION

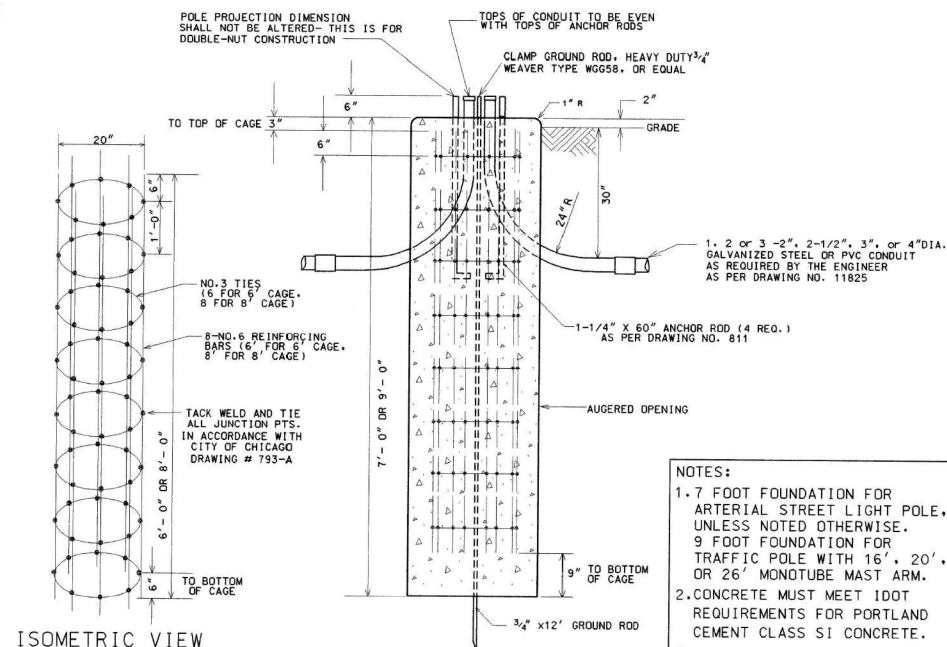
CODE	DRG.	MATERIAL	SIZE	AMT
0574-6980		SAND	BAG	5.8
0581-8470		STONE	BAG	9.3
0520-2650		CONCRETE	BAG	1.8
3752-0200	830	ANCHOR ROD	1/2"x60"	4
2726-1600	11825	CONDUIT ELBOW	2"x18"	2
0922-2316		CONDUIT NIPPLE	2"x12-3/4"	2
0911-8911		CONDUIT BUSHING	2"	2
0928-3080		CONDUIT COUPLING	2"	2
0978-9200		GROUND ROD	3/4"x10'	1

DATE	REVISION
10/24/06	SUPERCEDES DWG #565 DRAWN 8/21/02
8/21/02	SUPERCEDES DWG #565 DRAWN 2/28/01
DATE	REVISION
FOUNDATION FOR RESIDENTIAL LIGHT POLE WITH 10" BOLT CIRCLE/5' DEPTH	
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICAL ENGINEERING	
DRAFTSMAN: B. GARNSEY	R. CARTER
ELECTRICAL DESIGN ENGINEER	B. GARNSEY
ENGINEER OF ELECTRICITY	
GENERAL SUPERVISOR	
DEPUTY COMMISSIONER	
SIZE: 11" x 17"	SCALE: NONE
DATE: 10/24/06	

565



TOP VIEW



ELEVATION

ISOMETRIC VIEW
OF STEEL CAGE

NOTE: HOLE FOR FOUNDATION
MUST BE AUGURED IN
UNDISTURBED SOIL

CODE	COMMODITY	SIZE	QUANTITY
05-3267-2940	REDI-MIX CONCRETE	CU. YD.	0.82 OR 1.05
09-4001-	ELBOW, LARGE RADIUS	2"x2-1/2", 3", 4"	VARIES
37-8180-0200	ANCHOR ROD	1-1/4" x 60"	4
05-5054-6910	RE-BAR CAGE	20" x 6' (or 8')	1
09-7796-9200	GROUND ROD	3/4" x 12'-0"	1
09-2636-3240	GROUND ROD CLAMP	3/4"	1
09-2092-	GROUND BUSHING	2", 2-1/2", 3" OR 4"	VARIES

NOTES:
1. 7 FOOT FOUNDATION FOR
ARTERIAL STREET LIGHT POLE,
UNLESS NOTED OTHERWISE.
9 FOOT FOUNDATION FOR
TRAFFIC POLE WITH 16', 20',
OR 26' MONOTUBE MAST ARM.
2. CONCRETE MUST MEET IDOT
REQUIREMENTS FOR PORTLAND
CEMENT CLASS SI CONCRETE.
3. REINFORCING BARS MUST MEET
ASTM A-615 GRADE 60.

DATE	REVISION
8/21/02	SUPERCEDES DWG #818 DRAWN 4/21/81
DATE	REVISION
FOUNDATION FOR 3/4-6 ARTERIAL STREET LIGHT OR TRAFFIC SIGNAL POLE - 3 OR 7 GAUGE WITH 15" BOLT CIRCLE	
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICAL ENGINEERING	
DRAFTSMAN: B. GARNSEY	R. CARTER
ELECTRICAL DESIGN ENGINEER	B. GARNSEY
ENGINEER OF ELECTRICITY	
GENERAL SUPERVISOR	
DEPUTY COMMISSIONER	
SIZE: 11" x 17"	SCALE: NONE
DATE: 8/21/02	

818

SINGH
SINGH & ASSOCIATES, INC.
CONSULTING ENGINEERS

USER NAME = kdc	DESIGNED - VN	REVISED -
	DRAWN - VN	REVISED -
	CHECKED - RP	REVISED -
PLOT DATE = 8/12/2025	DATE - 08/13/2025	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ELECTRICAL STANDARD DETAILS

SCALE: SHEET 23 OF 26 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	141
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

LT-23

AS-BUILTS

JOHN BURNS CONSTRUCTION COMPANY

DATE: 8/31/2023

BY: *[Signature]*

FEBRUARY QUANTITIES

- ITEM 28 - CLEAN, DRILL & RACK (8)
- ITEM 43 - GUARD POST (2)
- ITEM 54 - ELEC. CABLE 1/C # 2/0 (240)
- ITEM 56 - ELEC. CABLE 1/C #4 (50)
- ITEM 58 - TRIPEX CABLE (2,053')
- ITEM 75 - FURNISH ART. LUM. (3)
- ITEM 77 - FURNISH RESI. LUM (14)
- ITEM 79 - FURNISH ACORN LUM (14)
- ITEM 86 - INSTALL POLE W/ 12' MA (12)
- ITEM 87 - INSTALL POLE W/ 8 MA (2)
- ITEM 90 - INSTALL ART. LUM (3)
- ITEM 92 - INSTALL RESI LUM (14)
- ITEM 93 - INSTALL ACORN (14)
- ITEM 97 - EXTERNAL NODE (17)
- ITEM 98 - INTERNAL NODE (14)

SHEET NO. | 05

INSTALLATION PLAN

REMOVAL PLAN

INSTALLATION NOTES:

- "G1"- INSTALL POLE, STREET LIGHTING, ALUMINUM, 12.5' RESIDENTIAL WITH 12' DAVIT ARM AS PER DRAWING 940 & 948
INSTALL 111W LED RESIDENTIAL STREET LIGHTING LUMINAIRE W/NODE AND 36W 240V LED ACORN LUMINAIRE/NODE
- "G2"- INSTALL POLE, STREET LIGHTING, ALUMINUM, 12.5' RESIDENTIAL WITH 8' DAVIT ARM AS PER DRAWING 940&945
INSTALL 111W LED RESIDENTIAL STREET LIGHTING LUMINAIRE/NODE AND 36W LED RESIDENTIAL ACORN LUMINAIRE/NODE
- "G3"- INSTALL 174W LED ARTERIAL STREET LIGHTING LUMINAIRE/NODE
- "H"- INSTALL BASE MOUNTED STREET LIGHTING CONTROLLER CONSTANT POWER PER DRAWING NO. 983, 984
SINGLE PHASE, 200A, 240V, 4-2P-50A, 1P-70A
- "P"- PAINT POLE/CONTROLLER COMPLETE
- "K"- INSTALL SERVICE EQUIPMENT AS PER DRAWING #11925

REMOVAL NOTES:

- "L"- REMOVE ANCHOR BASE POLE, MAST ARM W/ LUMINAIRE & BREAKDOWN FOUNDATION
- "R"- REMOVE PEDESTAL MOUNTED STREET LIGHTING CONTROLLER & BREAKDOWN FOUNDATION
- "R2"- REMOVE RESIDENTIAL POLE MOUNTED STREET LIGHTING CONTROLLER
- "U"- REMOVE SERVICE EQUIPMENT
- "Z"- REMOVE LUMINAIRE

APRIL QUANTITIES

- ITEM 102: REMOVE ANCHOR BASE POLE: 11
- ITEM 103: REMOVE LUMINAIRE: 14
- ITEM 105: REMOVE MAST ARM 11
- ITEM 110: REMOVE BRANCH WIRE 1909

JUNE QUANTITIES

- ITEM 54 - ELECTRIC CABLE IN CONDUIT, 1/C # 2/0 (810)
- ITEM 51 - CONTROLLER, BASE MTD, SL, 200A, SMART LIGHTING (1)
- ITEM 52 - SERVICE INSTALLATION (1)
- ITEM 55 - ELECTRIC CABLE IN CONDUIT, 1/C # 2 (65)
- ITEM 64-CONTROLLER FOUNDATIONS (1)

DATE	REVISION
WORK ORDER NO.	11992875
COST ALLOCATION ACCOUNT	
APPROPRIATION ACCOUNT	MATERIAL LABOR
RESIDENTIAL STREET LIGHTING INSTALLATION PLAN & REMOVAL PLAN W. CONGRESS PKWY., S. KEELER AV. TO S. PULASKI RD CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	
DRAFTSMAN/ENGINEER :	M. GLYNN
SUP. ENGINEER/PM :	N. JONES
PROFESSIONAL ENGINEER :	M. RASHED
ENGINEER OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
ATLAS# F-23	SIZE: 22" 36" SCALE: NONE DATE: \$DATE\$

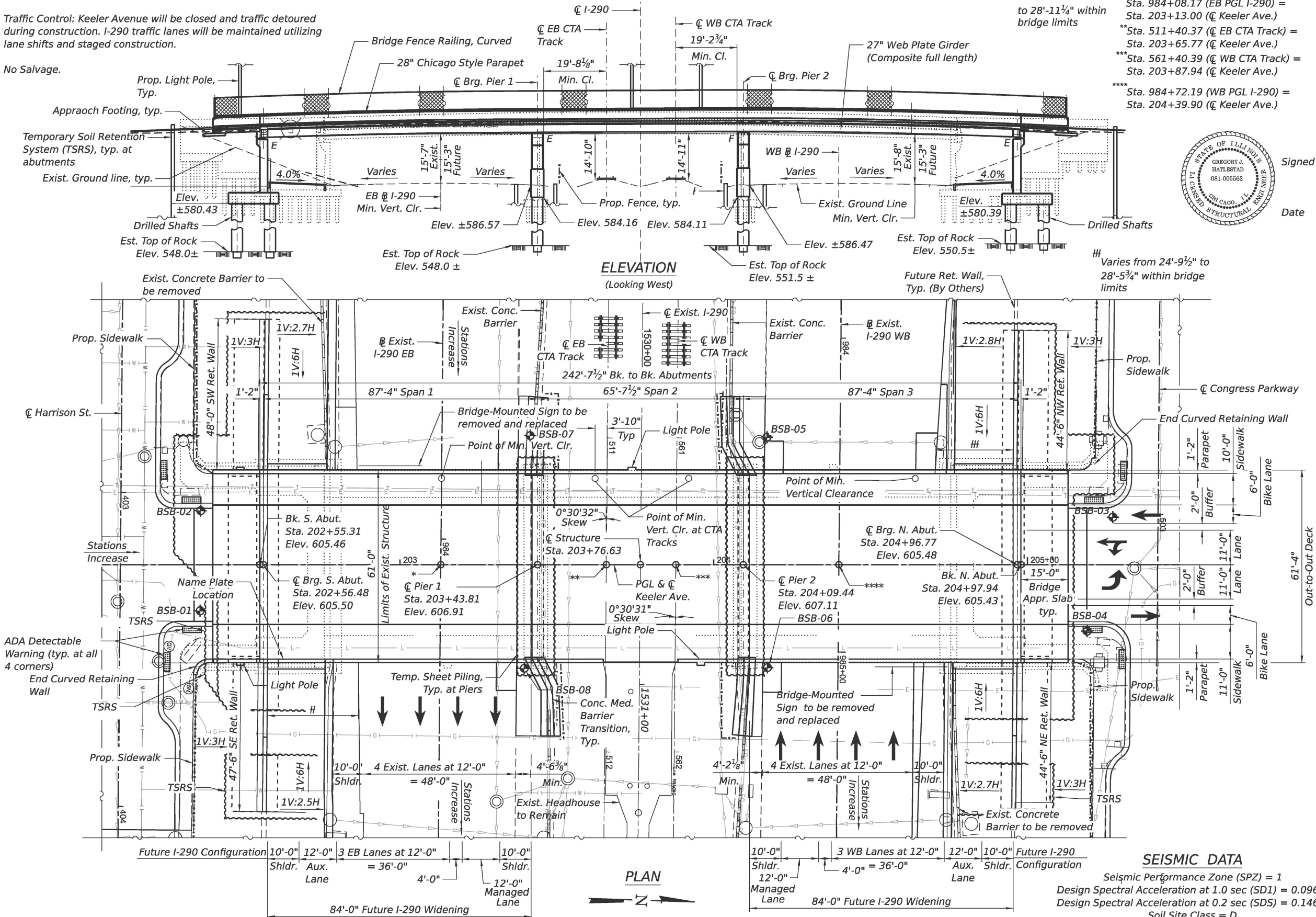
DWG. NO. 20-032

Benchmark: TBM C Elev. 604.14 West flange bolt of hydrant - 25.16' Rt. of Sta. 201+69.19 at Keeler Ave., TBM D Elev. 604.07 East flange bolt of hydrant - 38.96' Rt. of Sta. 205+65.79 at Keeler Ave.

Existing Structure: S.N. 016-2068 carrying Keeler Avenue over I-290 was originally constructed in 1953 as F.A. Route 131; Section 062-2929.1 - M.F.T. In 1990 the bridge was rehabilitated including replacement of bridge deck, bearings and expansion joints, and the repair of both piers and both abutments. Steel beams were repainted in 2000. The structure consists of a continuous 3-span steel beam bridge supported on closed abutments and concrete wall piers, all founded on timber piles. The bridge has an overall length of 204'-0" back-to-back abutments with a 0° skew (relative to I-290 skew of 0°-30'-58"), and an out-to-out structure width of 61'-0".

Traffic Control: Keeler Avenue will be closed and traffic detoured during construction. I-290 traffic lanes will be maintained utilizing lane shifts and staged construction.

No Salvage.



DESIGN SPECIFICATIONS

2024 AASHTO LRFD Bridge Design Specifications, 10th Edition

- *Sta. 984+08.17 (EB PGL I-290) = Sta. 203+13.00 (CL Keeler Ave.)
- **Sta. 511+40.37 (CL EB CTA Track) = Sta. 203+65.77 (CL Keeler Ave.)
- ***Sta. 561+40.39 (CL WB CTA Track) = Sta. 203+87.94 (CL Keeler Ave.)
- ****Sta. 984+72.19 (WB PGL I-290) = Sta. 204+39.90 (CL Keeler Ave.)

LOADING HL-93

Allow 50 lb/sq. ft. for future wearing surface
Live Load Deflection < L/1000

DESIGN STRESSES

FIELD UNITS
f'c = 4,000 psi (Superstructure)
f'c = 3,500 psi (Substructure)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)



Signed Gregory J. Hatlestad, S.E. IL. Lic. No. 081-005562
Expires 11-30-25

Date 8-13-25 For Sheets S1 thru S63.

APPROVED

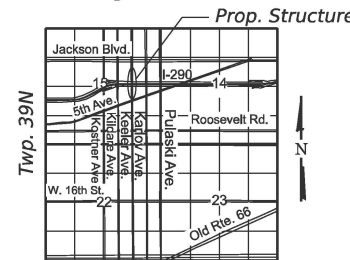
For Structural Adequacy Only

Engineer of Bridges & Structures

LEGEND

- E — Exist. Underground Electric
- G — Exist. Underground Gasline
- S — Exist. Storm Sewer
- W — Exist. Underground Water Main
- L — Exist. Underground Lighting
- F — Exist. Fence
- ⊙ Exist. Gas Valve
- ⊕ Exist. Manhole

Range 13E, 3rd P.M.



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
KEELER AVE. OVER I-290 AND CTA

F.A.U. ROUTE 2420

SECTION - F.A.I. 290 22 KEELER BR

COOK COUNTY

STA. 203+76.63

STRUCTURE NO. 016-2093

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec (SD1) = 0.096 g
Design Spectral Acceleration at 0.2 sec (SDS) = 0.146 g
Soil Site Class = D

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET S-1 OF 63 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	145
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

GENERAL NOTES:

1. All new structural steel shall be metallized. See Special Provision for "Metallizing of Structural Steel".
2. Calculated Weight of Structural Steel = 468,240 lbs. (AASHTO M 270 Grade 50)
= 37,460 lbs. (AASHTO M 270 Grade 36)
3. No field welding is permitted except as specified in the contract documents.
4. Fasteners shall be ASTM F 3125 Grade A325 Type 1, hot-dipped galvanized. Bolts 7⁄8 in. diameter, holes 15⁄16 in. diameter, unless otherwise noted. See Special Provision for "Metallizing of Structural Steel."
5. Reinforcement bars designated (E) shall be epoxy coated.
6. The finishing machine rails shall be placed on the top of the top flange of the exterior beams within the deck pour. Beam blocks shall be placed between beams at all tie locations in each bay for the full width of the deck pour.
7. Slipforming of the Parapets is not allowed.
8. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1⁄8" (0.01 ft). Adjustment shall be made either by grinding the surface or shimming the bearings.
9. Concrete Sealer shall be applied to the designated areas of the Abutments, Piers, and Retaining Walls.
- 10.The existing structural steel contains lead. The Contractor shall take appropriate precautions to address the presence of lead on this project.
- 11.The Contractor shall exercise extreme caution during construction to make certain that construction activities will not have detrimental effects on the adjacent utilities and other facilities.
- 12.All work to be done on or adjacent to the CTA's right of way will require a work plan submitted by the Contractor to the CTA for review and approval prior to the start of work. The Contractor must provide five (5) week look-ahead schedule to the CTA Rail Operations Department. Shoring or Temporary Soil Retention System (TSRS) adjacent to the CTA right-of-way shall be designed by an Illinois Licensed Structural Engineer (S.E.). Contractor to submit signed and sealed TSRS drawings and calculations to the CTA for review and approval prior to the start of work. See the special provision "CTA Flagging and Coordination."
- 13.Temporary Soil Retention System (Special) adjacent to the ex. 42" Ø gas main to remain in place, shall not be vibrated or driven into place in order to avoid adversely affecting the utility.

INDEX OF SHEETS:

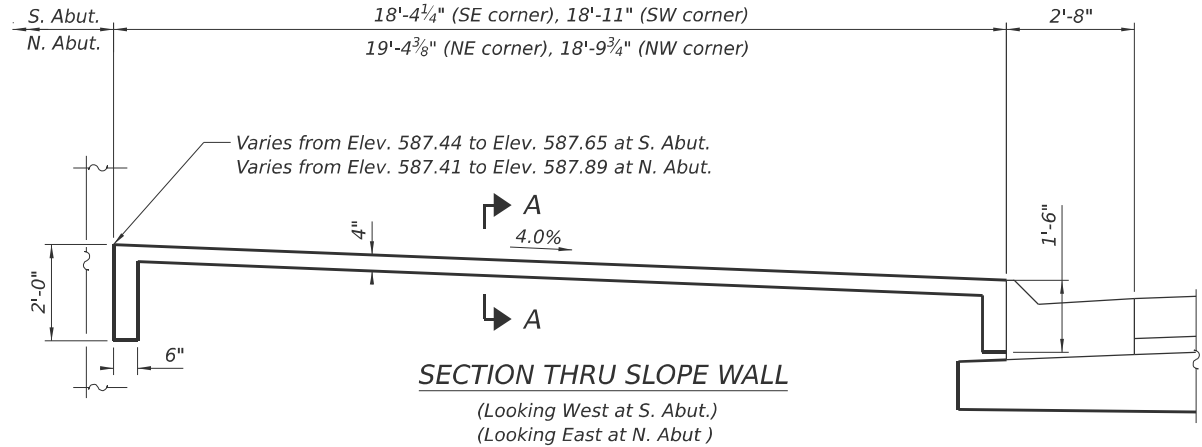
- S-1 General Plan & Elevation
- S-2 General Data
- S-3 Substructure Layout
- S-4 S. Temporary Soil Retention System
- S-5 N. Temporary Soil Retention System
- S-6 Intentionally Left Blank
- S-7 Temporary Sheet Piling at Piers
- S-8 Exist. Structure Removal Plan, Elevation & Section
- S-9 East Wingwall Removal Details
- S-10 West Wingwall Removal Details
- S-11 Pier Removal Details
- S-12 Top of Slab Elevations (Sheet 1 of 4)
- S-13 Top of Slab Elevations (Sheet 2 of 4)
- S-14 Top of Slab Elevations (Sheet 3 of 4)
- S-15 Top of Slab Elevations (Sheet 4 of 4)
- S-16 Top of South Approach Slab Elevations
- S-17 Top of North Approach Slab Elevations
- S-18 Deck Plan and Cross Section
- S-19 Parapets Elevation
- S-20 Abut. Diaphragm Elev. and Det.
- S-21 Deck Details, Bar Diagrams and Bill of Material
- S-22 Headhouse Closure Fence Details
- S-23 South Approach Slab (Sheet 1 of 2)
- S-24 South Approach Slab (Sheet 2 of 2)
- S-25 North Approach Slab (Sheet 1 of 2)
- S-26 North Approach Slab (Sheet 2 of 2)
- S-27 Bridge Fence Railing, Curved (1 of 2)
- S-28 Bridge Fence Railing, Curved (2 of 2)
- S-29 Framing Plan and Girder Elevation
- S-30 Girder Moment and Reaction Tables
- S-31 Structural Steel Details
- S-32 Bearing Details (1 of 2)
- S-33 Bearing Details (2 of 2)
- S-34 South Abutment Plan & Elevation
- S-35 North Abutment Plan & Elevation
- S-36 North & South Abut. Foundation Plan
- S-37 Abutment Wingwall Details
- S-38 Abutment Details and BOM's
- S-39 SE Retaining Wall Plan & Elevation
- S-40 NE Retaining Wall Plan & Elevation
- S-41 SW Retaining Wall Plan & Elevation
- S-42 NW Retaining Wall Plan & Elevation
- S-43 Retaining Wall Details (Sheet 1 of 2)
- S-44 Retaining Wall Details (Sheet 2 of 2)
- S-45 Chain Link Fence Details (1 of 2)
- S-46 Chain Link Fence Details (2 of 2)
- S-47 Abutment and Retaining Wall Architectural Details
- S-48 Pier 1 Plan and Elevation
- S-49 Pier 1 Details & BOM
- S-50 Pier 2 Plan and Elevation
- S-51 Pier 2 Details & BOM
- S-52 End Curved Retaining Walls
- S-53 Soil Borings (1 of 11)
- S-54 Soil Borings (2 of 11)
- S-55 Soil Borings (3 of 11)
- S-56 Soil Borings (4 of 11)
- S-57 Soil Borings (5 of 11)
- S-58 Soil Borings (6 of 11)
- S-59 Soil Borings (7 of 11)
- S-60 Soil Borings (8 of 11)
- S-61 Soil Borings (9 of 11)
- S-62 Soil Borings (10 of 11)
- S-63 Soil Borings (11 of 11)

TOTAL BILL OF MATERIAL

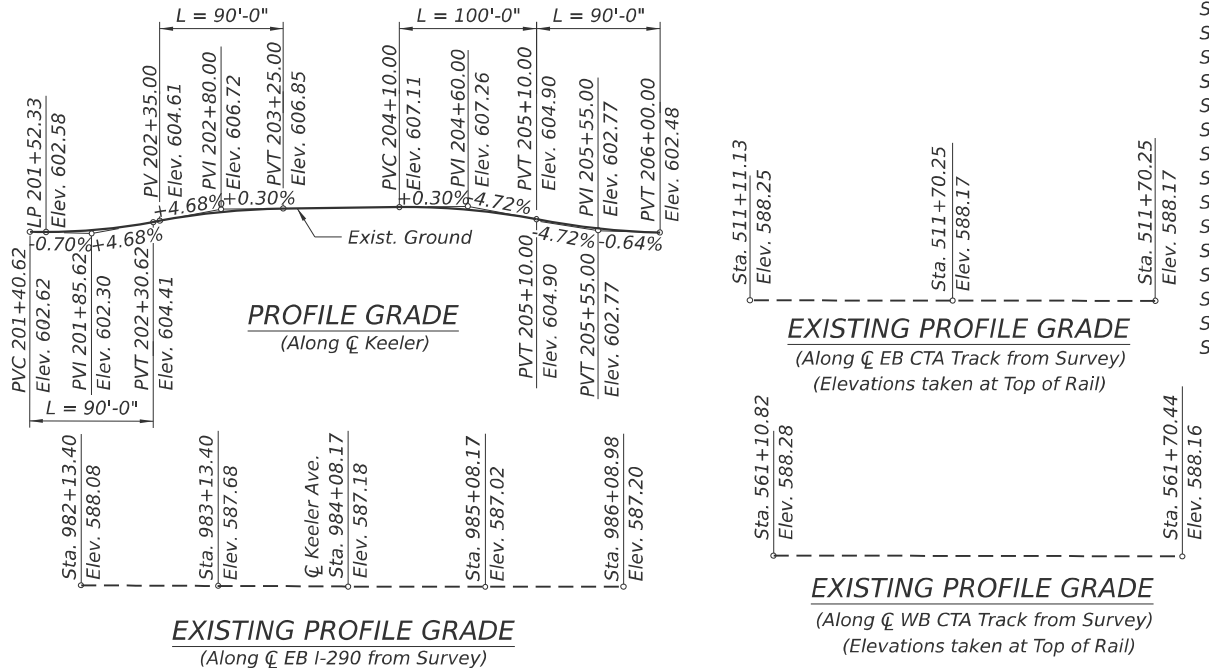
Item	Unit	Super	Sub	Total
Removal of Existing Structures	Each	-	1	1
Protective Shield	Sq Yd	1,342	-	1,342
Structure Excavation	Cu Yd	-	2,648	2,648
Concrete Structures	Cu Yd	-	1,170.2	1,170.2
Concrete Superstructure	Cu Yd	653.7	-	653.7
Bridge Deck Grooving	Sq Yd	1,091	-	1,091
Form Liner Textured Surface	Sq Ft	-	4,103	4,103
Protective Coat	Sq Yd	2,671	-	2,671
Concrete Superstructure (Approach Slab)	Cu Yd	68.2	-	68.2
Furnishing and Erecting Structural Steel	L Sum	1	-	1
Stud Shear Connectors	Each	6,936	-	6,936
Reinforcement Bars	Pound	-	145,120	145,120
Reinforcement Bars, Epoxy Coated	Pound	151,170	185,300	334,800
Bicycle Railing, Curved	Foot	24	-	24
Bridge Fence Railing, Curved	Foot	522	-	522
Slope Wall, 4"	Sq Yd	-	275	275
Name Plates	Each	1	-	1
Drilled Shaft in Soil	Cu Yd	-	716.1	716.1
Drilled Shaft in Rock	Cu Yd	-	28.6	28.6
Elastomeric Bearing Assembly, Type I	Each	24	-	24
Anchor Bolts, 1"	Each	64	-	64
Temporary Sheet Piling	Sq Ft	-	6,601	6,601
Temporary Soil Retention System	Sq Ft	-	4,622	4,622
Granular Backfill for Structures	Cu Yd	-	2,201	2,201
Concrete Sealer	Sq Ft	-	9,395	9,395
Geocomposite Wall Drain	Sq Yd	-	479	479
Pipe Underdrain for Structures, 4"	Foot	-	312	312
Crosshole Sonic Logging Access Ducts	Foot	-	2,442	2,442
Crosshole Sonic Logging Testing	Each	-	10	10
Concrete Wearing Surface, 5"	Sq Yd	128	-	128
Bar Terminators	Each	432	-	432
Pile Removal	Each	-	44	44
Temporary Soil Retention System (Special)	Sq Ft	-	4,665	4,665
Chain Link Fence, 4' Attached to Structure	Sq Ft	-	188	188

STA. 203+76.63
BUILT 20__ BY
STATE OF ILLINOIS
F.A.U. Rt. 2420
Sec. FAI 290 22 Keeler BR
LOADING HL-93
STR. NO. 016-2093

NAME PLATE
See Std. 515001



SECTION A-A



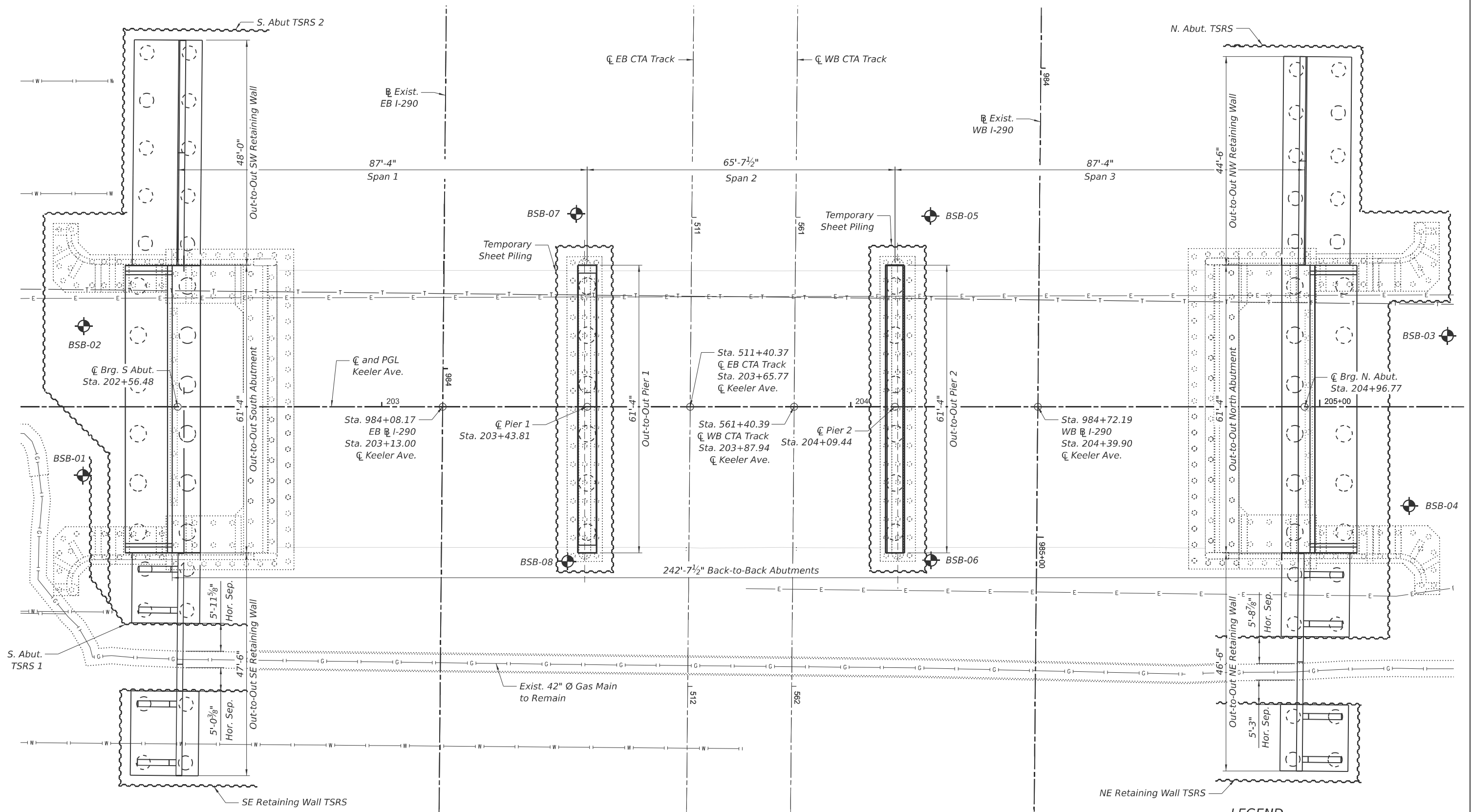
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 016-2093

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	146
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

SHEET S-2 OF 63 SHEETS

MODEL: Substructure layout [Sheet]
FILE NAME: p:\civilltech\pw-bentley.com\civilltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-003-SubstructureLayout.dgn



- NOTES:**
1. For removal of existing structures, see sheets S-8 thru S-11.
 2. For existing approach slabs removal quantities, see Roadway Plans.
 3. See Roadway and Lighting Plans for additional information.
 4. See General Notes 29 and 30 for Peoples Gas requirements.

SUBSTRUCTURE LAYOUT



LEGEND

— L —	Exist. Underground Lighting
— E —	Exist. Underground Electric
— G —	Exist. Underground Gasline
— T —	Exist. Underground Telephone Line
⊙	Soil Boring



USER NAME = JMI	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

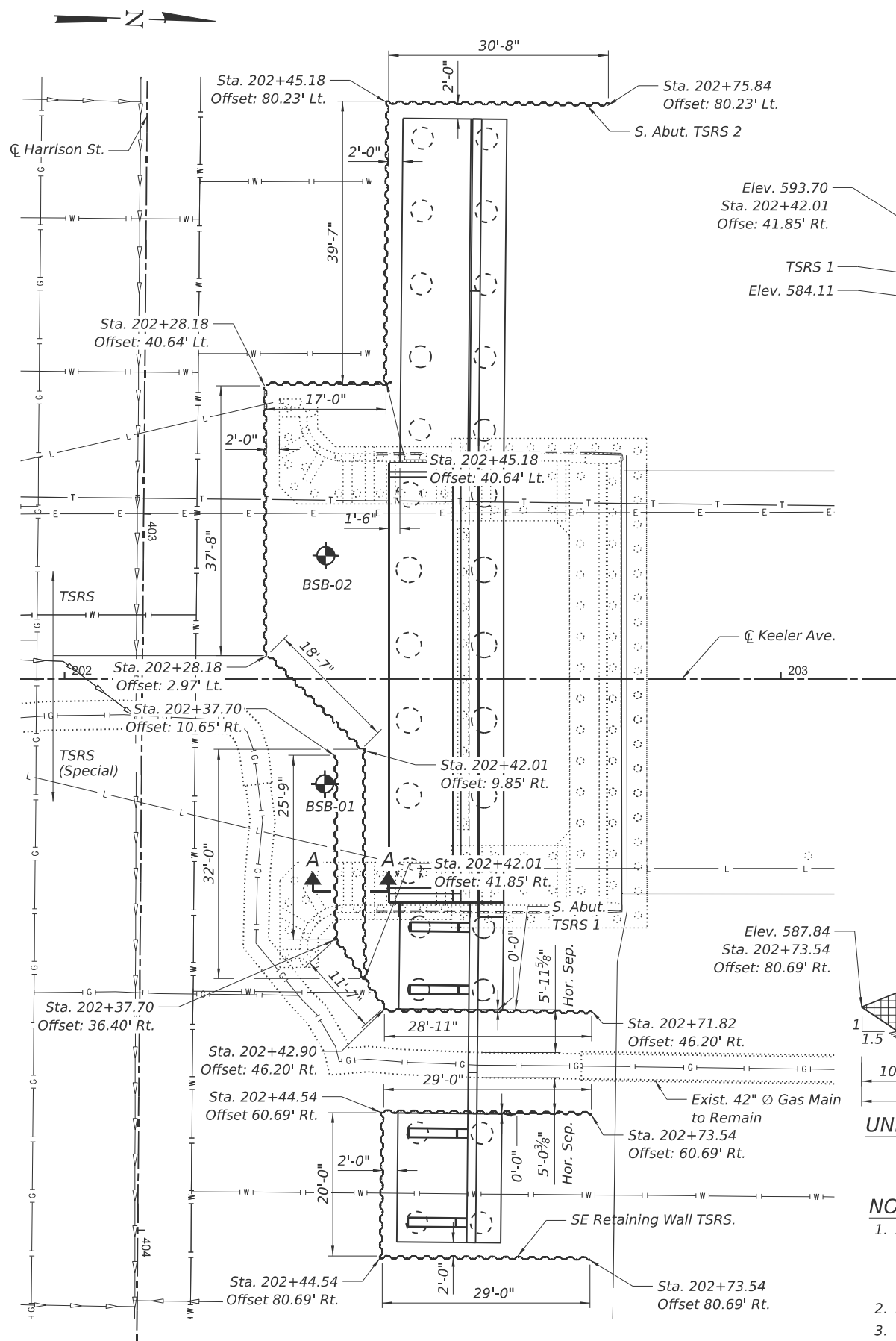
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT
STRUCTURE NO. 016-2093

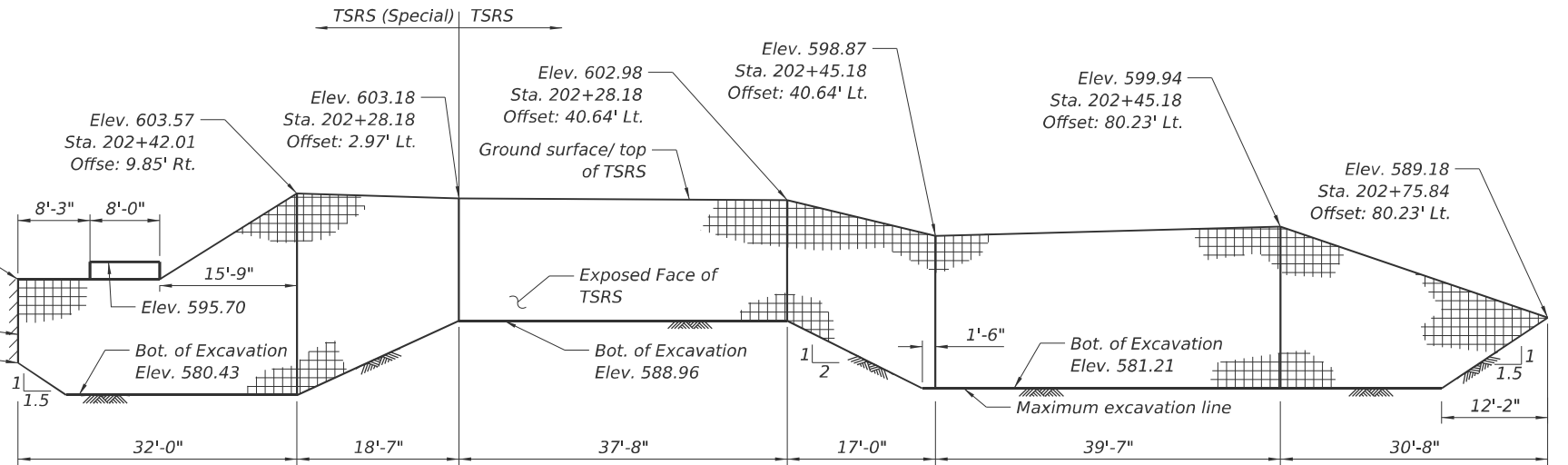
SHEET S-3 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	147
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

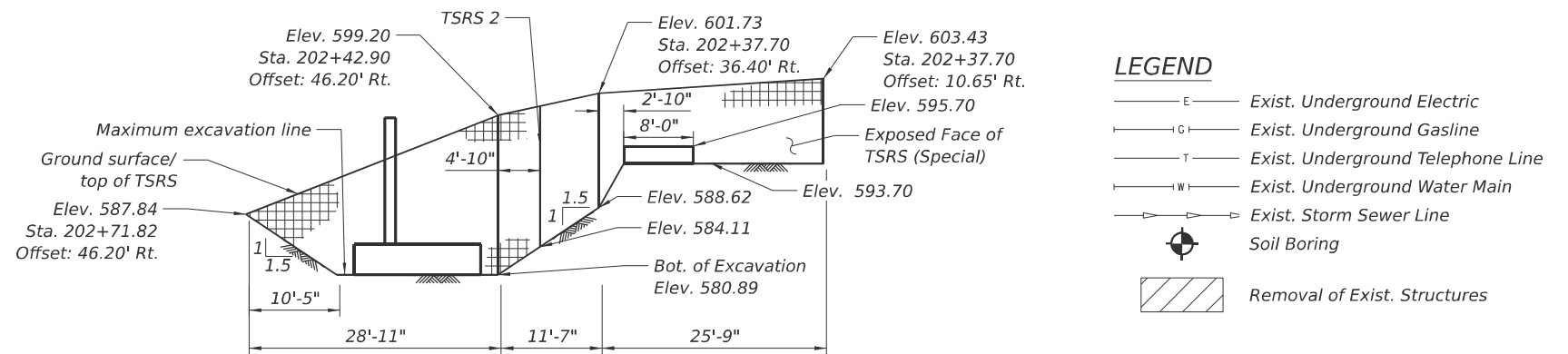
MODEL: South TSRS (Sheet)
FILE NAME: p:\civiltech\pw\beniley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-Structures\17-004-S.TSRS.dgn



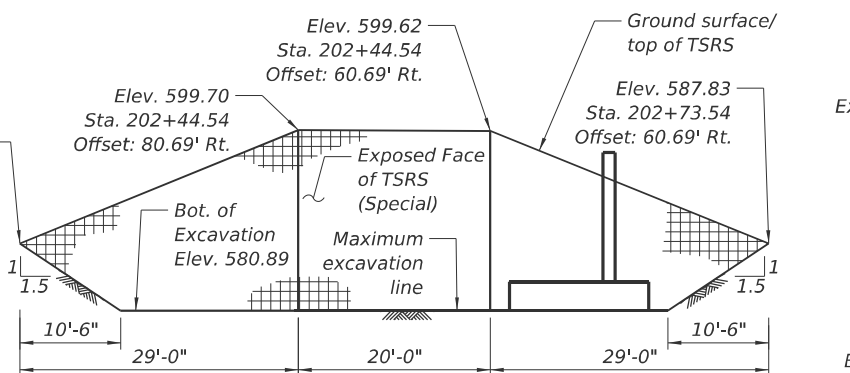
PLAN AT SOUTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM



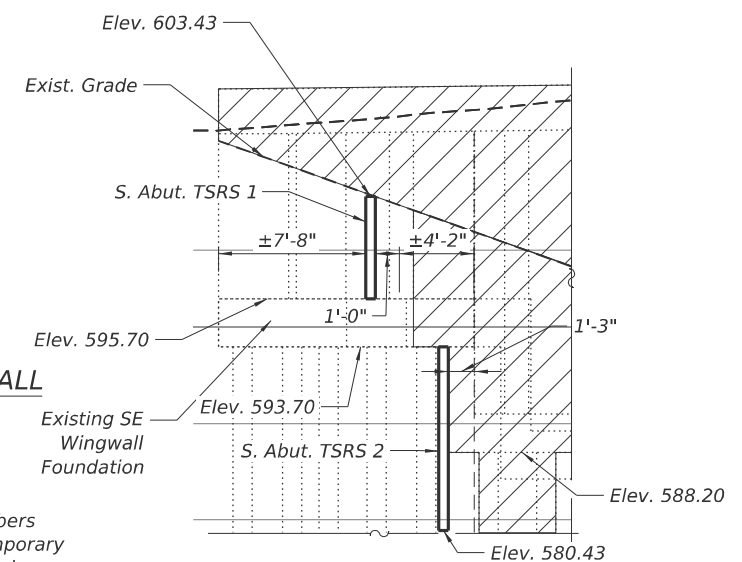
UNFOLDED ELEVATION VIEW OF SOUTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM 2



UNFOLDED ELEVATION VIEW OF SOUTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM 1



UNFOLDED ELEVATION VIEW OF SOUTH EAST RETAINING WALL
TEMPORARY SOIL RETENTION SYSTEM



SECTION A-A

NOTES:

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. See General Notes 29 and 30 for Peoples Gas requirements.
3. Caution concrete blocks for bracing and supporting Peoples Gas main, caps, tees, and bends may be present. Concrete blocks shall not be removed, broken or undermined. If a concrete block has been exposed, broken, and/or undermined, notify Central-Shop-OUC@peoplesgasdelivery.com & Engineering Supervisor Mario Martinez at 312-756-9804, immediately, to assess the situation, before continuing construction.

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq Ft	1,869
Temporary Soil Retention System (Special)	Sq Ft	2,633



USER NAME = kdc	DESIGNED - JML/GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

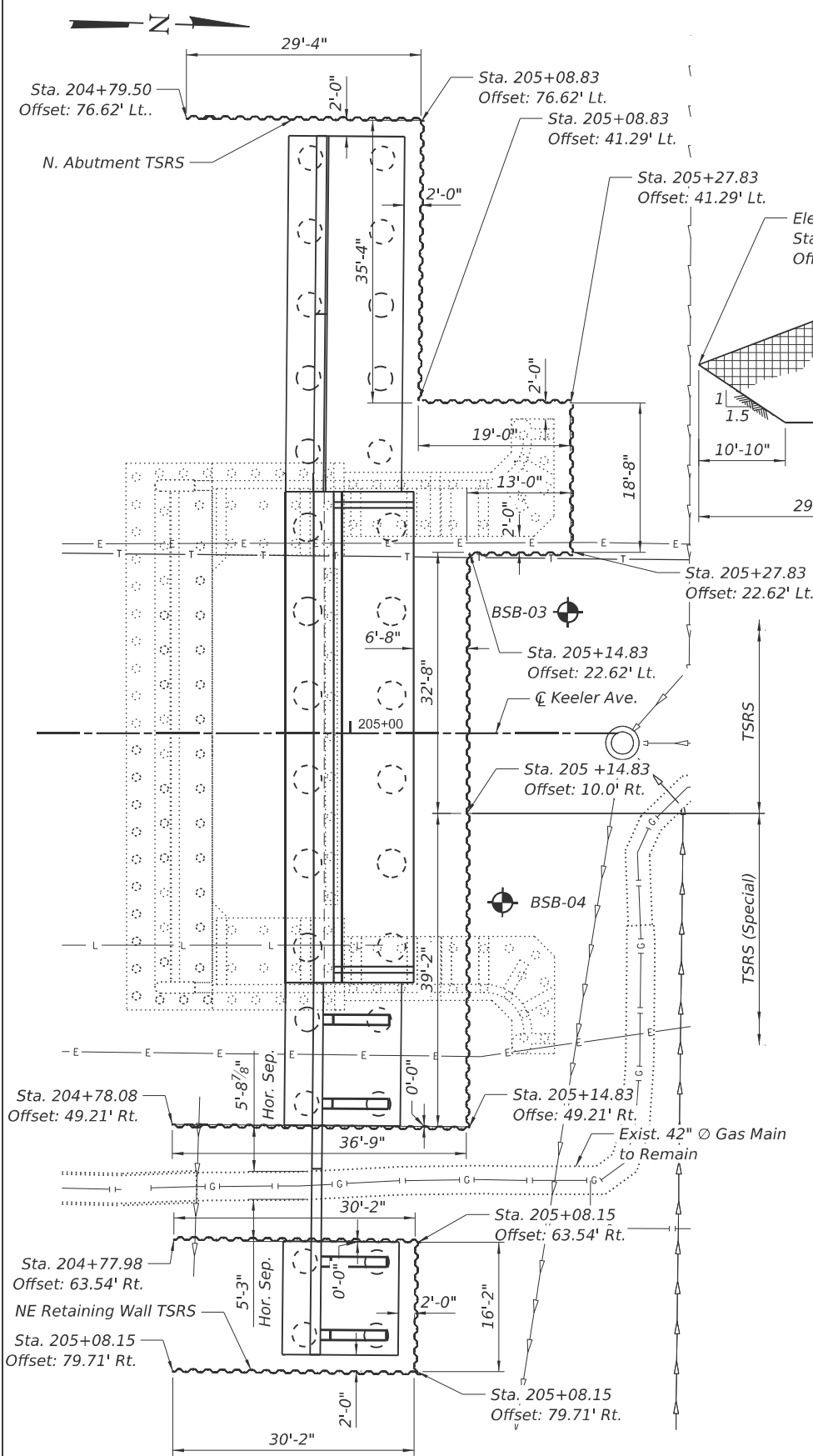
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

S. TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 016-2093

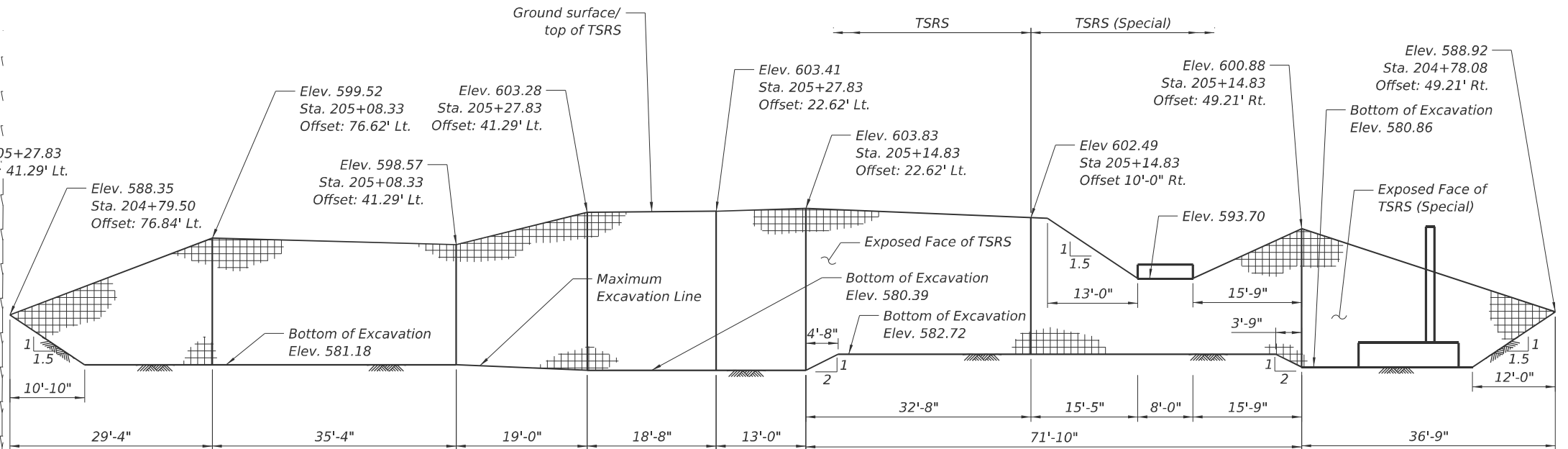
SHEET S-4 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	148
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

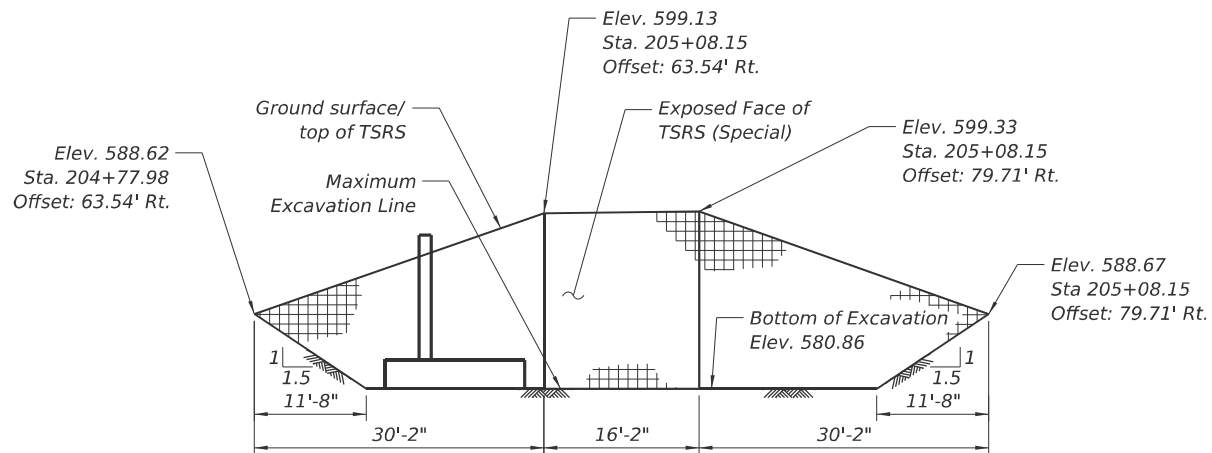
MODEL: North TSRS (Sheet)
FILE NAME: p:\w\l\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-005-N.TSRS.dgn



PLAN AT NORTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM



UNFOLDED ELEVATION VIEW OF NORTH ABUTMENT TEMPORARY SOIL RETENTION SYSTEM



UNFOLDED ELEVATION VIEW OF NORTH EAST RETAINING WALL
TEMPORARY SOIL RETENTION SYSTEM

LEGEND

- E — Exist. Underground Electric
- G — Exist. Underground Gasline
- T — Exist. Underground Telephone Line
- W — Exist. Underground Water Main
- S — Exist. Storm Sewer Line
- ⊕ Soil Boring

BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention System	Sq Ft	2,753
Temporary Soil Retention System (Special)	Sq Ft	2,032

NOTES:

- A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
- See General Notes 29 and 30 for Peoples Gas requirements.



