

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID PROJECT
BRIDGE REPLACEMENT**

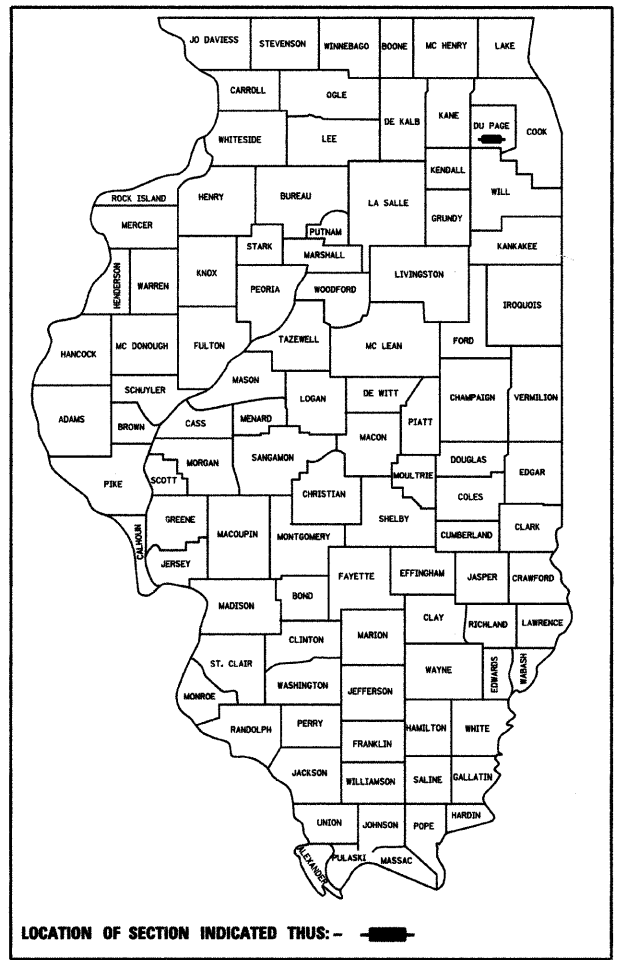
FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROJECT LOCATED IN:
CITY OF NAPERVILLE**

TRAFFIC DATA
JEFFERSON ADT: 7,800 (2001)
12,663 (2023)
DESIGN SPEED: 26 MPH
POSTED SPEED: 25 MPH BY ORDINANCE

**DESIGN DESIGNATION:
URBAN COLLECTOR**

**FAU ROUTE 3570
JEFFERSON AVENUE OVER WEST
BRANCH OF DUPAGE RIVER
BRIDGE REPLACEMENT, ROADWAY RECONSTRUCTION
SECTION 00-00116-00-BR
PROJECT BRM-8003 (032)
DUPAGE COUNTY
C-91-138-01**

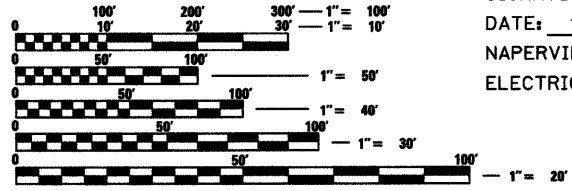


Craig A. Lukowicz
DATE 7/14/09
CRAIG A. LUKOWICZ
ILLINOIS REGISTERED PROFESSIONAL ENGINEER NO. 62-041788
MY LICENSE EXPIRES ON 11/30/2009



SIGNATURE: *D.B.G.*
DATE: 7/15/09 EXP: 11/30/09
NAPERVILLE DPU-ELECTRIC
ELECTRICAL PLANS FROM 56/106 TO 85/106

SCALE: PLAN 1"=20'
PROFILE HORIZ. 1"=20'
PROFILE VERT. 1"=5'

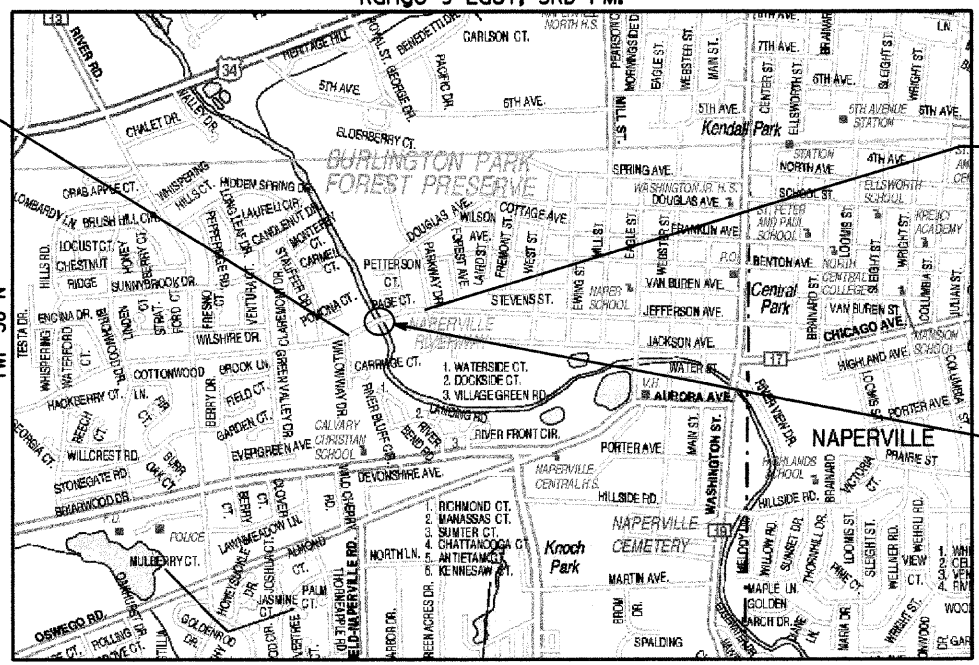


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

JEFFERSON AVE
PROJECT BEGINS
STA. 5 + 43.04

JEFFERSON AVE.
PROJECT ENDS
STA. 14 + 48.29



LOCATION MAP
TOTAL AND NET LENGTH OF PROJECT = 905 L. FT. = 0.17 MILES
APPROXIMATE MAP SCALE: 1" = 1500'

JEFFERSON BRIDGE OVER WEST
BRANCH DUPAGE RIVER
STRUCTURE NO. 022-3026 (EXIST.)
022-6756 (PROP.)

THE IMPROVEMENT CONSISTS OF
BRIDGE REMOVAL AND REPLACEMENT
CARRYING JEFFERSON AVENUE OVER
THE WEST BRANCH OF DUPAGE RIVER,
ROADWAY RECONSTRUCTION OF
JEFFERSON AVENUE FROM WILLOWAY
DRIVE TO PARKWAY DRIVE AND ALL
INCIDENTAL AND COLLATERAL WORK
AS NECESSARY TO COMPLETE THE
IMPROVEMENT SHOWN HEREIN AND
AS DESCRIBED IN THE SPECIFICATIONS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED July 14, 2009
William J. Frank
CITY OF NAPERVILLE

PASSED July 16, 2009
Christina Heit
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW July 16, 2009
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

POLICY STATEMENT:
THESE PLANS WERE DEVELOPED USING THE FEDERAL AID PROCEDURES FOR LOCAL
HIGHWAY IMPROVEMENTS.

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OF THE STATE OF ILLINOIS**

CONSULTING
ENGINEERS
SCIENTISTS
& LAND
SURVEYORS

Bollinger, Lach & Associates, Inc.
333 Pierce Road, Suite 200 Itasca, Illinois 60143
630 438 6400 FAX 630 438 6444
www.bollingerlach.com

CONTRACT NO. 83827

FIELD ENGINEER: MARILYN SOLOMON (847) 705-4407

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	2
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED UTILITY FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE CITY OF NAPERVILLE.

THE CONTRACTOR SHALL PROTECT THE CITY OF NAPERVILLE'S DEPARTMENT OF PUBLIC UTILITIES UNDERGROUND CABLES THROUGHOUT THE PROJECT LIMITS.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON THE STATE OR CITY OF NAPERVILLE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT AND THE CITY.

BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL. ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR (4) SANDBAGS PER BARRICADE.

WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

FOR STRUCTURAL GENERAL NOTES, SEE STRUCTURAL PLANS.

DRAINAGE STRUCTURE STATIONS, OFFSETS AND RIM ELEVATIONS ARE GIVEN TO THE EDGE OF PAVEMENT FOR STRUCTURES IN THE GUTTER AREA.

THE COST OF THE PROPOSED STORM SEWERS AND PIPE TEE SHALL INCLUDE THE COST FOR MAKING THE CONNECTIONS TO THE EXISTING STORM SEWERS INCLUDING CONCRETE COLLARS.

THE CONTRACTOR SHALL TRANSITION CURB AND GUTTERS AND SIDEWALKS TO MEET EXISTING AT THE LIMITS OF THE PROJECT. THE COST OF ANY TRANSITION SHALL BE INCLUDED IN THE COST OF THE RELATED ITEM OF CONSTRUCTION.

THE CONTRACTOR SHALL NOTE THE PRESENCE OF THE LIGHT STANDARDS IDENTIFIED ON THE 'EXISTING CONDITIONS' PLAN. THE CONTRACTOR, AT HIS/HER OPTION, MAY REMOVE, STORE AND RE-ERECT LIGHT STANDARDS THAT ARE IN CONFLICT WITH HIS NORMAL OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE CITY OF NAPERVILLE, DEPARTMENT OF PUBLIC UTILITIES IN WRITING SEVEN (7) DAYS PRIOR TO REMOVAL FOR ANY REQUIREMENTS REGARDING REMOVAL, STORAGE AND RE-ERECTION. PRIOR TO REMOVAL OF ANY EQUIPMENT THE CONTRACTOR SHALL ARRANGE AN INVENTORY INSPECTION WITH THE ENGINEER. THIS OPTION AND ASSOCIATED REQUIREMENTS WILL NOT BE CAUSE FOR ADDITIONAL COMPENSATION. ANY DAMAGE TO THESE LIGHT STANDARDS BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED, AS DIRECTED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

ALL COMPENSATORY STORAGE SHALL BE OPERATIONAL PRIOR TO PLACEMENT OF FILL, STRUCTURES, OR OTHER MATERIALS IN THE REGULATORY FLOOD PLAIN. GRADING IN SPECIAL MANAGEMENT AREAS SHALL BE DONE IN SUCH A MANNER THAT THE EXISTING FLOOD PLAIN STORAGE IS MAINTAINED AT ALL TIMES.

THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL AND DEBRIS FROM THE SITE.

THE CITY OF NAPERVILLE AND THE NAPERVILLE PARK DISTRICT - SHALL BE NAMED AS ADDITIONAL INSURED ON ALL INSURANCE POLICIES, EXCEPT FOR WORKERS COMPENSATION.

THE CONTRACTOR SHALL MAINTAIN EXISTING STORM SEWER OUTFALLS TO THE RIVER. THE CONTRACTOR IS MADE AWARE THAT THERE IS EXISTING STORM SEWER OUTFALLS OF VARYING SIZE FROM 24-INCH TO 78-INCH DIAMETER PIPE. THE CONTRACTOR MUST PROVIDE ADEQUATE CAPACITY FOR THESE EXISTING PIPES THROUGH OR AROUND HIS CONSTRUCTION ACTIVITIES AT ALL TIMES. THE CONTRACTOR MUST SUBMIT HIS PROPOSED TEMPORARY DRAINAGE METHODS TO THE ENGINEER FOR APPROVAL PRIOR TO REMOVING OR OBSTRUCTING ANY EXISTING STORM SEWER OUTFALL. THIS WORK SHALL BE INCIDENTAL TO THE REPLACEMENT STORM SEWER COST.

THE CONTRACTOR SHALL NOTE THAT SHEETS 102-106 ARE DRAWN TO A DIFFERENT SCALE THAN THE REST OF THE PLAN SET.

ALL SIDEWALK RAMPS SHALL BE TYPE B RAMPS.

CANOEIST/KAYAKERS: THE CONTRACTOR SHALL INSTALL TWO ADVISORY SIGNS FOR THE CANOEISTS/KAYAKERS AS SHOWN IN THE DETOUR PLAN. ONE SIGN SHALL BE PLACED APPROXIMATELY 150 FT. UPSTREAM OF THE CENTERLINE OF JEFFERSON AVENUE BRIDGE AND THE OTHER SIGN SHALL BE INSTALLED APPROXIMATELY 200 FT. DOWNSTREAM OF THE CENTERLINE OF JEFFERSON AVENUE BRIDGE AS DIRECTED BY THE ENGINEER. THESE SIGNS WILL BE PROVIDED BY THE CITY OF NAPERVILLE. IN ADDITION TO THESE SIGNS, THE CONTRACTOR MAY BE REQUIRED TO INSTALL TRAIL BLAZER SIGNS AS DIRECTED BY THE ENGINEER FOR THE SAFETY OF PORTAGERS.

A PORTAGE PATH ROUTE SHALL BE AS FOLLOWS:
THE CANOEIST/KAYAKERS SHALL EXIT THE WEST BRANCH DUPAGE RIVER WATERCOURSE ONTO THE WEST BANK OF THE RIVER AND ONTO THE WILLOW PARK PROPERTY TO PORTAGE THEIR WATERCRAFT AROUND THE WEST SIDE OF THE BRIDGE CONSTRUCTION AREA. THEY MUST THEN CROSS OVER JEFFERSON AVENUE AND PROCEED SOUTHWARDS INTO THE FIREMAN MEMORIAL PARK AND THEREFORE NECESSARILY INTO AND THROUGH THE CONSTRUCTION EASEMENT-WORK ZONE AREA OF THE PROJECT.

THE COST OF THE ABOVE WORK SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR.

CONTRACTOR TO MAINTAIN THE EXISTING STORM SEWER FLOW DURING CONSTRUCTION OF THE BRIDGE AND ROADWAY WORK. THIS WORK TO BE DONE TO THE SATISFACTION OF THE ENGINEER AND THE COST OF THIS WORK SHALL BE INCIDENTAL TO STORM SEWER INSTALLATION.

THE EXISTING "RIVERWALK" IS LOCATED ON THE SOUTH SIDE OF JEFFERSON AVENUE APPROXIMATELY AT STA. 9+00, WHICH IS OWNED BY THE CITY OF NAPERVILLE.

THE PROPOSED RIVERWALK EXTENDS BEYOND THE PROPOSED RIGHT OF WAY LINE IN ORDER TO MAINTAIN A MAXIMUM 5% LONGITUDINAL SLOPE AS PER "ADA" REQUIREMENT, HOWEVER, IT IS STILL WITHIN THE PROPERTY OWNED BY THE CITY OF NAPERVILLE.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF APPLICABLE TEMPORARY TRAFFIC CONTROL DEVICES.

INDEX OF SHEETS

SHEET NO.	DWG. NO.	DESCRIPTION			
1		TITLE SHEET	56-85		CITY OF NAPERVILLE ELECTRICAL PLANS
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3-5		SUMMARY OF QUANTITIES	87	TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS
6		SCHEDULE OF QUANTITIES	88	TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
7		TYPICAL SECTIONS	89		CITY OF NAPERVILLE STANDARD DETAILS
8		ALIGNMENT AND TIES	90-95		CROSS SECTIONS
9		DETOUR PLAN	96	W1.0	IMPACT PLAN (PLANNING RESOURCES)
10-11		EXISTING CONDITIONS	97-100	SD1.0-SD4.0	FIREMENS MEMORIAL PLANS (PLANNING RESOURCES)
12-13		PROPOSED PLAN AND PROFILE	101	L1.0	FIREMENS MEMORIAL LANDSCAPE PLAN (PLANNING RESOURCES)
14-18		EROSION CONTROL AND PROPOSED GRADING PLAN	102-106	L1-L5	BRETHREN PEACE PLAZA PLANS (SIGNATURE GROUP)
19-20		STRIPING PLAN			
21		PROPOSED LIGHTING PLAN			
22	S1	GENERAL PLAN			
23	S2	GENERAL NOTES, FOOTING LAYOUT AND TOTAL BILL OF MATERIAL			
24	S3	TOP OF SLAB ELEVATIONS			
25	S4	TOP OF SLAB ELEVATIONS			
26	S5	TOP OF SLAB ELEVATIONS			
27	S6	SUPERSTRUCTURE PLAN			
28	S7	SUPERSTRUCTURE CROSS SECTIONS			
29	S8	PEDESTRIAN SCREEN AND SIDEWALK			
30	S9	ABUTMENT DIAPHRAGM - TYPICAL			
31	S10	ABUTMENT DIAPHRAGM - NORTH END			
32	S11	SUPERSTRUCTURE DETAILS AND BAR LIST	000001-05		STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
33	S12	BRIDGE MOUNTED RAILING DETAILS	280001-04		TEMPORARY EROSION CONTROL SYSTEMS
34	S13	OFF-BRIDGE RAILING DETAILS	420001-07		PAVEMENT JOINTS
35	S14	DRAINAGE SCUPPER, DS-12	420401-07		BRIDGE APPROACH PAVEMENT CONNECTOR
36	S15	STRUCTURAL STEEL FRAMING PLAN	424001-05		CURB RAMPS FOR SIDEWALKS
37	S16	STRUCTURAL STEEL DETAILS	515001-03		NAME PLATE FOR BRIDGES
38	S17	ABUTMENT AND PIER BEARINGS	542101-02		REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS 375 mm (15") THRU 900 mm (36") DIA. AT RIGHT ANGLES WITH ROADWAY
39	S18	WEST ABUTMENT PLAN & ELEVATION	542311-01		GRATING FOR CONCRETE FLARED END SECTION (FOR 600mm (24") THRU 1300mm 54") PIPE
40	S19	WEST ABUTMENT DETAILS	601101-01		CONCRETE HEADWALL FOR PIPE DRAIN
41	S20	EAST ABUTMENT PLAN & ELEVATION	602301-02		INLET, TYPE A
42	S21	EAST ABUTMENT DETAILS	602306-02		INLET, TYPE B
43	S22	ABUTMENT DETAILS	602401-02		MANHOLE, TYPE A
44	S23	LOW FLOW WALKWAY	602701-02		MANHOLE STEPS
45	S24	PIERS 1 & 2	604001-03		FRAME AND LIDS TYPE 1
46	S25	BAR SPLICER ASSEMBLY DETAILS	604006-04		FRAME AND GRATE TYPE 3
47	S26	CANTILEVER FORMING BRACKET DETAILS	606001-04		CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
48	S27	SOIL BORING LOGS	664001-02		CHAIN LINK FENCE
49	S28	EXISTING STRUCTURE SOIL BORING LOGS	701701-06		URBAN LANE CLOSURE, MULTILANE INTERSECTION
50	S29	APPROACH PAVEMENT DETAILS	701801-04		LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
51	S30	OFF-BRIDGE PEDESTRIAN SCREEN	701901-01		TRAFFIC CONTROL DEVICES
52	S31	JUNCTION CHAMBER DETAILS			
53	S32	HEADWALL AND APRON DETAIL			
54	S33	BRIDGE APPROACH PAVEMENT DETAIL			
55	S34	BRIDGE APPROACH PAVEMENT DETAIL			

STATE STANDARDS

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REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05
PER NAPERVILLE	11/18/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS, LIST OF STATE
STANDARDS & GENERAL NOTES
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER

SCALE: NO SCALE
DATE: APRIL 6, 2009
DRAWN BY: BCD
CHECKED BY: HRT

CONTRACT NO. 83827				
F.A.I.I. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
3570 00-00116-00-BR	DUPAGE	106	3	
STA. TO STA.				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES		UNIT	TOTAL QTY.	CONSTRUCTION TYPE CODE				
CODE NO.	ITEM			80% FED / 20% CITY OF NAPERVILLE		100% CITY OF NAPERVILLE		
				ROADWAY	BRIDGE	LIGHTING	ELECTRIC	LANDSCAPING
				I000-2A	X071-2A	Y030-1E	Y030-1E	Y003
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	556	443				113
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	197	197				
20101000	TEMPORARY FENCE	FOOT	730	450				280
20101100	TREE TRUNK PROTECTION	EACH	43	43				
20200100	EARTH EXCAVATION	CU YD	1750	1750				
20200410	EARTH EXCAVATION (SPECIAL)	CU YD	70				70	
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	750		750			
20700420	POROUS GRANULAR EMBANKMENT, SUBGRADE	CU YD	50	50				
20800150	TRENCH BACKFILL	CU YD	713.3	713.3				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	2640	2640				
21101815	COMPOST FURNISH AND PLACE, 4"	SO YD	54					54
25000200	SEEDING CLASS 2	ACRE	0.01	0.01				
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	65	50			15	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	65	50			15	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	65	50			15	
25000920	SEEDING CLASS 1A (SPECIAL)	ACRE	0.25				0.25	
25100630	EROSION CONTROL BLANKET	SO YD	14.7	14.7				
25200110	SODDING, SALT TOLERANT	SO YD	2640	2640				
25200200	SUPPLEMENTAL WATERING	UNIT	27	27				
25200700	SODDING, (SPECIAL)	SO YD	200				200	
25400105	PERENNIAL PLANTS	EACH	366	50				316
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	12	12				
28000400	PERIMETER EROSION BARRIER	FOOT	727	727				
28000510	INLET FILTERS	EACH	5	5				
28100107	STONE RIPRAP, CLASS A4	SO YD	23	23				
28100111	STONE RIPRAP, CLASS A6	SO YD	184	184				
28200200	FILTER FABRIC	SO YD	207	207				
31101100	SUB-BASE GRANULAR MATERIAL, TYPE B	CU YD	385	385				
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	292	292				
40600300	AGGREGATE (PRIME COAT)	TON	6	6				
40600895	CONSTRUCTING TEST STRIP	EACH	1	1				
40701851	HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 8 1/2"	SO YD	2900	2900				
42001400	BRIDGE APPROACH PAVEMENT (SPECIAL)	SO YD	348	348				
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SO YD	270	270				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	4055	4055				
42400410	PORTLAND CEMENT CONCRETE SIDEWALK 8 INCH	SO FT	297	297				
42400800	DETECTABLE WARNINGS	SO FT	136	136				
44000100	PAVEMENT REMOVAL	SO YD	3768	3768				
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	134	134				
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1560	1560				
44000600	SIDEWALK REMOVAL	SO FT	4765	4765				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	32				32	
44002000	CONCRETE CURB REMOVAL	FOOT	186	186				
44004610	SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SO FT	300				300	
44201000	CLASS B PATCHES TYPE IV 12 INCHES	SO YD	100				100	
44201796	CLASS D PATCHES TYPE IV 12 INCHES	SO YD	100				100	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1				1	
50200100	STRUCTURE EXCAVATION	CU YD	1694				1694	
50300225	CONCRETE STRUCTURES	CU YD	561.5				561.5	

* SPECIALTY ITEMS

SUMMARY OF QUANTITIES		UNIT	TOTAL QTY.	CONSTRUCTION TYPE CODE				
CODE NO.	ITEM			80% FED / 20% CITY OF NAPERVILLE		100% CITY OF NAPERVILLE		
				ROADWAY	BRIDGE	LIGHTING	ELECTRIC	LANDSCAPING
				I000-2A	X071-2A	Y030-1E	Y030-1E	Y003
50300255	CONCRETE SUPERSTRUCTURE	CU YD	301.6	18.0	283.6			
50300260	BRIDGE DECK GROOVING	SO YD	581		581			
50300280	CONCRETE ENCASEMENT	CU YD	88				88	
50300300	PROTECTIVE COAT	SO YD	1300	317	983			
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1			
50500505	STUD SHEAR CONNECTORS	EACH	4536		4536			
50800105	REINFORCEMENT BARS	POUND	11500		11500			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	181300	1210	180090			
50800515	BAR SPLICERS	EACH	318		318			
50900810	PEDESTRIAN RAIL (SPECIAL)	FOOT	421		421			
50901755	PARAPET RAILING, (SPECIAL)	FOOT	85	85				
51500100	NAME PLATES	EACH	1		1			
51602000	PERMANENT CASING	FOOT	416		416			
51603000	DRILLED SHAFT IN SOIL	CU YD	131.1		131.1			
51604000	DRILLED SHAFT IN ROCK	CU YD	94.1		94.1			
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18		18			
52100520	ANCHOR BOLTS, 1"	EACH	36		36			
52100540	ANCHOR BOLTS, 1 1/2"	EACH	36		36			
54213669	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"	EACH	1	1				
54216220	REINFORCED CONCRETE PIPE TEE, 36" PIPE WITH 12" RISER	EACH	1	1				
54247130	GRATING FOR CONCRETE FLARED END SECTION 24"	EACH	1	1				
550A0050	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	19	19				
550A0240	STORM SEWERS, CLASS A, TYPE 1 78"	FOOT	32	32				
550A0410	STORM SEWERS, CLASS A, TYPE 2 24"	FOOT	192	192				
55039700	STORM SEWERS TO BE CLEANED	FOOT	575	575				
55100500	STORM SEWER REMOVAL 12"	FOOT	83	83				
55101200	STORM SEWER REMOVAL 24"	FOOT	179	179				
55102400	STORM SEWER REMOVAL 78"	FOOT	75	75				
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	243		243			
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	26		26			
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	2		2			
60100905	PIPE DRAINS 4"	FOOT	20		20			
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1				
60226800	DROP MANHOLES, TYPE A1-1, 5' DIAMETER TYPE 1 FRAME CLOSED LID	EACH	1	1				
60228200	MANHOLES, SANITARY, WITH SPECIAL FRAME AND CLOSED LID	EACH	3	3				
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	3	3				
60240220	INLETS, TYPE B, TYPE 3 FRAME AND GRATE	EACH	2	2				
60247800	JUNCTION CHAMBER	EACH	1	1				
60255500	MANHOLES TO BE ADJUSTED	EACH	3	3				
60265700	VALVE VAULTS TO BE ADJUSTED	EACH	2	2				
60266600	VALVE BOXES TO BE ADJUSTED	EACH	1	1				
60500040	REMOVING MANHOLES	EACH	1	1				
60500060	REMOVING INLETS	EACH	5	5				
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1410	1410				
63200310	GUARDRAIL REMOVAL	FOOT	168	168				
66410300	CHAIN LINK FENCE REMOVAL	FOOT	28	28				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8				

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER

SCALE: NO SCALE DRAWN BY
DATE JULY 10, 2009 CHECKED BY HRT

V:\886_838 & 895_832 Jefferson Revisions BPCADD Sheets\SumofQuant.dgn
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SUMMARY OF QUANTITIES		UNIT	TOTAL QTY.	CONSTRUCTION TYPE CODE				
CODE NO.	ITEM			80% FED / 20% CITY OF NAPERVILLE		100% CITY OF NAPERVILLE		
				ROADWAY	BRIDGE	LIGHTING	ELECTRIC	LANDSCAPING
		1000-2A	X071-2A	Y030-1E	Y030-1E	Y003		
67100100	MOBILIZATION	L SUM	1	0.88			0.12	
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1				1	
70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1				
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1				
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1210	1210				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	290	290				
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	150	150				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	15	15				
* 78008210	POLYURA PAVEMENT MARKING, TYPE I - LINE 4"	FOOT	430	430				
* 81702500	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 4/C NO. 6	FOOT	52			52		
* 81900205	TRENCH AND BACKFILL FOR ELECTRICAL WORK (SPECIAL)	FOOT	10			10		
* 84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	4			4		
* 89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	850			850		
* C2C03424	SHRUB, HYDRANGEA ARBORESCENS ANNABELLE (ANNABELLE SMOOTH HYDRANGEA), 2' HEIGHT CONTAINER	EACH	42	42				
* C2C05824	SHRUB, RHUS AROMATICA GRO-LOW (GRO-LOW FRAGRANT SUMAC), 2' WIDTH, CONTAINER	EACH	45	45				
* C2006148	SHRUB, RHUS TYPHINA LACINIATA (CUTLEAF STAGHORN SUMAC), 4' HEIGHT, BALLED AND BURLAPPED	EACH	12				12	
* C2007218	SHRUB, ROSA KNOCKOUT (KNOCKOUT ROSE), 18" HEIGHT, CONTAINER	EACH	27				27	
* C2012136	SHRUB, VIBURNUM X JUDDII (JUDD VIBURNUM) 3' HEIGHT, BALLED AND BURLAPPED	EACH	3	3				
* C2012760	SHRUB, VIBURNUM PRUNIFOLIUM (BLACKHAW VIBURNUM), 5' HEIGHT, BALLED AND BURLAPPED	EACH	3	3				
* D2002788	EVERGREEN, PINUS NIGRA (AUSTRIAN PINE), 8' HEIGHT, BALLED AND BURLAPPED	EACH	5				5	
* D2003524	EVERGREEN, TAXUS X MEDIA DENSIFORMIS DENSE ANGLO-JAPANESE YEW), 2' WIDTH, BALLED AND BURLAPPED	EACH	5	5				
* K1005481	SHREDDED BARK MULCH, 3"	SQ YD	240	120			120	
* K1005875	TREE TRANSPLANT	EACH	4	4				
* X0320591	SANITARY MANHOLES TO BE REMOVED	EACH	1	1				
* X0321158	PARK BENCHES	EACH	1				1	
X0321297	REMOVE EXISTING SIGN POST	EACH	1	1				
X0321309	CONCRETE PAD	SQ YD	4	4				
X0322033	STORM SEWER (WATERMAIN REQUIREMENTS) 12"	FOOT	41	41				
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	103	103				
X0322671	STABILIZED CONSTRUCTION ENTRANCE	SQ YD	450	450				
X0322795	REMOVE AND RELOCATE EXISTING MONUMENT	EACH	1	1				
X0322917	PROPOSED STORM SEWER CONNECTION TO EXISTING MANHOLE	EACH	3	3				
X0323080	DRAINAGE SCUPPERS, DS-12	EACH	6		6			
X0323350	FURNISHING AND SETTING BRICK PAVERS	SQ FT	550	550				
X0323706	TRASH RECEPTACLE RELOCATION	EACH	1	1				
* X0840000	SANITARY SEWER REMOVAL 8"	FOOT	127	127				
X0974300	SIGN REMOVAL	EACH	1	1				
X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	4	4				
X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	1	1				
X4023000	TEMPORARY ACCESS (ROAD)	EACH	2	2				

