

06-14-13 LETTING ITEM 221

FOR INDEX OF SHEETS AND LIST OF STANDARDS, SEE SHEET NO. 2

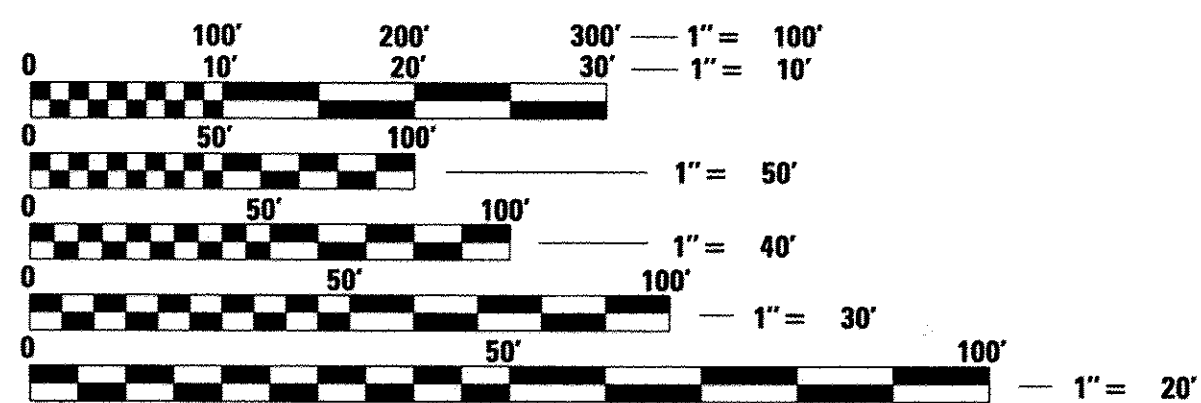
PROJECT LOCATED IN THE CITY OF EVANSTON

DESIGN DESIGNATION  
BRIDGE STREET : LOCAL STREET (URBAN)

TRAFFIC DATA  
2040 ADT  
BRIDGE STREET = 2000 VEH

DESIGN SPEED  
BRIDGE STREET 35 MPH

POSTED SPEED LIMIT  
BRIDGE STREET 25 MPH



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

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

CITY ENGINEER: SAT NAGAR, P.E. (847) 866-2967

CONTRACT NO. 63817

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. (847) 705-4406 SCHAUMBURG, IL

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY**

**BRIDGE STREET  
McCORMICK BLVD TO BROWN STREET  
BRIDGE REHABILITATION**

SECTION: 08-00251-00-BR  
PROJECT NO. BRM-9003-(010)  
JOB NO. C-91-398-08

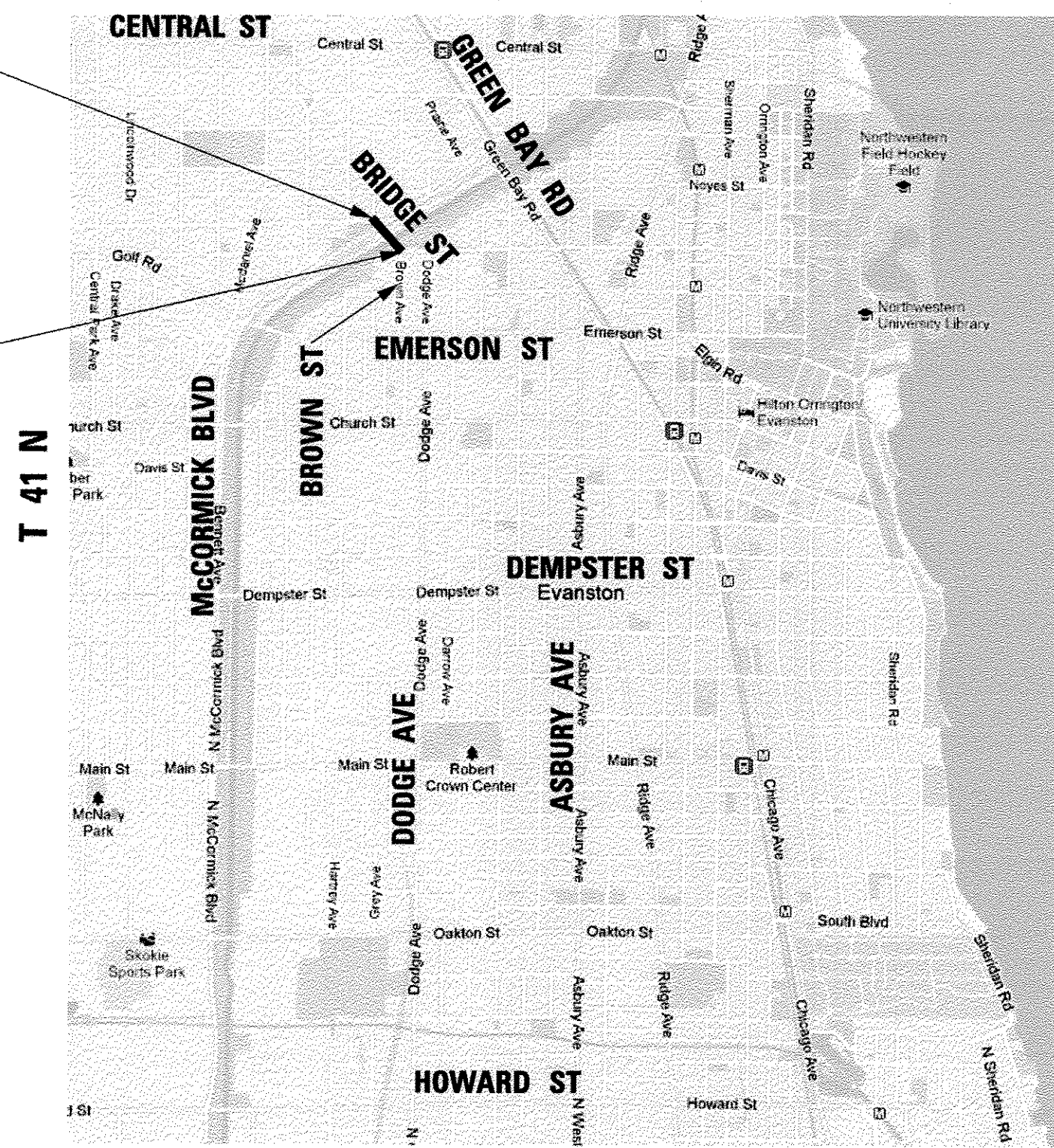
CITY OF EVANSTON

COOK COUNTY

R 13 E R 14 E 3rd PM

END PROJECT  
STA 102 + 16.18  
BRIDGE STREET

BEGIN PROJECT  
STA 97 + 96.55  
BRIDGE STREET

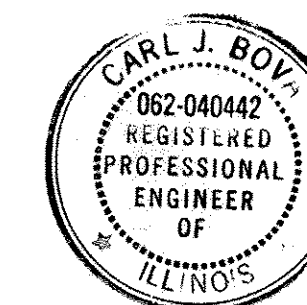


**LOCATION MAP**

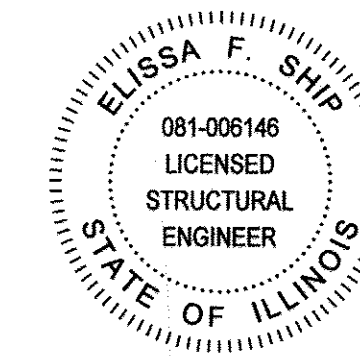
TOWNSHIP OF: EVANSTON  
NOT TO SCALE

NET LENGTH OF IMPROVEMENT = 420 LINEAR FT. = 0.08 MILES  
GROSS LENGTH OF IMPROVEMENT = 420 LINEAR FT. = 0.08 MILES

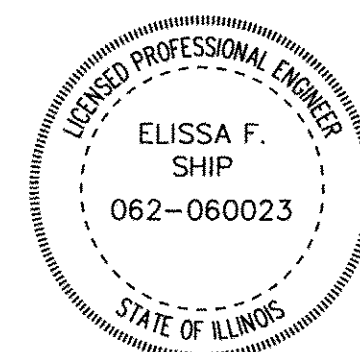
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	1
		ILLINOIS	CONTRACT NO.	63817



SIGNATURE: *Carl J. Bova*  
DATE: 2/4/2013 EXP: 11/30/2013  
ROADWAY PLANS FROM 16 TO 35  
COOPER CIVIL ENGINEERING, LTD.



SIGNATURE: *Elissa F. Ship*  
DATE: 1/30/2013 EXP: 11/30/2014  
STRUCTURE PLANS  
ALFRED BENESCH & COMPANY



SIGNATURE: *Elissa F. Ship*  
DATE: 1/30/2013 EXP: 11/30/2013  
ALFRED BENESCH & COMPANY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED *TUN 30 2013*  
*[Signature]*  
CITY OF EVANSTON, CITY ENGINEER

PASSED *February 25 2013*  
*[Signature]*  
DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW *February 27 2013*  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER





## INDEX OF SHEETS

1	COVER SHEET
2	INDEX OF SHEETS, GENERAL NOTES & STATE STANDARDS
3	GENERAL NOTES
4-15	SUMMARY OF QUANTITIES
16	PROPOSED TYPICAL SECTIONS
17-20	SCHEDULE OF QUANTITIES
21	ALIGNMENT AND BENCHMARKS
22	ROADWAY REMOVAL PLAN
23	PLAN AND PROFILE
24-28	MAINTENANCE OF TRAFFIC PLANS
29-30	EROSION AND SEDIMENT CONTROL PLAN
31-32	DRAINAGE AND UTILITIES PLAN
33	RIGHT OF WAY PLAN
34	PAVEMENT MARKING PLAN
35	SIGNAGE AND LANDSCAPING PLAN
36-45	TRAFFIC SIGNAL PLANS
46-53	LIGHTING PLANS
54-103	STRUCTURE PLANS
104	ROADWAY DETAILS
105-115	DISTRICT 1 HIGHWAY STANDARDS
116-118	CROSS SECTIONS

## IDOT DISTRICT 1 STANDARDS

BD-01	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W AND CURB OR EDGE GREATER THAN OR EQUAL TO 15'
BD-02	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W AND CURB OR EDGE LESS THAN OR EQUAL TO 15'
BD-07	STORM SEWER CONNECTION TO EXISTING SEWER
BD-08	FRAMES AND LIDS ADJUSTMENT WITH MILLING
BD-32	BUTT JOINT AND HMA TAPER
BD-48	PCC PAVEMENT ROUNDOUTS AT CURB & GUTTER
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-16	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
TC-21	DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
TC-26	DRIVEWAY ENTRANCE SIGNING

## HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006-	DECIMALS OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420111-03	PCC PAVEMENT ROUNDOUTS
420401-09	BRIDGE APPROACH PAVEMENT CONNECTOR
424001-07	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-01	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011-01	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021-01	DEPRESSED CORNER FOR SIDEWALKS
424026-01	ENTRANCE/ALLEY PEDESTRIAN CROSSINGS
515001-03	NAME PLATE FOR BRIDGES
602001-02	CATCH BASIN, TYPE A
602011-02	CATCH BASIN, TYPE C
602301-03	INLET, TYPE A
602306-03	INLET, TYPE B
602401-03	MANHOLE TYPE A
604001-03	FRAME AND LIDS TYPE 1
604006-04	FRAME AND GRATE, TYPE 3
604081-04	FRAME AND GRATE, TYPE 22
604086-02	FRAME AND GRATE, TYPE 23
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
664001-02	CHAIN LINK FENCE
701006-04	OFF-RD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS-DAY ONLY
701501-06	URBAN LANE CLOSURE 2L, 2W, UNDIVIDED
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-03	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKER & DELINEATORS
729001-01	APPLICATIONS OF TYPES OF A & B METAL POSTS (FOR SIGNS AND MARKERS)
780001-03	TYPICAL PAVEMENT MARKINGS
814001-02	HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
878001-09	CONCRETE FOUNDATION DETAILS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-1	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

## MWRD NOTES

- THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
- ELEVATION OF DATUM IS NGVD 29.
- ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED (SEWER AREAS), REQUIRES STONE BEDDING WITH STONE 1/4" TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-II OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- "BAND SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR MATERIALS.
- WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED: (A) CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE. (B) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION. (C) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
- WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATER MAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATER MAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATER MAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18 INCHES VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATER MAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18 INCHES VERTICAL SEPARATION. IF EITHER THE VERTICAL AND HORIZONTAL DISTANCES DESCRIBED ABOVE CAN NOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS.
- ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
- ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
- THE CONTRACTOR SHALL PROTECT AND UTILIZE EXTREME CARE WORKING WITHIN THE VICINITY OF THE MWRD FACILITIES.
- THE CONTRACTOR SHALL MAINTAIN ADEQUATE ACCESS AS DIRECTED BY THE ENGINEER TO ALL MWRD FACILITIES, 24 HOURS A DAY.
- THE CONTRACTOR SHALL SUBMIT THE PLAN AND METHODOLOGY FOR DRIVING SHEET PILES AROUND MWRD STRUCTURES TO THE MWRD AND THE ENGINEER FOR REVIEW TO AVOID DAMAGE TO DISTRICT FACILITIES AND APPROVAL THREE (3) WEEKS PRIOR TO THE START OF WORK AND THE MWRD STRUCTURES SHALL BE PROTECTED AS PER THE DETAILS OF SHORING AND BRACING SYSTEM PLANS SIGNED AND SEALED BY AN ILLINOIS REGISTERED STRUCTURAL ENGINEER.
- THE CONTRACTOR SHALL COMPLY WITH THE GENERAL CONDITION OF THE MWRD PERMIT. THE COST FOR COMPLYING WITH THESE MWRD REQUIREMENTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL THE MWRD FACILITIES AT ALL THE TIME DURING CONSTRUCTION.
- THE CONTRACTOR SHALL FOLLOW AND ABIDE BY ALL THE GENERAL CONDITIONS AND REQUIREMENTS OF THE MWRD PERMIT. THE PERMIT WILL BE AVAILABLE AT THE CITY OF EVANSTON FOR INSPECTION BY THE CONTRACTOR PRIOR TO THE PROJECT LETTING OR MAY BE INCLUDED IN THE CONTRACT DOCUMENTS. A COPY OF THE APPROVED PERMIT WILL BE AVAILABLE WITH THE ENGINEER AT ALL TIMES FOR COMPLIANCE.
- THE CONTRACTOR SHALL PROVIDE ADVANCE NOTICE, UNDER THIS PERMIT AT LEAST TWO DAYS IN ADVANCE PRIOR TO THE START OF CONSTRUCTION AND SHALL SPECIFY THE PERMIT NUMBER, MUNICIPALITY AND LOCATION.

## GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

3. 10 FT. TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB & GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIAN IN THE FIELD. UNLESS OTHERWISE SHOWN, THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, THE CITY OF EVANSTON AND MWRD.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

6. THE CONTRACTOR SHALL TAKE EXTRA CARE IN GRADING AND EXCAVATING NEAR TREES WHICH ARE NOT MARKED FOR REMOVAL SO AS NOT TO CAUSE INJURY TO THE ROOT SYSTEM OR TRUNKS. HAND EXCAVATION SHALL BE PERFORMED IF MAJOR ROOTS ARE PRESENT. MAJOR ROOTS OF A TREE THAT ARE TO REMAIN IN PLACE EXTENDING INTO THE EXCAVATION AREAS AT AN ELEVATION THAT WOULD INTERFERE WITH ANY PORTION OF THE PLANNED CONSTRUCTION SHALL BE SEVERED AT A POINT IMMEDIATELY OUTSIDE OF THE EXCAVATION AREA IN A MANNER THAT WILL CAUSE THE LEAST AMOUNT OF SYSTEMIC DAMAGE TO THE REMAINING TREE STRUCTURE. THE EXPENSE OF ANY REQUIRED HAND EXCAVATION AND/OR THE CUTTING OF MAJOR TREE ROOTS, AS DESCRIBED ABOVE, SHALL BE CONSIDERED INCLUDED IN THE CONTRACT LINE ITEM BEING REMOVED OR INSTALLED AT THAT LOCATION.

7. DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE NORTH SHORE CHANNEL SAFELY OPEN AT ALL TIMES FOR NAVIGATION. THE COST FOR THIS REQUIREMENT AND ANY NECESSARY SAFETY /CHANNELIZATION DEVICES SHALL BE INCLUDED IN THE COST OF "REMOVAL OF EXISTING STRUCTURES".

8. IN ACCORDANCE WITH ARTICLE 107.01 OF THE STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL ABIDE AND COMPLY WITH ALL LOCAL ORDINANCES AND REQUIREMENTS AND SHALL COOPERATE WITH THE LOCAL AGENCY(IES), MUNICIPALITIES INVOLVED AS DIRECTED AND APPROVED BY THE ENGINEER. THE COST FOR COMPLYING WITH THESE REQUIREMENTS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS.

9. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY MR. PAUL D'AGOSTINO AT (847) 844-2512 OF THE CITY OF EVANSTON FOR THE SPECIFICS OF THE TREE PRUNING AND THE TREE PROTECTION.

10. THE CONTRACTOR SHALL CONTACT MR. LARRY SHANK AT (847) 291-3214 OF COMED FOR THE DISCONNECTION/CONNECTION OF THE LIGHT POLES.

11. THE CONTRACTOR SHALL REMOVE, RELOCATE AND RE-INSTALL THE EXISTING SIGNS, INCLUDING THE MWRD SIGNS, IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THE COST FOR THIS TASK SHALL NOT BE PAID SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE CONTRACT PAY ITEMS.

12. THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORIC AS-BUILT OR OTHER RECORD PLANS AND DOCUMENTS MUST CONTACT THE OWNER OF RECORD TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION.

13. THE CONTRACTOR SHALL CONTACT THE U.S. COAST GUARD 30 DAYS PRIOR TO COMMENCING WITH THE BRIDGE WORK. THE CONTRACTOR SHALL ALSO PROVIDE AS BUILT PLANS TO THE U.S. COAST GUARD AND FILE A COMPLETION REPORT AFTER CONSTRUCTION IS COMPLETE. THE U.S. COAST GUARD CONTACT INFORMATION IS:

9TH COAST GUARD DISTRICT (DPB)  
1240 EAST NINTH STREET  
CLEVELAND, OH 44199-2060  
(216) 902-6085

PLOT SCALE: 1:1  
 R:\V\loc\cf\g\Nom\pdr\8\pdr\cf\g  
 X:\1000251\0251-02\Eng\Doc\Phase\_1\General\10055\_Cv11\_Per\_Table.tbl

FILE NAME =	DESIGNED -	REVISED -
...\\D1xxxxx-sh1-genote.dgn	DRAWN -	REVISED -
USER NAME = eship	CHECKED -	REVISED -
PLOT DATE = 4/4/2013	DATE -	REVISED -



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

### INDEX OF SHEETS, GENERAL NOTES AND HIGHWAY STANDARDS

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

F.A.I. R.T.F.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	2
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				







**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	22	22			
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	25	25			
20100500	TREE REMOVAL, ACRES	ACRE	0.25	0.25			
20101100	TREE TRUNK PROTECTION	EACH	10	10			
20200100	EARTH EXCAVATION	CU YD	495	495			
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	100	100			
20400800	FURNISHED EXCAVATION	CU YD	78	78			
20800150	TRENCH BACKFILL	CU YD	63	63			
* 21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	554	554			
* 25000400	NITROGEN FERTILIZER NUTRIENT	POUND	7	7			
* 25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	7	7			
* 25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	7	7			
* 25200110	SODDING, SALT TOLERANT	SQ YD	554	554			
* 25200200	SUPPLEMENTAL WATERING	UNIT	4.0	4.0			

\* SPECIALTY ITEM

PLOT SCALE: 1" = 40' FILE NAME: ...\\General\01xxxxx-sht-soq-1.dgn USER NAME: oship PLOT DATE: 4/4/2013

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	4
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	



**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
28000400	PERIMETER EROSION BARRIER	FOOT	900	900			
28000510	INLET FILTERS	EACH	7	7			
28100107	STONE RIPRAP, CLASS A4	SQ YD	132		132		
28200200	FILTER FABRIC	SQ YD	132		132		
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	650	650			
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	225	225			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	156	156			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	83	83			
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	131	131			
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	79	79			
42000301	PORTLAND CEMENT CONCRETE PAVEMENT 8" (JOINTED)	SQ YD	650	650			
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SQ YD	38	38			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	4,166.0	4,166.0			
42400800	DETECTABLE WARNINGS	SQ FT	84	84			

\* SPECIALTY ITEM

PLOT SCALE: 1"=100'  
 FILE NAME: ...\\General\1\1xxxxx-sht-soq-2.dgn  
 USER NAME: eship  
 PLOT DATE: 4/4/2013

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	5
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	



**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
44000100	PAVEMENT REMOVAL	SQ YD	849	849			
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	23	23			
44000300	CURB REMOVAL	FOOT	76	76			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	617	617			
44000600	SIDEWALK REMOVAL	SQ FT	3,687	3,687			
50102400	CONCRETE REMOVAL	CU YD	38.0		38.0		
50104400	CONCRETE HEADWALL REMOVAL	EACH	1	1			
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1		
50157300	PROTECTIVE SHIELD	SQ YD	401		401		
50200100	STRUCTURE EXCAVATION	CU YD	319		319		
50200300	COFFERDAM EXCAVATION	CU YD	106		106		
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1		
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1		
50300225	CONCRETE STRUCTURES	CU YD	119.3		119.3		

\* SPECIALTY ITEM

PLOT SCALE: 1" = 30' FILE NAME = ...General\Di\xxxx-shr-soq-3.dgn USER NAME = eship PLOT DATE = 4/4/2013

DESIGNED -	REVISD -
DRAWN -	REVISD -
CHECKED -	REVISD -
DATE -	REVISD -



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	6
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				





**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	21	21			
550A1000	STORM SEWERS, CLASS A, TYPE 4 21"	FOOT	24	24			
55100200	STORM SEWER REMOVAL 6"	FOOT	25	25			
55100500	STORM SEWER REMOVAL 12"	FOOT	3	3			
55101100	STORM SEWER REMOVAL 21"	FOOT	21	21			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	139		139		
60201330	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 23 FRAME AND GRATE	EACH	1	1			
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
60250200	CATCH BASINS TO BE ADJUSTED	EACH	2	2			
60255500	MANHOLES TO BE ADJUSTED	EACH	5	5			
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	5	5			
60266600	VALVE BOXES TO BE ADJUSTED	EACH	2	2			
60500040	REMOVING MANHOLES	EACH	2	2			

\* SPECIALTY ITEM

PLOT SCALE: 1" = 40' (SEE PLAN)   
 FILE NAME: \\... \General\Di\... \sht-soq-5.dgn   
 USER NAME: eship   
 PLOT DATE: 4/4/2013

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	8
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	



**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
60500060	REMOVING INLETS	EACH	2	2			
60600605	CONCRETE CURB, TYPE B	FOOT	113.0	113.0			
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	563.0	563.0			
* 66400105	CHAIN LINK FENCE, 4'	FOOT	120	120			
* 66400305	CHAIN LINK FENCE, 6'	FOOT	20	20			
67100100	MOBILIZATION	L SUM	1	1			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	24	24			
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	100	100			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	800	800			
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	120	120			
70300520	PAVEMENT MARKING TAPE, TYPE III 4"	FOOT	1,710	1,710			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	618	618			
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	1	1			
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW) TEST LEVEL 3	EACH	1	1			

\* SPECIALTY ITEM

PLOT SCALE: 1"=100'  
 R:\Projects\08-00251-00-02\Eng\_Docs\_Phase-II\General\0805\_Civil\_Plan\_Table.tbl  
 ...\General\DIxxxxx-shr-soq-5.dgn  
 USER NAME = eship  
 PLOT DATE = 4/4/2013

FILE NAME =	DESIGNED -	REVISED -
...	DRAWN -	REVISED -
USER NAME = eship	CHECKED -	REVISED -
PLOT DATE = 4/4/2013	DATE -	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	9
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
* 72000100	SIGN PANEL - TYPE 1	SQ FT	100	100			
* 72400310	REMOVE SIGN PANEL - TYPE 1	SQ FT	50	50			
* 72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	50	50			
* 72900200	METAL POST - TYPE B	FOOT	216	216			
* 78005100	EPOXY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	160	160			
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1,032	1,032			
* 78005130	EPOXY PAVEMENT MARKING - LINE 6"	FOOT	1,007	1,007			
* 78005150	EPOXY PAVEMENT MARKING - LINE 12"	FOOT	261	261			
* 78005180	EPOXY PAVEMENT MARKING - LINE 24"	FOOT	72	72			
78300100	PAVEMENT MARKING REMOVAL	SQ FT	533	533			
* 80400100	ELECTRIC SERVICE INSTALLATION	EACH	1				1
* 81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	4		4		
* 81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	69		69		
* 81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	400				400

\* SPECIALTY ITEM

PLOT SCALE: 1" = 100' FILE NAME = ...General\DIxxxxx-sht-soq-7.dgn USER NAME = oshjp PLOT DATE = 4/4/2013

DESIGNED -	REVISIED -
DRAWN -	REVISIED -
CHECKED -	REVISIED -
DATE -	REVISIED -



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	10
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	









## SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HBP FUNDS			
				80% FED 20% LOCAL			
				ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING
0004	0014	0021	0021				
URBAN	URBAN	URBAN	URBAN				
* 89501300	RELOCATE EXISTING MAST ARM ASSEMBLY AND POLE	EACH	1			1	
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,640			1,640	
* 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1			1	
* 89502380	REMOVE EXISTING HANDHOLE	EACH	1			1	
* 89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1			1	
Z0004552	APPROACH SLAB REMOVAL	SQ YD	194		194		
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	102		102		
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	32		32		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1		
Z0026407	TEMPORARY SHEET PILING	SQ FT	253		253		
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	200	200			
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	163		163		
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1			1	
△ Z0076600	TRAINEES	HOUR	500	125	333	15	27

\* SPECIALTY ITEM      △ CONSTRUCTION TYPE CODE 0042

PLOT SCALE: 1"=100'  
 R:\Projects\08-00251-00-01-001\Drawings\08-00251-00-01-001-001.dgn  
 XLN\080251\080251-02-Eng\_Docs\_Phase-1\General\080251-Civil-Pan\_Table.tbl

FILE NAME =	DESIGNED -	REVISED -
...General\01xxxxx-sht-soq-10.dgn	DRAWN -	REVISED -
USER NAME = eship	CHECKED -	REVISED -
PLOT DATE = 4/4/2013	DATE -	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	13
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				

## SUMMARY OF QUANTITIES

					CONSTRUCTION CODE			
					HBP FUNDS			
					80% FED 20% LOCAL			
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BRIDGE	TRAFFIC SIGNALS	LIGHTING	
				0004	0014	0021	0021	
				URBAN	URBAN	URBAN	URBAN	
△	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	125	333	15	27
	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	2			
	* X5610712	WATER MAIN REMOVAL, 12"	FOOT	200	200			
	* X5630012	CUT AND CAP EXISTING 12" WATER MAIN	EACH	2	2			
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	399		399		
	X6640300	CHAIN LINK FENCE REMOVAL	FOOT	541	153	388		
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
	X7040010	TEMPORARY CONCRETE BARRIER (SPECIAL)	FOOT	350.0	350.0			
	X7040210	RELOCATE TEMPORARY CONCRETE BARRIER, SPECIAL	FOOT	350.0	350.0			
	* X8100863	INTERCEPT EXISTING CONDUIT	EACH	1		1		
	* X8140115	HANDHOLE TO BE ADJUSTED	EACH	1		1		
	* X8260110	NAVIGATION LIGHTING SYSTEM	L SUM	1			1	
	* X8300001	LIGHT POLE, SPECIAL	EACH	1			1	
	XX001621	BRICK PAVER REMOVAL	SQ FT	266	266			

\* SPECIALTY ITEM      △ CONSTRUCTION TYPE CODE 0042

PLOT SCALE: 1" = 100'      R:\Projects\08-00251-00-01\Drawings\08-00251-00-01-01.dgn      User: oship      Date: 4/4/2013

FILE NAME =	DESIGNED -	REVISED -
...General\Drawings\08-00251-00-01-01.dgn	DRAWN -	REVISED -
USER NAME = oship	CHECKED -	REVISED -
PLOT DATE = 4/4/2013	DATE -	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	14
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



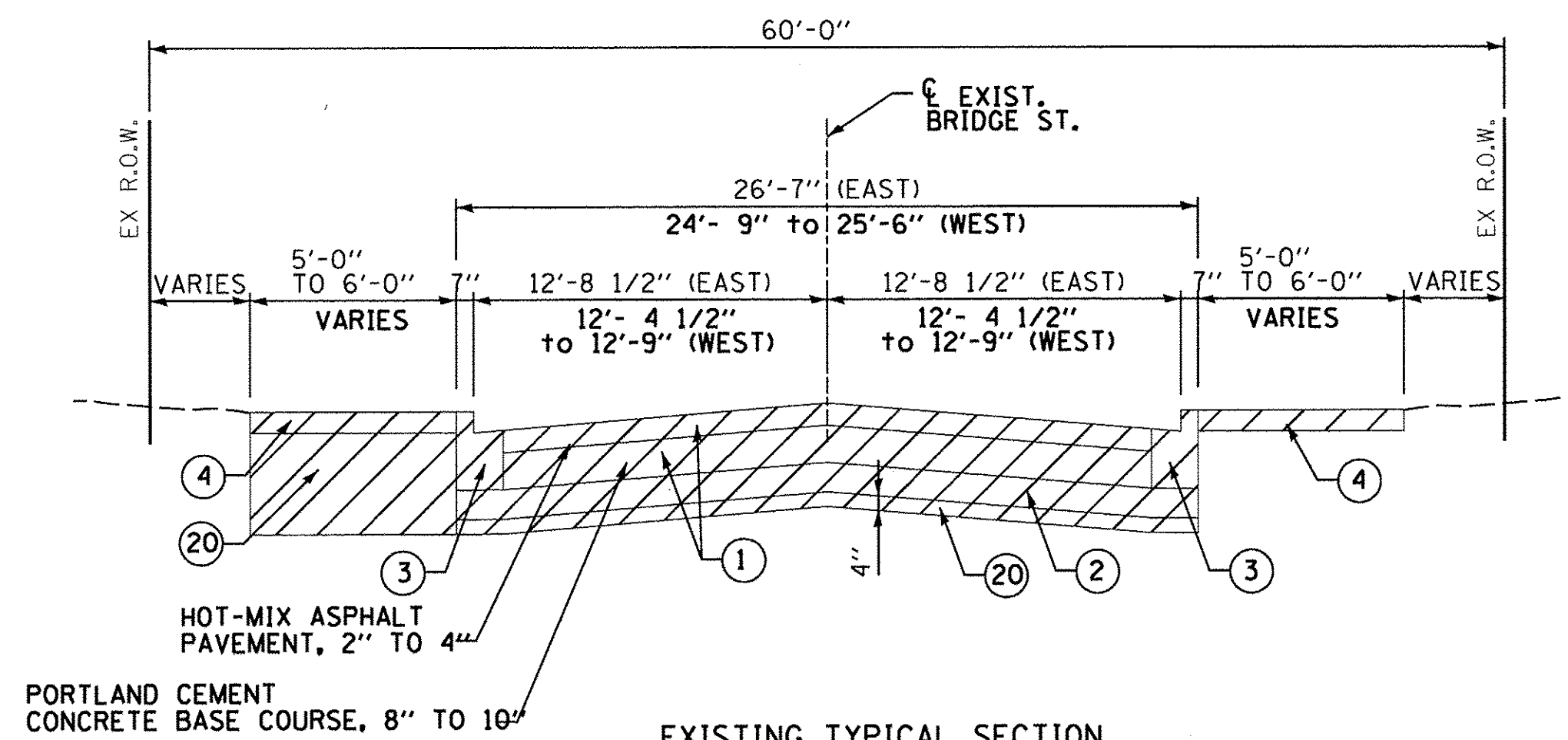


HOT-MIX ASPHALT MIXTURE REQUIREMENTS

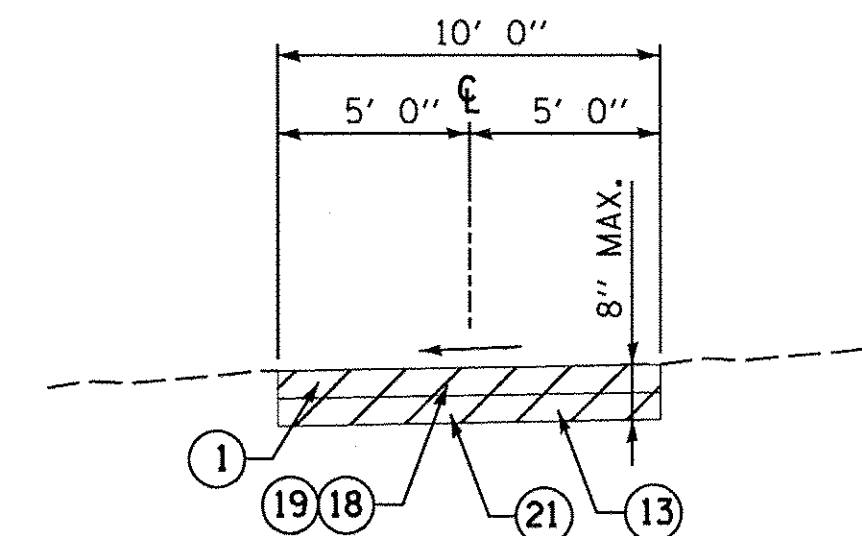
MIXTURE TYPE	AIR VOIDS @ Ndes
<b>ROADWAY PAVEMENT</b>	
<b>BRIDGE STREET</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm) 1 1/2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 2 1/2" (IN 1 LIFT)	4% @ 50 GYR
<b>BIKE PATH</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm) 1 1/2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 2 1/2" (IN 1 LIFT)	4% @ 50 GYR
<b>TEMPORARY DRIVEWAY</b>	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL-9.5mm) 1 1/2"	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 2 1/2" (IN 1 LIFT)	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES IS 112 LBS/SQ YD/IN.

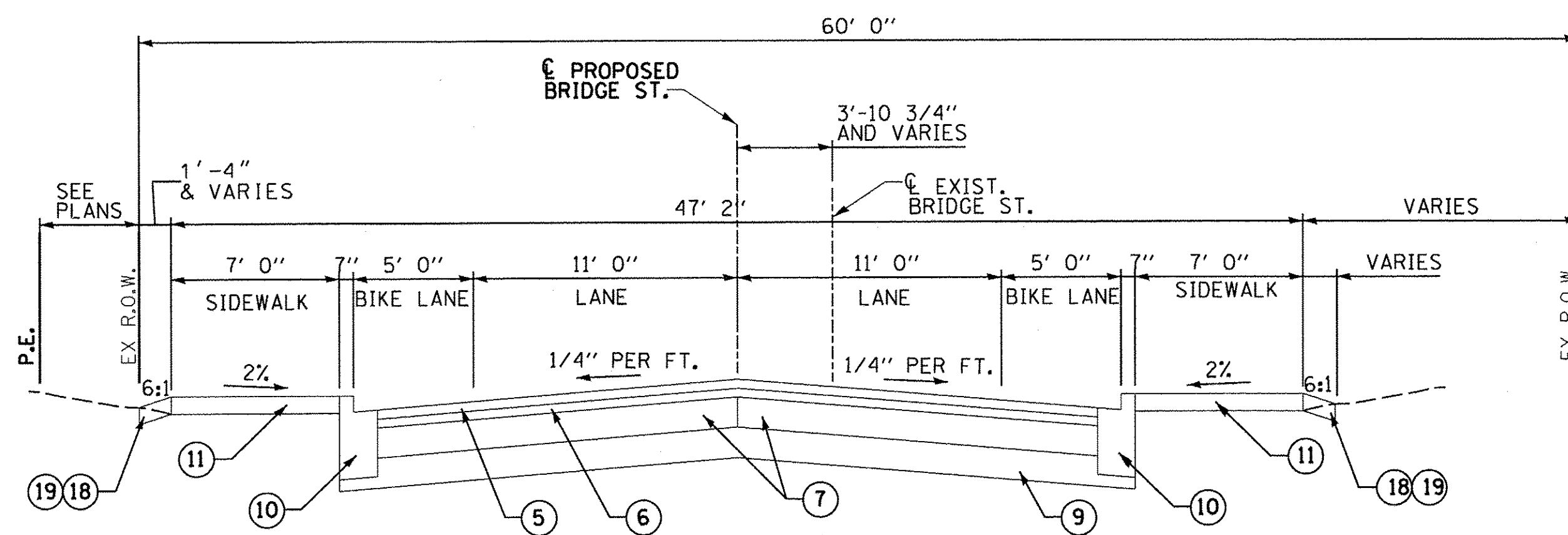
THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP", SEE SPECIAL PROVISIONS.



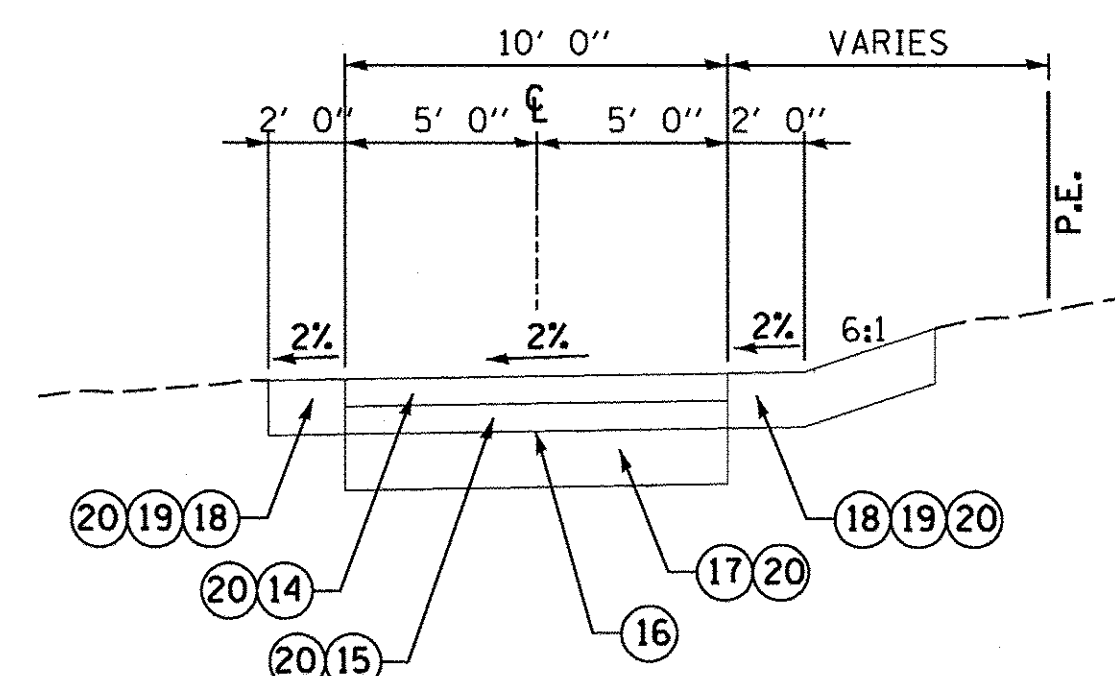
EXISTING TYPICAL SECTION  
BRIDGE STREET  
(LOCATED OUTSIDE OF APPROACH SLABS)  
(STA 97+96.41 TO STA 102+15.47)



EXISTING TYPICAL SECTION  
BIKE PATH  
(STA 98+86, 29' LT TO STA 98+94, 89' LT)



PROPOSED TYPICAL ROADWAY SECTION  
BRIDGE STREET  
(LOCATED OUTSIDE OF APPROACH SLABS)  
(STA 97+96.41 TO STA 102+15.47)



PROPOSED TYPICAL SECTION  
BIKE PATH  
(STA 10+00 TO STA 11+09.88)  
(ON NEW ALIGNMENT)

- ① PAVEMENT REMOVAL, 12" TO 14" (4" AT PATH)
- ② AGGREGATE SUBGRADE REMOVAL, 8" AND VARIES
- ③ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12 REMOVAL
- ④ CONCRETE SIDEWALK REMOVAL
- ⑤ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑥ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2 1/2"
- ⑦ PORTLAND CEMENT CONCRETE BASE COURSE, 8" JOINTED
- ⑧ NOT USED
- ⑨ AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ⑩ COMBINATION CONCRETE CURB & GUTTER, TYPE B-6.12
- ⑪ PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- ⑫ NOT USED
- ⑬ AGGREGATE BASE COURSE REMOVAL (2" TO 4")
- ⑭ HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, 1 1/2"
- ⑮ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50, 2 1/2"
- ⑯ BITUMINOUS MATERIALS (PRIME COAT)
- ⑰ AGGREGATE BASE COURSE, TYPE B, 8"
- ⑱ TOPSOIL FURNISH AND PLACE, 4"
- ⑳ EARTH EXCAVATION
- ㉑ FURNISHED EXCAVATION, 4" •

• (EARTH EXCAVATION FROM NEW BIKE PATH ALIGNMENT)

REMOVAL ITEMS

NOT TO SCALE

PLOT SCALE: \$SCALE\$ SHORT \$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

COOPER CIVIL ENGINEERING, LTD.  
1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201  
(847)864-5343

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY AND BIKE PATH  
TYPICAL SECTIONS

SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	16
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



EXISTING TREE REMOVAL AND PROTECTION SCHEDULE						
LOCATION	SIZE (INCHES)	TREE TRUNK PROTECTION (EACH)	TREE REMOVAL (UNITS)		TREE REMOVAL (ACRES)	REMARKS
			6 TO 15	OVER 15		
97+83, 24' LT	10	1				
98+03, 32' LT	25			25		
98+36, 27' LT	24	1				
98+37, 68' LT	5	1				
98+38, 35' RT	10	1				
98+54, 33' RT	10	1				
98+65, 62' LT	24	1				
98+70, 34 RT	10	1				
101+10, 30' RT	3	1				
101+60, 22' LT	12		12			
101+82, 35' RT	14	1				
102+07, 23' LT	10		10			
102+13, 72' RT	3	1				
(99+20) TO (99+52) LT					0.03	30' WIDE
(99+14) TO (99+47) RT					0.02	20' WIDE
(100+40) TO (100+94) RT					0.03	20' WIDE
(100+48) TO (101+04) LT					0.04	30' WIDE
<b>TOTAL</b>	-	10 EACH	22 UNITS	25 UNITS	0.25 AC (MIN.)	-

EXISTING DRAINAGE & UTILITIES STRUCTURE SCHEDULE								
STATION/OFFSET	STR. TYPE	REMOVAL	STR. ADJUSTMENTS				CITY ELECT. MH	REMARKS
			STORM			WATER		
			MH	CB	INLET	MH	VBOX	
98+07, 10' LT	INL TA (MODIFIED)	1						
98+08, 12' RT			1					
98+09, 17' RT				1				
98+13, 7' LT						1		
98+20, 18' RT						1		
98+37, 28' RT			1					
98+83, 58' LT							1	
98+91, 17' LT								1
98+96, 19' LT						1		
100+98, 7' RT	MH TA	1						
101+35, 5' RT			1					
101+43, 3' RT			1					
101+94, 8' RT						1		
102+03, 2' RT						1		
102+07, 16' RT							1	
102+13, 13' LT	MH TA	1						
102+15, 21' RT				1				
<b>TOTAL</b>		3	4	2	0	5	2	1

PROPOSED DRAINAGE STRUCTURE SCHEDULE												
STR NO.	STATION	OFFSET	STRUCTURE TYPE			FRAME & GRATE	RIM ELEV.	INVERT (N)	INVERT (S)	INVERT (E)	INVERT (W)	REMARKS
			MH	CB	INL							
1	102+13	15' LT		TA 4'		T23	600.36	596.52	596.30			USE EXISTING FRAME & GRATE
3	98+07	15' LT			TA (MODIFIED)	7036	598.97	596.30				E. JORDAN, M6 GRATE, T6 BACK, DOUBLE
4	101+19	9' RT	TA 5'			T1, CL	601.47	584.24	584.21	593.12		
5	101+13	30' RT	TA 4'			T1, CL	601.00	593.26			593.23	

PLOT SCALE: \$SCALE\$ SHORT \$SCALE\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES			
SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	17
CONTRACT NO.63817			ILLINOIS FED. AID PROJECT	

**PROPOSED STORM SEWER PIPE SCHEDULE**

PIPE NO.	PIPE LOCATION				DESCRIPTION	DIAMETER (IN)	LENGTH (FT)	TRENCH BACKFILL (CY)
	FROM STATION	OFFSET	TO STATION	OFFSET				
1	102+13	12' LT	102+13	15' LT	RCCP CLASS IV TYPE 1	12	3	0.5
3	98+07	10' LT	98+07	15' LT	RCCP CLASS IV TYPE 1*	12	5	0.5
4	100+98	7' RT	101+19	9' RT	RCCP CLASS V TYPE 4	21	24	48
5	101+13	30' RT	101+19	9' RT	RCCP CLASS III TYPE 2	12	21	14
<b>TOTAL</b>								<b>63</b>

\* USE DUCTILE IRON PIPE, CLASS 50 IF WITHIN 10 FT OF A WATERMAIN.

**CHAIN LINK FENCE SCHEDULE**

STATION	CHAIN LINK FENCE REMOVAL (FEET)	CHAIN LINK FENCE - 4' (FEET)	CHAIN LINK FENCE - 6' (FEET)
98+69, 32' LT	35	46	
99+16.3, 15' LT	30		20
99+12, 23' RT	20	20	
100+87, 15' LT	38	24	
100+81, 23' RT	30	30	
<b>TOTAL</b>	<b>153</b>	<b>120</b>	<b>20</b>

**EXISTING STORM SEWER PIPE REMOVAL SCHEDULE**

FROM STATION	OFFSET	TO STATION	OFFSET	PIPE DIAMETER (IN.)	PIPE LENGTH (FT.)
100+98	6' RT	101+17	32' RT	6	25
100+98	6' RT	101+21	9' RT	21	21
102+13	13' LT	102+13	16' LT	12	3

PLOT SCALE: \$SCALE\$ SHORT \$

FILE NAME =	DESIGNED -	REVISED -	<b>COOPER CIVIL ENGINEERING, LTD.</b> 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201 (847)864-5343	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>SCHEDULE OF QUANTITIES</b>				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$	DRAWN -	REVISED -							08-00251-00-BR	COOK	118	18	
USER NAME = \$USER\$	CHECKED -	REVISED -			SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO.63817				
PLOT DATE = \$DATE\$	DATE -	REVISED -							ILLINOIS FED. AID PROJECT				

**EARTHWORK**

LOCATION		EARTH EXCAVATION (CU YD)		EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* (CU YD)		UNSUITABLE EXCAVATION TOPSOIL (CU YD)		TOTAL SUITABLE EXCAVATION (CU YD)		FURNISHED EXCAVATION (CU YD)		EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)	
FROM	TO	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2
97+96.41	98+00	3	3	3	3	1	1	3	3	1	1	2	2
98+00	98+50	31	20	27	17	7	4	27	17	5	8	22	9
98+50	98+84	19	4	16	3	5	3	16	3	4	7	12	-4
98+84	99+14	45	42	38	36	3	4	38	36	1	16	37	20
100+86	101+16	41	47	35	40	8	2	35	40	9	3	26	37
101+16	101+30	11	6	9	5	0	0	9	5	0	0	9	5
101+30	101+50	11	12	9	10	1	2	9	10	2	2	7	8
101+50	102+00	32	33	27	28	4	5	27	28	4	6	23	22
102+00	102+15.47	12	12	10	10	2	2	10	10	1	0	9	10
BIKE PATH		99	0	84	0	31	0	84	0	8	0	76	0
TEMPORARY DRIVEWAY		7	5	6	4	5	0	6	4	0	0	6	4
TOTAL		311	184	264	156	67	23	264	156	35	43	229	113

\* SHRINKAGE FACTOR IS 15%

**PROPOSED PCC SIDEWALK, 5" SCHEDULE**

STATION FROM	STATION TO	AREA (SQ. FT.)
97+90, LT	99+19, LT	924
98+07, RT	99+13, RT	798
100+88, LT	101+17, LT	231
101+42, LT	102+36, LT	805
100+82, RT	101+15, RT	245
101+45, RT	102+14, RT	469
102+22, 34' RT	101+90, 78' RT	424
TEMPORARY DRIVE	102+88, 177' LT	270
TOTAL		4166

**EXISTING CONCRETE SIDEWALK REMOVAL SCHEDULE**

STATION FROM	STATION TO	AREA (SQ. FT.)
97+91.8, 27' LT	99+16.4, 15' LT	1078
98+06.1, 17' RT	99+11.7, 23' RT	551
100+87.2, 15' LT	102+37.0, 21' LT	767
100+83.0, 23' RT	101+15.0, 23' RT	165
101+46.0, 21' RT	102+15.1, 20' RT	368
102+21.6, 33' RT	101+90.3, 79' RT	368
TEMP. DRIVE	102+88, 177' LT	390
TOTAL		3687

PLOT SCALE: #SCALESHORT#

FILE NAME =	DESIGNED -	REVISED -
#FILE#	DRAWN -	REVISED -
USER NAME = #USER#	CHECKED -	REVISED -
PLOT DATE = #DATE#	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES**

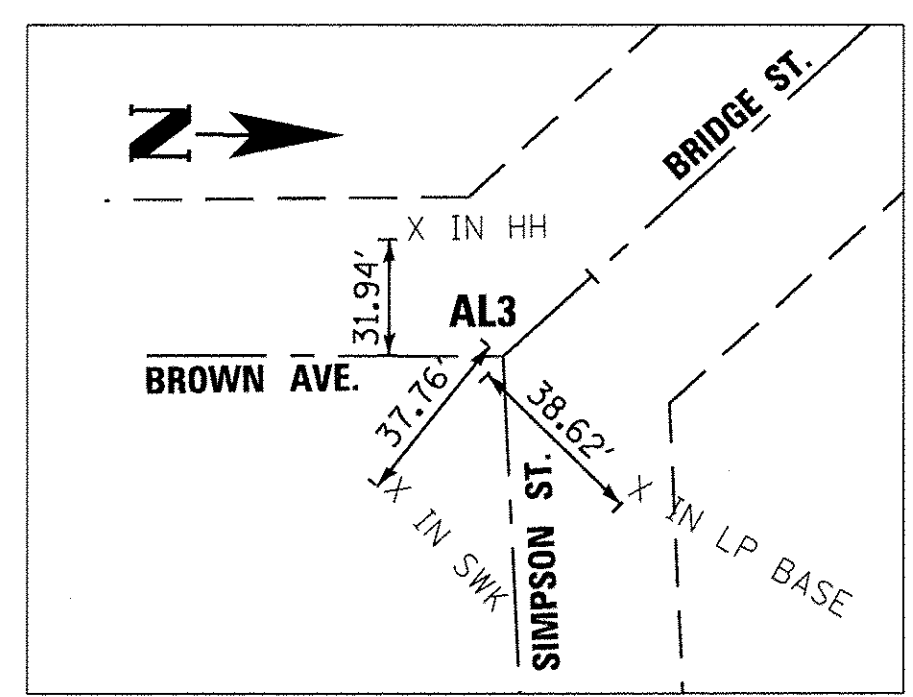
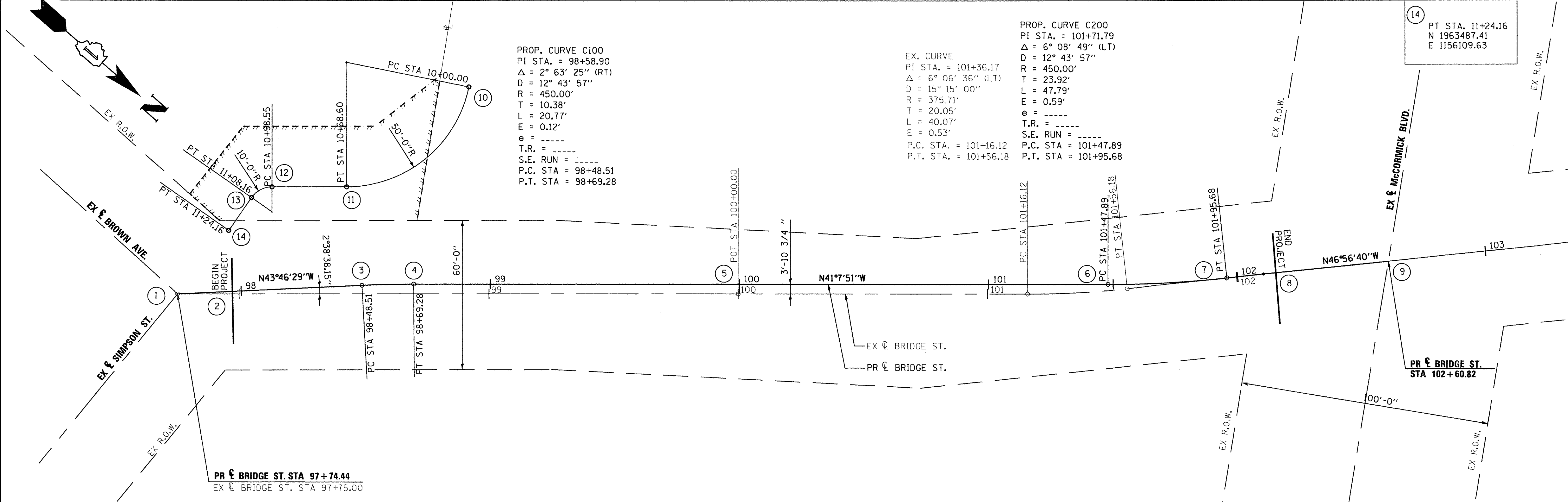
SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	19
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

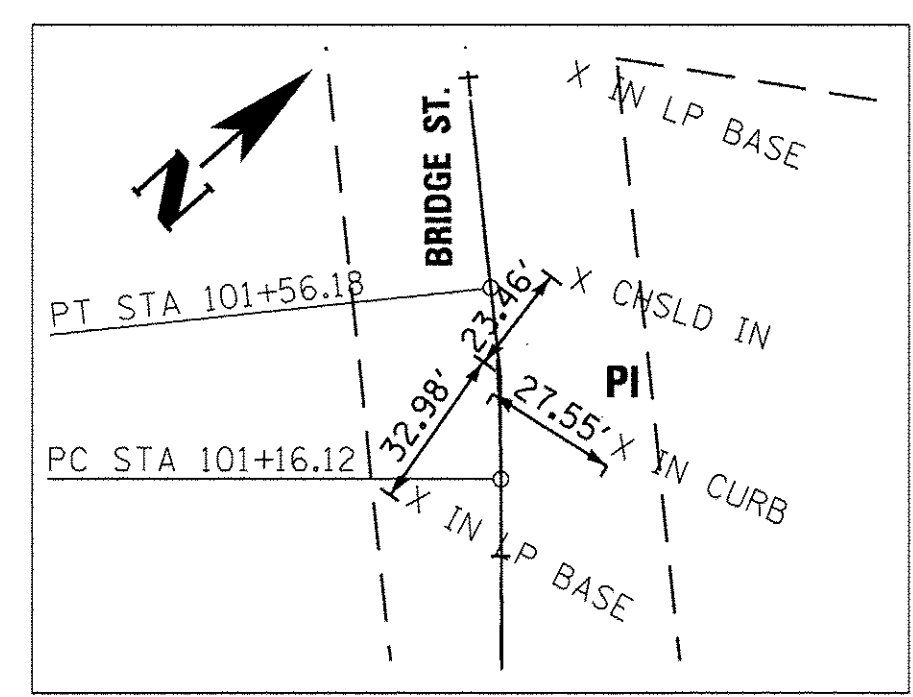




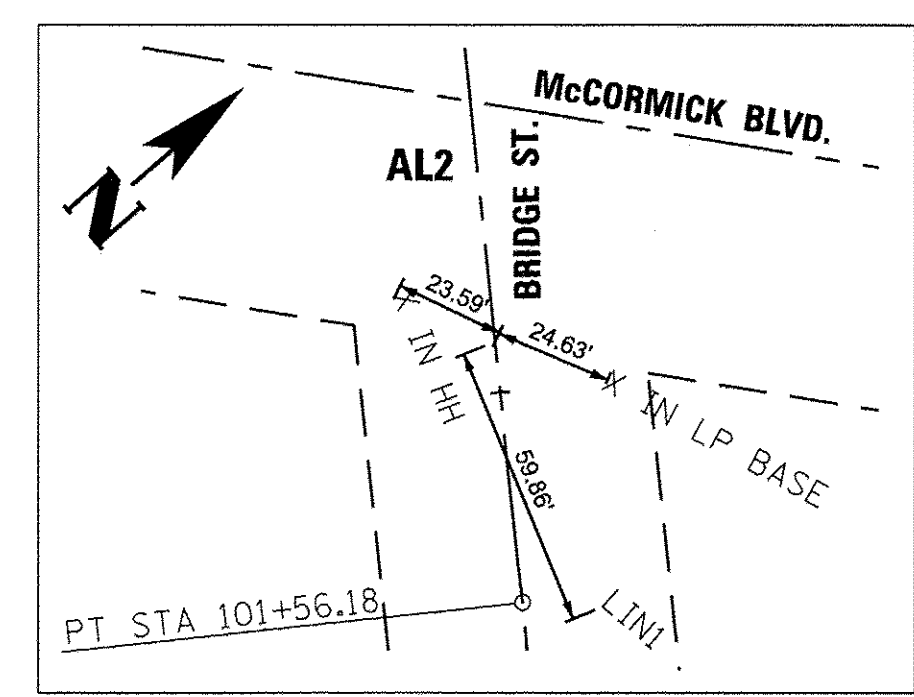
1	BRIDGE/BROWN/SIMPSON INTERSECTION N 1963488.76 E 1156142.37	2	BEGIN PROJECT STA 97+96.41 N 1963504.67 E 1156127.13	3	PC STA. 98+48.51 N 1963542.25 E 1156091.13	4	PT STA. 98+69.28 N 1963557.57 E 1156077.12	5	CL STA. 100+00 N 1963656.03 E 1155991.13	6	PC STA. 101+47.89 N 1963767.42 E 1155893.85	7	PT STA. 101+95.68 N 1963801.68 E 1155860.56	8	END PROJECT STA 102+15.467 N 1963815.1458 E 1155846.0627	9	BRIDGE/McCORMICK INTERSECTION STA. 102+60.82 N 1963846.11 E 1155812.93	10	PC STA. 10+00.00 N 1963522.08 E 1156002.94	11	PT STA. 10+68.60 N 1963511.60 E 1156065.41	12	PC STA. 10+98.55 N 1963489.05 E 1156085.11	13	PT STA. 11+08.16 N 1963485.68 E 1156093.72	14	PT STA. 11+24.16 N 1963487.41 E 1156109.63
---	---	---	---	---	--	---	--	---	--	---	---	---	---	---	---	---	---	----	--	----	--	----	--	----	--	----	--



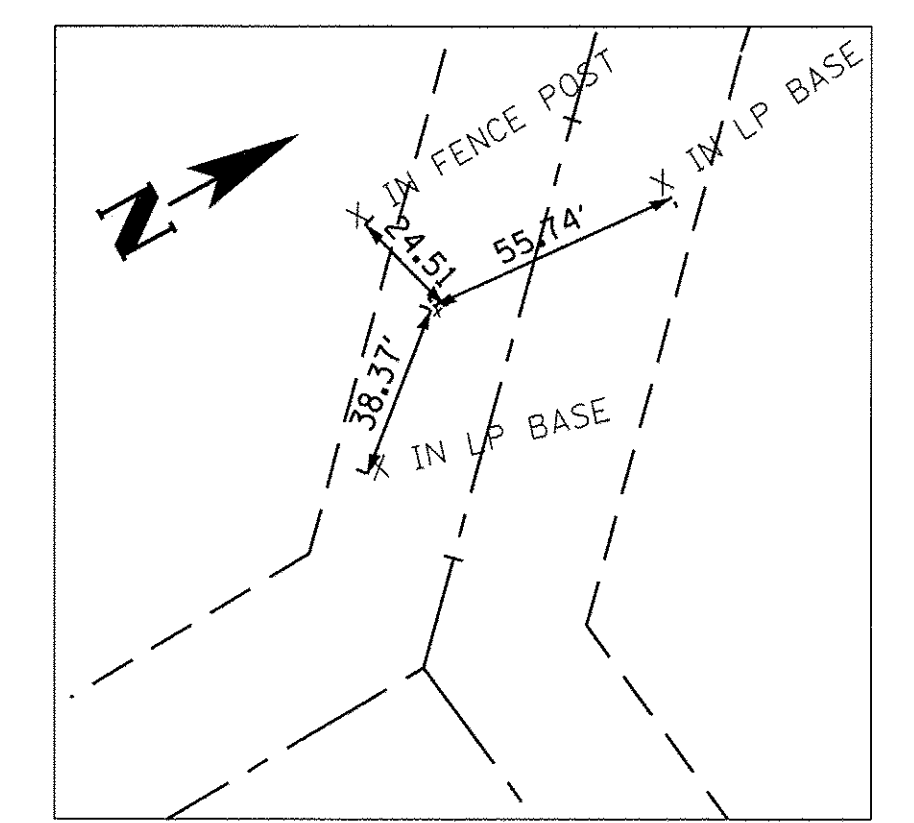
EXIST. STA. 97+75.00  
N 1963488.7629  
E 1156142.3744



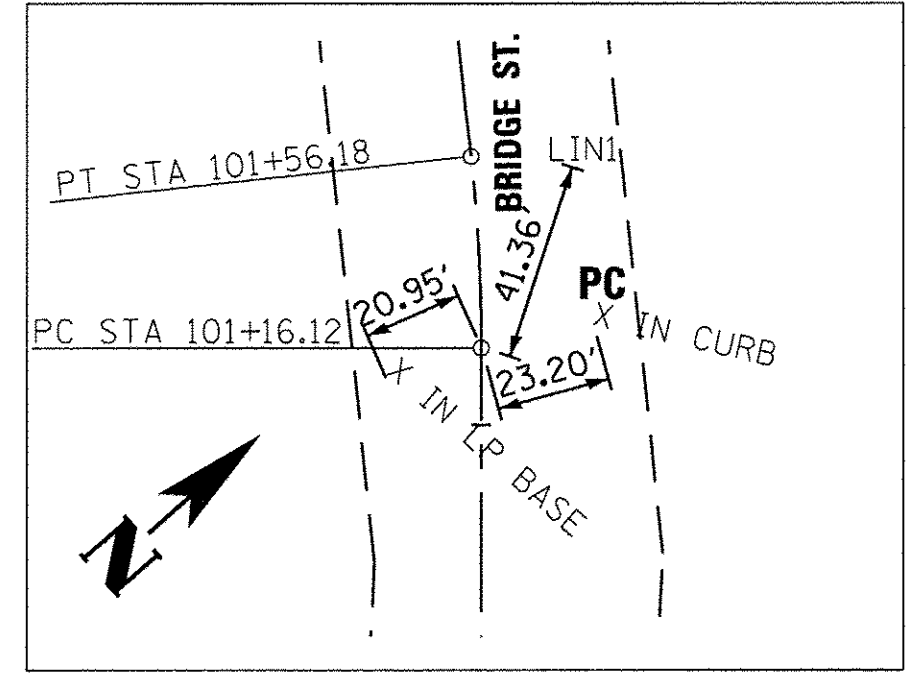
EXIST. STA. 101+36.17  
N 1963760.795  
E 1155904.809



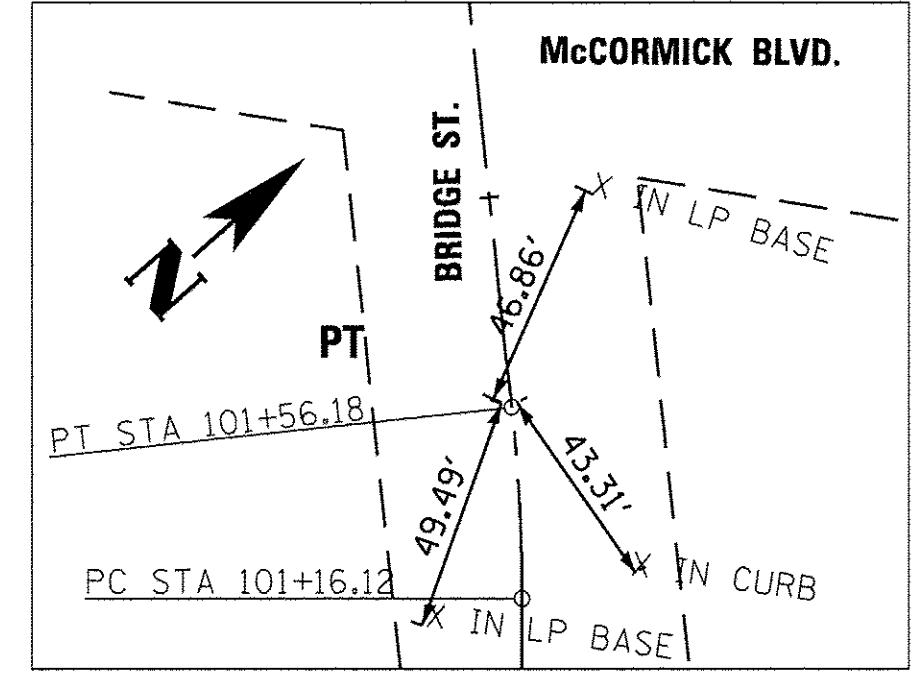
EXIST. STA. 102+11.18  
N 1963811.748  
E 1155849.706



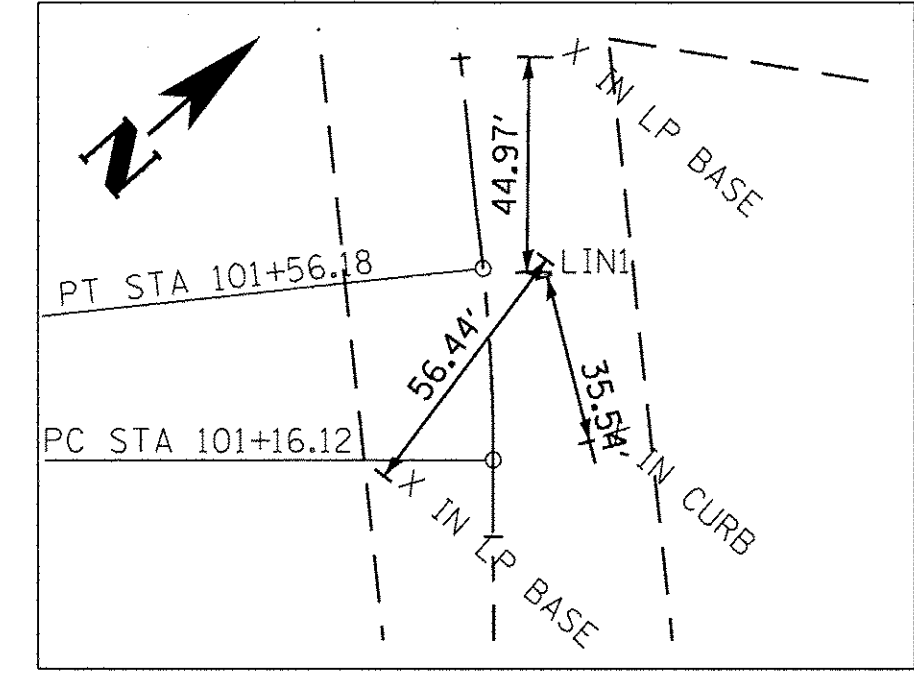
CP & LIN2  
N 1963811.747  
E 1155849.706



EXIST. STA. 101+16.12  
N 1963745.6900  
E 1155917.9965



EXIST. STA. 101+56.18  
N 1963774.408  
E 1155890.086

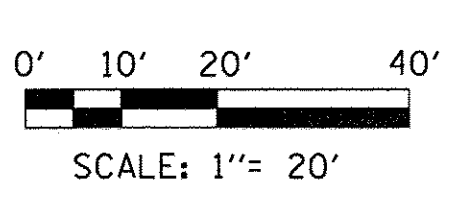


CP & LIN1  
N 1963784.152  
E 1155902.839

CITY OF EVANSTON BENCHMARKS BM#38 AND BM#39  
ELEVATIONS FROM EVANSTON DATUM = 579.70 FT. ABOVE  
MEAN TIDE AT NEW YORK.  
COORDINATE SYSTEM - NAD83 STATE PLANE ILLINOIS EAST.

BM#38 LOCATED OUTSIDE OF PROJECT ALIGNMENT AND STATIONING.  
N 1963449.672  
E 1153344.626  
ELEV. 603.988

BM#39 LOCATED OUTSIDE OF PROJECT ALIGNMENT AND STATIONING.  
N 1963530.489  
E 1156408.517  
ELEV. 597.812



PLOT SCALE: 1" = 20'

FILE NAME =	DESIGNED -	REVISED -
*FILE#	DRAWN -	REVISED -
USER NAME = *USER#	CHECKED -	REVISED -
PLOT DATE = *DATE#	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

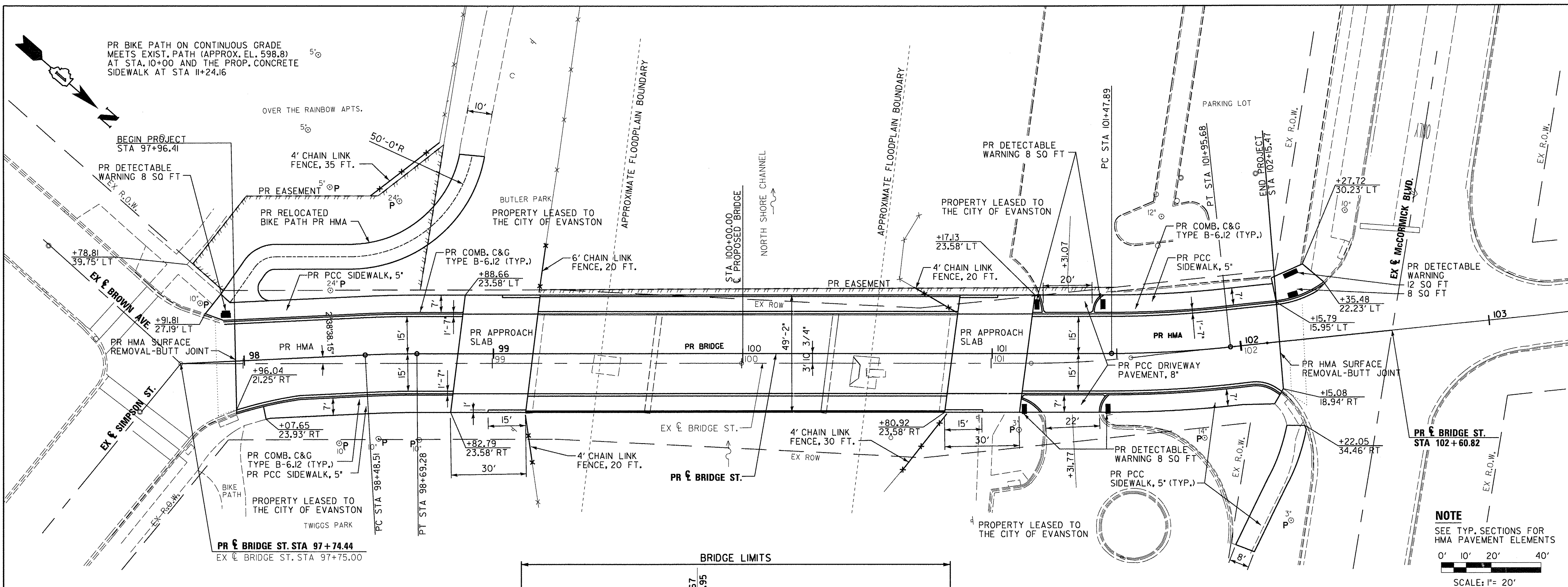
**BRIDGE STREET  
ALIGNMENT, TIES, AND BENCHMARKS**

SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	21
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



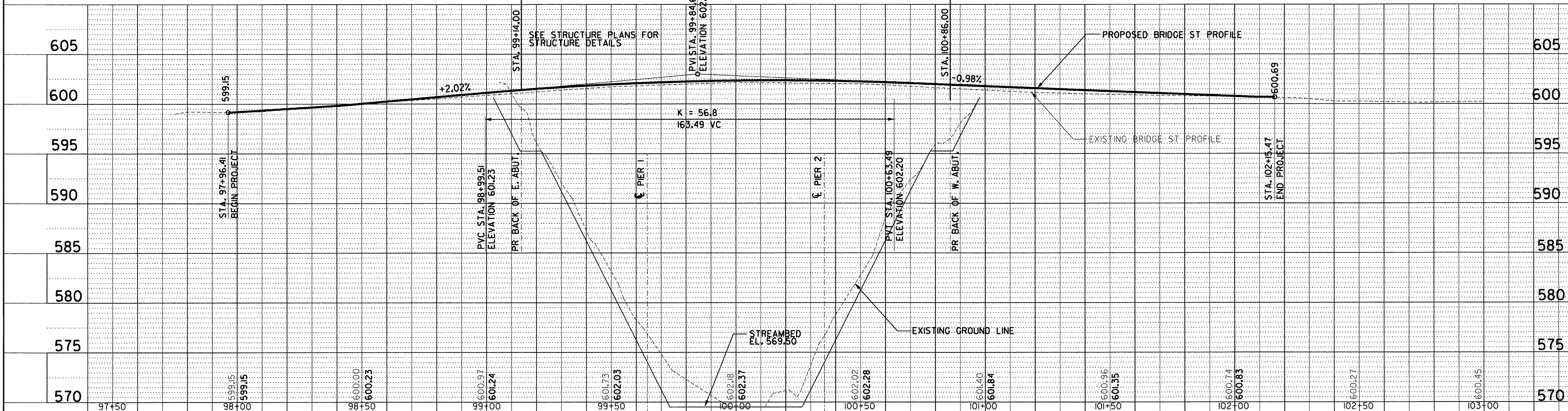




**NOTE**  
SEE TYP. SECTIONS FOR HMA PAVEMENT ELEMENTS

0' 10' 20' 40'

SCALE: 1" = 20'



PLOT SCALE: \$SCALESHORT\$  
 \$PLOT\$ \$DATE\$ \$TIME\$ \$SHEET\$ \$TOTAL\$

FILE NAME =	DESIGNED -	REVISED -	<b>COOPER CIVIL ENGINEERING, LTD.</b> 1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201 (847) 862-5343	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>BRIDGE STREET</b> <b>PLAN AND PROFILE</b>		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*FILEL*	DRAWN -	REVISED -			08-00251-00-BR	COOK	118	23			
USER NAME = *USER*	CHECKED -	REVISED -			CONTRACT NO. 63817						
PLLOT DATE = *DATE*	DATE -	REVISED -			ILLINOIS FED. AID PROJECT						
SHEET NO. OF SHEETS							STA.	TO STA.			

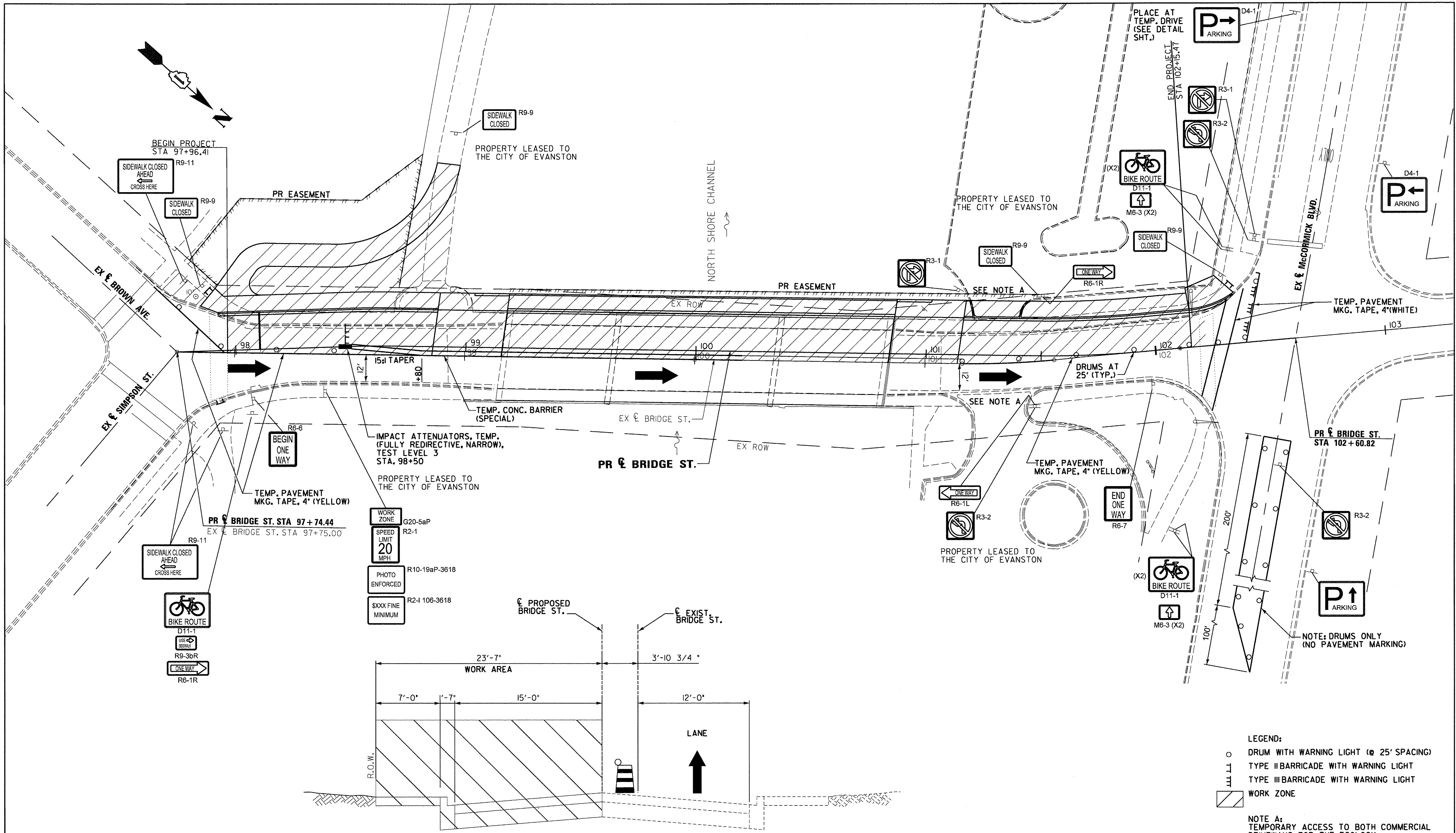


MAINTENANCE OF TRAFFIC GENERAL NOTES

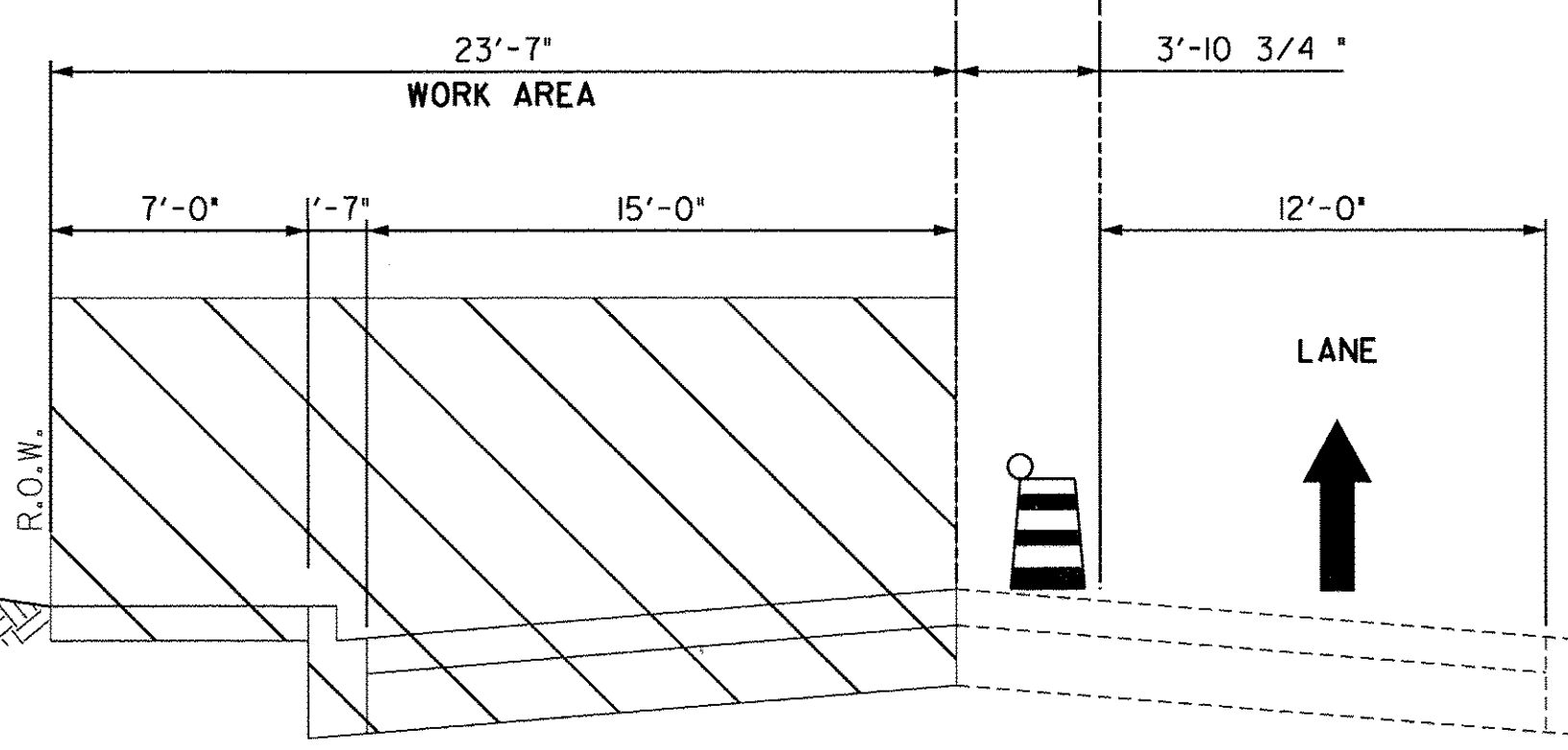
1. THE TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE TRAFFIC CONTROL PLANS TO MEET CONSTRUCTION NEEDS, BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE TRAFFIC CONTROL PLANS.
2. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY, OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND WITHIN 30 MINUTES FROM THE TIME OF NOTIFICATION BY THE ENGINEER TO ANY REQUESTS MADE BY THE ENGINEER FOR CORRECTION, IMPROVEMENT, OR MODIFICATION OF THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.
3. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY STRIPING WHICH CONFLICTS WITH THE NEXT STAGE OR FINAL STRIPING. ALL EXISTING PAVEMENT MARKING WHICH CONFLICT WITH THE NEXT STAGE SHALL BE REMOVED OR COVERED AND THEN REPLACED AFTER THE STAGING IS COMPLETE. ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE FINAL STRIPING SHALL BE REMOVED AFTER THE STAGING IS COMPLETE. THE COST IS INCIDENTAL TO MAINTENANCE OF TRAFFIC.
4. ALL TRAFFIC CONTROL DEVICES USED FOR THE MAINTENANCE OF TRAFFIC, AS DETAILED ON THE PLANS, SHALL BE REFLECTORIZED PRIOR TO INSTALLATION AND CLEANED AS SPECIFIED IN THE SPECIAL PROVISIONS AND AS DIRECTED BY THE ENGINEER.
5. ALL DRUMS, VERTICAL PANELS, AND BARRICADES IMMEDIATELY ADJACENT TO THE EDGE OF TRAVELED WAY SHALL BE EQUIPPED WITH STEADY MONO-DIRECTIONAL LIGHTS.
6. LOCATIONS OF TWO (2) PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE DETERMINED BY THE ENGINEER.
7. DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT ADJACENT OPEN TRAFFIC LANES FROM DEBRIS BEING BLOWN OR OTHERWISE REMOVED FROM THE WORK AREAS.
8. ALL EXISTING SIGNING SHALL BE MAINTAINED IN PLACE UNTIL THESE SIGNS ARE NO LONGER VALID AND NEW SIGNING IS ERECTED. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED UNLESS SPECIFIED IN THE PLANS. THE COST OF THIS REQUIREMENT SHALL BE CONSIDERED INCLUDED IN THE LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).
9. ALL EXISTING SIGNS WITHIN THE LIMITS OF MAINTENANCE OF TRAFFIC WHICH ARE OBSCURED BY OR OTHERWISE INTERFERE WITH THE CONSTRUCTION OPERATIONS AND MAINTENANCE OF TRAFFIC SHALL BE REMOVED BY THE CONTRACTOR, UNLESS SPECIFIED IN THE PLANS OR WHEN DIRECTED BY THE ENGINEER.
10. ALL TRAFFIC CONTROL DEVICES REQUIRED FOR MAINTENANCE OF TRAFFIC DURING THE CONSTRUCTION SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR. THE TRAFFIC CONTROL DEVICES SHALL MEET THE REQUIREMENTS OF SEC. 701 OF THE STANDARD SPECIFICATIONS AND SHALL REMAIN VISIBLE DURING ALL STAGES OF CONSTRUCTION.
11. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION STAGING TO CONFORM TO THE DETAILS SHOWN ON PLANS OR IN THE HIGHWAY STANDARDS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER FOR ANY METHODS OF MAINTENANCE OF TRAFFIC DIFFERENT THAN THOSE SHOWN ON THE PLANS OR IN THE STANDARDS.
12. THE FOLLOWING APPLY TO CONSTRUCTION SIGNS:
  - A. THE CONTRACTOR SHALL FURNISH ALL SIGNS, UNLESS OTHERWISE NOTED.
  - B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ANY SIGNS THAT ARE SUPPLIED BY OTHERS AND DAMAGED BY THE CONTRACTOR'S WORK FORCE OR SUBCONTRACTORS DURING RELOCATION OR CONSTRUCTION OPERATIONS AT CONTRACTOR EXPENSE.
13. ALL MINOR CROSSROADS, DRIVEWAYS, AND SIDEWALKS TO COMMERCIAL BUSINESSES AND RESIDENCES SHALL REMAIN IN SERVICE THROUGHOUT THE LIFE OF THIS CONTRACT AND SHALL BE CONSTRUCTED IN STAGES AS DESCRIBED ON THE STAGING/CONSTRUCTION NOTES PLAN AND AS SHOWN ON THE SUGGESTED MAINTENANCE OF TRAFFIC PLANS, HIGHWAY STANDARDS, AND DISTRICT DETAILS FOR TEMPORARY ACCESS DRIVES AND SIDE STREETS. NO RESIDENTIAL OR COMMERCIAL DRIVEWAYS SHALL BE CLOSED OR REMOVED FROM SERVICE WITHOUT APPROVAL OF ENGINEER. STORM SEWER SYSTEM SHALL BE MAINTAINED IN WORKING CONDITION AT ALL TIMES, EXCEPT AT PERIODS OF CONNECTING TO TEMPORARY SEWER LINES OR TO BE PROPOSED SEWER LINES. THE WATER SERVICE TO ALL RESIDENCES AND BUSINESSES SHALL BE MAINTAINED AT ALL TIMES.
14. THE CONTRACTOR SHALL NOT STORE EQUIPMENT, VEHICLES, OR MATERIALS ON ADJACENT STREETS BEYOND THE PROJECT LIMITS WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.
15. ADEQUATE TURNING RADIUS FOR ALL VEHICLES, INCLUDING TRUCKS AND BUSES SHALL BE MAINTAINED AT ALL INTERSECTIONS AND OPENINGS DURING CONSTRUCTION OPERATIONS, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
16. WORK ZONES SHOULD BE LIMITED TO ONE SIDE OF THE TRAVELED WAY AT A TIME, UNLESS APPROVED BY THE ENGINEER.
17. WORK ZONES ON OPPOSITE SIDES OF THE ROAD SHALL NOT OVERLAP. WORK ZONE IS DEFINED AS THAT AREA IN WHICH TRAFFIC IS RESTRICTED BECAUSE OF CONSTRUCTION ACTIVITIES OR THAT AREA WHICH INVOLVES A DROP-OFF NEXT TO THE PAVEMENT.
18. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSTALL REVOLVING, AMBER LIGHTS ON ALL CONSTRUCTION EQUIPMENT AND SUPERVISORY VEHICLES AS DIRECTED BY ENGINEER. THE COST IS TO BE INCLUDED IN THE LUMP SUM COST FOR MAINTENANCE AND PROTECTION OF TRAFFIC. THE LIGHTS SHALL BE VISIBLE IN ALL DIRECTIONS FOR A MINIMUM OF 800 FEET.
19. IN ORDER TO MAINTAIN EFFECTIVE TRAFFIC CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE, MAKING SURE ALL LIGHTS, CONES, BARRICADES, TEMPORARY PAVEMENT MARKINGS, ETC. ARE IN PLACE AND IN GOOD CLEAN CONDITION. THE SOLE JUDGE OF THE EFFECTIVENESS OF THE CONTRACTOR'S EFFORTS TOWARDS PROTECTION OF TRAFFIC AND PERSONNEL SHALL BE THE ENGINEER. ALL FLAGGER SIGNS SHALL BE COVERED OR REMOVED WHEN FLAGPERSON IS NOT PHYSICALLY PRESENT.
20. WORK ZONE DELINEATION SHALL BE PROVIDED BY BARRICADES, TYPE II AND III, AND TEMPORARY CONCRETE BARRIERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
21. THE CONTRACTOR IS REFERRED TO THE TRAFFIC SIGNAL DRAWINGS FOR TEMPORARY TRAFFIC SIGNAL DETAILS.
22. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING OR TEMPORARY TRAFFIC SIGNAL EQUIPMENT WITHIN THE CONTRACT LIMITS FOR THE DURATION OF THE PROJECT.
23. THE COST FOR ALL MAINTENANCE AND PROTECTION OF TRAFFIC AS SHOWN ON PLANS AS WELL AS ALL WORK COVERED UNDER ALL HIGHWAY STANDARDS AND STANDARD DETAILS ASSOCIATED WITH MAINTENANCE AND PROTECTION OF TRAFFIC IDENTIFIED IN THESE PLANS OR IN THE SPECIAL PROVISIONS SHALL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE LUMP SUM PRICE FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL).

PLOT SCALE: #SCALESHORT#  
#FILEL#  
#USER#  
#DATE#

FILE NAME =	DESIGNED -	REVISED -	<b>COOPER CIVIL ENGINEERING, LTD.</b> 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201 (847)664-5343	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>MAINTENANCE OF TRAFFIC</b> <b>GENERAL NOTES</b>			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#	DRAWN -	REVISED -							08-00251-00-BR	COOK	118	24
USER NAME = #USER#	CHECKED -	REVISED -			SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO.63817				
PLOT DATE = #DATE#	DATE -	REVISED -			ILLINOIS FED. AID PROJECT							



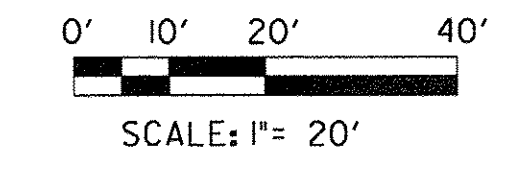
- WORK ZONE G20-5aP
- SPEED LIMIT 20 MPH R2-1
- PHOTO ENFORCED R10-19aP-3618
- \$XXX FINE MINIMUM R2-1 106-3618



TYP. SECTION STAGE 1

- LEGEND:
- DRUM WITH WARNING LIGHT (@ 25' SPACING)
  - T TYPE II BARRICADE WITH WARNING LIGHT
  - TT TYPE III BARRICADE WITH WARNING LIGHT
  - ▨ WORK ZONE

NOTE A:  
 TEMPORARY ACCESS TO BOTH COMMERCIAL DRIVEWAYS FOR THE ECOLOGY CENTER MUST BE PROVIDED DURING ALL STAGES OF CONSTRUCTION.



PLOT SCALE: \$SCALESHORT\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
 (847)864-5343

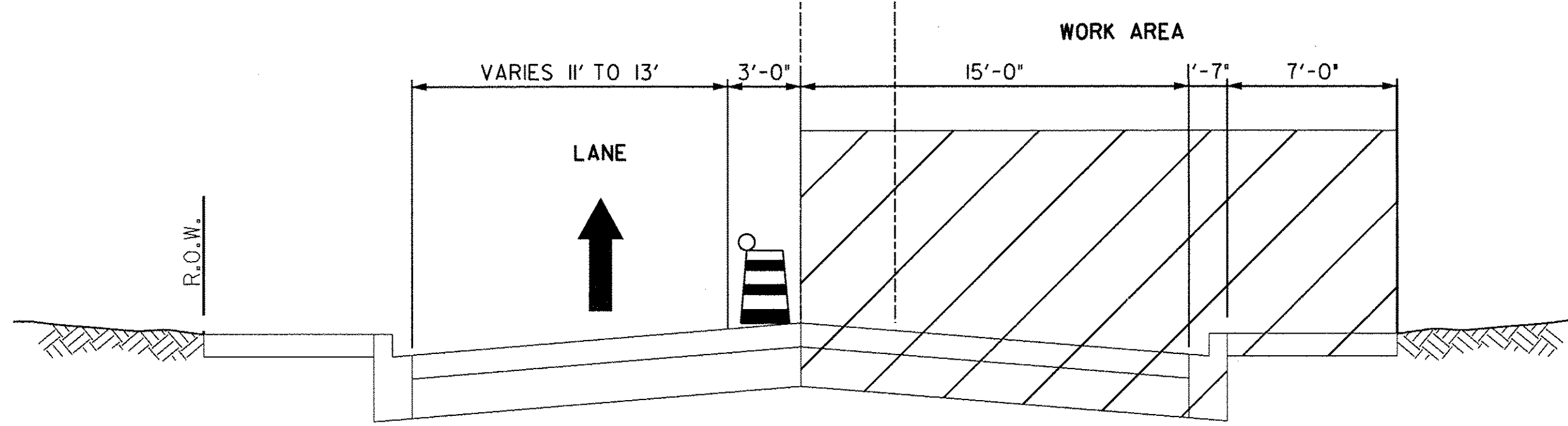
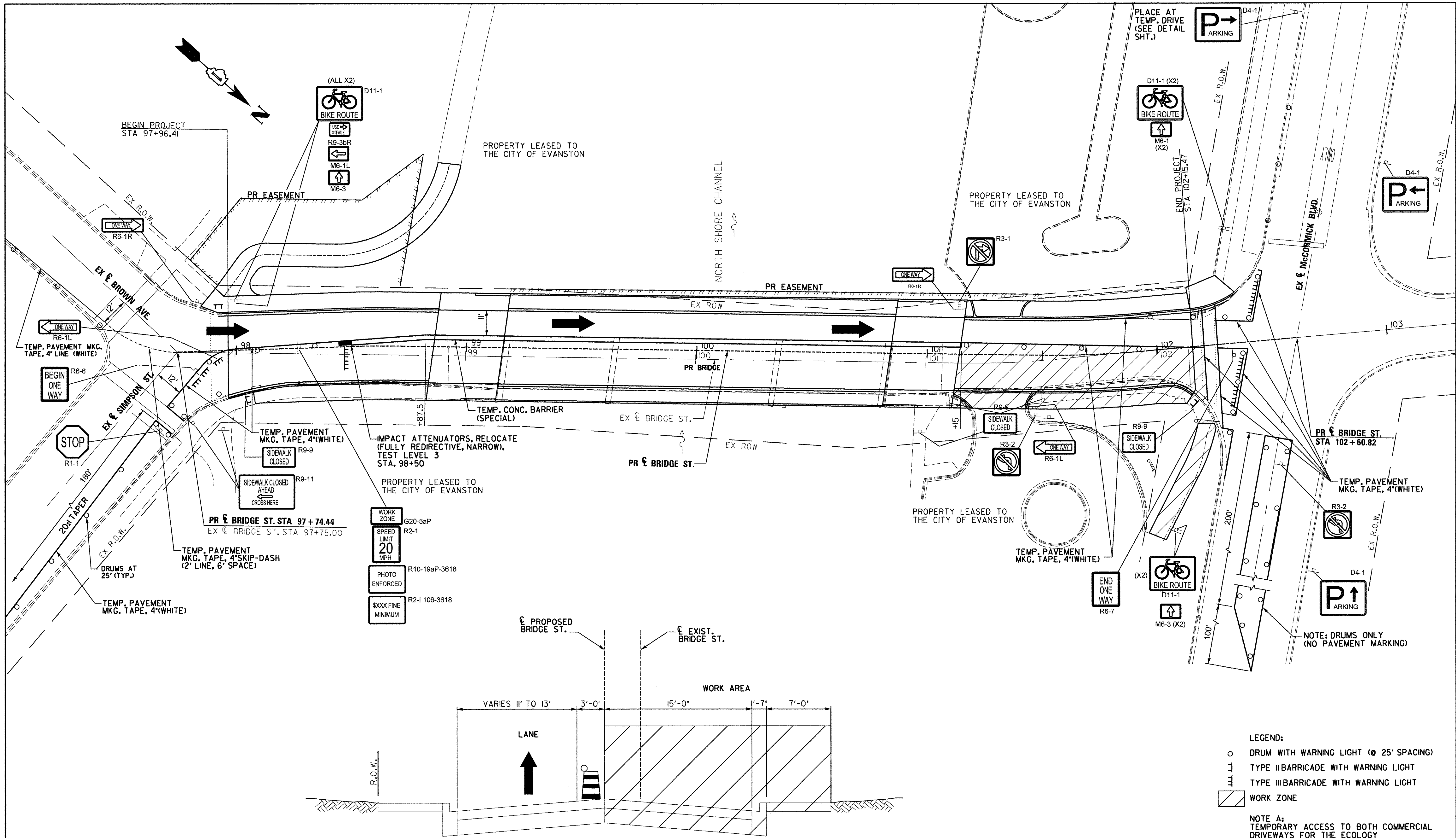
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC**  
**STAGE 1**

SHEET NO.	OF	SHEETS	STA.	TO	STA.
-----------	----	--------	------	----	------

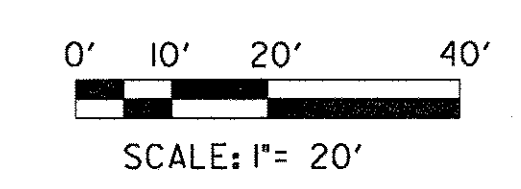
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-0025I-00-BR	COOK	118	25
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				





- LEGEND:**
- DRUM WITH WARNING LIGHT (@ 25' SPACING)
  - T TYPE II BARRICADE WITH WARNING LIGHT
  - TTT TYPE III BARRICADE WITH WARNING LIGHT
  - ▨ WORK ZONE

**NOTE A:**  
 TEMPORARY ACCESS TO BOTH COMMERCIAL DRIVEWAYS FOR THE ECOLOGY CENTER MUST BE PROVIDED DURING ALL STAGES OF CONSTRUCTION.



PLOT SCALE: \$SCALESHORT\$  
 PLOT DRVS: \$PLOTDRVS\$  
 PLOT DATE: \$PLOTDATE\$

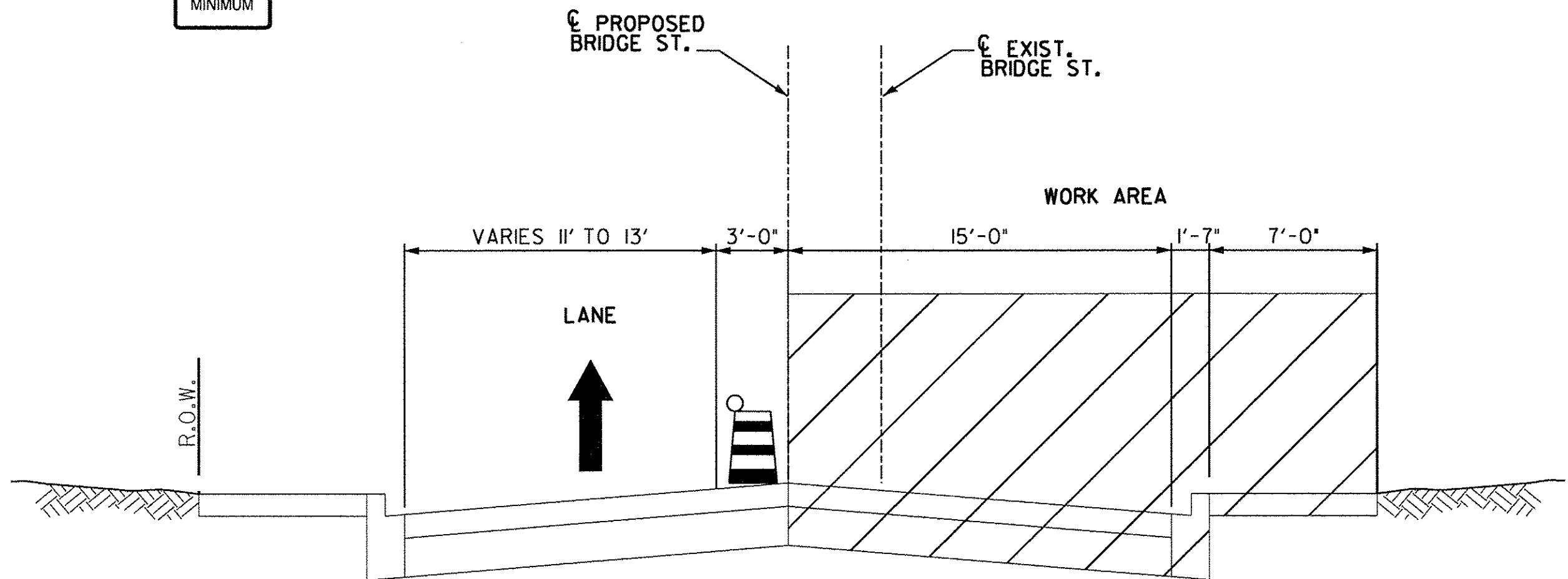
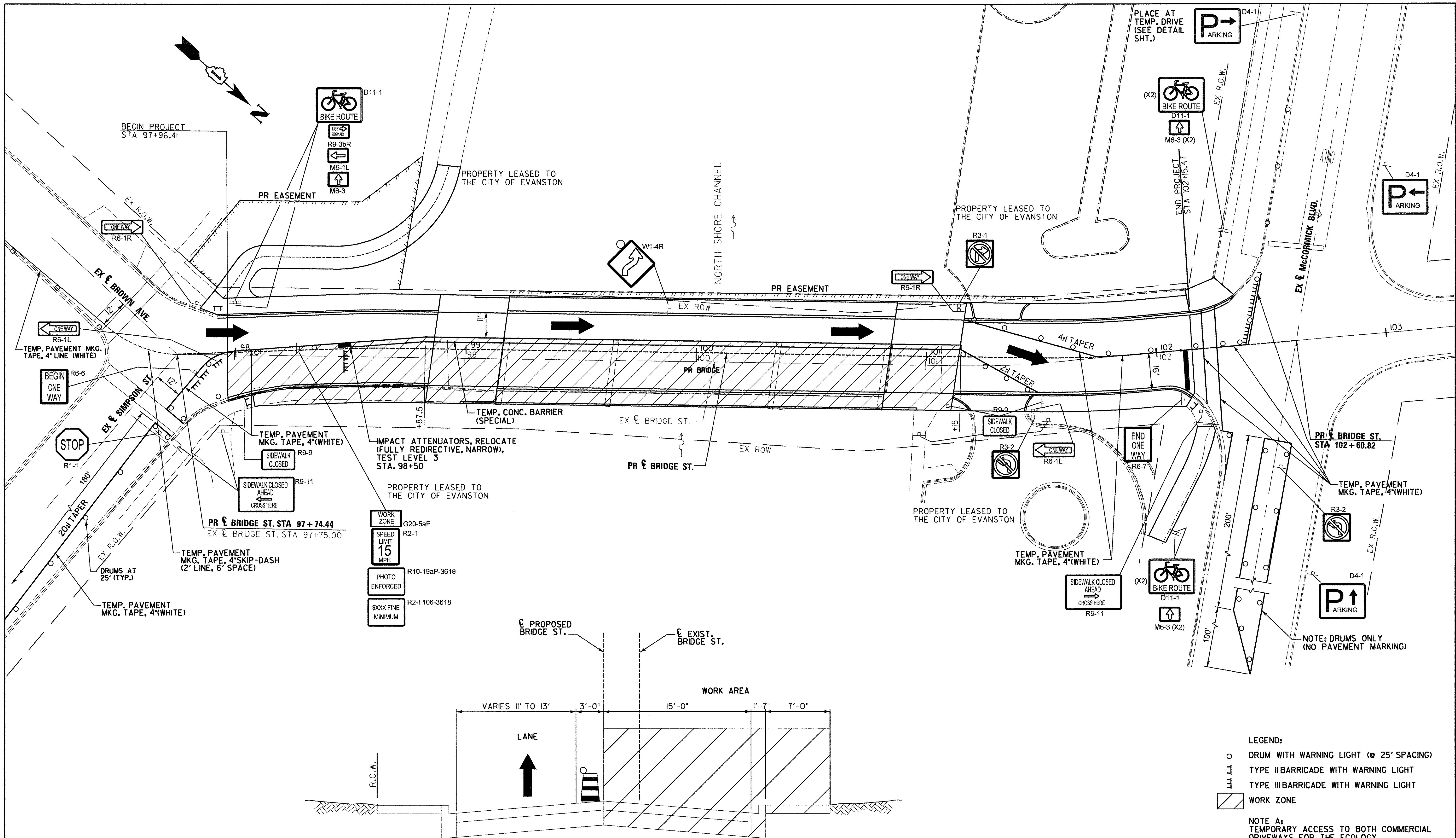
FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
 (847)864-5343

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

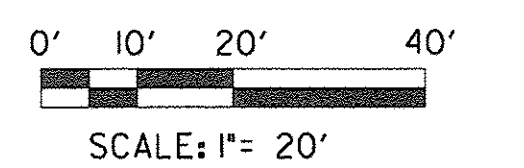
**MAINTENANCE OF TRAFFIC**  
**SUB-STAGE 2A**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-0025I-00-BR	COOK	118	26
CONTRACT NO. 63817				
SHEET NO. OF SHEETS		STA. TO STA.	ILLINOIS FED. AID PROJECT	



- LEGEND:**
- DRUM WITH WARNING LIGHT (@ 25' SPACING)
  - 1 TYPE II BARRICADE WITH WARNING LIGHT
  - TTT TYPE III BARRICADE WITH WARNING LIGHT
  - ▨ WORK ZONE

**NOTE A:**  
 TEMPORARY ACCESS TO BOTH COMMERCIAL DRIVEWAYS FOR THE ECOLOGY CENTER MUST BE PROVIDED DURING ALL STAGES OF CONSTRUCTION.



PLOT SCALE: \$SCALE\$ SHORT \$  
 \$PLOT DATE\$ \$DATE\$ \$  
 \$PLOT DATE\$ \$DATE\$ \$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

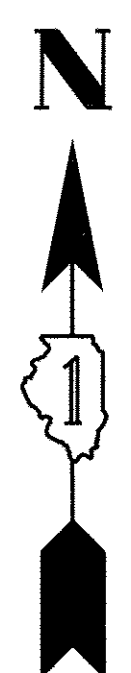
**COOPER CIVIL ENGINEERING, LTD.**  
 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
 (847)864-5343

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC STAGE 2			
SHEET NO.	OF	SHEETS	STA. TO STA.

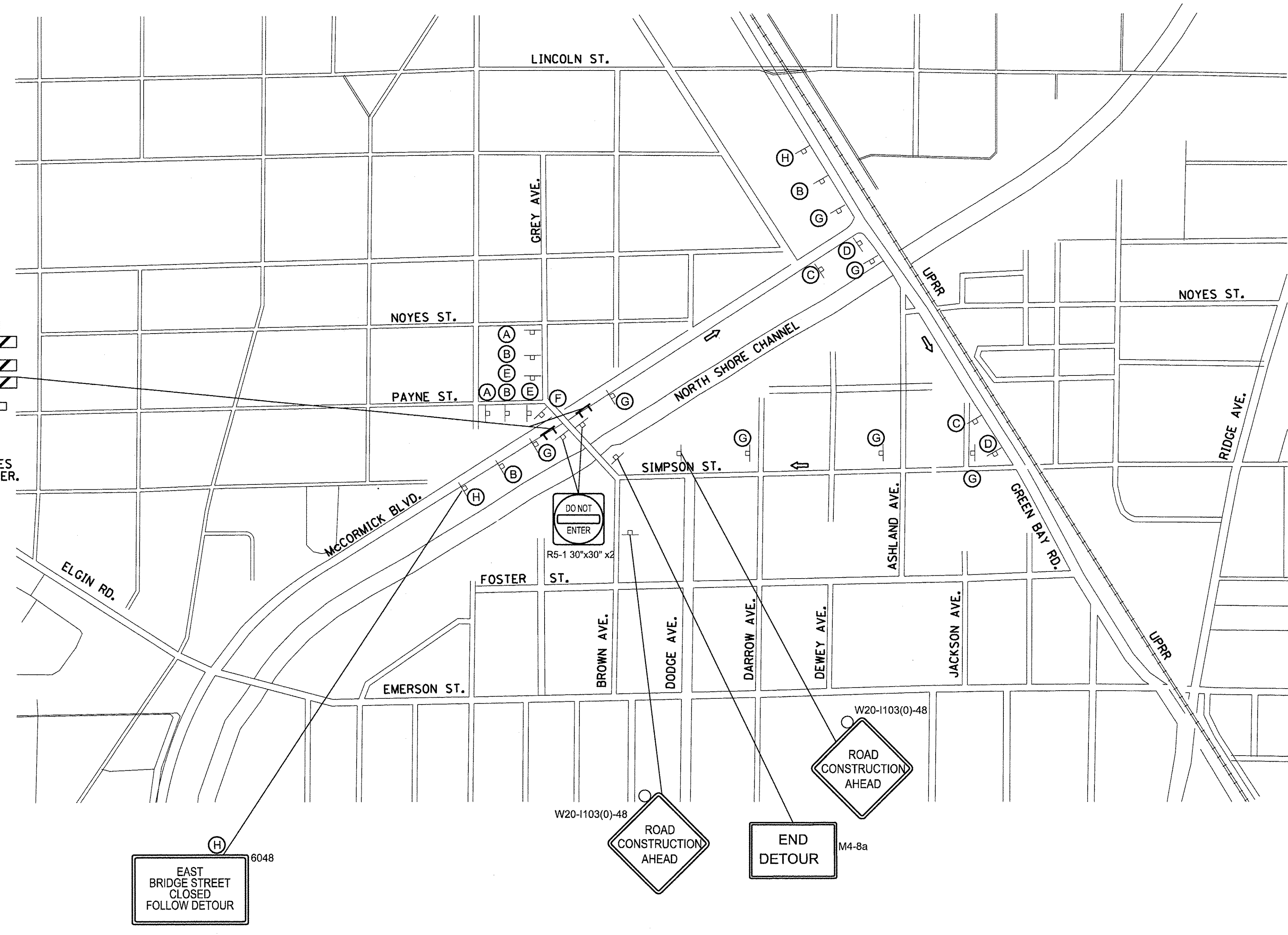
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	27
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



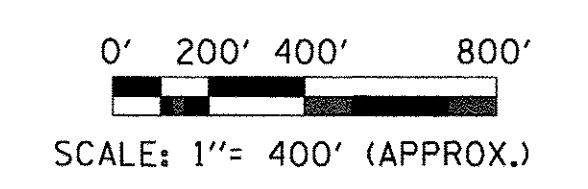


R11-2-4880 x2  
ROAD CLOSED

2 EACH, CHANGEABLE MESSAGE SIGNS. LOCATIONS AND MESSAGES AS DIRECTED BY ENGINEER.



- W20-3-4848 ROAD CLOSED AHEAD BRIDGE STREET (A)
- W20-3-4848 DETOUR AHEAD BRIDGE STREET (B)
- DETOUR EAST BRIDGE STREET 2412 (C)
- M3-2-2412
- M5-1R-2115
- DETOUR EAST BRIDGE STREET 2412 (D)
- M3-2-2412
- M6-1
- DETOUR EAST BRIDGE STREET 2412 (E)
- M3-2-2412
- M5-1L-2115
- DETOUR EAST BRIDGE STREET 2412 (F)
- M3-2-2412
- M6-1
- DETOUR EAST BRIDGE STREET 2412 (G)
- M3-2-2412
- M6-1



PLOT SCALE: \$SCALE\$ SHORT \$SCALE\$

FILE NAME =	DESIGNED -	REVISED -
*FILEL#	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

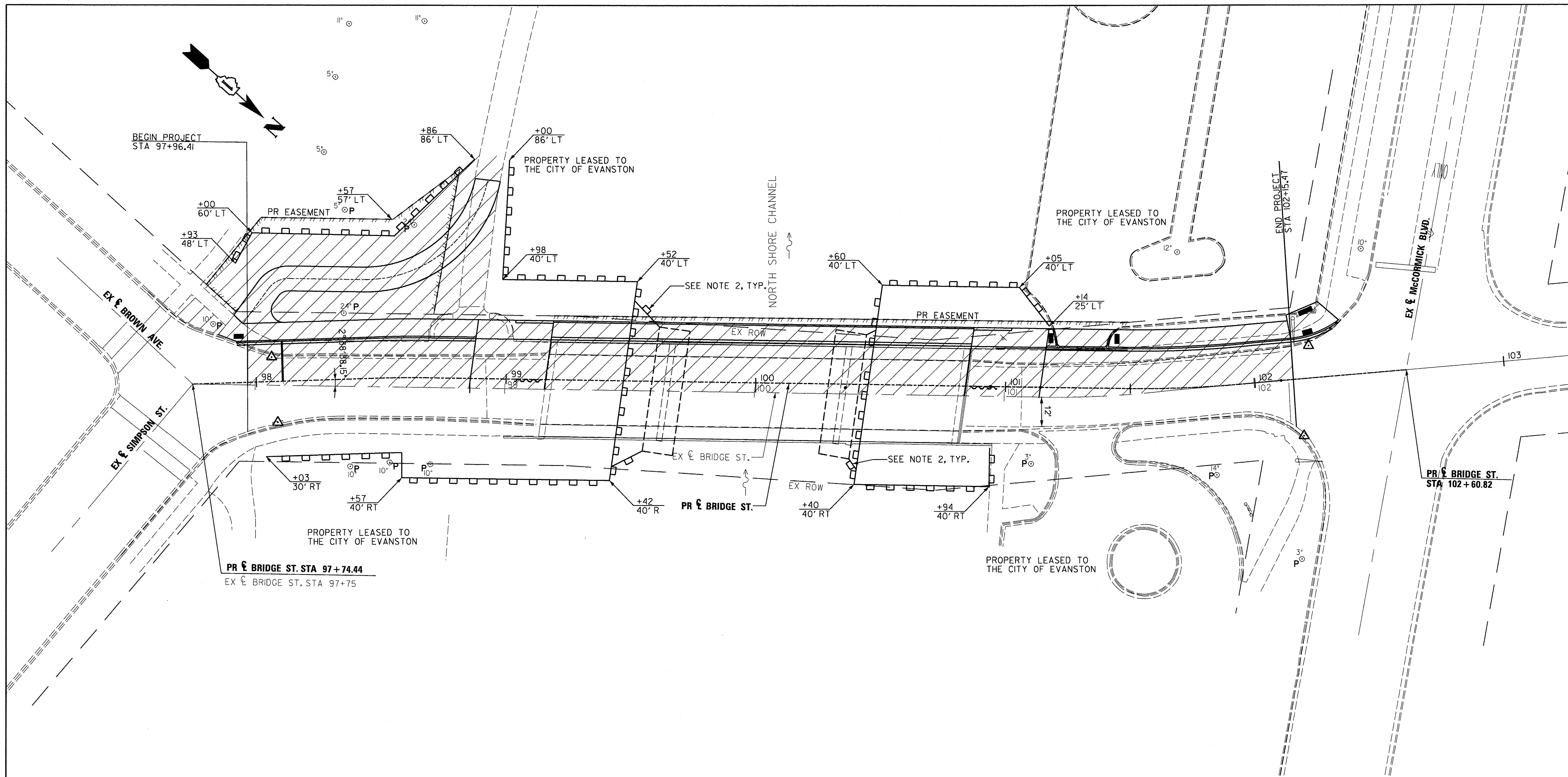
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
DETOUR PLAN**

SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	28
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



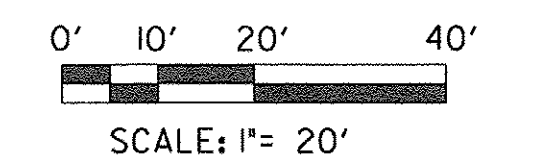


**NOTES**

1. USE ROLLED EXCELSIOR BLANKET WITHIN TREE CANOPY LIMITS IN LIEU OF SILT FENCE
2. ADJUST PERIMETER EROSION CONTROL BARRIER AS NECESSARY DURING COFFERDAM CONSTRUCTION.

**LEGEND:**

- INLET FILTERS
- PERIMETER EROSION CONTROL BARRIER
- WORK ZONE
- DENOTES TREE PROTECTION
- TEMPORARY SHEET PILING
- LIMITS OF COFFERDAM



PLOT SCALE: \$SCALESHORT\$  
\$PLTDRVL\$  
\$REVISELL\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

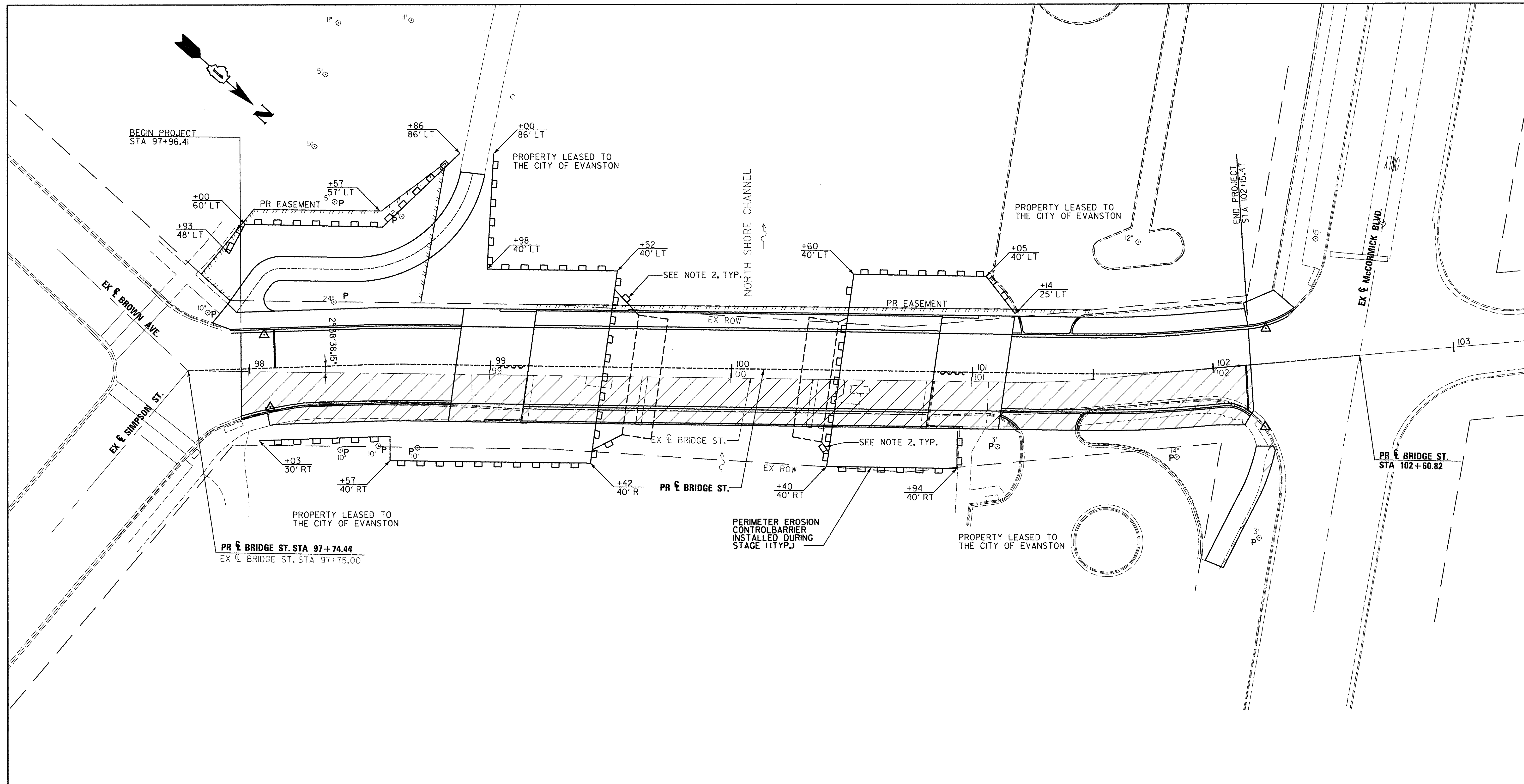
**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201  
(847)8643343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL PLAN  
STAGE 1**

SHEET NO. OF	SHEETS	STA.	TO STA.
--------------	--------	------	---------

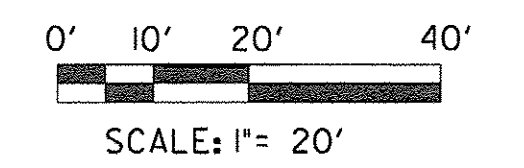
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	29
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



**NOTES**

- USE ROLLED EXCELSIOR BLANKET WITHIN TREE CANOPY LIMITS IN LIEU OF SILT FENCE
- ADJUST PERIMETER EROSION CONTROL BARRIER AS NECESSARY DURING COFFERDAM CONSTRUCTION.

- LEGEND:**
- INLET FILTERS
  - PERIMETER EROSION CONTROL BARRIER
  - WORK ZONE
  - DENOTES TREE PROTECTION
  - TEMPORARY SHEET PILING
  - LIMITS OF COFFERDAM



PLOT SCALE: \$SCALESHORT\$  
\$FILEL\$  
\$FILEL\$  
\$FILEL\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

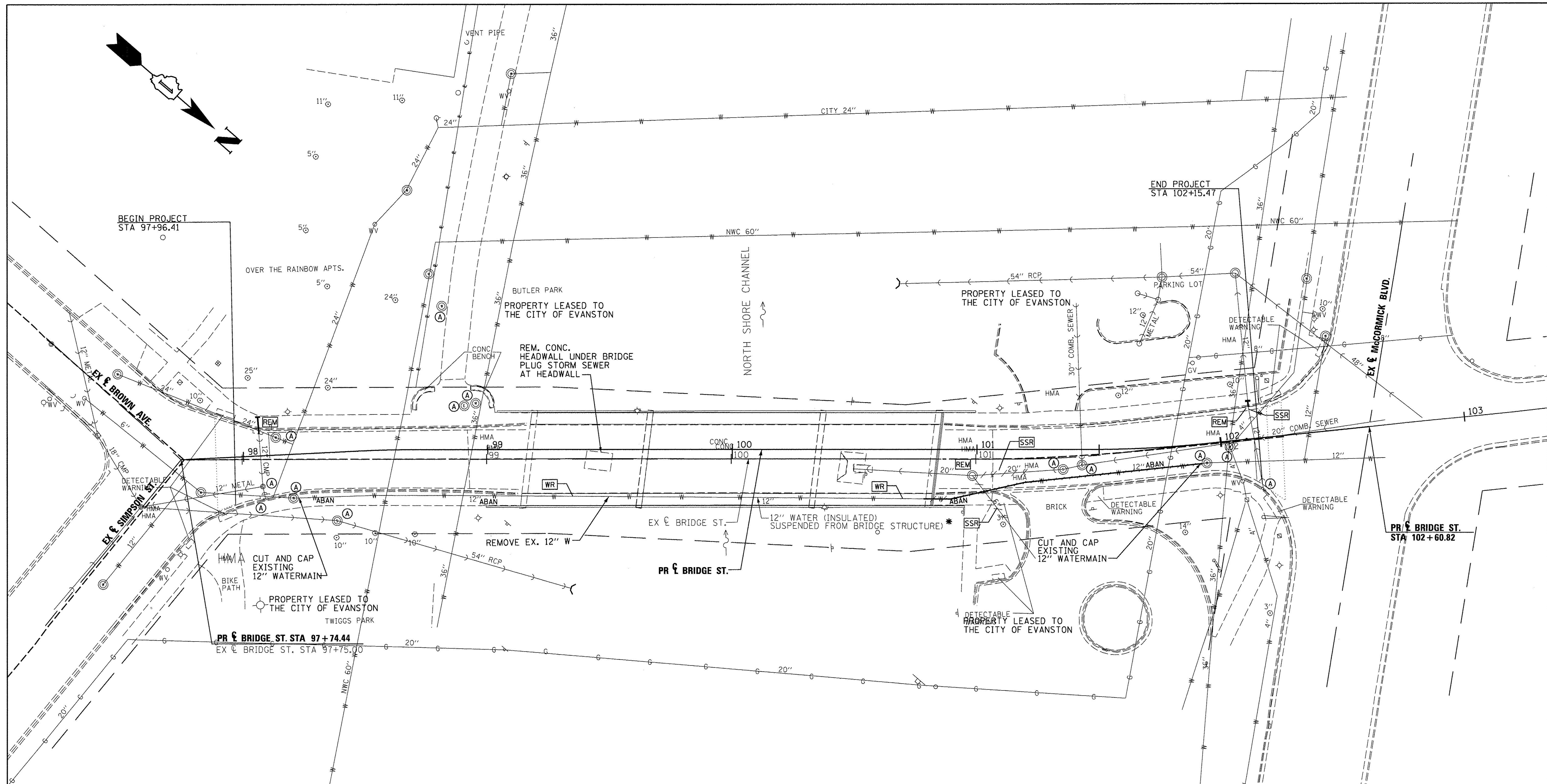
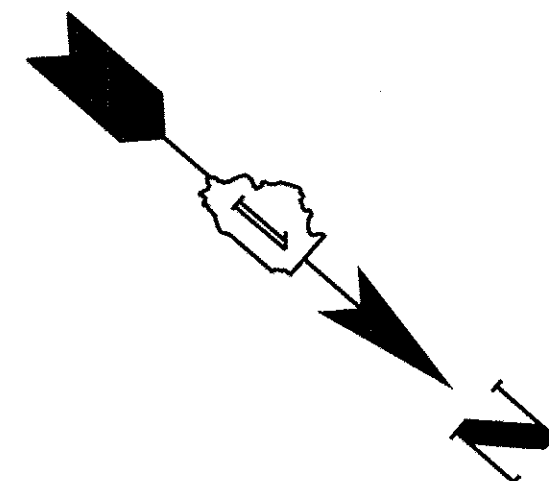
**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION AND SEDIMENT CONTROL PLAN  
STAGE 2**

SHEET NO. OF SHEETS    STA.    TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-0025I-00-BR	COOK	118	30
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



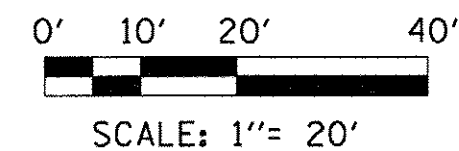
**LEGEND:**

- (A) ADJUST MH, CB, OR INLET
- REM REMOVE DRAINAGE STRUCTURE
- SSR STORM SEWER REMOVAL
- ABAN ABANDON PIPE
- WR WATER MAIN REMOVAL

SEE DRAINAGE AND UTILITIES SCHEDULES FOR STRUCTURE AND PIPE LOCATIONS/TYPES.

ALL STRUCTURES SHOWN TO BE ADJUSTED SHALL PROVIDE PROPOSED RIM ELEVATIONS TO MATCH PROPOSED ROADWAY SURFACE.

\* LIMITS OF WATER MAIN REMOVAL AT ABUTMENTS (APPROX.). ACTUAL LIMITS DEPENDENT UPON MJ LOCATIONS, LOCATIONS AS DIRECTED BY ENGINEER.