USER NAME = JMI	DESIGNED - JMI, GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

N. TEMPORARY SOIL RETENTION SYSTEM
STRUCTURE NO. 016-2093

SHEET S-5 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	149
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Temp:Shl:Pilling2 [Sheet]
FILE NAME: pwr/civiltech-pwr/bentley.com/civiltech-pwr/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SHT-006-TempSheetPilling_About



USER NAME = kdc	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

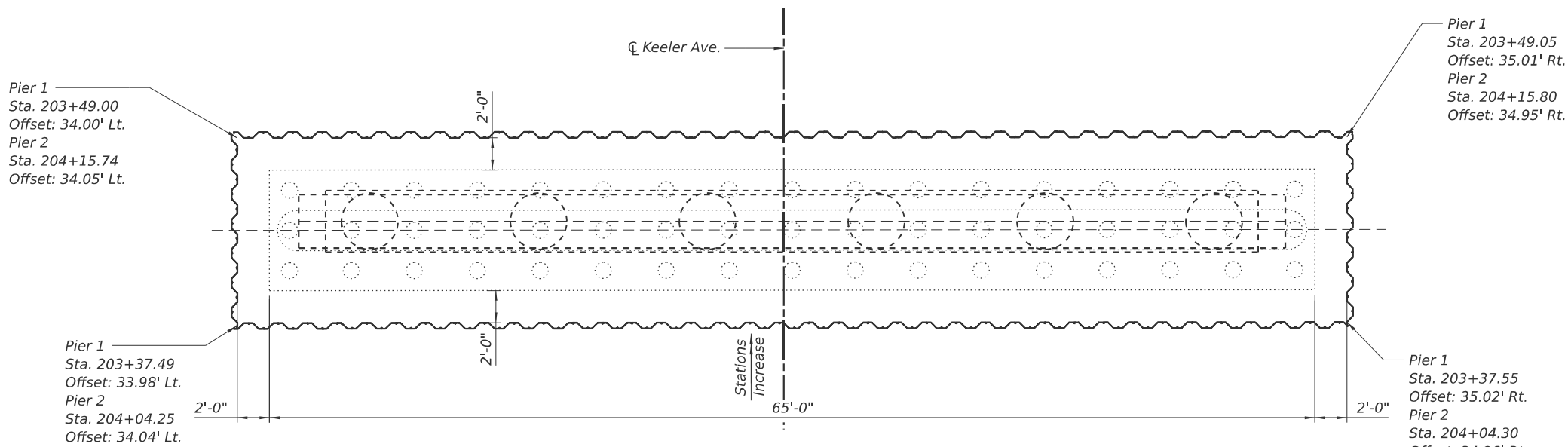
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURE NO. 016-2093

SHEET S-6 OF 63 SHEETS

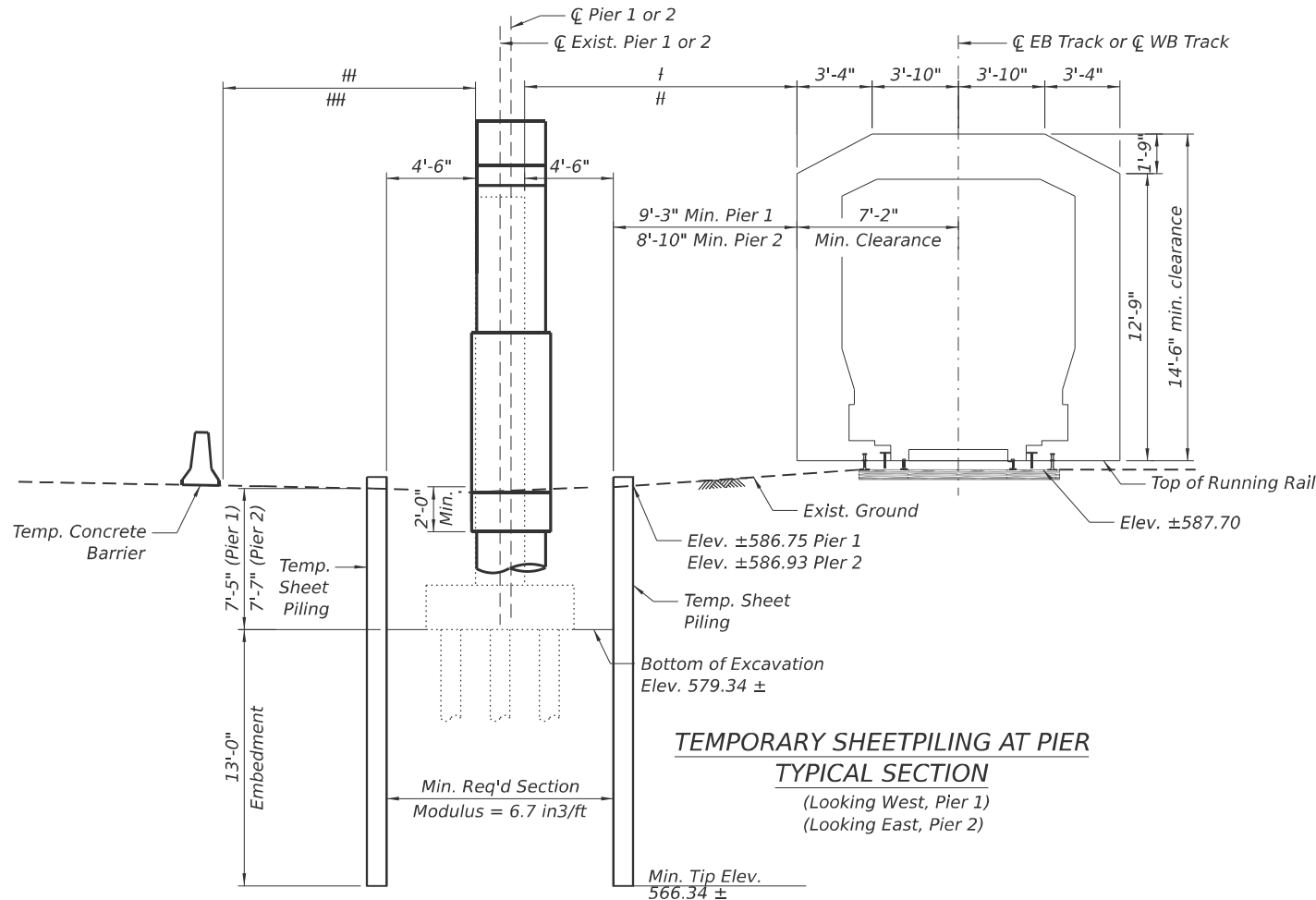
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	150
CONTRACT NO. 62U41				
		ILLINOIS	FED. AID PROJECT	

MODEL: Temp.Sht.Piling.1 [Sheet]
FILE NAME: p:\civiltech\pw\beniley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-007-TempSheetPiling_Pier



PARTIAL PLAN TEMPORARY SHEET PILING PLAN

(Pier 1 shown, Pier 2 similar by 180° rotation)



BILL OF MATERIAL

Item	Unit	Total
Temporary Soil Retention	Sq Ft	6,601

l: Varies from 13'-9¾" to 14'-4½", Pier 1, EB Track
h: Varies from 13'-4½" to 14'-5", Pier 2, WB Track
h: Varies from 15'-9" to 16'-4", Pier 2, WB Track
h: Varies from 15'-4" to 16'-0", Pier 2, WB Track

NOTE:

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



USER NAME = GM	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

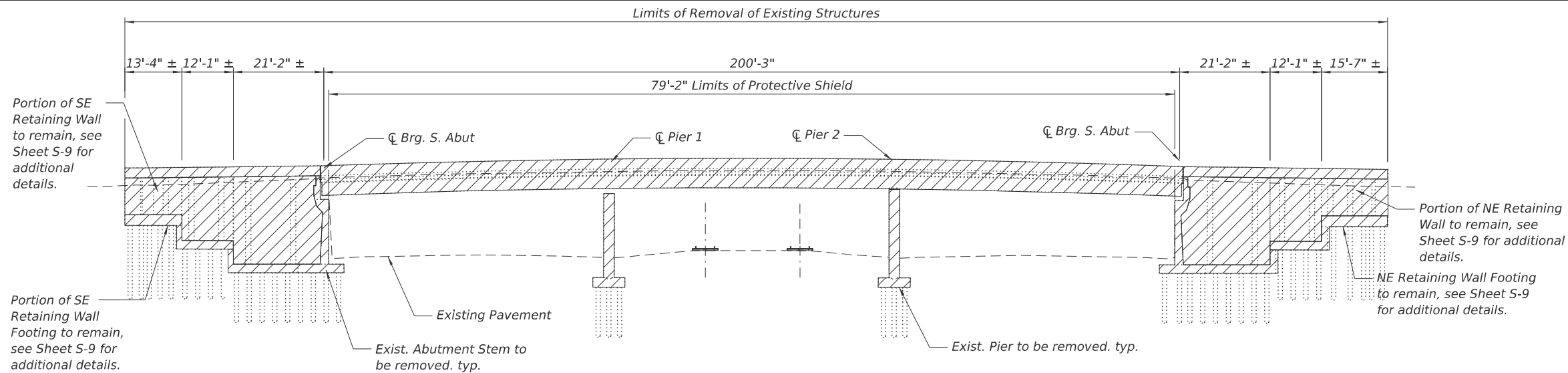
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SHEET PILING AT PIERS
STRUCTURE NO. 016-2093**

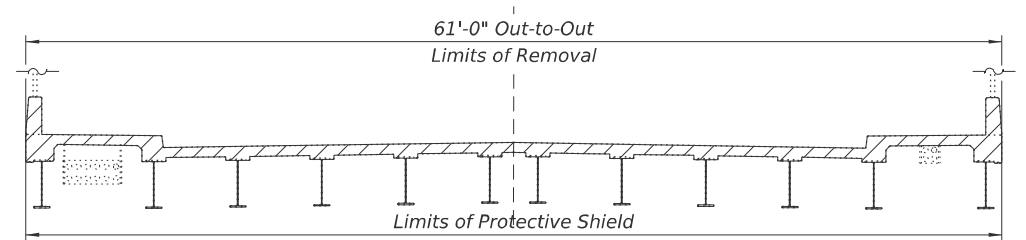
SHEET S-7 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	151
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

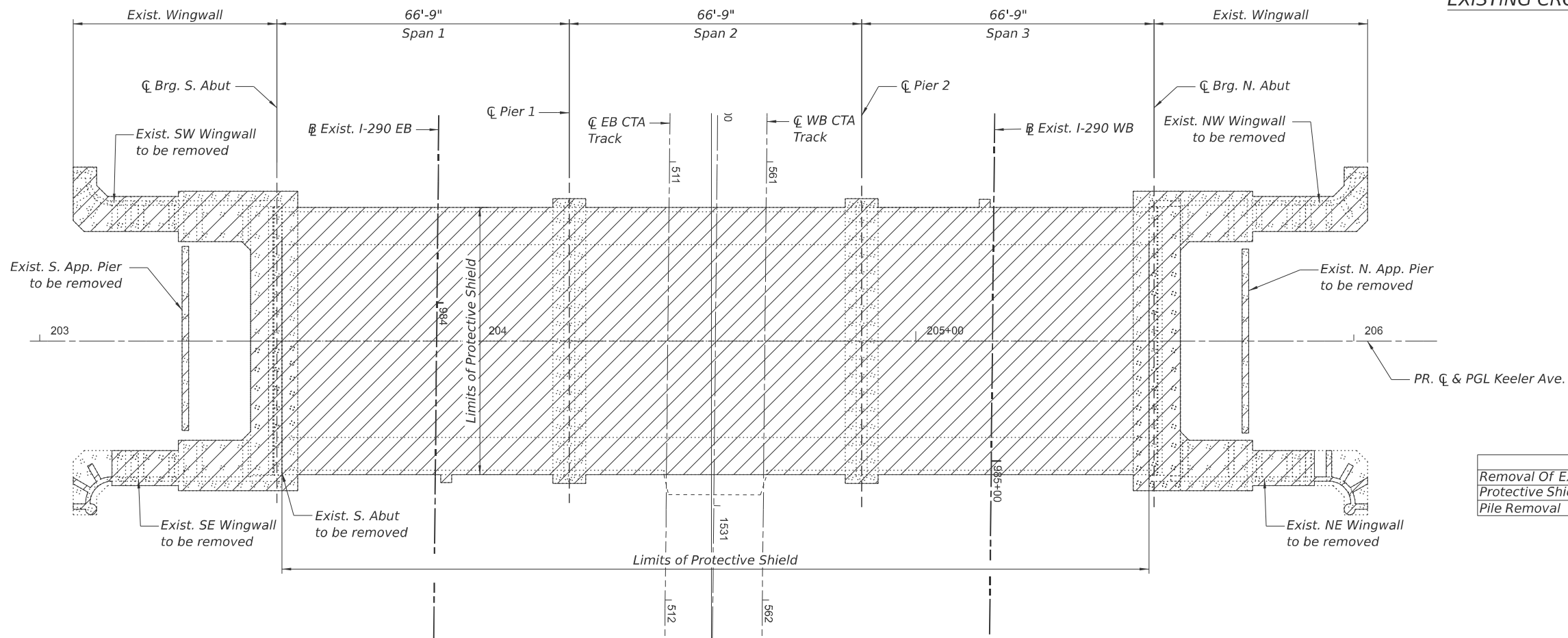
MODEL: Removal Plan and Elev (Sheet)
FILE NAME: p:\civiltch\pw\benley.com\civiltch\pw\Structures\17-Structures\162U41-SHT-008-Removal Plan&Elev



ELEVATION



EXISTING CROSS SECTION



PLAN

LEGEND

Removal of Exist. Structures

BILL OF MATERIAL

Item	Unit	Quantity
Removal Of Existing Structures	Each	1
Protective Shield	Sq Yd	1,342
Pile Removal	Each	44

NOTES:

- Existing Utilities between girders shall be relocated to provide uninterrupted service during construction (by others). Utilities to be incorporated into new structure.
- The contractor is responsible to protect the CTA tracks from falling objects and debris during removal of the existing structure.
- Remove existing bridge fence, bridge railing, parapet, and wire fence at CTA headhouse. (Removal cost included with removal of existing structures.)
- For existing approach slab, sidewalk, curb and gutter, and pavement removal quantities, see roadway plans.
- See Sheets S-9 thru S-11 for Pile removal locations.



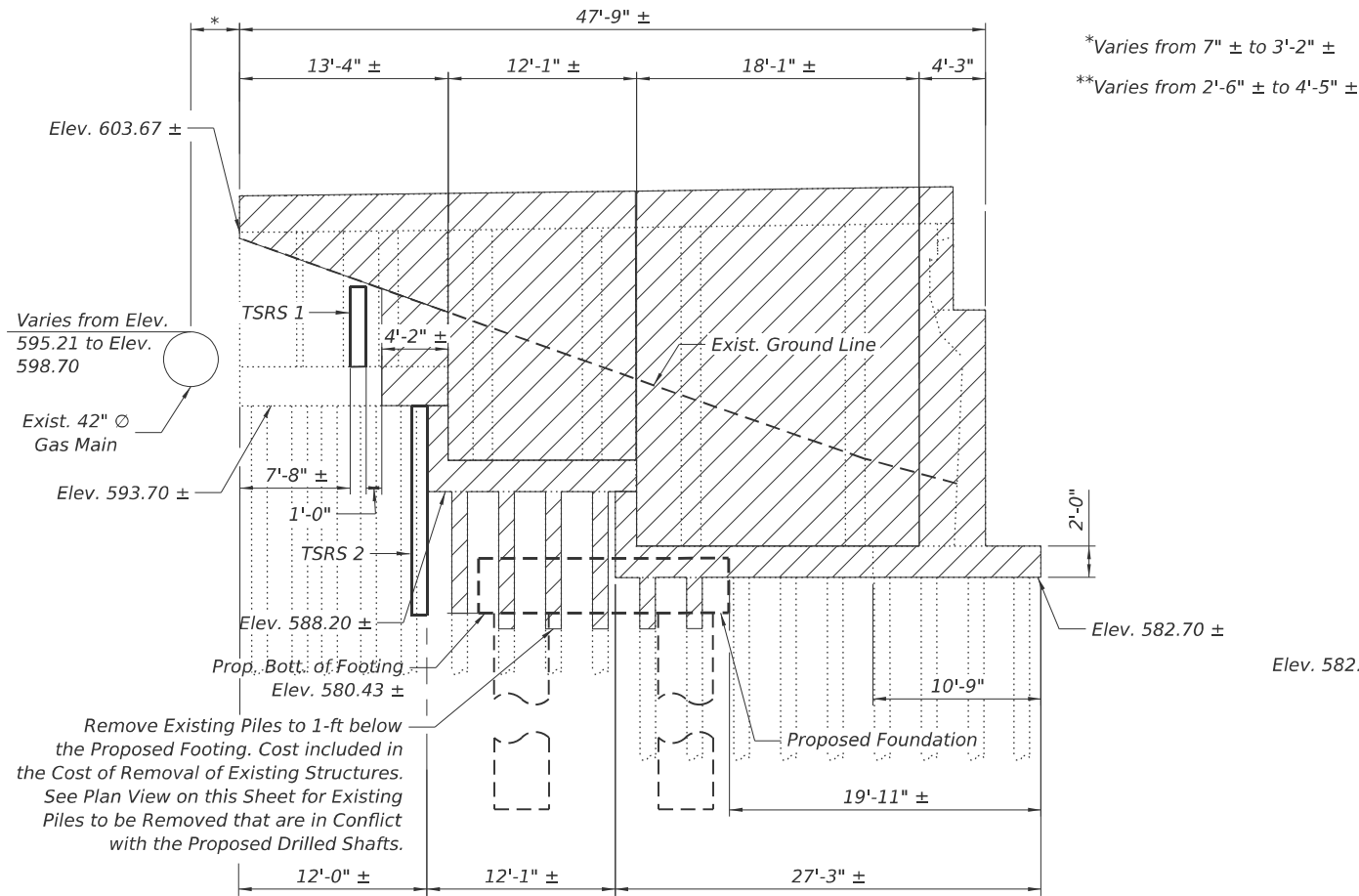
USER NAME = kdc	DESIGNED - GM	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - GM	REVISED - ####
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

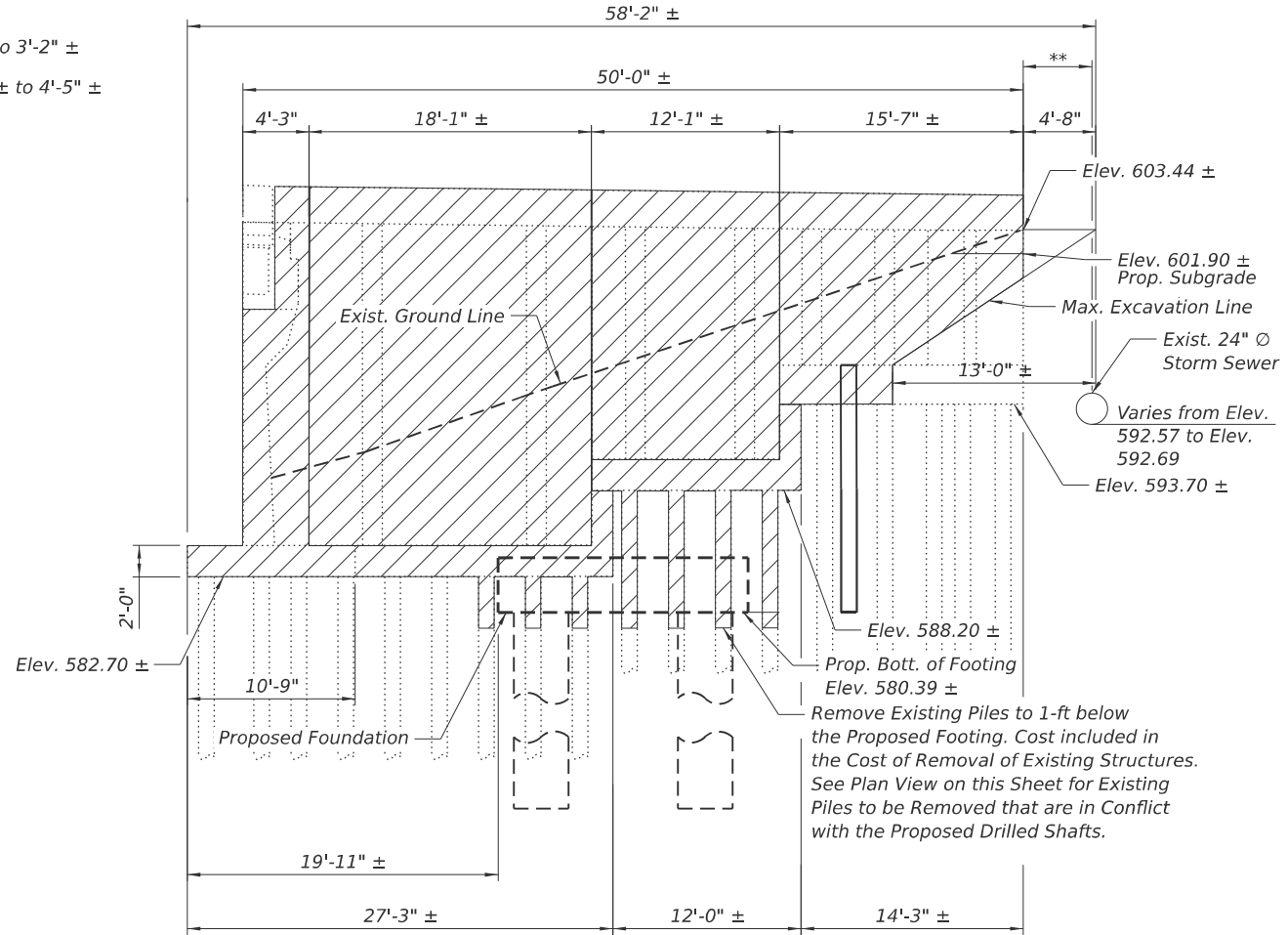
EXISTING STRUCTURE REMOVAL PLAN, ELEVATION & SECTION
STRUCTURE NO. 016-2093

SHEET S-8 OF 63 SHEETS

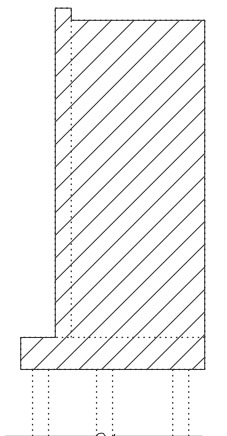
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	152
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



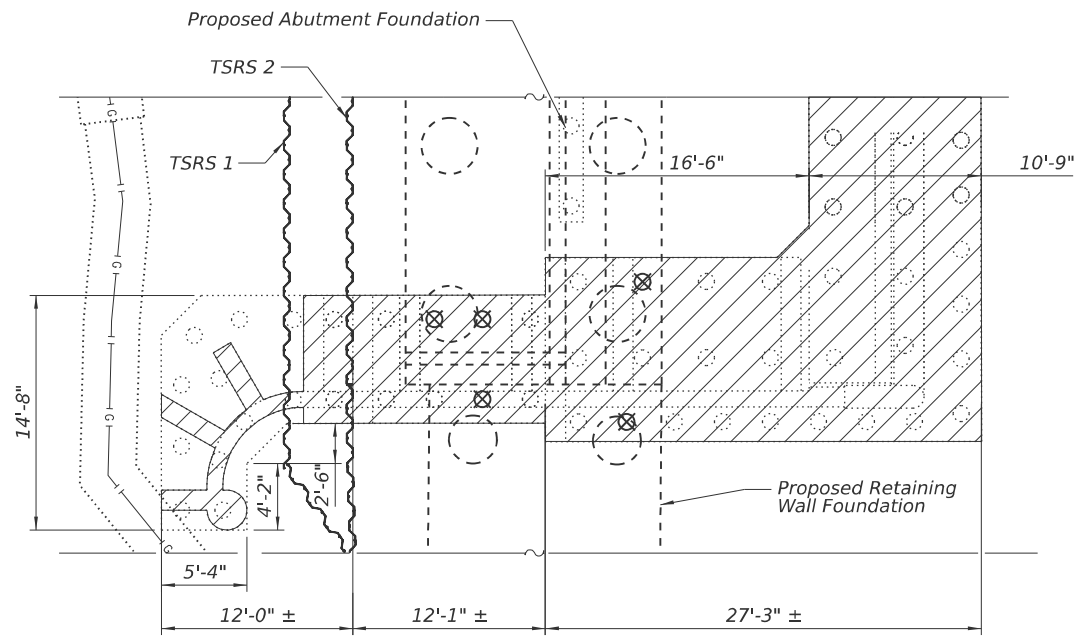
SE WINGWALL & ABUTMENT REMOVAL ELEVATION



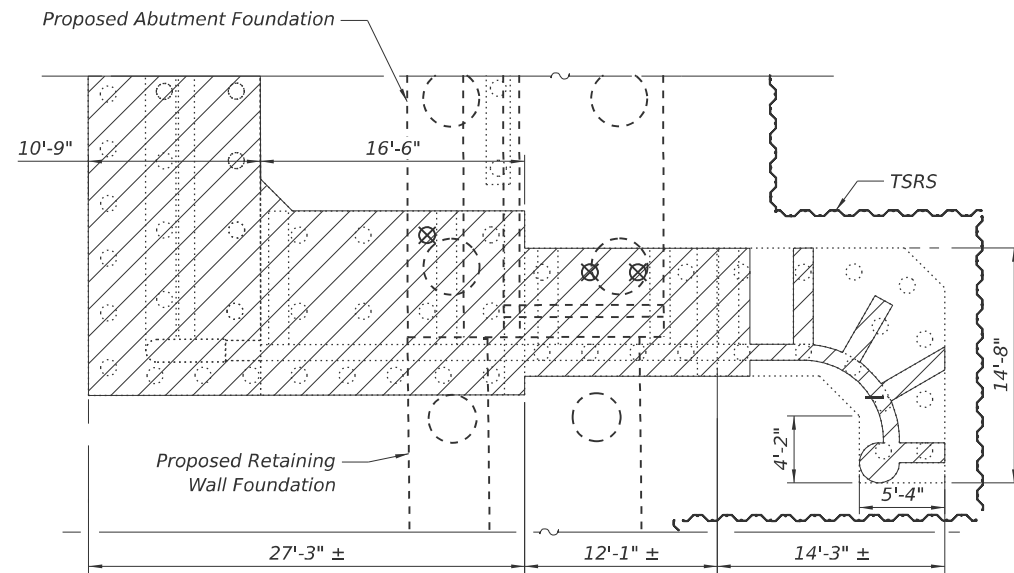
NE WINGWALL & ABUTMENT REMOVAL ELEVATION



TYPICAL WINGWALL REMOVAL SECTION



SE WINGWALL & PARTIAL ABUTMENT REMOVAL PLAN



NE WINGWALL & PARTIAL ABUTMENT REMOVAL PLAN

LEGEND

- Removal of Exist. Structures
Pile Removal

MODEL: Removal Details 1[Sheet]
FILE NAME: p:\civiltch\p\w\benfley.com\civiltch\p\w\benfley.com\Projects\3855\CAD\CADD Sheets\17-Structures\17-Structures\162U41-SHT-009-E-WingwallRemDetails



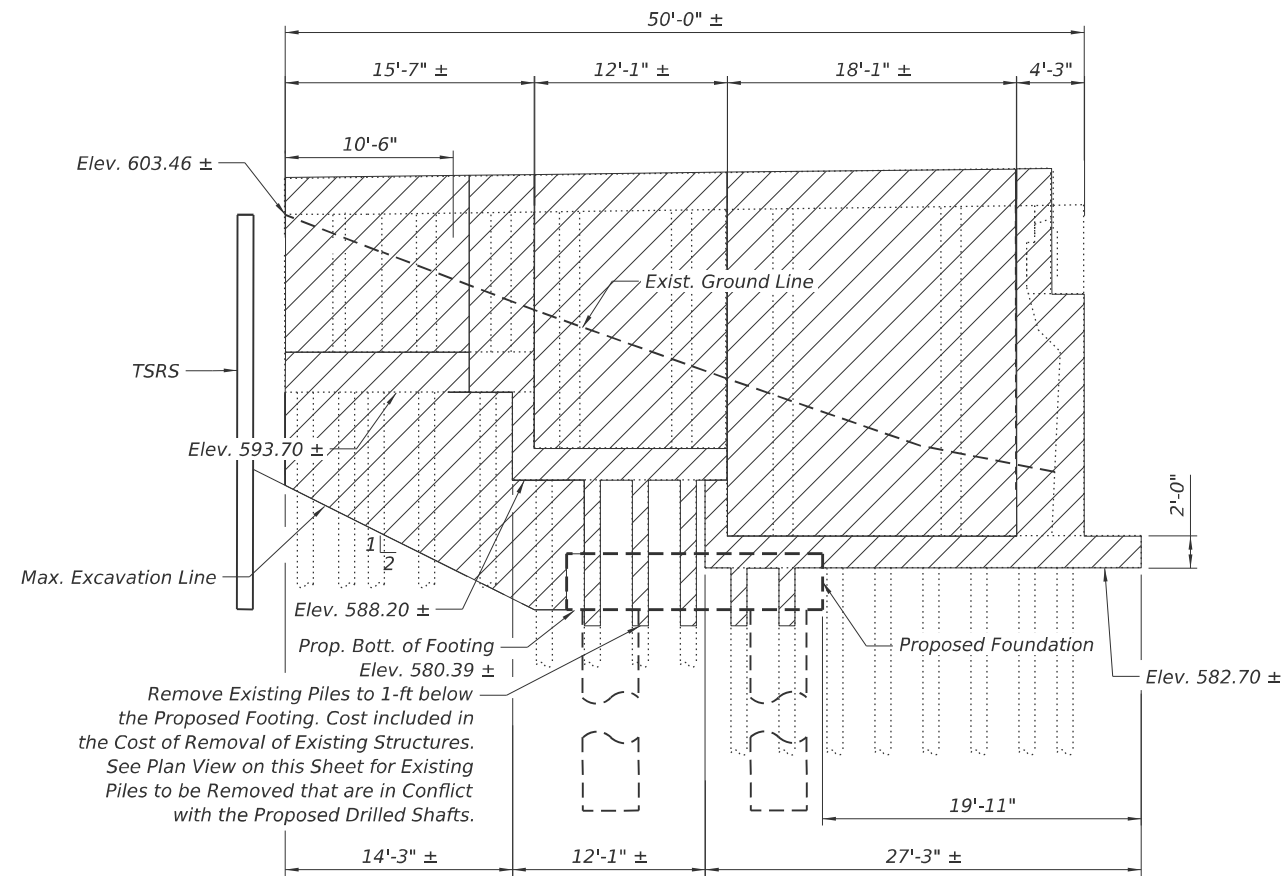
USER NAME = kdc	DESIGNED - JML GM	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - JML GM	REVISED - ####
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

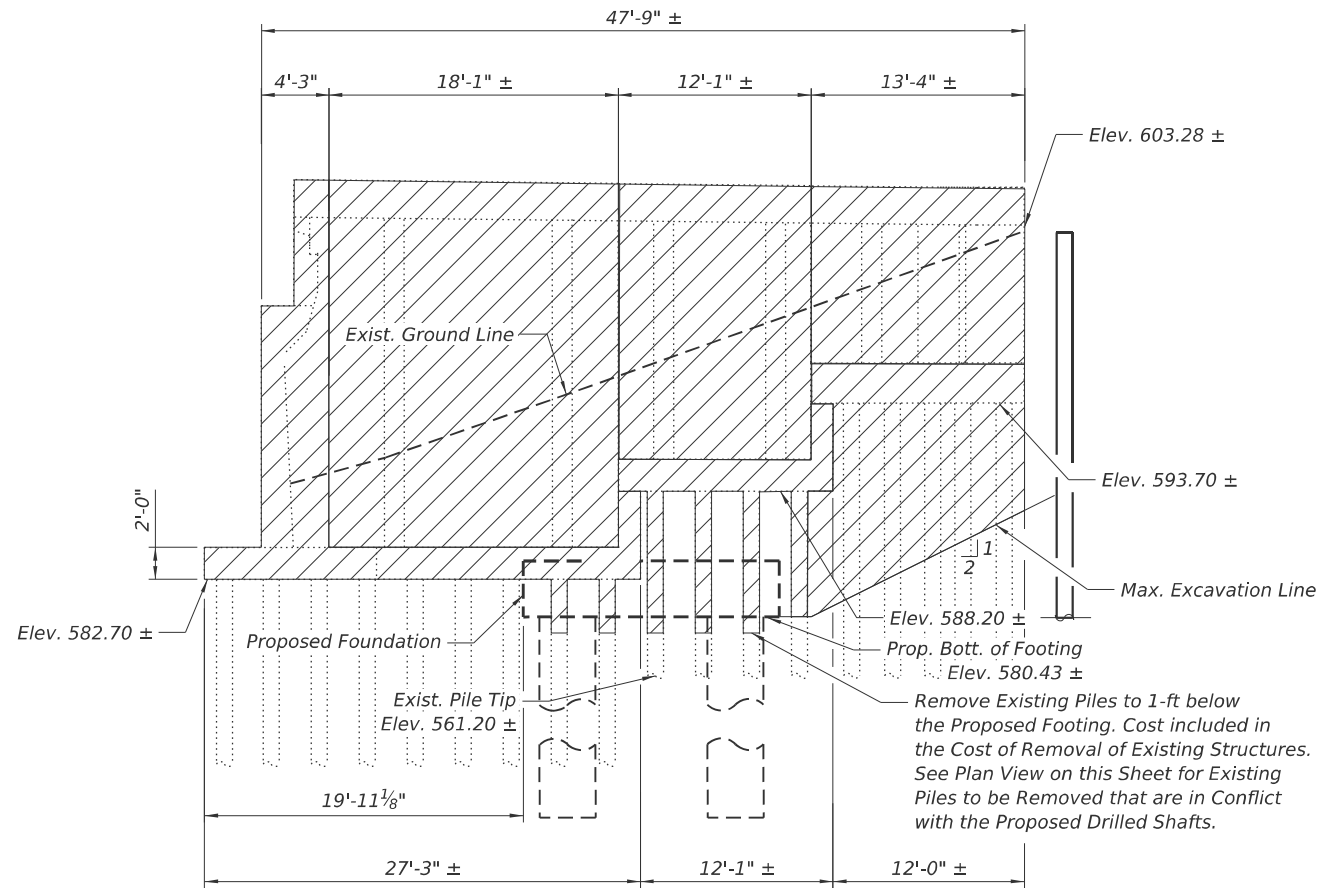
EAST WINGWALL REMOVAL DETAILS
STRUCTURE NO. 016-2093

SHEET S-9 OF 63 SHEETS

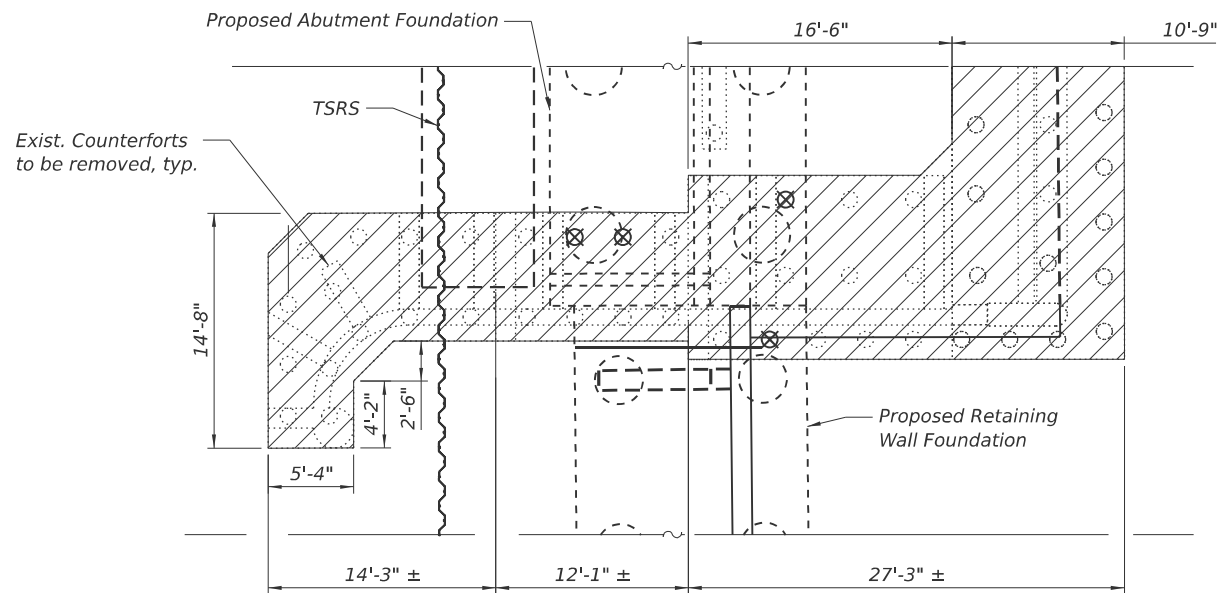
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	153
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



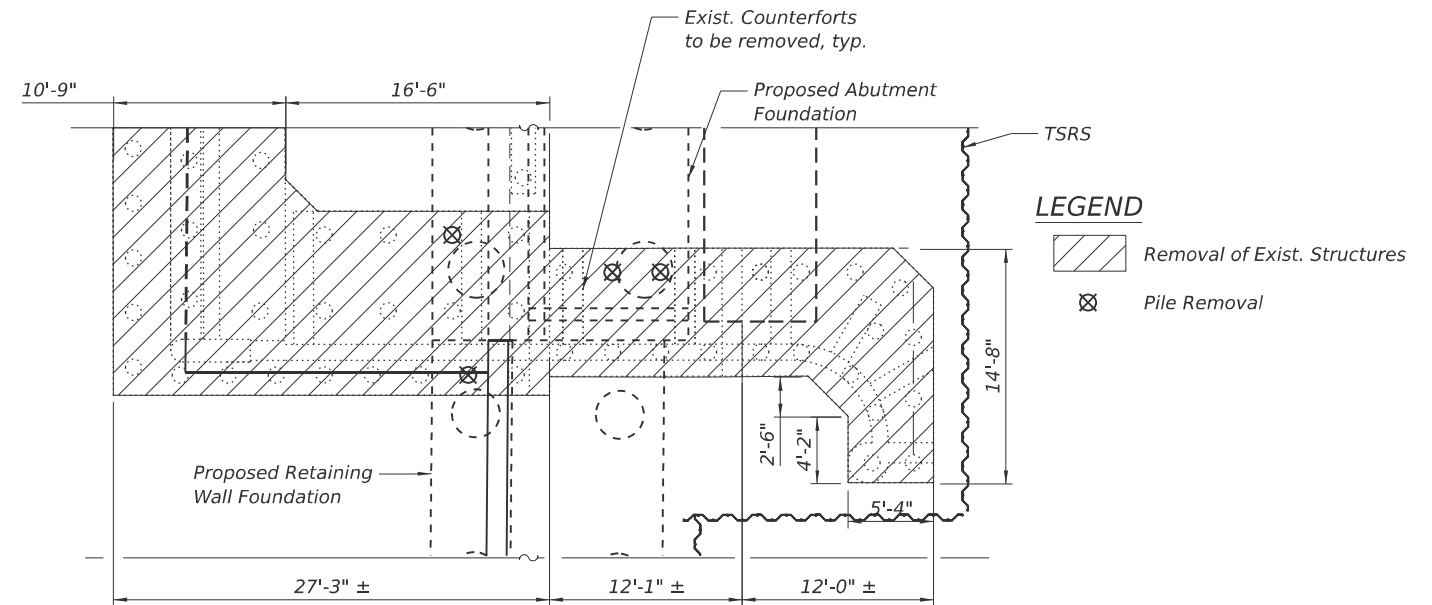
NW WINGWALL & PARTIAL ABUTMENT REMOVAL ELEVATION



SW WINGWALL & PARTIAL ABUTMENT REMOVAL ELEVATION



NW WINGWALL & ABUTMENT REMOVAL PLAN



SW WINGWALL & ABUTMENT REMOVAL PLAN

- LEGEND**
- Removal of Exist. Structures
 - X

 Pile Removal

MODEL: Removal Details 2 [Sheet]
FILE NAME: p:\civiltech\pw\benley.com\civiltech-pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-24\U41-SHT-01-0-WingwallRemDetails



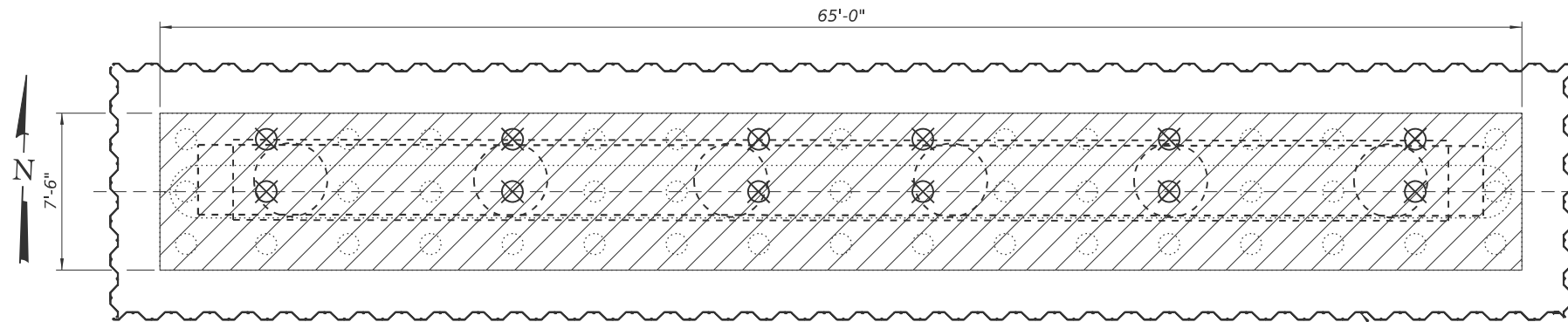
USER NAME = rsh	DESIGNED - JML GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JML GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

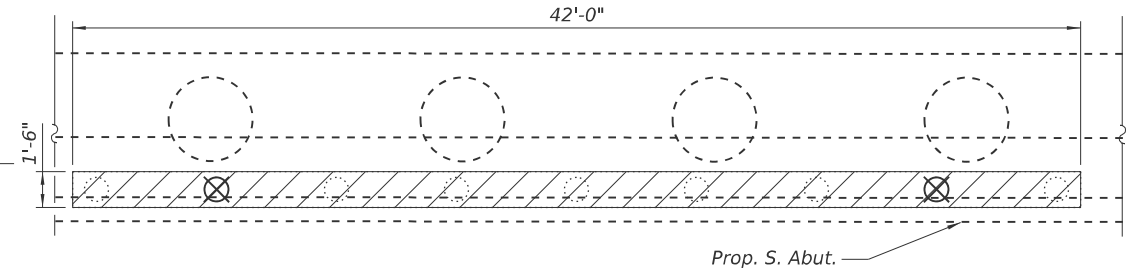
**WEST WINGWALL REMOVAL DETAILS
STRUCTURE NO. 016-2093**

SHEET S-10 OF 63 SHEETS

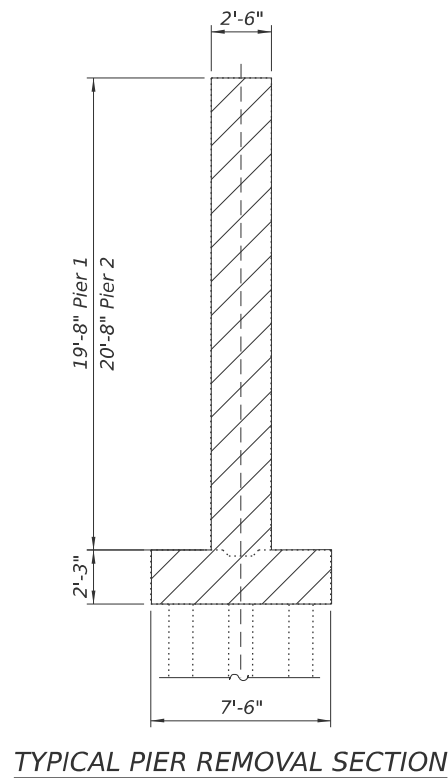
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	154
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



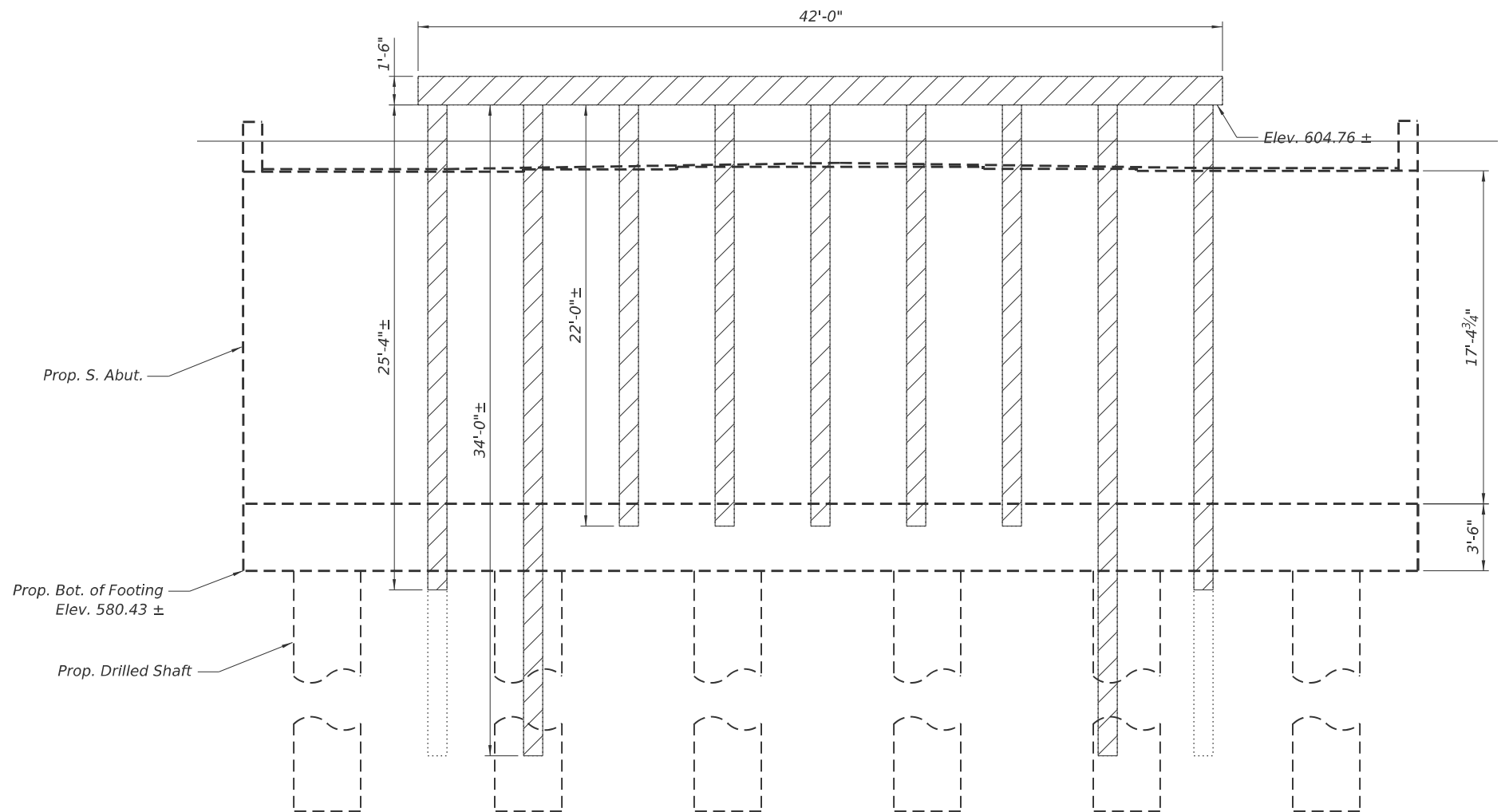
REMOVAL PIER PLAN
(Pier 1 shown, Pier 2 similar by 180° rotation)