SUMMARY OF QUANTITIES		UNIT	TOTAL QTY.	CONSTRUCTION TYPE CODE				
CODE NO.	ITEM			80% FED / 20% CITY OF NAPERVILLE		100% CITY OF NAPERVILLE		
				ROADWAY	BRIDGE	LIGHTING	ELECTRIC	LANDSCAPING
		1000-2A	X071-2A	Y030-1E	Y030-1E	Y003		
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1			
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1			
X5020503	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 3	EACH	1		1			
X5020504	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 4	EACH	1		1			
X7240600	REMOVE AND RE-ERECT EXISTING SIGN	EACH	3	3				
* X8161000	EXPOSE AND RELOCATE EXISTING UNIT DUCT	FOOT	10	10				
XX000406	BRICK PAVER REMOVAL AND REPLACEMENT	SQ FT	480	480				
XX000504	RESTORATION WORK	L SUM	1			1		
XX003435	PORTLAND CEMENT CONCRETE DRIVEWAY REMOVAL AND REPLACEMENT	SQ YD	102				102	
* K0026030	SHRUB REMOVAL	EACH	28	28				
* XX004809	UNDER BRIDGE CONDUIT SYSTEM	L SUM	1				1	
* XX005581	VIDEO TAPE	UNIT	1				1	
* XX005593	NEW SWITCH GEAR VAULT	EACH	1				1	
XX005594	FA-2 ENCASEMENT	CU YD	45				45	
XX005595	TRENCH BACKFILL CA-6	CU YD	165				165	
* XX005597	ROD AND MANDREL	FOOT	8000				8000	
* XX005598	ADDITIONAL GROUND ROD INSTALLATION	EACH	6				6	
* XX005600	COUNTERPOISE, UNPAVED	FOOT	400				400	
* XX005601	COUNTERPOISE, PAVED	FOOT	800				800	
* XX005602	HAND DIGGING 0FT TO 5FT IN PAVEMENT	CU YD	40				40	
* XX005603	HAND DIGGING 5FT TO 20FT IN PAVEMENT	CU YD	30				30	
* XX005604	HAND DIGGING 0FT TO 5FT IN UNPAVED AREAS	CU YD	40				40	
* XX005605	HAND DIGGING 5FT TO 20FT IN UNPAVED AREAS	CU YD	30				30	
* XX005606	MACHINE AIDED DIGGING 0FT TO 5FT IN PAVEMENT	CU YD	60				60	
* XX005608	MACHINE AIDED DIGGING 0FT TO 5FT IN UNPAVED AREAS	CU YD	60				60	
XX008161	REMOVE AND REINSTALL MODULAR CONCRETE PAVERS	SQ FT	208	208				
XX005896	CONCRETE PAD REMOVAL	SQ FT	36	36				
* XX005987	MACHINE AIDED DIGGING 5FT TO 20FT IN PAVEMENT	CU YD	30				30	
* XX005989	MACHINE AIDED DIGGING 5FT TO 20FT IN UNPAVED AREAS	CU YD	60				60	
* XX008162	MAINTAIN LIGHTING SYSTEM	L SUM	1	1				
XX006947	HOT MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT	SQ YD	102				102	
* XX007055	HANDHOLE-DEH6	EACH	1				1	
* XX007138	2 WAY-3" PVC DUCT BANK-1 HIGH BY 2 WIDE	FOOT	30				30	
* XX007141	2 WAY-6" PVC DUCT BANK-1 HIGH BY 2 WIDE	FOOT	90				90	
XX007594	MANHOLE INSTALLATION, TYPE "G"	EACH	2				2	
XX007595	MANHOLE INSTALLATION, TYPE "E"	EACH	1				1	
* XX007596	CONDUIT IN TRENCH TRANSISTION AND TRANSPOSING	EACH	2				2	
* XX007625	6 WAY 6-6" PVC DUCT BANK 2 HIGH BY 3 WIDE	FOOT	400				400	
* XX007627	8 WAY 6-6" & 2-3" PVC DUCT BANK 3 HIGH BY 3 WIDE	FOOT	150				150	
* XX007628	8 WAY 8-6" PVC DUCT BANK 3 HIGH BY 3 WIDE	FOOT	10				10	
* XX007629	9 WAY 9-6" PVC DUCT BANK 3 HIGH BY 3 WIDE	FOOT	60				60	
XX007747	PARK BENCH REMOVAL AND RELOCATION	EACH	2	2				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	0.88			0.12	

* SPECIALTY ITEMS

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER

SCALE: NO SCALE
DATE: JULY 10, 2009

DRAWN BY
CHECKED BY HRT

CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	5
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES		UNIT	TOTAL QTY.	CONSTRUCTION TYPE CODE				
				80% FED / 20% CITY OF NAPERVILLE			100% CITY OF NAPERVILLE	
				ROADWAY	BRIDGE	LIGHTING	ELECTRIC	LANDSCAPING
CODE NO.	ITEM		1000-2A	X071-2A	Y030-1E	Y030-1E	Y003	
Z0015500	DEBRIS REMOVAL	L SUM	1	1				
Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	3	3				
Z0022800	FENCE REMOVAL	FOOT	25	25				
Z0054400	ROCK FILL	CU YD	262		262			
Z0062000	SAW CUTTING	FOOT	8	8				
X5428878	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 78" (SPECIAL)	EACH	1	1				
* K0039111	CHAENOMELES SPECIOSA 'TEXAS SCARLET', 18"C	EACH	40					40
XX008136	HDPE SANITARY SEWER BEND, 45 DEGREE, 3"	EACH	2	2				
K1004490	PINEBARK FINES MULCH	CU YD	3					3
XX008137	PROVIDE AND INSTALL DOUBLE BANNER POLE	EACH	1					1
* XX008138	RELOCATE EXISTING METAL LIGHT POLE FOUNDATION	EACH	4	4				
XX008139	REMOVE AND RELOCATE EXISTING MEMORIAL STONE	L SUM	1	1				
XX008140	REMOVE AND RELOCATE EXISTING PLAQUE	EACH	1	1				
K1004600	REMOVE PERENNIALS	EACH	40	40				
* A2008140	TILIA CORDATA 'GREENSPIRE', 5.0"	EACH	1					1
* XX008141	STANDOFF RISER ASSEMBLY 6"	EACH	1			1		
* XX008142	10 WAY 8-6" & 2-3" PVC DUCT BANK-4 HIGH BY 3 WIDE	FOOT	170			170		
* XX008143	9 WAY 7-6" & 2-3" PVC DUCT BANK-2 HIGH BY 7 WIDE	FOOT	10			10		
* XX008144	4 WAY 2-3" & 2-6" PVC DUCT BANK-2 HIGH BY 2 WIDE	FOOT	20			20		
20200205	ROCK EXCAVATION (SPECIAL)	CU YD	50			50		
* XX008145	SANITARY FORCEMAIN REMOVAL, 3"	FOOT	214	214				
* XX008146	SANITARY SEWER, HDPE FORCEMAIN, 3"	FOOT	105	105				
* XX008147	SANITARY SEWER, PVC SDR 21, 8"	FOOT	137	137				
* K1004610	SEASONAL ANNUALS	SQ FT	67					67
* XX008148	UNIT DUCT WITH 4/C NO. 6 (XLP-TYPE USE), DIRECTIONAL BORING, 1/4"	FOOT	863	863				
* K0040350	WALDSTENIA FRAGARIOIDES, 3" POT	EACH	480	480				
* XX008149	ROUGH GRADING	SQ YD	100					100
* K1004700	ACCENT BOULDER, 30"	EACH	2					2
* XX008160	DECORATIVE LIGHTING SYSTEM COMPLETE	L SUM	1					1
XX008159	PORTLAND CEMENT CONCRETE BAND FOR PAVER BRICKS	FOOT	56	56				
X6060150	CONCRETE CURB 6", REINFORCED	FOOT	206	206				

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
SCALE: NO SCALE
DATE: JULY 10, 2009
DRAWN BY
CHECKED BY HRT

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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	6
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TREE REMOVAL (6-15 UNITS DIAMETER)				
NO.	STATION	OFFSET	DIAMETER (INCHES)	QUANTITY (UNITS)
1	6+60	57' R	14	14
2	6+71	85' R	14	14
3	6+72	87' R	14	14
4	6+78	84' R	10	10
5	6+80	91' R	12	12
6	6+91	76' R	12	12
7	6+94	92' R	12	12
8	7+03	82' R	14	14
9	7+04	93' R	12	12
10	8+34	28' R	14	14
11	8+34	28' R	14	14
12	8+38	30' R	10	10
13	8+53	21' R	12	12
14	8+57	36' R	10	10
15	8+60	40' R	10	10
16	8+60	40' R	10	10
17	8+63	35' R	10	10
18	8+65	3' R	12	12
19	8+70	57' L	14	14
20	8+71	78' R	10	10
21	8+73	80' R	12	12
22	8+73	78' R	8	8
23	8+75	13' R	8	8
24	8+75	13' R	8	8
25	8+75	13' R	8	8
26	8+75	13' R	8	8
27	8+81	71' R	14	14
28	8+84	75' R	10	10
29	8+88	71' R	10	10
30	6+45	31' R	6	6
31	6+64	38' R	6	6
32	7+04	92' R	7	7
33	8+40	22' R	6	6
34	8+35	32' R	6	6
35	8+40	31' R	6	6
36	8+73	17' R	6	6
37	8+73	17' R	6	6
38	8+83	19' R	6	6
39	8+83	19' R	6	6
40	8+53	37' R	6	6
41	8+53	37' R	6	6
42	6+72	54' L	6	6
43	6+74	40' L	7	7
44	6+74	40' L	7	7
45	6+74	40' L	7	7
46	6+79	43' L	5	5
47	6+87	50' L	12	12
TOTAL =				443

TREE REMOVAL (OVER 15 UNITS DIAMETER)				
NO.	STATION	OFFSET	DIAMETER (INCHES)	QUANTITY (UNITS)
1	6+24	37' R	20	20
2	6+32	58' R	20	20
3	6+49	33' R	26	26
4	6+63	34' R	26	26
5	6+73	17' R	17	17
6	7+00	85' R	17	17
7	8+58	18' R	16	16
8	8+89	70' R	16	16
9	9+85	10' R	22	22
10	11+38	21' R	17	17
TOTAL =				197

TREE TRUNK PROTECTION		
NO.	STATION	OFFSET
1	5+65	49' R
2	6+13	87' R
3	6+28	74' R
4	6+47	87' R
5	6+71	56' L
6	6+79	97' R
7	6+80	102' R
8	6+86	100' R
9	6+91	103' R
10	6+95	100' R
11	8+37	76' L
12	8+41	89' R
13	8+41	71' L
14	8+42	74' L
15	8+43	68' L
16	8+44	71' L
17	8+46	90' R
18	8+47	78' R
19	8+47	68' L
20	8+49	75' R
21	8+56	64' R
22	8+58	59' R
23	8+59	47' R
24	8+61	50' R
25	8+64	46' R
26	8+66	47' R
27	8+69	96' R
28	8+79	95' R
29	8+92	67' L
30	8+99	83' R
31	9+01	55' R
32	9+06	41' R
33	9+38	51' L
34	10+27	44' L
35	10+61	41' L
36	12+09	24' R
37	12+45	25' R
38	12+60	32' L
39	12+78	26' R
40	13+21	27' R
41	13+61	27' R
42	13+72	29' L
43	13+98	28' R

EARTHWORK						
STATION		UNSUITABLE EXCAVATION (CU YD)	EARTH EXCAVATION (CU YD)	EMBANKMENT (CU YD)	ADJ. EXCAVATION (15%) (CU YD)	BALANCE WASTE (+) OR SHORTAGE (-) (CU YD)
FROM	TO					
5+43.04	6+87.21	14.2	558.2	100.2	474.5	364.3
8+41.93	14+48.29	47.5	1191.9	473.9	1013.1	539.2
TOTAL =		61.7	1750.1	584.1	1487.6	903.5

SANITARY SEWER SCHEDULE							
PIPE NO.	PIPE LOCATION		DESCRIPTION	DIAMETER (INCHES)	LENGTH (FEET)	SLOPE	TBF (CY)
	FROM STRUCTURE	TO STRUCTURE					
1		1	PVC SDR-21	8	15	4.87%	31.1
2	1	2	PVC SDR-21	8	32	4.63%	64.0
3	2	3	PVC SDR-21	8	70	4.93%	119.5
4	3		PVC SDR-21	8	20	4.17%	28.3
5*			HDPE	3	105	4.24%	

* FORCE MAIN

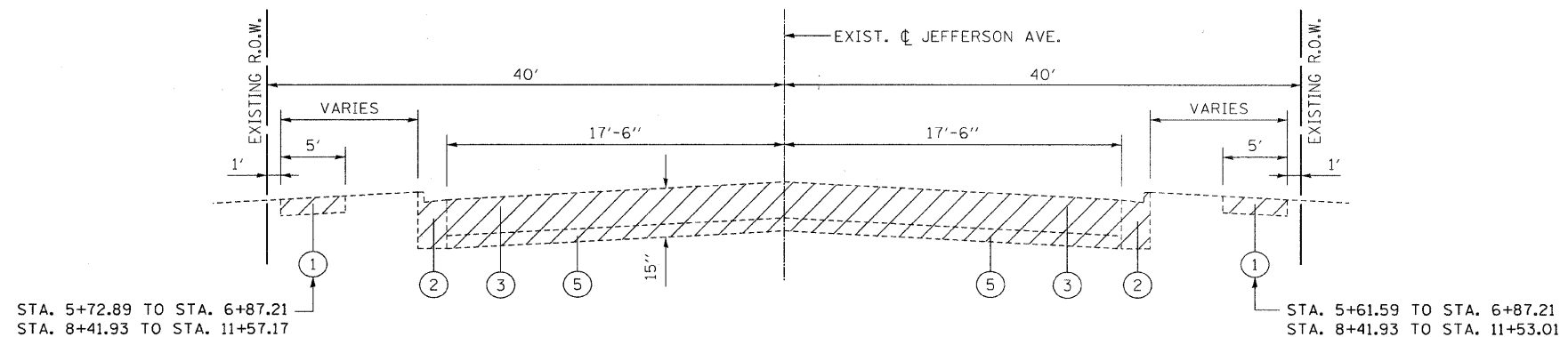
SANITARY STRUCTURE TABLE							
NO.	STATION	OFFSET	INVERT ELEV.				RIM ELEV.
			(N)	(S)	(E)	(W)	
1	8+59	55' LT	671.83		672.03		686.16
2	8+92	54' LT		673.71		673.51	687.55
3	9+06	15' RT	677.16		677.36		687.48

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF QUANTITIES
 JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER

SCALE: NO SCALE
 DATE: APRIL 6, 2009
 DRAWN BY: BCD
 CHECKED BY: HRT

CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	7
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



EXISTING JEFFERSON AVENUE
 STA. 5+43.04 TO STA. 6+57.21
 STA. 8+71.93 TO STA. 14+48.29

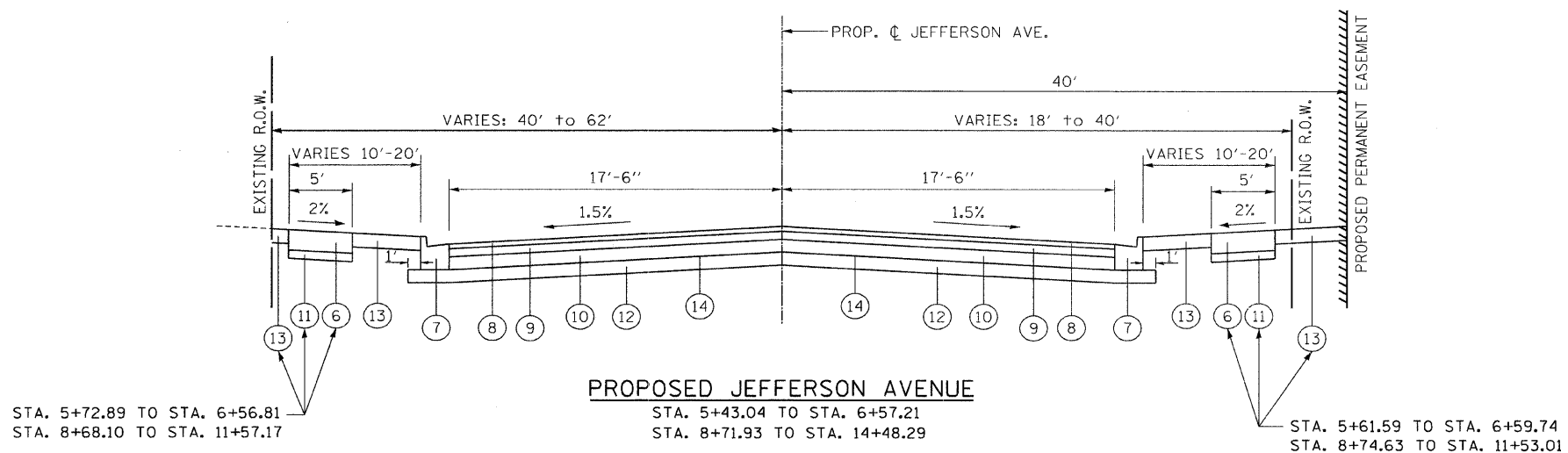
LEGEND:

- (R) ① EXISTING PCC SIDEWALK
- (R) ② EXISTING B-6.12 COMBINATION CONCRETE CURB AND GUTTER
- (R) ③ EXISTING FULL-DEPTH HOT-MIX ASPHALT PAVEMENT, ± 8"
- (R) ⑤ EXISTING SAND OR GRAVEL BASE COURSE ± 4"
- ⑥ PROPOSED PCC SIDEWALK, 5 INCH
- ⑦ PROPOSED COMBINATION CURB & GUTTER, TYPE B-6.12
- ⑧ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX D, N70, 2"
- ⑨ PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19, N70, 2½"
- ⑩ PROPOSED HOT-MIX ASPHALT BASE COURSE 4"
- ⑪ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 2"
- ⑫ PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B, 4"
- ⑬ PROPOSED TOPSOIL FURNISH AND PLACE, 4" & SODDING, SALT TOLERANT
- ⑭ PROPOSED BITUMINOUS MATERIALS (PRIME COAT) AND AGGREGATE (PRIME COAT)

SOILS NOTE:

A NOMINAL QUANTITY OF POROUS GRANULAR EMBANKMENT, SUBGRADE (PGES) HAS BEEN PROVIDED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WITH PGES WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSUITABLE SOILS ARE ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED WITH PGES. IF UNSUITABLE SOILS ARE NOT ENCOUNTERED, THEN THE QUANTITY WILL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE THE CONTRACTOR. THE ASSUMED THICKNESS OF PGES WILL BE 12". THE ACTUAL THICKNESS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

LEGEND ④ IS NOT USED



PROPOSED JEFFERSON AVENUE
 STA. 5+43.04 TO STA. 6+57.21
 STA. 8+71.93 TO STA. 14+48.29

HMA MIXTURE REQUIREMENTS CHART

ITEM	AC TYPE	VOIDS	THICKNESS
FULL DEPTH PAVEMENT			
HMA SURFACE COURSE, MIX "D", N70	PG 64-22	4% @ 70 GYR.	2"
HMA BINDER COURSE, IL-19.0, N70	PG 64-22 •	4% @ 70 GYR.	2½"
HMA BASE COURSE (HMA BINDER IL-19 mm)	PG 64-22 •	4% @ 50 GYR.	4"
DRIVEWAYS			
HMA SURFACE COURSE, MIX "C", N50	PG 64-22	4% @ 50 GYR.	2"
HMA BASE COURSE (HMA BINDER IL-19 mm)	PG 64-22 •	4% @ 50 GYR.	6"
PATCHING			
CLASS D PATCHES, TYPE IV, (HMA BINDER IL-19 mm)	PG 64-22 •	4% @ 70 GYR.	10"

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

* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22.

ITEMS WITH (R) ARE TO BE REMOVED

REVISIONS	
NAME	DATE
PER DEC & CLIENT	8/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL SECTIONS

JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER

SCALE: NO SCALE
 DATE: APRIL 6, 2009
 DRAWN BY: GM
 CHECKED BY: HRT

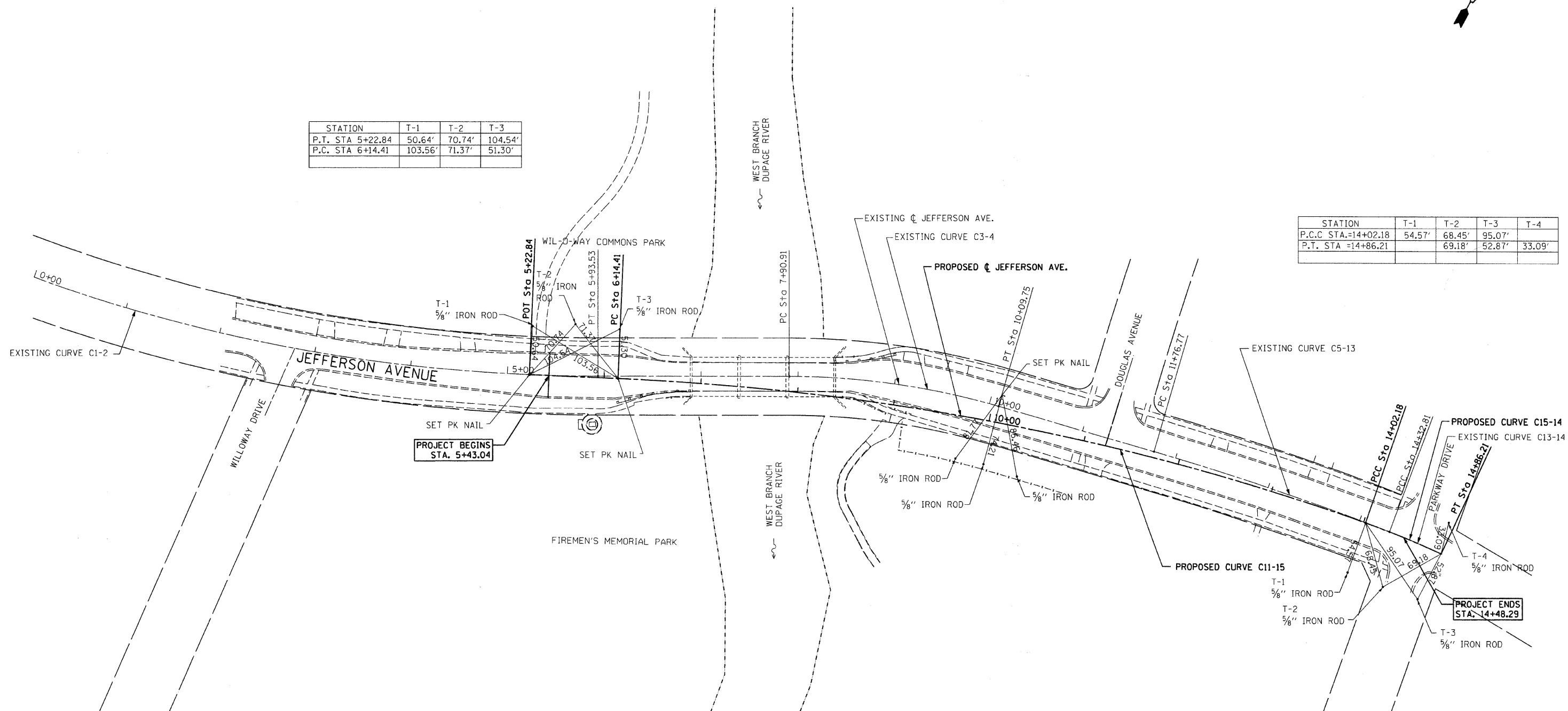
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

<p>EXIST. CURVE C1-2 $\Delta = 19^\circ 59' 15''$ (LT) $D = 3^\circ 22' 03''$ $R = 1,701.40'$ $T = 299.81'$ $L = 593.53'$ $E = 26.21'$ PI STA. = 2+99.81 P.C. STA. = 0+00.00 P.T. STA. = 5+93.53</p>	<p>EXIST. CURVE C3-4 $\Delta = 16^\circ 10' 40''$ (RT) $D = 7^\circ 23' 33''$ $R = 775.05'$ $T = 110.15'$ $L = 218.84'$ $E = 7.79'$ PI STA. = 9+01.06 P.C. STA. = 7+90.91 P.T. STA. = 10+09.75</p>	<p>PROP. CURVE PRC11-15 $\Delta = 16^\circ 48' 37''$ (RT) $D = 2^\circ 08' 02''$ $R = 2,685.00'$ $T = 396.74'$ $L = 787.77'$ $E = 29.15'$ PI STA. = 10+11.15 P.C. STA. = 6+14.41 P.T. STA. = 14+02.18</p>	<p>EXIST. CURVE C5-13 $\Delta = 4^\circ 41' 45''$ (RT) $D = 1^\circ 50' 02''$ $R = 3,124.16'$ $T = 128.10'$ $L = 256.05'$ $E = 2.62'$ PI STA. = 13+04.86 P.C. STA. = 11+76.77 P.T. STA. = 14+32.81</p>	<p>EXIST. CURVE C13-14 $\Delta = 4^\circ 08' 21''$ (RT) $D = 7^\circ 09' 43''$ $R = 800.00'$ $T = 28.91'$ $L = 57.79'$ $E = 0.52'$ PI STA. = 14+61.72 P.C. STA. = 14+32.81 P.T. STA. = 14+90.61</p>	<p>PROP. CURVE C15-14 $\Delta = 6^\circ 01' 05''$ (RT) $D = 7^\circ 09' 43''$ $R = 800.00'$ $T = 42.05'$ $L = 84.03'$ $E = 1.10'$ PI STA. = 14+44.24 P.C. STA. = 14+02.18 P.T. STA. = 14+86.21</p>
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STATION	T-1	T-2	T-3
P.T. STA 5+22.84	50.64'	70.74'	104.54'
P.C. STA 6+14.41	103.56'	71.37'	51.30'

STATION	T-1	T-2	T-3	T-4
P.C.C. STA. = 14+02.18	54.57'	68.45'	95.07'	
P.T. STA. = 14+86.21		69.18'	52.87'	33.09'



BENCHMARKS:
 DPC 38091301 - THE STATION @ SW CORNER OF THE JEFFERSON AVENUE BRIDGE IN TOP OF CONCRETE CLV. HEADWALL FOR STORM SEWER BRONZE DISK IN CONCRETE HEADWALL READS: DUPAGE COUNTY MAPS AND PLATS.
 PER CONTROL DATA SHEET - ELEV. = 676.89

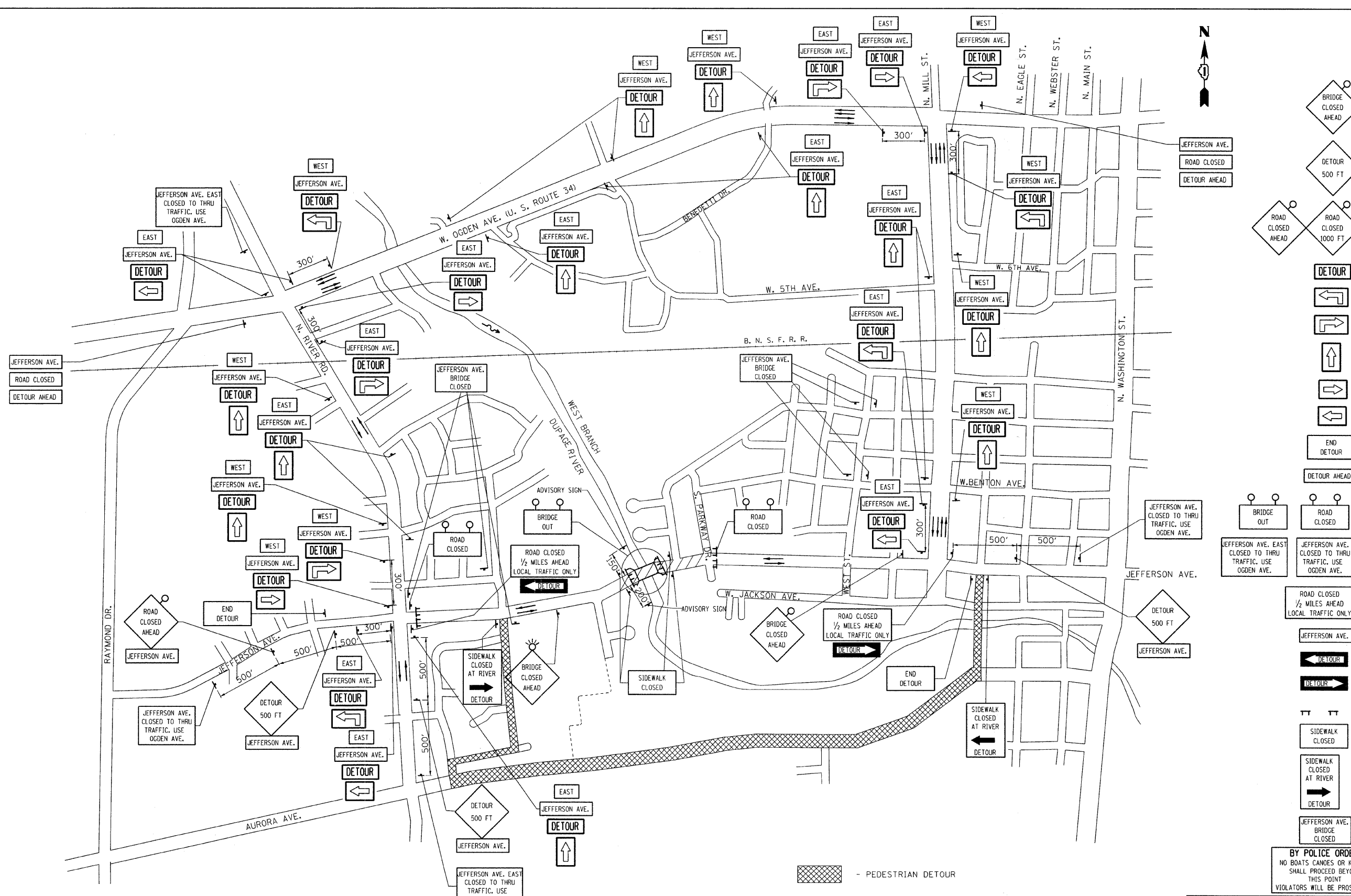
REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
ALIGNMENT AND TIES
 JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
 SCALE: 1" = 100'
 DATE: APRIL 6, 2009
 DRAWN BY: BCD
 CHECKED BY: HRT

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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	9
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

- LEGEND**
- BRIDGE CLOSED AHEAD
W20-36"x36" WITH AMBER FLASHING LIGHT
 - DETOUR 500 FT
W20-2 36"x36"
 - ROAD CLOSED AHEAD
W20-3 36"x36" WITH AMBER FLASHING LIGHT
 - DETOUR ASSEMBLY SIGN-M4-8 24"x12"
 - DETOUR ARROW SIGN M5-1 21"x15"
 - DETOUR ARROW SIGN M6-3 21"x15"
 - DETOUR ARROW SIGN M6-1 21" x 15"
 - END DETOUR SIGN M4-8a 24"x18"
 - 24"x18" DETOUR SIGN
 - BRIDGE OUT, ROAD CLOSED SIGN R11-2 48"x30"
 - DETOUR ROUTE SIGN SPECIAL
 - ROAD CLOSED 1/2 MILES AHEAD LOCAL TRAFFIC ONLY R11-3a, 60"x30"
 - ROAD NAME SIGN SPECIAL VARIABLE x9"
 - DETOUR ARROW SIGN M4-10L 48"x18"
 - DETOUR ARROW SIGN M4-10R 48"x18"
 - TYPE III BARRICADE WITH TWO AMBER FLASHING LIGHTS
 - SIDEWALK CLOSED SIGN R11-I101 24"x18"
 - SIDEWALK CLOSED DETOUR SIGN SPECIAL 24"x30"
 - ADVANCE BRIDGE CLOSED SIGN SPECIAL
 - ADVISORY SIGN



NOTE: THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY ACCESS TO ALL THE PRIVATE AND COMMERCIAL ENTRANCES AND ROADS THROUGHOUT CONSTRUCTION AS DIRECTED BY THE ENGINEER.