PLOT SCALE: \$SCALESHORT\$  
\$FILEL\$  
\$USER\$  
\$DATE\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

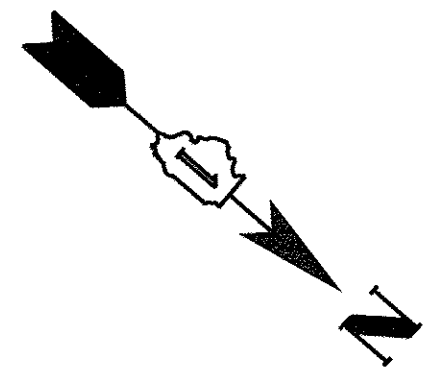
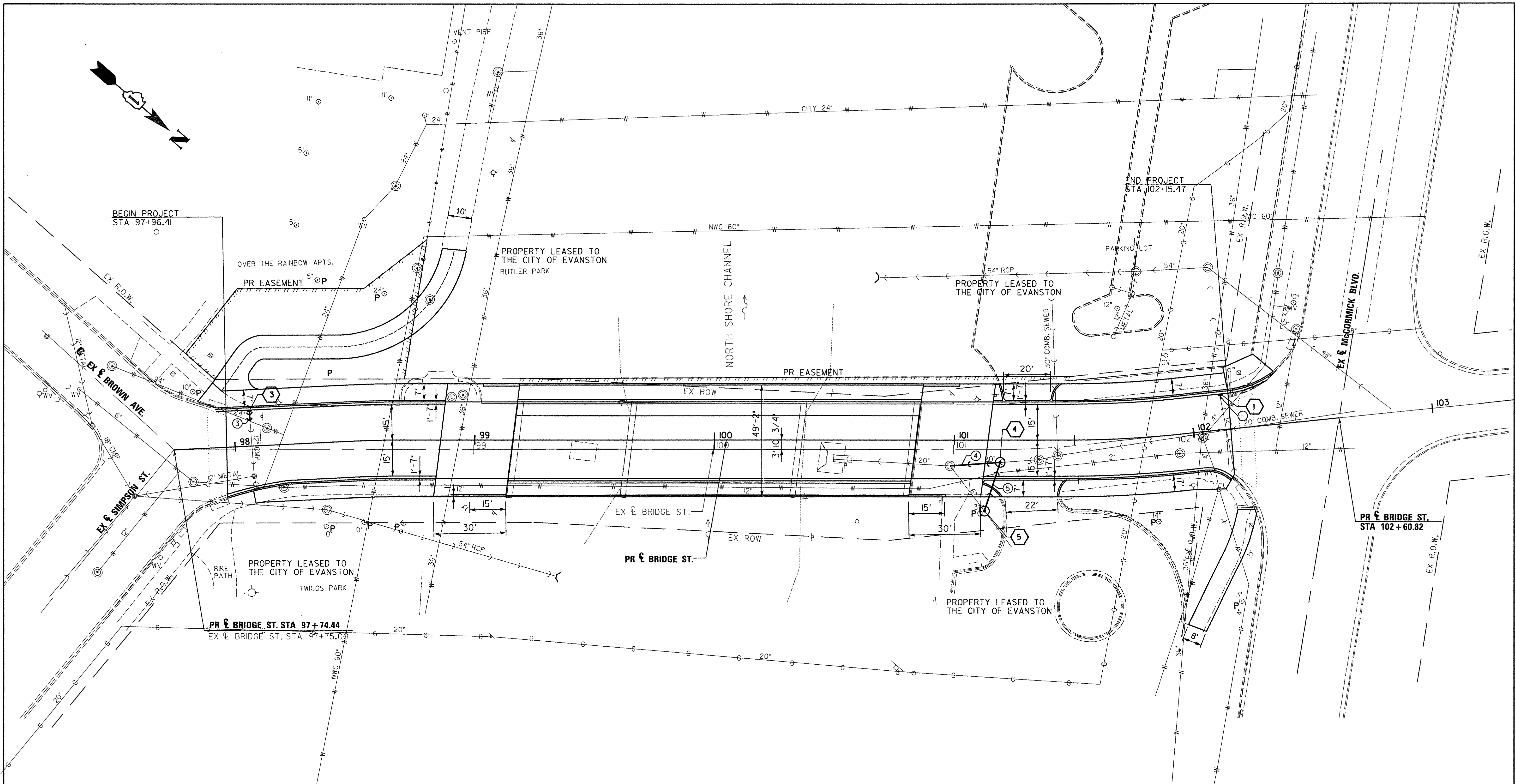
**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>EXISTING DRAINAGE &amp; UTILITIES PLAN</b>			
SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	31
CONTRACT NO.63817				
ILLINOIS FED. AID PROJECT				





**LEGEND:**

② PROPOSED DRAINAGE STRUCTURE

③ PROPOSED STORM SEWER

SEE DRAINAGE AND UTILITIES SCHEDULES FOR STRUCTURE AND PIPE LOCATIONS/TYPES.

PLOT SCALE: \$SCALESHORT\$  
\$PLTDRVL\$  
\$PENL\$

FILE NAME =	DESIGNED -	REVISED -
#FILEL#	DRAWN -	REVISED -
USER NAME = #USER#	CHECKED -	REVISED -
PLDT DATE = #DATE#	DATE -	REVISED -

**COOPER CIVIL ENGINEERING, LTD.**  
1322 ROSALIE STREET EVANSTON, ILLINOIS 60201  
(847)864-5343

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

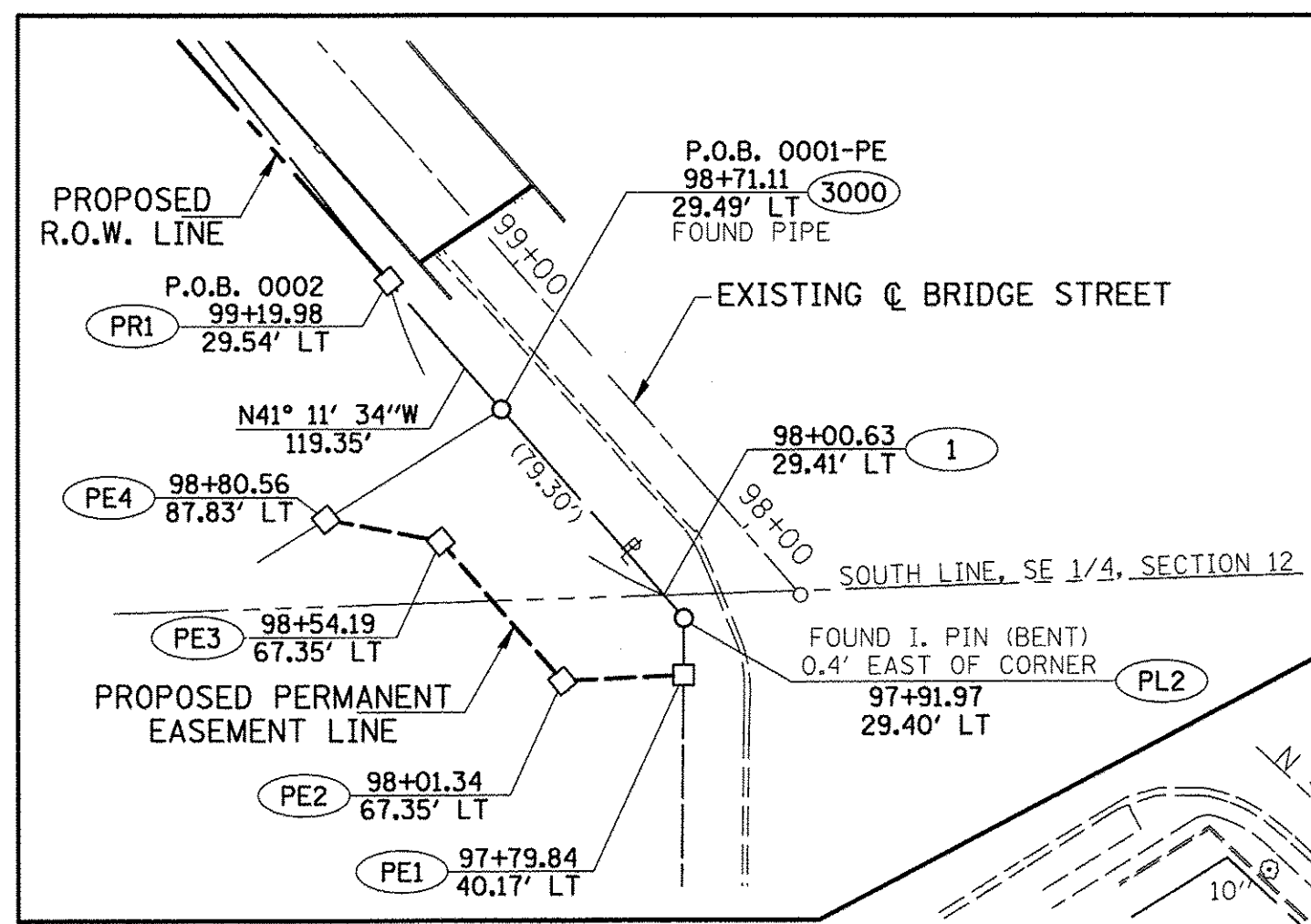
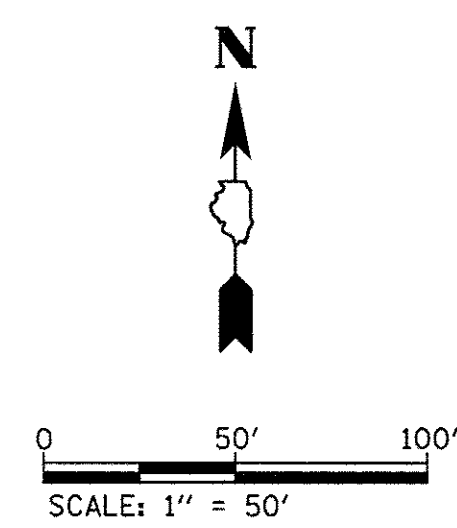
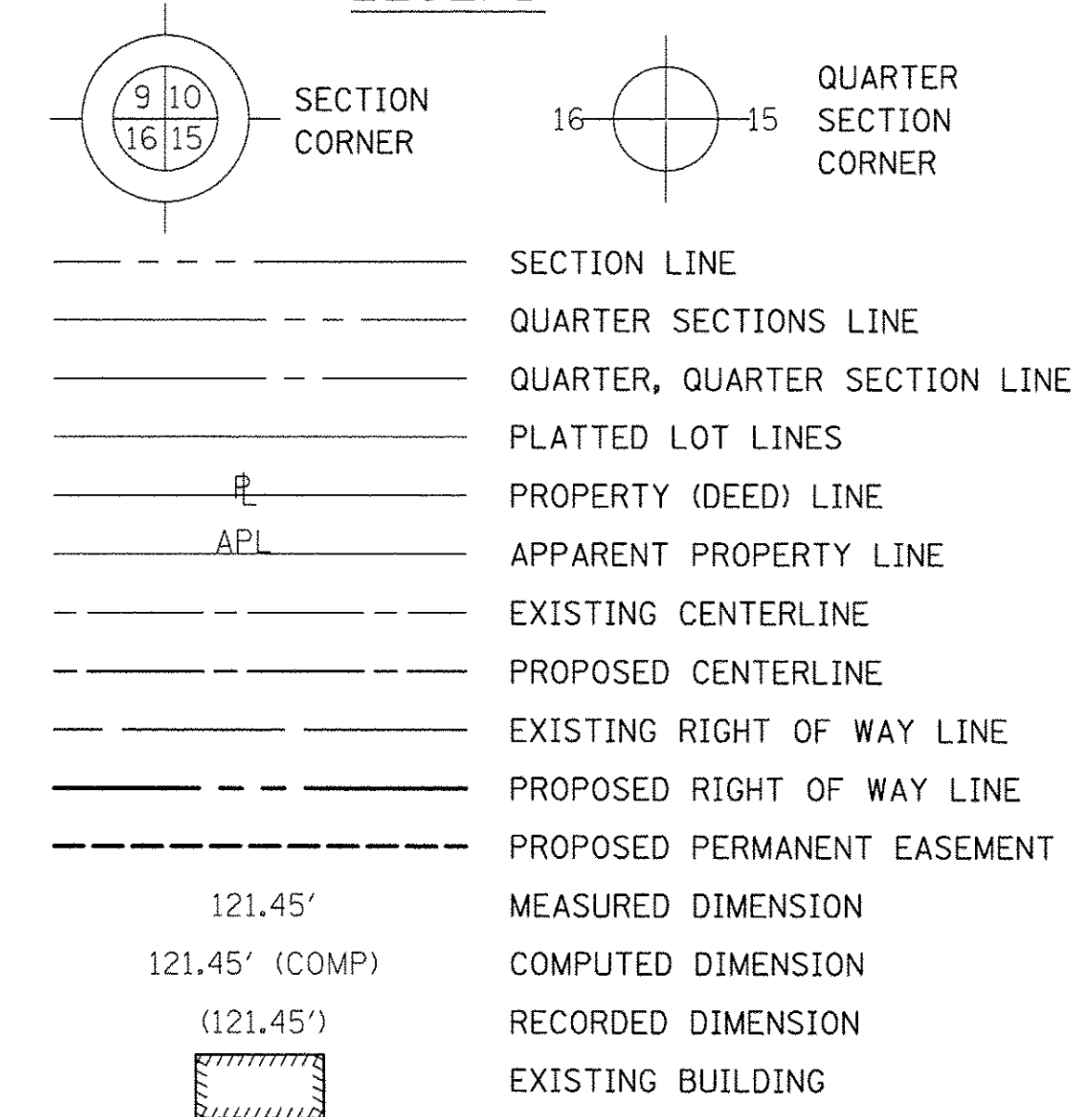
**PROPOSED DRAINAGE & UTILITIES PLAN**

SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	32
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

PART OF THE E 1/2 OF THE SW 1/4 OF SECTION 12, AND PART OF THE E 1/2 OF THE NW 1/4 OF SECTION 13,  
ALL IN TWP. 41 N., R. 13 E. OF THE 3RD. P.M., IN COOK COUNTY, ILLINOIS.

**LEGEND**

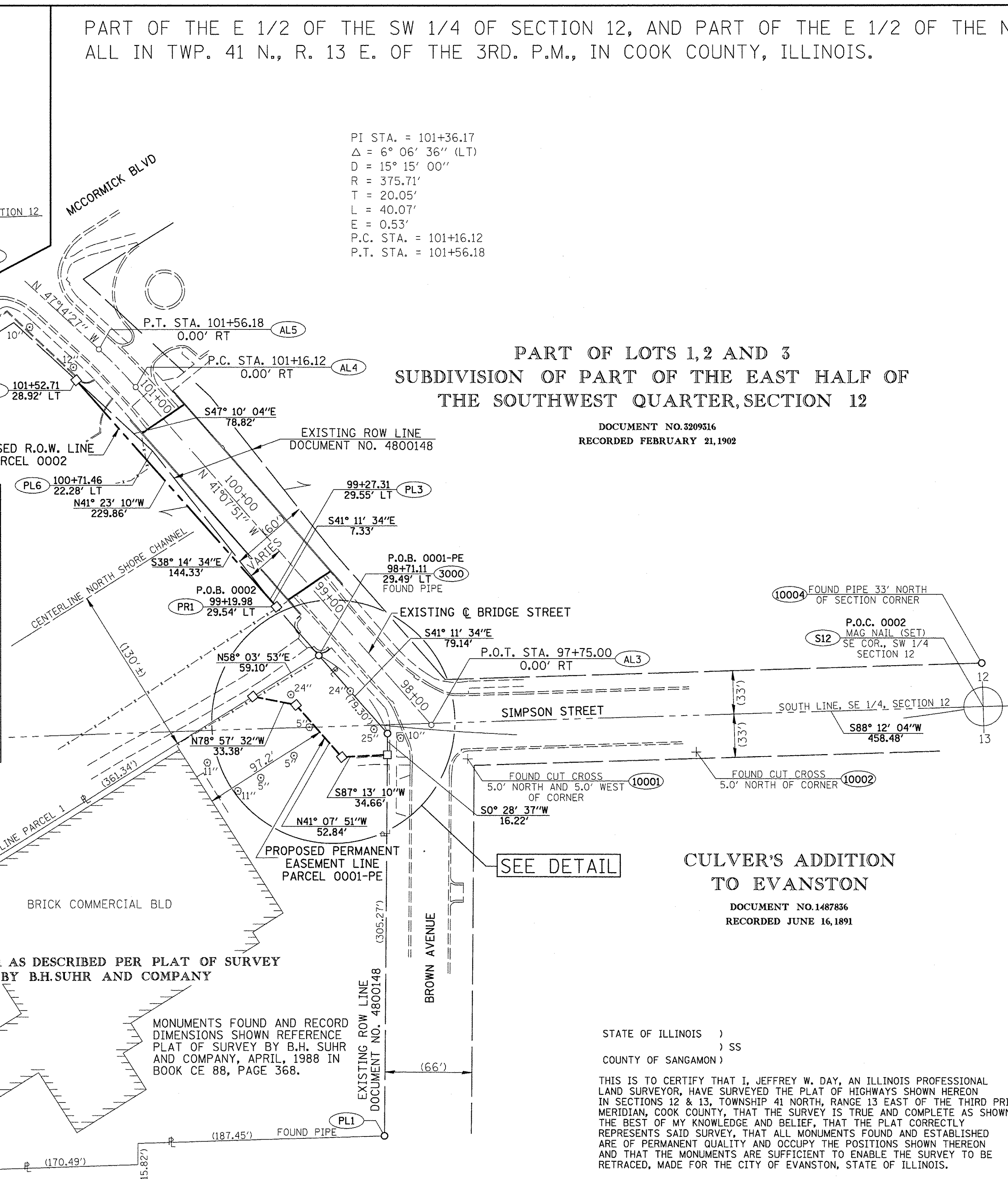


PI STA. = 101+36.17  
 $\Delta$  = 6° 06' 36" (LT)  
D = 15° 15' 00"  
R = 375.71'  
T = 20.05'  
L = 40.07'  
E = 0.53'  
P.C. STA. = 101+16.12  
P.T. STA. = 101+56.18

**PART OF LOTS 1, 2 AND 3  
SUBDIVISION OF PART OF THE EAST HALF OF  
THE SOUTHWEST QUARTER, SECTION 12**

DOCUMENT NO. 3209516  
RECORDED FEBRUARY 21, 2012

POINT	NORTHING	EASTING	STATION	OFFSET
S12	1,963,503.1103	1,156,561.6188	N/A	N/A
1	1,963,488.7174	1,156,103.3660	98+00.63	29.41 LT
10001	1,963,462.9170	1,156,169.9740	N/A	N/A
10002	1,963,468.3800	1,156,343.6870	N/A	N/A
10004	1,963,536.1340	1,156,561.8550	N/A	N/A
3005	1,963,350.4080	1,155,749.9600	N/A	N/A
3000	1,963,541.7540	1,156,056.9480	98+71.11	29.49 LT
PL1	1,963,177.0316	1,156,106.5322	N/A	N/A
PL2	1,963,482.1976	1,156,109.0722	97+91.97	29.40 LT
PL3	1,963,584.0434	1,156,019.9360	99+27.31	29.55 LT
PL6	1,963,697.4006	1,155,930.5960	100+71.46	22.28 LT
PR1	1,963,578.5299	1,156,024.7615	99+19.98	29.54 LT
PR2	1,963,750.9850	1,155,872.7956	101+52.71	28.92 LT
PE1	1,963,465.9782	1,156,108.9372	97+79.84	40.17 LT
PE2	1,963,464.2968	1,156,074.3189	98+01.34	67.35 LT
PE3	1,963,504.0987	1,156,039.5599	98+54.19	67.35 LT
PE4	1,963,510.4924	1,156,006.7930	98+80.56	87.83 LT
AL3	1,963,488.7577	1,156,142.3789	POT 97+75.00	0.00 RT
AL4	1,963,745.6915	1,155,917.9983	PC 101+16.12	0.00 RT
AL5	1,963,774.4083	1,155,890.0863	PT 101+56.18	0.00 RT



**COORDINATE VALUES**  
PROJECT COORDINATES WERE ESTABLISHED FROM GIS REFERENCE MARKS PROVIDED BY THE CITY OF EVANSTON. BASIS OF BEARINGS DERIVED FROM PUBLISHED COORDINATES.

- IRON PIPE OR ROD FOUND      ⊕ "MAG" NAIL SET
- + CUT CROSS FOUND OR SET      ● 5/8" REBAR SET
- T1 THESE STAKES REFERENCE FOUND OR SET MONUMENTATION. SET 5/8 INCH IRON ROD FLUSH WITH GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- BT1 THESE STAKES, IN CULTIVATED AREAS, REFERENCE FOUND OR SET MONUMENTATION. BURIED 5/8 INCH IRON ROD 20 INCHES BELOW GROUND TO TIE FOUND IRON STAKE IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- STAKING OF PROPOSED RIGHT OF WAY AND PERMANENT EASEMENT CORNERS. SET 5/8" REBAR WITH CAP TO MONUMENT THE POSITION SHOWN. IDENTIFIED BY SURVEYORS LICENSE NUMBER.
- M STAKING OF PROPOSED RIGHT OF WAY IN CULTIVATED AREAS. BURIED 5/8 INCH METAL ROD 20 INCHES BELOW GROUND TO MARK FUTURE SURVEY MARKER IDENTIFIED BY COLORED PLASTIC CAP BEARING SURVEYORS REGISTRATION NUMBER.
- ⊕ PERMANENT SURVEY MARKER, I.D.O.T. STANDARD 2135 (TO BE SET BY OTHERS)
- RIGHT OF WAY/PERMANENT EASEMENT STAKING PROPOSED TO BE SET

**CULVER'S ADDITION  
TO EVANSTON**

DOCUMENT NO. 1487836  
RECORDED JUNE 16, 1891

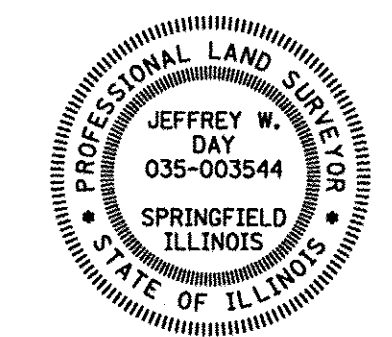
STATE OF ILLINOIS )  
                                  ) SS  
COUNTY OF SANGAMON )

THIS IS TO CERTIFY THAT I, JEFFREY W. DAY, AN ILLINOIS PROFESSIONAL LAND SURVEYOR, HAVE SURVEYED THE PLAT OF HIGHWAYS SHOWN HEREON IN SECTIONS 12 & 13, TOWNSHIP 41 NORTH, RANGE 13 EAST OF THE THIRD PRINCIPAL MERIDIAN, COOK COUNTY, THAT THE SURVEY IS TRUE AND COMPLETE AS SHOWN TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THE PLAT CORRECTLY REPRESENTS SAID SURVEY, THAT ALL MONUMENTS FOUND AND ESTABLISHED ARE OF PERMANENT QUALITY AND OCCUPY THE POSITIONS SHOWN THEREON AND THAT THE MONUMENTS ARE SUFFICIENT TO ENABLE THE SURVEY TO BE RETRACED, MADE FOR THE CITY OF EVANSTON, STATE OF ILLINOIS.

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 2013 A.D.

JEFFREY W. DAY - ILLINOIS PROFESSIONAL LAND SURVEYOR NUMBER 35-003544  
MY LICENSE EXPIRES 11-30-2014

THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.



contract # 63817

PARCEL NO.	OWNER	TOTAL HOLDING	PART TAKEN	AREA IN EXISTING R.O.W.	REMAINDER AREA	EASEMENT AREA	EASEMENT PURPOSE	PERMANENT TAX NUMBER	PROPERTY ACQUIRED BY	
		ACRES	ACRES	SQ. FT.	ACRES	ACRES	SQ. FT.			
0001PE	THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO	2.397±	N/A	N/A	0	2.397±	0.079	3,455	RELOCATION OF PEDESTRIAN PATH	10-13-104-032-8001, 10-13-104-033-8001 10-12-322-003(p+), 10-13-104-032-8002(p+) 10-13-104-033-8002
0002	THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO	N/A	0.020	885	0	N/A	N/A	N/A	N/A	10-12-322-003(p+)

LIN ENGINEERING, LTD. CONSULTING ENGINEERS  
3261 SOUTH MEADOWBROOK ROAD, SPRINGFIELD, IL 62711  
PHONE: (217)-679-2928 FAX: (217)-679-2736  
PROFESSIONAL DESIGN FIRM CORPORATION LICENSE NO. 184-00181

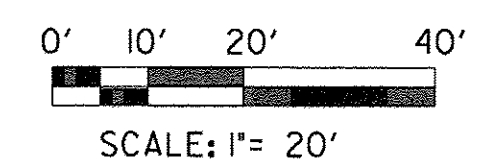
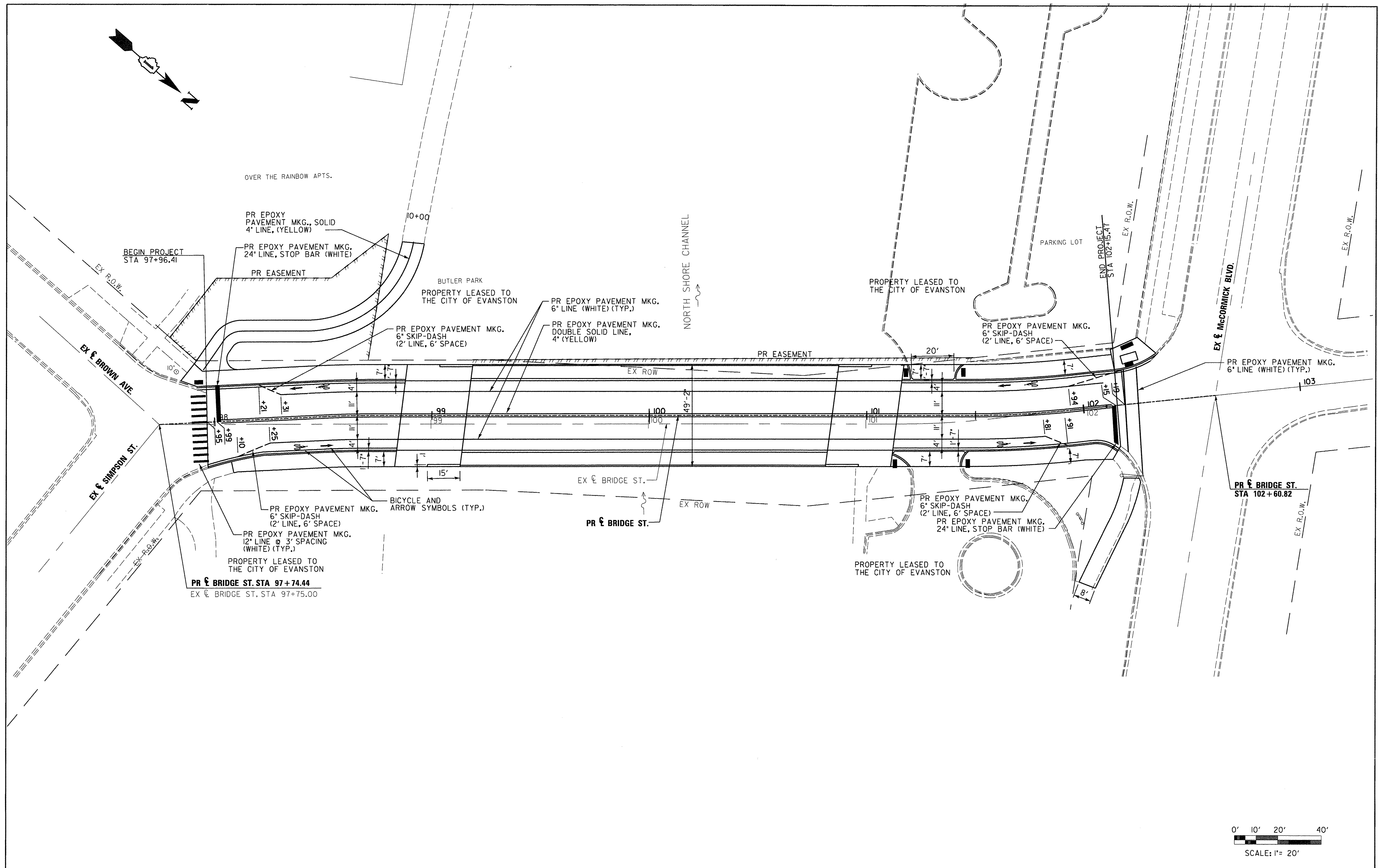
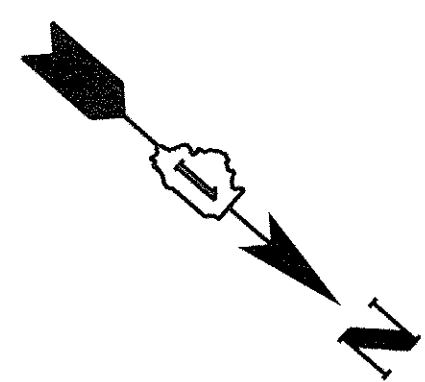
**PLAT OF HIGHWAYS**  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
BRIDGE STREET (CITY OF EVANSTON)

LIMITS: PROJECT: STATION: 97+79.84  
COUNTY: COOK JOB NO.: C-91-398-08 TO STATION: 101+52.71  
SCALE: 1" = 50' SHEET 33 OF 118

COMPLETION DATE OF FIELD WORK PERFORMED	
LAND SURVEY: JAN./2013	ROW STAKING:

BUREAU OF LAND ACQUISITION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196





PLOT SCALE: \$SCALES\$

FILE NAME =	DESIGNED -	REVISED -
\$FILEL\$	DRAWN -	REVISED -
USER NAME = \$USER\$	CHECKED -	REVISED -
PLOT DATE = \$DATE\$	DATE -	REVISED -

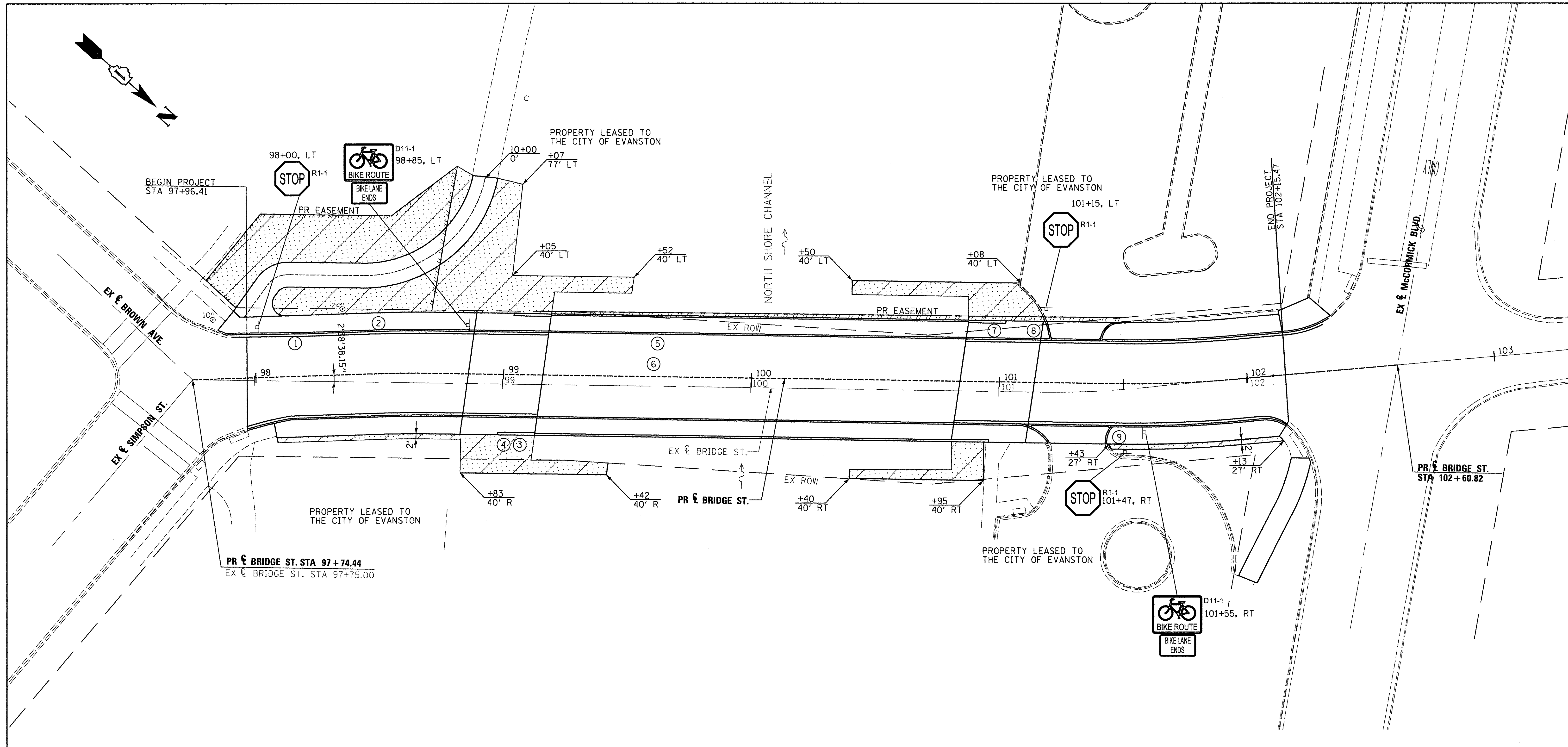
**COOPER CIVIL ENGINEERING, LTD.**  
 1322 ROSALIE STREET, EVANSTON, ILLINOIS 60201  
 (847)864-2343

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

PAVEMENT MARKING PLAN			
SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	34
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				





EXISTING SIGNS*					
NO.	STA	OFFSET	PANEL DESCRIPTIONS	SIGN SUPPORT	ACTION
1	98+12	13'LT	STOP	METAL POST	SIGN PANEL TO BE REMOVED
2	95+55	22'LT	DEAF/BLIND PEDESTRIAN XING	METAL POST	SIGN PANEL TO BE RELOCATED. NEW METAL POST. TO BE LOCATED BY ENGINEER
3	99+08	30'RT	MWRD	METAL POST	SIGN PANEL TO BE RELOCATED. NEW METAL POST. TO BE LOCATED BY ENGINEER
4	99+98	23'RT	LOAD LIMIT	STREETLIGHT	SIGN PANEL TO BE REMOVED AS DIRECTED BY ENGINEER
5	99+60	16'LT	WHEEL CHAIR SYMBOL	STREETLIGHT	SIGN PANEL TO BE RELOCATED. NEW METAL POST. TO BE LOCATED BY ENGINEER
6	99+60	16'LT	NEXT 2 BLOCKS	STREETLIGHT	SIGN PANEL TO BE RELOCATED. NEW METAL POST. TO BE LOCATED BY ENGINEER
7	100+97	20'LT	LOAD LIMIT	METAL POST	SIGN PANEL TO BE REMOVED AS DIRECTED BY ENGINEER
8	101+15	20'LT	STOP	METAL POST	SIGN PANEL TO BE REMOVED
9	101+47	24'RT	STOP	METAL POST	SIGN PANEL TO BE REMOVED

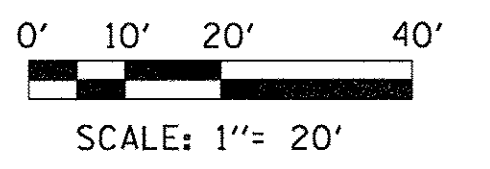
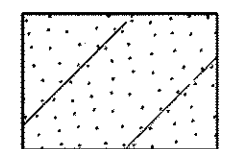
\*ALL ARE TYPE 1 SIGN PANELS

PROPOSED TREES, FURNISHED AND DELIVERED *					
BOTANICAL NAME	COMMON NAME	SIZE, EACH (CALIPER IN.)	ROOT CONTAINER	QUANTITY FURNISHED/ DELIVERED (EACH)	TOTAL CALIPER INCHES
ALNUS GLUTINOSA	BLACK ELDER	2-1/2 IN.	BALLED AND BURLAPPED	6	15
CORYLUS COLURNA	TURKISH FILBERT	2-1/2 IN.	BALLED AND BURLAPPED	6	15
FAGUS SYLVATICA	EUROPEAN BEECH	2-1/2 IN.	BALLED AND BURLAPPED	6	15
QUERCUS VELUTINA	BLACK OAK	2-1/2 IN.	BALLED AND BURLAPPED	6	15
TOTAL				24	60

\* ALL TREES ARE TO BE DELIVERED NO LATER THAN OCTOBER 1, 2013 TO THE CITY OF EVANSTON'S RECYCLING CENTER YARD, LOCATED 2.6 MILES SOUTH OF THE PROJECT, AT 2222 OAKTON ST., EVANSTON, IL 60202. THE CONTRACTOR MUST CALL THE EVANSTON PARKS AND RECREATION DEPT. ((847)328-2100 (MS. P. BELCHER OR MS. S. LEVINE)) 24 HOURS IN ADVANCE OF DELIVERY TO ARRANGE FOR RECEIPT OF THE TREES AT THE YARD.

ALL PR PANELS ARE SIGN PANEL-TYPE I  
ALL PR POSTS ARE METAL POST-TYPE B

LEGEND:  
TOPSOIL 4" SODDING, SALT TOLERANT



PLOT SCALE: #SCALESHORT#

FILE NAME =	DESIGNED -	REVISED -
#FILE#	DRAWN -	REVISED -
USER NAME = #USER#	CHECKED -	REVISED -
PLOT DATE = #DATE#	DATE -	REVISED -

COOPER CIVIL ENGINEERING, LTD. 1322 ROSALIE STREET EVANSTON, ILLINOIS 60201 (847)864-5343
---

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SIGNAGE AND LANDSCAPING PLAN</b>			
SHEET NO.	OF	SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	35
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
GUY WIRE				ABANDON ITEM				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				EXISTING INTERSECTION LOOP DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)								PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD								PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN PUSHBUTTON DETECTOR											
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR											
ILLUMINATED SIGN "NO LEFT TURN"											
ILLUMINATED SIGN "NO RIGHT TURN"											
DETECTOR LOOP, TYPE I											
PREFORMED DETECTOR LOOP											
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

## RAILROAD SYMBOLS

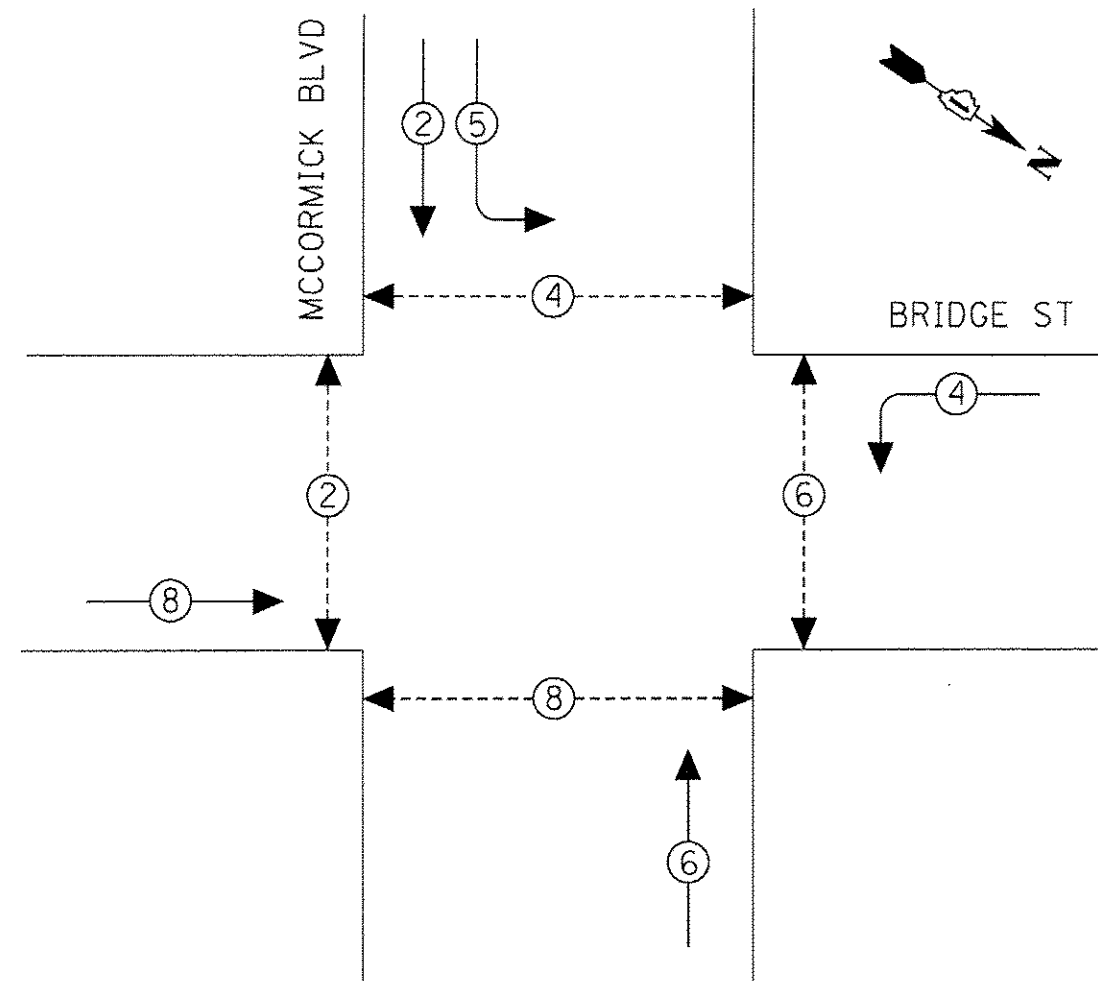
EXISTING	PROPOSED







TEMPORARY CONTROLLER SEQUENCE



**NOTE:**

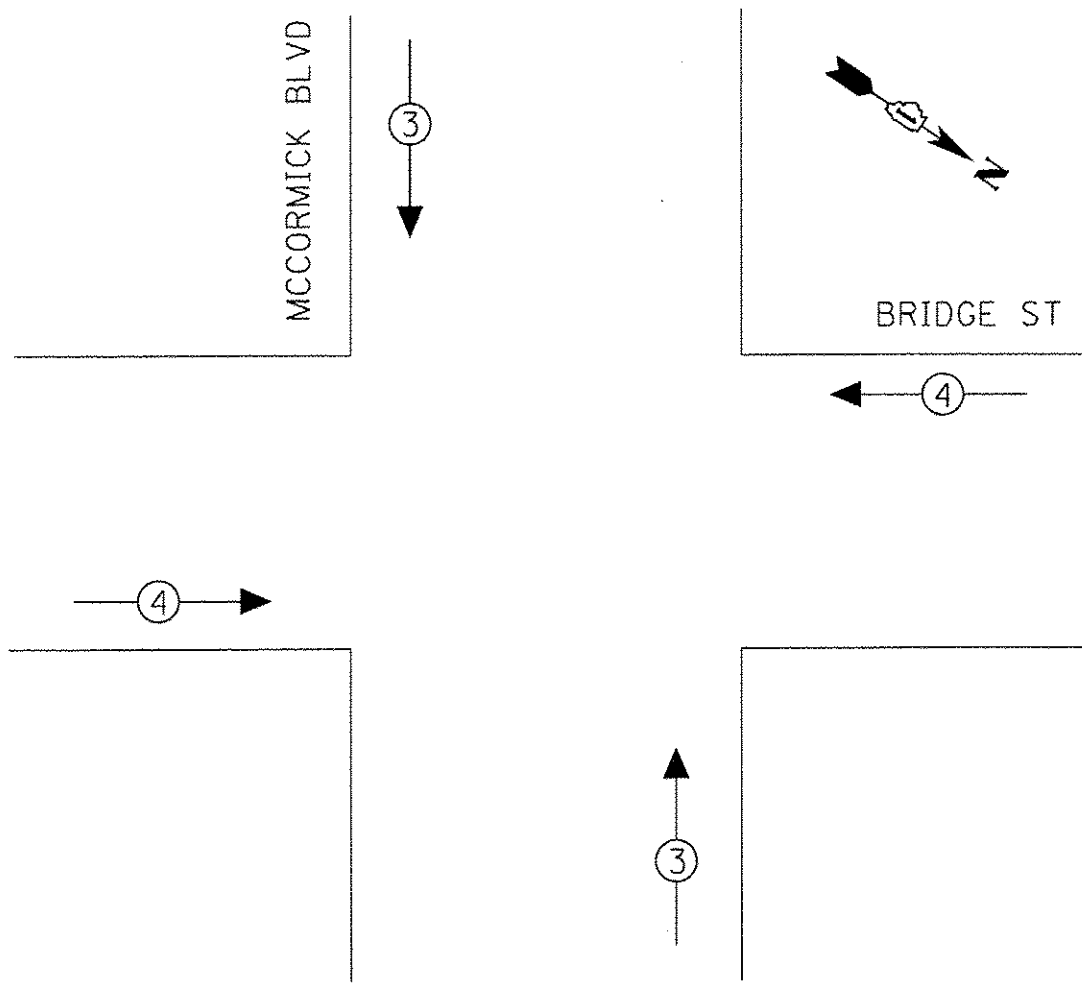
FOR STAGES 1 & 2A, PEDESTRIAN PHASES 3 AND 4 SHALL NOT RUN CONCURRENTLY, AND ONLY BE DISPLAYED WITH ASSOCIATED THRU PHASE (SPLIT PHASING).

**LEGEND**

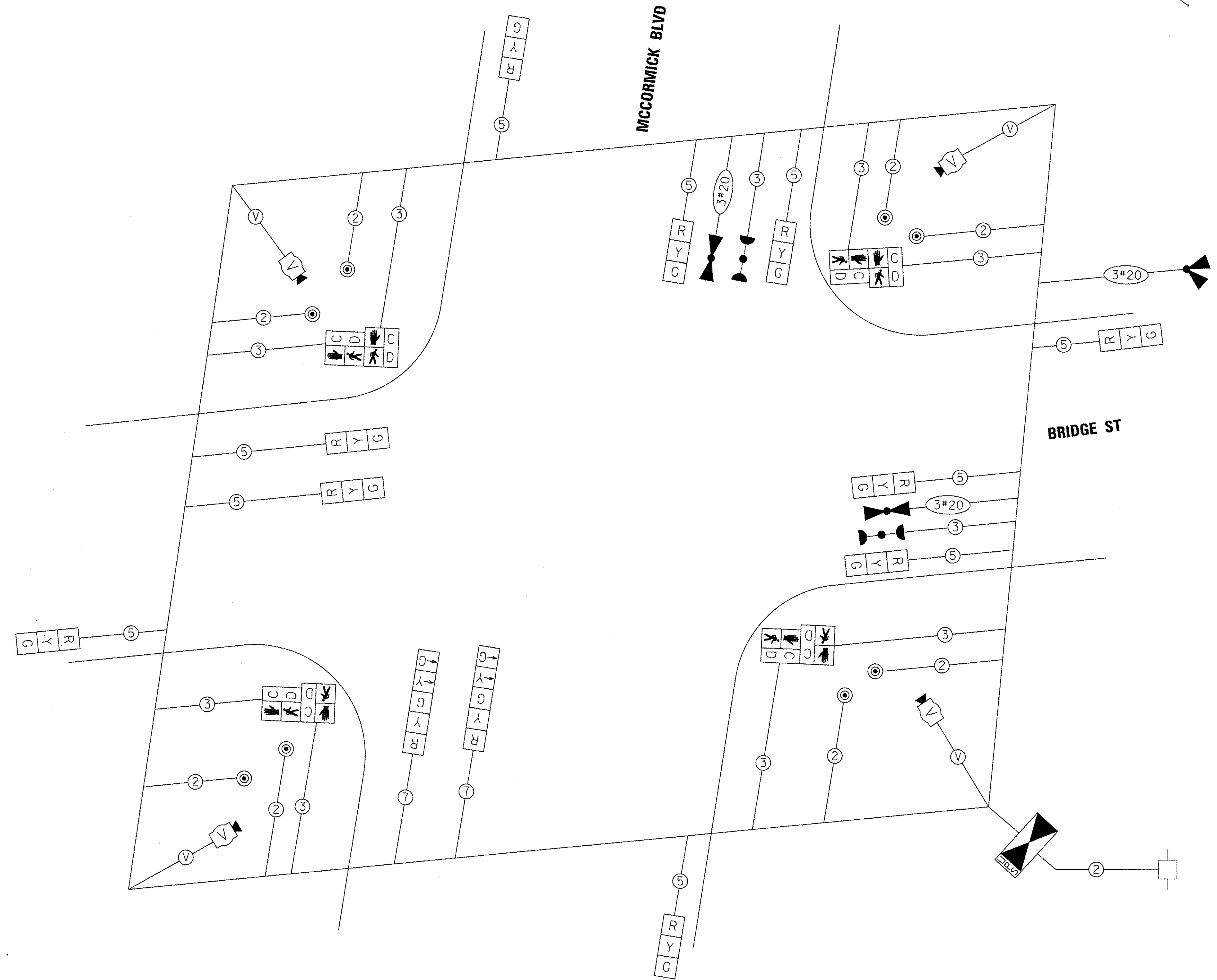
- ← \* → DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* → SINGLE ENTRY PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**TEMPORARY PHASE DESIGNATION DIAGRAM STAGES 1 AND 2**

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE STAGES 1 AND 2



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →



**TEMPORARY CABLE PLAN STAGES 1 AND 2**

SCALE: NONE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	4		12	0.10	4.80
PED. SIGNAL	6		25	1.00	150.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	1	150	-	1.00	150.00
FLASHER	-		-	0.50	-
ENERGY COSTS TO:					TOTAL = 626.80

CITY OF EVANSTON  
2100 RIDGE AVE  
EVANSTON, IL 60201

ENERGY SUPPLY CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

PLOT SCALE: 1:1  
R:\Projects\11-11-11\11-11-11-McC-Temp-TS-Cable-Plan.dgn  
USER NAME = oship  
PLOT DATE = 2/19/2013

FILE NAME =	DESIGNED - BC	REVISED -
...xprj\11-11-11-McC-Temp-TS-Cable-Plan.dgn	DRAWN - BC	REVISED -
USER NAME = oship	CHECKED -	REVISED -
PLOT DATE = 2/19/2013	DATE -	REVISED -



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

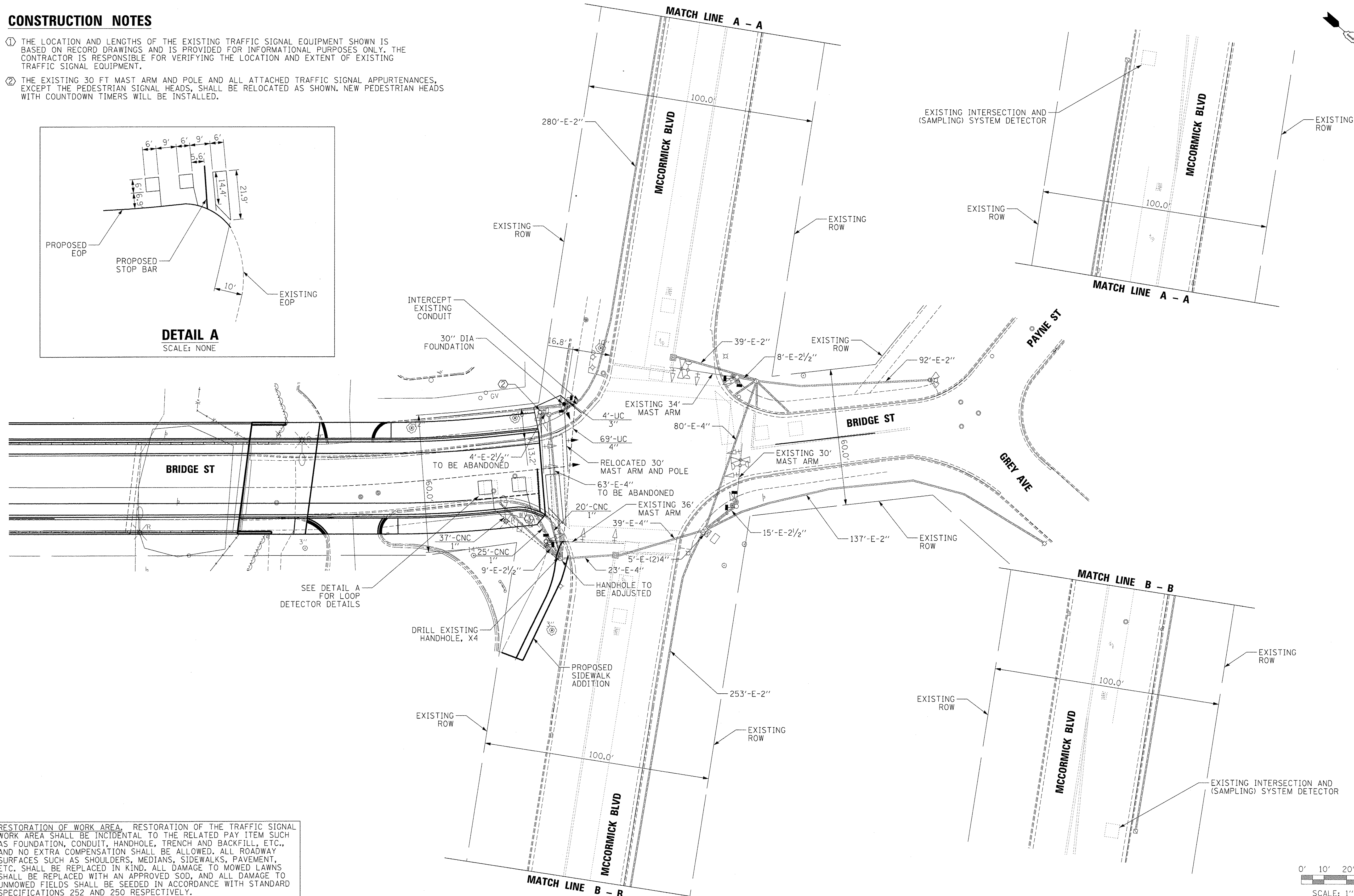
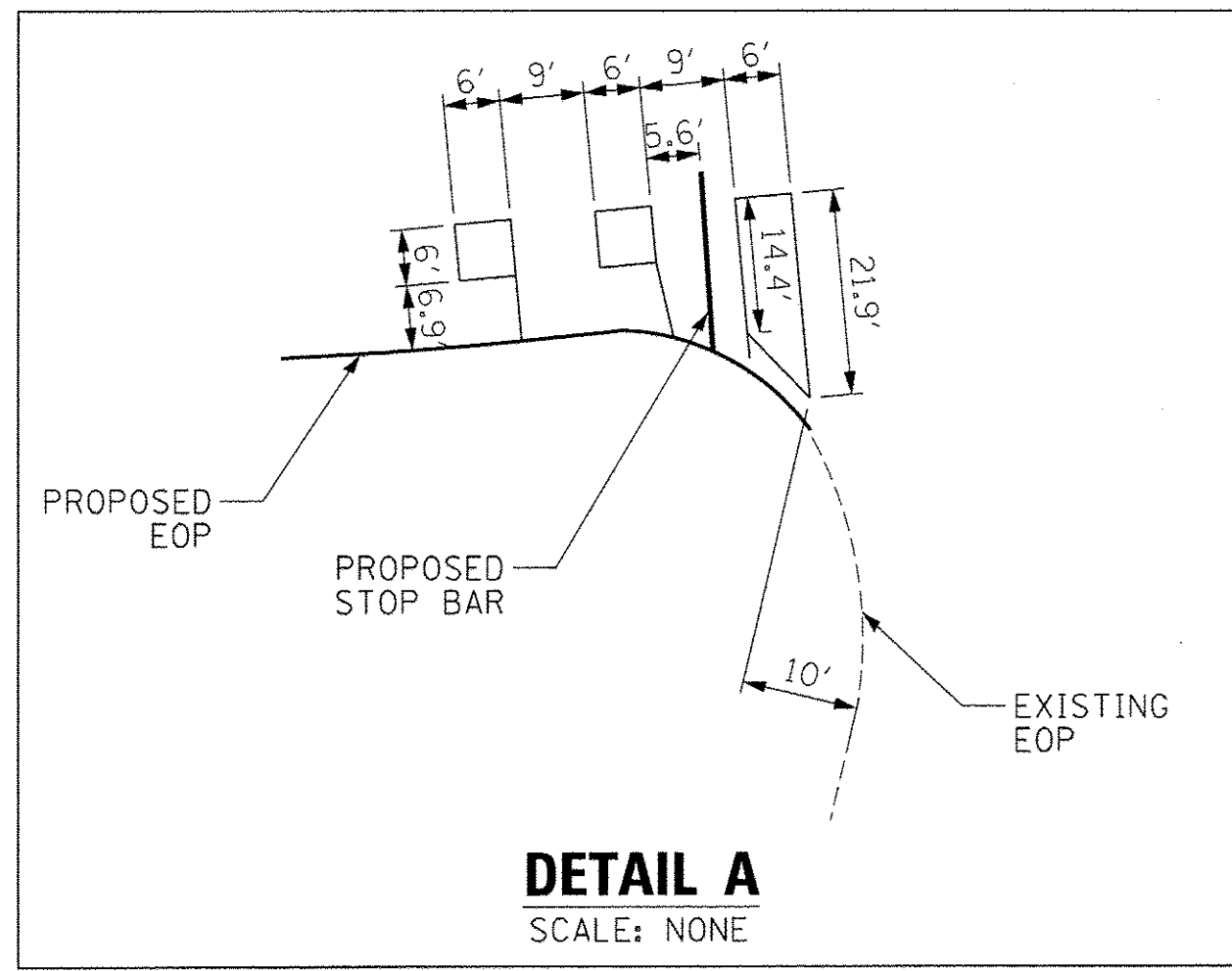
TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE  
MCCORMICK BLVD AND BRIDGE ST, EVANSTON, IL

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	38
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

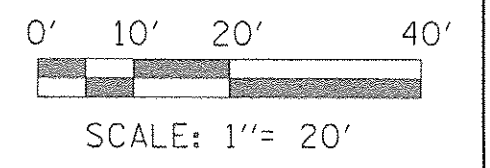
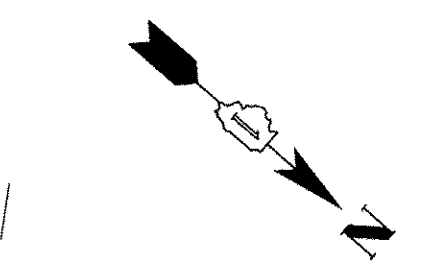
**CONSTRUCTION NOTES**

- ① THE LOCATION AND LENGTHS OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHOWN IS BASED ON RECORD DRAWINGS AND IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION AND EXTENT OF EXISTING TRAFFIC SIGNAL EQUIPMENT.
- ② THE EXISTING 30 FT MAST ARM AND POLE AND ALL ATTACHED TRAFFIC SIGNAL APPURTENANCES, EXCEPT THE PEDESTRIAN SIGNAL HEADS, SHALL BE RELOCATED AS SHOWN. NEW PEDESTRIAN HEADS WITH COUNTDOWN TIMERS WILL BE INSTALLED.



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

PLOT SCALE: 1/2" = 20'  
 ...\\ppln\sh-t-McC-TS-Mod-Plan.dgn  
 USER NAME = eship  
 PLOT DATE = 2/19/2013



FILE NAME =	DESIGNED - BC	REVISED -
...\\ppln\sh-t-McC-TS-Mod-Plan.dgn	DRAWN - BC	REVISED -
USER NAME = eship	CHECKED -	REVISED -
PLOT DATE = 2/19/2013	DATE -	REVISED -



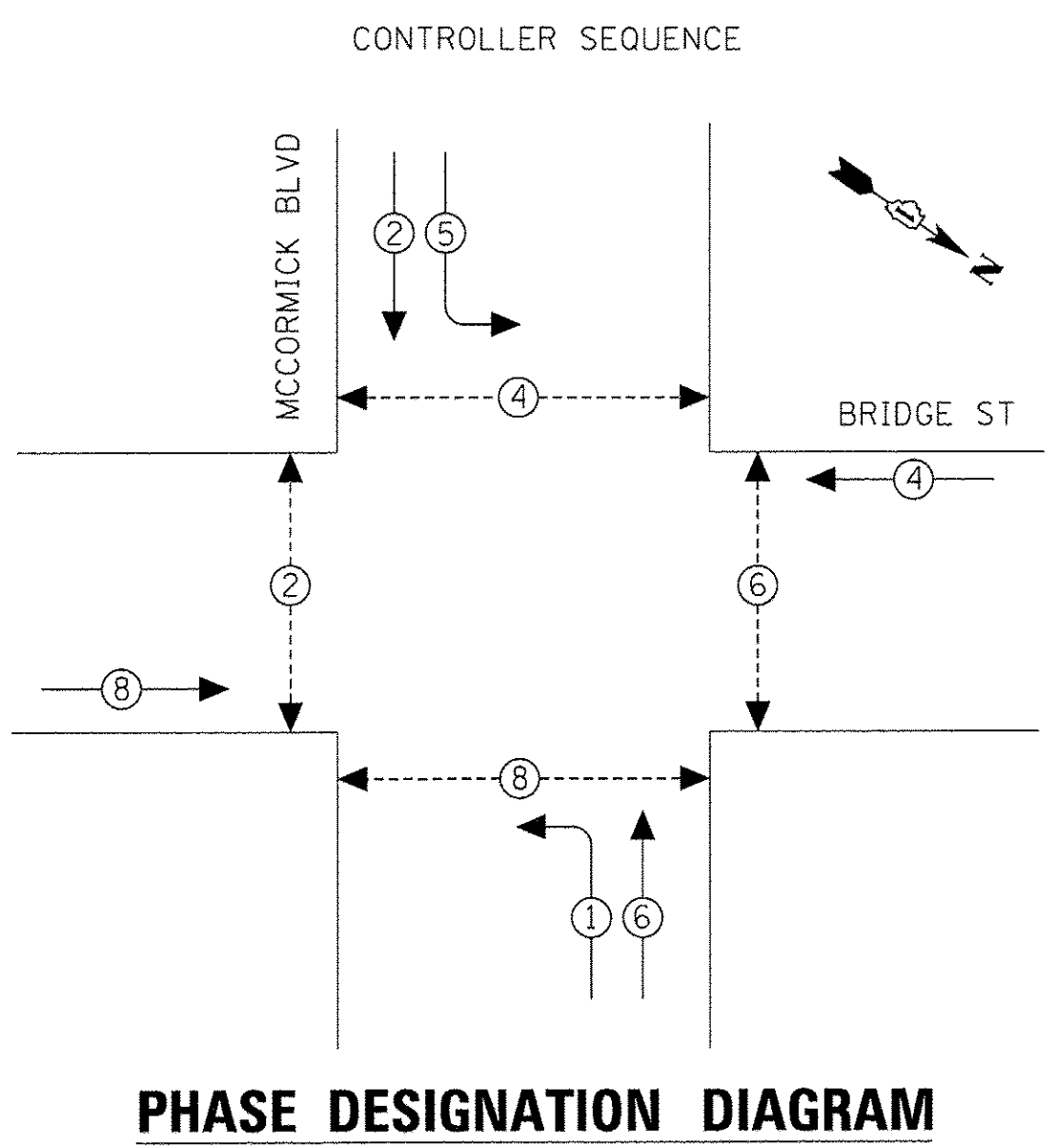
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN**  
**MCCORMICK BLVD AND BRIDGE ST, EVANSTON, IL**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	39
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



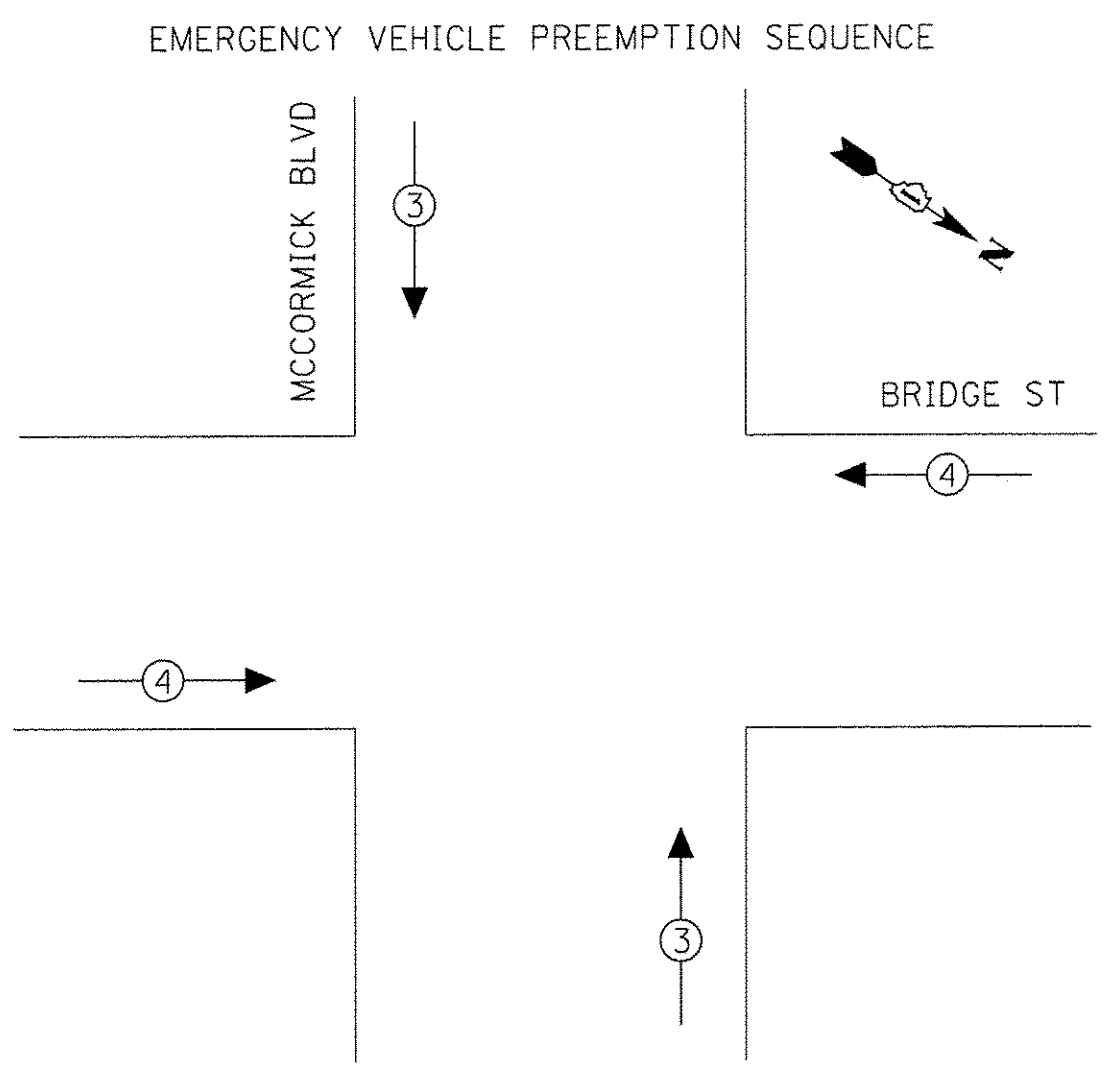


**CONSTRUCTION NOTES**

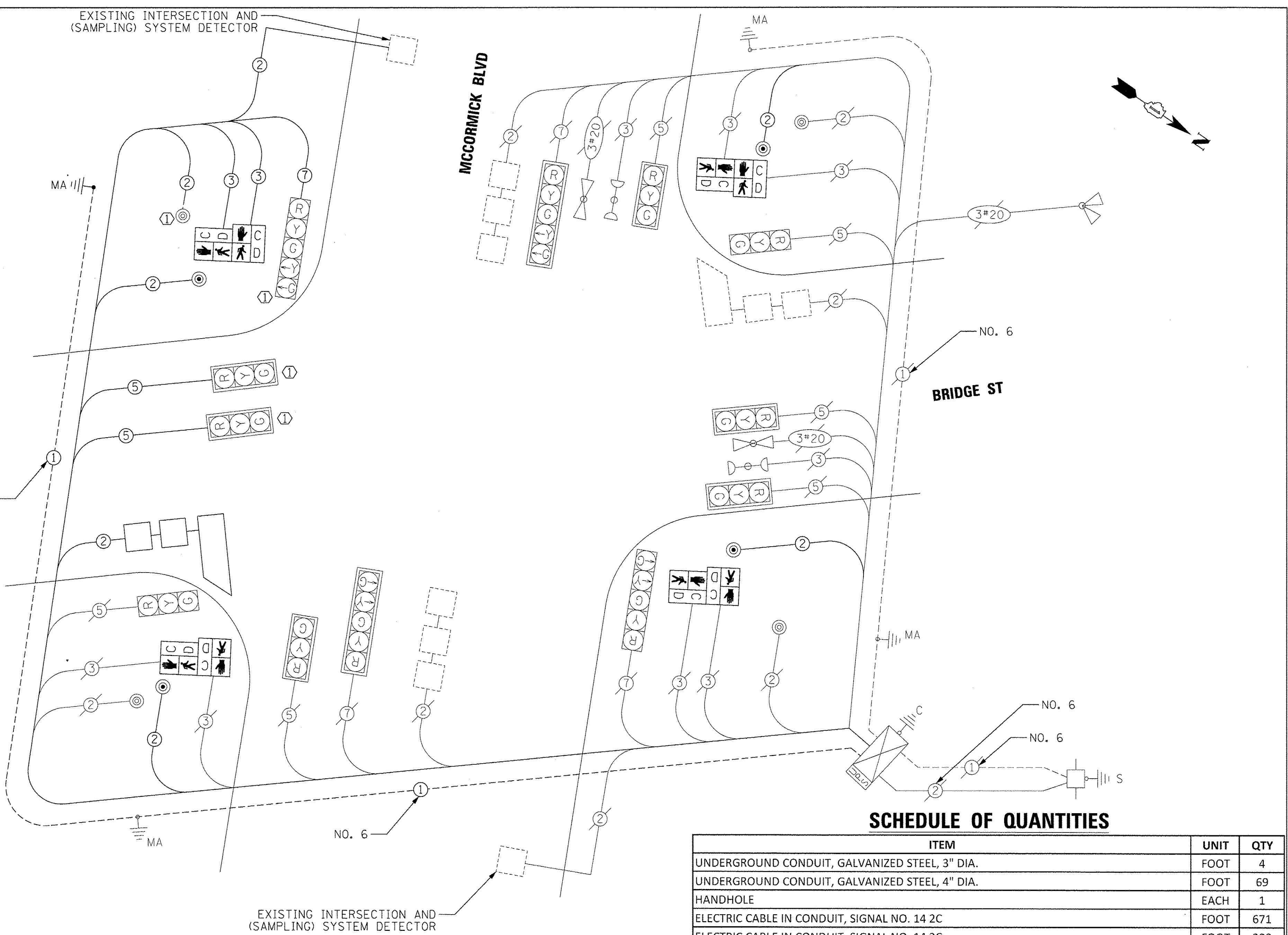
① RELOCATED TRAFFIC SIGNAL ITEM.

**LEGEND**

- ← ⊙ → DUAL ENTRY PHASE
- ← ⊙ → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑ ↓	← →



**CABLE PLAN**

SCALE: NONE

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QTY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	4
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	69
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	671
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	390
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	449
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	195
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	933
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	169
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	13.5
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	1
DETECTOR LOOP, TYPE I	FOOT	118
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
RELOCATE EXISTING MAST ARM ASSEMBLY AND POLE	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1640
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	1
HANDHOLE TO BE ADJUSTED	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
FLASHER	-		-	0.50	-
ENERGY COSTS TO:					TOTAL = 531.60

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CITY OF EVANSTON  
2100 RIDGE AVE  
EVANSTON, IL 60201  
ENERGY SUPPLY CONTACT: TBD  
PHONE: TBD  
COMPANY: COMED

PLOT SCALE: 1" = 100' FILE NAME = ... USER NAME = eship PLOT DATE = 2/19/2013

DESIGNED - BC	REVISIONS
DRAWN - BC	REVISIONS
CHECKED -	REVISIONS
DATE -	REVISIONS



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
MCCORMICK BLVD & BRIDGE ST, EVANSTON, IL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	40
CONTRACT NO. 63817			ILLINOIS/FED. AID PROJECT	

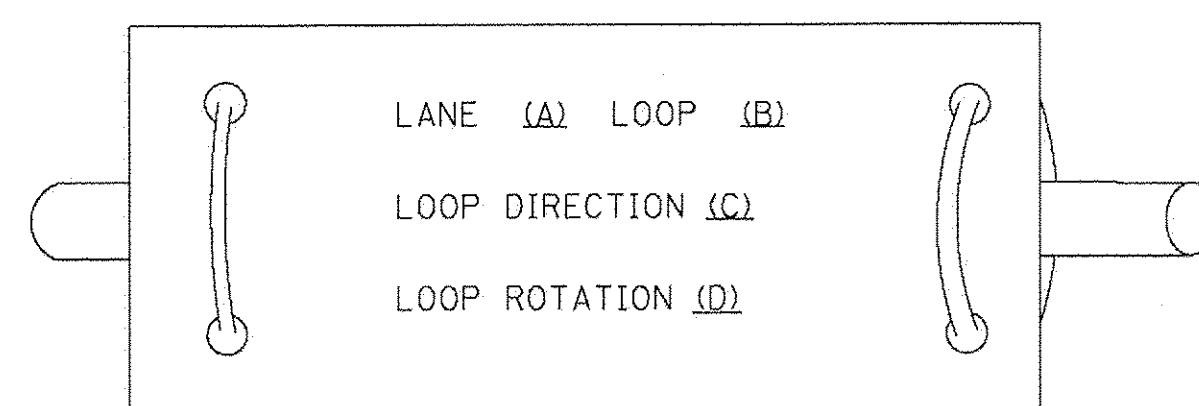
SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.



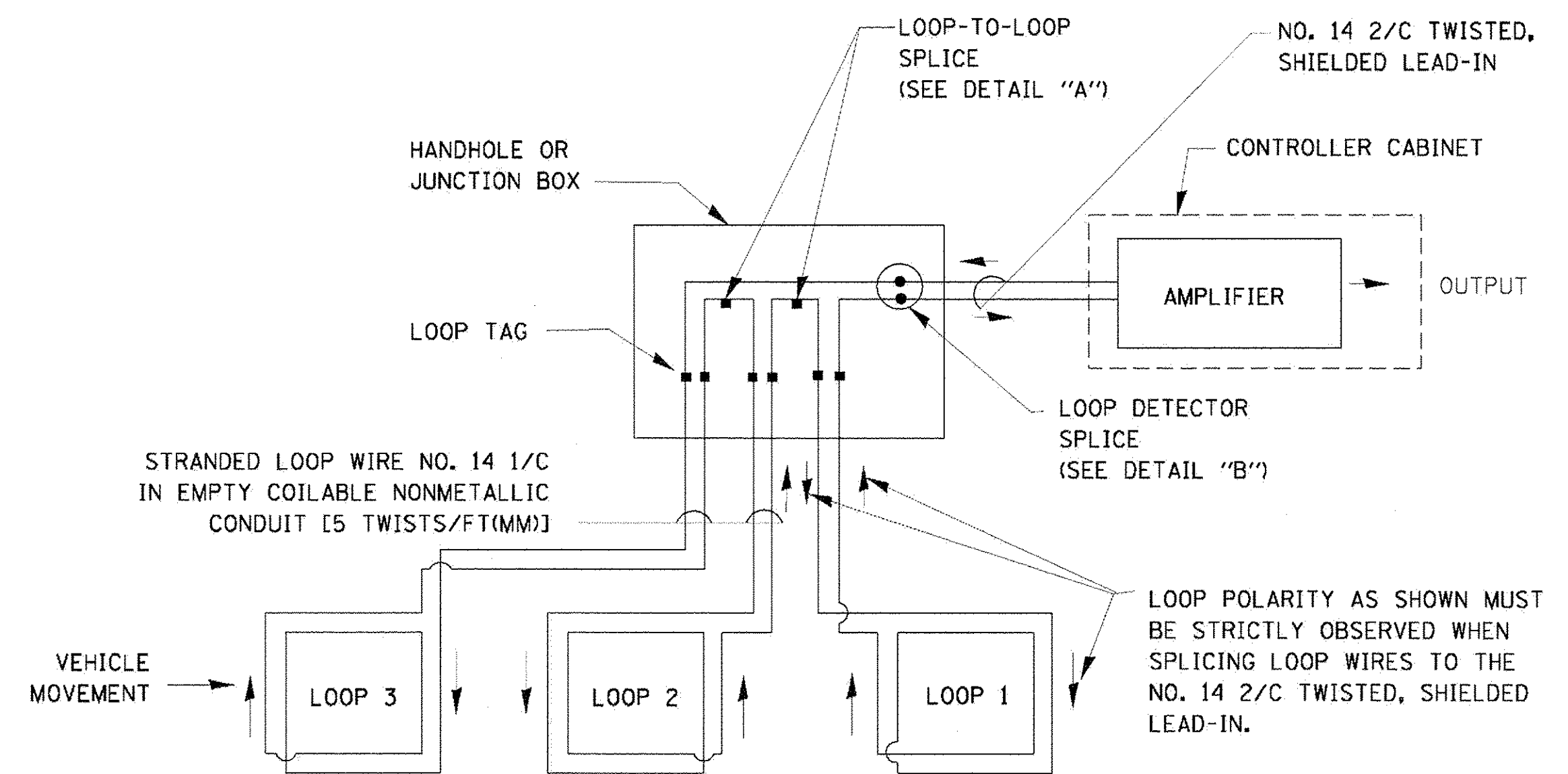
## LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

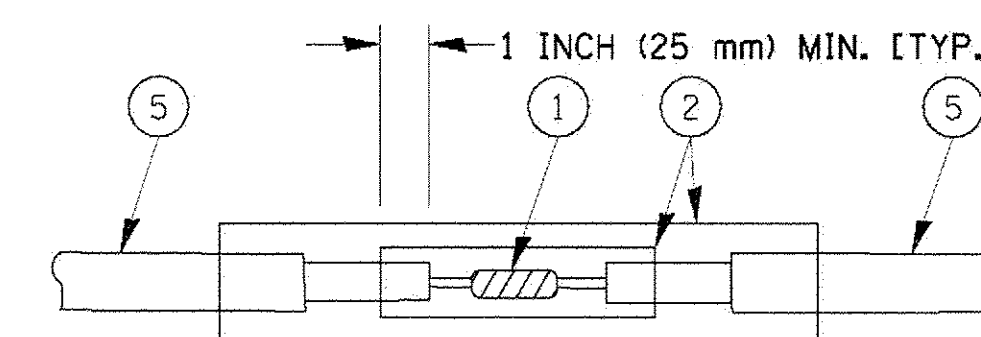


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

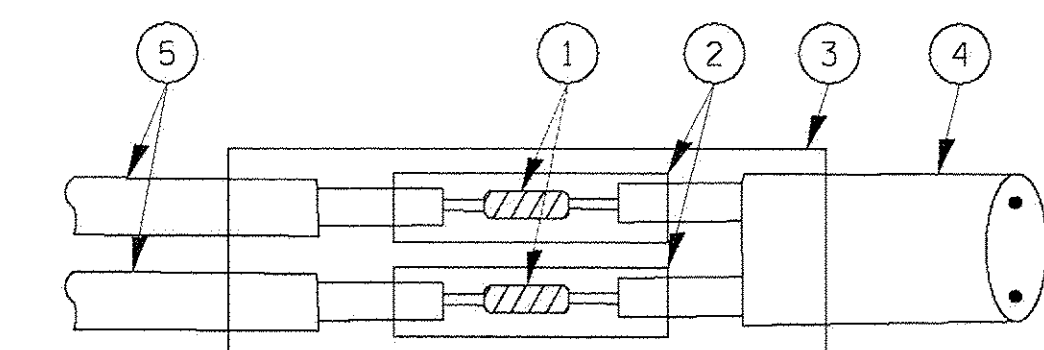


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

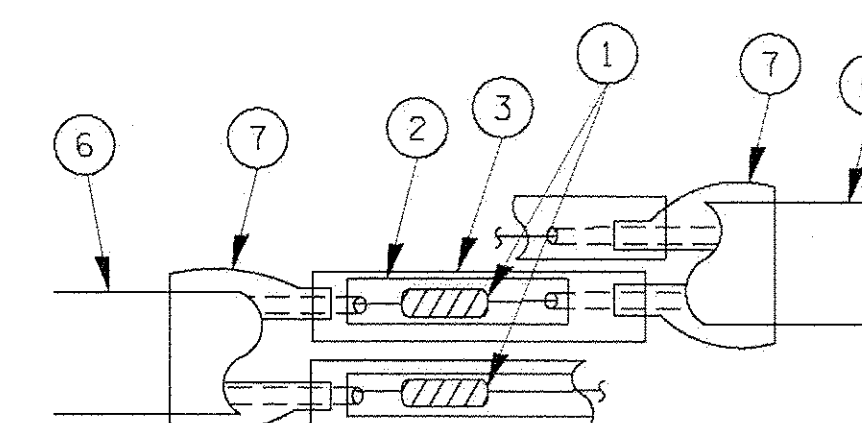


DETAIL "A"  
LOOP-TO-LOOP SPLICE

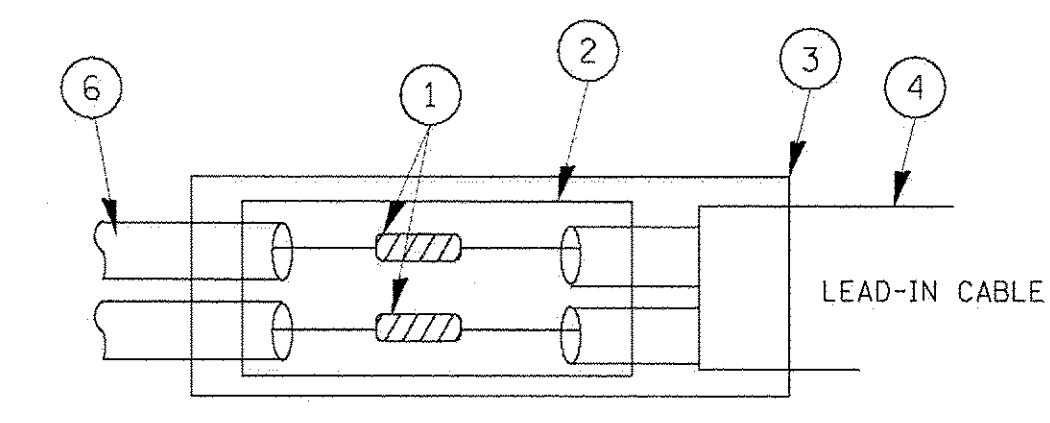


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



### PREFORMED LOOP

DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### LOOP DETECTOR SPLICE

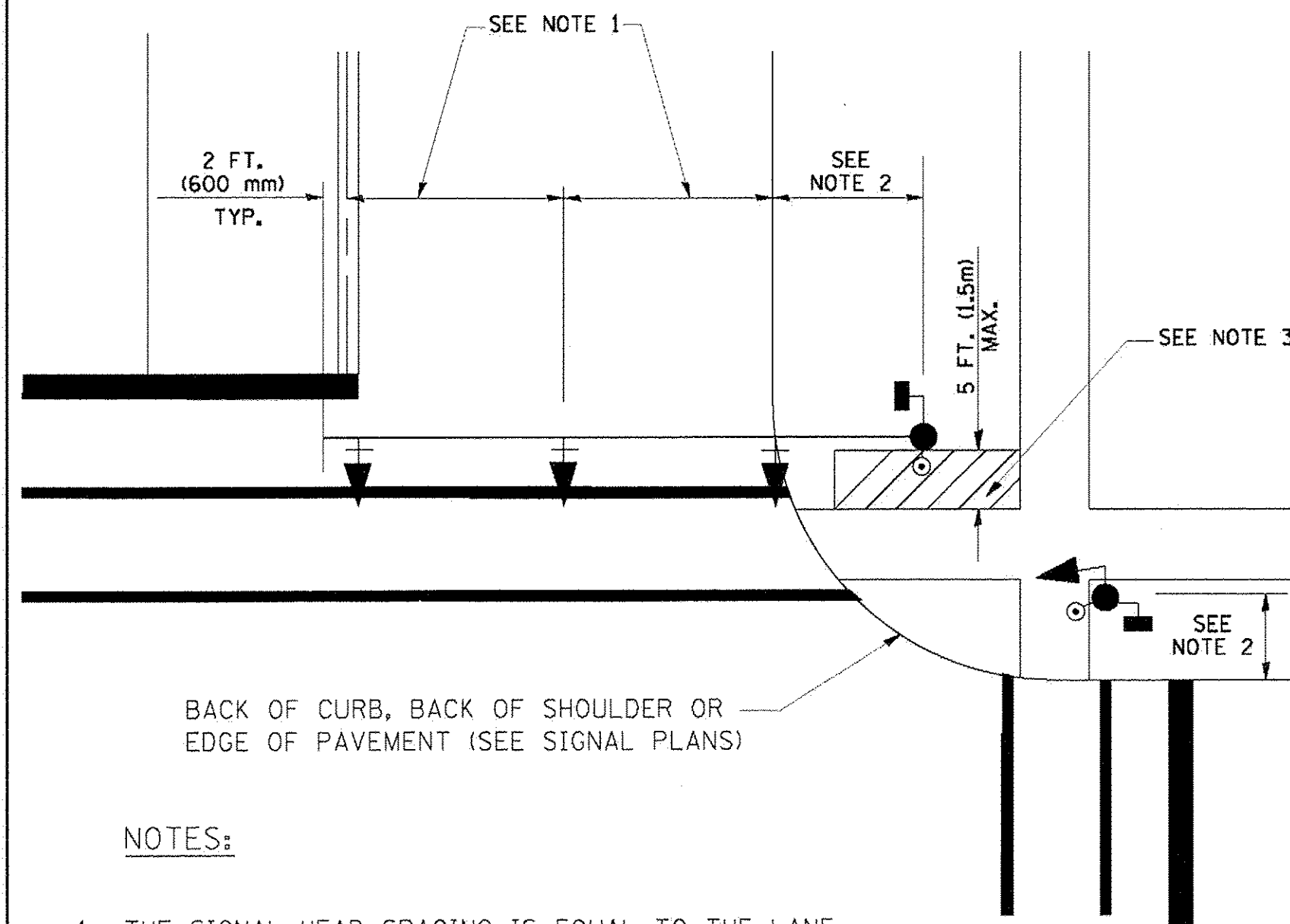
- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = baword1	DESIGNED - DAD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
al:\ps_work\PW1007\BAUERDL\d0108315\ts05.dgn	PLT SCALE = 5/8"=1'-0"	DRAWN - BCK	REVISED -			08-00251-00-BR	COOK	118	41	
	PLT DATE = 11/4/2009	CHECKED - DAD	REVISED -			<b>TS-05</b>		CONTRACT NO. 63817		
		DATE - 10-28-09	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
				SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA.	TO STA.			



**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

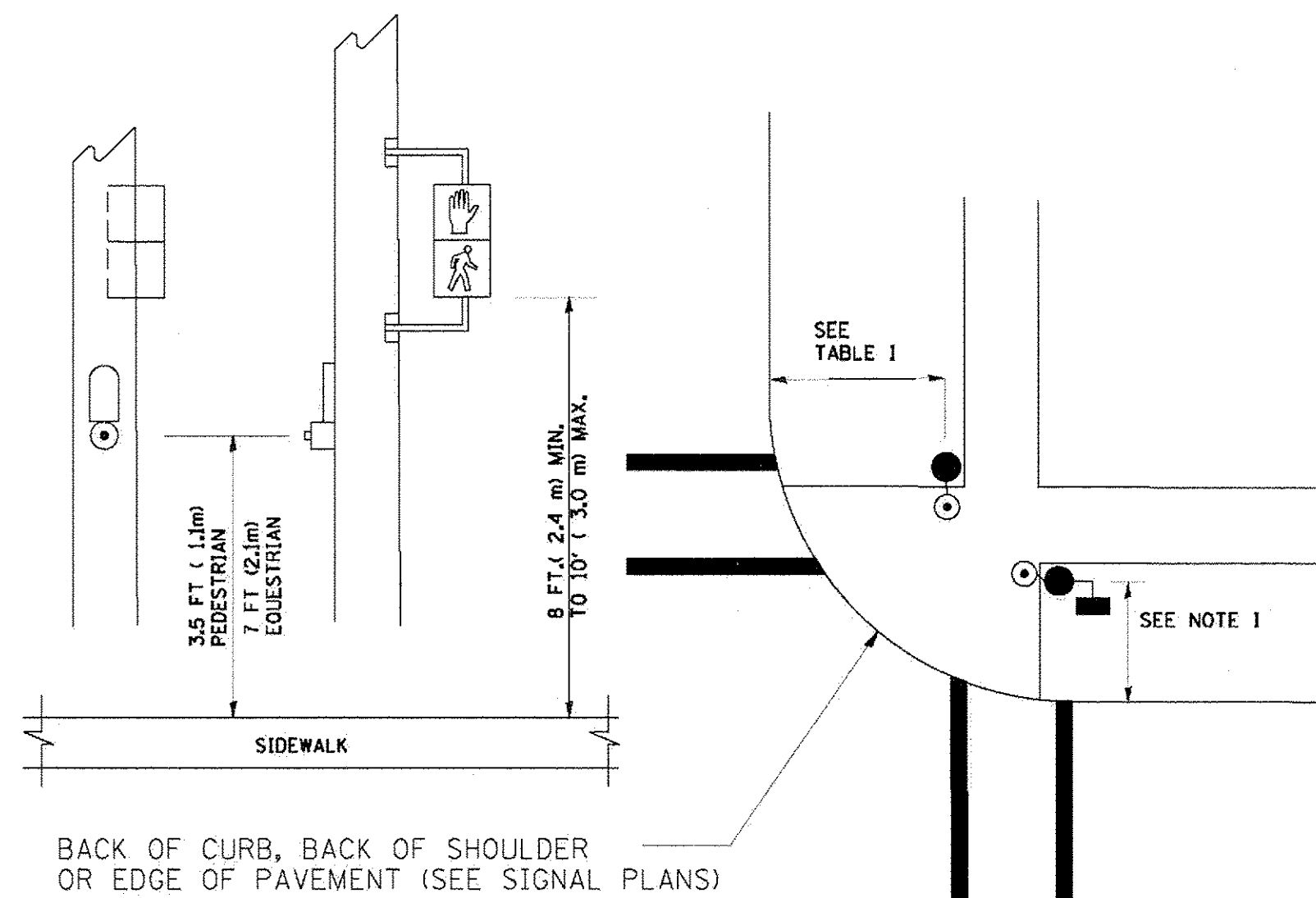
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

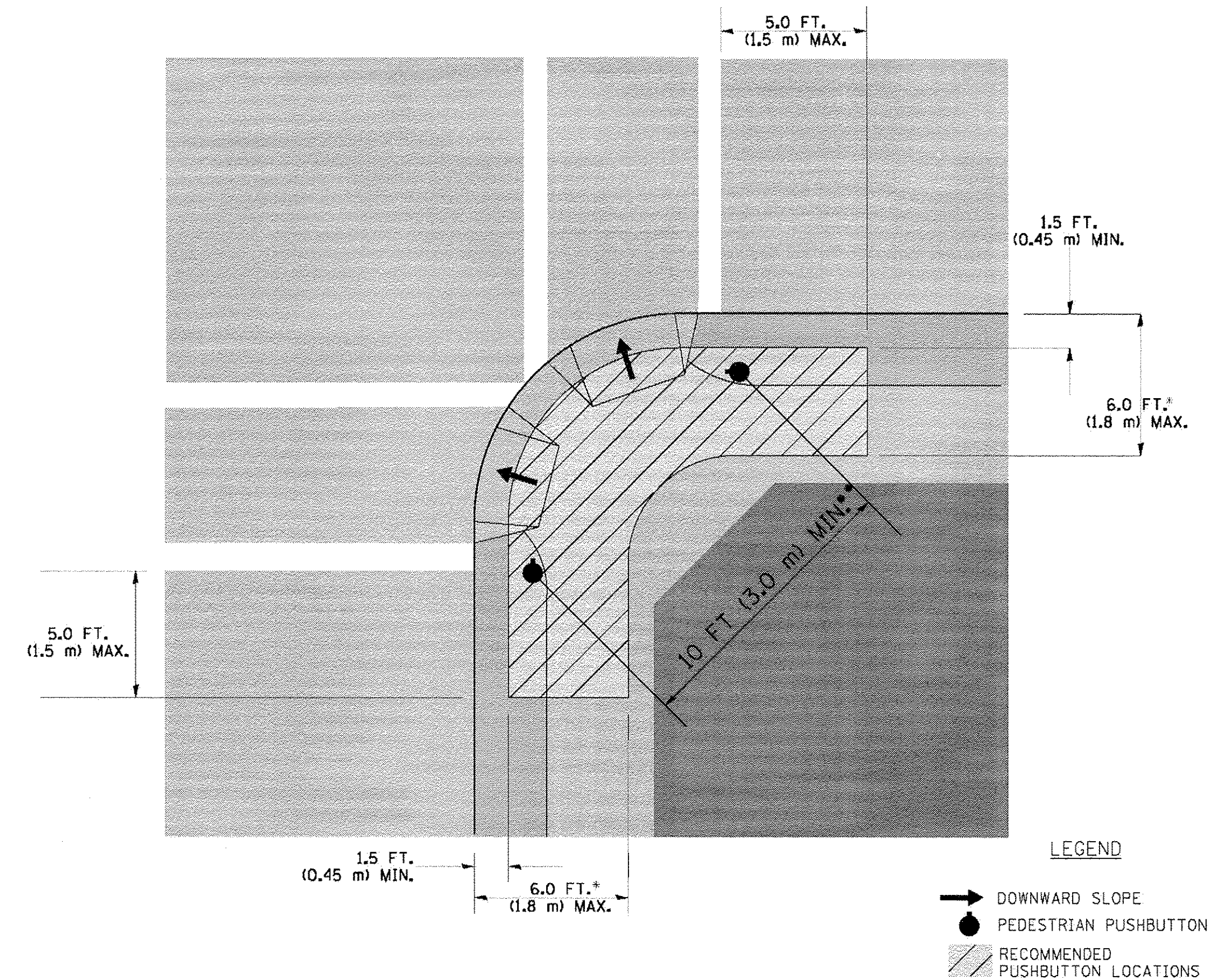
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

- \* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- \*\* WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

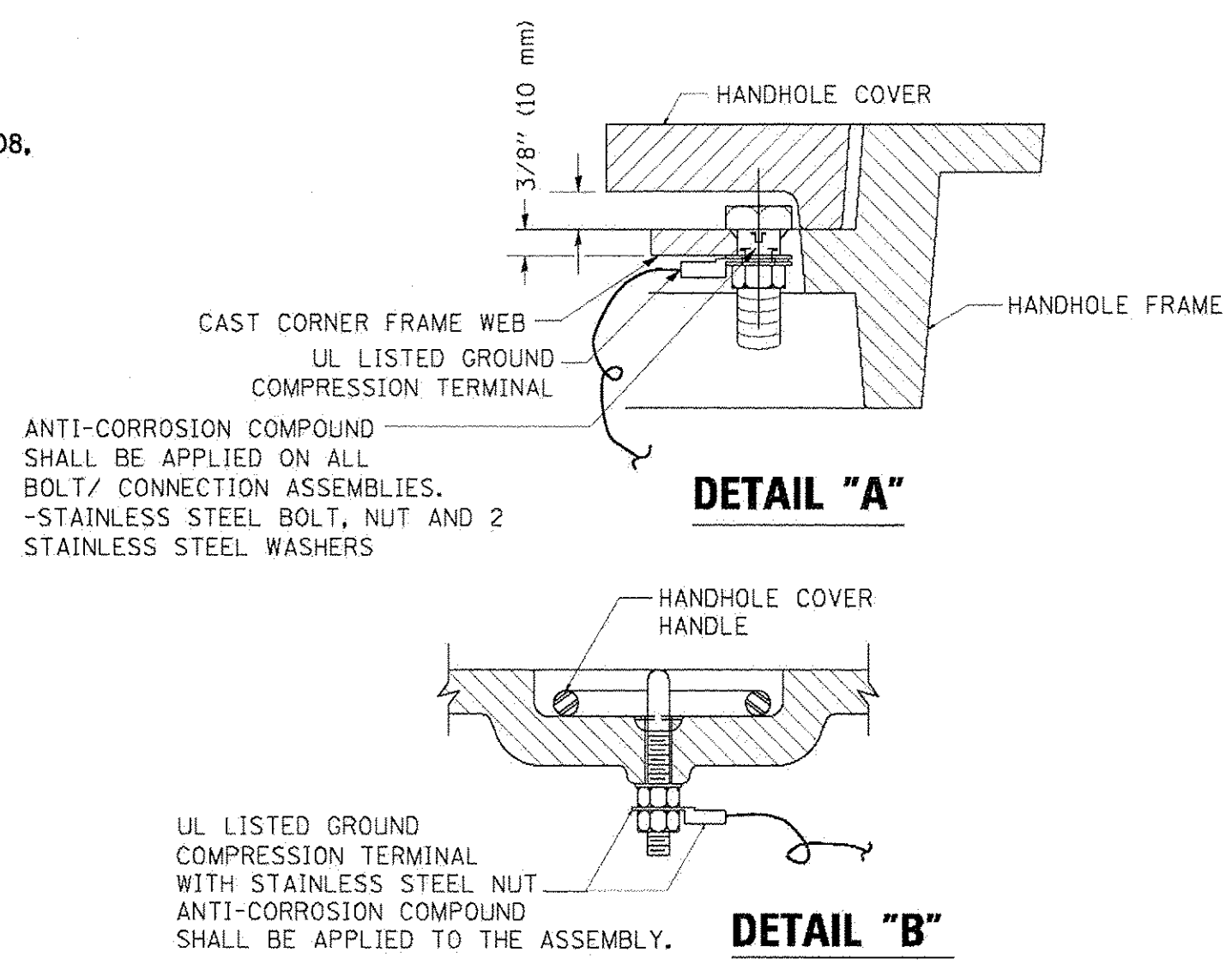
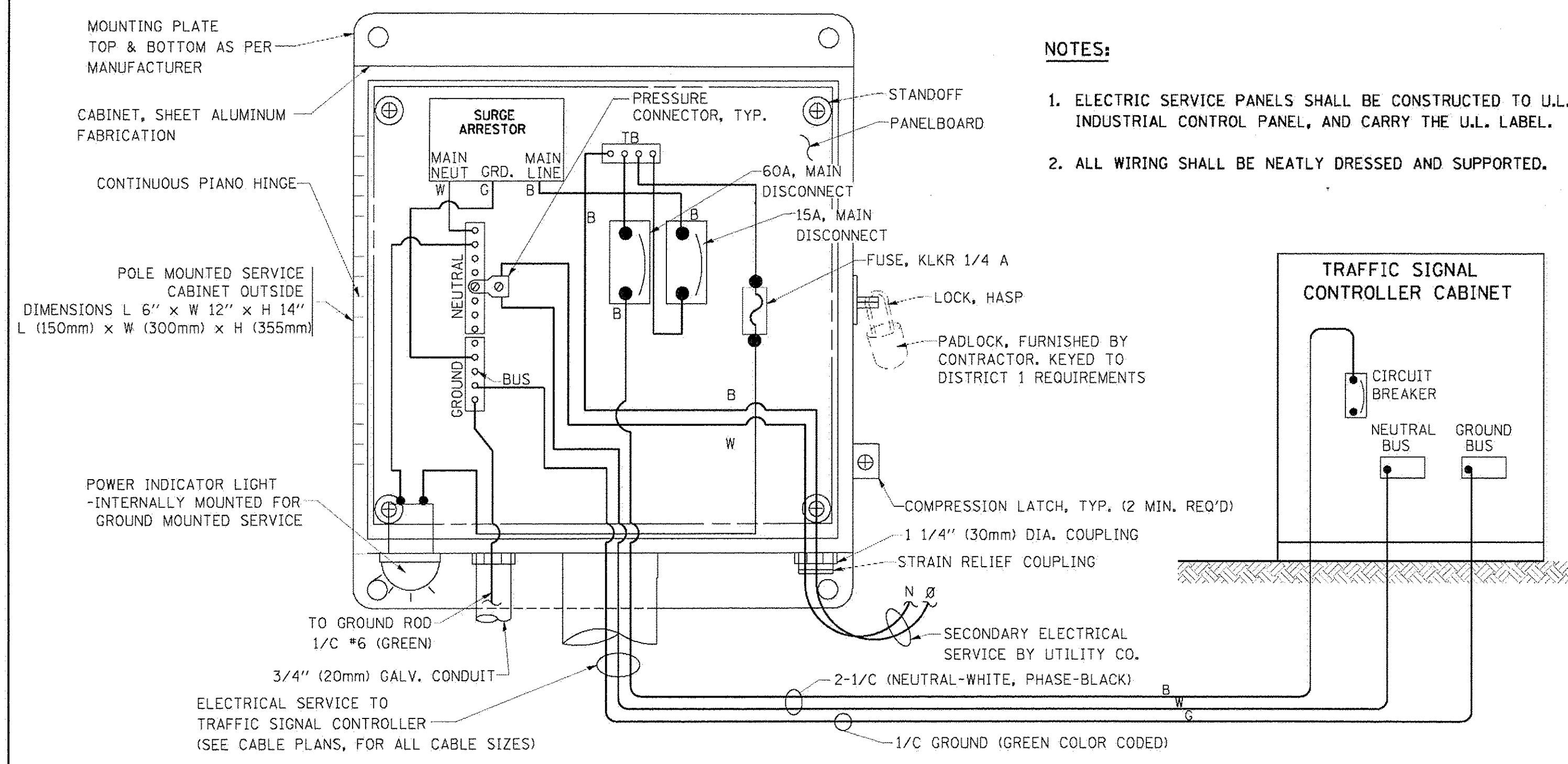
**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

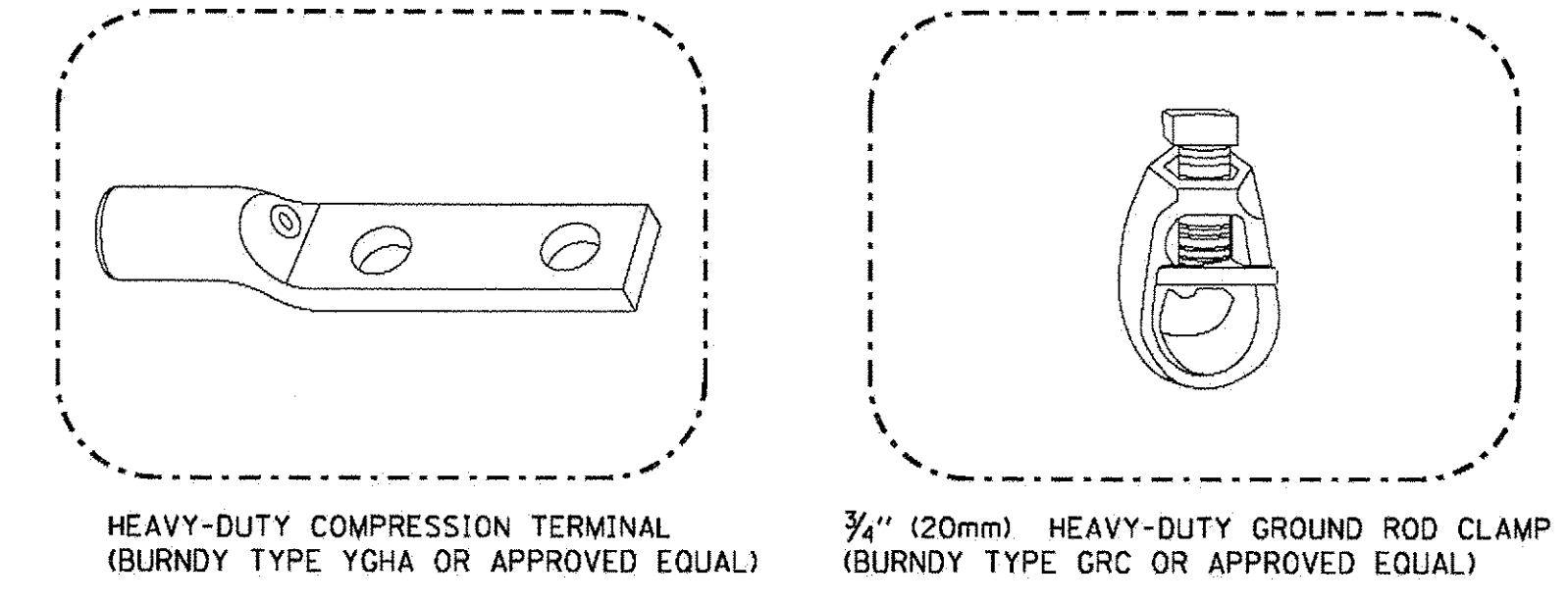
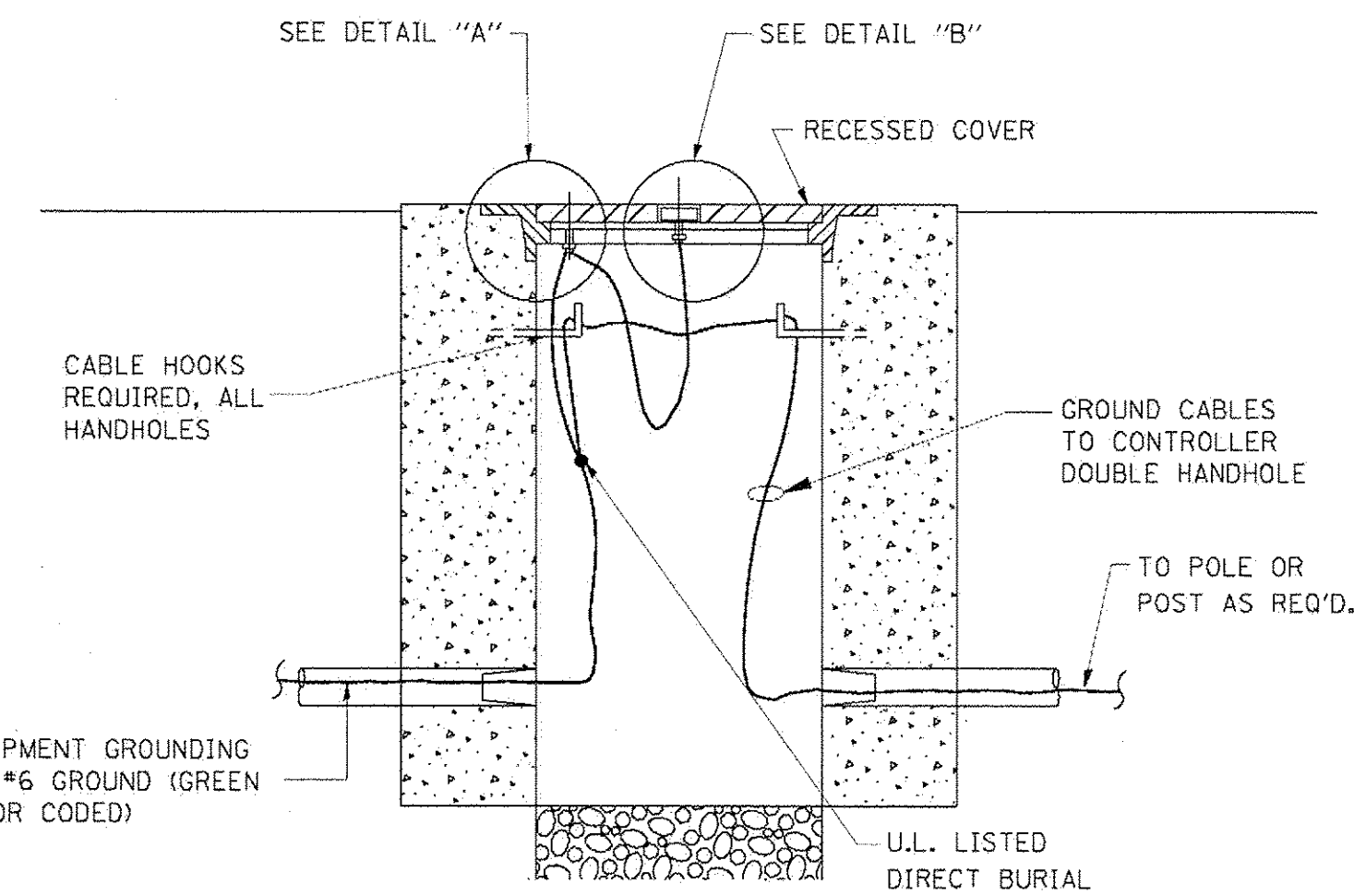
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



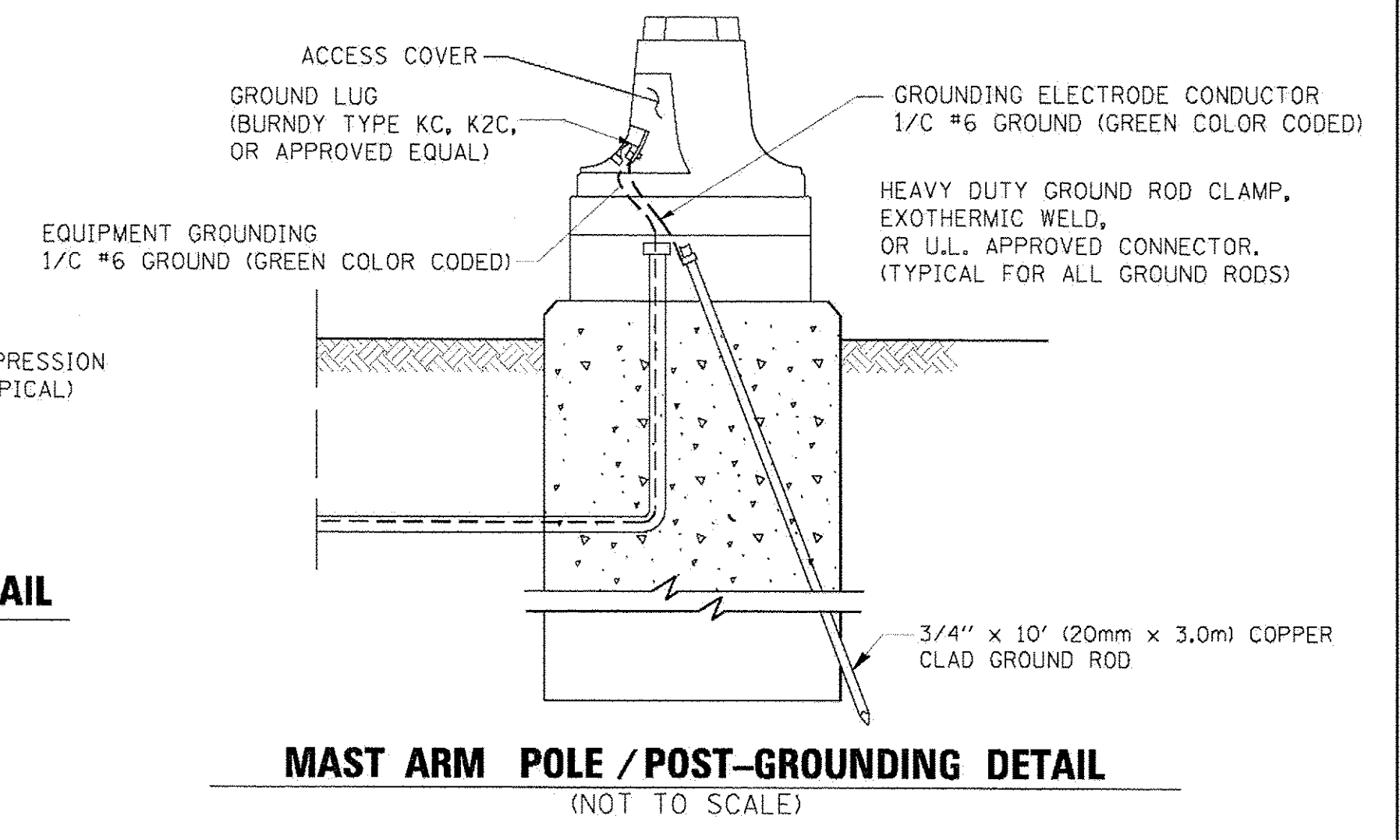
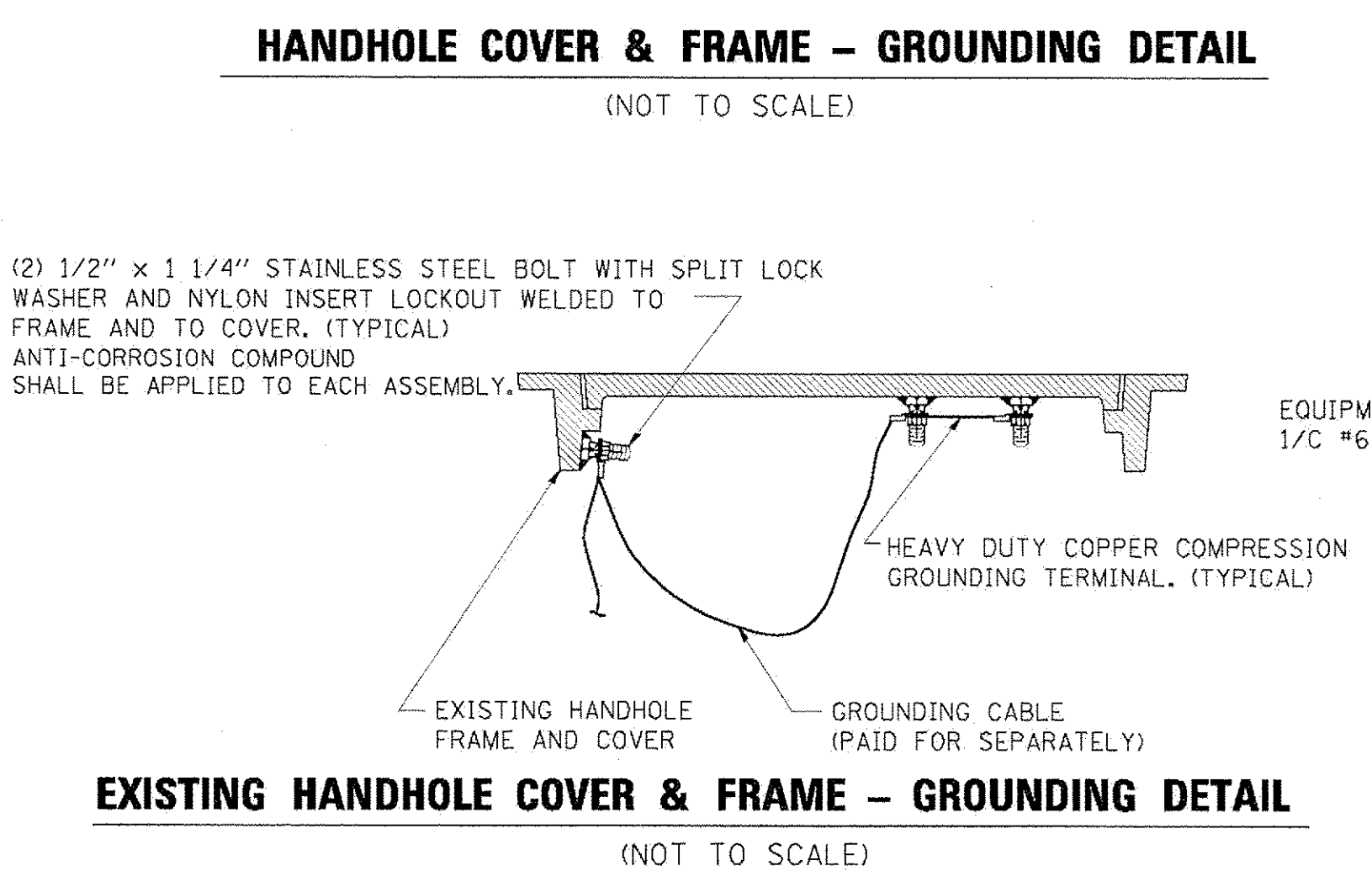
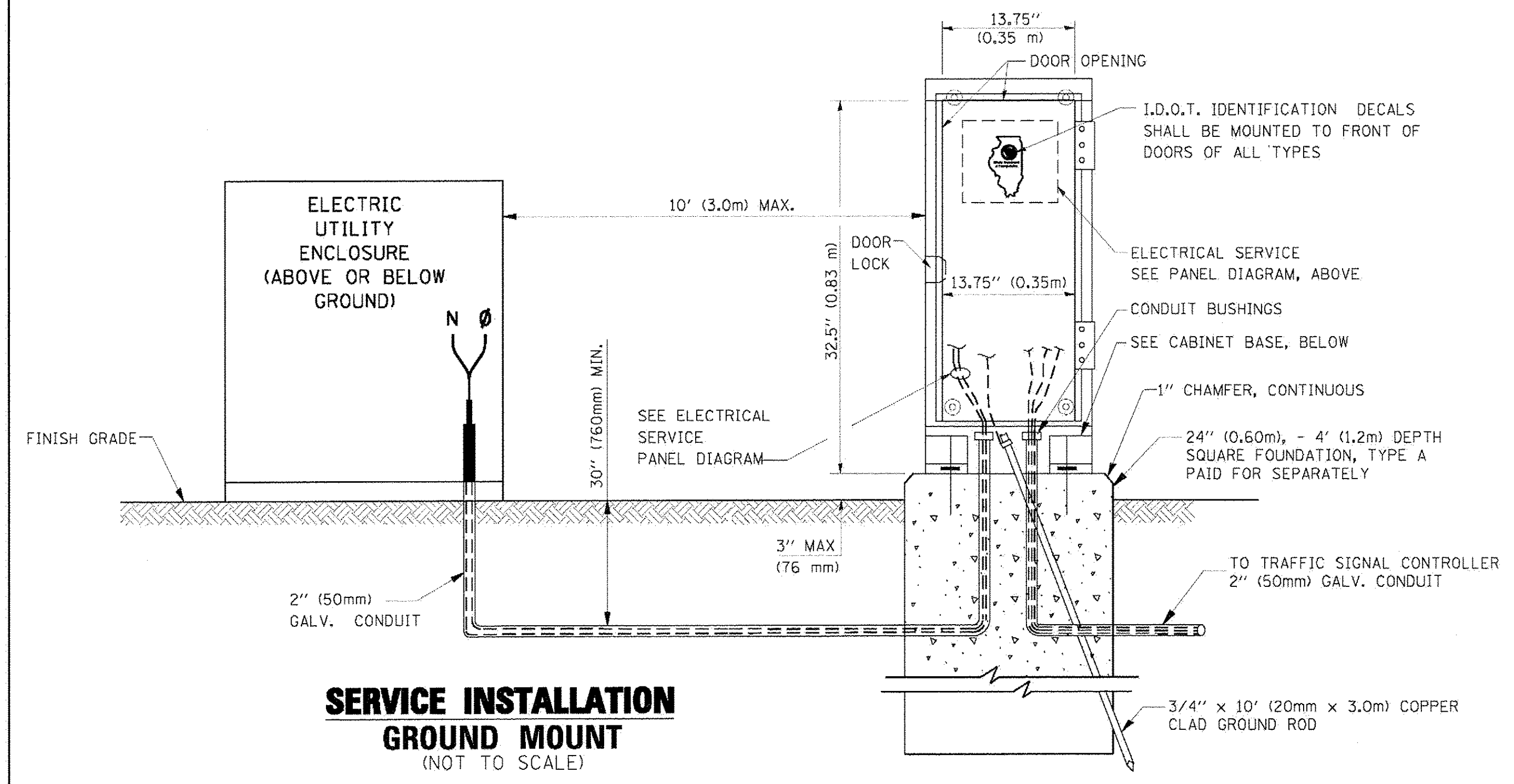


- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
  - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
  - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

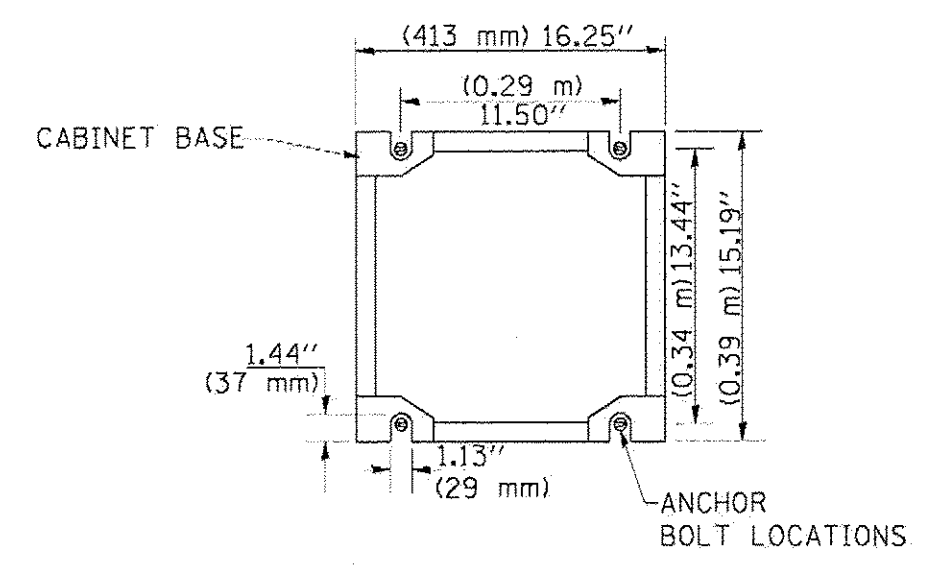
**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



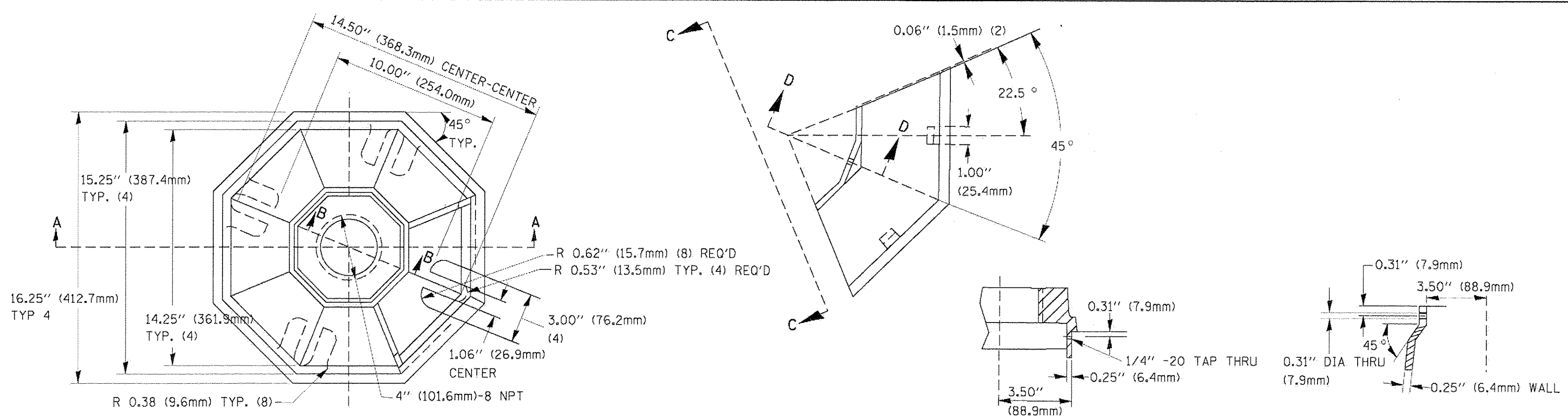
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  - 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  - 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  - 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**CABINET – BASE BOLT PATTERN**  
 (NOT TO SCALE)



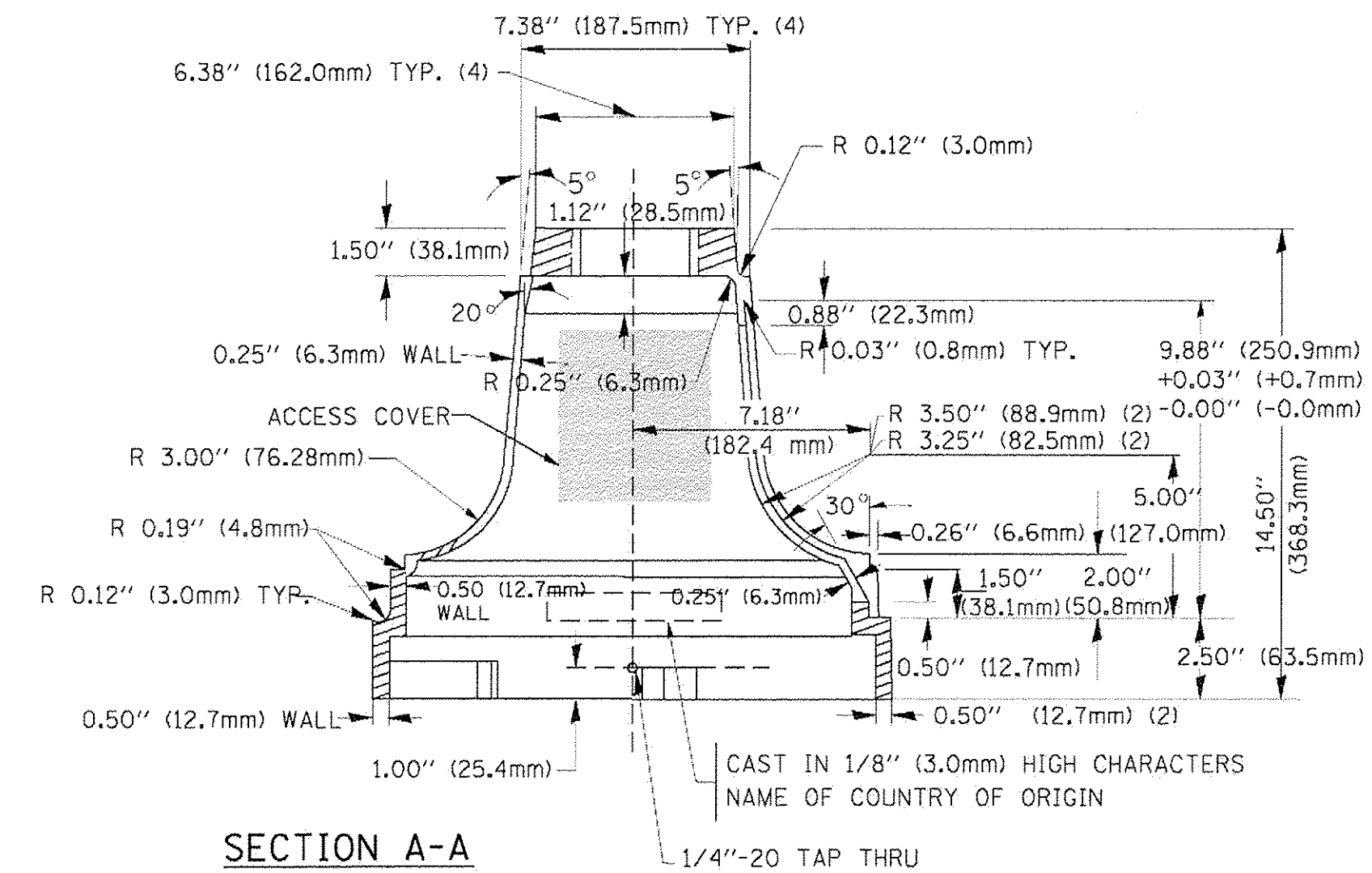




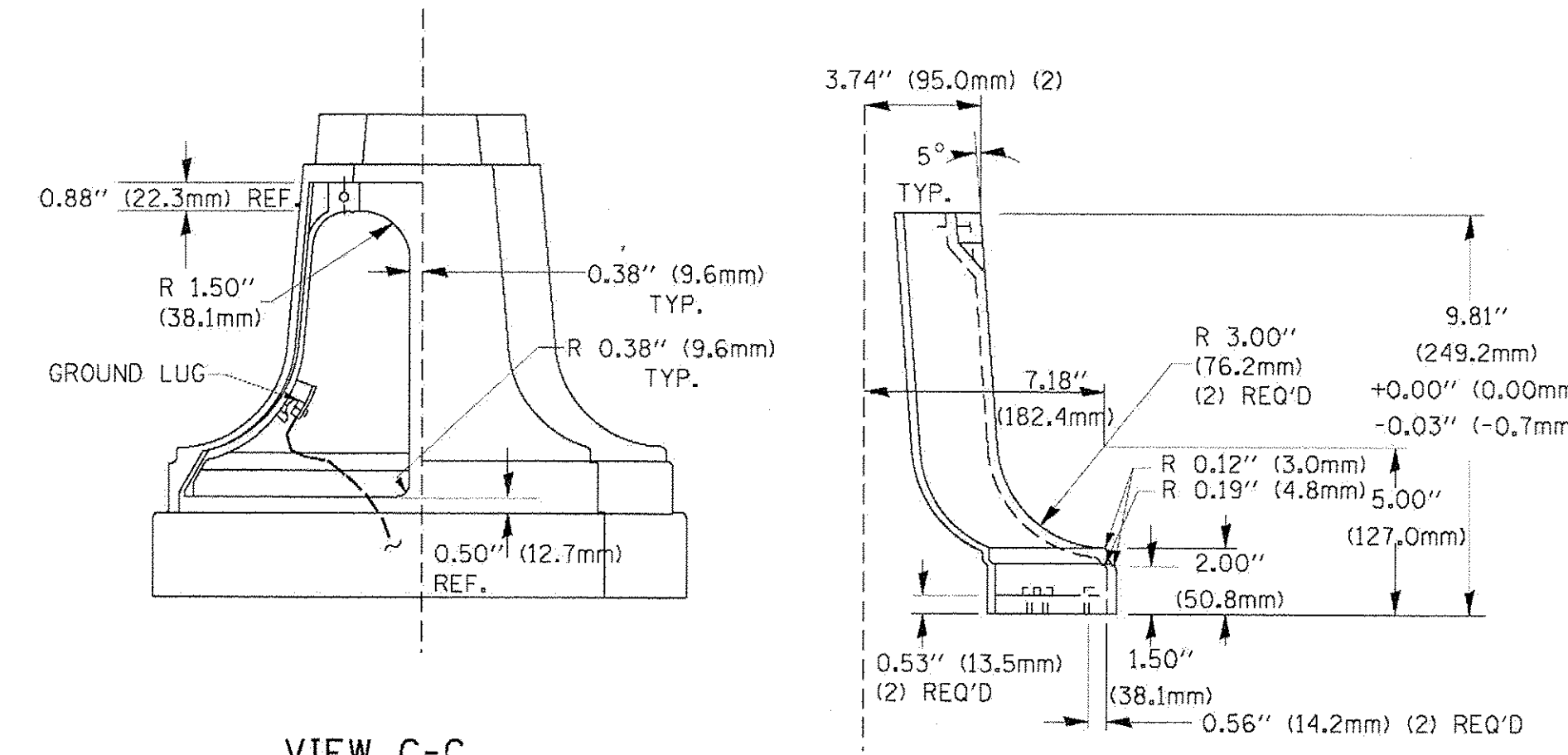
TOP VIEW

SECTION B-B

SECTION D-D

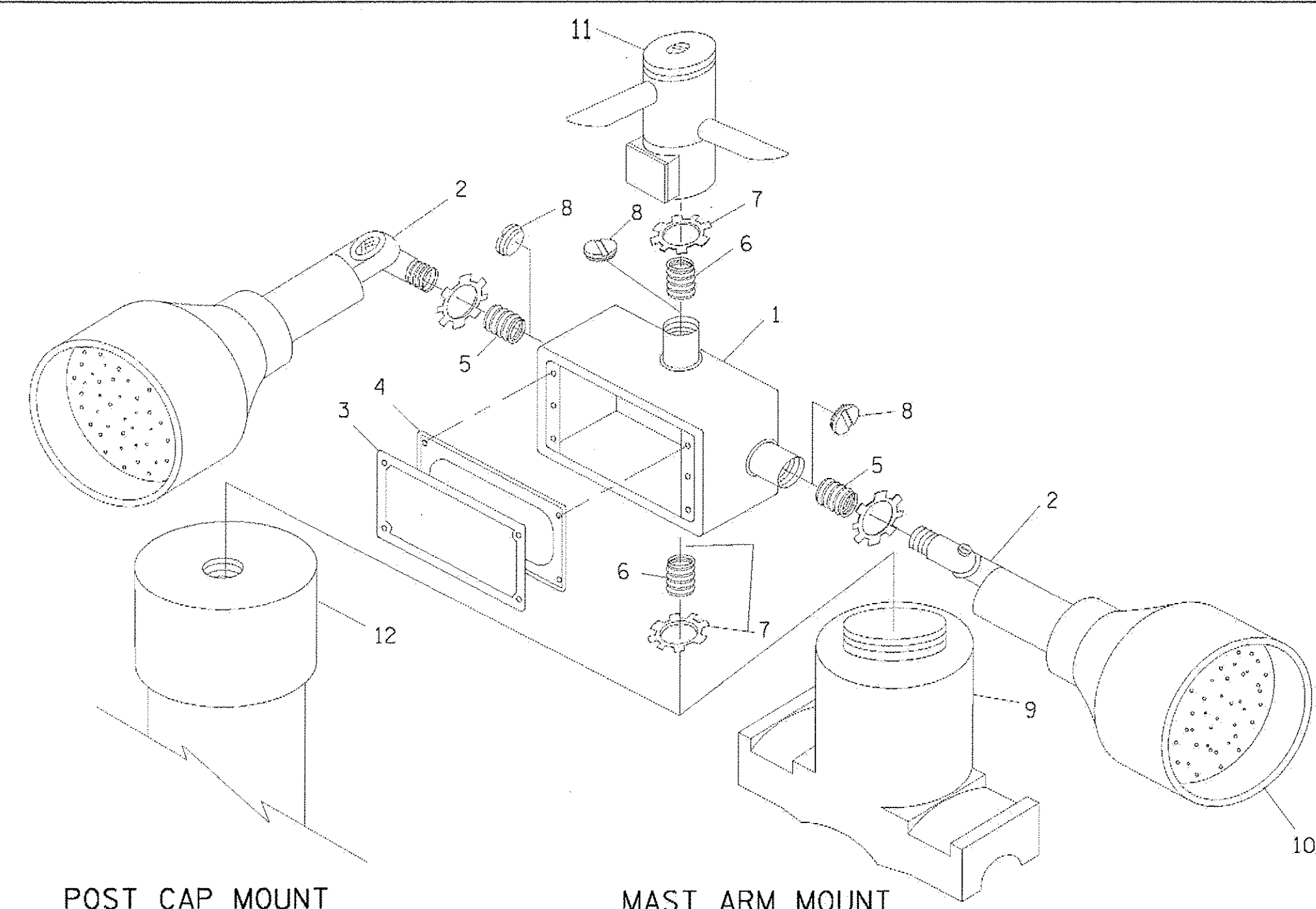


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

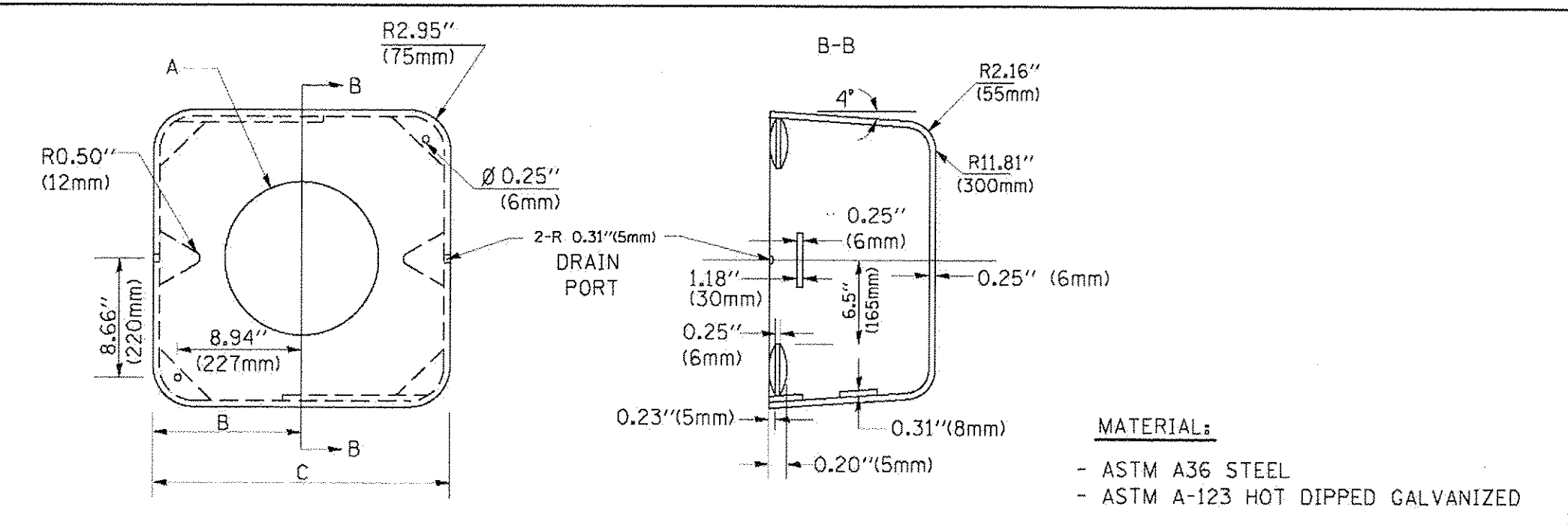
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV., 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) - 12\" (300mm)	126 lbs (57 kg)