REMOVAL APPROACH PIER PLAN
(S. Approach Pier shown, N. Approach Pier similar by 180° rotation)



TYPICAL PIER REMOVAL SECTION



APPROACH PIER REMOVAL ELEVATION
(S. Approach Pier Shown, N. Approach Pier Similar Opposite Hand)

- LEGEND**
- Removal of Exist. Structures
 - Pile Removal

MODEL: RemovalXSandDets.3 [Sheet]
FILE NAME: p:\civiltech\pw.bentley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-011-PierRemDetails



USER NAME = GM	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REMOVAL DETAILS
STRUCTURE NO. 016-2093

SHEET S-11 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	155
CONTRACT NO. 62U41				
		ILLINOIS	FED. AID PROJECT	

MODEL: Topo(SlabElev.I) [Sheet]
FILE NAME: pww\civiltech\pw.bentley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-Structures\17-Topo(SlabElev.I)

GIRDER 1

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	-27.50	605.17	605.17
CL Brg. S. Abut.	202+56.48	-27.50	605.21	605.21
A	202+66.48	-27.50	605.55	605.64
B	202+76.48	-27.50	605.84	605.99
C	202+86.48	-27.50	606.09	606.28
D	202+96.48	-27.50	606.28	606.48
E	203+06.48	-27.50	606.42	606.61
F	203+16.48	-27.50	606.52	606.67
G	203+26.48	-27.50	606.57	606.66
H	203+36.48	-27.50	606.60	606.63
CL Brg. Pier 1	203+43.82	-27.50	606.62	606.62
I	203+53.82	-27.50	606.65	606.62
J	203+63.82	-27.50	606.68	606.63
K	203+73.82	-27.50	606.71	606.66
L	203+83.82	-27.50	606.74	606.69
M	203+93.82	-27.50	606.77	606.73
N	204+03.82	-27.50	606.80	606.78
CL Brg. Pier 2	204+09.44	-27.50	606.82	606.82
O	204+19.44	-27.50	606.82	606.87
P	204+29.44	-27.50	606.78	606.89
Q	204+39.44	-27.50	606.69	606.85
R	204+49.44	-27.50	606.54	606.74
S	204+59.44	-27.50	606.35	606.56
T	204+69.44	-27.50	606.11	606.29
U	204+79.44	-27.50	605.81	605.95
V	204+89.44	-27.50	605.47	605.53
CL Brg. N. Abut.	204+96.77	-27.50	605.19	605.19
Bk. N. Abut.	204+97.94	-27.50	605.14	605.14

GIRDER 2

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	-19.50	605.17	605.17
CL Brg. S. Abut.	202+56.48	-19.50	605.21	605.21
A	202+66.48	-19.50	605.55	605.65
B	202+76.48	-19.50	605.84	606.01
C	202+86.48	-19.50	606.09	606.30
D	202+96.48	-19.50	606.28	606.51
E	203+06.48	-19.50	606.42	606.64
F	203+16.48	-19.50	606.52	606.69
G	203+26.48	-19.50	606.57	606.67
H	203+36.48	-19.50	606.60	606.64
CL Brg. Pier 1	203+43.82	-19.50	606.62	606.62
I	203+53.82	-19.50	606.65	606.62
J	203+63.82	-19.50	606.68	606.63
K	203+73.82	-19.50	606.71	606.65
L	203+83.82	-19.50	606.74	606.68
M	203+93.82	-19.50	606.77	606.72
N	204+03.82	-19.50	606.80	606.78
CL Brg. Pier 2	204+09.44	-19.50	606.82	606.82
O	204+19.44	-19.50	606.82	606.88
P	204+29.44	-19.50	606.78	606.90
Q	204+39.44	-19.50	606.69	606.87
R	204+49.44	-19.50	606.54	606.77
S	204+59.44	-19.50	606.35	606.58
T	204+69.44	-19.50	606.11	606.32
U	204+79.44	-19.50	605.81	605.97
V	204+89.44	-19.50	605.47	605.54
CL Brg. N. Abut.	204+96.77	-19.50	605.19	605.19
Bk. N. Abut.	204+97.94	-19.50	605.14	605.14

GIRDER 3

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	-11.50	605.29	605.29
CL Brg. S. Abut.	202+56.48	-11.50	605.33	605.33
A	202+66.48	-11.50	605.67	605.77
B	202+76.48	-11.50	605.96	606.13
C	202+86.48	-11.50	606.21	606.42
D	202+96.48	-11.50	606.40	606.63
E	203+06.48	-11.50	606.54	606.76
F	203+16.48	-11.50	606.64	606.81
G	203+26.48	-11.50	606.69	606.79
H	203+36.48	-11.50	606.72	606.76
CL Brg. Pier 1	203+43.82	-11.50	606.74	606.74
I	203+53.82	-11.50	606.77	606.74
J	203+63.82	-11.50	606.80	606.75
K	203+73.82	-11.50	606.83	606.77
L	203+83.82	-11.50	606.86	606.80
M	203+93.82	-11.50	606.89	606.84
N	204+03.82	-11.50	606.92	606.90
CL Brg. Pier 2	204+09.44	-11.50	606.94	606.94
O	204+19.44	-11.50	606.94	607.00
P	204+29.44	-11.50	606.90	607.02
Q	204+39.44	-11.50	606.81	606.99
R	204+49.44	-11.50	606.66	606.89
S	204+59.44	-11.50	606.47	606.70
T	204+69.44	-11.50	606.23	606.44
U	204+79.44	-11.50	605.93	606.09
V	204+89.44	-11.50	605.59	605.66
CL Brg. N. Abut.	204+96.77	-11.50	605.31	605.31
Bk. N. Abut.	204+97.94	-11.50	605.26	605.26



USER NAME = kdc	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (2 OF 4)
STRUCTURE NO. 016-2093

SHEET S-13 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	157
CONTRACT NO. 62U41				
ILLINOIS		FED. AID PROJECT		

MODEL: Top of Slab Elev. III [Sheet]
FILE NAME: pwr://civiltech+pwr.bentley.com/civiltech+pwr/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/17-Structures/D162U41-SJT-T-014-Topo/SlabElevIII



USER NAME = kdc	DESIGNED - JMI	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - JMI	REVISED - ####
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (3 OF 4)
STRUCTURE NO. 016-2093

SHEET S-14 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	158
		CONTRACT NO. 62U41		
		ILLINOIS	FED. AID PROJECT	

GIRDER 4

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	-3.50	605.41	605.41
CL Brg. S. Abut.	202+56.48	-3.50	605.45	605.45
A	202+66.48	-3.50	605.79	605.87
B	202+76.48	-3.50	606.08	606.22
C	202+86.48	-3.50	606.33	606.49
D	202+96.48	-3.50	606.52	606.70
E	203+06.48	-3.50	606.66	606.83
F	203+16.48	-3.50	606.76	606.85
G	203+26.48	-3.50	606.81	606.89
H	203+36.48	-3.50	606.84	606.87
CL Brg. Pier 1	203+43.82	-3.50	606.86	606.86
I	203+53.82	-3.50	606.89	606.86
J	203+63.82	-3.50	606.92	606.88
K	203+73.82	-3.50	606.95	606.91
L	203+83.82	-3.50	606.98	606.93
M	203+93.82	-3.50	607.01	606.97
N	204+03.82	-3.50	607.04	607.02
CL Brg. Pier 2	204+09.44	-3.50	607.06	607.06
O	204+19.44	-3.50	607.06	607.11
P	204+29.44	-3.50	607.02	607.10
Q	204+39.44	-3.50	606.93	607.05
R	204+49.44	-3.50	606.78	606.96
S	204+59.44	-3.50	606.59	606.77
T	204+69.44	-3.50	606.35	606.51
U	204+79.44	-3.50	606.05	606.17
V	204+89.44	-3.50	605.71	605.76
CL Brg. N. Abut.	204+96.77	-3.50	605.43	605.43
Bk. N. Abut.	204+97.94	-3.50	605.38	605.38

KEELER AVE. & PGL

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	0.00	605.46	605.46
CL Brg. S. Abut.	202+56.48	0.00	605.51	605.51
A	202+66.48	0.00	605.85	605.92
B	202+76.48	0.00	606.14	606.27
C	202+86.48	0.00	606.38	606.55
D	202+96.48	0.00	606.57	606.75
E	203+06.48	0.00	606.72	606.88
F	203+16.48	0.00	606.81	606.91
G	203+26.48	0.00	606.86	606.94
H	203+36.48	0.00	606.89	606.92
CL Brg. Pier 1	203+43.82	0.00	606.91	606.91
I	203+53.82	0.00	606.94	606.92
J	203+63.82	0.00	606.97	606.93
K	203+73.82	0.00	607.00	606.96
L	203+83.82	0.00	607.03	606.99
M	203+93.82	0.00	607.06	607.02
N	204+03.82	0.00	607.09	607.07
CL Brg. Pier 2	204+09.44	0.00	607.11	607.11
O	204+19.44	0.00	607.12	607.16
P	204+29.44	0.00	607.07	607.16
Q	204+39.44	0.00	606.98	607.10
R	204+49.44	0.00	606.84	607.01
S	204+59.44	0.00	606.64	606.82
T	204+69.44	0.00	606.40	606.56
U	204+79.44	0.00	606.11	606.23
V	204+89.44	0.00	605.76	605.82
CL Brg. N. Abut.	204+96.77	0.00	605.48	605.48
Bk. N. Abut.	204+97.94	0.00	605.43	605.43

GIRDER 5

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	4.50	605.40	605.40
CL Brg. S. Abut.	202+56.48	4.50	605.44	605.44
A	202+66.48	4.50	605.78	605.85
B	202+76.48	4.50	606.07	606.20
C	202+86.48	4.50	606.31	606.48
D	202+96.48	4.50	606.50	606.69
E	203+06.48	4.50	606.65	606.82
F	203+16.48	4.50	606.74	606.84
G	203+26.48	4.50	606.79	606.87
H	203+36.48	4.50	606.82	606.85
CL Brg. Pier 1	203+43.82	4.50	606.84	606.84
I	203+53.82	4.50	606.87	606.85
J	203+63.82	4.50	606.90	606.86
K	203+73.82	4.50	606.93	606.89
L	203+83.82	4.50	606.96	606.92
M	203+93.82	4.50	606.99	606.96
N	204+03.82	4.50	607.02	607.01
CL Brg. Pier 2	204+09.44	4.50	607.04	607.04
O	204+19.44	4.50	607.05	607.09
P	204+29.44	4.50	607.01	607.09
Q	204+39.44	4.50	606.91	607.03
R	204+49.44	4.50	606.77	606.94
S	204+59.44	4.50	606.58	606.76
T	204+69.44	4.50	606.33	606.50
U	204+79.44	4.50	606.04	606.16
V	204+89.44	4.50	605.69	605.75
CL Brg. N. Abut.	204+96.77	4.50	605.41	605.41
Bk. N. Abut.	204+97.94	4.50	605.36	605.36

MODEL: Top of Slab Elev. IV [Sheet]
FILE NAME: pwr://civiltech+pw.bentley.com/civiltech+pw/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SJT-015-Topo/SlabElevV



USER NAME = kdc	DESIGNED - JMI	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - JMI	REVISED - ####
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS (4 OF 4)
STRUCTURE NO. 016-2093

SHEET S-15 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	159
		CONTRACT NO. 62U41		
		ILLINOIS	FED. AID PROJECT	

GIRDER 6

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	12.50	605.28	605.28
CL Brg. S. Abut.	202+56.48	12.50	605.32	605.32
A	202+66.48	12.50	605.66	605.75
B	202+76.48	12.50	605.95	606.12
C	202+86.48	12.50	606.19	606.41
D	202+96.48	12.50	606.38	606.62
E	203+06.48	12.50	606.53	606.74
F	203+16.48	12.50	606.62	606.79
G	203+26.48	12.50	606.67	606.78
H	203+36.48	12.50	606.70	606.74
CL Brg. Pier 1	203+43.82	12.50	606.72	606.72
I	203+53.82	12.50	606.75	606.72
J	203+63.82	12.50	606.78	606.73
K	203+73.82	12.50	606.81	606.76
L	203+83.82	12.50	606.84	606.79
M	203+93.82	12.50	606.87	606.83
N	204+03.82	12.50	606.90	606.88
CL Brg. Pier 2	204+09.44	12.50	606.92	606.92
O	204+19.44	12.50	606.93	606.99
P	204+29.44	12.50	606.89	607.01
Q	204+39.44	12.50	606.79	606.98
R	204+49.44	12.50	606.65	606.87
S	204+59.44	12.50	606.46	606.69
T	204+69.44	12.50	606.21	606.42
U	204+79.44	12.50	605.92	606.07
V	204+89.44	12.50	605.57	605.64
CL Brg. N. Abut.	204+96.77	12.50	605.29	605.29
Bk. N. Abut.	204+97.94	12.50	605.24	605.24

GIRDER 7

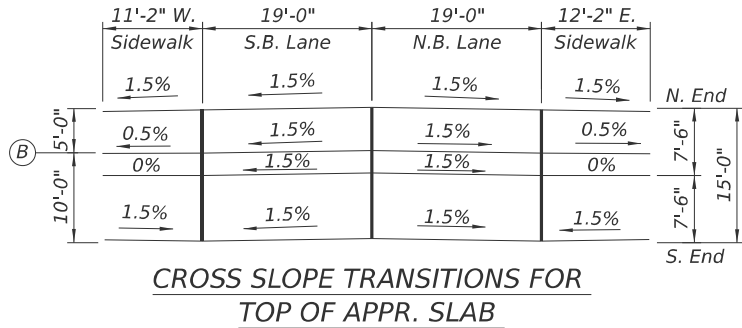
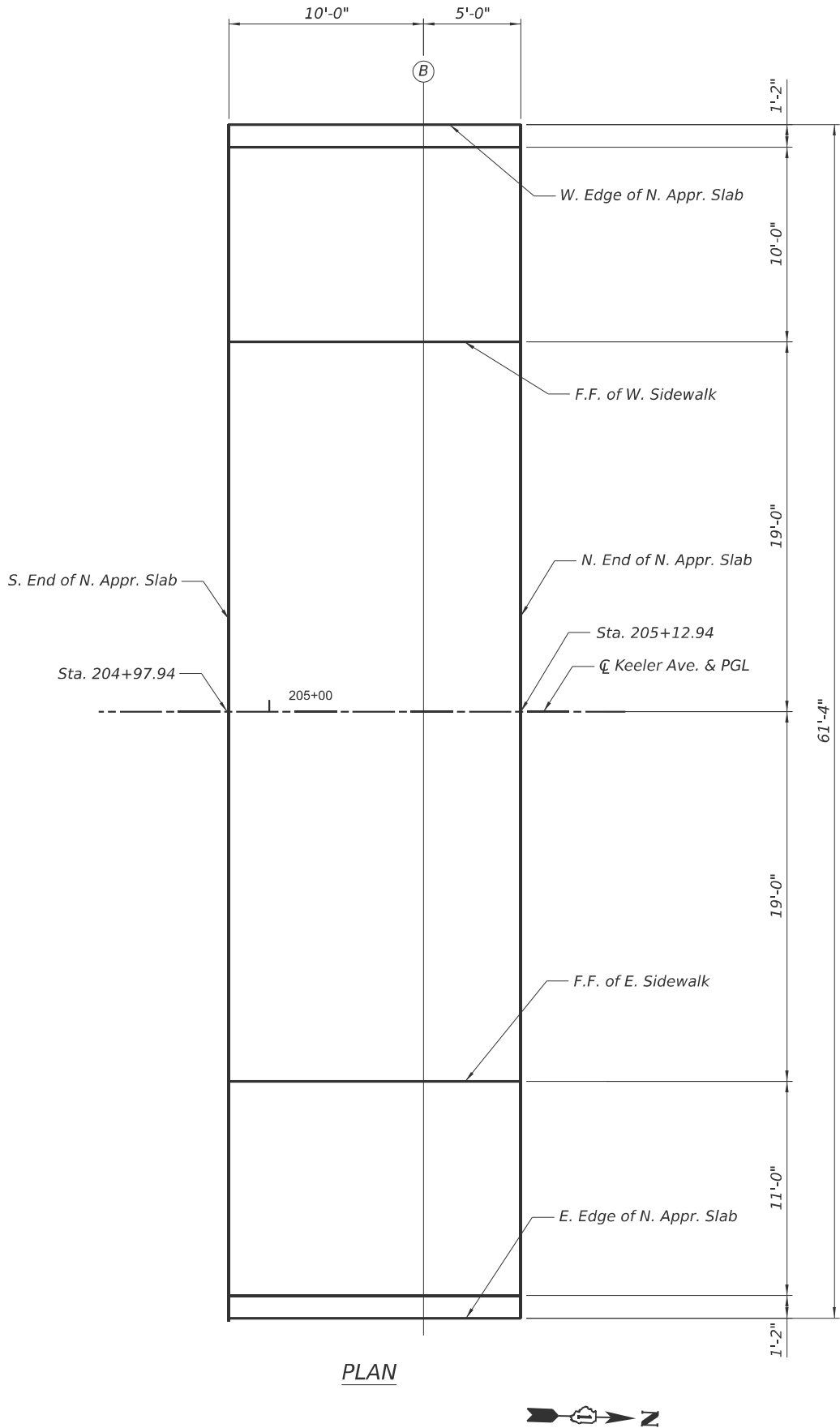
Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	20.50	605.16	605.16
CL Brg. S. Abut.	202+56.48	20.50	605.20	605.20
A	202+66.48	20.50	605.54	605.63
B	202+76.48	20.50	605.83	606.00
C	202+86.48	20.50	606.07	606.29
D	202+96.48	20.50	606.26	606.50
E	203+06.48	20.50	606.41	606.62
F	203+16.48	20.50	606.50	606.67
G	203+26.48	20.50	606.55	606.66
H	203+36.48	20.50	606.58	606.62
CL Brg. Pier 1	203+43.82	20.50	606.60	606.60
I	203+53.82	20.50	606.63	606.60
J	203+63.82	20.50	606.66	606.61
K	203+73.82	20.50	606.69	606.64
L	203+83.82	20.50	606.72	606.67
M	203+93.82	20.50	606.75	606.71
N	204+03.82	20.50	606.78	606.76
CL Brg. Pier 2	204+09.44	20.50	606.80	606.80
O	204+19.44	20.50	606.81	606.87
P	204+29.44	20.50	606.77	606.89
Q	204+39.44	20.50	606.67	606.86
R	204+49.44	20.50	606.53	606.75
S	204+59.44	20.50	606.34	606.57
T	204+69.44	20.50	606.09	606.30
U	204+79.44	20.50	605.80	605.95
V	204+89.44	20.50	605.45	605.52
CL Brg. N. Abut.	204+96.77	20.50	605.17	605.17
Bk. N. Abut.	204+97.94	20.50	605.12	605.12

GIRDER 8

Location	Station	Offset (ft.)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. S. Abut.	202+55.31	28.50	605.16	605.16
CL Brg. S. Abut.	202+56.48	28.50	605.20	605.20
A	202+66.48	28.50	605.54	605.62
B	202+76.48	28.50	605.83	605.98
C	202+86.48	28.50	606.07	606.26
D	202+96.48	28.50	606.26	606.47
E	203+06.48	28.50	606.41	606.60
F	203+16.48	28.50	606.50	606.65
G	203+26.48	28.50	606.55	606.65
H	203+36.48	28.50	606.58	606.62
CL Brg. Pier 1	203+43.82	28.50	606.60	606.60
I	203+53.82	28.50	606.63	606.60
J	203+63.82	28.50	606.66	606.62
K	203+73.82	28.50	606.69	606.64
L	203+83.82	28.50	606.72	606.67
M	203+93.82	28.50	606.75	606.71
N	204+03.82	28.50	606.78	606.77
CL Brg. Pier 2	204+09.44	28.50	606.80	606.80
O	204+19.44	28.50	606.81	606.86
P	204+29.44	28.50	606.77	606.87
Q	204+39.44	28.50	606.67	606.84
R	204+49.44	28.50	606.53	606.73
S	204+59.44	28.50	606.34	606.54
T	204+69.44	28.50	606.09	606.28
U	204+79.44	28.50	605.80	605.93
V	204+89.44	28.50	605.45	605.52
CL Brg. N. Abut.	204+96.77	28.50	605.17	605.17
Bk. N. Abut.	204+97.94	28.50	605.12	605.12



MODEL: N. Appr. Slab Elevations[Sheet]
FILE NAME: p:\civiltech\pw.bentley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-017-N Approach Slab Elevations.dgn



W. EDGE OF N. APPR. SLAB

Location	Station	Offset	PGL	Theoretical Grade Elevation
S. End N. Appr. Slab	204+97.94	-30.17	605.43	604.90
B	205+07.94	-30.17	604.99	604.24
N. End N. Appr. Slab	205+12.94	-30.17	604.76	603.89

F.F. OF W. SIDEWALK

Location	Station	Offset	PGL	Theoretical Grade Elevation
S. End N. Appr. Slab	204+97.94	-19.00	605.43	604.73
B	205+07.94	-19.00	604.99	604.29
N. End N. Appr. Slab	205+12.94	-19.00	604.76	604.06

CL KEELER AVE. & PGL

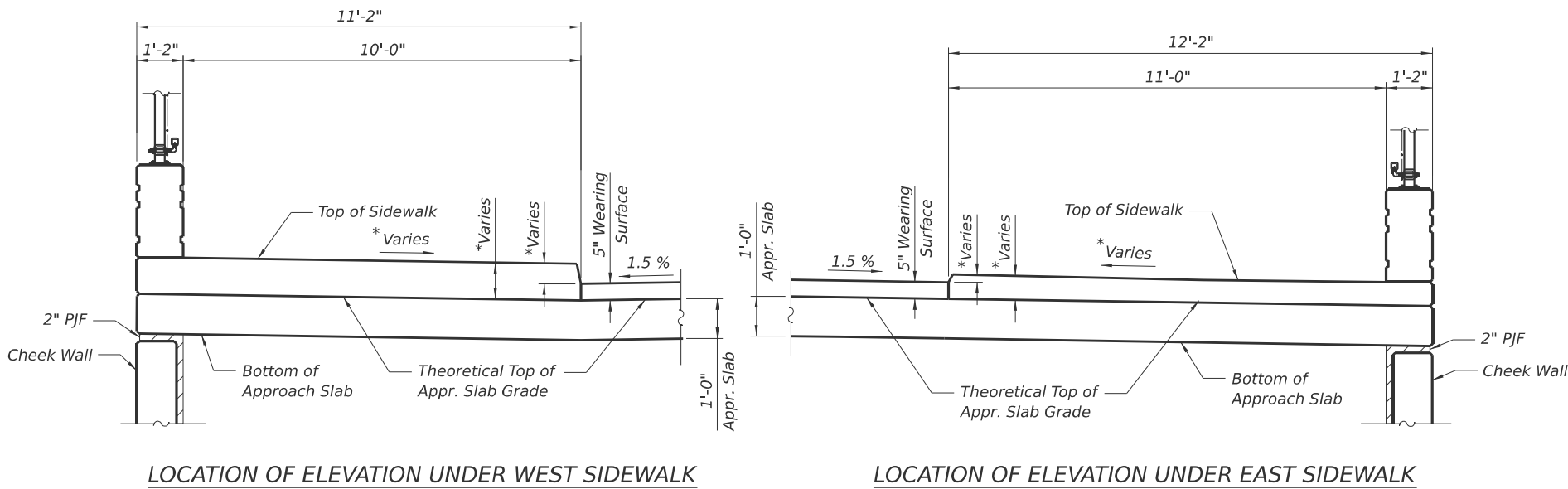
Location	Station	Offset	PGL	Theoretical Grade Elevation
S. End N. Appr. Slab	204+97.94	0.00	605.43	605.01
B	205+07.94	0.00	604.99	604.58
N. End N. Appr. Slab	205+12.94	0.00	604.76	604.34

F.F. OF E. SIDEWALK

Location	Station	Offset	PGL	Theoretical Grade Elevation
S. End N. Appr. Slab	204+97.94	19.00	605.43	604.73
B	205+07.94	19.00	604.99	604.29
N. End N. Appr. Slab	205+12.94	19.00	604.76	604.06

E. EDGE OF N. APPR. SLAB

Location	Station	Offset	PGL	Theoretical Grade Elevation
S. End N. Appr. Slab	204+97.94	31.17	605.43	604.91
B	205+07.94	31.17	604.99	604.23
N. End N. Appr. Slab	205+12.94	31.17	604.76	603.88



*See Approach Slab Sheets



USER NAME = kdc	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-2093

SHEET S-17 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	161
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

#5 bar = 3'-10"
#6 bar = 5'-3"

1. Bars indicated 55 x 11 - #5 etc. indicates 55 lines of bars with 11 lengths per line
2. For parapet elevations and reinforcement, see Sheet S-19
3. For abutment diaphragm elevations and details, see Sheet S-20
4. For deck details, bar diagrams, minimum laps, and bill of material, see Sheet S-21



NEAR MIDSPAN

USER NAME = GM	DESIGNED - GM	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - GM	REVISED - ####
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED - ####

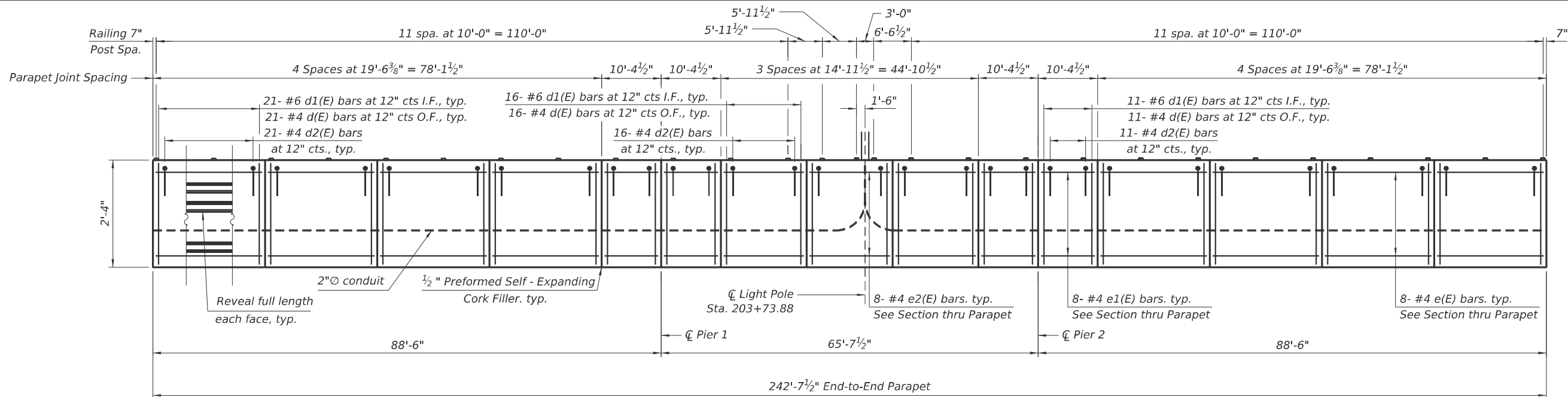
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**DECK PLAN AND CROSS SECTION
STRUCTURE NO. 016-2093**

SHEET S-18 OF 63 SHEETS

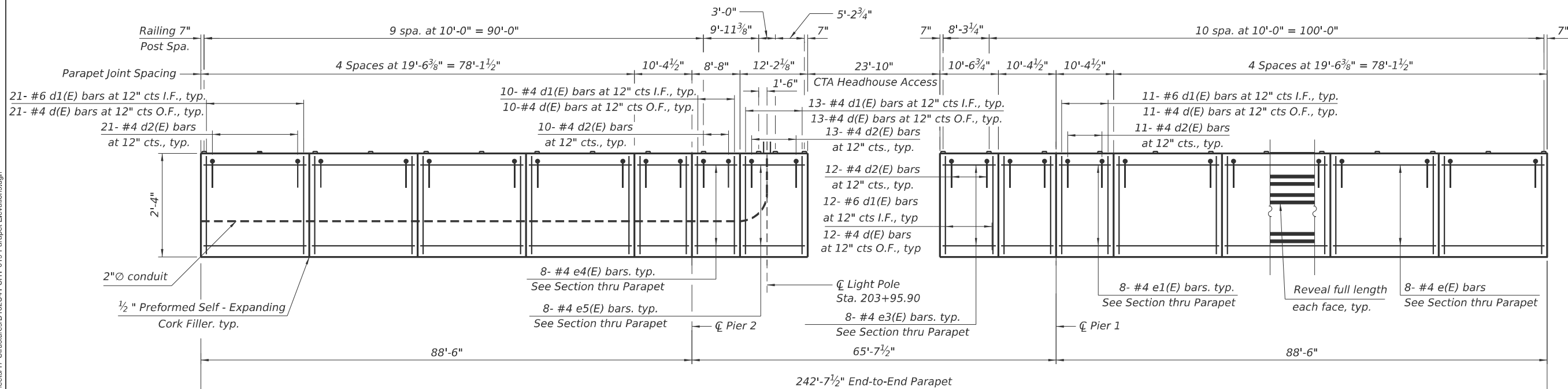
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	162
CONTRACT NO. 62U41				
	ILLINOIS	FED. AID PROJECT		

MODEL: Parapets Elevation-(Sheet)
FILE NAME: p:\civiltch\pw\benfley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-Parapet Elevations.dgn



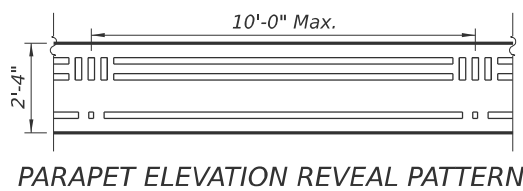
INSIDE ELEVATION OF WEST PARAPET

(Looking West)



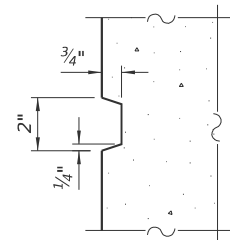
INSIDE ELEVATION OF EAST PARAPET

(Looking East)

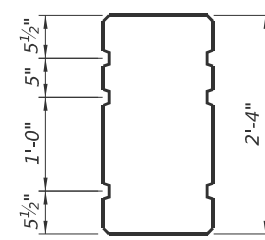


NOTE:

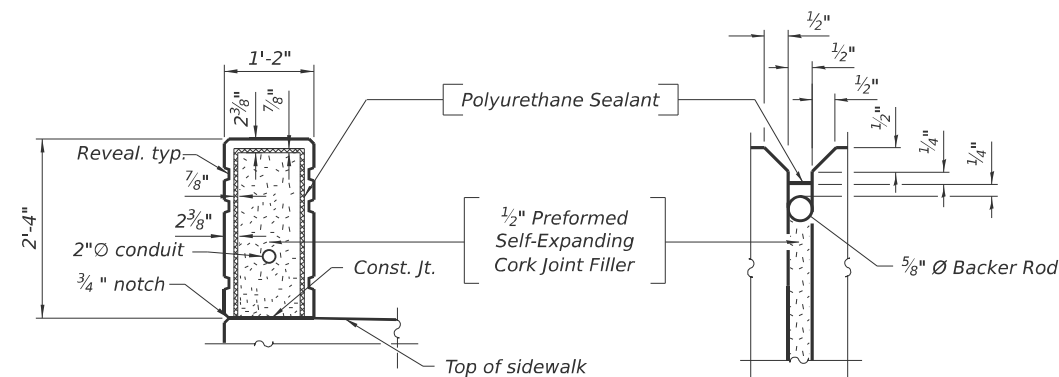
1. For bar diagrams, section through parapet, reveal detail, and bill of material, see sheet S-21.
2. The polyurethane sealant shall be according to Article 1050.04 of the Standard Specifications and the color shall be gray.
3. All edges shall be chamfered 3/4".
4. For bridge railing, curved layout and details, see sheet S-27 thru S-28.
5. For bridge mounted sign details, see civil sheets.
6. The cost of reveal is included in cost of Concrete Superstructure.



REVEAL DETAIL



PARAPET CROSS SECTION



PARAPET JOINT DETAILS



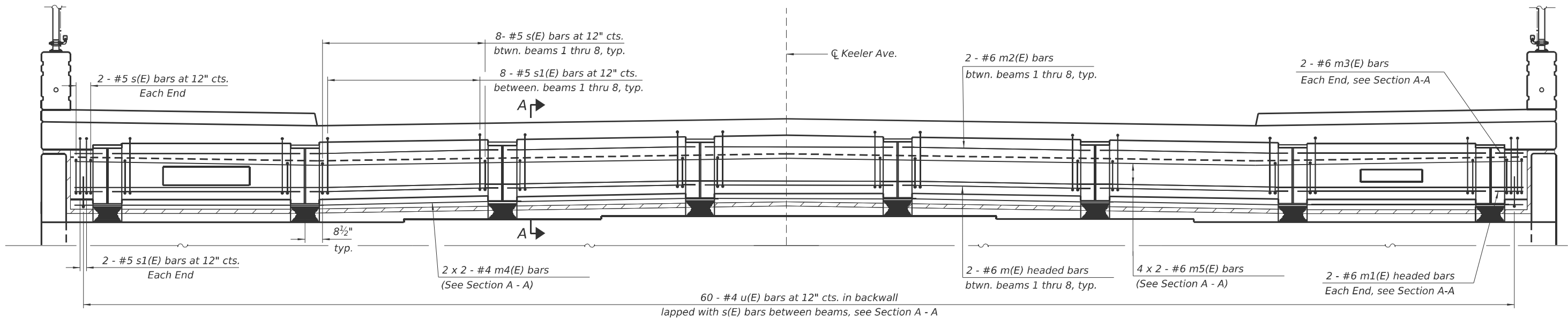
USER NAME = kdc	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PARAPETS ELEVATION
STRUCTURE NO. 016-2093

SHEET S-19 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	163
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



MINIMUM BAR LAP

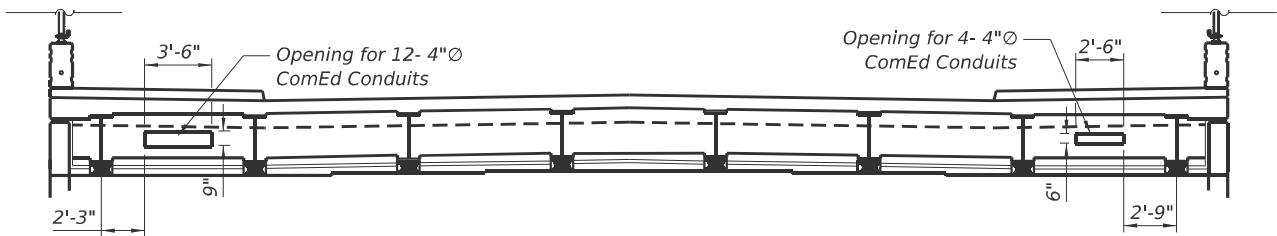
#4 bar = 2'-2"
#6 bar = 3'-6"

DIAPHRAGM AT NORTH ABUTMENT

(Diaphragm at South Abutment Similar Opposite Hand)

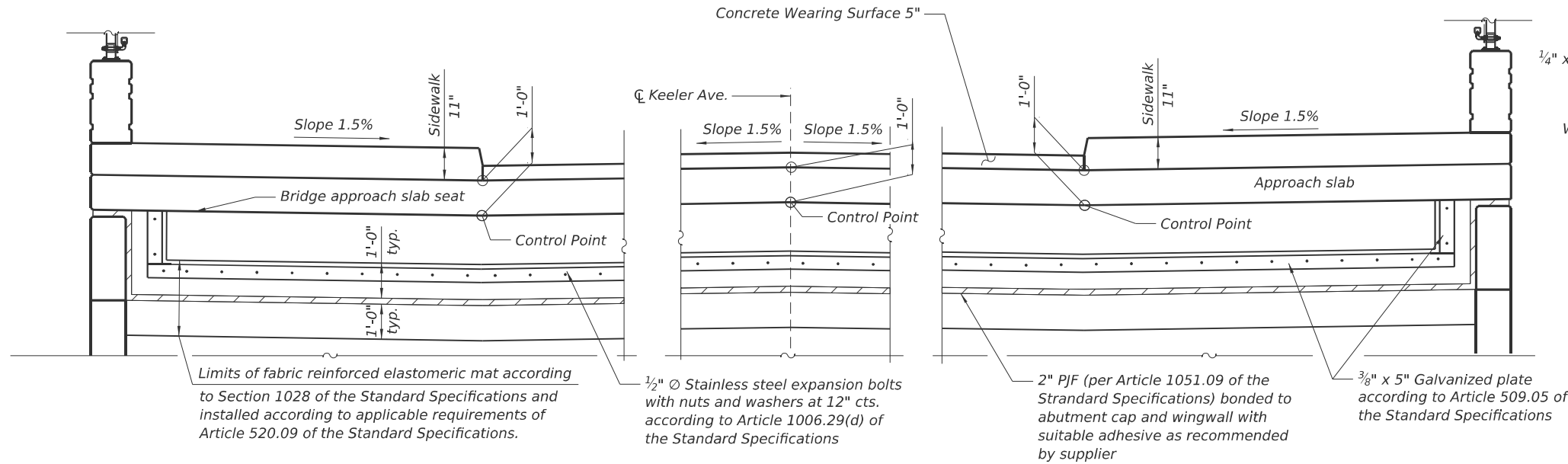
NOTES:

1. Cost of fabric reinforced elastomeric mat, galvanized plate, stainless steel expansion bolts with nuts and washers and installation are included in the cost of Concrete Superstructure.
2. For superstructure details, bar diagrams and Bill of Materials, see Sheet S-21.
3. Reinforcement bars in diaphragms are billed with the superstructure on Sheet S-21.
4. Concrete in diaphragm is included with Concrete Superstructure on Sheet S-21.
5. For bearing details, see Sheet S-32 to S-33.
6. The approach slab seat shall have a constant slope determined from the control points shown.

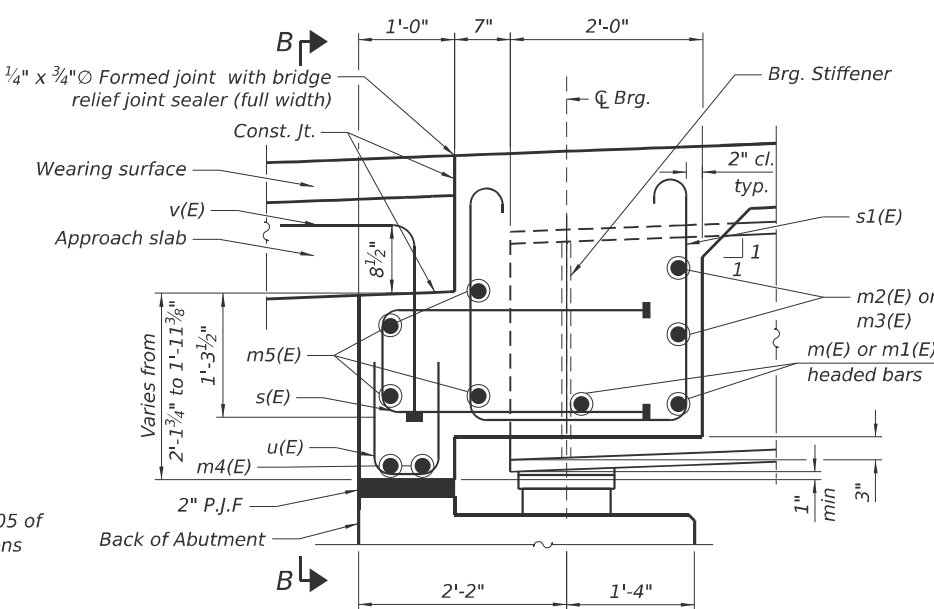


CONDUIT OPENING DETAILS AT NORTH ABUTMENT

Openings at South Abutment Similar Opposite Hand)



SECTION B-B



SECTION A-A

MODEL: Abut Diaphragm Elev. and Det. - (Sheet)
FILE NAME: p:\civiltech\pw\benley.com\civiltech\pw\Structures\17-Structures\162U41-SHT-020-Abut Diaphragm Elev. and Det



USER NAME = GM	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

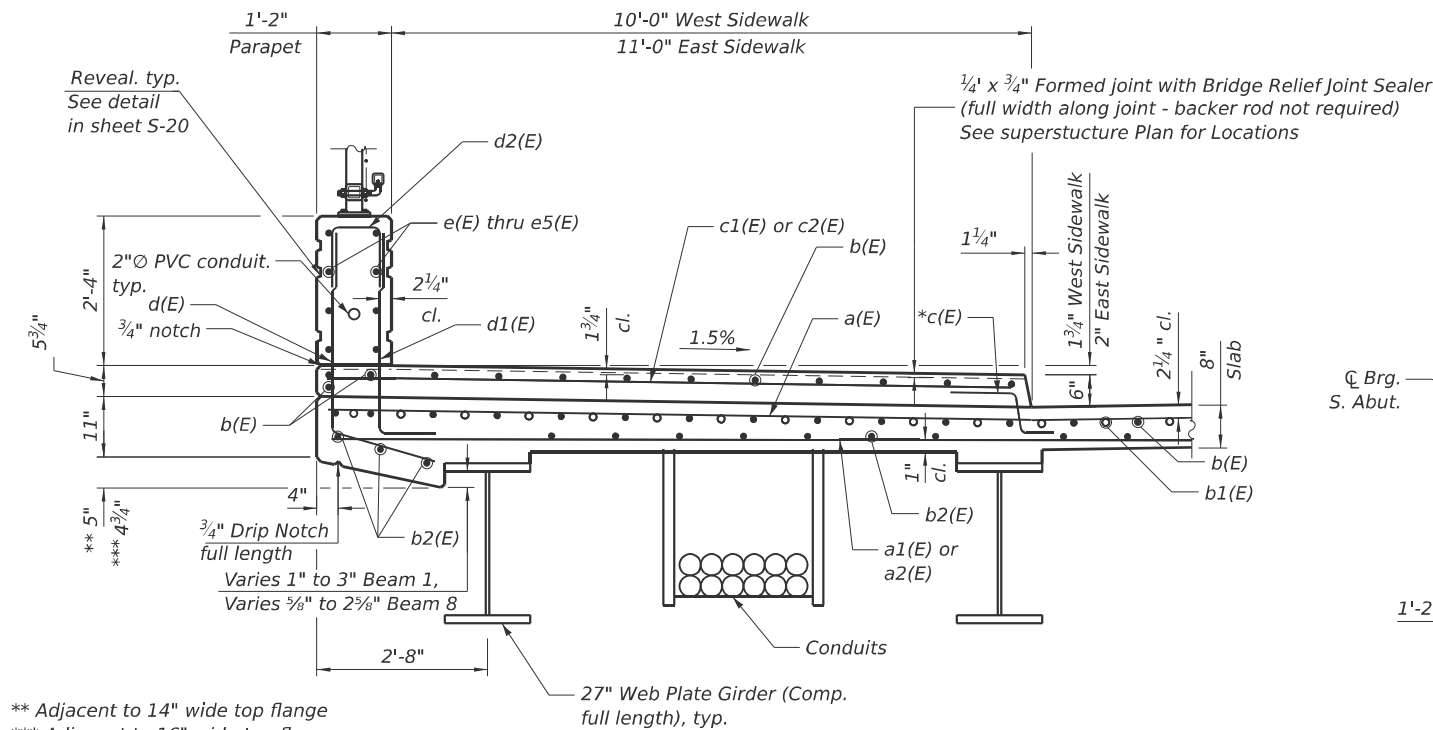
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DIAPHRAGM ELEVATION AND DETAILS
STRUCTURE NO. 016-2093**

SHEET S-20 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	164
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Deck Details [Sheet]
FILE NAME: p:\civiltch\pw\beniley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-Structures\17-SHT-021-Deck Details.dgn



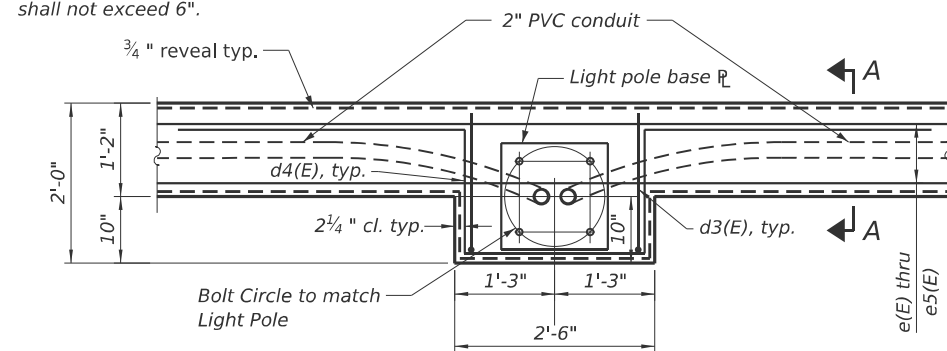
** Adjacent to 14" wide top flange
*** Adjacent to 16" wide top flange

* In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6".

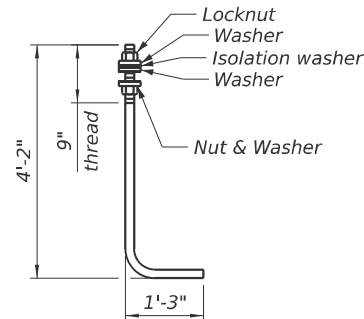
SECTION THRU WEST PARAPET

(Looking Up-Station)

(Section thru East Parapet Similar and Opposite Hand)



PLAN

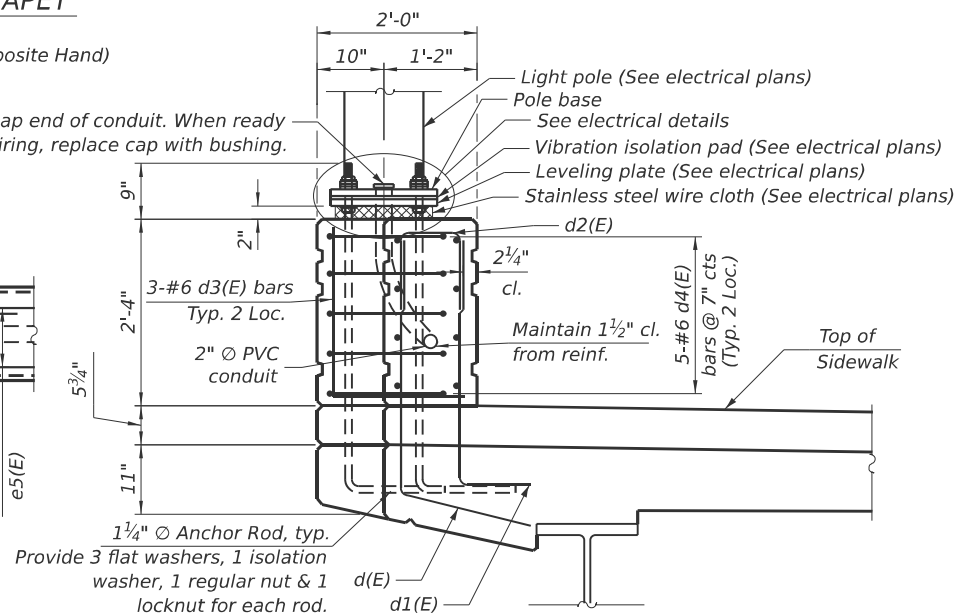


ANCHOR ROD

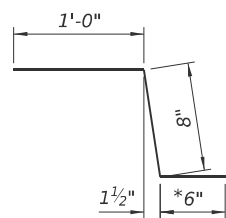
Cost of anchor rods is included with Concrete Superstructure (ASTM F 1554 Grade 105) Full length hot dipped galvanized

PARAPET DETAIL AT LIGHTPOLE

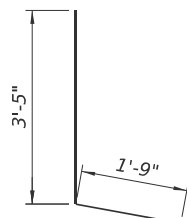
Thread and cap end of conduit. When ready for wiring, replace cap with bushing.



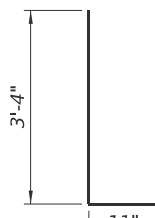
SECTION A - A



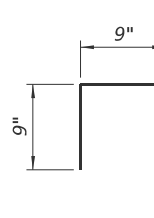
Bar c(E)



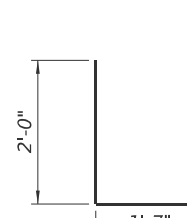
Bar d(E)



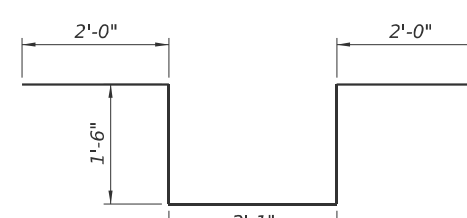
Bar d1(E)



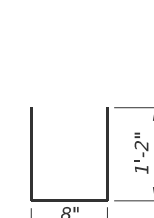
Bar d2(E)



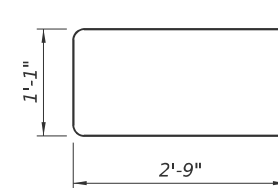
Bar d3(E)



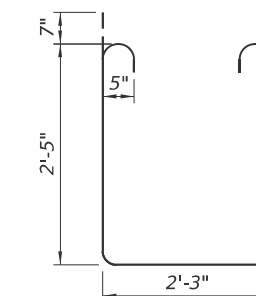
Bar d4(E)



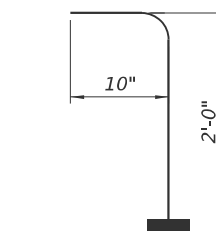
Bar u(E)



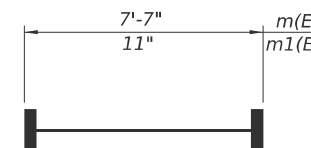
Bar s(E)



Bar s1(E)



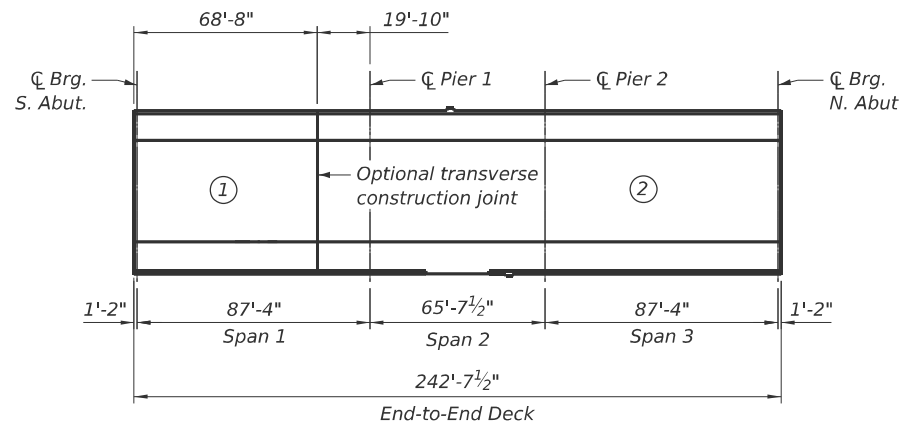
Bar v(E)
(Headed, 120-#5 Bar terminators)



Bars m(E) or m1(E)

NOTES:

1. Bar Terminators paid for separately. See Total Bill of Material.
2. For light pole and combined traffic signal/light pole locations, bolt circles, and quantities of conduits attached to structure, see Electrical/Traffic Signal plans.
3. When the deck pour is stopped for the day at the transverse bonded construction joint in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
 - a) At least 72 hours shall have elapsed from the end of the previous pour.
 - b) The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.