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

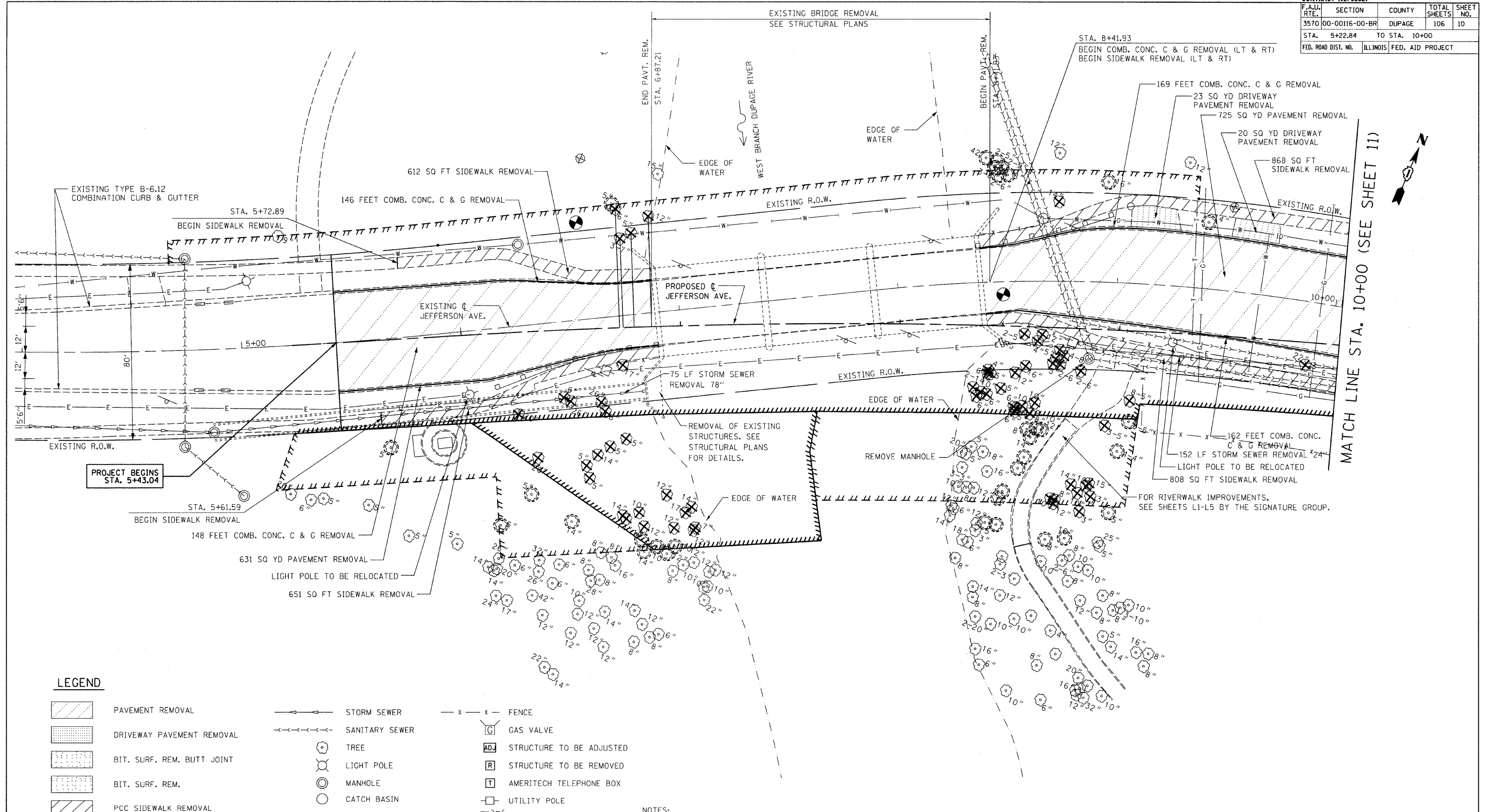
DETOUR PLAN
JEFFERSON AVE. OVER WEST BRANCH OF DUPAGE RIVER

SCALE: NO SCALE
DATE: APRIL 6, 2009

DRAWN BY BCD
CHECKED BY HRT

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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	10
STA. 5+22.84	TO STA. 10+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MATCH LINE STA. 10+00 (SEE SHEET 11)

LEGEND

- | | | | | | |
|--|--|--|----------------------|--|---------------------------------|
| | PAVEMENT REMOVAL | | STORM SEWER | | FENCE |
| | DRIVEWAY PAVEMENT REMOVAL | | SANITARY SEWER | | GAS VALVE |
| | BIT. SURF. REM. BUTT JOINT | | TREE | | STRUCTURE TO BE ADJUSTED |
| | BIT. SURF. REM. | | LIGHT POLE | | STRUCTURE TO BE REMOVED |
| | PCC SIDEWALK REMOVAL | | MANHOLE | | AMERITECH TELEPHONE BOX |
| | COMB. CONC. CURB & GUTTER REM. OR CONC. GUTTER REMOVAL | | CATCH BASIN | | UTILITY POLE |
| | ITEM TO BE REMOVED | | INLET | | UTILITY POLE WITH LIGHT |
| | WATER LINE | | WATER VALVE | | UTILITY POLE WITH AMERICAST BOX |
| | GAS LINE | | SIGN | | ELECTRIC METER |
| | TELEPHONE BURIED DUCT RUN | | FIRE HYDRANT | | TRAFFIC SIGNAL |
| | | | TREE TO BE REMOVED | | TSC HANDHOLE |
| | | | TREE TO BE PROTECTED | | CONTROL BOX |

NOTES:

- SIGNS TO BE REMOVED, STORED AND REINSTALLED BY CITY OF NAPERVILLE AT THE END OF PROJECT
- FOR GRADING PLAN SEE SHEETS 14-18
- FOR ALIGNMENT AND TIES SEE SHEET 8
- FOR BRIDGE REMOVAL QUANTITIES SEE STRUCTURAL SHEET S2
- COORDINATE LIMITS OF REMOVAL WITH CITY OF NAPERVILLE DEPT OF PUBLIC UTILITIES SEE SHEETS 56-85
- CONTRACTOR SHALL BE AWARE OF ALL OVERHEAD UTILITY LINES WITHIN PROJECT LIMITS. CONTRACTOR SHALL CONDUCT HIS/HER OPERATIONS TO MAINTAIN SERVICE ON THESE LINES

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

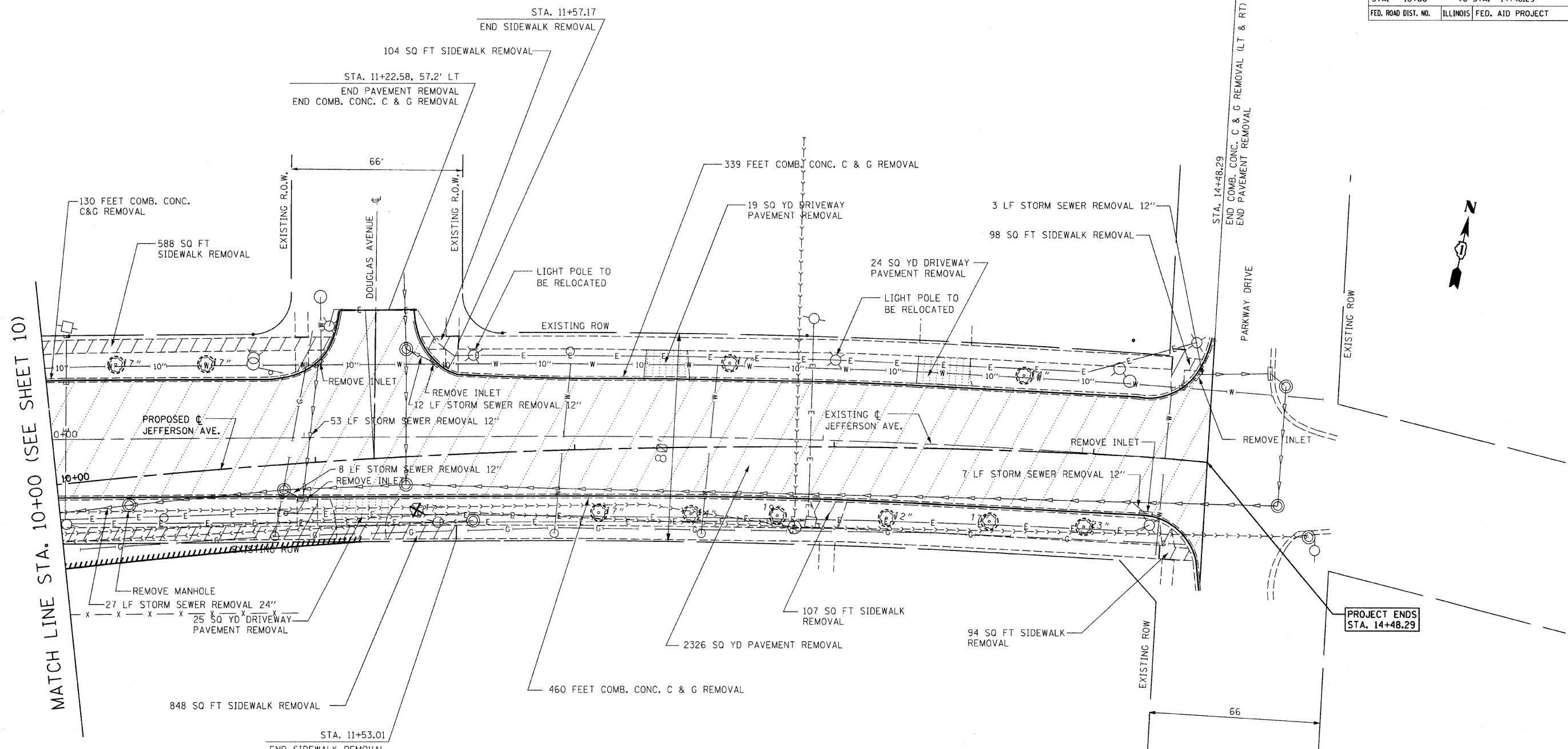
**EXISTING CONDITIONS
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER**

SCALE: 1" = 20'
DATE: APRIL 6, 2009

DRAWN BY: GM
CHECKED BY: HRT

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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	11
STA. 10+00	TO STA. 14+48.29			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MATCH LINE STA. 10+00 (SEE SHEET 10)

PROJECT ENDS STA. 14+48.29

LEGEND

- | | | | |
|--|--|--|---------------------------------|
| | PAVEMENT REMOVAL | | FENCE |
| | DRIVEWAY PAVEMENT REMOVAL | | GAS VALVE |
| | BIT. SURF. REM. BUTT JOINT | | STRUCTURE TO BE ADJUSTED |
| | BIT. SURF. REM. | | STRUCTURE TO BE REMOVED |
| | PCC SIDEWALK REMOVAL | | AMERITECH TELEPHONE BOX |
| | COMB. CONC. CURB & GUTTER REM. OR CONC. GUTTER REMOVAL | | UTILITY POLE |
| | ITEM TO BE REMOVED | | UTILITY POLE WITH LIGHT |
| | WATER LINE | | UTILITY POLE WITH AMERICAST BOX |
| | GAS LINE | | ELECTRIC METER |
| | TELEPHONE BURIED DUCT RUN | | TRAFFIC SIGNAL |
| | STORM SEWER | | TSC HANDHOLE |
| | SANITARY SEWER | | CONTROL BOX |
| | TREE | | |
| | LIGHT POLE | | |
| | MANHOLE | | |
| | CATCH BASIN | | |
| | INLET | | |
| | WATER VALVE | | |
| | SIGN | | |
| | FIRE HYDRANT | | |
| | TREE TO BE REMOVED | | |
| | TREE TO BE PROTECTED | | |

NOTES:

- SIGNS TO BE REMOVED, STORED AND REINSTALLED BY CITY OF NAPERVILLE AT THE END OF PROJECT
- FOR GRADING PLAN SEE SHEETS 14-18
- FOR ALIGNMENT AND TIES SEE SHEET 8
- FOR BRIDGE REMOVAL QUANTITIES SEE STRUCTURAL SHEET S2
- COORDINATE LIMITS OF REMOVAL WITH CITY OF NAPERVILLE DEPT OF PUBLIC UTILITIES SEE SHEETS 56-85
- CONTRACTOR SHALL BE AWARE OF ALL OVERHEAD UTILITY LINES WITHIN PROJECT LIMITS. CONTRACTOR SHALL CONDUCT HIS/HER OPERATIONS TO MAINTAIN SERVICE ON THESE LINES

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

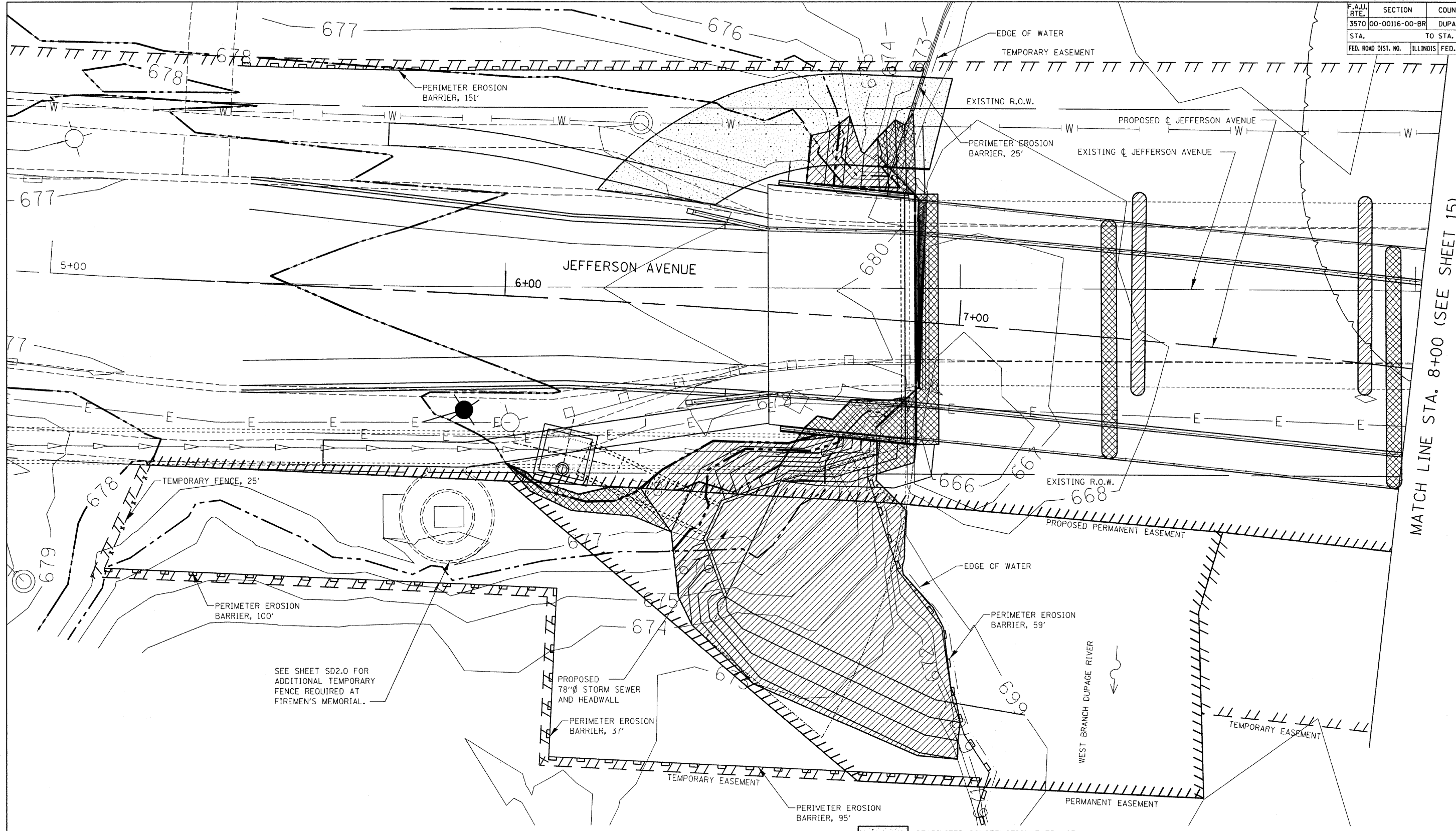
**EXISTING CONDITIONS
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER**

SCALE: 1" = 20'
DATE: APRIL 6, 2009

DRAWN BY: GM
CHECKED BY: HRT

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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	14
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



MATCH LINE STA. 8+00 (SEE SHEET 15)



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- EDGE OF WATER
- EXISTING 10-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=676.5)
- PROPOSED 10-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=676.5)
- EXISTING 100-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=678.0) AND RIPARIAN ENVIRONMENT

- PROPOSED 100-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=678.0) AND RIPARIAN ENVIRONMENT (0.092 AC RIPARIAN IMPACT)
- WETLAND
- 50-FOOT WETLAND BUFFER
- x - x - x - TEMPORARY FENCE

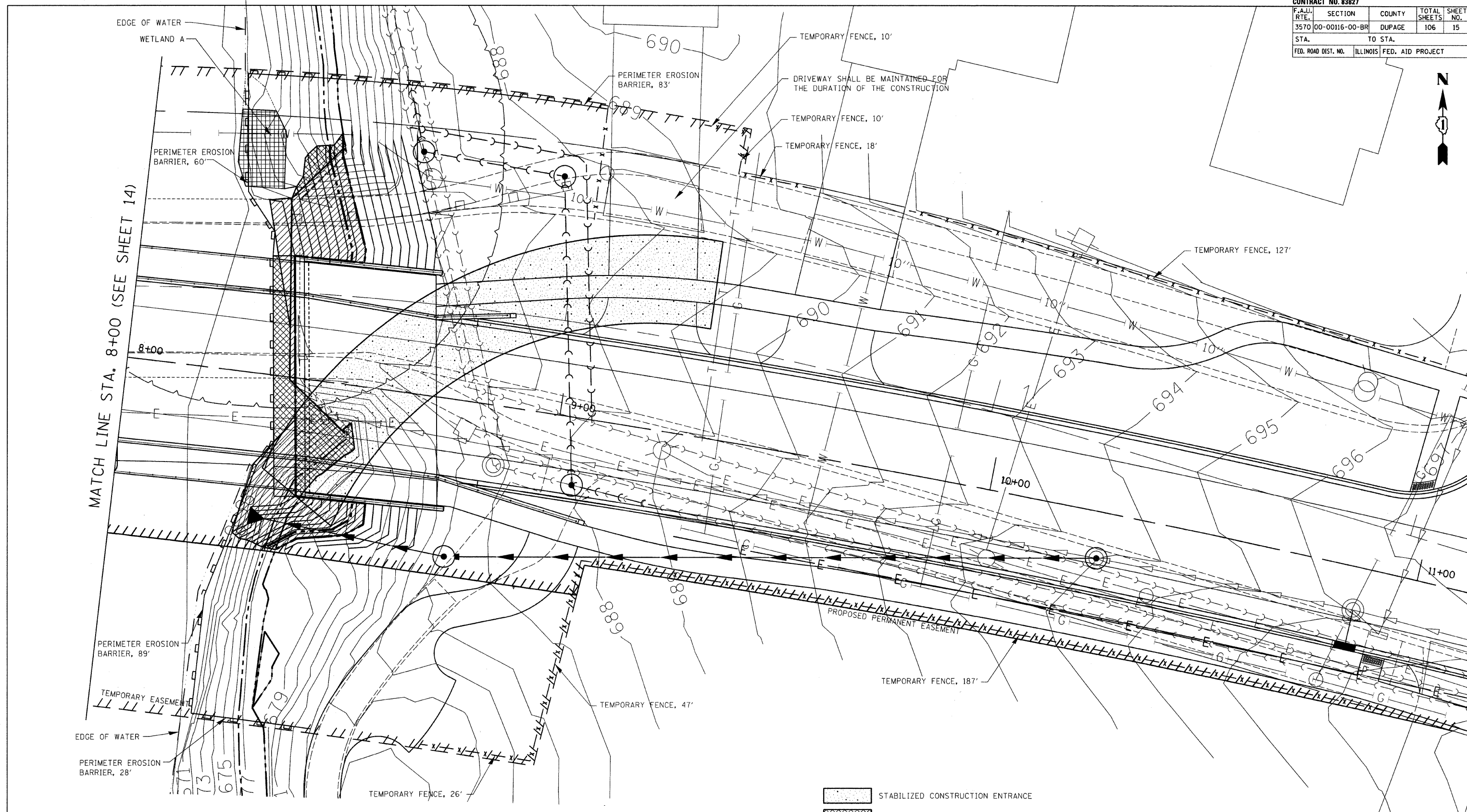
LEGEND

- [Pattern] STABILIZED CONSTRUCTION ENTRANCE
- [Pattern] FLOODPLAIN FILL (0.016 AC RIPARIAN IMPACT)
- [Pattern] COMPENSATORY STORAGE (0.076 AC RIPARIAN IMPACT)
- [Pattern] TEMPORARY WETLAND IMPACT
- [Pattern] PERIMETER EROSION BARRIER
SEE STRIPING PLAN FOR SEEDING CLASS 2 AND EROSION CONTROL BLANKET (C500)

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
EROSION CONTROL AND PROPOSED GRADING PLAN
 JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
 SCALE: 1"=10'
 DATE: APRIL 6, 2009
 DRAWN BY: BCD
 CHECKED BY: HRT

CONTRACT NO. 83827				
F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	15
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



MATCH LINE STA. 8+00 (SEE SHEET 14)

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- EDGE OF WATER
- EXISTING 10-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=676.5)
- PROPOSED 10-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=676.5)
- EXISTING 100-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=678.0) AND RIPARIAN ENVIRONMENT

- PROPOSED 100-YEAR FLOODPLAIN/FLOODWAY (ELEVATION=678.0) AND RIPARIAN ENVIRONMENT (0.028 AC RIPARIAN IMPACT)
- WETLAND (TOTAL AREA = 0.005 AC)
- 50-FOOT WETLAND BUFFER
- x - x - x - TEMPORARY FENCE

LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
 - FLOODPLAIN FILL (0.010 AC RIPARIAN IMPACT)
 - COMPENSATORY STORAGE (0.018 AC RIPARIAN IMPACT)
 - TEMPORARY WETLAND IMPACT (0.004 AC)
 - PERIMETER EROSION BARRIER
- SEE STRIPING PLAN FOR SEEDING CLASS 2 AND EROSION CONTROL BLANKET (C500)

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
EROSION CONTROL AND PROPOSED GRADING PLAN
 JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
 SCALE: 1"=10'
 DATE: APRIL 6, 2009
 DRAWN BY: BCD
 CHECKED BY: HRT

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-0016-00-BR	DUPAGE	106	16
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	

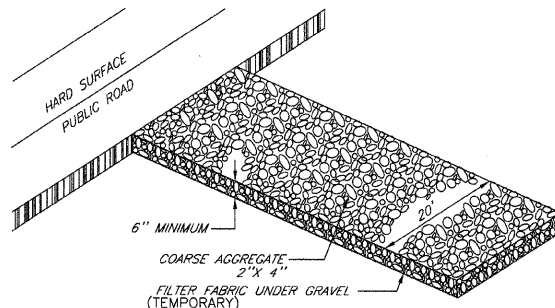
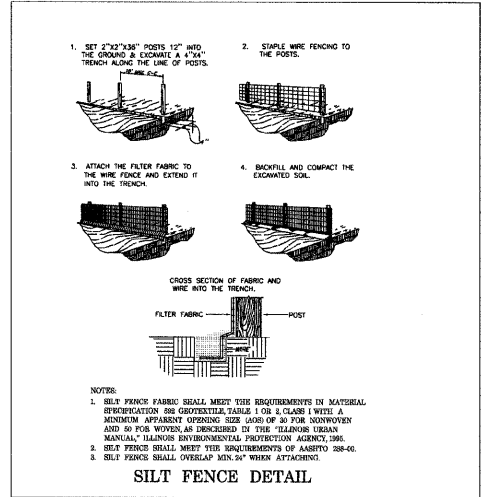
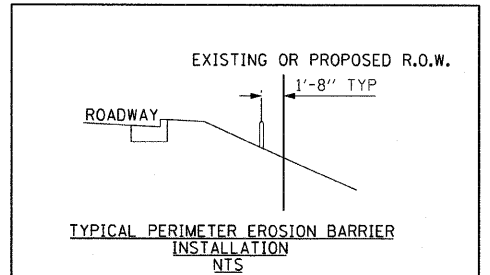
GENERAL NOTES

- TEMPORARY FENCE SHOULD BE ERECTED ALONG THE DRIP LINE OF EXISTING TREES TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. AFTER TREES ARE SAFELY FENCED NOTHING IS TO BE STORED, DRIVEN, OR DISTURBED INSIDE THE FENCE. REMOVE PROTECTIVE TEMPORARY FENCE ONLY AFTER ALL CONSTRUCTION WORK HAS BEEN COMPLETED.
- EROSION CONTROL WORK ITEMS ARE CONSIDERED TO BE HIGH PRIORITY ITEMS ON THIS CONTRACT. THE ENGINEER WILL IMPLEMENT ALL PROVISIONS OF THE SPECIFICATION NECESSARY TO ASSURE THAT EROSION CONTROL ITEMS ARE CONSTRUCTED AND MAINTAINED IN A TIMELY WAY. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES WHICH WILL POTENTIALLY CREATE ERODABLE CONDITIONS.
- THE LANDSCAPING AND EROSION CONTROL MEASURES SHOWN ARE BUT A GRAPHICAL REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOB SITE INSPECTION BETWEEN THE CONTRACTOR AND THE DEPARTMENT.
- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS IN THE ILLINOIS URBAN MANUAL REVISED FEBRUARY 2002.
- THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) AND CORPS OF ENGINEERS MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITIES, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD AND CORPS OF ENGINEERS.
- ALL EROSION CONTROL MEASURES MUST BE INSPECTED EVERY 7 DAYS AND AFTER EACH 1/2" RAIN EVENT.
- EROSION CONTROL BLANKET AND/OR STRAW MULCH WITH NETTING (DEPENDING ON SLOPE, SLOPE LENGTH, AND FLOW RATES) SHALL BE INSTALLED ON ALL SLOPES AND IN CRITICAL AREAS (i.e., PERIMETERS, BERMS, ETC.) IMMEDIATELY UPON FINAL GRADING.
- IN AREAS WHERE WORK IS COMPLETE, PERMANENT STABILIZATION SHALL OCCUR WITHIN 7 DAYS OF COMPLETION, AND IN AREAS WHERE WORK HAS TEMPORARILY CEASED FOR 14 DAYS OR MORE, TEMPORARY STABILIZATION SHALL OCCUR BY THE 7th DAY AFTER WORK HAS CEASED.
- NO WORK SHALL BE PERFORMED IN FLOWING WATER. WORK IN AND NEAR THE CRITICAL AREAS SHOULD BE ISOLATED FROM CONCENTRATED FLOWS OR STREAM FLOW. THE STREAM BANKS SHOULD BE STABILIZED AT THE END OF EACH DAY. ONCE WORK IN THIS AREA BEGINS, PRIORITY SHALL BE GIVEN TO THE COMPLETION OF THE WORK AND FINAL STABILIZATION OF ALL DISTURBED AREAS.
- ALL DISTURBED AREAS AND WORK AREAS MUST BE ISOLATED FROM CHANNEL FLOWS AT ALL TIMES. THE DIVERSION/ISOLATION OF THE CHANNEL FLOWS MUST BE CONSTRUCTED FROM NON-ERODIBLE MATERIALS. THE KDSWCD MUST BE IN AGREEMENT WITH OVERALL EXACT METHOD OF DIVERSION/ISOLATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- PLACE SILT FENCE ON EITHER SIDE OF THE TRENCH AND HAUL ROAD THAT WILL BE CREATED IN ORDER TO PLACE THE STORM WATER PIPE. THE SILT FENCE SHOULD REMAIN IN PLACE UNTIL THE ENTIRE AREA WITHIN THE STREAMBANK IS STABILIZED.
- THE CHANNEL BANK MUST BE SEEDED AND STABILIZED WITH AN APPROPRIATE EROSION CONTROL BLANKET C500 PRIOR TO ACCEPTING FLOWS. THE WETLAND PLANTING SEEDING MIX SHALL BE PAID FOR AS SEEDING CLASS 2.
- DURING CONSTRUCTION ON THE BANKS AND IN THE RIVER, WORK MUST BE TIMED TO TAKE PLACE DURING LOW OR NOFLOW CONDITIONS.
- CONCENTRATED FLOW MUST BE ISOLATED FROM THE WORK AREA USING A NON-ERODIBLE COFFERDAM (STEEL SHEETS, AQUA BARRIERS, ETC.), EXACT MEANS AND METHODS SHOULD BE DISCUSSED DURING A SCHEDULED PRECONSTRUCTION MEETING.
- IF BYPASS IS NECESSARY, THE INLET OF THE HOSE SHALL BE PLACED IN A SUMP PIT AND THE OUTLET PLACED ON A NONERODIBLE, ENERGY DISSIPATING SURFACE PRIOR TO REJOINING THE FLOW OF THE RIVER.
- IF DEWATERING THE CONSTRUCTION AREA IS NECESSARY, PLEASE BE SURE TO FILTER ALL WATER BY USING FILTER BAGS OR AN ALTERNATIVE MEASURE. WATER MUST HAVE SEDIMENT REMOVED BEFORE BEING ALLOWED TO RETURN TO THE ORIGINAL FLOW OF THE RIVER.
- THE SIDE SLOPES MUST BE RESEEDED AND STABILIZED WITH AN APPROPRIATE EROSION CONTROL BLANKET PRIOR TO ACCEPTING FLOWS. THE BOTTOM OF THE SWALE MUST BE BROUGHT BACK TO ITS ORIGINAL GRADE AND STABLE ENOUGH TO ACCEPT FLOWS.
- THE END SECTION SHOULD INCLUDE A ROCK LINED APRON AND THEN THIS AREA IS TO BE IMMEDIATELY BROUGHT TO FINAL GRADE.
- THE CONTRACTOR SHALL MAKE SURE THAT NO DEBRIS BE DROPPED INTO THE CHANNEL WHEN THE BRIDGE IS DEMOLISHED. NO ADDITIONAL COMPENSATION WILL BE PROVIDED AND THE COST FOR THIS TASK WILL BE INCLUDED IN THE COST OF THE REMOVAL OF EXISTING STRUCTURES.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- PRIOR TO COMMENCING LAND-DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING BUT NOT LIMITED TO, ADDITIONAL PHASES OF DEVELOPMENT AND OFF-SITE BORROW OR WASTE AREAS) A SUPPLEMENTARY EROSION CONTROL PLAN SHALL BE SUBMITTED TO THE OWNER FOR REVIEW BY THE KDSWCD.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE KDSWCD.
- ALSO, PLEASE ADD NOTE TO STATE THAT, "IT IS THE RESPONSIBILITY OF THE LANDOWNER AND/OR GENERAL CONTRACTOR TO INFORM ANY SUB-CONTRACTOR(S) WHO MAY PERFORM WORK ON THIS PROJECT, OF THE REQUIREMENTS IN IMPLEMENTING AND MAINTAINING THESE EROSION CONTROL PLANS AND THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS SET FORTH BY THE ILLINOIS EPA."
- WINTER SHUTDOWN SHALL BE ADDRESSED EARLY IN THE FALL GROWING SEASON SO THAT SLOPES AND OTHER BARE EARTH AREAS MAY BE STABILIZED WITH TEMPORARY AND/OR PERMANENT VEGETATIVE COVER FOR PROPER EROSION AND SEDIMENT CONTROL.