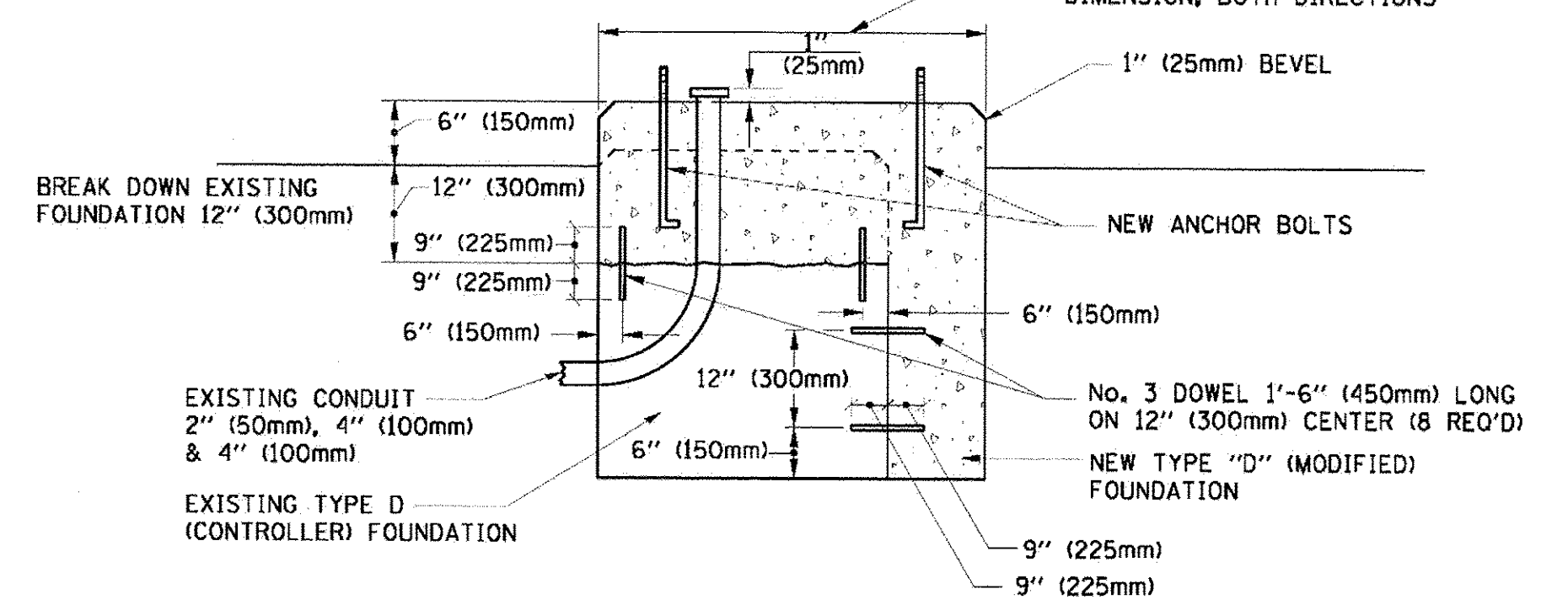
SHROUD

NOTES:

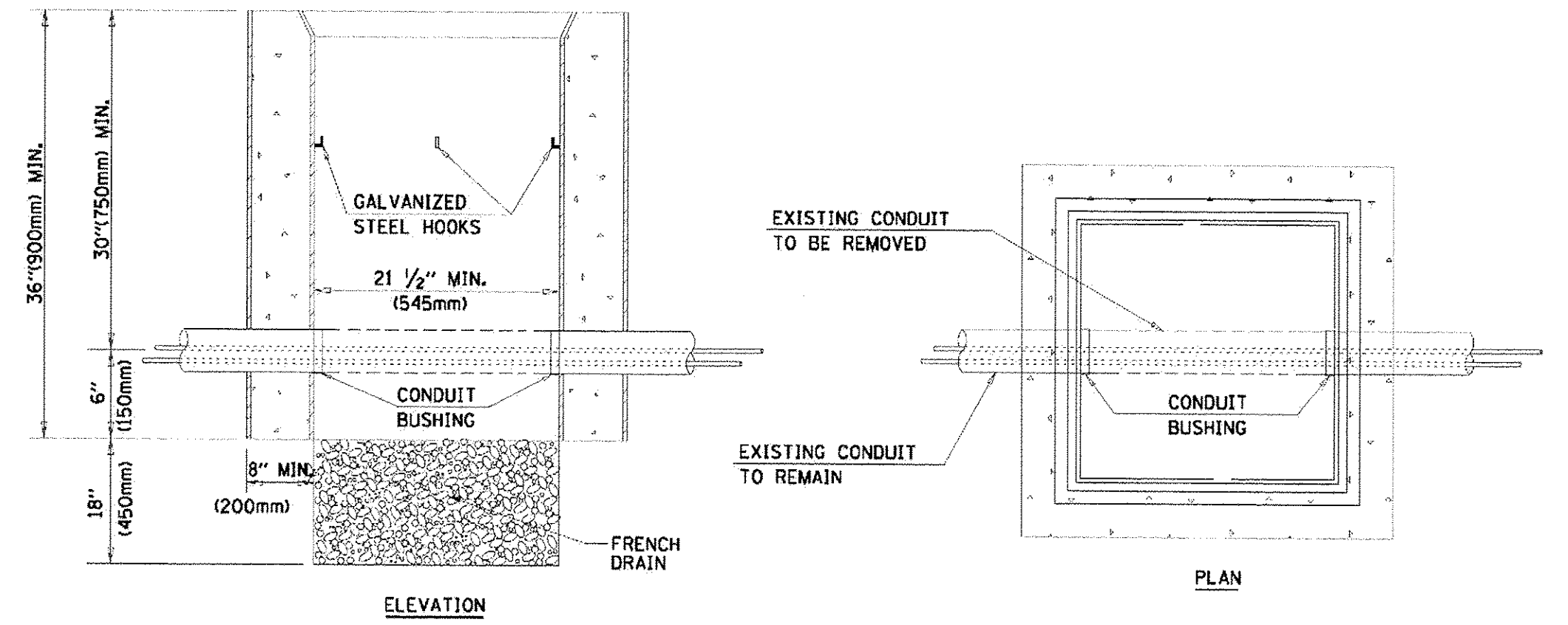
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



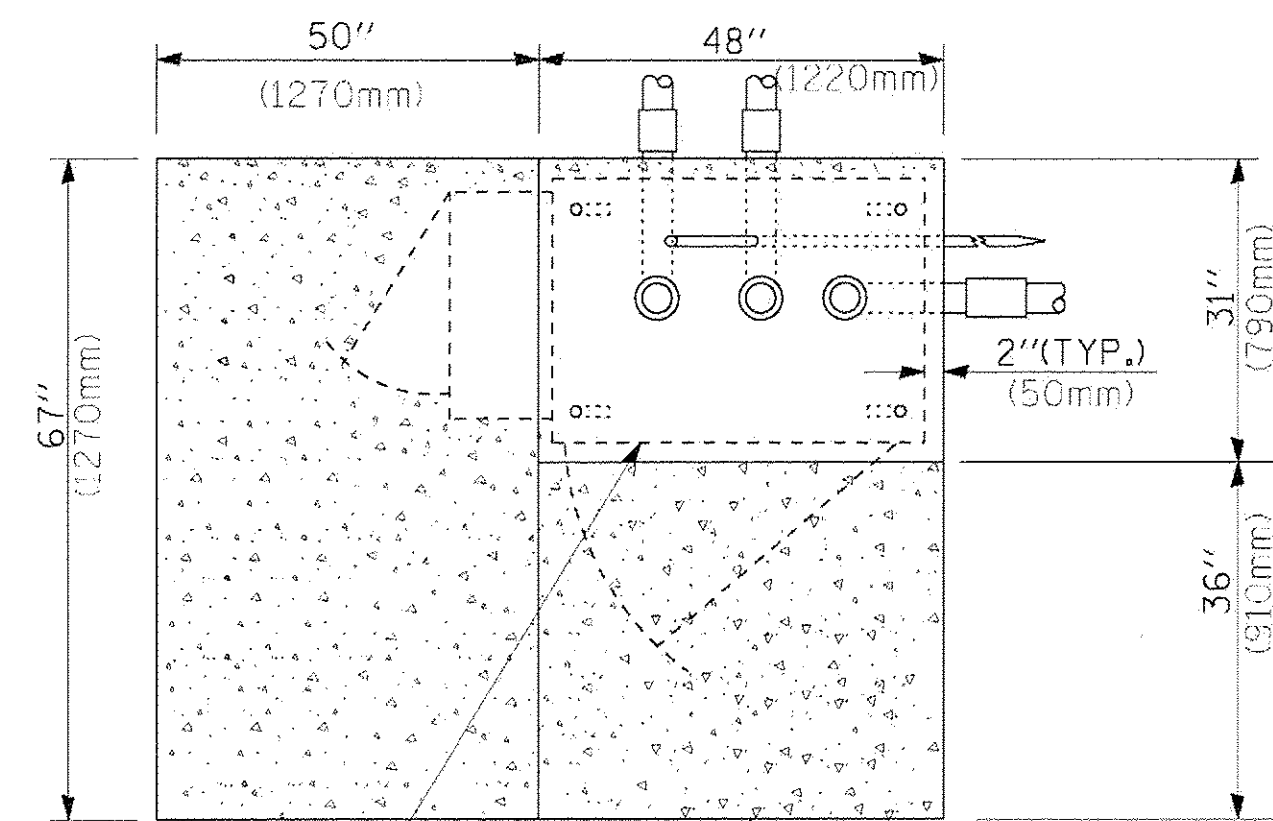
MODIFY EXISTING TYPE "D" FOUNDATION



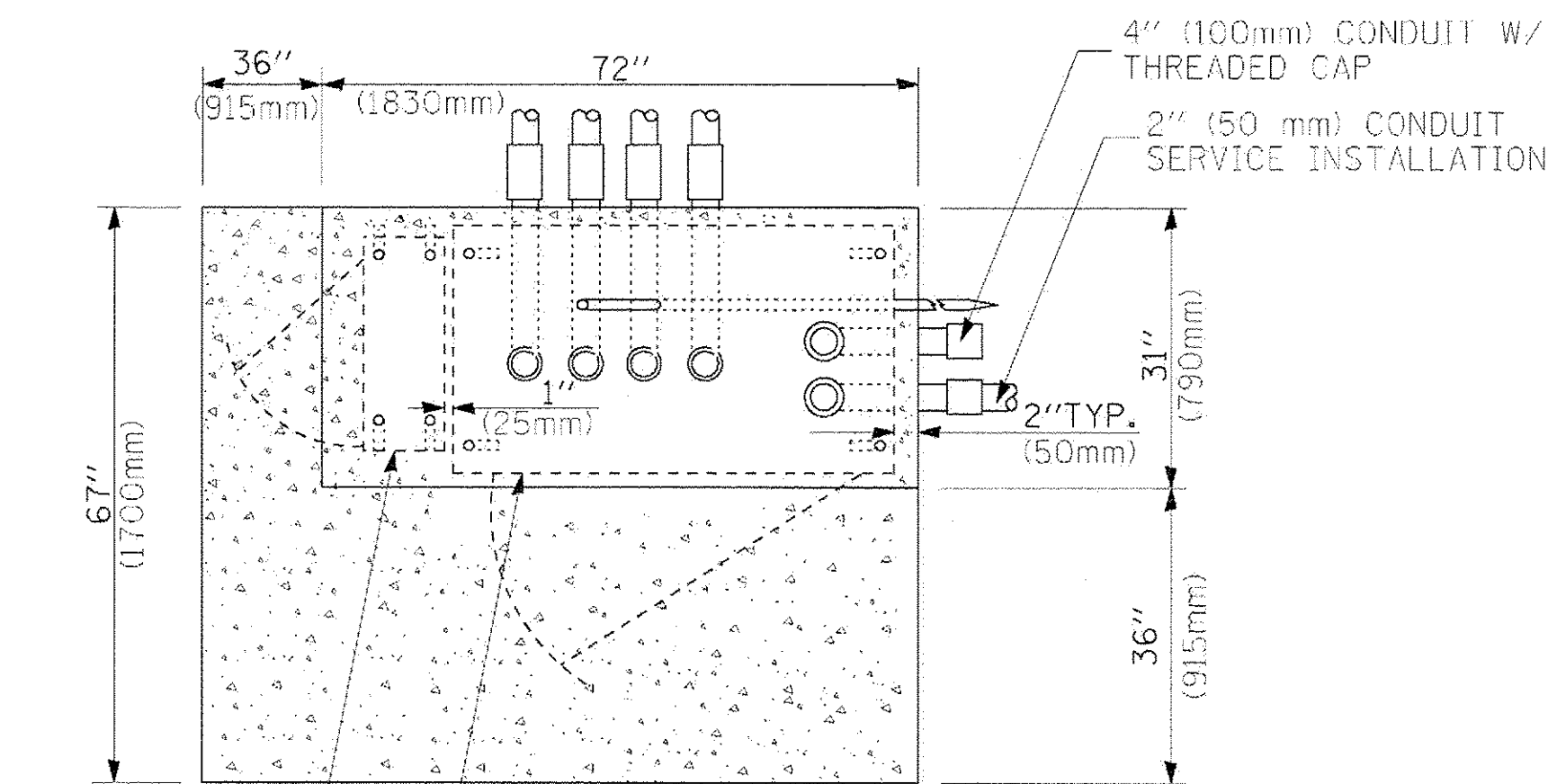
NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

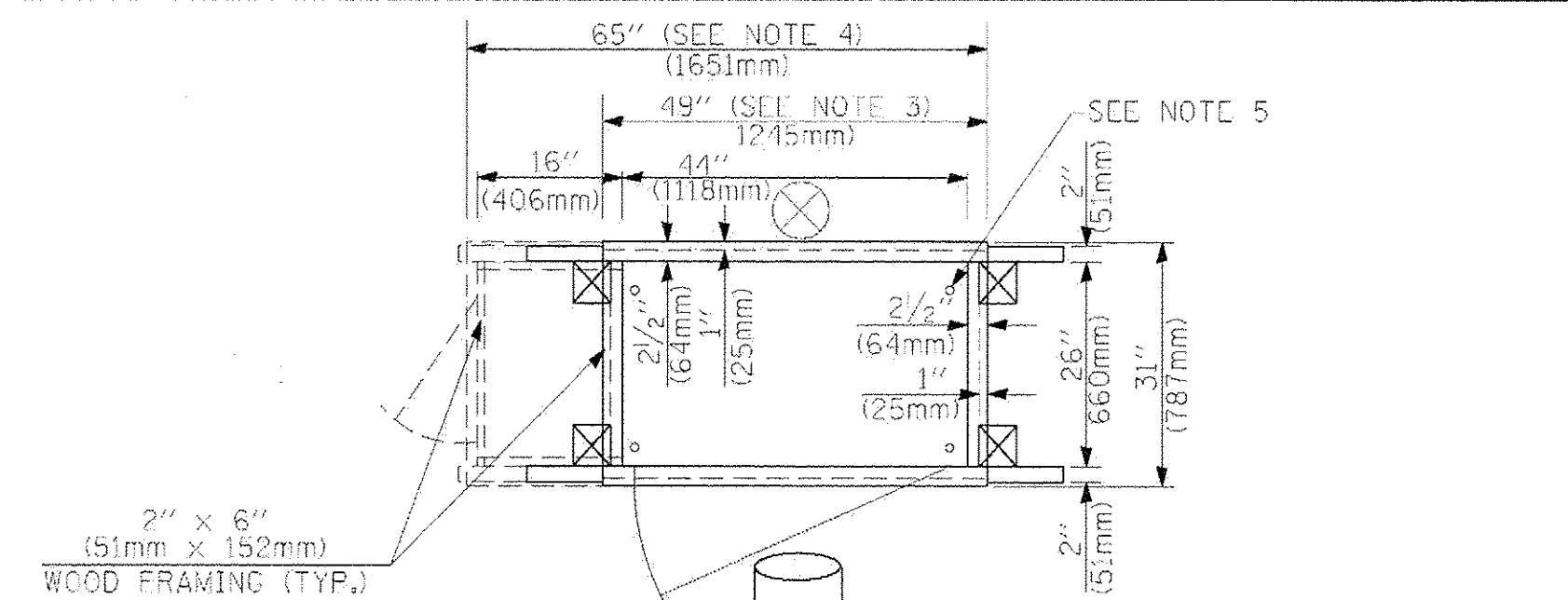
HANDHOLE TO INTERCEPT EXISTING CONDUIT



CONTROLLER CABINET BASE  
EXISTING APRON  
PROPOSED APRON  
**TOP VIEW**

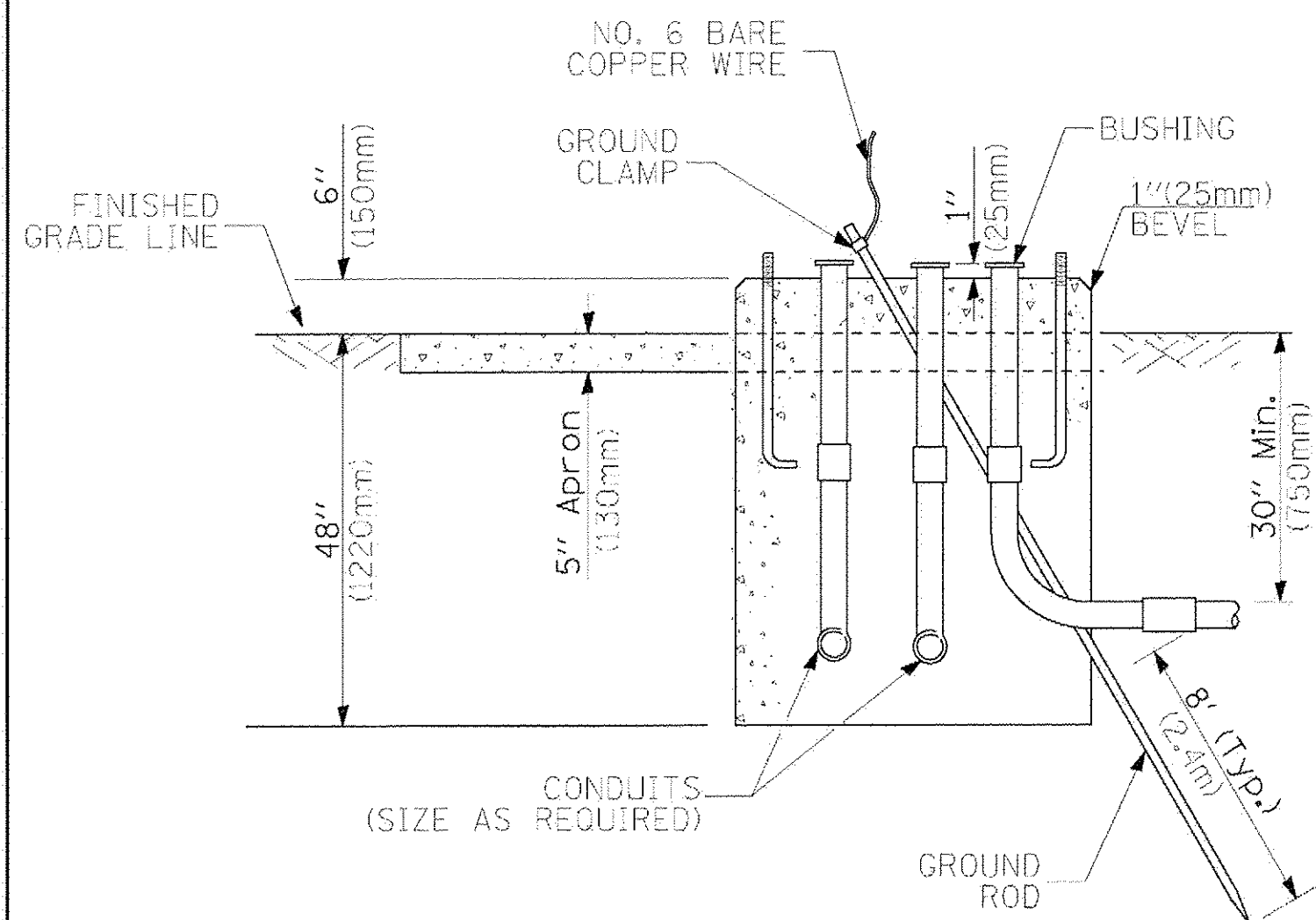


UPS CABINET BASE  
CONTROLLER CABINET BASE  
APRON  
**TOP VIEW**

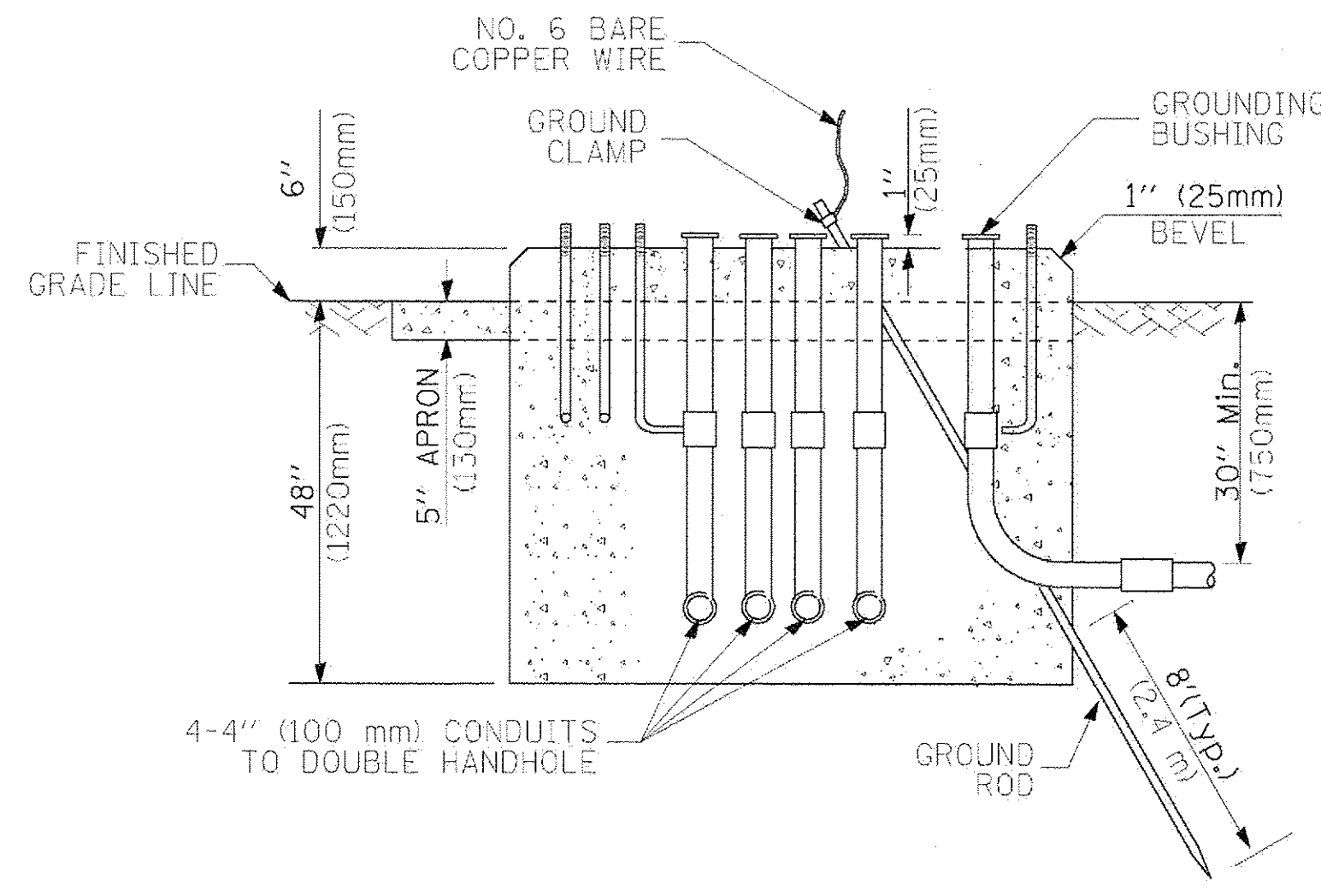


- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**



**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



**TYPE C  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

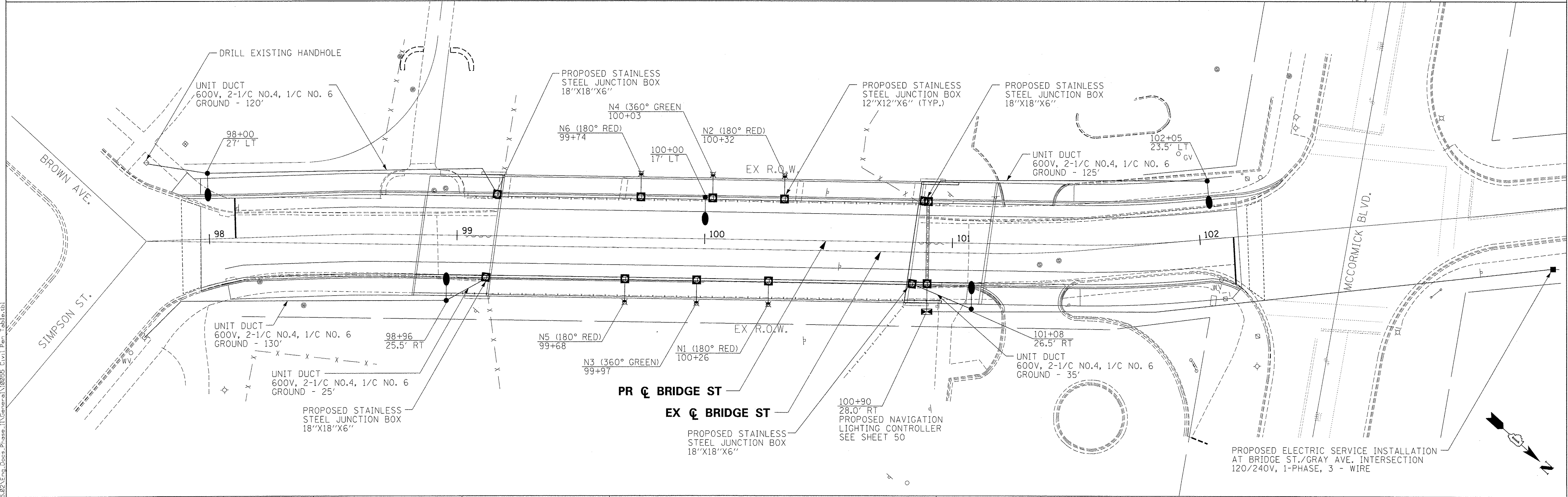
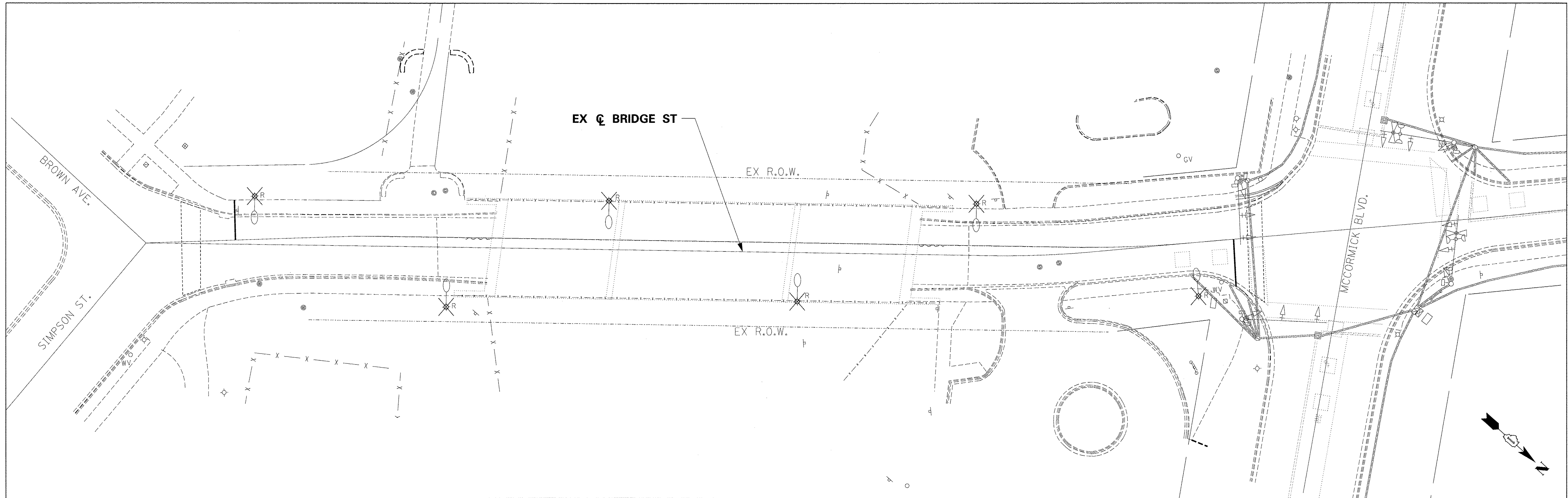
Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (QU) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
  - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  - For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**







PROPOSED ELECTRIC SERVICE INSTALLATION  
AT BRIDGE ST./GRAY AVE. INTERSECTION  
120/240V, 1-PHASE, 3 - WIRE

PLOT SCALE: 1"=20'  
 FILE NAME: ...\\10055-sht-light-plan@l.dgn  
 USER NAME: eashp  
 PLOT DATE: 2/19/2013

DESIGNED - GHT	REVISED -
DRAWN - JLW	REVISED -
CHECKED - GRR	REVISED -
DATE - 02/04/2013	REVISED -



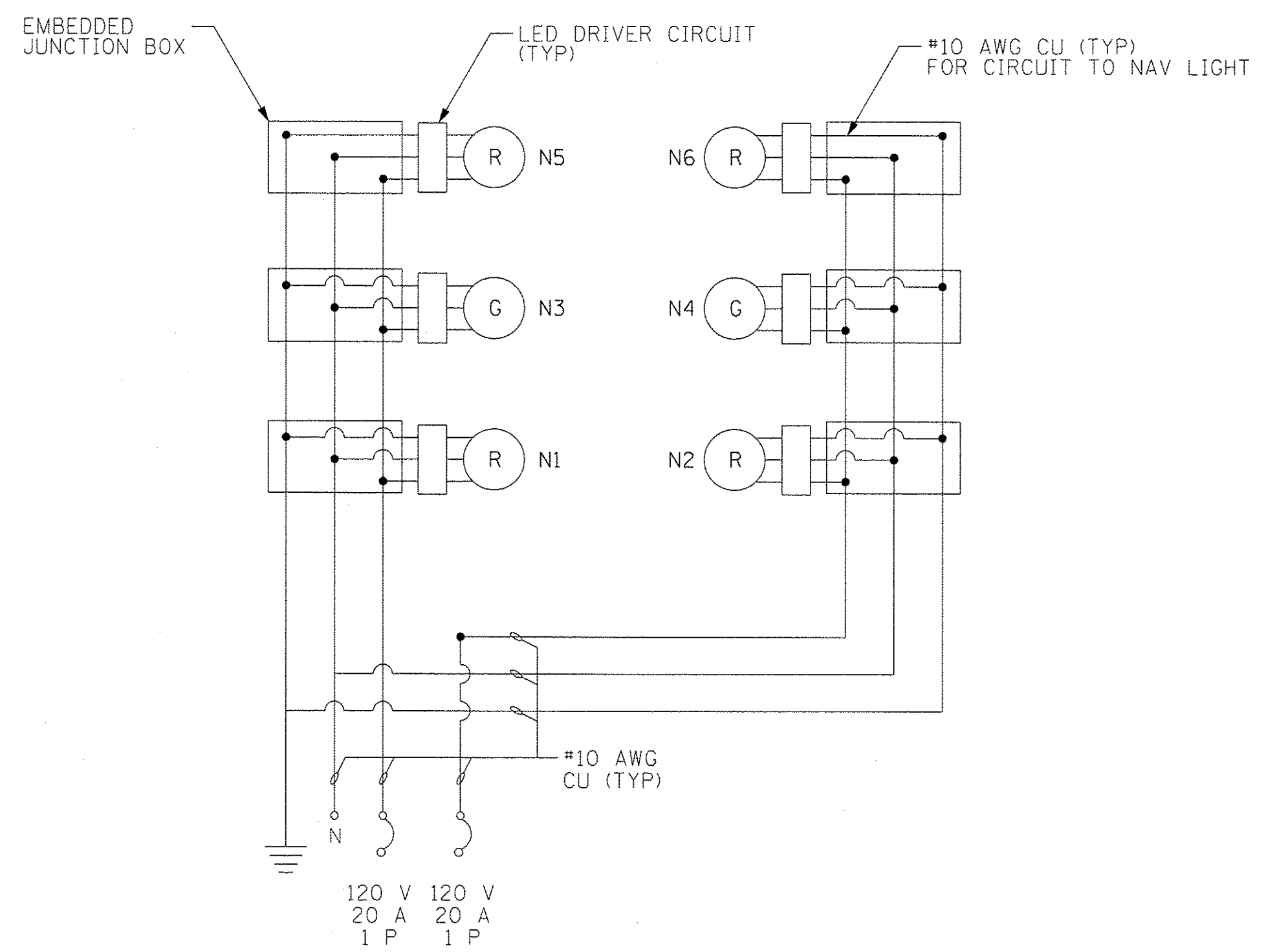
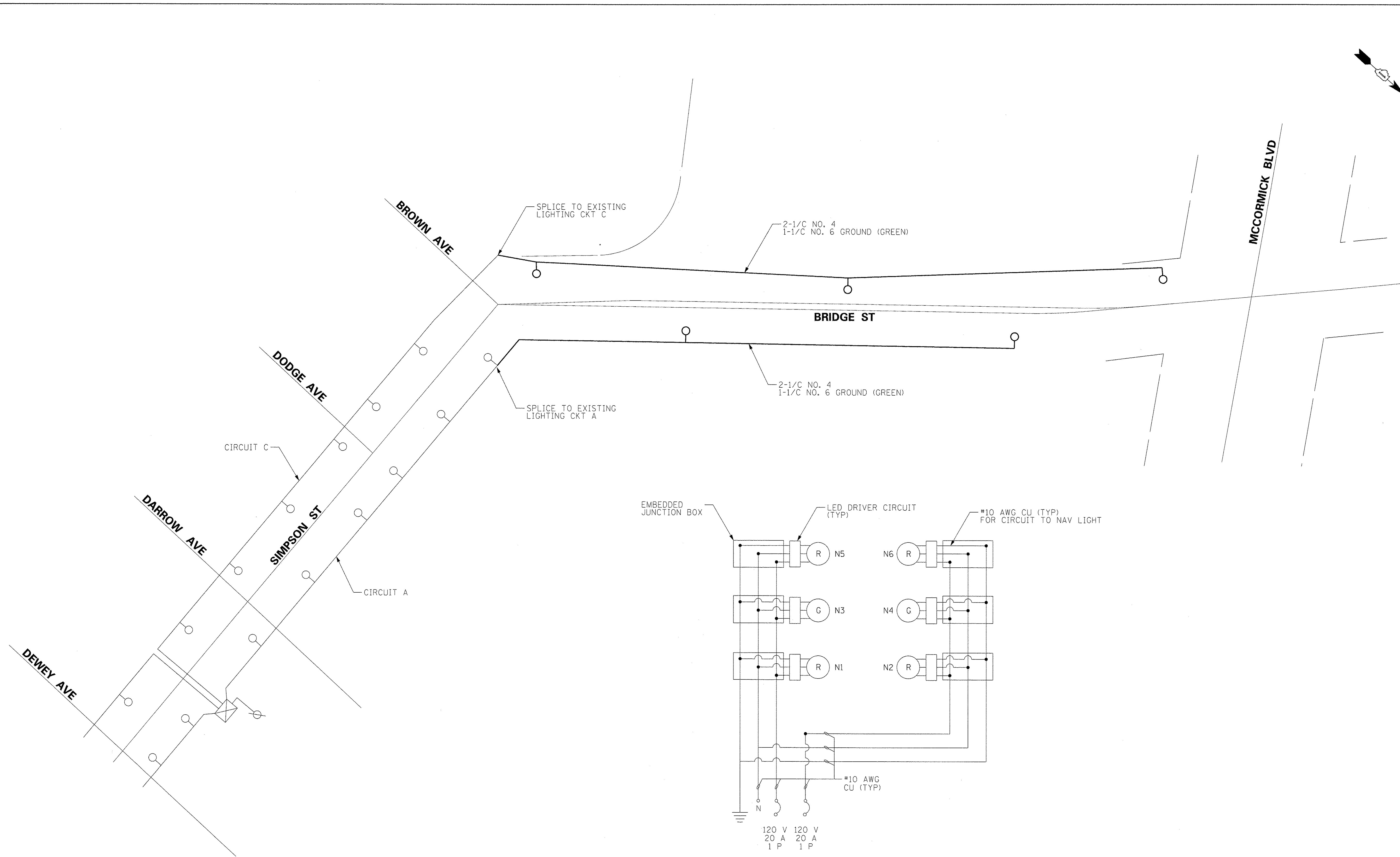
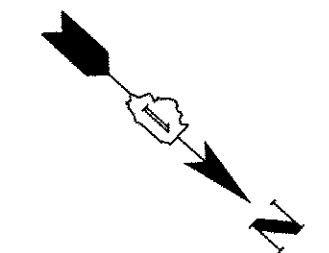
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRIDGE STREET OVER NORTH SHORE CHANNEL  
LIGHTING PLANS**

SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	47
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				





**NAVIGATIONAL LIGHTING CONTROLLER**

Plot Scale: 1:20  
 ...\\10055-sht-light-plan02.dgn  
 USER NAME = eship  
 PLOT DATE = 2/19/2013

FILE NAME =	DESIGNED - GHT	REVISED -
...\\10055-sht-light-plan02.dgn	DRAWN - JLW	REVISED -
USER NAME = eship	CHECKED - GRR	REVISED -
PLOT DATE = 2/19/2013	DATE - 02/04/2013	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

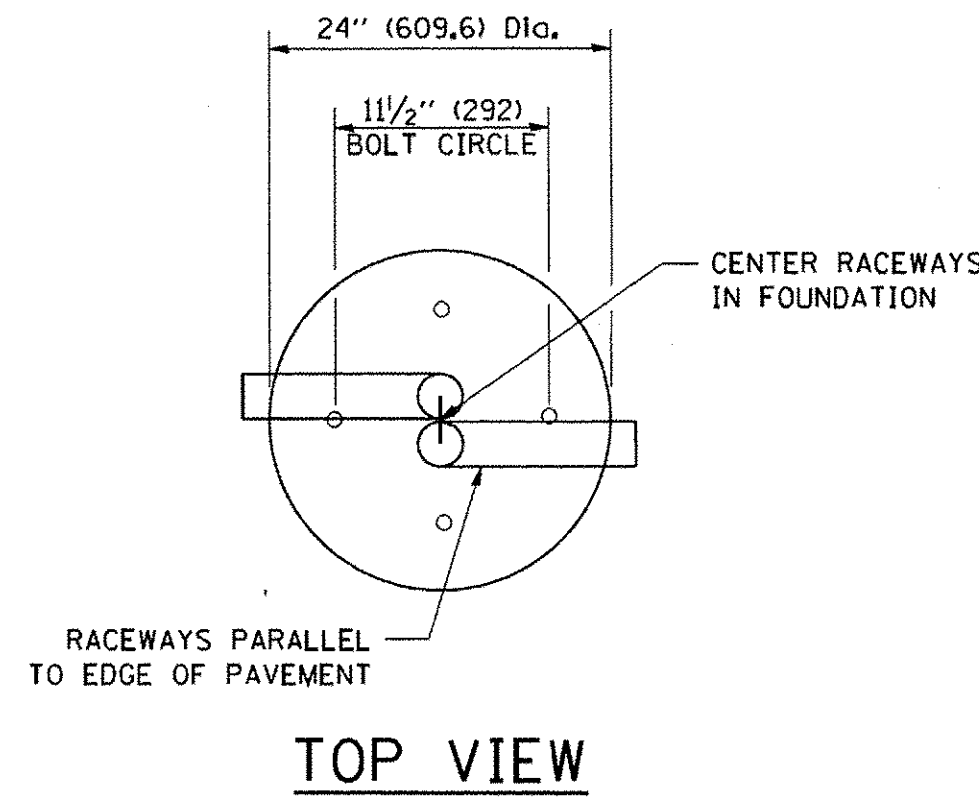
**BRIDGE STREET OVER NORTH SHORE CHANNEL  
LIGHTING SCHEMATIC**

SHEET NO. OF SHEETS STA. TO STA.

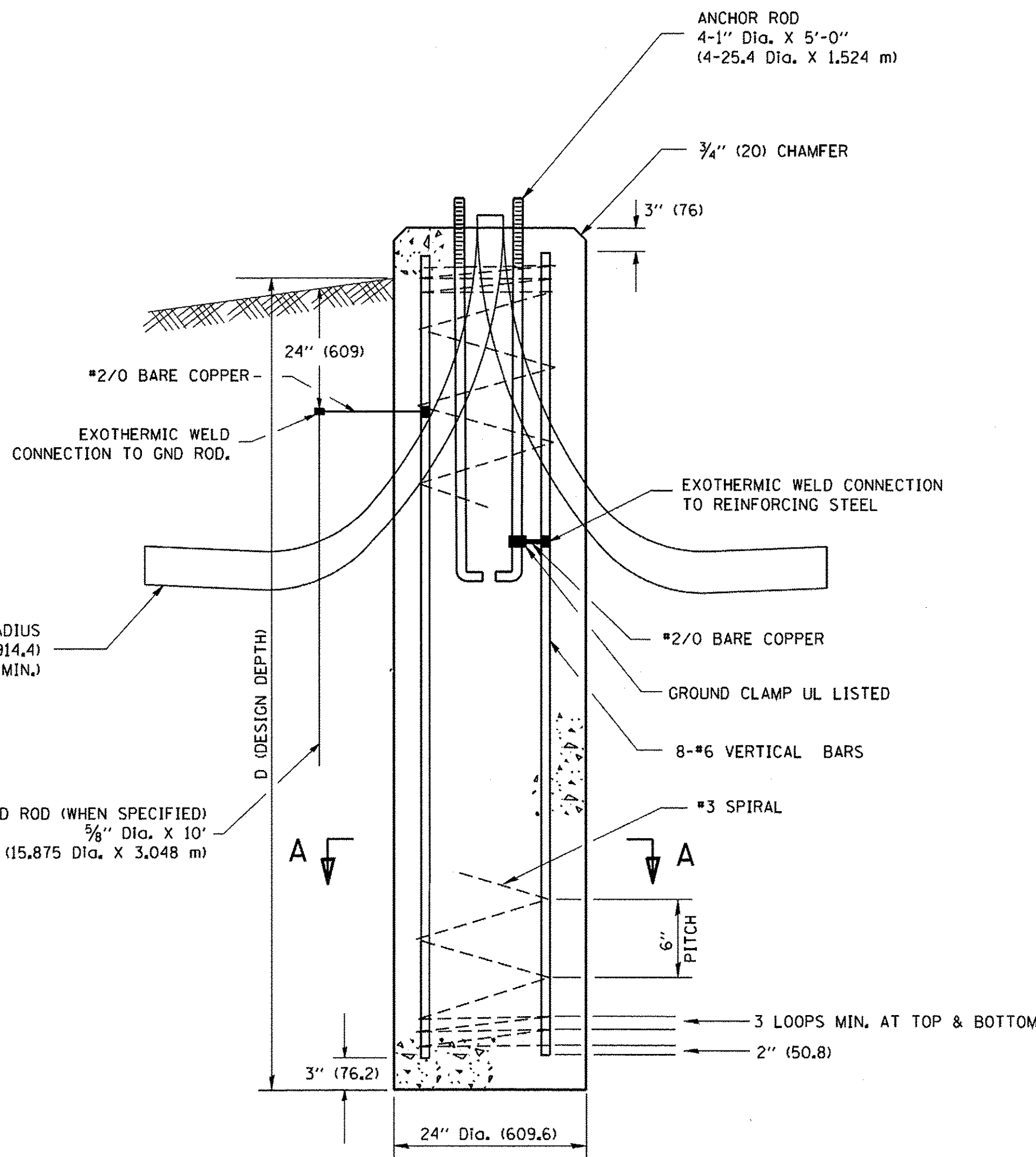
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	48
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

**LIGHT POLE FOUNDATION DEPTH TABLE**  
**30 FT. (9.144 m) TO 35 FT. (10.668 m) MOUNTING HEIGHT**

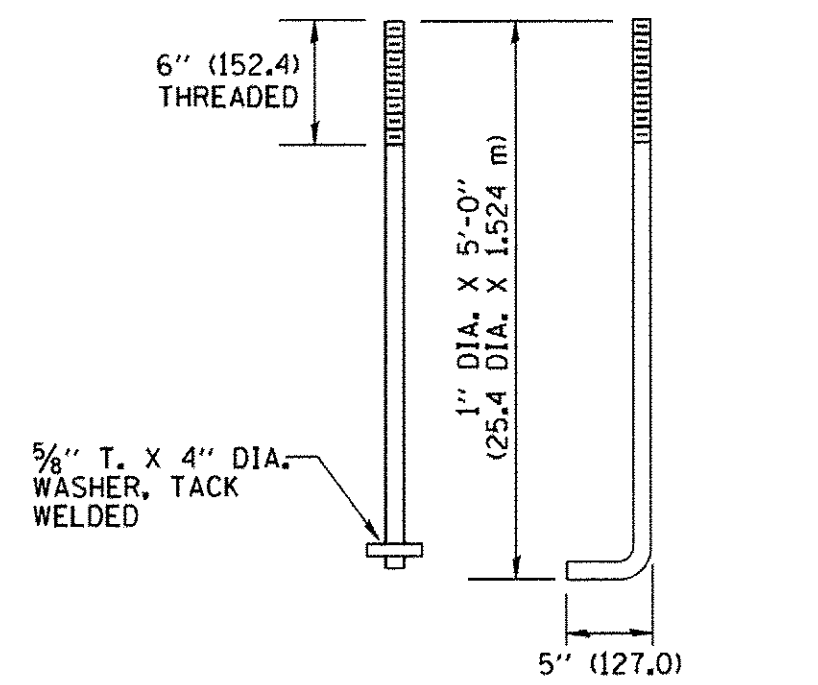
SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O <sub>u</sub> = 0.375 TON/SQ. FT.	11'-0" (3.35 m)	12'-8" (3.85 m)
MEDIUM CLAY O <sub>u</sub> = 0.75 TON/SQ.FT	9'-0" (2.74 m)	14'-10" (4.52 m)
STIFF CLAY O <sub>u</sub> = 1.50 TON/SQ. FT.	7'-6" (2.29 m)	8'-7" (2.61 m)
LOOSE SAND φ = 34°	9'-6" (2.90 m)	10'-7" (3.22 m)
MEDIUM SAND φ = 37.5°	9'-0" (2.74 m)	9'-10" (2.99 m)
DENSE SAND φ = 40°	8'-3" (2.51 m)	9'-7" (2.91 m)



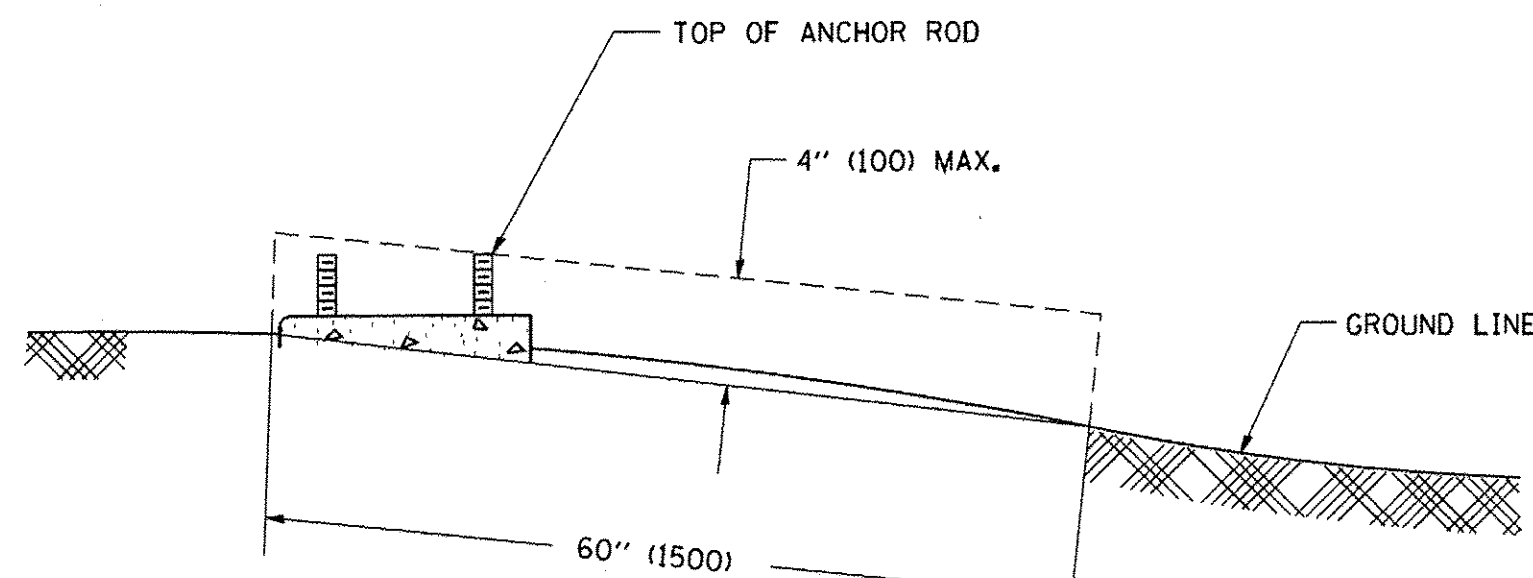
**TOP VIEW**



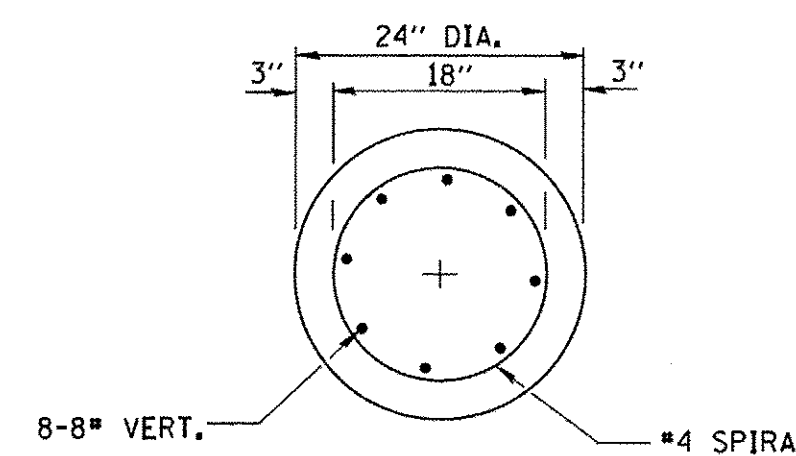
**FOUNDATION DETAIL**



**ANCHOR BOLT DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**

**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100 mm) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

PLOT SCALE: 1:1  
 ...\\10055-shr-light-details01.dgn  
 USER NAME = eship  
 PLOT DATE = 2/19/2013

FILE NAME =	DESIGNED - GHT	REVISED -
...\\10055-shr-light-details01.dgn	DRAWN - JLW	REVISED -
USER NAME = eship	CHECKED - GRR	REVISED -
PLOT DATE = 2/19/2013	DATE - 02/04/2013	REVISED -



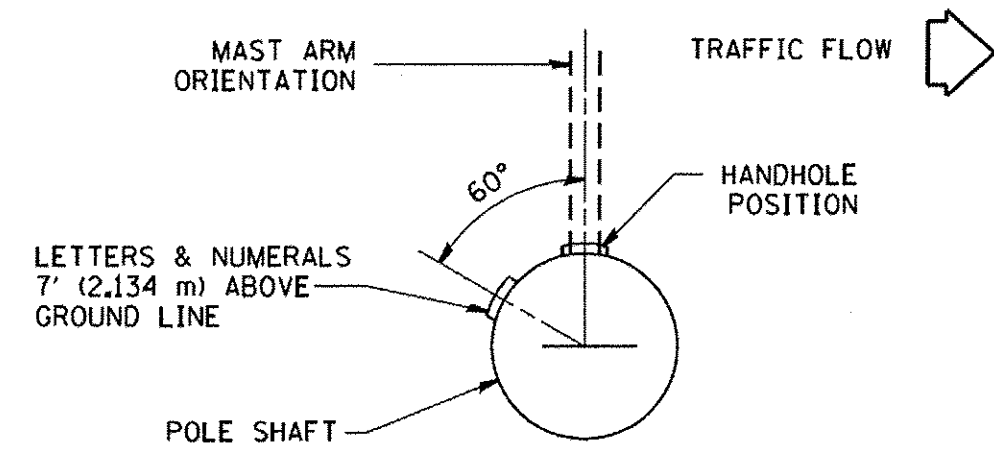
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LIGHTING DETAILS**

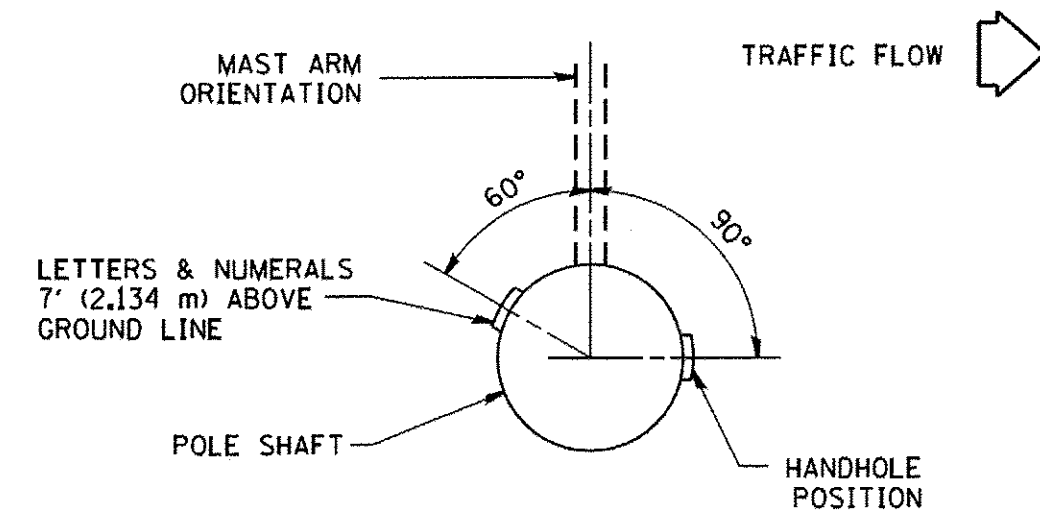
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	49
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

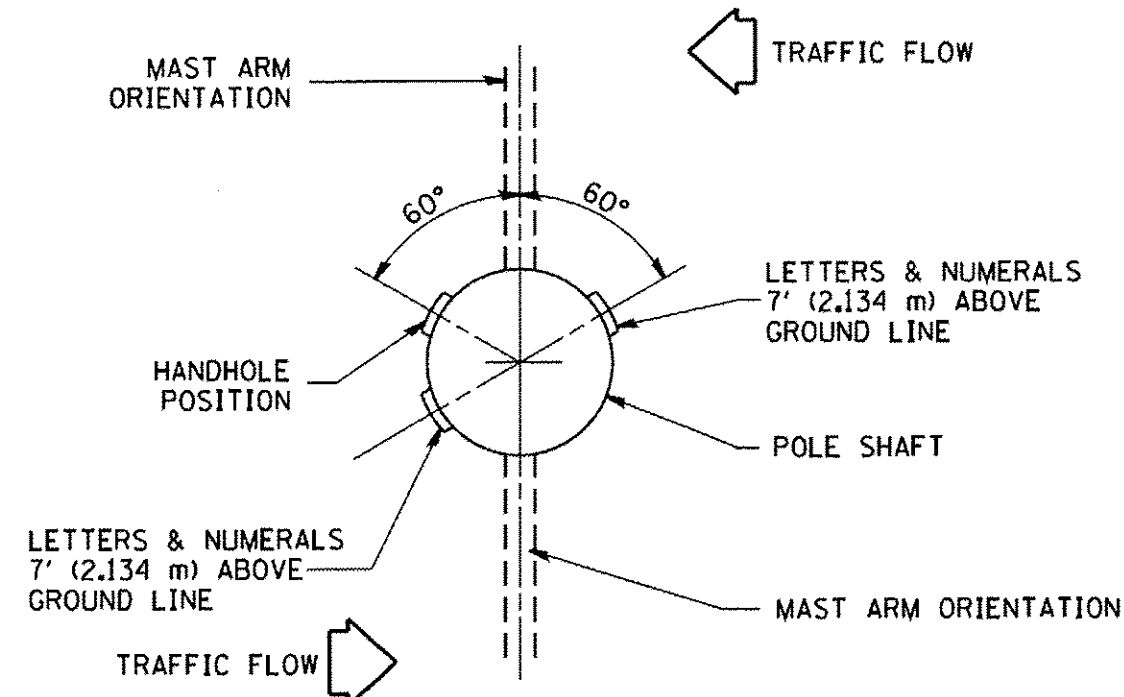




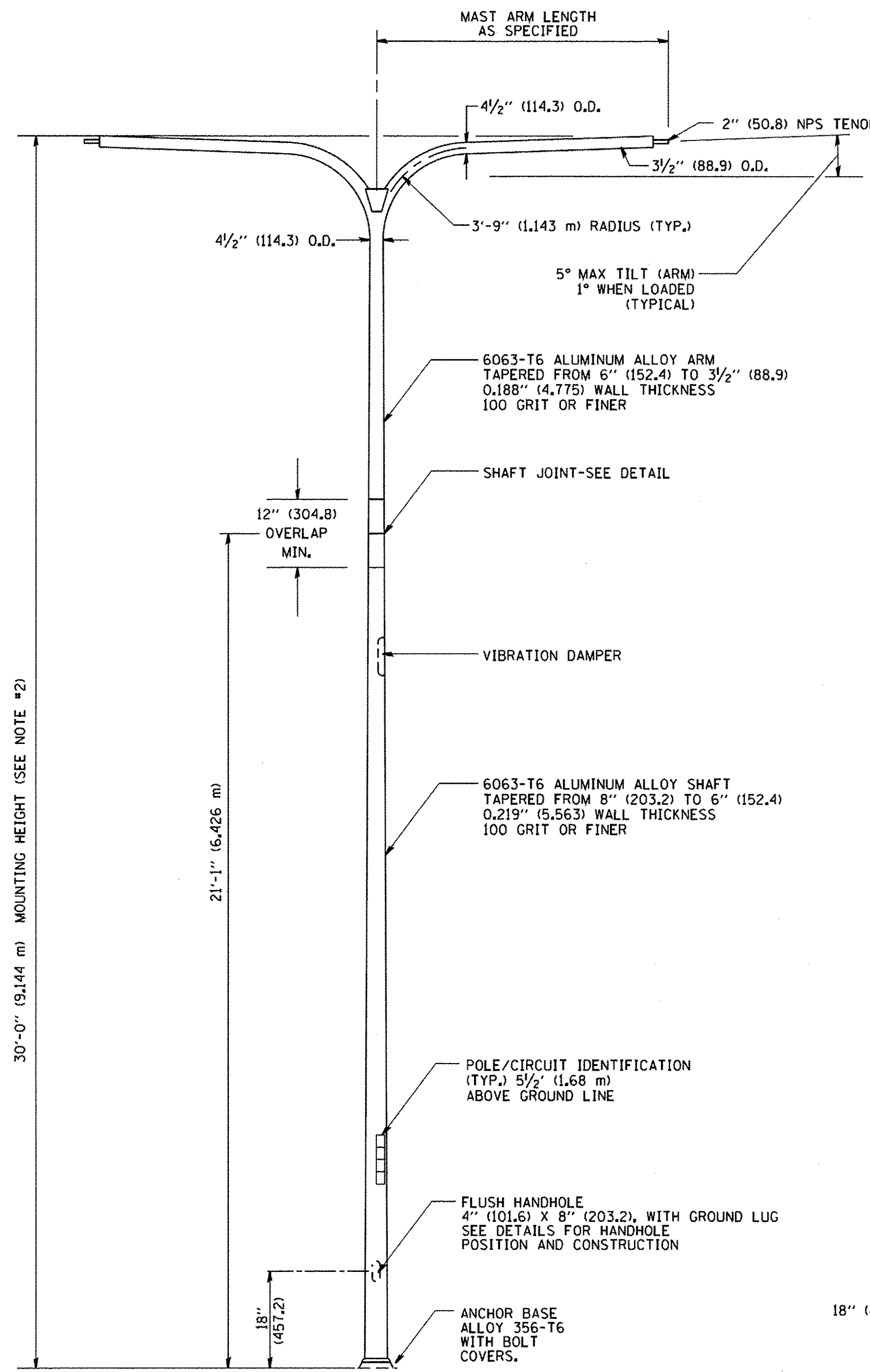
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



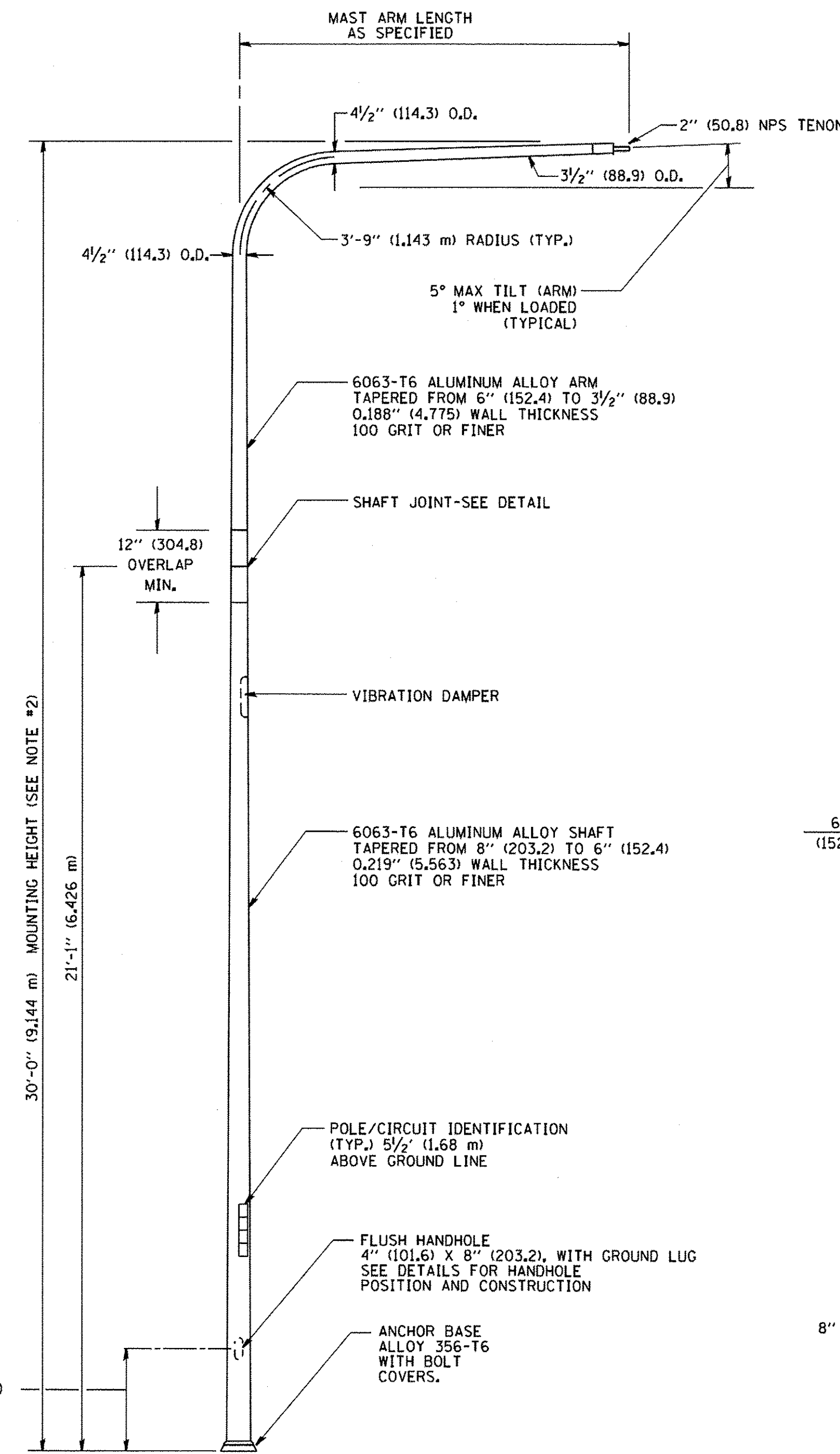
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



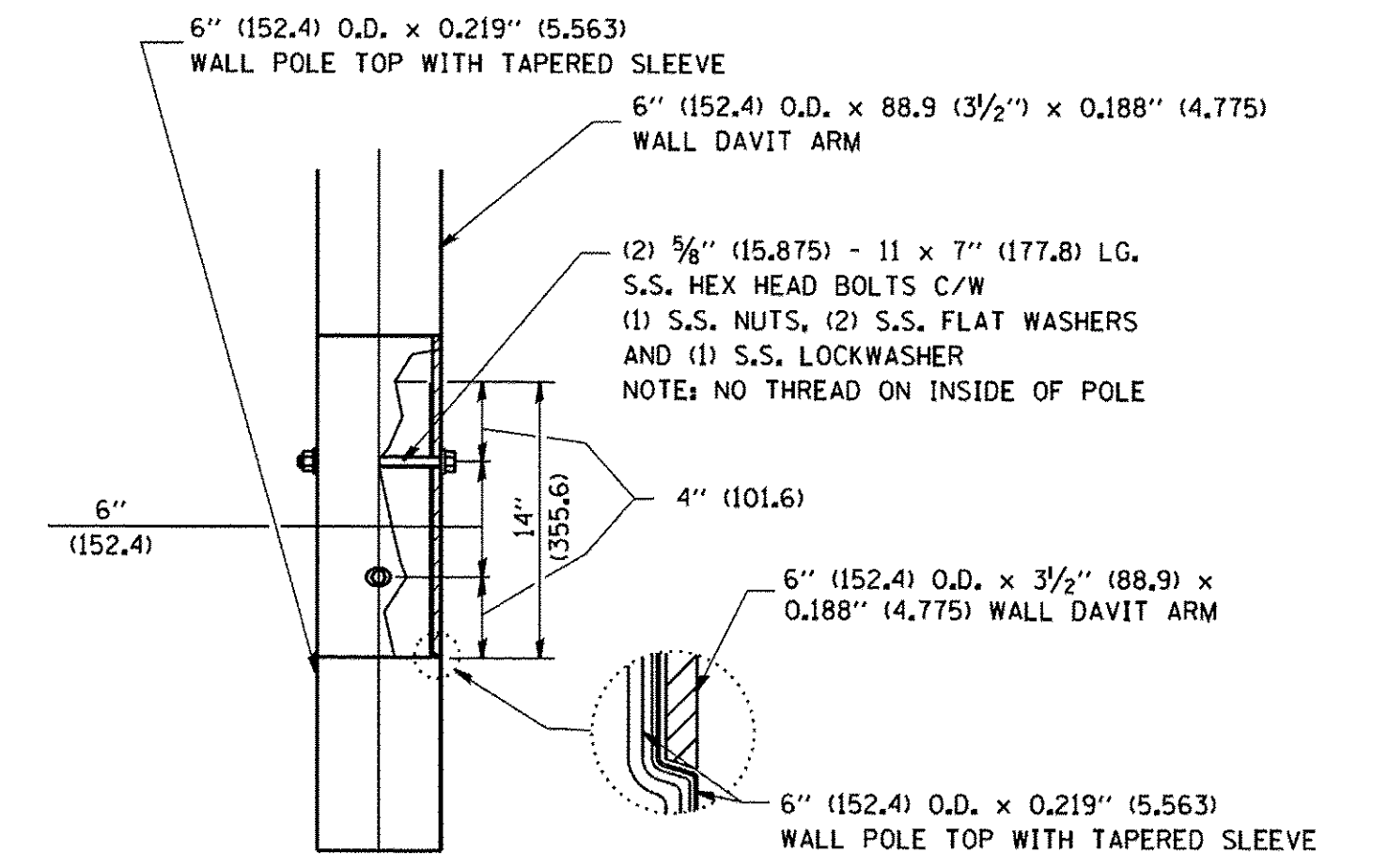
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



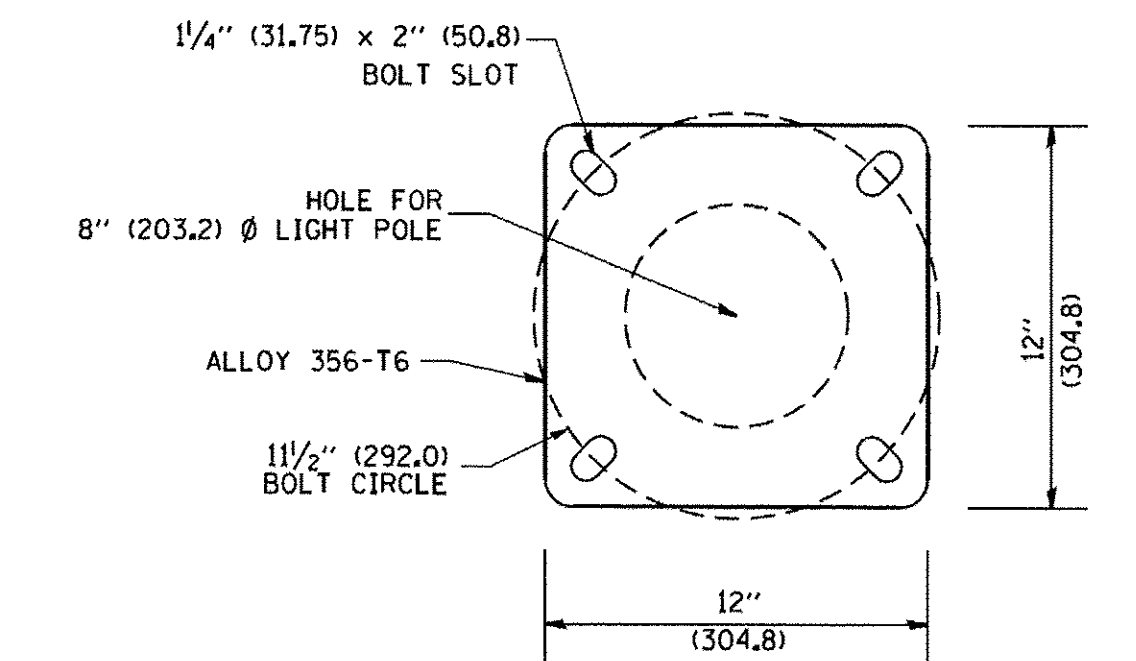
TWIN ARM POLE



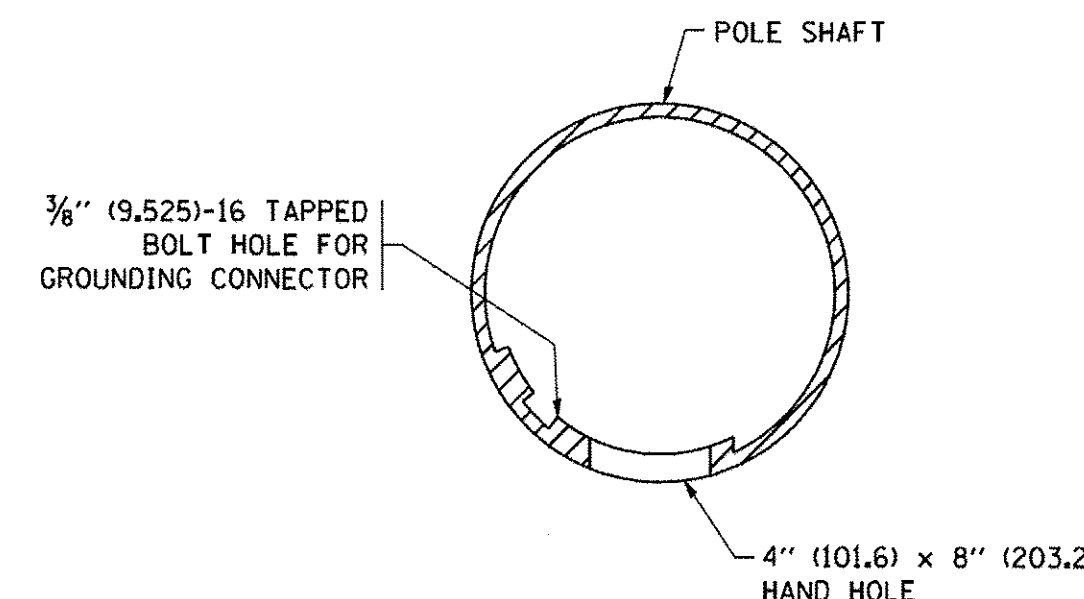
SINGLE ARM POLE



DAVIT ARM CONNECTION  
[14" (355.6) OVERLAP SHOWN]



LIGHT POLE BASE PLATE DETAIL  
1 1/2" (292.0) BOLT CIRCLE



HANDHOLE DETAIL  
(N.T.S.)

- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
  3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
  4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
  5. THE INSTALLING CONTRACTOR SHALL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
  6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
  7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
  8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.

PLOT SCALE: 1" = 10'-0" (304.8 mm) (SEE NOTE #2)  
 FILE NAME: ...\\10095-shd-light-de-tails03.dgn  
 USER NAME: eship  
 PLOT DATE: 2/19/2013

DESIGNED - GHT	REVISED -
DRAWN - JLW	REVISED -
CHECKED - GRR	REVISED -
DATE - 02/04/2013	REVISED -

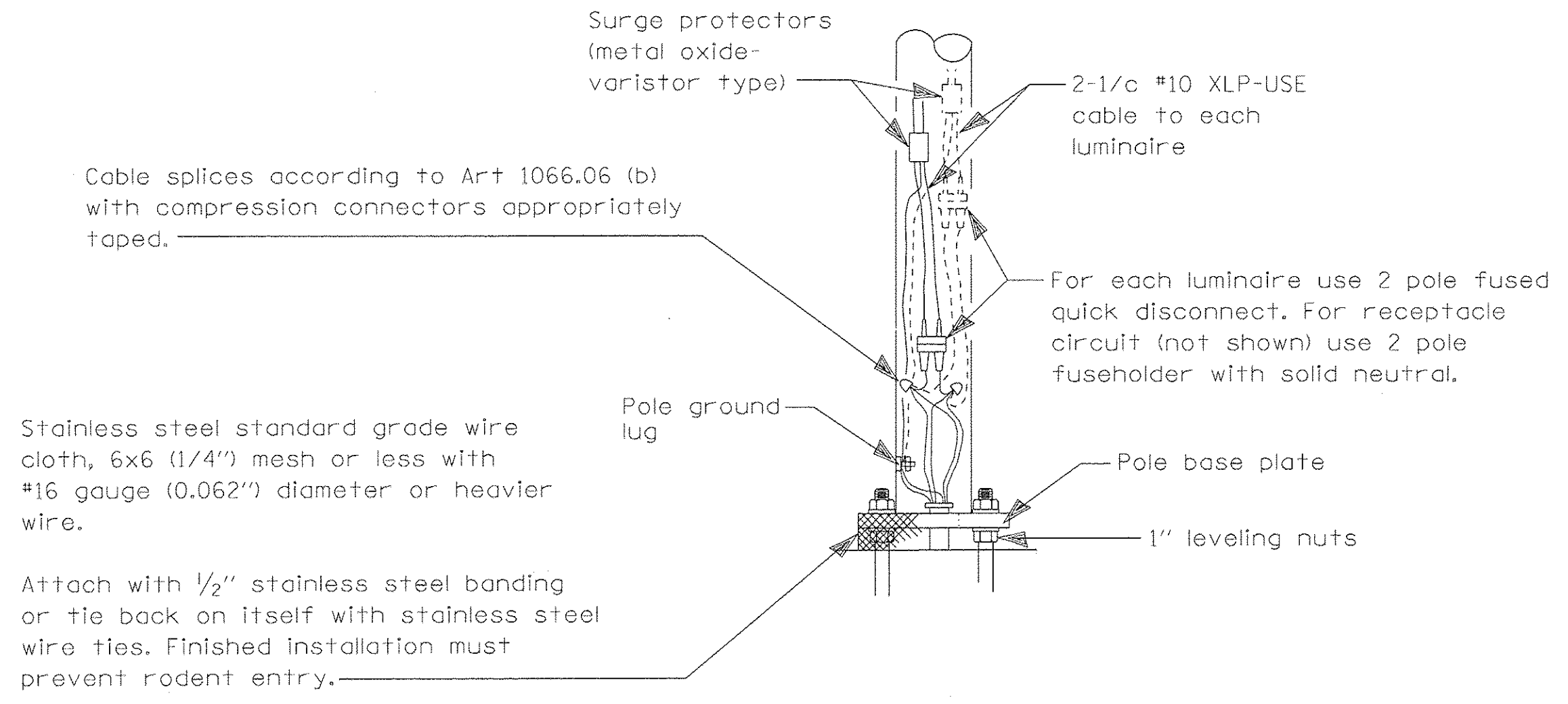


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	50
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



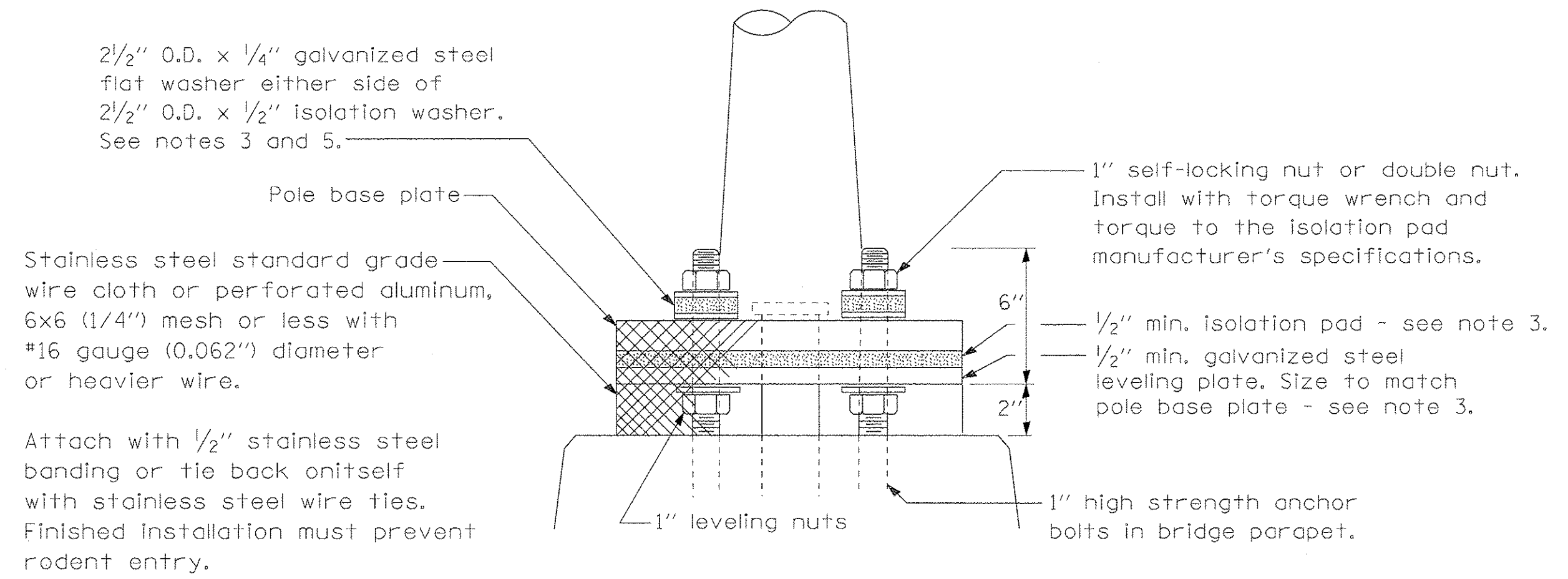
**POLE WIRING DETAIL**  
NO SCALE

**GENERAL NOTES**

All cable splices shall be shrink tube unless another method has been specifically approved by the Engineer.

For example purposes the pole is shown on an anchor base. If the pole is required to be set on a breakaway base, consult the Standard Specifications.

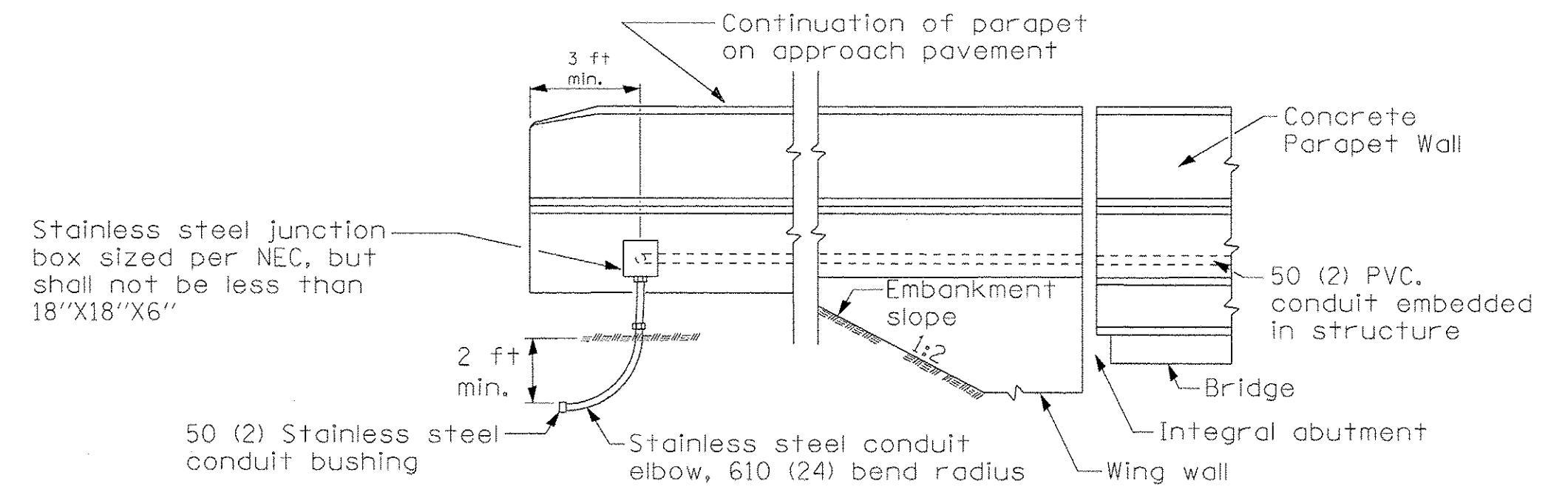
All dimensions are in millimeters (inches) unless otherwise shown.



**Pole Mounted on Bridge Parapet Detail**

**GENERAL NOTES**

1. Locate poles over bridge piers where possible.
2. The vibration isolation pad and leveling plate shall match the footprint of the pole base plate.
3. Thickness of isolation pad and washers shall be according to the isolation pad manufacturer's recommendations based upon pole height and loading.
4. Should the length of the exposed anchor bolts be too short on an existing bridge to mount the poles as shown, then the leveling plate shall be mounted directly on the concrete and leveled with stainless steel washers. Remove concrete as directed by the Engineer to fully thread the top nut.
5. The diameter of the flat washer on either side of the isolation washer shall be at least the same as the diameter of the isolation washer.



**CONDUIT DETAIL**  
(Integral Abutment)

PLOT SCALE: 1:1  
 ...\\10055-sht-light-details02.dgn  
 USER NAME = eship  
 PLOT DATE = 2/19/2013  
 Phase: I:\General\10055\_Civil\Plan\_Table.tbl

FILE NAME =	DESIGNED - GHT	REVISED -
...\\10055-sht-light-details02.dgn	DRAWN - JLW	REVISED -
USER NAME = eship	CHECKED - GRR	REVISED -
PLOT DATE = 2/19/2013	DATE - 02/04/2013	REVISED -

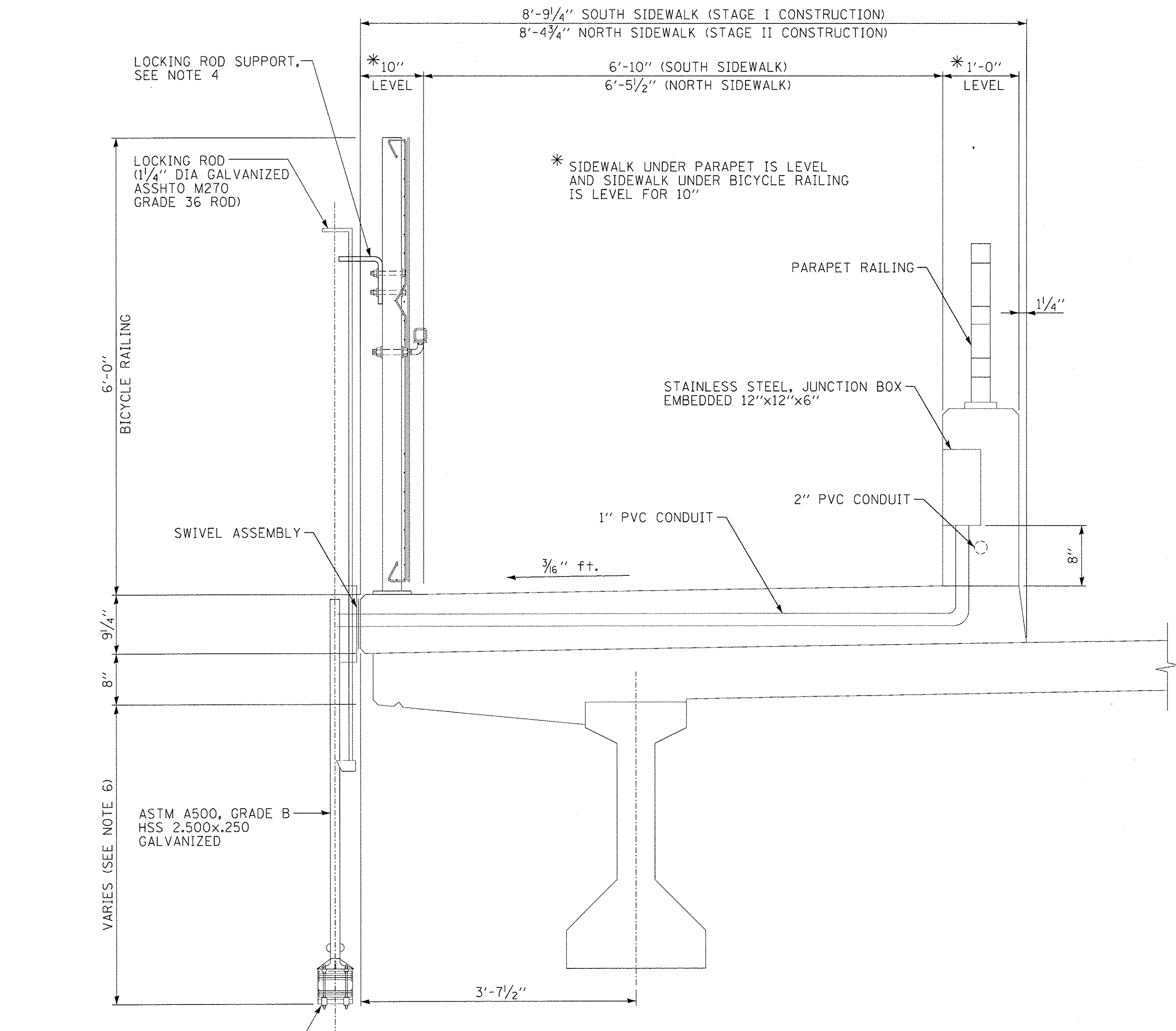


**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING DETAILS</b>				
SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	51
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				





**NAVIGATION LIGHT SUPPORT DETAIL**  
(SOUTH SIDE LOOKING WEST, NORTH SIDE SIMILAR)

NAVIGATION LIGHT RED AND GREEN  
(SEE PLANS FOR ACTUAL LOCATIONS)

BICYCLE RAILING  
6'-0"  
9 1/4"  
8"  
VARIES (SEE NOTE 6)

LOCKING ROD SUPPORT,  
SEE NOTE 4  
LOCKING ROD  
(1 1/4" DIA GALVANIZED  
ASSHTO M270  
GRADE 36 ROD)

\* SIDEWALK UNDER PARAPET IS LEVEL  
AND SIDEWALK UNDER BICYCLE RAILING  
IS LEVEL FOR 10"

STAINLESS STEEL, JUNCTION BOX  
EMBEDDED 12"x12"x6"

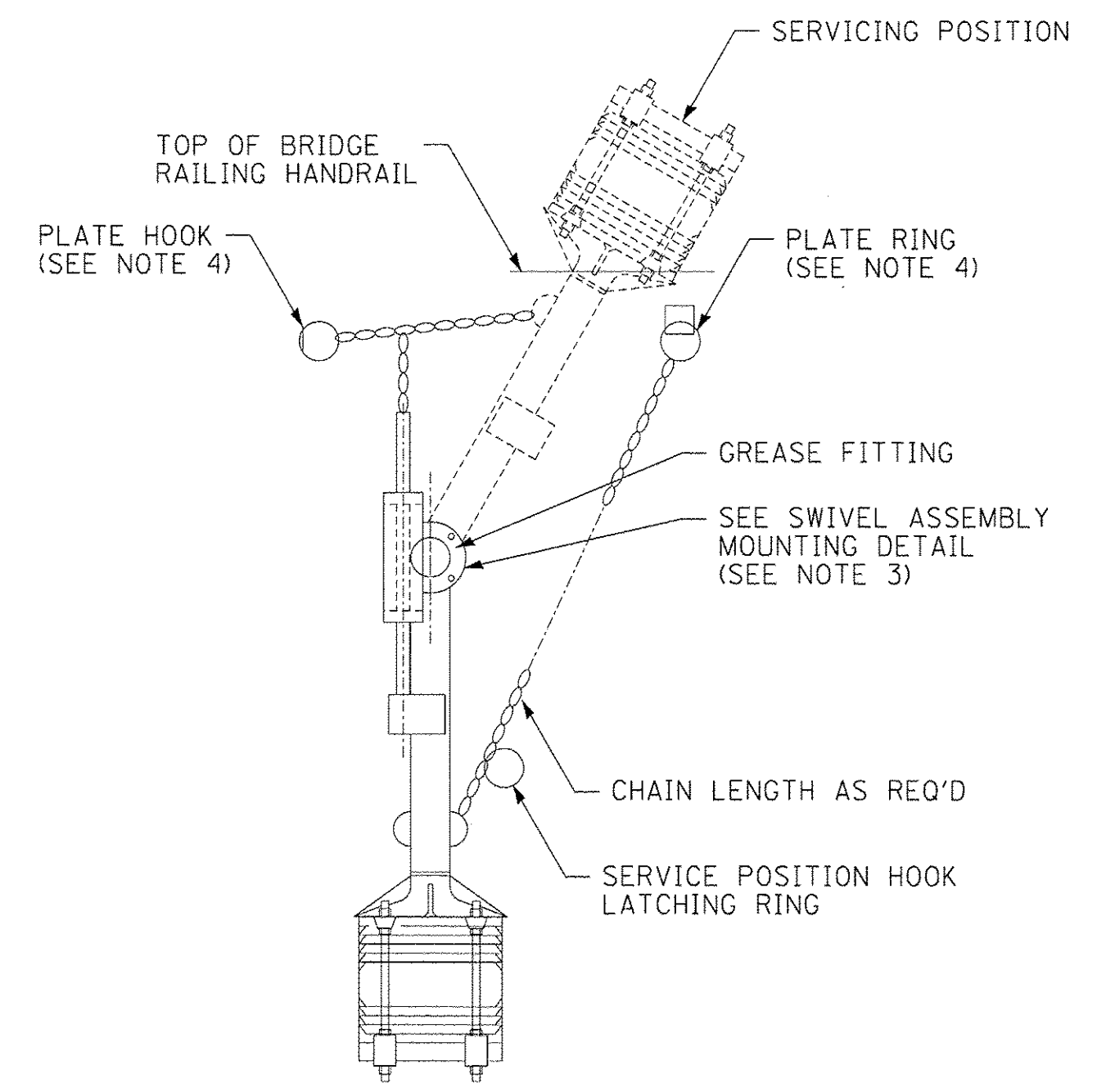
PARAPET RAILING

1" PVC CONDUIT

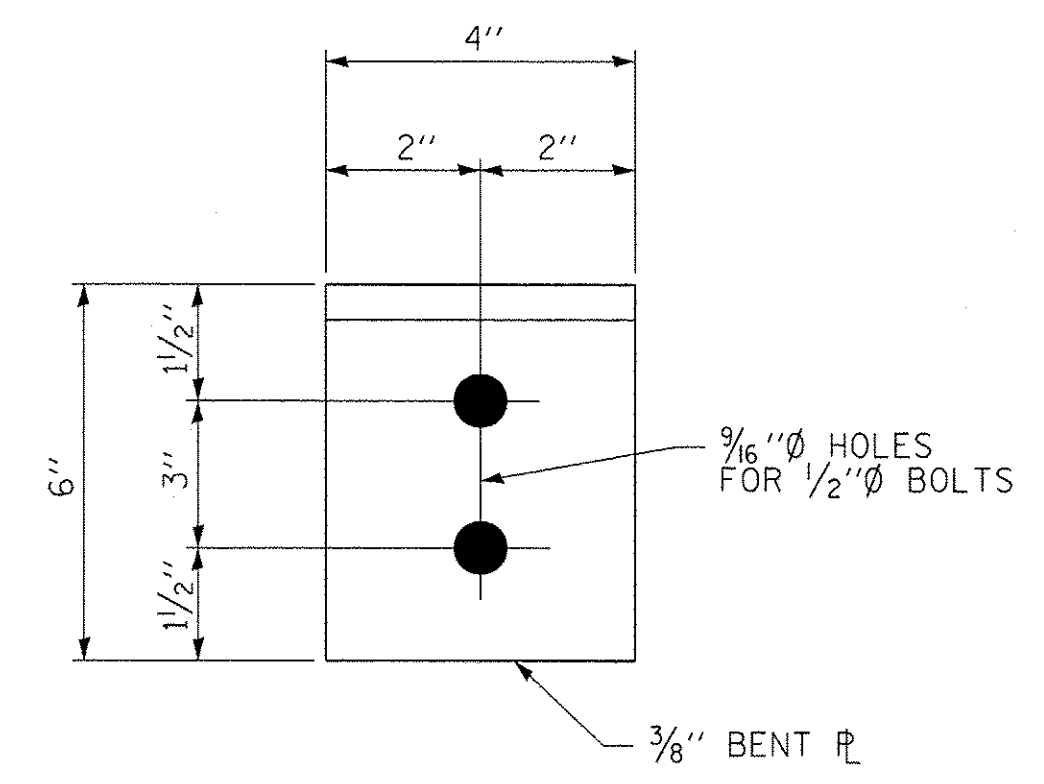
2" PVC CONDUIT

SWIVEL ASSEMBLY

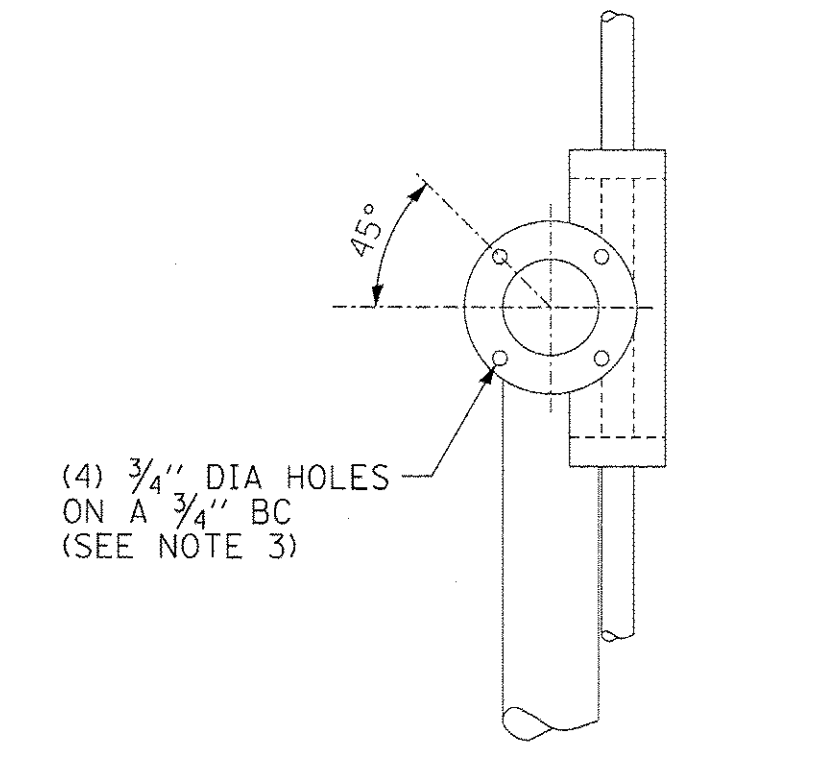
ASTM A500, GRADE B  
HSS 2.500x.250  
GALVANIZED



**NAVIGATION LIGHT FIXTURE  
AND SWIVEL ASSEMBLY**  
NTS



**LOCKING ROD SUPPORT DETAIL**  
NTS



**SWIVEL ASSEMBLY  
MOUNTING DETAIL**  
NTS

**NOTES:**

1. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL OF THE NAVIGATION LIGHT ASSEMBLY.
3. PIPE MOUNTING FLANGE TO HAVE (4) - 3/4" DIA HOLES. DRILL AND PROVIDE EXPANSION ANCHORS.
4. LOCKING ROD SHALL BE ATTACHED TO BICYCLE RAILING. SEE STRUCTURAL PLANS FOR BICYCLE RAILING DETAILS.
5. FOR DIMENSIONS OF OTHER STRUCTURAL MEMBERS, REFER TO STRUCTURAL DRAWINGS.
6. TOP OF NAVIGATION LIGHT HOUSING SHALL BE AT THE SAME ELEVATION AS THE BOTTOM OF ADJACENT GIRDER.

PLOT SCALE: 1/8" = 1'-0"  
R:\Projects\102055-Ship\Drawings\102055-Ship\102055-Civil\Pen\_Table.tbl  
...102055-Ship-light-details04.dgn  
USER NAME = oship  
PLOT DATE = 2/19/2013

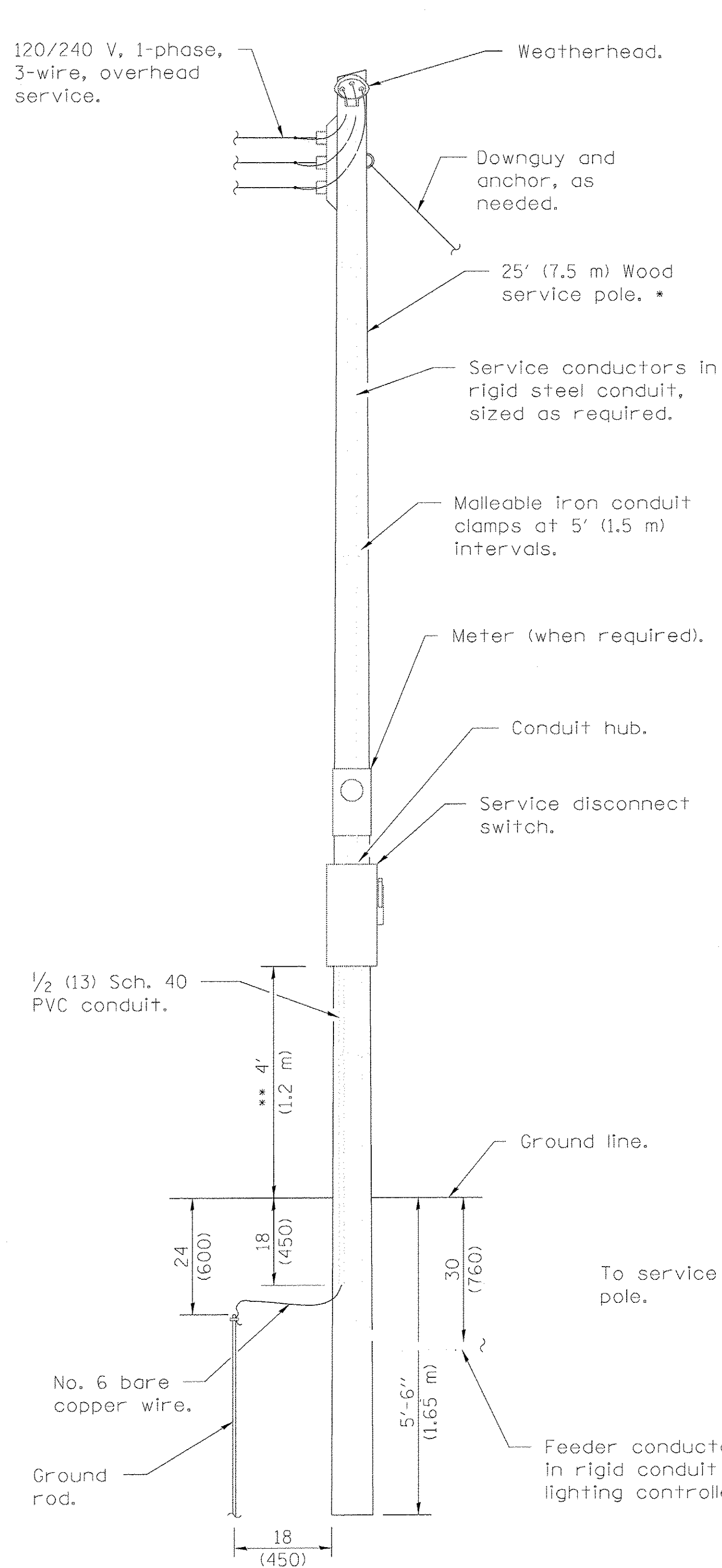
FILE NAME =	DESIGNED - CHT	REVISED -
...102055-Ship-light-details04.dgn	DRAWN - JLW	REVISED -
USER NAME = oship	CHECKED - GRR	REVISED -
PLOT DATE = 2/19/2013	DATE - 02/04/2013	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

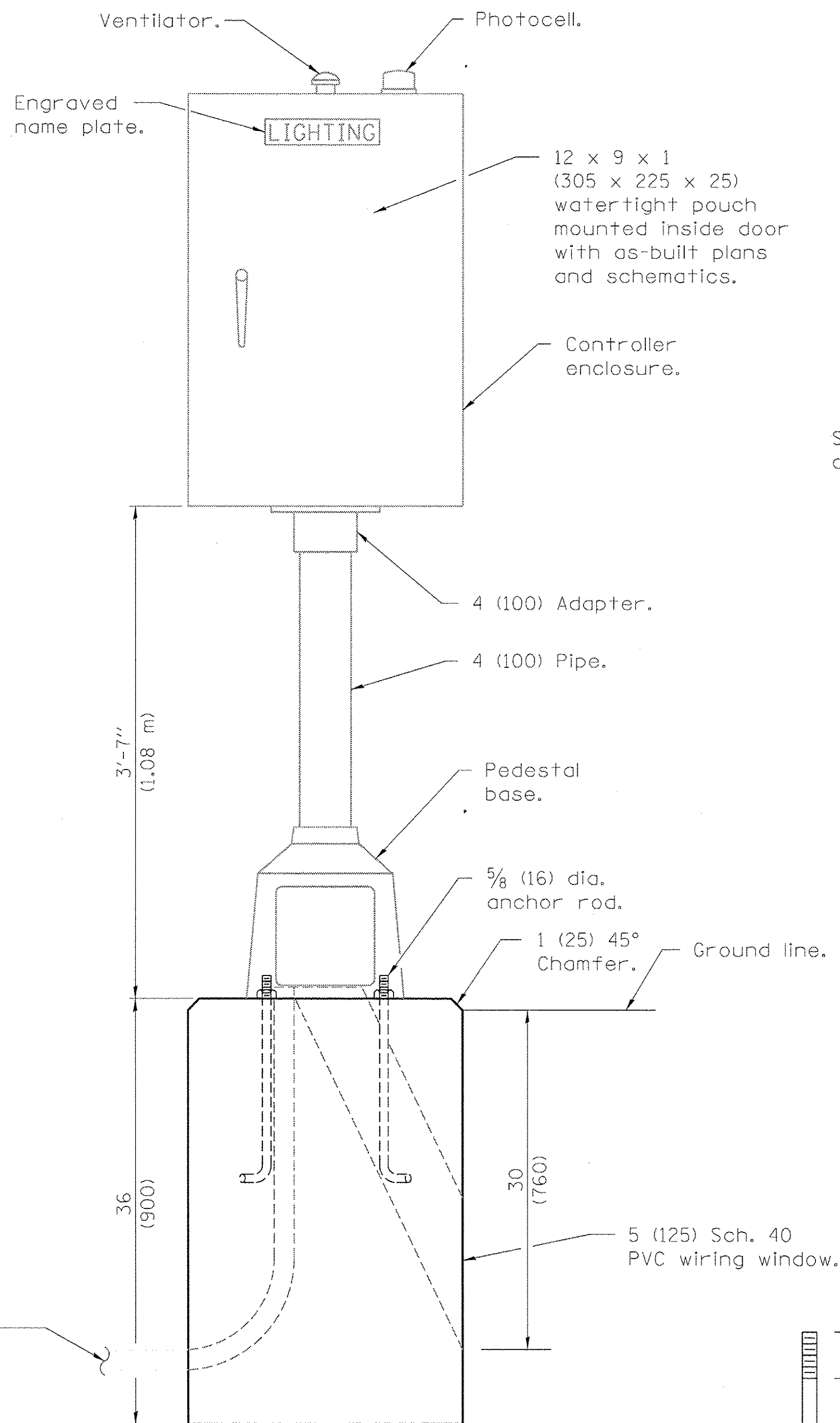
<b>NAVIGATIONAL LIGHT DETAILS</b>			
SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	52
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

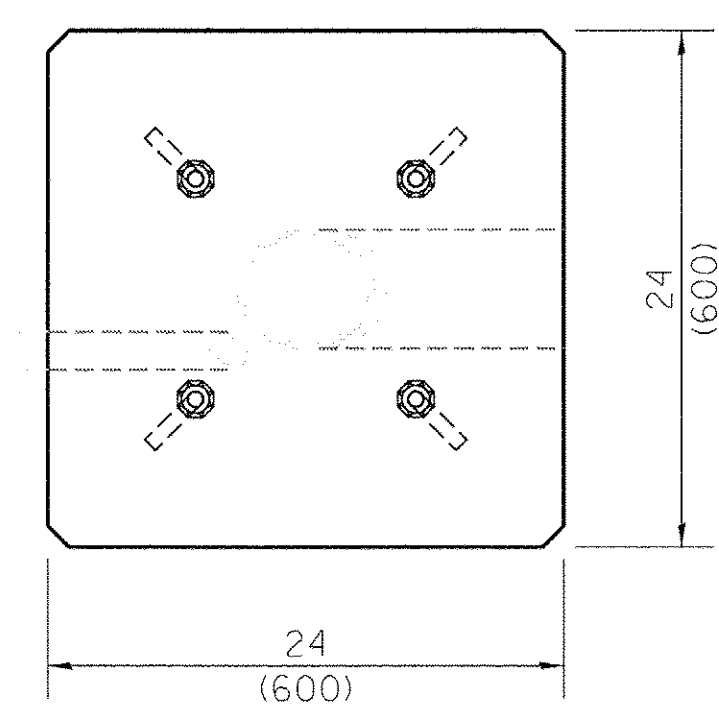


**ELECTRIC SERVICE INSTALLATION**

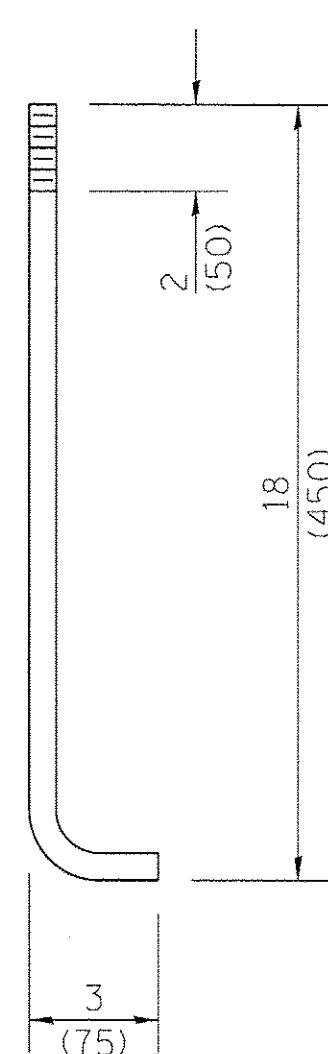
\* Size larger as needed.  
\*\* Or as directed by Utility Company.



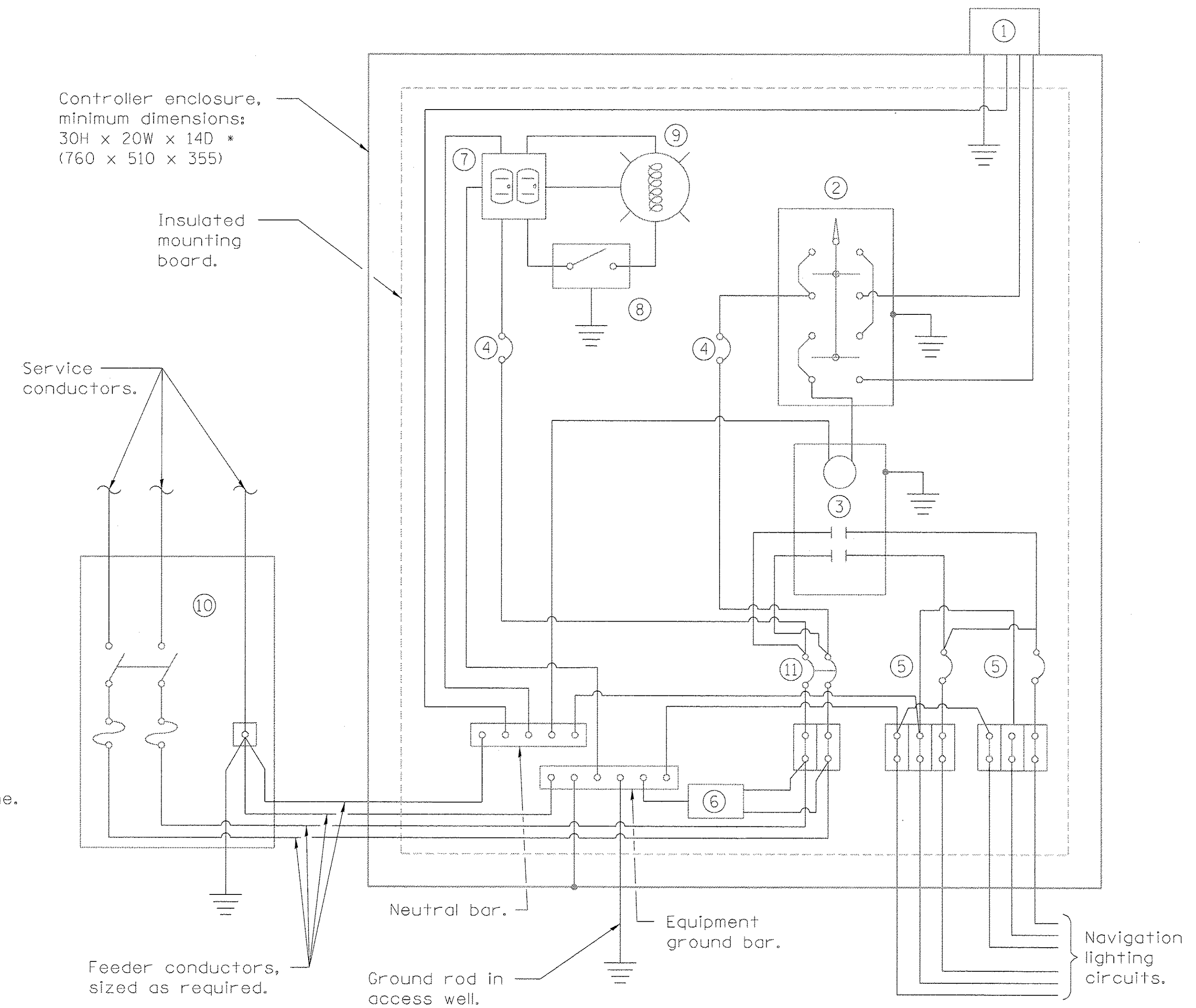
**LIGHTING CONTROLLER**



**FOUNDATION (PLAN)**  
(Work pad not shown.)



**ANCHOR ROD DETAIL**



**CONTROL SCHEMATIC**

- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 100 amp\*, electrically held contactor.
- ④ 15 amp, 1-pole circuit breaker.
- ⑤ 20 amp\*, 2-pole circuit breaker (two spares required but not shown).
- ⑥ Surge arrester.
- ⑦ GFCI duplex receptacle.
- ⑧ Single-pole, single-throw switch.
- ⑨ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
- ⑩ Service disconnect switch - 2-pole, 3-wire, 60 amp\*, fused at 60 amp\*, solid neutral in NEMA 4X enclosure having lockable external handle.
- ⑪ 60 amp\*, 2-pole circuit breaker.

\* Size larger as needed.

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

PLOT SCALE: 1/8" = 1'-0"  
 R:\Projects\2014-02-19\LightingControllerPedestal.dgn  
 AS: 10/20/13 10:05:22 AM Eng\_Docs\_Phase 1\General\10205\_Civil\_Plan\_Table.tbl

FILE NAME =	DESIGNED - GHT	REVISED -
... \214-025011-02_LightingControllerPedestal	DRAWN - JLW	REVISED -
USER NAME = eship	CHECKED - GRR	REVISED -
PLOT DATE = 2/19/2013	DATE - 02/04/2013	REVISED -



**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>LIGHTING CONTROLLER PEDESTAL MOUNTED, 240V</b>			
<b>STANDARD 825011-02</b>			
SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	53
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				



Bench Mark: TBM 1 - Chiseled "□" on top of east end of south parapet of Bridge St. bridge over North Shore Channel, Sta. 99+04.60, 19.5' Lt., Elev. 604.18.

Existing Structure: SN 016-6953, built in 1978, consists of a three span PPC I-Beam superstructure on stub abutments founded on piles and pier bents with circular columns, cap beams and crash walls on piles. The superstructure consists of 6-42" PPC I-Beams with a 172'-0" back-to-back abutments length and a 40'-0" out-to-out width. The existing beams and substructure units are to remain and will be widened to accommodate one new line of PPC I-Beams and a new concrete deck. Westbound Traffic to be maintained using Stage Construction. Eastbound traffic to be detoured.

Existing light poles shall be salvaged.

NORTH SHORE CHANNEL  
RE-BUILT 20\_\_ BY  
CITY OF EVANSTON  
SEC. 08-00251-00-BR  
BRIDGE STREET STA. 100+00  
STR. NO. 016-6953 LOADING HS-20

**LOADING HS-20**  
Pedestrian live load of 85 psf applied to sidewalks  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
AASHTO Standard Specifications  
For Highway Bridges

**DESIGN STRESSES**  
**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

**PRECAST PRESTRESSED UNITS**  
f'c = 6,000 psi  
f'ci = 5,000 psi  
fpu = 270,000 psi (1/2" φ low lax. strands)  
fpbt = 201,960 psi (1/2" φ low lax. strands)

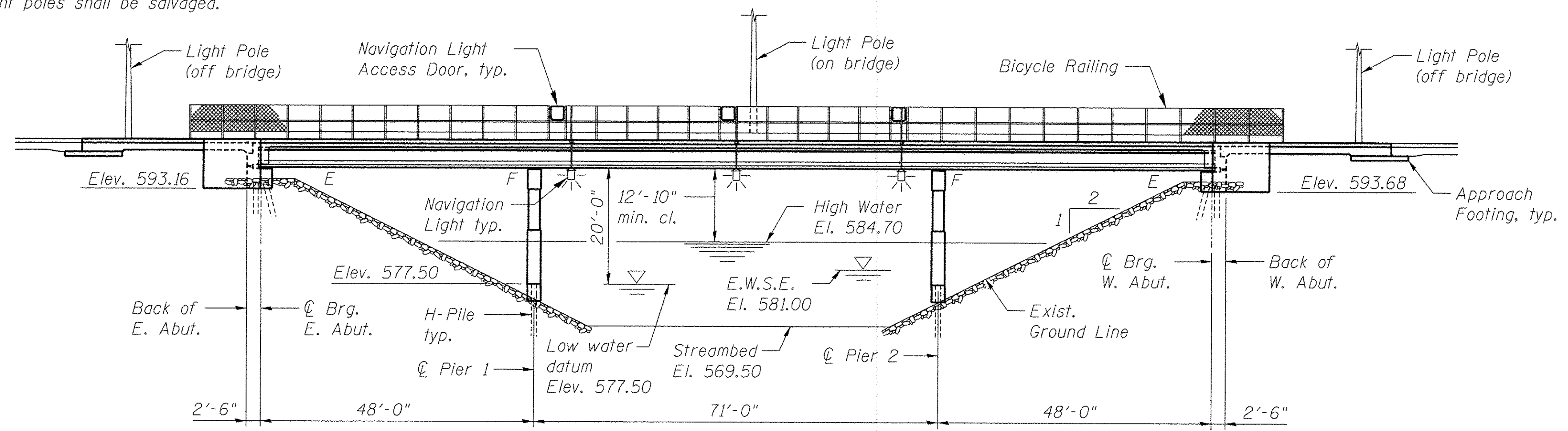
**SEISMIC DATA**  
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.036g  
Site Coefficient (S) = 1.0

**NAME PLATE**  
(See Std. 515001)

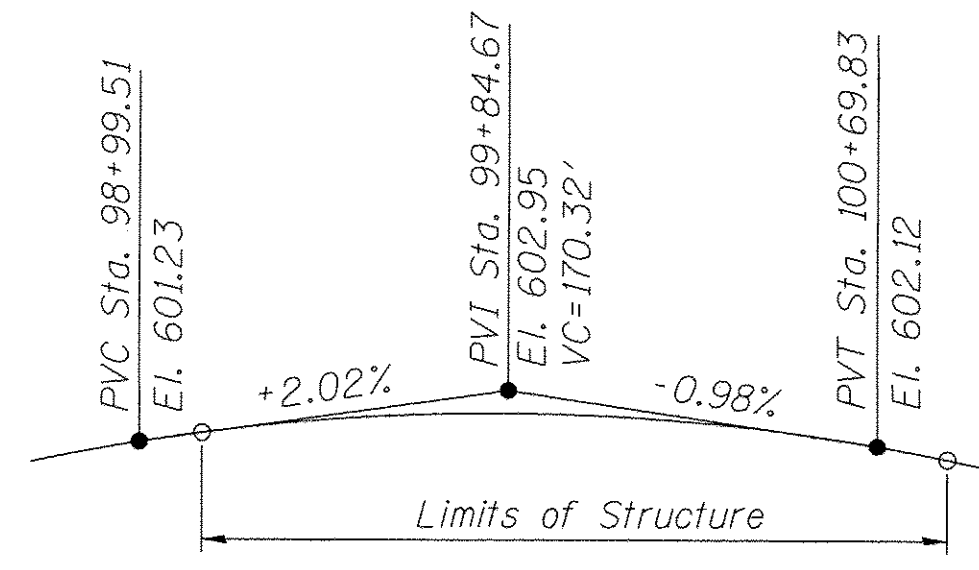
Existing Name Plate shall be cleaned and relocated next to the new Name Plate.  
Cost included with Name Plates.

**WATERWAY INFORMATION**

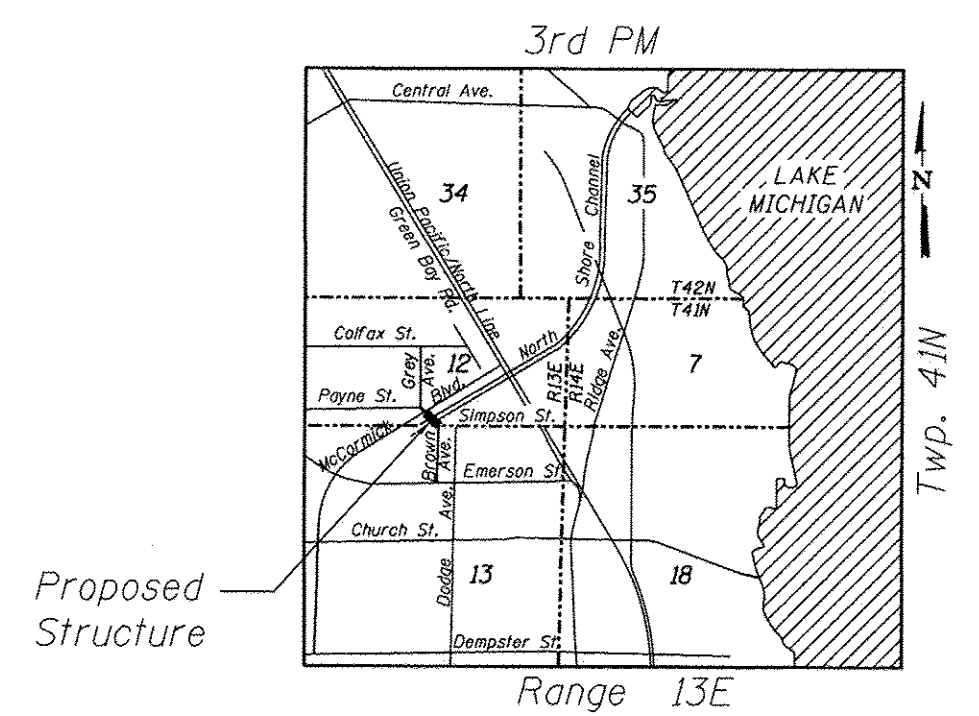
Design Flow 1000 C.F.S.  
Maximum H.W. Elevation 584.7  
Design Water Elevation 584.7  
Required Opening 1040 SQ. FT.  
Present Opening 1040 SQ. FT.  
Provided Opening 1080 SQ. FT.



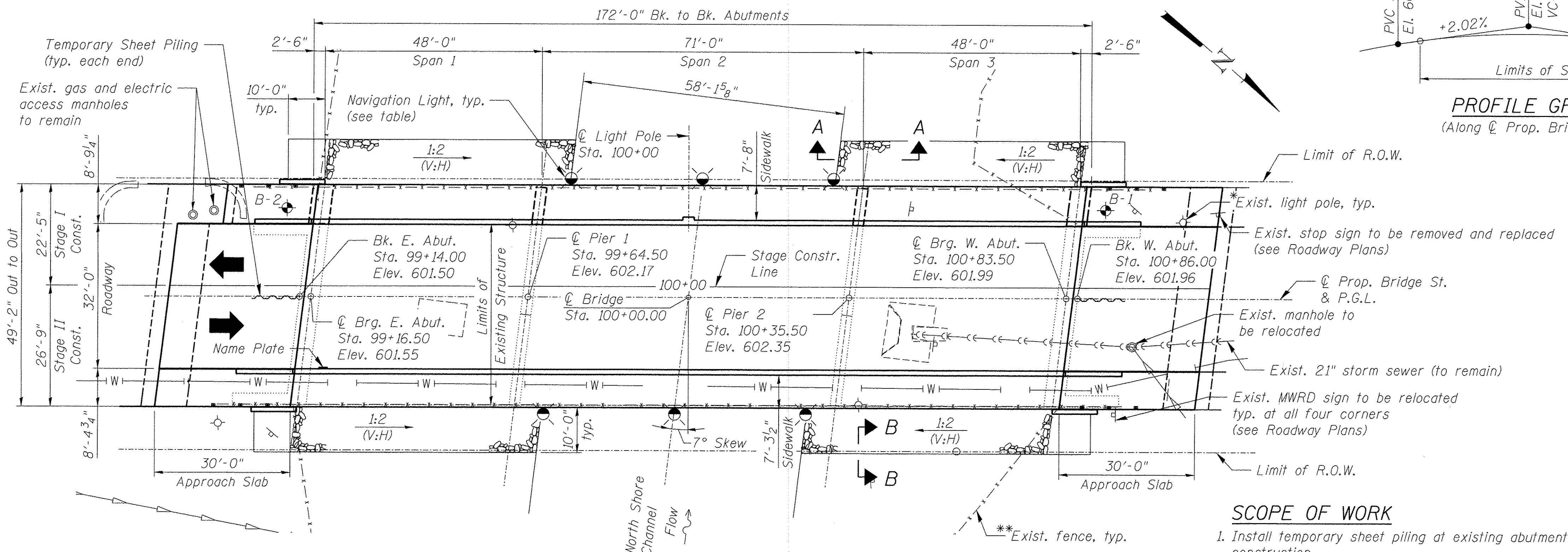
**ELEVATION**



**PROFILE GRADE**  
(Along Q Prop. Bridge St.)



**LOCATION SKETCH**



**PLAN**

\* Existing light poles shall be removed and all signs attached to light poles shall be relocated (see Roadway Plans).