OPTIONAL DECK POURING SEQUENCE

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1052	#5	32'-5"	—
a1(E)	317	#5	28'-5"	—
a2(E)	317	#5	36'-5"	—
b(E)	890	#5	27'-9"	—
b1(E)	248	#6	32'-6"	—
b2(E)	605	#5	25'-7"	—
c(E)	488	#5	2'-2"	└┐
c1(E)	244	#5	10'-9"	—
c2(E)	244	#5	11'-9"	—
d(E)	496	#4	5'-2"	└┐
d1(E)	496	#6	4'-3"	└┐
d2(E)	496	#4	2'-3"	└┐
d3(E)	6	#6	3'-7"	└┐
d4(E)	10	#6	9'-1"	└┐
e(E)	128	#4	19'-2"	—
e1(E)	56	#4	10'-1"	—
e2(E)	24	#4	14'-8"	—
e3(E)	8	#4	10'-3"	—
e4(E)	8	#4	8'-4"	—
e5(E)	8	#4	11'-10"	—
m(E)	28	#6	7'-7"	└┐
m1(E)	8	#6	1'-2"	└┐
m2(E)	28	#6	7'-7"	└┐
m3(E)	8	#6	1'-2"	└┐
m4(E)	8	#4	30'-5"	└┐
m5(E)	16	#6	31'-1"	└┐
s(E)	120	#5	6'-7"	└┐
s1(E)	120	#5	8'-3"	└┐
u(E)	120	#4	3'-0"	└┐
v(E)	120	#5	2'-10"	└┐
Concrete Superstructure			Cu Yd	653.7
Bridge Deck Grooving			Sq Yd	1,091
Protective Coat			Sq Yd	2,436
Reinforcement Bars, Epoxy Coated			Pound	130,080

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK DETAILS, BAR DIAGRAMS, AND BILL OF MATERIAL
STRUCTURE NO. 016-2093

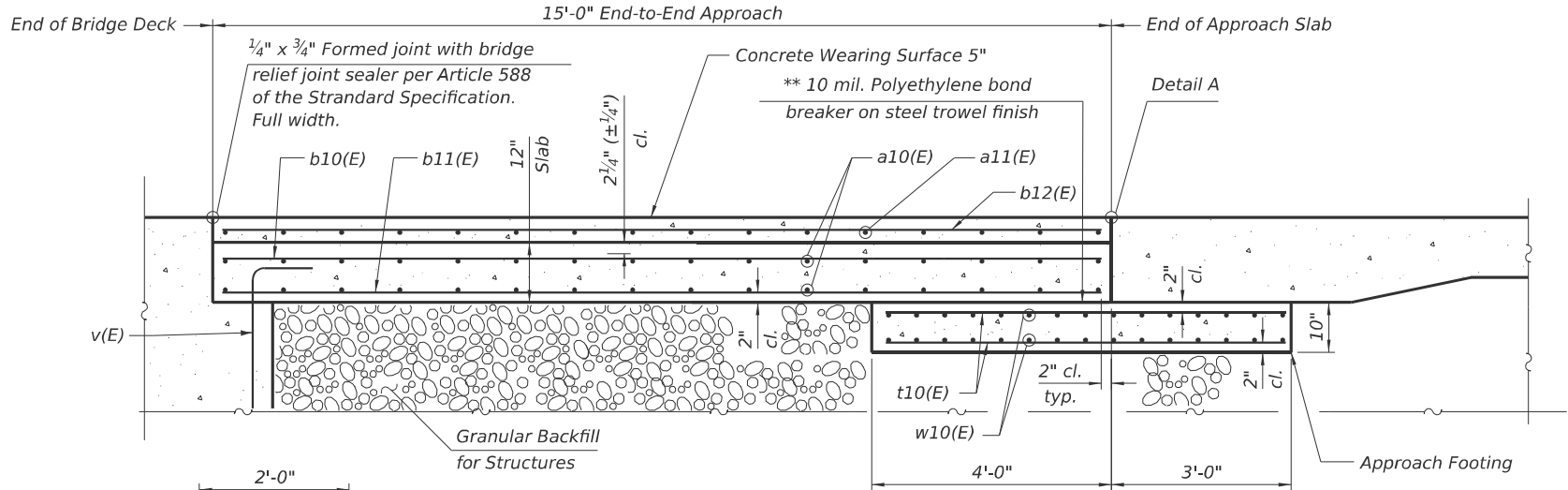
SHEET S-21 OF 63 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	165
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

CIVILTECH

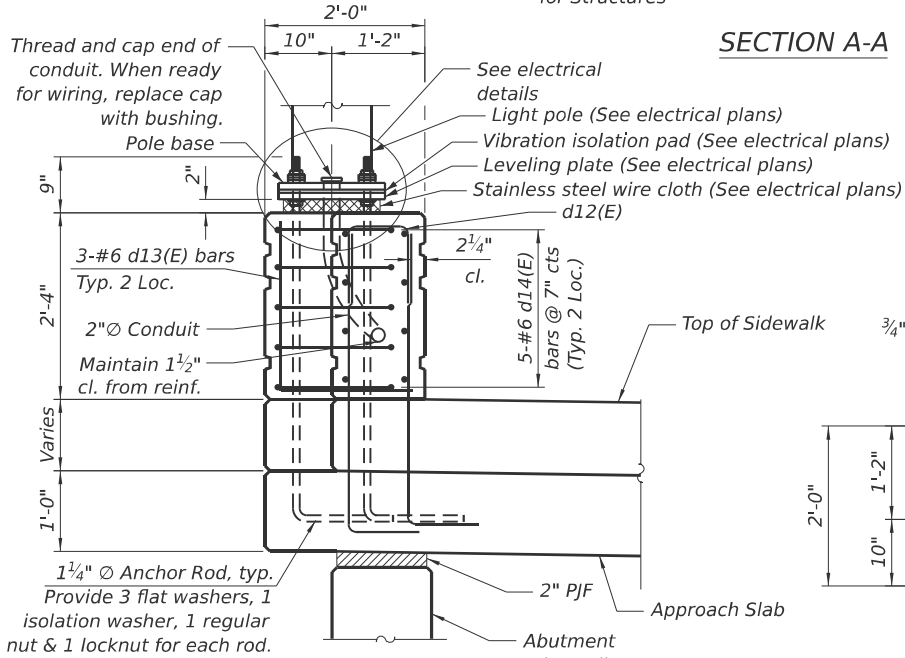
USER NAME = GM	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

MODEL: S-App. Slab Details [Sheet]
FILE NAME: pw://civiltech-pw.bentley.com/projects/3855/CADD/CADD Sheets/17-Structures/D162U41-SHT-024-S Approach Slab Details



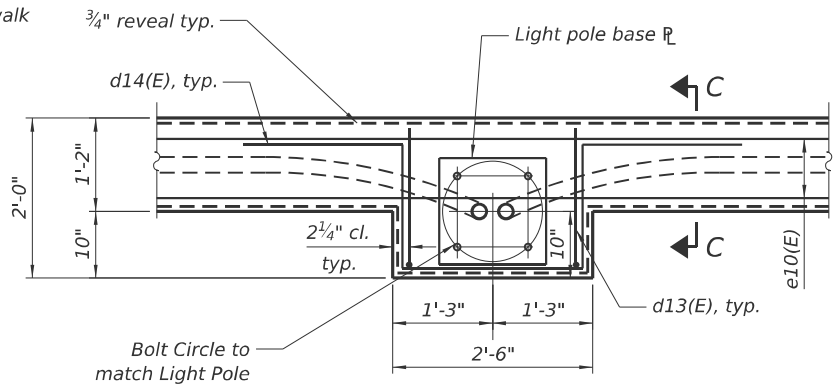
SECTION A-A

Notes:
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet S-37
For Reveal details, see sheet S-19

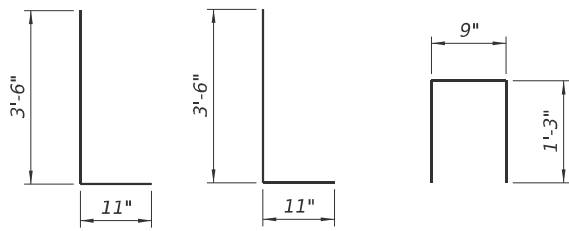


SECTION C-C

PARAPET DETAIL AT LIGHTPOLE



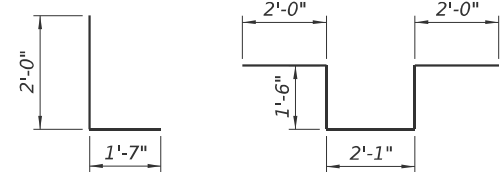
PLAN



Bar d10(E)

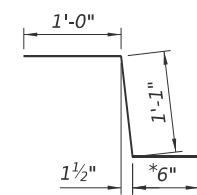
Bar d11(E)

Bar d12(E)

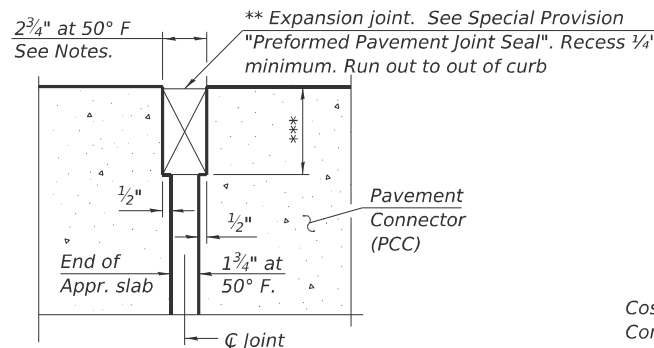


Bar d13(E)

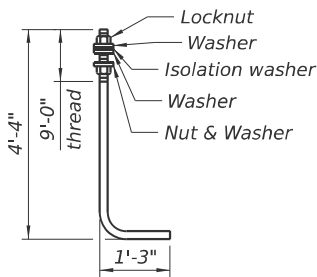
Bar d14(E)



Bar c10(E)



DETAIL A



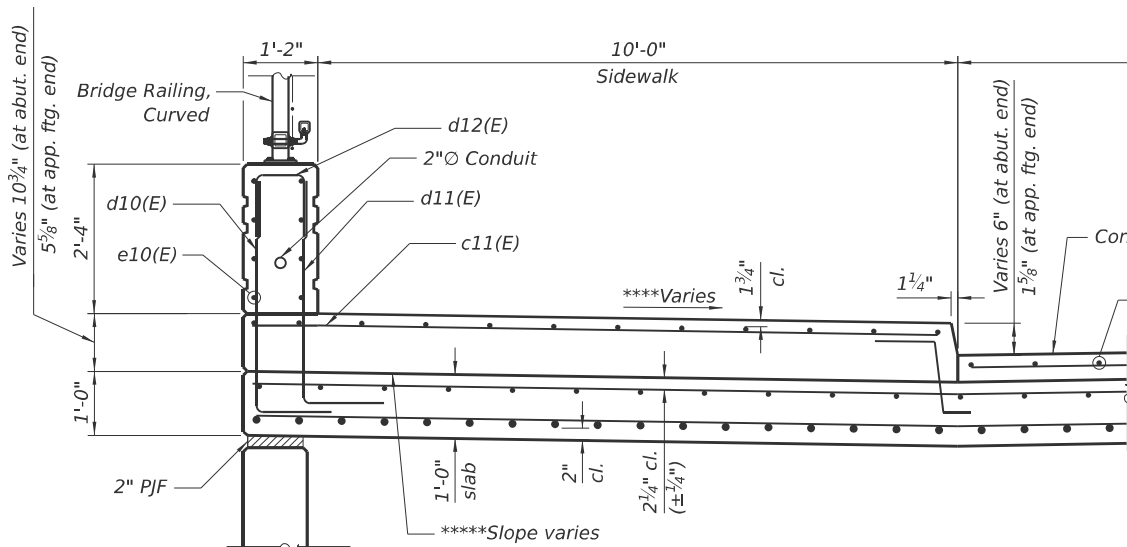
ANCHOR ROD

Cost of anchor rods is included with Concrete Superstructure (ASTM f 1554 Grade 105) Full length hot dipped galvanized

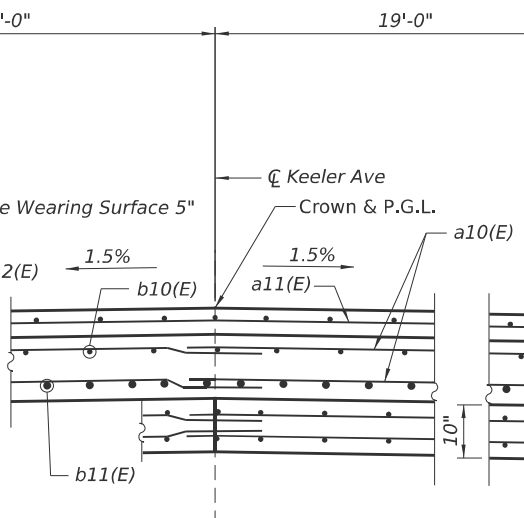
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	64	#5	31'-7"	
a11(E)	16	#4	37'-8"	
b10(E)	87	#5	14'-8"	
b11(E)	93	#7	14'-8"	
b12(E)	39	#4	14'-8"	
c10(E)	32	#5	2'-7"	
c11(E)	16	#5	10'-10"	
c12(E)	16	#5	11'-10"	
d10(E)	32	#4	4'-5"	
d11(E)	32	#6	4'-5"	
d12(E)	32	#4	3'-3"	
d13(E)	6	#6	3'-7"	
d14(E)	10	#6	9'-1"	
e10(E)	16	#4	14'-8"	
t10(E)	120	#4	6'-8"	
w10(E)	60	#5	30'-6"	
Concrete Structures			Cu Yd	12.8
Concrete Superstructure			Cu Yd	15.3
Bridge Deck Grooving			Sq Yd	60
Protective Coat			Sq Yd	112
Concrete Superstructure (Approach Slab)			Cu Yd	34.1
Reinforcement Bars, Epoxy Coated			Pound	10,630
Concrete Wearing Surface, 5"			Sq Yd	64

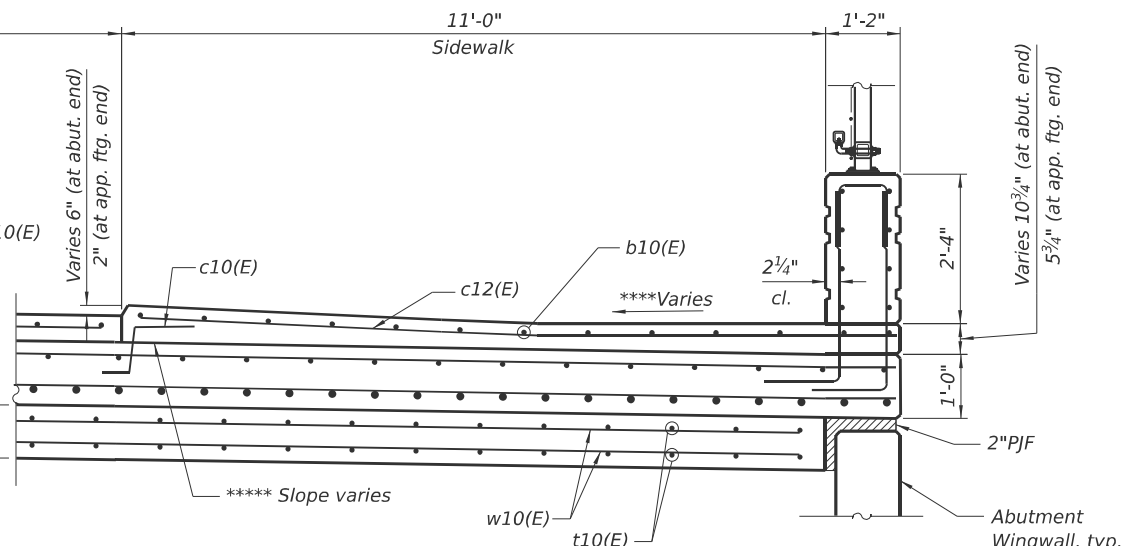
* In lieu of bottom leg, c(E) bars may be drilled and set according to Article 509.06 of the Standard Specifications. Drilled holes shall be roughened or scored per manufacturer's recommendations. Maximum depth of drilled hole shall not exceed 6".



NEAR ABUTMENT



SECTION B-B
(Looking Up-Station)



AT APPROACH FOOTING



USER NAME = GM	DESIGNED - GM	REVISED -
PLOT SCALE =	CHECKED - GJH	REVISED -
PLOT DATE = 8/13/2025	DRAWN - GM	REVISED -
	CHECKED - GJH	REVISED -

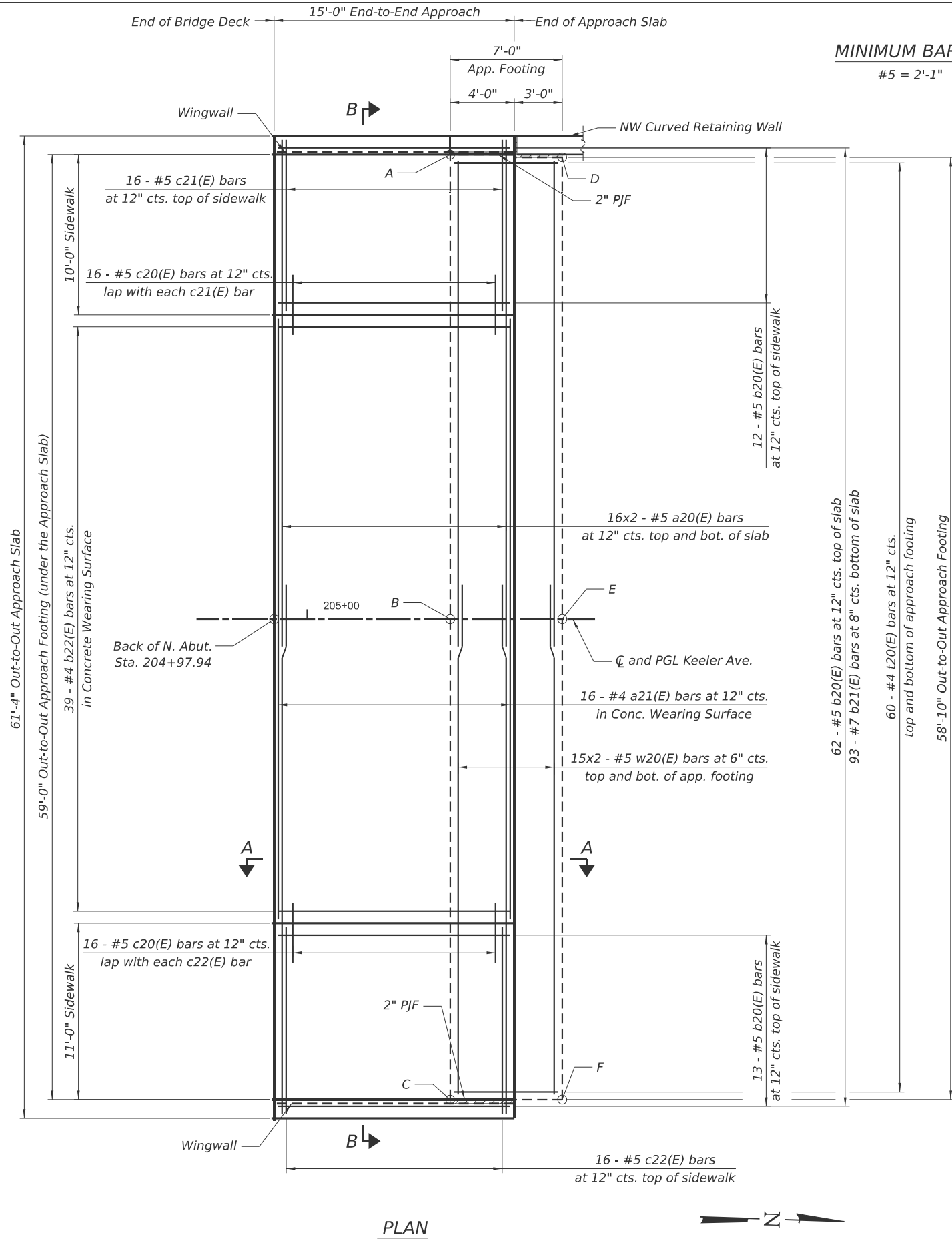
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH APPROACH SLAB (2 OF 2)
STRUCTURE NO. 016-2093

SHEET S-24 OF 63 SHEETS

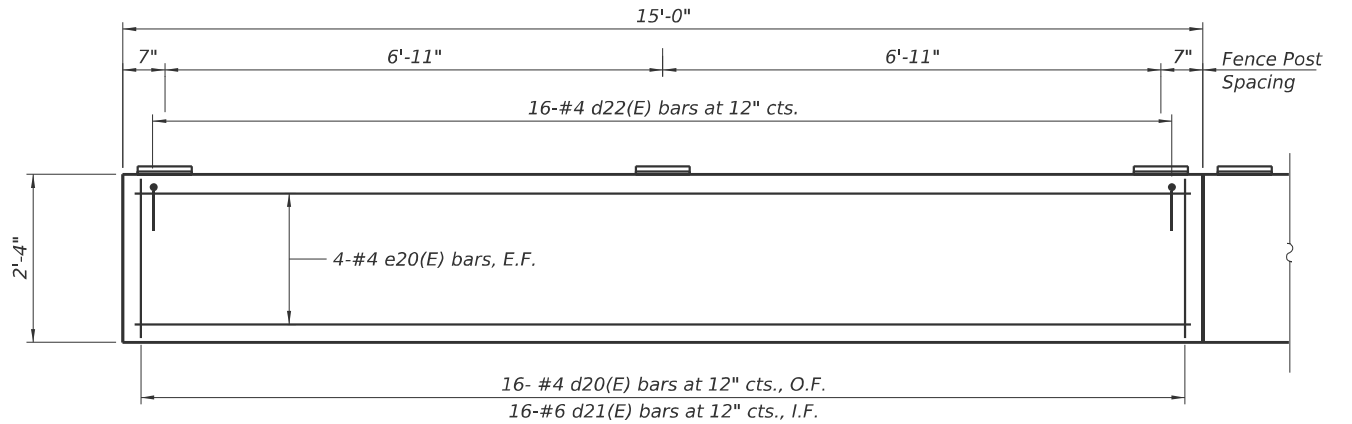
FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	168
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: N. Appr. Slab Plan (Sheet)
FILE NAME: p:\v\civiltech-pw\beniley.com\civiltech-pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-025- North Approach Slab Plan



MINIMUM BAR LAP

#5 = 2'-1"



INSIDE ELEVATION OF PARAPET

(East Parapet shown. West Parapet similar - opposite hand)

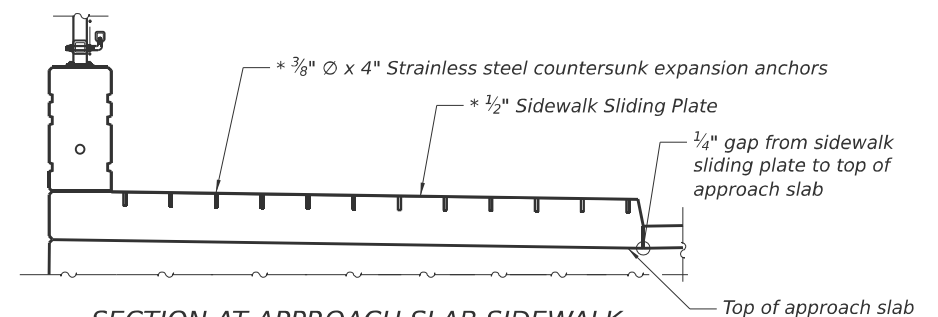
NOTE:

- For section A-A, section B-B, Notes, Bill of Material, see Sheet S-26.
- Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
- Approach footing shall be paid for as Concrete Structures.
- Sidewalk and parapet shall be paid for as Concrete Superstructure.
- The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

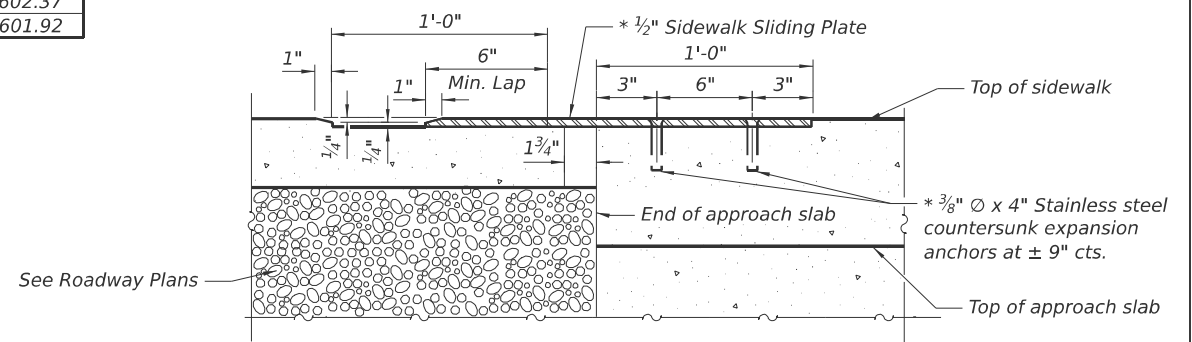
* Cost included with Concrete Superstructure (Approach Slab)

TOP AND BOTTOM ELEVATIONS FOR NORTH APPROACH FOOTING

Approach		
Point/ Location	Top	Bottom
A	603.17	602.34
B	603.53	602.70
C	603.17	602.33
D	602.77	601.94
E	603.21	602.37
F	602.76	601.92



SECTION AT APPROACH SLAB SIDEWALK



APPROACH SLAB SIDEWALK SLIDING PLATE DETAIL



USER NAME = GM	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH APPROACH SLAB (1 OF 2)
STRUCTURE NO. 016-2093

SHEET S-25 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	169
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

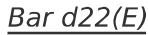
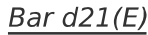
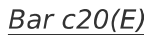
<i>Bar</i>	<i>No.</i>	<i>Size</i>	<i>Length</i>	<i>Shape</i>
a20(E)	64	#5	31'-7"	=====
a21(E)	16	#4	37'-8"	=====
b20(E)	87	#5	14'-8"	=====
b21(E)	93	#7	14'-8"	=====
b22(E)	39	#4	14'-8"	=====
c20(E)	32	#5	2'-7"	┐
c21(E)	16	#5	10'-10"	=====
c22(E)	16	#5	11'-10"	=====
d20(E)	32	#4	4'-5"	┐
d21(E)	32	#6	4'-5"	┐
d22(E)	32	#4	3'-3"	┐
e20(E)	16	#4	14'-8"	=====
t20(E)	120	#4	6'-8"	=====
w20(E)	60	#5	30'-6"	=====
Concrete Structures			Cu Yd	12.8
Concrete Superstructure			Cu Yd	15.0
Bridge Deck Grooving			Sq Yd	60
Protective Coat			Sq Yd	112
Concrete Superstructure (Approach Slab)			Cu Yd	34.1
Reinforcement Bars, Epoxy Coated			Pound	10,460
Concrete Wearing Surface, 5"			Sq Yd	64

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

Cost of excavation for approach footing included with Concrete Structures.

For Granular Backfill for Structures and drainage treatment details, see sheet S-37

For Reveal details, see sheet S-19



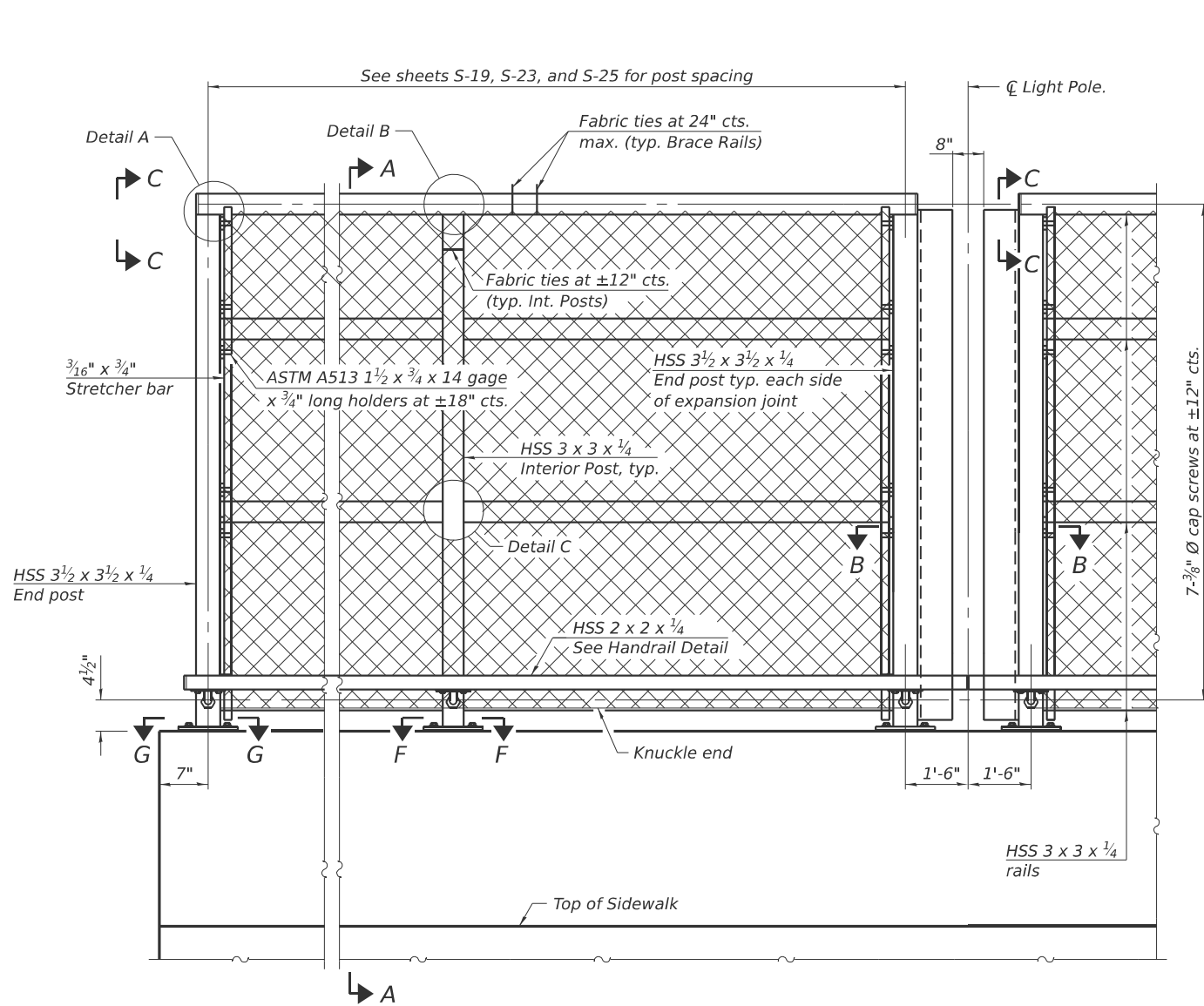
NEAR ABUTMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

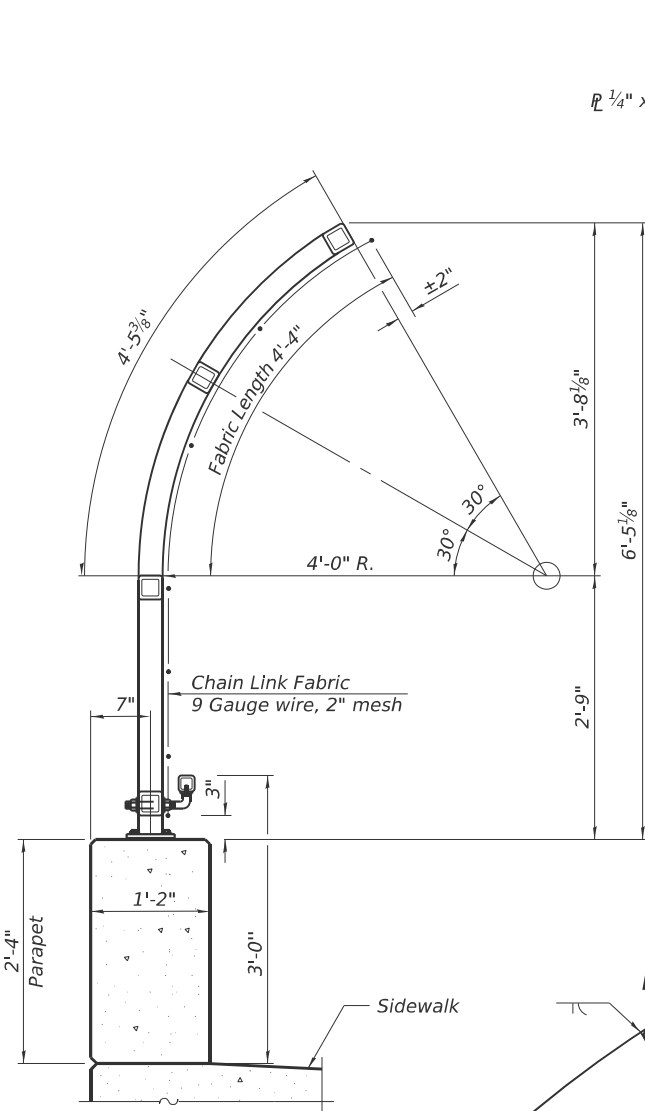
NORTH APPROACH SLAB (2 OF 2)
STRUCTURE NO. 016-2093

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	170
		CONTRACT NO. 62U41		
ILLINOIS		FED. AID PROJECT		

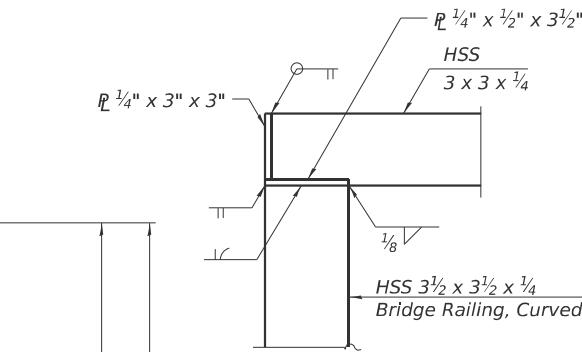
MODEL: Bridge Railing Details 1- (Sheet)
FILE NAME: p:\civiltech\pw\benley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-027- Bridge Railing Details



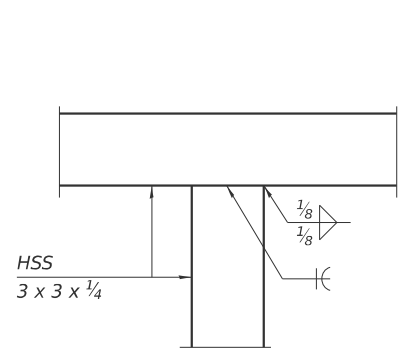
ELEVATION BRIDGE FENCE RAILING, CURVED
(Inside face)



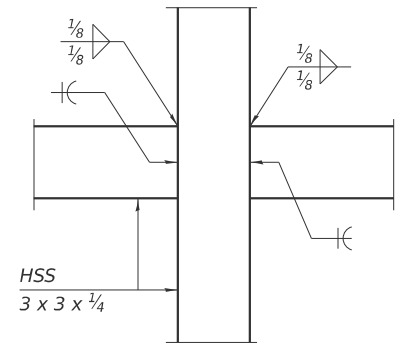
SECTION A-A



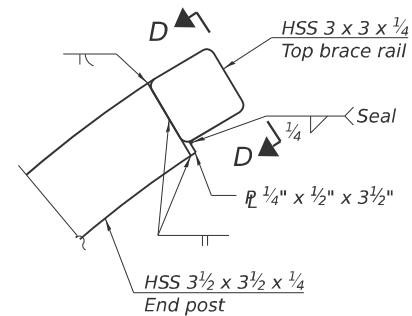
DETAIL A



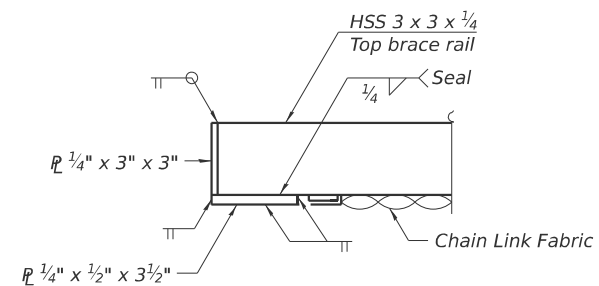
DETAIL B



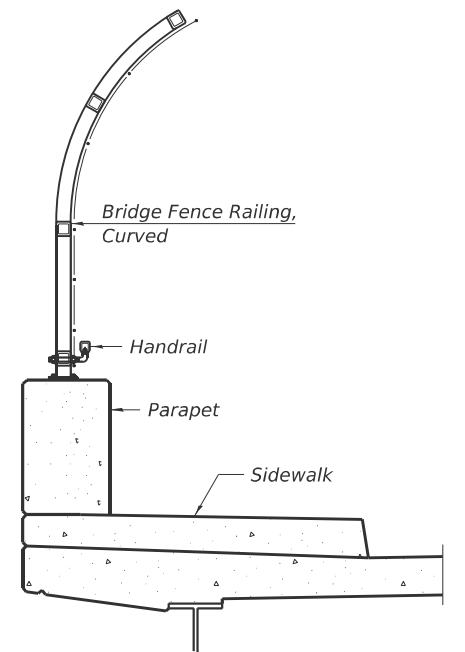
DETAIL C



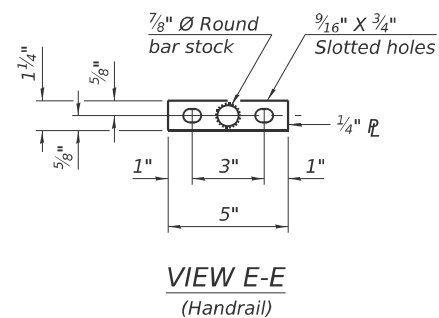
VIEW C-C



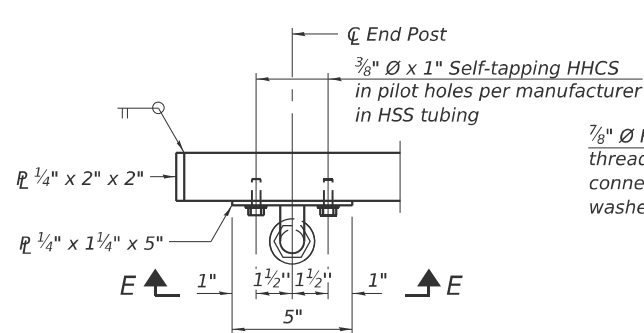
VIEW D-D



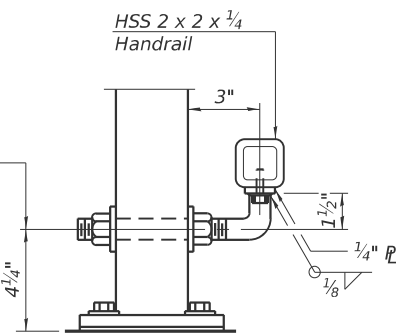
SECTION THRU DECK



VIEW E-E
(Handrail)



HANDRAIL DETAIL



RAILING CRITERIA

NCHRP 350 Test Level	4
Railing Weight (plf)	70
Max Post Spacing	10'-0"

R-32 (Modified)

5-15-2023



USER NAME = kdc	DESIGNED - GM	REVISED -
PLOT SCALE =	CHECKED - GJH	REVISED -
PLOT DATE = 8/12/2025	DRAWN - GM	REVISED -
	CHECKED - GJH	REVISED -

DESIGNED - GM	REVISED -
CHECKED - GJH	REVISED -
DRAWN - GM	REVISED -
CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, CURVED (1 OF 2)
STRUCTURE NO. 016-2093

SHEET S-27 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	171
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Bridge Railing sheet, 2 - (Sheet)
FILE NAME: p:\civiltch\pw\benley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-028-Bridge Railing Details 2

R-32 (Modified)

5-15-2023



USER NAME = kdc	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/12/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, CURVED (2 OF 2)
STRUCTURE NO. 016-2093

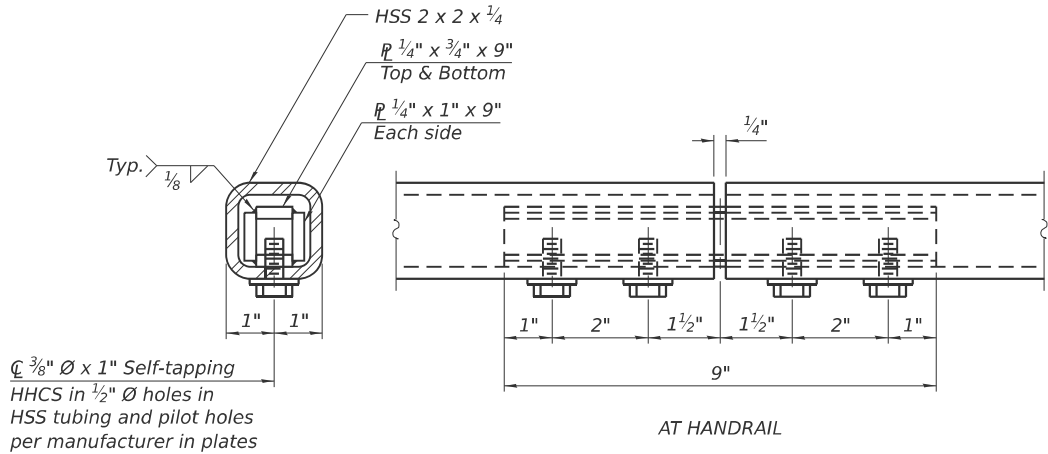
(Sheet 2 of 2)

SHEET S-28 OF 63 SHEETS

BILL OF MATERIAL

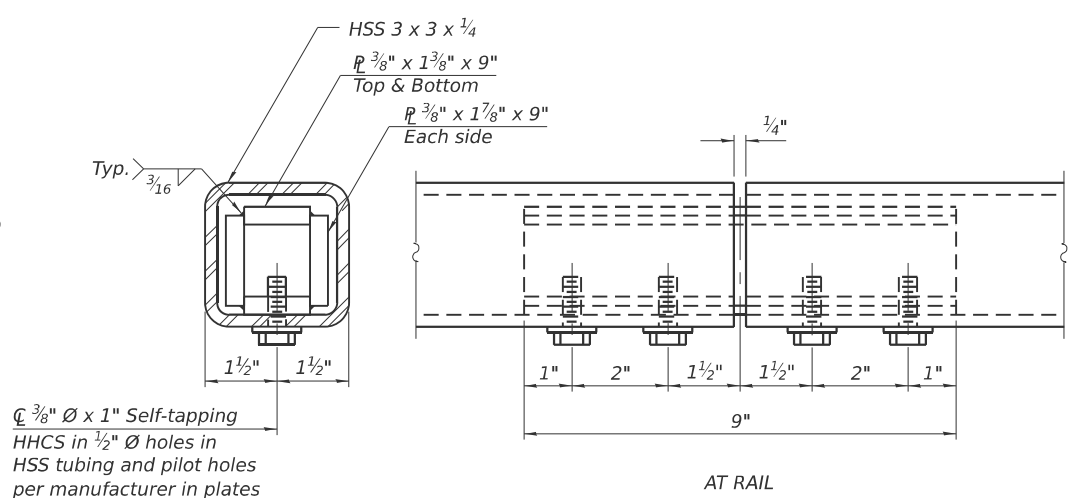
Item	Unit	Quantity
Bridge Fence Railing, Curved	Foot	522

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	172
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



AT HANDRAIL

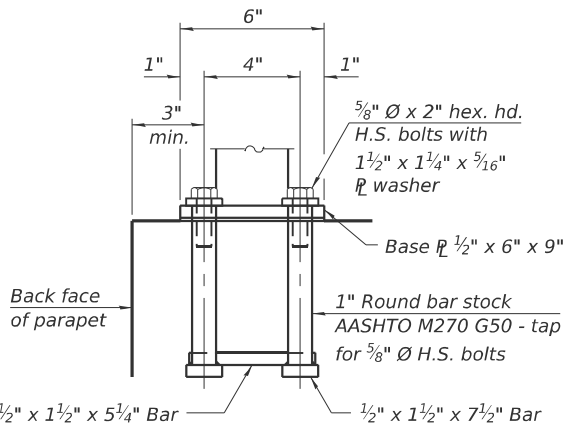
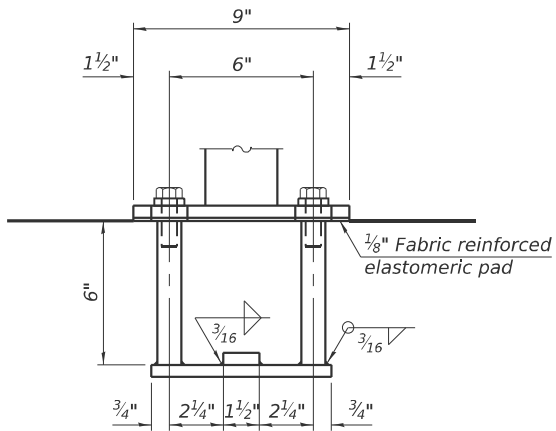
MATERIAL SPLICE



AT RAIL

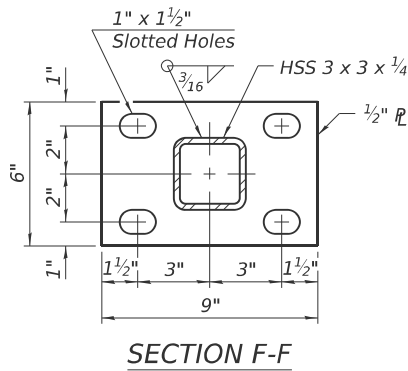
Notes:

Place reinforcement bars to miss anchor rod locations.
CVN testing is not required for the HSS tubing used in the Bridge Fence Railing, Curved.
All HSS tubing used for the Handrail shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.
All heavy hex nuts shall be according to ASTM A 563 grade DH.
All fully threaded anchor rods shall be ASTM F1554 grade 105.
The post base plate shall be fastened to the curb snug tight and given an additional 1/8 turn.
Contractor shall offset posts to miss any aluminum sheet or cork joints for sufficient installation of the anchorage assembly.
Rail splice inserts may be built out of bent plates of the same thicknesses and outside geometry limits as the 4 plate rail splice inserts shown.
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

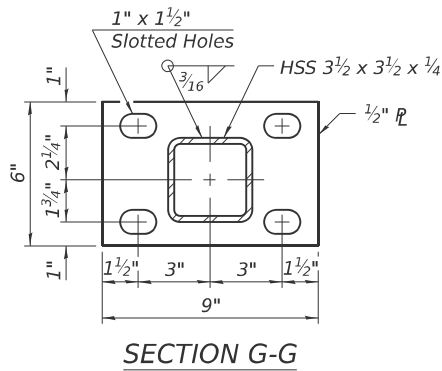


ANCHORAGE ASSEMBLY

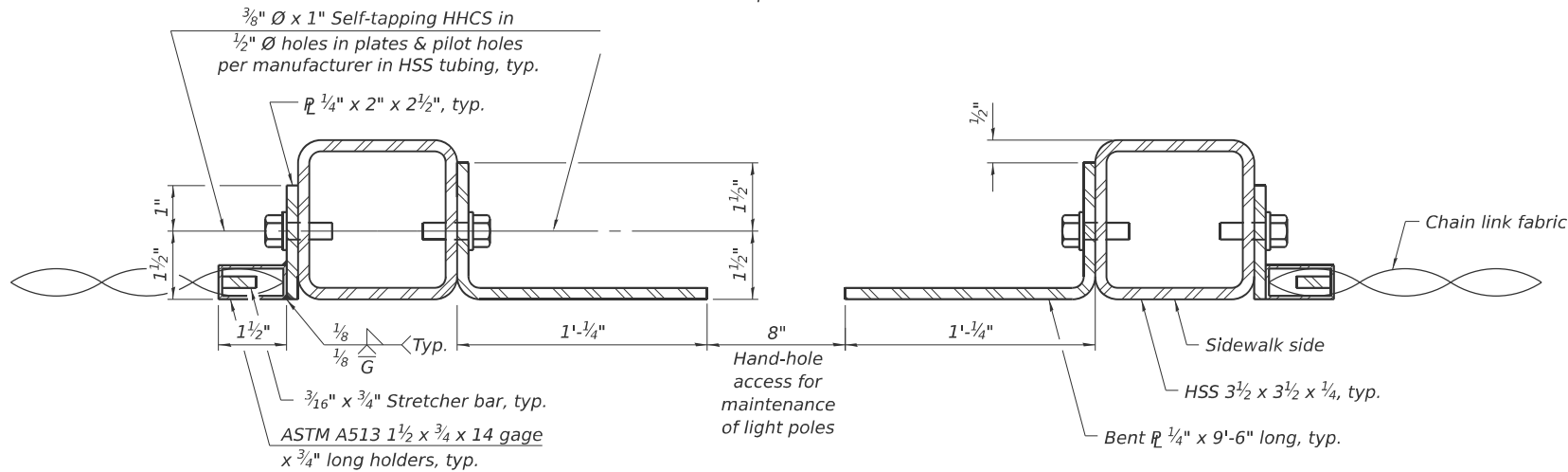
The Bridge Fence Railing, Curved fasteners for end posts near expansion joints may need to be installed prior to installing the bent plates.
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 3/8 inch diameter fully threaded anchor rods with the same plate washers as specified above and heavy hex lock nuts according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



SECTION F-F



SECTION G-G



SECTION B-B

MODEL: Moment Reaction Tables [Sheet]
FILE NAME: pwr/llvilletch-pwr.bentley.com/civiltech-pwr/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SJHT-03p-GirderM&RTables