SOIL EROSION AND SEDIMENTATION CONTROL SPECIFICATIONS:

- GENERAL
 - THIS SOIL EROSION AND SEDIMENTATION CONTROL PLAN IS THE MINIMUM TO GET THIS PROJECT STARTED. IT IS EXPECTED TO CHANGE AS THE PROJECT PROCEEDS. ALL COSTS ASSOCIATED WITH SOIL EROSION AND SEDIMENTATION CONTROL IS THE OWNER/DEVELOPERS RESPONSIBILITY, UNLESS OTHERWISE SPECIFIED IN THE SUPPLEMENTARY CONDITIONS.
 - THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF ALL APPLICABLE PROVISIONS OF THE COUNTY CODE, THE ILLINOIS PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL, IEPA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENTATION CONTROL, AND ANY LOCAL, COUNTY, STATE AND/OR FEDERAL STORM WATER MANAGEMENT AND/OR SOIL EROSION AND POLLUTION CONTROL ORDINANCES.
 - THE OWNER/DEVELOPER OR THE CONTRACTOR THAT HAS BEEN HIRED FOR THIS PURPOSE SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL PERMANENT VEGETATION AND OR GROUND COVER HAS BEEN ESTABLISHED WITH COVERAGE OF AT LEAST 70 PERCENT.
 - SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE LAND IS OTHERWISE DISTURBED ON THE SITE. BEST MANAGEMENT PRACTICES SHALL BE PERFORMED AND REVISED AS THE PROJECT REQUIRES AT NO EXPENSE TO THE ENGINEER.
- IMPLEMENTATION
 - BEFORE STARTING CLEARING AND SITE GRADING WORK, A STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCES SHALL BE INSTALLED AS SHOWN ON THE PLANS. IF DIRECTED BY THE DESIGNATED EROSION CONTROL INSPECTOR OR LOCAL ENFORCEMENT OFFICER AND/OR COUNTY ENGINEER, THE OWNER/DEVELOPER SHALL INSTALL ADDITIONAL SOIL AND EROSION CONTROL MEASURES AS NEEDED UTILIZING BEST MANAGEMENT PRACTICES.
 - THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MONITORED PERIODICALLY FOR ITS EFFECTIVENESS TO COLLECT DIRT WHICH COULD LEAVE THE SITE VIA CONSTRUCTION VEHICLES. ANY DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY.
 - GRAVELED ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES, IF NECESSARY, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY, AT THE OWNER/DEVELOPER EXPENSE.
 - ANY PUBLIC AND/OR PRIVATE ROADS THAT ARE ADJACENT TO THE SITE AND USED FOR INGRESS AND EGRESS, SHALL BE MONITORED AND CLEANED AS SOON AS SOIL IS DEPOSITED ON THESE SURFACES.
 - INLET FILTER BASKETS SHALL BE INSTALLED AND MAINTAINED IN INTAKE STRUCTURES (I.E., INLETS, CATCH BASINS).
 - IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN 14 DAYS, SEDIMENT AND EROSION CONTROL SHALL BE PROVIDED AROUND SUCH STOCKPILE. ANY PART OF THE STOCKPILE TO REMAIN UNTOUCHED FOR 21 DAYS MUST BE PROTECTED WITH TEMPORARY SOIL AND EROSION CONTROL MEASURES WITHIN 14 DAYS OF THE LAST DAY THE STOCKPILE WAS DISTURBED.
 - ANY DISTURBED AREAS SHALL BE PERMANENTLY OR TEMPORARILY PROTECTED FROM SOIL EROSION WITHIN 14 DAYS AFTER ACTIVITY HAS CEASED UNLESS ACTIVITY WILL RESUME WITHIN 21 DAYS FROM INITIAL CEASE IN ACTIVITY. TEMPORARY COVER SHALL BE MAINTAINED CONTINUOUSLY UNTIL PERMANENT COVER IS ESTABLISHED.
 - WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING, INCLUDING STORM WATER RUNOFF, SHALL BE FILTERED PRIOR TO DISCHARGING TO THE STORM WATER SYSTEM.
- MAINTENANCE AND INSPECTIONS
 - THE OWNER/DEVELOPER IS ULTIMATELY RESPONSIBLE UNLESS OTHERWISE SPECIFIED IN THE SUPPLEMENTARY CONDITIONS FOR THE INSTALLATION AND MAINTENANCE OF THE SOIL EROSION AND SEDIMENTATION CONTROL FOR THIS SITE. PRIOR TO ANY CONSTRUCTION ACTIVITY THE INITIAL SOIL EROSION AND SEDIMENTATION CONTROL MUST BE INSPECTED AND APPROVED BY THE REQUIRED AGENCY AND/OR QUALIFIED PERSONNEL.
 - QUALIFIED PERSONNEL SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN PERMANENTLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCH OR GREATER OR EQUIVALENT SNOWFALL.
 - DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF/POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM, EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. BASED ON THE RESULTS OF THE INSPECTION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED IN THE PLAN AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN SHALL BE REVISED AS APPROPRIATE AS SOON AS PRACTICABLE AFTER SUCH INSPECTION. SUCH MODIFICATIONS SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF ANY CHANGES TO THE PLAN WITH SEVEN (7) CALENDAR DAYS FOLLOWING THE INSPECTION.
 - A REPORT SUMMARIZING THE SCOPE OF THE INSPECTION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE (3) YEARS AFTER THE DATE OF INSPECTION. THE PERMITTEE SHALL COMPLETE AND SUBMIT WITHIN 24 HOURS AN INCIDENT OF NON-COMPLIANCE OBSERVED DURING AN INSPECTION CONDUCTED, SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND SHALL INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NON-COMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NON-COMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT WHICH MAY HAVE RESULTED FROM THE NON-COMPLIANCE. AN INCIDENT OF NON-COMPLIANCE IS DEFINED AS ANY NOTICEABLE DISCHARGE OF ANY SEDIMENT LEAVING THE SITE.
- TYPICAL CONSTRUCTION SEQUENCING:
 - INSTALL SOIL EROSION AND SEDIMENT CONTROL (SE/SC) MEASURES
 - SELECTIVE VEGETATION REMOVAL FOR SILT FENCE INSTALLATION
 - SILT FENCE INSTALLATION
 - CONSTRUCTION FENCING AROUND AREAS NOT TO BE DISTURBED
 - STABILIZED CONSTRUCTION ENTRANCES
 - TREE REMOVAL WHERE NECESSARY (CLEAR AND GRUB)
 - CONSTRUCT SEDIMENT TRAPPING DEVICES (SEDIMENT TRAPS, BASINS, ETC.)
 - CONSTRUCT DETENTION FACILITIES AND OUTLET CONTROL STRUCTURE WITH RESTRICTOR & TEMPORARY PERFORATED RISER WHEN APPLIED
 - STRIP TOPSOIL, STOCKPILE TOPSOIL AND GRADE SITE
 - TEMPORARILY STABILIZE TOPSOIL STOCKPILES (SEED AND SILT FENCE AROUND TOE OF SLOPE)
 - INSTALL STORM SEWER, SANITARY SEWER, WATER AND ASSOCIATED INLET & OUTLET PROTECTION
 - PERMANENTLY STABILIZE DETENTION BASINS WITH SEED AND EROSION CONTROL BLANKET
 - TEMPORARILY STABILIZE ALL AREAS INCLUDING LOTS THAT HAVE REACHED TEMPORARY GRADE
 - INSTALL ROADWAYS
 - PERMANENTLY STABILIZE ALL OUTLOT AREAS
 - INSTALL STRUCTURES AND GRADE INDIVIDUAL LOTS
 - PERMANENTLY STABILIZE LOTS
 - CLEAN SEDIMENT FROM BASIN TO DESIGN GRADE, PLANT BASIN WITH PERMANENT VEGETATION, REMOVE TEMPORARY PERFORATED RISER.
 - REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION

NOTE: SOIL EROSION AND SEDIMENT CONTROL INSPECTIONS MUST OCCUR EVERY SEVEN CALENDAR DAYS AND AFTER EVERY 1/2" OR GREATER RAINFALL EVENT.



- STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- THICKNESS - NOT LESS THAN SIX (6) INCHES.
- FILTER CLOTH - SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAYS MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

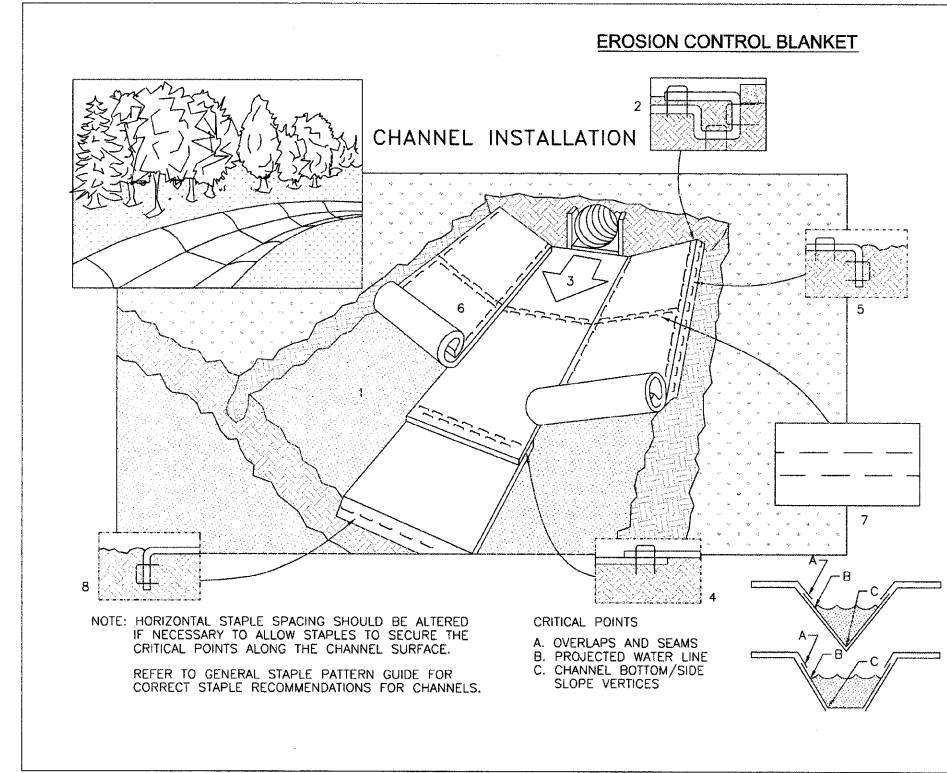
JEFFERSON AVE. OVER WEST BRANCH DUPAGE RIVER EROSION AND SEDIMENT CONTROL DETAILS

SCALE: _____ DRAWN BY JSS

DATE: APRIL 6, 2009 CHECKED BY JP

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CONTROL MEASURE GROUP	CONTROL MEASURE	APPL.	KEY	CONTROL MEASURE CHARACTERISTICS	TEMP.	PERMNT
VEGETATIVE SOIL COVER	TEMPORARY SEEDING	X	(TS)	PROVIDES QUICK TEMPORARY COVER TO CONTROL EROSION WHEN PERMANENT SEEDING IS NOT DESIRED OR TIME OF YEAR IS INAPPROPRIATE.	X	
	PERMANENT SEEDING	X	(PS)	PROVIDES PERMANENT VEGETATIVE COVER TO CONTROL EROSION. FILTERS SEDIMENT FROM WATER. MAY BE PART OF FINAL LANDSCAPE PLAN.		X
	DORMANT SEEDING		(DS)	SAME AS PERMANENT SEEDING EXCEPT IS DONE DURING DORMANT SEASON. HIGHER RATES OF SEED APPLICATION ARE REQUIRED.	X	X
	SODDING	X	(SO)	QUICK PERMANENT COVER TO CONTROL EROSION. QUICK WAY TO ESTABLISH VEGETATION FILTER STRIP. CAN BE USED ON STEEP SLOPES OR IN DRAINAGEWAYS WHERE SEEDING MAY BE DIFFICULT.	X	X
	GROUND COVER		(GC)	PROVIDES GROUND COVER. SHRUBS AND TREES IN ADDITION TO PERMANENT VEGETATION. MAY BE USED AS PART OF A FINAL LANDSCAPE PLAN ALONG WITH SHRUBS AND TREES.		X
NON VEGETATIVE SOIL COVER	MULCHING		(M)	ADDED INSURANCE OF A SUCCESSFUL TEMPORARY OR PERMANENT SEEDING. CONTROLS UNWANTED VEGETATION AND PRESERVES MOISTURE. PROVIDES COVER WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
	AGGREGATE COVER		(AG)	PROVIDES SOIL COVER ON ROADS AND PARKING LOTS AND AREAS WHERE VEGETATION CANNOT BE ESTABLISHED. PREVENTS MUD FROM BEING PICKED UP AND TRANSPORTED OFF-SITE.	X	X
	PAVING	X	(P)	PROVIDES PERMANENT COVER ON PARKING LOTS AND ROADS OR OTHER AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.		X
DIVERSIONS	RIDGE DIVERSION		(RD)	TYPICALLY USED ABOVE SLOPES. USED WHERE AN EXCESS OF SOIL IS AVAILABLE.	X	X
	CHANNEL DIVERSION		(CD)	TYPICALLY USED AT TOP OR BASE OF SLOPES. USED WHEN EXCESS SOIL IS NOT AVAILABLE.	X	X
	COMBINATION DIVERSION		(DC)	TYPICALLY USED ANYWHERE ON A SLOPE. SOIL TAKEN OUT OF CHANNEL IS USED TO BUILD THE RIDGE.	X	X
	CURB AND GUTTER	X	(CG)	SPECIAL CASE OF DIVERSION USED IN CONJUNCTION WITH A STREET TO DIVERT WATER FROM AN AREA NEEDING PROTECTION.		X
	BENCHES		(B)	SPECIAL CASE OF DIVERSION CONSTRUCTED WHEN WORKING ON CUT SLOPES TO SHORTEN LENGTH OF SLOPE AND ADD SLOPE STABILITY.	X	X
WATERWAYS	BARE CHANNEL		(BC)	PROVIDES MEANS OF CONVEYING RUNOFF TO DESIRED LOCATION. MAY BE USED TO DRAIN DEPRESSIONAL AREAS. ONLY APPLICABLE WHEN VELOCITY OF FLOW IS VERY LOW.	X	
	VEGETATIVE CHANNEL		(VC)	PROVIDES ADDED STABILITY TO CHANNEL. USED WHEN VELOCITY OF FLOW IS NOT EXTREMELY FAST.	X	X
	LINED CHANNEL		(LC)	USED WHEN VEGETATION WILL NOT PROTECT THE CHANNEL AGAINST HIGH VELOCITIES OF FLOW OR WHERE VEGETATION CANNOT BE ESTABLISHED.	X	X
ENCLOSED DRAINAGE	STORM SEWER	X	(ST)	CAN BE USED TO CONVEY SEDIMENT LADEN WATER TO SEDIMENT BASIN OR IN CONJUNCTION WITH A WATERWAY.		X
	UNDERDRAIN		(UD)	USED TO LOWER WATER TABLE AND INTERCEPT GROUNDWATER FOR BETTER VEGETATION GROWTH AND SLOPE STABILITY. USED TO CARRY BASE FLOW IN WATERWAYS AND TO DEWATER SEDIMENT BASINS.	X	X
SPILLWAYS	STRAIGHT PIPE SPILLWAY		(SS)	USED FOR RELATIVELY SMALL VERTICAL DROPS AND SMALL FLOWS OF WATER.		X
	DROP INLET PIPE SPILLWAY		(DIS)	SAME AS PIPE SPILLWAY EXCEPT LARGER FLOWS AND LARGE VERTICAL DROPS CAN BE ACCOMMODATED.		X
	WEIR SPILLWAY		(W)	USED FOR RELATIVELY SMALL VERTICAL DROPS AND FLOWS MUCH GREATER THAN PIPE STRUCTURES.	X	X
	BOX INLET WEIR SPILLWAY		(BS)	SAME AS WEIR SPILLWAY EXCEPT LARGER FLOWS CAN BE ACCOMMODATED BECAUSE OF LOWER WEIR LENGTH.	X	X
OUTLETS	LINED APRON	X	(LA)	PROTECTS DOWNSTREAM CHANNEL FROM HIGH VELOCITY OF FLOW DISCHARGING FROM STRUCTURES.	X	X
SEDIMENT BASINS	EMBANKMENT SEDIMENT BASIN		(ES)	USED WHERE TOPOGRAPHY LENDS ITSELF TO CONSTRUCTING A DAM AND EARTH FILL IS AVAILABLE.	X	X
	EXCAVATED SEDIMENT BASIN		(XS)	USED WHERE EMBANKMENT COULD CAUSE A HAZARD DOWNSTREAM IN CASE OF FAILURE AND WHEN EXCESS EARTH FILL IS NOT AVAILABLE.	X	X
	COMBINATION SEDIMENT BASIN		(CS)	USED WHEN TOPOGRAPHY IS SUITABLE BUT ADDITIONAL CAPACITY IS NEEDED.	X	X
SEDIMENT FILTERS	BARRIER FILTER		(BF) (C)	USED FOR SINGLE LOTS OR DRAINAGE AREAS LESS THAN 1/4 ACRE TO FILTER SEDIMENT FROM RUNOFF.	X	
	VEGETATIVE FILTER		(VF)	USED ALONG DRAINAGEWAYS OR PROPERTY LINES TO FILTER SEDIMENT FROM RUNOFF. SIZE MUST BE INCREASED IN PROPORTION TO DRAINAGE AREA.	X	X
MUD AND DUST CONTROL	STABILIZED CONST. ENTRANCE	X	(SE)	PREVENT MUD FROM BEING PICKED UP AND CARRIED OFF-SITE.	X	X
	DUST AND TRAFFIC CONTROL		(DT)	PREVENTS DUST FROM LEAVING CONSTRUCTION SITE.	X	X



SOIL PROTECTION CHART

STABILIZATION CHART	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDINGS			A			*	*					
DORMANT SEEDINGS	B									B		
TEMPORARY SEEDINGS			C				D					
SODDING			E**									
MULCHING	F											

A - REFER TO LANDSCAPE PLANS FOR PERMANENT SEED MIXTURES AND LOCATIONS
 B - KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. AND 2 TONS STRAW MULCH PER ACRE
 C - SPRING OATS 100 LBS./AC.
 D - WHEAT OR CEREAL RYE 150 LBS./AC.
 E - SOD (NURSERY GROWN KENTUCKY BLUEGRASS)
 F - STRAW MULCH 2 TONS PER ACRE
 * IRRIGATE AS NECESSARY
 ** IRRIGATION AS NECESSARY TO ESTABLISH SOD

- NOTES:
 1) TOTAL AREA OF THE CONSTRUCTION SITE IS 2.50 ACRES.
 2) TOTAL AREA OF THE CONSTRUCTION SITE THAT IS TO BE DISTURBED BY EXCAVATION, GRADING, OR OTHER ACTIVITIES IS 2.0 ACRES.
 3) RUNOFF COEFFICIENTS PER SITE STORMWATER MANAGEMENT REPORT

REVISIONS	
NAME	DATE

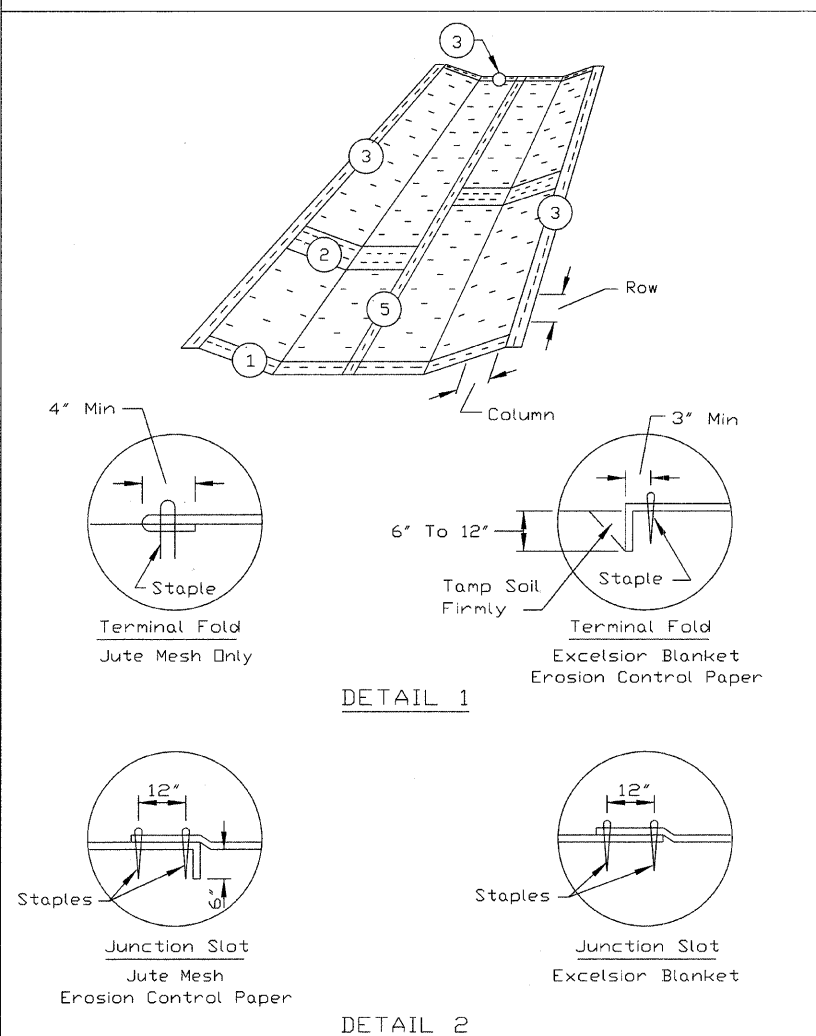
ILLINOIS DEPARTMENT OF TRANSPORTATION

JEFFERSON AVE. OVER WEST BRANCH DuPAGE RIVER EROSION AND SEDIMENT CONTROL DETAILS

SCALE: DRAWN BY JSS
 DATE: APRIL 6, 2009 CHECKED BY JP

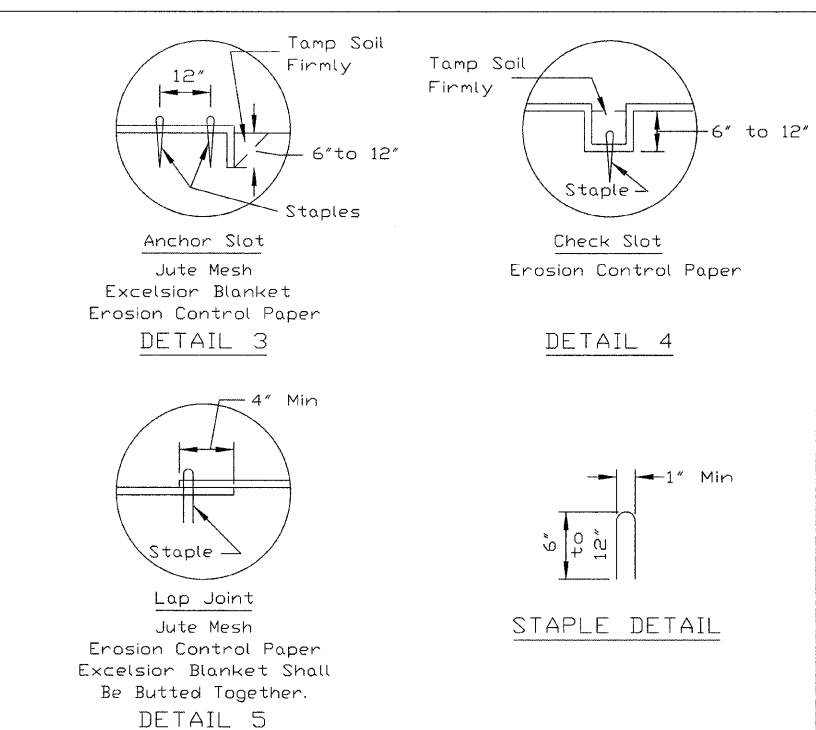
CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-0016-00-BR	DUPAGE	106	18
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

EROSION BLANKET PLAN



REFERENCE Project _____	 NRCS Natural Resources Conservation Service	STANDARD DWG. NO. IL-530
Designed _____ Date _____		SEET 1 OF 2
Checked _____ Date _____		DATE 5-24-94
Approved _____ Date _____		

EROSION BLANKET PLAN

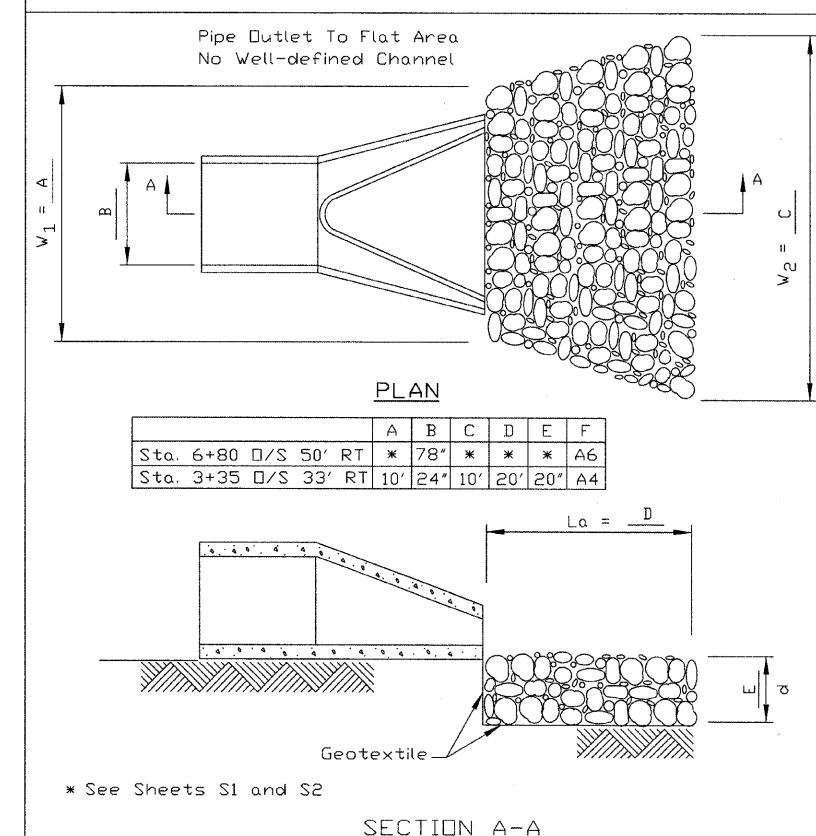


NOTES:

- On erosion control paper, check slots, in ditch channel shall be spaced so that one occurs within each 50' on slopes of more than 4% and less than 6%. On slopes of 6% or more, they shall be spaced so that one occurs within each 25'.
- Staples are to be placed alternately, in columns approximately 2' apart and in rows approximately 3' apart. Approximately 175 staples are required per 4' x 225' roll of material and 125 staples are required per 4' x 150' roll of material.
- Erosion control material shall be placed loosely over ground surface. Do not stretch.
- All terminal ends and transverse laps shall be stapled at approximately 12" intervals.

REFERENCE Project _____	 NRCS Natural Resources Conservation Service	STANDARD DWG. NO. IL-530
Designed _____ Date _____		SHEET 2 OF 2
Checked _____ Date _____		DATE 3-1-95
Approved _____ Date _____		

PIPE OUTLET TO FLAT AREA



NOTES:

- The filter fabric shall meet the requirements in material specifications 592 GEOTEXTILE Table 1 or 2, class I, II or III.
- The rock riprap shall meet the IDOT requirements for the following gradation: RR _____, Quality _____.
- The riprap shall be placed according to ~~construction specification 61 LOOSE ROCK RIPRAP~~ IDOT Standard Specifications for Road and Bridge Construction. The rock may be equipment placed.