\*\* Existing fences at ends of existing abutments shall be modified to accommodate widened structure (see Roadway Plans).

**NOTES:**

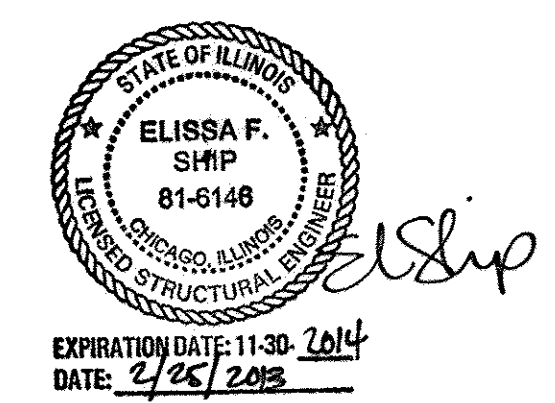
- For Sections A-A and B-B, see sheet S2.
- See Lighting Plans for Navigation Light details.

NAVIGATION LIGHT TABLE		
Bridge Side	Color	Station
West	Red	99+74.00
West	Green	100+03.00
West	Red	100+32.00
East	Red	99+68.00
East	Green	99+97.00
East	Red	100+26.00

**SCOPE OF WORK**

- Install temporary sheet piling at existing abutments to facilitate stage construction.
- Remove existing deck, approach slabs, abutment backwalls and wingwalls.
- Abutments will be converted from stub to semi-integral.
- Remove water main and lighting conduits supported by existing structure.
- Repair pier wall deterioration utilizing cofferdams.
- Widen abutments and piers to the south.
- Construct new return wingwalls outside the limits of the deck width.
- Erect new beam line.
- Cast the widened deck with raised sidewalks and separation barriers.
- Install tall bicycle railing, parapet railing and light poles and Navigation Lights.
- Place rip rap along widened slopewalls.
- Extend Pier footing down 3'-0".

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



**GENERAL PLAN AND ELEVATION**  
**BRIDGE STREET OVER**  
**NORTH SHORE CHANNEL**  
**"PUBLIC WATERS"**  
**SEC. 08-00251-00-BR**  
**COOK COUNTY**  
**STATION 100+00**  
**STRUCTURE NO. 016-6953**



FILE NAME = 0166953.001.GPE.dgn	USER NAME = eship	DESIGNED - MJF/MFB	REVISD -
		CHECKED - EFS	REVISD -
		DRAWN - RMG/MFB	REVISD -
		CHECKED - EFS	REVISD -
	PLOT SCALE =		
	PLOT DATE = 2/22/2013		

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. 51 OF 550 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	54
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridge\_Street\_016-6953\Final\0166953.001.GPE.dgn 12:41:51 PM 2/22/2013



**GENERAL NOTES:**

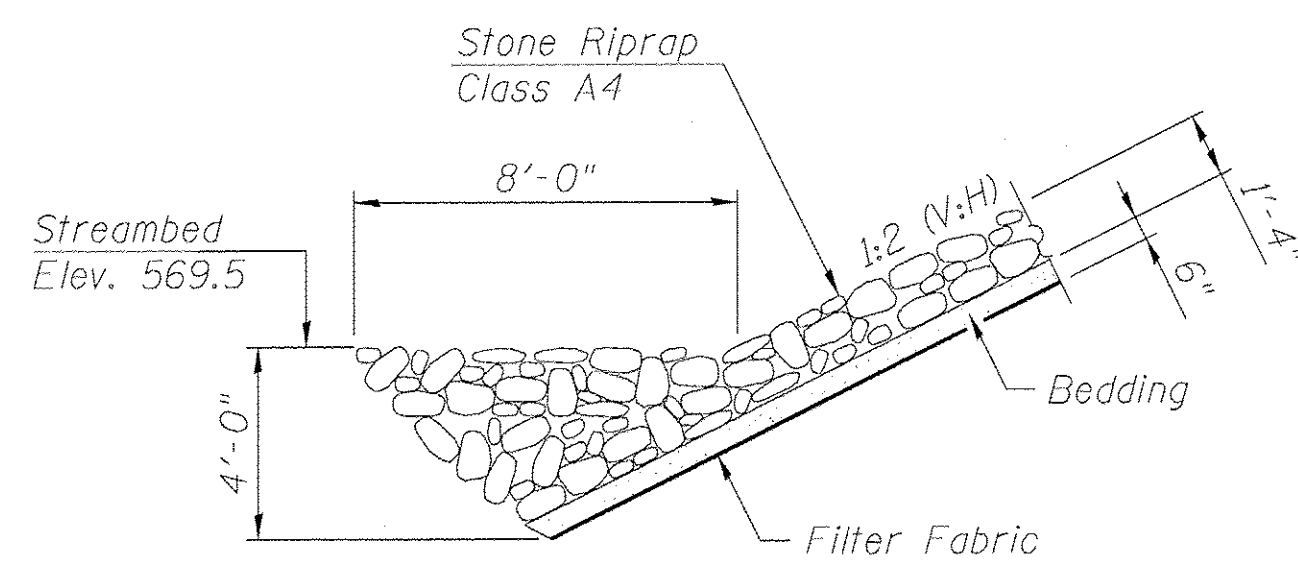
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- Slipforming of parapets is not allowed.
- The Contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except for cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR 3704 Floodway Construction permit number allowing permanent construction as shown in the contract plans.

**INDEX OF SHEETS**

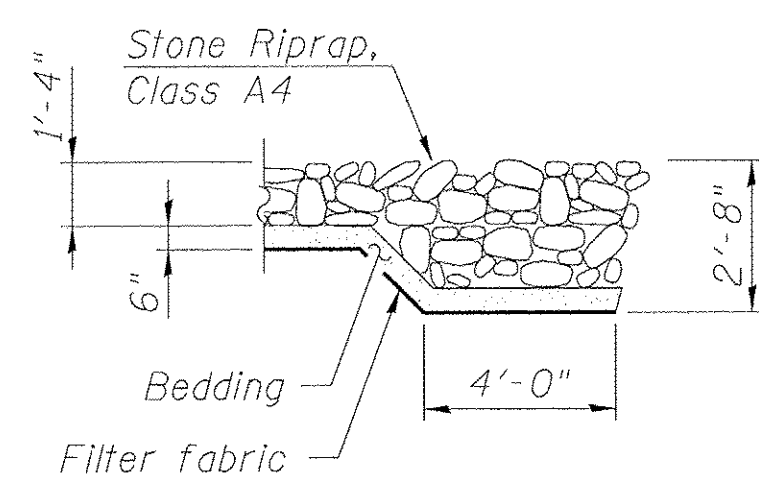
- S1 General Plan and Elevation
- S2 General Data
- S3 Footing Layout
- S4 Removal Plan
- S5 Stage Construction Details
- S6 Temporary Concrete Barrier for Stage Construction
- S7 Top of Deck Elevation Layout
- S8 Top of Deck Elevations 1 of 3
- S9 Top of Deck Elevations 2 of 3
- S10 Top of Deck Elevations 3 of 3
- S11 Top of Approach Slab Elevations
- S12 Superstructure 1 of 2
- S13 Superstructure 2 of 2
- S14 Superstructure Details 1 of 4
- S15 Superstructure Details 2 of 4
- S16 Superstructure Details 3 of 4
- S17 Superstructure Details 4 of 4
- S18 Bridge Approach Slab Details 1 of 3
- S19 Bridge Approach Slab Details 2 of 3
- S20 Bridge Approach Slab Details 3 of 3
- S21 Bicycle Railing and Parapet Railing Details 1 of 2
- S22 Bicycle Railing and Parapet Railing Details 2 of 2
- S23 Framing Plan
- S24 42" PPC I-Beam - Spans 1 and 3
- S25 42" PPC I-Beam - Span 2
- S26 42" PPC I-Beam Details
- S27 East Abutment Widening Details 1 of 2
- S28 East Abutment Widening Details 2 of 2
- S29 West Abutment Widening Details 1 of 2
- S30 West Abutment Widening Details 2 of 2
- S31 Pier 1 Widening Details
- S32 Pier 2 Widening Details
- S33 Pier 1 Concrete Repair Details
- S34 Pier 2 Concrete Repair Details
- S35 HP Pile Details
- S36 Bar Splicer Assembly and Mechanical Splicer Details
- S37 Boring Logs 1 of 3
- S38 Boring Logs 2 of 3
- S39 Boring Logs 3 of 3
- S40-S50 Abbreviated Existing Drawings (11 Drawings)

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL	STAGE I		STAGE II	
			SUPER	SUB	SUPER	SUB
Stone Riprap, Class A4	Sq Yd	132		104		28
Filter Fabric	Sq Yd	132		104		28
Concrete Removal	Cu Yd	38.0		17.5		20.5
Removal of Existing Concrete Deck	Each	1	0.4		0.6	
Protective Shield	Sq Yd	401	167		234	
Structure Excavation	Cu Yd	319		175		144
Cofferdam Excavation	Cu Yd	106		106		
Cofferdam (Type 1) (Location - 1)	Each	1		1		
Cofferdam (Type 1) (Location - 2)	Each	1		1		
Concrete Structures	Cu Yd	119.3		85.1		34.2
Concrete Superstructure	Cu Yd	546.3	256.4		289.9	
Bridge Deck Grooving	Sq Yd	768	324		444	
Concrete Encasement	Cu Yd	2.2		2.2		
Protective Coat	Sq Yd	1,473	676		797	
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 In.	Foot	167.5	167.5			
Reinforcement Bars, Epoxy Coated	Pound	120,250	47,770	11,290	56,400	4,790
Bar Splicers	Each	773	689	84		
Bicycle Railing	Foot	408	204		204	
Parapet Railing	Foot	340	170		170	
Furnishing Steel Piles HP10x42	Foot	911		641		270
Driving Piles	Foot	911		641		270
Test Pile Steel HP10x42	Each	4		4		
Name Plates	Each	1			1	
Geocomposite Wall Drain	Sq Yd	139		68		71
Approach Slab Removal	Sq Yd	194	81		113	
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq Ft	102		102		
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq Ft	32		32		
Temporary Sheef Piling	Sq Ft	253		253		
Pipe Underdrains For Structures, 4"	Foot	163		77		86
Granular Backfill for Structures	Cu Yd	399		255		144
Chain Link Fence Removal	Foot	388	194		194	



**SECTION A-A**



**SECTION B-B**

**BILL OF MATERIAL**

ITEM	UNIT	STAGE I	STAGE II	TOTAL
Stone Riprap, Class A4	Sq. Yd.	104	28	132
Filter Fabric	Sq. Yd.	104	28	132

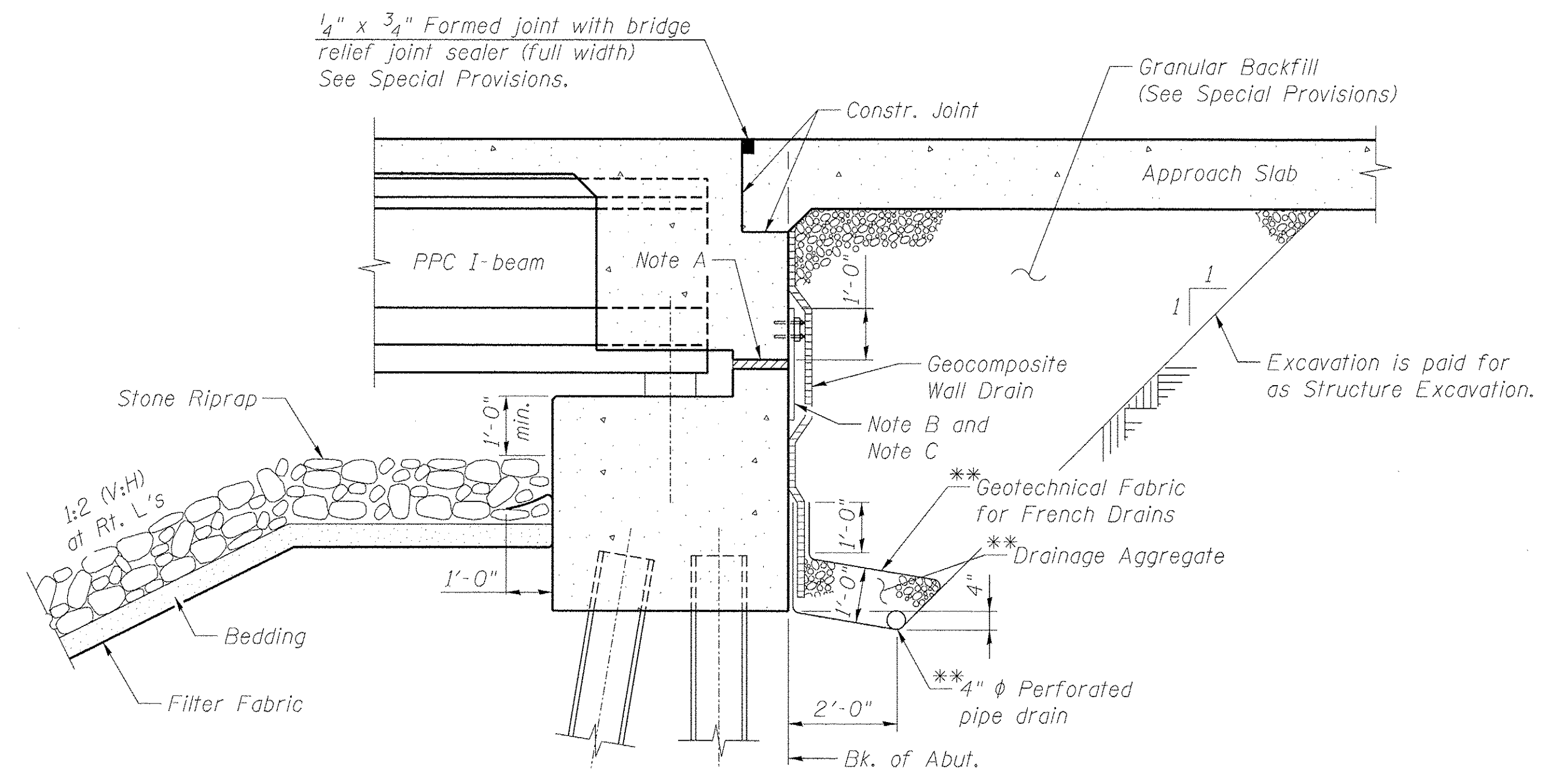
\*Note A:  
2" PJF (per Article 1051.09 of the Standard Specifications) full width and 1" PJF vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.

\*Note B:  
Fabric Reinforced Elastomeric Mat according to Section 1028 of the Standard Specifications. Fabric Mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a 3/8" x 5" steel plate and 1/2" φ studs with nuts and washers at 12" cts.

\*Note C:  
Galvanize all plates, studs, washers and nuts after fabrication.

\*Cost included with Concrete Superstructure.

\*\*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)



**SECTION THRU SEMI-INTEGRAL ABUTMENT**  
(Horiz. dim. at Rt. L's)

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

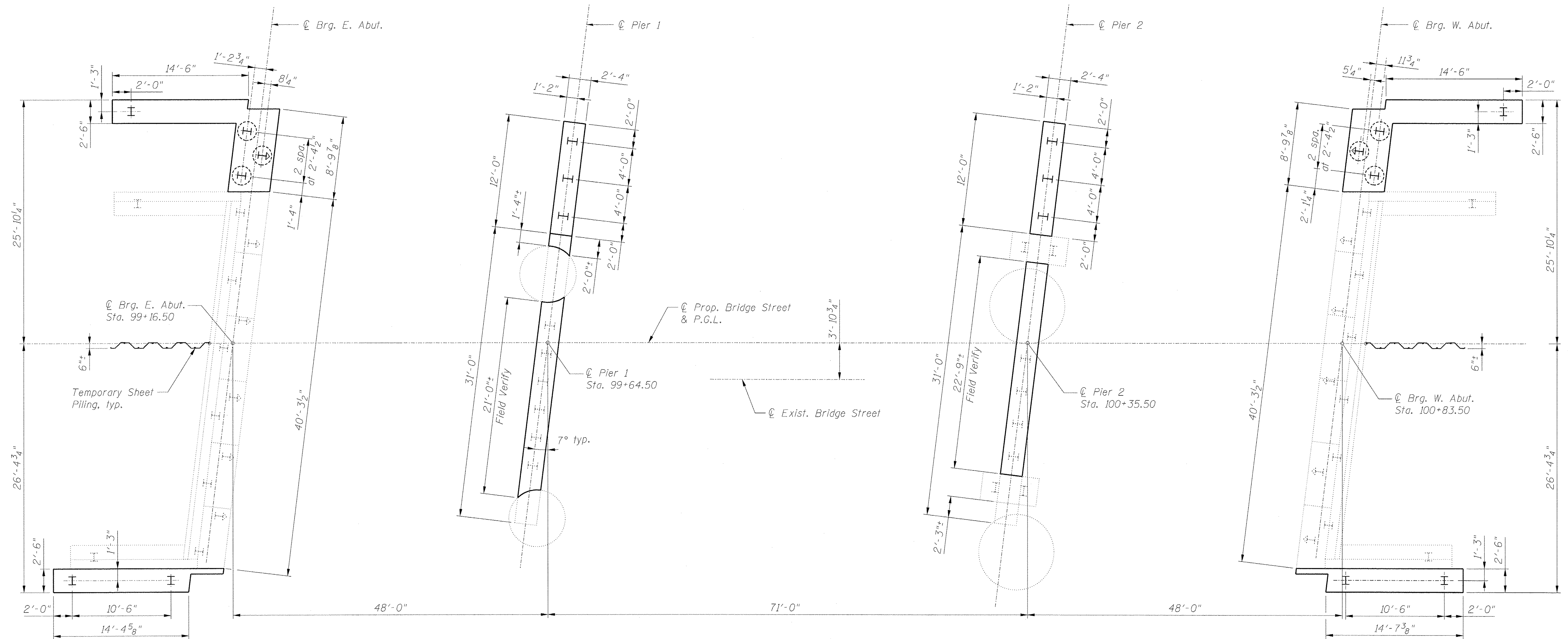
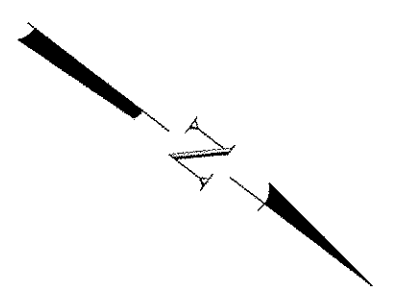
FILE NAME =	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
0166953.002.GNotes.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG/MFB	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S2 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	55
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	





- ⊥ Indicates vertical pile
- ⊥ Indicates battered pile 12:2 (V:H)
- Indicates concrete encasement

**NOTES:**

1. For abutment details, see sheets S27 thru S30.
2. For pier details, see sheets S31 and S32.
3. For HP Pile Details, see sheet S35.
4. There will be one test pile at each substructure unit during Stage I. Location to be determined in the field by the Engineer.
5. For Concrete Encasement details, see sheet S35.

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

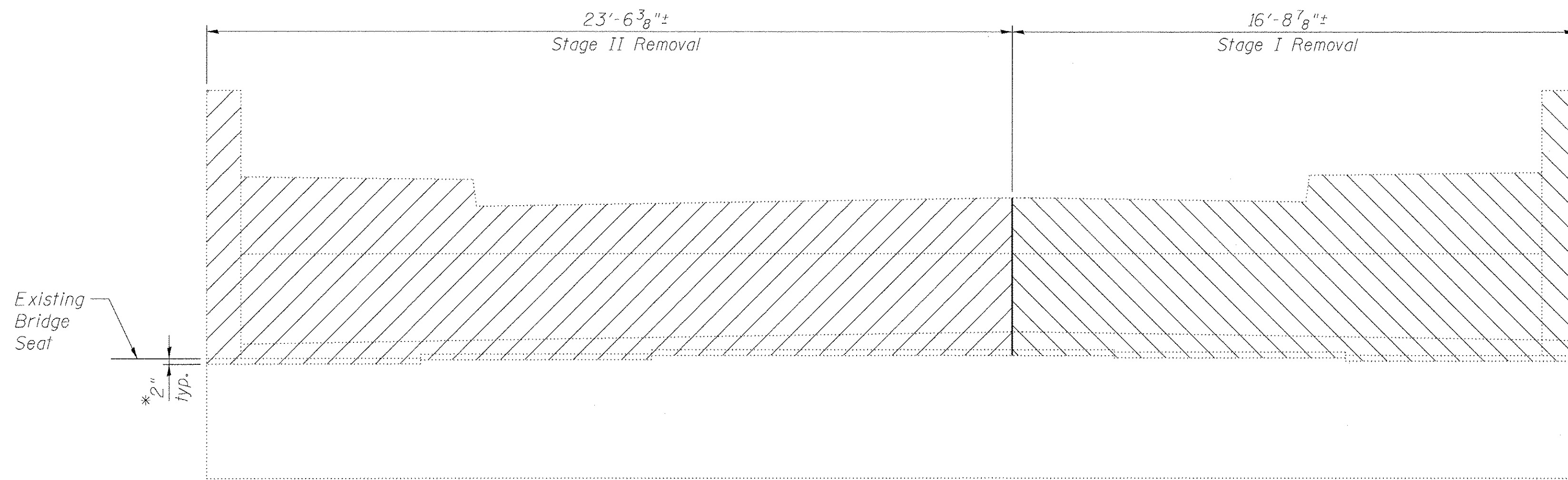
FILE NAME =	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
0166953_003_Foundation.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

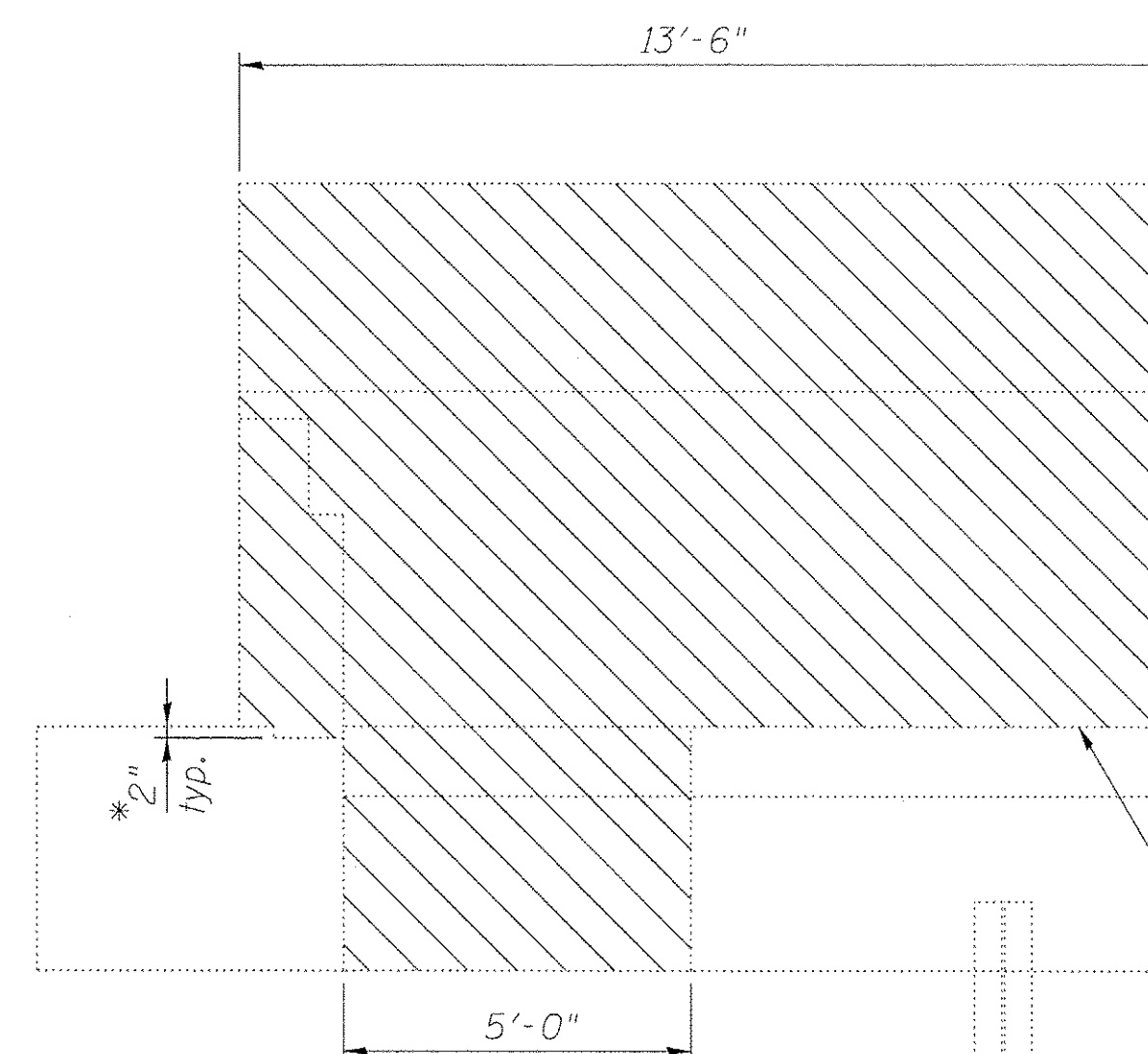
**FOOTING LAYOUT**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S3 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	56
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

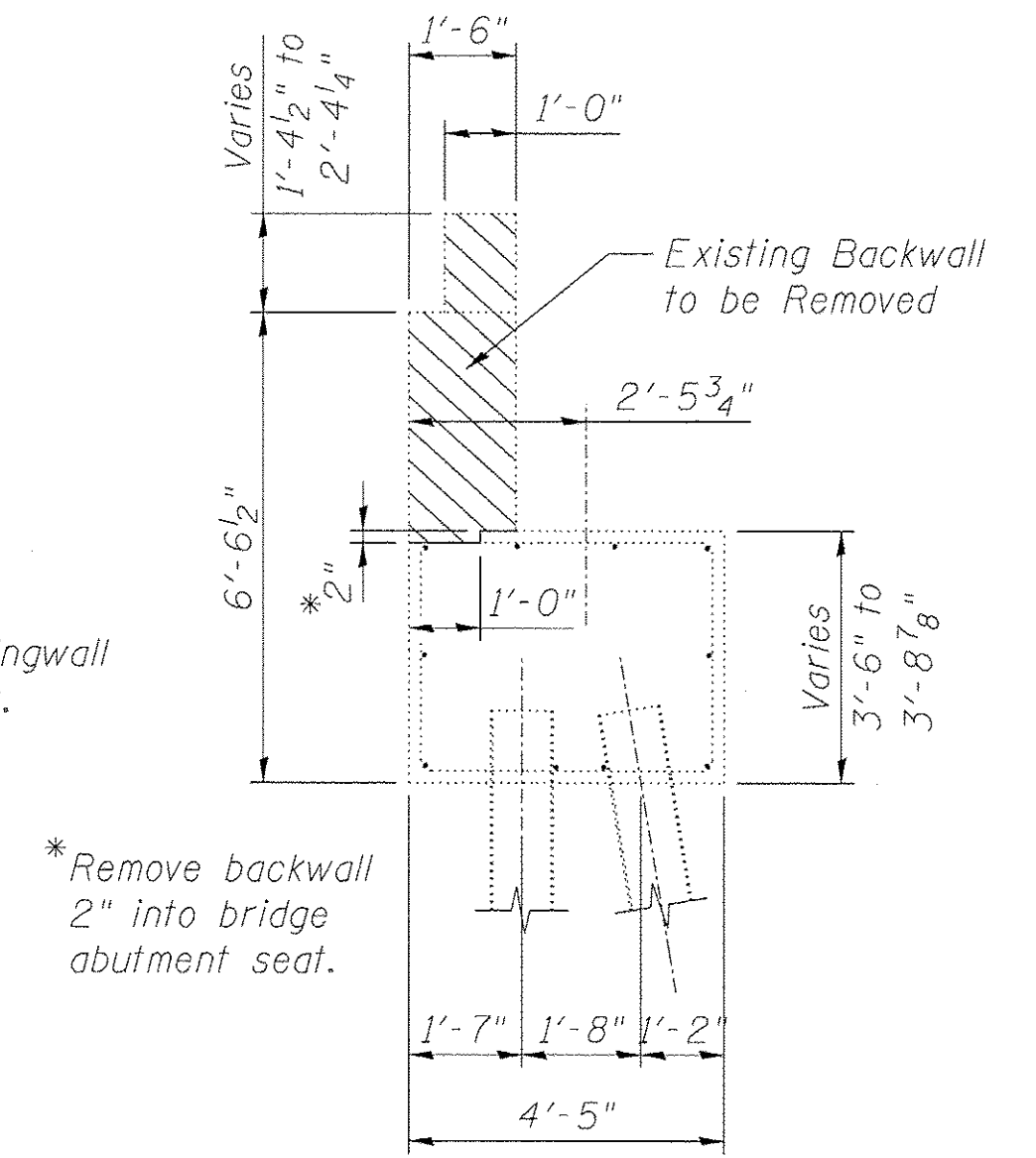
X:\10000S\10055.02\Eng\_Docs\_Phase\_11\Brdge\_Street\_016-6953\Final\0166953\_003\_Foundation.dgn 2/19/2013 2:50:17 PM



**ELEVATION**  
(East Abutment Looking East)  
(West Abutment Opposite Hand)

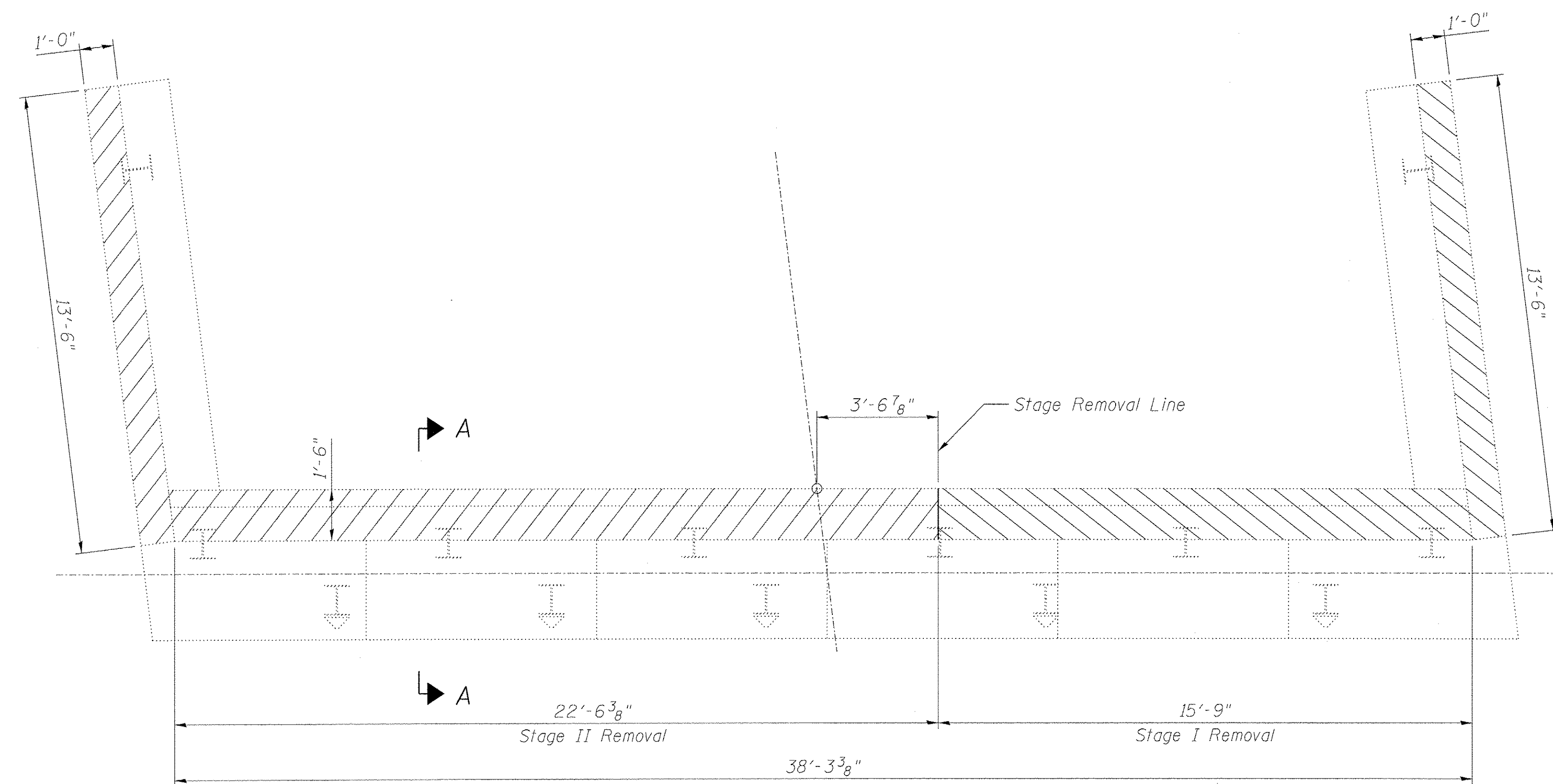


**WINGWALL ELEVATION**  
(East Wingwall Shown)  
(West Wingwall Similar)



\* Remove backwall 2" into bridge abutment seat.

**SECTION A-A**



**PLAN**  
(East Abutment Shown)  
(West Abutment Opposite Hand)

**BILL OF MATERIAL**

ITEM	UNIT	STAGE I	STAGE II	TOTAL
Concrete Removal	Cu. Yd.	17.5	20.5	38.0

**NOTES:**

- Hatched areas indicate Concrete Removal.
- Existing reinforcement extending into new concrete at both the abutments and piers shall be cleaned, straightened, and incorporated into the new construction. Cost included with Concrete Removal.
- Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.
- All dimensions shown on Elevation are measured along length of abutment.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =  
0166953.004\_Remove1.dgn

USER NAME = eship  
DESIGNED - MFB  
CHECKED - EFS  
DRAWN - RMG  
PLOT DATE = 2/19/2013

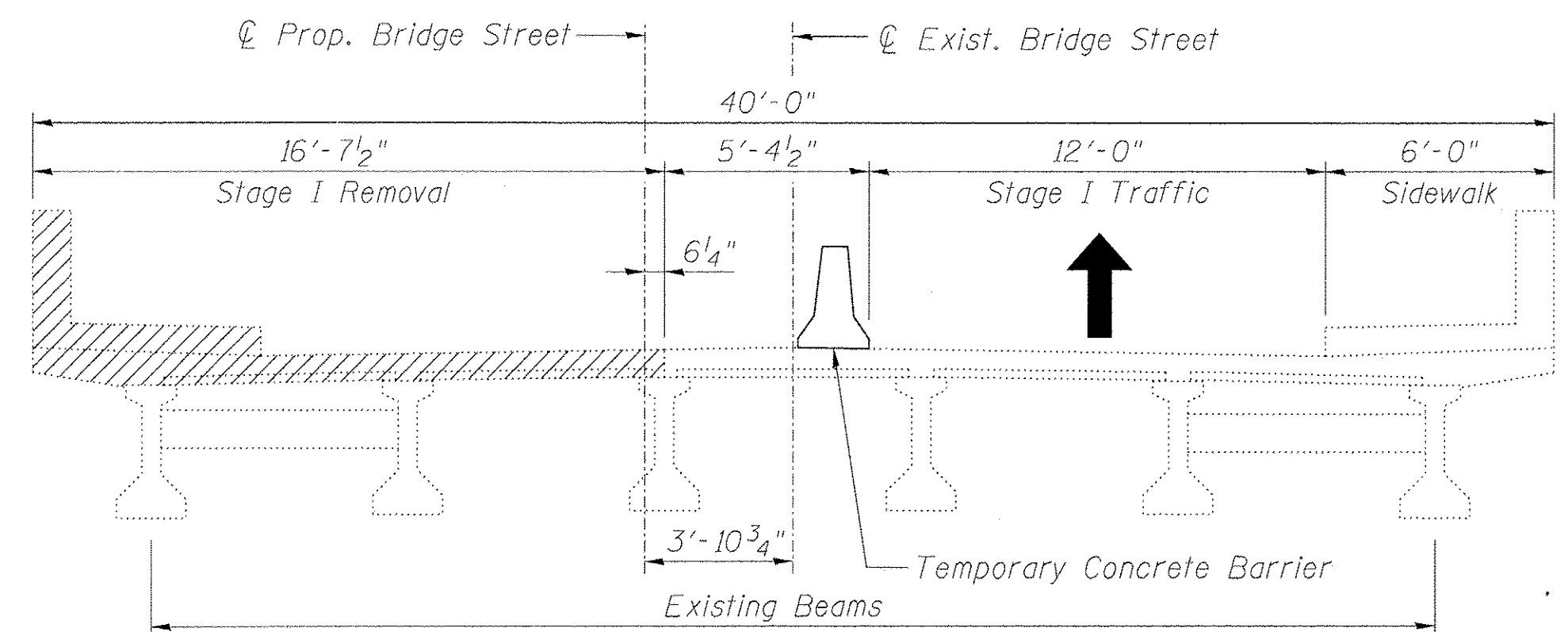
REVISÉD -  
REVISÉD -  
REVISÉD -  
REVISÉD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

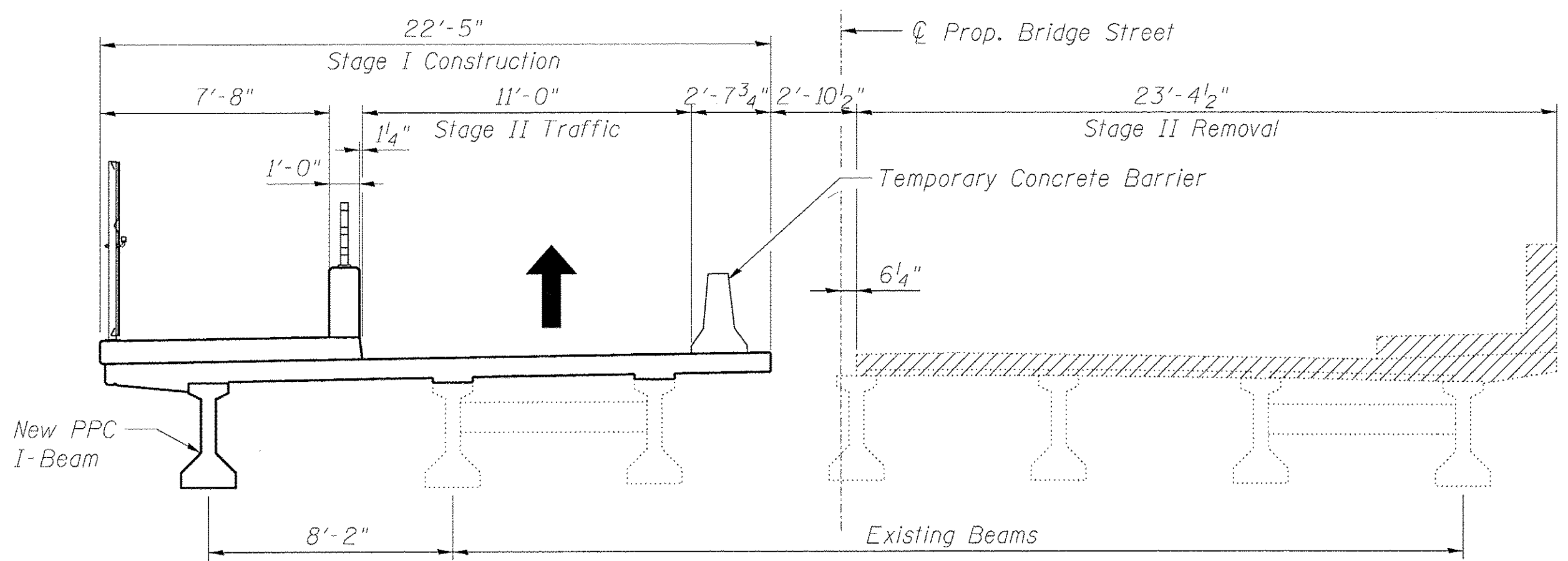
**REMOVAL PLAN**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S4 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	57
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

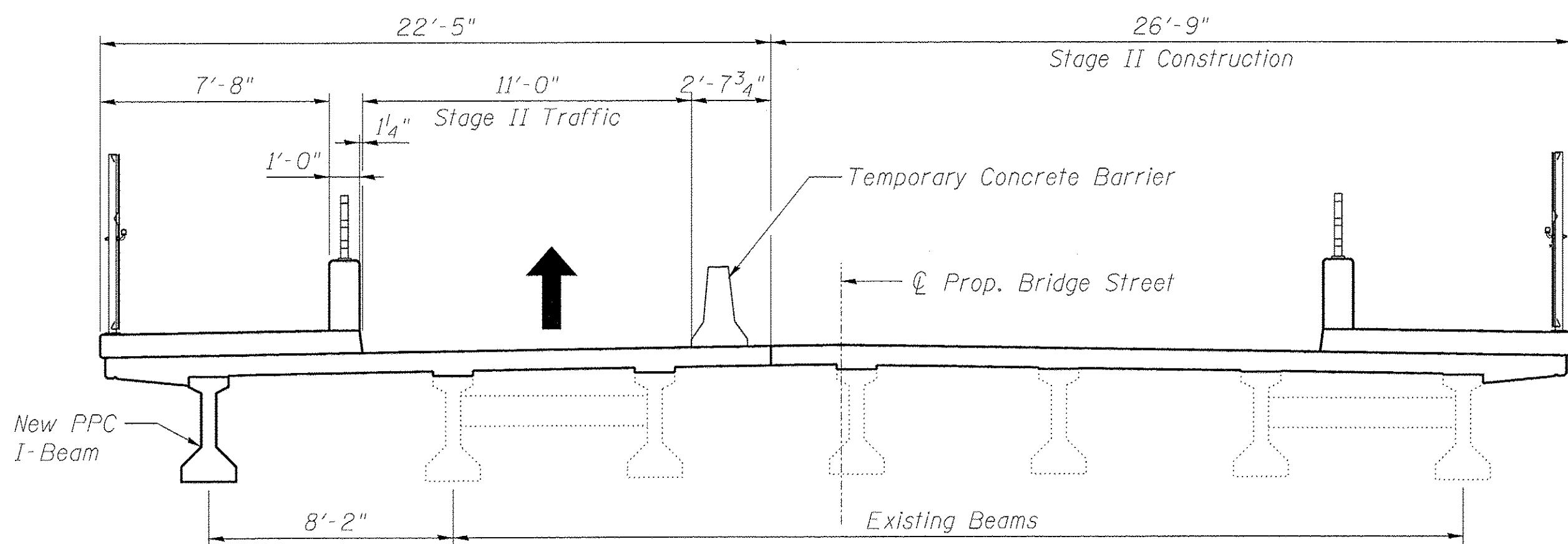




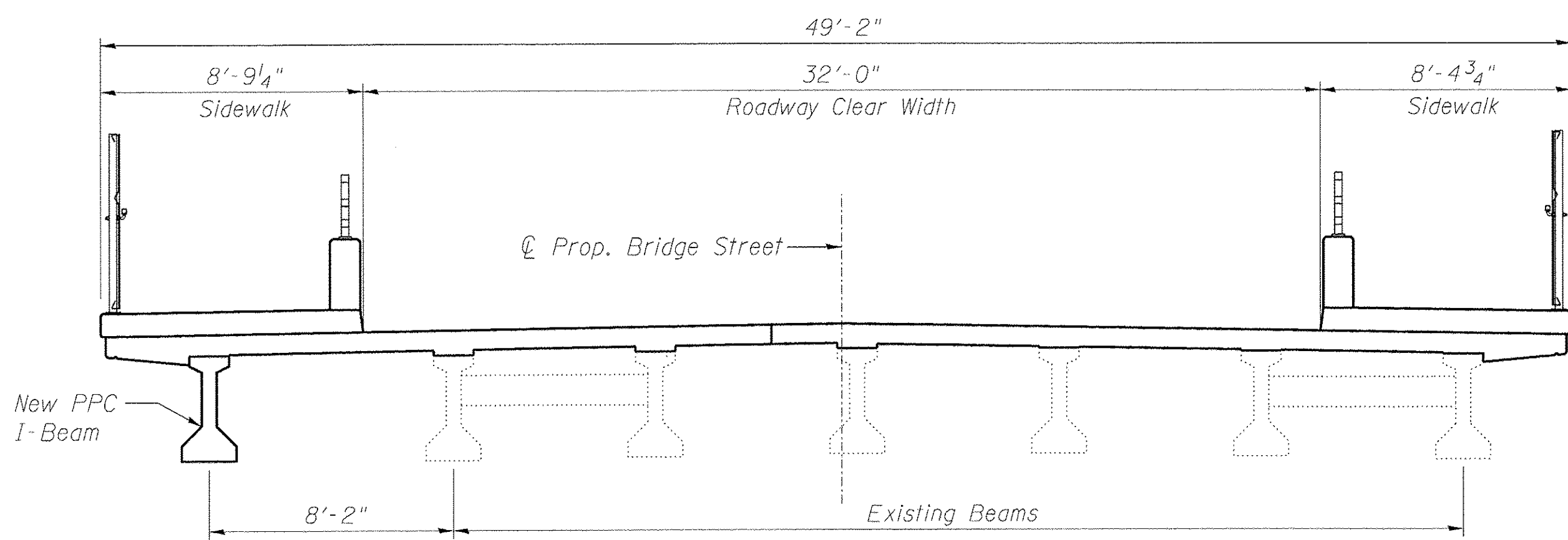
STAGE 1 REMOVAL



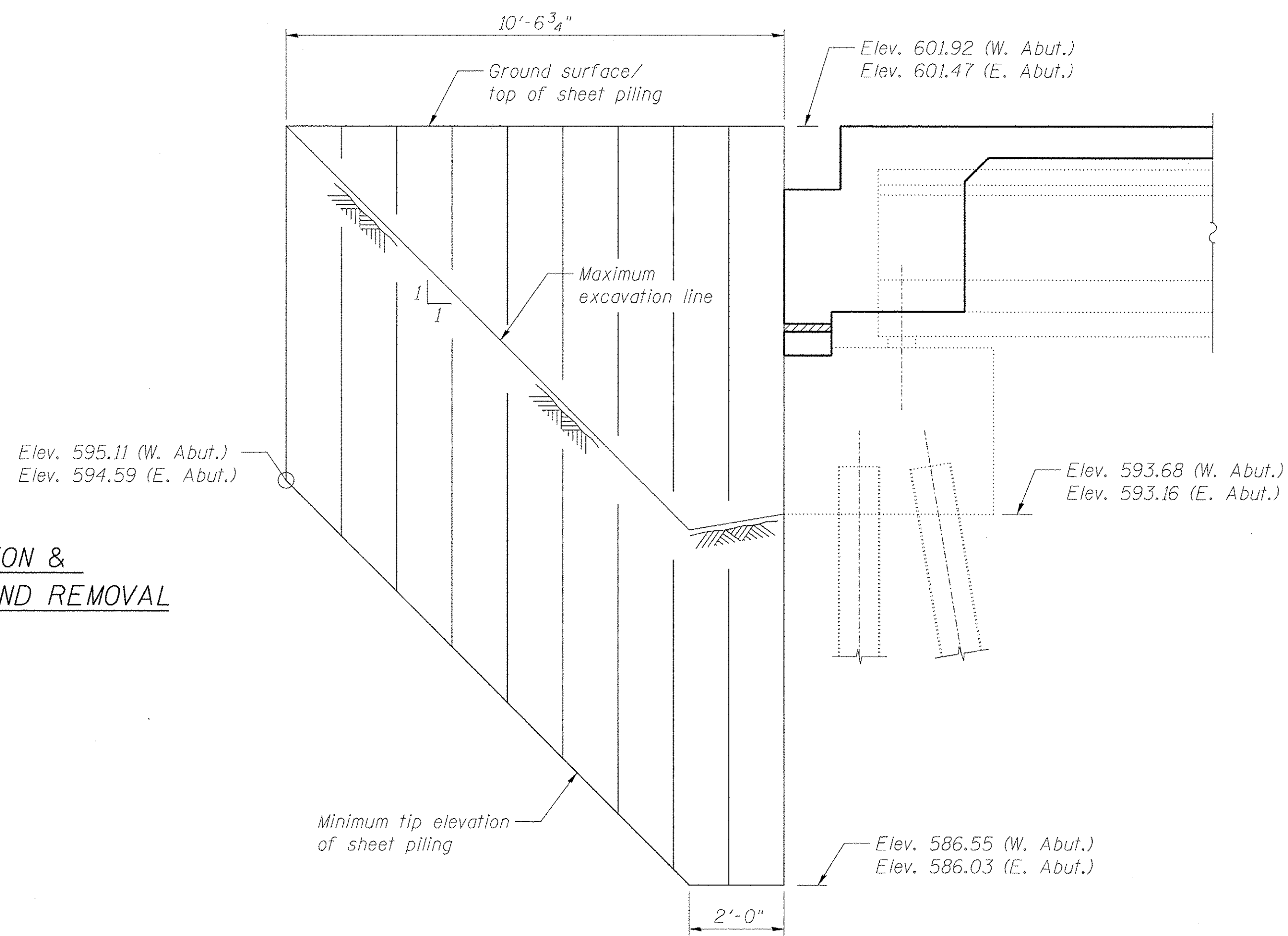
STAGE 1 CONSTRUCTION & STAGE 2 TRAFFIC AND REMOVAL



STAGE 2 CONSTRUCTION



FINAL CONDITION



STAGE 2 CONSTRUCTION

TEMPORARY SHEET PILING

(West and East Abutments)  
 Minimum Section Modulus = 4.5 in<sup>3</sup>/ft  
 Minimum Embedment = 6'-10"

BILL OF MATERIAL

ITEM	UNIT	STAGE I	STAGE II	TOTAL
Removal of Existing Concrete Deck	Each	0.4	0.6	1
Approach Slab Removal	Sq. Yd.	81	113	194
Temporary Sheet Piling	Sq. Ft.	253	0	253

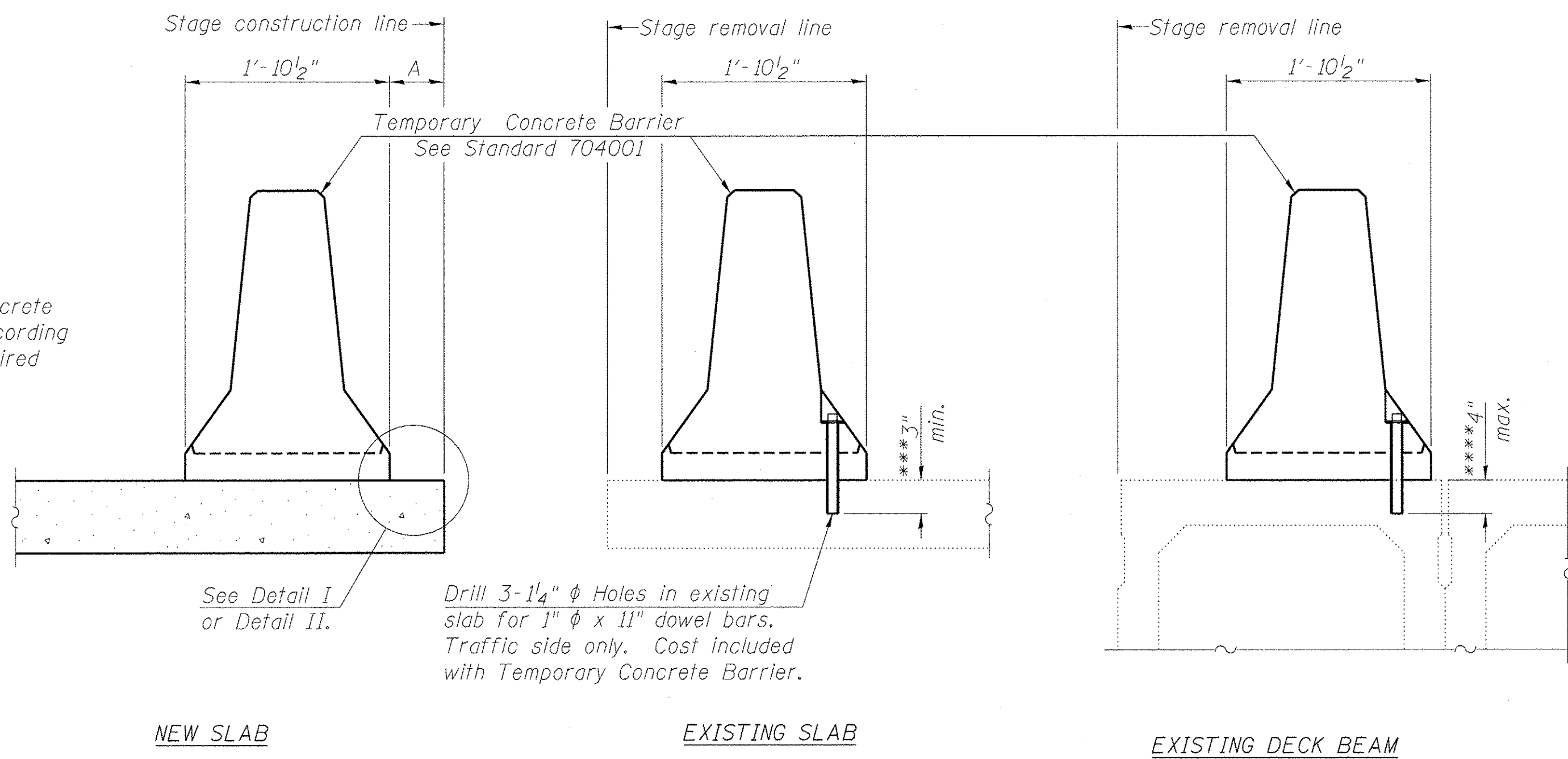
**NOTES:**

- All staging deck cross sections are shown looking upstation.
- Hatched area indicates Removal of Existing Concrete Deck.
- Details of Temporary Concrete Barrier are shown on sheet S6. For quantity of Temporary Concrete Barrier see Roadway Plans.
- 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.
- The Contractor shall use extreme caution during concrete deck removal so as not to damage the existing PPC I-beams. Contractor shall repair any damage to PPC I-beams at no additional cost to the City of Evanston. See Special Provision for "Removal of Existing Concrete Deck".

FILE NAME = 0166953_005_Staging.dgn	USER NAME = eship	DESIGNED - EFS/MFB	REVISED -
	PLOT SCALE =	CHECKED - MFB/EFS	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMC/MFB	REVISED -
		CHECKED - EFS	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	58
CONTRACT NO. 63817				ILLINOIS FED. AID PROJECT

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

**NOTES**

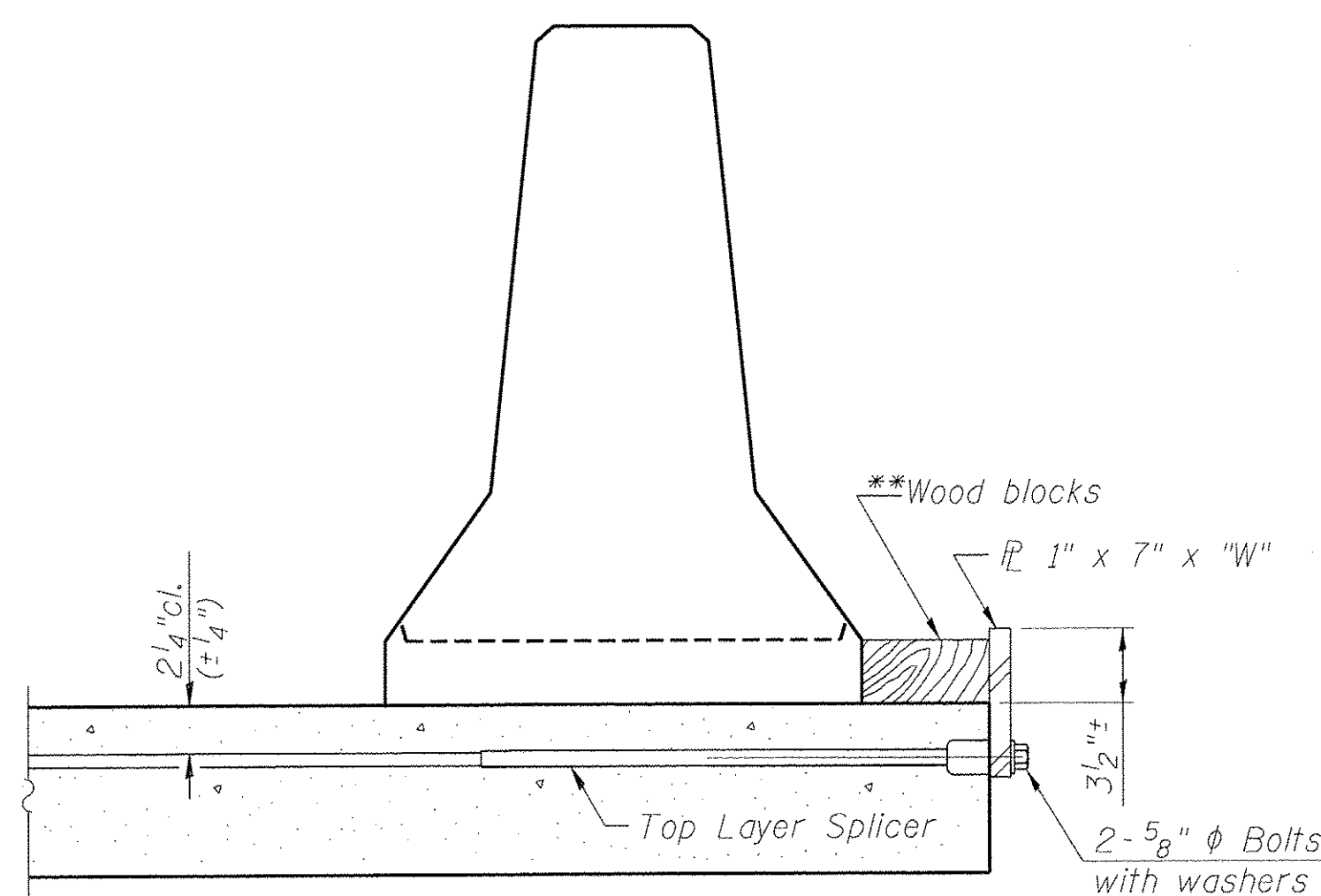
Detail I - With Bar Splicer or Couplers: Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars: Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

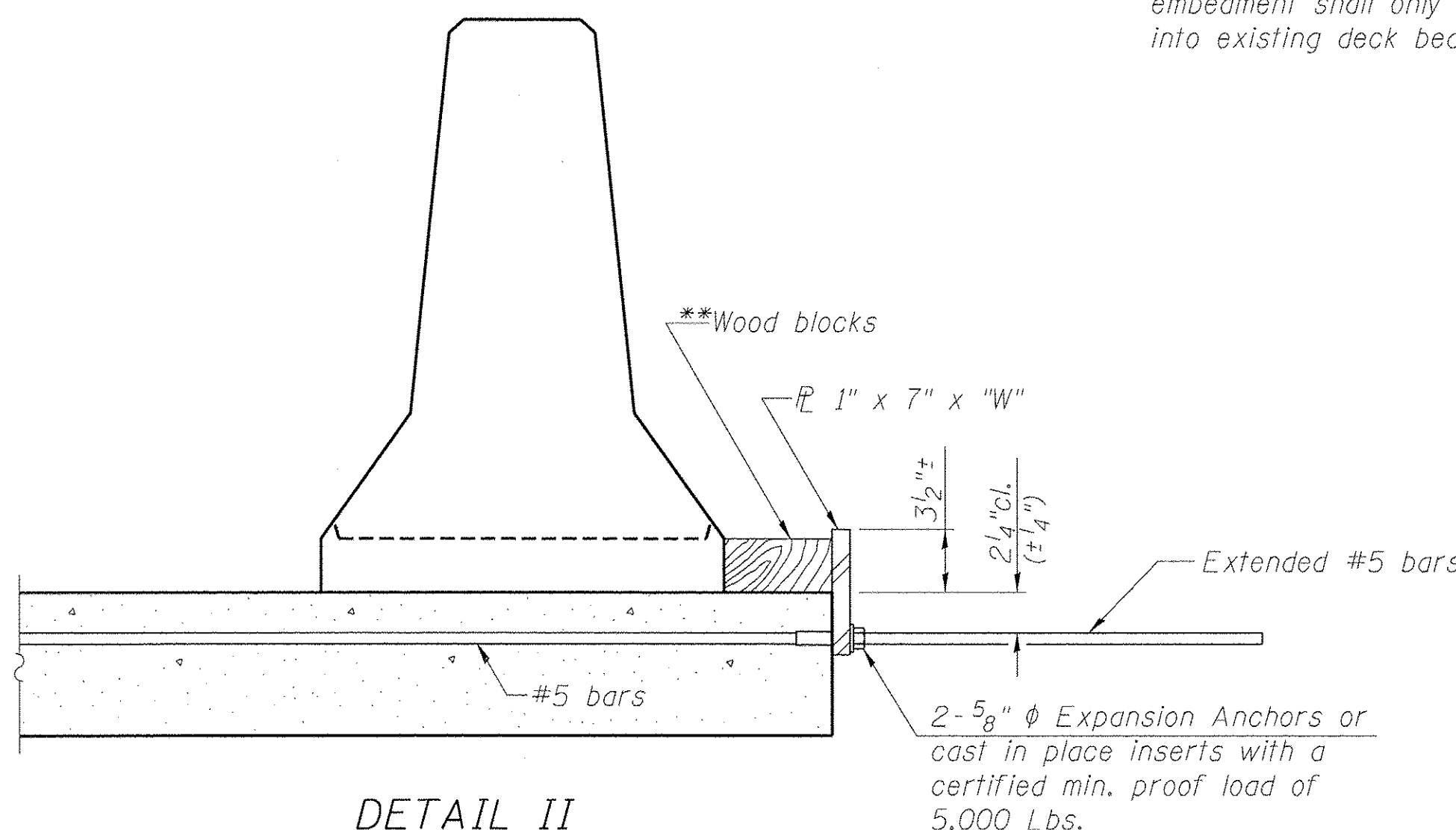
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

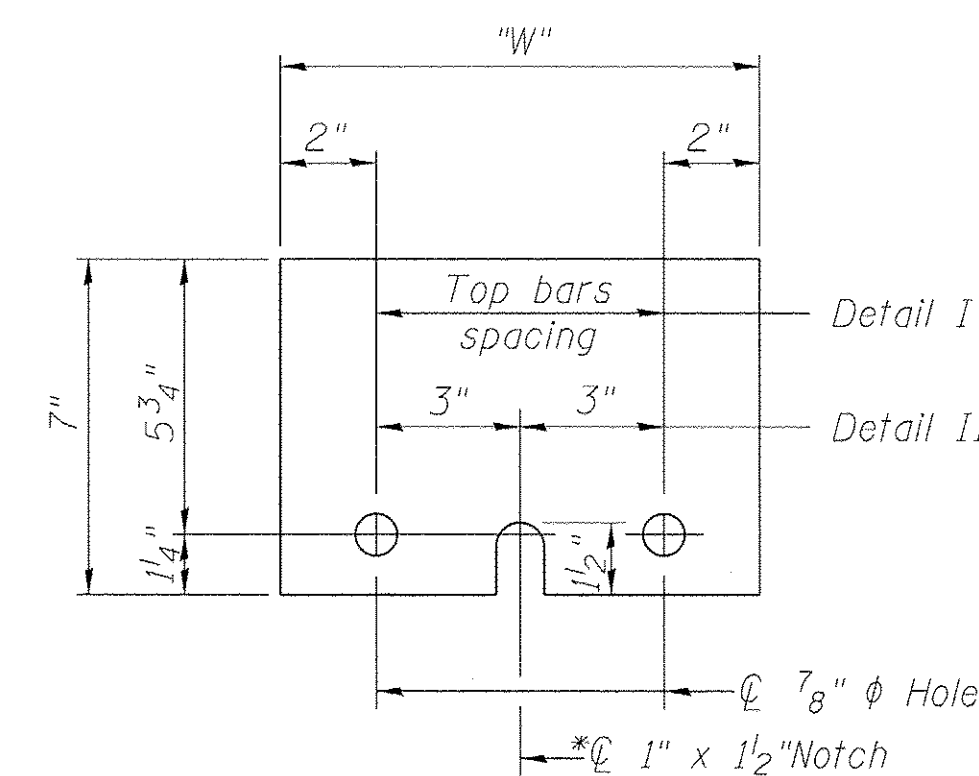
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER  $\bar{L}$  1" x 7" x "W"

\* Required only with Detail II

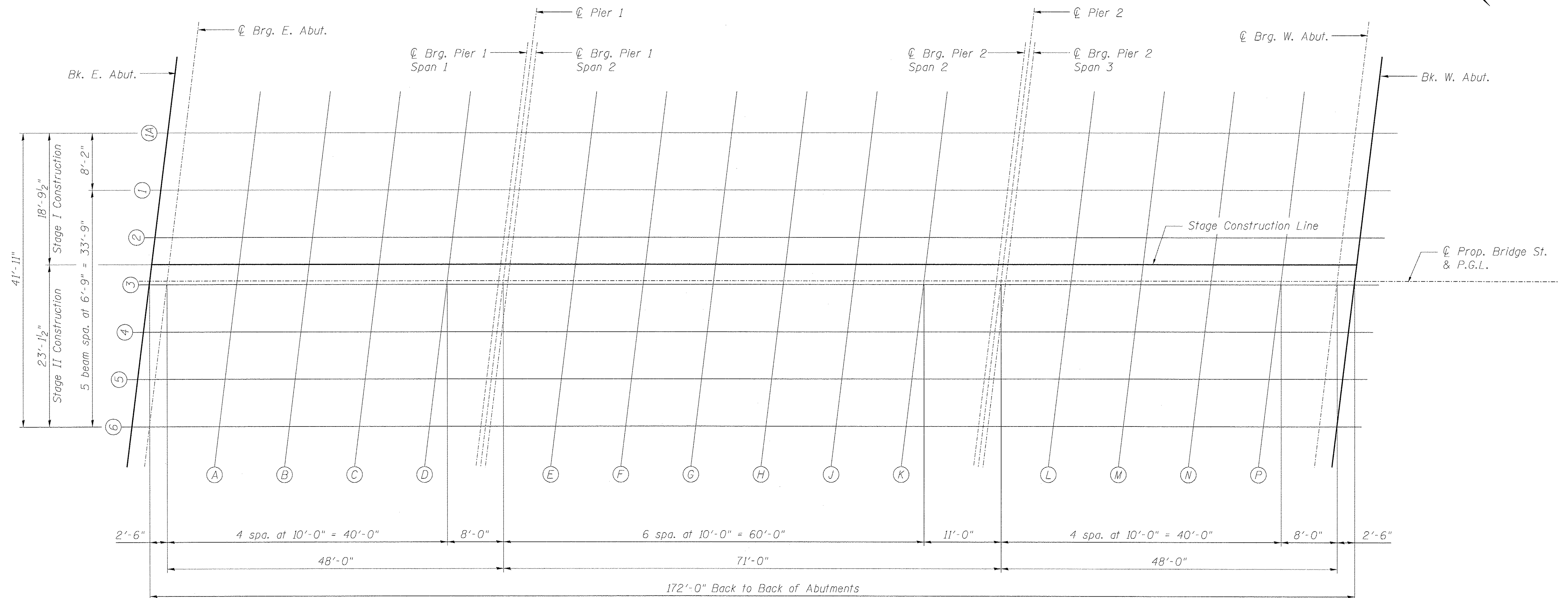
\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953_006_TempBarr.dgn	PLOT SCALE =	CHECKED - EFS	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	59
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				





PLAN

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

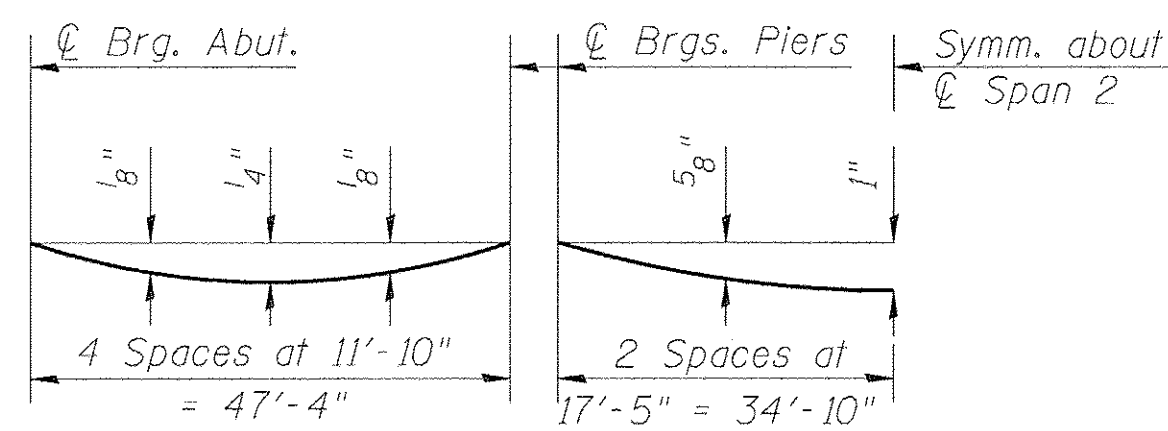
FILE NAME =	USER NAME = eaship	DESIGNED - MJF	REVISED -
0166953.007_StabEL1.dgn	PLOT SCALE =	CHECKED - JHG	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -
		CHECKED - JHG	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATION LAYOUT  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

SHEET NO. S7 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	60
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

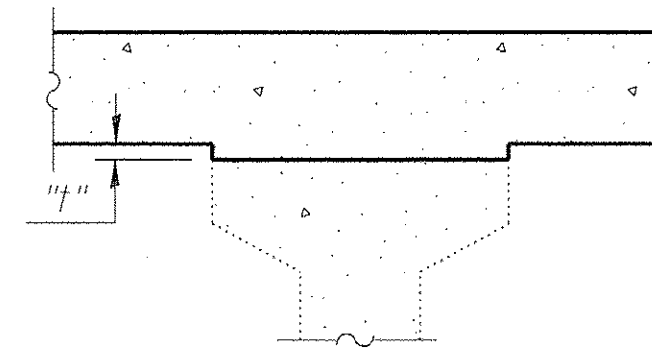


**DEAD LOAD DEFLECTION DIAGRAM**

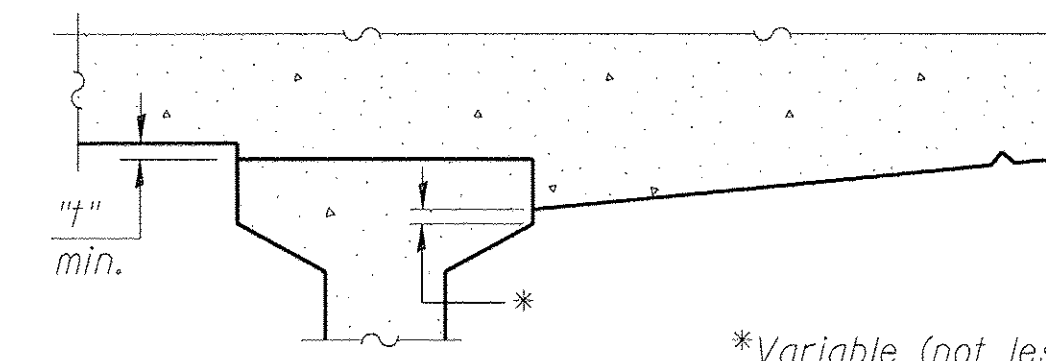
(Includes weight of concrete, excluding beams).

**Note:**

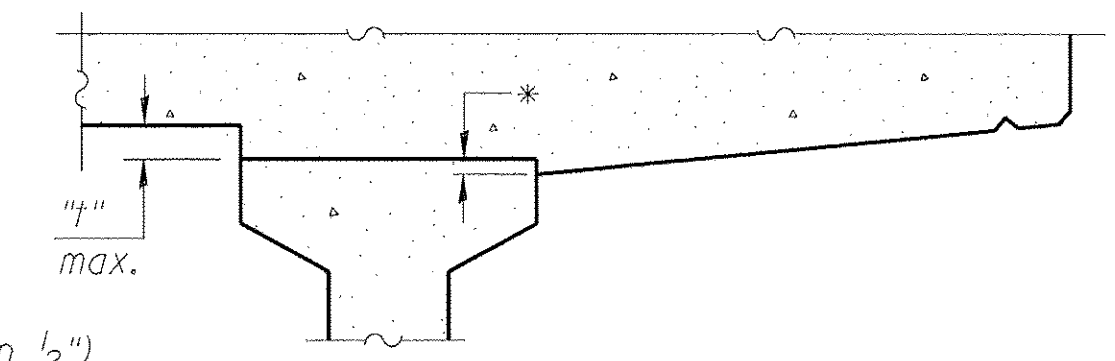
The above deflections are not for use in the field if the engineer is working from the "Theoretical Grade Elevations Adjusted For Dead Load Deflection".



**INTERIOR BEAMS**



At Minimum Fillet



At Maximum Fillet

**EXTERIOR BEAMS**

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted For Dead Load Deflections" shown below, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

**FILLET HEIGHTS**

**BEAM 1A**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+16.60	-21.15	601.22	601.22
C Brg. E. Abut.	99+19.10	-21.15	601.26	601.26
A	99+29.10	-21.15	601.42	601.43
B	99+39.10	-21.15	601.56	601.58
C	99+49.10	-21.15	601.68	601.70
D	99+59.10	-21.15	601.79	601.80
C Brg. Pier 1 Span 1	99+66.43	-21.15	601.86	601.86
C Pier 1	99+67.10	-21.15	601.86	601.86
C Brg. Pier 1 Span 2	99+67.76	-21.15	601.87	601.87
E	99+77.10	-21.15	601.94	601.96
F	99+87.10	-21.15	601.99	602.04
G	99+97.10	-21.15	602.03	602.11
H	100+07.10	-21.15	602.06	602.14
J	100+17.10	-21.15	602.06	602.13
K	100+27.10	-21.15	602.05	602.09
C Brg. Pier 2 Span 2	100+37.43	-21.15	602.01	602.01
C Pier 2	100+38.10	-21.15	602.01	602.01
C Brg. Pier 2 Span 3	100+38.76	-21.15	602.01	602.01
L	100+48.10	-21.15	601.96	601.97
M	100+58.10	-21.15	601.89	601.91
N	100+68.10	-21.15	601.81	601.82
P	100+78.10	-21.15	601.71	601.72
C Brg. W. Abut.	100+86.10	-21.15	601.63	601.63
Bk. W. Abut.	100+88.60	-21.15	601.61	601.61

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+15.59	-12.98	601.33	601.33
C Brg. E. Abut.	99+18.09	-12.98	601.37	601.37
A	99+28.09	-12.98	601.53	601.54
B	99+38.09	-12.98	601.68	601.69
C	99+48.09	-12.98	601.80	601.82
D	99+58.09	-12.98	601.91	601.92
C Brg. Pier 1 Span 1	99+65.43	-12.98	601.98	601.98
C Pier 1	99+66.09	-12.98	601.98	601.98
C Brg. Pier 1 Span 2	99+66.76	-12.98	601.99	601.99
E	99+76.09	-12.98	602.06	602.08
F	99+86.09	-12.98	602.12	602.16
G	99+96.09	-12.98	602.16	602.24
H	100+06.09	-12.98	602.18	602.26
J	100+16.09	-12.98	602.19	602.25
K	100+26.09	-12.98	602.18	602.22
C Brg. Pier 2 Span 2	100+36.43	-12.98	602.14	602.14
C Pier 2	100+37.09	-12.98	602.14	602.14
C Brg. Pier 2 Span 3	100+37.76	-12.98	602.14	602.14
L	100+47.09	-12.98	602.09	602.10
M	100+57.09	-12.98	602.03	602.04
N	100+67.09	-12.98	601.94	601.96
P	100+77.09	-12.98	601.85	601.86
C Brg. W. Abut.	100+85.09	-12.98	601.77	601.77
Bk. W. Abut.	100+87.59	-12.98	601.74	601.74

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+14.76	-6.23	601.42	601.42
C Brg. E. Abut.	99+17.26	-6.23	601.46	601.46
A	99+27.26	-6.23	601.63	601.64
B	99+37.26	-6.23	601.77	601.79
C	99+47.26	-6.23	601.90	601.91
D	99+57.26	-6.23	602.01	602.02
C Brg. Pier 1 Span 1	99+64.60	-6.23	602.07	602.07
C Pier 1	99+65.26	-6.23	602.08	602.08
C Brg. Pier 1 Span 2	99+65.93	-6.23	602.09	602.09
E	99+75.26	-6.23	602.16	602.18
F	99+85.26	-6.23	602.22	602.27
G	99+95.26	-6.23	602.26	602.34
H	100+05.26	-6.23	602.29	602.37
J	100+15.26	-6.23	602.29	602.36
K	100+25.26	-6.23	602.28	602.33
C Brg. Pier 2 Span 2	100+35.60	-6.23	602.25	602.25
C Pier 2	100+36.26	-6.23	602.25	602.25
C Brg. Pier 2 Span 3	100+36.93	-6.23	602.25	602.25
L	100+46.26	-6.23	602.20	602.21
M	100+56.26	-6.23	602.14	602.16
N	100+66.26	-6.23	602.06	602.07
P	100+76.26	-6.23	601.96	601.97
C Brg. W. Abut.	100+84.26	-6.23	601.88	601.88
Bk. W. Abut.	100+86.76	-6.23	601.86	601.86



STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+14.29	-2.35	601.47	601.47
☉ Brg. E. Abut.	99+16.79	-2.35	601.52	601.52
A	99+26.79	-2.35	601.68	601.69
B	99+36.79	-2.35	601.82	601.84
C	99+46.79	-2.35	601.95	601.97
D	99+56.79	-2.35	602.06	602.07
☉ Brg. Pier 1 Span 1	99+64.12	-2.35	602.13	602.13
☉ Pier 1	99+64.79	-2.35	602.14	602.14
☉ Brg. Pier 1 Span 2	99+65.46	-2.35	602.14	602.14
E	99+74.79	-2.35	602.22	602.26
F	99+84.79	-2.35	602.28	602.35
G	99+94.79	-2.35	602.32	602.41
H	100+04.79	-2.35	602.35	602.44
J	100+14.79	-2.35	602.35	602.43
K	100+24.79	-2.35	602.34	602.39
☉ Brg. Pier 2 Span 2	100+35.12	-2.35	602.32	602.32
☉ Pier 2	100+35.79	-2.35	602.31	602.31
☉ Brg. Pier 2 Span 3	100+36.46	-2.35	602.31	602.31
L	100+45.79	-2.35	602.27	602.28
M	100+55.79	-2.35	602.20	602.22
N	100+65.79	-2.35	602.12	602.14
P	100+75.79	-2.35	602.03	602.04
☉ Brg. W. Abut.	100+83.79	-2.35	601.95	601.95
Bk. W. Abut.	100+86.29	-2.35	601.92	601.92

☉ PROP. BRIDGE ST. & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+14.00	0.00	601.50	601.50
☉ Brg. E. Abut.	99+16.50	0.00	601.55	601.55
A	99+26.50	0.00	601.71	601.72
B	99+36.50	0.00	601.86	601.88
C	99+46.50	0.00	601.98	602.00
D	99+56.50	0.00	602.10	602.11
☉ Brg. Pier 1 Span 1	99+63.83	0.00	602.17	602.17
☉ Pier 1	99+64.50	0.00	602.17	602.17
☉ Brg. Pier 1 Span 2	99+65.17	0.00	602.18	602.18
E	99+74.50	0.00	602.25	602.29
F	99+84.50	0.00	602.31	602.39
G	99+94.50	0.00	602.36	602.45
H	100+04.50	0.00	602.38	602.47
J	100+14.50	0.00	602.39	602.47
K	100+24.50	0.00	602.38	602.43
☉ Brg. Pier 2 Span 2	100+34.83	0.00	602.35	602.35
☉ Pier 2	100+35.50	0.00	602.35	602.35
☉ Brg. Pier 2 Span 3	100+36.17	0.00	602.35	602.35
L	100+45.50	0.00	602.31	602.32
M	100+55.50	0.00	602.24	602.26
N	100+65.50	0.00	602.16	602.18
P	100+75.50	0.00	602.06	602.07
☉ Brg. W. Abut.	100+83.50	0.00	601.99	601.99
Bk. W. Abut.	100+86.00	0.00	601.96	601.96

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+13.94	0.52	601.49	601.49
☉ Brg. E. Abut.	99+16.44	0.52	601.54	601.54
A	99+26.44	0.52	601.70	601.71
B	99+36.44	0.52	601.85	601.87
C	99+46.44	0.52	601.98	601.99
D	99+56.44	0.52	602.09	602.10
☉ Brg. Pier 1 Span 1	99+63.77	0.52	602.16	602.16
☉ Pier 1	99+64.44	0.52	602.16	602.16
☉ Brg. Pier 1 Span 2	99+65.10	0.52	602.17	602.17
E	99+74.44	0.52	602.24	602.27
F	99+84.44	0.52	602.30	602.35
G	99+94.44	0.52	602.35	602.42
H	100+04.44	0.52	602.37	602.46
J	100+14.44	0.52	602.38	602.45
K	100+24.44	0.52	602.37	602.42
☉ Brg. Pier 2 Span 2	100+34.77	0.52	602.35	602.35
☉ Pier 2	100+35.44	0.52	602.34	602.34
☉ Brg. Pier 2 Span 3	100+36.10	0.52	602.34	602.34
L	100+45.44	0.52	602.30	602.30
M	100+55.44	0.52	602.23	602.25
N	100+65.44	0.52	602.15	602.17
P	100+75.44	0.52	602.06	602.07
☉ Brg. W. Abut.	100+83.44	0.52	601.98	601.98
Bk. W. Abut.	100+85.94	0.52	601.95	601.95



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =  
0166953\_009\_StabEL3.dgn

USER NAME = eship  
PLOT SCALE =  
PLOT DATE = 2/19/2013

DESIGNED - MJF  
CHECKED - JHG  
DRAWN - RMG  
CHECKED - JHG

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS 2 OF 3  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

SHEET NO. S9 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	62
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	

X:\1000005\10055.02\Eng\_Docs\_Phase\_II\Brdge\_Street\_016-6953\Final\0166953\_009\_StabEL3.dgn 2/19/2013 2:50:30 PM

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+13.11	7.27	601.37	601.37
⊙ Brg. E. Abut.	99+15.61	7.27	601.42	601.42
A	99+25.61	7.27	601.58	601.59
B	99+35.61	7.27	601.73	601.75
C	99+45.61	7.27	601.86	601.88
D	99+55.61	7.27	601.97	601.98
⊙ Brg. Pier 1 Span 1	99+62.94	7.27	602.04	602.04
⊙ Pier 1	99+63.61	7.27	602.05	602.05
⊙ Brg. Pier 1 Span 2	99+64.27	7.27	602.06	602.06
E	99+73.61	7.27	602.13	602.15
F	99+83.61	7.27	602.19	602.24
G	99+93.61	7.27	602.24	602.32
H	100+03.61	7.27	602.27	602.35
J	100+13.61	7.27	602.28	602.34
K	100+23.61	7.27	602.27	602.32
⊙ Brg. Pier 2 Span 2	100+33.94	7.27	602.24	602.24
⊙ Pier 2	100+34.61	7.27	602.24	602.24
⊙ Brg. Pier 2 Span 3	100+35.27	7.27	602.24	602.24
L	100+44.61	7.27	602.20	602.20
M	100+54.61	7.27	602.13	602.15
N	100+64.61	7.27	602.05	602.07
P	100+74.61	7.27	601.96	601.97
⊙ Brg. W. Abut.	100+82.61	7.27	601.88	601.88
Bk. W. Abut.	100+85.11	7.27	601.86	601.86

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+12.28	14.02	601.25	601.25
⊙ Brg. E. Abut.	99+14.78	14.02	601.30	601.30
A	99+24.78	14.02	601.47	601.48
B	99+34.78	14.02	601.61	601.63
C	99+44.78	14.02	601.75	601.76
D	99+54.78	14.02	601.86	601.87
⊙ Brg. Pier 1 Span 1	99+62.11	14.02	601.93	601.93
⊙ Pier 1	99+62.78	14.02	601.94	601.94
⊙ Brg. Pier 1 Span 2	99+63.45	14.02	601.94	601.94
E	99+72.78	14.02	602.02	602.04
F	99+82.78	14.02	602.08	602.13
G	99+92.78	14.02	602.13	602.21
H	100+02.78	14.02	602.16	602.24
J	100+12.78	14.02	602.17	602.24
K	100+22.78	14.02	602.16	602.21
⊙ Brg. Pier 2 Span 2	100+33.11	14.02	602.14	602.14
⊙ Pier 2	100+33.78	14.02	602.14	602.14
⊙ Brg. Pier 2 Span 3	100+34.45	14.02	602.14	602.14
L	100+43.78	14.02	602.10	602.10
M	100+53.78	14.02	602.03	602.05
N	100+63.78	14.02	601.96	601.97
P	100+73.78	14.02	601.86	601.87
⊙ Brg. W. Abut.	100+81.78	14.02	601.78	601.78
Bk. W. Abut.	100+84.28	14.02	601.76	601.76

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. E. Abut.	99+11.45	20.77	601.13	601.13
⊙ Brg. E. Abut.	99+13.95	20.77	601.18	601.18
A	99+23.95	20.77	601.35	601.36
B	99+33.95	20.77	601.50	601.51
C	99+43.95	20.77	601.63	601.65
D	99+53.95	20.77	601.74	601.76
⊙ Brg. Pier 1 Span 1	99+61.28	20.77	601.82	601.82
⊙ Pier 1	99+61.95	20.77	601.82	601.82
⊙ Brg. Pier 1 Span 2	99+62.62	20.77	601.83	601.83
E	99+71.95	20.77	601.91	601.93
F	99+81.95	20.77	601.97	602.02
G	99+91.95	20.77	602.02	602.10
H	100+01.95	20.77	602.05	602.13
J	100+11.95	20.77	602.07	602.13
K	100+21.95	20.77	602.06	602.11
⊙ Brg. Pier 2 Span 2	100+32.28	20.77	602.04	602.04
⊙ Pier 2	100+32.95	20.77	602.04	602.04
⊙ Brg. Pier 2 Span 3	100+33.62	20.77	602.03	602.03
L	100+42.95	20.77	601.99	602.00
M	100+52.95	20.77	601.93	601.95
N	100+62.95	20.77	601.86	601.88
P	100+72.95	20.77	601.77	601.78
⊙ Brg. W. Abut.	100+80.95	20.77	601.69	601.69
Bk. W. Abut.	100+83.45	20.77	601.66	601.66



SOUTH EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+88.04	-24.77	600.61
A	98+98.04	-24.77	600.81
B	99+08.04	-24.77	601.01
W. End of E. Appr. Pvmf.	99+18.04	-24.77	601.19
E. End of W. Appr. Pvmf.	100+88.04	-24.77	601.56
C	100+98.04	-24.77	601.46
D	101+08.04	-24.77	601.36
W. End of W. Appr. Pavmt.	101+18.04	-24.77	601.26

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+86.96	-16.00	600.73
A	98+96.96	-16.00	600.93
B	99+06.96	-16.00	601.13
W. End of E. Appr. Pvmf.	99+16.96	-16.00	601.31
E. End of W. Appr. Pvmf.	100+86.96	-16.00	601.70
C	100+96.96	-16.00	601.61
D	101+06.96	-16.00	601.51
W. End of W. Appr. Pavmt.	101+16.96	-16.00	601.41

☉ PROPOSED BRIDGE STREET & P.G.L.

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+85.00	0.00	600.94
A	98+95.00	0.00	601.14
B	99+05.00	0.00	601.34
W. End of E. Appr. Pvmf.	99+15.00	0.00	601.52
E. End of W. Appr. Pvmf.	100+85.00	0.00	601.97
C	100+95.00	0.00	601.87
D	101+05.00	0.00	601.78
W. End of W. Appr. Pavmt.	101+15.00	0.00	601.68

STAGE CONSTRUCTION LINE

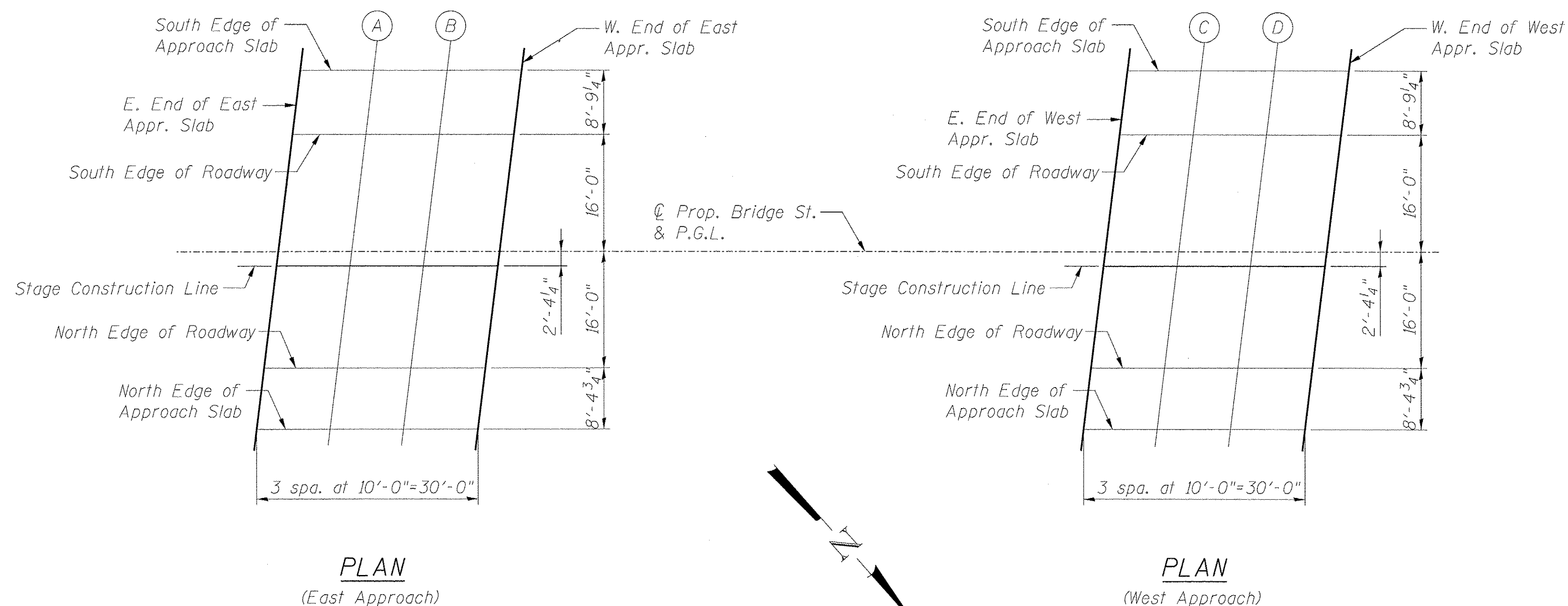
Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+85.29	-2.35	600.91
A	98+95.29	-2.35	601.11
B	99+05.29	-2.35	601.31
W. End of E. Appr. Pvmf.	99+15.29	-2.35	601.49
E. End of W. Appr. Pvmf.	100+85.29	-2.35	601.93
C	100+95.29	-2.35	601.84
D	101+05.29	-2.35	601.74
W. End of W. Appr. Pavmt.	101+15.29	-2.35	601.64

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+83.04	16.00	600.65
A	98+93.04	16.00	600.85
B	99+03.04	16.00	601.05
W. End of E. Appr. Pvmf.	99+13.04	16.00	601.24
E. End of W. Appr. Pvmf.	100+83.04	16.00	601.74
C	100+93.04	16.00	601.64
D	101+03.04	16.00	601.55
W. End of W. Appr. Pavmt.	101+13.04	16.00	601.45

NORTH EDGE OF APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
E. End of E. Appr. Pvmf.	98+82.00	24.40	600.50
A	98+92.00	24.40	600.70
B	99+02.00	24.40	600.90
W. End of E. Appr. Pvmf.	99+12.00	24.40	601.09
E. End of W. Appr. Pvmf.	100+82.00	24.40	601.62
C	100+92.00	24.40	601.52
D	101+02.00	24.40	601.43
W. End of W. Appr. Pavmt.	101+12.00	24.40	601.33



**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953.011.ApprSlabEL1.dgn		CHECKED - JHG	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - JHG	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

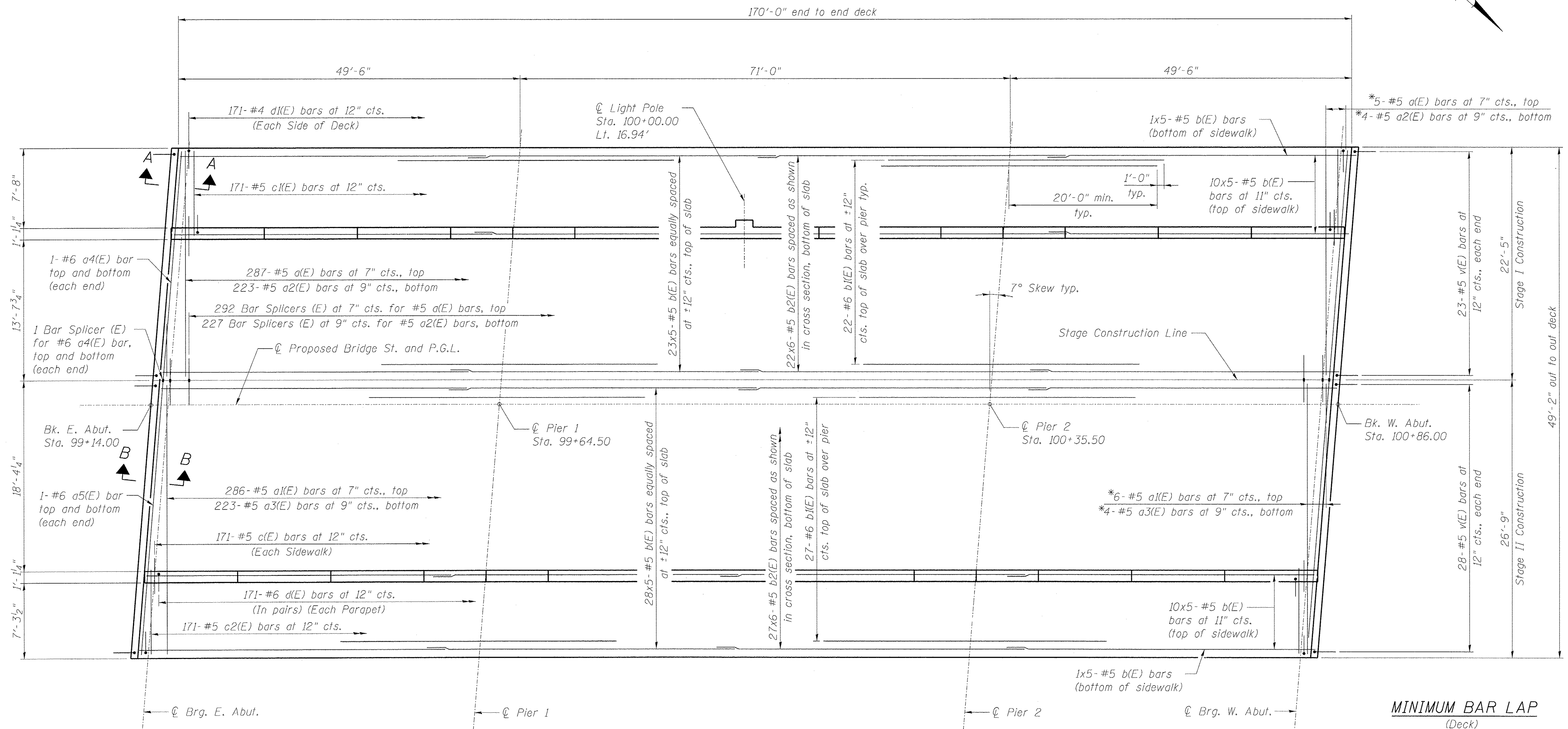
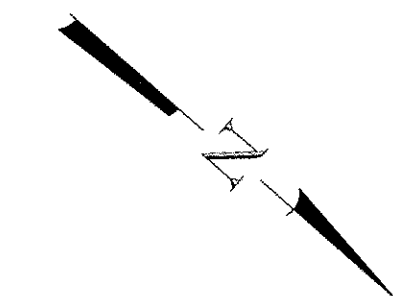
**TOP OF APPROACH SLAB ELEVATIONS**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S11 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	64
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	

X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridg.Street\_016-6953\Final\0166953.011-ApprSlabEL1.dgn 2:50:34 PM 2/19/2013

\*Order a(E), a1(E), a2(E) and a3(E) bars full length.  
Cut to fit skew and use remainder of bars in  
opposite end.



PLAN

**NOTES:**

1. For deck cross section, see sheet S13.
2. For section thru sidewalk and parapet and parapet details, see sheet S14.
3. For Bill of Material, see sheet S17.
4. For Section A-A, Section B-B and diaphragm details, see sheet S15.
5. For bar splicer details, see sheet S36.
6. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
0166953.012_DeckPL1.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

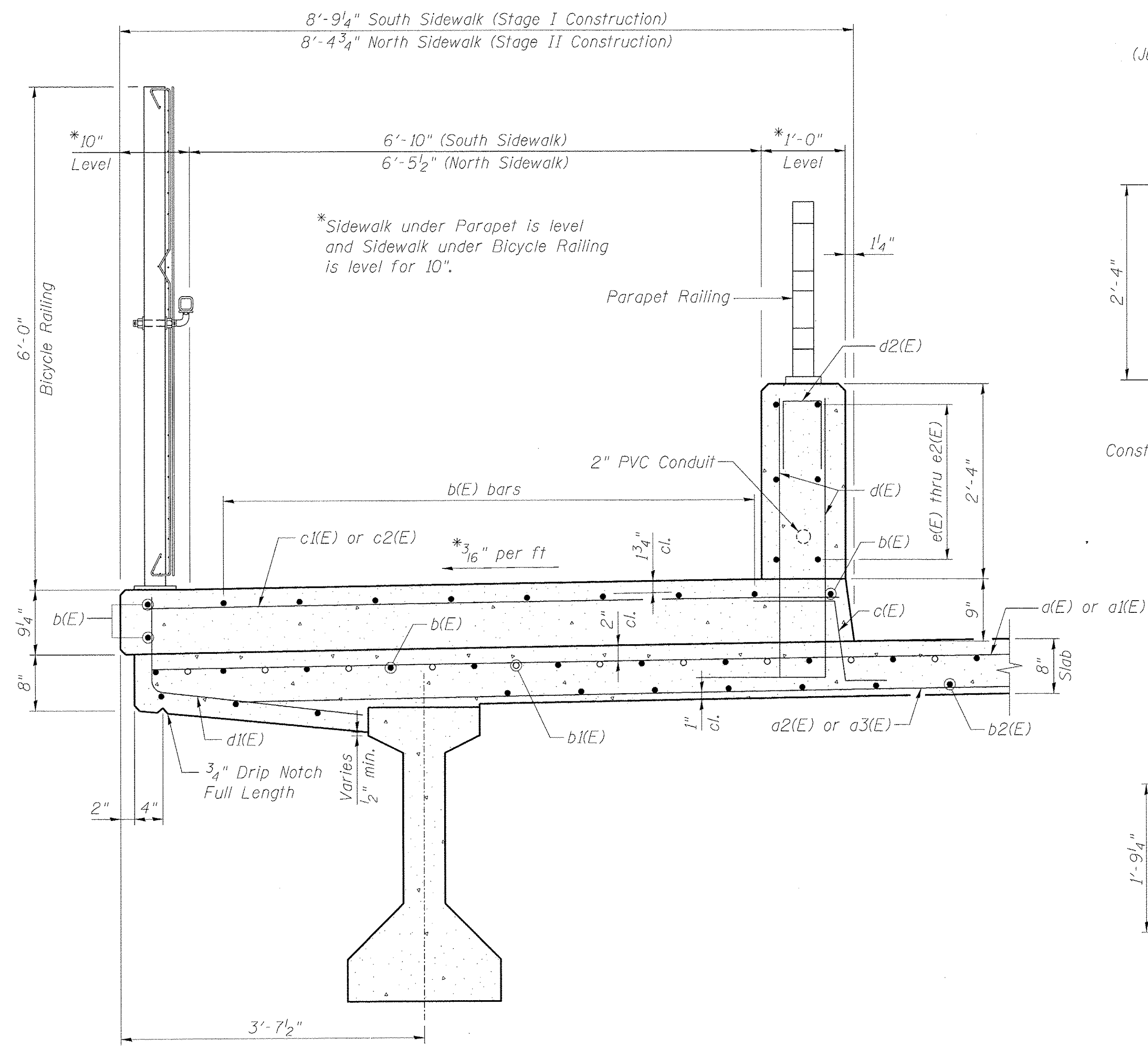
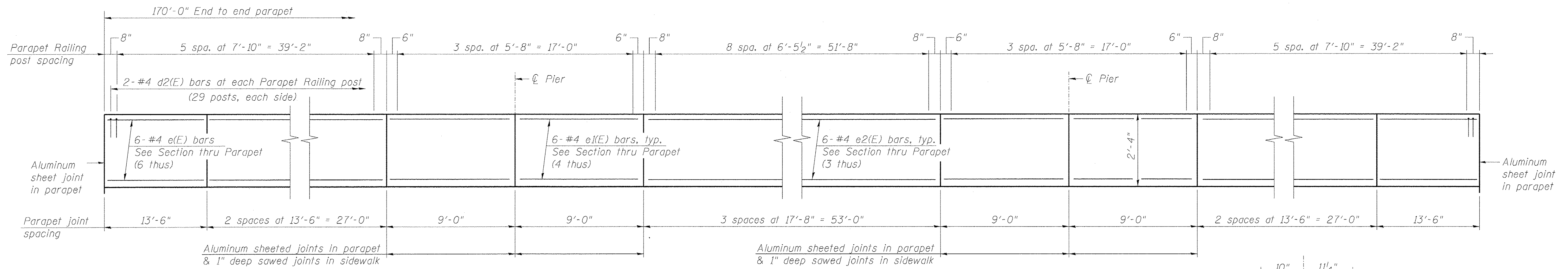
**SUPERSTRUCTURE 1 OF 2  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S12 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	65
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

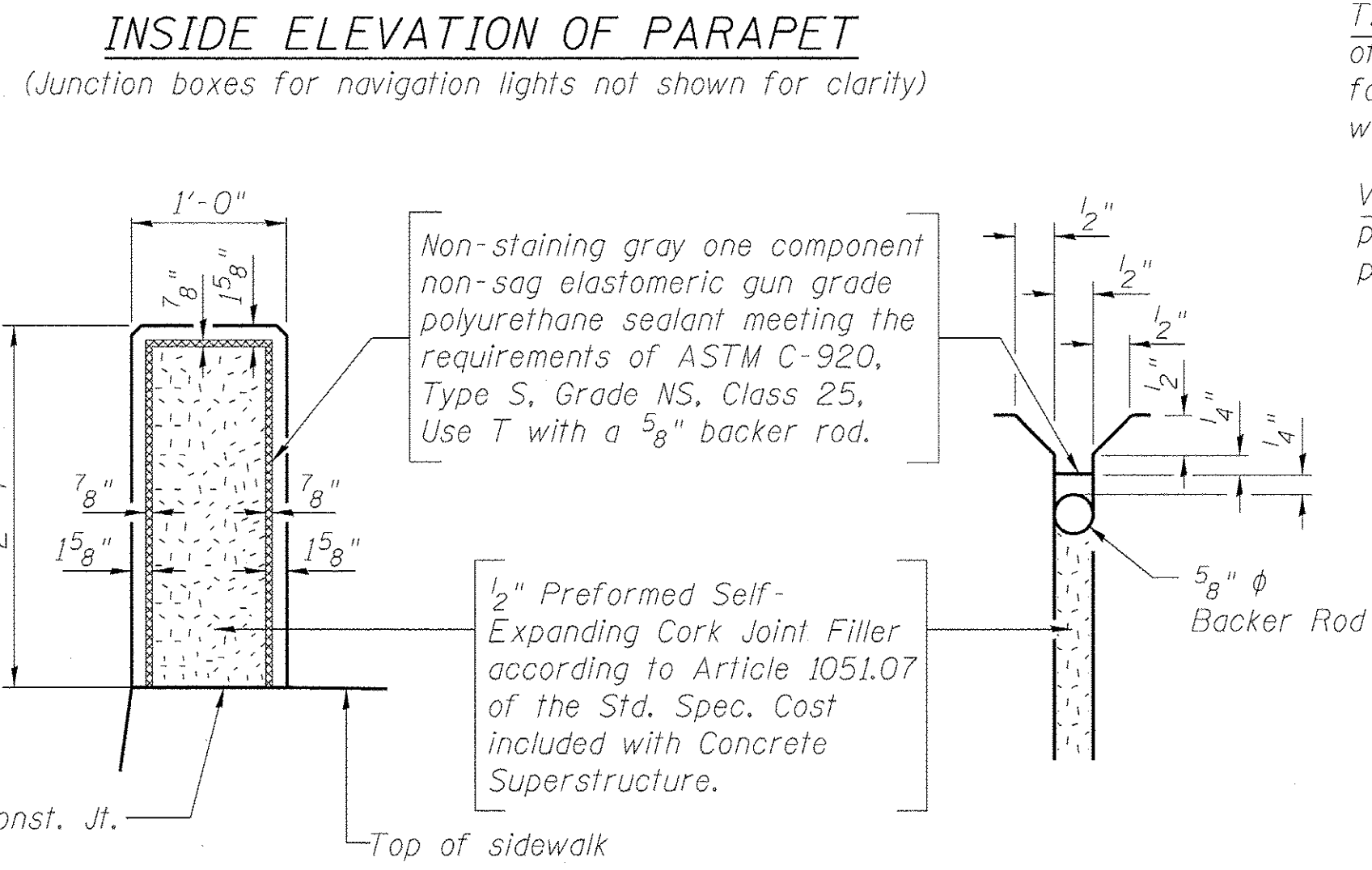
X:\10000S\10055.02\Eng\_Docs\_Phase\_II\Bridge\_Street\_016-6953\Final\0166953.012\_DeckPL1.dgn 2:50:36 PM 2/19/2013



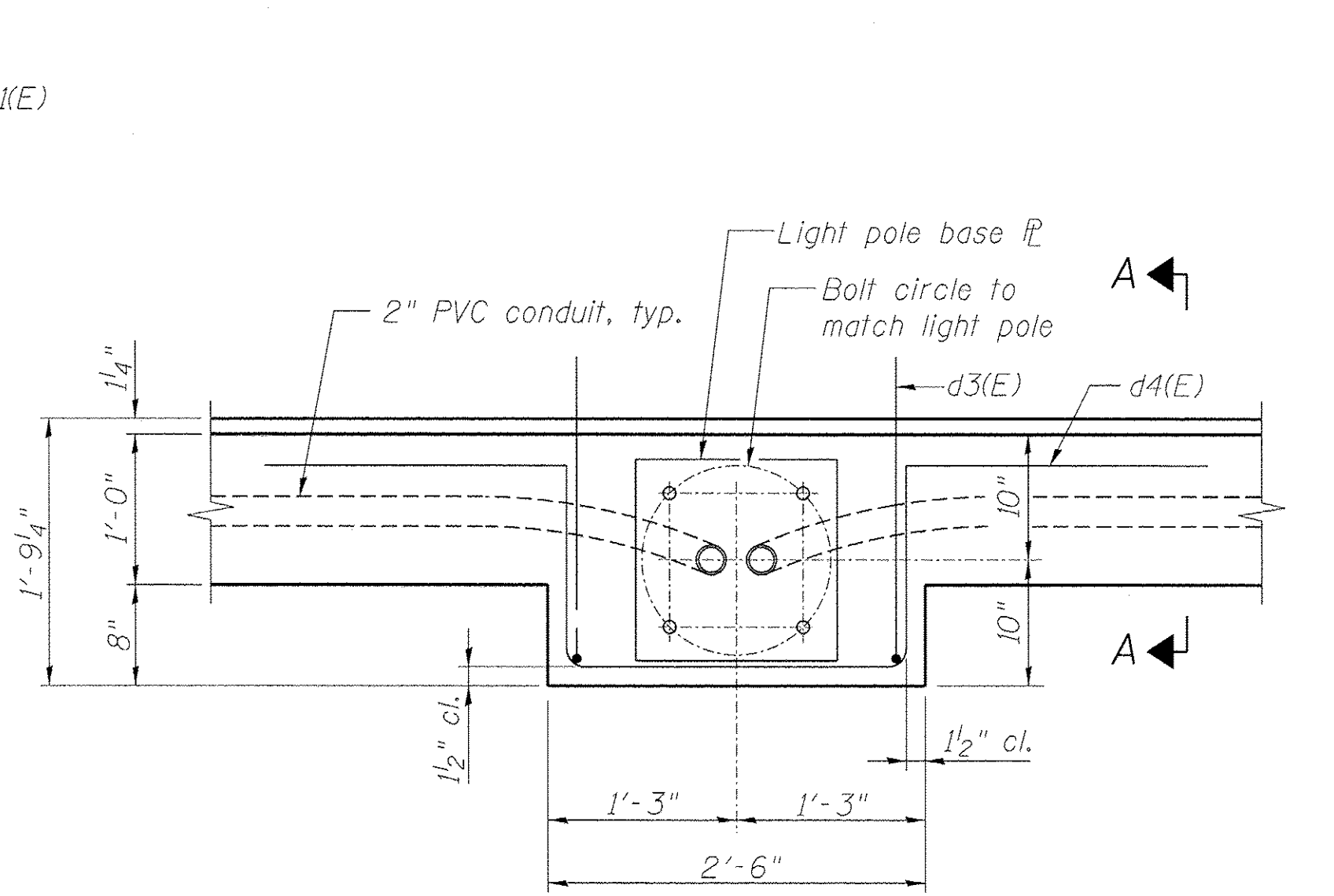




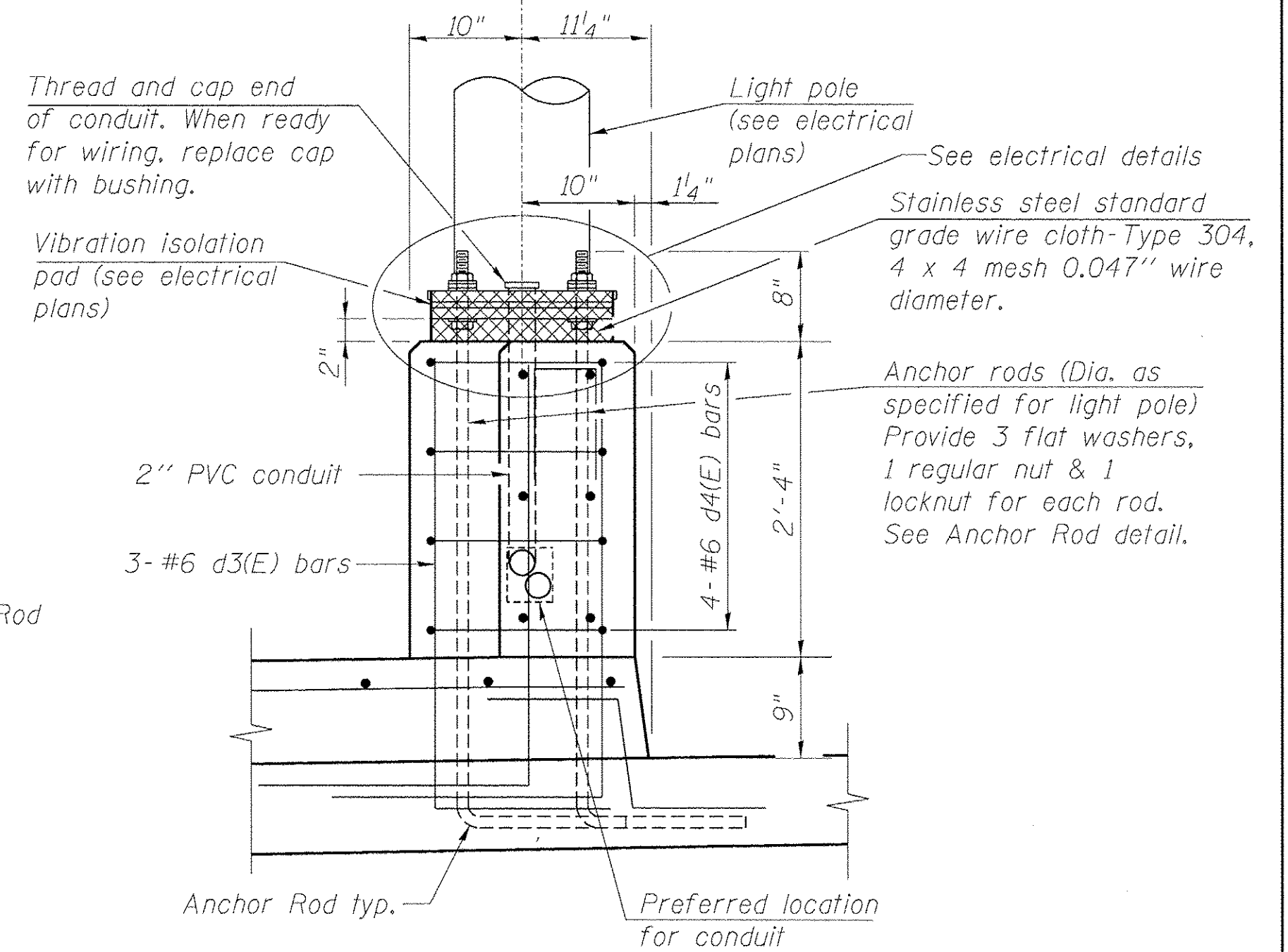
**SECTION THRU SIDEWALK AND PARAPET**  
(South side looking West, North side similar)



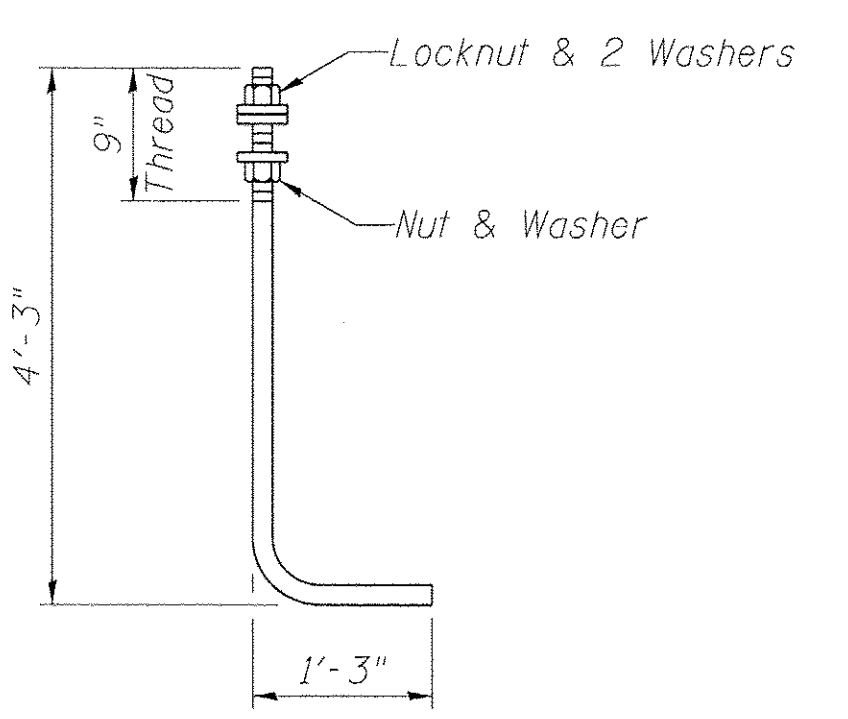
**PARAPET JOINT DETAILS**



**PLAN**



**SECTION A-A**



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

- NOTES:**
1. See sheet S17 for Bill of Material.
  2. See sheets S21 and S22 for Bicycle Railing and Parapet Railing details.
  3. e1(E) and e2(E) bars shall be cut in field to miss the junction boxes at the navigation light locations.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-669-0450 Job No. 10055.02

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
0166953.014_Parapet.dgn	eship	MJF/MFB	-
	PLOT SCALE =	CHECKED -	REVISED -
		EFS	-
	PLOT DATE =	DRAWN -	REVISED -
	2/19/2013	RMG	-
		CHECKED -	REVISED -
		EFS	-

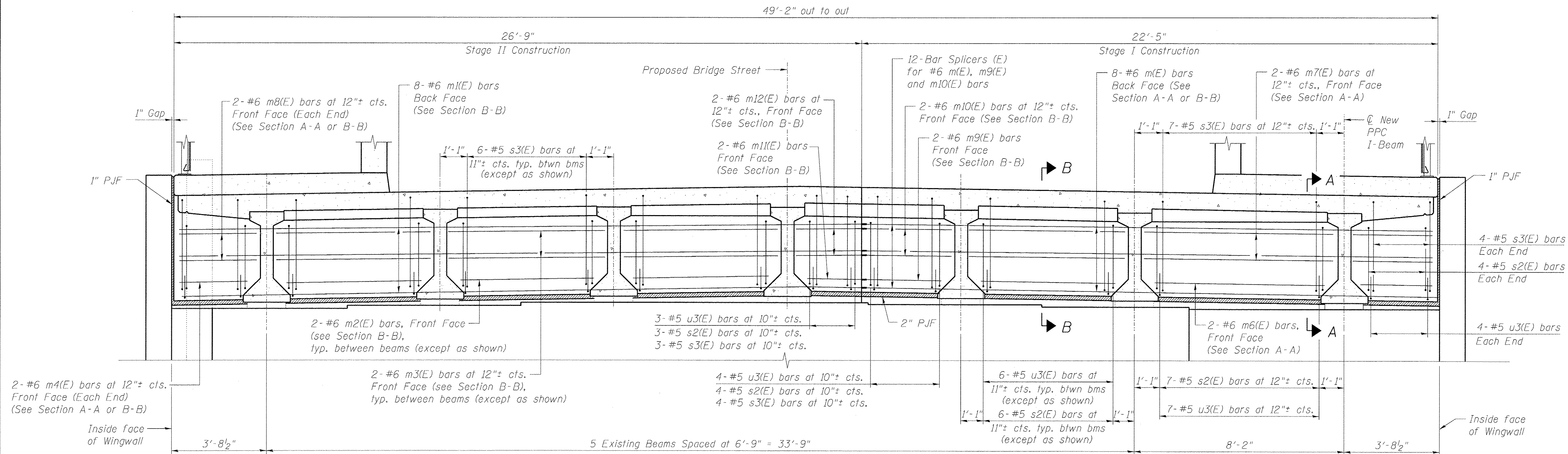
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS 1 OF 4  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S14 OF S50 SHEETS

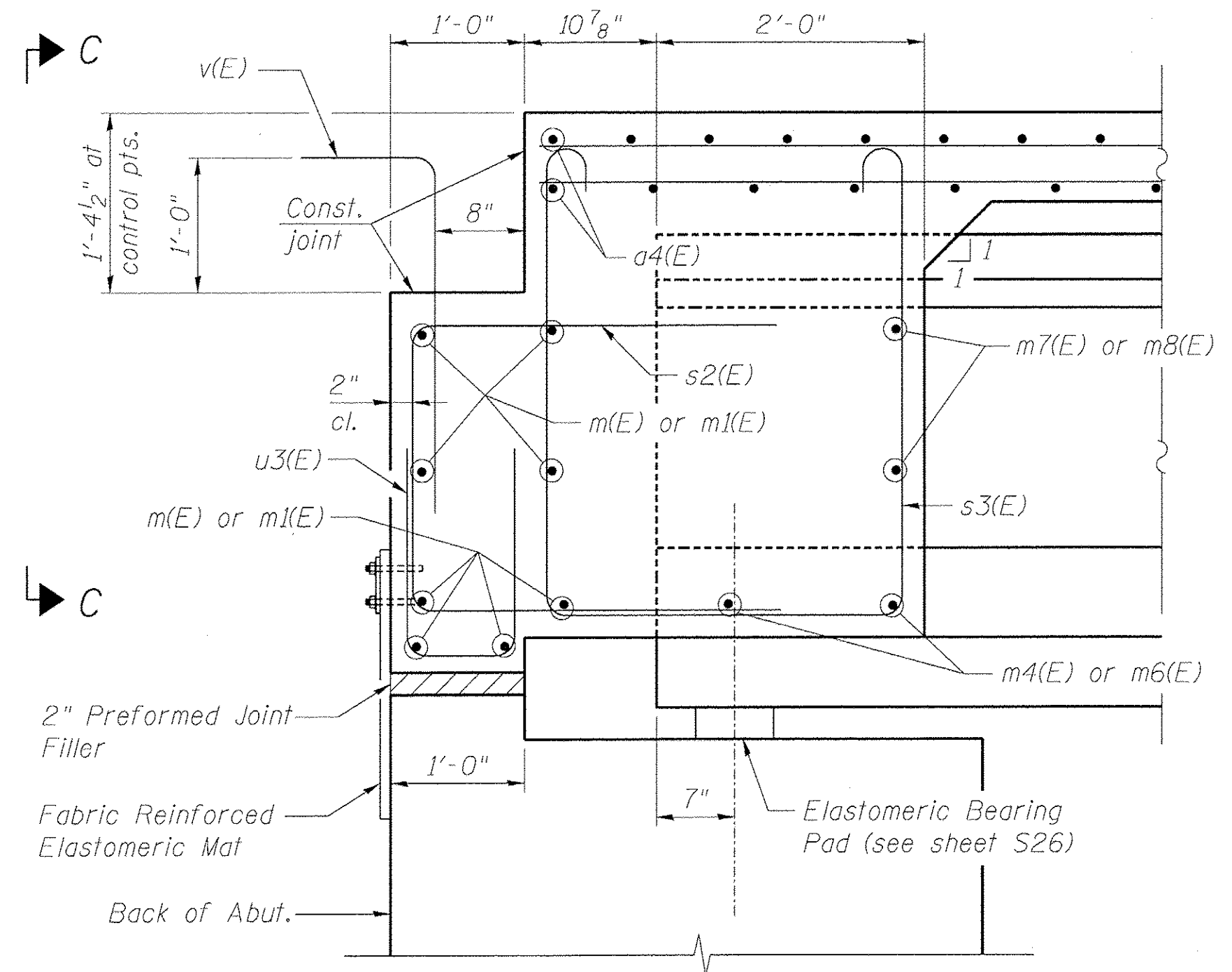
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	67
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridge\_Street\_016-6953\Final\0166953-014\_Parapet.dgn 2:50:40 PM 2/19/2013

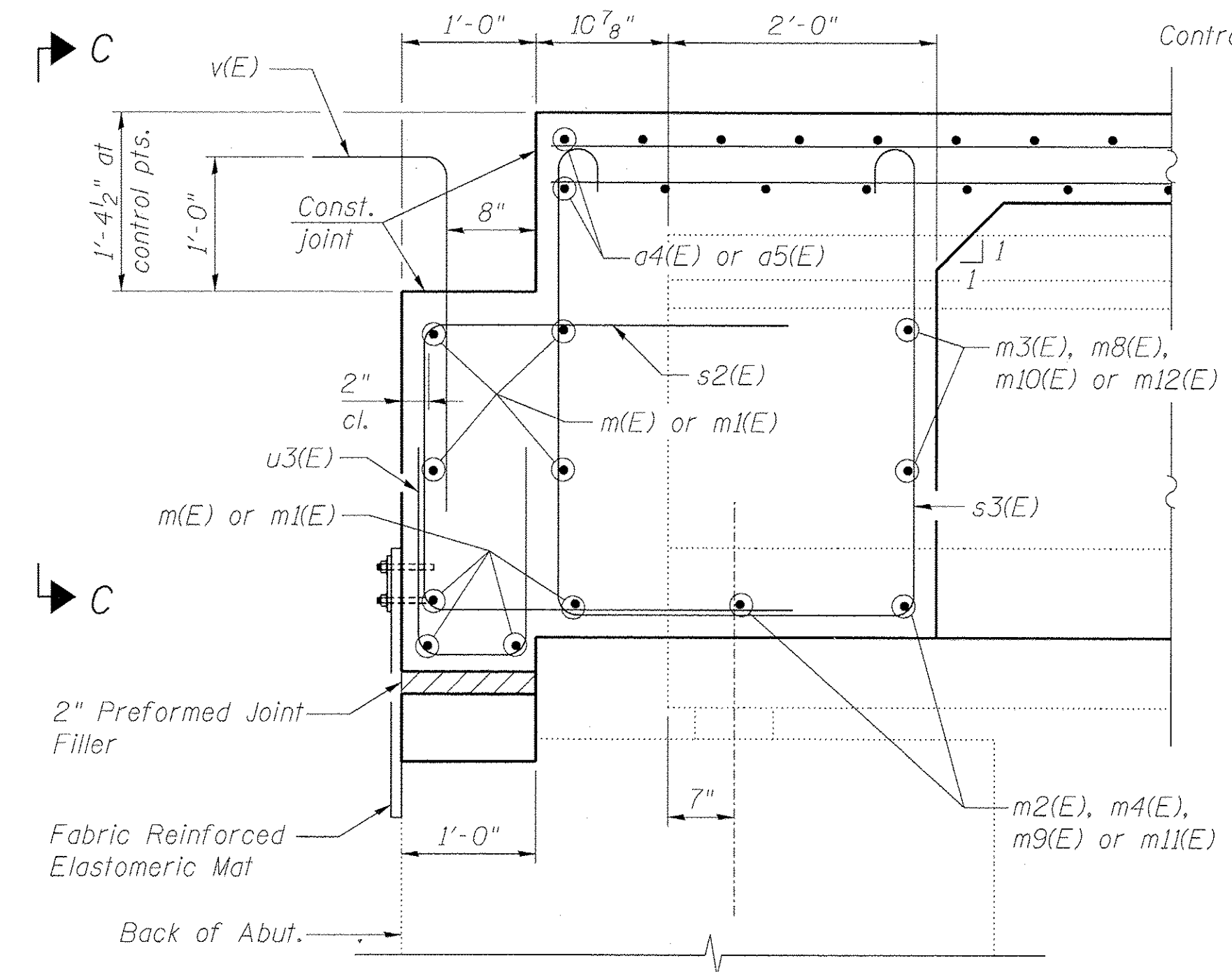




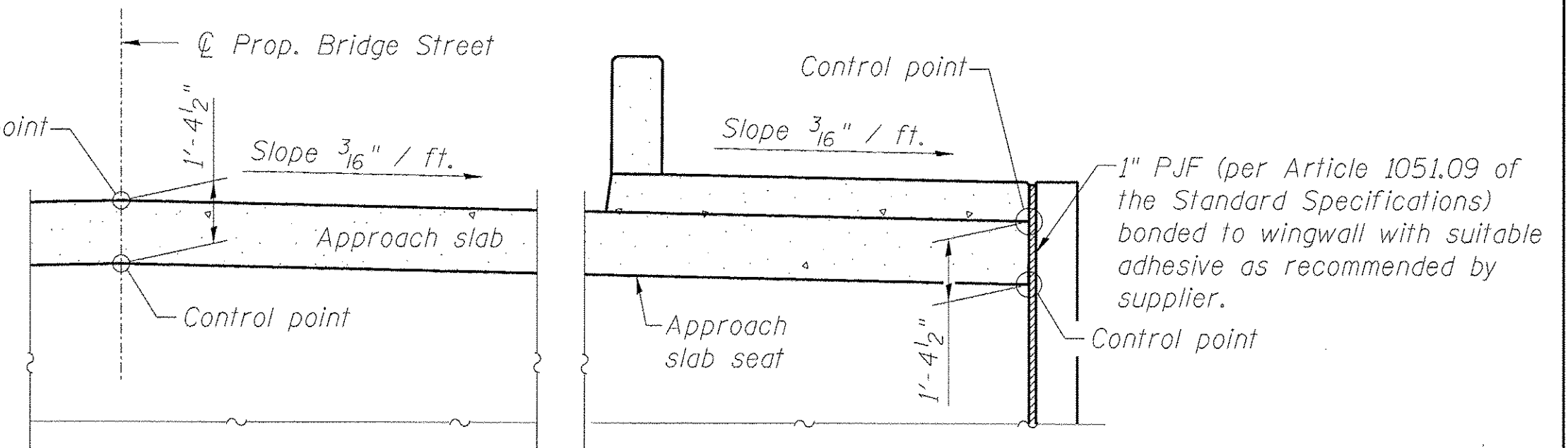
**DIAPHRAGM ELEVATION AT ABUTMENT**  
 (East Abutment shown looking Downstation)  
 (West Abutment - Opposite Hand)



**SECTION A-A**  
 (at abutment widening, dim. at Rt. L's except as noted)



**SECTION B-B**  
 (at existing abutment, dim. at Rt. L's except as noted)



**VIEW C-C**

- NOTES:**
1. Reinforcement bars in diaphragm are billed with Superstructure on sheet S17.
  2. Concrete in diaphragm is included with Concrete Superstructure on sheet S17.
  3. For bar bend details, see sheet S17.
  4. The s2(E), s3(E) and u3(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
  5. The approach slab seat shall have a constant slope determined by the control points shown.
  6. For bearing details see sheet S26.
  7. For bar splicer details, see sheet S36.