INTERIOR GIRDER MOMENT TABLE

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I_s	(in ⁴)	9,356	14,297	14,297
$I_c (n)$	(in ⁴)	22,564	—	—
$I_c (3n)$	(in ⁴)	16,854	—	—
$I_c (cr)$	(in ⁴)	—	15,396	15,396
S_s	(in ³)	623	922	922
$S_c (n)$	(in ³)	834	—	—
$S_c (3n)$	(in ³)	767	—	—
$S_c (cr)$	(in ³)	—	945	945
S_x	(in ³)	791	923	923
DC1	(k/')	1.05	1.39	1.05
M_{DC1}	('k)	643	-786	-184
DC2	(k/')	0.45	0.45	0.45
M_{DC2}	('k)	285	-318	-76
DW	(k/')	0.40	0.40	0.40
M_{DW}	('k)	253	-283	-68
LLDF		0.59	0.63	0.59
$M_{\ell + IM}$	('k)	1,021	-1,090	-484
f_t (Strength I)	(ksi)	0.00	0.00	0.00
$M_u + \frac{1}{3} f_t S_x$	('k)	3,326	-3,712	-1,274
$\Phi_f M_n$	('k)	4,282	-4,246	-4,246
f_s DC1	(ksi)	12.39	-10.23	-2.40
f_s DC2	(ksi)	4.46	-4.04	-0.97
f_s DW	(ksi)	3.96	-3.59	-0.86
$f_s (\ell + IM)$	(ksi)	14.69	-13.84	-6.15
f_t (Service II)	(ksi)	0.00	0.00	0.00
$f_s + \frac{f_t}{2}$ (Service II)	(ksi)	35.49	-31.71	-10.37
Service II Resistance	(ksi)	47.50	-47.50	-47.50
$f_s + \frac{f_t}{3}$ (Strength I)	(ksi)	—	—	—
$\Phi_f F_n$	(ksi)	—	—	—
V_f	(k)	62.16	—	65.36

INTERIOR GIRDER DEFLECTION TABLE (NB)				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
Δ_{LL+IM}	(in)	0.81	—	0.23
Δ_{all}	(in)	1.05	—	0.79

INTERIOR GIRDER REACTION TABLE

GIRDER REACTION TABLE		
	Abut.	Pier
LLDF	0.81	0.81
OCF		
R_{DC1}	(k) 58.3	92.7
R_{DC2}	(k) 20.1	38.0
R_{DW}	(k) 17.2	33.8
R_{ℓ}	(k) 86.4	116.6
R_{IM}	(k) 22.1	23.4
R_{Total} (Strength I) (Impact)	(k) 313.7	459.1
R_{Total} (Strength I) (No Impact)	(k) 275.1	418.1

- I_s, S_s :

Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
- $I_c (n), S_c (n)$:

Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).
- $I_c (3n), S_c (3n)$:

Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- $I_c (cr), S_c (cr)$:

Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).
- S_x :

Section modulus about the major axis of a section to the controlling flange, tension or compression, taken as yield moment with respect to the controlling flange over the yield strength of the controlling flange (in.³).
- DC1 :

Un-factored non-composite dead load (kips/ft.).
- M_{DC1} :

Un-factored moment due to non-composite dead load (kip-ft.).
- DC2 :

Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} :

Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW :

Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} :

Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- LLDF :

Live Load Distribution Factor for moment and shear computed according to Article 4.6.2.2 and further IDOT provisions.
- $M_{\ell + IM}$:

Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u :

Strength I load combination of factored design moments (kip-ft.).
1.25 ($M_{DC1} + M_{DC2}$) + 1.5 M_{DW} + 1.75 $M_{\ell + IM}$
- f_t :

Factored calculated flange lateral bending stress as calculated using Article 6.10.1.6 and as further simplified by IDOT provisions (ksi).
- $\Phi_f M_n$:

Factored nominal flexural resistance of the section determined as specified in Article 6.10.7.1 or A6 as applicable (kip-ft.).
- f_s DC1 :

Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_s
- f_s DC2 :

Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c (3n)$ or $M_{DC2} / S_c (cr)$ as applicable.
- f_s DW :

Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c (3n)$ or $M_{DW} / S_c (cr)$ as applicable.
- $f_s (\ell + IM)$:

Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_{\ell + IM} / S_c (n)$ or $M_{\ell + IM} / S_c (cr)$ as applicable.
- $f_s + f_t / 2$ (Service II) :

Sum of stresses as computed below (ksi).
 f_s DC1 + f_s DC2 + f_s DW + 1.3 $f_s (\ell + IM)$ + $f_t / 2$
- Service II Resistance :

Composite (0.95 $R_h F_y$) or noncomposite (0.80 $R_h F_y$) stress capacity according to Article 6.10.4.2 (ksi).
- $f_s + f_t / 3$ (Strength I) :

Sum of stresses as computed below on non-compact sections (ksi).
1.25 (f_s DC1 + f_s DC2) + 1.5 f_s DW + 1.75 $f_s (\ell + IM)$ + $f_t / 3$
- $\Phi_f F_n$:

Factored nominal flexural resistance of the section as specified in Article 6.10.7.2 or 6.10.8 as applicable (ksi).
- V_f :

Maximum factored shear range in span computed according to Article 6.10.10.
- OCF :

Obtuse Correction Factor according to Article 4.6.2.2.3c or as further simplified by IDOT provisions.
- R_{DC1} :

Un-factored reaction due to non-composite dead load (kip).
- R_{DC2} :

Un-factored reaction due to long-term composite (superimposed excluding future wearing surface) dead load (kip).
- R_{DW} :

Un-factored reaction due to long-term composite (superimposed future wearing surface only) dead load (kip).
- R_{ℓ} :

Un-factored live load reaction (kip).
- R_{IM} :

Un-factored dynamic load allowance (impact) (kip).
- R_{Total} (Strength I) (Impact) :

Strength I load combination of factored design reactions (kip).
1.25 ($R_{DC1} + R_{DC2}$) + 1.5 R_{DW} + 1.75 ($R_{\ell} + R_{IM}$)
- R_{Total} (Strength I) (No Impact) :

Strength I load combination of factored design reactions, not including dynamic load allowance (Impact) (kip).
1.25 ($R_{DC1} + R_{DC2}$) + 1.5 R_{DW} + 1.75 (R_{ℓ})



USER NAME = kdc	DESIGNED - PAF, GJH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

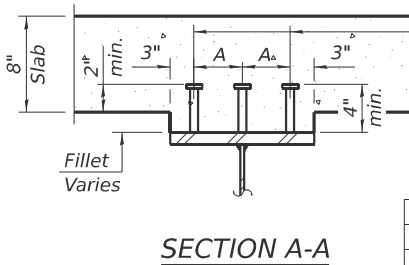
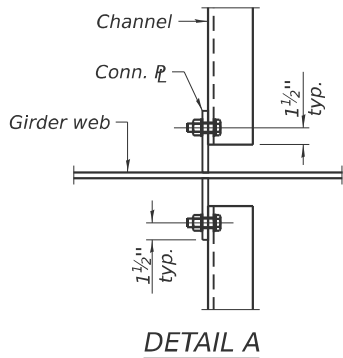
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER MOMENT AND REACTION TABLES
STRUCTURE NO. 016-2093

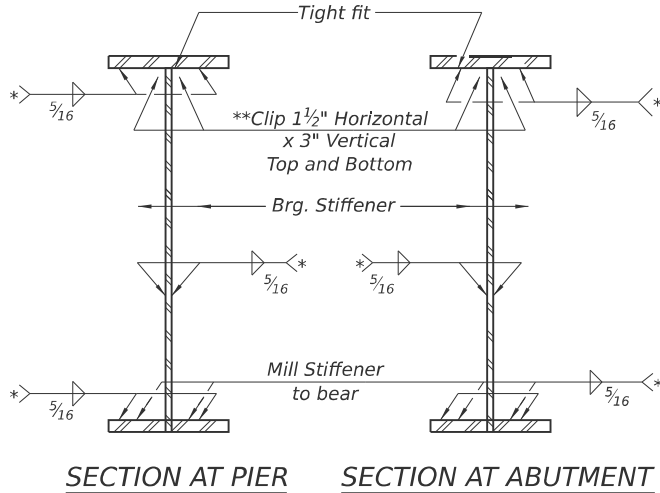
SHEET S-30 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	174
CONTRACT NO. 62U41				
		ILLINOIS	FED. AID PROJECT	

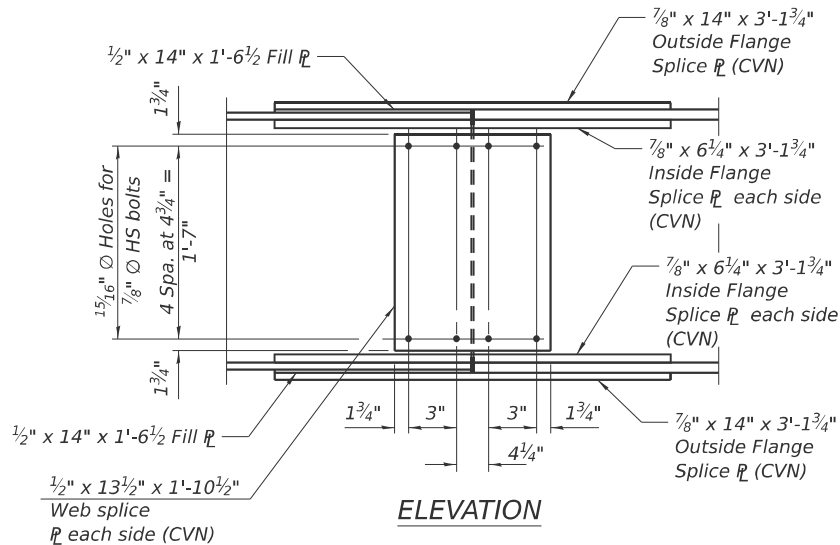
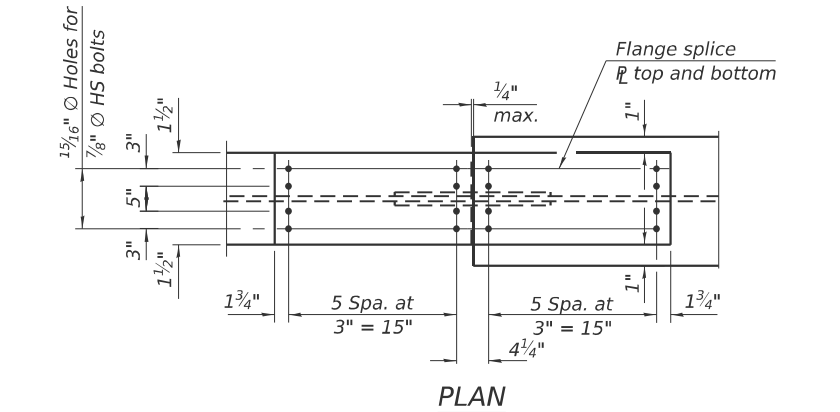
MODEL: Structural Steel Details [Sheet]
FILE NAME: p:\civiltch\pw\benlley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\ID162U41-SHT-03-StructuralSteelDets



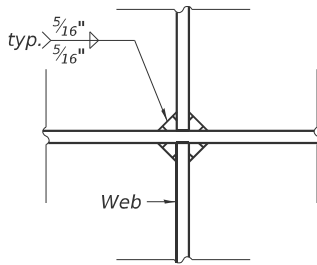
	A
14" Flange	4"
16" Flange	5"



*Terminate 1/4" ($\pm 1/8$ ") from the end of plate intersects.
**Clip may be rounded for ease of shop painting.

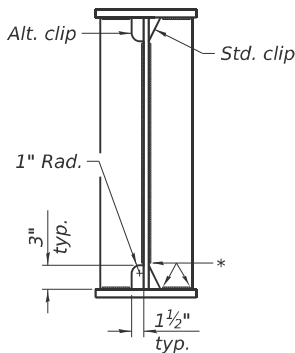
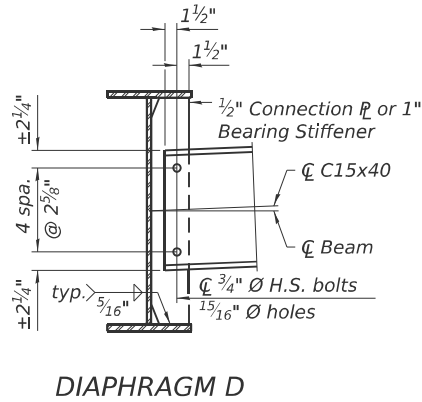


SPLICE DETAIL
(16 Required)

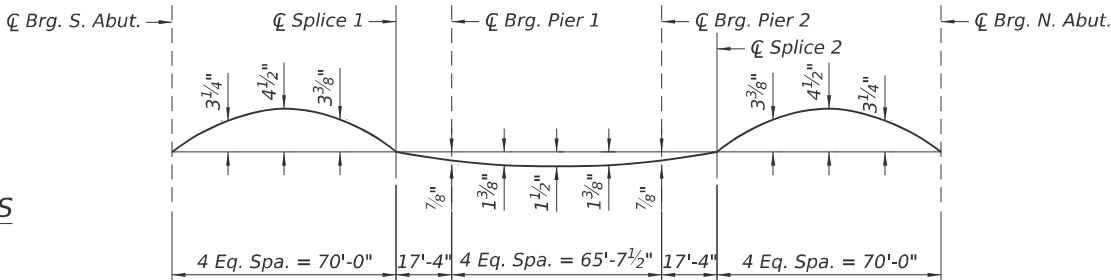


WEB WELD DETAIL (PERPENDICULAR)

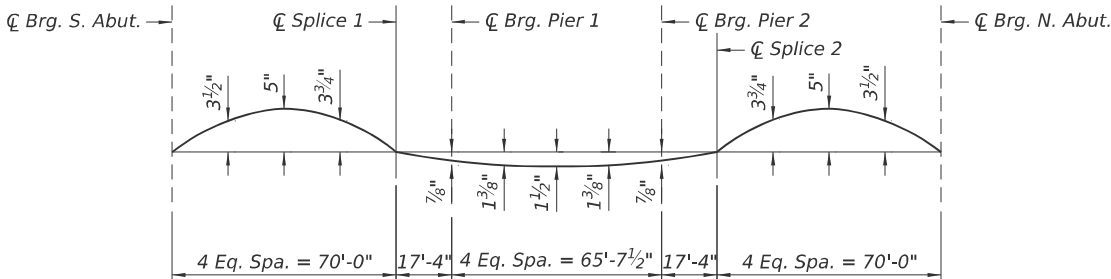
Notes:
Two hardened washers required for each set of oversized holes.
All diaphragms between girders shall be installed with erection pins and bolts in accordance with the erection plan approved by the Engineer. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor bolts.
Load carrying components designated "CVN" shall conform to the Charpy-V-Notch Impact Energy Requirements, Zone 2.
Alternate channels of equal depth and larger weight are permitted to facilitate material acquisition. Alternate channels, if utilized, shall be provided at no additional cost to the Department.
All splice plates and bearing stiffeners shall be AASHTO M270, Grade 50.



WELD LIMITS AND CLIP DETAILS
* Stop welds 1/4" ($\pm 1/8$ ") from edges as shown.
Typical.



CAMBER DIAGRAM
(Interior Girders 2 thru 7)



CAMBER DIAGRAM
(Exterior Girders 1 & 8)

TOP OF WEB ELEVATIONS
(For Fabrication Only)

Girder No.	CL Brg. S. Abut.	CL Splice 1	CL Brg. Pier 1	CL Brg. Pier 2	CL Splice 2	CL Brg. N. Abut.
1	604.34	605.67	605.71	605.86	605.90	604.31
2	604.34	605.67	605.71	605.86	605.90	604.31
3	604.46	605.79	605.83	605.98	606.02	604.43
4	604.58	605.91	605.95	606.10	606.14	604.55
5	604.56	605.89	605.93	606.08	606.12	604.54
6	604.44	605.77	605.81	605.96	606.00	604.42
7	604.32	605.65	605.69	605.84	605.88	604.30
8	604.32	605.65	605.69	605.84	605.88	604.30



USER NAME = kdc
PLOT SCALE =
PLOT DATE = 8/13/2025

DESIGNED - JMI
CHECKED - GJH
DRAWN - JMI
CHECKED - GJH

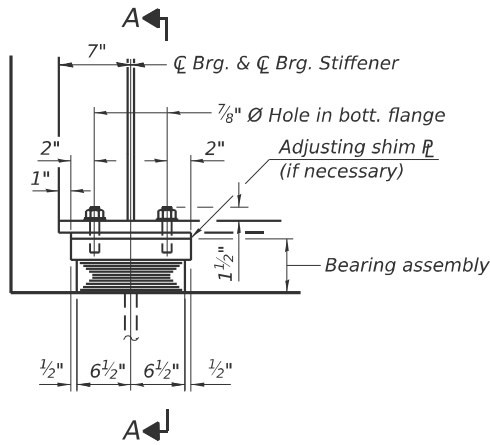
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

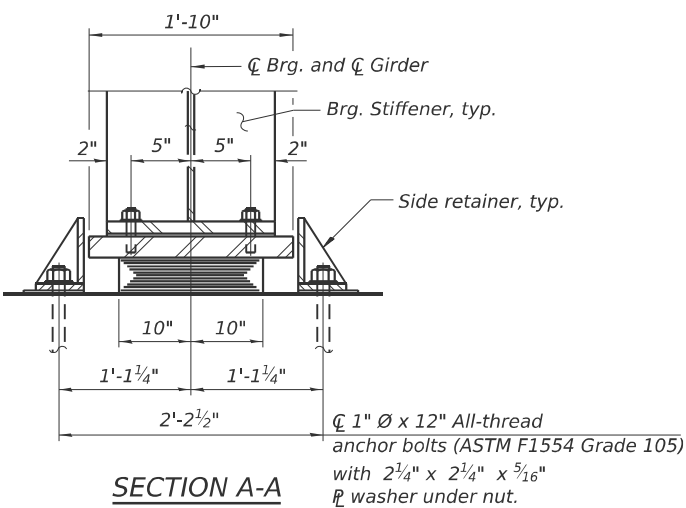
STRUCTURAL STEEL DETAILS
STRUCTURE NO. 016-2093

SHEET S-31 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	175
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

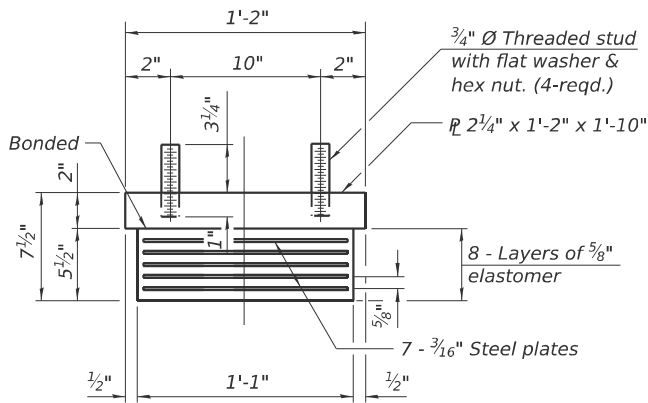


ELEVATION AT ABUT.

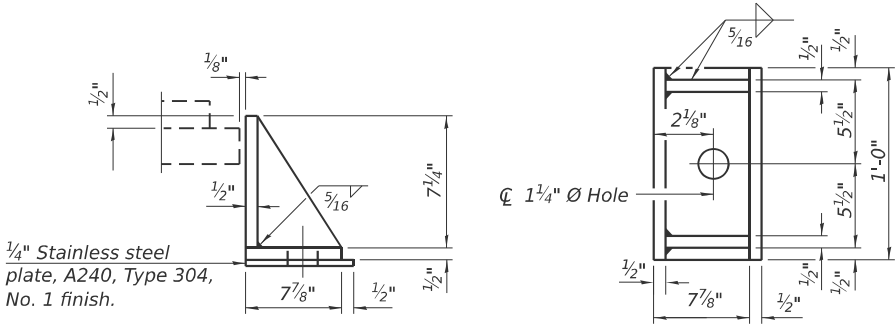


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.
(At North & South Abutment)



BEARING ASSEMBLY



SIDE RETAINERS
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.

NOTES:

- Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- The structural steel plates of the Bearing Assembly shall conform to requirements of AASHTO M270 Grade 50.
- All bearing plates, side retainers, shim plates, anchor bolts, nuts, and washers shall be galvanized according to AASHTO M111 or M232 as applicable.
- Two 1/8 in. adjusting shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Shim plates shall not be placed under bearing assembly.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	16
Anchor Bolts, 1"	Each	32

MODEL: Bearing Details I [Sheet]
FILE NAME: p:\civiltech\pw\benley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-032-BearingDetails1



USER NAME = kdc	DESIGNED - JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - JMI	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

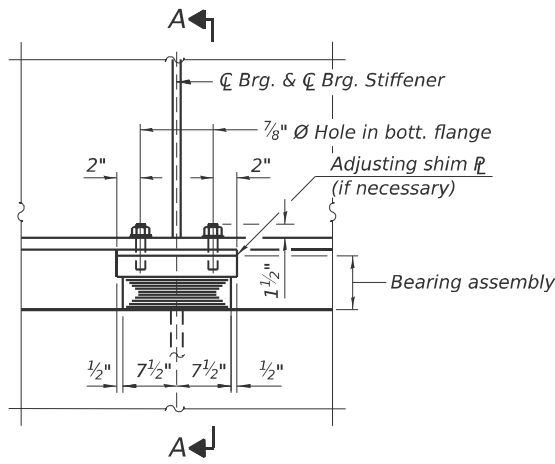
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS (1 OF 2)
STRUCTURE NO. 016-2093

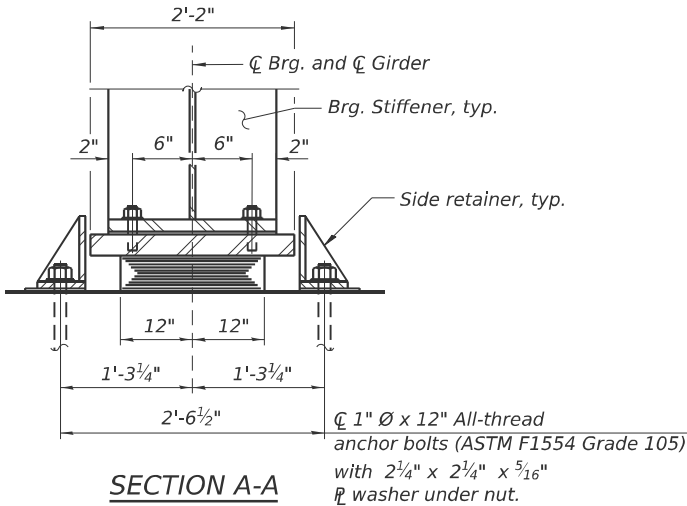
SHEET S-32 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	176
CONTRACT NO. 62U41				
ILLINOIS		FED. AID PROJECT		

MODEL: Bearing Details 2 [Sheet]
FILE NAME: pwr://civiltech-pw.bentley.com/civiltech-pw/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SHT-033-BearingDetails2

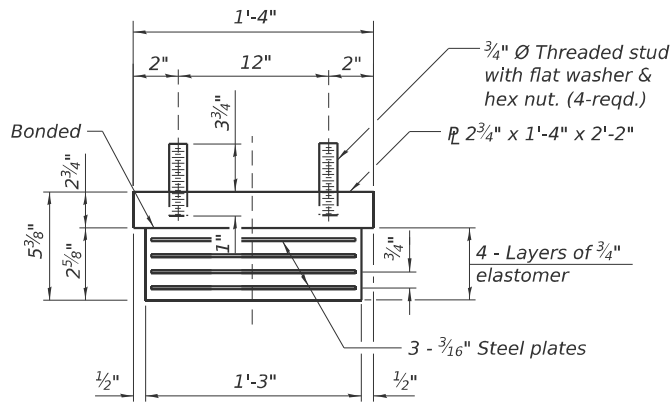


ELEVATION AT PIER 1

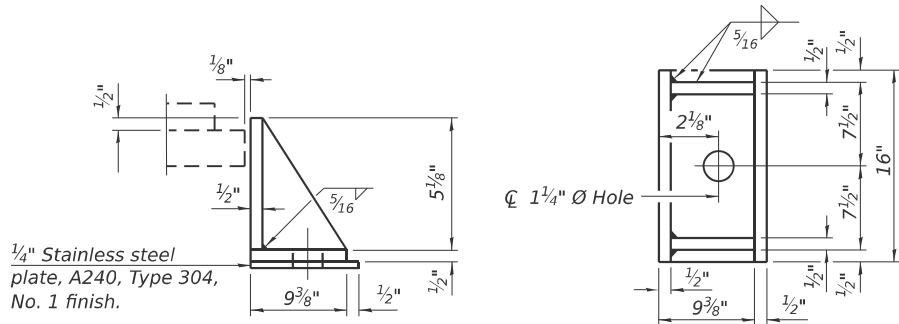


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.
(Pier 1)

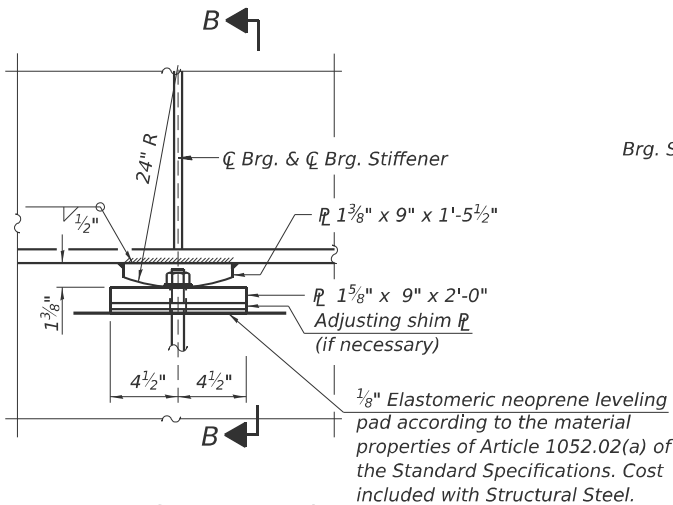


BEARING ASSEMBLY
(At Pier 1)

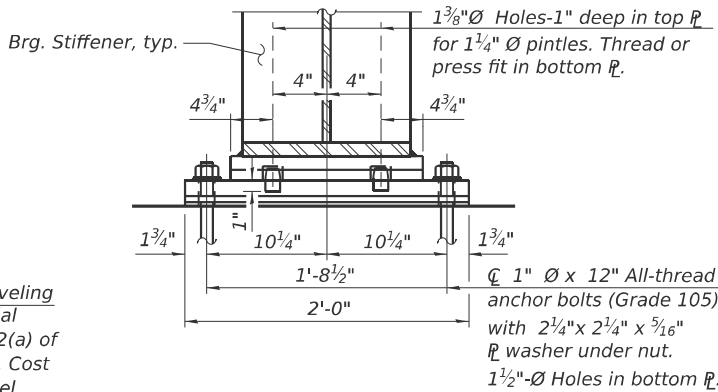


SIDE RETAINERS

Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.

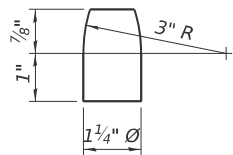


ELEVATION AT PIER 2



SECTION B-B

FIXED BEARING



PINTLE

NOTES:

- Side retainers and stainless steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- The structural steel plates and pintles of the Bearing Assembly shall conform to requirements of AASHTO M270 Grade 50.
- All bearing plates, side retainers, shim plates, anchor bolts, nuts, and washers shall be glavanized according to AASHTO M111 or M232 as applicable.
- Two 1/8 in. adjusting shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- Cost of steel plates for Fixed Bearings shall be included with Furnishing and Erecting Structural Steel.
- Fixed bearing shall be metallized.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	8
Anchor Bolts, 1"	Each	32

I-2E-1

5/15/2023



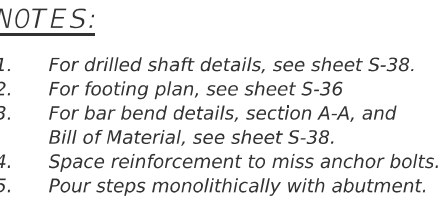
USER NAME = JMI	DESIGNED - JMI	REVISED -
PLOT SCALE =	CHECKED - GJH	REVISED -
PLOT DATE = 8/13/2025	DRAWN - JMI	REVISED -
	CHECKED - GJH	REVISED -

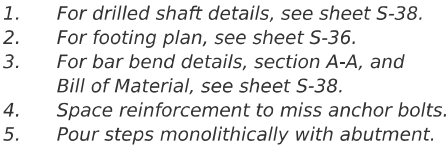
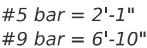
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

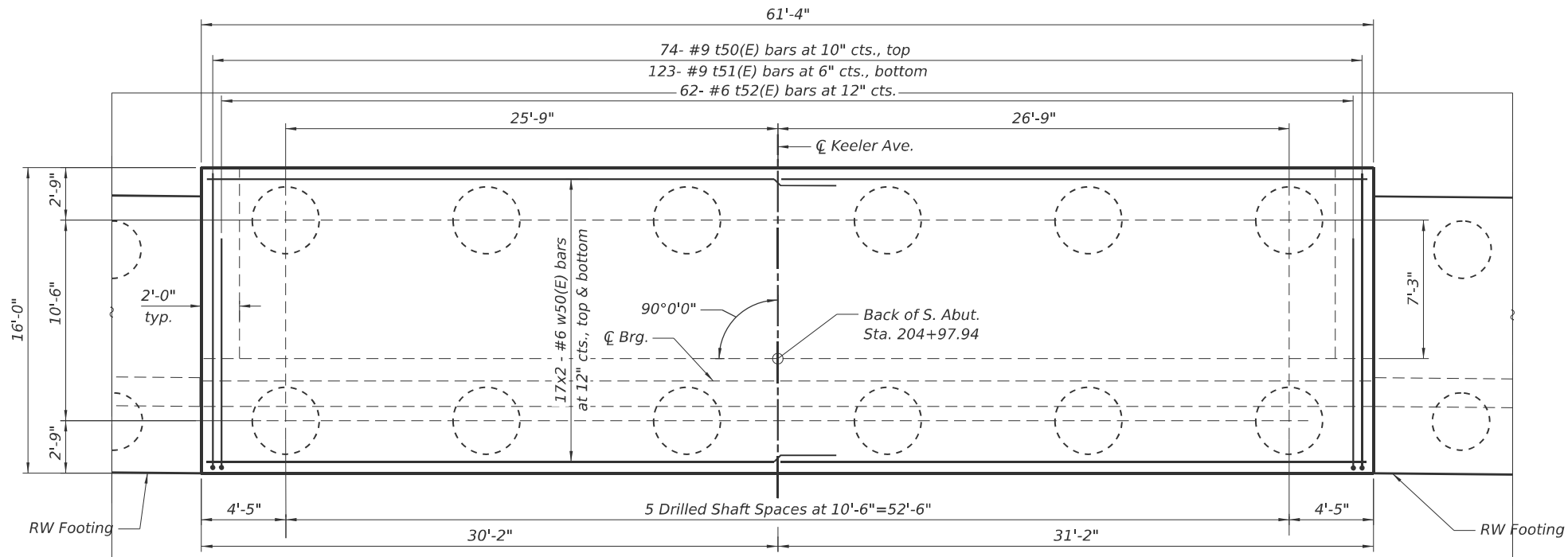
BEARING DETAILS (2 OF 2)
STRUCTURE NO. 016-2093

SHEET S-33 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	177
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



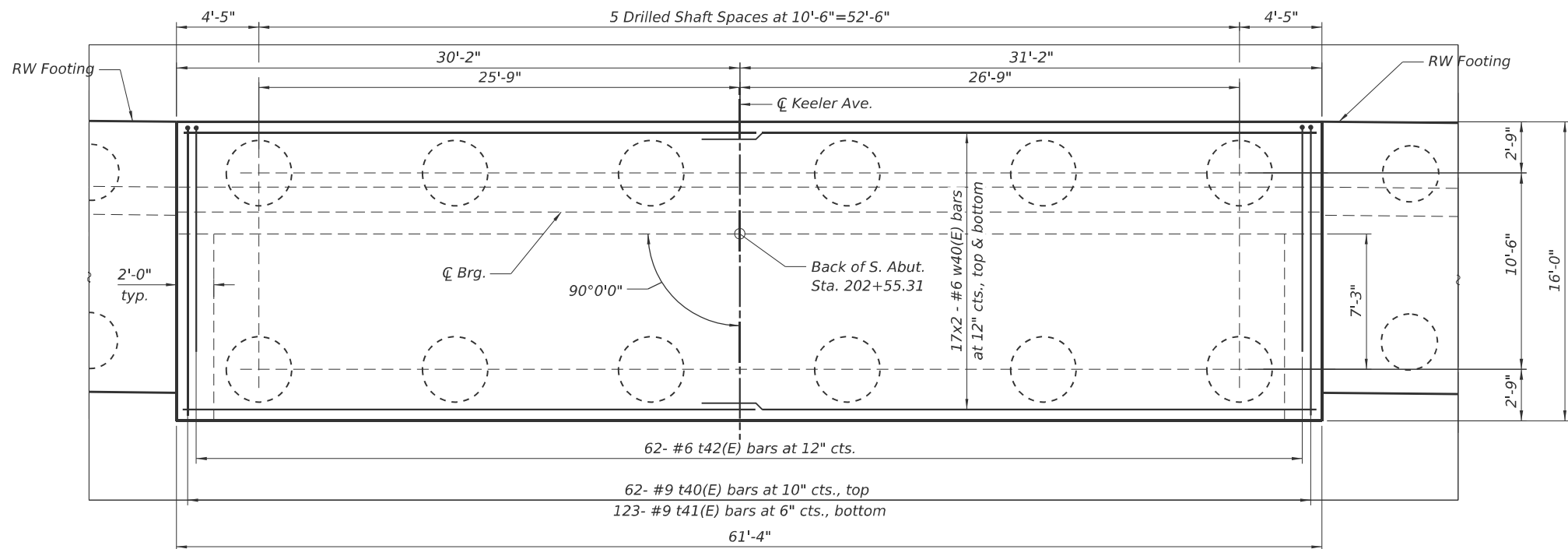




NORTH ABUTMENT FOOTING PLAN

NOTES:

1. For drilled shaft details, see sheet S-38.
2. For bar bend details and Bill of Material, see sheet S-38.



SOUTH ABUTMENT FOOTING PLAN

MINIMUM HORIZONTAL
BAR LAP
#5 bar = 2'-9"



MODEL: S:\Foundation-17 [Sheet]
FILE NAME: pwr\civiltech\pw.bentley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-036-Abut Foundation Plan



USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

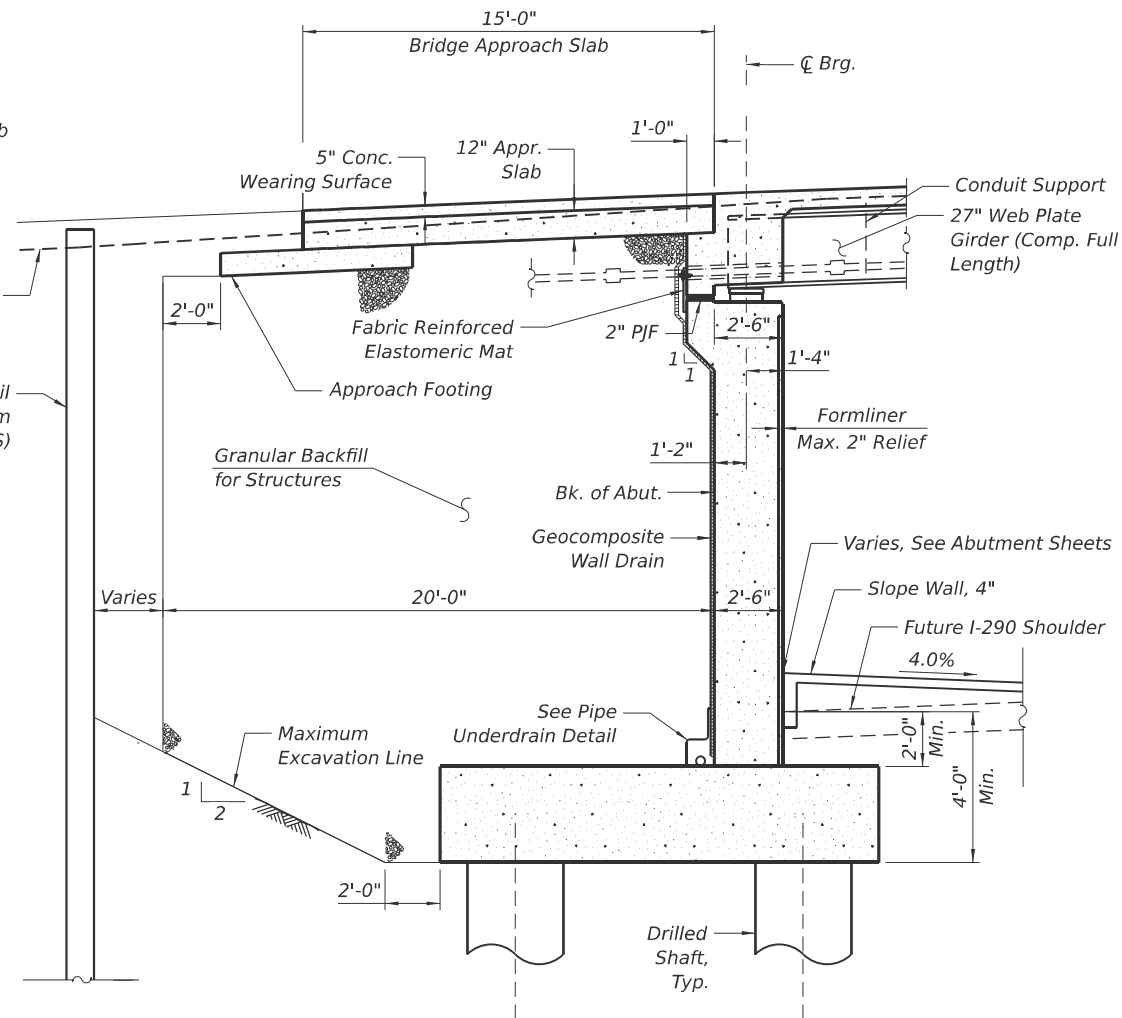
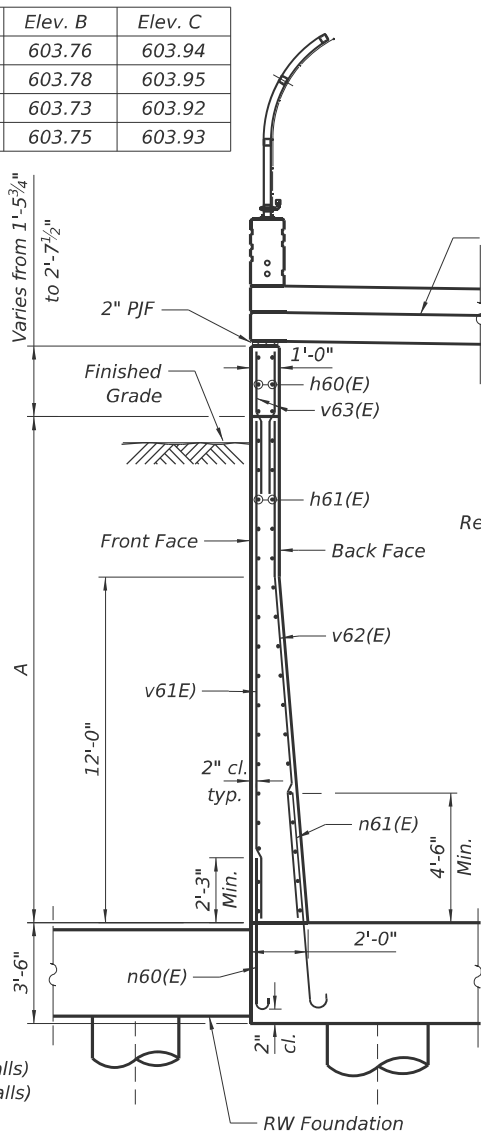
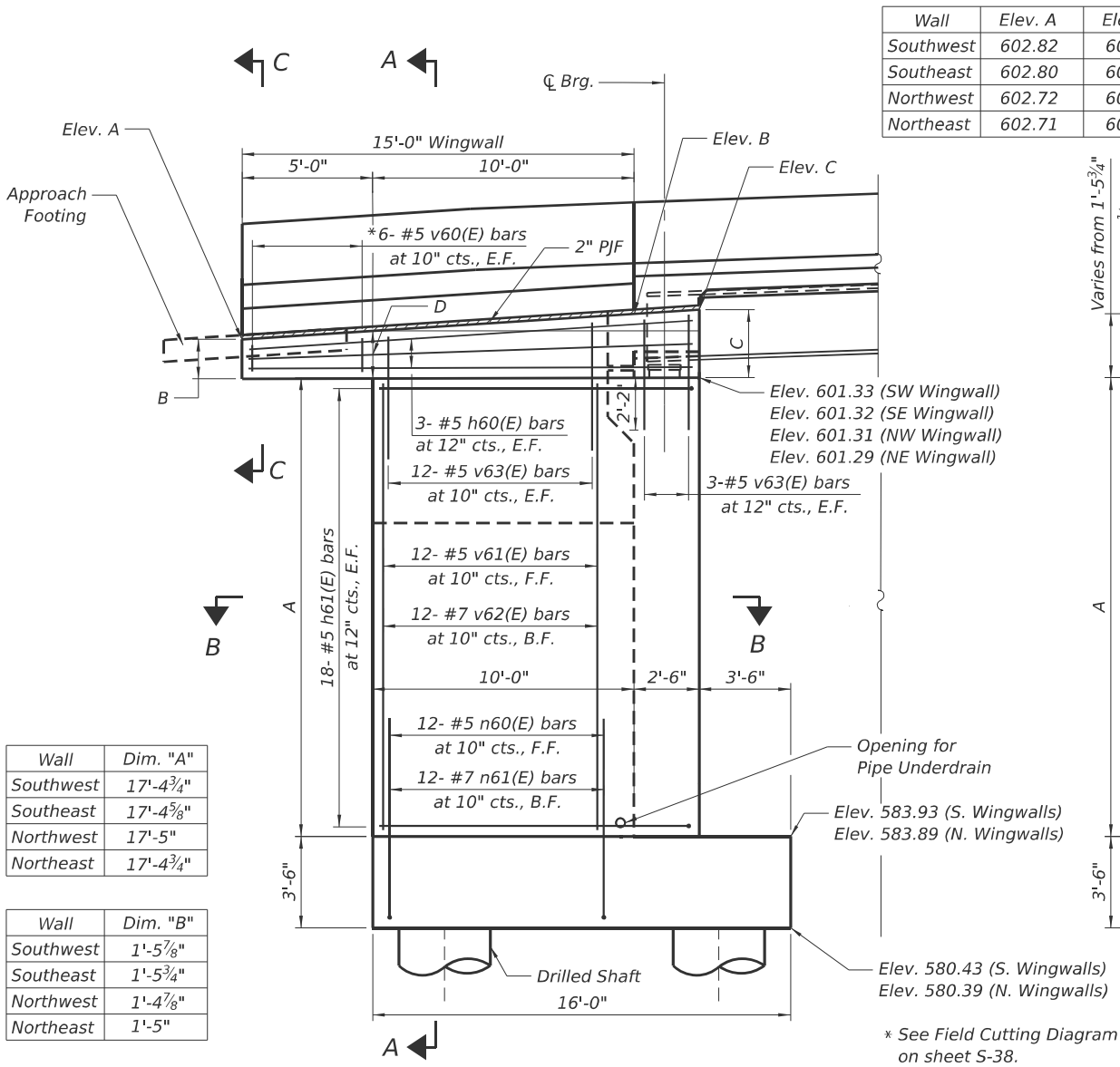
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH AND SOUTH ABUTMENT FOUNDATION PLAN
STRUCTURE NO. 016-2093

SHEET S-36 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	180
CONTRACT NO. 62U41				
		ILLINOIS	FED. AID PROJECT	

MODEL: South wingwall-9 [Sheet]
FILE NAME: p:\civiltch\pw\beniley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-037-WingwallPlan&Elev

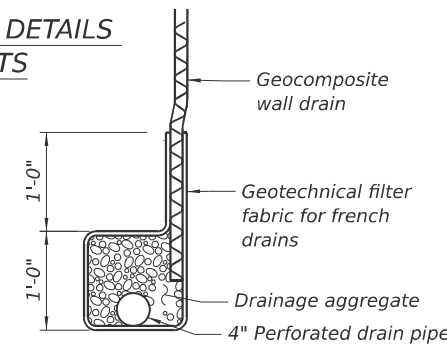
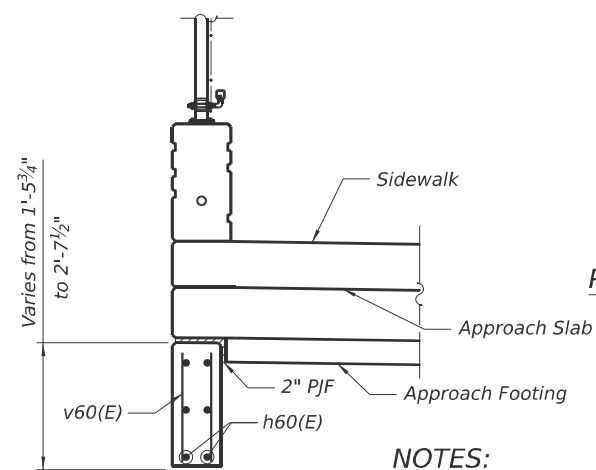
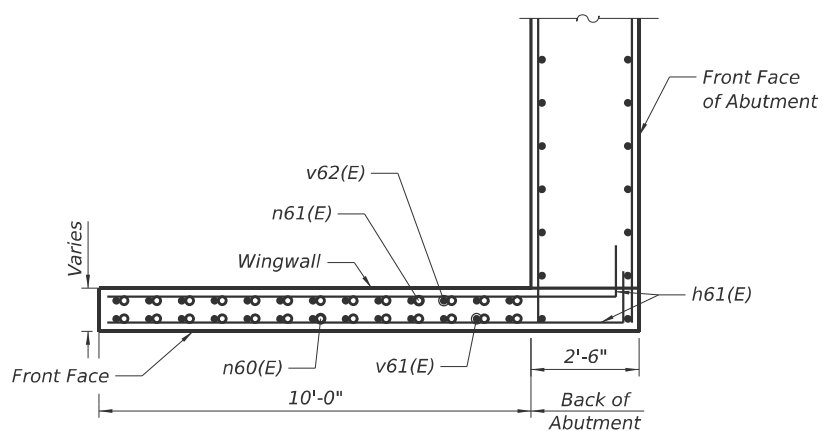
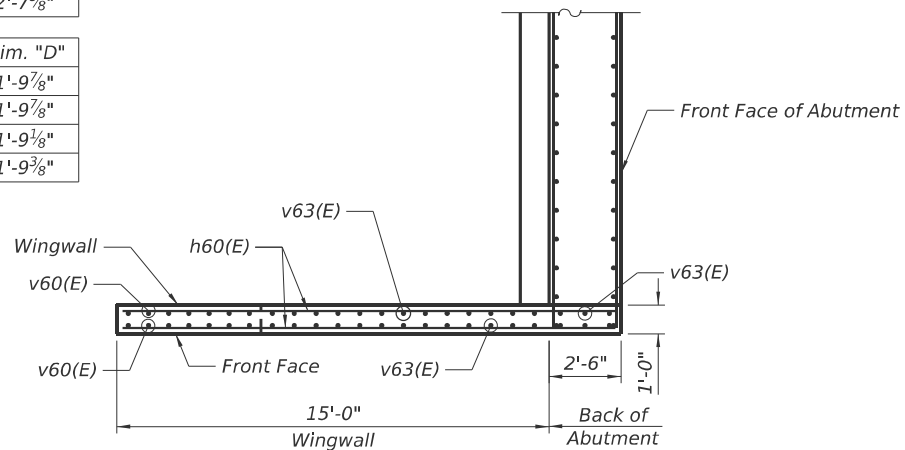


Wall	Dim. "A"
Southwest	17'-4 3/4"
Southeast	17'-4 3/8"
Northwest	17'-5"
Northeast	17'-4 3/4"

Wall	Dim. "B"
Southwest	1'-5 7/8"
Southeast	1'-5 3/4"
Northwest	1'-4 7/8"
Northeast	1'-5"

Wall	Dim. "C"
Southwest	2'-7 3/8"
Southeast	2'-7 1/2"
Northwest	2'-7 3/8"
Northeast	2'-7 3/8"

Wall	Dim. "D"
Southwest	1'-9 7/8"
Southeast	1'-9 7/8"
Northwest	1'-9 1/8"
Northeast	1'-9 3/8"



- NOTES:**
- See Sheet S-38 for Drilled shaft details and BOM.
 - Cost of PJF included with Concrete Structure.



USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

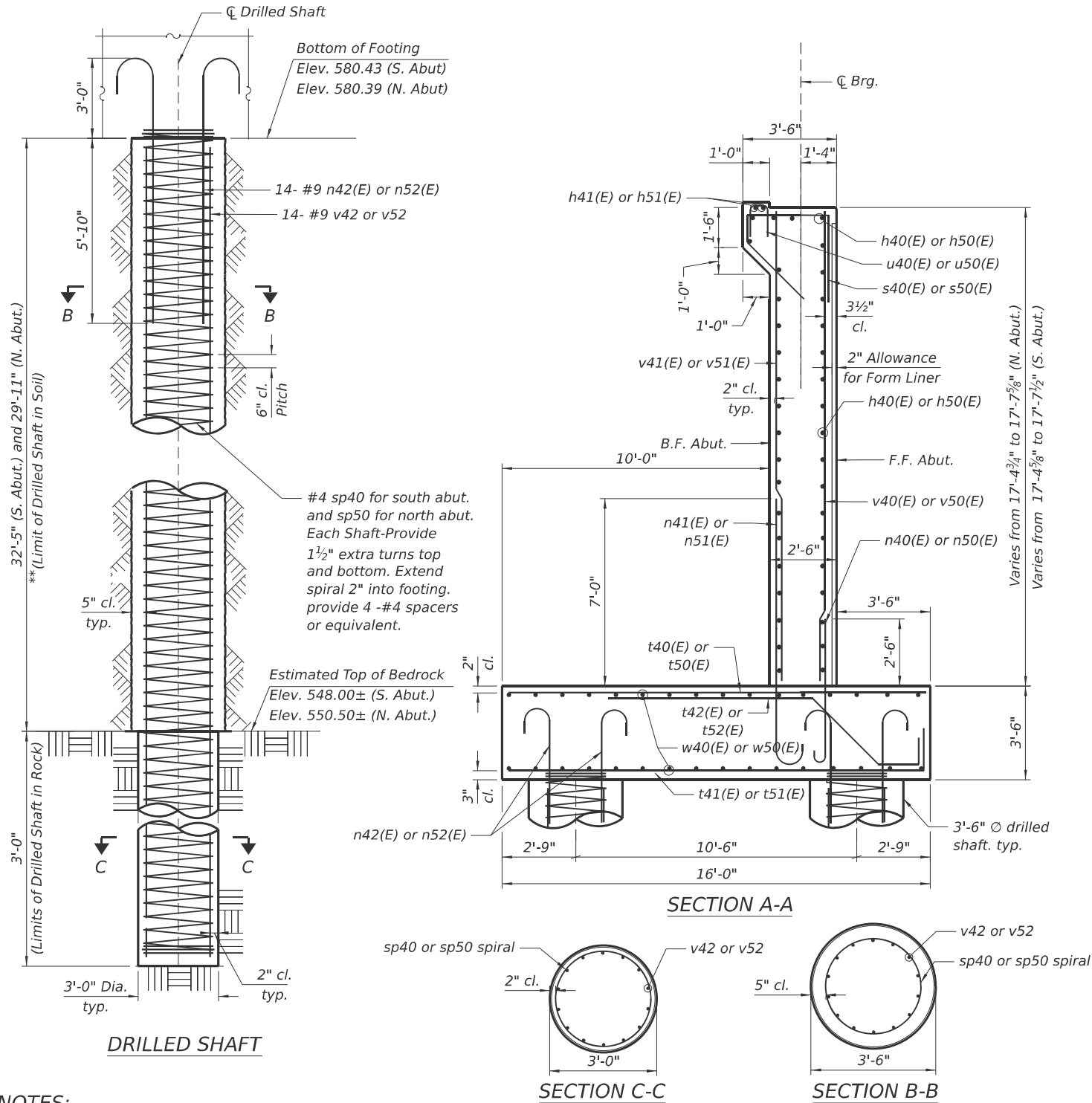
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS (1 OF 2)
STRUCTURE NO. 016-2093

SHEET S-37 OF 63 SHEETS

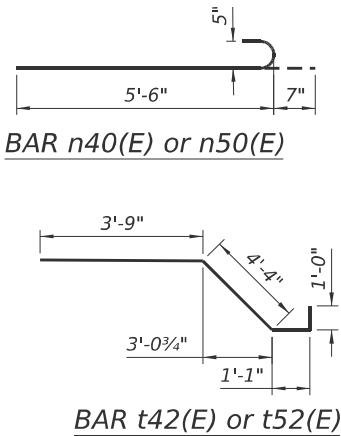
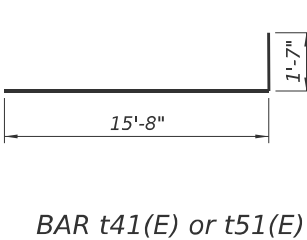
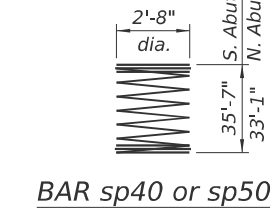
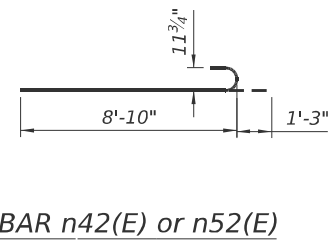
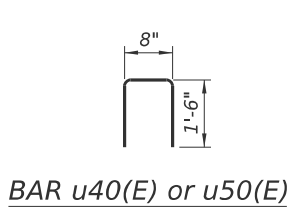
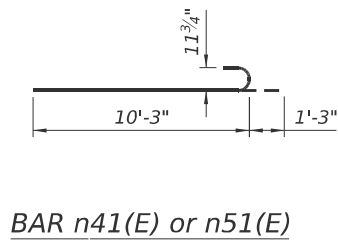
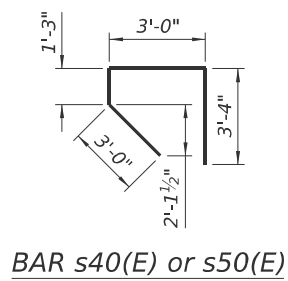
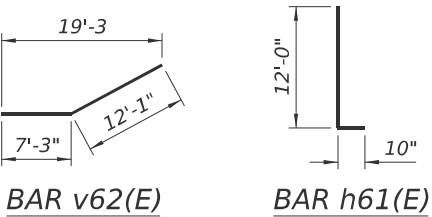
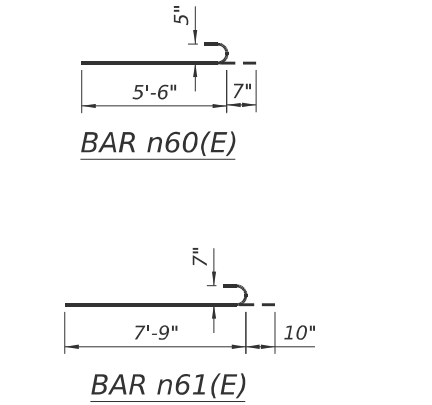
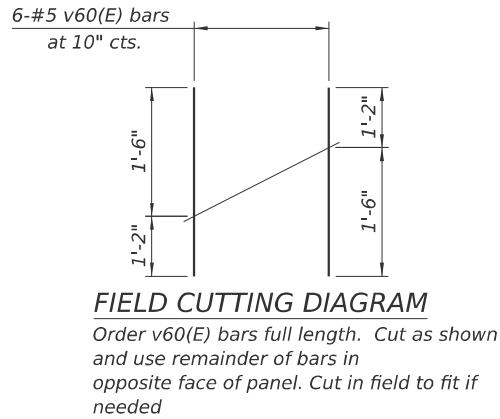
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	181
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: South and North Abut. Section- [Sheet]
FILE NAME: p:\civiltch\pww-bentley.com\civiltch\pww-Structures\17-Structures\162U41-SHT-038-AbutDetails



NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Apply concrete sealer to all exposed concrete surface of the abutment.
- All edges shall have standard $\frac{3}{4}$ " chamfer.
- The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.



**SOUTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h40(E)	76	#5	31'-11"	
h41(E)	4	#4	30'-11"	
h60(E)	12	#5	17'-2"	
h61(E)	72	#5	12'-10"	
n40(E)	62	#5	6'-1"	
n41(E)	74	#9	11'-6"	
n42(E)	168	#9	10'-1"	
n60(E)	24	#5	6'-1"	
n61(E)	24	#7	8'-7"	
s40(E)	62	#5	10'-7"	
t40(E)	74	#9	15'-8"	
t41(E)	123	#9	17'-3"	
t42(E)	62	#6	10'-2"	
u40(E)	62	#4	3'-8"	
v40(E)	62	#5	17'-1"	
v41(E)	74	#6	17'-1"	
v42	168	#9	35'-7"	
v60(E)	12	#5	2'-8"	
v61(E)	24	#5	17'-1"	
v62(E)	24	#7	17'-2"	
v63(E)	60	#5	4'-7"	
w40(E)	68	#6	32'-5"	
* sp40	12	#4	35'-7"	
Granular Backfill for Structures			Cu. Yd.	932
Structure Excavation			Cu. Yd.	1,002
Concrete Structures			Cu. Yd.	251.8
Reinforcement Bars			Pound	25,600
Reinforcement Bars, Epoxy Coated			Pound	35,730
Drilled Shaft in Soil			Cu. Yd.	138.7
Drilled Shaft in Rock			Cu. Yd.	9.5
Concrete Sealer			Sq. Ft.	1,100
Geocomposite Wall Drain			Sq. Yd.	116
Pipe Underdrains for Structures 4"			Foot	62
Crosshole Sonic Logging Access Ducts			Foot	425
Crosshole Sonic Logging Testing			Each	2

* Length is height of spiral

**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h50(E)	76	#5	31'-11"	
h51(E)	4	#4	30'-11"	
h60(E)	12	#5	17'-2"	
h61(E)	72	#5	12'-10"	
n50(E)	62	#5	6'-1"	
n51(E)	74	#9	11'-6"	
n52(E)	168	#9	10'-1"	
n60(E)	24	#5	6'-1"	
n61(E)	24	#7	8'-7"	
s50(E)	62	#5	10'-7"	
t50(E)	74	#9	15'-8"	
t51(E)	123	#9	17'-3"	
t52(E)	62	#6	10'-2"	
u50(E)	62	#4	3'-8"	
v50(E)	62	#5	17'-1"	
v51(E)	74	#6	17'-1"	
v52	168	#9	33'-1"	
v60(E)	14	#5	2'-8"	
v61(E)	24	#5	17'-1"	
v62(E)	24	#7	17'-2"	
v63(E)	60	#5	4'-7"	
w50(E)	68	#6	32'-5"	
* sp50	12	#4	33'-1"	
Granular Backfill for Structures			Cu. Yd.	932
Structure Excavation			Cu. Yd.	1,002
Concrete Structures			Cu. Yd.	252.4
Reinforcement Bars			Pound	23,810
Reinforcement Bars, Epoxy Coated			Pound	35,730
Drilled Shaft in Soil			Cu. Yd.	128.0
Drilled Shaft in Rock			Cu. Yd.	9.5
Concrete Sealer			Sq. Ft.	1,107
Geocomposite Wall Drain			Sq. Yd.	116
Pipe Underdrains for Structures 4"			Foot	62
Crosshole Sonic Logging Access Ducts			Foot	395
Crosshole Sonic Logging Testing			Each	2

* Length is height of spiral

MINIMUM BAR LAP
#4 bar = 1'-10"



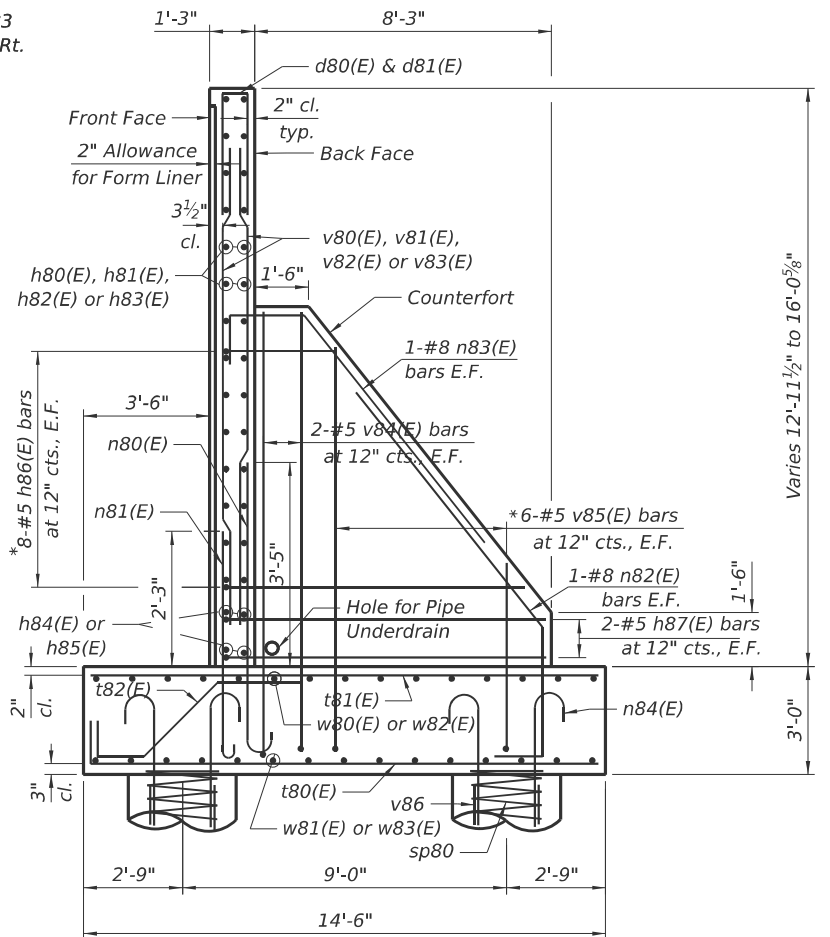
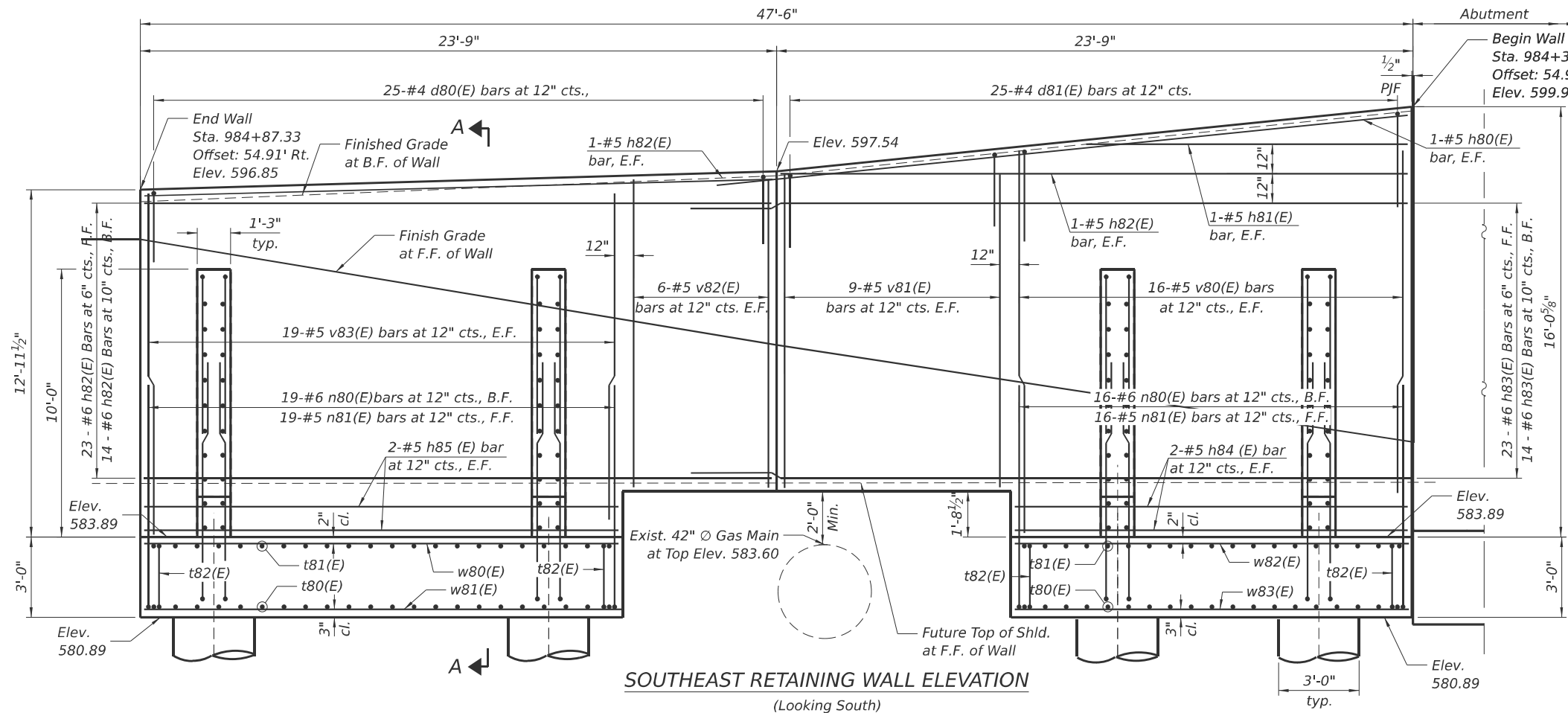
USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS (2 OF 2)
STRUCTURE NO. 016-2093**

SHEET S-38 OF 63 SHEETS

FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	182
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



* See Field Cutting Diagram on sheet 44.

**MINIMUM HORIZONTAL
BAR LAP**

#5 bar = 2'-9"
#6 bar = 3'-9"

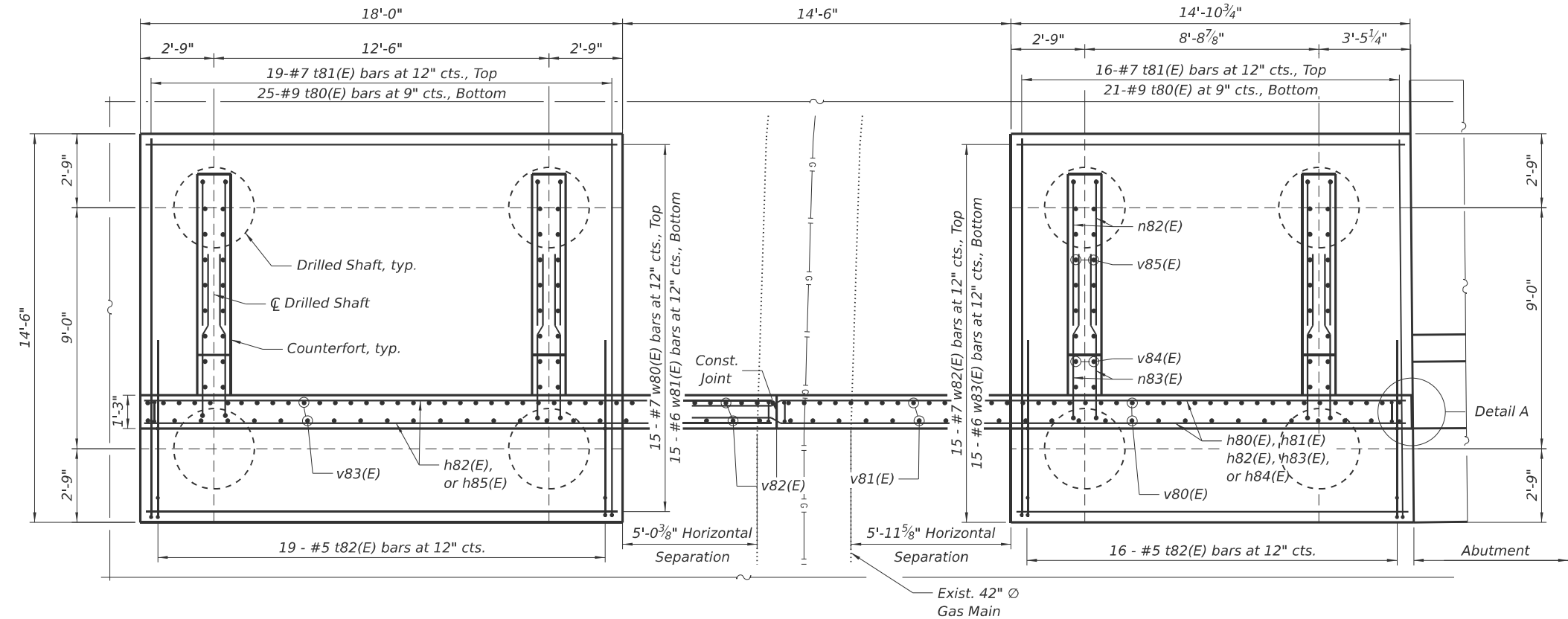
**MINIMUM VERTICAL
BAR LAP**

#5 bar = 2'-1"
#6 bar = 3'-3"

Location	Finish Grade at BF of Wall	Finish Grade at FF of Wall	Future T/Shld. at FF of Wall
Begin Wall	599.79	587.44	585.93
Const. Jt.	597.37	591.06	585.90
End of Wall	596.41	595.00	585.89

NOTES:

- For drilled shaft details, retaining wall drainage details, Detail A and Construction Joint Details see sheet S-43.
- For Bill of Material see sheet S-44.
- See General Notes 29 and 30 for Peoples Gas requirements.



PLAN

MODEL: RW Southeast-43 (Sheet)
FILE NAME: p:\civiltch\p\Documents\Projects\3855\CADD Sheets\17-Structures\162U41-SHT-035-SE RW Plan&Elev.dgn



USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

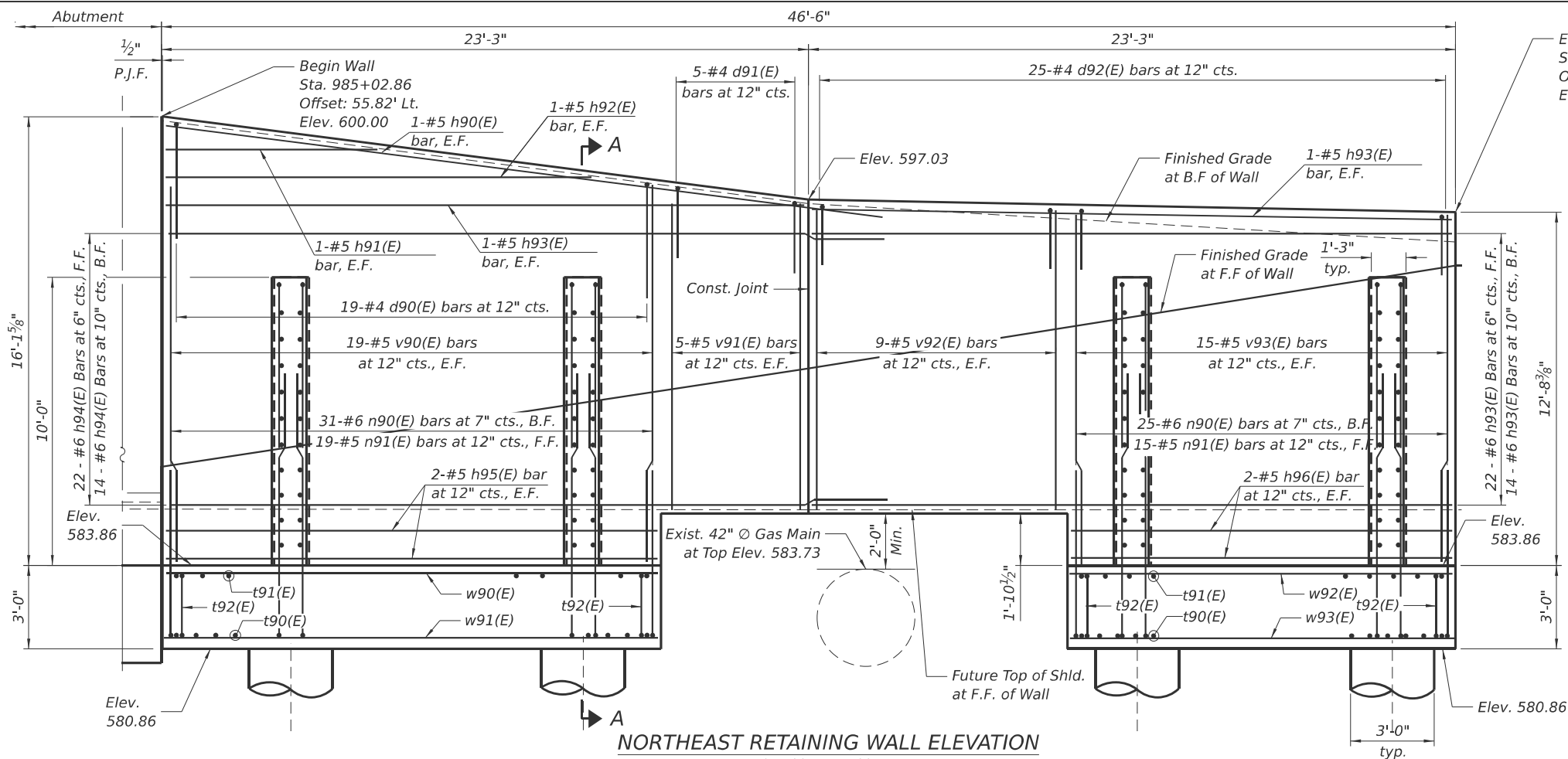
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SE RETAINING WALL PLAN & ELEVATION
STRUCTURE NO. 016-2093**

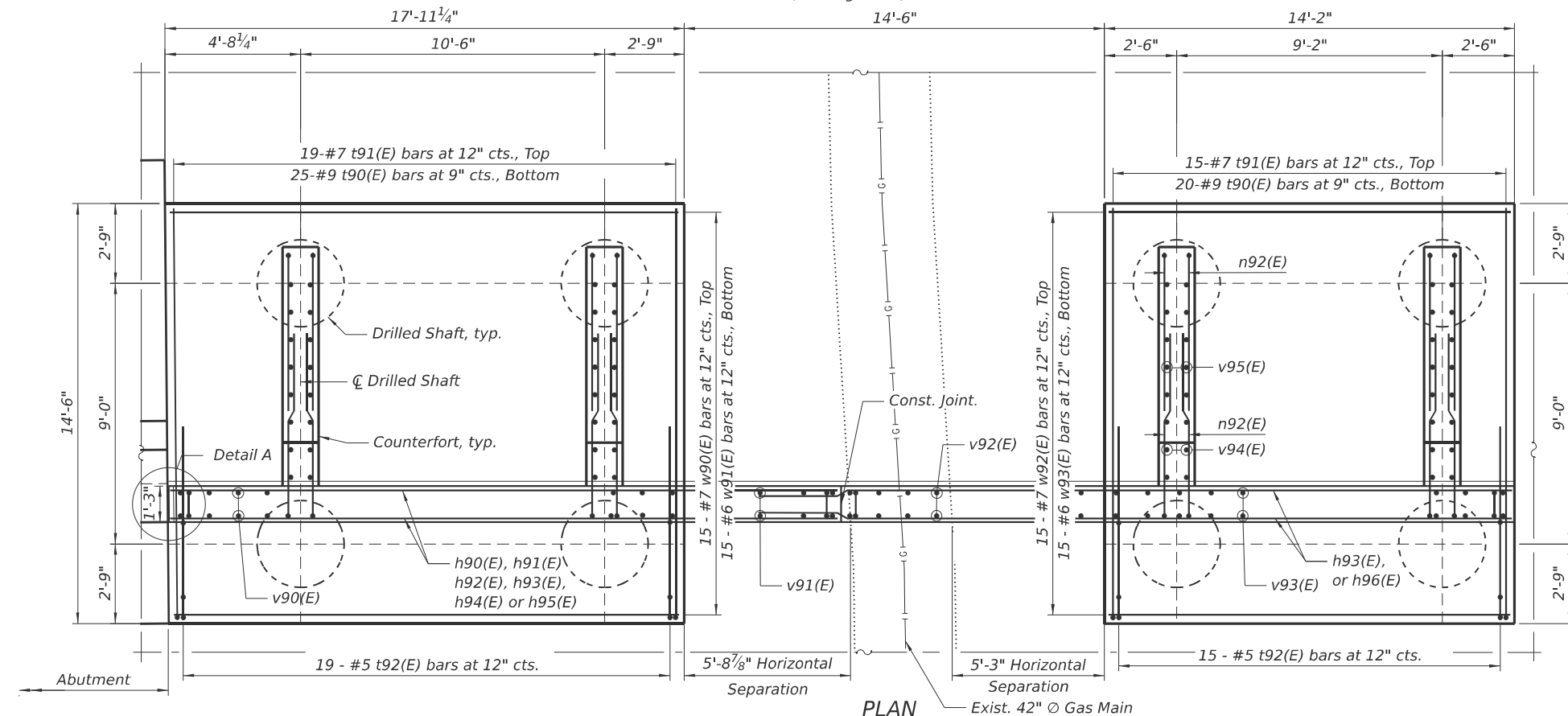
SHEET S-39 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	183
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Northeast RW-12 (Sheet)
FILE NAME: p:\civiltch\pw\beniley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-040- NE RW Plan&Elev

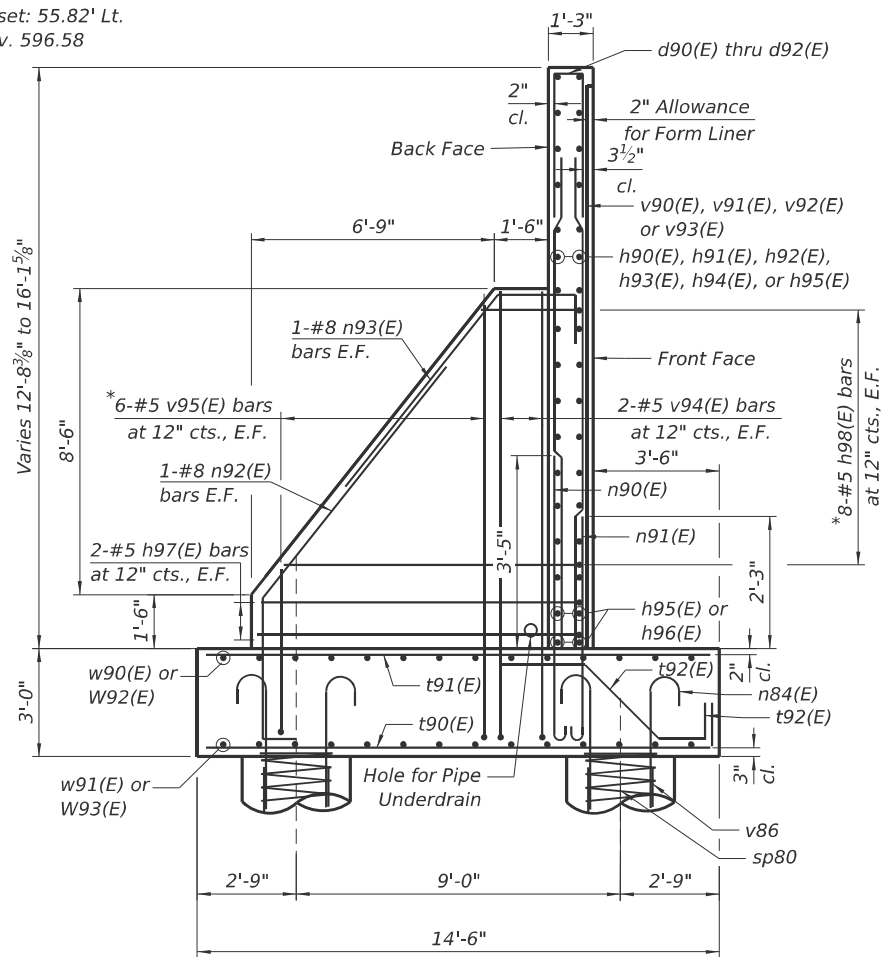


NORTHEAST RETAINING WALL ELEVATION
(Looking North)



PLAN

End Wall
Sta. 985+49.36
Offset: 55.82' Lt.
Elev. 596.58



SECTION A-A

*See Field Cutting Diagram on Sheet 44.

MINIMUM HORIZONTAL

BAR LAP

#5 bar = 2'-9"
#6 bar = 3'-9"

MINIMUM VERTICAL

BAR LAP

#5 bar = 2'-1"
#6 bar = 3'-3"

Location	Finish Grade at BF of Wall	Finish Grade at FF of Wall	Future T/Shld. at FF of Wall
Begin Wall	599.84	587.41	585.89
Const. Jt.	596.86	590.94	585.86
End of Wall	595.49	594.64	585.86

NOTES:

- For drilled shaft details, retaining wall drainage details, Detail A and Construction Joint Details see sheet S-43.
- For Bill of Material see sheet S-44.
- See General Notes 29 and 30 for Peoples Gas requirements.



USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

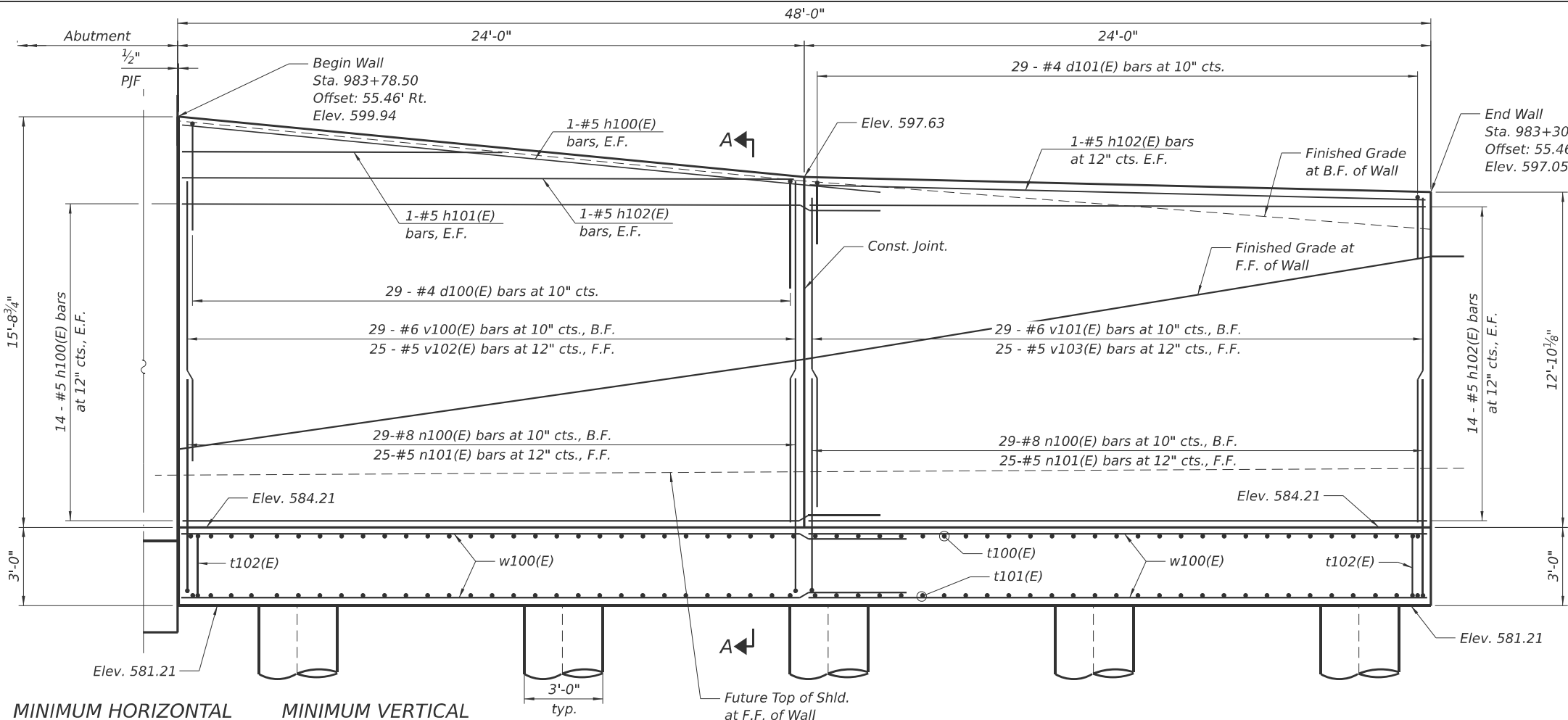
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NE RETAINING WALL PLAN & ELEVATION
STRUCTURE NO. 016-2093

SHEET S-40 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	184
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: SW RW Plan and Elev [Sheet]
FILE NAME: p:\civiltch\pww\benfley.com\civiltch\pww\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-041-SW RW Plan&Elev.dgn



MINIMUM HORIZONTAL

BAR LAP

#5 bar = 2'-9"
#6 bar = 3'-9"

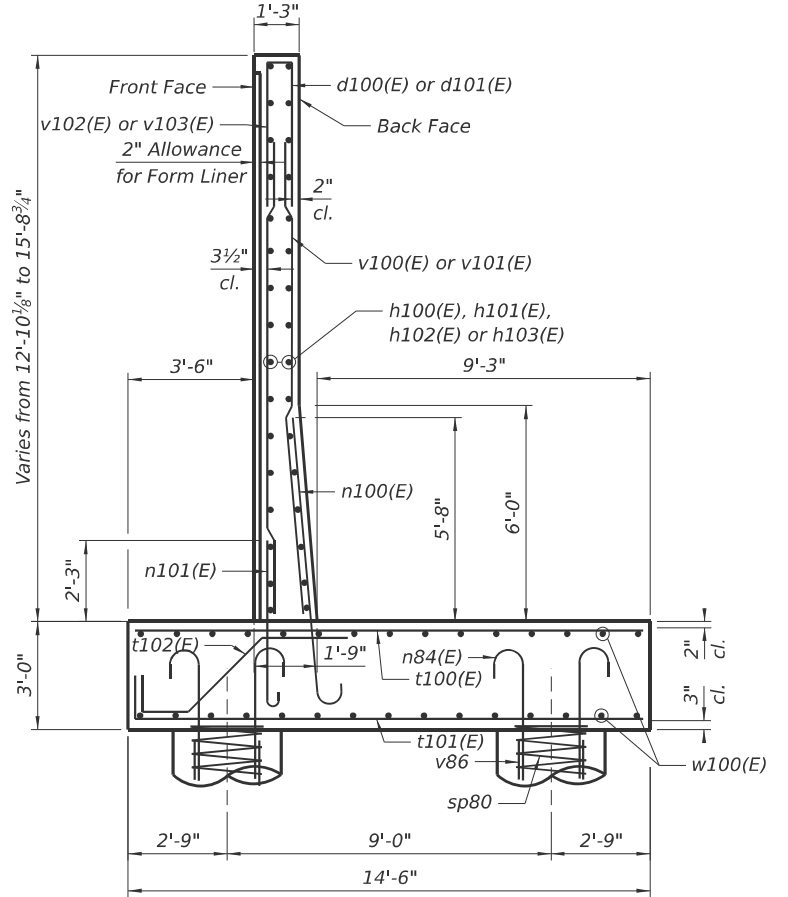
MINIMUM VERTICAL

BAR LAP

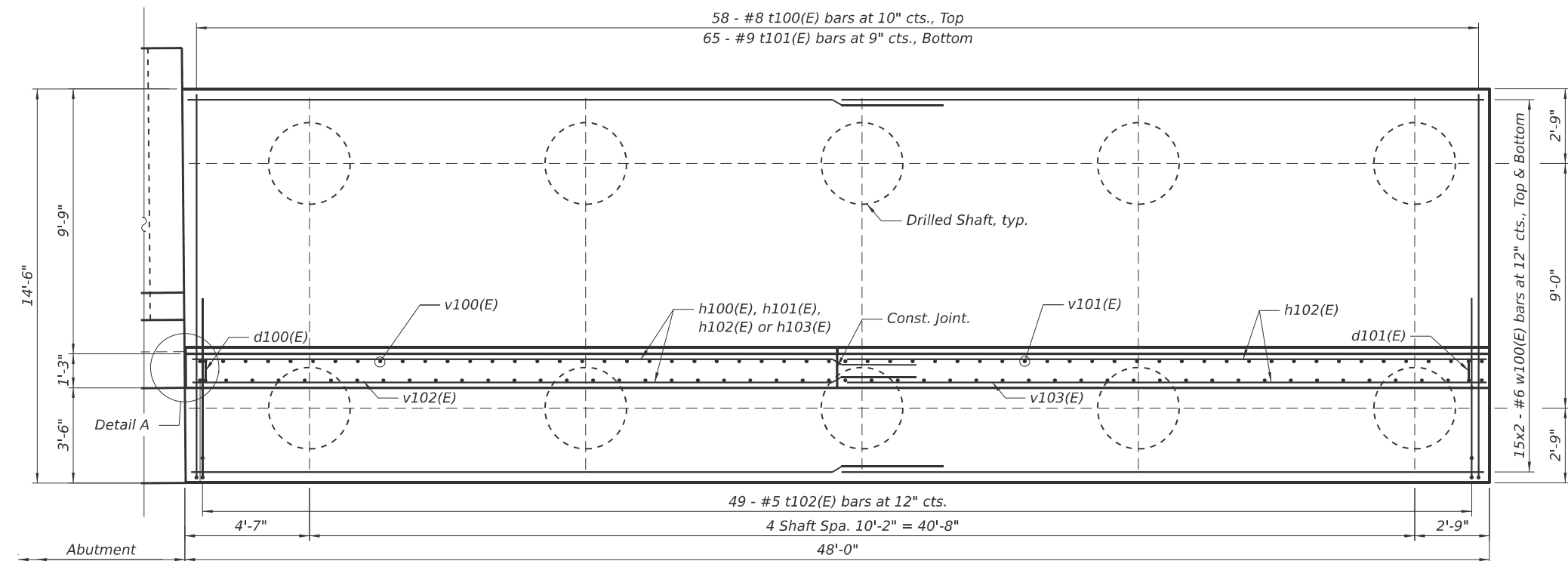
#5 bar = 2'-1"
#6 bar = 3'-3"
#8 bar = 5'-6"

SOUTHWEST RETAINING WALL ELEVATION

(Looking South)



SECTION A-A



PLAN

Location	Finish Grade at BF of Wall	Finish Grade at FF of Wall	Future T/Shld. at FF of Wall
Begin Wall	599.78	587.64	586.21
Const. Jt.	597.47	591.08	586.34
End of Wall	595.63	595.02	586.47

NOTES:

- For drilled shaft details, retaining wall drainage details, Detail A and Construction Joint Details see sheet S-43.
- For Bill of Material see sheet S-44.



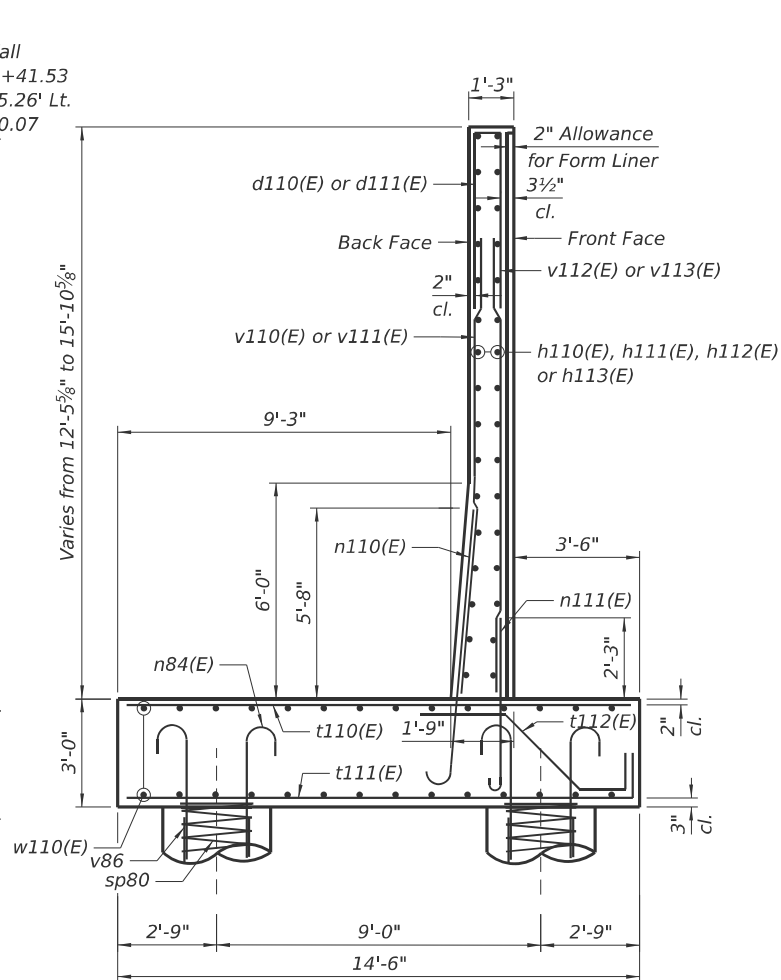
USER NAME = JMI	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SW RETAINING WALL PLAN & ELEVATION
STRUCTURE NO. 016-2093**

SHEET S-41 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	185
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



NORTHWEST RETAINING WALL ELEVATION
(Looking North)

#5 bar = 2'-9"
#6 bar = 3'-9"

#5 bar = 2'-1"
#6 bar = 3'-3"
#8 bar = 5'-6"



Location	Finish Grade at BF of Wall	Finish Grade at FF of Wall	Future T/Shld. at FF of Wall
Begin Wall	599.91	587.88	585.18
Const. Jt.	596.79	591.26	586.34
End of Wall	595.33	594.82	586.51

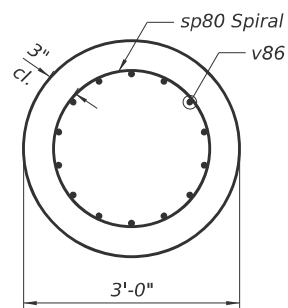
NOTES:

1. For drilled shaft details, retaining wall drainage details, Detail A and Construction Joint Details see sheet S-43.
2. For Bill of Material see sheet S-44.

DRILLED SHAFT

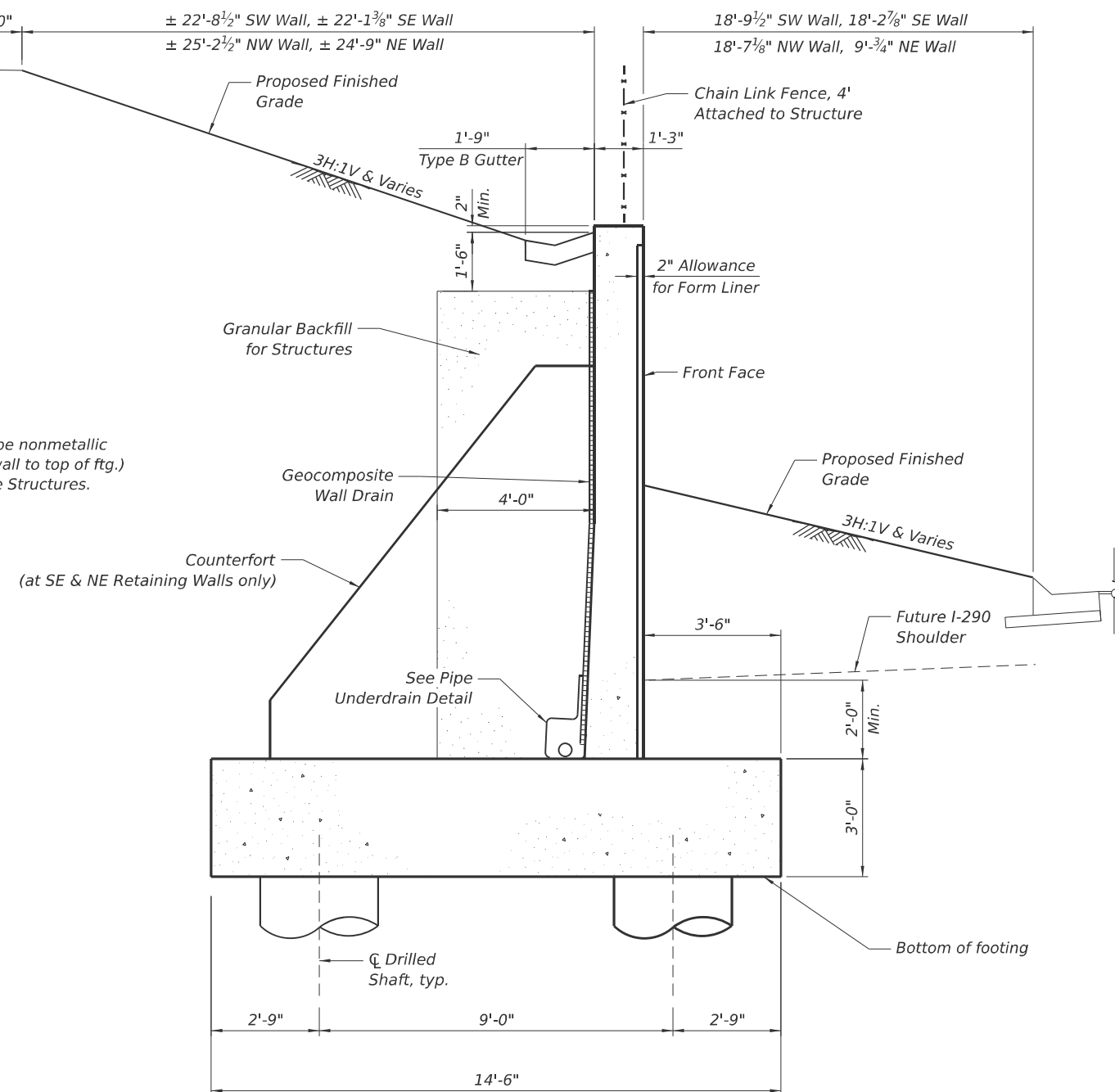
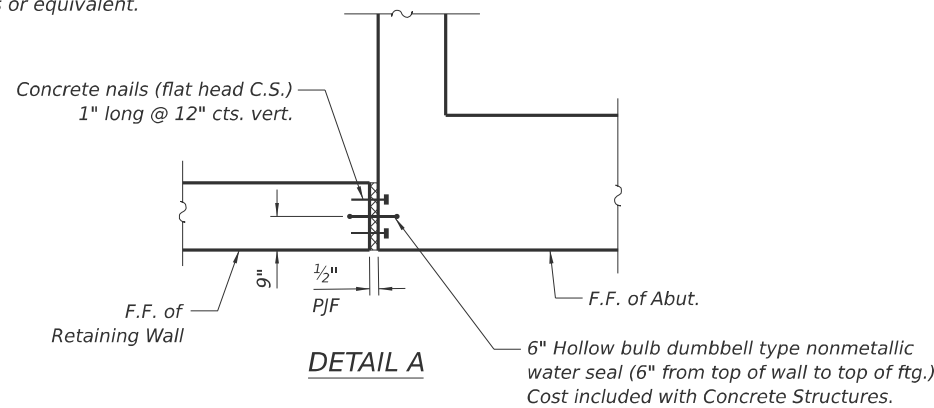
MINIMUM BAR LAP

#4 bar = 1'-10"

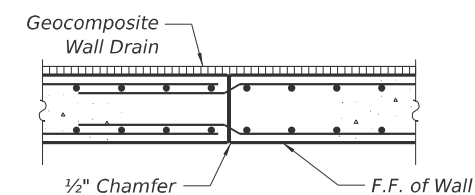


SECTION A-A

(For 3'-0" drilled shaft)



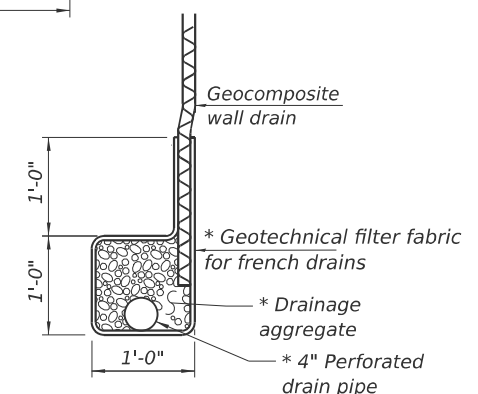
TYPICAL SECTION THRU RETAINING WALL



CONSTRUCTION JOINT DETAIL

NOTE:

1. *The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.*



PIPE UNDERDRAIN DETAIL

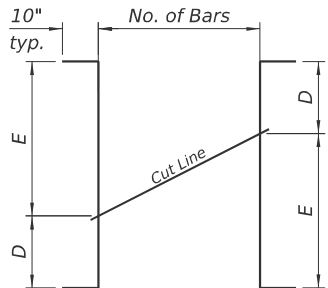
* Included in the cost of Pipe Underdrains for Structures.