REFERENCE Project _____	 NRCS Natural Resources Conservation Service	STANDARD DWG. NO. IL-610
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 9-15-93
Approved _____ Date _____		

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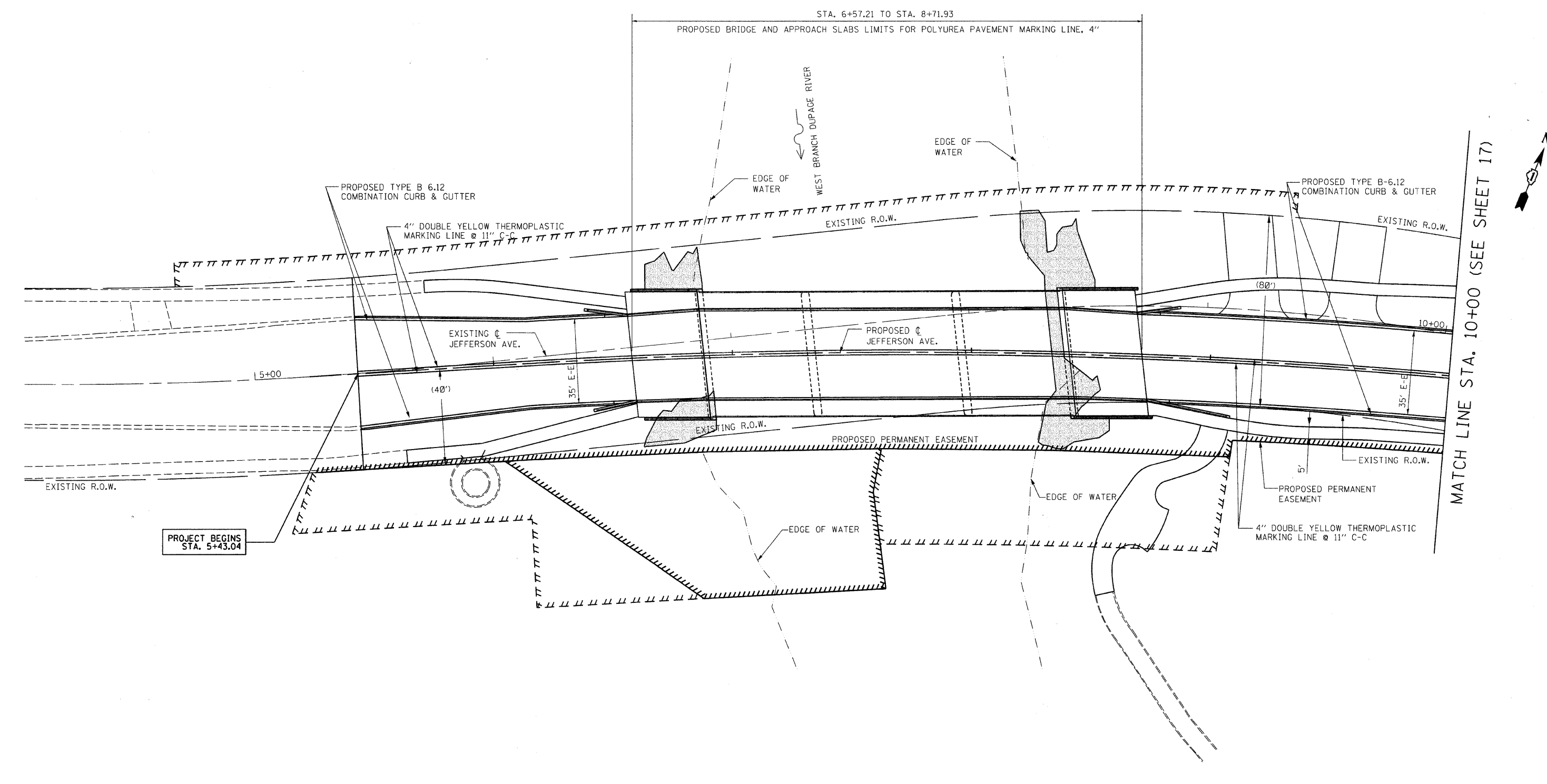
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

JEFFERSON AVE. OVER WEST BRANCH DUPAGE RIVER EROSION AND SEDIMENT CONTROL DETAILS

SCALE: _____ DRAWN BY JSS
DATE: APRIL 6, 2009 CHECKED BY JP

CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	19
STA. 5+22.84		TO STA. 10+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROJECT BEGINS
STA. 5+43.04

MATCH LINE STA. 10+00 (SEE SHEET 17)



- SEEDING CLASS 2 AND EROSION CONTROL BLANKET (C500)

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
STRIPING PLAN

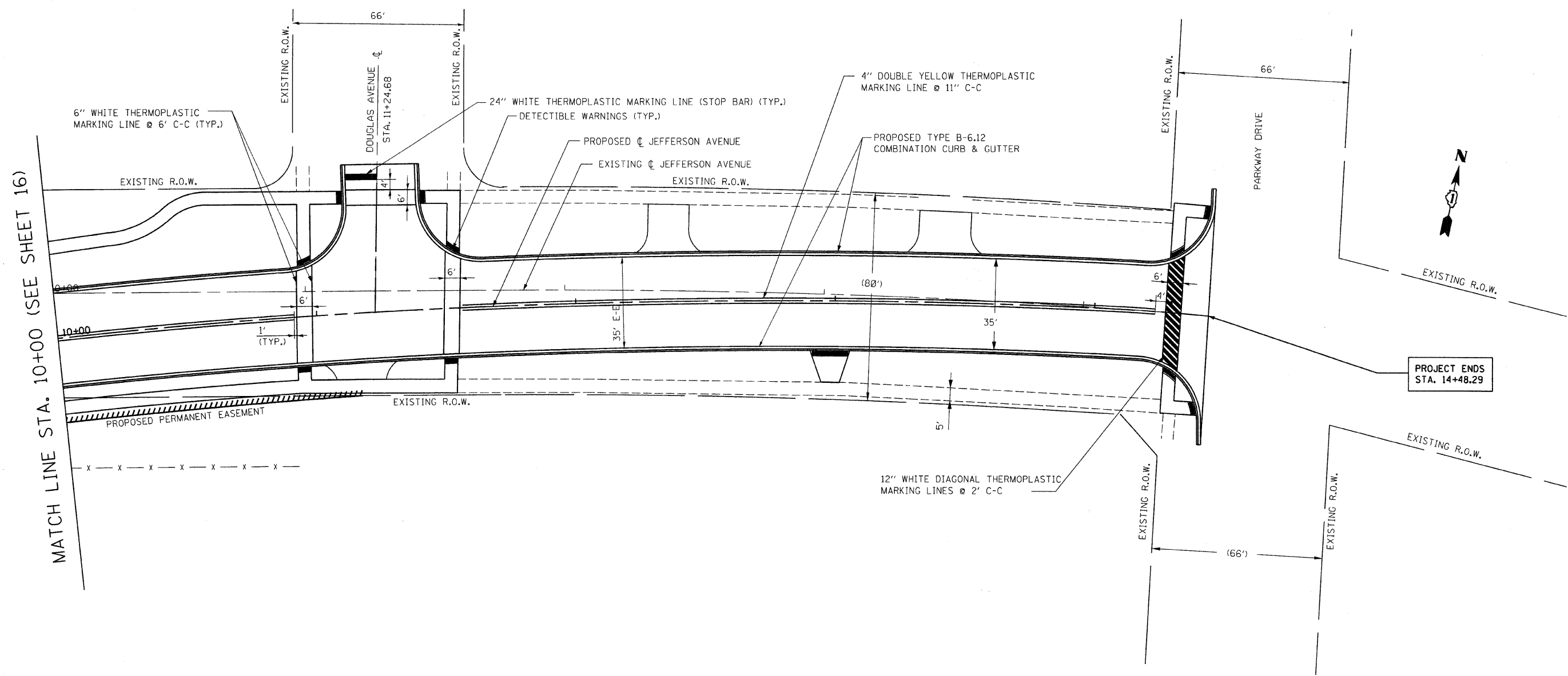
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER

SCALE: 1"=20'
DATE: APRIL 6, 2009

DRAWN BY: BCD
CHECKED BY: HRT

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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	20
STA.	10+00	TO STA.	14+48.29	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROJECT ENDS
STA. 14+48.29

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REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

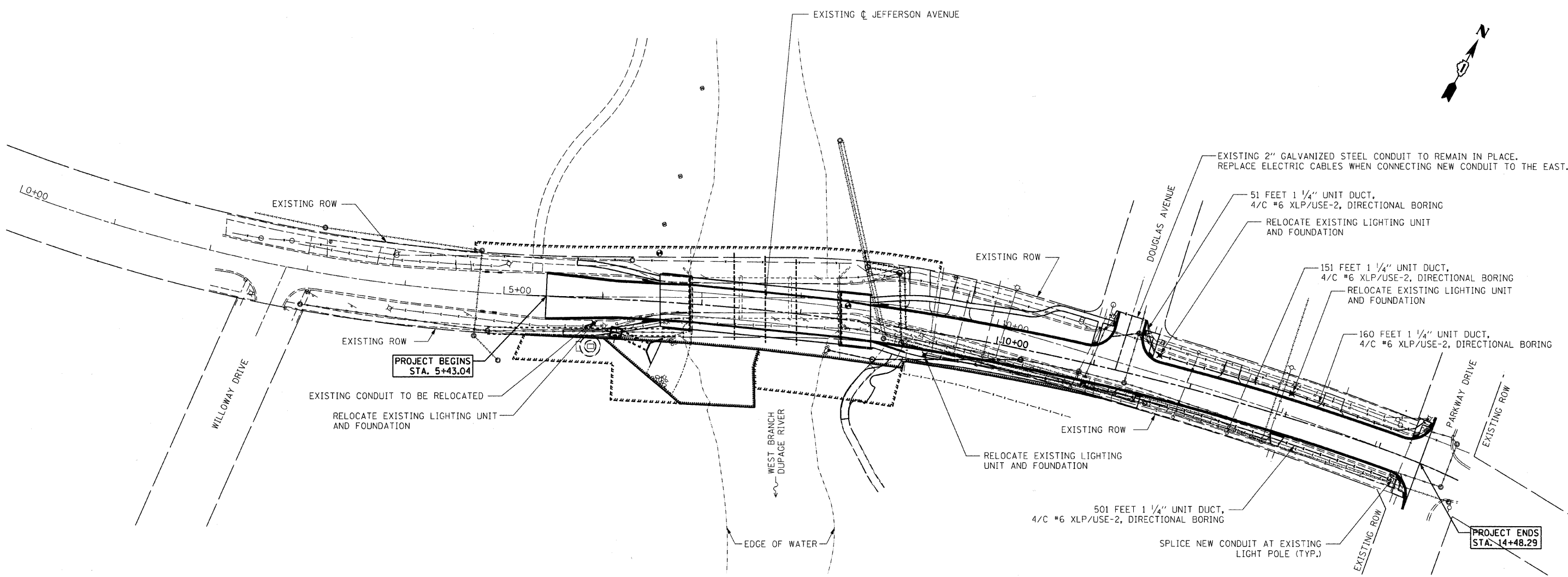
ILLINOIS DEPARTMENT OF TRANSPORTATION
STRIPING PLAN

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER

SCALE: 1"=20'
DATE: APRIL 6, 2009

DRAWN BY: BCD
CHECKED BY: HRT

CONTRACT NO: 83827				
F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	21
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PROJECT BEGINS
STA. 5+43.04

PROJECT ENDS
STA. 14+48.29

REVISIONS	
NAME	DATE
PER DEC & CLIENT	9/13/05
PER IDOT	11/1/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 PROPOSED LIGHTING PLAN
 JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER
 SCALE: 1" = 50'
 DATE: APRIL 6, 2009
 DRAWN BY: GM
 CHECKED BY: HRT

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE	106	22
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				
* 00-00116-00-BR				

SHEET NO. S1
of S34 SHEETS

Bench Mark: Bronze Disk in concrete headwall of storm sewer at S.W. corner of bridge, Elevation 676.893
Existing Structure: S.N. 022-3026 built 1962 as P.P.C. deck beams with bituminous wearing surface, three equal simple spans of 50'-0". Substructure consists of closed abutments with solid piers, all supported on steel H-pile footings. Existing structure to be removed and replaced. Traffic to be maintained utilizing a detour.
Salvage: Metal grating at 78" ϕ storm sewer headwall. See Sheet S32.

LOADING HS20-44

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

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f'_e = 4,000$ psi (Drilled Shafts)
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural Steel M270 Gr 50W)

CONSTRUCTION SEQUENCE

Relocate existing 78" ϕ storm sewer. Detour traffic, install Permanent Casing for Drilled Shafts before placing Rock Fill, Reconstruct bridge.

Concurrently, perform electrical duct and cable work outside the bridge deck area. Lastly, complete remaining electrical work on the bridge.

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

CURVE DATA

PROP. CURVE PRC11-15
PI STA. = 10+11.15
 $\Delta = 16^\circ 48' 37"$
 $R = 2,685.00'$
 $T = 396.74$
 $L = 787.77$
 $E = 29.15$
P.C. STA. = 6+14.41
P.T. STA. = 14+02.18

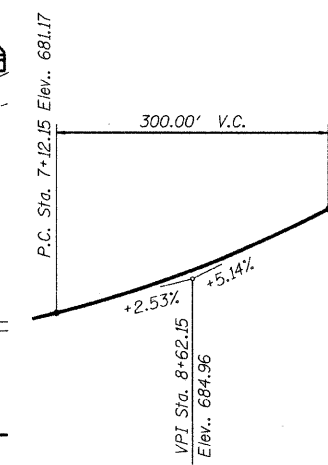
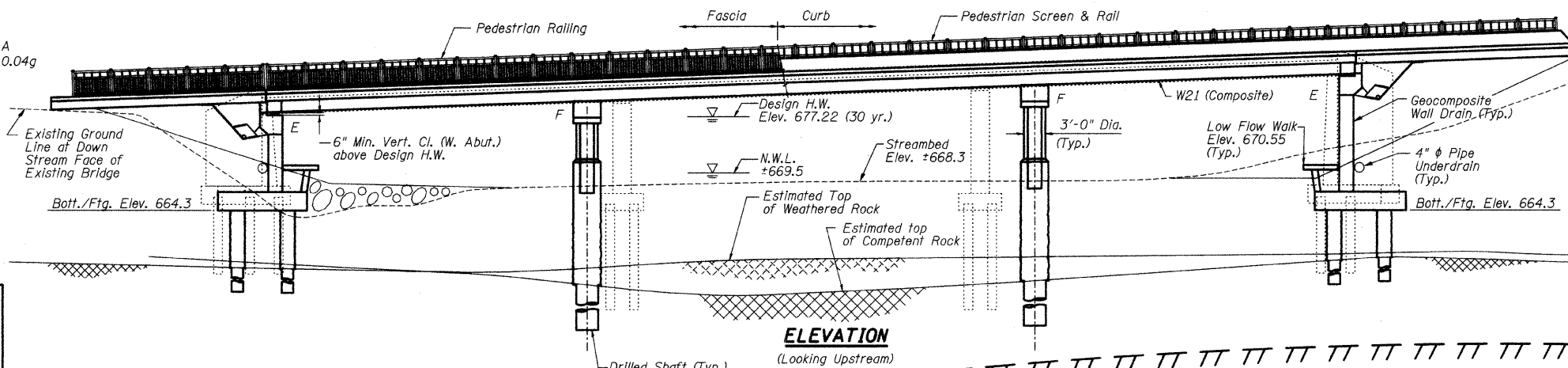
WEST BRANCH OF DUPAGE RIVER
BUILT 20... BY
CITY OF NAPERVILLE
SEC. 00-00116-00-BR
F.A.U. 3570 STATION 7+64
STR. NO. 022-6756 LOADING HS20

LEGEND:

- B-1 (2001)
- B1 (C. 1961)

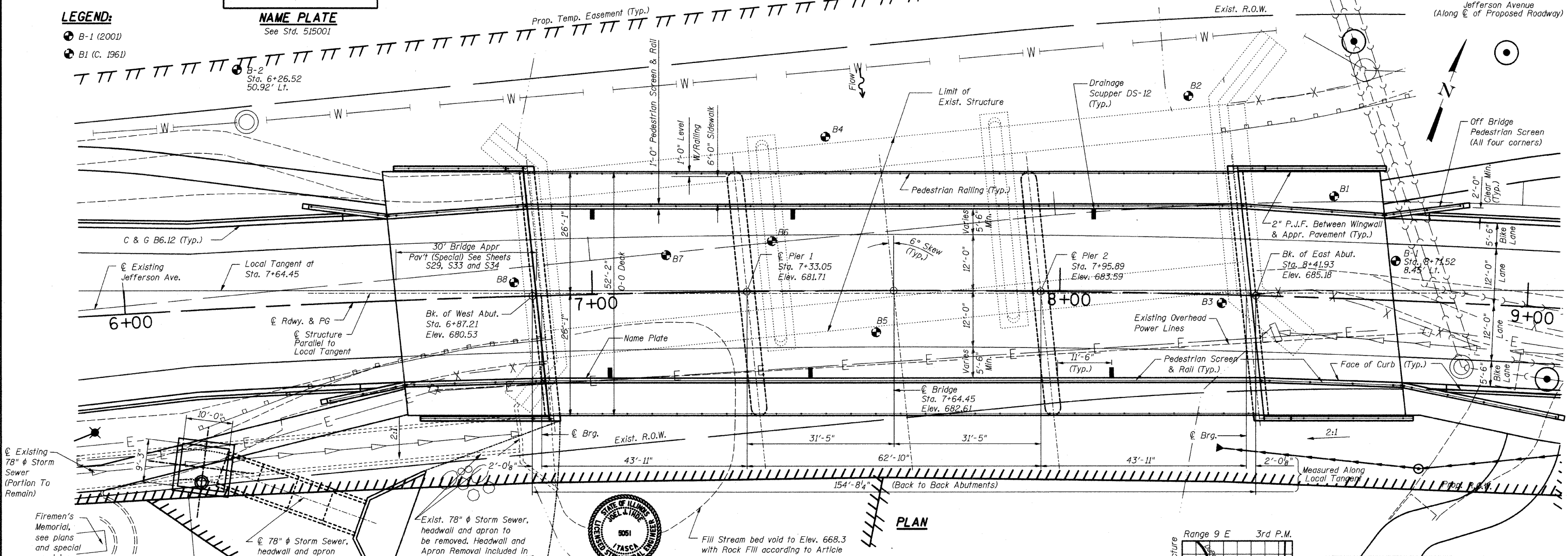
NAME PLATE

See Std. 515001



PROFILE GRADE

Jefferson Avenue
(Along ϕ of Proposed Roadway)



PLAN

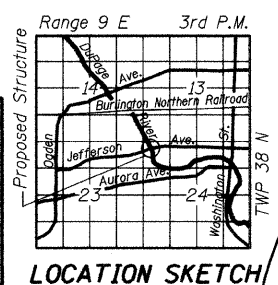
Fill Stream bed void to Elev. 668.3 with Rock Fill according to Article 1005 of the Standard Specifications.



DATE SIGNED: 7-14-09
EXP. DATE: 11-30-10
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO Standard Specifications for Highway Bridges."

WATERWAY INFORMATION

Drainage Area = 105.9 mi ²		Low Grade Elev. 677.05 @ Sta. 4+65.65				
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Nat. H.W.E.	Head - Ft.	Headwater El.
	10	3075	1114.6	676.50	8.55	676.45
	30	3730	1271.6	677.22	9.32	677.22
	100	4400	1534.4	678.10	10.08	677.98
	-	3375	1165.5	676.80	8.90	676.80
	500	5250	1905.3	678.90	11.00	678.90



LOCATION SKETCH

GENERAL PLAN

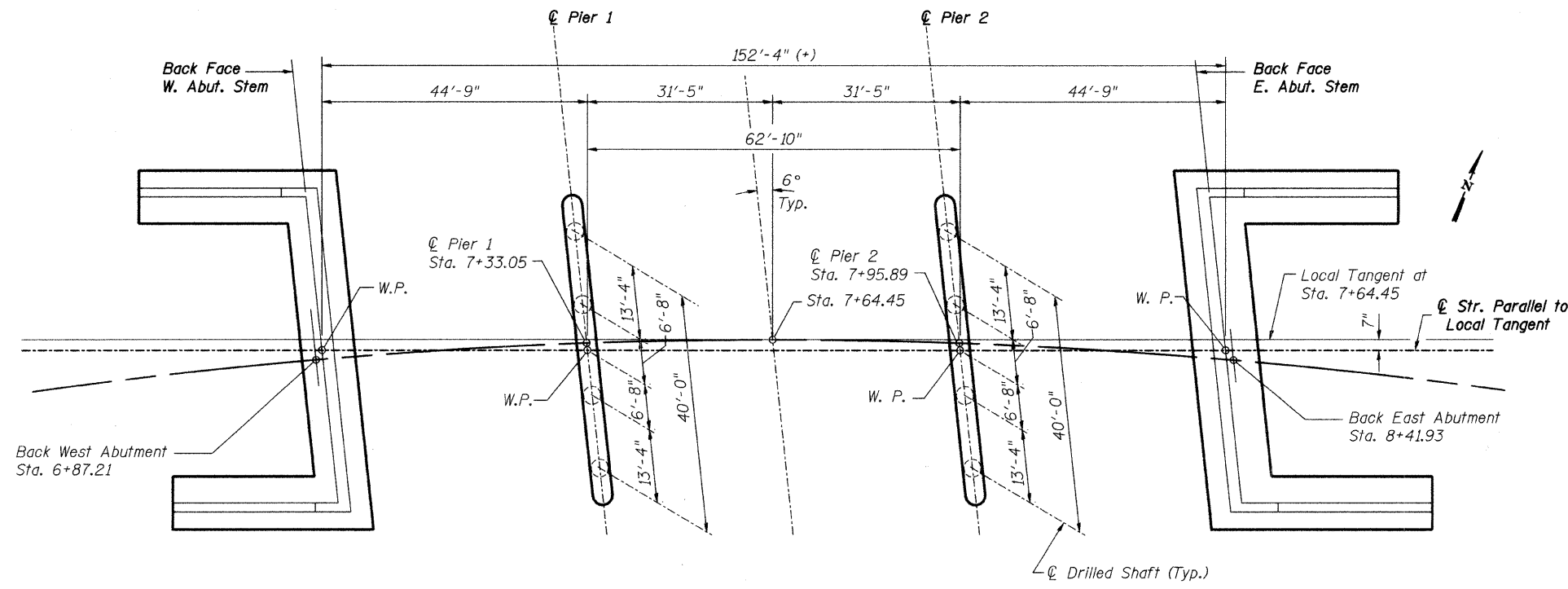
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

Bellinger, Lach & Associates, Inc.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET #	SHEET NO. S2 of S34 SHEETS
#	DUPAGE	106	23		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

* 00-00116-00-BR



GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts 7/8 in. φ, holes 15/16 in. φ, unless otherwise noted.

Calculated weight of Structural Steel = 174,900 pounds

All structural steel shall be AASHTO M 270 Grade 50W.

No field welding is permitted except as specified in the contract documents.

Anchor bolts shall be set before bolting diaphragms over supports.

The structural steel bearing plates of the Elastomeric Bearing Assembly shall conform to the requirements of AASHTO M 270 Grade 50W.

The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the wide flange beams and all splice plate material except fill plates.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Structural steel shall only be painted to a distance equal to the depth of embedment into the concrete cap plus 3 in. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".

All Construction joints shall be bonded.

Excavation behind existing abutment walls shall be done before removing the existing superstructure.

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 cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number which was issued for the permanent construction.

The Contractor shall coordinate the placement of Rockfill with adjacent construction.

Abutment wingwalls shall be backfilled simultaneously on both faces.

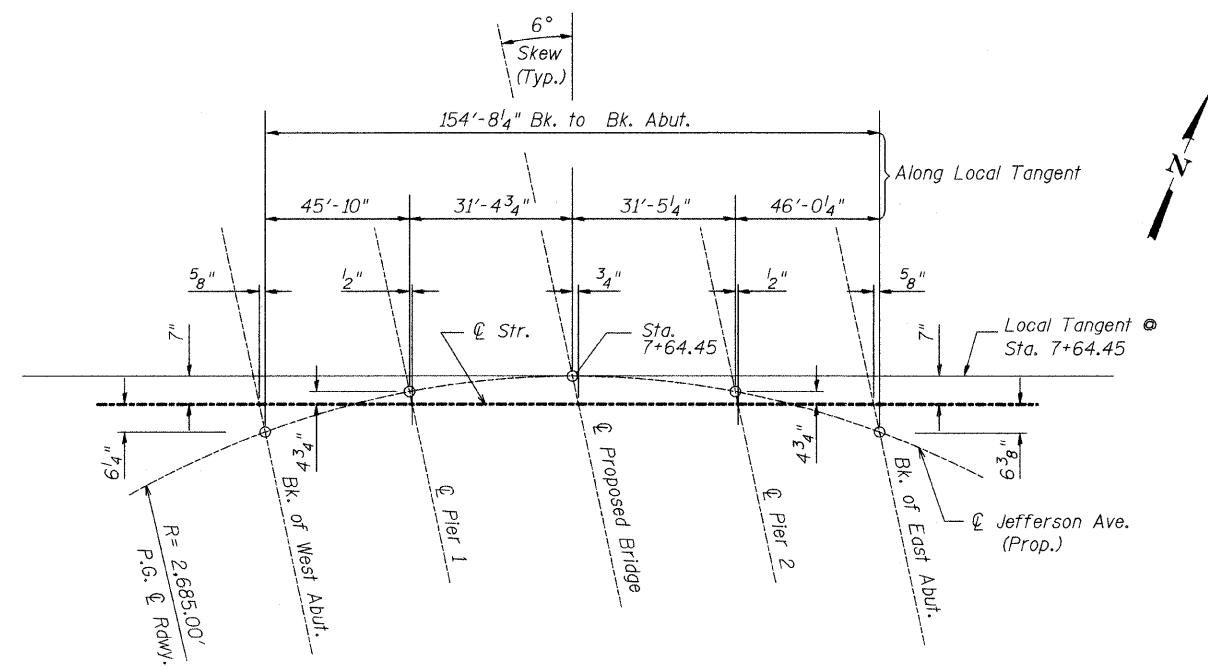
All exposed structural steel of the bearings shall be cleaned and shop painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel."

No substitutions will be allowed when ASHTO M153 Type IV preformed joint filler is specified.

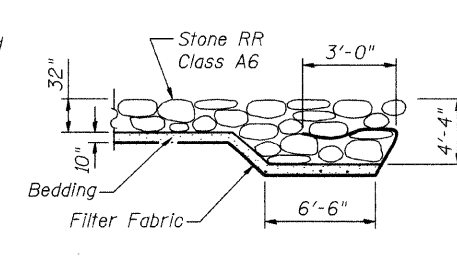
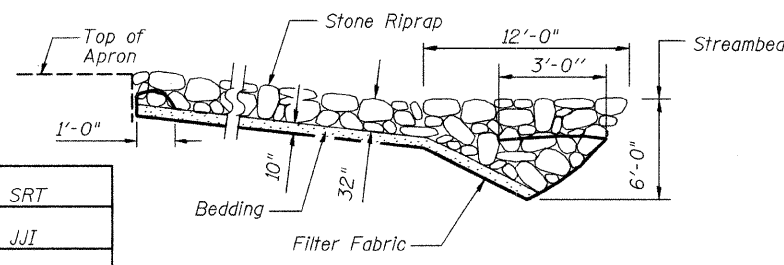
The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the bridge. See Special Provision for "Demolition Plans for Removal of Existing Structure"

TOTAL BILL OF MATERIAL *

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.	-	750	750
Removal of Existing Structures	Each	-	-	1
Structure Excavation	Cu. Yd.	-	1694	1694
Concrete Structures	Cu. Yd.	-	561.5	561.5
Concrete Superstructure	Cu. Yd.	283.6	-	283.6
Bridge Deck Grooving	Sq. Yd.	581	-	581
Pedestrian Rail (Special)	Foot	305	116	421
Furnishing and Erecting Structural Steel	L. Sum	1	-	1
Stud Shear Connectors	Each	4536	-	4536
Reinforcement Bars	Pound	-	11,500	11,500
Reinforcement Bars, Epoxy Coated	Pound	60,740	119,350	180,090
Drilled Shaft in Soil	Cu.Yd.	-	131.1	131.1
Drilled Shaft in Rock	Cu.Yd.	-	94.1	94.1
Permanent Casing	Foot	-	416	416
Name Plates	Each	-	-	1
Bar Splicers	Each	106	212	318
Drainage Scuppers, DS-12	Each	6	-	6
Elastomeric Bearing Assembly, Type I	Each	18	-	18
Underwater Structure Excavation	Each	-	1	1
Protection Location 1	Each	-	1	1
Underwater Structure Excavation	Each	-	1	1
Protection Location 2	Each	-	1	1
Underwater Structure Excavation	Each	-	1	1
Protection Location 3	Each	-	1	1
Underwater Structure Excavation	Each	-	1	1
Protection Location 4	Each	-	1	1
Protective Coat	Sq. Yd.	983	-	983
Stone Riprap, Class A6	Sq. Yd.	-	-	184
Filter Fabric for use with Riprap	Sq. Yd.	-	-	184
Pipe Drains 4"	Foot	-	20	20
Rock Fill	Cu. Yd.	-	-	262
Concrete Headwall for Pipe Drains	Each	-	2	2
Geocomposite Wall Drain	Sq. Yd.	-	243	243
Controlled Low-Strength Material	Cu.Yd.	-	26	26
Anchor Bolts, 1" φ	Each	36	-	36
Anchor Bolts, 1 1/2" φ	Each	36	-	36



OFFSET SKETCH



* Does not include Bridge Approach Pavement (Special), Approach Pavement Pedestrian Screen, Off Bridge Pedestrian Screen Parapet Railing, Precast Concrete Junction Chamber, and CIP Reinforced Concrete End Section 78". Special. See Sheets S29, S30, S31, S32, S33 and S34 for additional quantities and details.

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

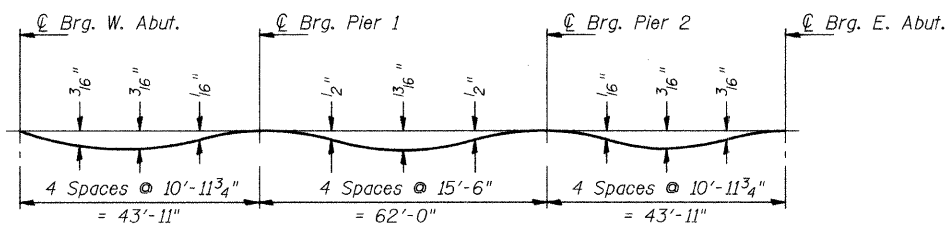
B Bollinger, Leach & Associates, Inc.

GENERAL NOTES AND TOTAL BILL OF MATERIAL

JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

To determine "f": After all structural steel has 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 Deflection" shown below and on Sheets, #S4 and #S5 of S34, minus slab thickness, equals the fillet heights "f" above top flange of beams.

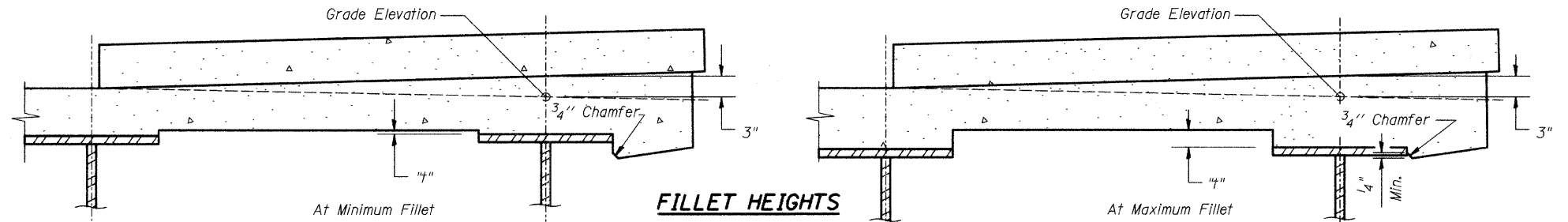
* 00-00116-00-BR



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown below and on Sheets #S4 and #S5 of S34.



FILLET HEIGHTS

BEAM #1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+85.352	-24.593	680.037	680.037
☉ BRG. W. ABUT.	6+87.353	-24.534	680.089	680.089
A	6+97.259	-24.265	680.345	680.360
B	7+07.167	-24.033	680.601	680.614
C	7+17.077	-23.839	680.857	680.886
☉ PIER 1	7+30.863	-23.629	681.224	681.224
D	7+40.776	-23.522	681.497	681.522
E	7+50.689	-23.453	681.779	681.833
F	7+60.602	-23.420	682.068	682.137
G	7+70.516	-23.424	682.364	682.426
H	7+80.429	-23.465	682.669	682.703
☉ PIER 2	7+93.157	-23.572	683.071	683.071
I	8+03.069	-23.697	683.394	683.396
J	8+12.980	-23.859	683.724	683.738
K	8+22.890	-24.059	684.061	684.078
☉ BRG. E. ABUT.	8+36.671	-24.397	684.544	684.544
BK. E. ABUT.	8+38.672	-24.452	684.615	684.615

BEAM #2

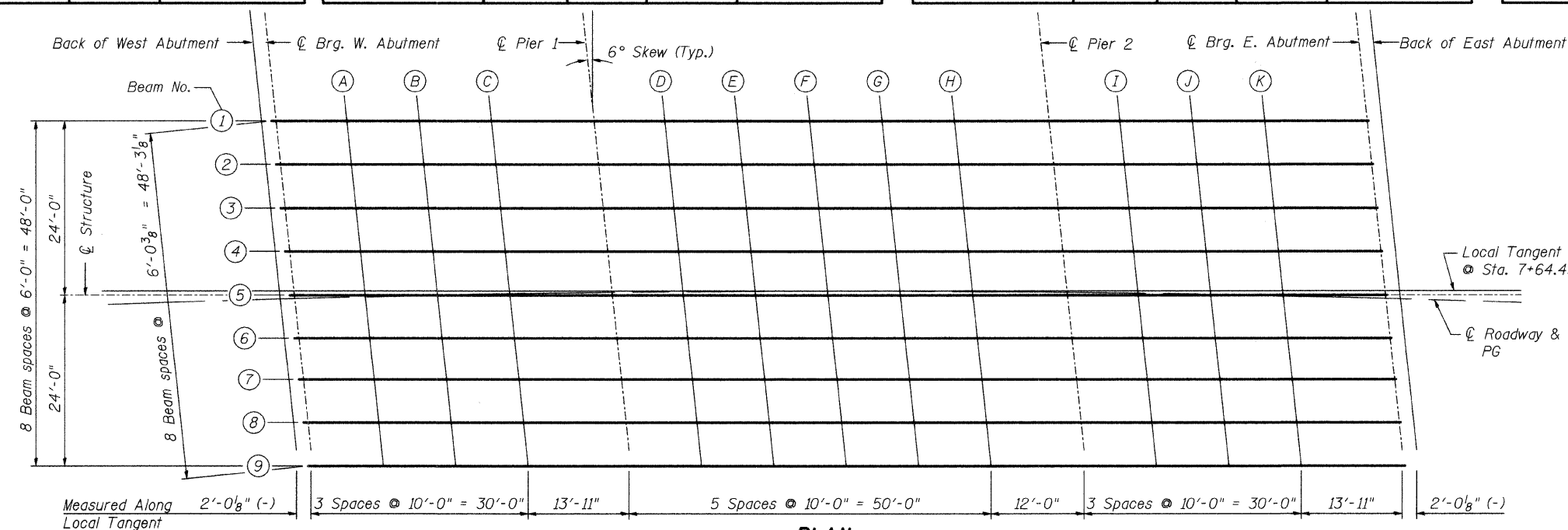
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+85.802	-18.577	680.174	680.174
☉ BRG. W. ABUT.	6+87.808	-18.518	680.226	680.226
A	6+97.736	-18.251	680.483	680.497
B	7+07.666	-18.021	680.739	680.752
C	7+17.598	-17.828	680.995	681.025
☉ PIER 1	7+31.415	-17.622	681.364	681.364
D	7+41.350	-17.517	681.638	681.663
E	7+51.285	-17.449	681.921	681.976
F	7+61.220	-17.419	682.211	682.281
G	7+71.156	-17.425	682.509	682.570
H	7+81.091	-17.469	682.815	682.848
☉ PIER 2	7+93.848	-17.579	683.219	683.219
I	8+03.781	-17.707	683.542	683.545
J	8+13.714	-17.872	683.873	683.887
K	8+23.646	-18.074	684.213	684.229
☉ BRG. E. ABUT.	8+37.458	-18.416	684.697	684.697
BK. E. ABUT.	8+39.463	-18.472	684.769	684.769

BEAM #3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+86.255	-12.561	680.311	680.311
☉ BRG. W. ABUT.	6+88.265	-12.503	680.363	680.363
A	6+98.215	-12.238	680.620	680.635
B	7+08.168	-12.010	680.877	680.890
C	7+18.122	-11.818	681.133	681.162
☉ PIER 1	7+31.970	-11.614	681.502	681.502
D	7+41.926	-11.512	681.777	681.802
E	7+51.884	-11.447	682.060	682.115
F	7+61.841	-11.418	682.351	682.421
G	7+71.799	-11.427	682.650	682.712
H	7+81.756	-11.473	682.958	682.991
☉ PIER 2	7+94.541	-11.586	683.364	683.364
I	8+04.497	-11.717	683.689	683.692
J	8+14.452	-11.885	684.023	684.037
K	8+24.405	-12.089	684.364	684.380
☉ BRG. E. ABUT.	8+38.248	-12.436	684.850	684.850
BK. E. ABUT.	8+40.257	-12.492	684.922	684.922

BEAM #4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+86.709	-6.545	680.419	680.419
☉ BRG. W. ABUT.	6+88.724	-6.487	680.471	680.471
A	6+98.696	-6.224	680.727	680.742
B	7+08.671	-5.998	680.983	680.997
C	7+18.648	-5.809	681.240	681.270
☉ PIER 1	7+32.527	-5.607	681.611	681.611
D	7+42.505	-5.507	681.887	681.912
E	7+52.485	-5.444	682.171	682.226
F	7+62.465	-5.418	682.463	682.533
G	7+72.444	-5.429	682.764	682.825
H	7+82.424	-5.477	683.072	683.106
☉ PIER 2	7+95.237	-5.594	683.480	683.480
I	8+05.215	-5.727	683.807	683.810
J	8+15.192	-5.898	684.142	684.156
K	8+25.168	-6.105	684.485	684.501
☉ BRG. E. ABUT.	8+39.041	-6.456	684.975	684.975
BK. E. ABUT.	8+41.055	-6.512	685.047	685.047



PLAN

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

Bellinger, Lach & Associates, Inc.