**benesch**  
 engineers • scientists • planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME = 0166953.015\_Abut\_Diaphragm.dgn  
 USER NAME = oahp  
 PLOT SCALE =  
 PLOT DATE = 2/19/2013

DESIGNED - MJF/MFB  
 CHECKED - EFS  
 DRAWN - RMC  
 CHECKED - EFS

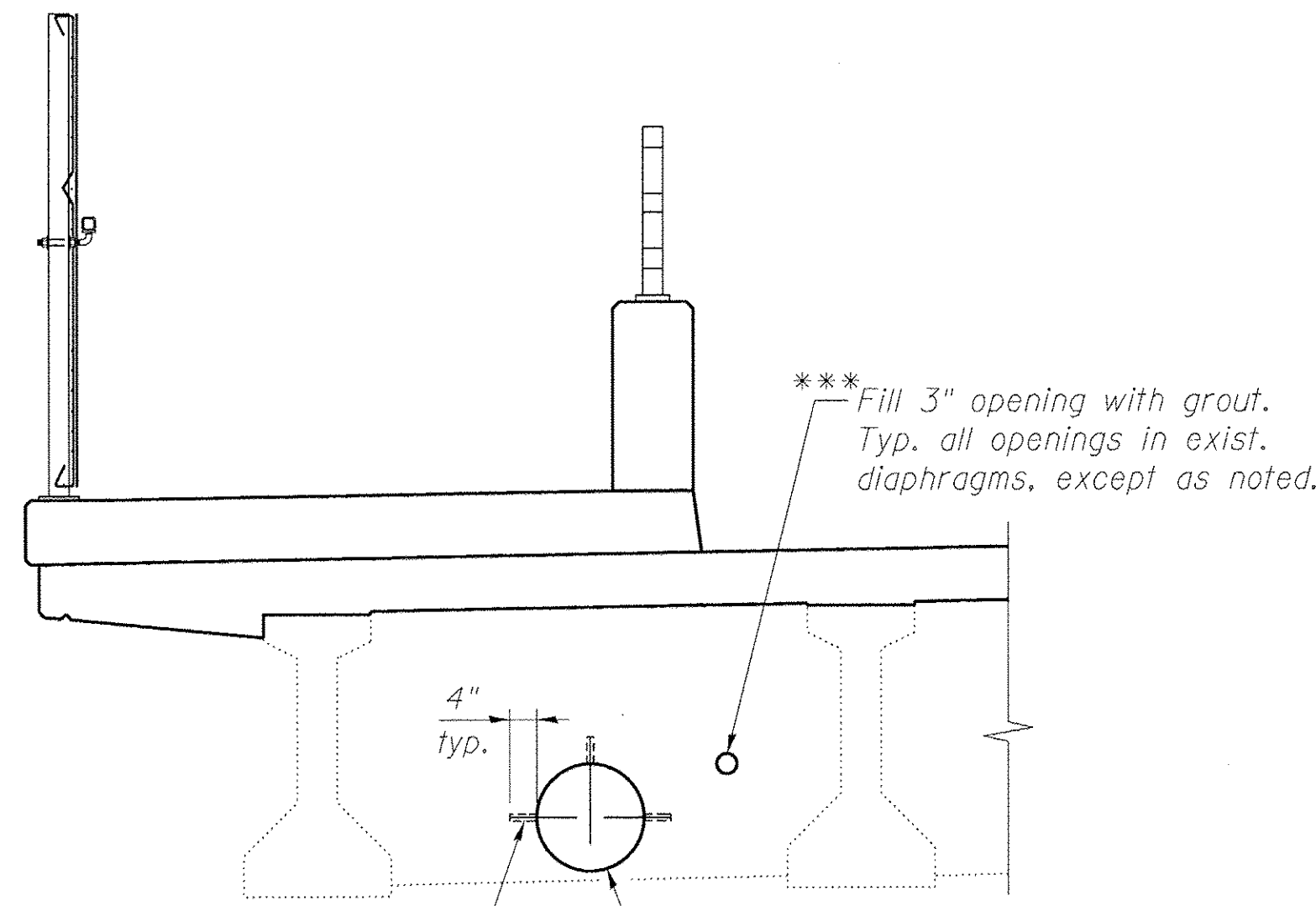
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS 2 OF 4  
 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
 SHEET NO. S15 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	68
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase\_1\10166953\Final\0166953.015\_Abut\_Diaphragm.dgn 2/19/2013 PM 2:50:42



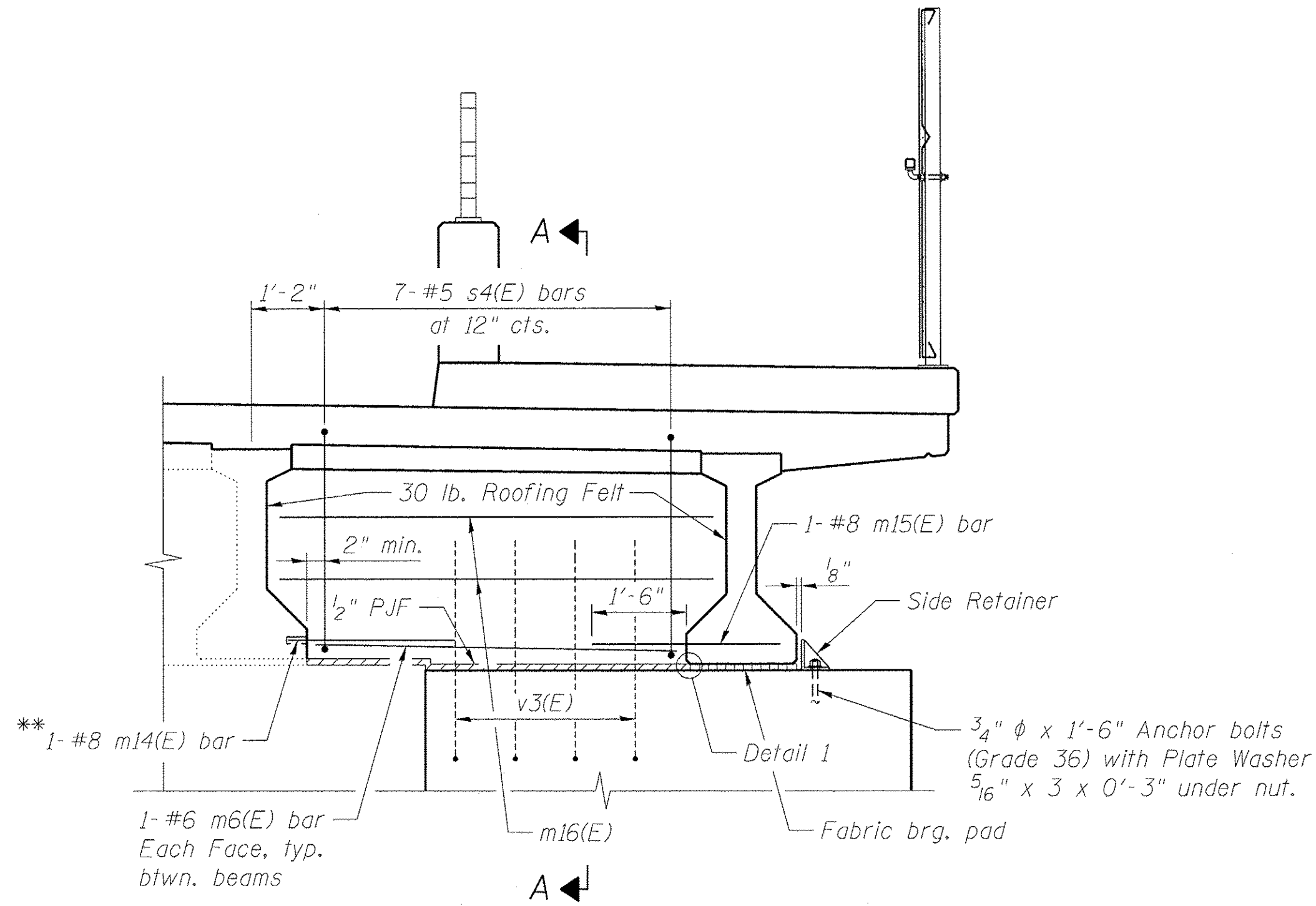
\*\*\*Fill 3" opening with grout.  
Typ. all openings in exist.  
diaphragms, except as noted.

\*\*\*Drill 1"  $\phi$  x 4" holes (E.F. of diaphragm) in the locations shown (6 Req'd). Grout #4 bar (1'-2" length) in holes. Fill opening with concrete flush with edge of diaphragm.

**EXISTING DIAPHRAGM REPAIR**

(Looking Downstation)  
(Work shall be completed once at each pier)

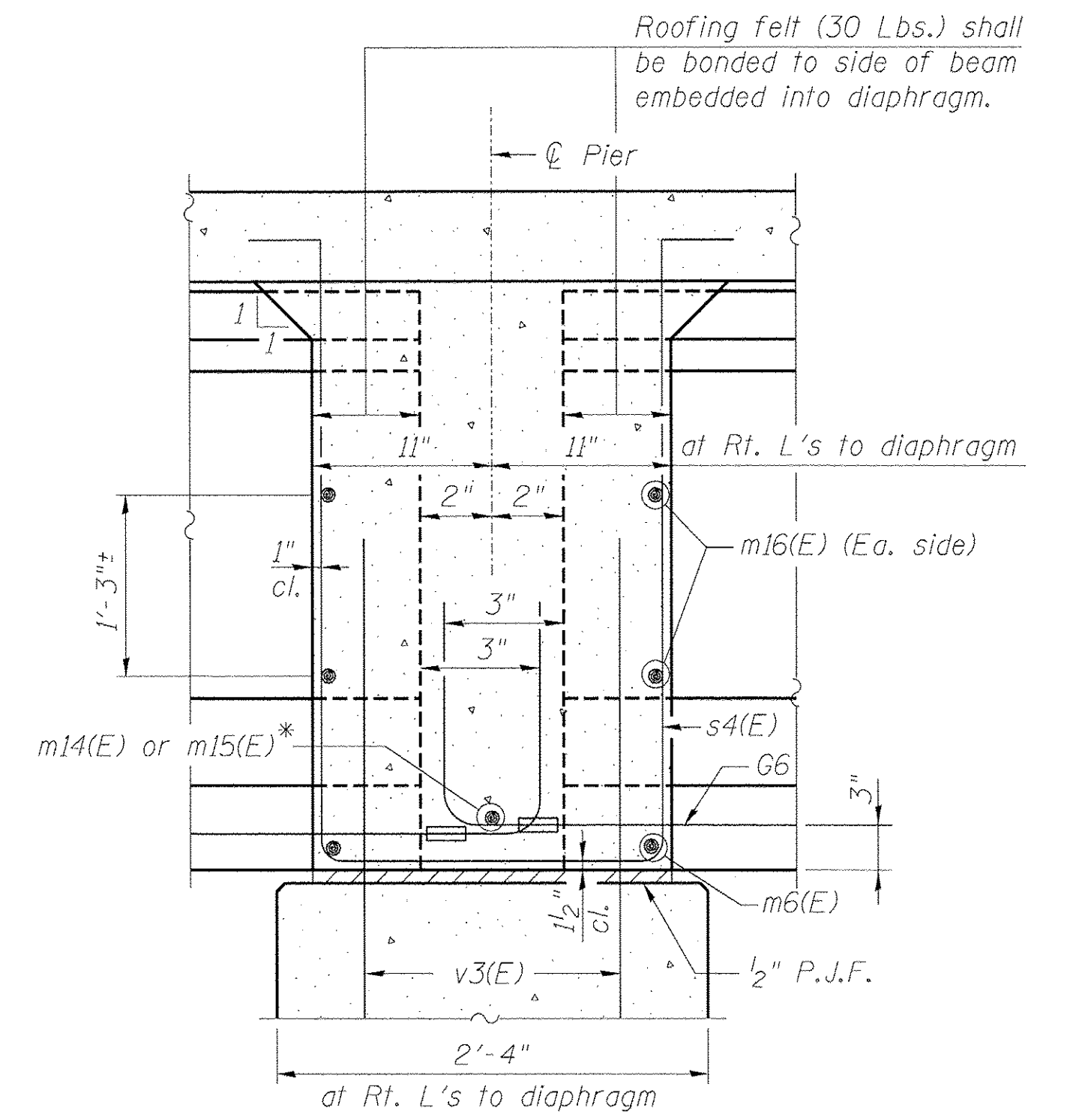
\*\*\*Cost for all labor and materials required to fill existing holes in the pier diaphragms, including all concrete, grout and reinforcement, shall be included in the cost of Concrete Superstructures.



**PIER DIAPHRAGM**

(Looking Downstation)

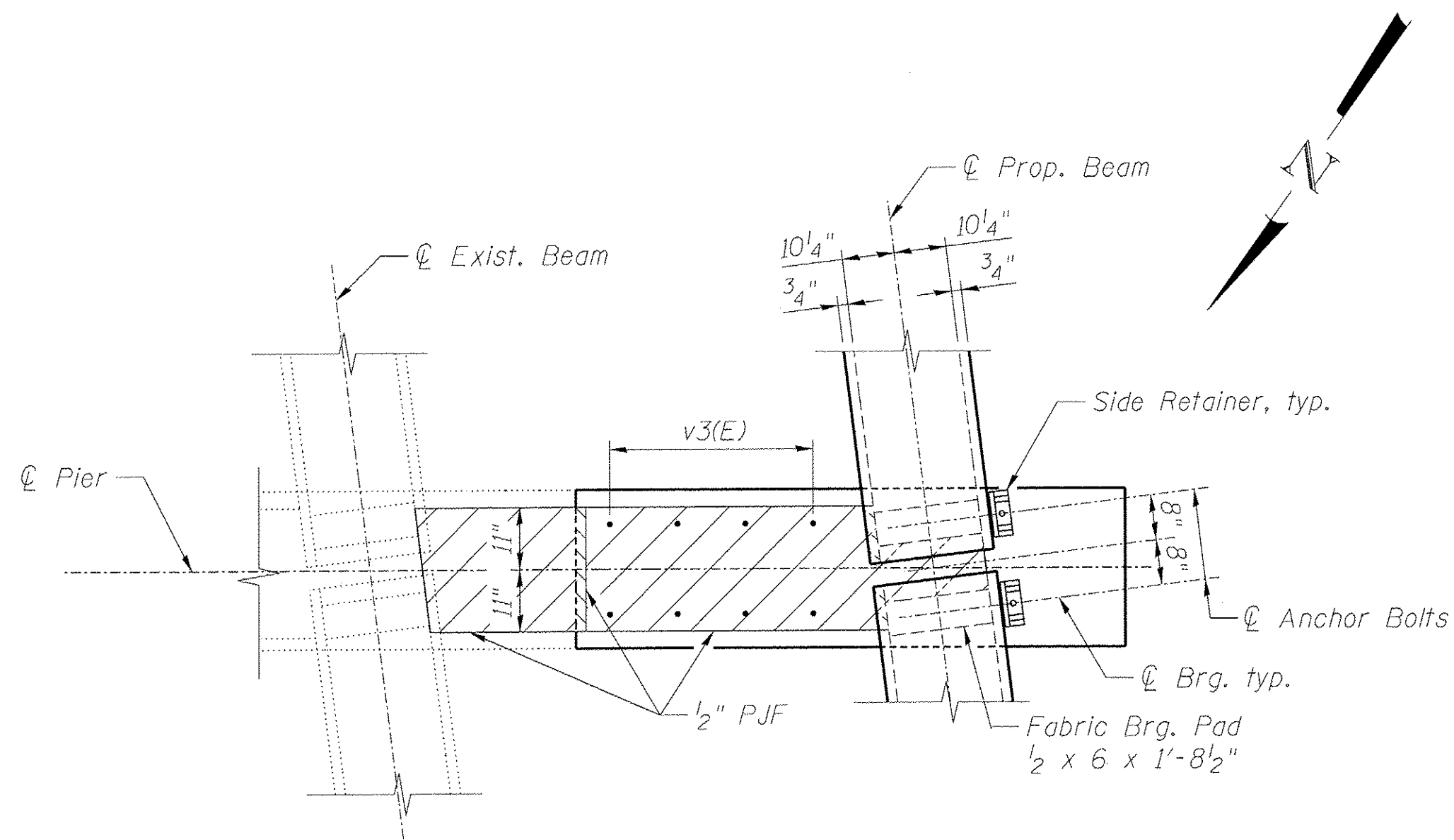
\*\*Drill and grout bars according to Article 584 of the Standard Specifications. Maximum depth of drilled hole shall not exceed 6". Cost to be included in Reinforcement Bars, Epoxy Coated.



**SECTION A-A**

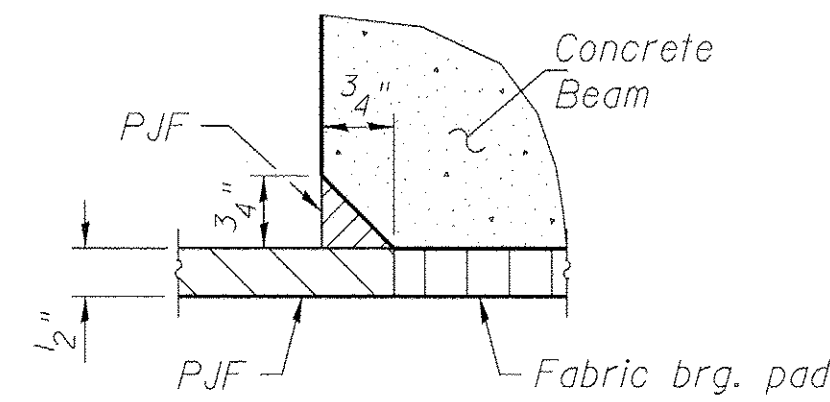
Dimensions along  $\phi$  of beam, except as shown.

\*Tightly fasten the #8 bars together with No. 9 wire ties.

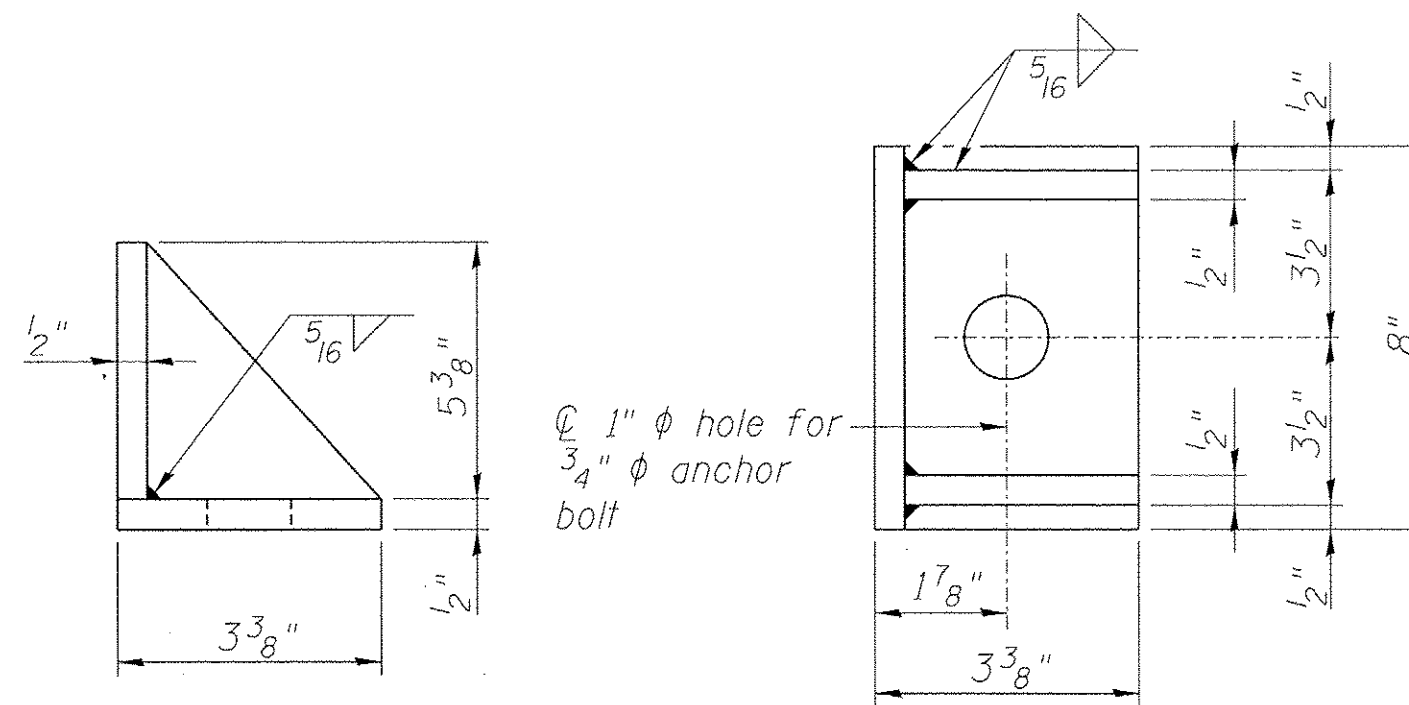


**PLAN AT PIER DIAPHRAGM**

(Showing bearing pads and P.J.F. details)



**DETAIL 1**



**SIDE RETAINER**

(2 required each side of pier)  
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates

**NOTES:**

1. Reinforcement bars in diaphragm are billed with superstructure on sheet S17.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet S17.
3. For details of s4(E)bar, see sheet S17.
4. For details of v3(E) bars, see sheets S31 and S32.
5. Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
6. The side retainer shall be galvanized after shop fabrication according to AASHTO M 111. Cost of side retainer and anchor bolts shall be included in Concrete Structures.
7. Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
8. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
9. Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after beams are in place.
10. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
11. For bar splicer details, see sheet S36.
12. Cost of 1/2" preformed joint filler and fabric bearing pad included with Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42 In.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
0166953_016_Pier_Diaphragm.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS 3 OF 4  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S16 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	69
			CONTRACT NO. 63817	
[ILLINOIS] FED. AID PROJECT				

X:\100005\10055.02\Eng\_Phase\_11\Bridges\_Street\_016-6953\Final\0166953\_016\_Pier\_Diaphragm.dgn 2:50:47 PM 2/19/2013



**SUPERSTRUCTURE  
BILL OF MATERIAL**

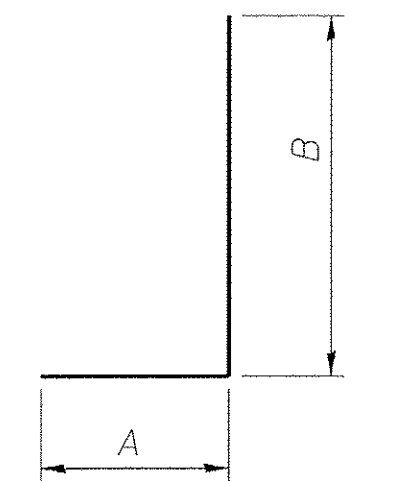
(Stage 1)

Bar	No.	Size	Length	Shape
a(E)	293	#5	21'-8"	—
a2(E)	227	#5	20'-8"	—
a4(E)	4	#6	21'-8"	—
b(E)	170	#5	36'-9"	—
b1(E)	44	#6	41'-0"	—
b2(E)	132	#5	31'-3"	—
c(E)	171	#5	2'-4"	┘
c1(E)	171	#5	8'-4"	—
d(E)	342	#6	4'-1"	┘
d1(E)	171	#4	3'-6"	┘
d2(E)	58	#4	2'-8"	┘
d3(E)	3	#6	5'-3"	┘
d4(E)	4	#6	8'-11"	┘
e(E)	36	#4	13'-2"	—
e1(E)	24	#4	8'-8"	—
e2(E)	18	#4	17'-4"	—
m(E)	16	#6	22'-5"	—
m2(E)	4	#6	4'-7"	—
m3(E)	4	#6	5'-11"	—
m4(E)	4	#6	2'-4"	—
m6(E)	8	#6	6'-0"	—
m7(E)	4	#6	7'-4"	—
m8(E)	4	#6	3'-0"	—
m9(E)	4	#6	1'-6"	—
m10(E)	4	#6	2'-10"	—
m14(E)	2	#8	2'-6"	—
m15(E)	2	#8	3'-0"	—
m16(E)	8	#4	7'-4"	—
s2(E)	42	#5	9'-9"	┘
s3(E)	42	#5	11'-6"	┘
s4(E)	14	#5	10'-4"	┘
u3(E)	42	#5	2'-10"	┘
v(E)	46	#5	3'-1"	┘
Concrete Superstructure	Cu. Yd.	179.5		
Reinforcement Bars, Epoxy Coated	Pound	32,620		

**SUPERSTRUCTURE  
BILL OF MATERIAL**

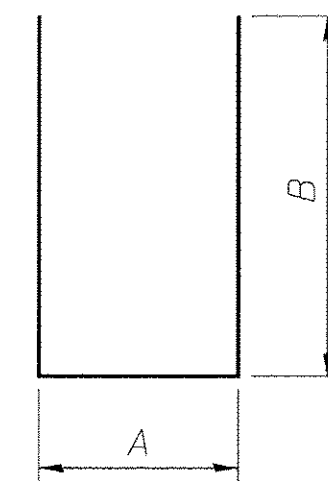
(Stage 2)

Bar	No.	Size	Length	Shape
a1(E)	293	#5	25'-8"	—
a3(E)	227	#5	24'-8"	—
a5(E)	4	#6	25'-8"	—
b(E)	195	#5	36'-9"	—
b1(E)	54	#6	41'-0"	—
b2(E)	162	#5	31'-3"	—
c(E)	171	#5	2'-4"	┘
c2(E)	171	#5	7'-11"	—
d(E)	342	#6	4'-1"	┘
d1(E)	171	#4	3'-6"	┘
d2(E)	58	#4	2'-8"	┘
e(E)	36	#4	13'-2"	—
e1(E)	24	#4	8'-8"	—
e2(E)	18	#4	17'-4"	—
m1(E)	16	#6	26'-5"	—
m2(E)	12	#6	4'-7"	—
m3(E)	12	#6	5'-11"	—
m4(E)	4	#6	2'-4"	—
m8(E)	4	#6	3'-0"	—
m11(E)	4	#6	0'-9"	—
m12(E)	4	#6	2'-1"	—
s2(E)	50	#5	9'-9"	┘
s3(E)	50	#5	11'-6"	┘
u3(E)	50	#5	2'-10"	┘
v(E)	56	#5	3'-1"	┘
Concrete Superstructure	Cu. Yd.	197.1		
Reinforcement Bars, Epoxy Coated	Pound	37,330		



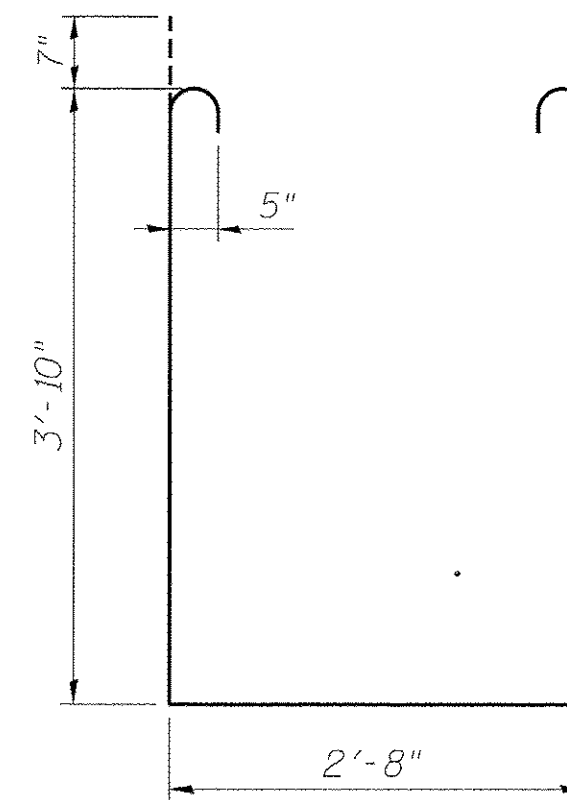
Bar	A	B
v(E)	10"	2'-3"
d(E)	11"	3'-2"
d3(E)	2'-0"	3'-3"

BARS v(E), d(E) & d3(E)

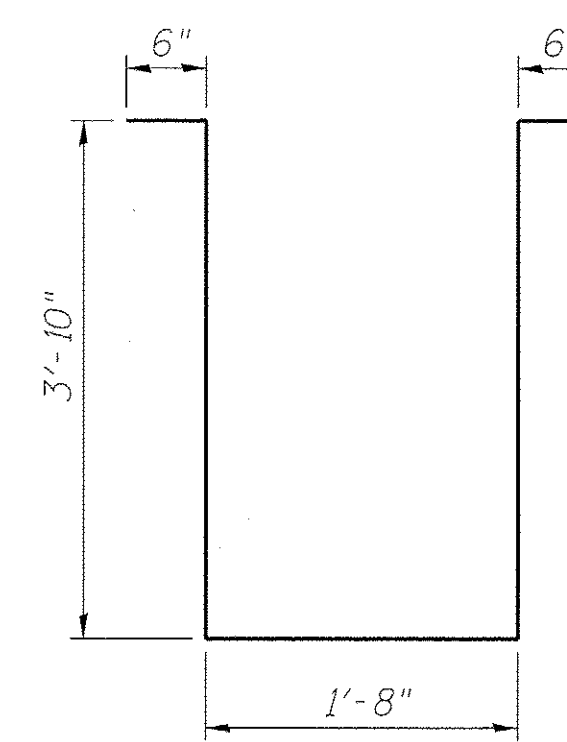


Bar	A	B
d2(E)	8"	1'-0"
s2(E)	2'-3"	3'-9"
u3(E)	10"	1'-0"

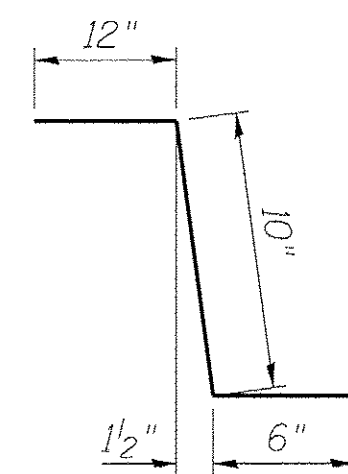
BARS d2(E), s2(E) & u3(E)



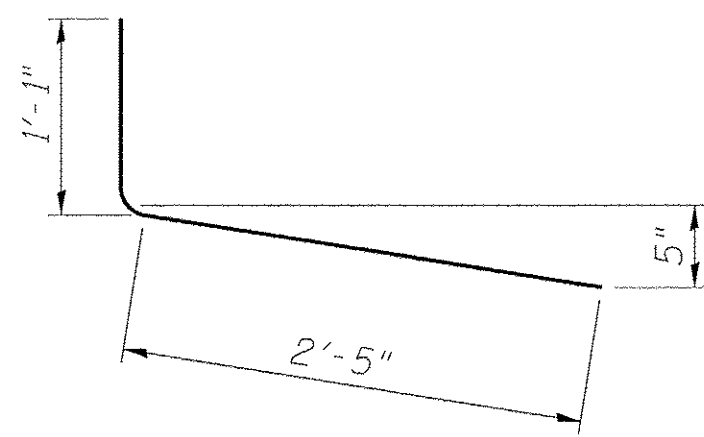
BAR s3(E)



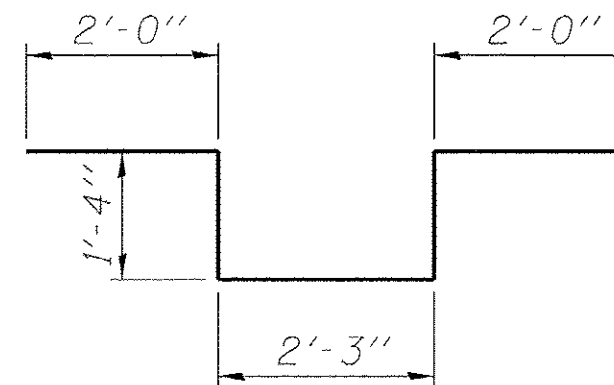
BAR s4(E)



BAR c(E)



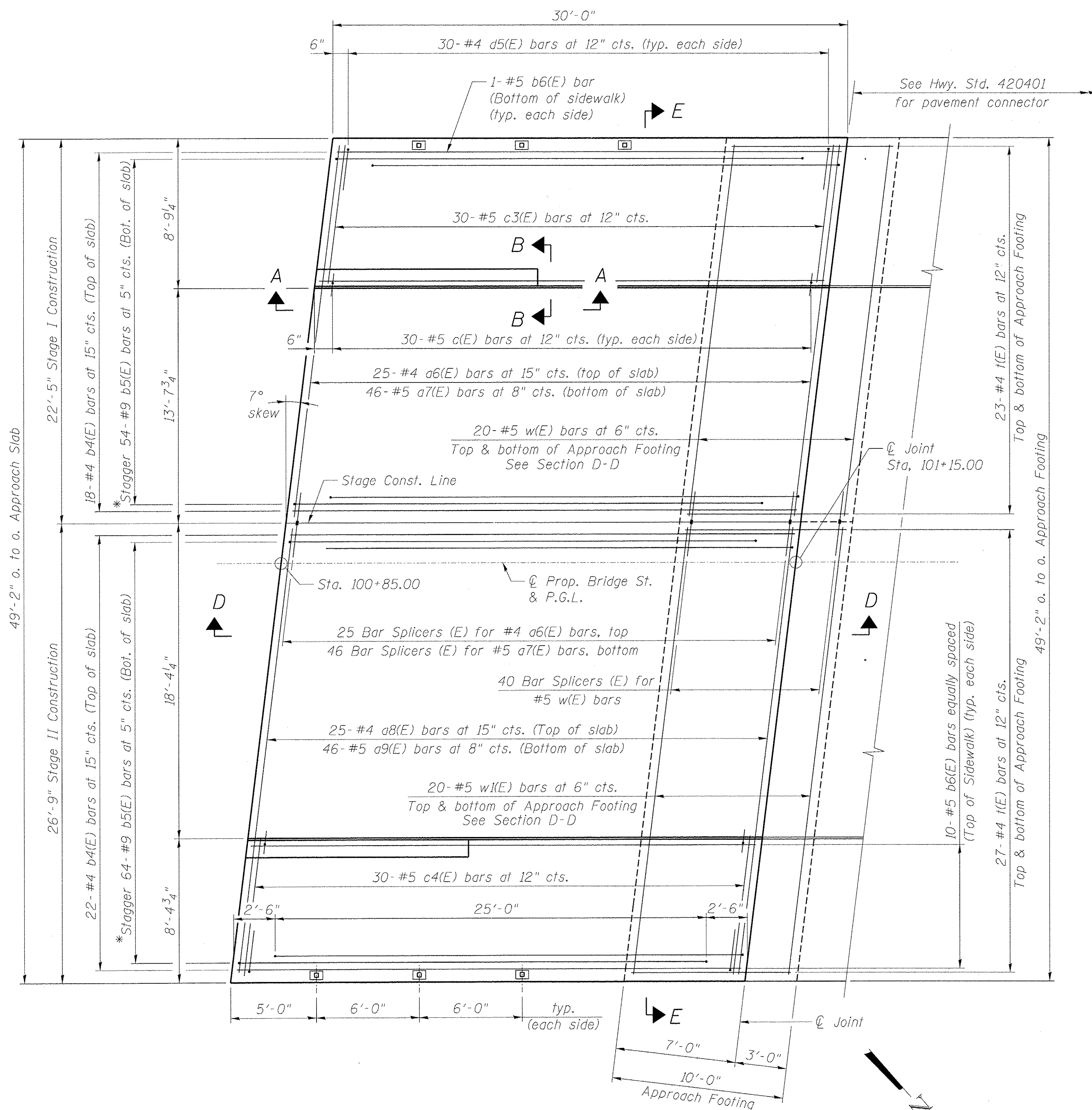
BAR d1(E)



BAR d4(E)

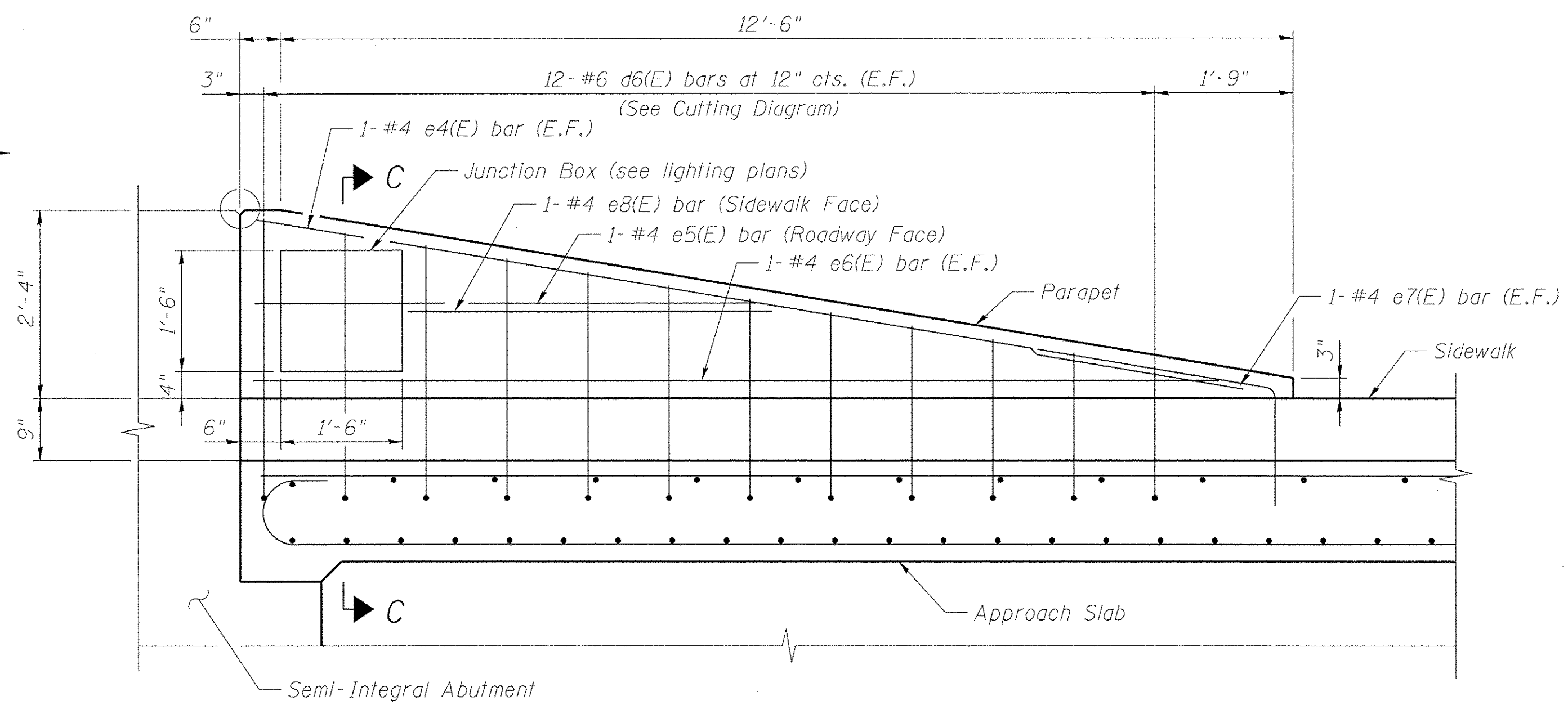
FILE NAME =	USER NAME = oship	DESIGNED - MFB	REVISED -
0166953_017_DeckDtls.dgn		CHECKED - EFS	REVISED -
		DRAWN - RMC	REVISED -
		CHECKED - EFS	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	70
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	



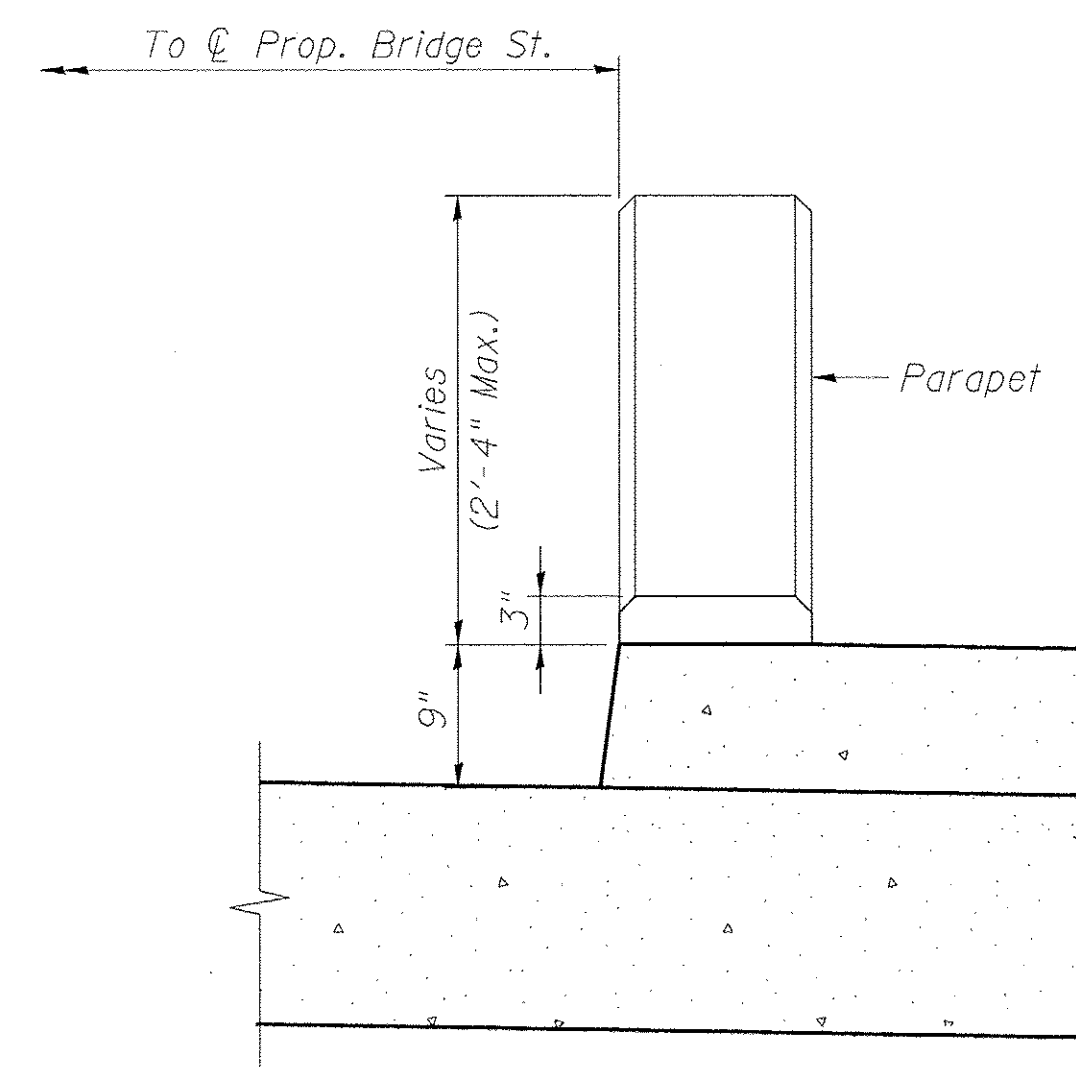
PLAN

\*Tilt #9 b5(E) bars as required to maintain clearance.

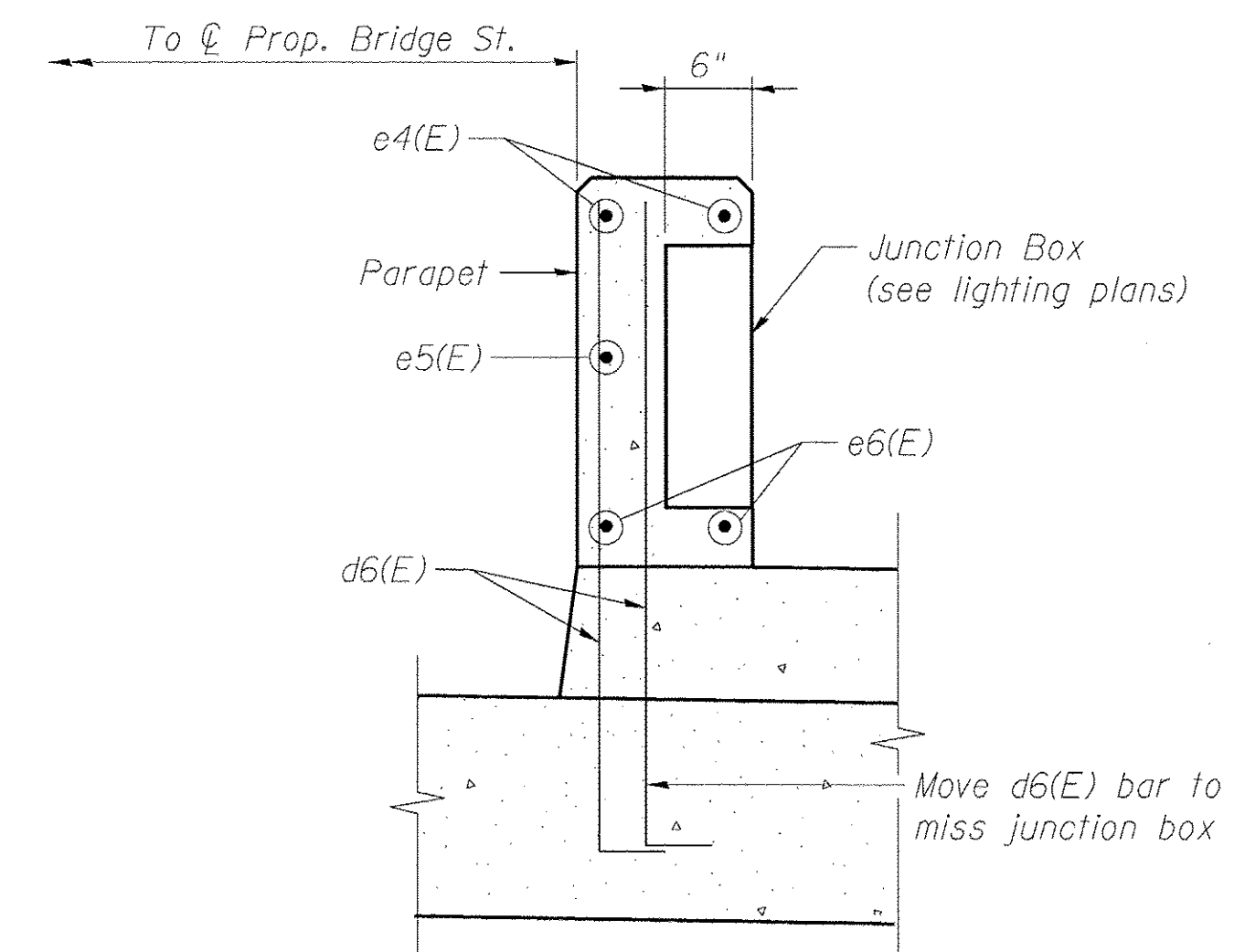


SECTION A-A

West Parapet shown, East parapet, similar



VIEW B-B



SECTION C-C

(At Junction Box)

MINIMUM BAR LAP

#4 bar = 2'-7"

NOTES:

1. See sheet S20 for Sections D-D & E-E.
2. All transverse reinforcing steel bar spacings, except for footing reinforcing, is measured along  $\perp$  Roadway.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953_018_Appr1.dgn	PLOT SCALE =	CHECKED - JHG	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -
		CHECKED - JHG	REVISED -

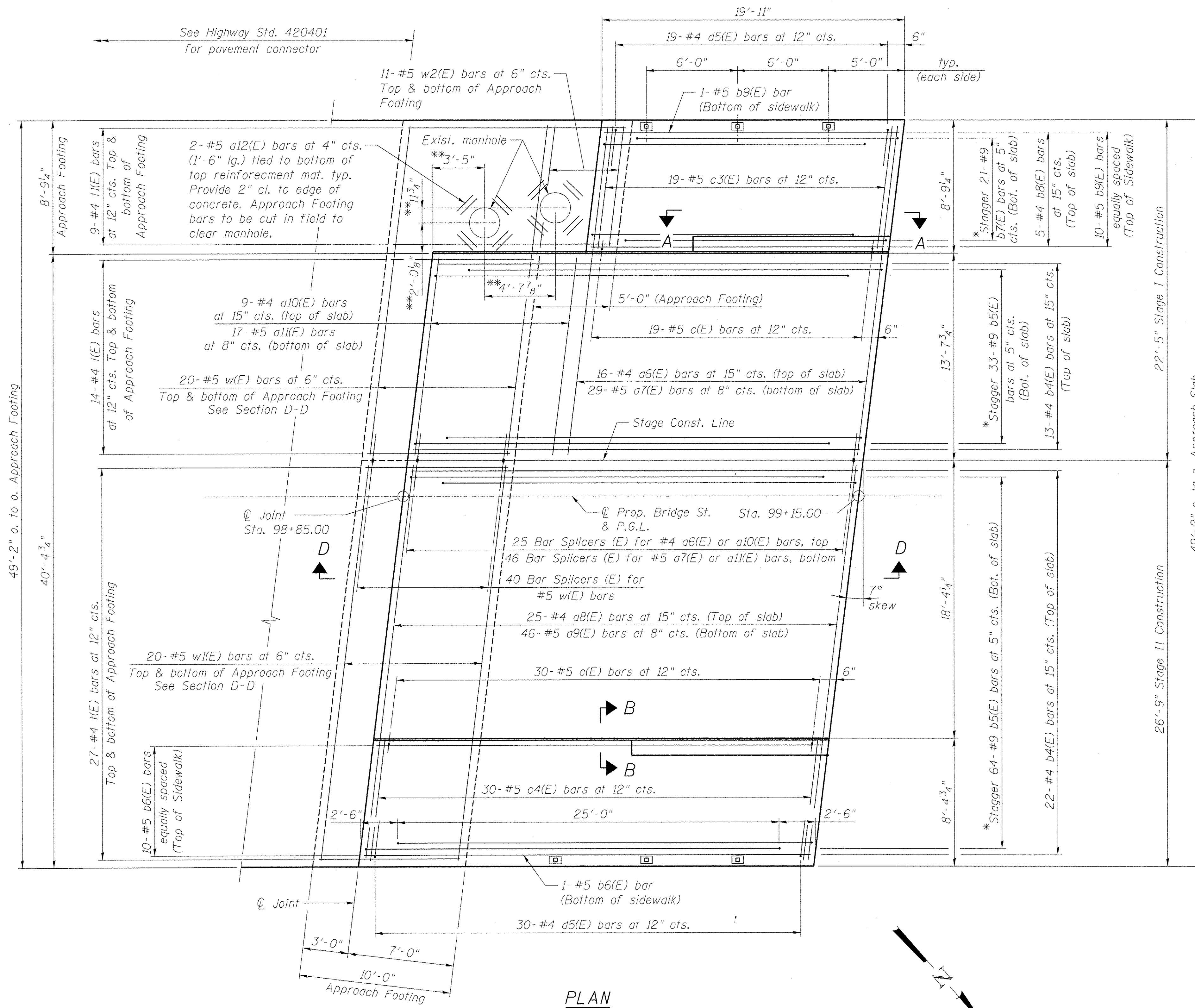
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS 1 OF 3  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

SHEET NO. S18 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	71
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	





PLAN

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

**NOTES:**

1. See sheet S18 for Sections A-A & B-B.
2. See sheet S20 for Section D-D.
3. All transverse reinforcing steel bar spacings, except for footing reinforcing, is measured along  $\bar{C}$  Roadway.

\*Tilt #9 b5(E) & b7(E) bars as required to maintain clearance.

\*\*Dimension shall be verified in the field.

**benesch**  
engineers • scientists • planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

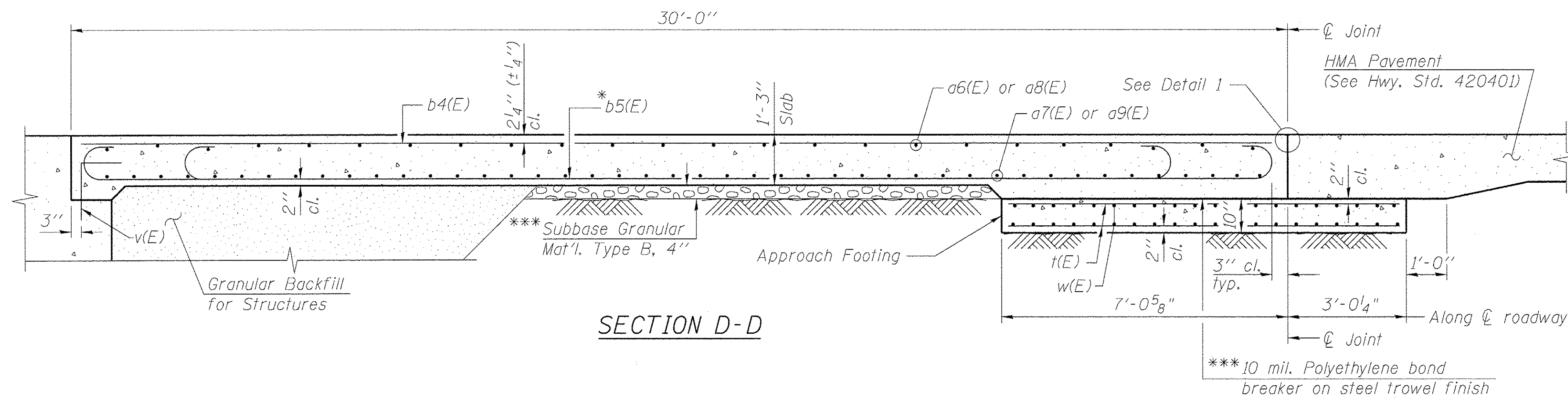
FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
		CHECKED - JHG	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - JHG	REVISED -
PLOT SCALE =			
PLOT DATE = 2/19/2013			

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 2 OF 3**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	72
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

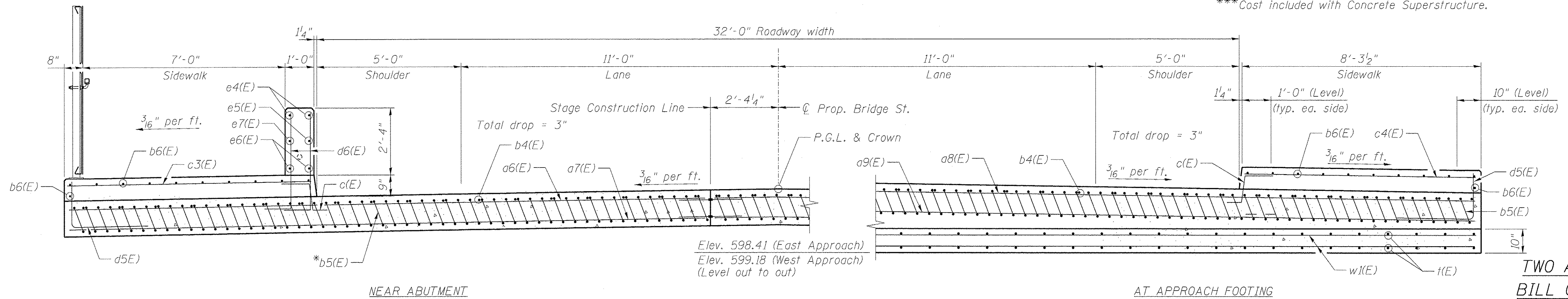
SHEET NO. S19 OF S50 SHEETS



**NOTES:**

1. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
2. Approach footing concrete shall be paid for as Concrete Structures.
3. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
4. For v(E) bar details, see sheet S17.
5. The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
6. For bar splicer details, see sheet S36.
7. Cost of excavation for approach footing included with Concrete Structures.
8. For Granular Backfill for Structures and drainage treatment details, see sheet S2.

\*Tilt #9 b5(E) bars as required to maintain clearance.  
 \*\*\*Cost included with Concrete Superstructure.



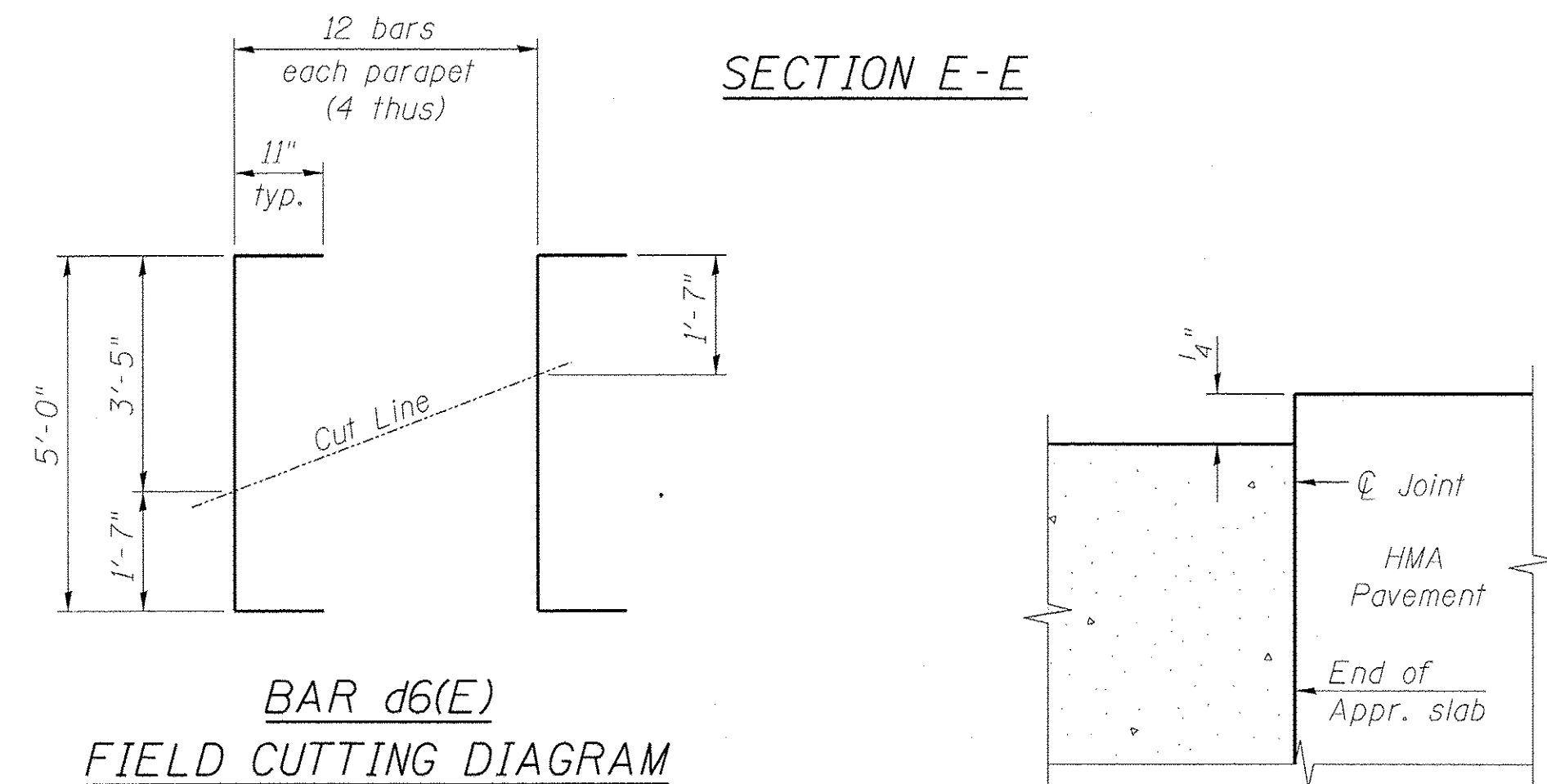
**TWO APPROACHES  
BILL OF MATERIAL**  
(Stage 1)

Bar	No.	Size	Length	Shape
a6(E)	41	#4	22'-1"	—
a7(E)	75	#5	22'-1"	—
a10(E)	9	#4	13'-4"	—
a11(E)	17	#5	13'-4"	—
a12(E)	16	#5	1'-6"	—
b4(E)	31	#4	29'-8"	—
b5(E)	87	#9	29'-9"	⌋
b6(E)	11	#5	29'-8"	—
b7(E)	21	#9	19'-8"	⌋
b8(E)	5	#4	19'-7"	—
b9(E)	11	#5	19'-7"	—
c(E)	49	#5	2'-4"	└
c3(E)	49	#5	8'-5"	—
d5(E)	49	#4	4'-2"	└
d6(E)	24	#6	6'-10"	┘
e4(E)	4	#4	12'-5"	—
e5(E)	2	#4	6'-3"	—
e6(E)	4	#4	12'-0"	—
e7(E)	4	#4	4'-4"	└
e8(E)	2	#4	4'-6"	—
t(E)	74	#4	9'-8"	—
t1(E)	18	#4	14'-8"	—
w(E)	80	#5	22'-1"	—
w2(E)	22	#5	8'-5"	—
Concrete Superstructure			Cu. Yd.	92.8
Concrete Structures			Cu. Yd.	16.8
Reinforcement Bars, Epoxy Coated			Pound	21,980
Concrete Superstructure			Cu. Yd.	76.9
Concrete Structures			Cu. Yd.	15.4
Reinforcement Bars, Epoxy Coated			Pound	17,840

**TWO APPROACHES  
BILL OF MATERIAL**  
(Stage 2)

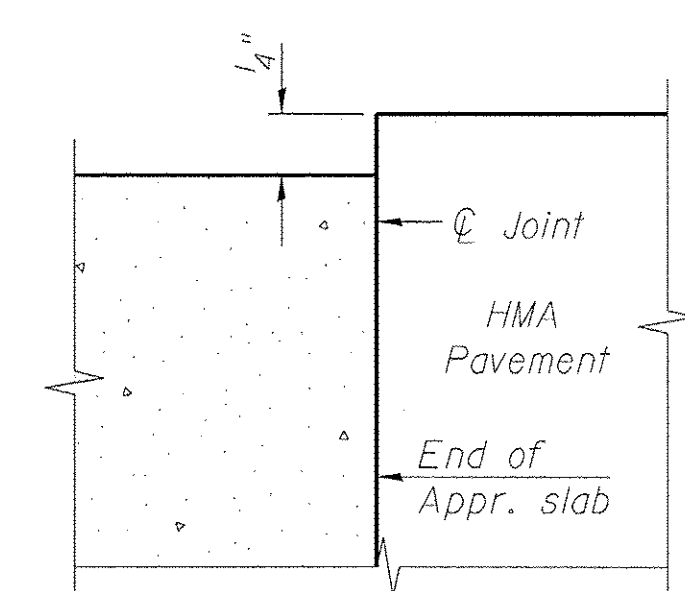
Bar	No.	Size	Length	Shape
a8(E)	50	#4	26'-5"	—
a9(E)	92	#5	26'-5"	—
b4(E)	44	#4	29'-8"	—
b5(E)	128	#9	29'-9"	⌋
b6(E)	22	#5	29'-8"	—
c(E)	60	#5	2'-4"	└
c4(E)	60	#5	8'-0"	—
d5(E)	60	#4	4'-2"	└
d6(E)	24	#6	6'-10"	┘
e4(E)	4	#4	12'-5"	—
e5(E)	2	#4	6'-3"	—
e6(E)	4	#4	12'-0"	—
e7(E)	4	#4	4'-4"	└
e8(E)	2	#4	4'-6"	—
t(E)	108	#4	9'-8"	—
w1(E)	80	#5	26'-5"	—
Concrete Superstructure			Cu. Yd.	92.8
Concrete Structures			Cu. Yd.	16.8
Reinforcement Bars, Epoxy Coated			Pound	21,980

**SECTION E-E**

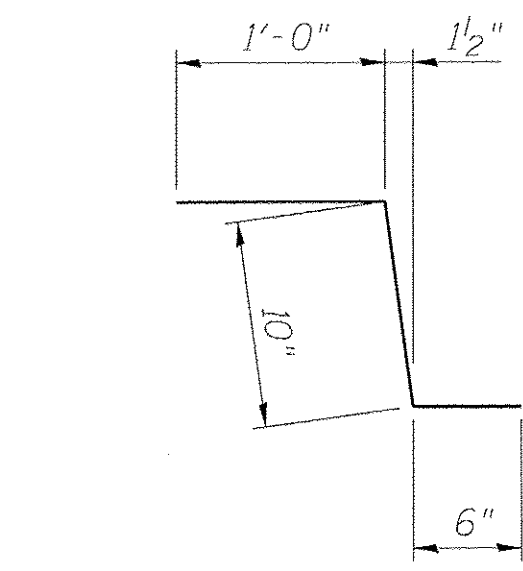


**FIELD CUTTING DIAGRAM**

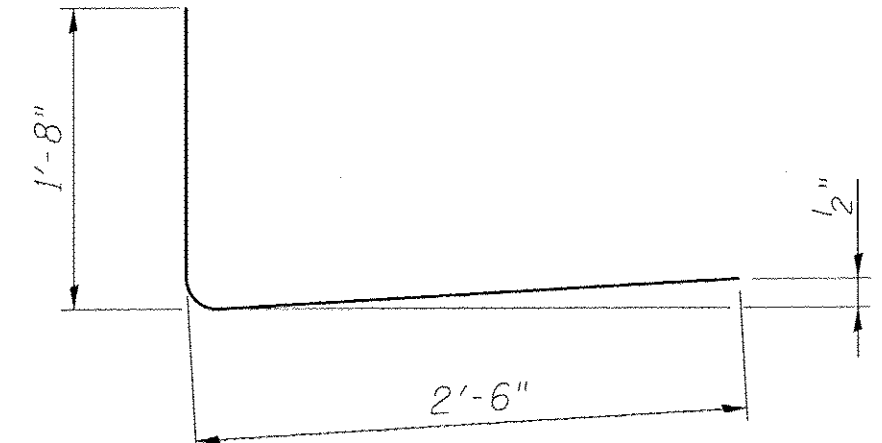
Cut as shown and use remainder of bars in opposite Approach



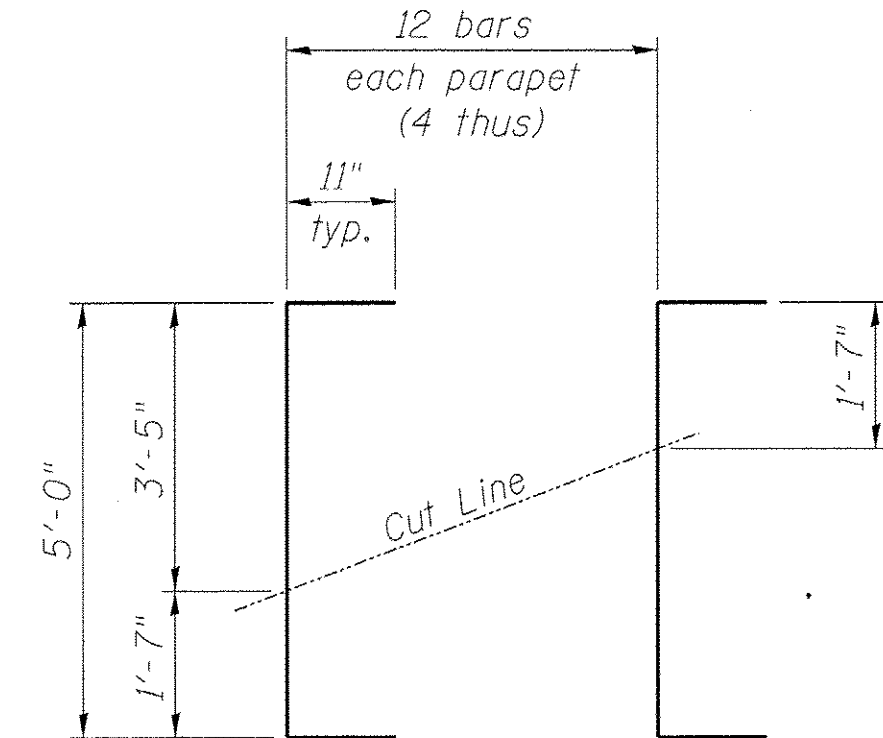
**DETAIL 1**



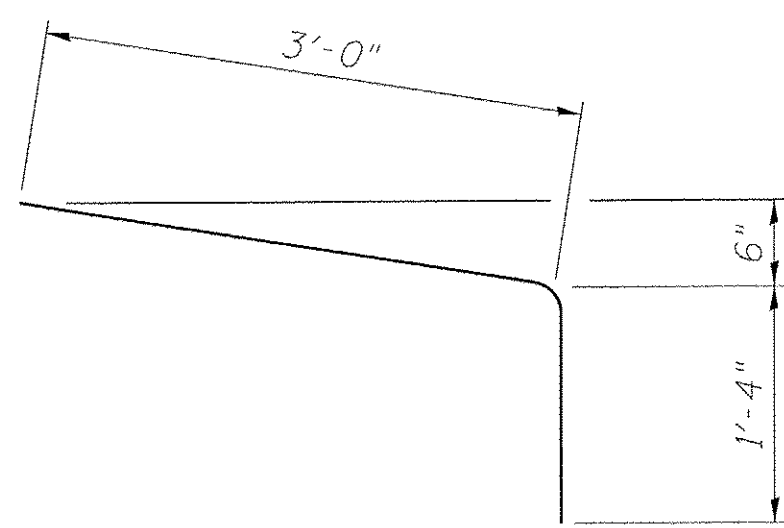
**BAR c(E)**



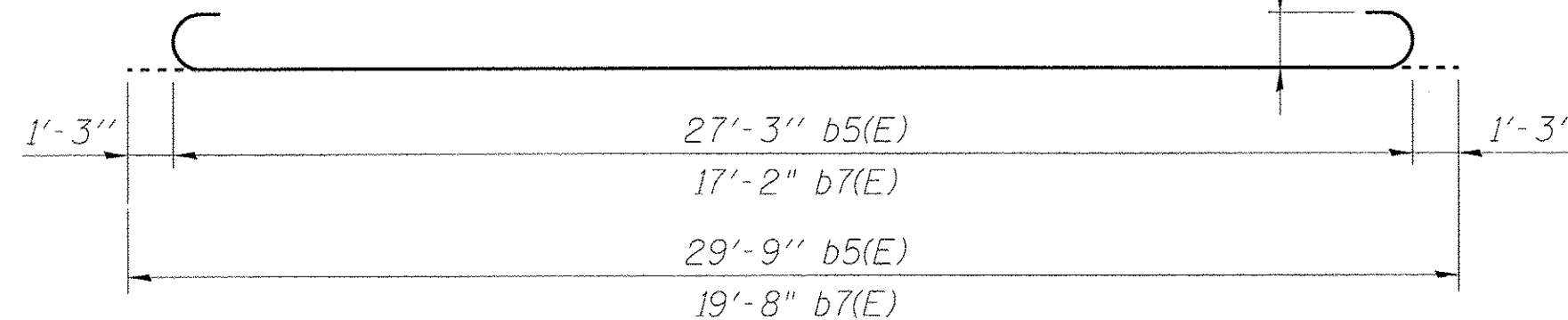
**BAR d5(E)**



**BAR d6(E)**



**BAR e7(E)**



**BAR b5(E) & b7(E)**

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953_020_Appr-3.dgn	PLOT SCALE =	CHECKED - JHG	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMC	REVISED -
		CHECKED - JHG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

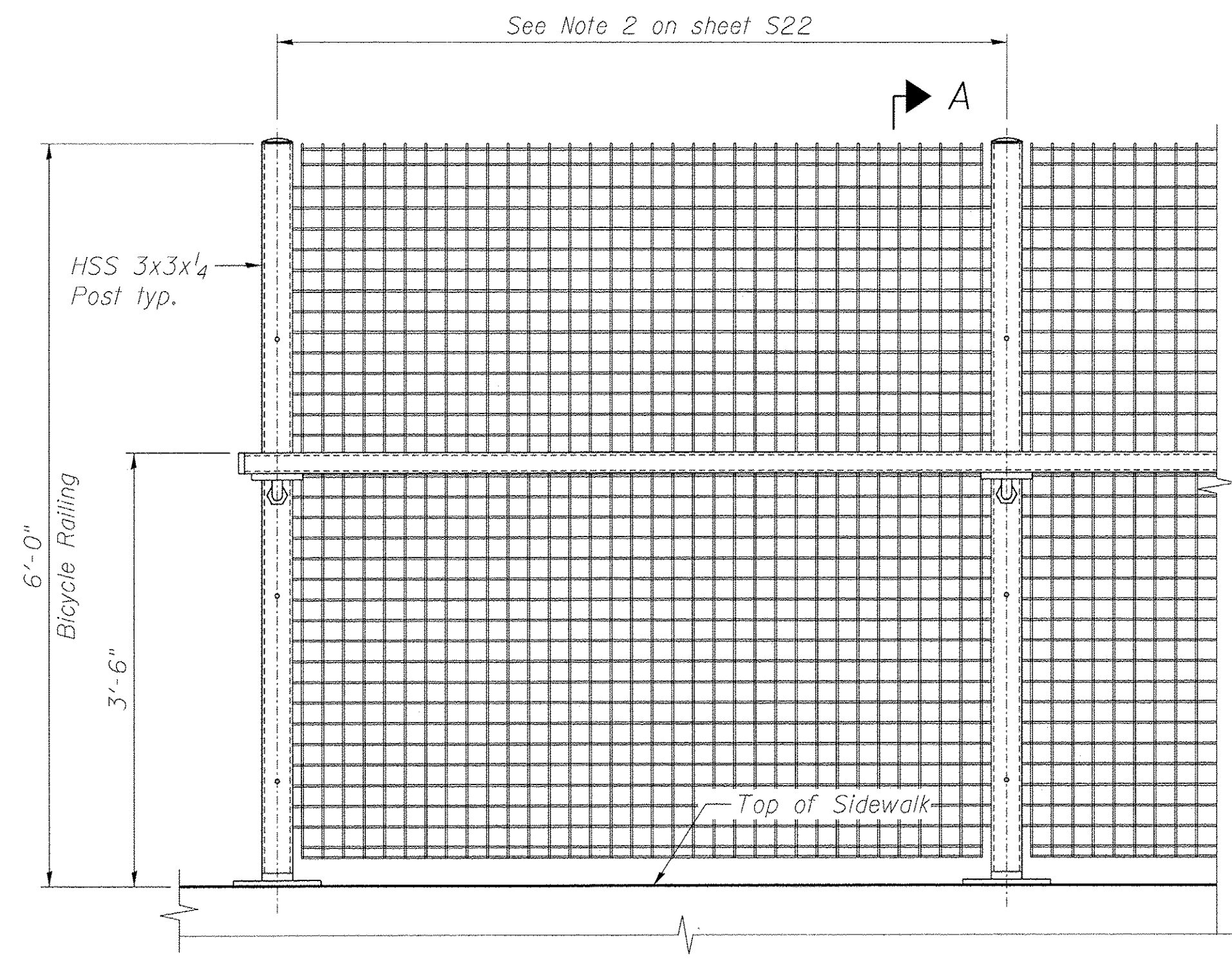
**BRIDGE APPROACH SLAB DETAILS 3 OF 3  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S20 OF S50 SHEETS

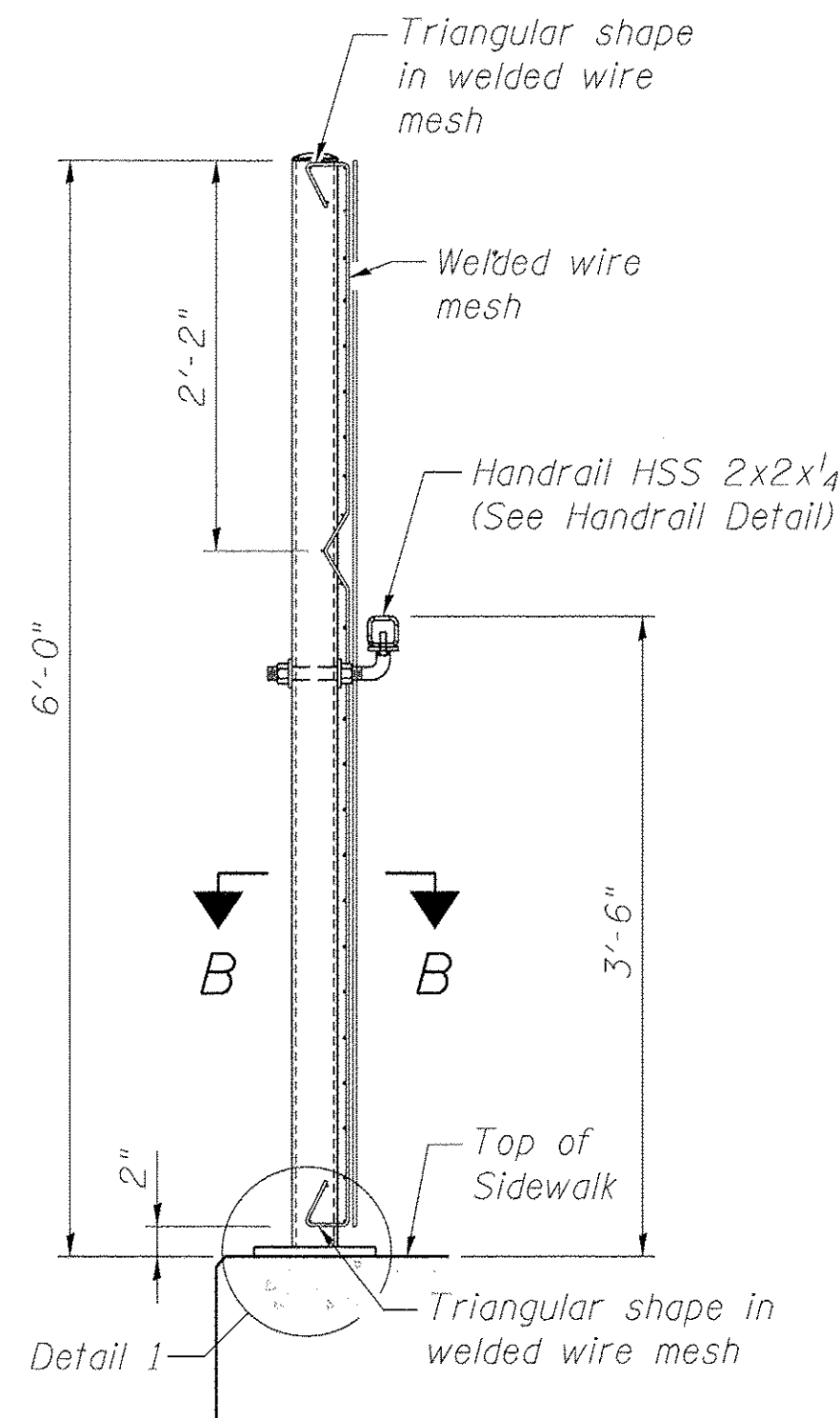
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	73
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				

X:\100005\10055.02\Eng\_Docs\_Phase-II\BrIdge-Street\_016-6953\Final\0166953\_020\_Appr-3.dgn 2:50:53 PM 2/19/2013

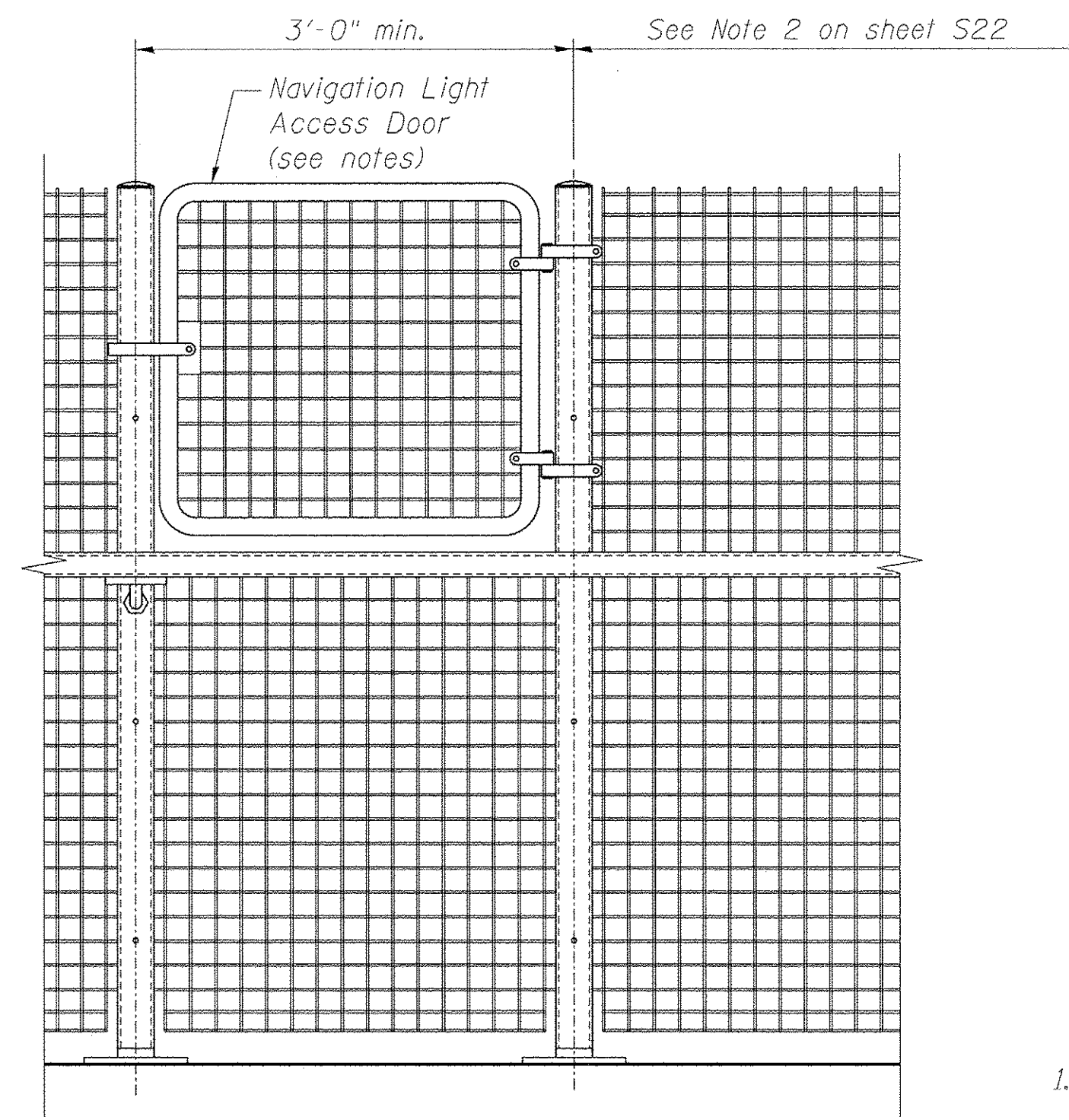




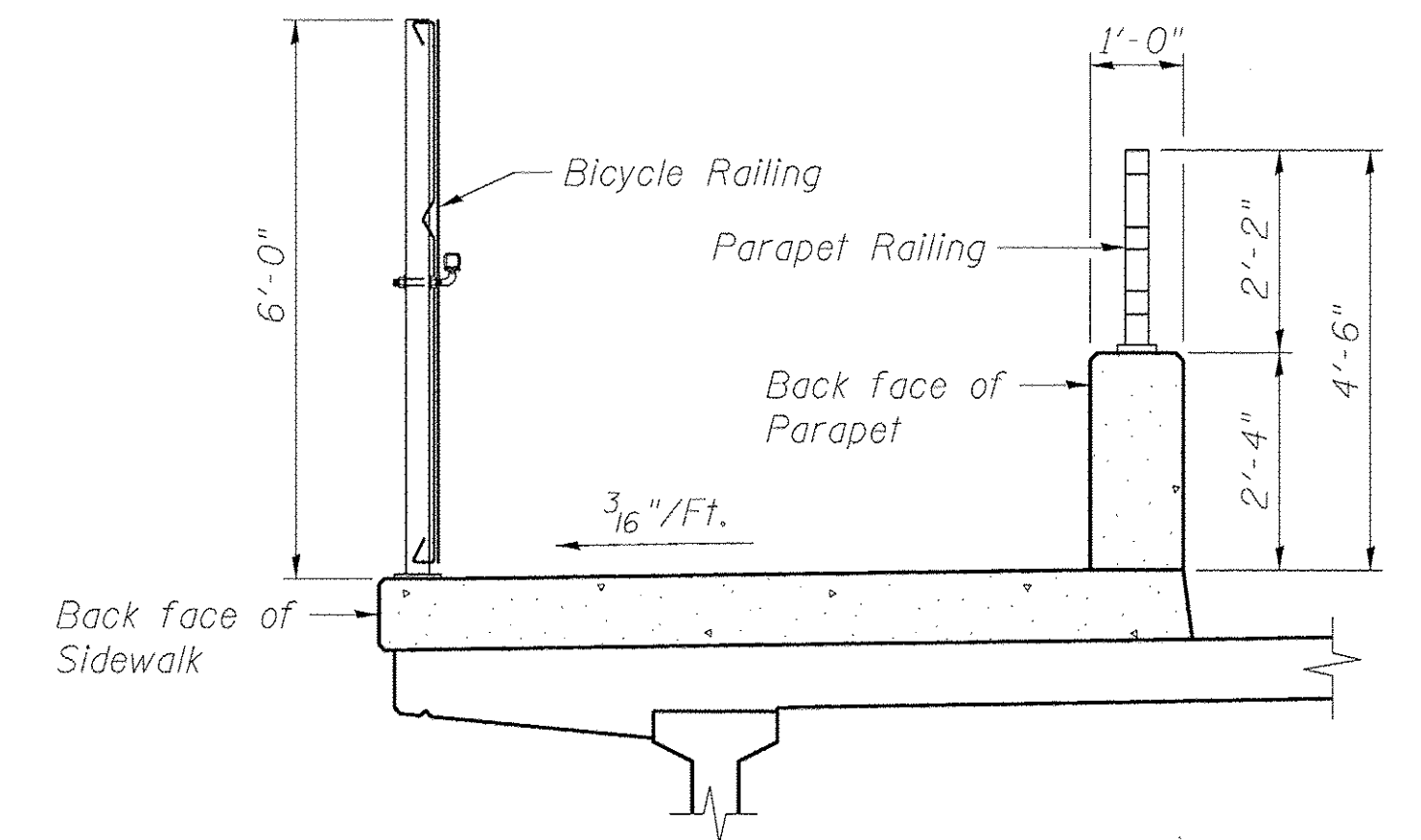
**BICYCLE RAILING**  
**TYPICAL ELEVATION**  
(Inside Face)



**SECTION A-A**  
(Bicycle Railing)



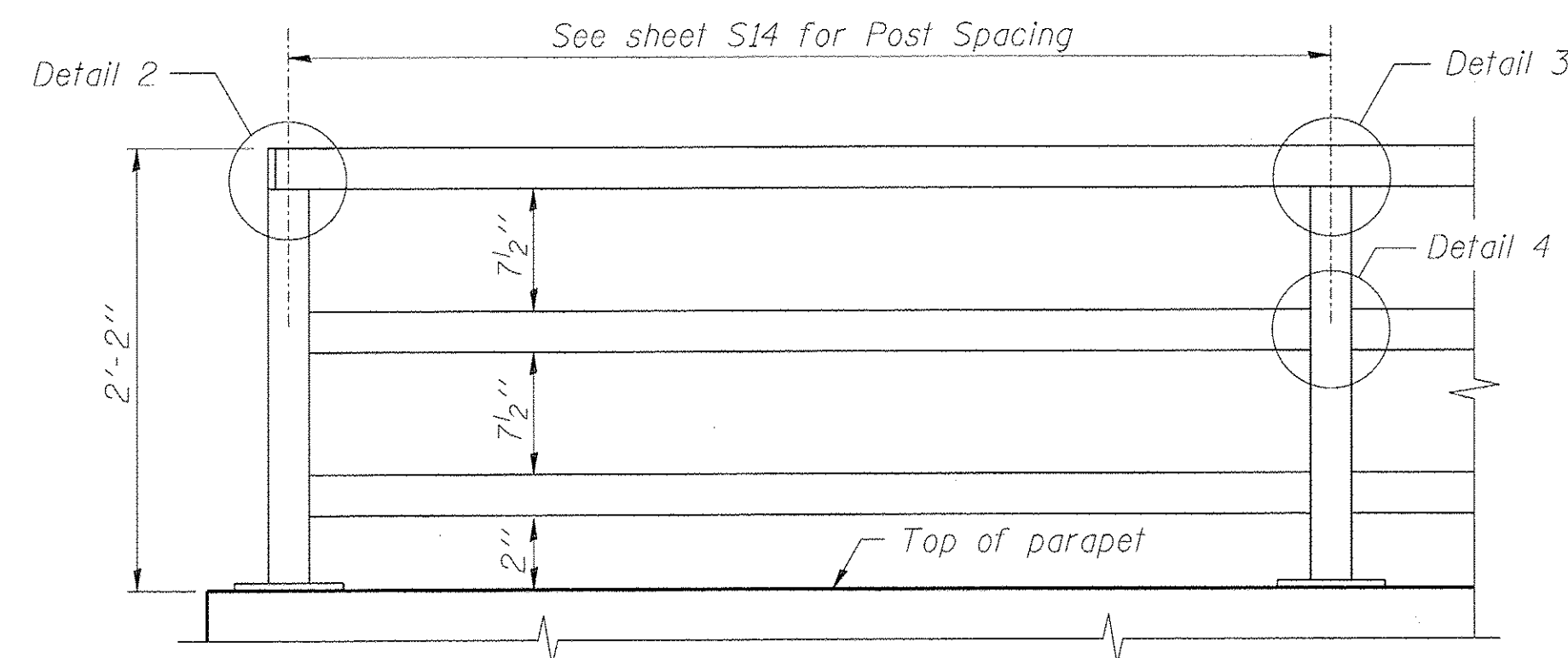
**BICYCLE RAILING ELEVATION**  
**AT NAVIGATION LIGHT ACCESS DOOR**  
(Inside Face)



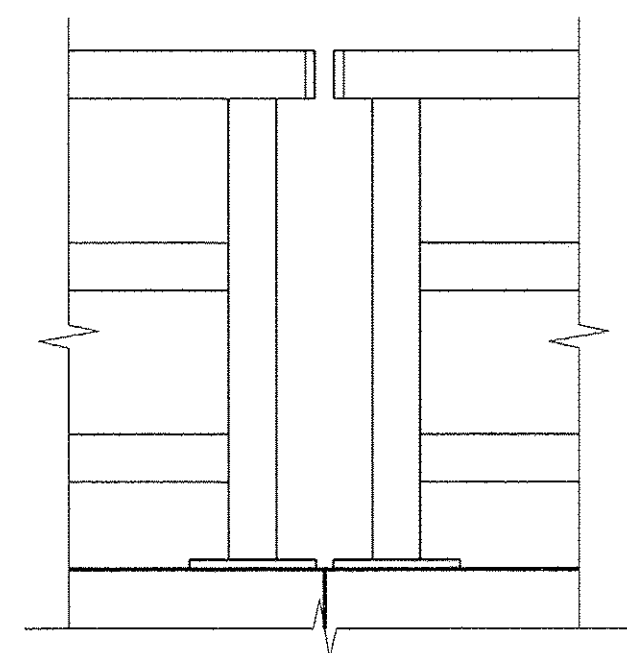
**SECTION THRU SIDEWALK**

**NAVIGATION LIGHT ACCESS DOOR NOTES:**

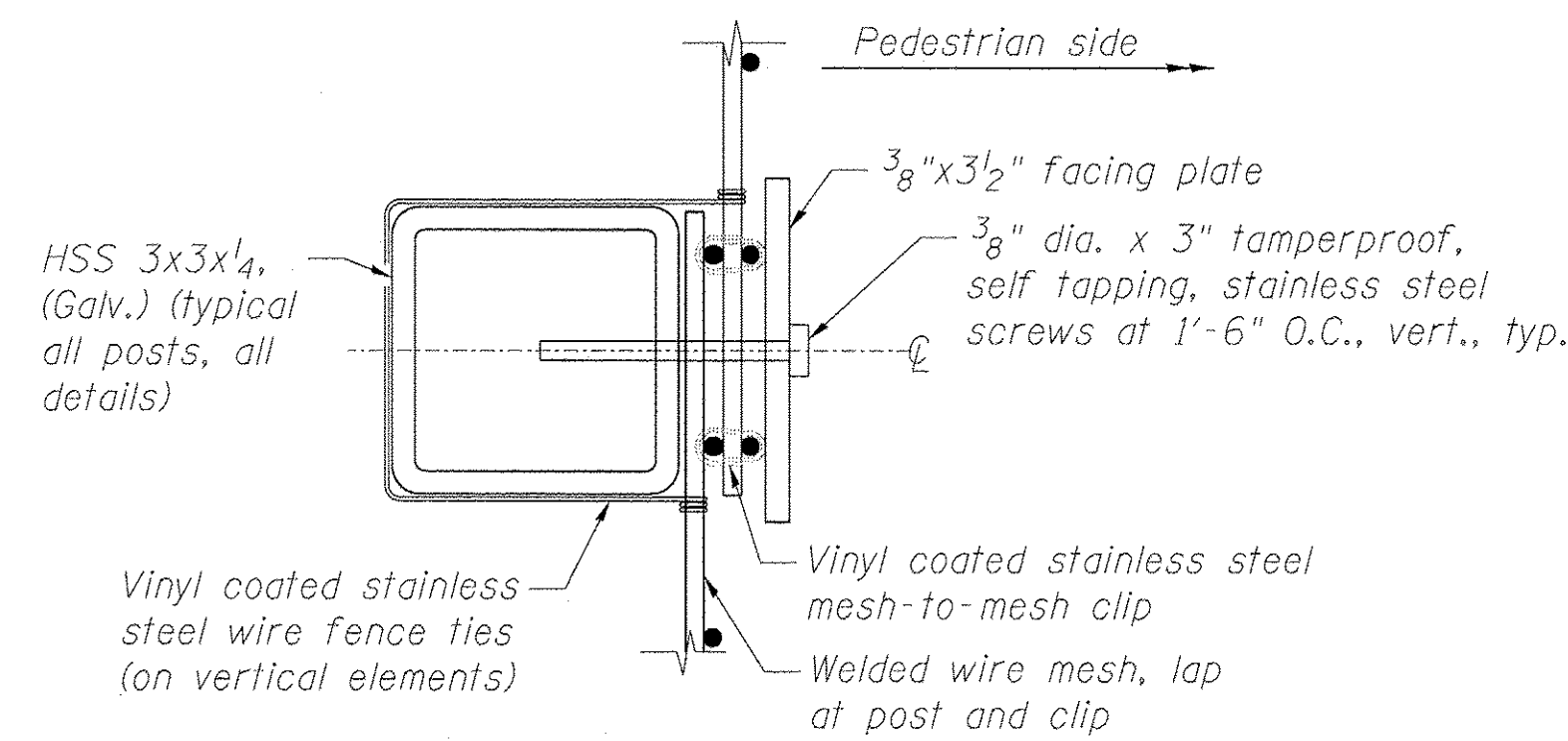
1. An access door shall be provided in the bicycle railing at each of the navigation lights. The Contractor shall provide a detail of this access door to the City of Evanston for approval prior to ordering materials.
2. The access door shall be capable of locking to prevent pedestrians from opening the door.
3. The cost of all materials and labor associated with the access door shall be included in the cost of Bicycle Railing.



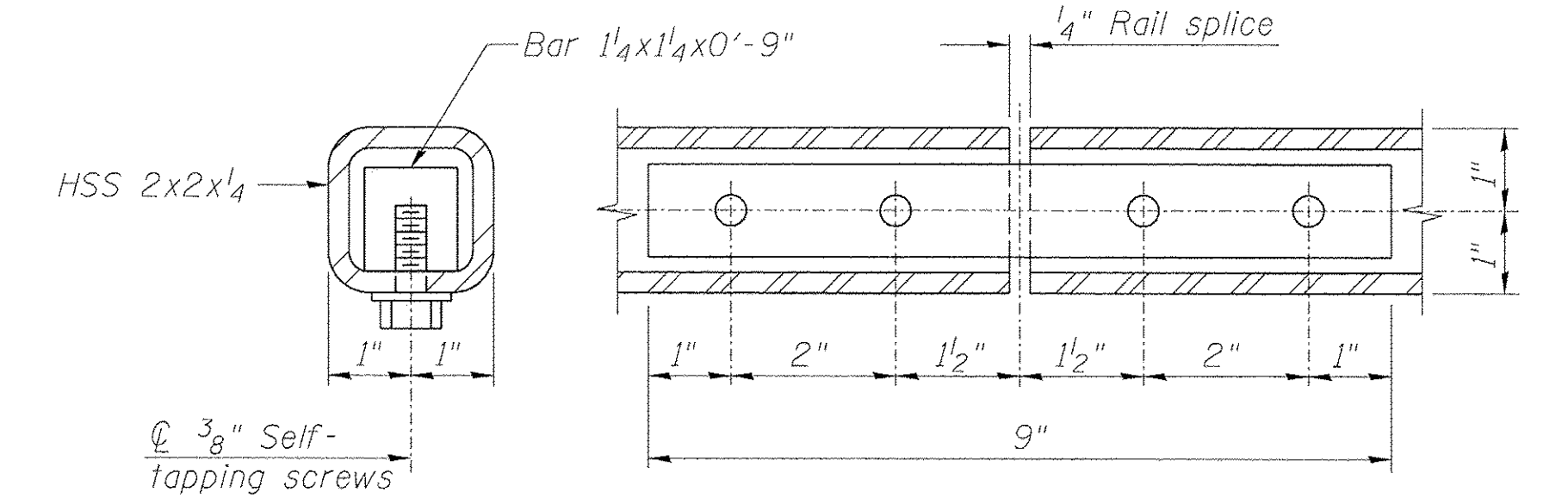
**PARAPET RAILING**  
**ELEVATION**  
(Inside Face of Three Element Rail)



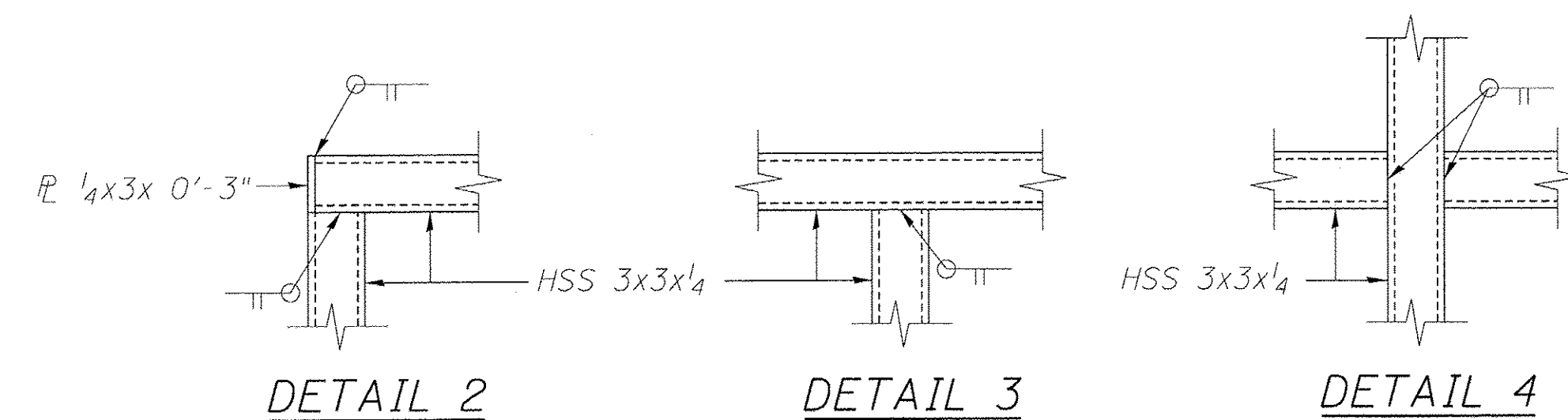
**PARAPET RAILING**  
**ELEVATION AT JOINT**



**SECTION B-B**  
(Typical at each post)



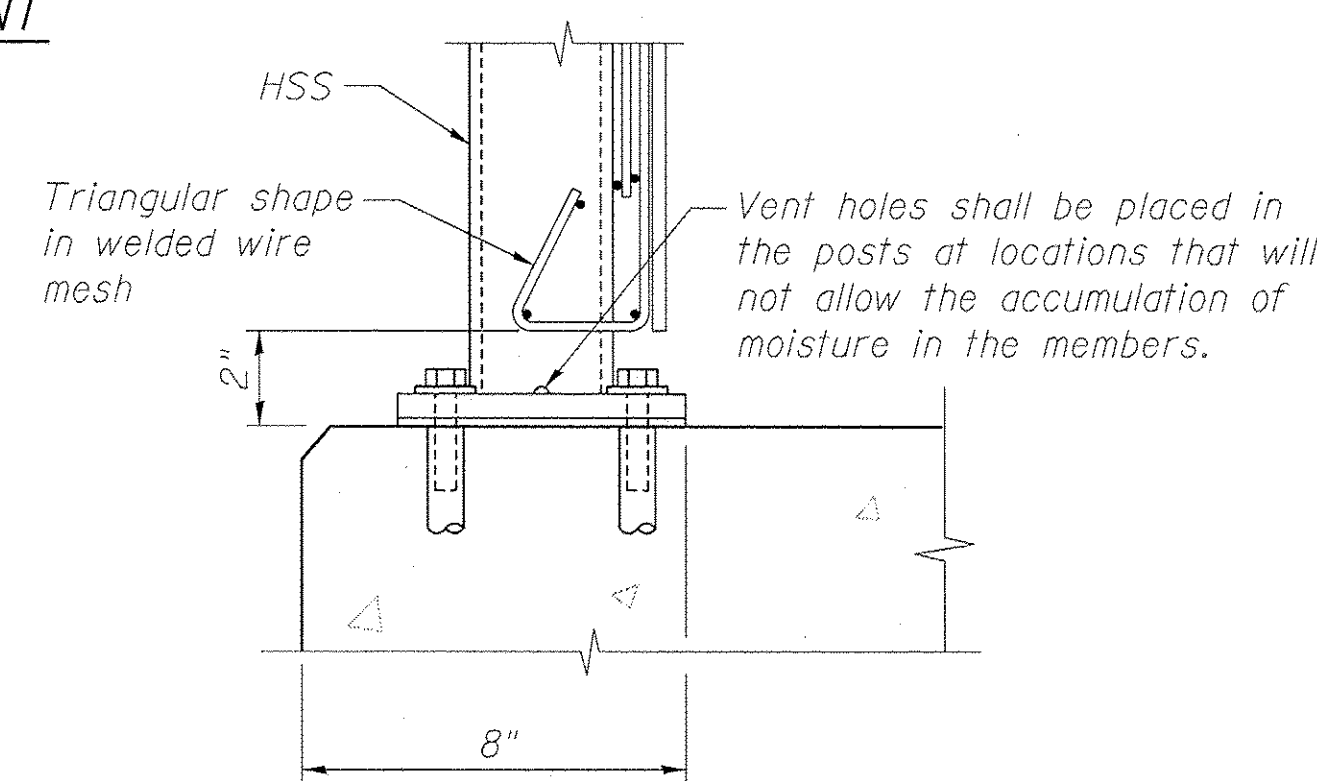
**HANDRAIL SPLICE**



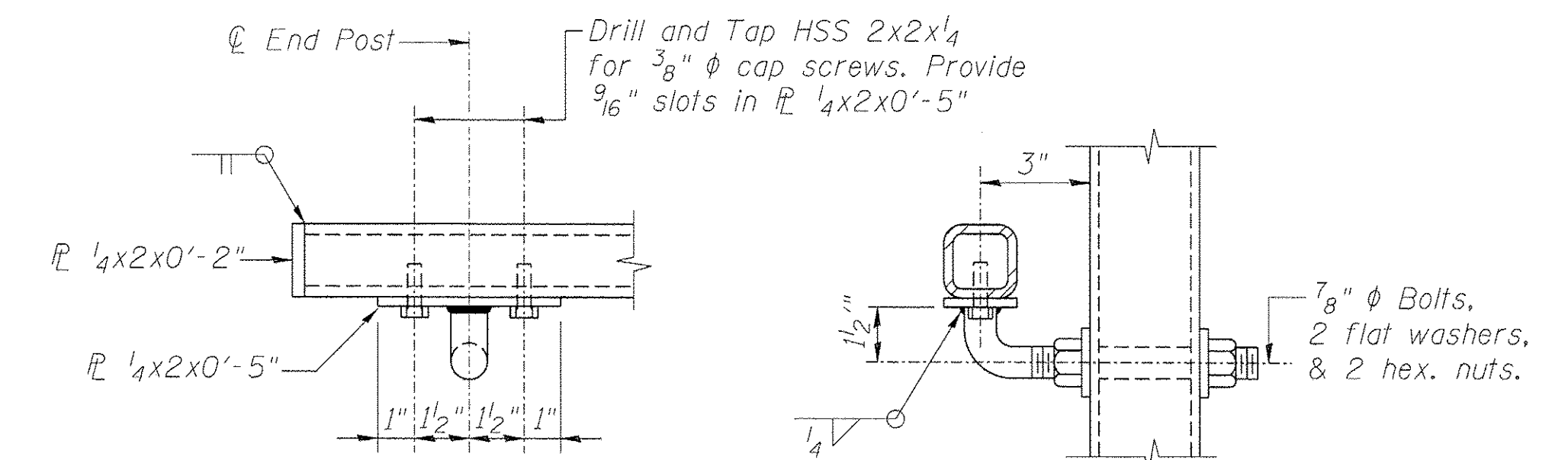
**DETAIL 2**

**DETAIL 3**

**DETAIL 4**



**DETAIL 1**



**HANDRAIL DETAIL**



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953_021_Rail1D1s.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

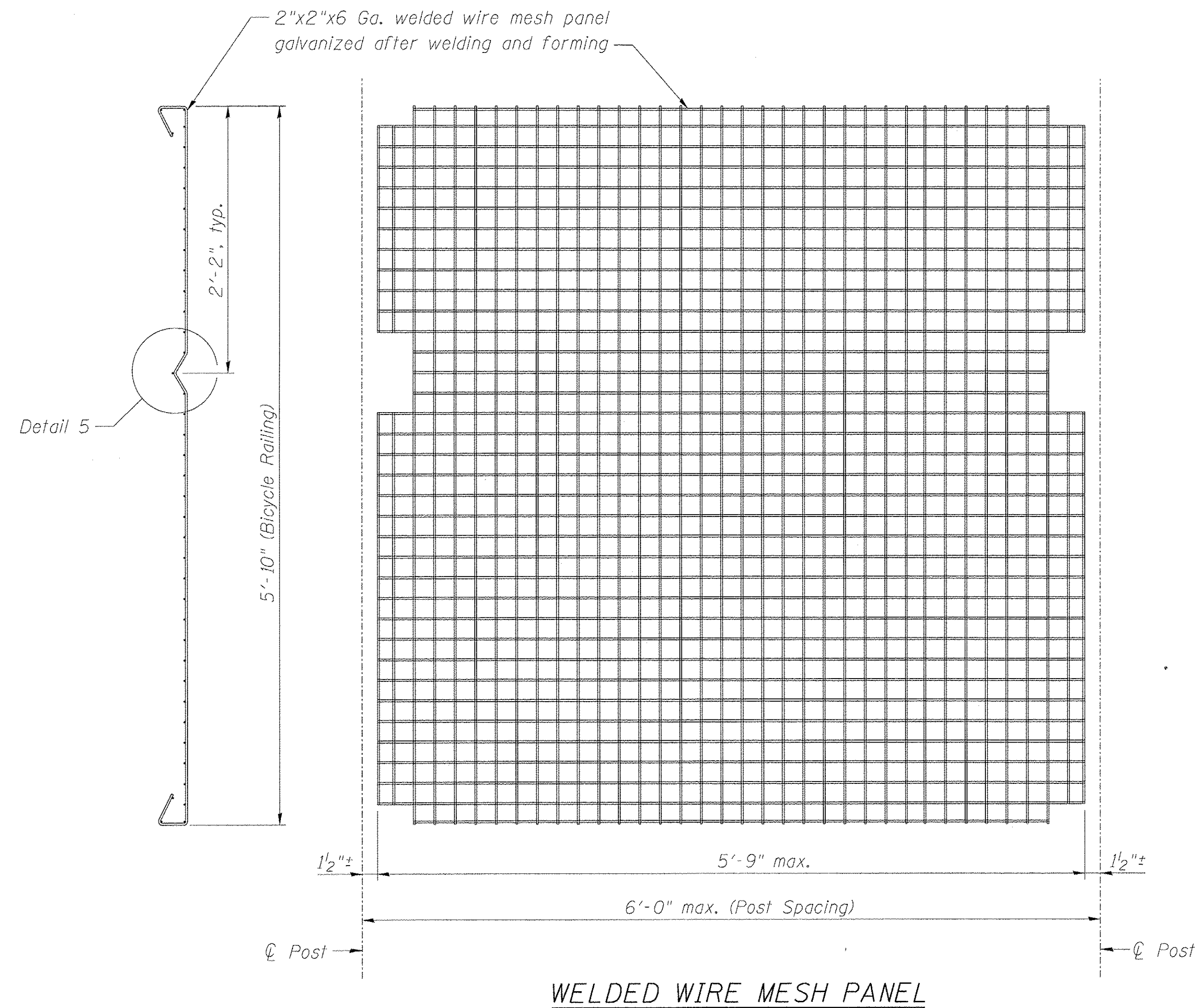
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BICYCLE RAILING AND PARAPET RAILING DETAILS 1 OF 2**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

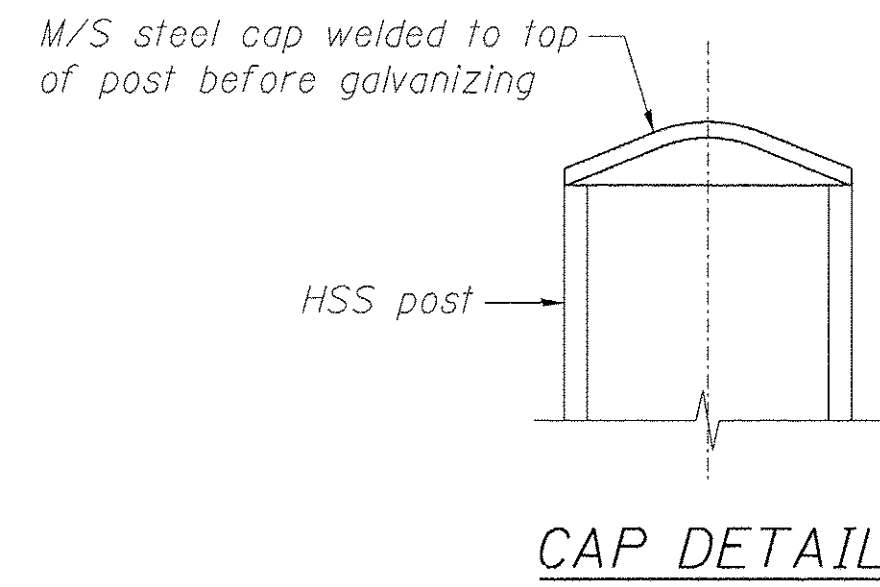
SHEET NO. S21 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	74
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

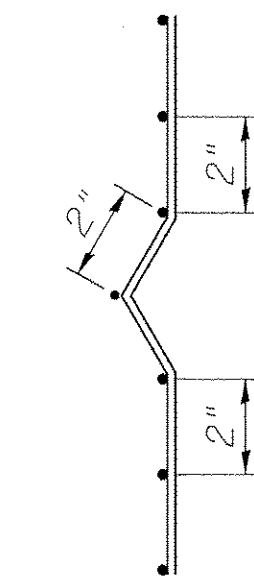
X:\100005\100055.02\Eng\_Docs\_Phase\_II\Bridge\_Street\_016-6953\Final\0166953\_021\_Rail1D1s.dgn 2:50:55 PM 2/19/2013



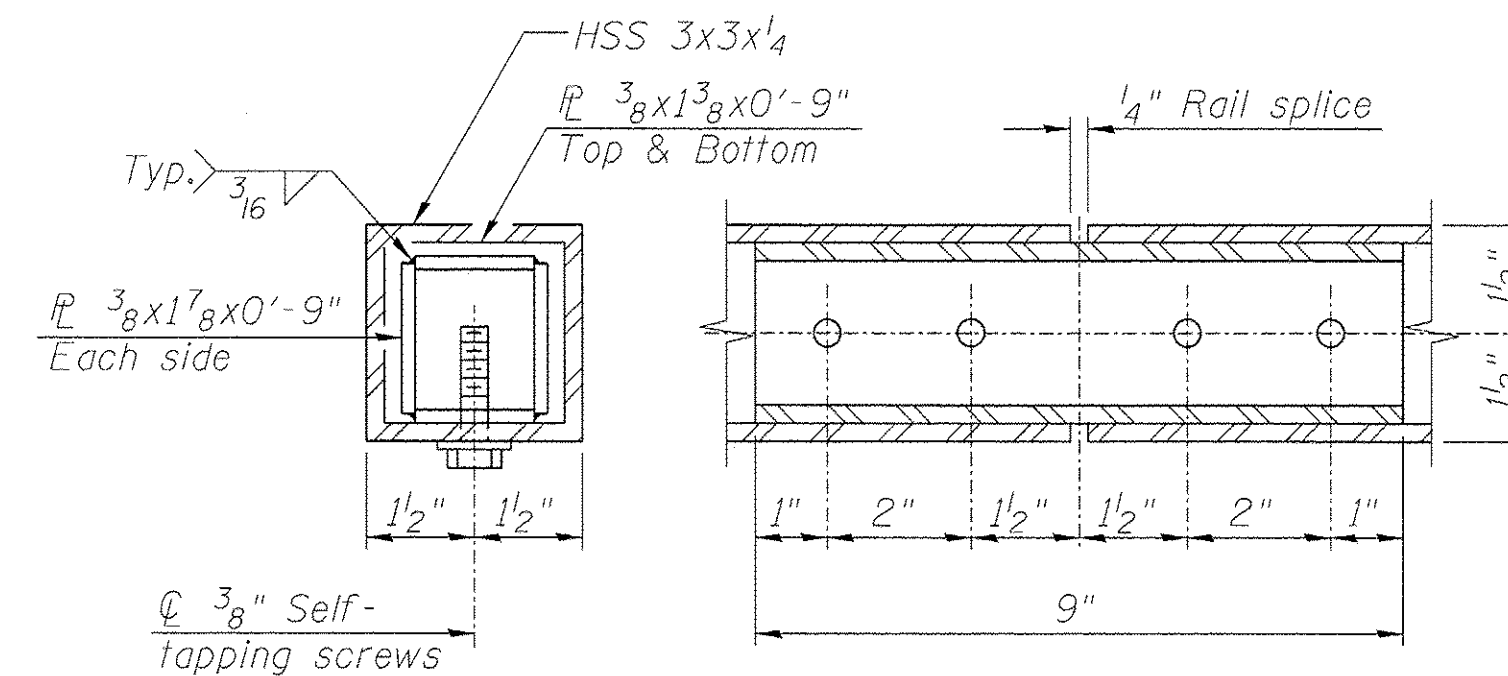
**WELDED WIRE MESH PANEL**



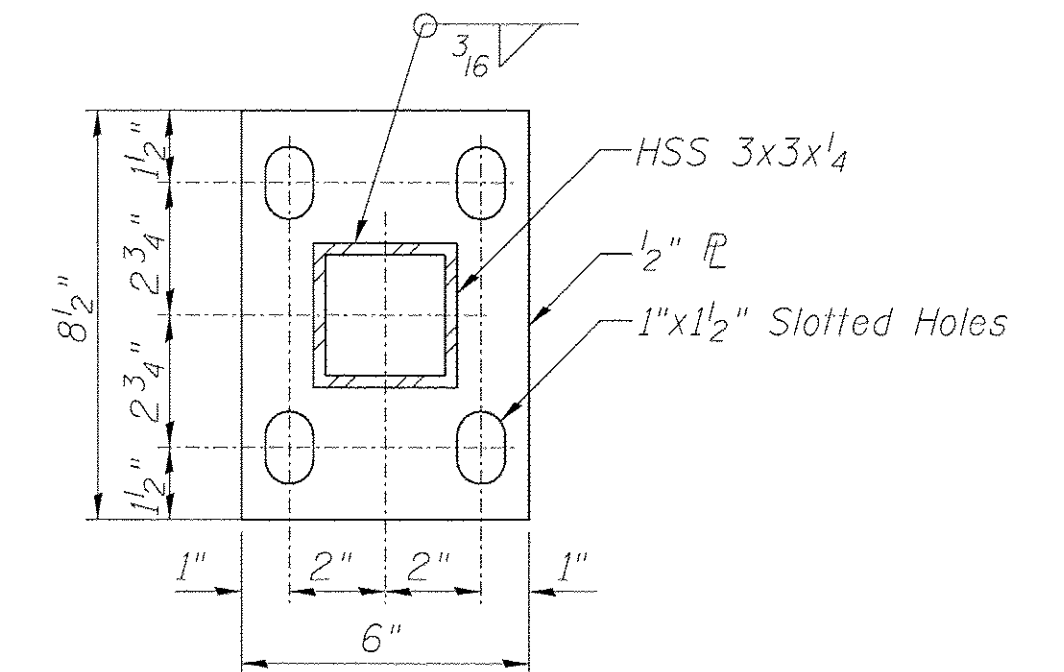
**CAP DETAIL**



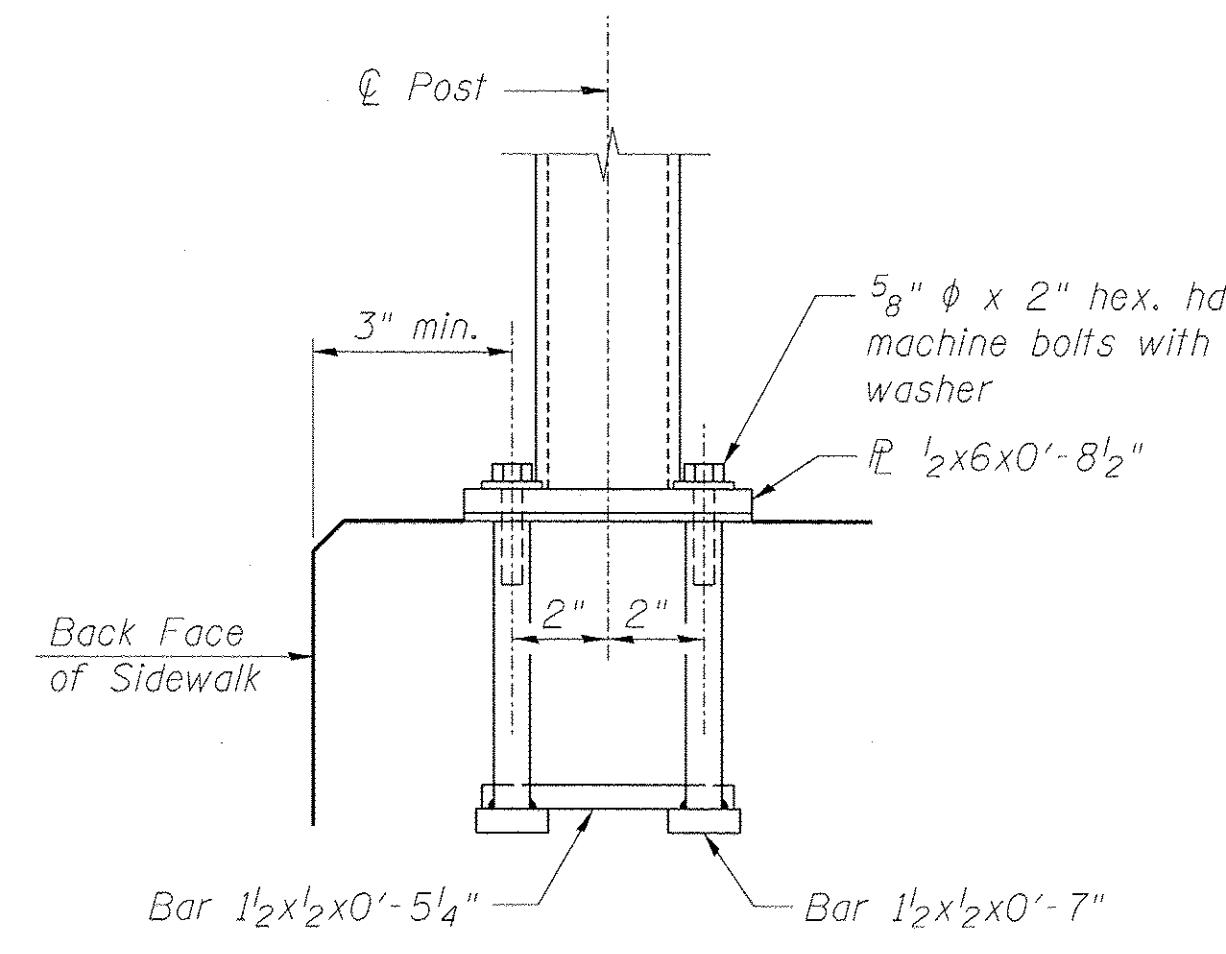
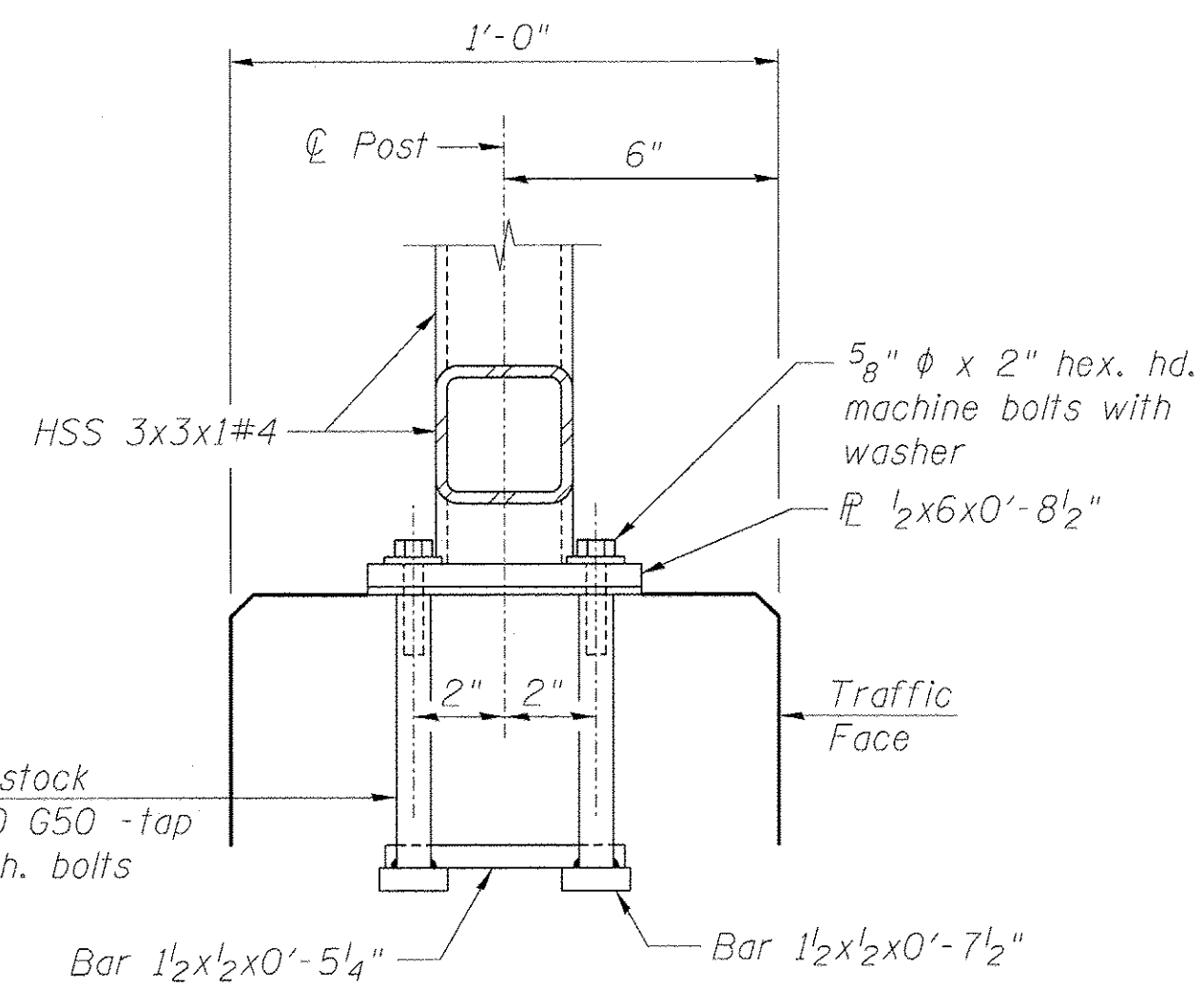
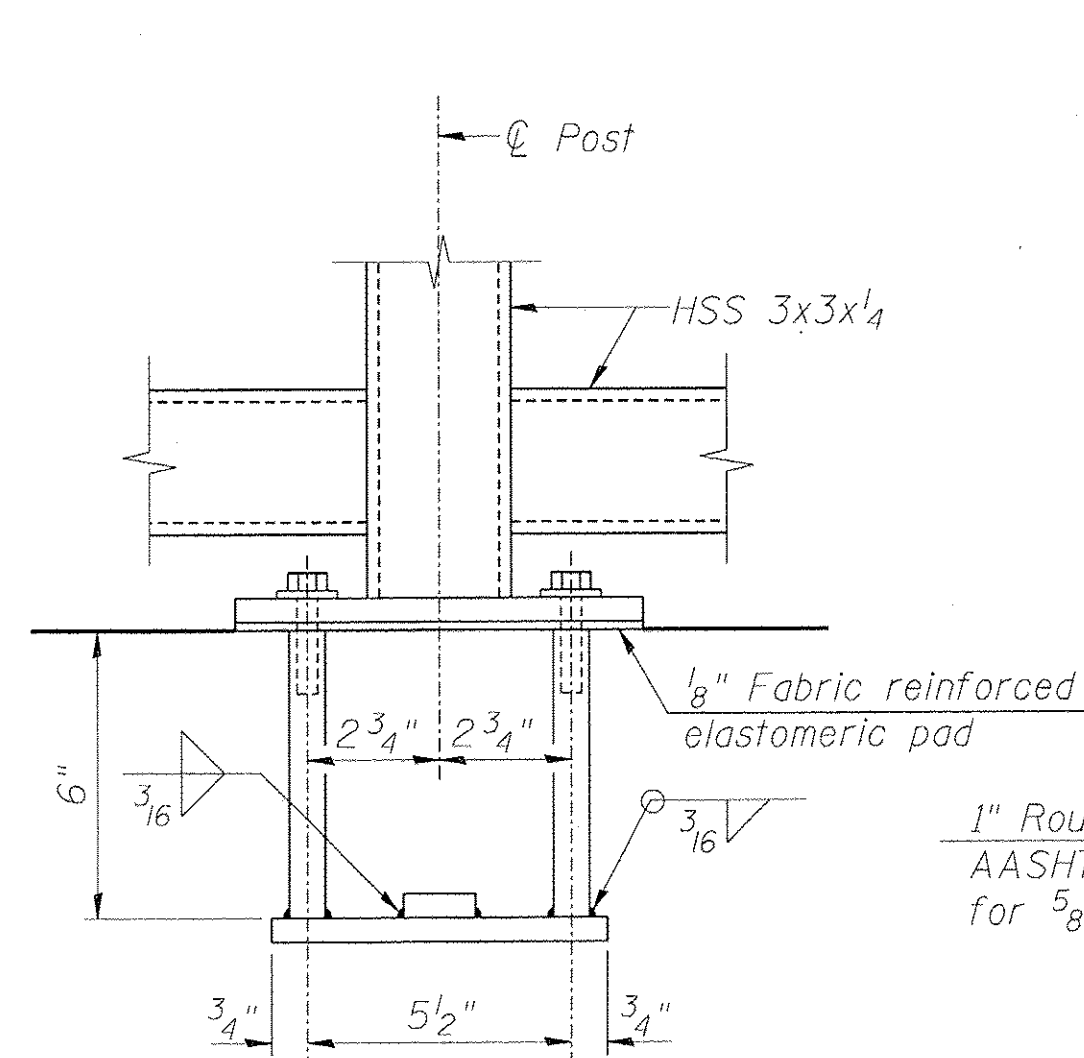
**DETAIL 5  
(Bend Detail)**



**RAIL SPLICE**



**BASE PLATE**



**ANCHOR BOLT DETAILS**

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

**BILL OF MATERIAL**

ITEM	UNIT	STAGE I	STAGE II	TOTAL
Bicycle Railing	Foot	204	204	408
Parapet Railing	Foot	170	170	340

**NOTES:**

- All steel rail elements shall be galvanized and powder coated per the Special Provision for "Bicycle Railing and Parapet Railing".
- Posts for Bicycle Railing shall be spaced at a maximum spacing of 6'-0" and shall not be spaced closer than 6" to a joint.
- Work this sheet with sheet S21.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953.022.Rev10.tls.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

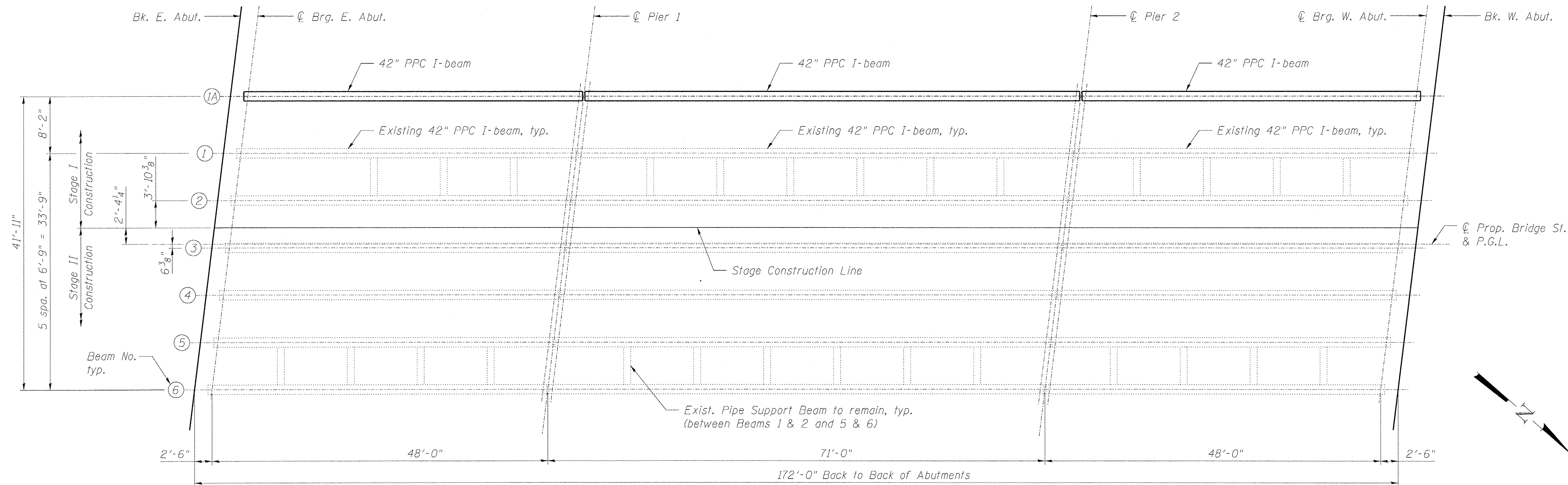
**BICYCLE RAILING AND PARAPET RAILING DETAILS 2 OF 2  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S22 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	75
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	

X:\100005\100055.02\Eng\_Docs\_Phase\_II\XBridge\_Street\_016-6953\Final\0166953\_022.Rev10.tls.dgn 2:50:57 PM 2/19/2013





**FRAMING PLAN**

		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
$I$	(in <sup>4</sup> )	90,956	---	90,956
$I'$	(in <sup>4</sup> )	327,106	---	327,106
$S_b$	(in <sup>3</sup> )	5,153	---	5,153
$S_b'$	(in <sup>3</sup> )	9,544	---	9,544
$S_t$	(in <sup>3</sup> )	3,736	---	3,736
$S_t'$	(in <sup>3</sup> )	42,331	---	42,331
$Q$	(k/')	1.263	---	1.263
$M_Q$	(k)	353.7	---	766.3
$s_Q$	(k/')	0.604	0.604	0.604
$M_s Q$	(k)	95.3	-235.5	150.1
$M_L$	(k)	363.9	-339.3	425.4
$M_I$	(k)	101.7	-86.7	104.9

		0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
$I$	(in <sup>4</sup> )	90,956	---	90,956
$I'$	(in <sup>4</sup> )	330,598	---	330,598
$S_b$	(in <sup>3</sup> )	5,153	---	5,153
$S_b'$	(in <sup>3</sup> )	9,579	---	9,579
$S_t$	(in <sup>3</sup> )	3,736	---	3,736
$S_t'$	(in <sup>3</sup> )	44,146	---	44,146
$Q$	(k/')	1.288	---	1.288
$M_Q$	(k)	360.7	---	781.4
$s_Q$	(k/')	0.604	0.604	0.604
$M_s Q$	(k)	95.3	-235.5	150.1
$M_L$	(k)	193.9	-283.0	244.8
$M_I$	(k)	9.4	-8.0	9.7

		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
$R_Q$	(k)	69.1	33.3	47.4
* $R_s Q$	(k)	10.9	21.2	21.2
* $R_L$	(k)	39.2	26.2	26.2
* $R_I$	(k)	11.0	6.7	6.7
$R_{Total}$	(k)	130.2	87.3	101.4

		Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
$R_Q$	(k)	71.0	34.0	48.4
* $R_s Q$	(k)	10.9	21.2	21.2
* $R_L$	(k)	17.5	23.8	23.8
* $R_I$	(k)	1.0	0.6	0.6
$R_{Total}$	(k)	100.3	79.6	94.0

- $I$ : Non-composite moment of inertia of beam section (in<sup>4</sup>).
- $I'$ : Composite moment of inertia of beam section (in<sup>4</sup>).
- $S_b$ : Non-composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_b'$ : Composite section modulus for the bottom fiber of the prestressed beam (in<sup>3</sup>).
- $S_t$ : Non-composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $S_t'$ : Composite section modulus for the top fiber of the prestressed beam (in<sup>3</sup>).
- $Q$ : Un-factored non-composite dead load (kips/ft.).
- $M_Q$ : Un-factored moment due to non-composite dead load conservatively taken at 0.5 of the span (kip-ft.).
- $s_Q$ : Un-factored long-term composite (superimposed) dead load (kips/ft.).
- $M_s Q$ : Un-factored moment due to long-term composite (superimposed) dead load (kip-ft.).
- $M_L$ : Un-factored live load moment on the composite section (kip-ft.).
- $M_I$ : Un-factored moment due to impact on the composite section (kip-ft.).