MODEL: RW Details-3 (Sheet)
FILE NAME: pwr/illvilltech-pwr/bentley.com/civiltech-pwr/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SJHT-044-RW details2.dgn



BARS *n80(E), n81(E), n84, n90(E), n91(E), n100(E), n101(E), n110(E) & n111(E)*

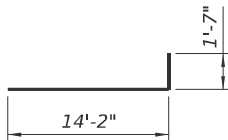
Bar	A	B	C
n80(E)	6'-2"	8"	6"
n81(E)	5'-0"	7"	5"
n84	8'-4"	1'-3"	11¾"
n90(E)	6'-2"	8"	6"
n91(E)	5'-0"	7"	5"
n100(E) & n110(E)	8'-5"	11"	8"
n101(E) & n111(E)	5'-0"	7"	5"



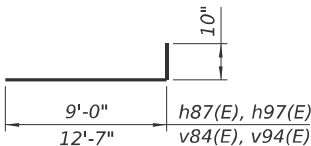
Bar	No.	D	E
h86(E)	8	3'-2"	8'-5"
h98(E)	8	3'-2"	8'-5"
v85(E)	6	5'-5"	11'-8"
v95(E)	6	5'-5"	11'-8"

FIELD CUTTING DIAGRAM

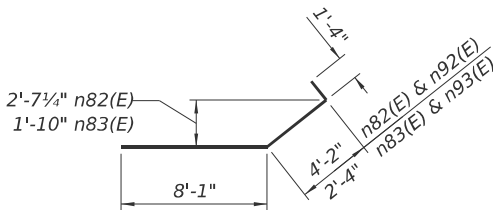
Order bar full length. Cut as shown and use remainder of bars in opposite face of counterfort.



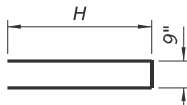
BARS *t80(E), t90(E), t101(E) & t111(E)*



BARS *h87(E), h97(E), v84(E) & v94(E)*

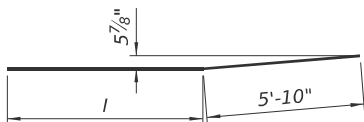


BARS *n82(E), n83(E), n92(E) & n93(E)*



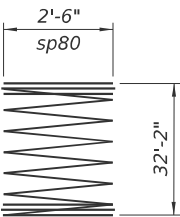
BARS *d80(E), d81(E), d90(E), d91(E), d92(E), d100(E), d101(E), d110(E) & d111(E)*

Bar	H
d80(E)	2'-5"
d81(E)	2'-11"
d90(E)	4'-0"
d91(E)	2'-5"
d92(E)	2'-0"
d100(E)	4'-0"
d101(E)	2'-3"
d110(E)	4'-10"
d111(E)	2'-0"



BARS *v100(E), v101(E), v110(E) & v111(E)*

Bar	I
v100(E)	7'-3"
v101(E)	6'-8"
v110(E)	6'-8"
v111(E)	6'-4"



BAR *sp80*

SOUTHEAST RETAINING WALL BILL OF MATERIAL

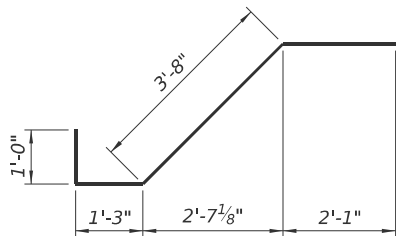
Bar	No.	Size	Length	Shape
d80(E)	25	#4	5'-7"	
d81(E)	25	#4	6'-7"	
h80(E)	2	#5	26'-8"	
h81(E)	2	#5	11'-9"	
h82(E)	41	#6	23'-5"	
h83(E)	37	#6	27'-6"	
h84(E)	4	#5	14'-7"	
h85(E)	4	#5	17'-8"	
h86(E)	32	#5	13'-3"	
h87(E)	16	#5	9'-10"	
n80(E)	35	#6	6'-10"	
n81(E)	35	#5	5'-7"	
n82(E)	8	#8	13'-7"	
n83(E)	8	#8	11'-9"	
n84(E)	112	#9	9'-7"	
* sp80	8	#4	32'-2"	
t80(E)	46	#9	15'-9"	
t81(E)	35	#7	14'-2"	
t82(E)	35	#5	8'-0"	
v80(E)	32	#5	14'-3"	
v81(E)	18	#5	11'-8"	
v82(E)	12	#5	11'-6"	
v83(E)	38	#5	12'-8"	
v84(E)	16	#5	13'-5"	
v85(E)	24	#5	18'-9"	
v86	112	#9	32'-2"	
w80(E)	15	#7	17'-8"	
w81(E)	15	#6	17'-8"	
w82(E)	15	#7	14'-7"	
w83(E)	15	#6	14'-7"	
Structure Excavation		Cu. Yd.	123.7	
Concrete Structures		Cu. Yd.	92.3	
Reinforcement Bars		Pound	15,250	
Reinforcement Bars, Epoxy Coated		Pound	16,270	
Drilled Shaft in Soil		Cu. Yd.	67.1	
Concrete Sealer		Sq. Ft.	692	
Granular Backfill for Structures		Cu. Yd.	88	
Geocomposite Wall Drain		Sq. Yd.	55	
Pipe Underdrains for Structures 4"		Foot	48	
Crosshole Sonic Logging Access Ducts		Foot	256	
Crosshole Sonic Logging Testing		Each	1	
Chain Link Fence, 4' Attached to Structure		Foot	48	

* Length is height of spiral

NORTHEAST RETAINING WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d90(E)	19	#4	8'-9"	
d91(E)	5	#4	5'-7"	
d92(E)	24	#4	4'-9"	
h90(E)	2	#5	26'-3"	
h91(E)	2	#5	7'-8"	
h92(E)	2	#5	15'-4"	
h93(E)	40	#6	22'-11"	
h94(E)	36	#6	27'-0"	
h95(E)	4	#5	17'-8"	
h96(E)	4	#5	13'-10"	
h97(E)	16	#5	9'-10"	
h98(E)	32	#5	13'-3"	
n84(E)	112	#9	9'-7"	
n90(E)	34	#6	6'-10"	
n91(E)	34	#5	5'-7"	
n92(E)	8	#8	13'-7"	
n93(E)	8	#8	11'-9"	
* sp80	8	#4	32'-2"	
t90(E)	45	#9	15'-9"	
t91(E)	34	#7	14'-2"	
t92(E)	34	#5	8'-0"	
v86	112	#9	32'-2"	
v90(E)	38	#5	13'-7"	
v91(E)	10	#5	11'-0"	
v92(E)	18	#5	18'-10"	
v93(E)	30	#5	12'-5"	
v94(E)	16	#5	13'-5"	
v95(E)	24	#5	18'-9"	
w90(E)	15	#7	17'-8"	
w91(E)	15	#6	17'-8"	
w92(E)	15	#7	13'-10"	
w93(E)	15	#6	13'-10"	
Structure Excavation		Cu. Yd.	124.6	
Concrete Structures		Cu. Yd.	90.2	
Reinforcement Bars		Pound	15,250	
Reinforcement Bars, Epoxy Coated		Pound	15,920	
Drilled Shaft in Soil		Cu. Yd.	67.1	
Concrete Sealer		Sq. Ft.	692	
Granular Backfill for Structures		Cu. Yd.	84	
Geocomposite Wall Drain		Sq. Yd.	52	
Pipe Underdrains for Structures 4"		Foot	47	
Crosshole Sonic Logging Access Ducts		Foot	256	
Crosshole Sonic Logging Testing		Each	1	
Chain Link Fence, 4' Attached to Structure		Foot	47	

* Length is height of spiral



BARS *t82(E), t92(E), t102(E) & t112(E)*

SOUTHWEST RETAINING WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d100(E)	29	#4	8'-9"	
d101(E)	29	#4	5'-3"	
h100(E)	30	#5	26'-9"	
h101(E)	2	#5	11'-10"	
h102(E)	32	#5	23'-8"	
n84(E)	140	#9	9'-7"	
n100(E)	58	#8	9'-4"	
n101(E)	50	#5	5'-7"	
* sp80	10	#4	32'-2"	
t100(E)	58	#8	14'-2"	
t101(E)	65	#9	15'-9"	
t102(E)	49	#5	8'-0"	
v86	140	#9	32'-2"	
v100(E)	29	#6	13'-1"	
v101(E)	29	#6	12'-6"	
v102(E)	25	#5	13'-1"	
v103(E)	25	#5	12'-6"	
w100(E)	60	#6	25'-9"	
Structure Excavation		Cu. Yd.	166.1	
Concrete Structures		Cu. Yd.	110.8	
Reinforcement Bars		Pound	19,060	
Reinforcement Bars, Epoxy Coated		Pound	18,410	
Drilled Shaft in Soil		Cu. Yd.	83.8	
Granular Backfill for Structures		Cu. Yd.	87	
Concrete Sealer		Sq. Ft.	722	
Geocomposite Wall Drain		Sq. Yd.	57	
Pipe Underdrains for Structures 4"		Foot	48	
Crosshole Sonic Logging Access Ducts		Foot	320	
Crosshole Sonic Logging Testing		Each	1	
Chain Link Fence, 4' Attached to Structure		Foot	48	

* Length is height of spiral

NORTHWEST RETAINING WALL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d110(E)	28	#4	10'-5"	
d111(E)	28	#4	4'-9"	
h110(E)	28	#5	25'-0"	
h111(E)	2	#5	7'-4"	
h112(E)	2	#5	14'-8"	
h113(E)	30	#5	21'-11"	
n84(E)	140	#9	9'-7"	
n110(E)	56	#8	9'-4"	
n111(E)	46	#5	5'-7"	
* sp80	10	#4	32'-2"	
t110(E)	54	#8	14'-2"	
t111(E)	60	#9	15'-9"	
t112(E)	45	#5	8'-0"	
v86	140	#9	32'-2"	
v110(E)	28	#6	12'-6"	
v111(E)	28	#6	12'-2"	
v112(E)	23	#5	12'-6"	
v113(E)	23	#5	12'-2"	
w100(E)	60	#6	24'-0"	
Structure Excavation		Cu. Yd.	145.2	
Concrete Structures		Cu. Yd.	102.0	
Reinforcement Bars		Pound	19,060	
Reinforcement Bars, Epoxy Coated		Pound	17,400	
Drilled Shaft in Soil		Cu. Yd.	83.8	
Granular Backfill for Structures		Cu. Yd.	78	
Concrete Sealer		Sq. Ft.	656	
Geocomposite Wall Drain		Sq. Yd.	51	
Pipe Underdrains for Structures 4"		Foot	45	
Crosshole Sonic Logging Access Ducts		Foot	320	
Crosshole Sonic Logging Testing		Each	1	
Chain Link Fence, 4' Attached to Structure		Foot	45	

* Length is height of spiral



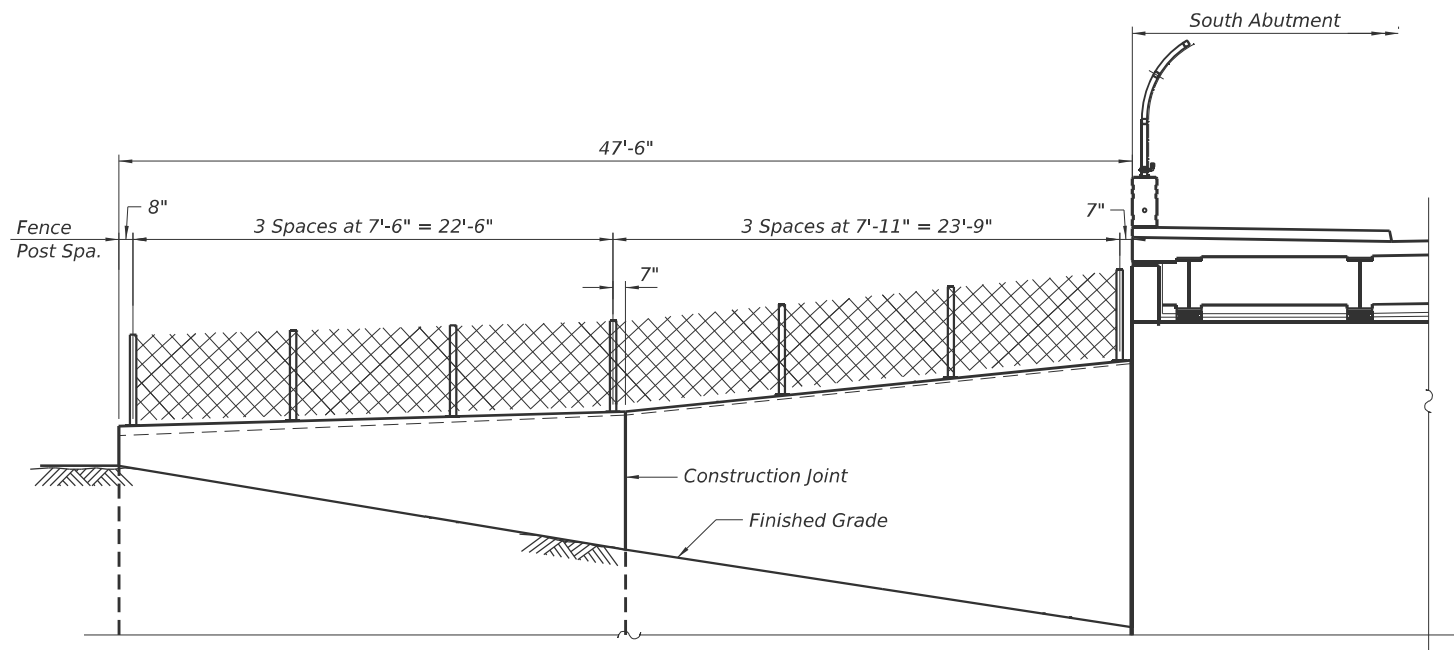
USER NAME = JMI	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

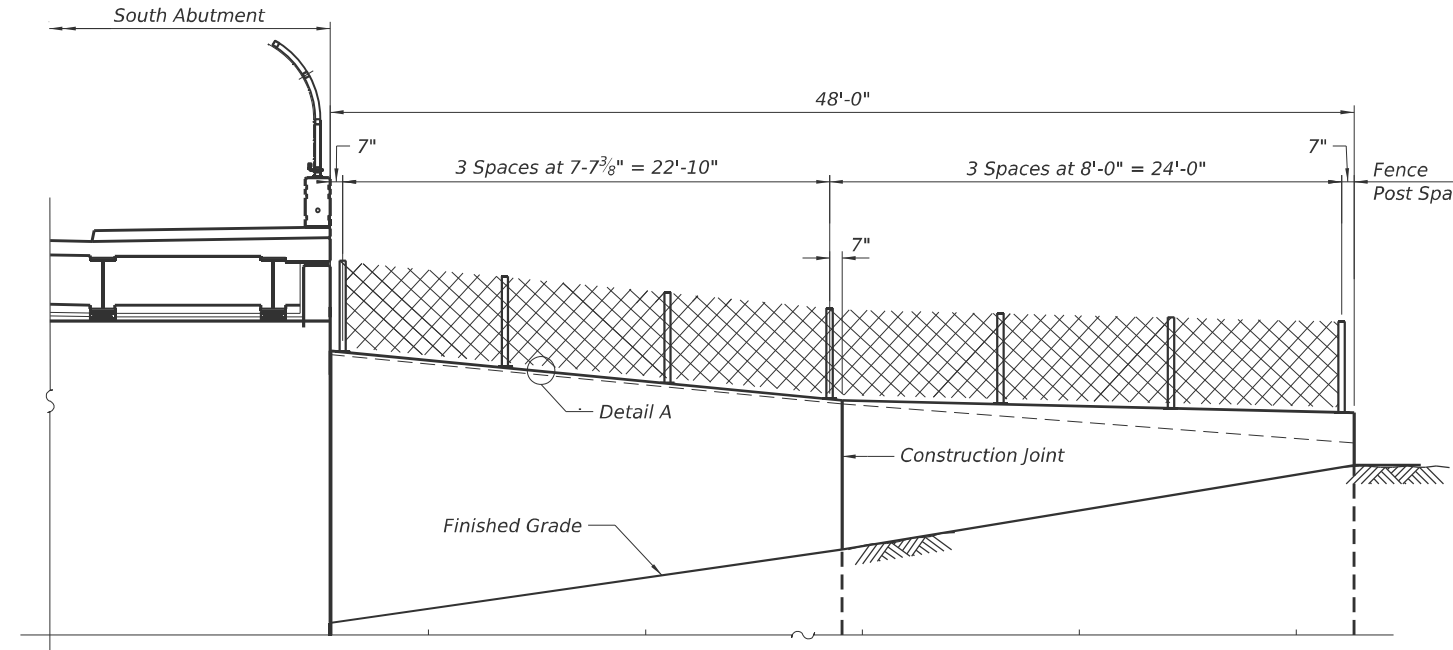
RETAINING WALL DETAILS 2
STRUCTURE NO. 016-2093

SHEET S-44 OF 63 SHEETS

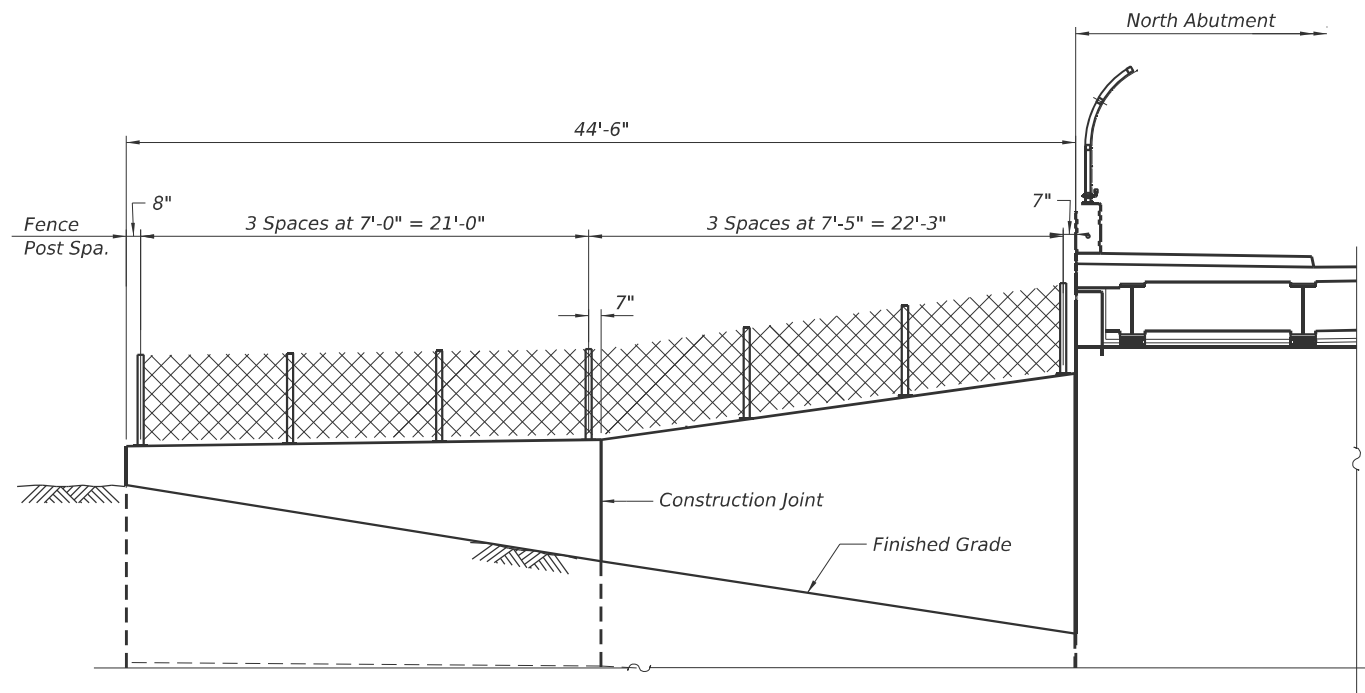
F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	188
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



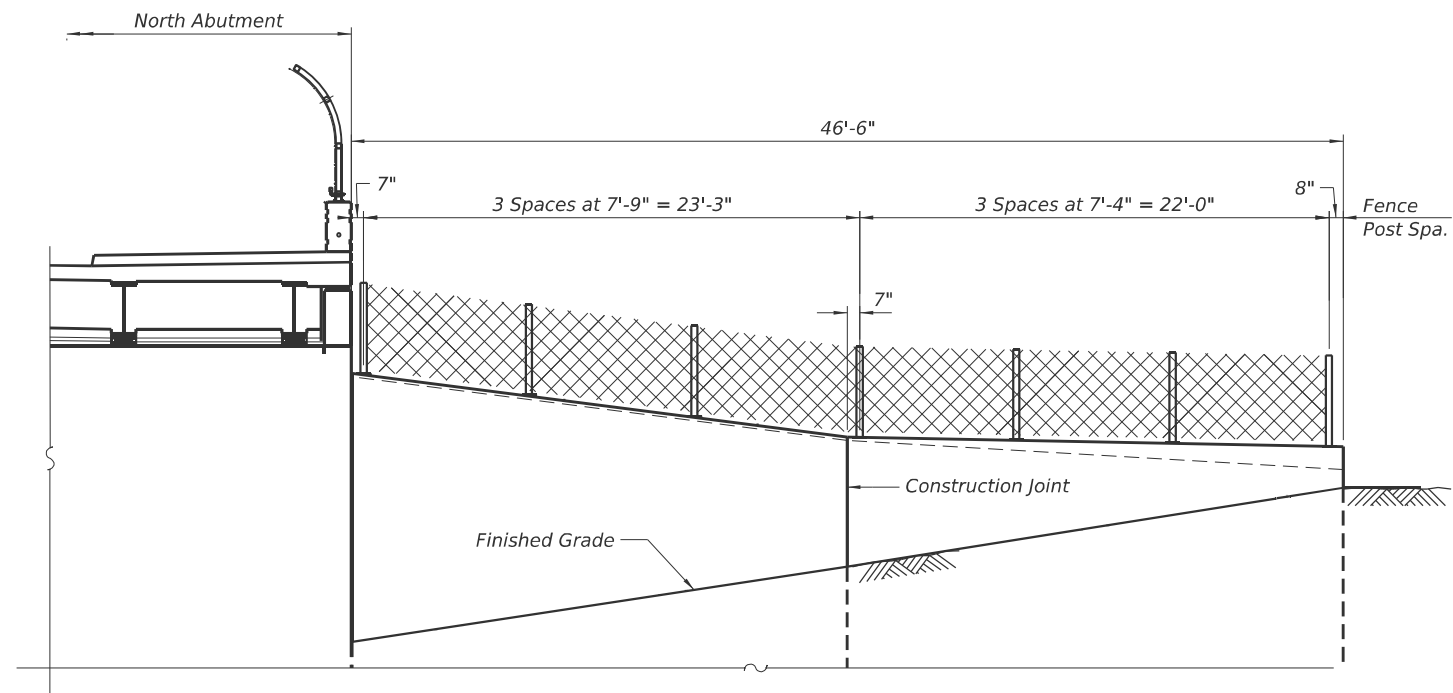
SOUTHEAST RETAINING WALL - FRONT FACE
(Looking South)



SOUTHWEST RETAINING WALL - FRONT FACE
(Looking South)



NORTHWEST RETAINING WALL - FRONT FACE
(Looking North)



NORTHEAST RETAINING WALL - FRONT FACE
(Looking North)

NOTES:

1. Material and installation of washers, base plates, shim plates, and fabric reinforced elastomeric pads shall be included in the Contract unit price for Chain Link Fence, 4" Attached to Structure.
2. For Detail A, see Sheet S-46.

MODEL: Chain Link Fence Details 1 (Sheet)
FILE NAME: p:\civilt\tech\pw\benley.com\civilt\tech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-046-ChainLink FenceDetails



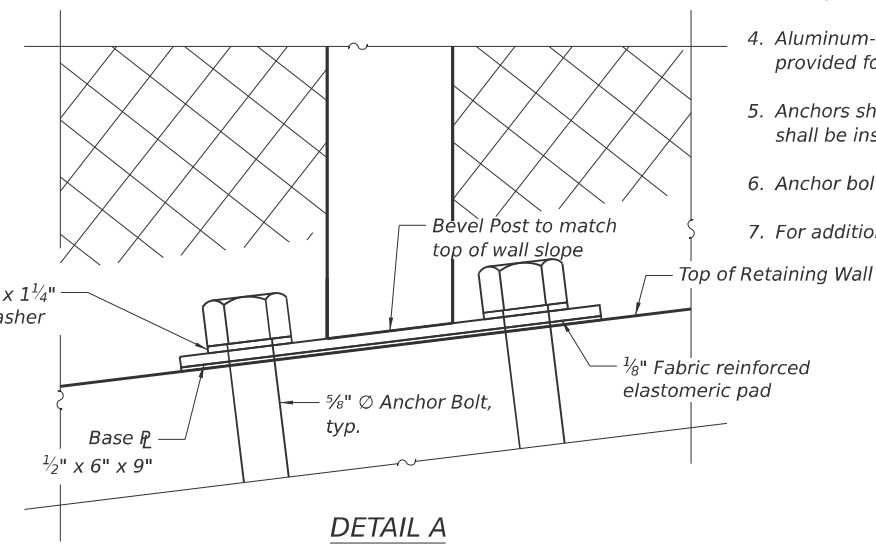
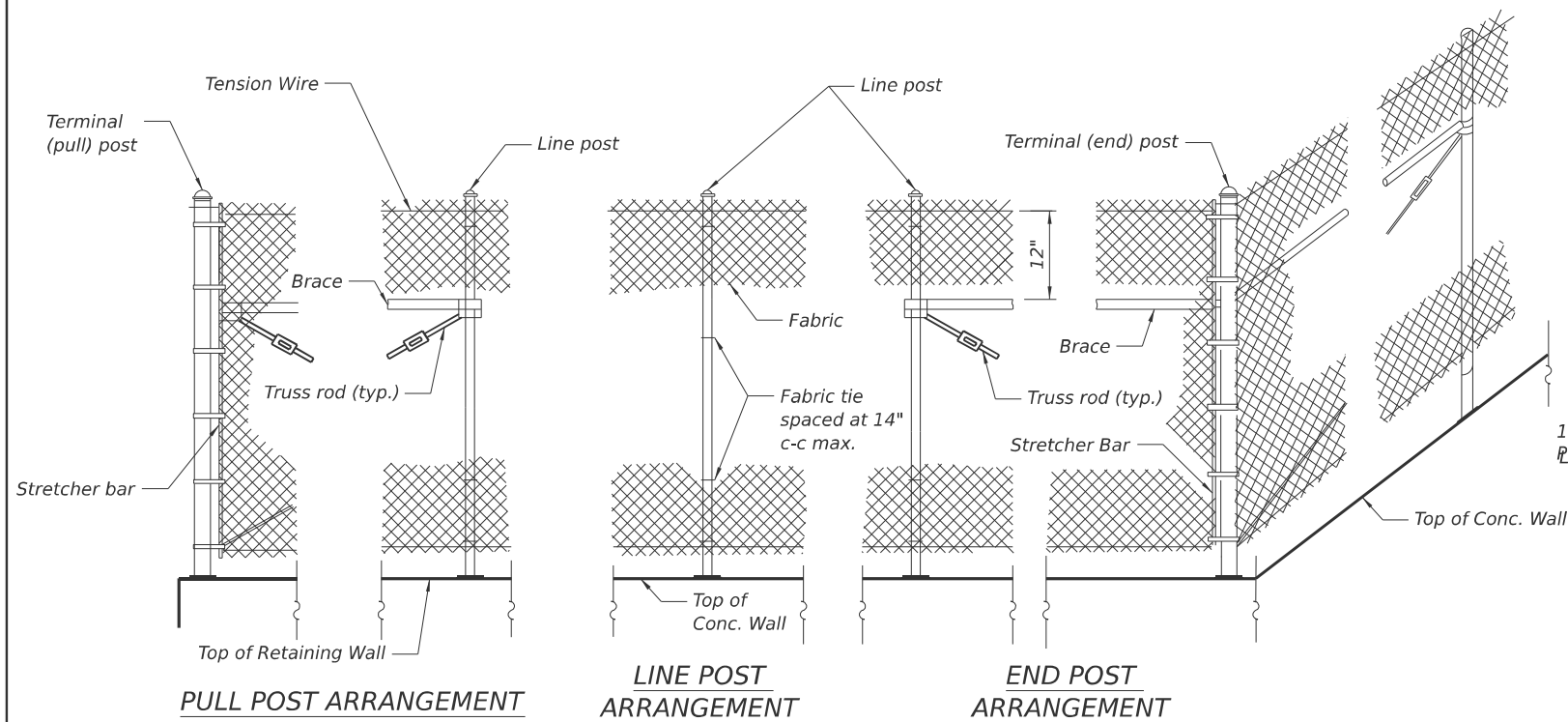
USER NAME = JMI	DESIGNED - JMI	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - JMI	REVISED - ####
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

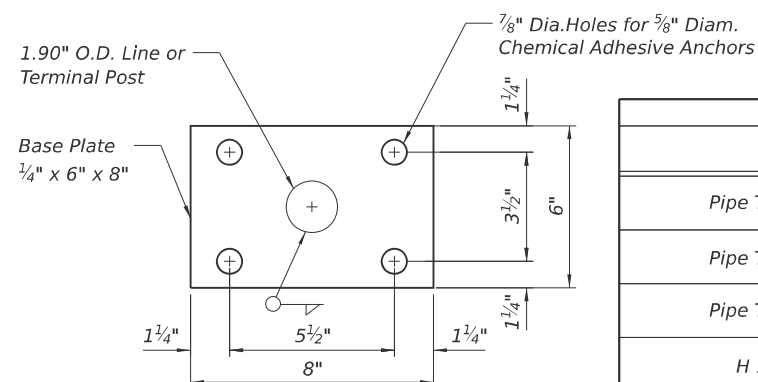
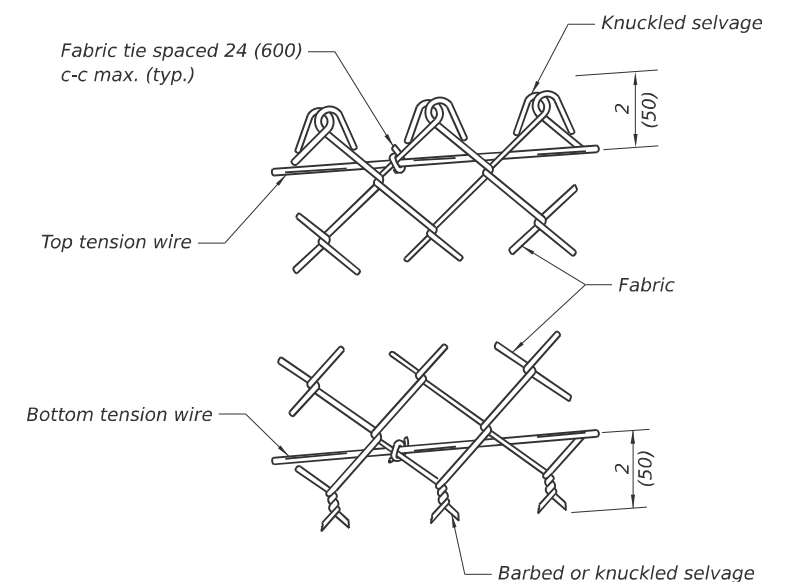
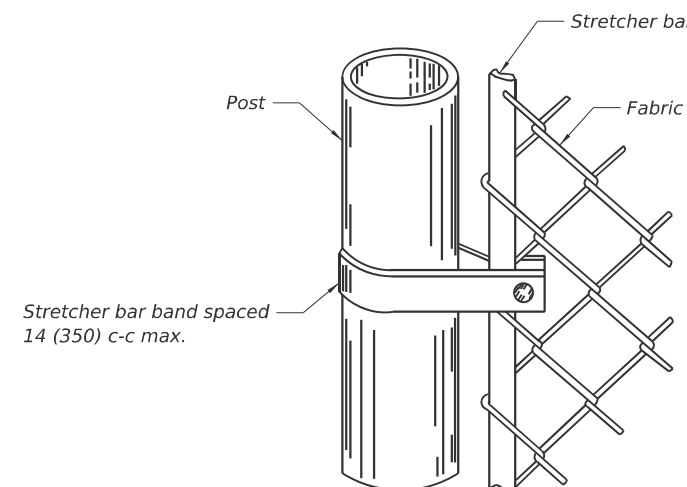
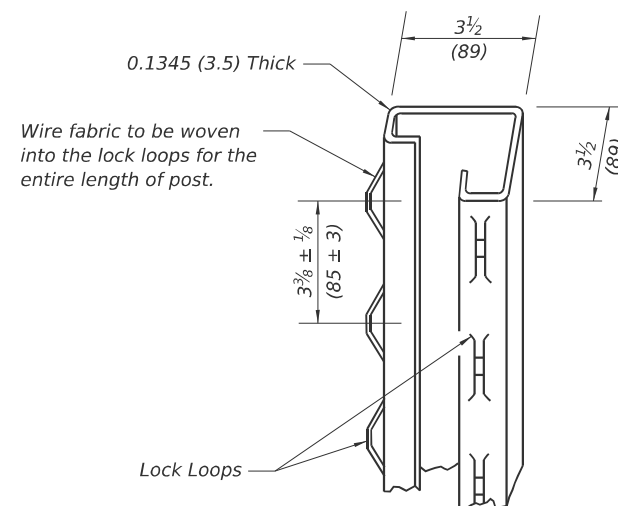
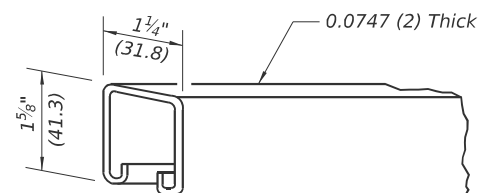
CHAIN LINK FENCE DETAILS (1 OF 2)
STRUCTURE NO. 016-2093

SHEET S-45 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	189
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



- ## NOTES:
1. Utilize Pipe Type A for all line and terminal posts.
 2. Pipe shall be ASTM A53, Grade B or ASTM A500, Grade B.
 3. Base plates shall be ASTM A36 minimum.
 4. Aluminum-coated steel or zinc-coated steel materials shall be provided for fencing, posts, and base plates.
 5. Anchors shall be stainless steel chemical adhesive type and shall be installed per manufactures recommendations.
 6. Anchor bolts, nuts and washers shall be 304 stainless steel.
 7. For additional details, see Hwy. Std. 664001.



LINE POST	
Section	lbs./ft
Pipe Type A 1.90" O.D.	2.72
Pipe Type B 1.90" O.D.	2.28
Pipe Type C 1.90" O.D.	2.26
H 1.875"x1.625"	2.72
□	1.60
I	2.30

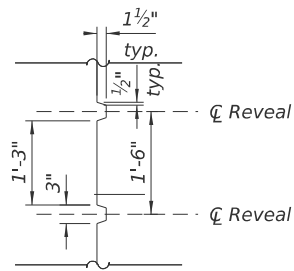
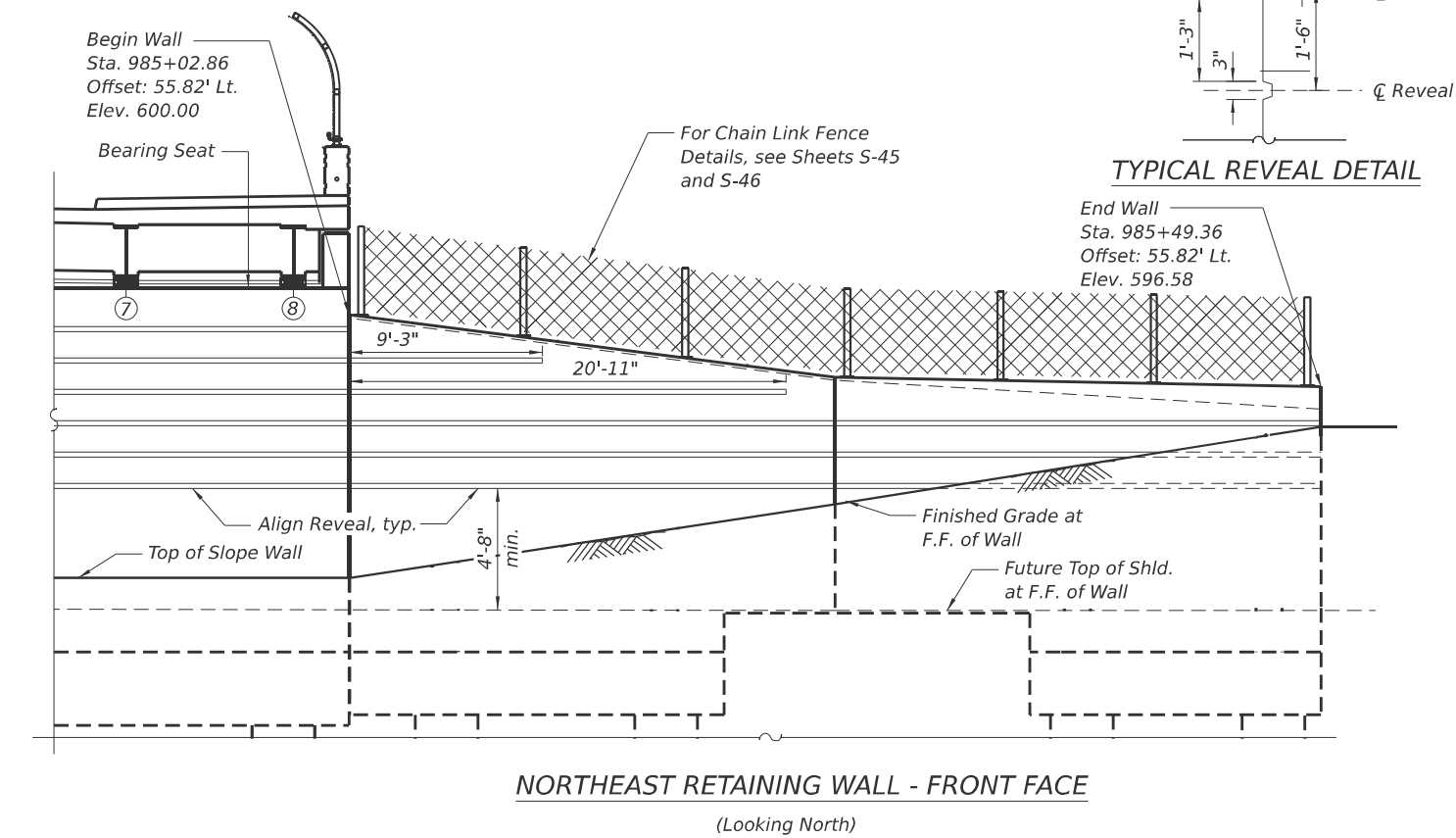
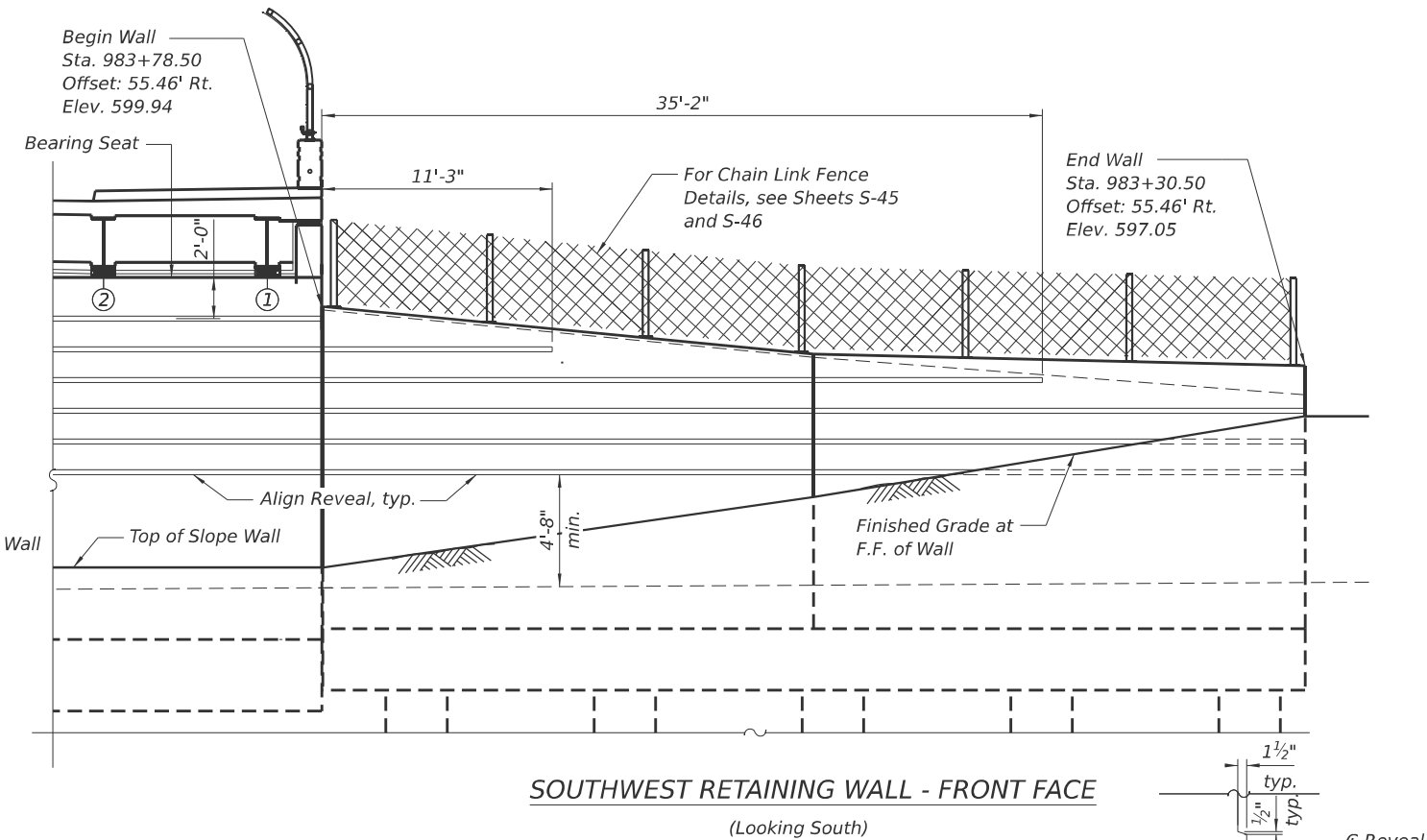
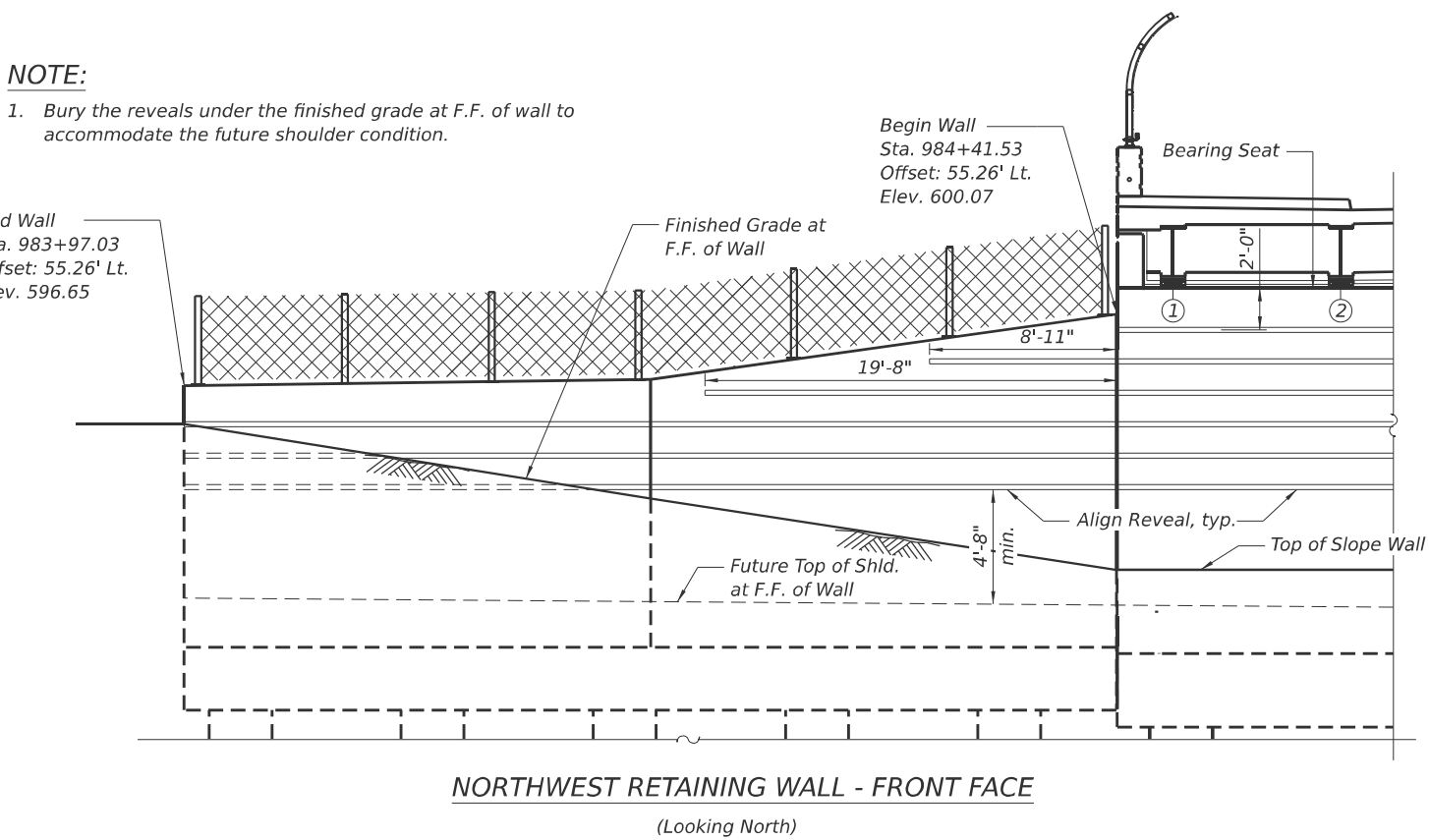
TERMINAL POST	
Section	lbs./ft
Pipe Type A 2.375" O.D.	3.65
Pipe Type B 2.375" O.D.	3.11
Pipe Type C 2.375" O.D.	3.09
Roll Formed 3½"x3½"	See detail
Sq. Tubing 2½"x2½"	4.32

HORIZONTAL BRACES	
Section	lbs./ft
Pipe Type A 1.66" O.D.	2.27
Pipe Type B 1.66" O.D.	1.83
Pipe Type C 1.66" O.D.	1.82
H 1.31"x1.5"	2.25
Roll Formed 1 $\frac{5}{8}$ "x1 $\frac{1}{4}$ "	See Detail

<u>BILL OF MATERIAL</u>		
ITEM	UNIT	QUANTITY
Chain Link Fence, 4' Attached to Structure	Foot	188

MODEL: Abutment and Retaining Wall Architectural Details, [Sheet]
FILE NAME: p:\w\l\civiltech\pw\benley.com\civiltech\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\17-Abutment and Retaining Wall Architectural Details

NOTE:
1. Bury the reveals under the finished grade at F.F. of wall to accommodate the future shoulder condition.



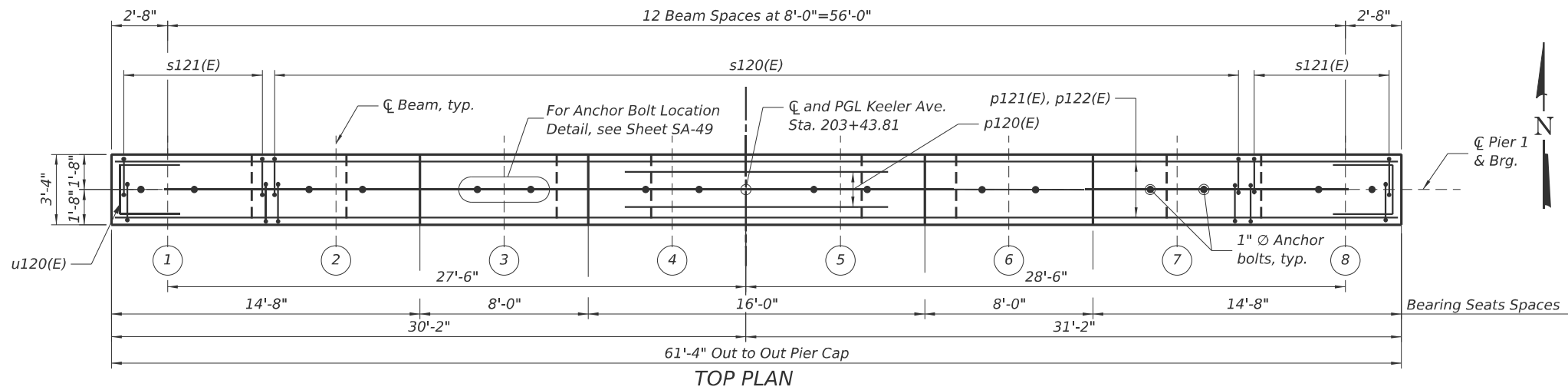
USER NAME = JMI	DESIGNED - JMI	REVISED - ####
	CHECKED - GJH	REVISED - ####
PLOT SCALE =	DRAWN - JMI	REVISED - ####
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED - ####

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT AND RETAINING WALL ARCHITECTURAL DETAILS
STRUCTURE NO. 016-2093

SHEET S-47 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	191
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

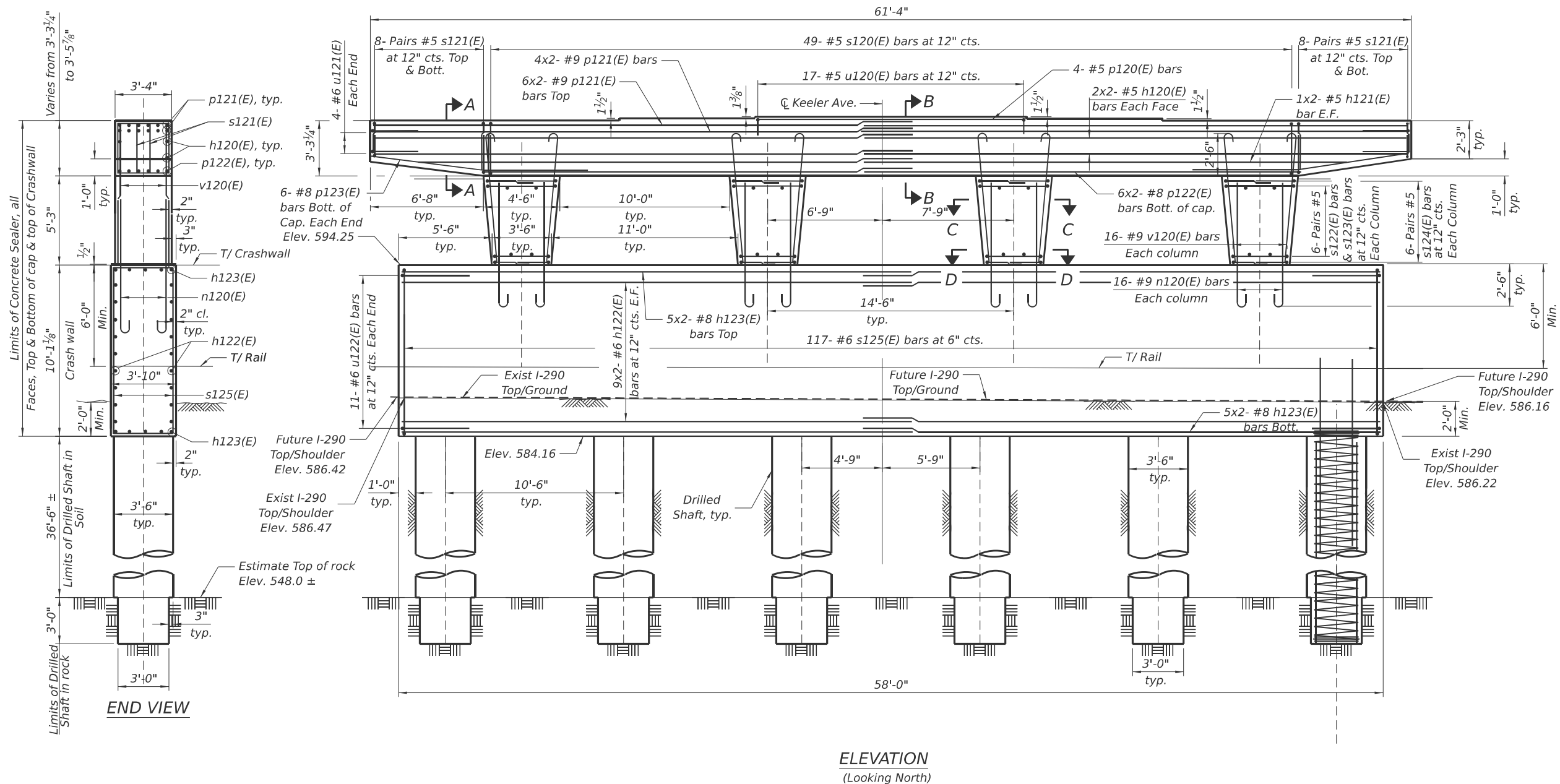


NOTES:

- See Sheet S-49 for the Bill of Material, Section A-A, B-B, C-C, D-D and Drilled Shaft details.
- Apply concrete sealer to all exposed concrete surface of the pier.
- Space reinforcement in cap to miss anchor bolts.
- Pour bearing seat steps monolithically with cap.