TOP OF SLAB ELEVATIONS
 JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER
 FAU 3570 SECTION 00-00116-00-BR
 DUPAGE COUNTY
 STA. 7+64.45
 STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 54 of 534 SHEETS
	*	DUPAGE	106	25	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

* 00-00116-00-BR

☉ ROADWAY & PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+87.206	0.000	680.534	680.534
☉ BRG. W. ABUT.	6+89.221	0.000	680.585	680.585
A	6+99.221	0.000	680.838	680.853
B	7+09.221	0.000	681.091	681.104
C	7+19.221	0.000	681.346	681.376
☉ PIER 1	7+33.049	0.000	681.713	681.713
D	7+43.049	0.000	681.988	682.013
E	7+53.049	0.000	682.272	682.327
F	7+63.049	0.000	682.565	682.635
G	7+73.049	0.000	682.867	682.928
H	7+83.049	0.000	683.177	683.211
☉ PIER 2	7+95.890	0.000	683.589	683.589
I	8+05.890	0.000	683.919	683.922
J	8+15.890	0.000	684.258	684.272
K	8+25.890	0.000	684.605	684.622
☉ BRG. E. ABUT.	8+39.901	0.000	685.107	685.107
BK. E. ABUT.	8+41.928	0.000	685.181	685.181

BEAM #5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+87.166	-0.529	680.525	680.525
☉ BRG. W. ABUT.	6+89.185	-0.472	680.577	680.577
A	6+99.180	-0.210	680.834	680.848
B	7+09.177	0.014	681.090	681.103
C	7+19.176	0.201	681.342	681.371
☉ PIER 1	7+33.086	0.400	681.707	681.707
D	7+43.087	0.498	681.982	682.006
E	7+53.089	0.559	682.265	682.320
F	7+63.091	0.583	682.558	682.627
G	7+73.093	0.569	682.860	682.921
H	7+83.095	0.518	683.171	683.205
☉ PIER 2	7+95.937	0.398	683.584	683.584
I	8+05.937	0.263	683.916	683.919
J	8+15.936	0.089	684.258	684.272
K	8+25.934	-0.121	684.605	684.621
☉ BRG. E. ABUT.	8+39.838	-0.475	685.097	685.097
BK. E. ABUT.	8+41.857	-0.533	685.170	685.170

BEAM #6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+87.624	5.486	680.459	680.459
☉ BRG. W. ABUT.	6+89.648	5.543	680.509	680.509
A	6+99.666	5.803	680.758	680.773
B	7+09.685	6.026	681.008	681.022
C	7+19.706	6.211	681.262	681.291
☉ PIER 1	7+33.648	6.407	681.629	681.629
D	7+43.671	6.503	681.904	681.929
E	7+53.696	6.562	682.189	682.244
F	7+63.720	6.583	682.483	682.552
G	7+73.745	6.567	682.786	682.847
H	7+83.769	6.514	683.098	683.132
☉ PIER 2	7+96.639	6.391	683.513	683.513
I	8+06.662	6.252	683.847	683.850
J	8+16.683	6.076	684.190	684.204
K	8+26.703	5.863	684.542	684.559
☉ BRG. E. ABUT.	8+40.638	5.504	685.048	685.048
BK. E. ABUT.	8+42.662	5.446	685.123	685.123

BEAM #7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+88.085	11.502	680.376	680.376
☉ BRG. W. ABUT.	6+90.113	11.558	680.427	680.427
A	7+00.153	11.817	680.677	680.692
B	7+10.196	12.037	680.927	680.941
C	7+20.239	12.221	681.180	681.210
☉ PIER 1	7+34.212	12.414	681.548	681.548
D	7+44.258	12.507	681.824	681.849
E	7+54.305	12.564	682.110	682.164
F	7+64.352	12.583	682.405	682.474
G	7+74.399	12.565	682.709	682.770
H	7+84.446	12.509	683.023	683.057
☉ PIER 2	7+97.345	12.382	683.441	683.441
I	8+07.390	12.241	683.777	683.779
J	8+17.434	12.063	684.122	684.136
K	8+27.476	11.847	684.476	684.492
☉ BRG. E. ABUT.	8+41.442	11.484	684.984	684.984
BK. E. ABUT.	8+43.470	11.425	685.059	685.059

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

 **Bollinger, Loch & Associates, Inc.**

TOP OF SLAB ELEVATIONS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	DUPAGE		106	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. S5
of 534 SHEETS

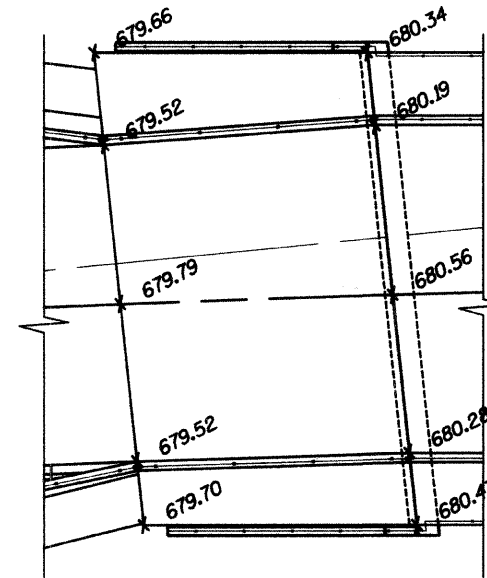
* 00-00116-00-BR

BEAM #8

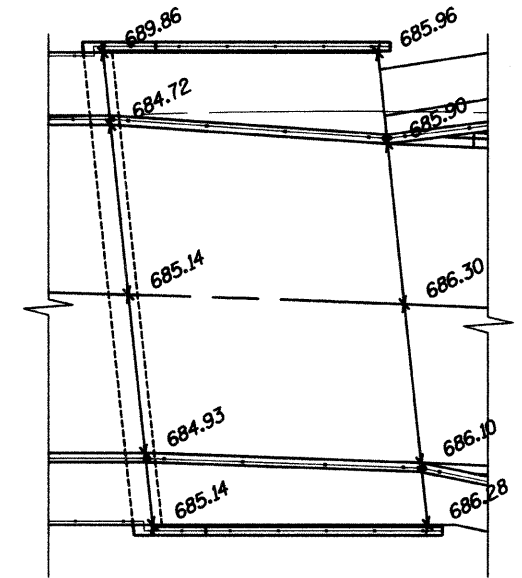
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+88.548	17.517	680.265	680.265
☉ BRG. W. ABUT.	6+90.580	17.574	680.316	680.316
A	7+00.643	17.830	680.565	680.580
B	7+10.708	18.049	680.815	680.829
C	7+20.775	18.230	680.069	681.099
☉ PIER 1	7+34.779	18.420	681.439	681.439
D	7+44.848	18.512	681.716	681.740
E	7+54.917	18.566	682.002	682.057
F	7+64.987	18.583	682.299	682.368
G	7+75.057	18.562	682.604	682.666
H	7+85.126	18.504	682.920	682.954
☉ PIER 2	7+98.054	18.374	683.339	683.339
I	8+08.122	18.230	683.676	683.679
J	8+18.188	18.049	684.023	684.037
K	8+28.253	17.830	684.380	684.396
☉ BRG. E. ABUT.	8+42.250	17.463	684.891	684.891
BK. E. ABUT.	8+44.282	17.404	684.967	684.967

BEAM #9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. W. ABUT.	6+89.013	23.533	680.152	680.152
☉ BRG. W. ABUT.	6+91.050	23.589	680.202	680.202
A	7+01.136	23.843	680.452	680.467
B	7+11.223	24.060	680.703	680.716
C	7+21.313	24.240	680.958	680.987
☉ PIER 1	7+35.348	24.427	681.329	681.329
D	7+45.440	24.516	681.607	681.632
E	7+55.532	24.568	681.895	681.950
F	7+65.625	24.583	682.193	682.262
G	7+75.717	24.560	682.500	682.561
H	7+85.809	24.499	682.817	682.850
☉ PIER 2	7+98.766	24.366	683.238	683.238
I	8+08.856	24.219	683.576	683.579
J	8+18.945	24.035	683.925	683.939
K	8+29.033	23.813	684.283	684.299
☉ BRG. E. ABUT.	8+43.061	23.442	684.797	684.797
BK. E. ABUT.	8+45.098	23.382	684.873	684.873



WEST APPROACH PAVEMENT PLAN



EAST APPROACH PAVEMENT PLAN

Note: Spot grades given are for the top of approach pavement, add 6 1/2" to calculate top of sidewalk elevations.

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

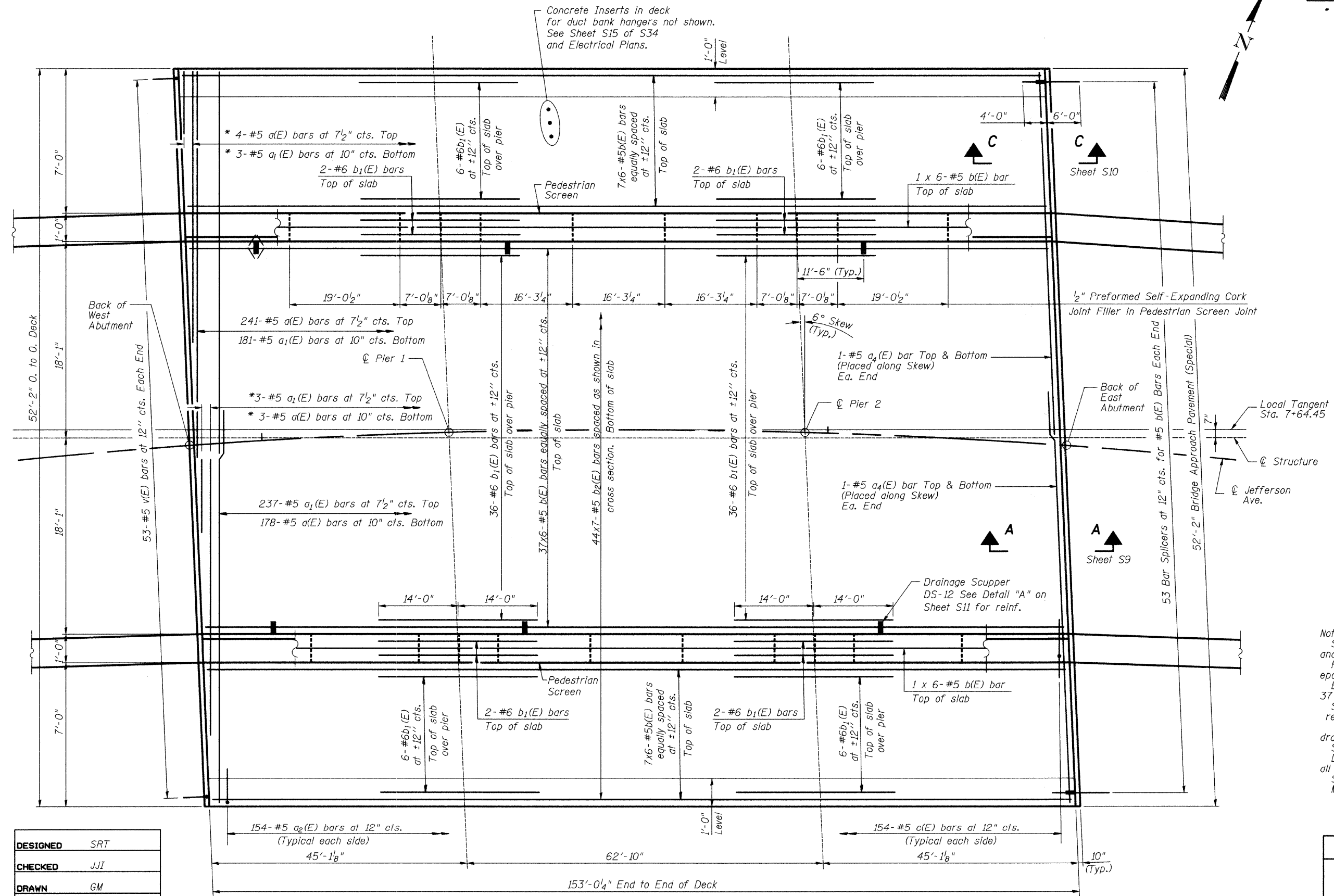
B Bellinger, Lach & Associates, Inc.

TOP OF SLAB ELEVATIONS
JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER FAU 3570 SECTION 00-00116-00-BR DUPAGE COUNTY STA. 7+64.45 STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S6 of S34 SHEETS
#	DUPAGE	106	27		
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

* 00-00116-00-BR



DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

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

PLAN

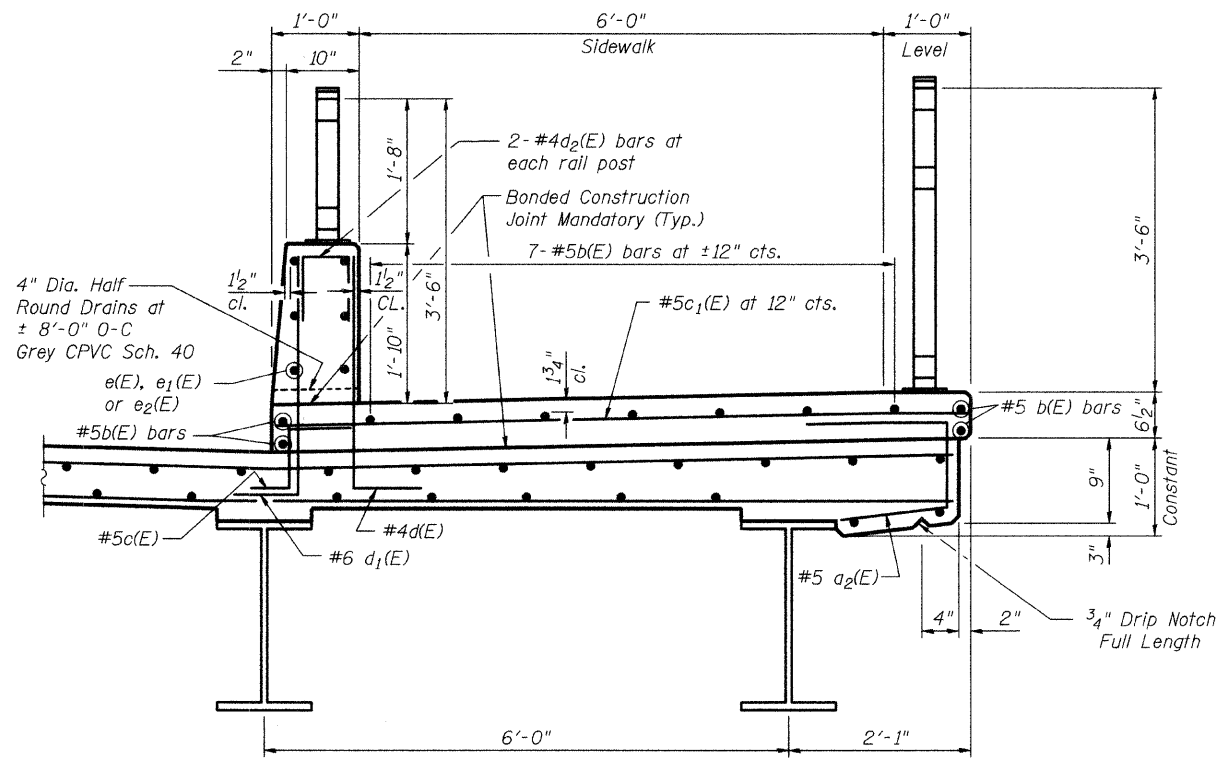
Notes:
See Sheet S11 of S34 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 37 x 6-#5 etc. indicates 37 lines of bars with 6 lengths per line.
See Sheet S8 of S34 for pedestrian screen reinforcement.
Cut longitudinal reinforcement to clear drainage scuppers.
Space drainage scupper to clear shear studs.
Drainage scuppers shall be located clear of all diaphragms.
See sheet S11 for drainage scupper details.
Minimum lap #5 bars = 1'-8".

SUPERSTRUCTURE PLAN

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

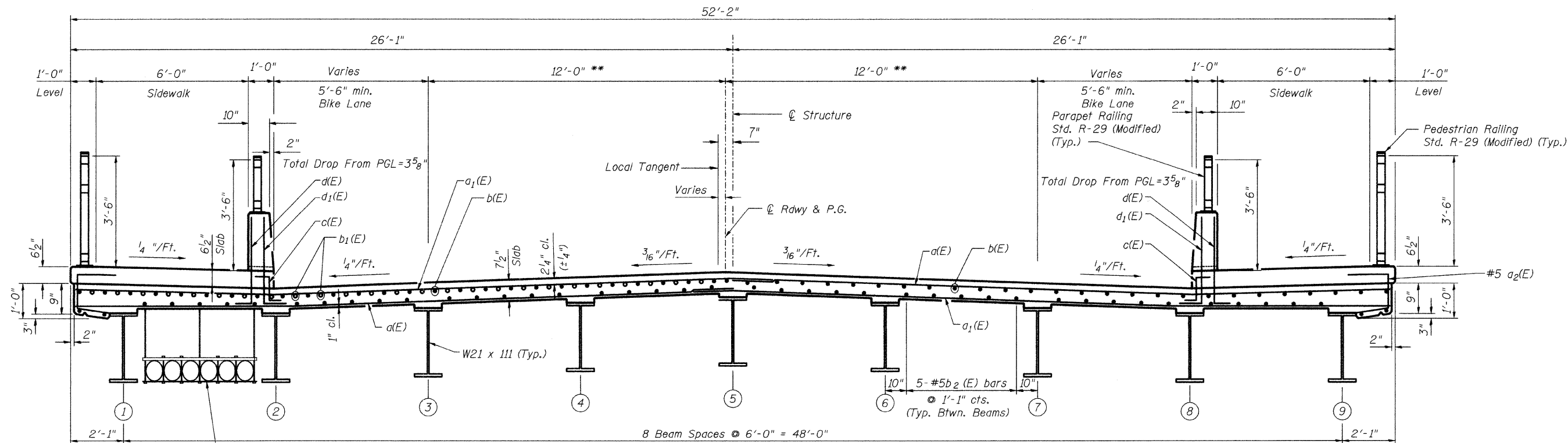
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	#	DUPAGE	106	28
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

00-00116-00-BR



SOUTH SIDEWALK AND PEDESTRIAN SCREEN
(North Sidewalk and Pedestrian Screen Similar)

Notes:
See Sheet S11 of S34 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
See Sheet S8 of S34 for Pedestrian Screen reinforcement.
Parapet Railing at sidewalk is included in payment for Pedestrian Railing.
See Sheet S9 of S34 for section at Abutment.
Cost of 4" Dia. Half Round Drains shall be included in the pay item Concrete Superstructure.



NEAR PIER

NEAR MIDSPAN

CROSS SECTION
(Looking East)

** Radial

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

City of Naperville,
Dept. of Public Utilities
Electric Duct Bank,
See Electrical Plans
and Sheet S15.

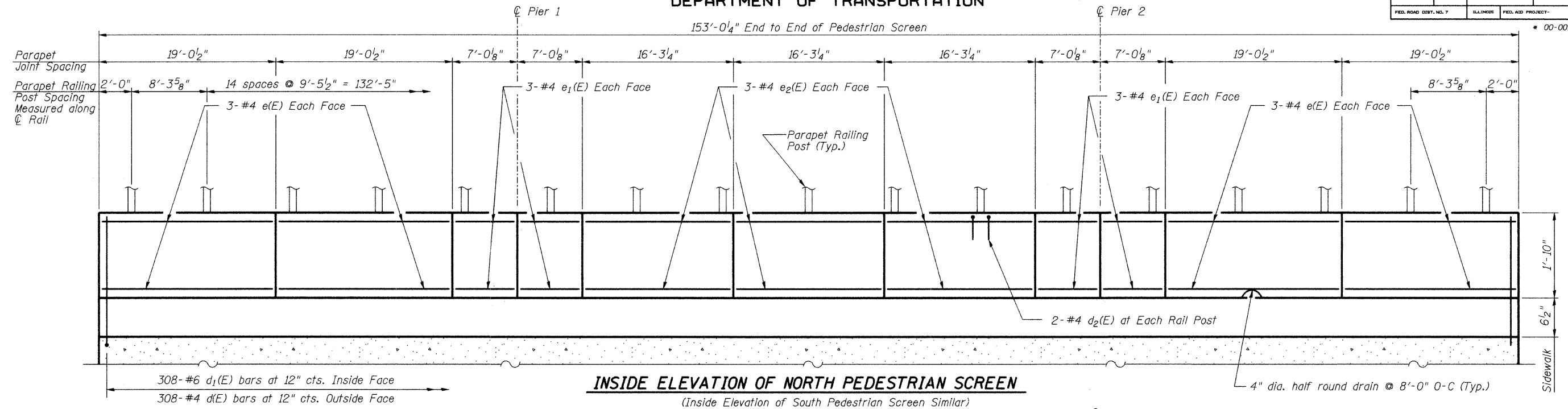
Bollinger, Lach & Associates, Inc.

SUPERSTRUCTURE CROSS SECTIONS

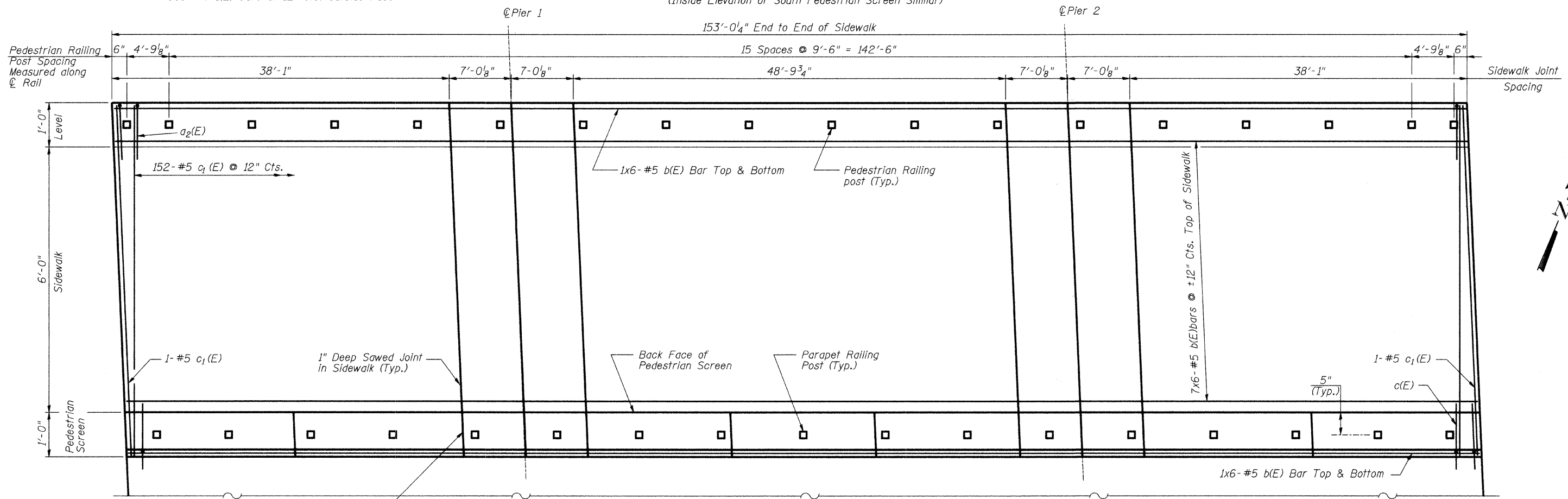
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S8 of S34 SHEETS
#	DUPAGE	106	29		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



INSIDE ELEVATION OF NORTH PEDESTRIAN SCREEN
(Inside Elevation of South Pedestrian Screen Similar)



NORTH SIDEWALK PLAN
(Plan of South Sidewalk Similar)

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bollinger, Lach & Associates, Inc.

Notes:
 For Bar details see sheet S11 of S34.
 For Railing details see sheet S12 of S34.
 For Pedestrian Screen and Sidewalk cross-section see sheet S7 of S34.
 Bars indicated thus 7x6-#5 etc. indicates 7 lines of bars with 6 lengths per line.
 Reinforcement bars designated (E) shall be epoxy coated.
 #5 min. lap = 1'-8".