\* At continuous piers, reactions from composite loads are assumed to be equally distributed to each bearing line.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =  
0166953.023.FramePlan1.dgn

USER NAME = eship  
DESIGNED - MJF/MFB  
CHECKED - AAY  
PLOT SCALE =  
DRAWN - RMG  
PLOT DATE = 2/19/2013  
CHECKED - JHG

REVISD -  
REVISD -  
REVISD -  
REVISD -

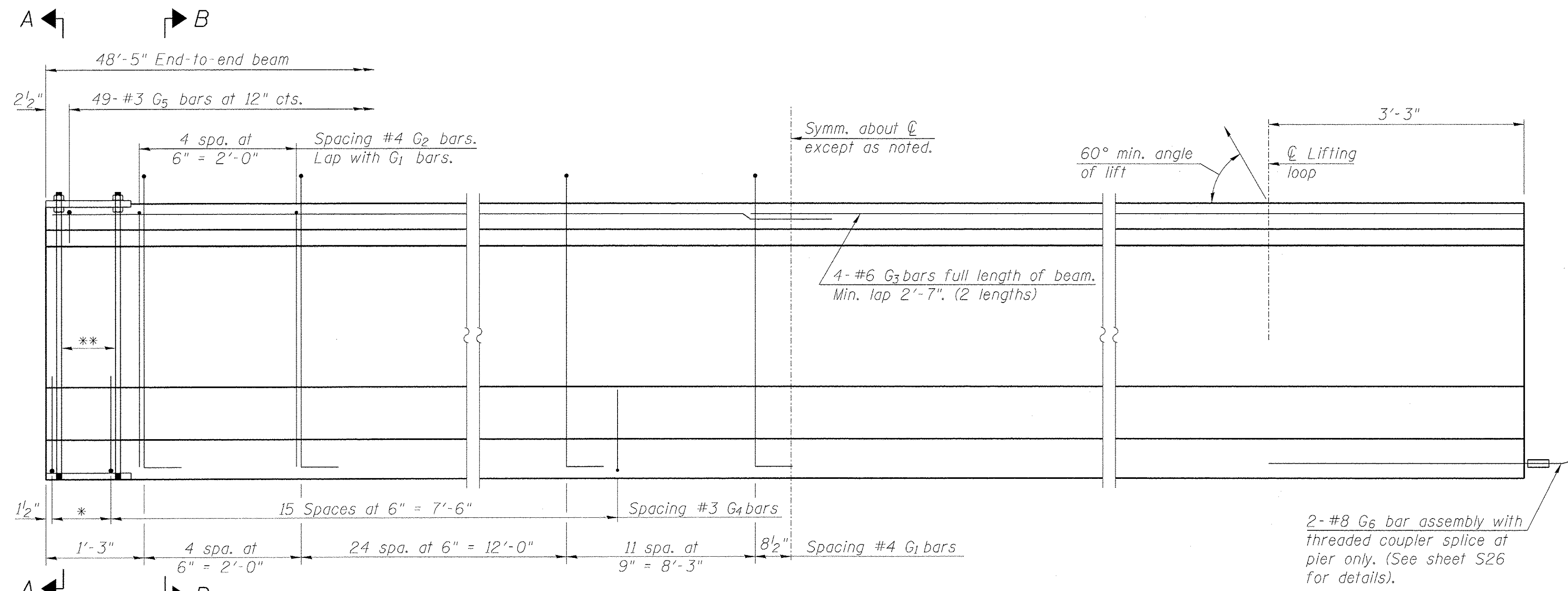
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S23 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	76
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

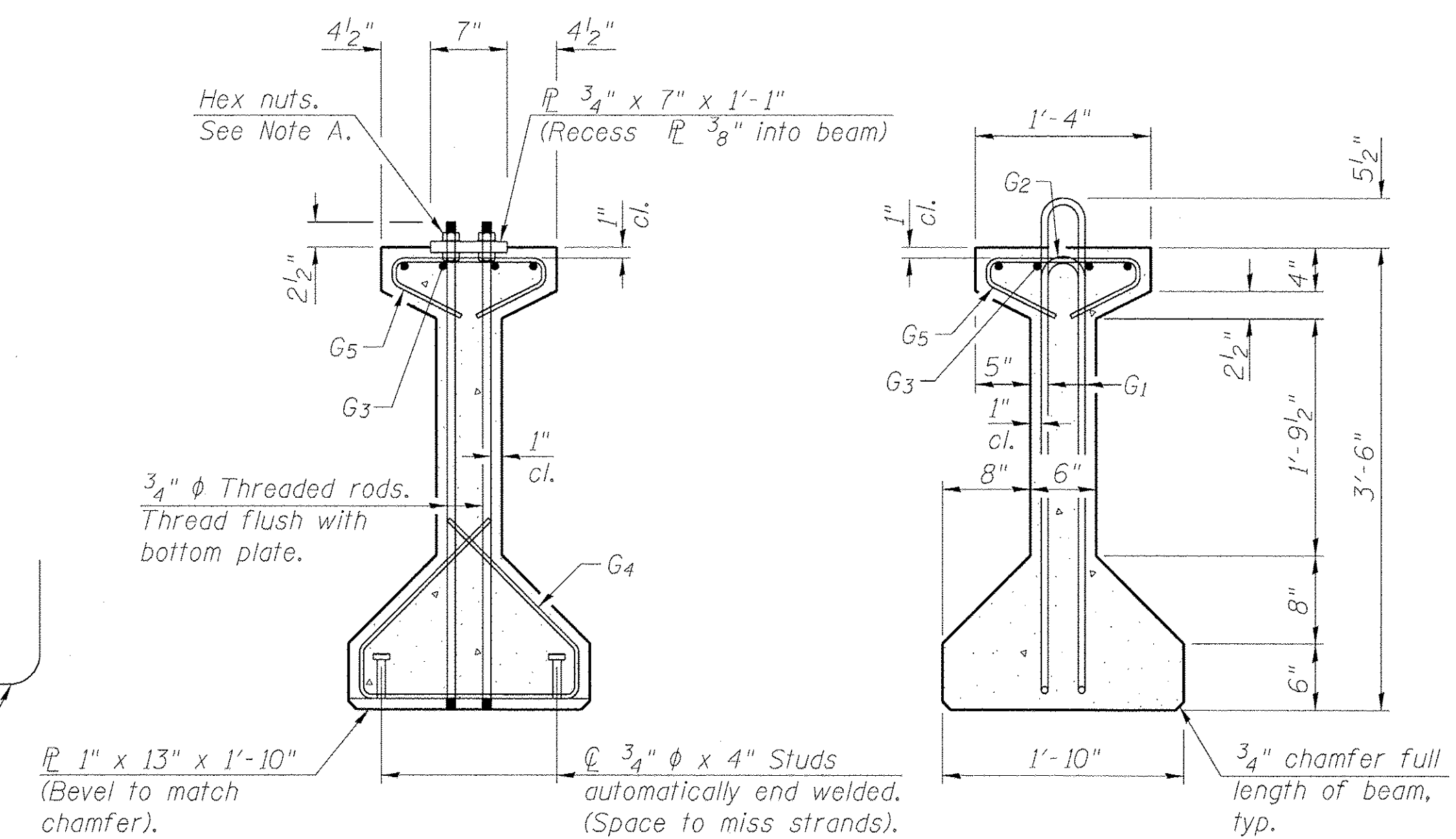
X:\100005\10055.02\Eng\_Docs\_Phase-II\Bridg-Street-016-6953\Final\0166953-023.FramePlan1.dgn 2/19/2013 2:50:58 PM



**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)

\*3 spaces at 3" = 9"

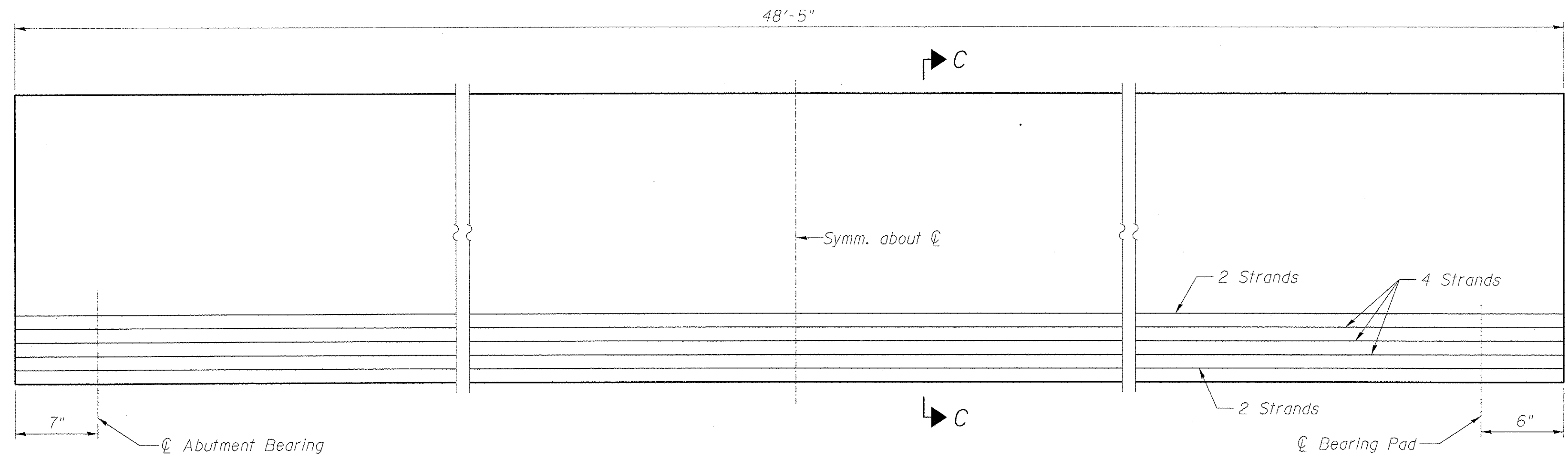
\*\*4- 3/4" threaded dowel rods at 3" cts., Each Face



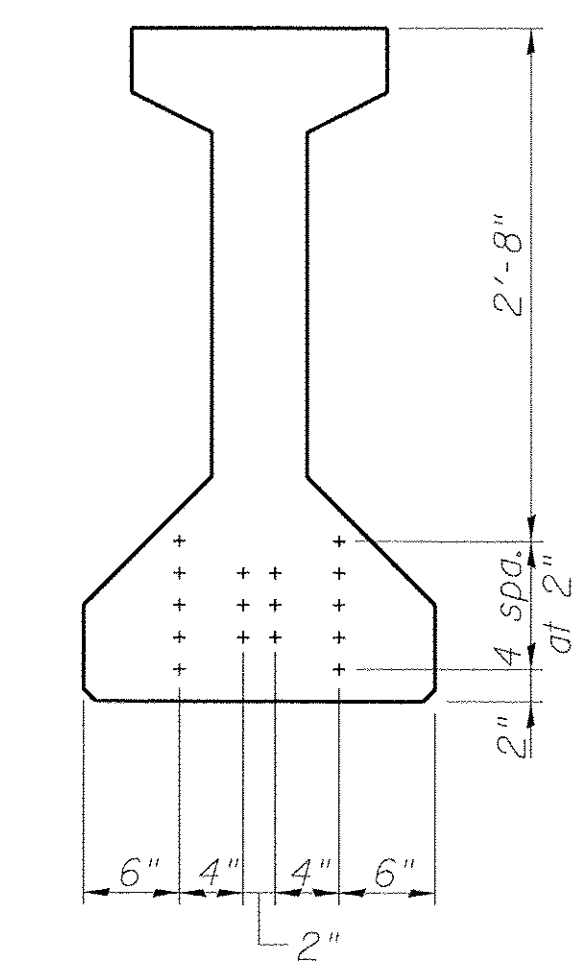
**SECTION A-A**

**SECTION B-B**

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



**ELEVATION OF BEAM**  
(Showing prestressing steel)  
(Span 1 shown, Span 3 opposite hand)



**SECTION C-C**

**\*\*\*BAR LIST**  
**ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	80	#4	8'-7"	∩
G2	10	#4	6'-8"	∩
G3	8	#6	25'-6"	—
G4	38	#3	4'-11"	∩
G5	49	#3	2'-6"	∩
G6	2	#8	6'-6"	U

\*\*\*For information only

**NOTES:**

1. See sheet S26 for additional details and Bill of Material.
2. Required release strength,  $f'_{ci}$ , shall be 5,000 psi.
3. Required final strength,  $f'_{c}$ , shall be 6,000 psi.

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =  
0166953.024\_PPCDet1.dgn

USER NAME = eship  
DESIGNED - MJF/MFB  
CHECKED - AAY  
DRAWN - RMG  
PLOT DATE = 2/19/2013

REVISD -  
REVISD -  
REVISD -  
REVISD -

DESIGNED - MJF/MFB  
CHECKED - AAY  
DRAWN - RMG  
CHECKED - JHG

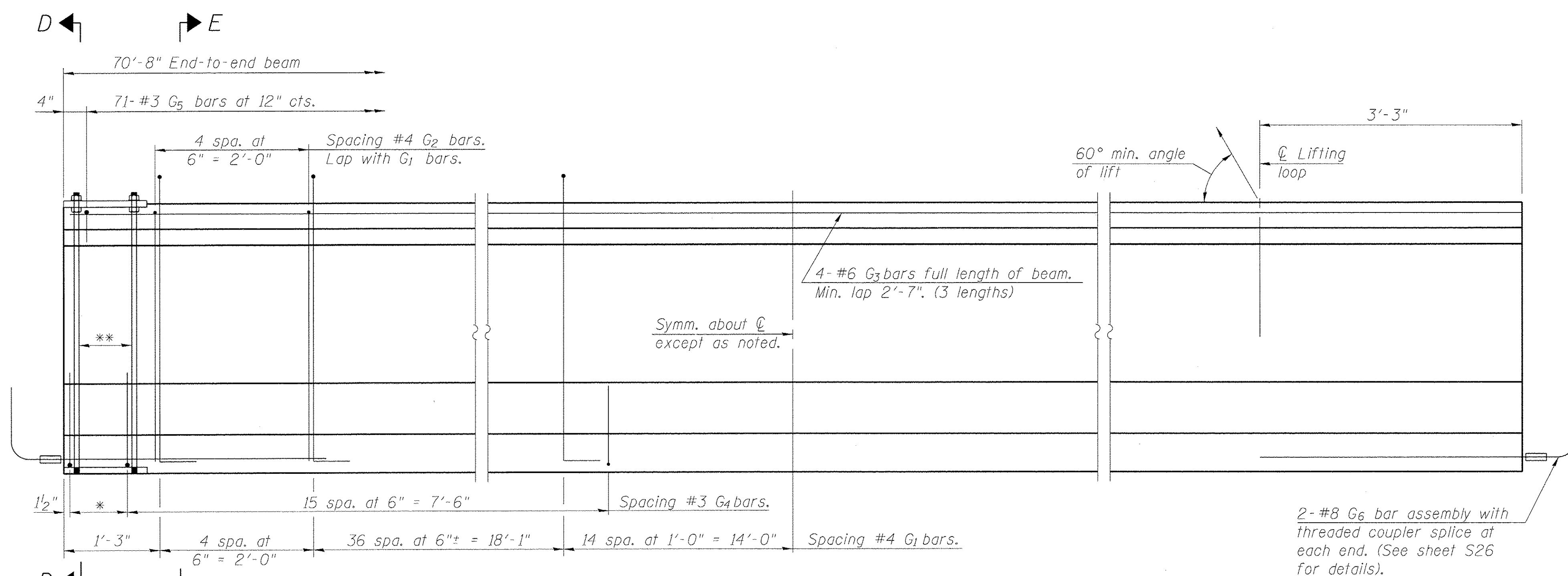
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**42" PPC I-BEAM - SPANS 1 AND 3**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S24 OF S50 SHEETS

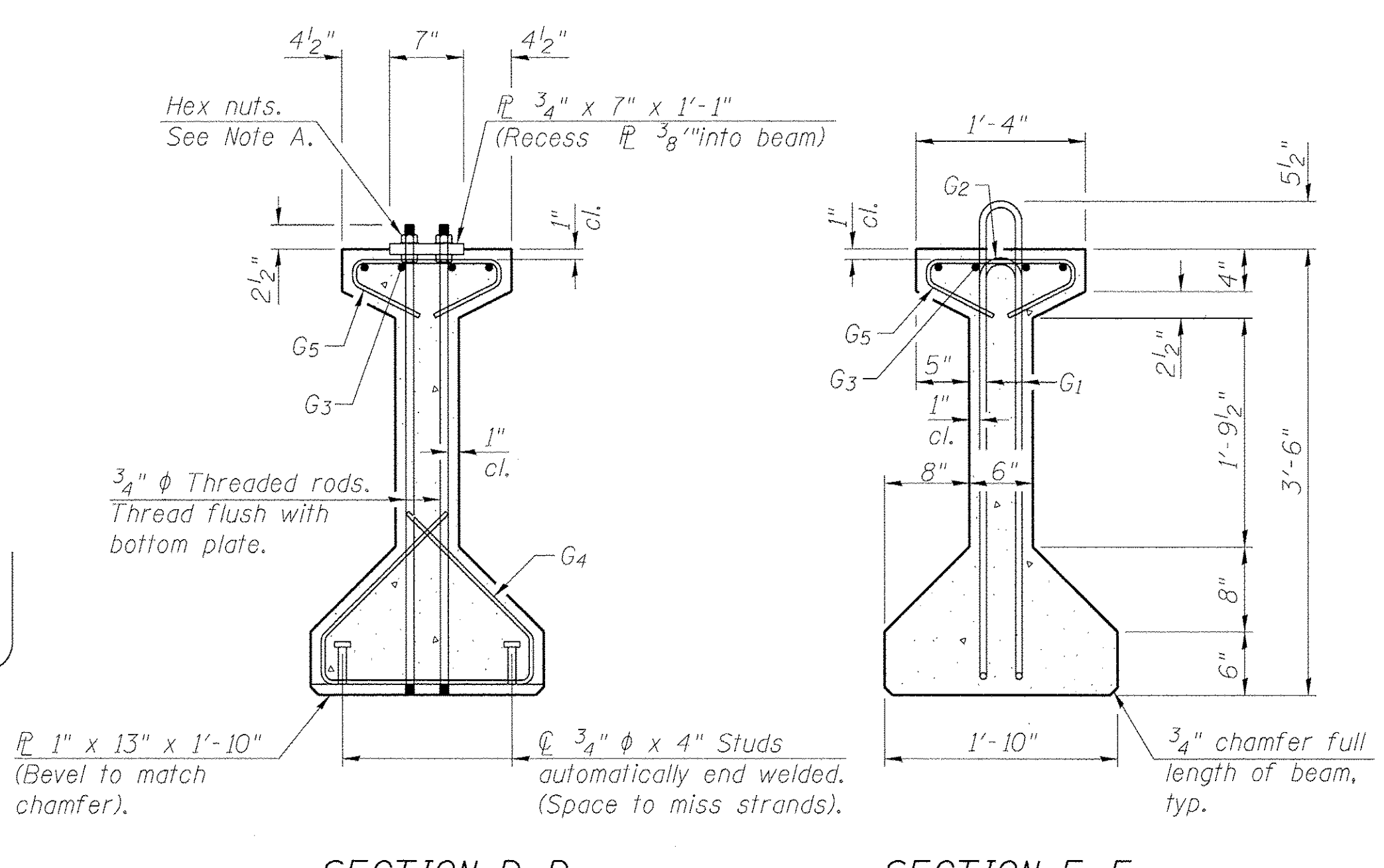
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	77
CONTRACT NO. 63817				
ILLINOIS FED. AID PROJECT				

X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridg\_Street\_016-6953\Final\0166953.024\_PPCDet1.dgn 2/19/2013 2:51:00 PM





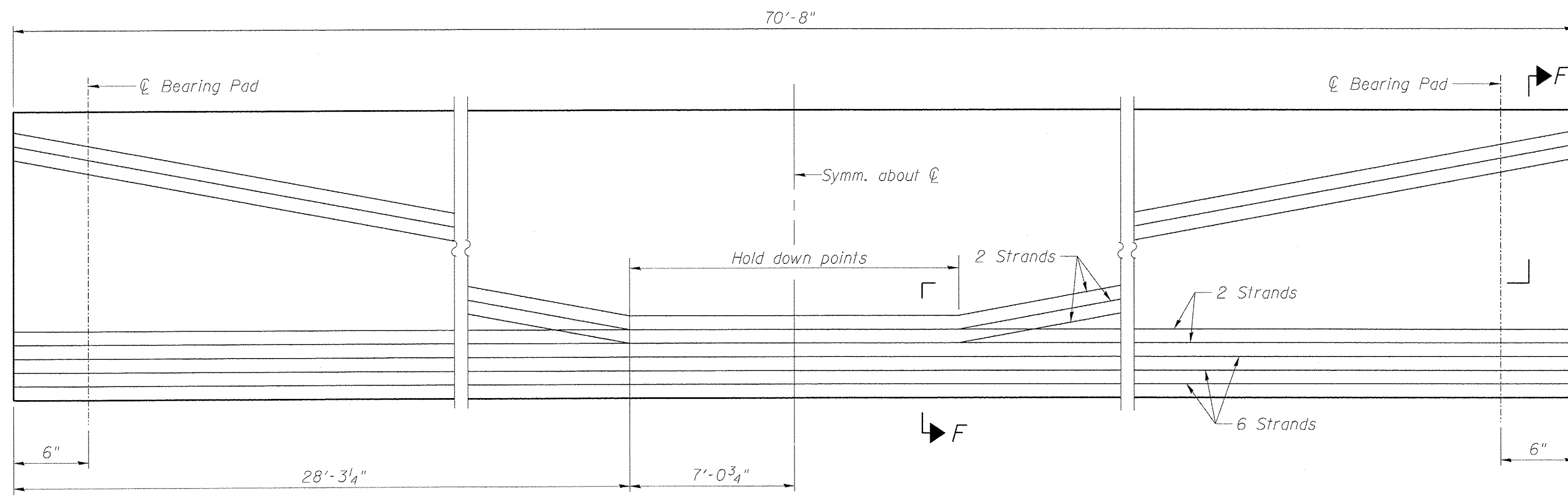
**ELEVATION OF BEAM**  
(Showing reinforcement & dimensions)



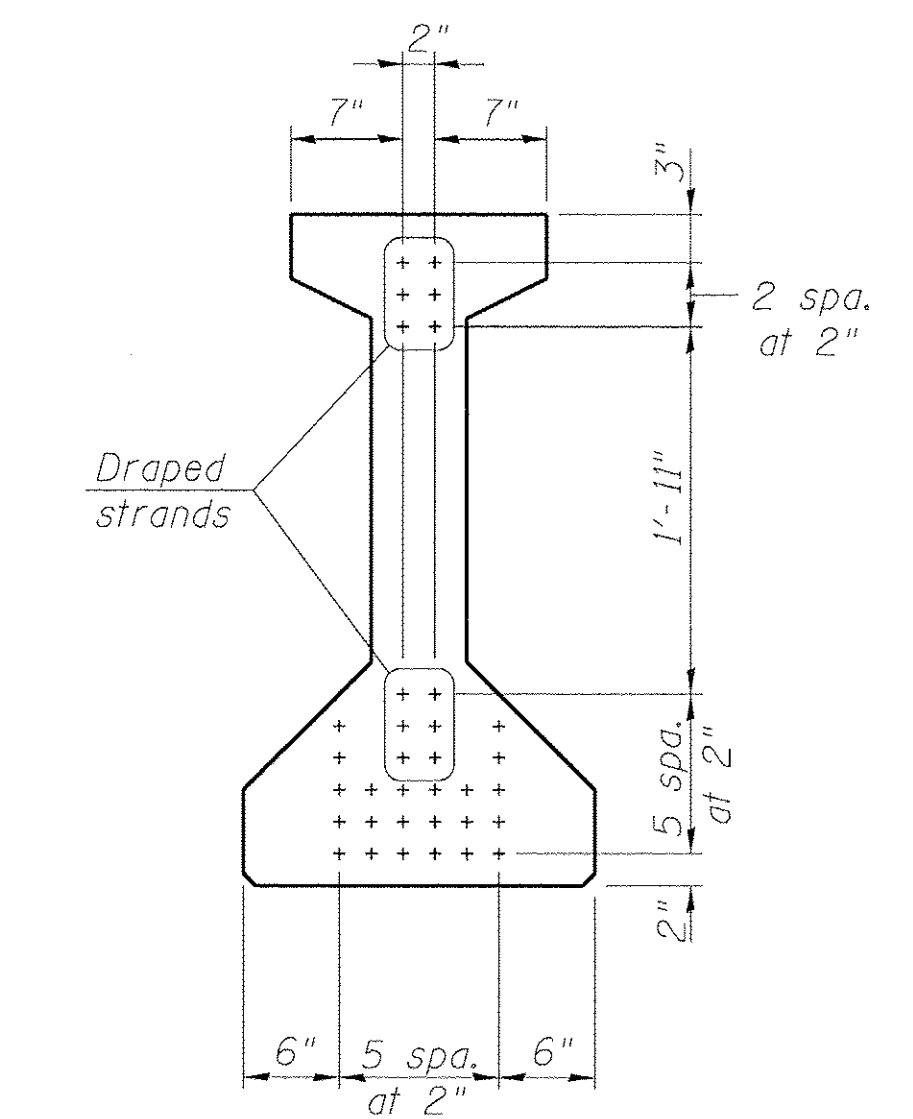
**SECTION D-D**      **SECTION E-E**

Note A:  
Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

\*3 spaces at 3" = 9"  
\*\*4-3/4" diameter threaded dowel rods at 3" cts., Each Face



**ELEVATION OF BEAM**  
(Showing prestressing steel)



**SECTION F-F**

**\*\*\*BAR LIST**  
**ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G <sub>1</sub>	109	#4	8'-7"	∩
G <sub>2</sub>	10	#4	6'-8"	∩
G <sub>3</sub>	12	#6	25'-6"	—
G <sub>4</sub>	38	#3	4'-11"	∩
G <sub>5</sub>	71	#3	2'-6"	∩
G <sub>6</sub>	4	#8	6'-6"	∩

\*\*\*For information only

**NOTES:**

- See sheet S26 for additional details and Bill of Material.
- Required release strength, f'ci, shall be 5,000 psi.
- Required final strength, f'c, shall be 6,000 psi.

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
0166953_025_PPCDet2.dgn		CHECKED - AAY	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - JHC	REVISED -

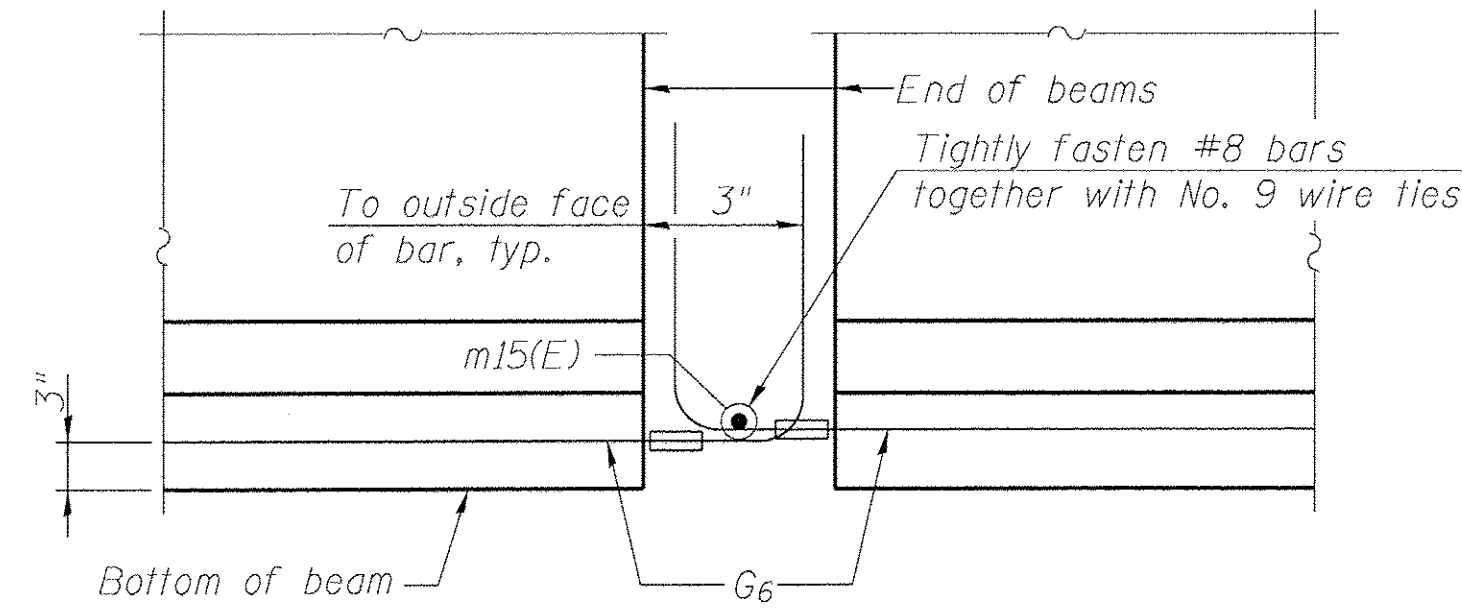
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**42" PPC I-BEAM - SPAN 2**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

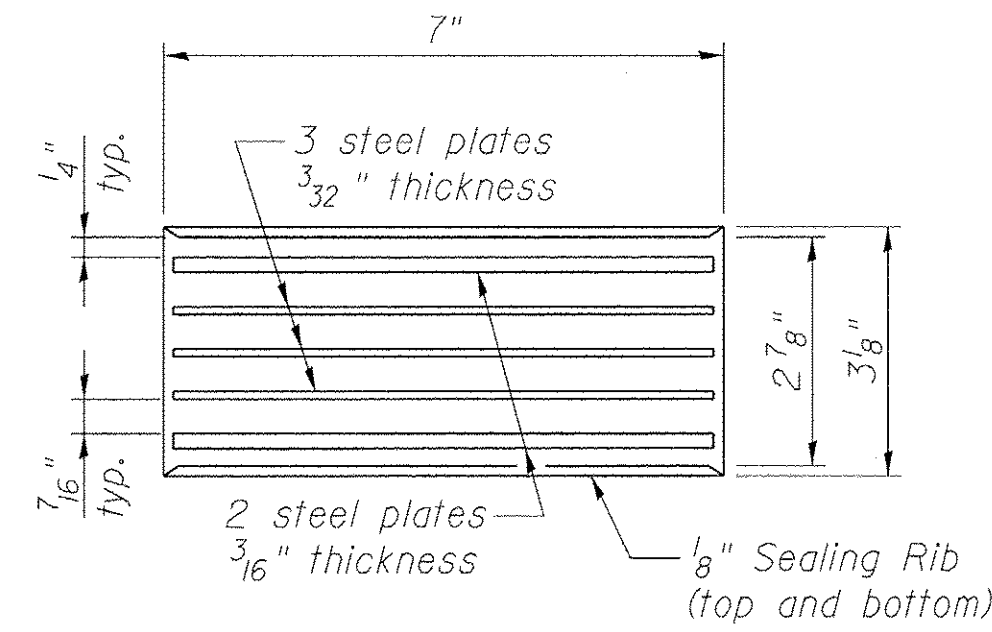
SHEET NO. S25 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	78
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase.II\Bridg-Stre-016-6953\Final\0166953\_025\_PPCDet2.dgn 2/19/2013 2:51:02 PM



**ELEVATION OF BEAM AT PIER**

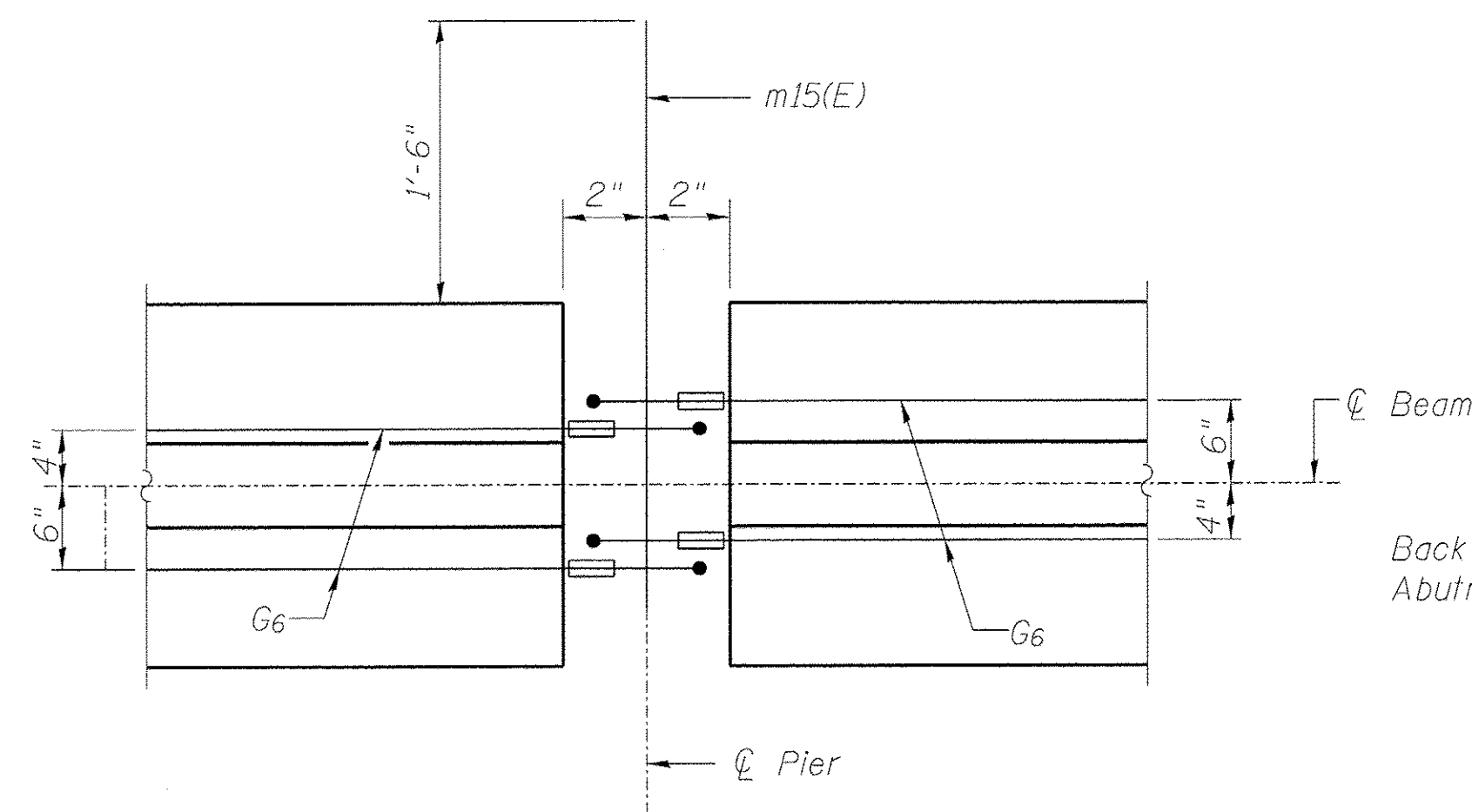


**ABUTMENT BEARING DETAIL**

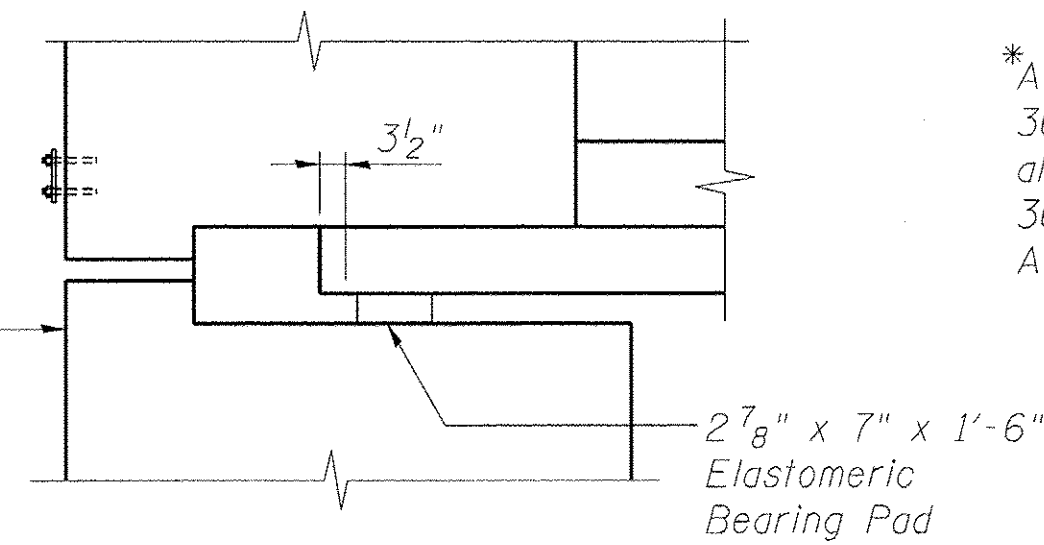
(Cost included with Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42")

**NOTES:**

1. Inserts for 3/4"  $\phi$  threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
2. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.
3. Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).
4. A minimum 2 1/2"  $\phi$  lifting pin shall be used to engage the lifting loops during handling.
5. Tilt G6 bars when necessary to maintain 1/2" clearance.
6. The top and bottom plates shall be AASHTO M270 Grade 50.
7. The bottom plates and studs shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized.
8. Threaded rods shall be ASTM F 1554 Grade 55.
9. The G6 bar assembly shall be capable of developing 125 percent of the yield strength of the grade 60 reinforcement bar components. The assembly shall allow completion of the splice without turning of the hook bar. The hook bar shall be threaded such that the entire coupler can be threaded onto the hook bar.
10. Beams requiring G6 bar assemblies shall not be released from the fabricator until they have attained 45 days of age or older.
11. The Contractor shall be responsible for temporarily shoring the precast prestressed concrete I-beams during construction. Cost shall be included in Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42".

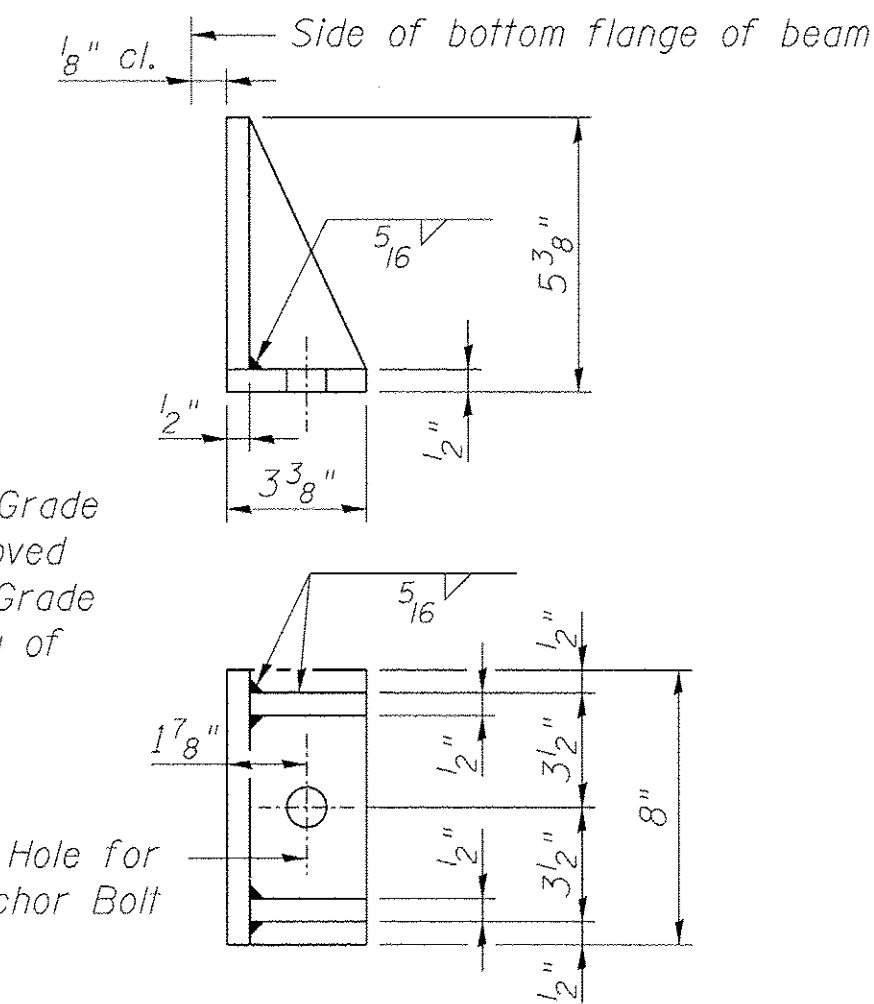


**PLAN OF BEAM AT PIER**



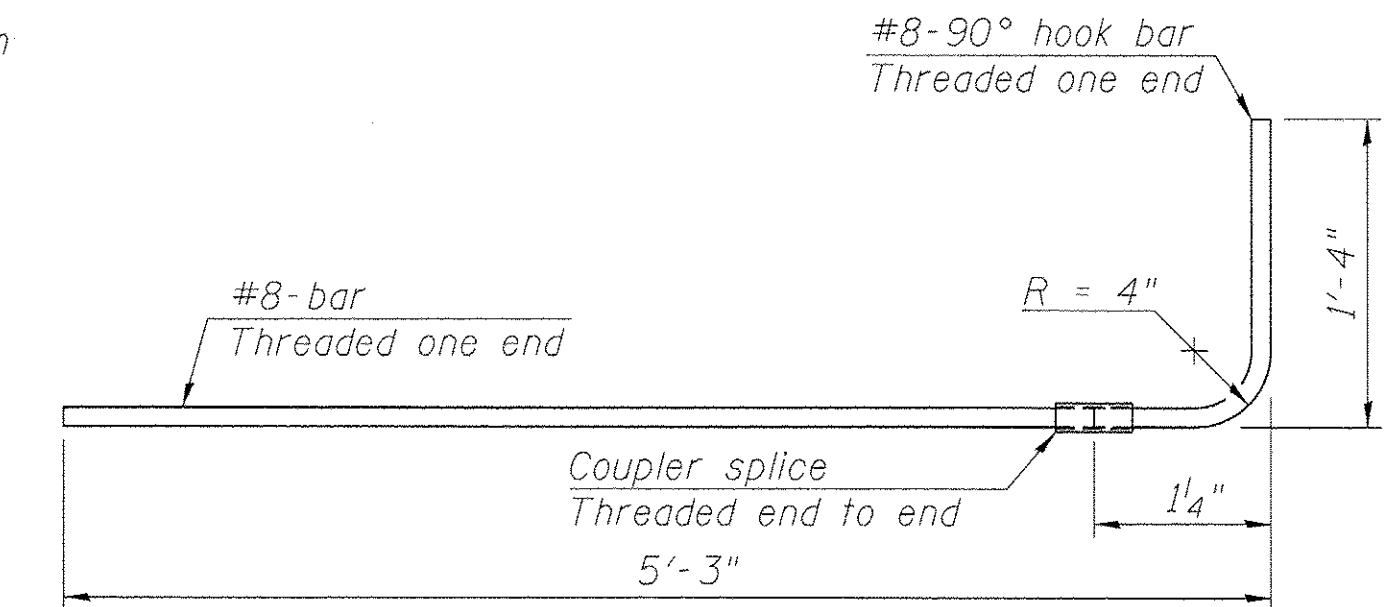
**SECTION AT ABUTMENT**

\* Anchor bolts shall be ASTM F1554 Grade 36 all-thread (or an Engineer-approved alternate material). AASHTO M314 Grade 36 anchor bolts may be used in lieu of ASTM F1554.

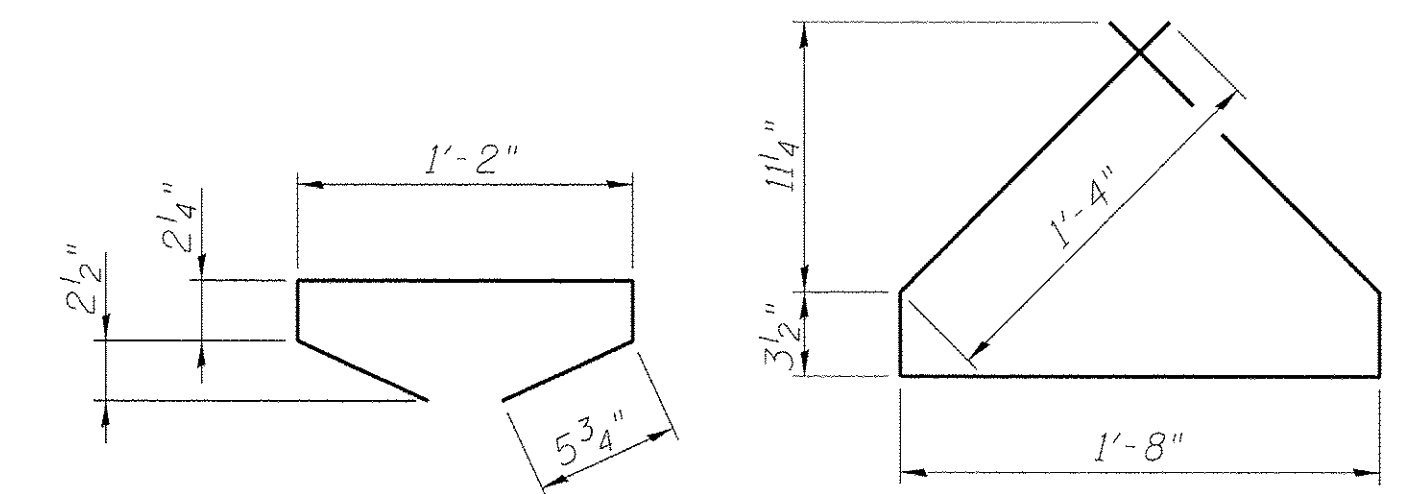


**SIDE RETAINER DETAIL**

2 required at each abutment bearing (existing and proposed)  
(Cost of side retainer and anchor bolts shall be included in Concrete Structures)

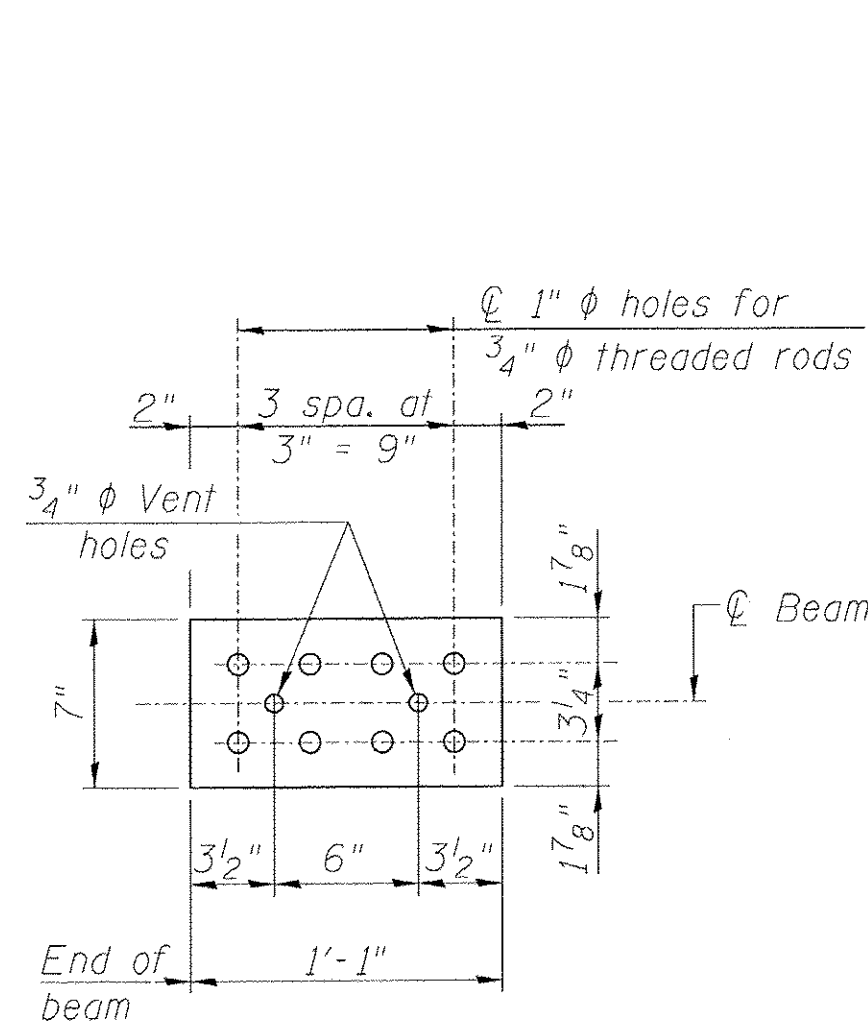


**G6 BAR ASSEMBLY**

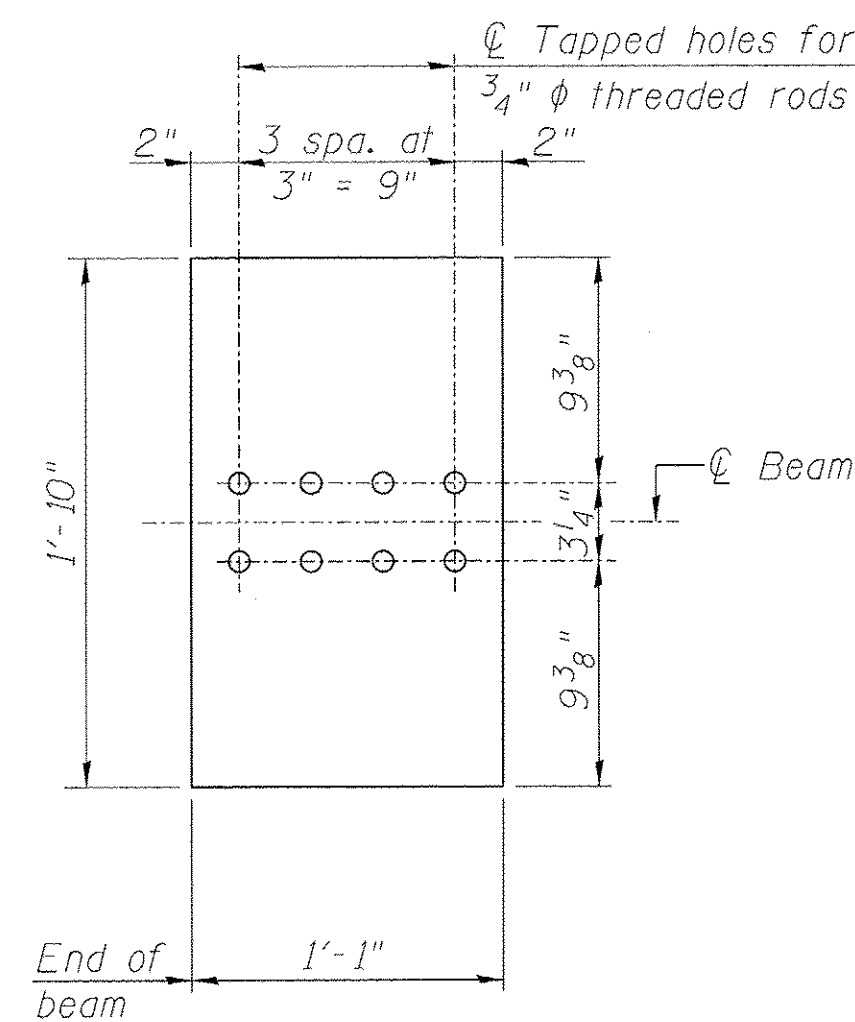


**BAR G5**

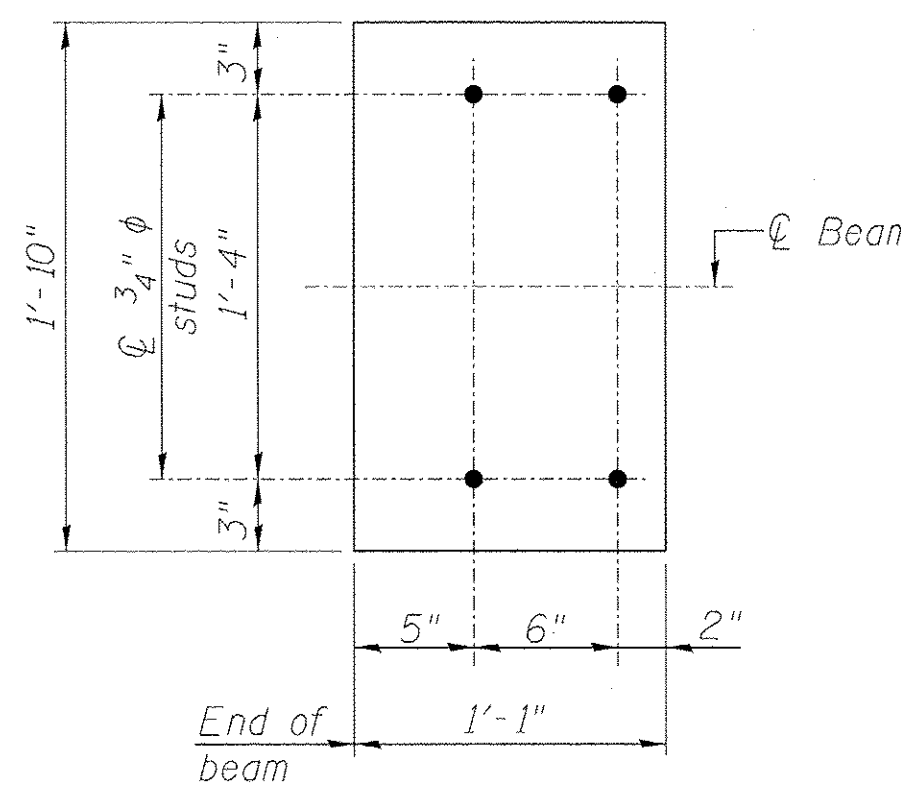
**BAR G4**



**TOP PLATE**

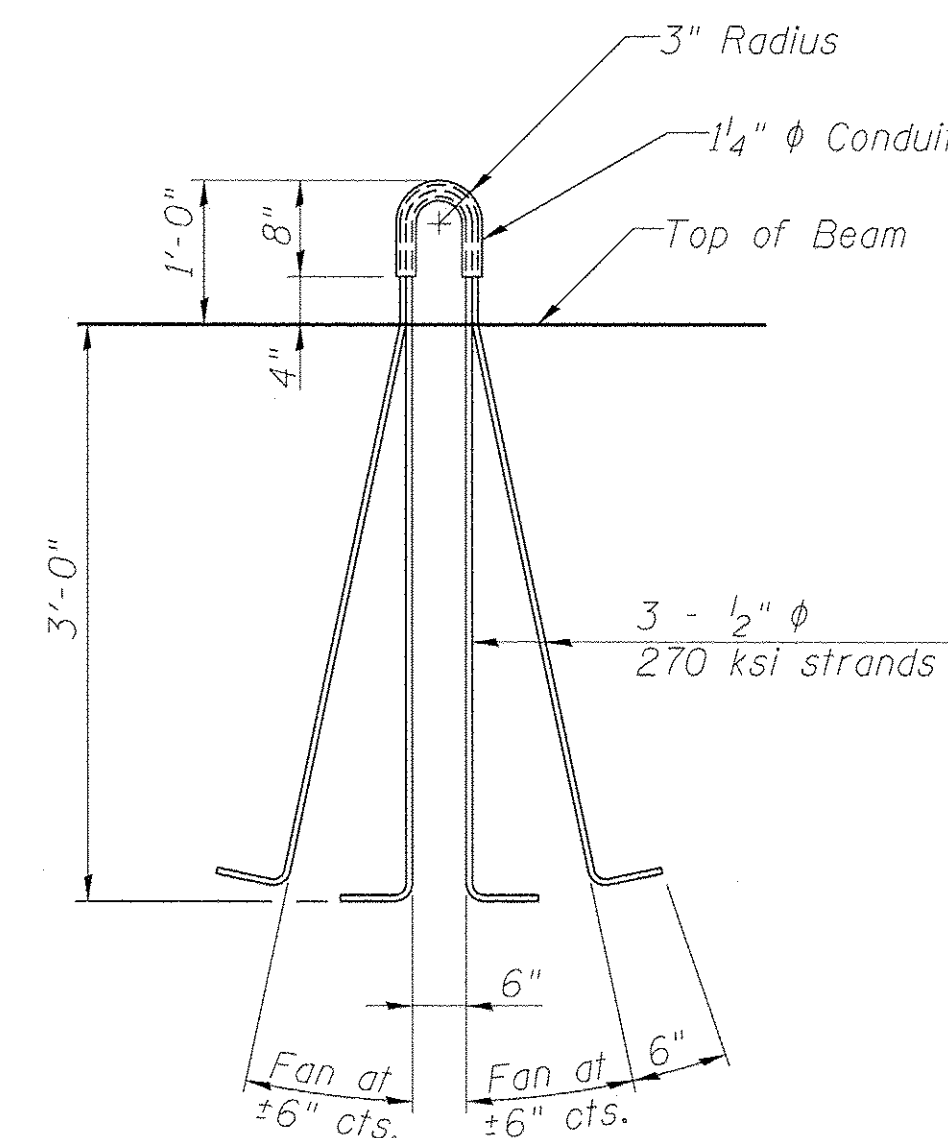


**BOTTOM PLATE (Showing threaded rods)**

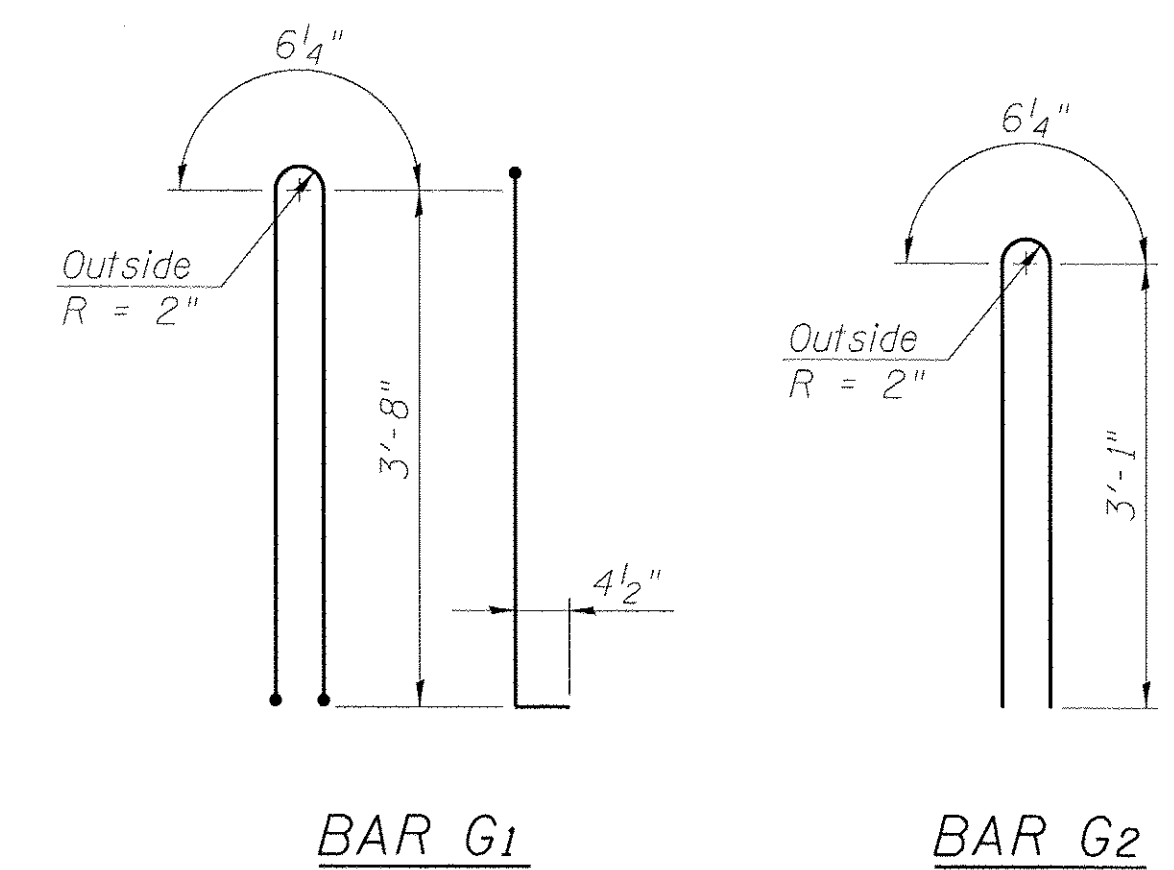


**BOTTOM PLATE (Showing studs)**

**NOTE:**  
See bearing details for pintle hole locations when required.



**LIFTING LOOP DETAIL**



**BAR G1**

**BAR G2**

**BILL OF MATERIAL**

ITEM	UNIT	STAGE I	STAGE II	TOTAL
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 42"	Foot	167.5	0.0	167.5

**benesch**  
engineers - scientists - planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-585-0450 Job No. 10055.02

FILE NAME = 0166953_026.PPCDet3.dgn	USER NAME = eship	DESIGNED - MJF/MFB	REVISED -
		CHECKED - AAY	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - JHG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

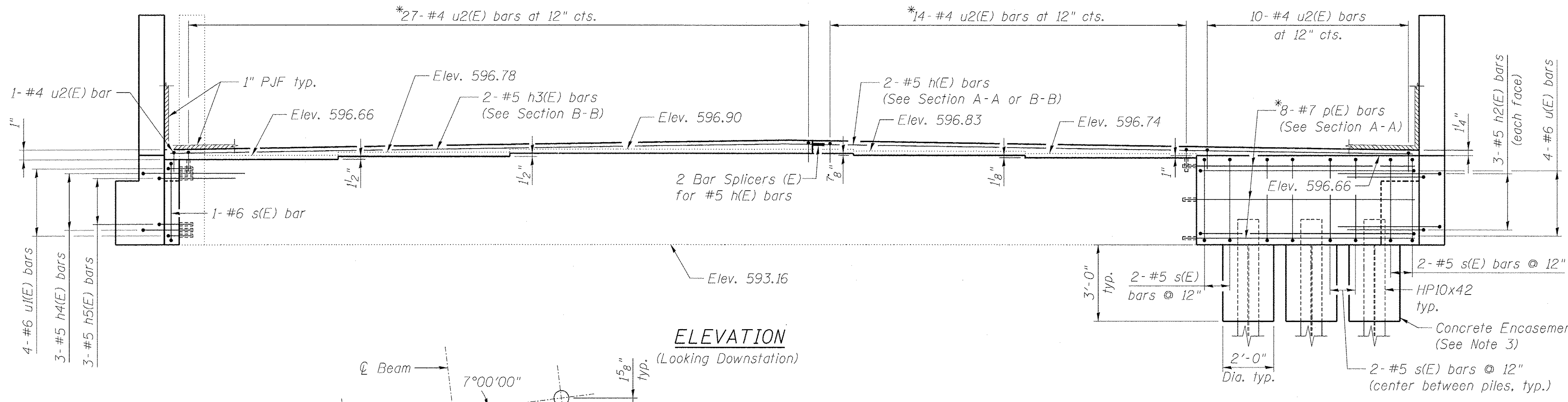
**42" PPC I-BEAM DETAILS  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S26 OF S50 SHEETS

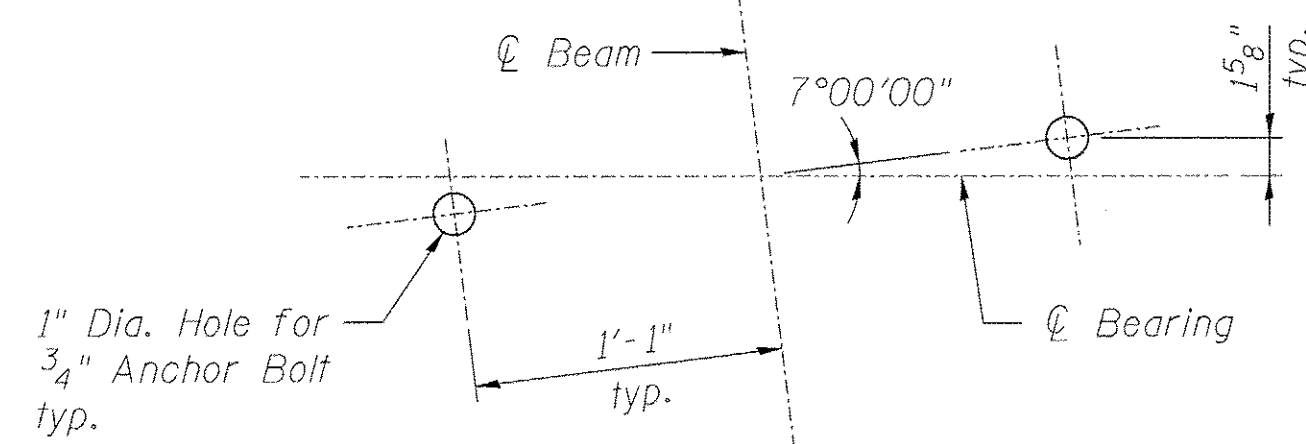
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	79
			CONTRACT NO. 63817	
[ILLINOIS] FED. AID PROJECT				

X:\10000S\10055.02\Eng\_Docs\_Phase.I\NBridge\_Street.016-6953\Final\0166953\_026.PPCDet3.dgn 2/19/2013 2:51:03 PM

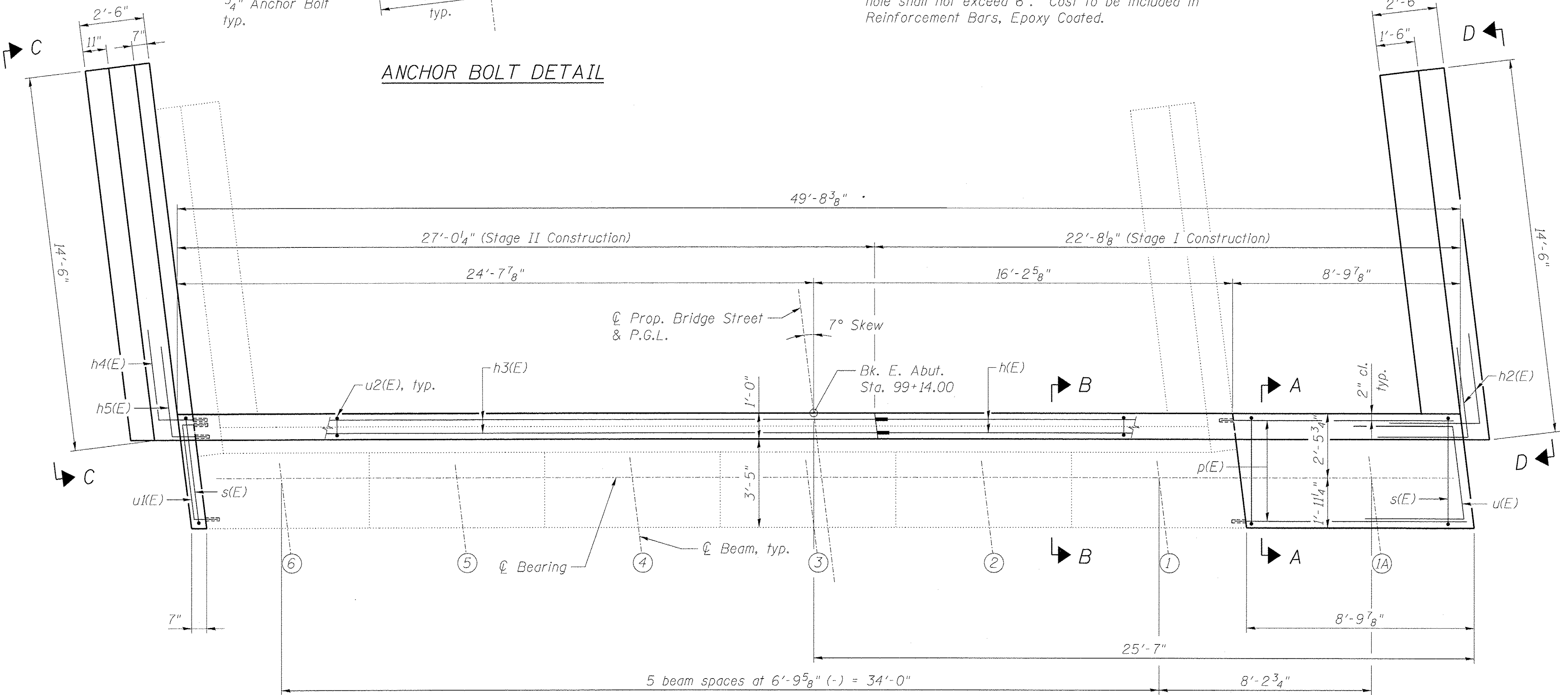




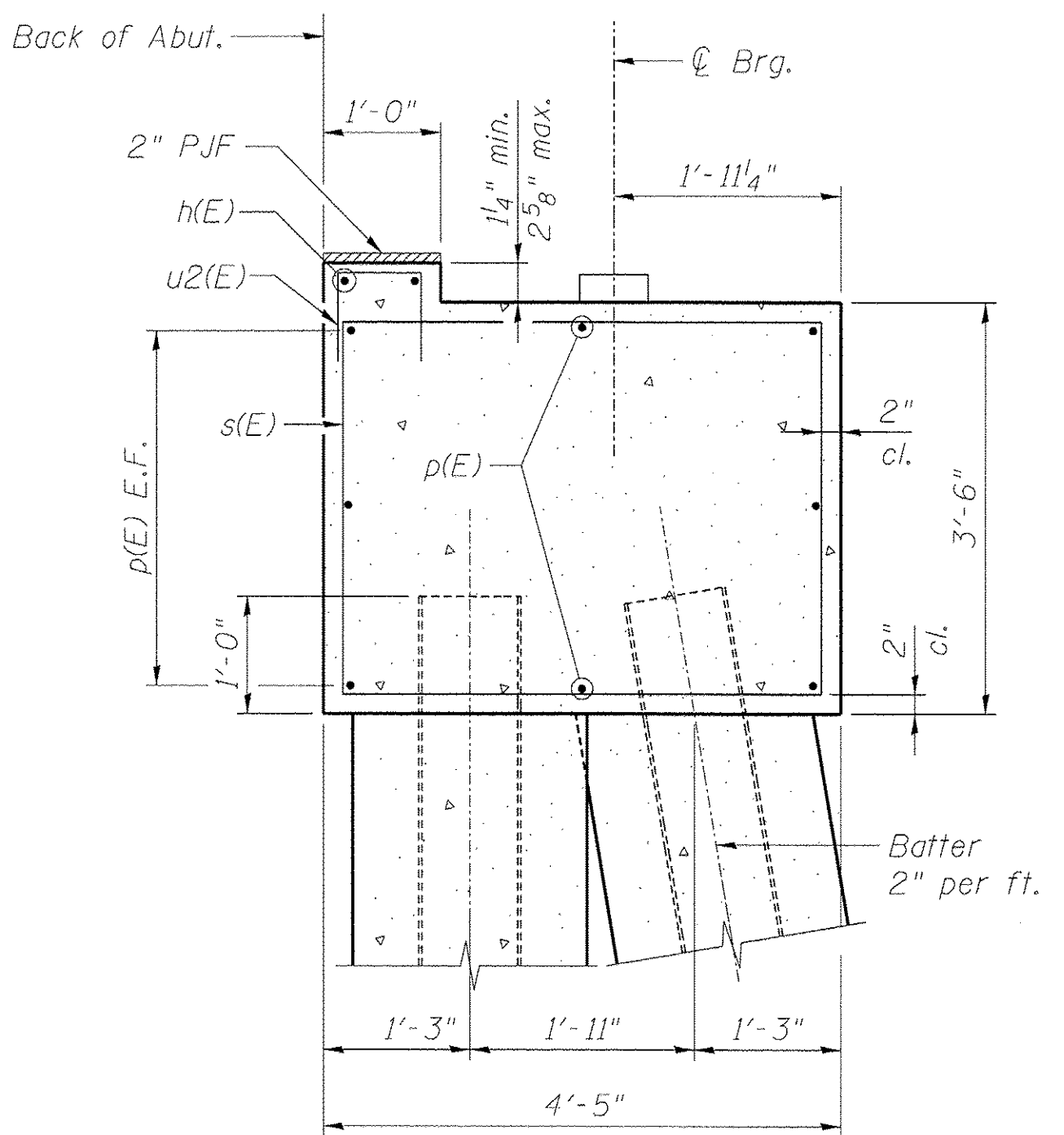
**ELEVATION**  
(Looking Downstation)



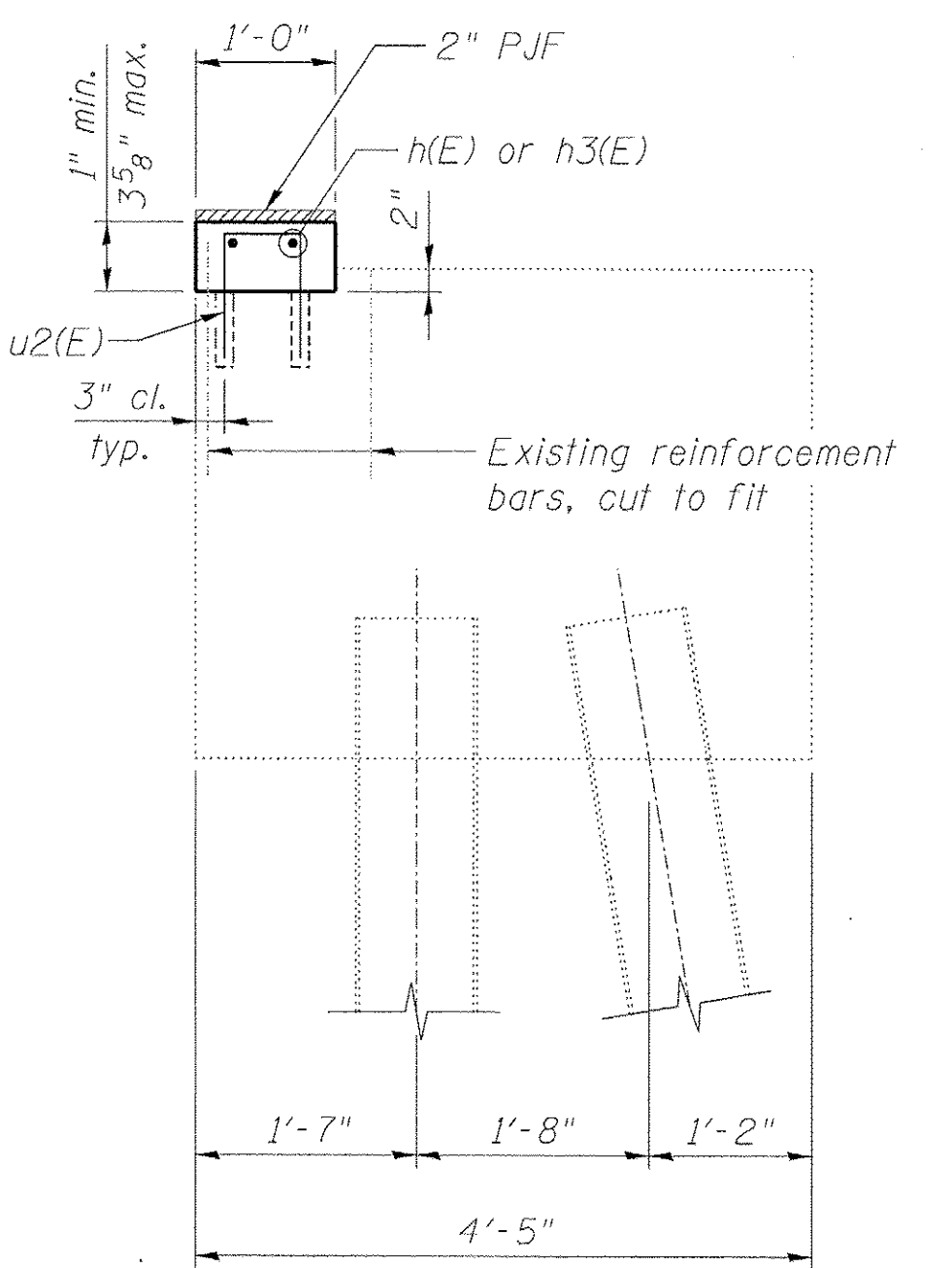
**ANCHOR BOLT DETAIL**



**PLAN**



**SECTION A-A**



**SECTION B-B**

- NOTES:**
1. For Views C-C and D-D, Section Thru Pile Cap, Bill of Material and reinforcement details see sheet S28.
  2. For bar splicer details, see sheet S36.
  3. For Concrete Encasement details, see sheet S35.

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
0166953.027_AbutDet1.dgn	eship	MJF/MFB	-
	PLOT SCALE =	CHECKED -	REVISED -
		EFS	-
	PLOT DATE =	DRAWN -	REVISED -
	2/19/2013	RMG	-
		CHECKED -	REVISED -
		EFS	-

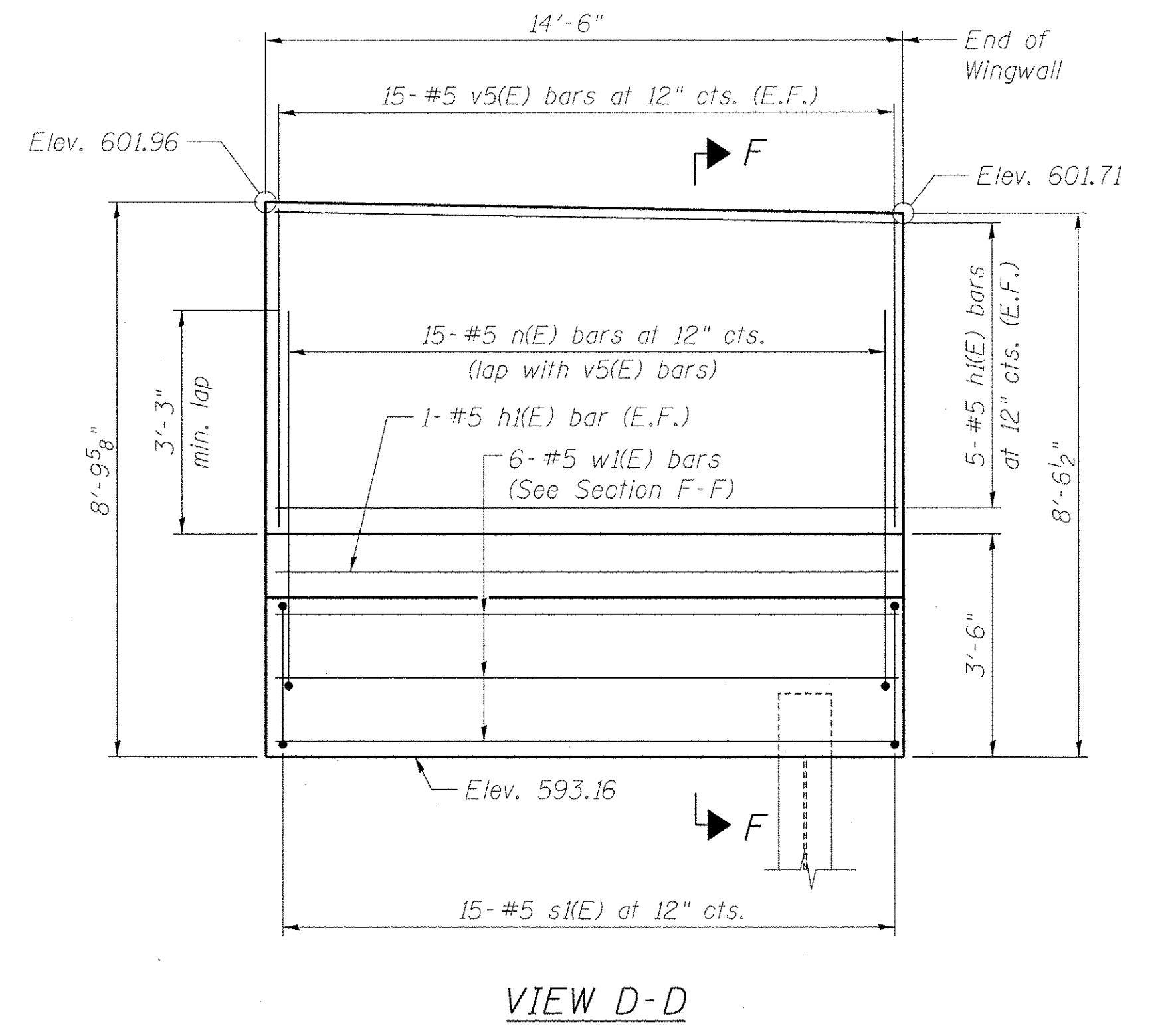
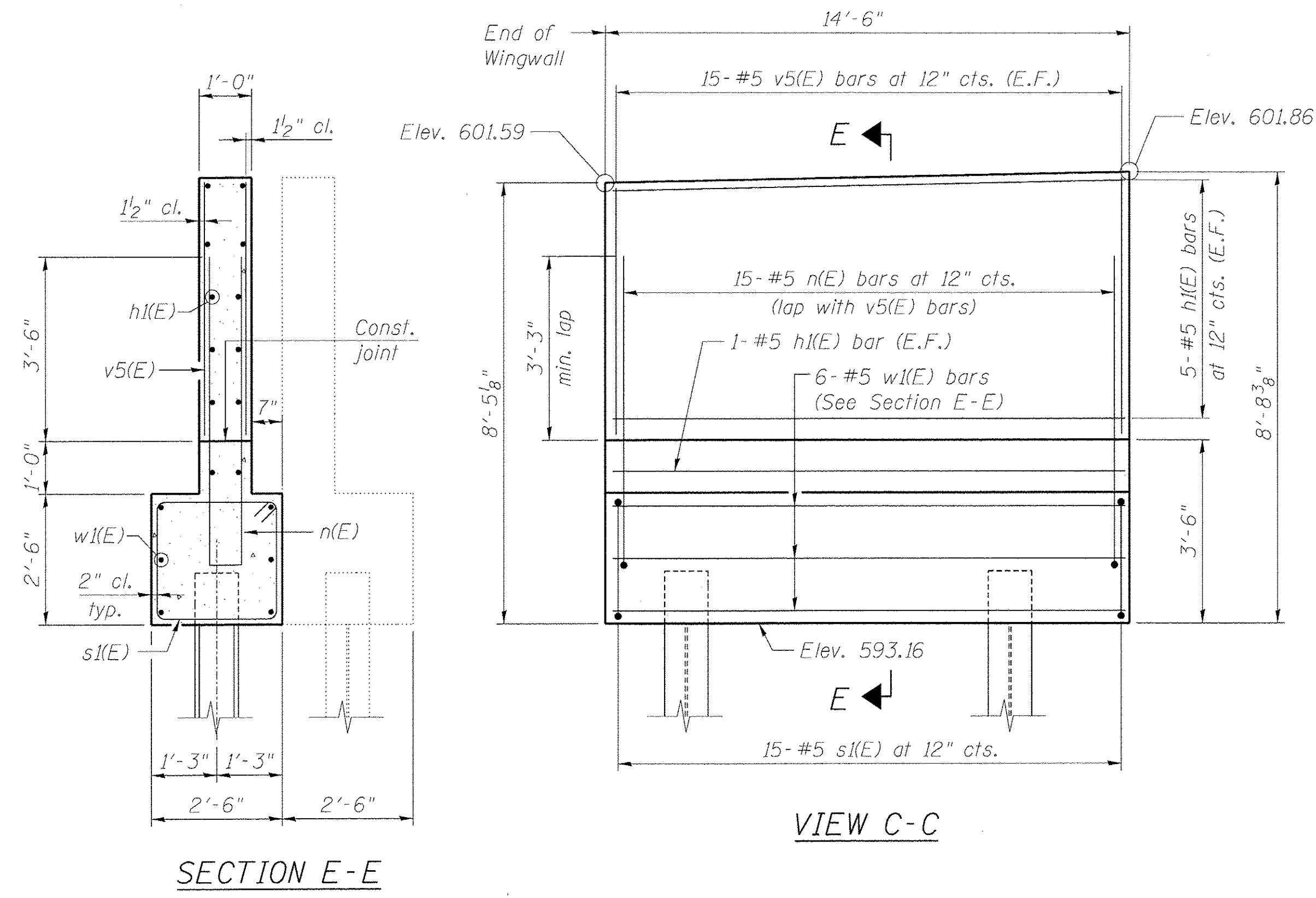
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**EAST ABUTMENT WIDENING DETAILS 1 OF 2**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

SHEET NO. S27 OF S50 SHEETS

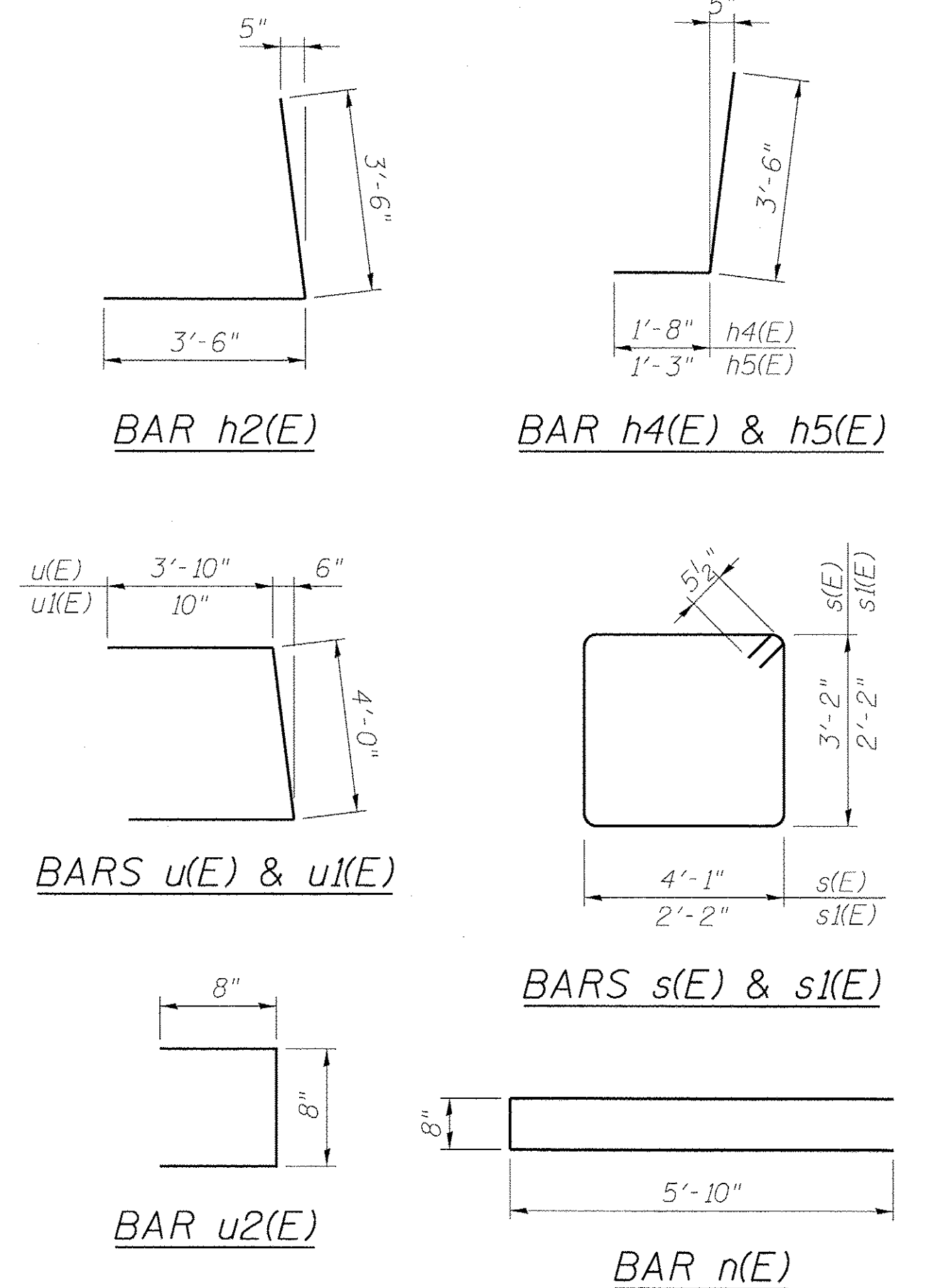
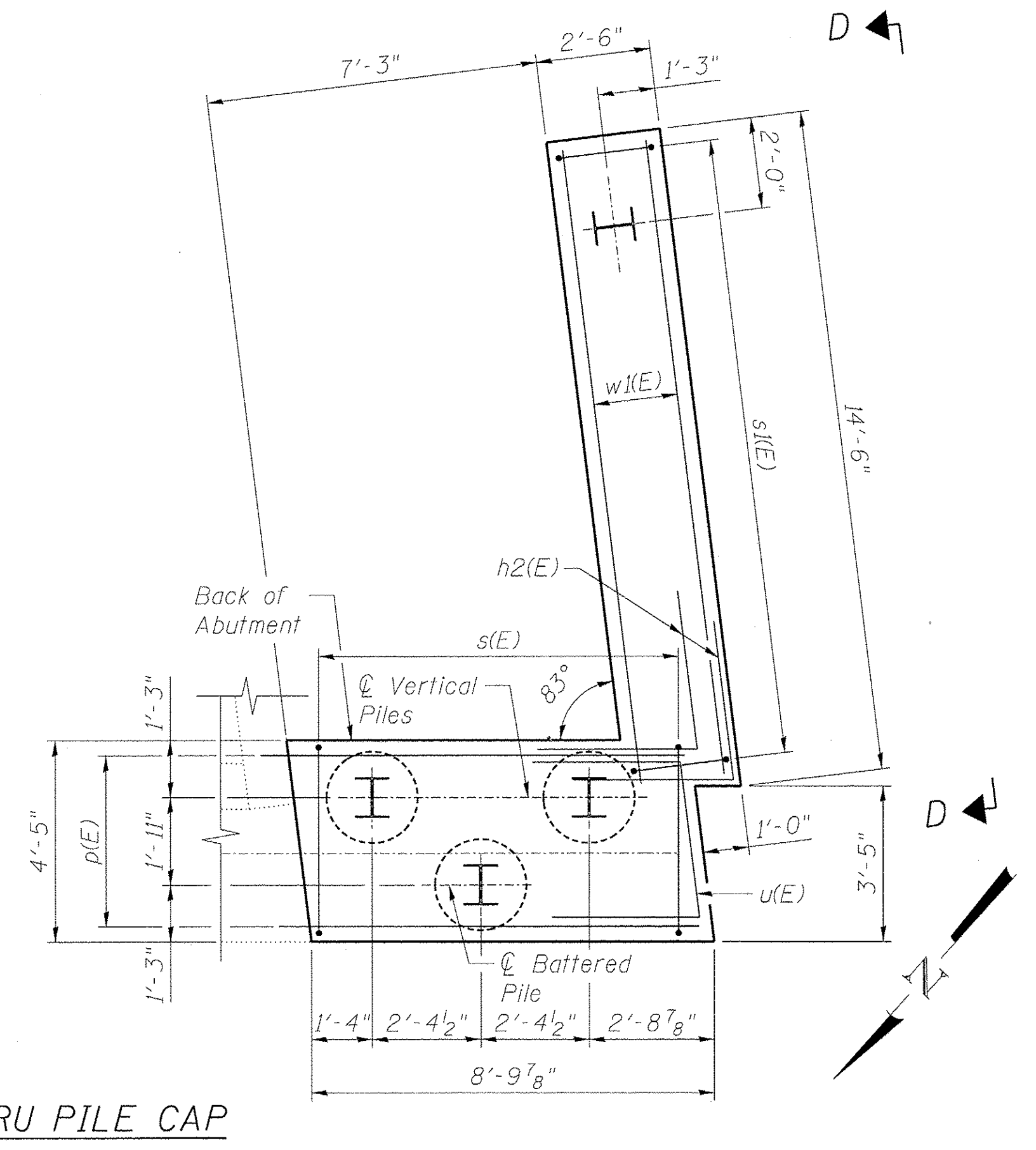
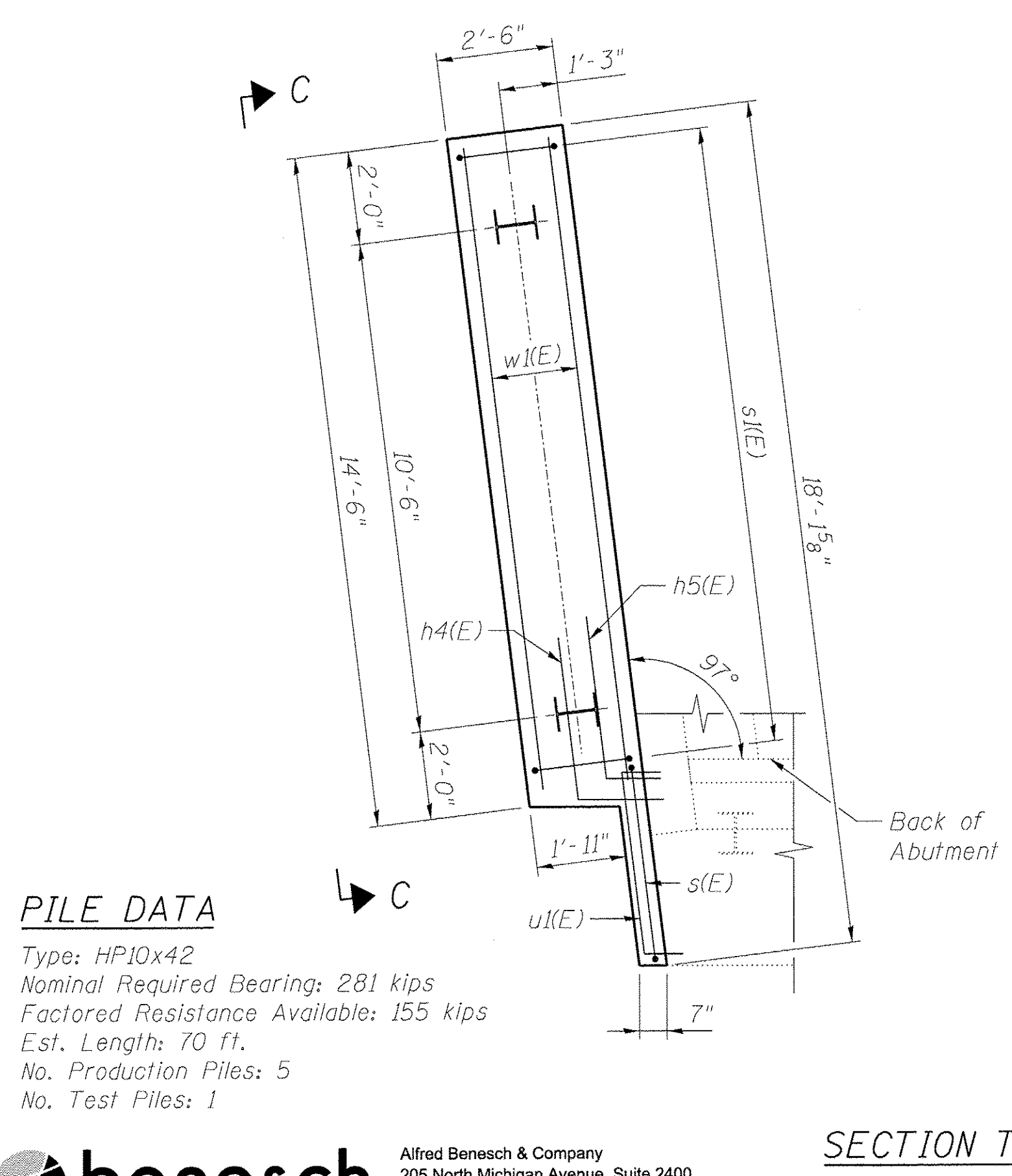
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	80
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase-II\Brdge-Street-016-6953\Final\0166953-027\_AbutDet1.dgn 2:51:05 PM 2/19/2013



### EAST ABUTMENT BILL OF MATERIAL (Stage I)

Bar	No.	Size	Length	Shape
h1(E)	2	#5	22'-2"	—
h1(E)	12	#5	14'-2"	—
h2(E)	6	#5	7'-0"	┘
n(E)	15	#5	12'-4"	—
p(E)	8	#7	9'-0"	—
s(E)	8	#5	15'-5"	□
s1(E)	15	#5	9'-7"	□
u(E)	4	#6	11'-8"	┘
u2(E)	24	#4	2'-0"	┘
v5(E)	30	#5	4'-9"	—
w1(E)	6	#5	14'-2"	—
Structure Excavation		Cu. Yd.	88	
Concrete Structures		Cu. Yd.	13.2	
Reinforcement Bars, Epoxy Coated		Pound	1,230	
Furnishing Steel Piles HP10x42		Foot	210	
Driving Steel Piles		Foot	210	
Test Pile Steel HP10x42		Each	1	
Concrete Encasement		Cu. Yd.	1.1	
Granular Backfill for Structures		Cu. Yd.	88	



### EAST ABUTMENT BILL OF MATERIAL (Stage II)

Bar	No.	Size	Length	Shape
h1(E)	12	#5	14'-2"	—
h3(E)	2	#5	26'-10"	—
h4(E)	3	#5	5'-2"	┘
h5(E)	3	#5	4'-9"	┘
n(E)	15	#5	12'-4"	—
s(E)	1	#5	15'-5"	□
s1(E)	15	#5	9'-7"	□
u1(E)	4	#6	5'-8"	┘
u2(E)	28	#4	2'-0"	┘
v5(E)	30	#5	4'-9"	—
w1(E)	6	#5	14'-2"	—
Structure Excavation		Cu. Yd.	72	
Concrete Structures		Cu. Yd.	8.7	
Reinforcement Bars, Epoxy Coated		Pound	940	
Furnishing Steel Piles HP10x42		Foot	140	
Driving Steel Piles		Foot	140	
Granular Backfill for Structures		Cu. Yd.	72	

**PILE DATA**  
 Type: HP10x42  
 Nominal Required Bearing: 281 kips  
 Factored Resistance Available: 155 kips  
 Est. Length: 70 ft.  
 No. Production Piles: 5  
 No. Test Piles: 1

**benesch**  
 engineers - scientists - planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME = 0166953_028_AbutDet2.dgn	USER NAME = ashsp	DESIGNED - MJF/MFB	REVISED -
PLOT SCALE =	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

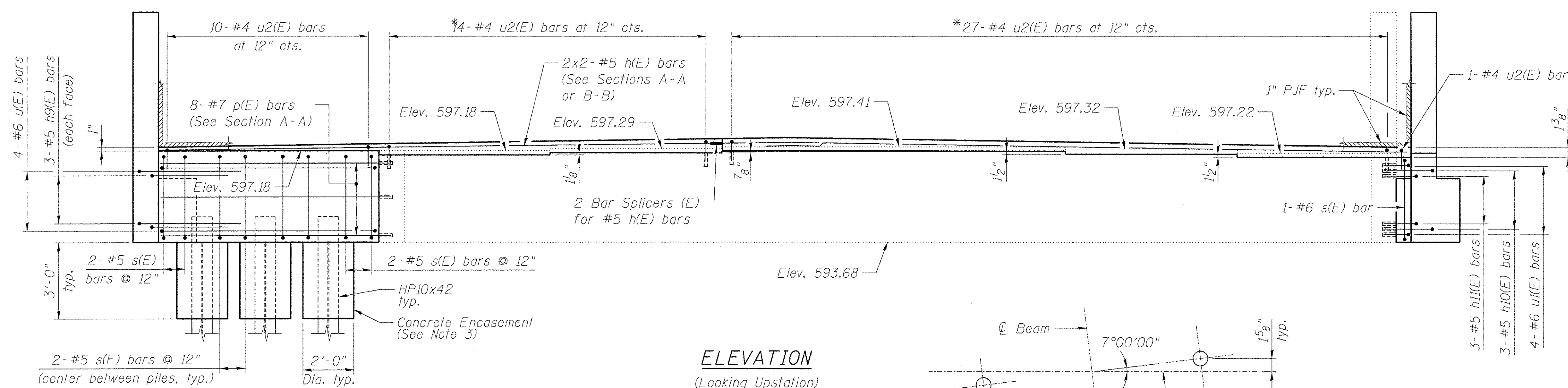
EAST ABUTMENT WIDENING DETAILS 2 OF 2  
 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
 SHEET NO. S28 OF 550 SHEETS

F.A.I. RTE.	SECTION 08-00251-00-BR	COUNTY COOK	TOTAL SHEETS 118	SHEET NO. 81
				CONTRACT NO. 63817
ILLINOIS FED. AID PROJECT				

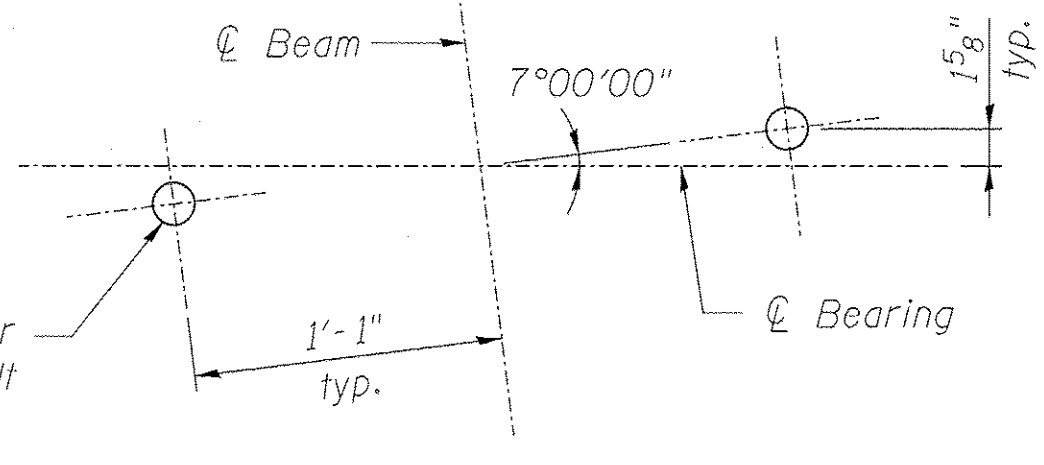
**NOTE:**  
 Backfill shall be placed behind the abutment after the superstructure has been poured and falsework removed. See Article 502.10 of the Standard Specifications.

X:\10000S\10055.02\Eng\_Docs\_Phase\_11\Bridg-Stree\_016-6953\Final\0166953-028\_AbutDet2.dgn 2:51:06 PM 2/19/2013

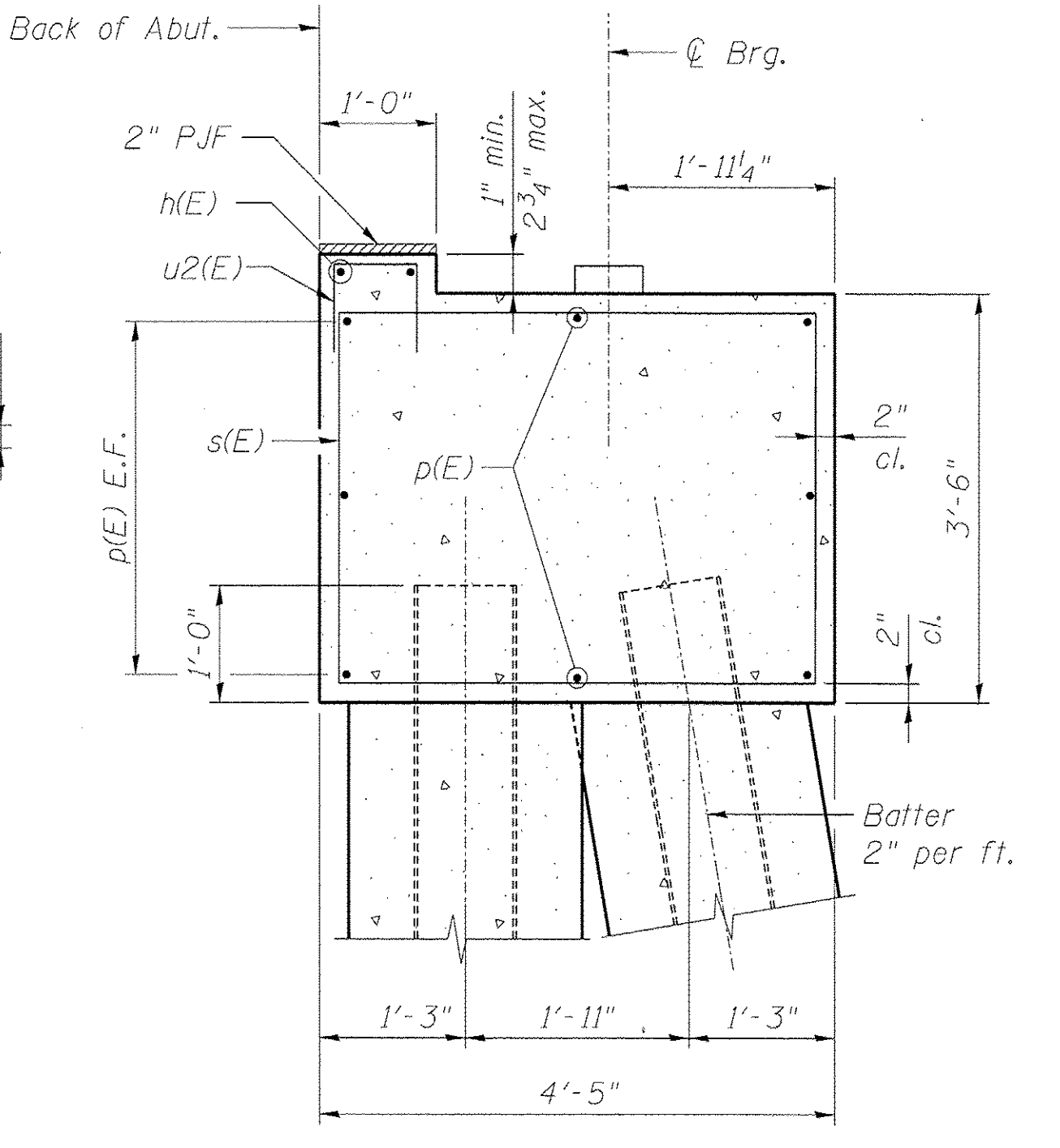




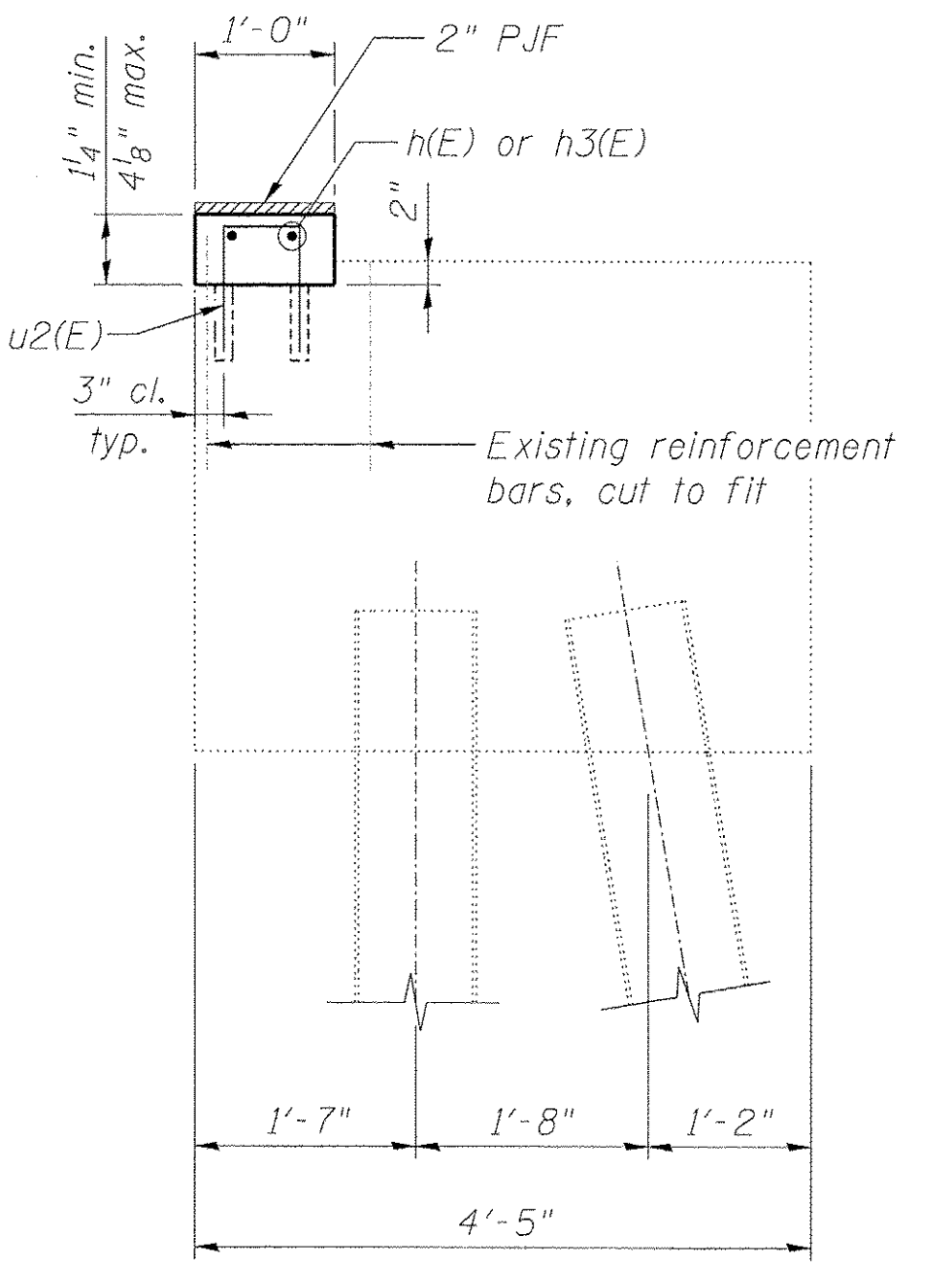
**ELEVATION**  
(Looking Upstation)



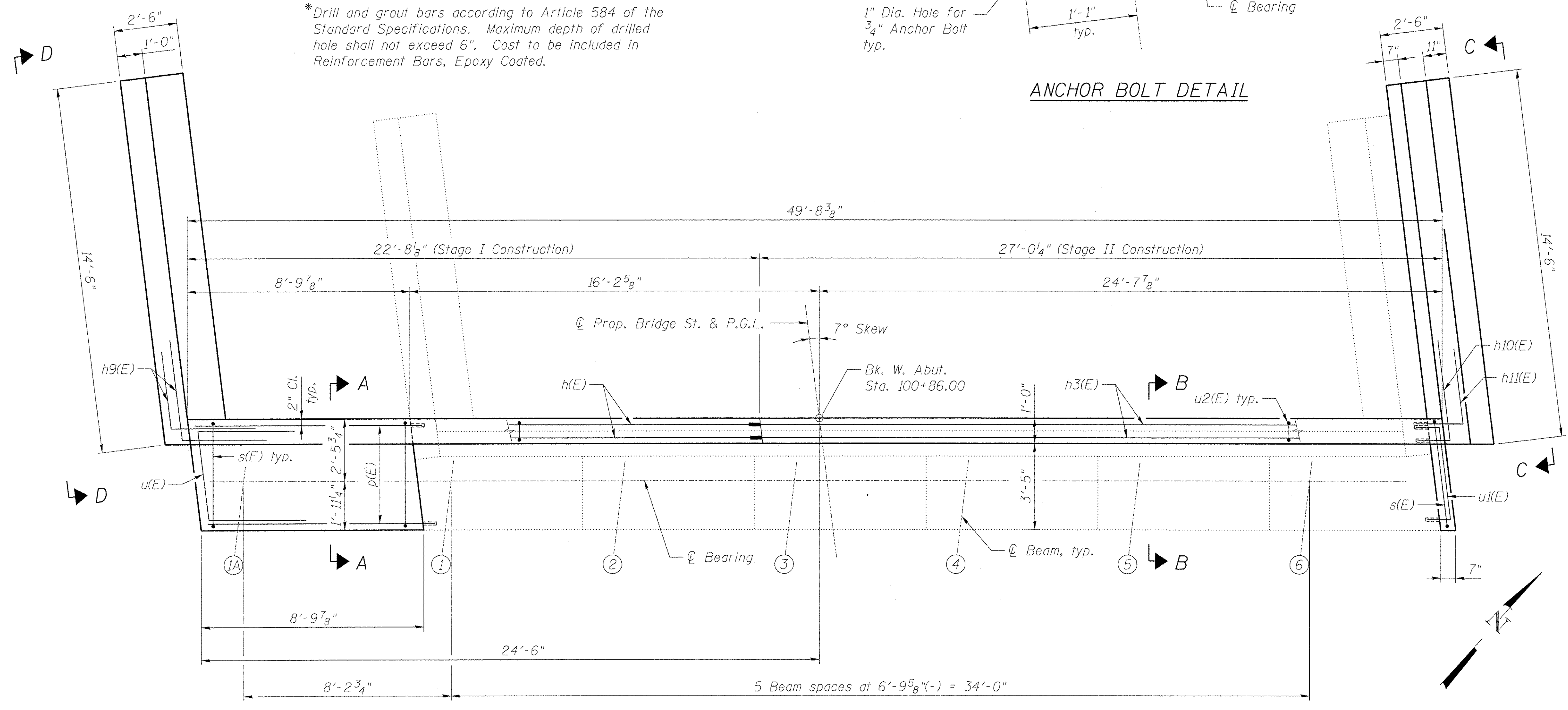
**ANCHOR BOLT DETAIL**



**SECTION A-A**



**SECTION B-B**



**PLAN**

- NOTES:**
1. For Views C-C and D-D, Section Thru Pile Cap, Bill of Material and reinforcement details see sheet S30.
  2. For bar splicer details, see sheet S36.
  3. For Concrete Encasement details, see sheet S35.