BEARING SEAT ELEVATION

Girder No.	Seat Elevation
1	602.77
2	602.77
3	602.89
4	602.99
5	602.99
6	602.87
7	602.75
8	602.75



MINIMUM BAR LAPS

#5 bar = 2'-9"
 #6 bar = 3'-9"
 #8 bar = 6'-3"
 #9 bar = 6'-11"

MODEL: Pier 1 Plan-5 (Sheet)
 FILE NAME: p:\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-04b-Pier 1 Plan & Elev



USER NAME = Greg Hatlestad	DESIGNED - RH, JMI	REVISED -
PLOT SCALE =	CHECKED - GJH	REVISED -
PLOT DATE = 8/13/2025	DRAWN - RH	REVISED -
	CHECKED - GJH	REVISED -

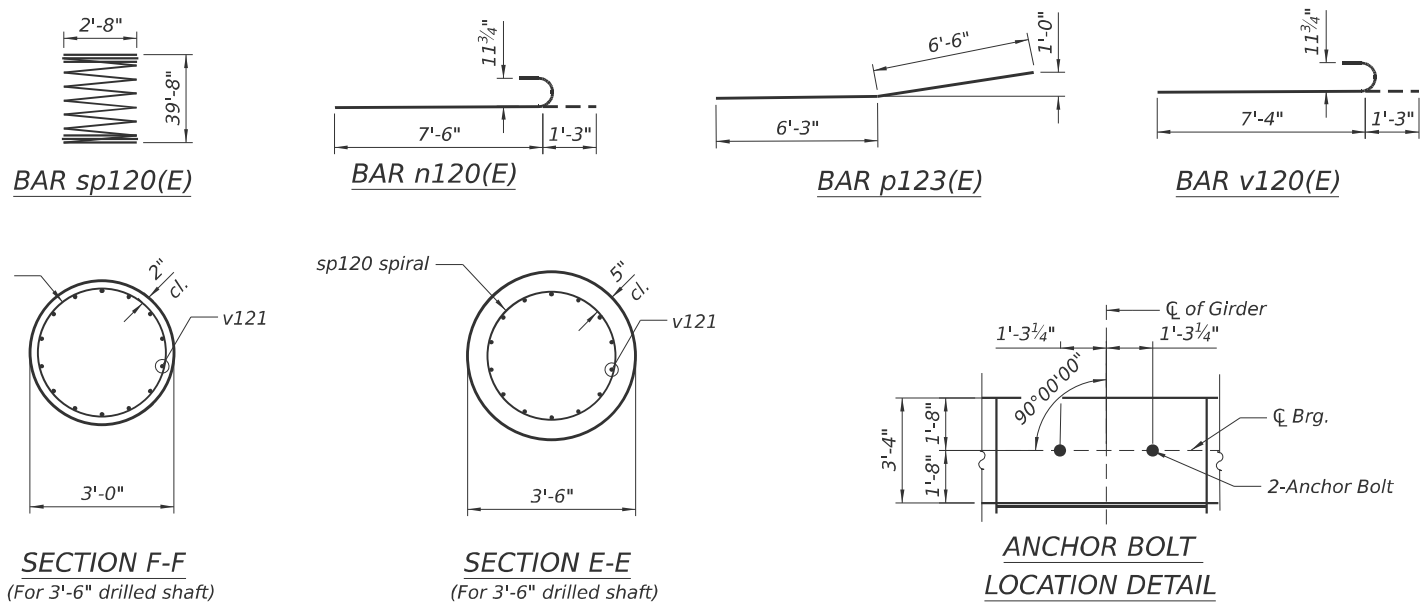
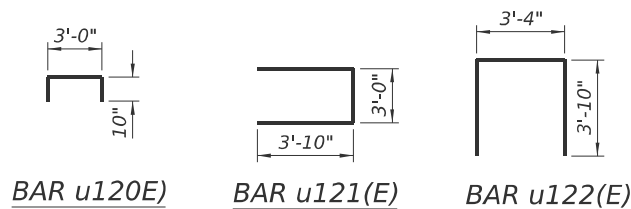
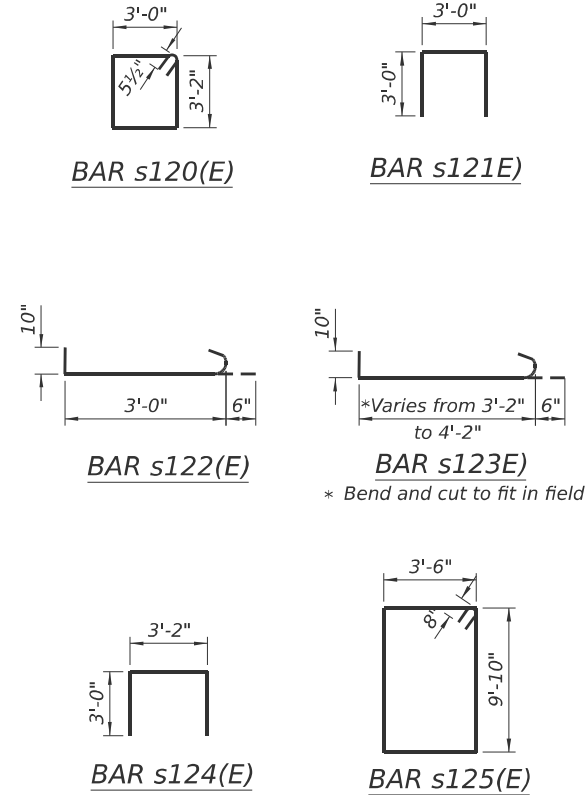
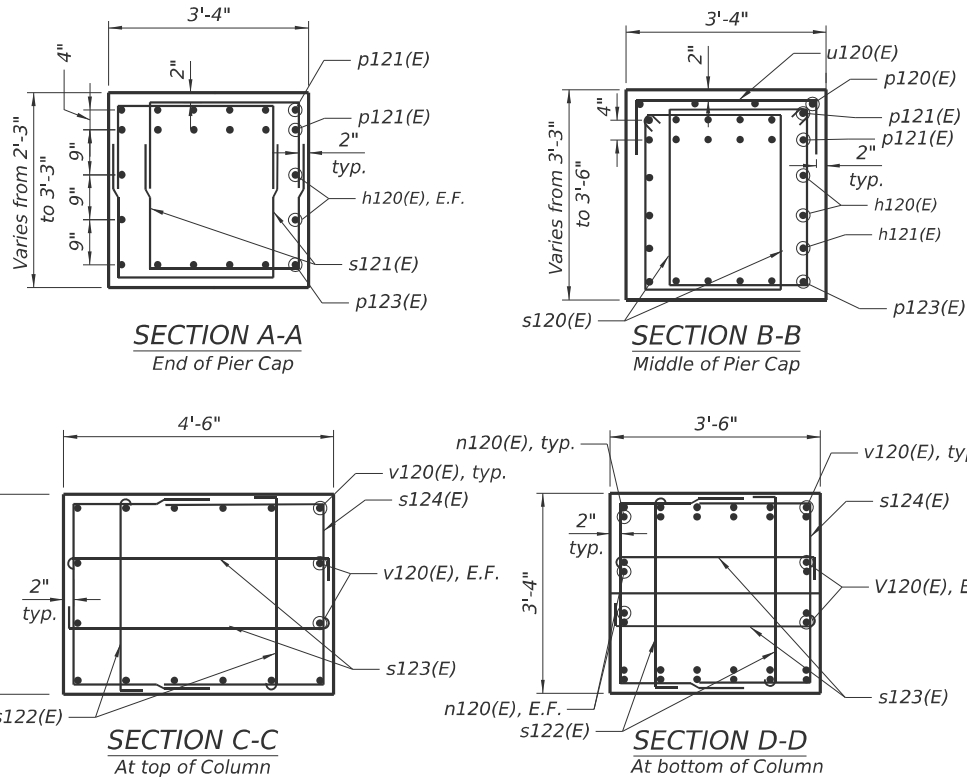
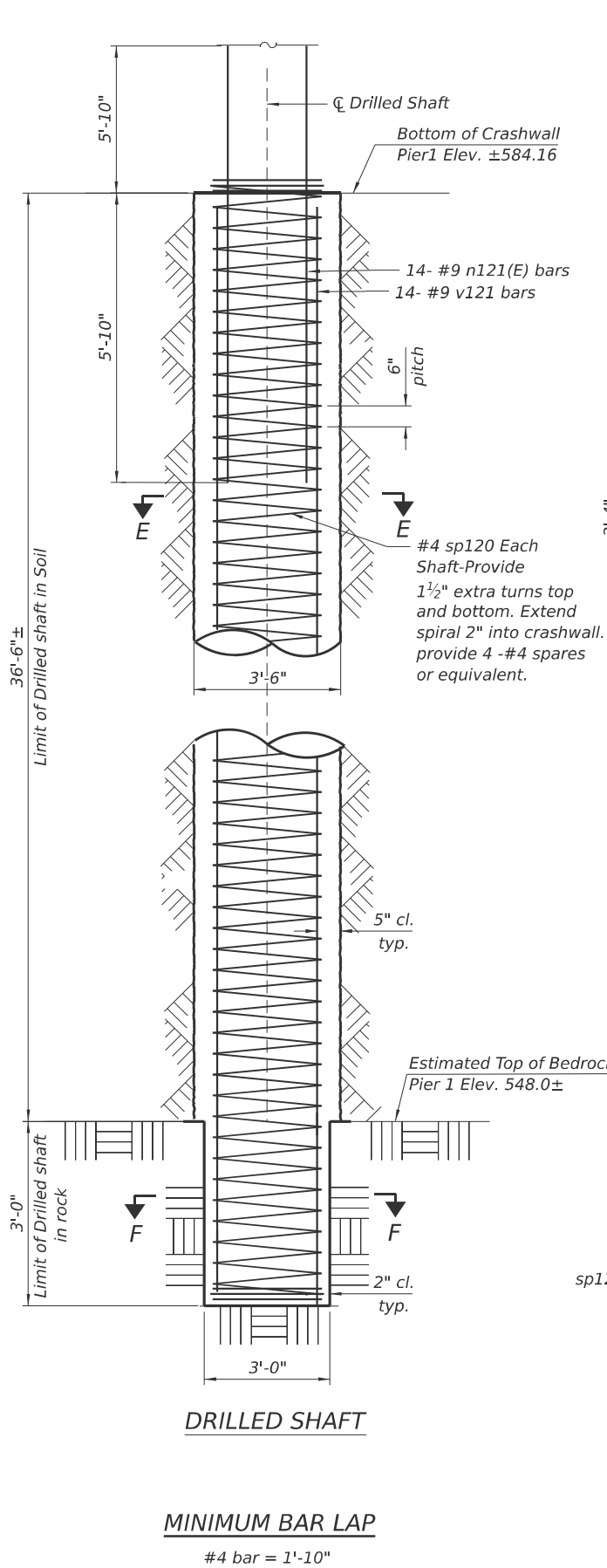
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 1 PLAN AND ELEVATION
 STRUCTURE NO. 016-2093

SHEET S-48 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	192
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

MODEL: Pier 1 details-2 [Sheet]
FILE NAME: p:\civiltch\pw\benlley.com\civiltch\pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\162U41-SHT-046-Pier1 Details



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h120(E)	8	#5	31'-11"	
h121(E)	4	#5	28'-2"	
h122(E)	36	#6	30'-9"	
h123(E)	20	#8	32'-0"	
n120(E)	64	#9	8'-9"	
n121(E)	84	#9	11'-8"	
p120(E)	4	#5	16'-8"	
p121(E)	20	#9	34'-5"	
p122(E)	12	#8	27'-2"	
p123(E)	12	#8	12'-9"	
s120(E)	49	#5	13'-3"	
s121(E)	64	#5	9'-0"	
s122(E)	48	#5	4'-4"	
s123(E)	48	#5	5'-6"	
s124(E)	48	#5	9'-2"	
s125(E)	117	#6	28'-0"	
sp120	6	#4	39'-8"	
u120(E)	17	#5	4'-8"	
u121(E)	8	#5	10'-8"	
u122(E)	22	#6	11'-0"	
v120(E)	64	#9	8'-7"	
v121	84	#9	39'-8"	
Structure Excavation				Cu. Yd. 196
Concrete Structures				Cu. Yd. 118.6
Reinforcement Bars				Pound 14,260
Reinforcement Bars, Epoxy Coated				Pound 22,270
Drilled Shaft in Soil				Cu. Yd. 78.1
Drilled Shaft in Rock				Cu. Yd. 4.8
Concrete Sealer				Sq. Ft. 2197
Crosshole Sonic Logging Access Ducts				Foot 237
Crosshole Sonic Logging Testing				Each 1

* Length is height of spiral

NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Bars noted thus. 2x2- #5 indicated 2 lines of bars with 2 lengths of bars per line.
- Bars equally spaced. unless otherwise e noted.
- Apply concrete sealer to all exposed concrete surface of pier.
- All edges shall have standard 3/4" chamfer.
- The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcment quantities and payment limits.



USER NAME = Greg Hatlestad
PLOT SCALE =
PLOT DATE = 8/13/2025

DESIGNED - RH, JMI
CHECKED - GJH
DRAWN - RH
CHECKED - GJH

REVISED -
REVISED -
REVISED -
REVISED -

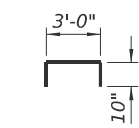
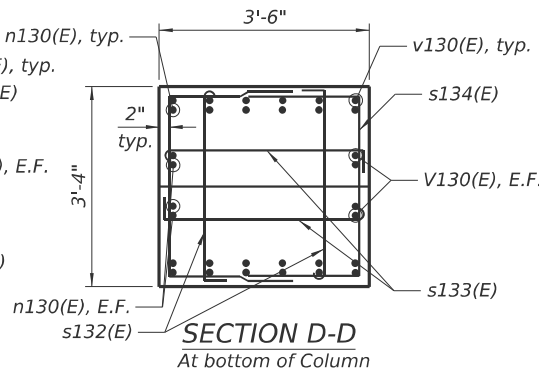
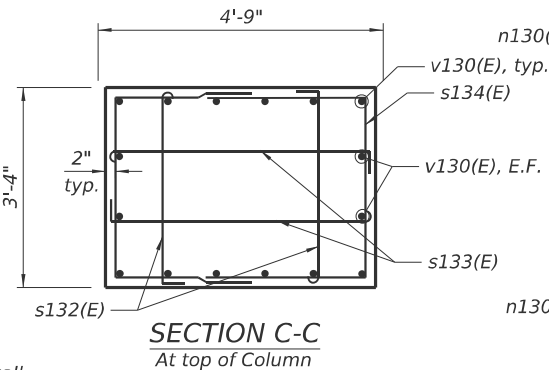
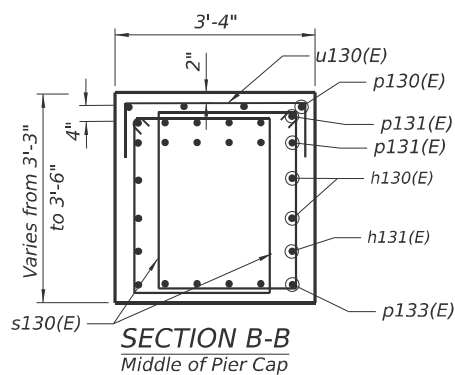
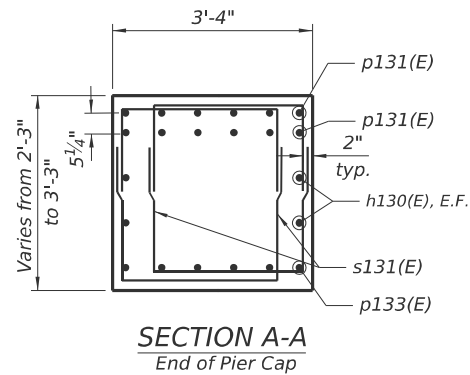
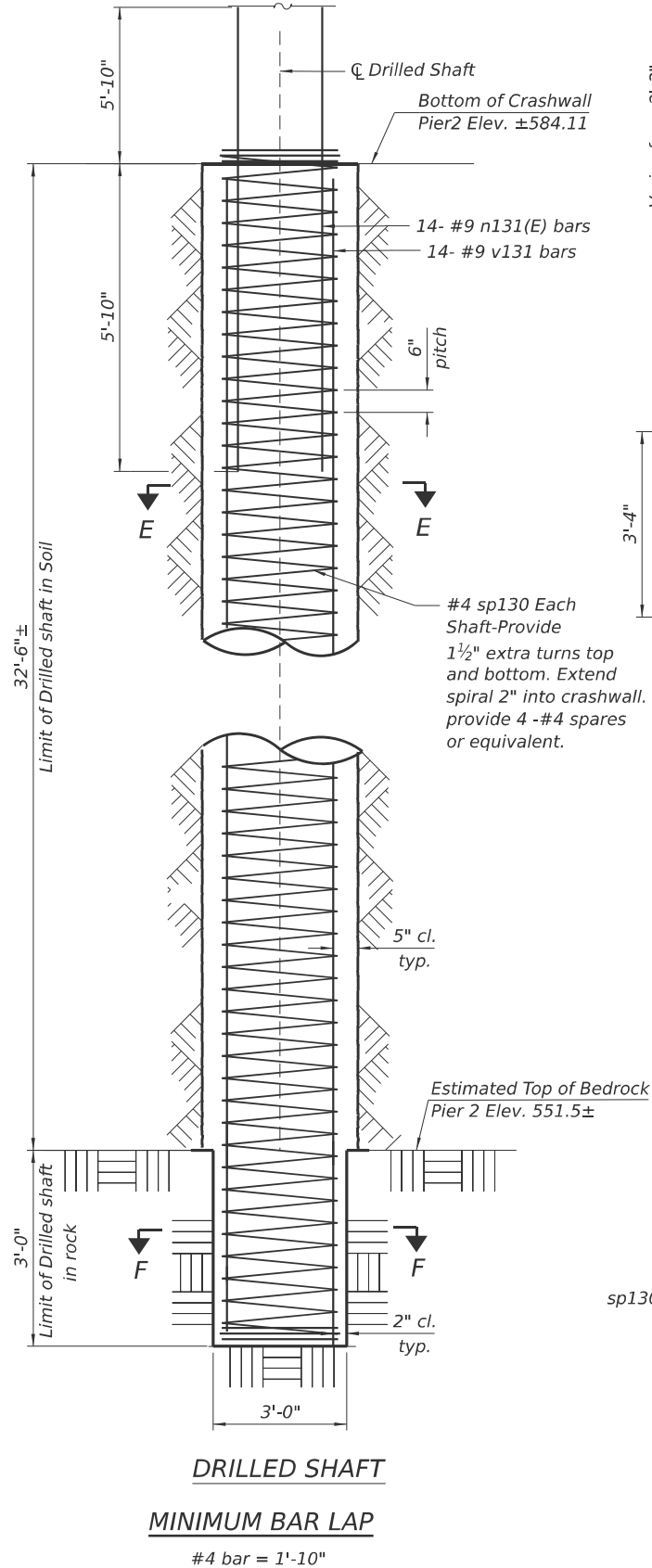
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS & BILL OF MATERIALS
STRUCTURE NO. 016-2093

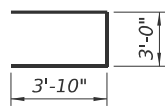
SHEET S-49 OF 63 SHEETS

FAI RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
290 FAI 290 22 KEELER BR COOK 283 193
CONTRACT NO. 62U41
ILLINOIS FED. AID PROJECT

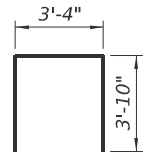
MODEL: Pier 2 details-3 [Sheet]
FILE NAME: pwr/civiltech-pw/bentley.com/civiltech-pw/Documents/Projects/3855/CAD/CADD Sheets/17-Structures/D162U41-SHT-051-Pier 2 Details.dgn



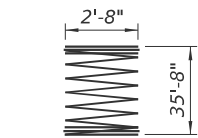
BAR u130(E)



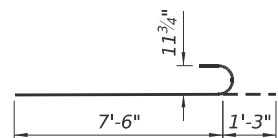
BAR u131(E)



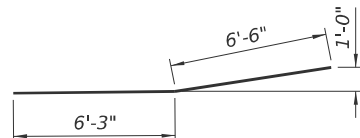
BAR u132(E)



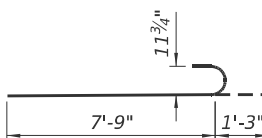
BAR sp130(E)



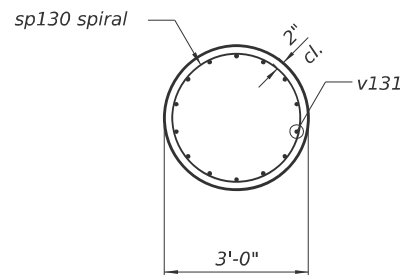
BAR n130(E)



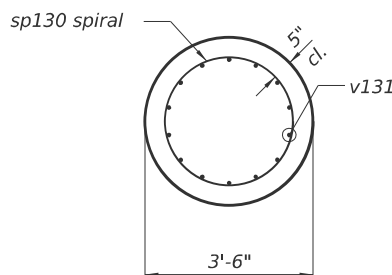
BAR p133(E)



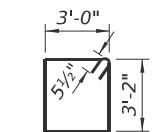
BAR v130(E)



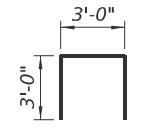
SECTION F-F
(For 3'-6" drilled shaft)



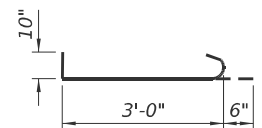
SECTION E-E
(For 3'-6" drilled shaft)



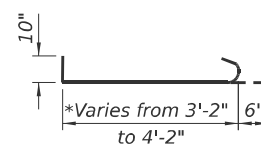
BAR s130(E)



BAR s131(E)

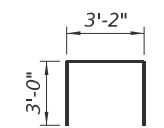


BAR s132(E)

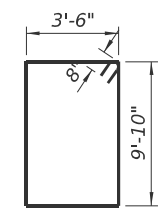


BAR s133(E)

* Bend and cut to fit in field



BAR s134(E)



BAR s135(E)

BILL OF MATERIAL

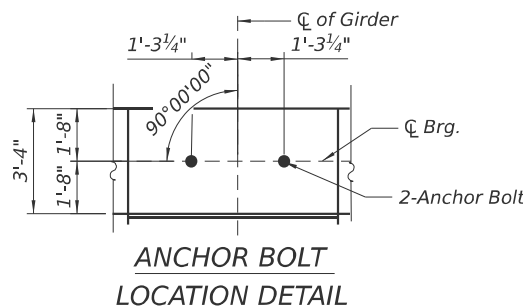
Bar	No.	Size	Length	Shape
h130(E)	8	#5	31'-11"	
h131(E)	4	#5	28'-2"	
h132(E)	36	#6	30'-9"	
h133(E)	20	#8	32'-0"	
n130(E)	64	#9	8'-9"	
n131(E)	84	#9	11'-8"	
p130(E)	4	#5	16'-8"	
p131(E)	20	#9	34'-5"	
p132(E)	12	#8	27'-2"	
p133(E)	12	#8	12'-9"	
s130(E)	49	#5	13'-3"	
s131(E)	64	#5	9'-0"	
s132(E)	56	#5	4'-4"	
s133(E)	56	#5	5'-6"	
s134(E)	56	#5	9'-2"	
s135(E)	117	#6	28'-0"	
sp130	6	#4	35'-8"	
u130(E)	13	#5	4'-8"	
u131(E)	8	#5	10'-8"	
u132(E)	22	#6	11'-2"	
v130(E)	64	#9	9'-0"	
v131	84	#9	35'-8"	
Structure Excavation			Cu. Yd.	196
Concrete Structures			Cu. Yd.	119.2
Reinforcement Bars			Pound	12,830
Reinforcement Bars, Epoxy Coated			Pound	22,500
Drilled Shaft in Soil			Cu. Yd.	69.5
Drilled Shaft in Rock			Cu. Yd.	4.8
Concrete Sealer			Sq. Ft.	2229
Crosshole Sonic Logging Access Ducts			Foot	210
Crosshole Sonic Logging Testing			Each	1

*

* Length is height of spiral

NOTES:

- Reinforcement bars designated (E) shall be epoxy coated.
- Bars noted thus. 2x2- #5 indicated 2 lines of bars with 2 lengths of bars per line.
- Bars equally spaced. unless otherwise e noted.
- Apply concrete sealer to all exposed concrete surface of pier.
- All edges shall have standard 3/4" chamfer.
- The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcment quantities and payment limits.



ANCHOR BOLT
LOCATION DETAIL



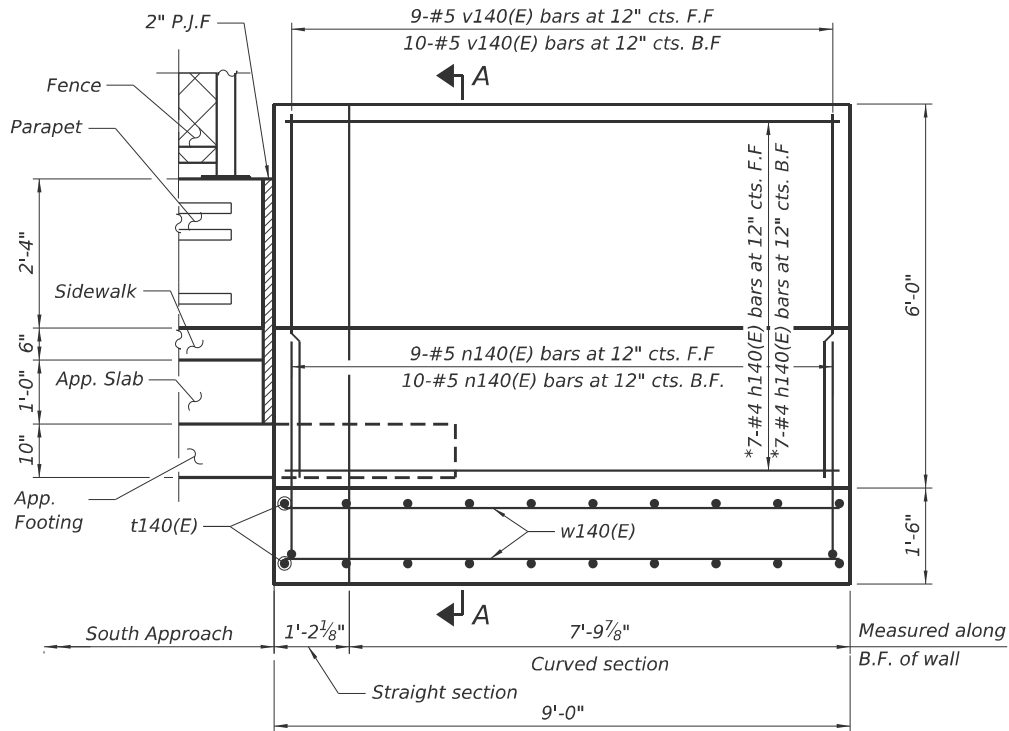
USER NAME = Greg Hatlestad	DESIGNED - RH, JMI	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

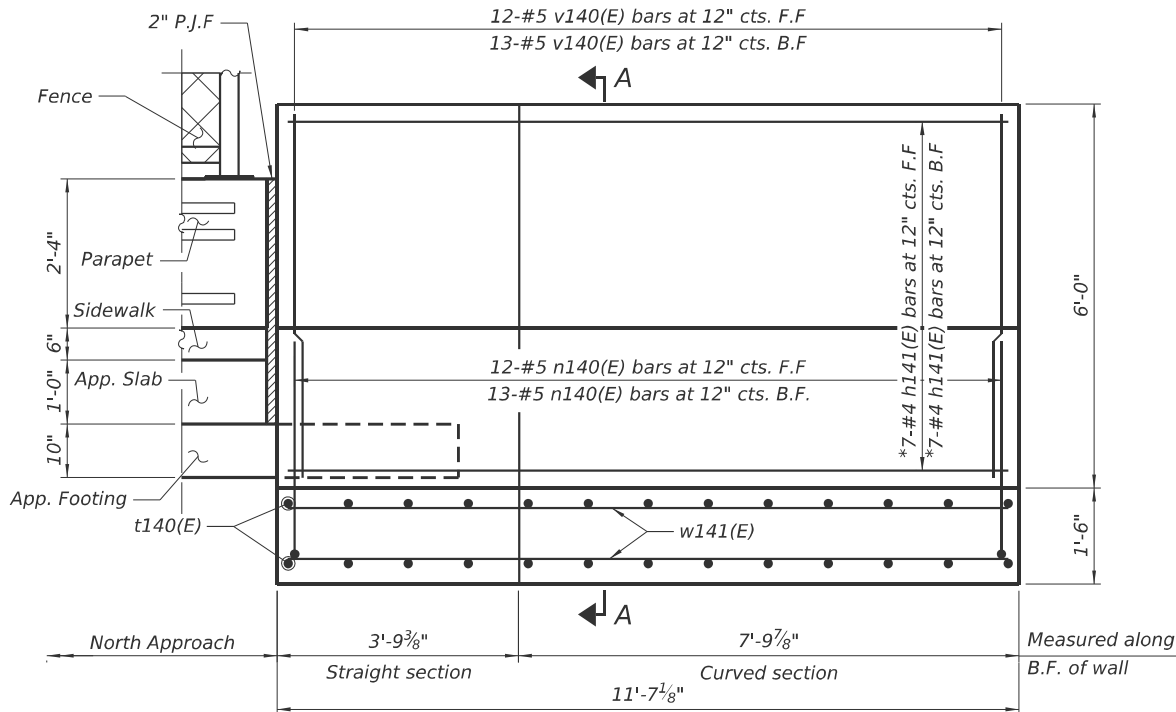
PIER 2 DETAILS & BILL OF MATERIALS
STRUCTURE NO. 016-2093

SHEET S-51 OF 63 SHEETS

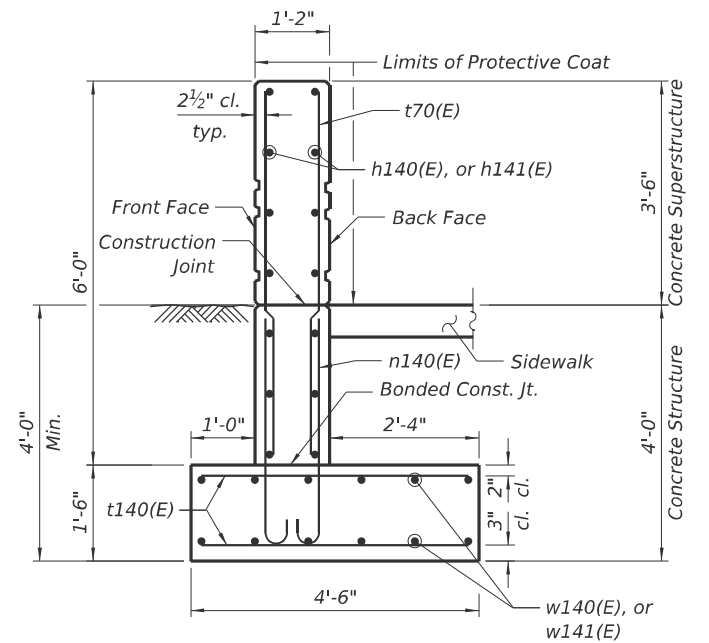
FAI RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	195
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				



UNFOLDED ELEVATION VIEW OF SOUTHEAST CURVED WALL
(Looking East)



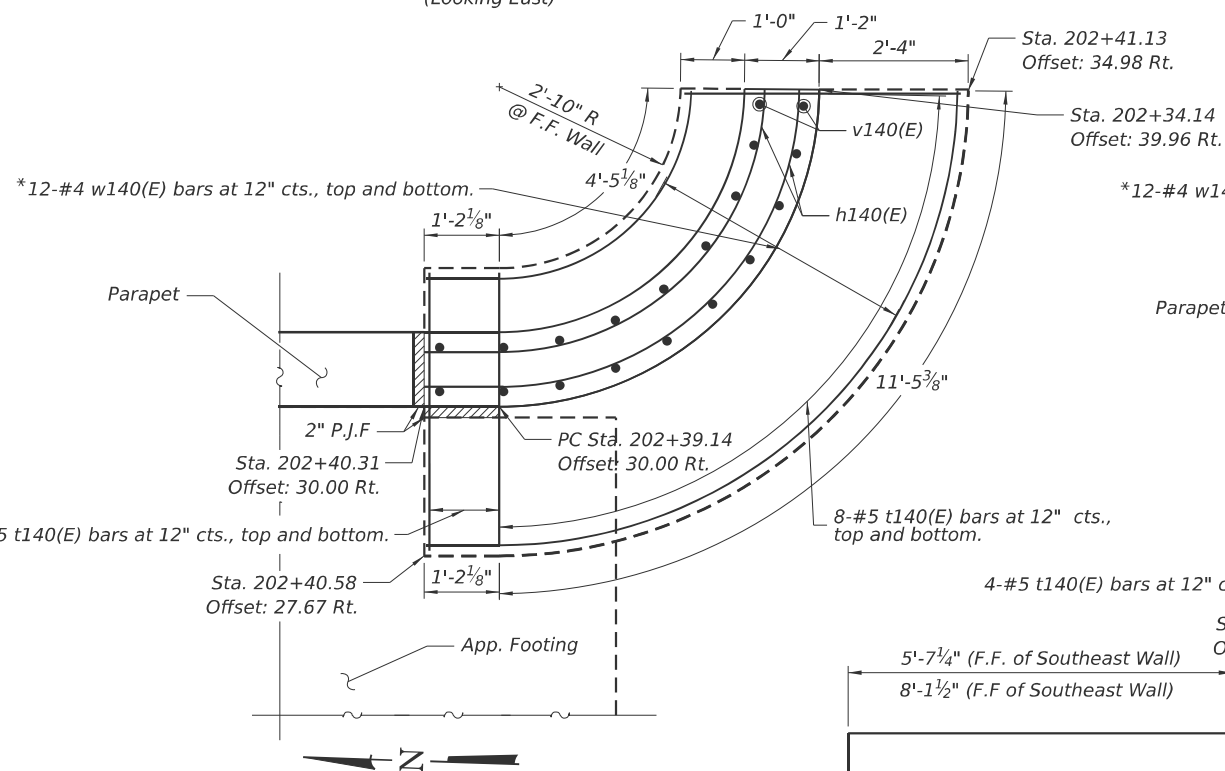
UNFOLDED ELEVATION VIEW OF NORTHWEST CURVED WALL
(Looking West)



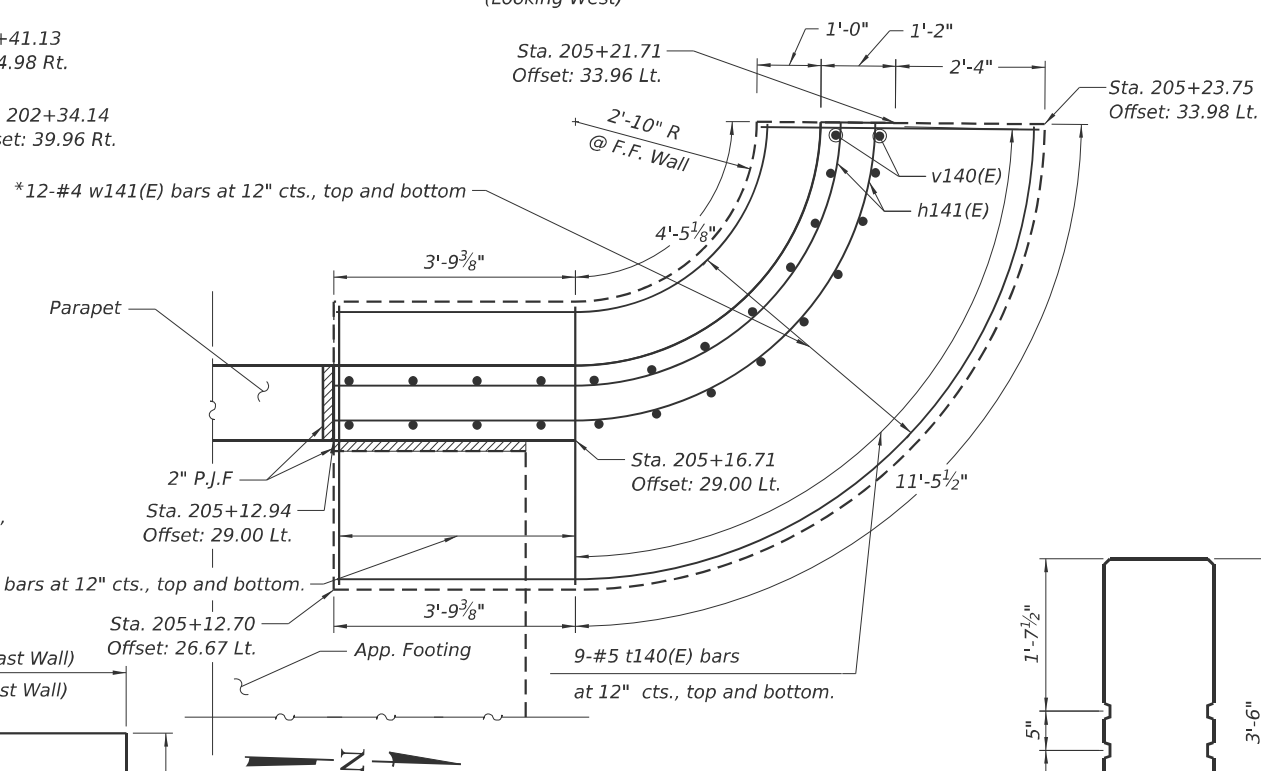
NORTHWEST AND SOUTHEAST CURVED WALLS

BILL OF MATERIAL

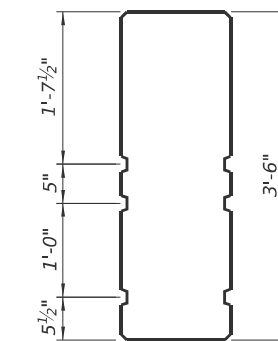
Bar	No.	Size	Length	Shape
w140(E)	12	#4	12'-4"	
w141(E)	12	#4	14'-11"	
h140(E)	14	#4	8'-8"	
h141(E)	14	#4	11'-3"	
n140(E)	44	#5	4'-7"	
t140(E)	46	#5	4'-2"	
v140(E)	44	#5	5'-6"	
Concrete Superstructure			Cu. Yd.	2.9
Concrete Structures			Cu. Yd.	7.3
Reinforcement Bars, Epoxy Coated			Pound	1,070
Protective Coat			Sq. Yd.	11



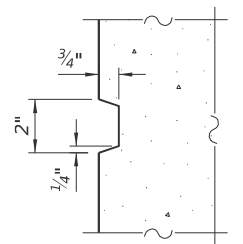
SOUTHEAST CURVED WALL PLAN



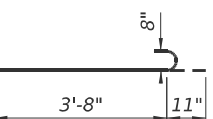
NORTHWEST CURVED WALL PLAN



PARAPET CROSS SECTION



REVEAL DETAIL



Bar n140(E)

NOTE:

1. Apply Protective Coat to the top and exposed back face of walls

* Bend to fit in the field



USER NAME = GM	DESIGNED - GM	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - GM	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

END CURVED RETAINING WALLS
STRUCTURE NO. 016-2093

SHEET S-52 OF 63 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	196
CONTRACT NO. 62U41				
ILLINOIS FED. AID PROJECT				

Page 1 of 2

Date 2/12/24

ROUTE FAI 290 DESCRIPTION Bridge Boring LOGGED BY MA

SECTION Keeler Avenue over FAI 290 **LOCATION** , SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8734541, Longitude -87.7302631	HAMMER TYPE	AUTO
		DRILLING METHOD	Diedrich D50	HAMMER EFF (%)	99.5
			HSA		

STRUCT. NO.	016-2093	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
Station	203+76.63	E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O

BORING NO. <u>BSB-01</u>	T	W		S	Groundwater Elev.:	T	W		S	
Station <u>* 15+23.49</u>	H	S	Qu	T		First Encounter <u>None</u> ft	H	S	Qu	T
Offset <u>* 76.56ft RT</u>						Upon Completion <u>N/A</u> ft				
Ground Surface Elev. <u>23.45</u> ft	(ft)	(/6")	(tsf)	(%)		After <u>N/A</u> Hrs. <u>N/A</u> ft	(ft)	(/6")	(tsf)	(%)

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

* Boring No. BSB-01 is located at Keeler Avenue Station is 202+36.31 Offset 14.63' RT.



USER NAME = GM	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (1 OF 11)
STRUCTURE NO. 016-2093

SHEET S-53 OF 63 SHEETS

Page 2 of 2Date 2/12/24

ROUTE	FAI 290	DESCRIPTION	Bridge Boring	LOGGED BY	MA
-------	---------	-------------	---------------	-----------	----

SECTION Keeler Avenue over FAI 290 **LOCATION** , SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8734541, Longitude -87.7302631	
		DRILLING METHOD	Diedrich D50	AUTO
			HSA	HAMMER TYPE
				HAMMER EFF (%)
				99.5

STRUCT. NO.	016-2093	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M
Station	* 203+76.63	E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O

BORING NO. <u>BSB-01</u>	T	W	S	Groundwater Elev.:	T	W	S		
Station <u>15+23.49</u>	H	S	Qu	First Encounter <u>None</u> ft	H	S	Qu		
Offset <u>76.56ft RT</u>				Upon Completion <u>N/A</u> ft					
Ground Surface Elev. <u>23.45</u> ft	(ft)	(/6")	(tsf)	(%)	After <u>N/A</u> Hrs. <u>N/A</u> ft	(ft)	(/6")	(tsf)	(%)

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

MODEL: Soil Borings 1 [Sheet]
FILE NAME: pw:\civiltch-pw\Documents\Projects\2855\CAD\CADD Sheets\17-Structures\162141-SHT-053-Soil Borings1.dgn

Page 1 of 2

Date 2/14/24

ROUTE	FAI 290	DESCRIPTION	Bridge Boring	LOGGED BY	MA
-------	---------	-------------	---------------	-----------	----

SECTION Keeler Avenue over FAI 290 **LOCATION** SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8734523, Longitude -87.7303800		
		DRILLING METHOD	Mobile B-57	HAMMER TYPE	AUTO
			HSA	HAMMER EFF (%)	89.0

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

BBS, form 137 (Rev. 8-99)

Page 2 of 2

Date 2/14/24

ROUTE	<u>FAI 290</u>	DESCRIPTION	<u>Bridge Boring</u>	LOGGED BY	<u>MA</u>
--------------	----------------	--------------------	----------------------	------------------	-----------

SECTION Keeler Avenue over FAI 290 **LOCATION** , SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8734523, Longitude -87.7303800	
		DRILLING METHOD	Mobile B-57	
			HSA	HAMMER TYPE
				HAMMER EFF (%)
				89.0
				AUTO

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

BBS, form 137 (Rev. 8-99)

* Boring No. BSB-02 is located at Keeler Avenue Station is 202+36.48 Offset 17.21' RT.



USER NAME = GM	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (2 OF 11)
STRUCTURE NO. 016-2093

SHEET S-54 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	198
		CONTRACT NO. 62U41		
ILLINOIS		FED. AID PROJECT		

MODEL: Soil Borings 2 [Sheet]
FILE NAME: pwr/cvilltech-pw.bentley.com/cvilltech-ow/ Documents/Projects/3855/CAD/CADD Steels/17-Structures/D162U41-SHT-054-Soil Borings2

8/14/2025 8:32:02 AM

Page 1 of 2

Date 2/15/24

COUNTY		COOK	DRILLING RIG		Latitude 41.8742570, Longitude -87.7304001	
			DRILLING METHOD		Mobile B-57	HAMMER TYPE
					HSA	HAMMER EFF (%)
						AUTO
						89.0

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

BBS, form 137 (Rev. 8-99)

Page 2 of 2

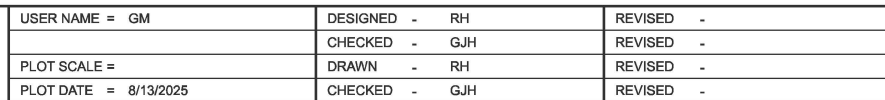
Date 2/15/24

COUNTY	COOK	DRILLING RIG	Latitude 41.8742570, Longitude -87.7304001	
		DRILLING METHOD	Mobile B-57	
			HSA	
			HAMMER TYPE	AUTO
			HAMMER EFF (%)	89.0

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

BBS, form 137 (Rev. 8-99)

MODEL: Soil Borings 3 [Sheet]
FILE NAME: pw/cvlltech-pw.bentley.com/cvlltech-pw/Projects/3855/CAD/CADD Sheets/17-Structures/D162/U41-SHT-055-Soil Borings3



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (3 OF 11)
STRUCTURE NO. 016-2093

SHEET S-55 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	199
		CONTRACT NO. 62U41		
		ILLINOIS FED. AID PROJECT		

Page 1 of 2

Date 2/13/24

ROUTE	<u>FAI 290</u>	DESCRIPTION	<u>Bridge Boring</u>	LOGGED BY	<u>MA</u>
--------------	----------------	--------------------	----------------------	------------------	-----------

SECTION Keeler Avenue over FAI 290 **LOCATION** , SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8742371, Longitude -87.7302661	
		DRILLING METHOD	Mobile B-57	
			HSA	HAMMER TYPE
				HAMMER EFF (%)
				AUTO
				89.0

STRUCT. NO.	016-2093	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M			
Station	203+76.63	E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O			
		T	W		S				T	W		S			
BORING NO.	BSB-04	H	S	Qu	T	Groundwater Elev.:			H	S	Qu	T			
Station	* 15+92.61					First Encounter	None	ft							
Offset	* 79.35ft LT					Upon Completion	N/A	ft							
Ground Surface Elev.	23.54	ft	(ft)	(/6")	(tsf)	(%)	After	N/A	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)

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

BBS, form 137 (Rev. 8-99)

Page 2 of 2Date 2/13/24

ROUTE	FAI 290	DESCRIPTION	Bridge Boring	LOGGED BY	MA
-------	---------	-------------	---------------	-----------	----

SECTION Keeler Avenue over FAI 290 **LOCATION** , SEC. 15, TWP. 39N, RNG. 13E,

COUNTY	COOK	DRILLING RIG	Latitude 41.8742371, Longitude -87.7302661	
		DRILLING METHOD	Mobile B-57	
			HSA	HAMMER TYPE
				HAMMER EFF (%)
				AUTO
				89.0

STRUCT. NO.	016-2093	D	B	U	M	Surface Water Elev.	N/A	ft	D	B	U	M			
Station	203+76.63	E	L	C	O	Stream Bed Elev.	N/A	ft	E	L	C	O			
		T	W	S	T				H	S	Qu	T			
BORING NO.	BSB-04	H	S	Qu	T	Groundwater Elev.:									
Station	15+92.61					First Encounter	None	ft							
Offset	79.35ft LT					Upon Completion	N/A	ft							
Ground Surface Elev.	23.54	ft	(ft)	(/6")	(tsf)	(%)	After	N/A	Hrs.	N/A	ft	(ft)	(/6")	(tsf)	(%)

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

BBS, form 137 (Rev. 8-99)

* Boring No. BSB-04 is located at Keeler Avenue Station is 205+19.06 Offset 21.13' LT.



USER NAME = kdc	DESIGNED - RH	REVISED -
	CHECKED - GJH	REVISED -
PLOT SCALE =	DRAWN - RH	REVISED -
PLOT DATE = 8/13/2025	CHECKED - GJH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS (4 OF 11)
STRUCTURE NO. 016-2093

SHEET S-56 OF 63 SHEETS

F.A.I RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
290	FAI 290 22 KEELER BR	COOK	283	200
CONTRACT NO. 62U41				
ILLINOIS		FED. AID PROJECT		

MODEL: Soil Borings 4 [Sheet]
FILE NAME: pw:\civiltch-pw\benitley.com\civiltch-pw\Documents\Projects\3855\CAD\CADD Sheets\17-Structures\D162\41-SHT-056-Soil Borings.dwg

8/14/2025 8:32:21 AM