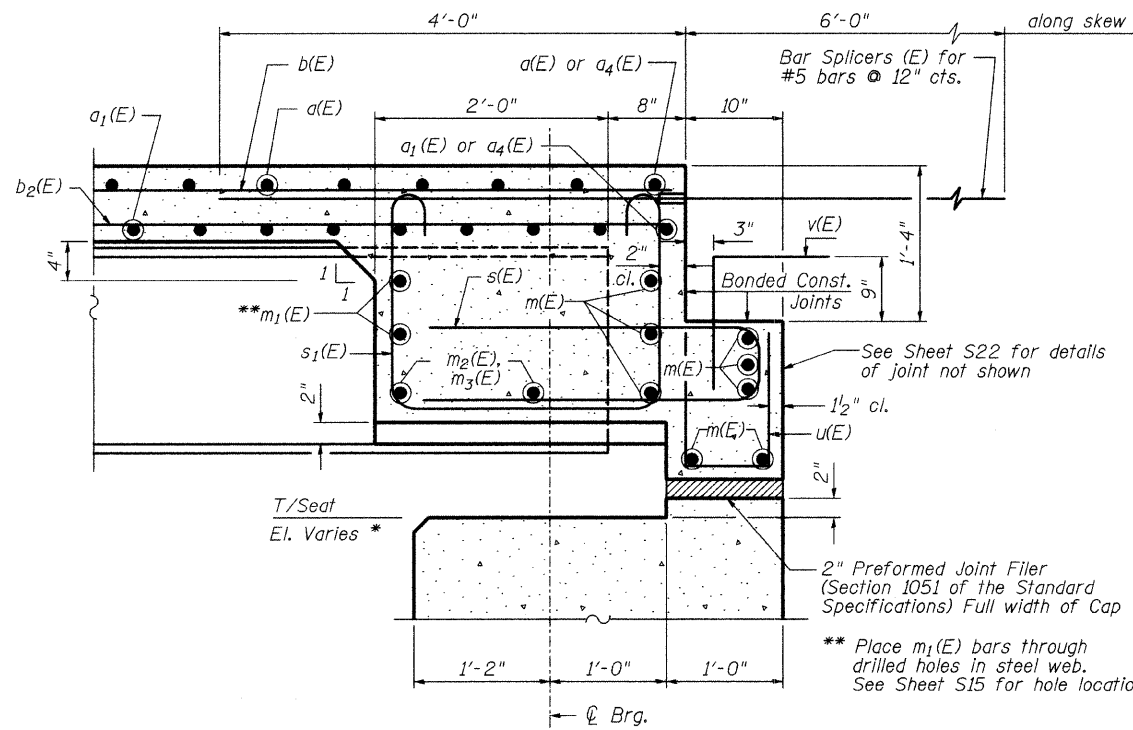
PEDESTRIAN SCREEN & SIDEWALK
 JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER
 FAU 3570 SECTION 00-00116-00-BR
 DUPAGE COUNTY
 STA. 7+64.45
 STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

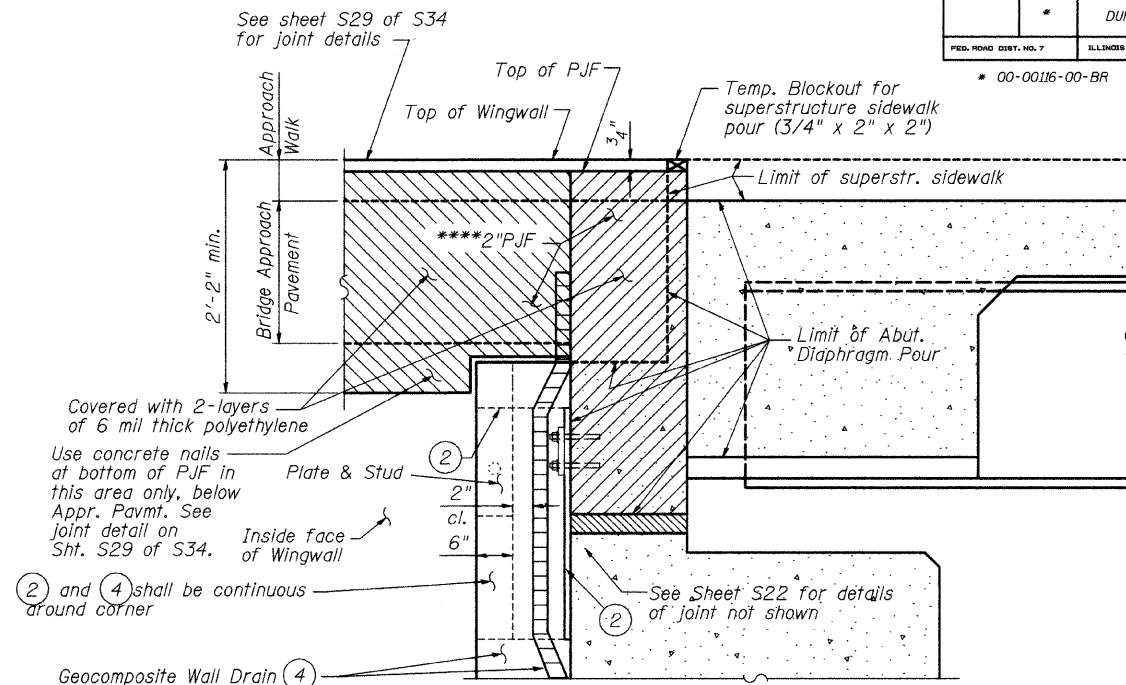
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*	DUPAGE		106	30
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
* 00-00116-00-BR				

SHEET NO. S9
of S34 SHEETS



SECTION A-A

(Dim. at Rt. L's except as noted)
* See Abutments for Bearing Seat Elevations



- ② Fabric Reinforced Elastomeric Mat
- ③ Not Used
- ④ Geocomposite Wall Drain

SECTION B-B

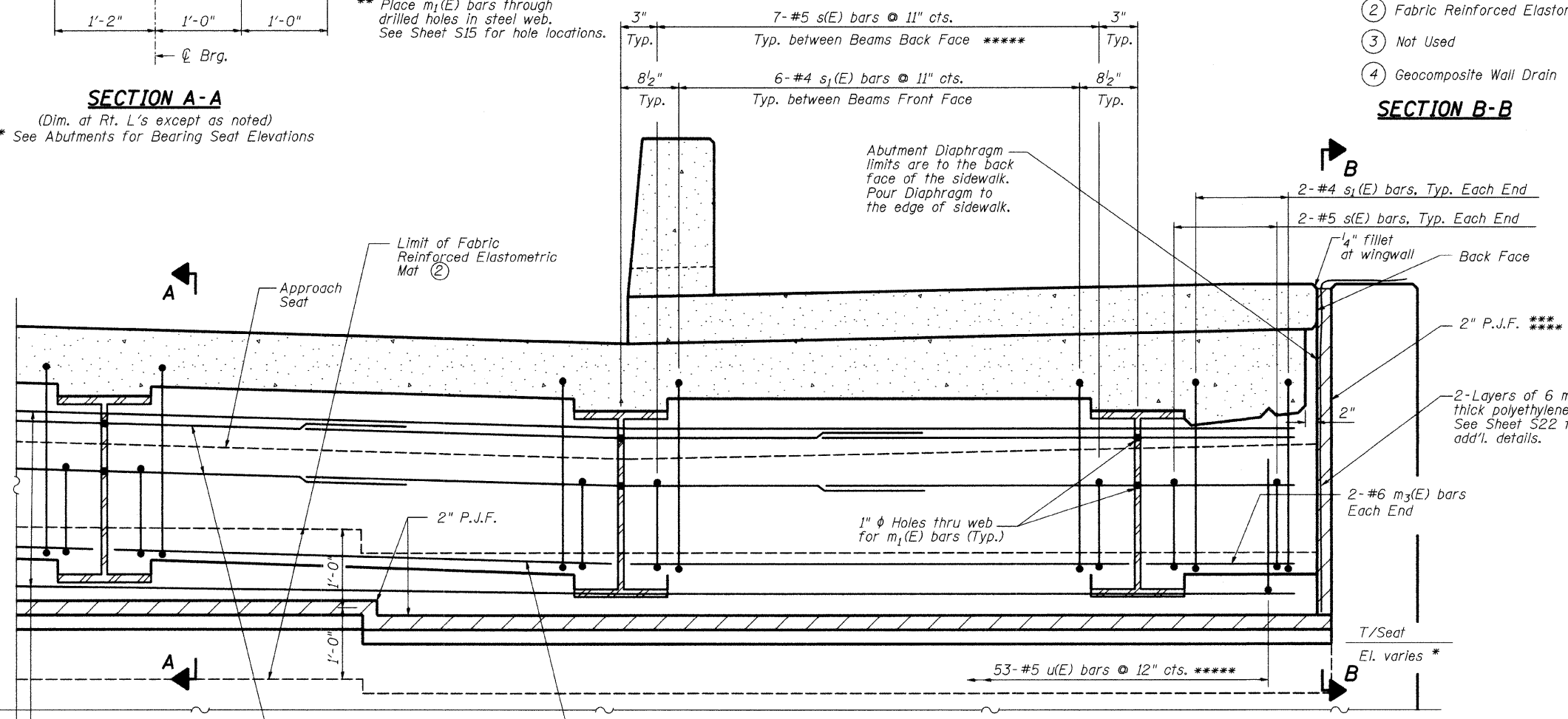
*** Provide items ② & ④ as shown on Abutment Details sheet behind 2" P.J.F. See Section B-B and Sheet S22. Cost included with Concrete Superstructure.

**** 2" Preformed Joint Filler. Polyurethane Bonded Recycled Rubber conforming with the requirements of AASHTO M 153, Type IV.

Attach all layers of P.J.F. with adhesive, fasteners not allowed, except as noted. Adhesive shall be supplied and/or approved by the P.J.F. manufacturer. Face of P.J.F. shall be true and flat, depressions or gaps shall be filled flush with face of P.J.F. with an approved patching material.

***** Omit m2(E) bars between beams 1 and 2. Cut to fit m(E) bars in back face (2 total) which interfere with electric ducts. Arrange s(E) and u(E) bars between beams 1 and 2 as shown in Abutment Diaphragm Elevation-North End and Section C-C, sheet S10 of S34.

Notes: Reinforcement bars in diaphragm are billed with superstructure on sheet S11 of S34.
Concrete in diaphragm is included with Concrete Superstructure on sheet S11 of S34.
For details of bars s(E) & s1(E) see sheet S11 of S34.
The s(E) and s1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.



ABUTMENT DIAPHRAGM ELEVATION - SOUTH END

(Bearings and Bars Billed on Superstructure Plan not shown for clarity)
* See Abutments for Bearing Seat Elevations

MIN. BAR LAP
#6 bar = 2'-9"

ABUTMENT DIAPHRAGM - TYPICAL

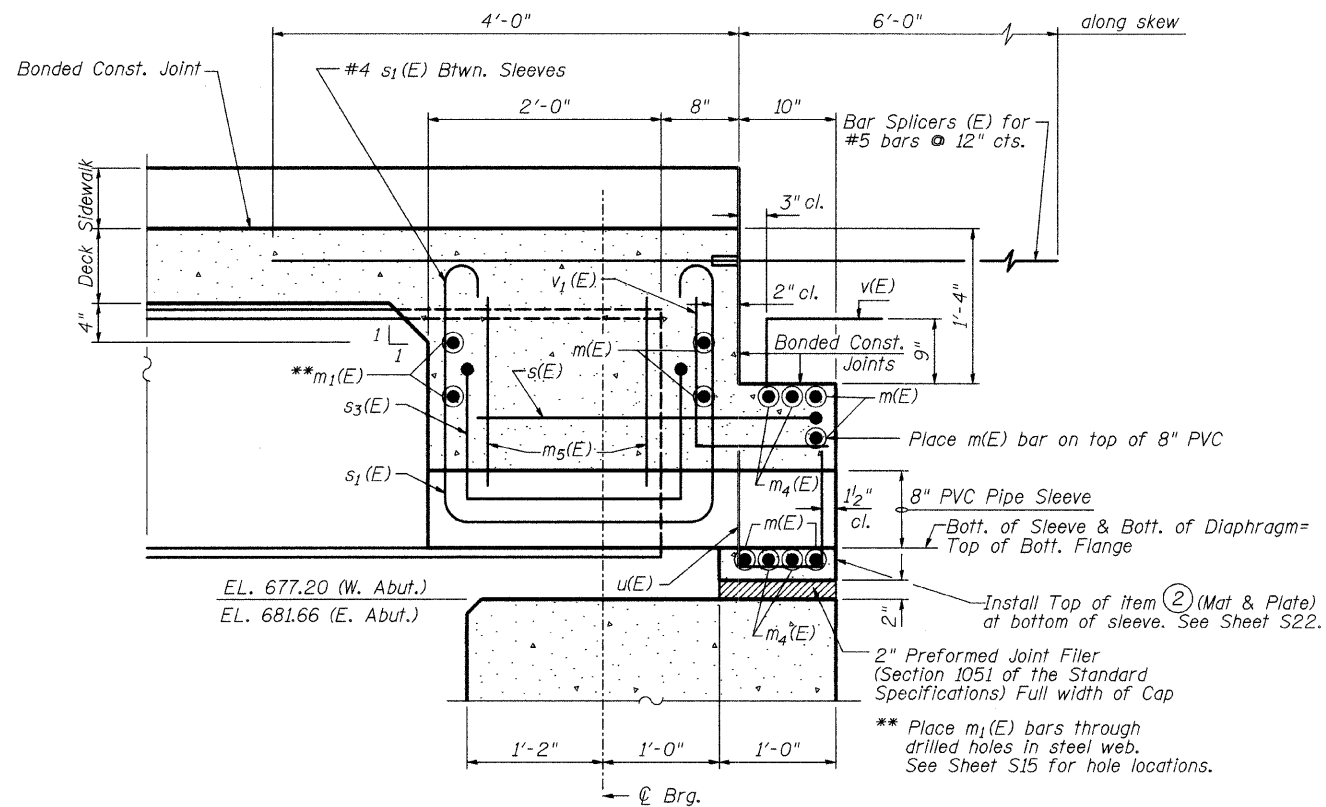
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bollinger, Lach & Associates, Inc.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S10 of S34 SHEETS
#	DUPAGE	106	31		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

* 00-00116-00-BR



SECTION C-C

(Dim. at Rt. L's except as noted)
(For details of diagrams not shown see Section A-A)
Cut 2-m(E) bars that interfere with sleeves to fit.
See Section A-A, Sht. S9.

EL. 677.20 (W. Abut.)
EL. 681.66 (E. Abut.)

Place m(E) bar on top of 8" PVC
Bott. of Sleeve & Bott. of Diaphragm =
Top of Bott. Flange
Install Top of item ② (Mat & Plate)
at bottom of sleeve. See Sheet S22.
2" Preformed Joint Filler
(Section 1051 of the Standard
Specifications) Full width of Cap
*** Place m1(E) bars through
drilled holes in steel web.
See Sheet S15 for hole locations.

2-#4 s1(E) bars, Typ. Each End

2-#5 s(E) bars, Typ. Each End

1/4" fillet at wingwall

2" P.J.F. ****

2-Layers of 6 mil
thick polyethylene
See Sheet S29 for
add'l. details

1-#6 s3(E) bars
Each Side of
Sleeves

2-#6 m3(E) bars
Each End

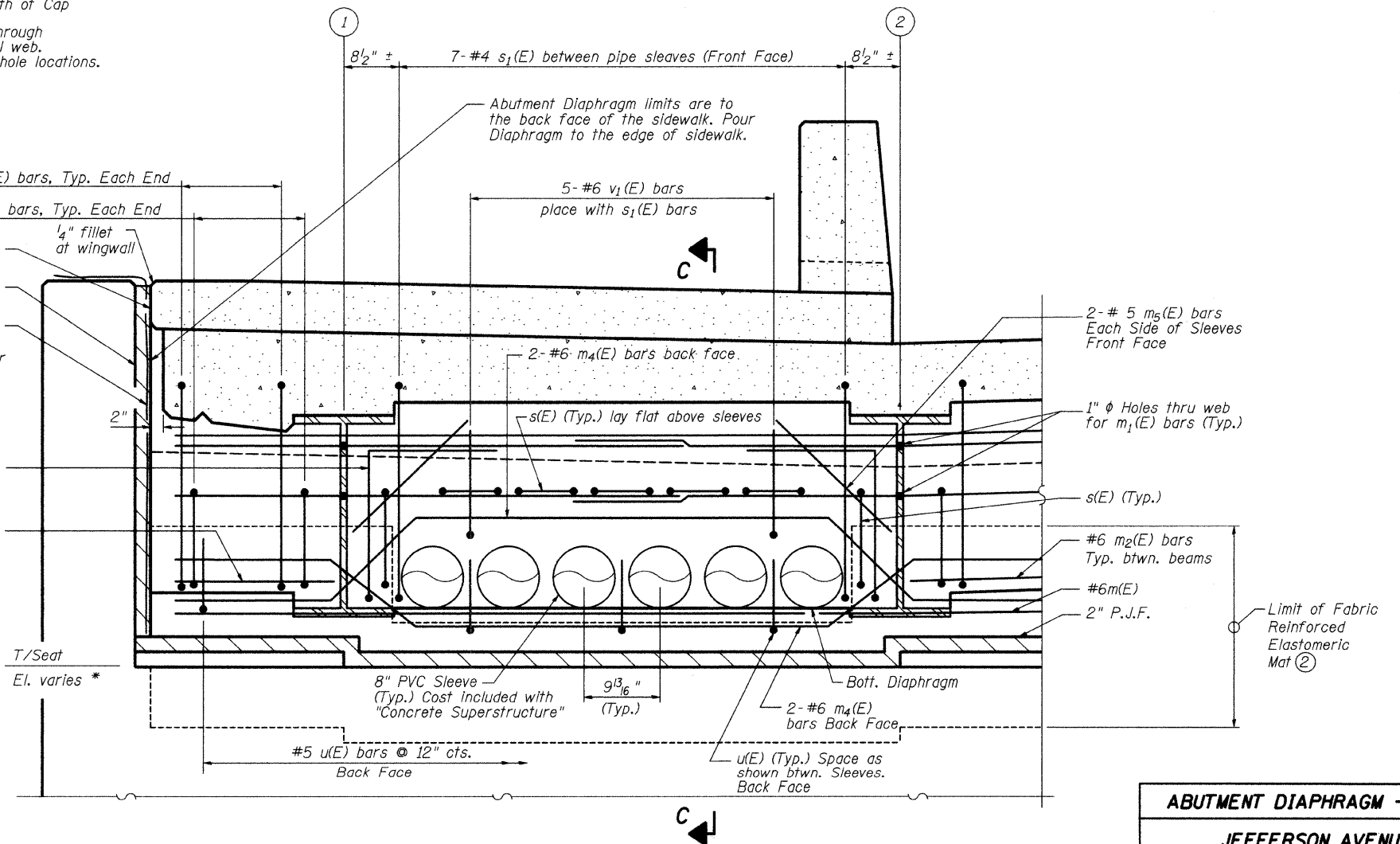
*** Provide items ② & ④ as shown on Abutment
details sheet behind 2" P.J.F. See Section B-B
and Sheets S29. Cost included with Concrete
Superstructure.

**** 2" Preformed Joint Filler. Polyurethane Bonded
Recycled Rubber conforming with the requirements
of AASHTO M 153, Type IV.

Attach all layers of P.J.F. with adhesive, fasteners
not allowed. Adhesive shall be supplied and/or
approved by the P.J.F. manufacturer. Face of P.J.F.
shall be true and flat, depressions or gaps shall
be filled flush with face of P.J.F. with an approved
patching material.

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

SI-DS2 4-30-99



ABUTMENT DIAPHRAGM ELEVATION - NORTH END

(Bearings and Bars Billed on Superstructure Plan not shown for clarity)

Notes: Reinforcement bars in diaphragm are billed with
superstructure on sheet S11 of S34.
Concrete in diaphragm is included with Concrete
Superstructure on sheet S11 of S34.
For details of bars s(E) & s1(E) see sheet S11 of S34.
The s(E) and s1(E) bars shall be placed parallel to the
beams. Spacing for these bars shall be at right angles
to the beams.
Coordinate location of Pipe Sleeves with electric conduit.
See Electrical Plans.

MIN. BAR LAP

#6 bar = 2'-9"

ABUTMENT DIAPHRAGM - NORTH END

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

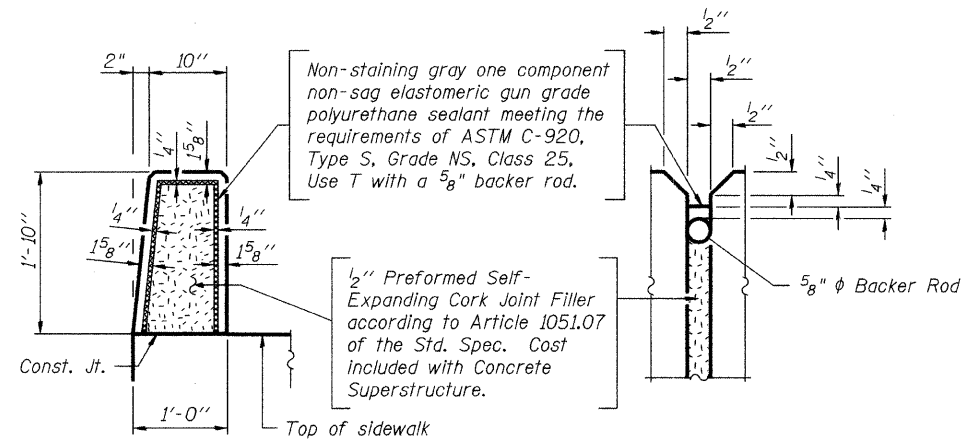
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

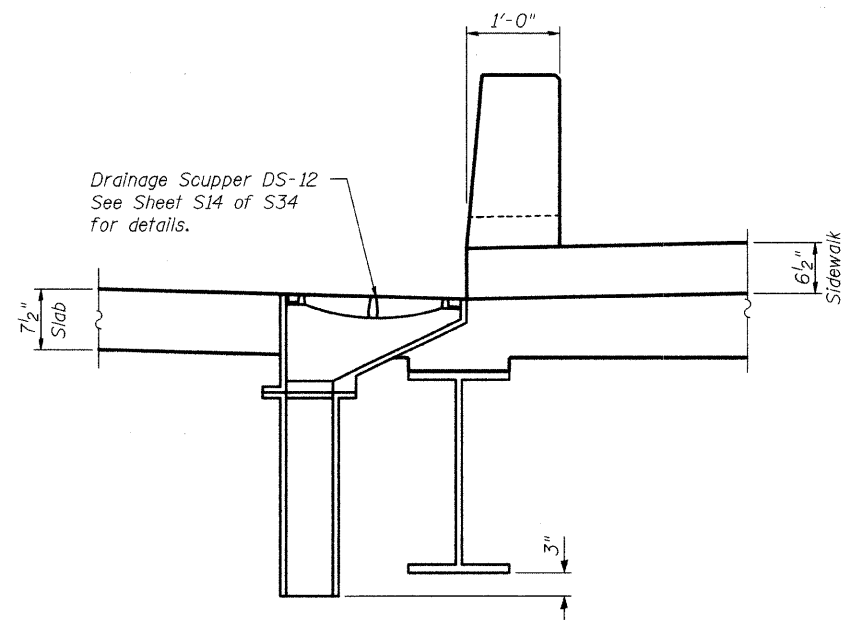
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		DUPAGE	106	32
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

SHEET NO. S11
of S34 SHEETS

* 00-00116-00-BR

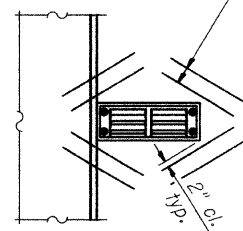


PEDESTRIAN SCREEN JOINT DETAILS

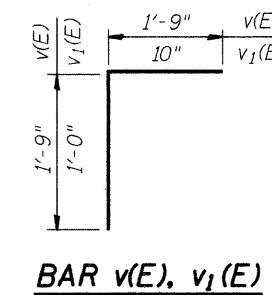
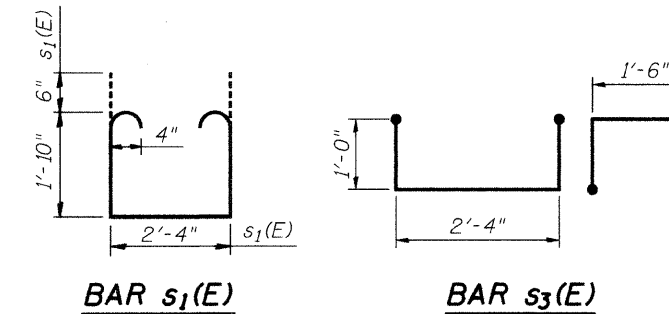
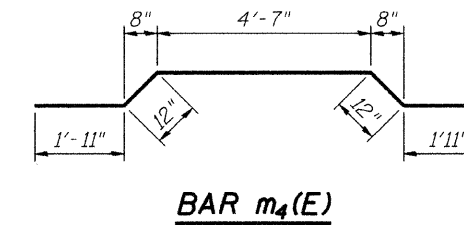
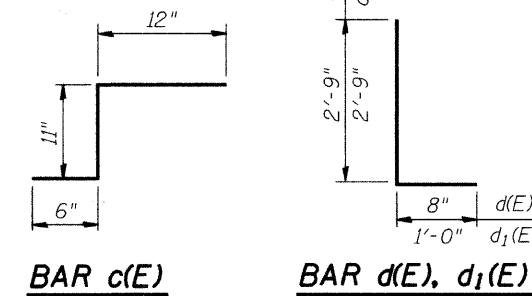
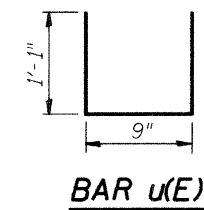
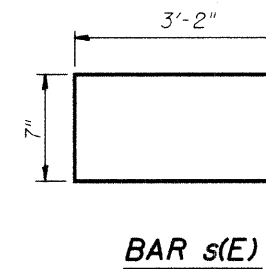
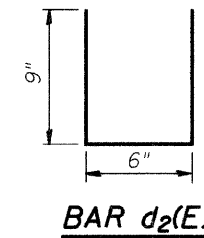
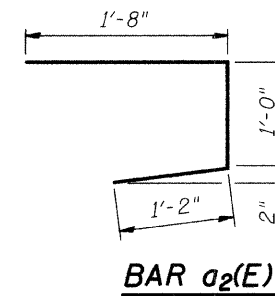


SECTION THROUGH PEDESTRIAN SCREEN
(Showing DS-12 Scupper)

2- #5 a₃(E) bars (2'-0" lg.) at 4" cts. tied to bottom of top reinforcement mat. (typ.)



DETAIL "A"
(See Sheet S6 of S34)



**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	426	#5	30'-0"	—
a ₁ (E)	424	#5	23'-3"	—
a ₂ (E)	308	#5	3'-10"	┌
a ₃ (E)	48	#5	2'-0"	—
a ₄ (E)	4	#5	27'-0"	—
b(E)	450	#5	26'-11"	—
b ₁ (E)	104	#6	28'-0"	—
b ₂ (E)	308	#5	23'-4"	—
c(E)	308	#5	2'-5"	┌
c ₁ (E)	308	#5	7'-9"	—
d(E)	308	#4	3'-5"	┌
d ₁ (E)	308	#6	3'-9"	┌
d ₂ (E)	68	#4	2'-0"	┌
e(E)	48	#4	18'-9"	—
e ₁ (E)	48	#4	6'-9"	—
e ₂ (E)	36	#4	16'-0"	—
m(E)	32	#6	27'-7"	—
m ₁ (E)	36	#6	8'-9"	—
m ₂ (E)	28	#6	5'-8"	—
m ₃ (E)	8	#6	1'-9"	—
m ₄ (E)	8	#6	10'-5"	┌
m ₅ (E)	8	#5	1'-5"	┌
s(E)	120	#5	6'-11"	┌
s ₁ (E)	106	#4	7'-0"	┌
s ₂ (E)	12	#4	5'-10"	┌
s ₃ (E)	4	#6	7'-4"	┌
u(E)	106	#5	2'-11"	┌
v(E)	106	#5	3'-6"	┌
v ₁ (E)	10	#6	2'-0"	┌
Bridge Deck Grooving	Sq. Yd.		581	
Protective Coat	Sq. Yd.		983	
Reinforcement Bars, Epoxy Coated	Pound		60,740	
Concrete Superstructure	Cu. Yd.		283.6	
Bar Splicers	Each		106	

Reinforcement bars designated (E) shall be epoxy coated.

SUPERSTRUCTURE DETAILS AND BAR LIST

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bollinger, Lech & Associates, Inc.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE	106	33
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT		

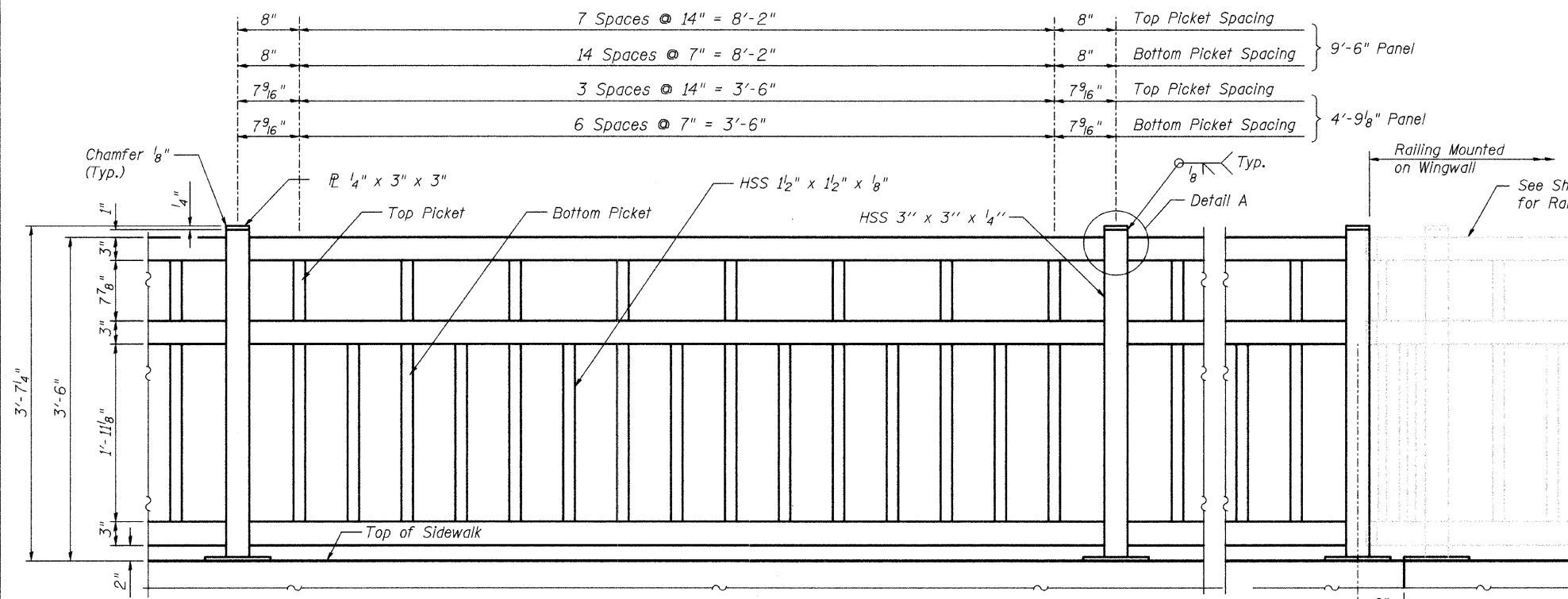
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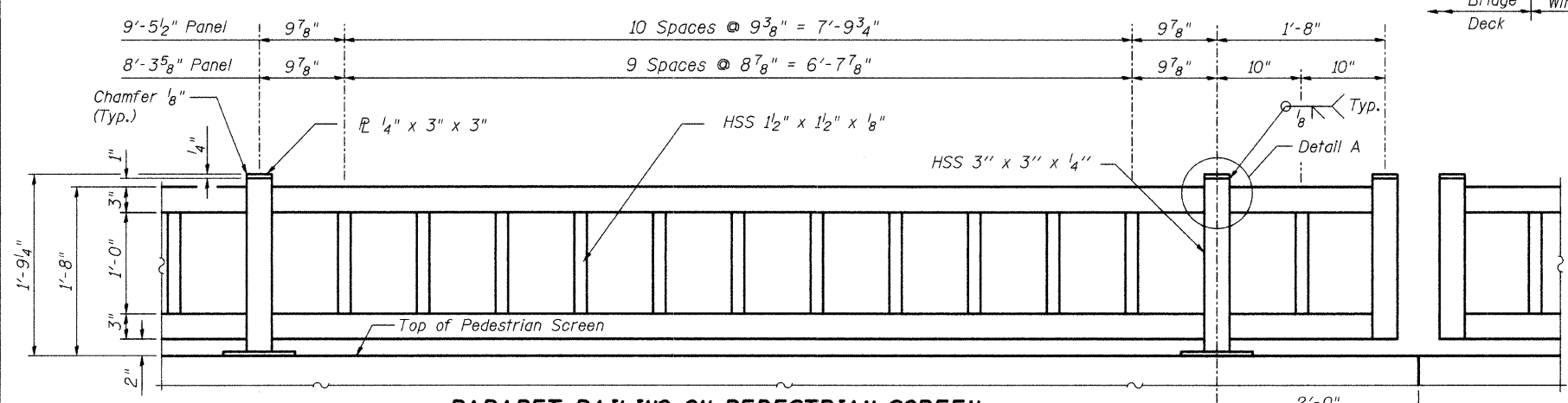
See Sheet S8 of S34 for location of Railing Posts on Bridge. Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the Contract Unit Price per foot for Pedestrian Rail (Special). The Parapet Railing, furnished and installed shall not be paid for separately but shall be included in the unit bid price for Pedestrian Rail (Special).

All joints in rail shall be spliced per detail. Splices shall be provided at the one quarter points of the horizontal rail span between posts and not more than three posts shall be included between any two splices. All posts shall be normal to Pedestrian Screen. If the option of drilling and epoxy grouting the anchor rods is chosen, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or the adhesive cartridge shall be sealed with pre-measured amounts of the adhesive chemical.

Space reinforcement to miss anchor rods. All post, railing, splices, anchor devices, and bent plates shall be completely shop painted using the Organic Zinc-Rich Paint System. The color of the final finish coat shall be Federal Standard No. 595, color chip 17038 (Gloss Black). See Special Provisions for "Cleaning and Painting New Metal Structures", and "Organic Zinc-Rich Paint System". All erection and handling damage to the shop applied paint system shall be repaired in accordance with the Special Provision "Cleaning and Painting New Metal Structures".