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =  
0166953\_029\_AbutDet3.dgn

USER NAME = eship  
PLOT SCALE =  
PLOT DATE = 2/19/2013

DESIGNED - MJF/MFB  
CHECKED - EFS  
DRAWN - RMG  
CHECKED - EFS

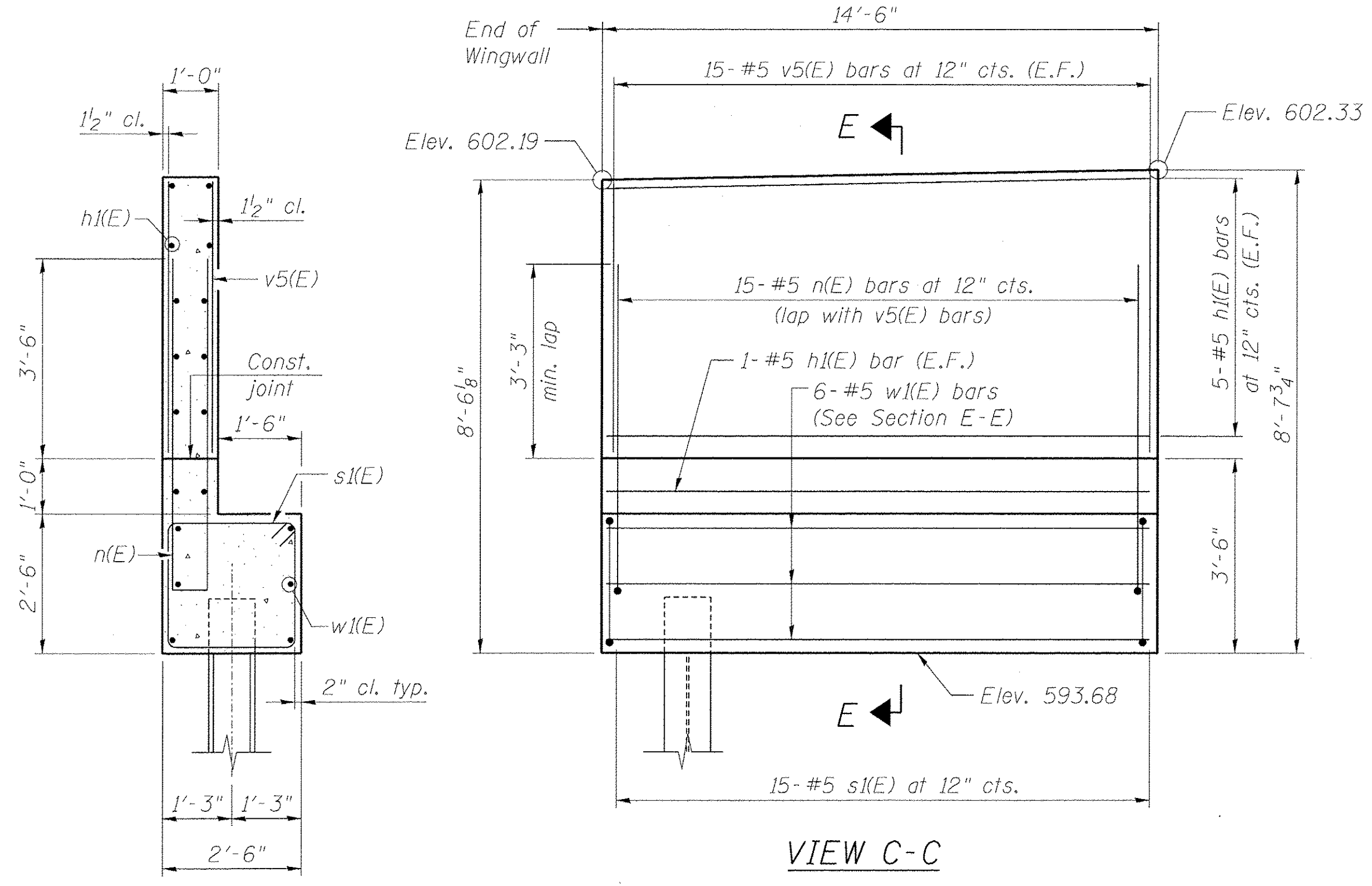
REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT WIDENING DETAILS 1 OF 2**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
SHEET NO. S29 OF S50 SHEETS

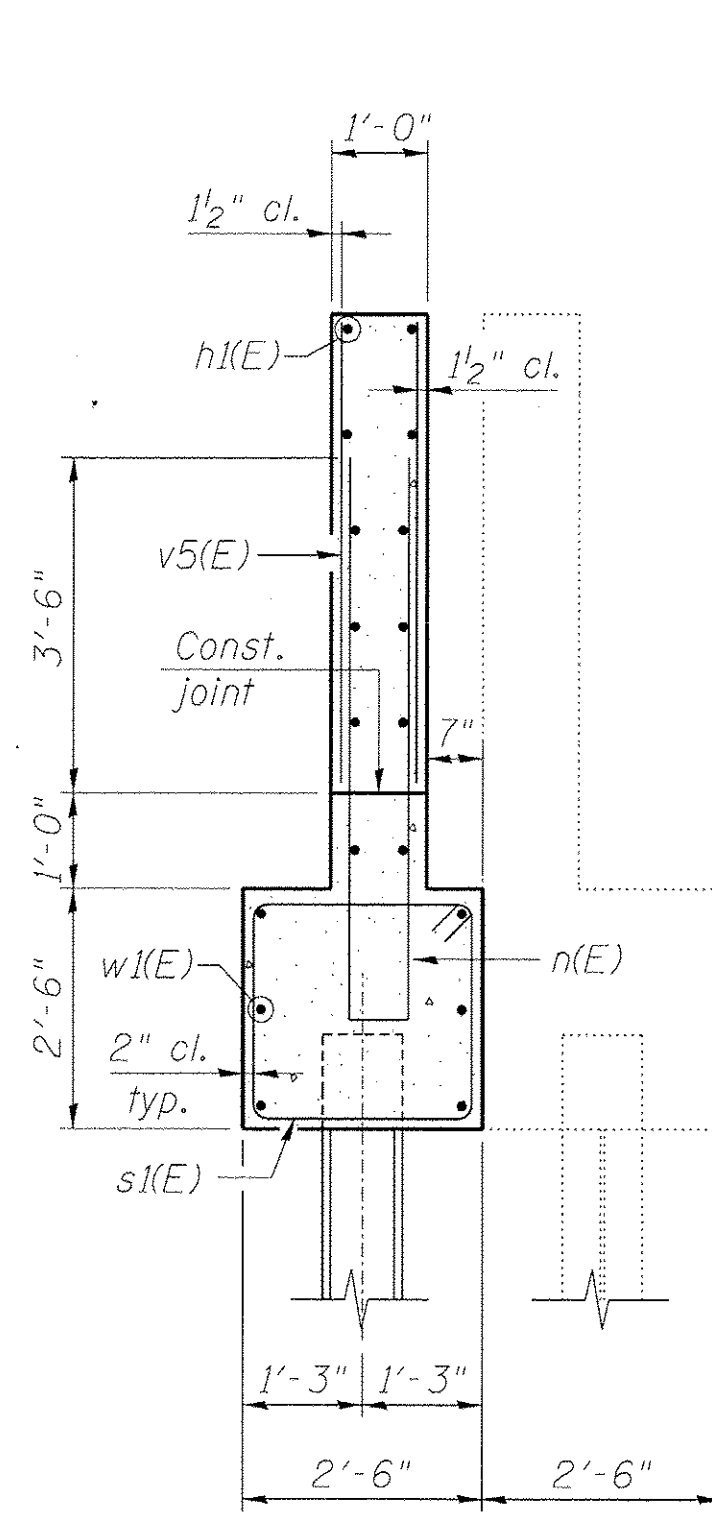
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	82
				CONTRACT NO. 63817
ILLINOIS FED. AID PROJECT				

X:\100005\10055.02\Eng\_Docs\Phase\_11\Brdge-Street\_016-6953\Final\0166953-029\_AbutDet3.dgn 2/19/2013 2:51:08 PM

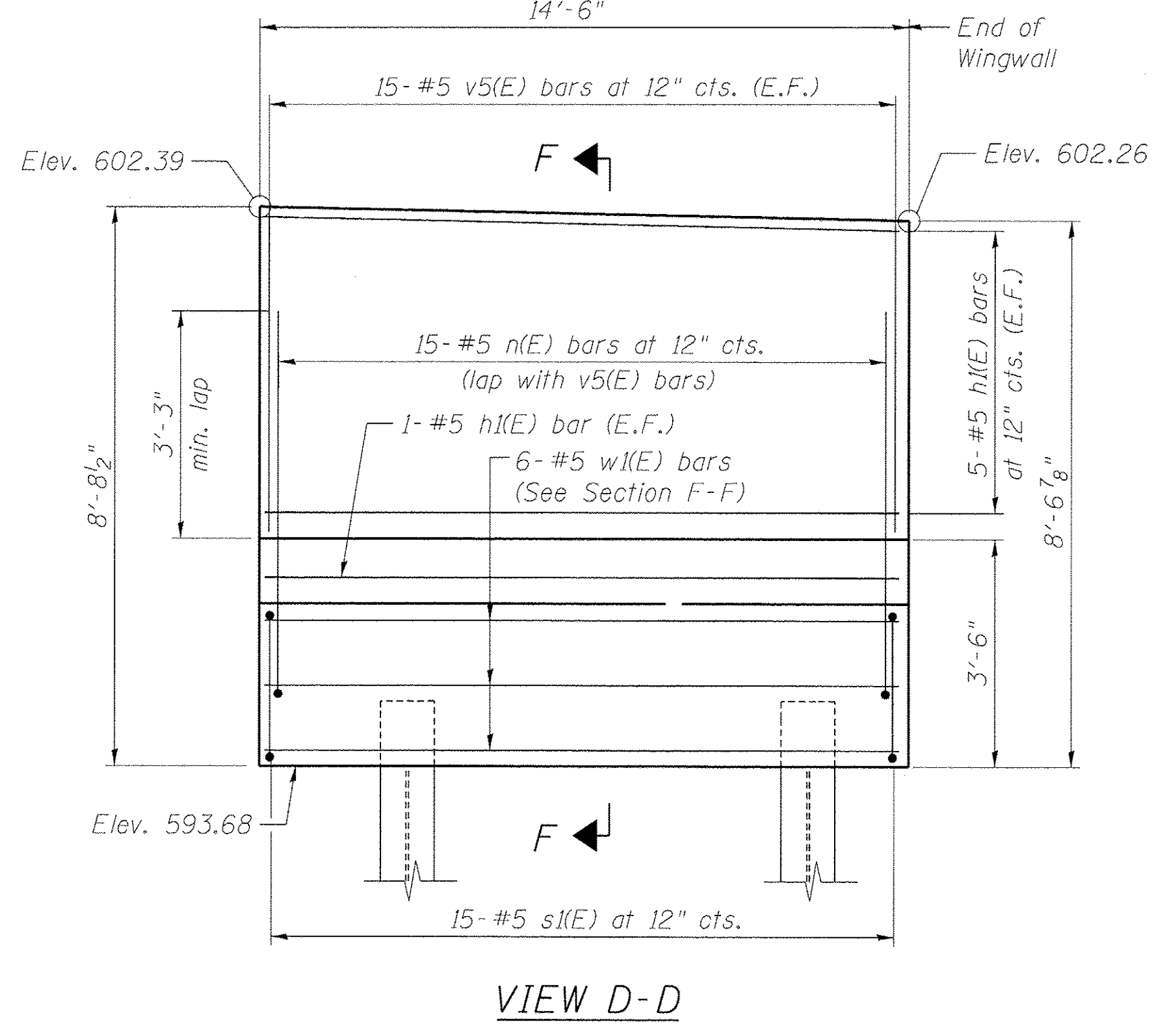


SECTION E-E

VIEW C-C



SECTION F-F



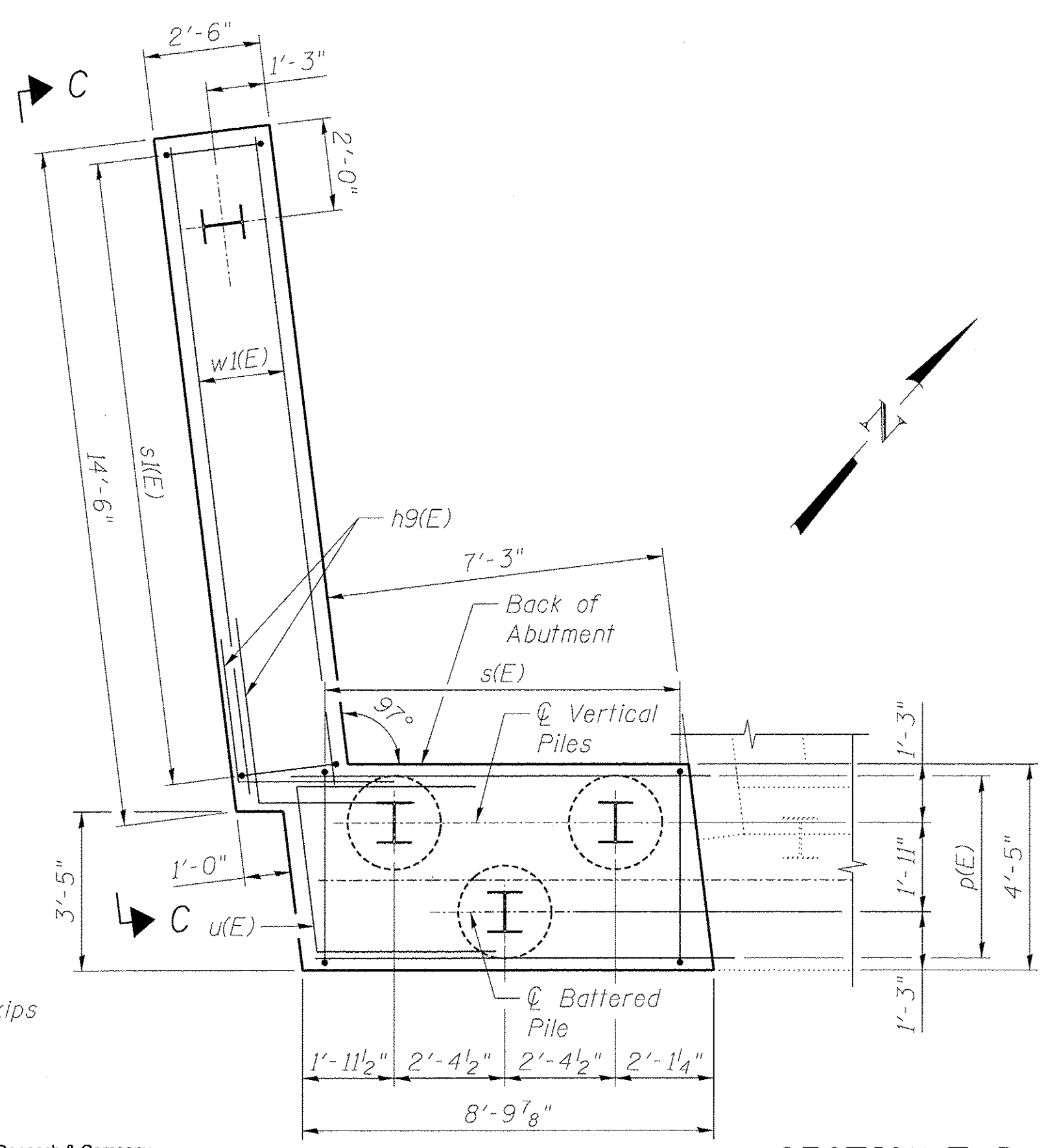
VIEW D-D

WEST ABUTMENT  
BILL OF MATERIAL  
(Stage I)

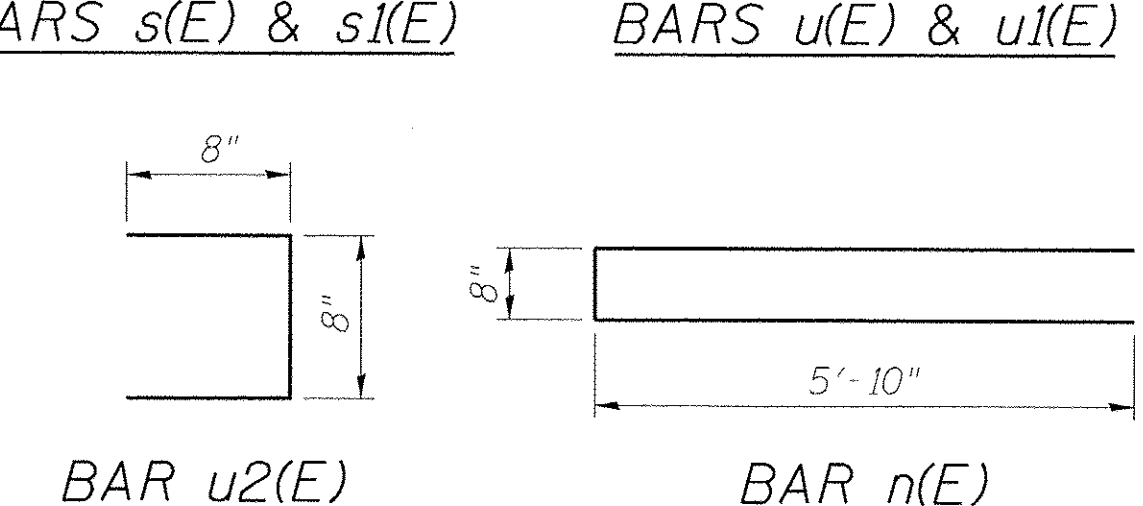
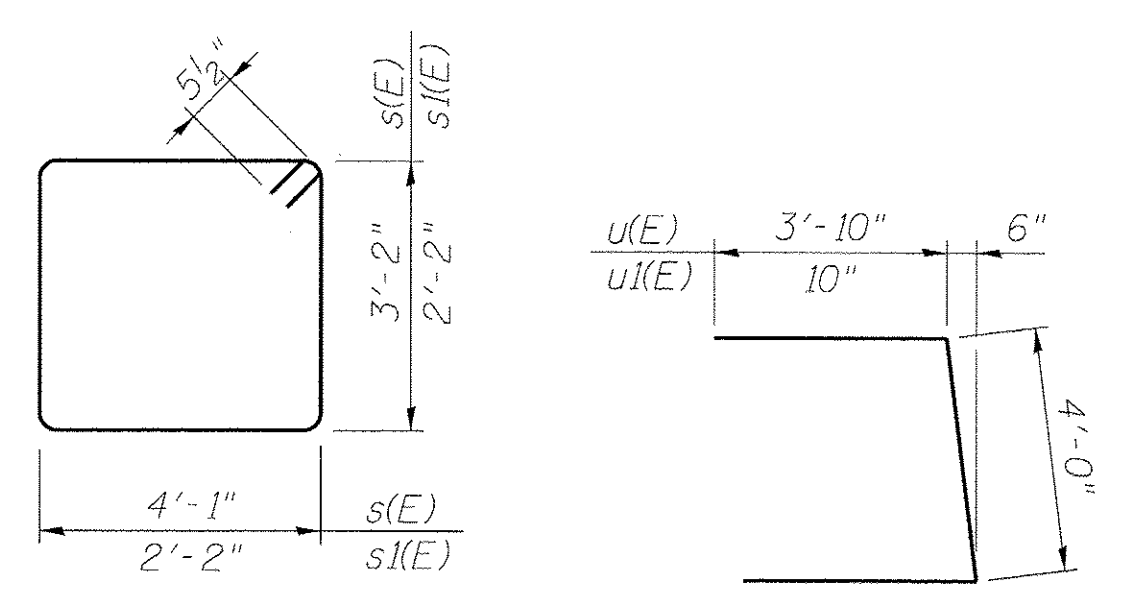
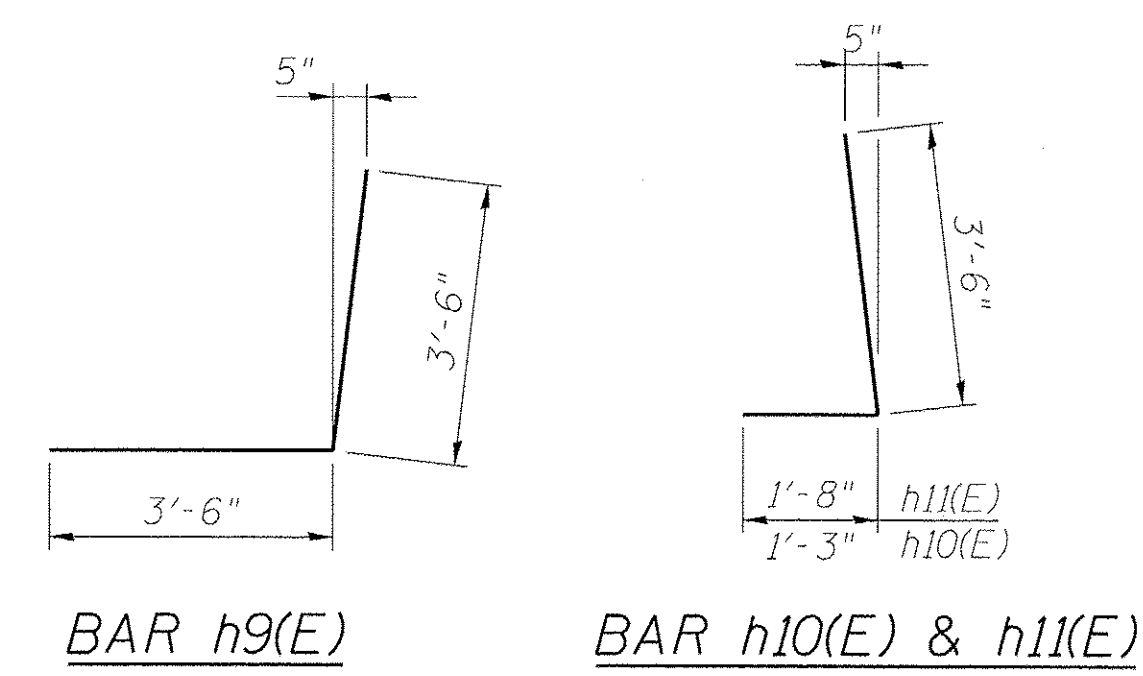
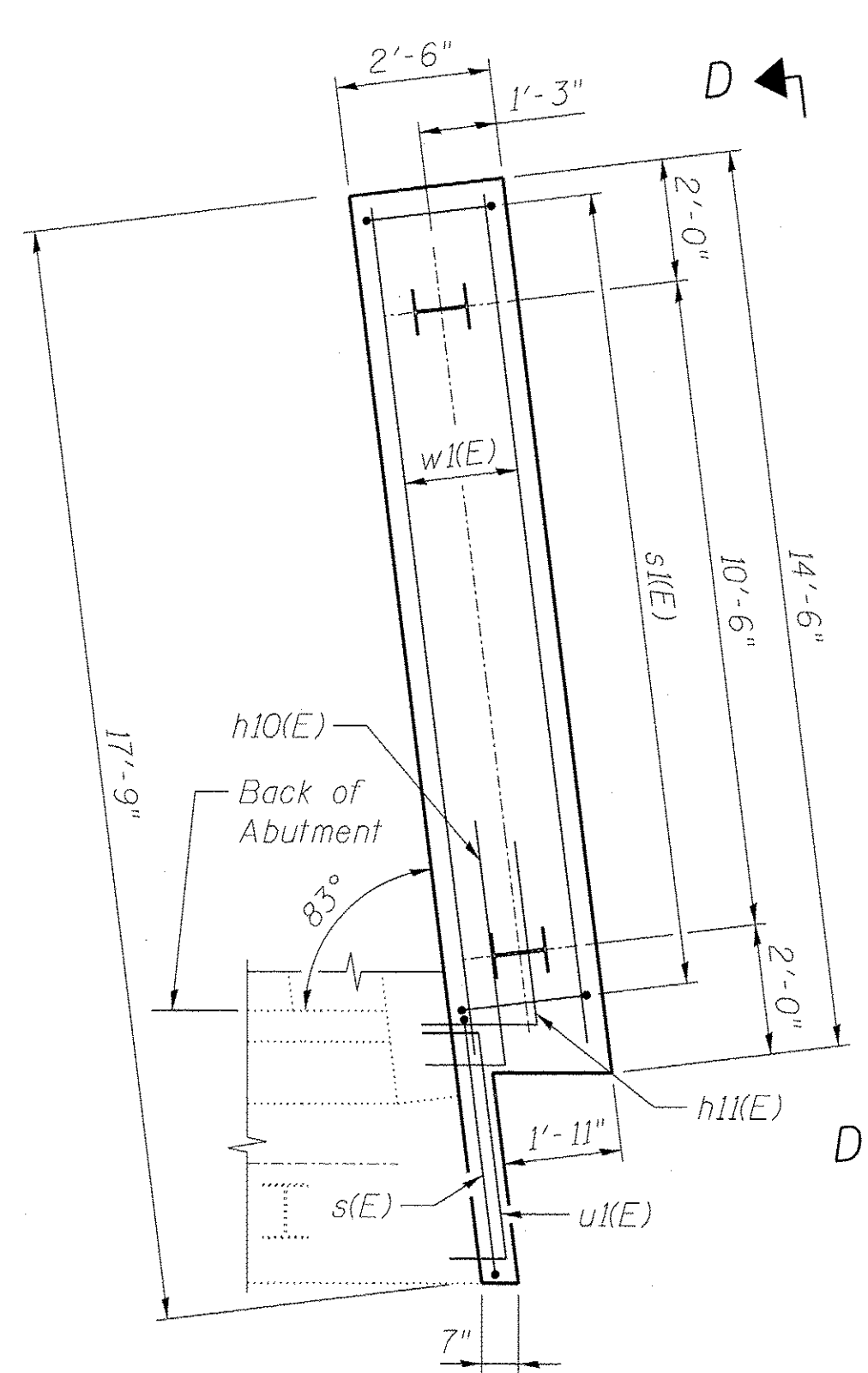
Bar	No.	Size	Length	Shape
h(E)	2	#5	22'-2"	—
h1(E)	12	#5	14'-2"	—
h9(E)	6	#5	7'-0"	J
n(E)	15	#5	12'-4"	—
p(E)	8	#7	9'-0"	—
s(E)	8	#5	15'-5"	□
s1(E)	15	#5	9'-7"	□
u(E)	4	#6	11'-8"	J
u2(E)	24	#4	2'-0"	J
v5(E)	30	#5	4'-9"	—
w1(E)	6	#5	14'-2"	—
Structure Excavation		Cu. Yd.	87	
Concrete Structures		Cu. Yd.	13.2	
Reinforcement Bars, Epoxy Coated		Pound	1,230	
Furnishing Steel Piles HP10x42		Foot	195	
Driving Steel Piles		Foot	195	
Test Pile Steel HP10x42		Each	1	
Concrete Encasement		Cu. Yd.	1.1	
Granular Backfill for Structures		Cu. Yd.	87	

WEST ABUTMENT  
BILL OF MATERIAL  
(Stage II)

Bar	No.	Size	Length	Shape
h1(E)	12	#5	14'-2"	—
h3(E)	2	#5	26'-10"	—
h10(E)	3	#5	4'-9"	J
h11(E)	3	#5	5'-2"	J
n(E)	15	#5	12'-4"	—
s(E)	1	#5	15'-5"	□
s1(E)	15	#5	9'-7"	□
u1(E)	4	#6	5'-8"	J
u2(E)	28	#4	2'-0"	J
v5(E)	30	#5	4'-9"	—
w1(E)	6	#5	14'-2"	—
Structure Excavation		Cu. Yd.	72	
Concrete Structures		Cu. Yd.	8.7	
Reinforcement Bars, Epoxy Coated		Pound	940	
Furnishing Steel Piles HP10x42		Foot	130	
Driving Steel Piles		Foot	130	
Granular Backfill for Structures		Cu. Yd.	72	



SECTION THRU PILE CAP



NOTE:  
Backfill shall be placed behind the abutment after the superstructure has been poured and falsework removed. See Article 502.10 of the Standard Specifications.

PILE DATA

Type: HP10x42  
Nominal Required Bearing: 232 kips  
Factored Resistance Available: 128 kips  
Est. Length: 65 ft.  
No. Production Piles: 5  
No. Test Piles: 1

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = oship	DESIGNED - MJF/MFB	REVISED -
0166953_030_AbutDet4.dgn		CHECKED - EFS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT WIDENING DETAILS 2 OF 2  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
SHEET NO. 530 OF 550 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	83
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridge\_St-reet\_016-6953\Final\0166953\_030\_AbutDet4.dgn 2:51:10 PM



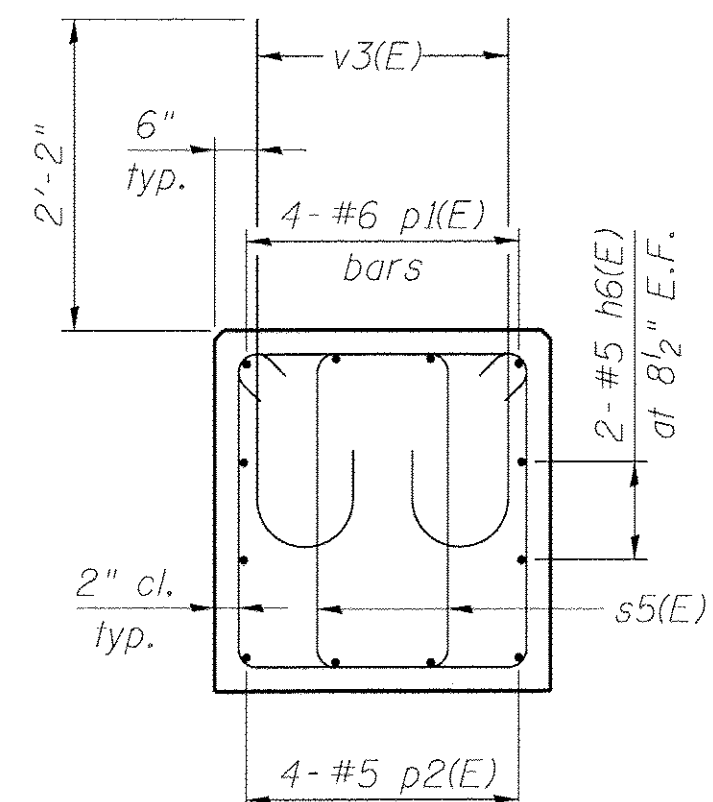


**PILE DATA**

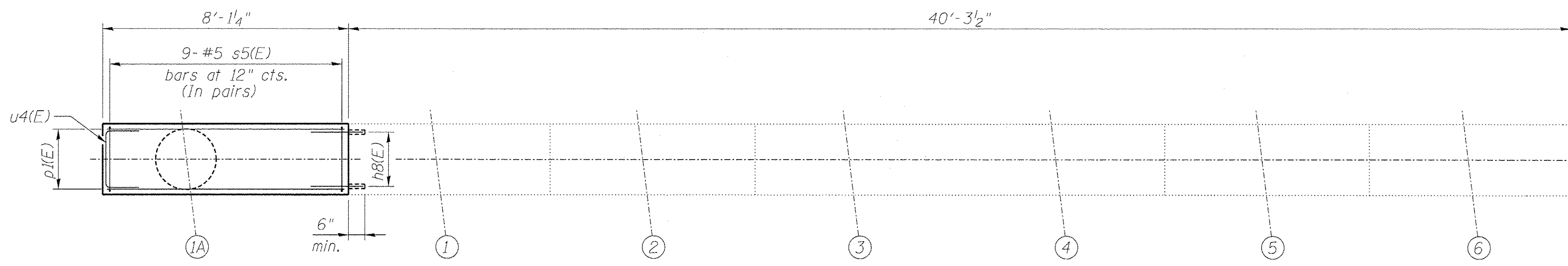
Type: HP10x42  
 Nominal Required Bearing: 303 kips  
 Factored Resistance Available: 167 kips  
 Est. Length: 59 ft.  
 No. Production Piles: 2  
 No. Test Piles: 1

**BILL OF MATERIAL**

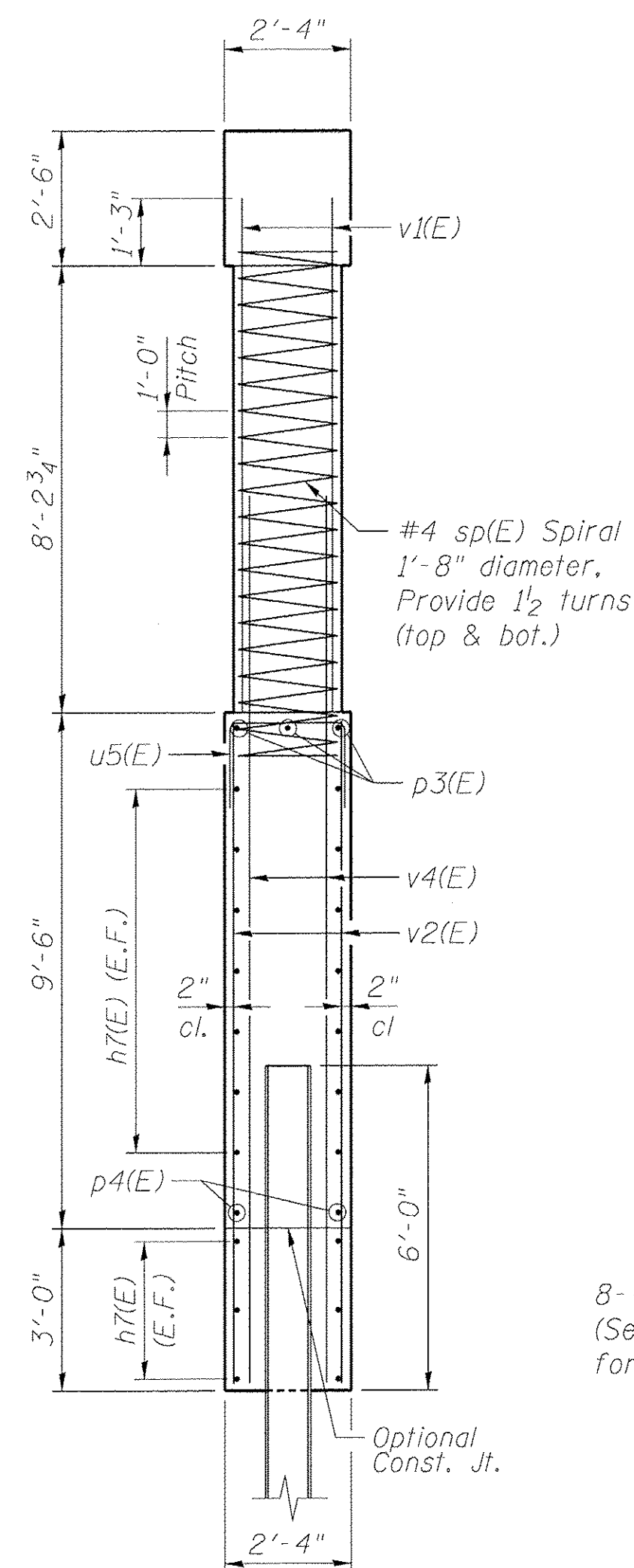
Bar	No.	Size	Length	Shape
h6(E)	4	#5	7'-10"	—
h7(E)	22	#5	11'-8"	—
h8(E)	58	#5	3'-3"	—
h22(E)	6	#5	22'-3"	—
p1(E)	4	#6	7'-10"	—
p2(E)	4	#5	7'-10"	—
p3(E)	3	#9	11'-8"	—
p4(E)	2	#9	11'-8"	—
s5(E)	18	#5	8'-0"	□
s6(E)	17	#5	10'-4"	□
u4(E)	13	#5	7'-2"	U
u5(E)	20	#6	10'-1"	U
v1(E)	8	#8	9'-6"	—
v2(E)	40	#6	12'-2"	—
v3(E)	8	#8	4'-4"	—
v4(E)	8	#8	16'-4"	—
sp(E)	1	#4	11'-6"	W
Concrete Structures	Cu. Yd.		21.6	
Reinforcement Bars, Epoxy Coated	Pound		3,080	
Furnishing Steel Piles HP10x42	Foot		118	
Driving Piles	Foot		118	
Test Pile Steel HP10x42	Each		1	
Cofferdam (Type I) (Location - 2)	Each		1	
Cofferdam Excavation	Cu. Yd.		53	
Granular Backfill for Structures	Cu. Yd.		40	



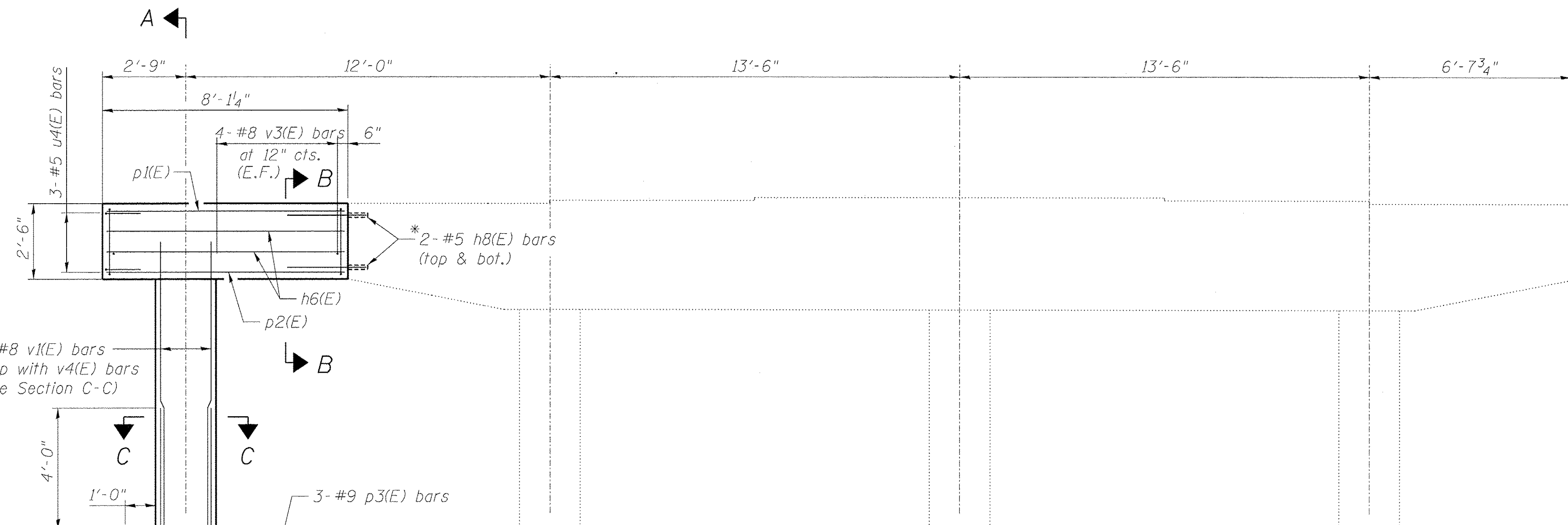
**SECTION B-B**



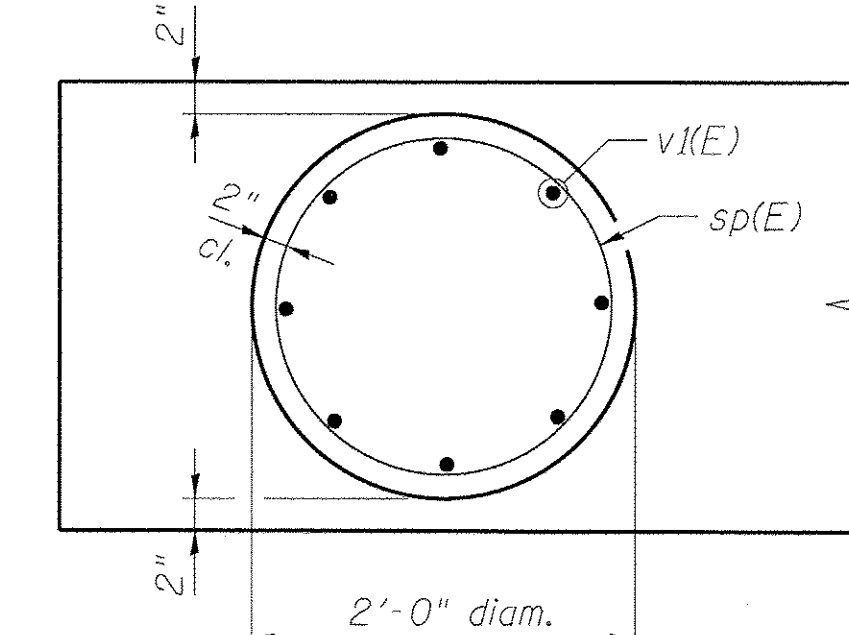
**TOP PLAN**



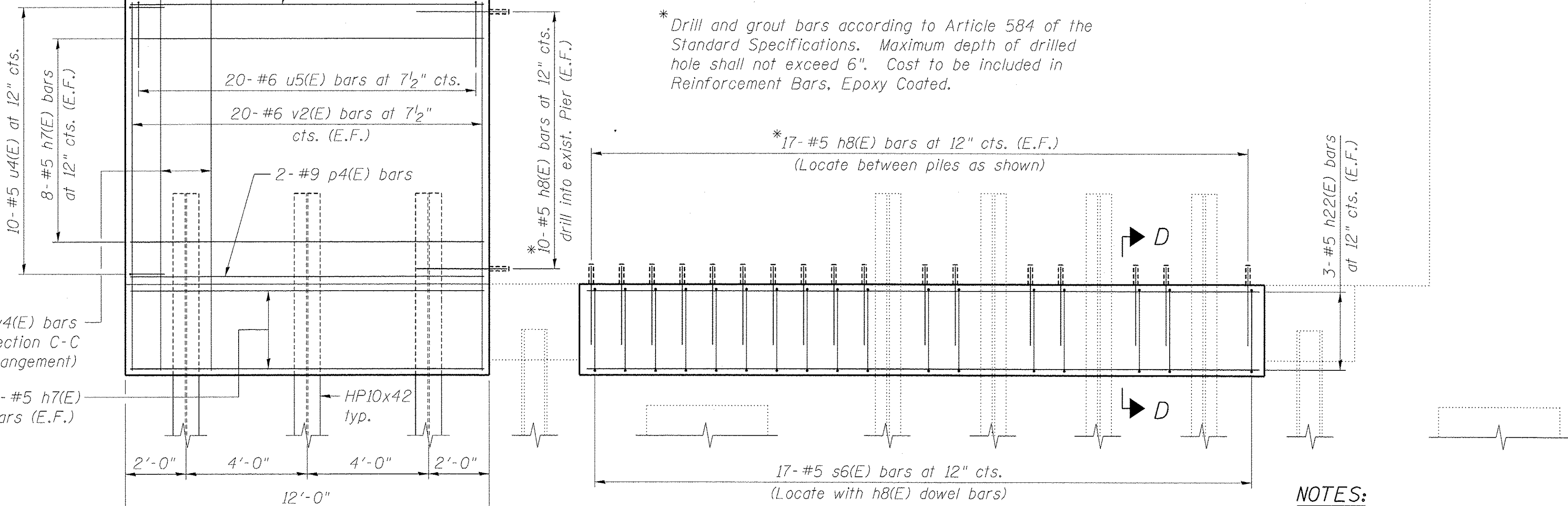
**SECTION A-A**



**ELEVATION**  
(Looking Upstation)



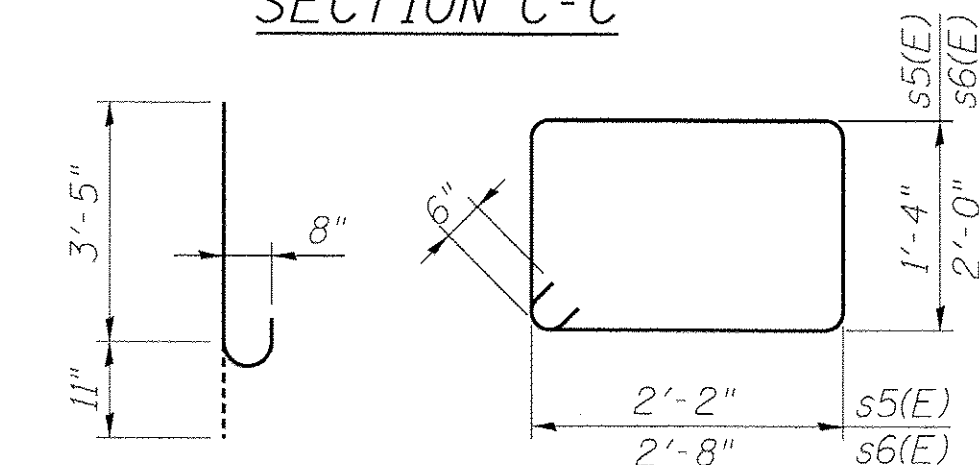
**SECTION C-C**



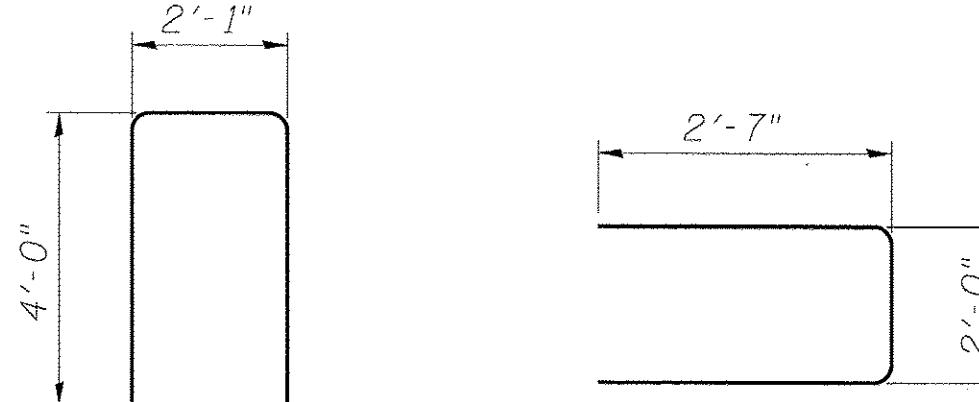
\* Drill and grout bars according to Article 584 of the Standard Specifications. Maximum depth of drilled hole shall not exceed 6". Cost to be included in Reinforcement Bars, Epoxy Coated.

**NOTES:**

- For Section D-D, see Sheet S31.
- Existing piles are encased in concrete per existing plans. Bars h22(E) shall be cut in the field to fit as required.



**BAR v3(E) BARS s5(E) & s6(E)**



**BAR u5(E) BAR u4(E)**

**benesch**  
 engineers • scientists • planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953_032_PierDet2.dgn		CHECKED - EFS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - JHG	REVISED -

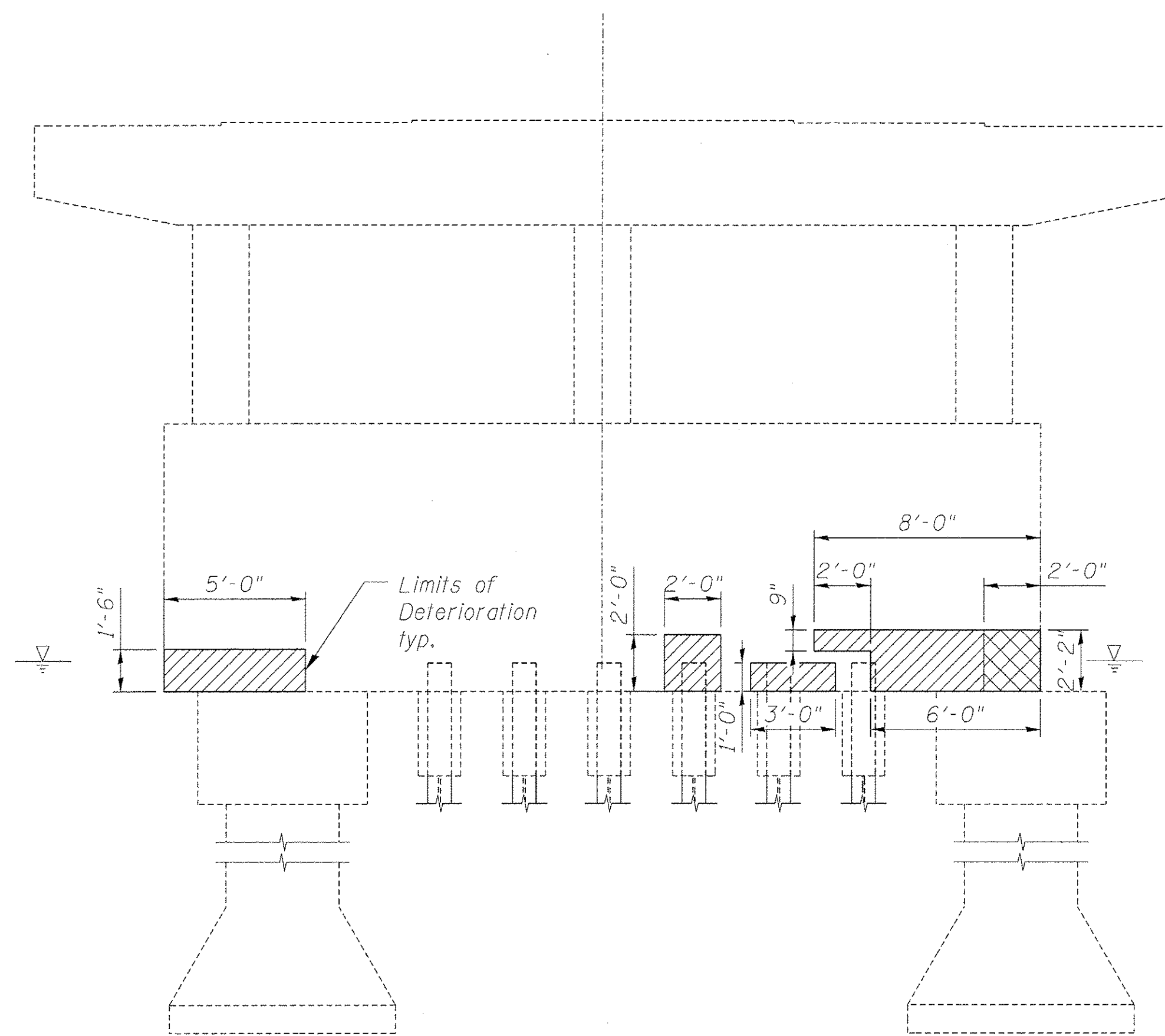
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PIER 2 WIDENING DETAILS**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**  
 SHEET NO. S32 OF S50 SHEETS

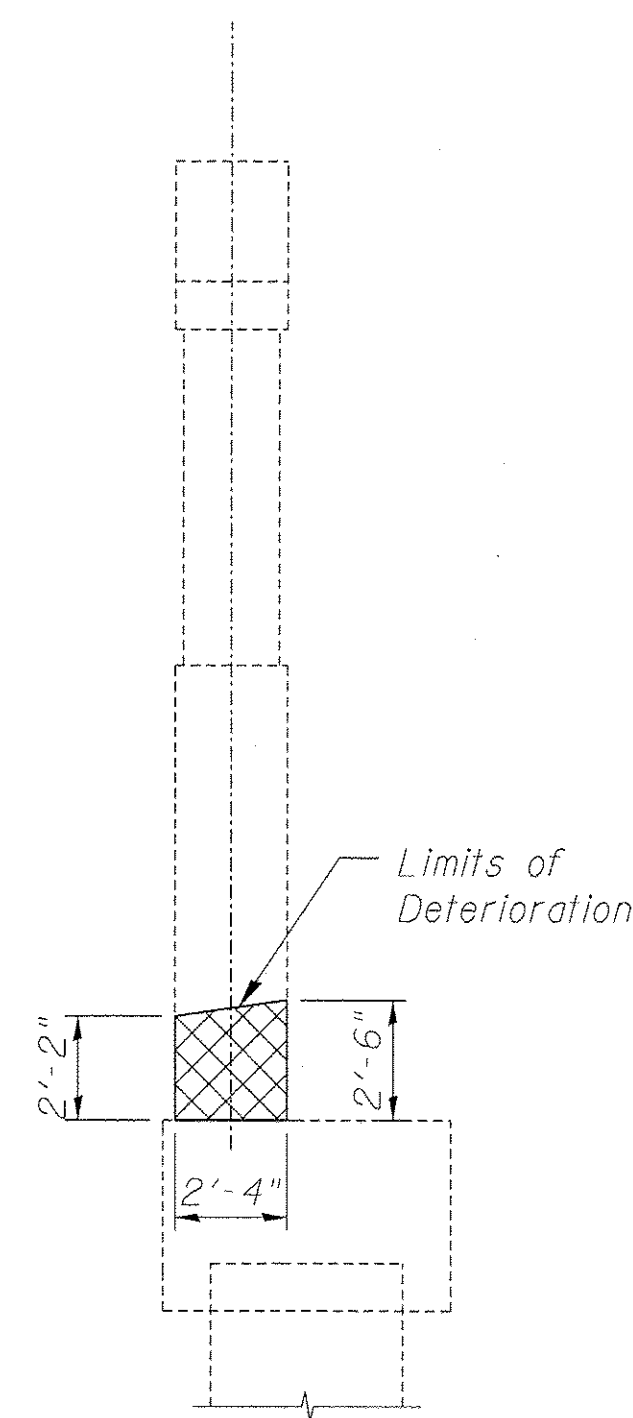
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	85
				CONTRACT NO. 63817
ILLINOIS FED. AID PROJECT				

X:\10000S\10055.02\Eng\_Docs\_Phase\_II\Bridg-Street\_016-6953\Final\0166953\_032\_PierDet2.dgn  
 2/19/2013 2:51:15 PM

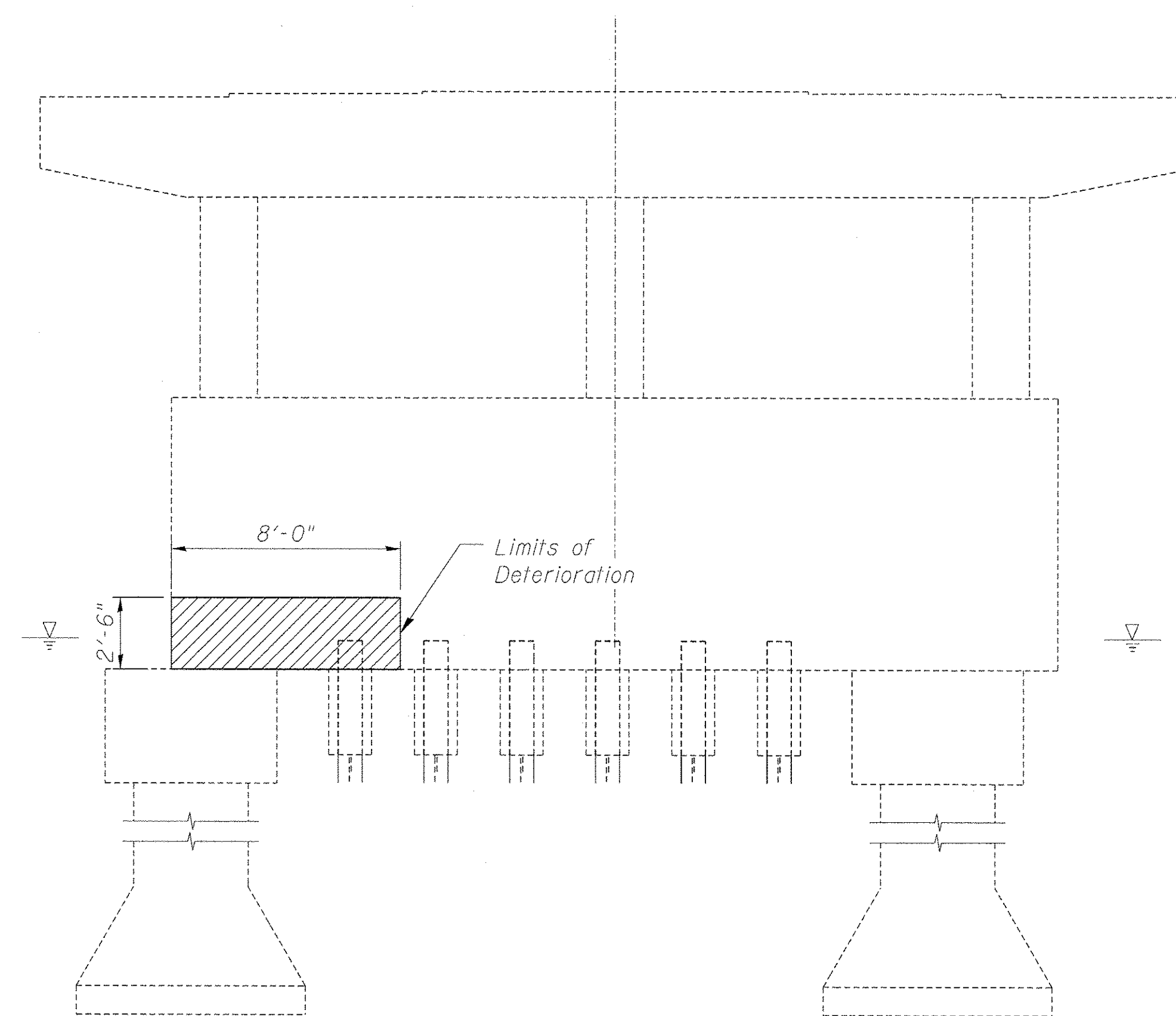




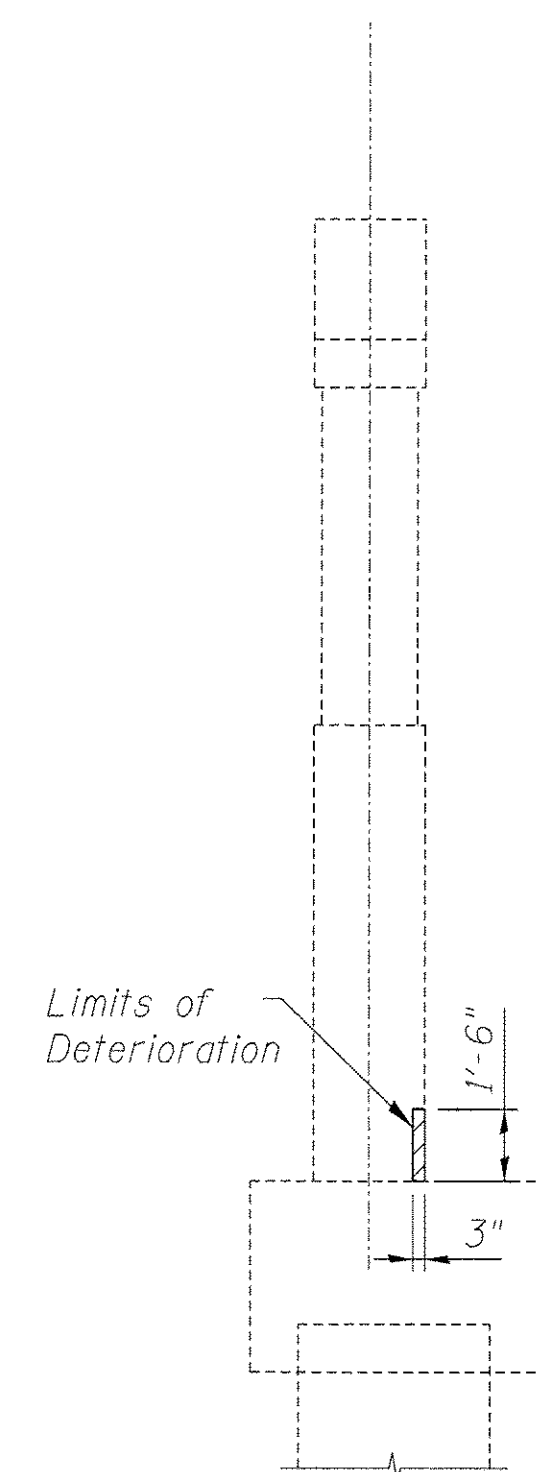
PIER 1 ELEVATION  
(Looking East)



PIER 1 ELEVATION  
(Looking North)



PIER 1 ELEVATION  
(Looking West)



PIER 1 ELEVATION  
(Looking South)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	46
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	10

LEGEND:

- Structural Repair of Concrete (Depth Greater than 5 Inches)
- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

NOTES:

1. Structural repair areas are estimated based on Benesch field notes from November of 2012. Actual repair areas and locations shall be determined by the Engineer and shown on the As-Built plans.
2. Area around pier shall be dewatered for pier concrete repairs. Cost included with Cofferdam (Type 1) (Location - 1).

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953.033_PierRepair1.dgn	PLOT SCALE =	CHECKED - JHG	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -
		CHECKED - JHG	REVISED -

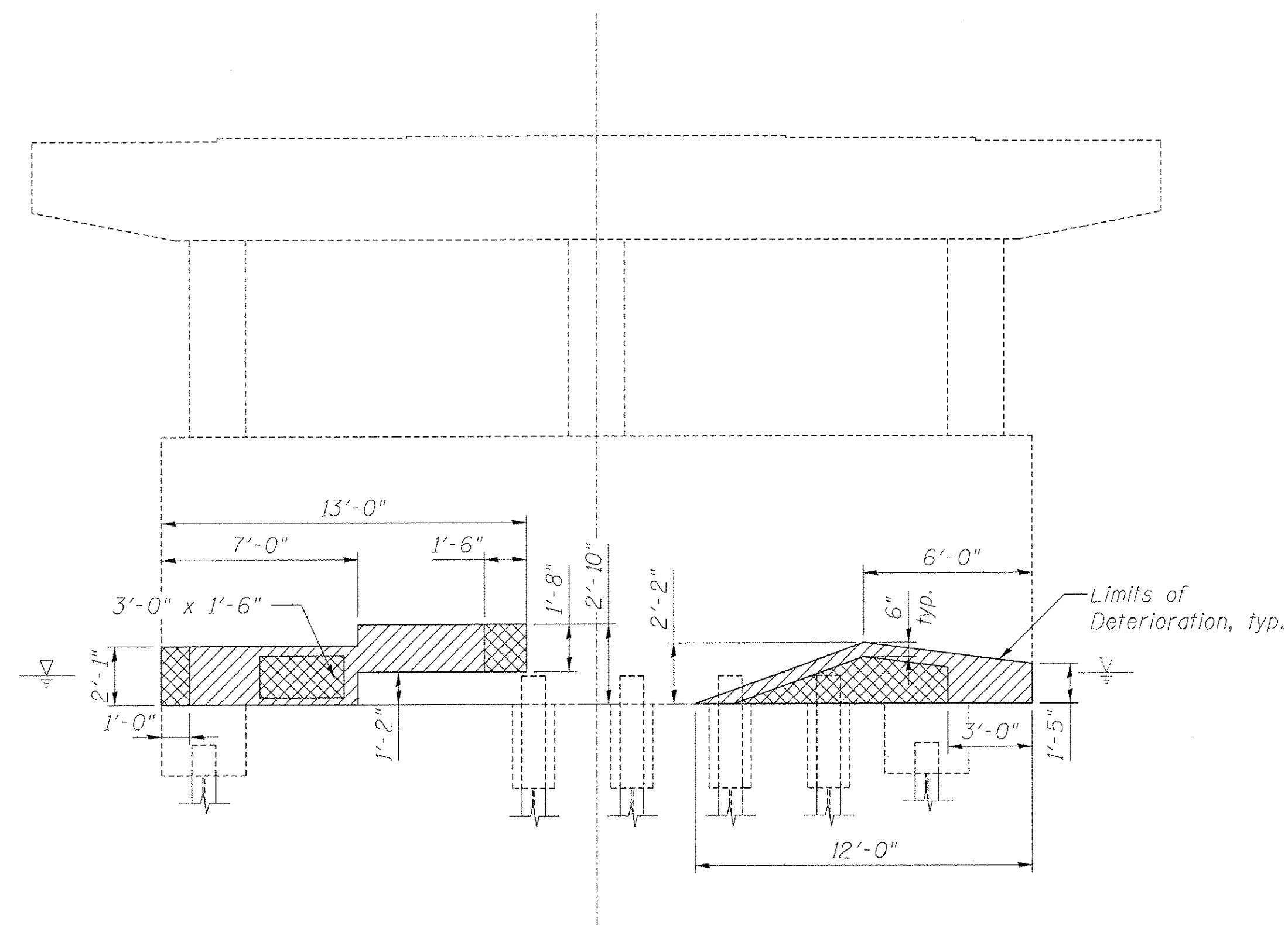
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER 1 CONCRETE REPAIR DETAILS  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

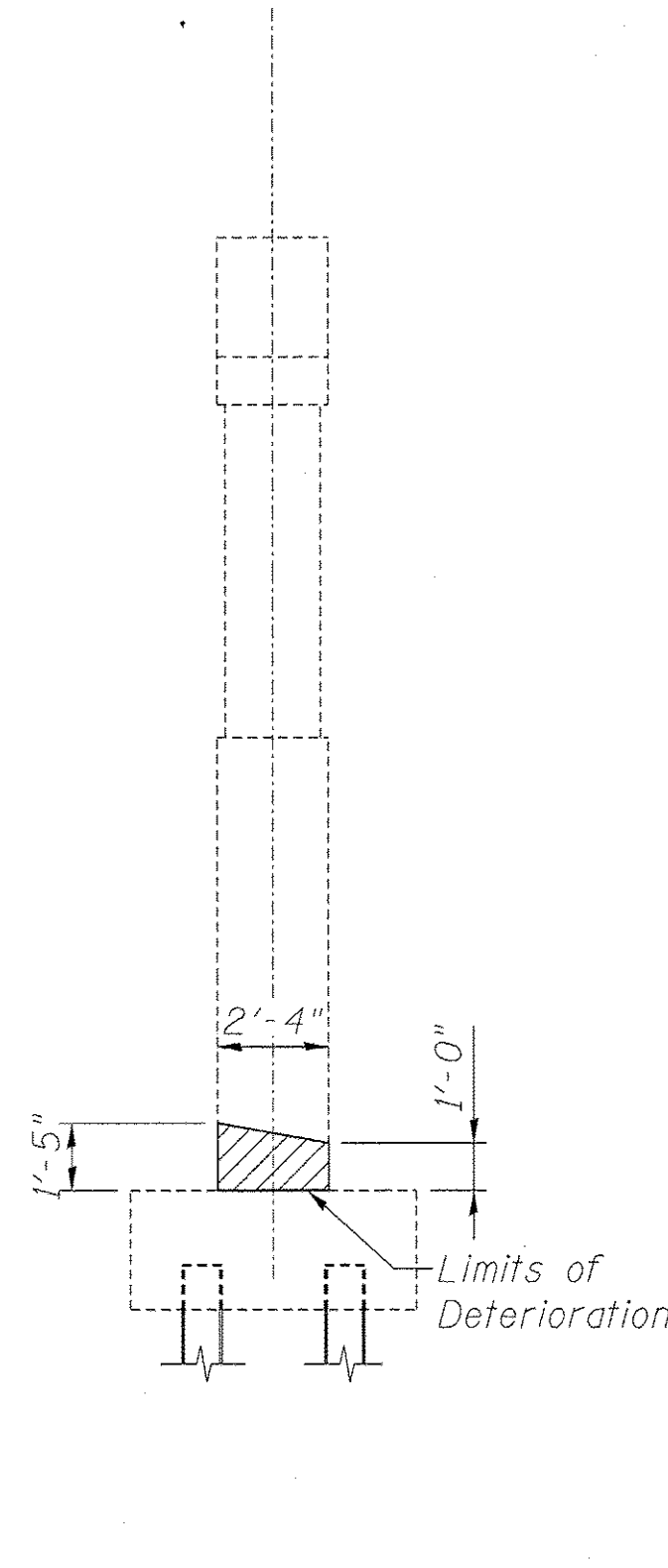
SHEET NO. S33 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	86
CONTRACT NO. 63817				

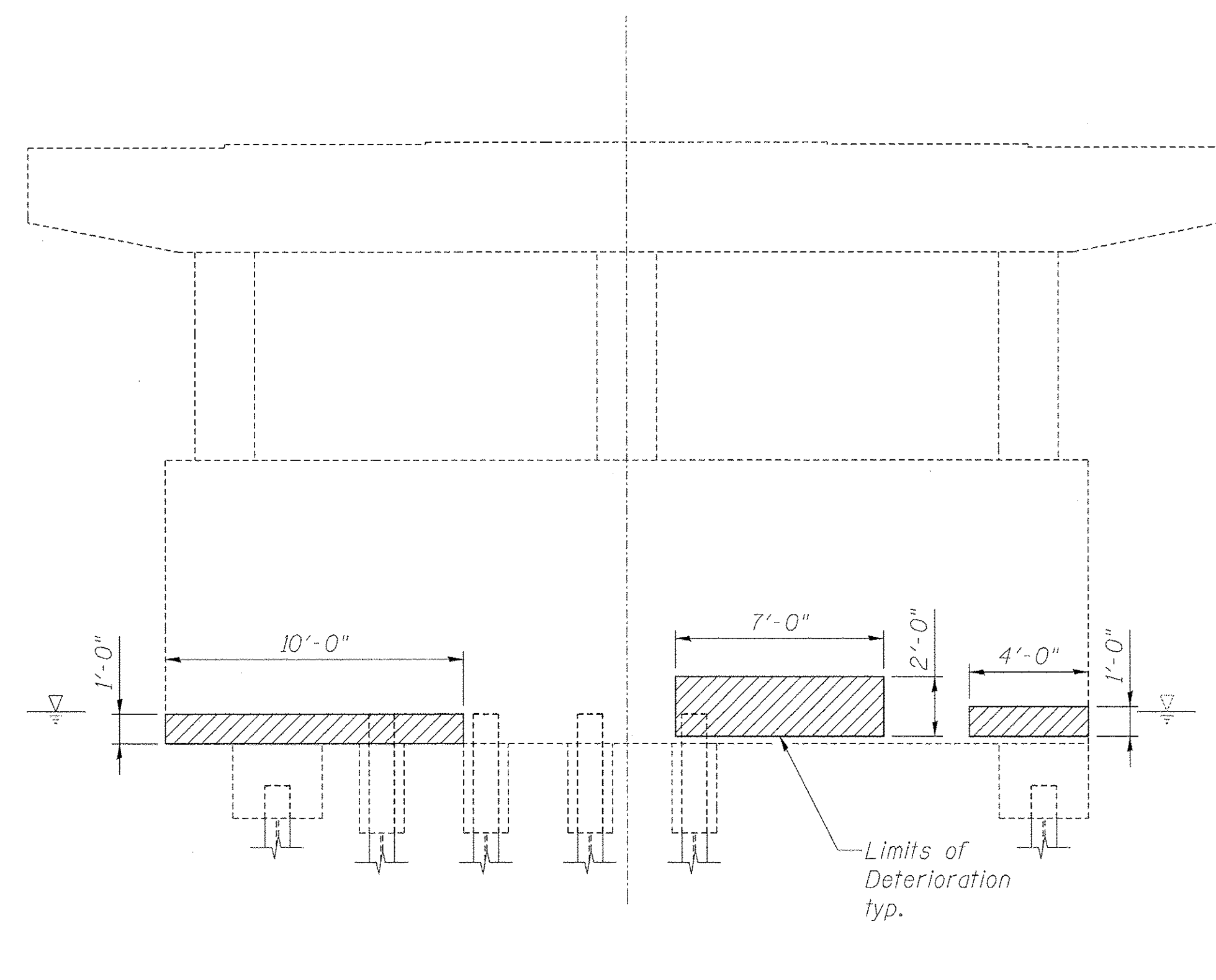
ILLINOIS FED. AID PROJECT



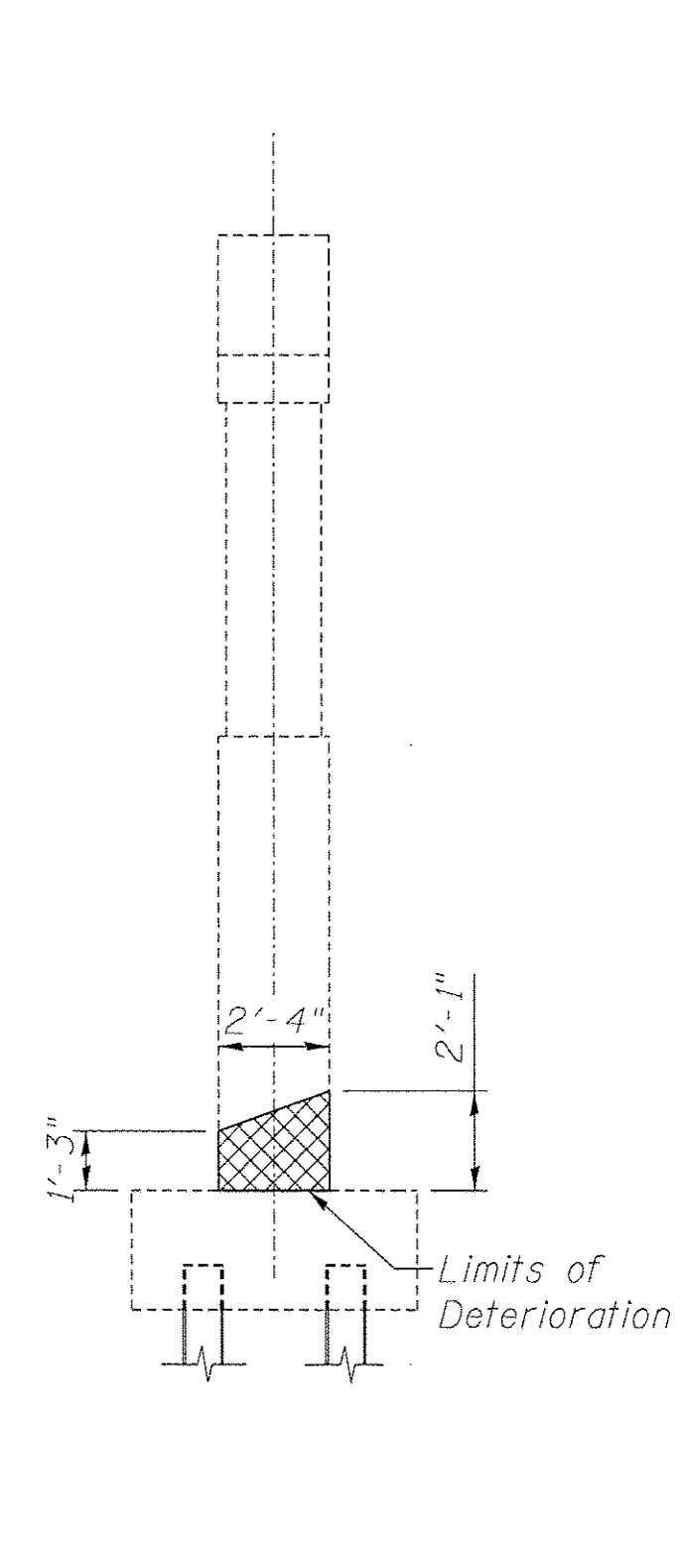
**PIER 2 ELEVATION**  
(Looking West)



**PIER 2 ELEVATION**  
(Looking South)



**PIER 2 ELEVATION**  
(Looking East)



**PIER 2 ELEVATION**  
(Looking North)

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	56
Structural Repair of Concrete (Depth Greater than 5 Inches)	Sq. Ft.	22

**LEGEND:**

- Structural Repair of Concrete (Depth Greater than 5 Inches)
- Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)

**NOTES:**

1. Structural repair areas are estimated based on Benesch field notes from November of 2012. Actual repair areas and locations shall be determined by the Engineer and shown on the As-Built plans.
2. Area around pier shall be dewatered for pier concrete repairs. Cost included with Cofferdam (Type 1) (Location - 2).

**benesch**  
engineers · scientists · planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953_034_PierRepair2.dgn		CHECKED - JHG	REVISED -
	PLOT SCALE =	DRAWN - RMC	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - JHG	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 2 CONCRETE REPAIR DETAILS**  
**STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL**

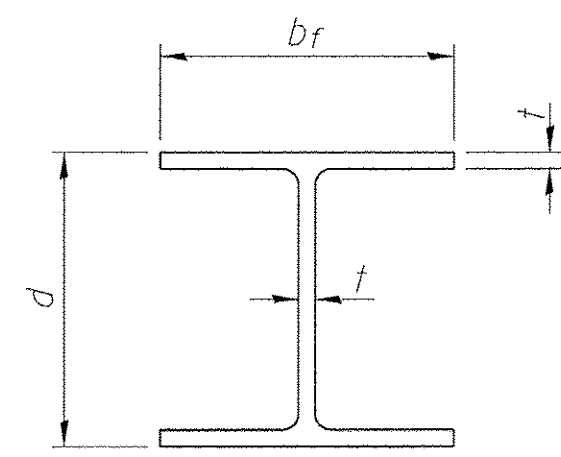
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	87
CONTRACT NO. 63817				

SHEET NO. S34 OF S50 SHEETS

ILLINOIS FED. AID PROJECT

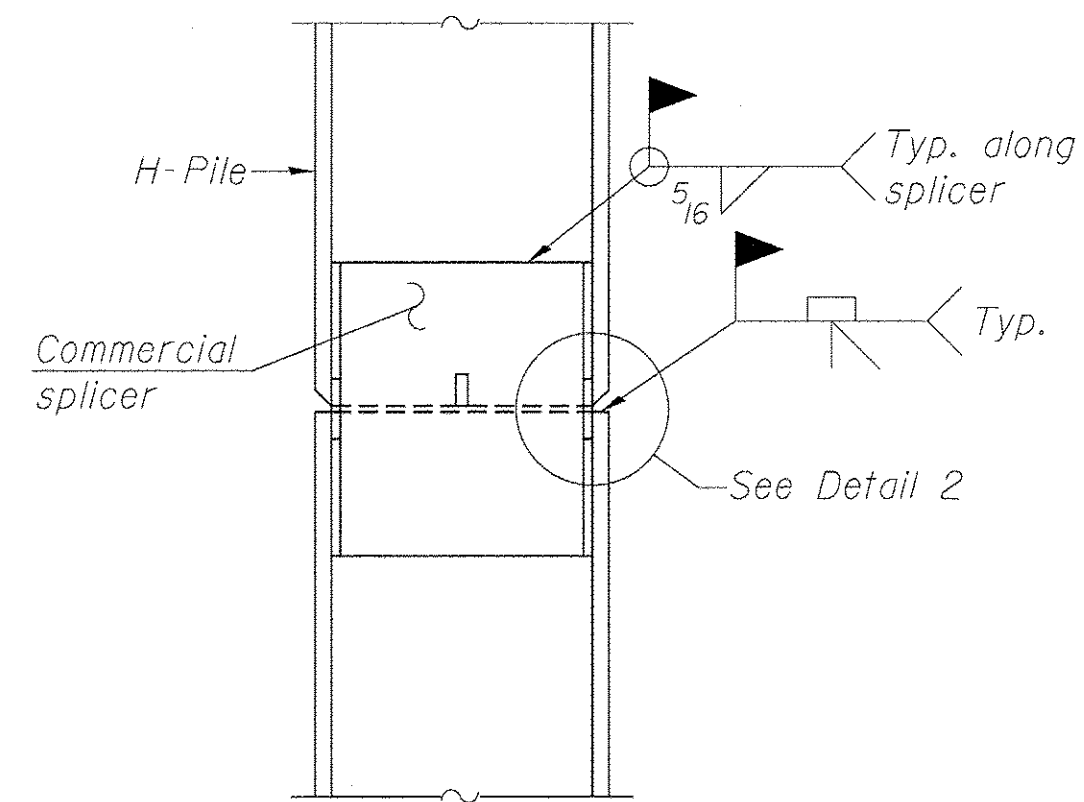
X:\10000S\10055.02\Eng\_Docs\_Phase\_II\Brldge\_Street\_016-6953\Final\0166953\_034\_PierRepair2.dgn 2/19/2013 2:51:19 PM



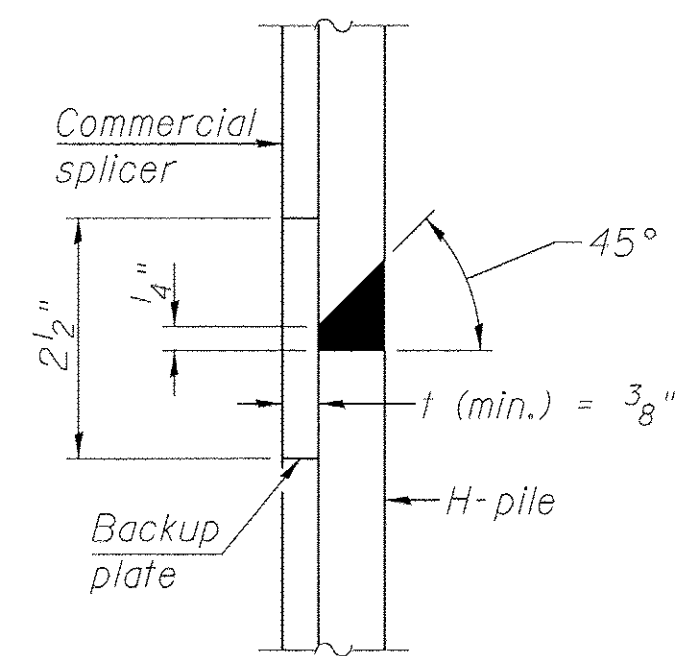


STEEL PILE TABLE

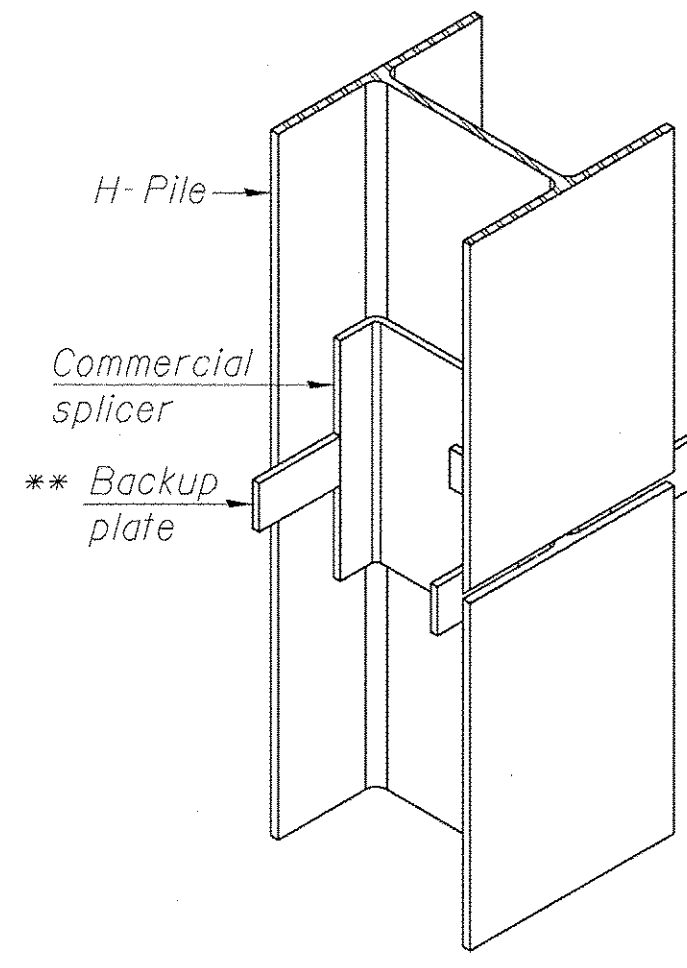
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"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



ELEVATION

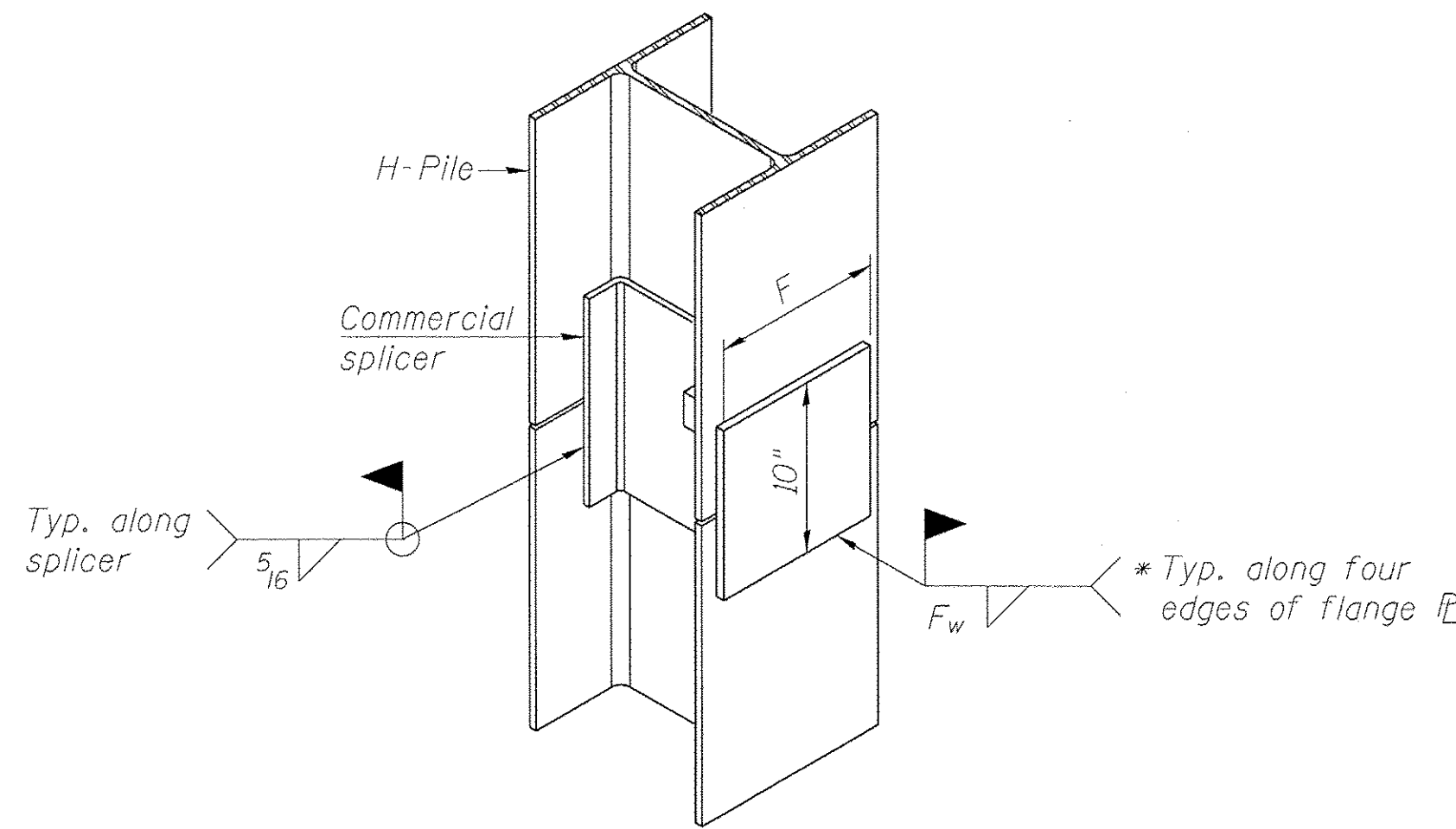


DETAIL 2



ISOMETRIC VIEW

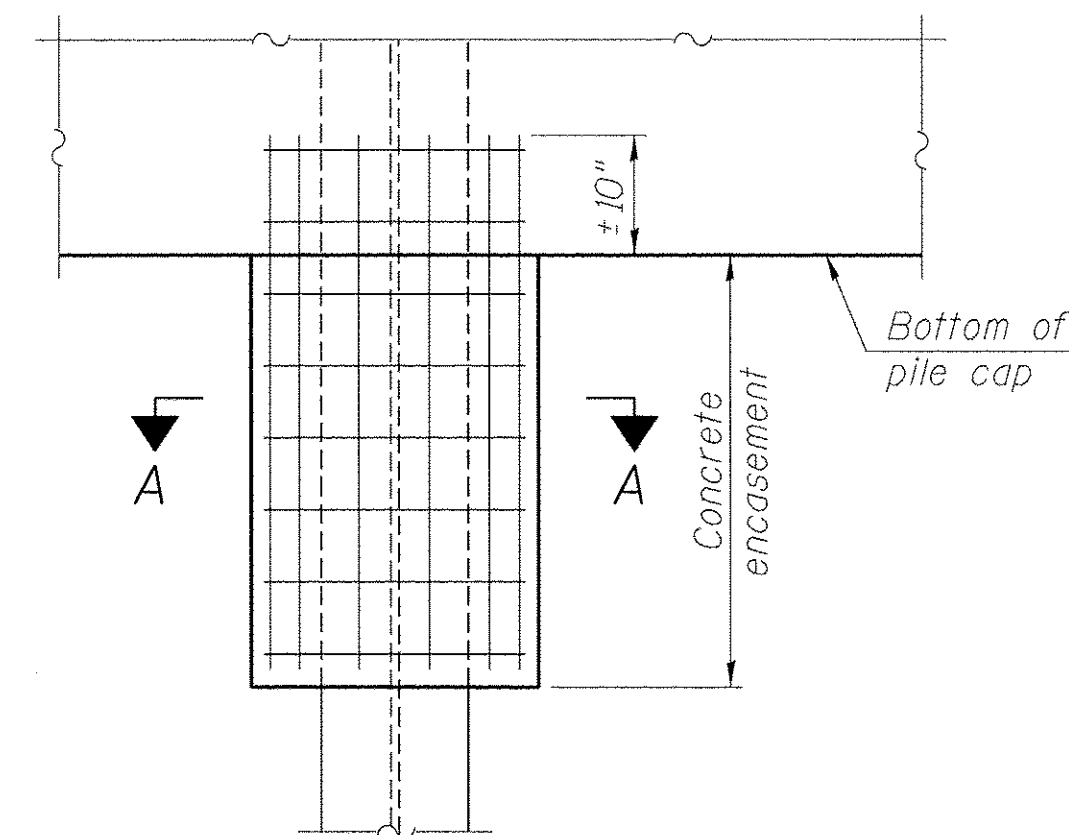
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

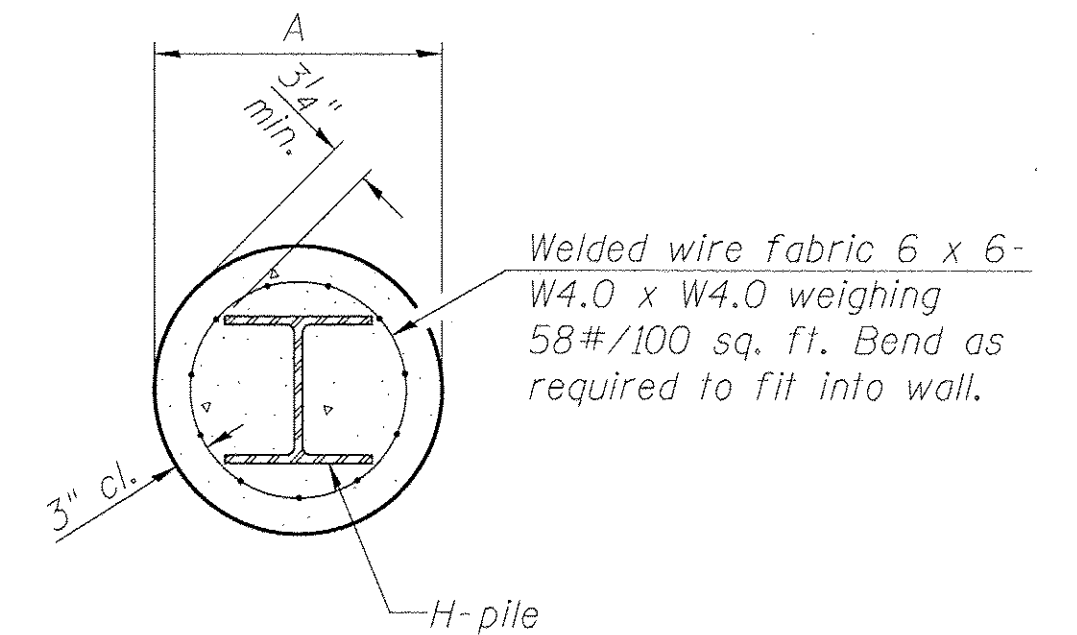
WELDED COMMERCIAL SPLICE ALTERNATE

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



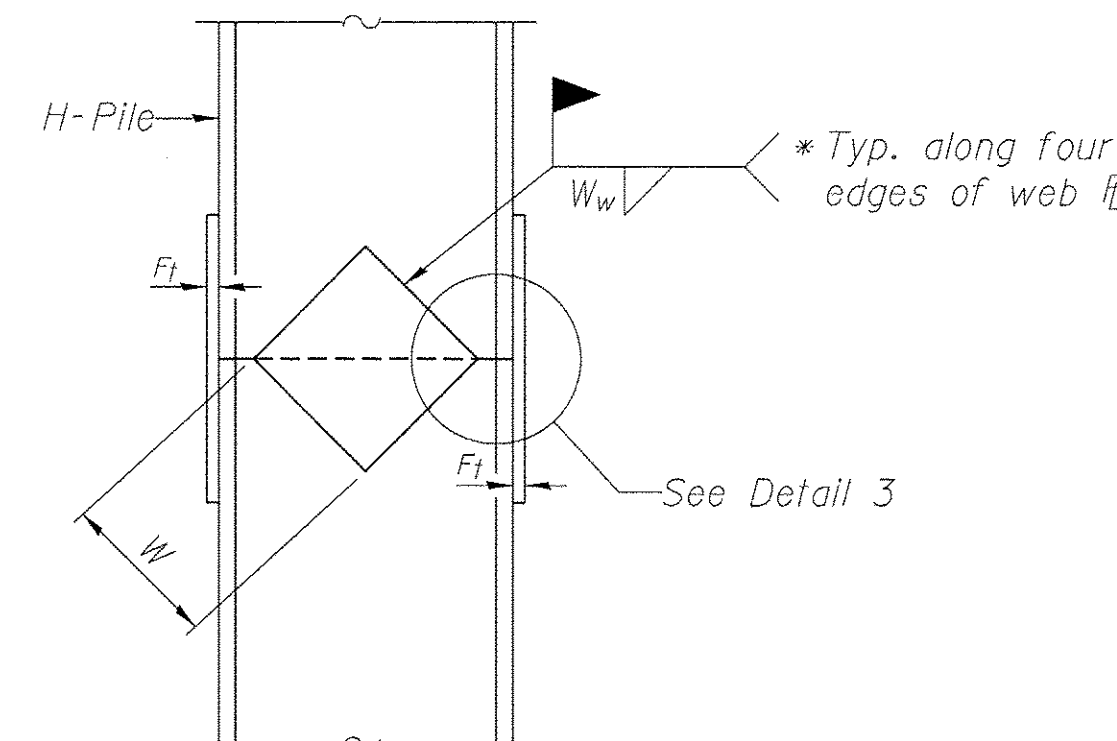
ELEVATION

PILE ENCASEMENT

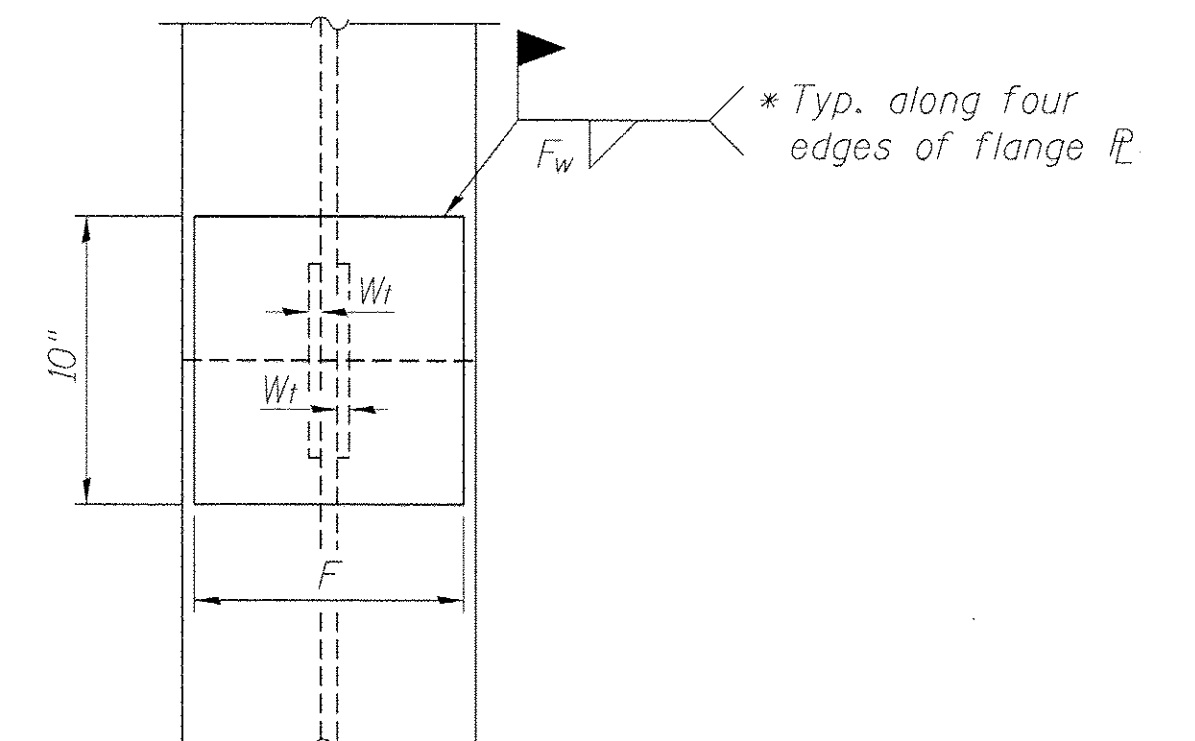


SECTION A-A

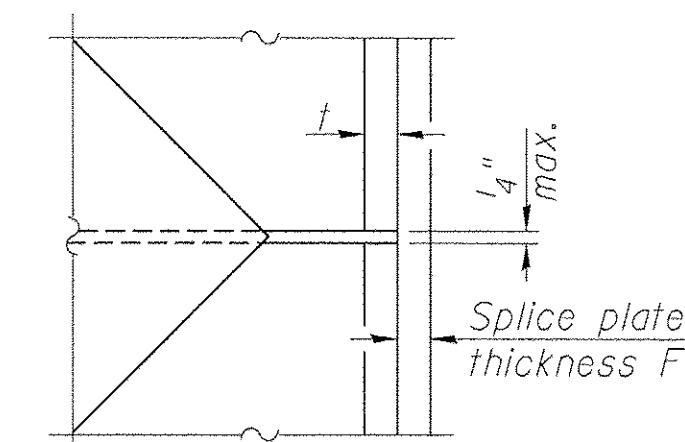
Note:  
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



END VIEW

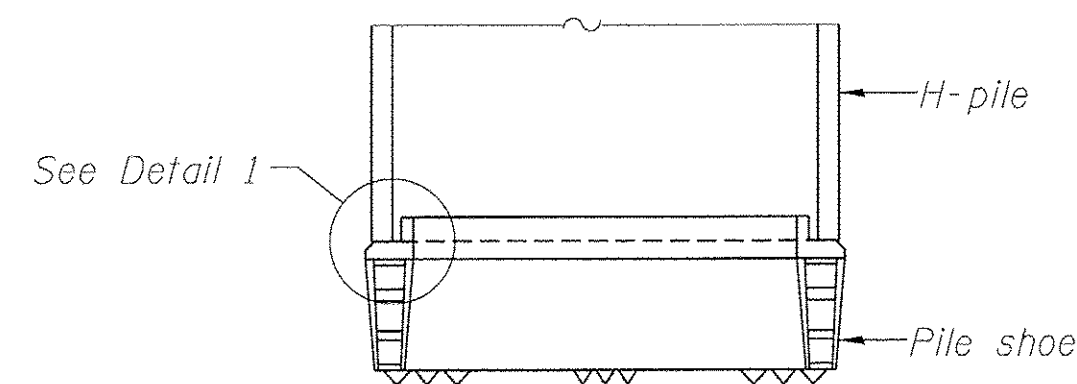


DETAIL 3

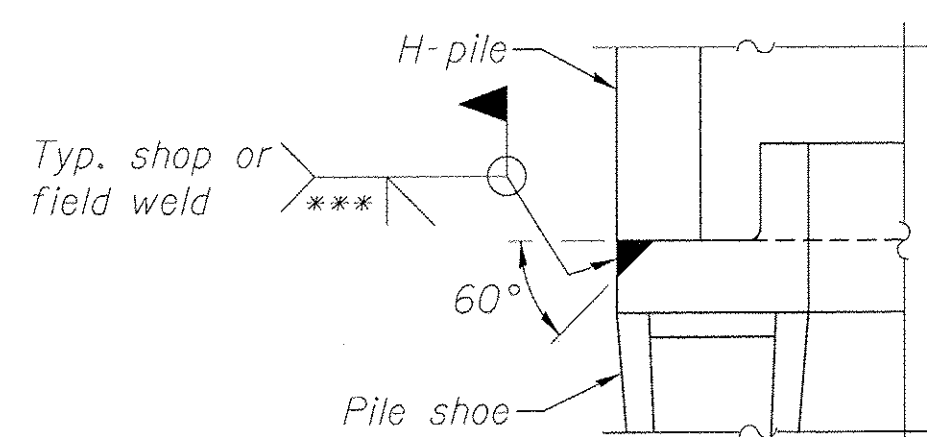
WELDED PLATE FIELD SPLICE

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

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



ELEVATION



DETAIL 1

H-PILE SHOE ATTACHMENT

**benesch**  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

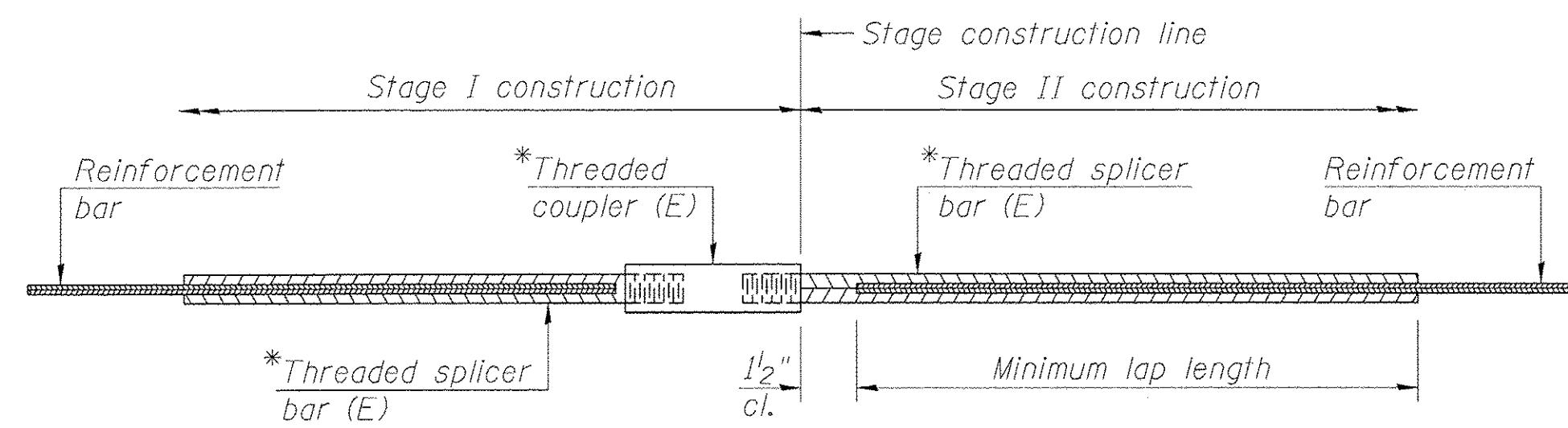
F-HP 1-27-12

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953_035_HPDet.dgn		CHECKED - EFS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
SHEET NO. S35 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	88
CONTRACT NO. 63817			ILLINOIS/FED. AID PROJECT	



**STANDARD BAR SPLICER ASSEMBLY**

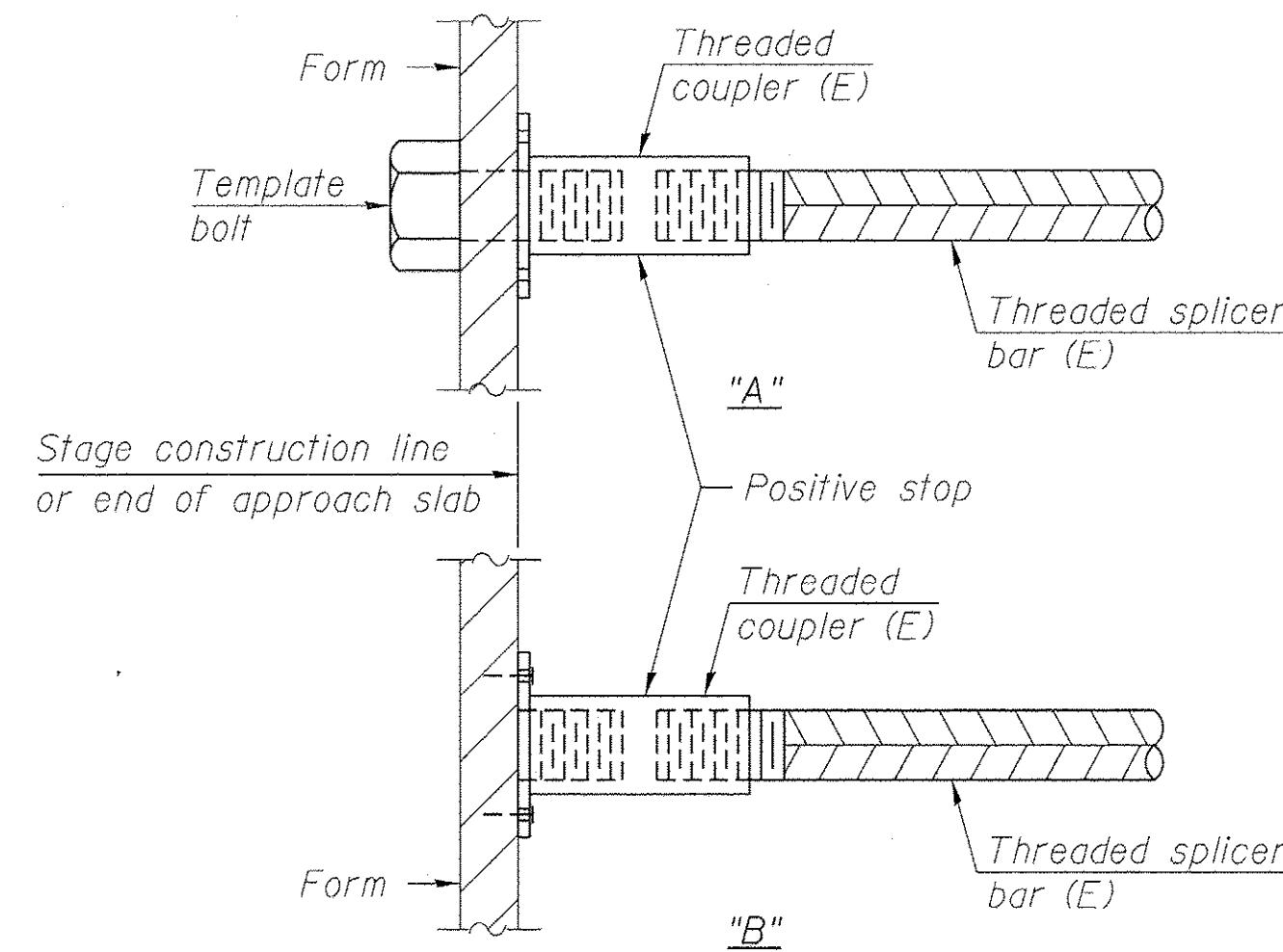
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

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

Threaded splicer bar length = min. lap length + 1/2" + thread length

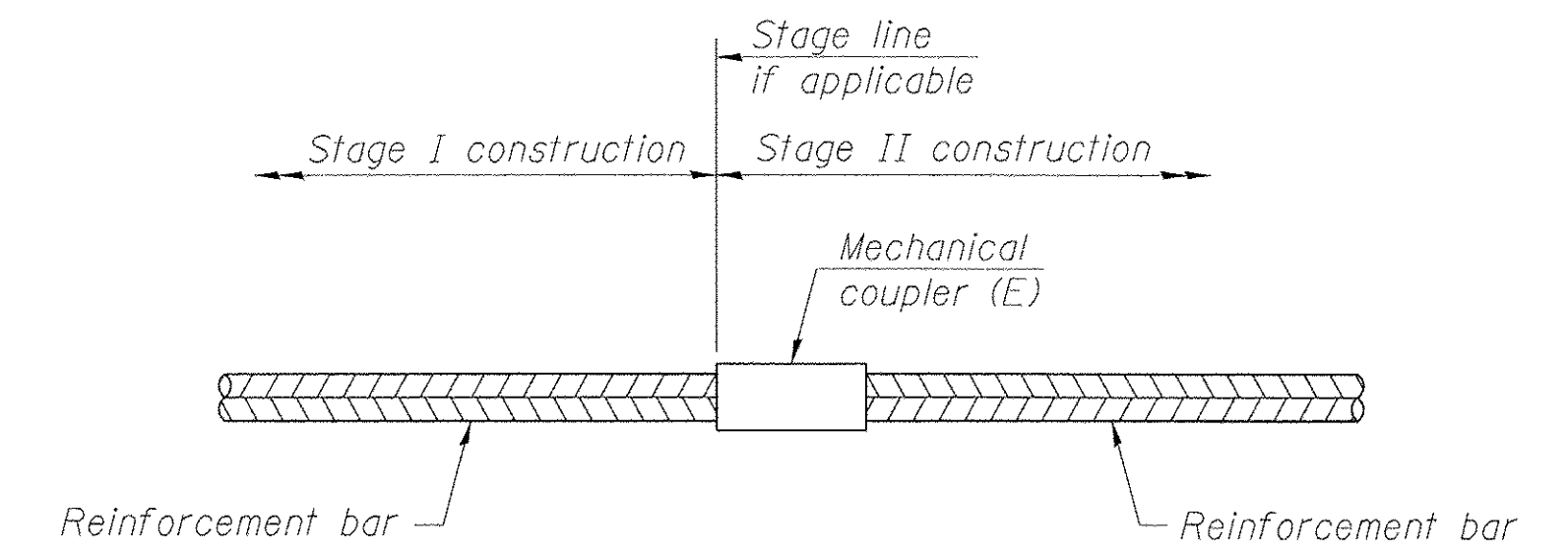
\*Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Superstructure	#5	519	Table 5
Superstructure	#6	28	Table 5
Approach Slabs	#4	50	Table 6
Approach Slabs	#5	172	Table 5
Abutments	#5	4	Table 5



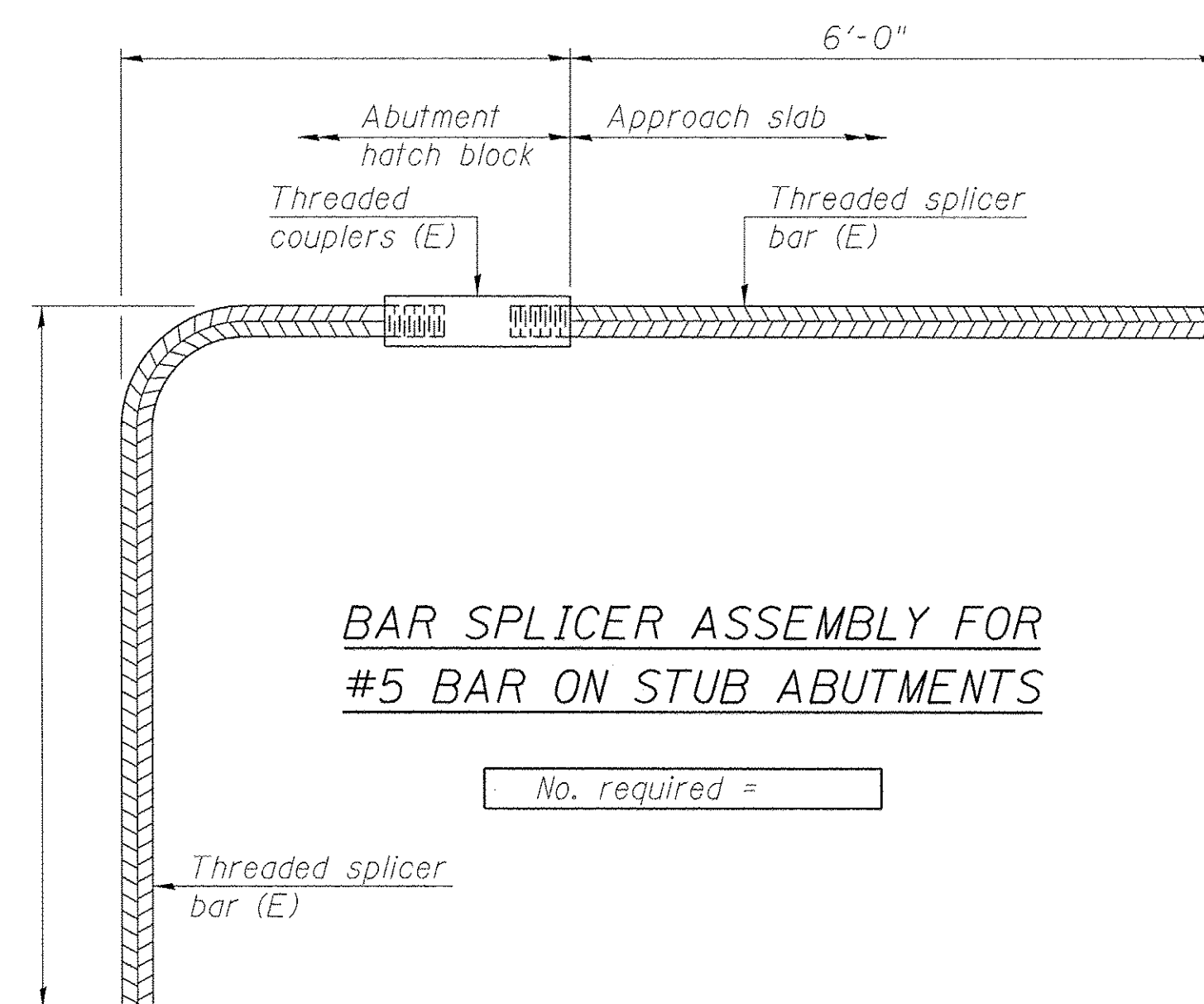
**INSTALLATION AND SETTING METHODS**

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



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.

FILE NAME =	USER NAME = eship	DESIGNED - MFB	REVISED -
0166953_036_BarSplicer.dgn		CHECKED - JHG	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - JHG	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	89
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	



Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838		SOIL BORING LOG		PAGE 1 of 3	
ROUTE <u>Bridge Street</u>		DESCRIPTION <u>Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(008)</u>		DATE <u>7/13/2011</u>	
SECTION <u>08-00251-00-BR</u>		LOCATION <u>Section 12, T. 41 N., R. 13 E., Evanston Township, 3rd PM</u>		LOGGED BY <u>DR</u>	
COUNTY <u>Cook</u>		DRILLING METHOD <u>Hollow Stem Auger/Rotary</u>		HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>016-6953</u>		Surface Water Elev. <u>---</u>		DEPTH (ft)	
Station <u>99+16.50 to 100+83.50</u>		Stream Bed Elev. <u>---</u>		BLOW COUNT (blows/ft)	
BORING NO. <u>B-01</u>		Groundwater Elevation: <u>---</u>		UNSATURATED UNIT WEIGHT (pcf)	
Station <u>101+01</u>		First Encounter <u>Dry to 10.0'</u>		MOISTURE (%)	
Offset <u>50.0' Left</u>		Upon Completion <u>n/a</u>		SPT (blows)	
Ground Surface Elev. <u>+20.5 CCD</u>		After _____ Hrs. <u>---</u>		SPT (blows)	
CLAYEY TOPSOIL with Gravel - dark brown & black		Torvane @ -22.5' Shear Strength=369psf		107	
+17.0		Torvane @ -25.0' Shear Strength=430psf		24	
SILTY CLAY - brown & gray - very stiff (A-6)		CLAY - gray - very soft to soft (A-6)		24	
+12.5		Torvane @ -27.5' Shear Strength=430psf		23	
CLAY - brown - stiff (A-6/A-7) Wet		Torvane @ -30.0' Shear Strength=358psf		24	
Torvane @ -12.5' Shear Strength=840psf		Torvane @ -35.0' Shear Strength=492psf		21	
+7.5		CLAY - brown & gray - soft (A-6/A-7) Wet		101	
Torvane @ -15.0' Shear Strength=256psf		Torvane @ -40.0' Shear Strength=696psf		21	
+5.0		Torvane @ -17.5' Shear Strength=348psf		103	
CLAY - gray - very soft to soft (A-6)		Torvane @ -20.0' Shear Strength=594psf		21	

Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838		SOIL BORING LOG		PAGE 2 of 3	
ROUTE <u>Bridge Street</u>		DESCRIPTION <u>Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(008)</u>		DATE <u>7/13/2011</u>	
SECTION <u>08-00251-00-BR</u>		LOCATION <u>Section 12, T. 41 N., R. 13 E., Evanston Township, 3rd PM</u>		LOGGED BY <u>DR</u>	
COUNTY <u>Cook</u>		DRILLING METHOD <u>Hollow Stem Auger/Rotary</u>		HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>016-6953</u>		Surface Water Elev. <u>---</u>		DEPTH (ft)	
Station <u>99+16.50 to 100+83.50</u>		Stream Bed Elev. <u>---</u>		BLOW COUNT (blows/ft)	
BORING NO. <u>B-01</u>		Groundwater Elevation: <u>---</u>		UNSATURATED UNIT WEIGHT (pcf)	
Station <u>101+01</u>		First Encounter <u>Dry to 10.0'</u>		MOISTURE (%)	
Offset <u>50.0' Left</u>		Upon Completion <u>n/a</u>		SPT (blows)	
Ground Surface Elev. <u>+20.5 CCD</u>		After _____ Hrs. <u>---</u>		SPT (blows)	
CLAY - gray - very soft to soft (A-6)		CLAY - gray - medium stiff to stiff (A-6)		107	
-22.5		SILTY LOAM - gray - medium stiff (A-4)		24	
-27.5		CLAY LOAM - gray - very stiff (A-6)		21	
CLAY - gray - medium stiff to stiff (A-6)		CLAY - gray - medium stiff to stiff (A-6)		103	
-57.5		SANDY CLAY LOAM - gray - dense (A-2)		14	

Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838		SOIL BORING LOG		PAGE 3 of 3	
ROUTE <u>Bridge Street</u>		DESCRIPTION <u>Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(008)</u>		DATE <u>7/13/2011</u>	
SECTION <u>08-00251-00-BR</u>		LOCATION <u>Section 12, T. 41 N., R. 13 E., Evanston Township, 3rd PM</u>		LOGGED BY <u>DR</u>	
COUNTY <u>Cook</u>		DRILLING METHOD <u>Hollow Stem Auger/Rotary</u>		HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>016-6953</u>		Surface Water Elev. <u>---</u>		DEPTH (ft)	
Station <u>99+16.50 to 100+83.50</u>		Stream Bed Elev. <u>---</u>		BLOW COUNT (blows/ft)	
BORING NO. <u>B-01</u>		Groundwater Elevation: <u>---</u>		UNSATURATED UNIT WEIGHT (pcf)	
Station <u>101+01</u>		First Encounter <u>Dry to 10.0'</u>		MOISTURE (%)	
Offset <u>50.0' Left</u>		Upon Completion <u>n/a</u>		SPT (blows)	
Ground Surface Elev. <u>+20.5 CCD</u>		After _____ Hrs. <u>---</u>		SPT (blows)	
SANDY CLAY LOAM - gray - dense (A-2)		CLAY - gray - very stiff (A-6)		100	
-61.5		CLAY LOAM - gray - hard (A-6)		24	
CLAY LOAM - gray - hard (A-6)		SILT - gray - dense (A-4)		22	
-86.5		CLAY - gray - very stiff (A-6)		NR	
-94.5-115		SILT - gray - dense (A-4)		NR	
-120		CLAY - gray - very stiff (A-6)		21	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) The Unit Dry Weight (pcf) is noted in Italics above moist (%)  
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) The Unit Dry Weight (pcf) is noted in Italics above moist (%)  
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test  
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208) The Unit Dry Weight (pcf) is noted in Italics above moist (%)  
NR-No Recovery



Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953_037_Boring1.dgn		CHECKED - EFS	REVISED -
	PLOT SCALE =	DRAWN - RMG	REVISED -
	PLOT DATE = 2/19/2013	CHECKED - EFS	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS 1 OF 3  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
SHEET NO. S37 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	90
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	

X:\100005\10055.02\Eng-Docs-Phase-11\Bridge-Street-016-6953\Final\0166953\_037\_Boring1.dgn 2:51:25 PM 2/19/2013

SOIL BORING LOG		PAGE 1 of 4	
Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 365-2836		DATE 7/11-12/2011 LOGGED BY DR GSI JOB No. 10019	
ROUTE Bridge Street DESCRIPTION Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(00B) SECTION 08-00251-00-BR LOCATION Section 12, T 41 N, R 13 E, Evanston Township, 3rd PM COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic			
STRUCT. NO. 016-6953 Station 99+16.50 to 100+83.50 BORING NO. B-02 Station 99+06 Offset 36.5' Left Ground Surface Elev. +20.0 CCD	Surface Water Elev. --- Stream Bed Elev. --- Groundwater Elevation: First Encounter Dry to 10.0' Upon Completion n/a After Hrs. ---	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)
12.0" TOPSOIL-black +19.0	AS - 11		
	Torvane @ -22.5' Shear Strength=348psf		
CLAY LOAM-dark brown, gray & black-very stiff to hard (A-6) Fill			
	Torvane @ -25.0' Shear Strength=287psf		
	CLAY-gray-very soft to soft (A-6) Wet		
	Torvane @ -27.5' Shear Strength=256psf		
CLAY-brown & gray-medium stiff to stiff (A-6/A-7) Wet			
	Torvane @ -30.0' Shear Strength=205psf		
	Torvane @ -12.5' Shear Strength=614psf		
CLAY-gray-very soft (A-6/A-7) Wet			
	Torvane @ -15.0' Shear Strength=430psf		
	Torvane @ -17.5' Shear Strength=1280psf		
CLAY-gray-very soft to soft (A-6) Wet			
	Torvane @ -20.0' Shear Strength=430psf		
	Torvane @ -40.0' Shear Strength=471psf		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.

SOIL BORING LOG		PAGE 2 of 4	
Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 365-2836		DATE 7/11-12/2011 LOGGED BY DR GSI JOB No. 10019	
ROUTE Bridge Street DESCRIPTION Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(00B) SECTION 08-00251-00-BR LOCATION Section 12, T 41 N, R 13 E, Evanston Township, 3rd PM COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic			
STRUCT. NO. 016-6953 Station 99+16.50 to 100+83.50 BORING NO. B-02 Station 99+06 Offset 36.5' Left Ground Surface Elev. +20.0 CCD	Surface Water Elev. --- Stream Bed Elev. --- Groundwater Elevation: First Encounter Dry to 10.0' Upon Completion n/a After Hrs. ---	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)
CLAY-gray-very soft to soft (A-6) Wet			
	Torvane @ -45.0' Shear Strength=512psf		
	CLAY-gray-medium stiff to stiff (A-6)		
	Torvane @ -50.0' Shear Strength=717psf		
	CLAY-gray-medium stiff to stiff (A-6)		
	Torvane @ -55.0' Shear Strength=1587psf		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.

SOIL BORING LOG		PAGE 3 of 4	
Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amherst Court, Suite 204 Naperville, Illinois 60565 (630) 365-2836		DATE 7/11-12/2011 LOGGED BY DR GSI JOB No. 10019	
ROUTE Bridge Street DESCRIPTION Bridge St. Over North Shore Channel, IDOT Pri. No. BRM-9003(00B) SECTION 08-00251-00-BR LOCATION Section 12, T 41 N, R 13 E, Evanston Township, 3rd PM COUNTY Cook DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic			
STRUCT. NO. 016-6953 Station 99+16.50 to 100+83.50 BORING NO. B-02 Station 99+06 Offset 36.5' Left Ground Surface Elev. +20.0 CCD	Surface Water Elev. --- Stream Bed Elev. --- Groundwater Elevation: First Encounter Dry to 10.0' Upon Completion n/a After Hrs. ---	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)	D E P T H (ft) B U L G E (in) U C S (tsf) M O I S T (%)
CLAY-gray-medium stiff to stiff (A-6)			
	CLAY LOAM-gray-hard (A-6)		
	SILTY SAND & GRAVEL-gray-very dense (A-2)		
	SILTY LOAM to LOAM-gray-very dense (A-4)		
	CLAY LOAM-gray-hard (A-6)		
	Drillers Observation: Cobbles & Boulders.		
	SILTY SAND, GRAVEL & FRACTURED ROCK-gray-very dense (A-2)		
	Drillers Observation: Apparent Bedrock.		
	Silurian System, Niagaran series Dolomite RUN 1 (-113.0' to -123.0')		
	Light gray with horizontal to wavy bedding. Vuggy & porous with some weathering throughout. Horizontal fractures @ -113.7' & -114.0'. Weathered horizontal fractures with thin clay partings @ -114.3' & -114.5'. Horizontal fractures @ -115.0', -115.6', -115.8', -116.1', -116.9', -118.7', -119.1' & -119.5'. Weathered horizontal fractures with clay partings @ -120.7' & -121.9'.		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.



Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME = 0166953_038_Boring2.dgn	USER NAME = eship	DESIGNED - MJF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BORING LOGS 2 OF 3 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL SHEET NO. S38 OF S50 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED - EFS	REVISED -								
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -								
		CHECKED - EFS	REVISED -							CONTRACT NO. 63817	

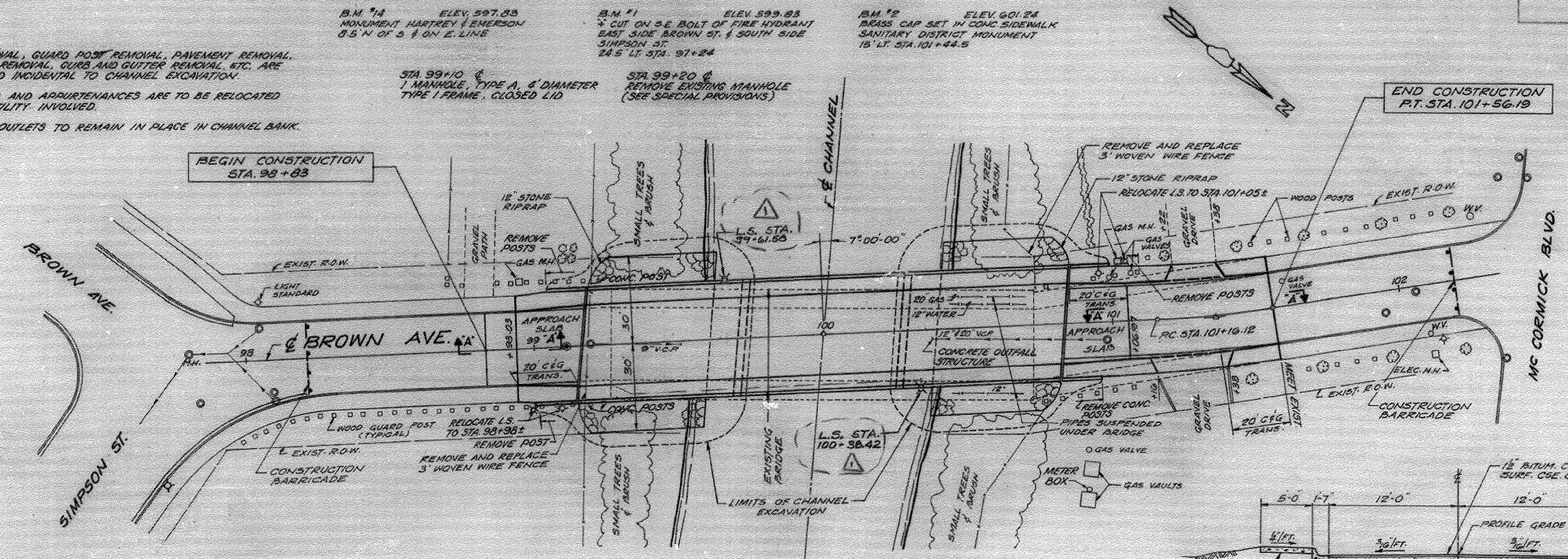






NOTES

1. TREE REMOVAL, GUARD POST REMOVAL, PAVEMENT REMOVAL, SIDEWALK REMOVAL, CURB AND GUTTER REMOVAL, ETC. ARE CONSIDERED INCIDENTAL TO CHANNEL EXCAVATION.
2. GAS MAINS AND APPURTENANCES ARE TO BE RELOCATED BY THE UTILITY INVOLVED.
3. V.C. PIPE OUTLETS TO REMAIN IN PLACE IN CHANNEL BANK.

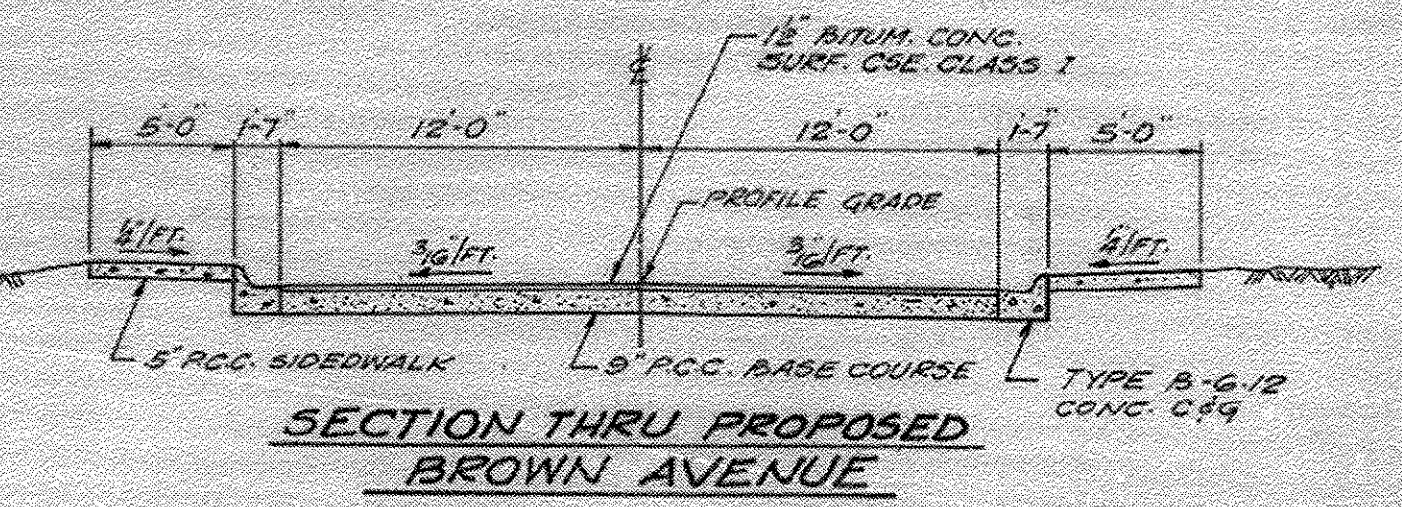


**CURVE DATA**

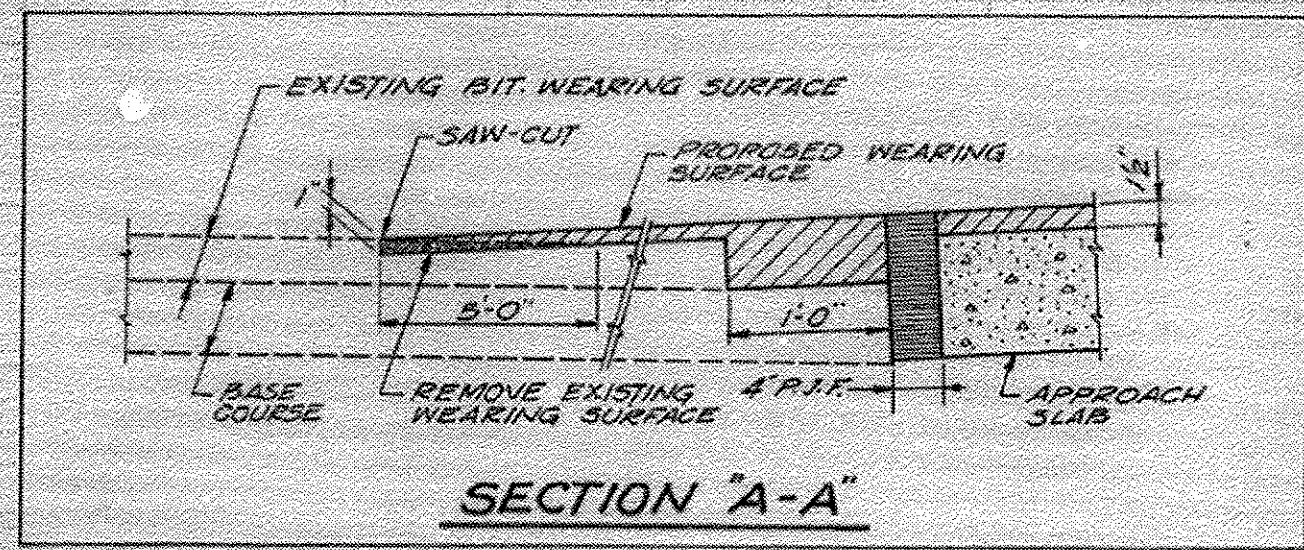
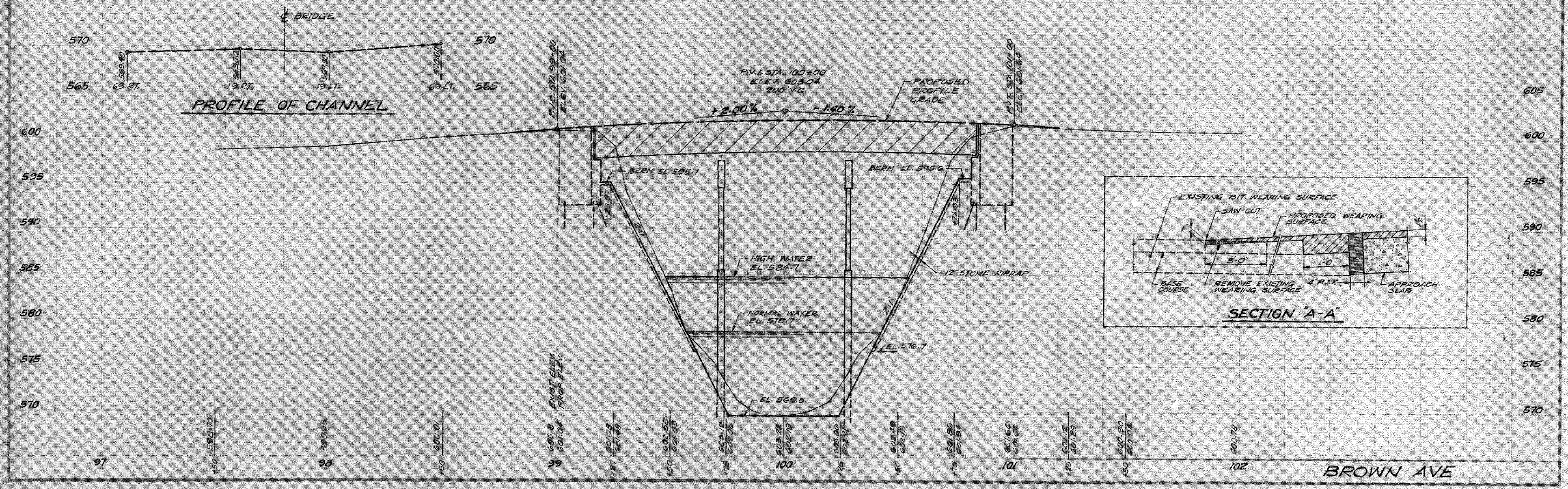
PI. STA. 101+36.17
$\Delta = 6^{\circ}00'36''$
$D = 15'15''00''$
$R = 375.71'$
$L = 40.01'$
$T = 20.05'$
$E = 0.53'$

BRIDGE APPROACH PAVEMENT  
STANDARD 1909-10 METHOD I  
STA. 98+93.03 TO STA. 99+14.5  
5.9 S.Y. P.C.C. BASE COURSE (16 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ ")  
3415 LBS. REINFORCEMENT BARS  
5.1 TONS BITUM. CONC. SURF. CSE. CLASS I

BRIDGE APPROACH PAVEMENT  
STANDARD 1909-10 METHOD I  
STA. 100+85.50 TO STA. 101+06.27  
5.9 S.Y. P.C.C. BASE COURSE (16 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 16 $\frac{1}{2}$ ")  
3415 LBS. REINFORCEMENT BARS  
5.1 TONS BITUM. CONC. SURF. CSE. CLASS I



A REVISION NOV. 25, 1978



**benesch**  
engineers - scientists - planners

Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-685-0450 Job No. 10055.02

FILE NAME =  
0166953\_040\_Exist1.dgn

USER NAME = eship  
DESIGNED - MJF  
CHECKED - EFS  
DRAWN - RMG  
PLOT SCALE =  
PLOT DATE = 2/19/2013

DESIGNED - MJF  
CHECKED - EFS  
DRAWN - RMG  
PLOT DATE = 2/19/2013

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWING 1  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
SHEET NO. 540 OF 550 SHEETS

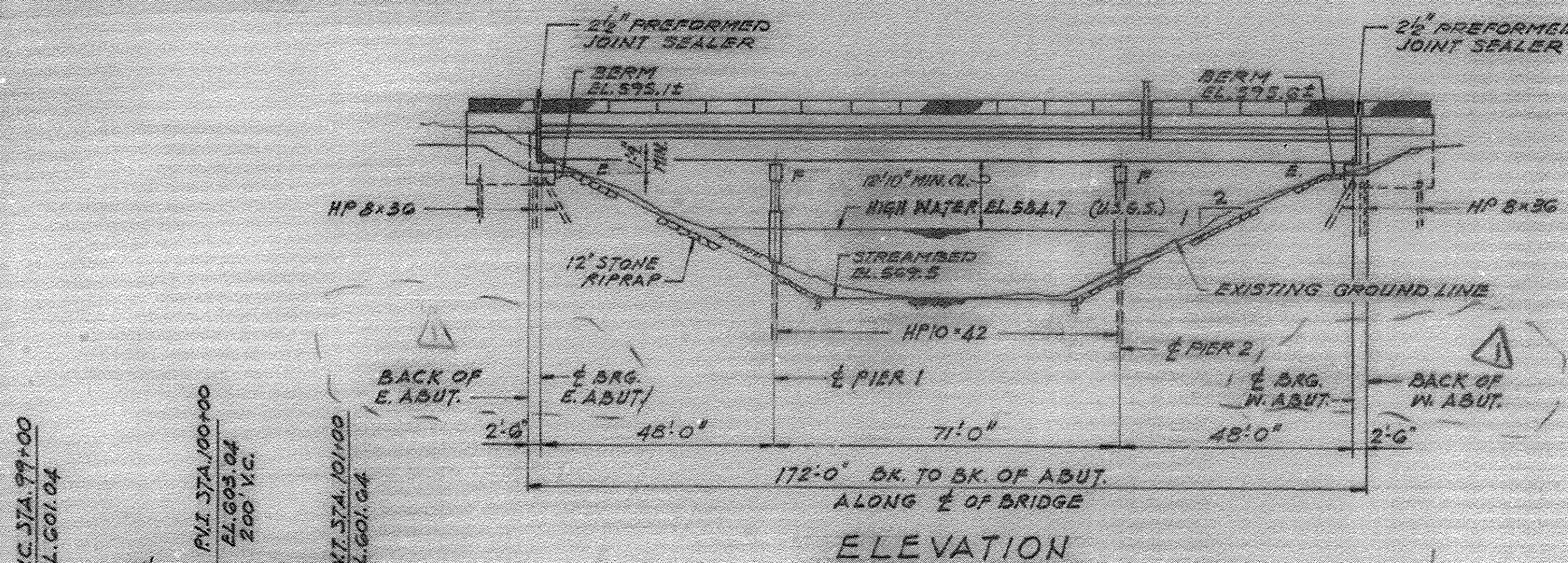
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	93
CONTRACT NO. 63817			ILLINOIS FED. AID PROJECT	

2:52:17 PM X:\100005\10055.02\Eng\_Docs\_Phase\_II\Bridge-Street\_016-6953\Final\0166953\_040\_Exist1.dgn

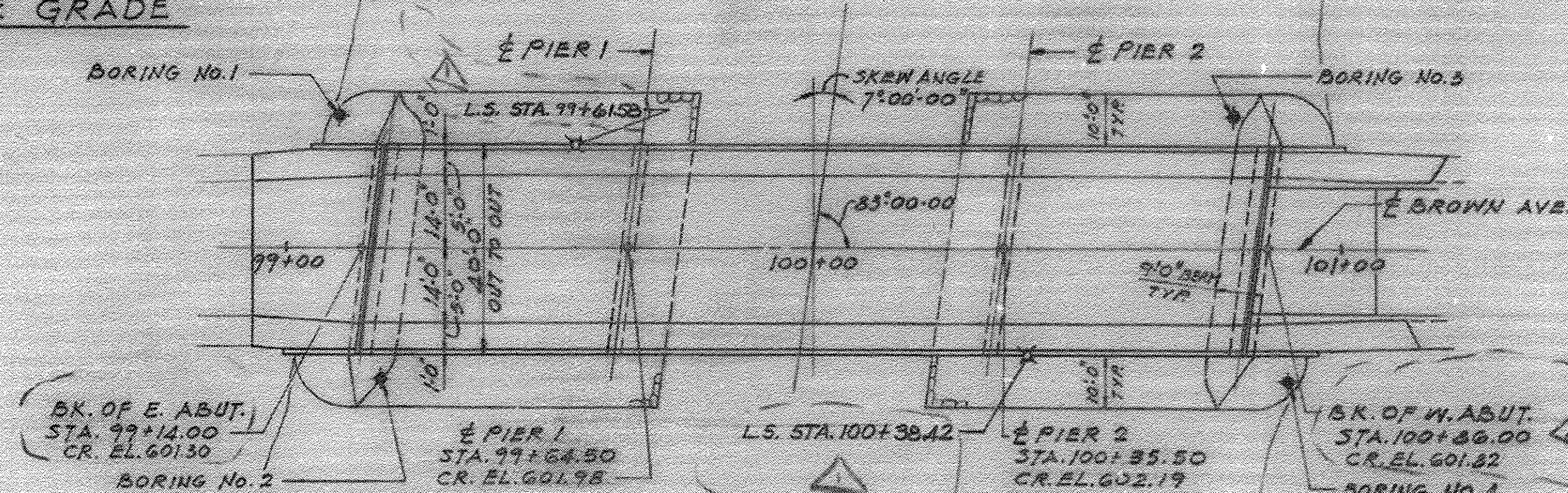
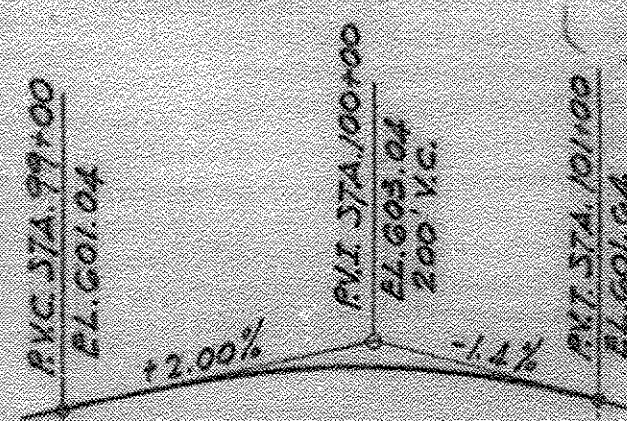


EXISTING STRUCTURE: 3 SPANS (2 @ 35'-5" AND 1 @ 71'-0") OF STEEL THROUGH GIRDERS WITH FLOOR BEAMS AND STEEL STRINGERS. THE DECK CONSISTS OF PLANKS OVERLAID WITH 3-INCH THICK PORTLAND CEMENT CONCRETE AND 3-INCH THICK ASPHALTIC CONCRETE. 24'-0" ROADWAY AND 5'-0" SIDEWALKS. CONCRETE BLOCK ABUTMENTS. PIERS CONSIST OF 4-48" DIAMETER CAISSONS WITH 2 STEEL CROSS TRUSSES. TO BE REMOVED BY CONTRACTOR.

B.M. #2 ELEV. 601.24  
BRASS CAP SET IN CONC. SIDEWALK  
SANITARY DISTRICT MONUMENT  
15' LT. STA. 101+44.5  
ELEV. 601.24 (U.S.G.S.) = 21.54 (C.C.D.)



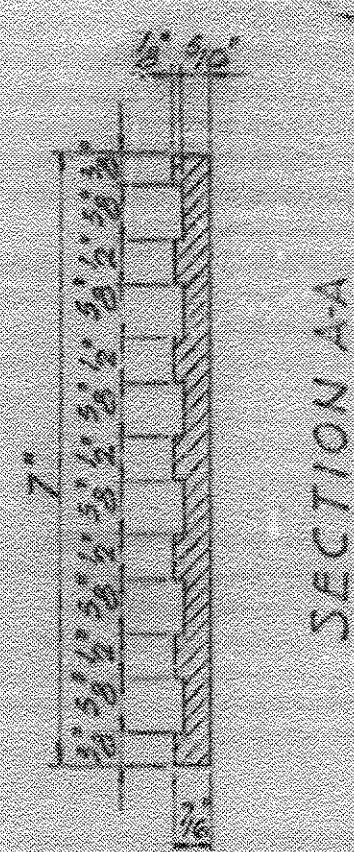
PROFILE GRADE



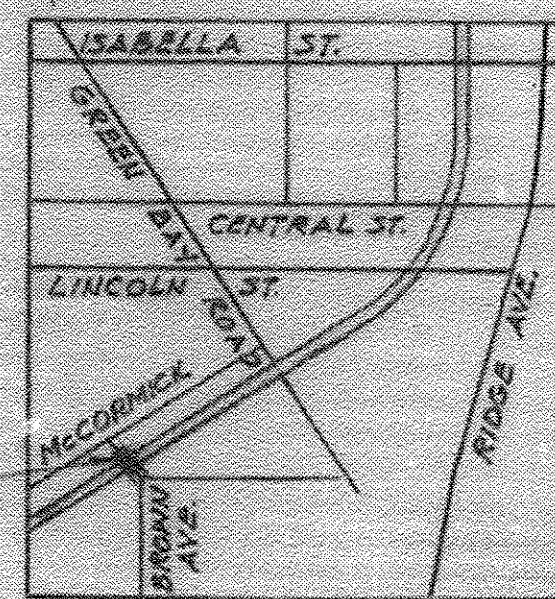
PLAN  
SCALE: 1" = 20'-0"

BROWN AVENUE BRIDGE  
OVER  
NORTH SHORE CHANNEL  
BUILT 197  
LOADING HS20

LETTERING FOR NAME PLATE



WATERWAY INFORMATION  
DESIGN FLOW 1000 C.F.S.  
MAXIMUM H.W. ELEVATION 584.7  
DESIGN WATER ELEVATION 584.7  
REQUIRED OPENING 1048 SQ. FT.  
PRESENT OPENING 1048 SQ. FT.  
PROPOSED OPENING 1080 SQ. FT.



LOCATION PLAN

GENERAL NOTES

THE CONTRACTOR SHALL DRIVE ONE STEEL TEST PILE IN A PERMANENT LOCATION AT EACH ABUTMENT AND PIER AS DIRECTED BY THE ENGINEER BEFORE ORDERING THE REMAINDER OF THE PILES.

THE CONCRETE RAIL SECTION ABOVE THE MANDATORY CONSTRUCTION JOINT AT TOP OF THE SLAB SHALL BE CONSTRUCTED OF CLASS X CONCRETE, EXCEPT THE AGGREGATES SHALL CONFORM TO THE REQUIREMENTS OF HANDRAIL CONCRETE.

THE CONTRACTOR SHALL VERIFY THE LOCATION AND DIMENSIONS OF EXISTING CAISSONS PRIOR TO THE CONSTRUCTION OF THE PIER.

ALL REINFORCEMENT BARS SHALL CONFORM TO AASHTO M-31 OR M-53 GRADE 60.

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH TWO COATS OF BASIC LEAD SILICO CHROMATE PAINT.

DESIGN LOAD

L.L. = HS20-44  
FUTURE D.L. = 25 P.S.F.

DESIGN STRESSES (WORKING STRESS)

CONCRETE (CAST IN PLACE)  
f<sub>c</sub> = 3,500 P.S.I.  
f<sub>c</sub> = 1,400 P.S.I. N=9  
f<sub>c</sub> = 1,000 P.S.I. (WITH EARTH PRESSURE)

PRECAST PRESTRESSED UNITS

f<sub>c</sub> = 6,000 P.S.I.  
f<sub>ci</sub> = 5,000 P.S.I.  
f<sub>s</sub> = 270,000 P.S.I. (1/2" DIA. STRANDS)  
f<sub>si</sub> = 189,000 P.S.I. (1/2" DIA. STRANDS)

REINFORCING STEEL

f<sub>y</sub> = 60,000 P.S.I.  
USE EPOXY COATED REINF. BARS IN TOP OF SLAB

PRECAST PRESTRESSED PLANKS

f<sub>c</sub> = 5,000 P.S.I.  
f<sub>ci</sub> = 4,000 P.S.I.  
f<sub>s</sub> = 270,000 P.S.I. (3/8" DIA. STRANDS)

DESIGN SPECIFICATIONS

AASHTO: 1973 AND INTERIMS AS APPLICABLE

REVISION NOV 28, 1978

ALFRED BENESCH & COMPANY  
CONSULTING ENGINEERS  
408 W.  
233N. MICHIGAN AVE. CHICAGO, ILLINOIS

GENERAL PLAN AND ELEVATION  
BROWN AVE.  
OVER NORTH SHORE CHANNEL  
OF METROPOLITAN SANITARY DISTRICT  
OF GREATER CHICAGO  
EVANSTON, ILLINOIS  
STATION 100+00.00

**benesch**  
engineers - scientists - planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = ashsp	DESIGNED - MJF	REVISED -
		CHECKED - EFS	REVISED -
		DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -
PLOT SCALE =			
PLOT DATE = 2/19/2013			

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

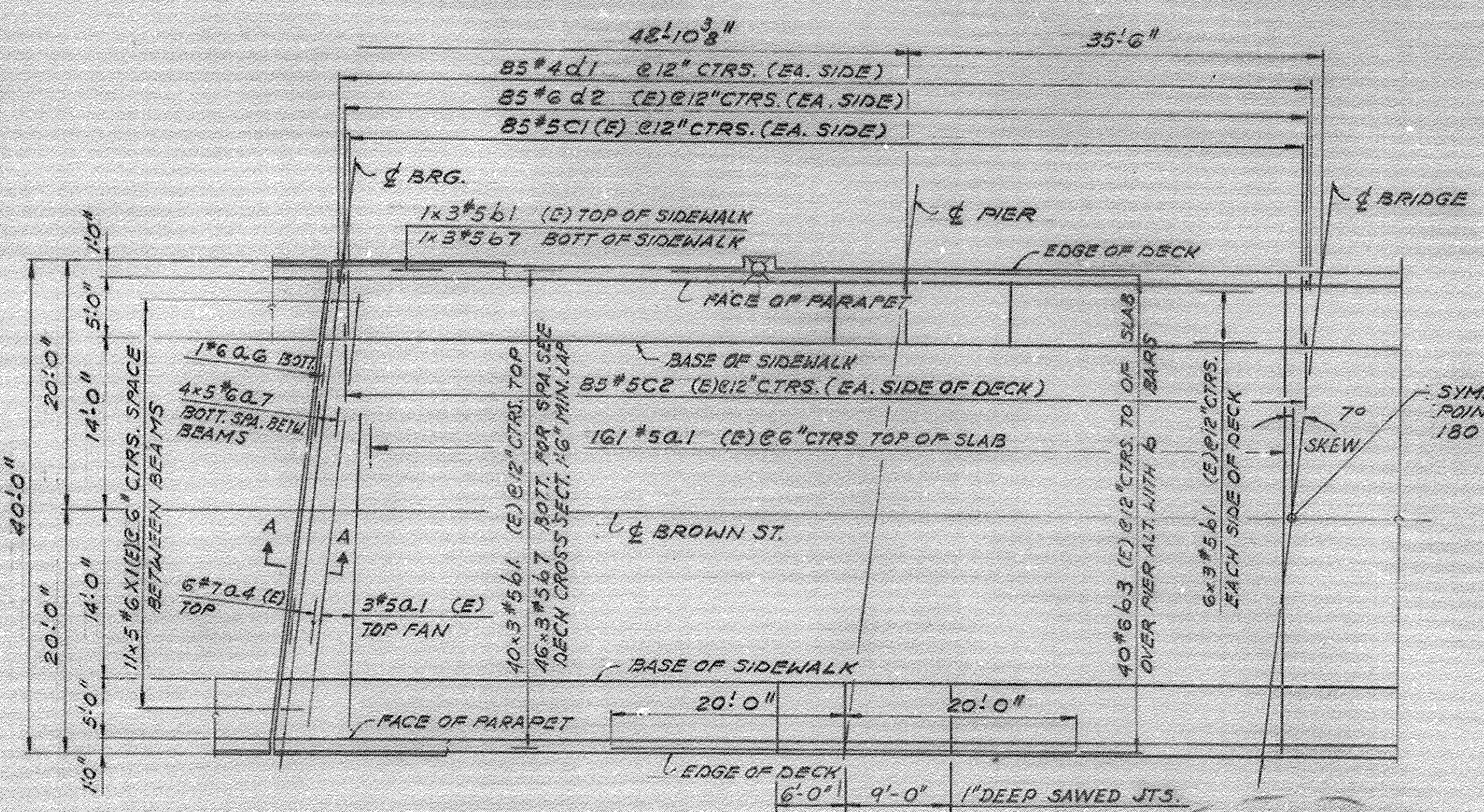
EXISTING DRAWING 2  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

SHEET NO. S41 OF S50 SHEETS

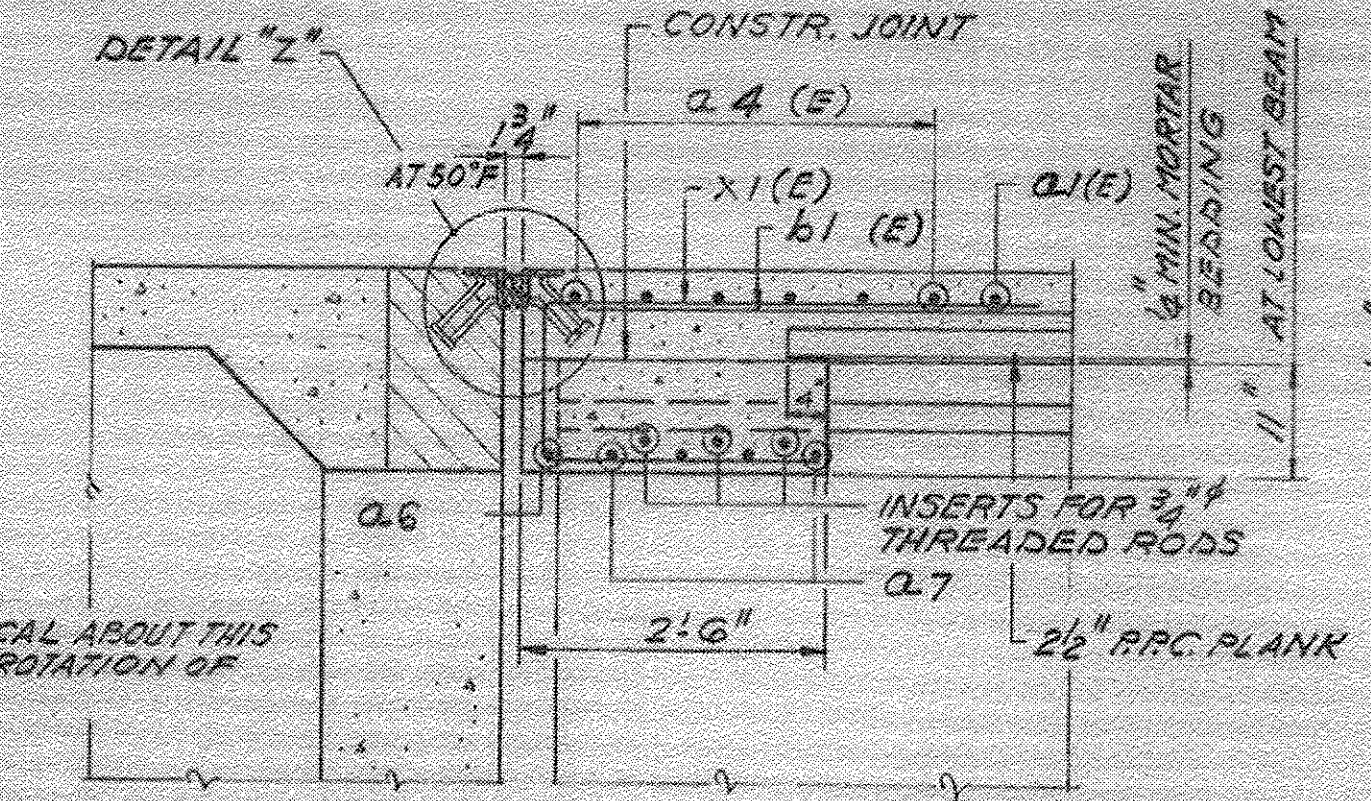
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	94
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

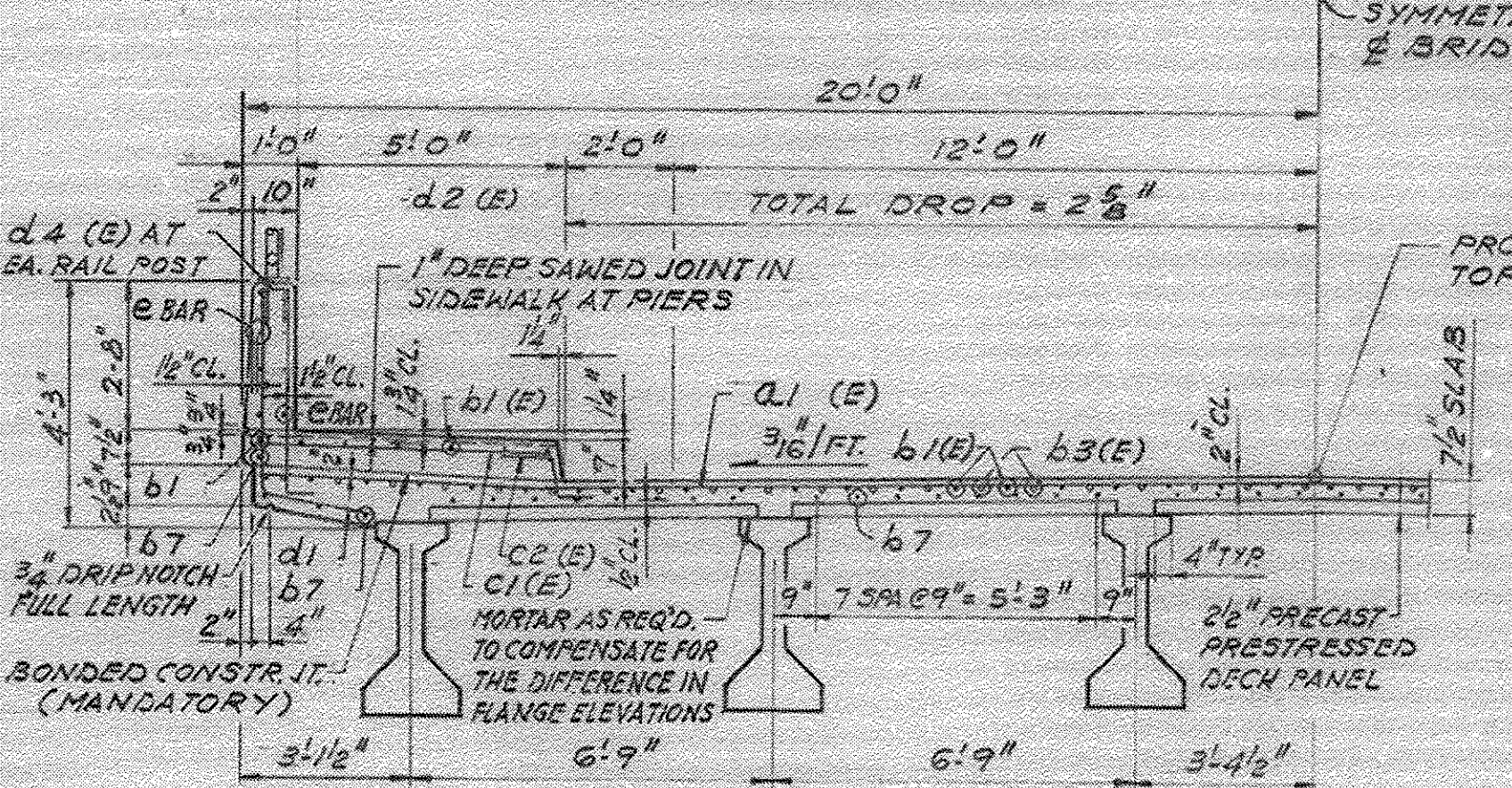




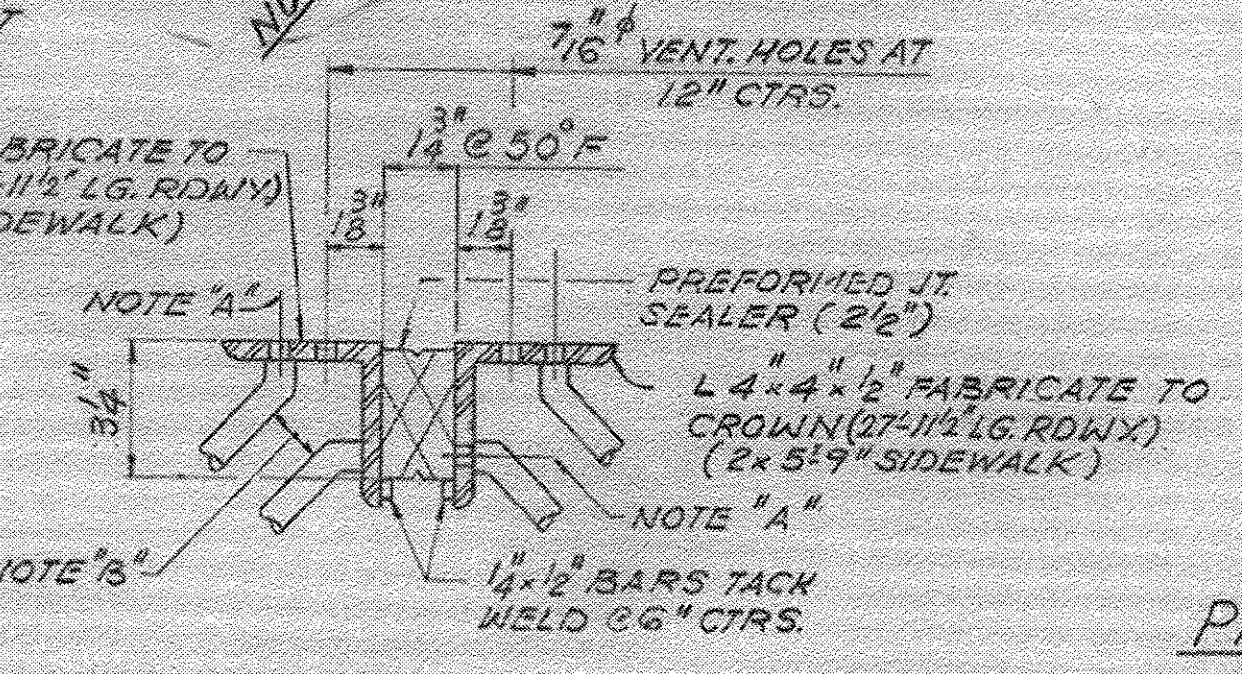
PART DECK FRAMING PLAN



P.J.F. ANGLE DETAIL



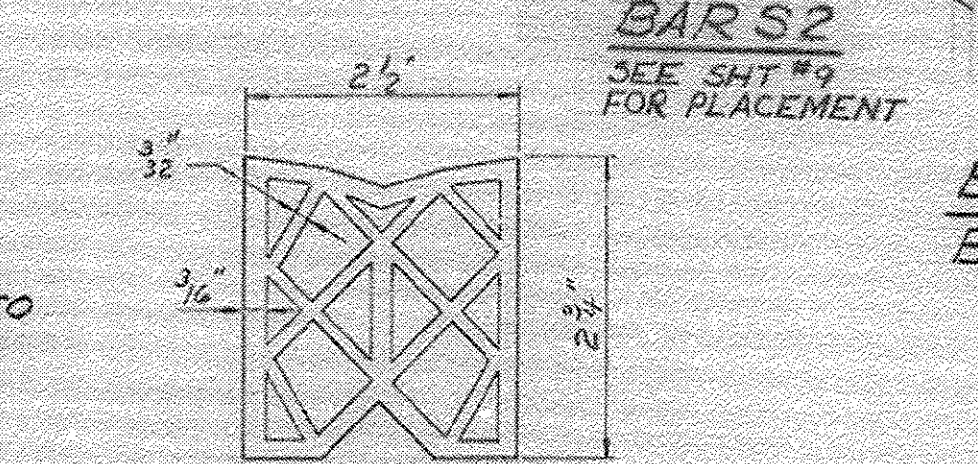
HALF DECK CROSS SECTION



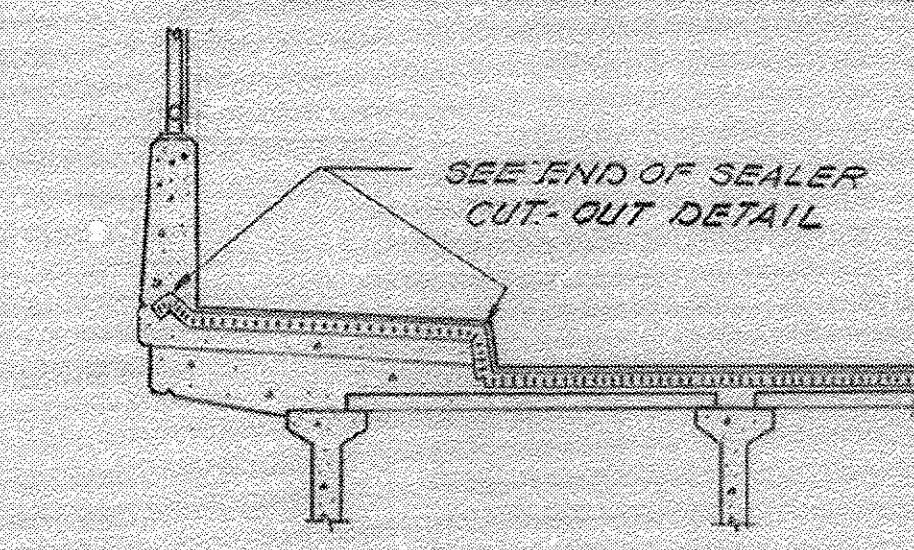
DETAIL "Z"

NOTE "A"  
7/16" HOLES AT 12" CTRS. FOR 3/8" BOLTS SET ON 2-1/2" GAGE LINE. ALL BOLTS SHALL BE BURNED, SAWED OR CHIPPED OFF FLUSH WITH THE BACK OF ANGLES AFTER FORMS ARE REMOVED.

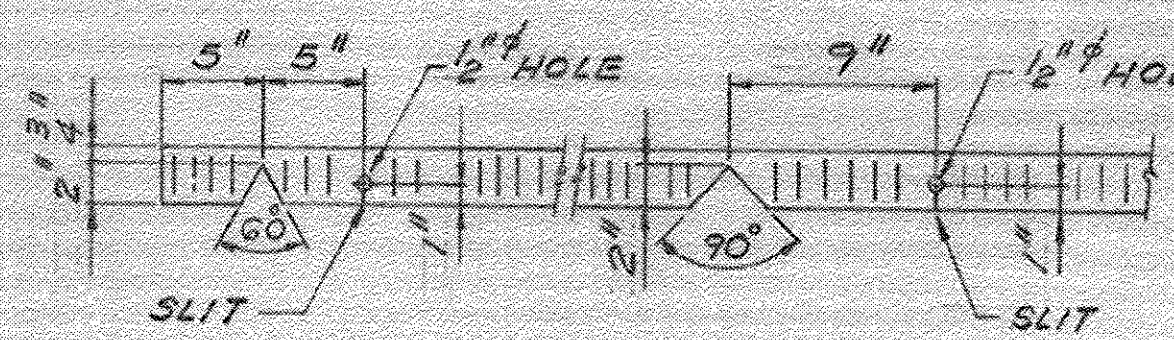
NOTE "B"  
3/4" X 8" CR 1020-STL. GRANULAR OR SOLID FLUX FILLED HEADED STUDS AUTOMATICALLY END WELDED ALT. @ 12" CTRS. TOTAL REQ'D. = 158 INCLUDING SIDEWALK



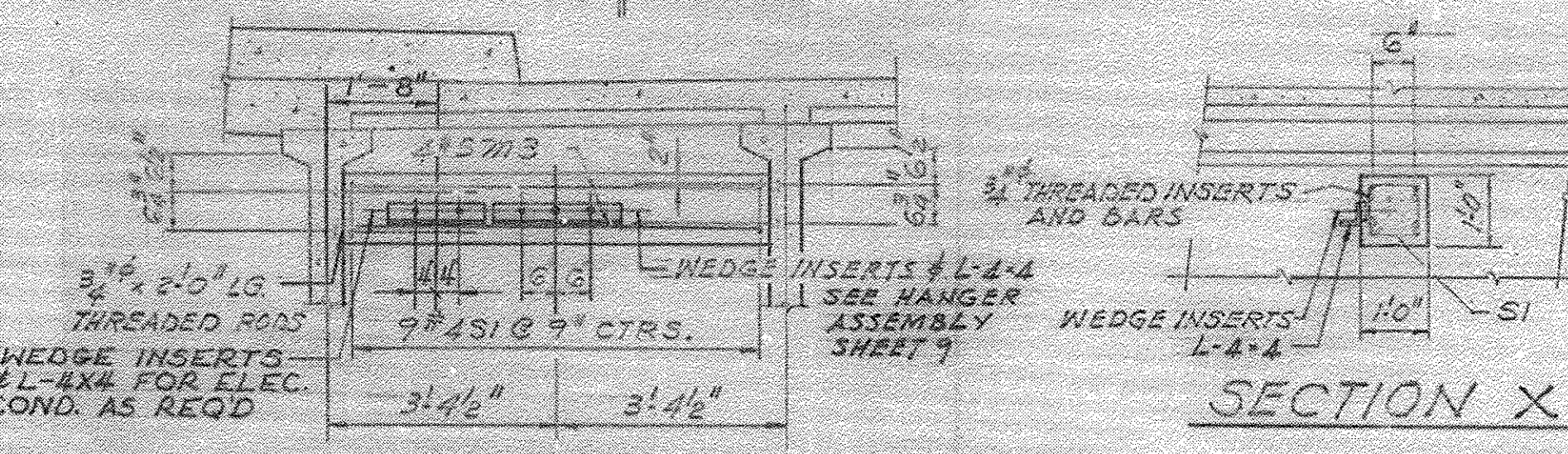
PREFORMED JT SEALER (2 1/2")



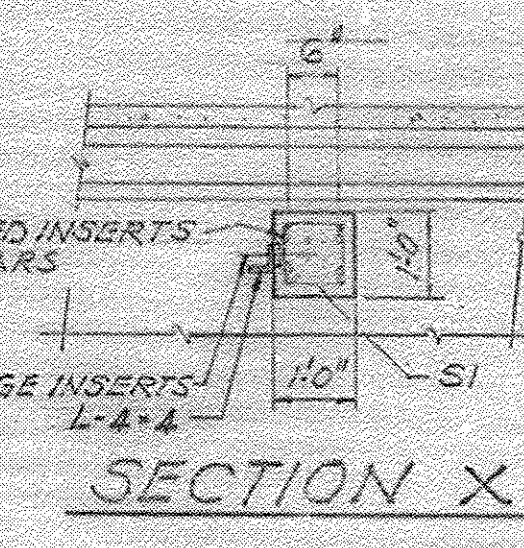
TYP. END OF SEALER TREATMENT



SEALER CUT-OUT



PIPE SUPPORT DETAIL  
SEE SHEET 9 FOR SPACING



SECTION X

BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
d1(E)	328	#5	39'4"	
d2(E)	12	#7	39'6"	
d6	1	#5	39'6"	
d7	40	#6	5'11"	
b1(E)	324	#5	29'9"	
b3(E)	80	#6	40'0"	
b7	288	#5	29'9"	
C1(E)	340	#5	5'6"	
C2(E)	340	#5	2'9"	
d6(E)	8	#5	7'6"	
d7(E)	16	#6	6'0"	
d1	340	#4	5'10"	
d2(E)	340	#6	4'8"	
d3(E)	6	#6	5'2"	
M1	40	#4	6'0"	
M2	20	#6	4'7"	
M3	112	#5	6'0"	
d4	6	#6	4'10"	
S1	252	#4	3'5"	
S2	50	#4	10'8"	
d5	6	#5	2'10"	
XI(E)	110	#6	6'4"	
CLASS "X" CONCRETE		CU. YDS.	204.3	
REINFORCEMENT BARS		LBS.	12,650	
REINFORCEMENT (EPOXY COATED)		LBS.	35,090	

NOTES:  
ALL BAR DIMENSIONS ARE OUT TO OUT.  
ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFERS, EXCEPT AS NOTED OTHERWISE.  
PARAPET REINFORCEMENT AND CLASS "X" CONCRETE ARE BILLED ON SHEET 9.  
BARS INDICATED THUS 20 X 3 #5, ETC., INDICATE 20 LINES OF BARS WITH 3 LENGTHS PER LINE.

DECK PLAN & DETAILS  
BROWN AVE.  
OVER NORTH SHORE CHANNEL  
OF METROPOLITAN SANITARY DISTRICT  
OF GREATER CHICAGO  
EVANSTON, ILLINOIS  
STATION 100+00.00

REVISION NOV. 28, 1978

ALFRED BENESCH & COMPANY  
CONSULTING ENGINEERS  
JOB NO.  
233 N. MICHIGAN AVE. CHICAGO, ILLINOIS

benesch  
engineers · scientists · planners  
Alfred Benesch & Company  
205 North Michigan Avenue, Suite 2400  
Chicago, Illinois 60601  
312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
0166953.042_Exist3.dgn	eshhp	MJF	-
	PLOT SCALE =	CHECKED -	REVISED -
		EF5	-
	PLOT DATE =	DRAWN -	REVISED -
	2/19/2013	RMG	-
		CHECKED -	REVISED -
		EF5	-

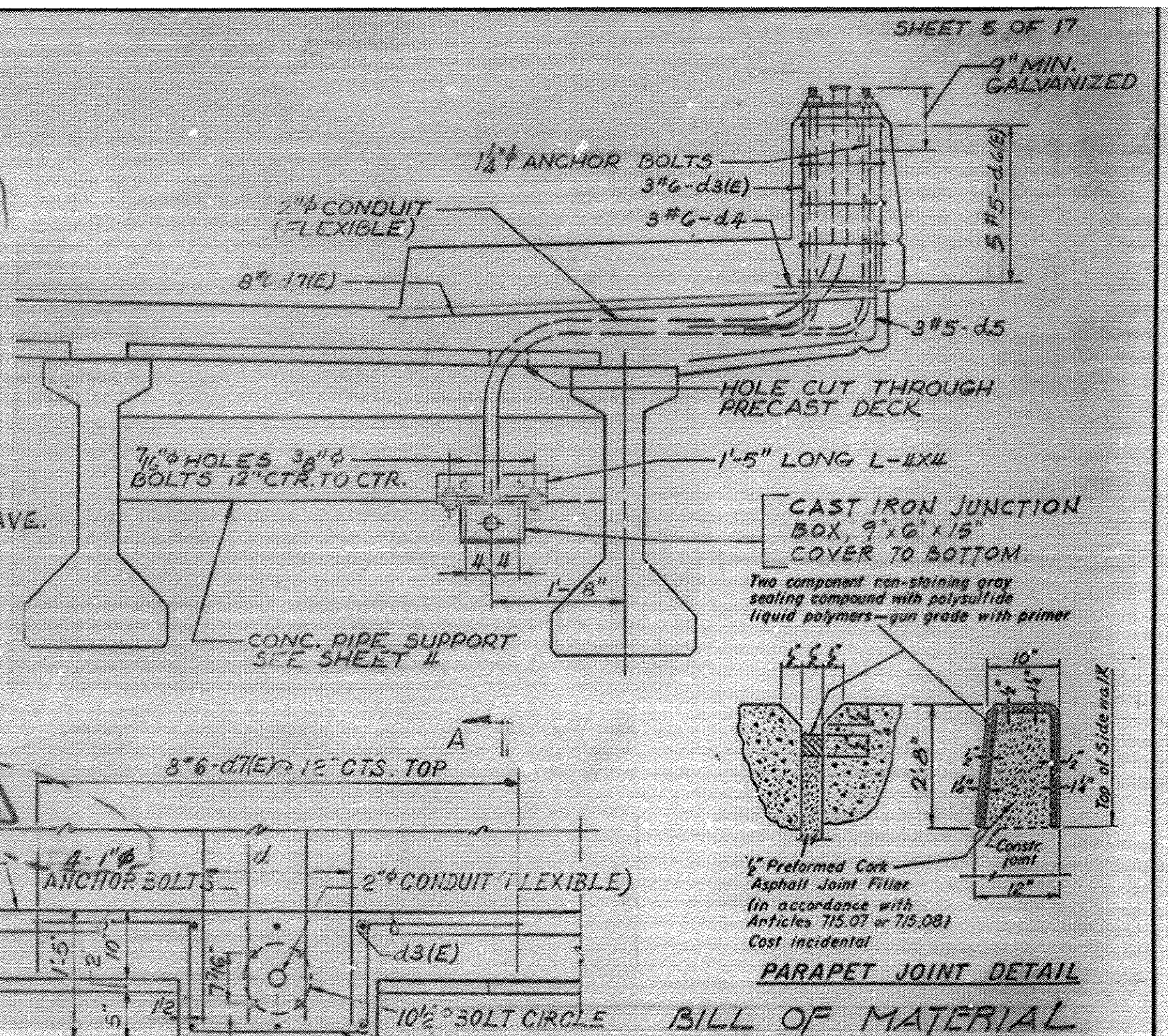
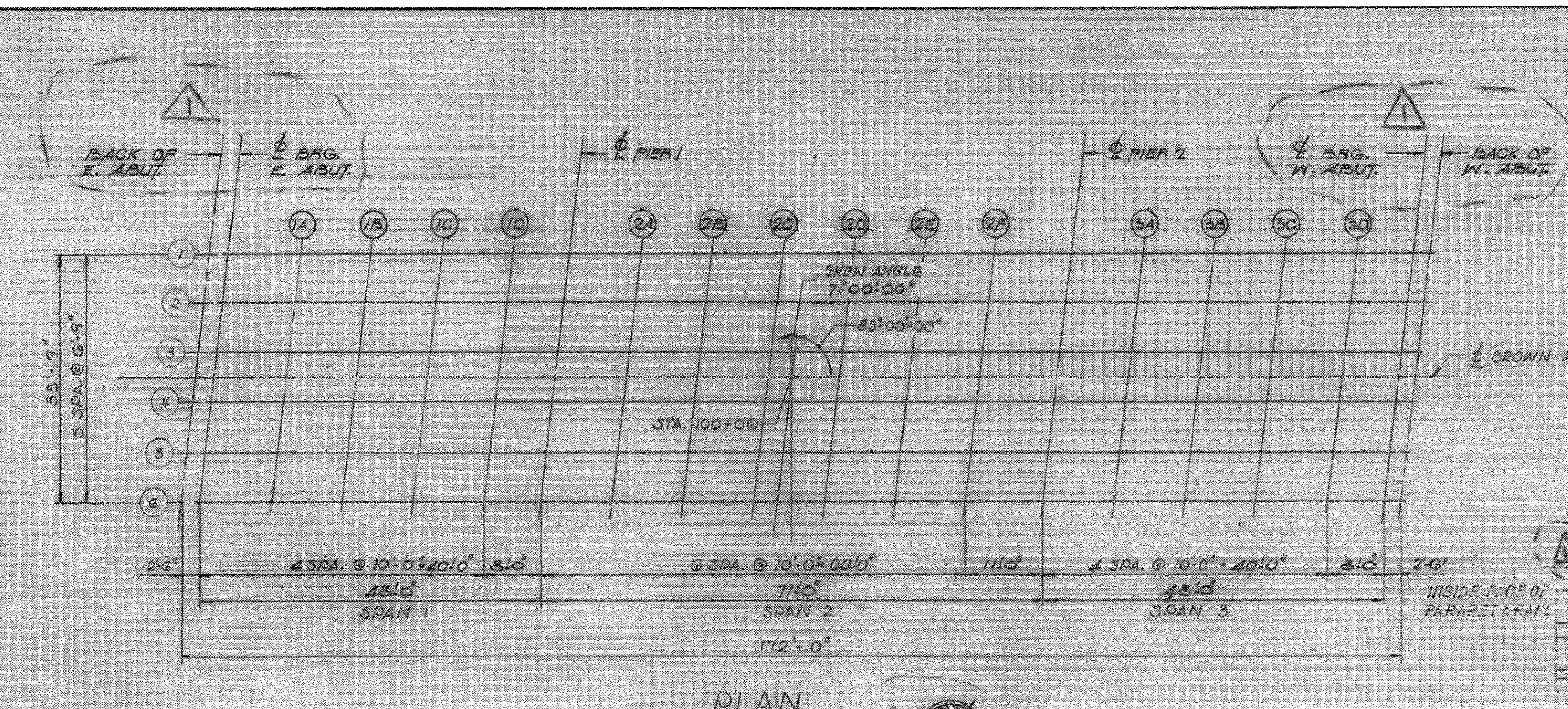
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING DRAWING 3  
STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
SHEET NO. 542 OF 550 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	95
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				

X:\100005\10055.02\Eng\_Docs\Phase-III\Bridge-Street\_016-6953\Final\0166953\_042\_Exist3.dgn 2:53:08 PM 2/19/2013



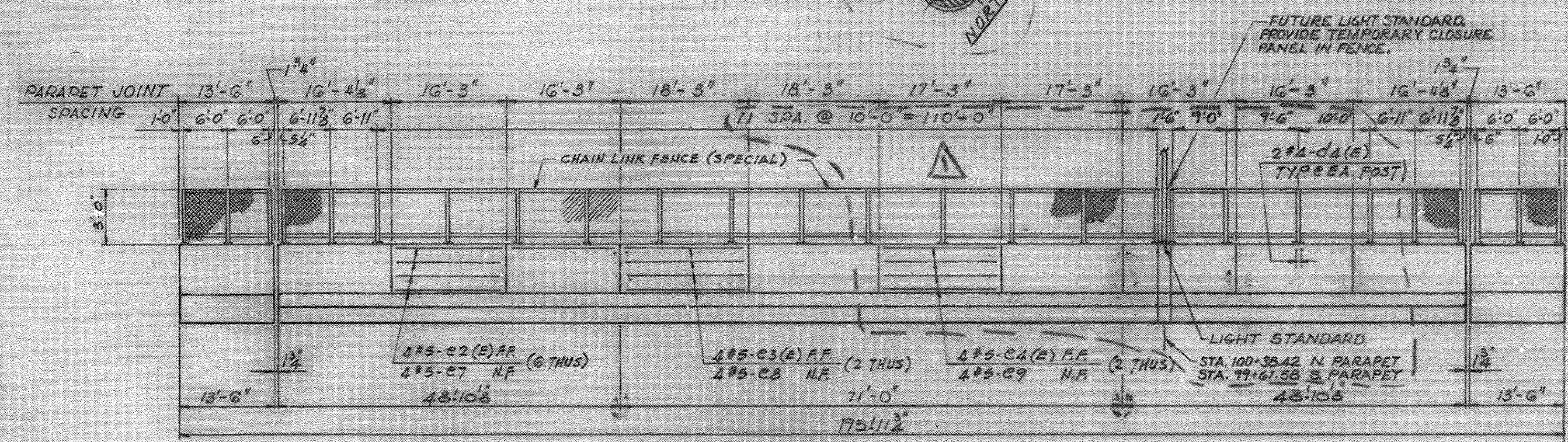


PLAN

PLAN LIGHT STANDARD SUPPORT

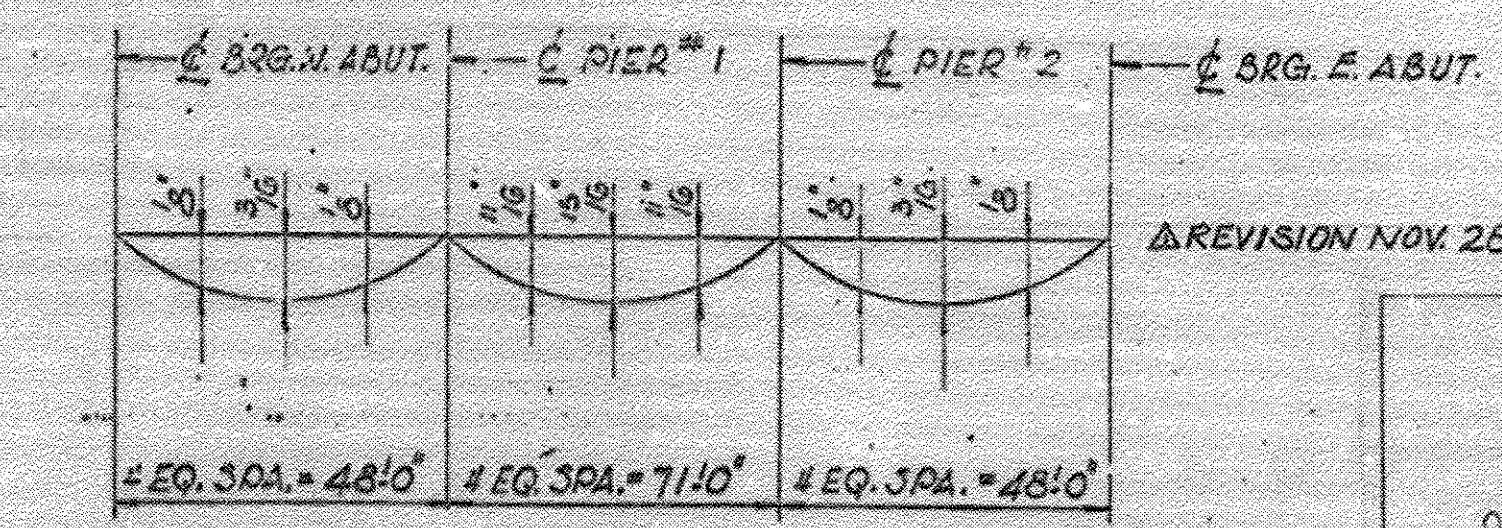
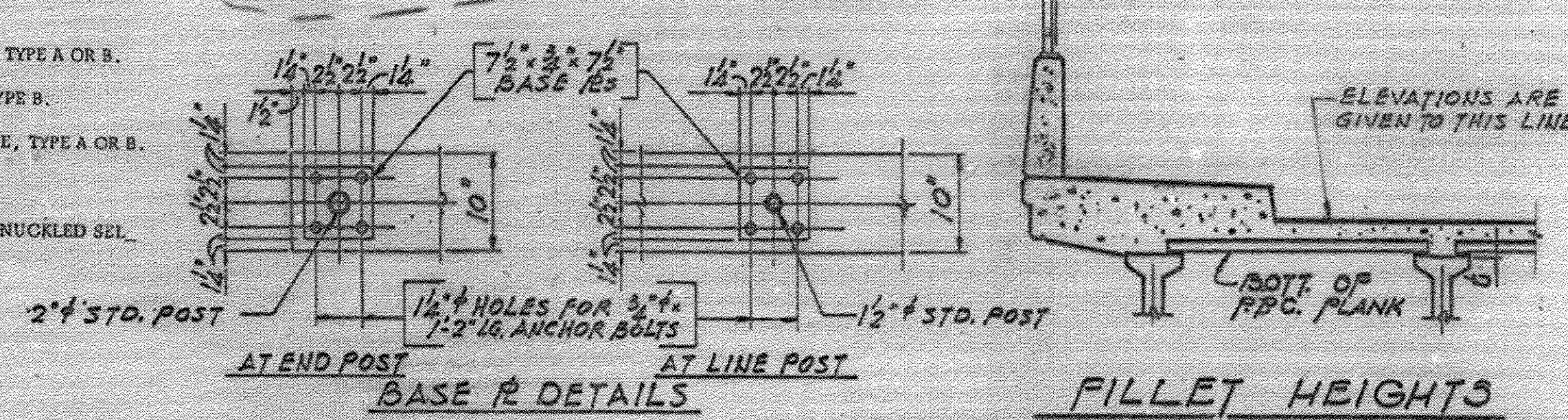
BILL OF MATERIAL

BAR	N <sup>o</sup>	SIZE	LENGTH	SHAPE	
Q2(E)	48	#5	15'11"	—	
Q3(E)	16	#5	17'11"	—	
Q4(E)	16	#5	16'11"	—	
Q7	48	#5	15'11"	—	
Q8	16	#5	17'11"	—	
Q9	16	#5	16'11"	—	
d4(E)	100	#4	2'1"	□	
CLASS "X" CONCRETE				CU YDS	31.3
REINFORCEMENT BARS EPOXY COATED				LIBS.	1480
REINFORCEMENT BARS				LIBS.	1580
CHAIN LINK FENCE (SPECIAL) UN. FF.					388

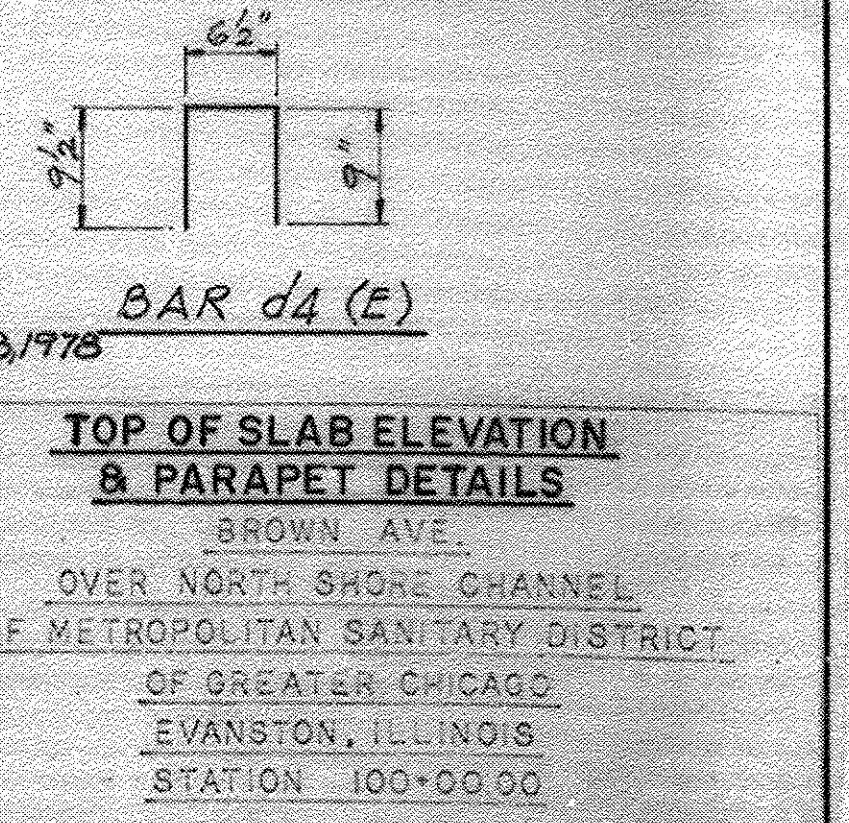


OUTSIDE ELEVATION

NOTE:  
 MATERIALS SHALL CONFORM TO ARTICLE 710.33 OF THE STANDARD SPECIFICATIONS.  
 TERMINAL POSTS SHALL BE 2-3/8" O.D. STEEL PIPE, TYPE A OR B.  
 LINE POSTS SHALL BE 1.90" O.D. PIPE, TYPE A OR TYPE B.  
 HORIZONTAL BRACES SHALL BE 1.66" O.D. STEEL PIPE, TYPE A OR B.  
 POST TOPS SHALL BE USED ON ALL PIPE POSTS.  
 FABRIC SHALL BE ZINC COATED STEEL FABRIC WITH KNUCKLED SEAM EDGE.



DEAD LOAD DEFLECTION DIAGRAM (INCLUDES WEIGHT OF CONCRETE SLAB ONLY)

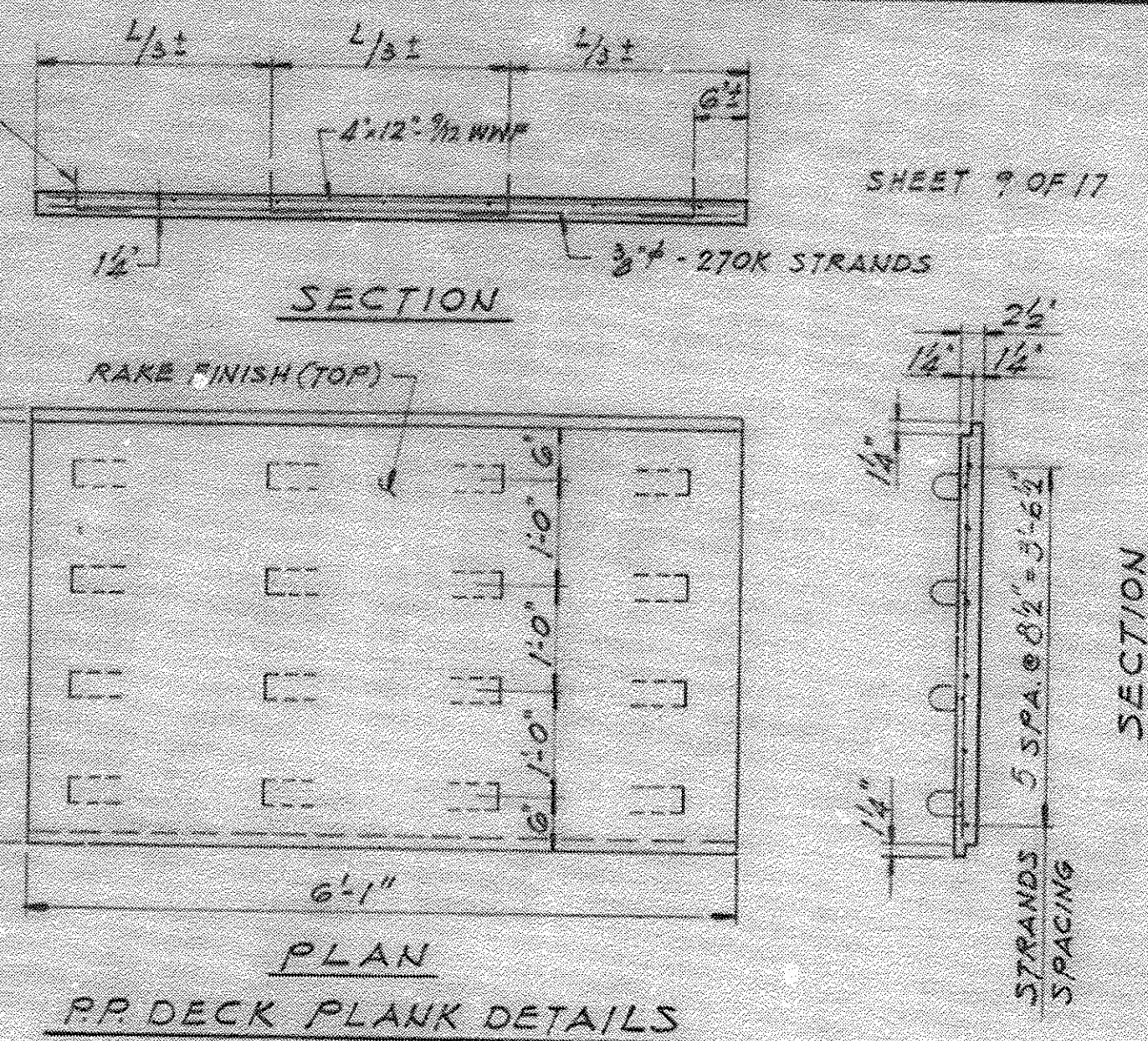
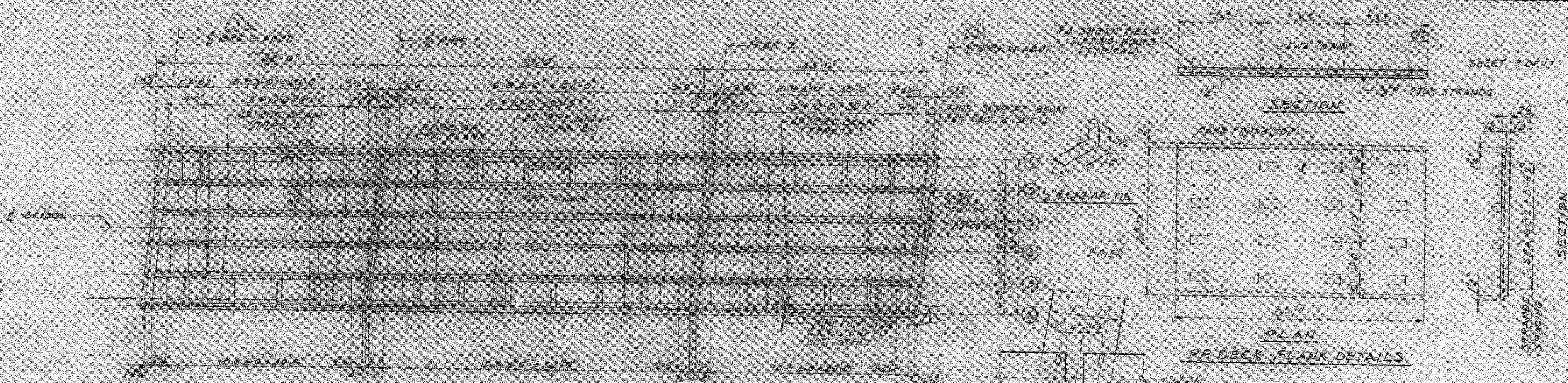


TOP OF SLAB ELEVATION & PARAPET DETAILS  
 BROWN AVE.  
 OVER NORTH SHORE CHANNEL  
 OF METROPOLITAN SANITARY DISTRICT  
 OF GREATER CHICAGO  
 EVANSTON, ILLINOIS  
 STATION 100+00.00

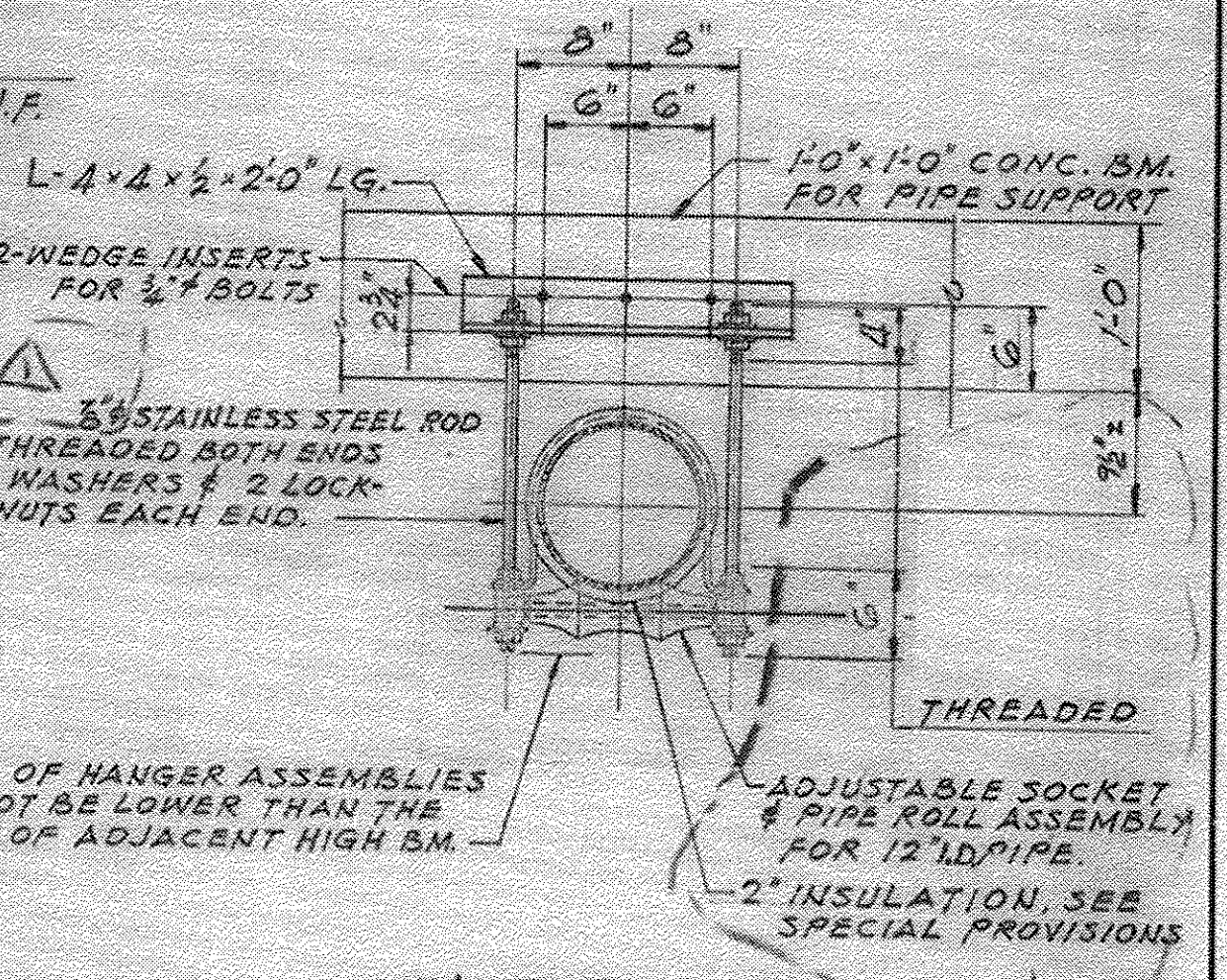
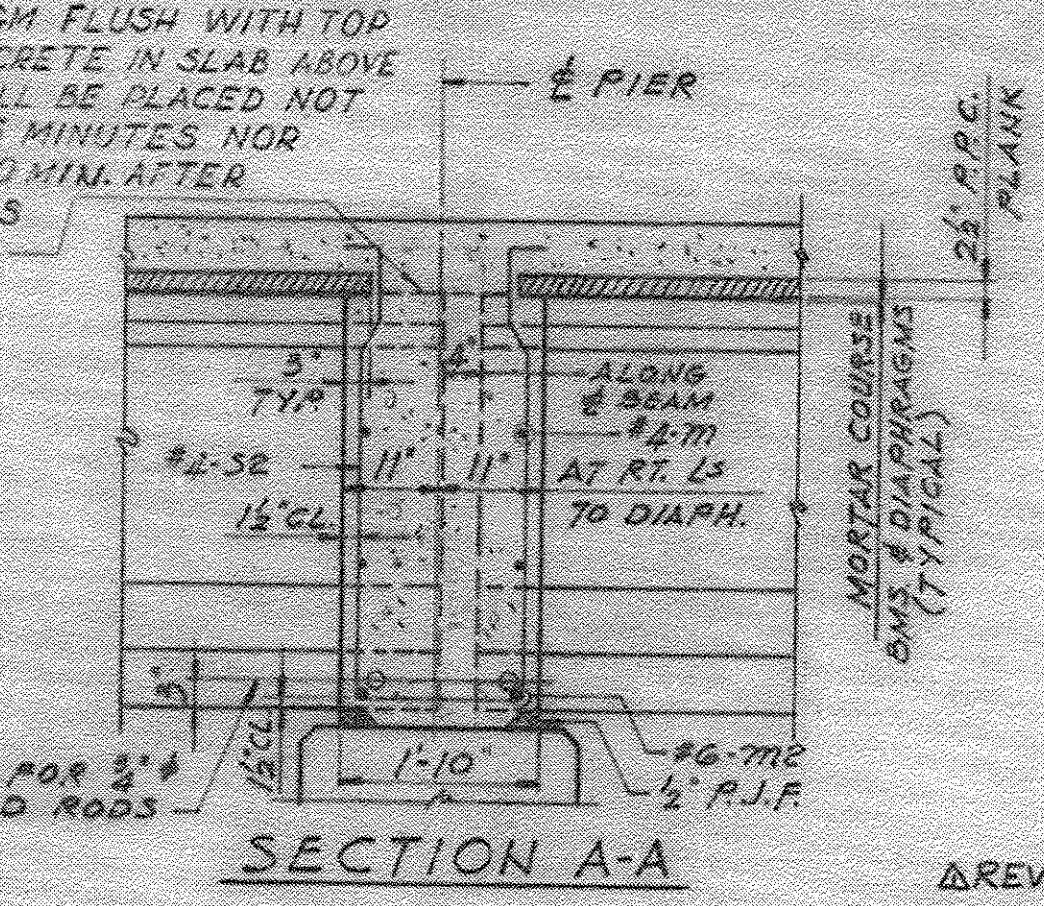
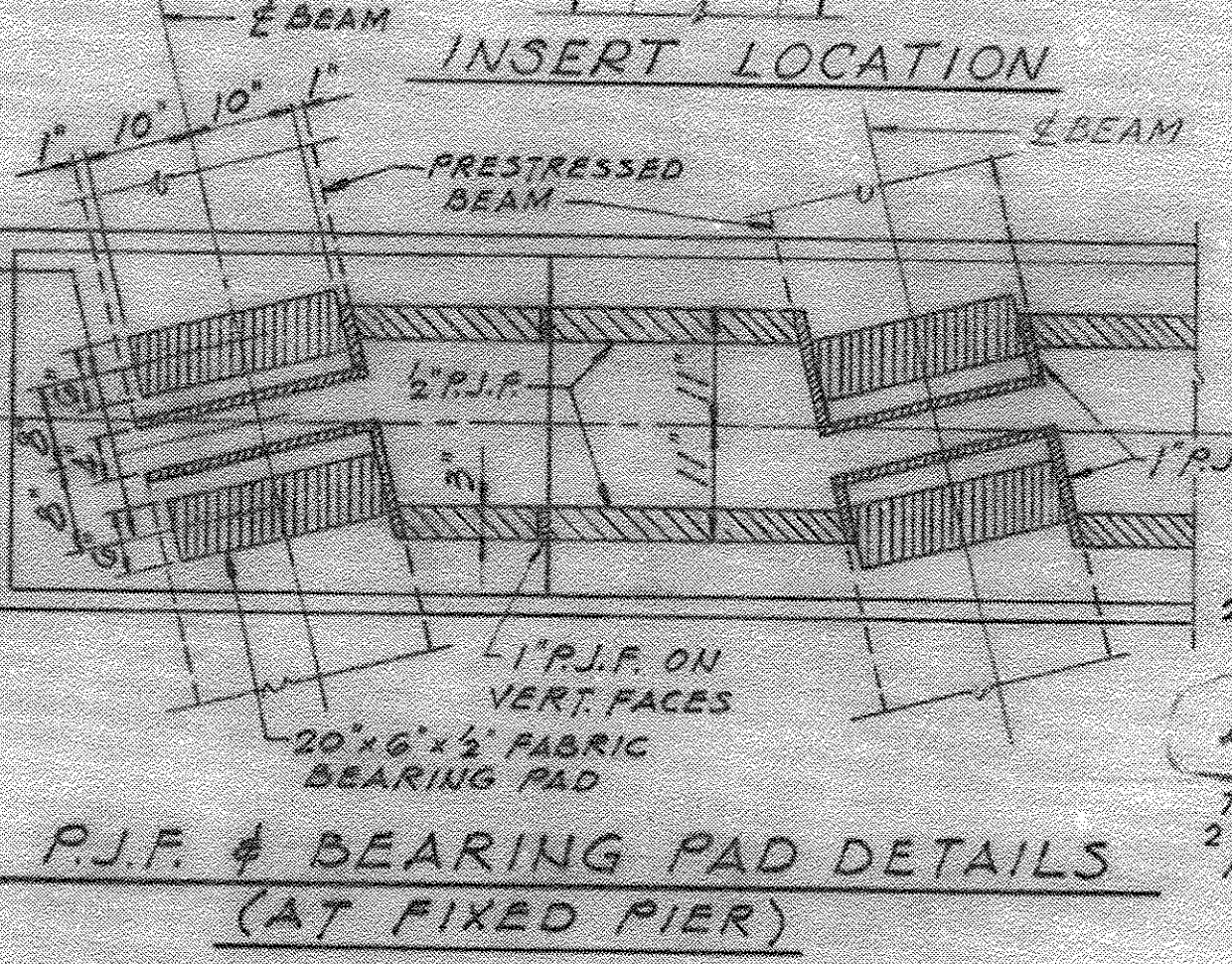
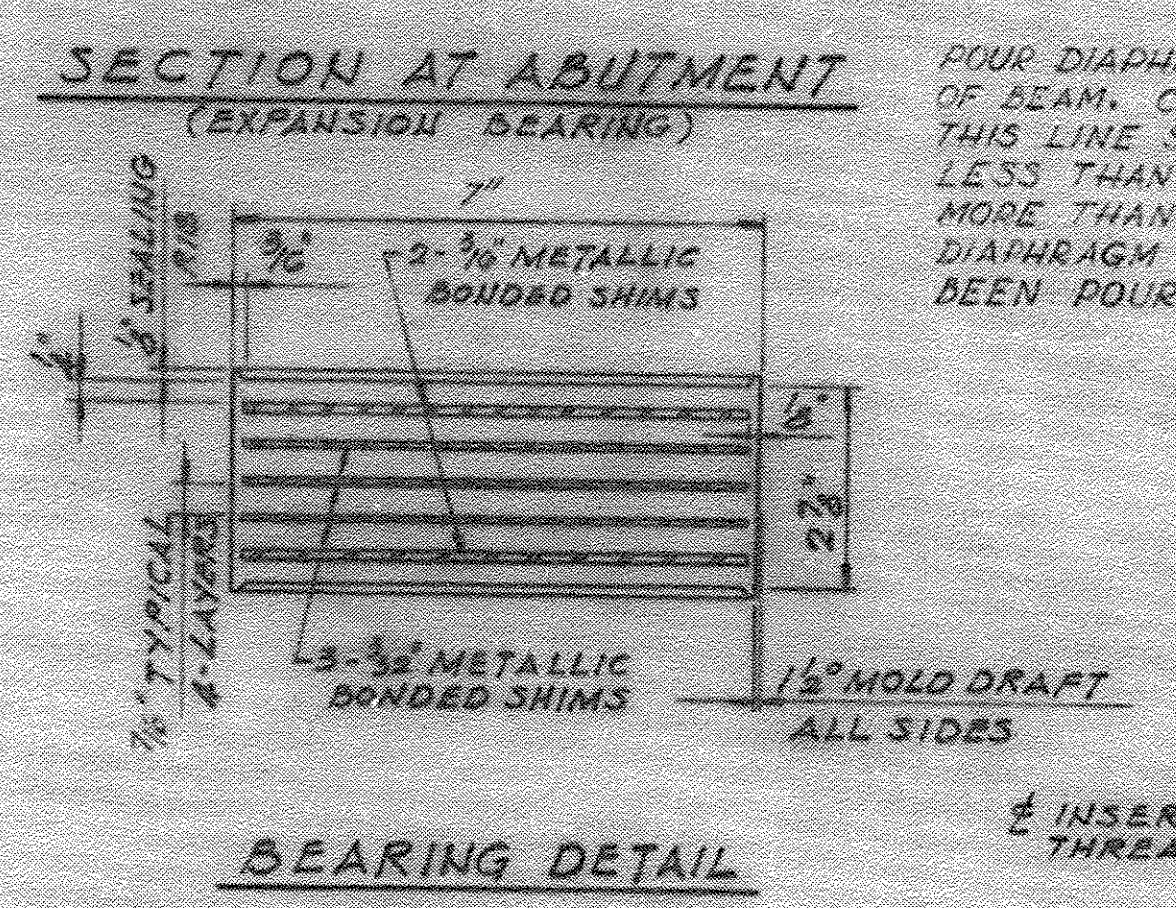
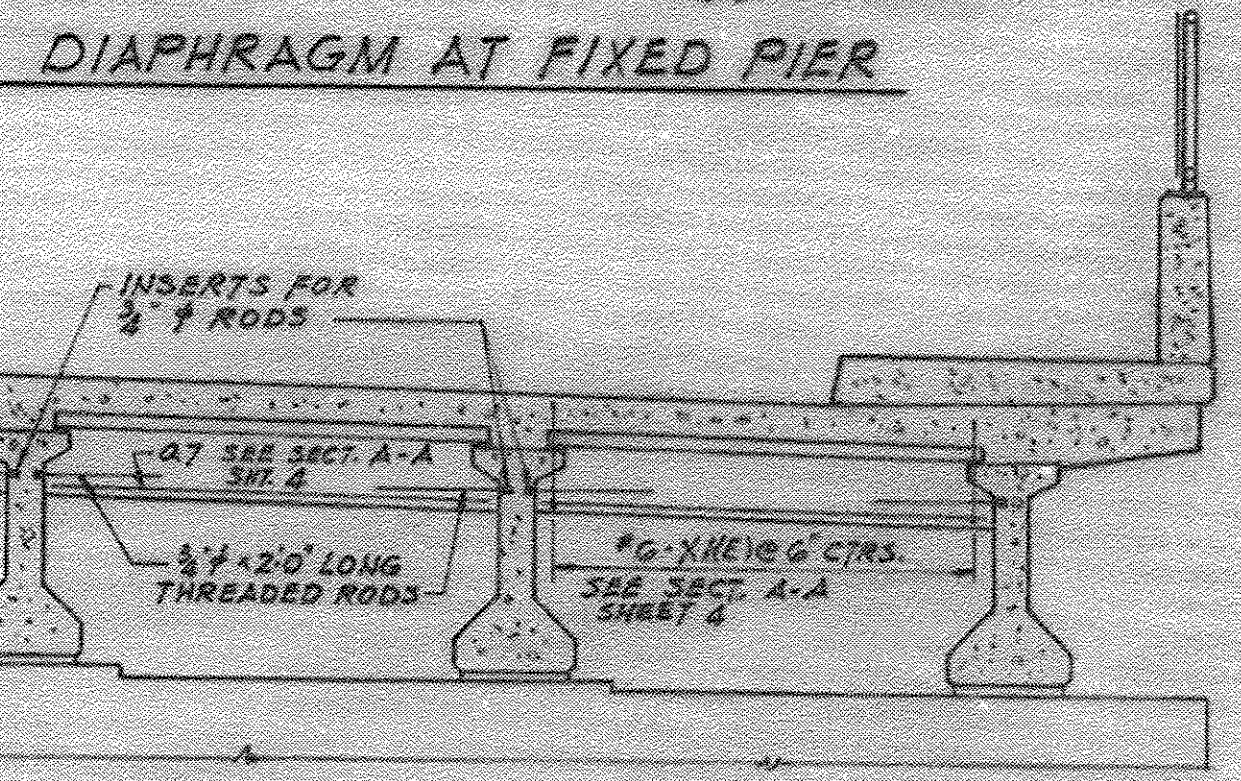
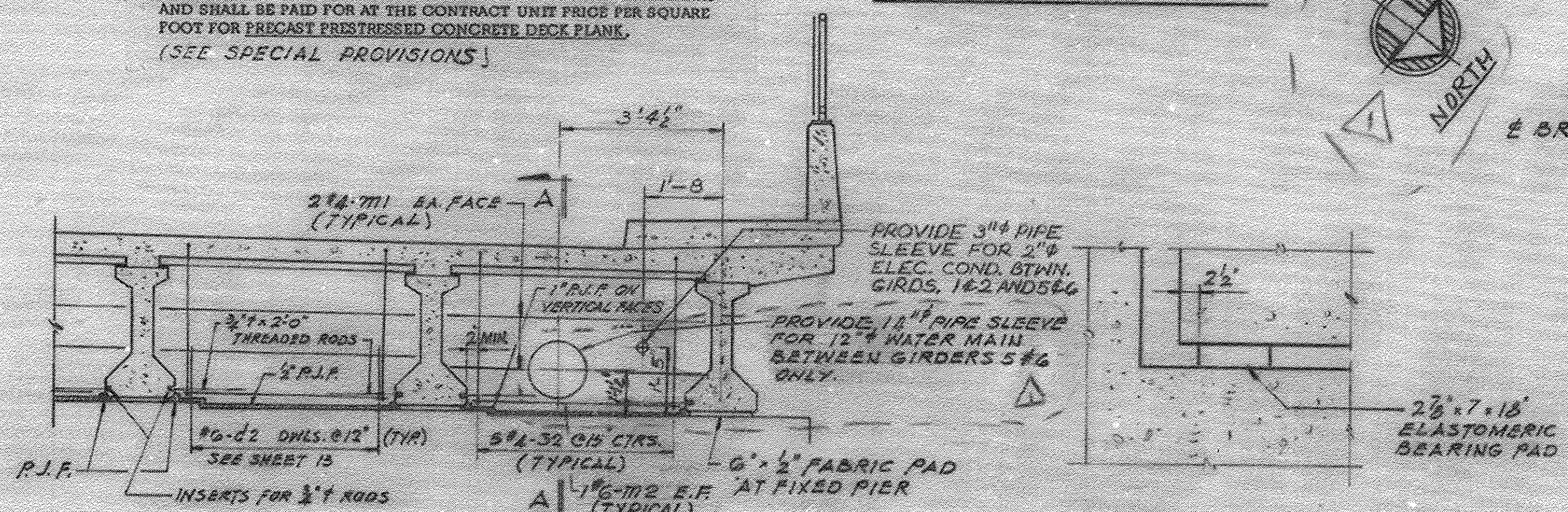
FILE NAME =	USER NAME =	DESIGNED =	REVISED =
0166953_043_Exist4.dgn	eship	MJF	-
PLOT SCALE =	CHECKED =	EFJ	-
2/19/2013	RMC	EFJ	-
	REVISOR =		
	DATE =		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	96
ILLINOIS FED. AID PROJECT			CONTRACT NO. 63817	





PRECAST PRESTRESSED DECK PLANKS SHALL BE MEASURED BY THE SQUARE FOOT OF HORIZONTAL SURFACE OF THE INDIVIDUAL PLANKS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT FOR PRECAST PRESTRESSED CONCRETE DECK PLANK. (SEE SPECIAL PROVISIONS)



**PPC I BEAM FRAMING PLAN**  
 BROWN AVE.  
 OVER NORTH SHORE CHANNEL  
 OF METROPOLITAN SANITARY DISTRICT  
 OF GREATER CHICAGO  
 EVANSTON, ILLINOIS  
 STATION 100+00.00

REVISION NOV. 28, 1978  
**ALFRED BENESCH & COMPANY**  
 CONSULTING ENGINEERS  
 JOB NO. 016-6953  
 233 N. MICHIGAN AVE., CHICAGO, ILLINOIS

**benesch**  
 engineers · scientists · planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = eshtp	DESIGNED - MJF	REVISED -
0166953.044.Exist5.dgn	PLOT SCALE =	CHECKED - EFS	REVISED -
	PLOT DATE = 2/19/2013	DRAWN - RMG	REVISED -
		CHECKED - EFS	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

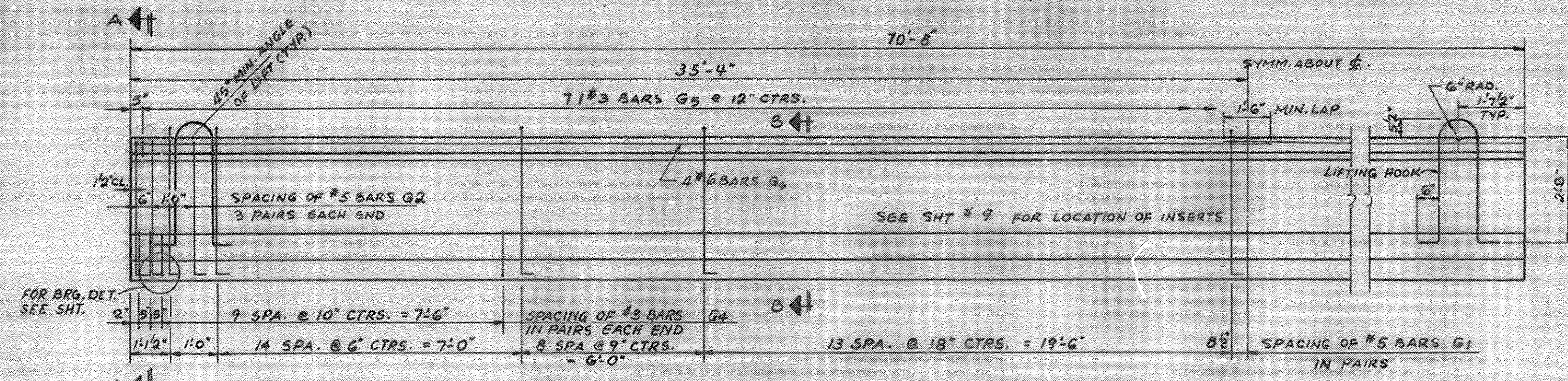
EXISTING DRAWING 5  
 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	97
				CONTRACT NO. 63817
ILLINOIS FED. AID PROJECT				

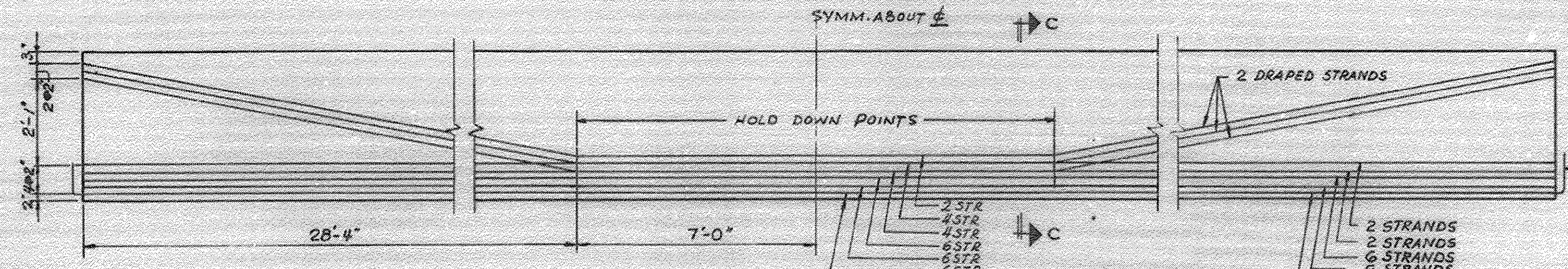
FOR INFORMATION ONLY

X:\10000\S\10055.02\Eng\_Docs\_Phase\_II\Bridge-Street\_016-6953\Final\0166953\_044\_Exist5.dgn 2/19/2013 2:59:57 PM

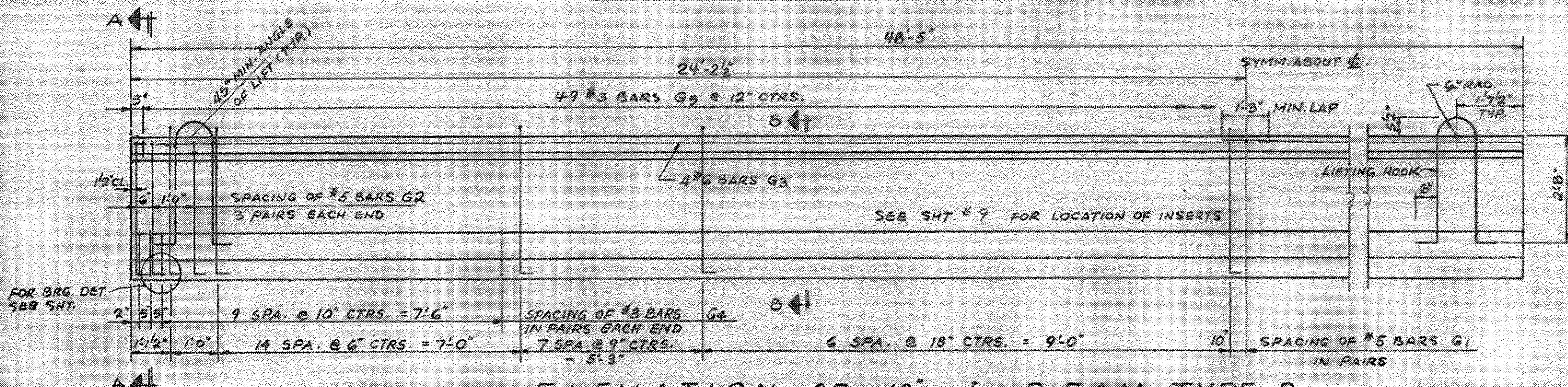




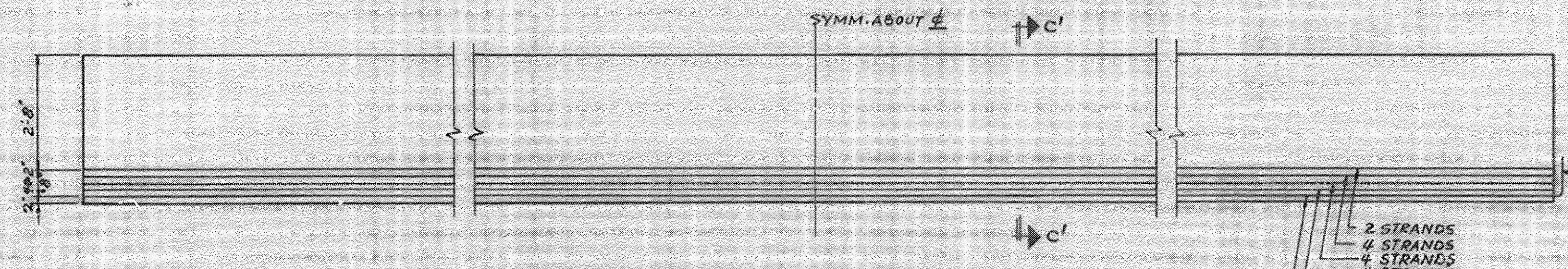
ELEVATION OF 42" I-BEAM-TYPE A  
SHOWING REINFORCEMENT & DIMENSIONS



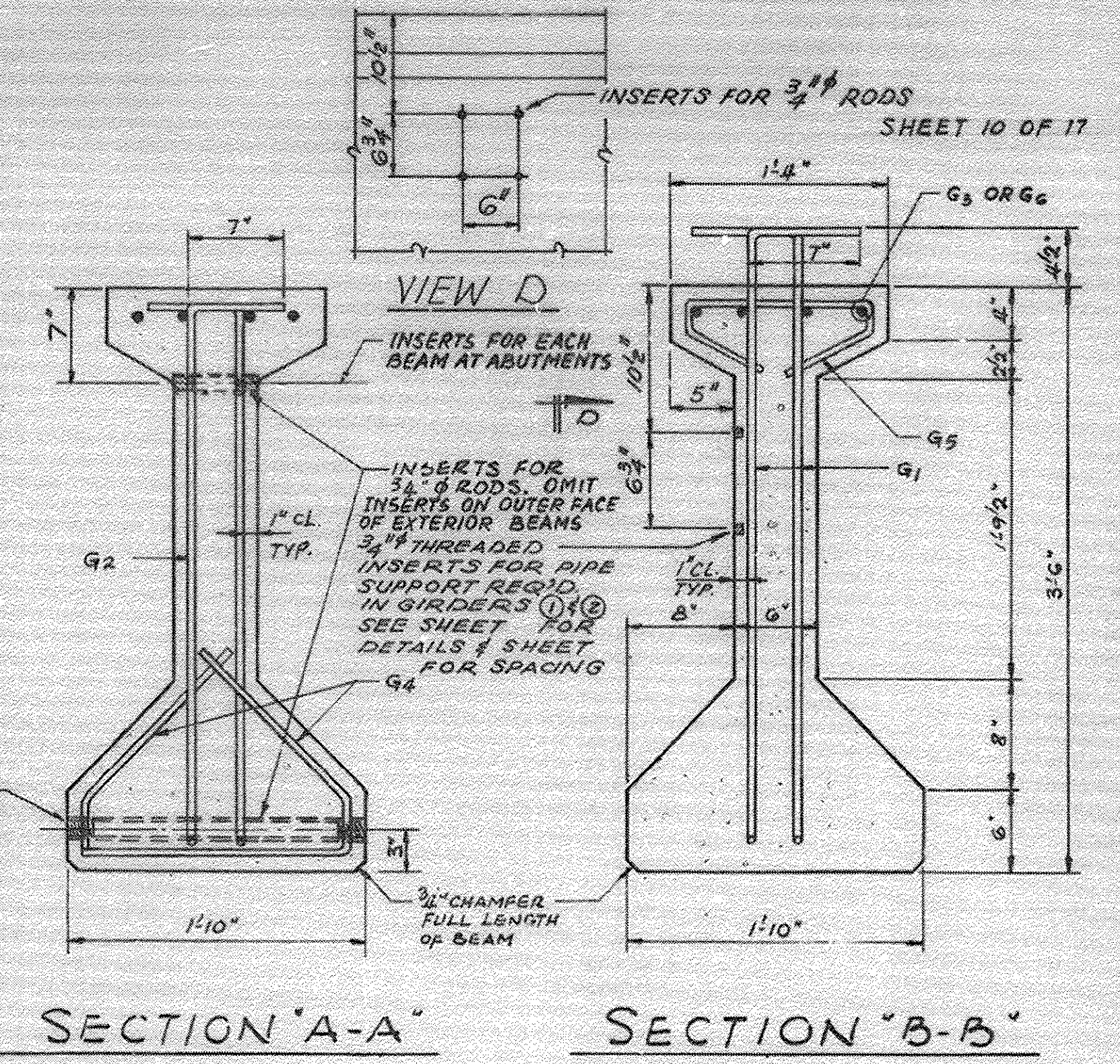
ELEVATION OF 42" I-BEAM-TYPE A  
SHOWING PRESTRESSING STEEL



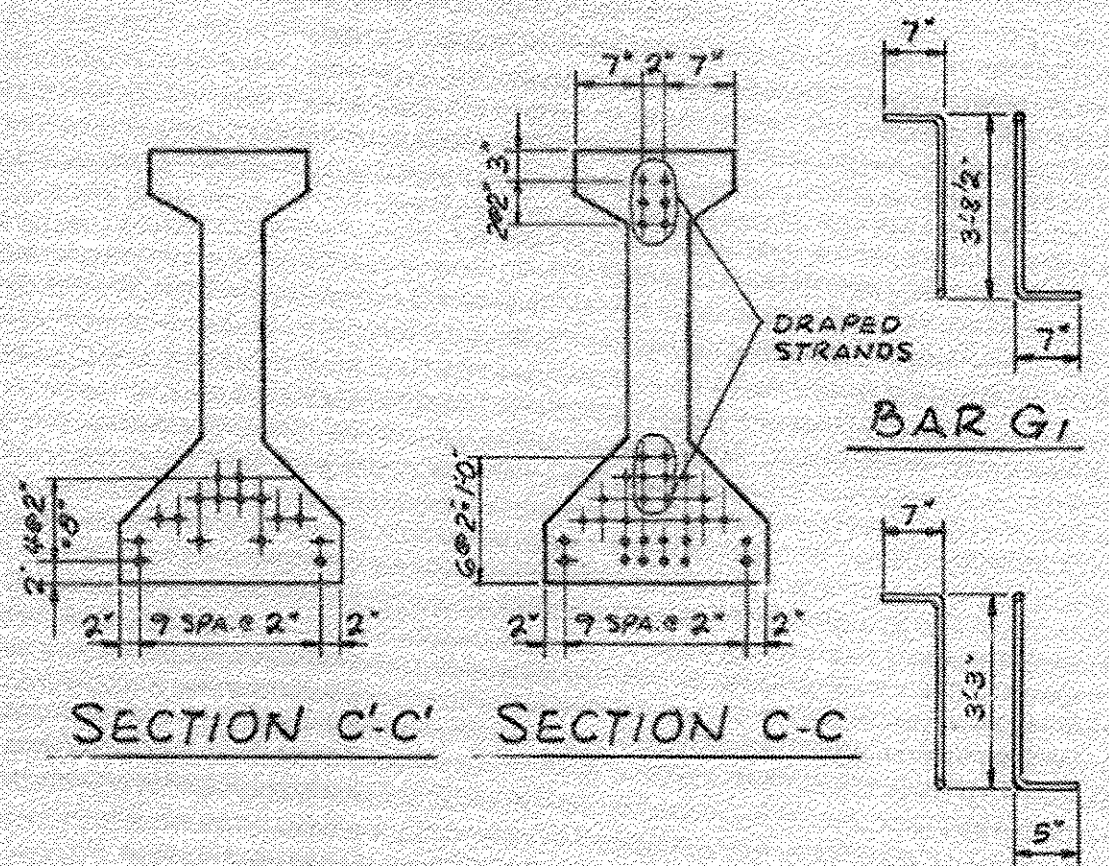
ELEVATION OF 42" I-BEAM-TYPE B  
SHOWING REINFORCEMENT & DIMENSIONS



ELEVATION OF 42" I-BEAM-TYPE B  
SHOWING PRESTRESSING STEEL



SECTION 'A-A' SECTION 'B-B'



SECTION C-C' SECTION C-C

BAR LIST (FOR ONE BEAM ONLY)

BAR	NUMBER	SIZE	LENGTH	SHAPE
G1	148	#5	4-10 1/2	7L
G2	12	#5	4-9	7L
G3	8	#6	25-0	—
G4	48	#3	3-3/2	L
G5	71	#3	2-7	U
G6	4	#6	36-0	—

NOTES

ALL INSERTS AND THREADED RODS FOR INSERTS, REINFORCING AND PRESTRESSING STEEL, AND OTHER ITEMS WHICH ARE CAST INTO THE PRECAST CONCRETE I-BEAMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE PER LINEAL FOOT OF "FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42 IN."  
 PRESTRESSING STEEL SHALL HAVE A NOMINAL DIAMETER OF 1/2" INSERTS FOR 3/4" DIAMETER THREADED RODS ARE TO BE TWO STRUT, COIL TYPE FOR INTERIOR I-BEAMS AND SINGLE COIL, FLARED LOOP TYPE FOR EXTERIOR I-BEAMS.  
 STEEL FOR LIFTING HOOKS SHALL BE NON-DEFORMED BARS Fy = 40,000 PSI.

BAR G1 BAR G2 BAR G4 BAR G5

BILL OF MATERIAL

ITEM	UNIT	TOTAL
FURNISHING & ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 42"	LIN. FT.	1,005

PRESTRESSED I-BEAM (42") DETAILS

BROWN AVE.  
 OVER NORTH SHORE CHANNEL  
 OF METROPOLITAN SANITARY DISTRICT  
 OF GREATER CHICAGO  
 EVANSTON, ILLINOIS  
 STATION 100+00.00

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 JOB NO.  
 235 N. MICHIGAN AVE., CHICAGO, ILLINOIS

**benesch**  
 engineers · scientists · planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME	USER NAME	DESIGNED	REVISIONS
0166953.045_Exist6.dgn	ashup	MJF	-
		EFS	-
		RMG	-
		EFS	-

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

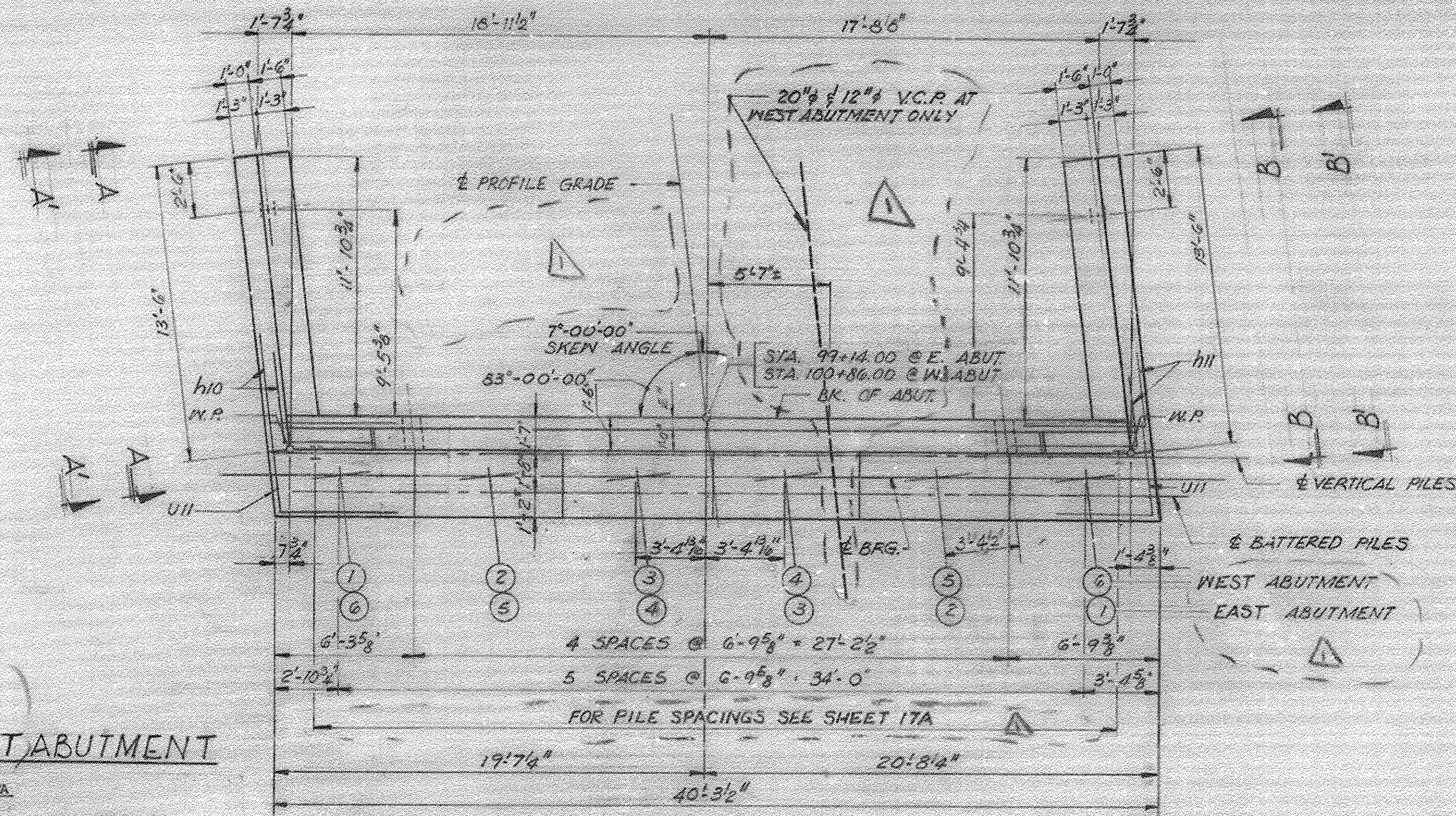
EXISTING DRAWING 6  
 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
 SHEET NO. S45 OF S50 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	98
				CONTRACT NO. 63817
ILLINOIS FED. AID PROJECT				

FOR INFORMATION ONLY

X:\100005\10055.02\Eng\_Docs\Phase\_II\Bridg...Street.016-6953\Final\0166953.045\_Exist6.dgn 2:54:24 PM 2/19/2013



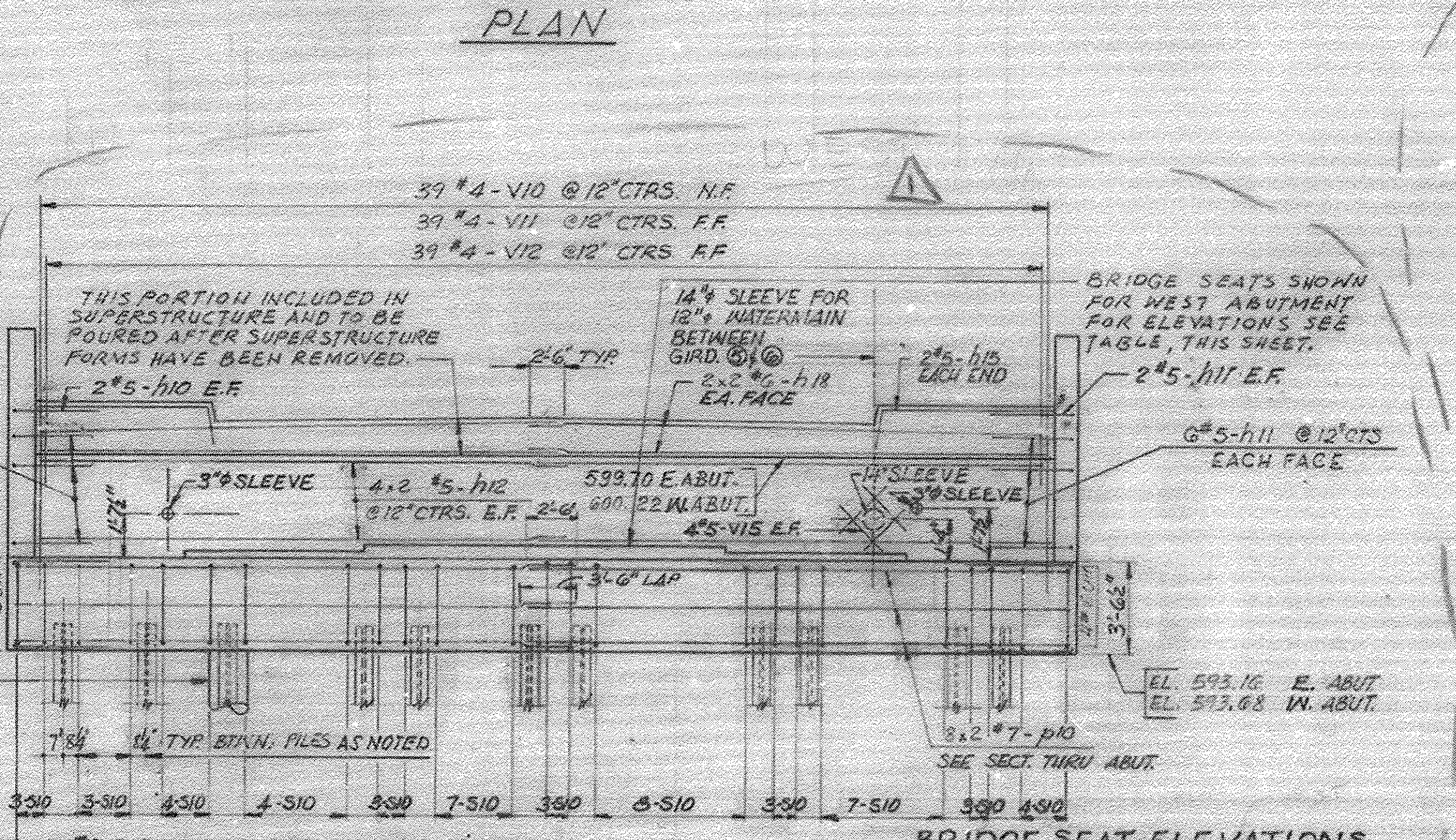


**EAST ABUTMENT**

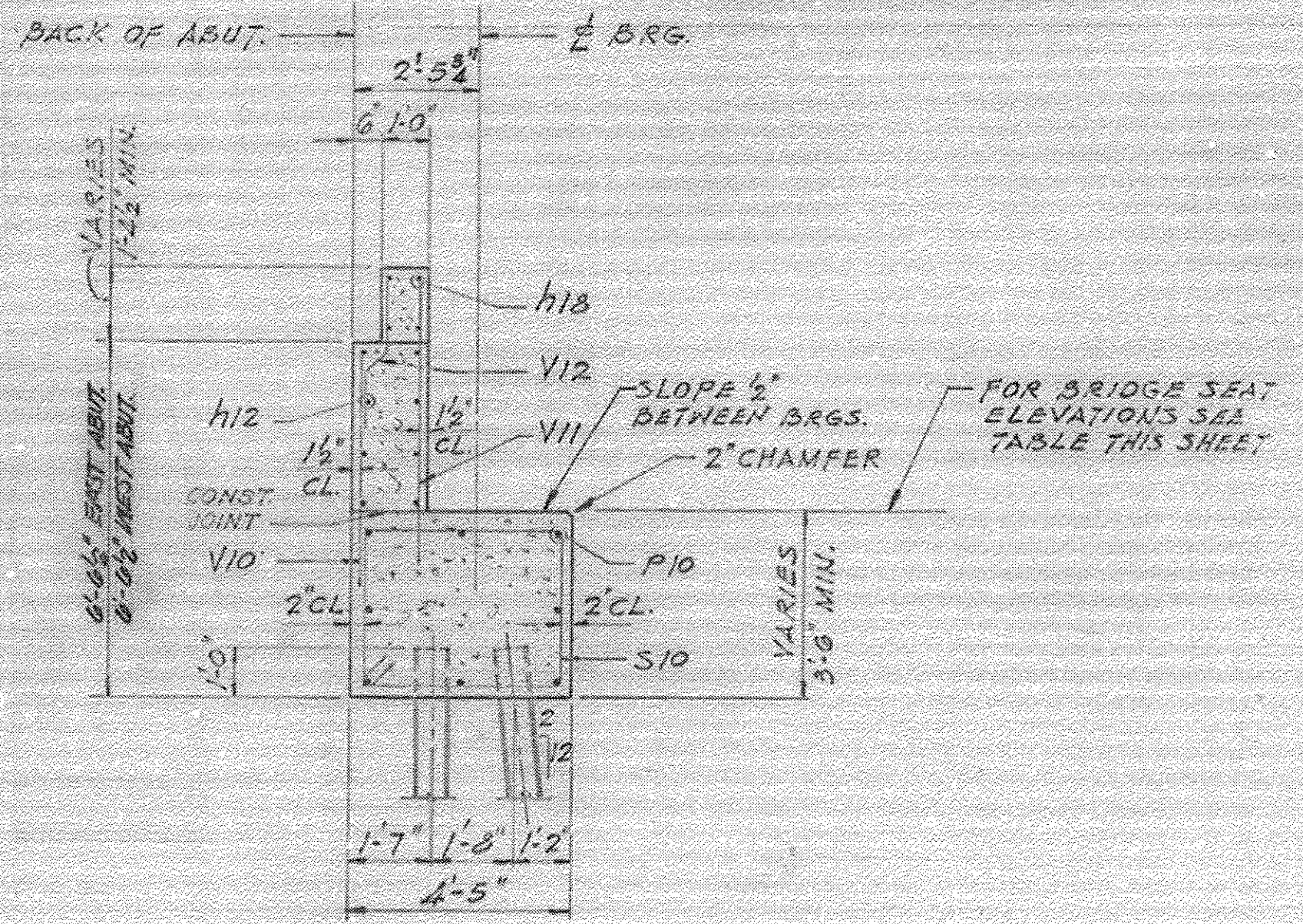
FILE DATA  
 TYPE HP 10 x 42  
 CAPACITY 45 T  
 EST. LENGTH 77 FT.  
 NO. REQUIRED 13\*

**WEST ABUTMENT**

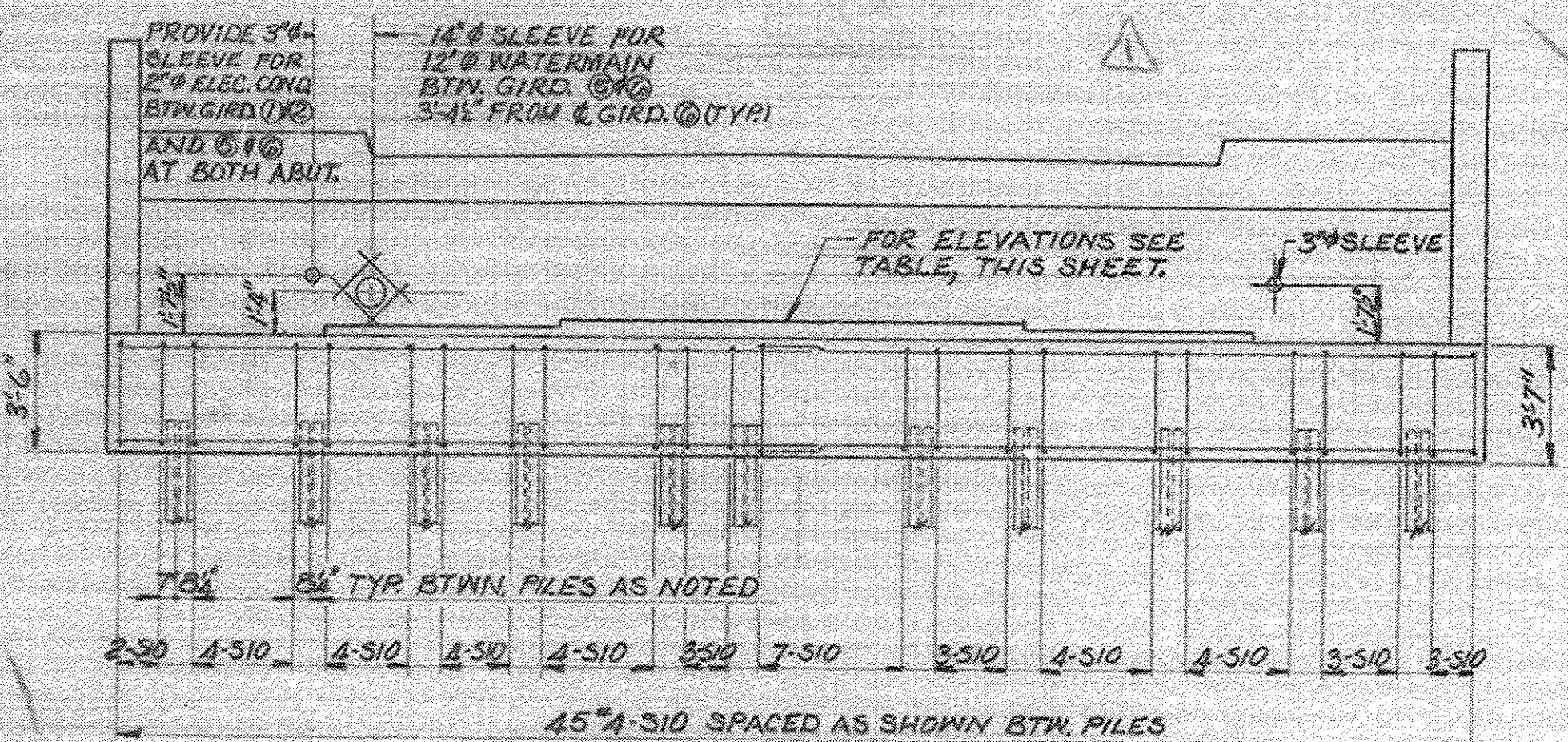
FILE DATA  
 TYPE HP 10 x 42  
 CAPACITY 45 T  
 EST. LENGTH 74 FT.  
 NO. REQUIRED 13\*



**ELEVATION-WEST ABUT.**



**SECTION THRU ABUTMENT**



**ELEVATION-EAST ABUT.**

**BRIDGE SEAT ELEVATIONS**

BRIDGE NO.	INSTR.	DATE	ELEVATION
1	596.74	597.13	
2	596.73	597.29	
3	596.90	597.41	
4	596.90	597.41	
5	596.78	597.32	
6	596.66	597.22	

**ABUTMENT**  
**BROWN AVE.**  
**OVER NORTH SHORE CHANNEL**  
**OF METROPOLITAN SANITARY DISTRICT**  
**OF GREATER CHICAGO**  
**EVANSTON, ILLINOIS**  
**STATION 100+00.00**

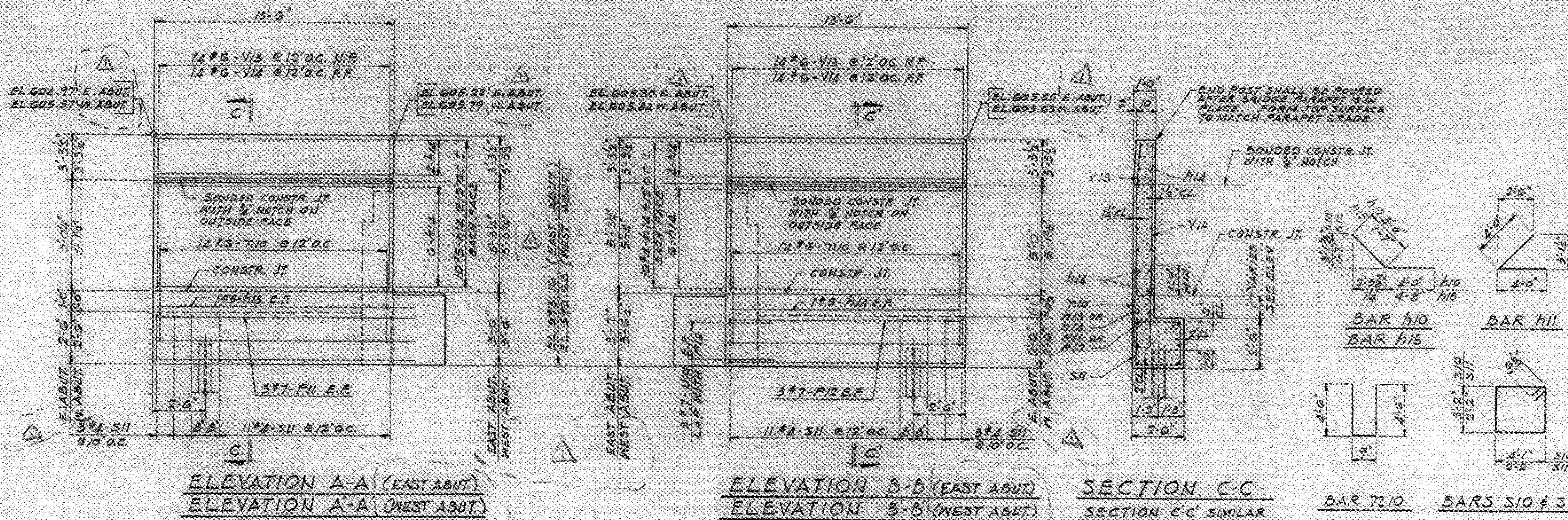
REVISION NOV. 28, 1978

FILE NAME =	USER NAME = eship	DESIGNED - MJF	REVISED -
0166953.046.Exist7.dgn		CHECKED - EFS	REVISED -
		DRAWN - RMC	REVISED -
		CHECKED - EFS	REVISED -

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	99
			CONTRACT NO. 63817	
ILLINOIS FED. AID PROJECT				

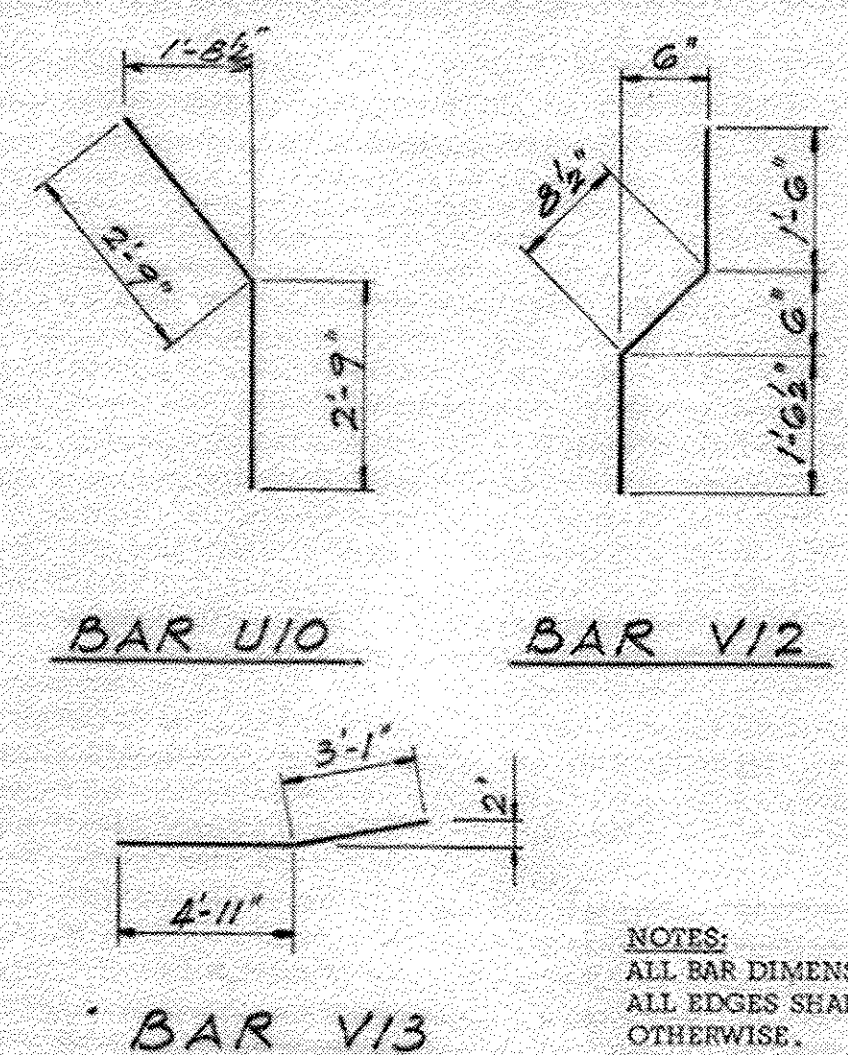
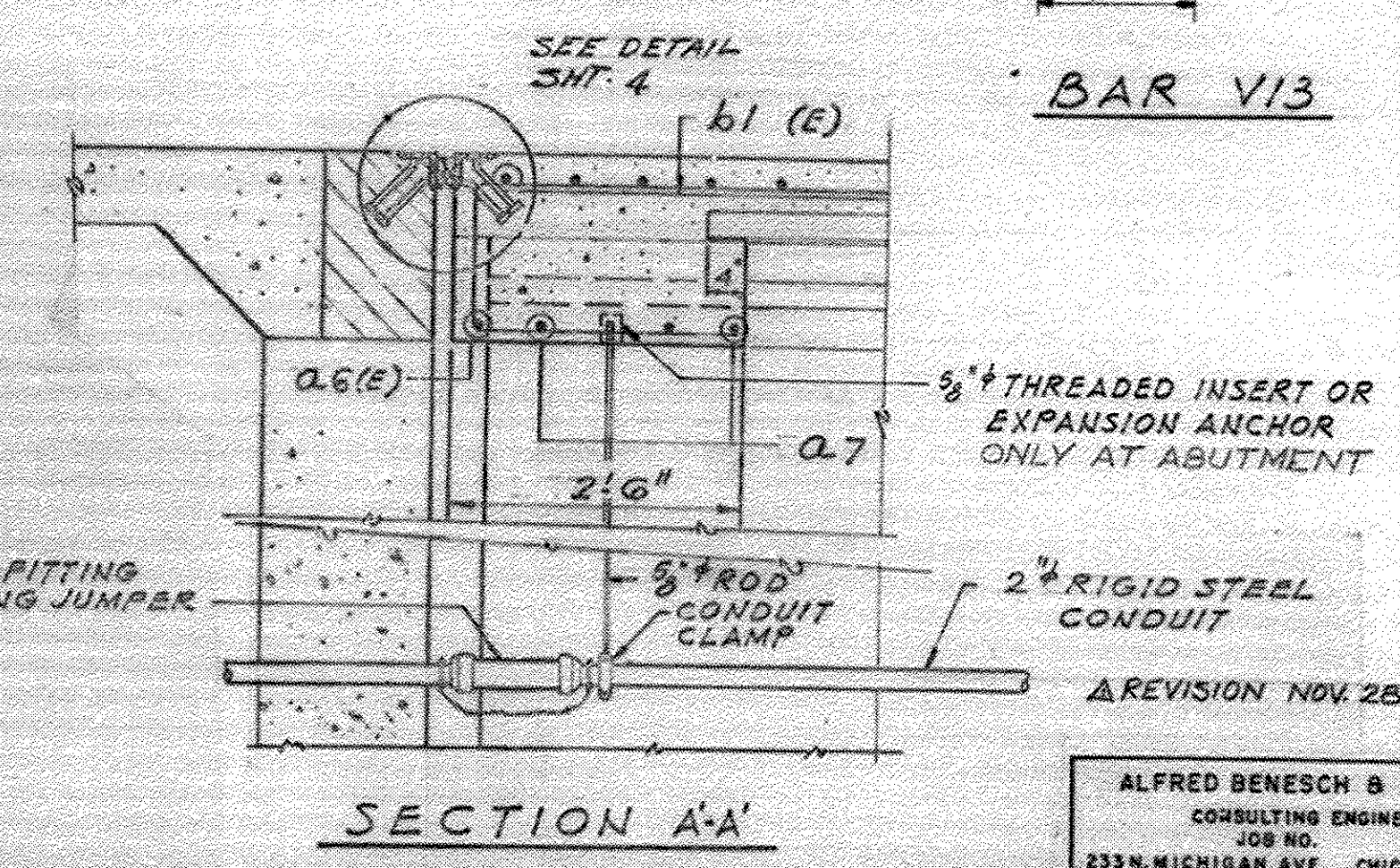
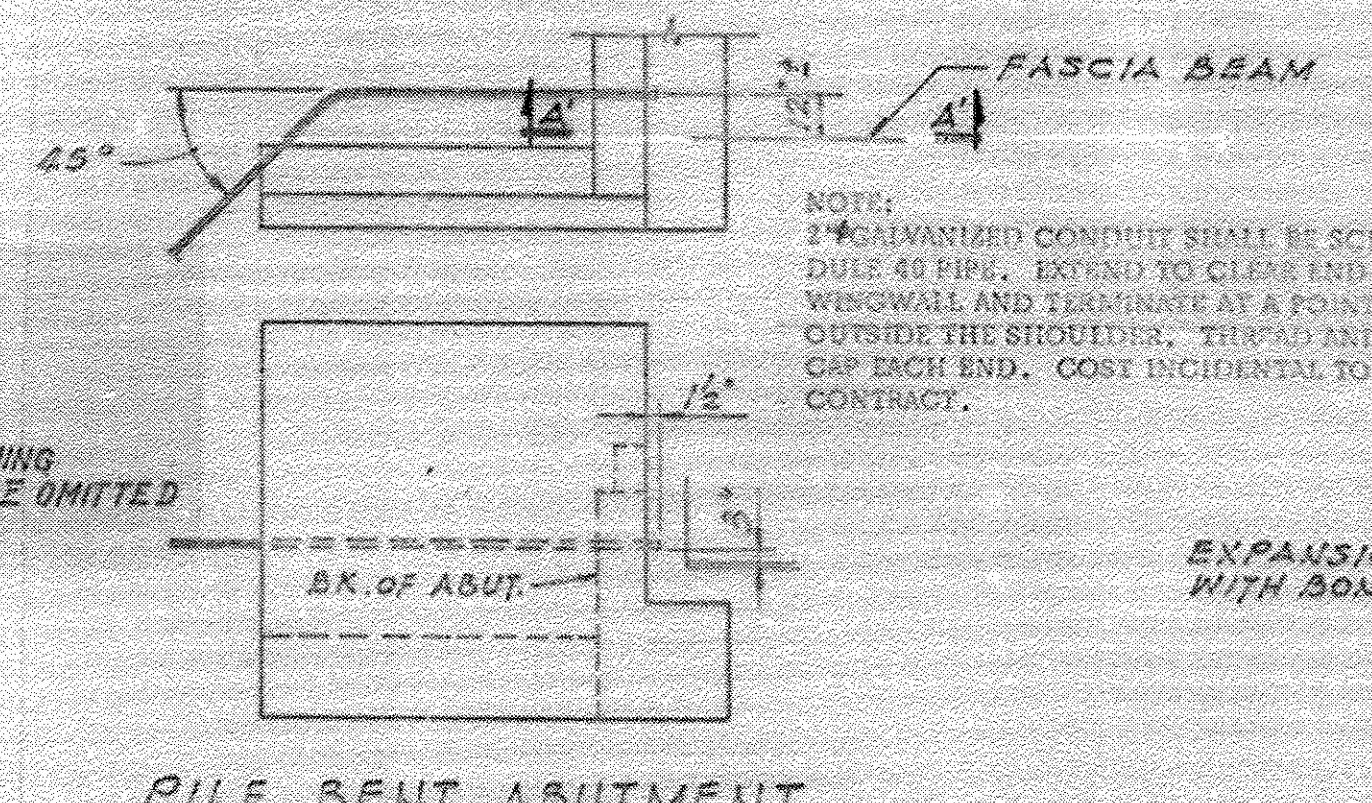
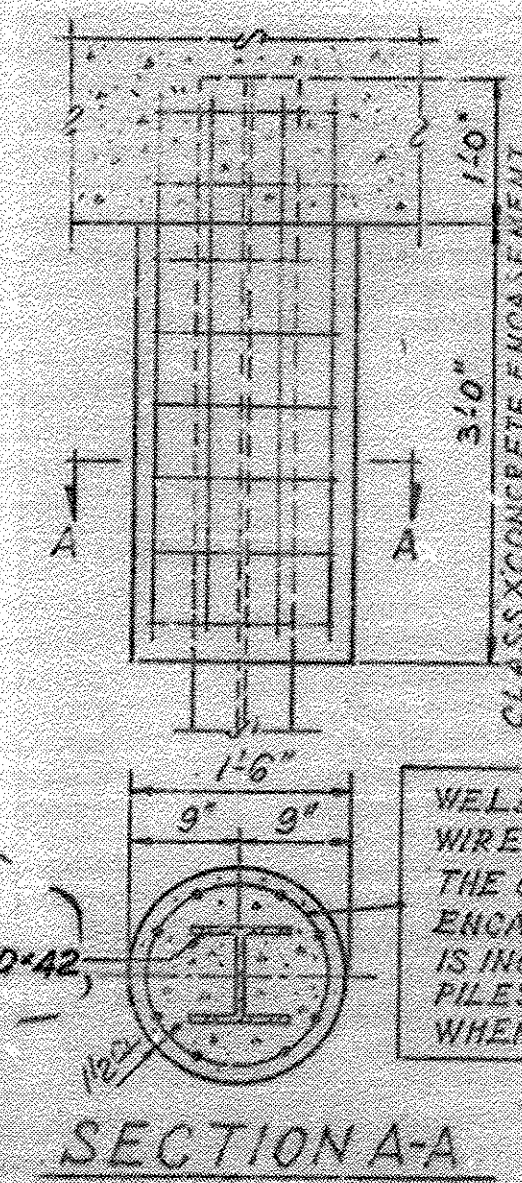
X:\100005\10055.02\Eng\_Docs\_Phase\_11\Bridge-Street\_016-6953\Final\0166953.046.Exist7.dgn 2:54:51 PM 2/19/2013





**BILL OF MATERIAL**

BAR	NUMBER REQ'D	SIZE	LENGTH	SHAPE
h10	14	#5	8'-0"	—
h11	14	#5	8'-0"	—
h12	10	#5	25'-3"	—
h13	2	#5	13'-6"	—
h14	42	#5	13'-2"	—
h15	4	#5	6'-3"	—
h18	8	#6	25'-6"	—
710	28	#6	9'-9"	U
P10	16	#7	26'-9"	—
P11	6	#7	15'-0"	—
P12	6	#7	11'-2"	—
S10	40	#4	15'-7"	□
S11	26	#4	9'-9"	□
U10	6	#7	5'-6"	—
U11	8	#6	11'-0"	—
V10	49	#4	5'-0"	—
V11	49	#4	6'-6"	—
V12	49	#4	3'-9"	—
V13	28	#6	8'-0"	—
V14	28	#6	8'-1"	—
<b>ITEM</b>		<b>TOTAL</b>		
REINFORCING BARS	LBS.	5,090	5,140	
CLASS X CONCRETE	CUYDS	44.3	44.3	
STEEL PILES (HP10#2)	LIN. FT.	924	888	
STEEL TEST PILE	EACH	1	1	



**NOTES:**  
 ALL BAR DIMENSIONS ARE OUT TO OUT.  
 ALL EDGES SHALL HAVE STANDARD 3/4" CHAMFERS, EXCEPT AS NOTED OTHERWISE.  
 BARS INDICATED THUS: 38 x 4 #5-b ETC., INDICATE 38 LINES OF BARS WITH 4 BAR LENGTHS PER LINE.

**ABUTMENT DETAILS**  
 BROWN AVE.  
 OVER NORTH SHORE CHANNEL  
 OF METROPOLITAN SANITARY DISTRICT  
 OF GREATER CHICAGO  
 EVANSTON, ILLINOIS  
 STATION 100+00.00

ALFRED BENESCH & COMPANY  
 CONSULTING ENGINEERS  
 233N. MICHIGAN AVE. CHICAGO, ILLINOIS

REVISION NOV. 28, 1978

**benesch**  
 engineers · scientists · planners  
 Alfred Benesch & Company  
 205 North Michigan Avenue, Suite 2400  
 Chicago, Illinois 60601  
 312-565-0450 Job No. 10055.02

FILE NAME =	USER NAME = esthp	DESIGNED = MJF	REVISED =
0166953_047_Exist8.dgn	PLOT SCALE =	CHECKED = EFS	REVISED =
	PLOT DATE = 2/19/2013	DRAWN = RMG	REVISED =
		CHECKED = EFS	REVISED =

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

EXISTING DRAWING 8  
 STRUCTURE NO. 016-6953 BRIDGE ST. OVER THE NORTH SHORE CHANNEL  
 SHEET NO. 547 OF 550 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00251-00-BR	COOK	118	100
			CONTRACT NO. 63817	
[ILLINOIS] FED. AID PROJECT				

FOR INFORMATION ONLY

X:\100005\10055.02\Eng-Phase-II\Brdge-Street-016-6953\Final\0166953\_047\_Exist8.dgn 2:55:21 PM 2/19/2013