TYPICAL PEDESTRIAN RAILING
(9'-6" Panel Shown)

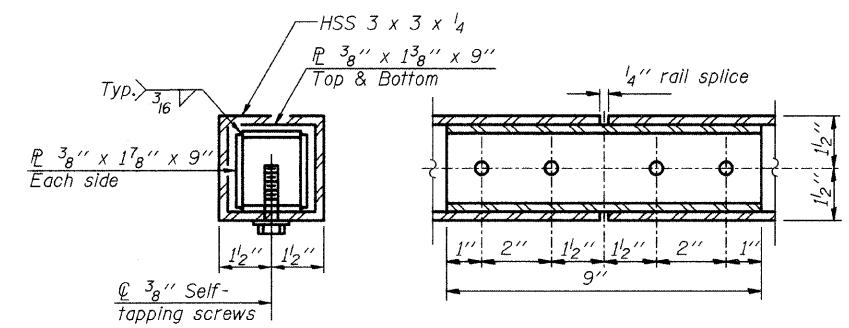


PARAPET RAILING ON PEDESTRIAN SCREEN
(9'-5 1/2" Panel Shown)

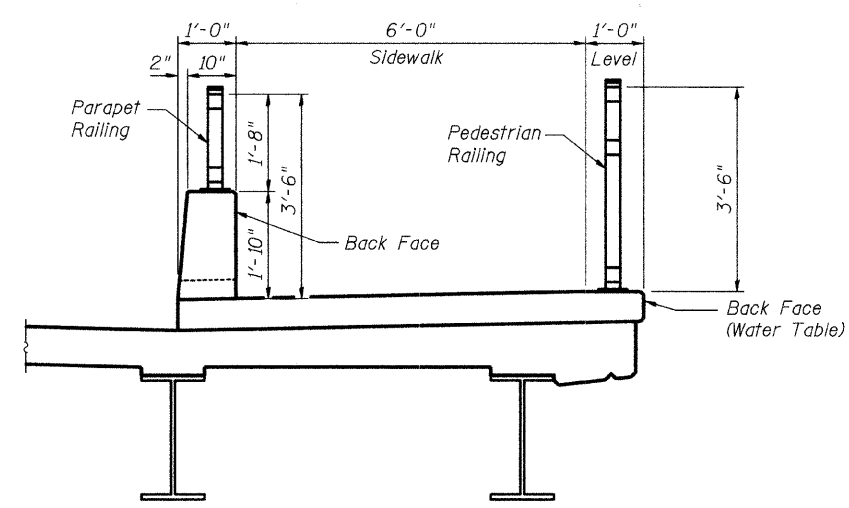
BILL OF MATERIAL

Item	Unit	Quantity
Pedestrian Rail (Special)	Foot	421

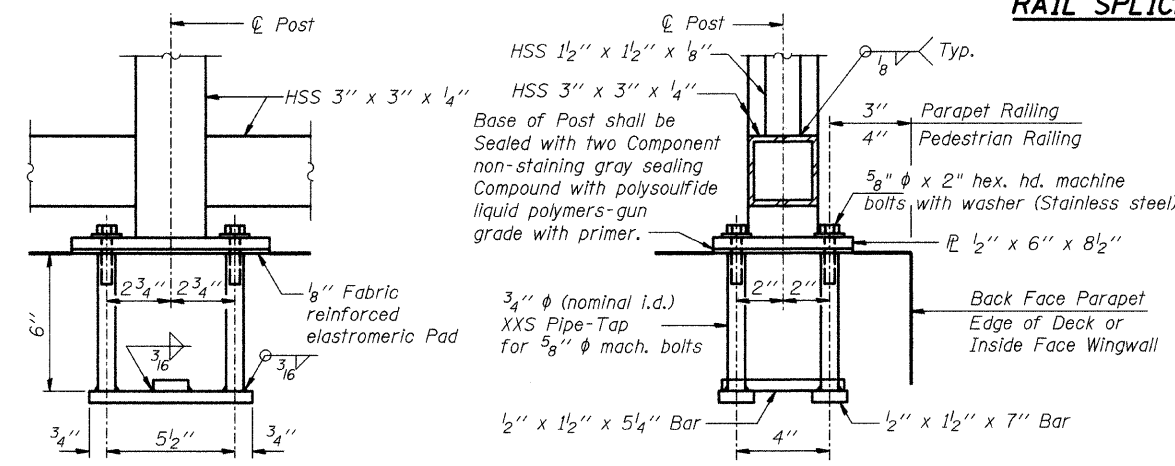
(Quantity is for superstructure and wingwalls)



RAIL SPLICE

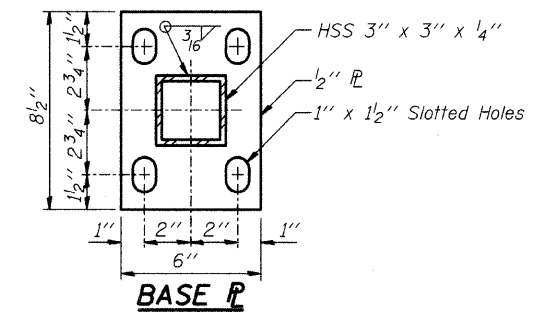


SECTION THRU SIDEWALK



ANCHOR BOLT DETAILS

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



BASE P

BRIDGE MOUNTED RAILING DETAILS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

Bollinger, Lach & Associates, Inc.

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO.
*	DUPAGE		106	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

00-00116-00-BR

NOTES

See Sheet S12 of S34 for notes and details not shown.

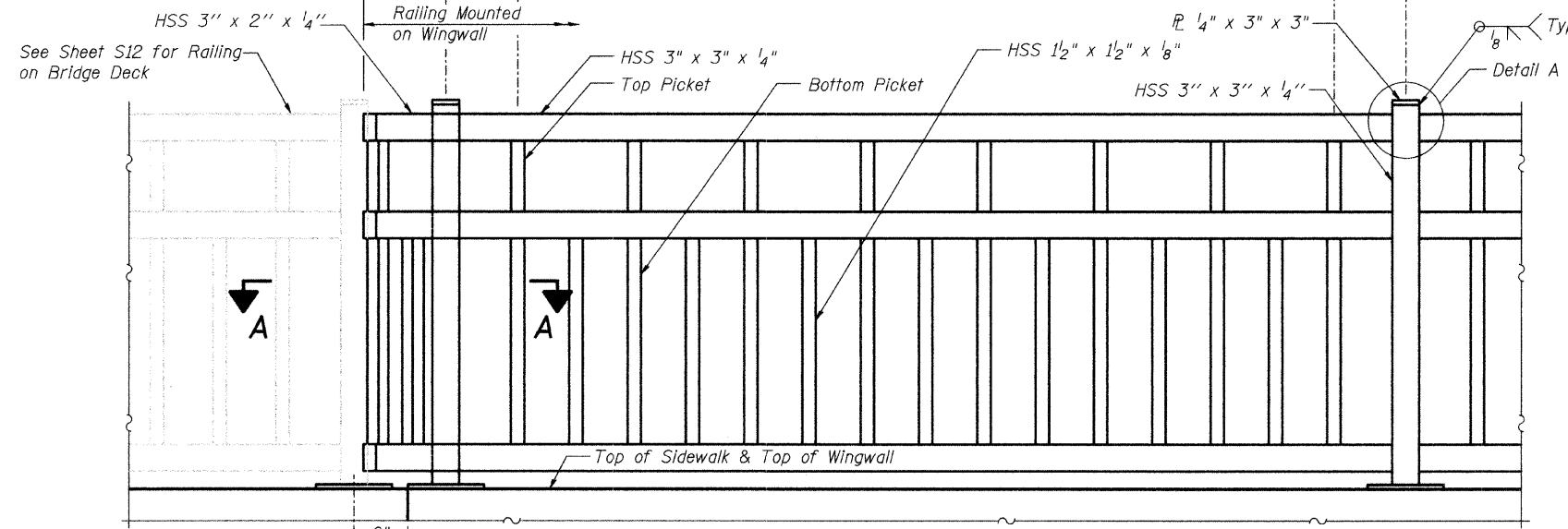
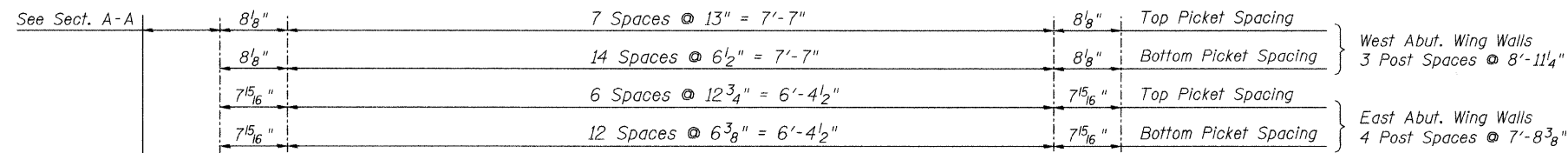
The Parapet Railing located within the limits of the bridge approach pavement, furnished and installed, shall not be paid for separately, but shall be included in the unit bid price for "Pedestrian Rail (Special)" mounted on the wingwalls.

The Parapet Railing located beyond the limits of the bridge approach pavement, furnished and installed, is paid for as Parapet Railing, Special. See Sheet S30.

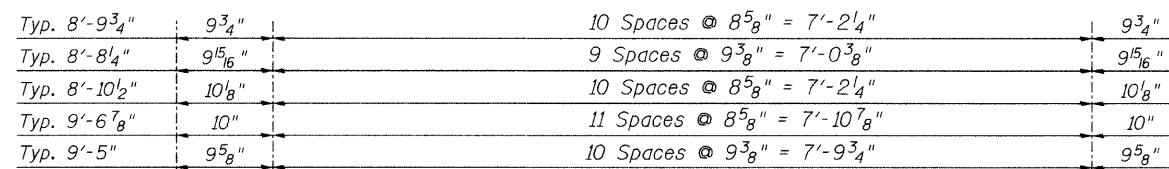
BILL OF MATERIAL

Item	Unit	Quantity
Parapet Railing, Special	Foot	85

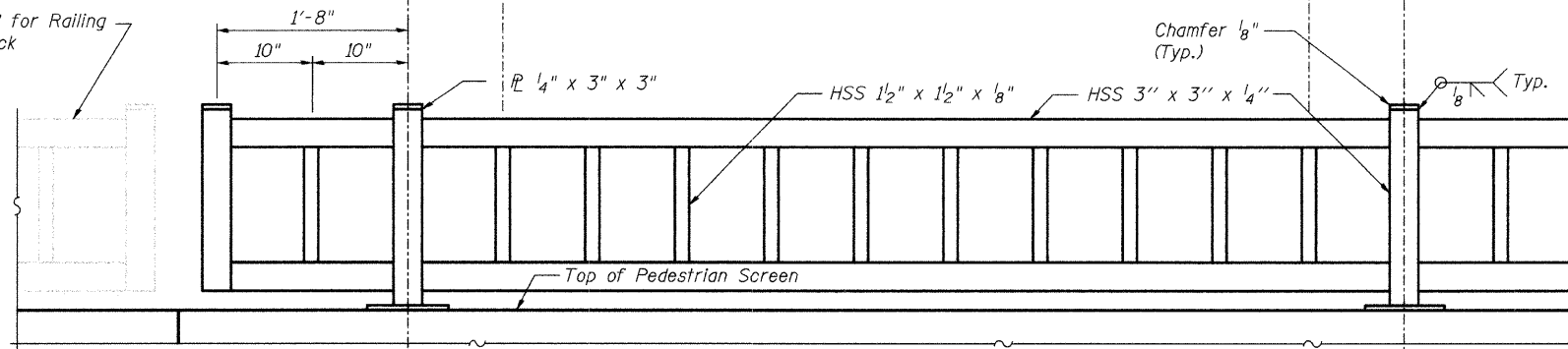
(Quantity is for Parapet Railing located on the Off-Bridge Pedestrian Screens.)



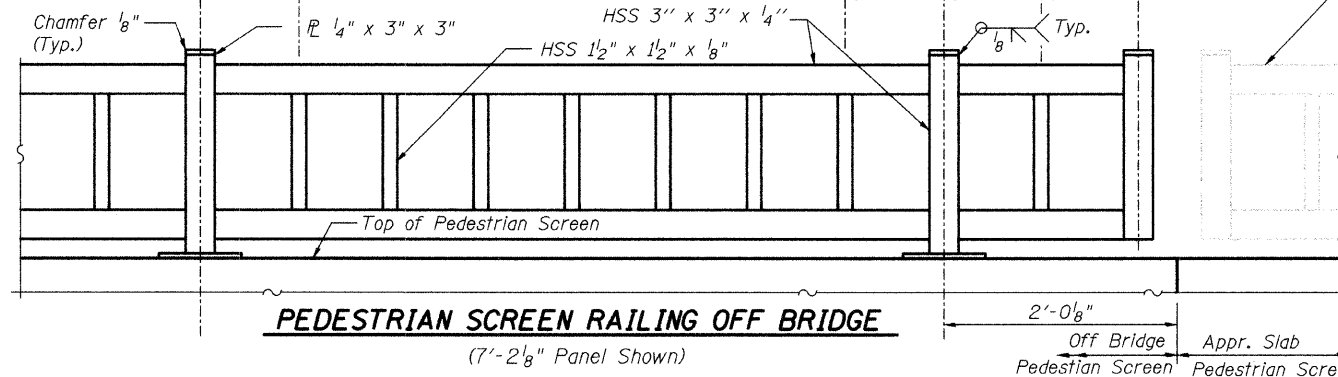
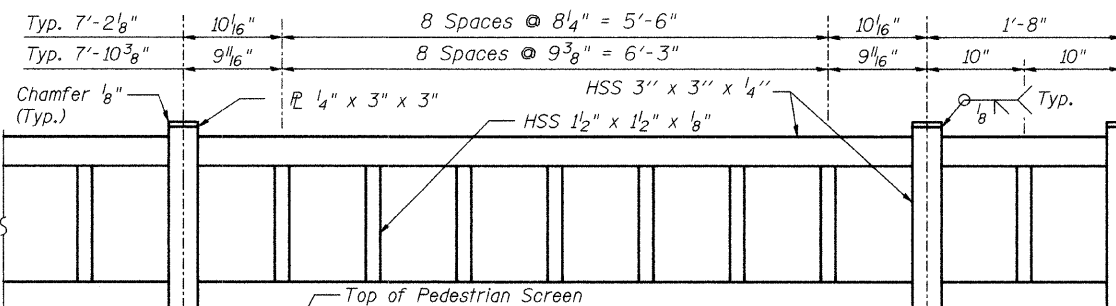
WING WALL PEDESTRIAN RAILING
(8'-11 1/4" Panel Shown)



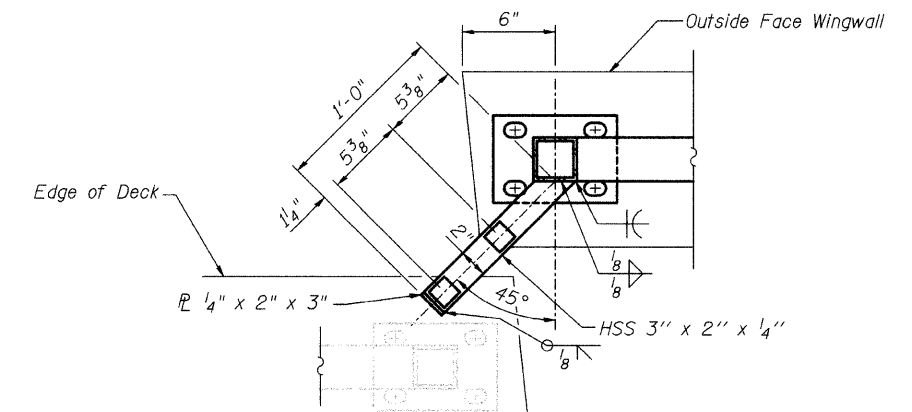
See Sheet S8 for Railing on Bridge Deck



PEDESTRIAN SCREEN RAILING ON APPROACH SLAB
(8'-8 1/4" Panel Shown)



PEDESTRIAN SCREEN RAILING OFF BRIDGE
(7'-2 1/8" Panel Shown)



SECTION A-A

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bollinger, Lach & Associates, Inc.

OFF-BRIDGE RAILING DETAILS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

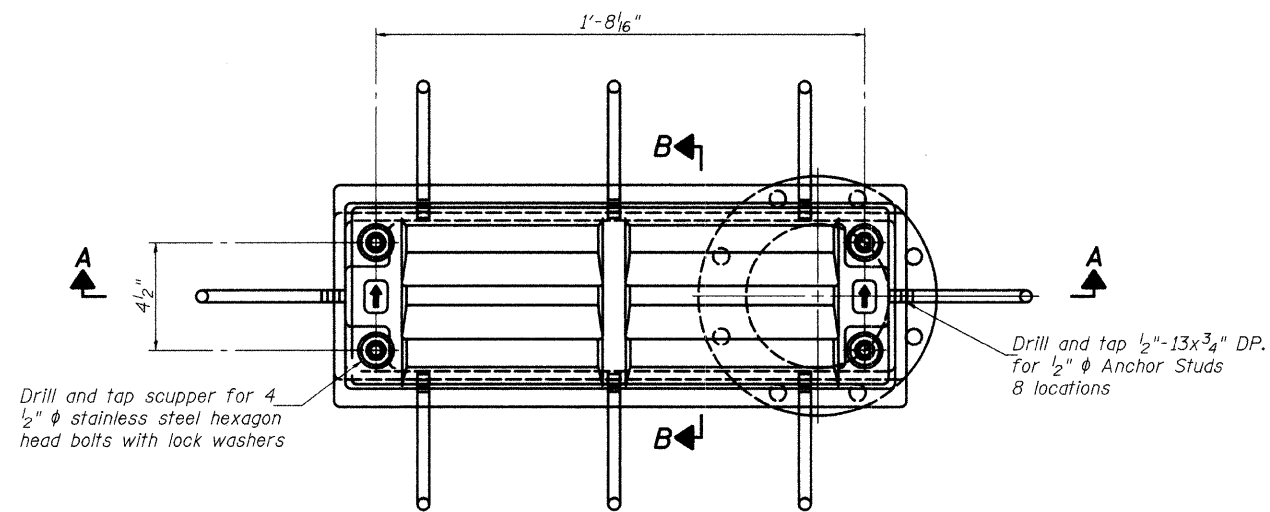
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

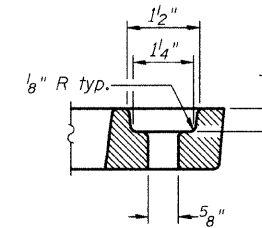
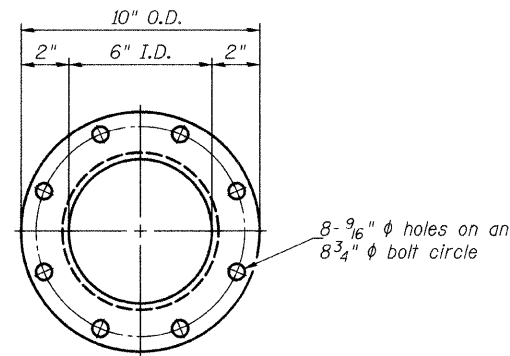
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FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. S14
of S34 SHEETS

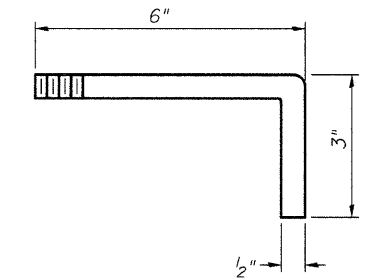
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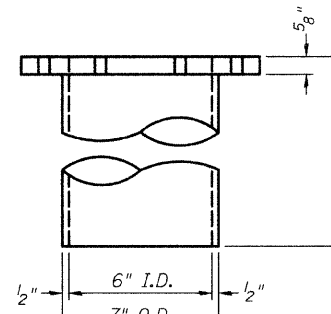
PLAN



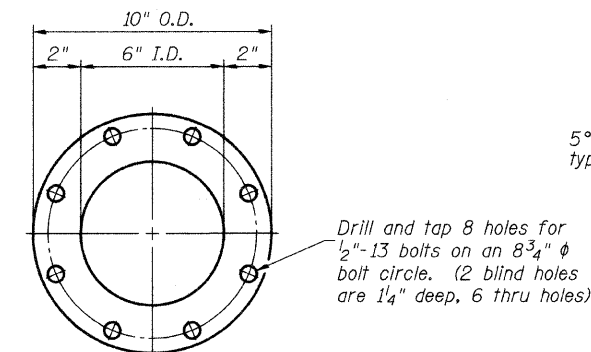
BOLT HOLE DETAIL



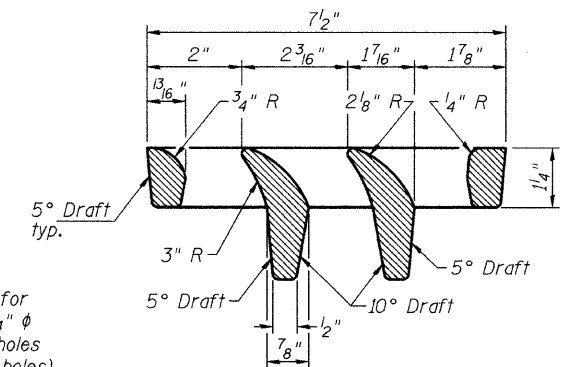
ANCHOR STUD DETAIL



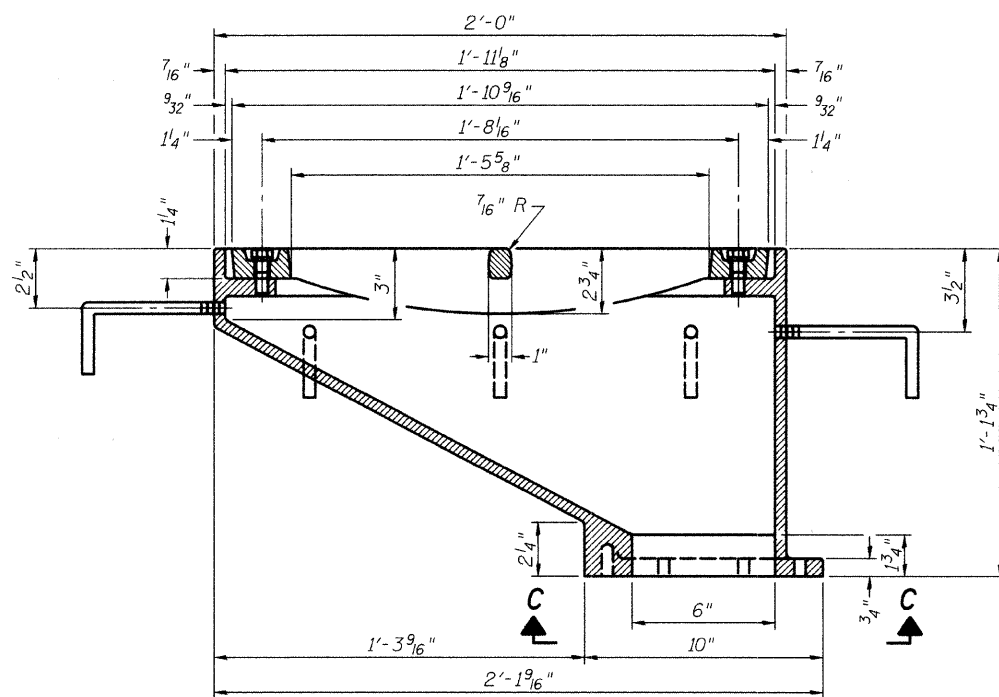
DOWNSPOUT



VIEW C-C

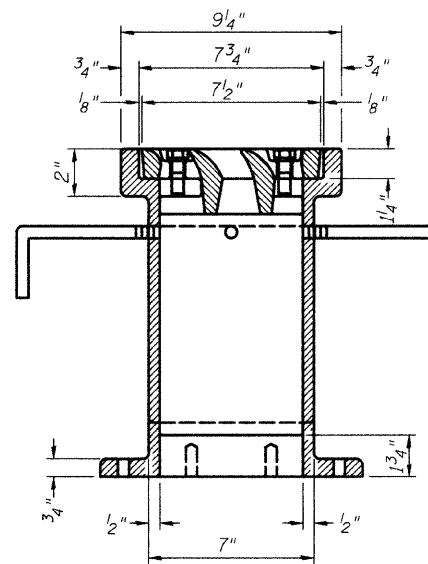


VANE GRATE DETAIL



SECTION A-A

See sheet 11 of 34 for scupper location relative to parapet.



SECTION B-B

Notes:

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-12	Each	6

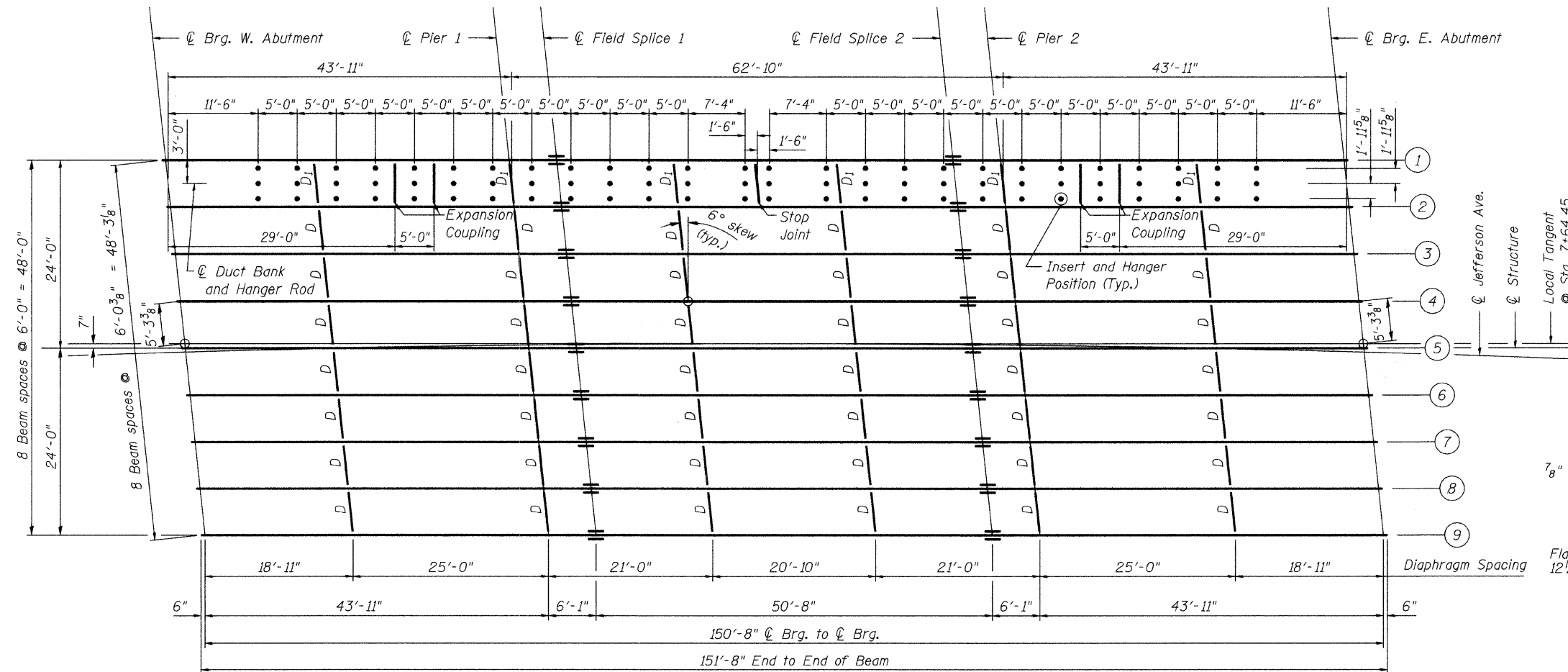
DRAINAGE SCUPPER, DS-12

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

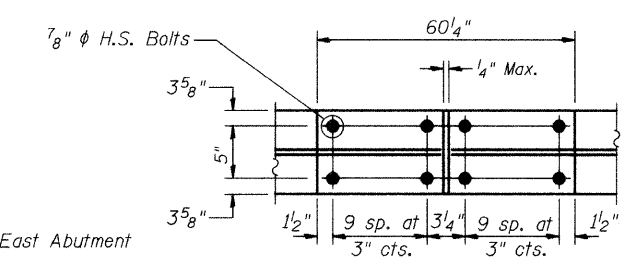
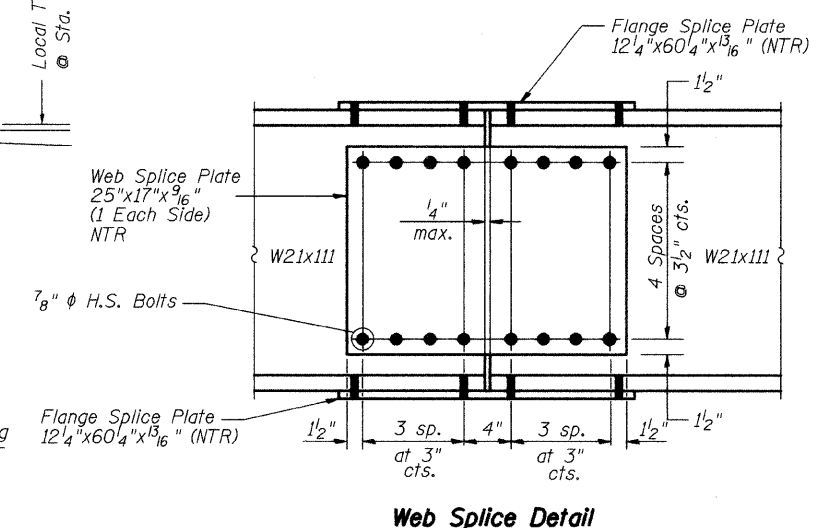
DESIGNED	
CHECKED	
DRAWN	GM
CHECKED	SRT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S15 of S34 SHEETS
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FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
* 00-00116-00-BR					

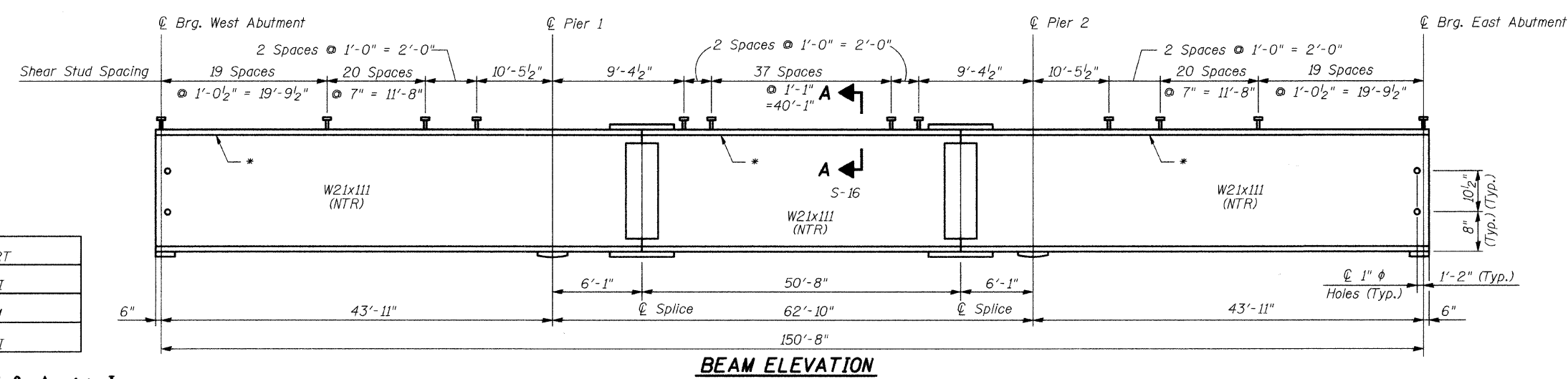


NOTES:
Structural Steel for Beams and Splice Plates shall conform to the requirements of AASHTO M270 Grade 50W. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2. See Electrical plans for hanger, inserts, bracing locations and details.



FIELD SPLICE DETAIL
(Total No. = 18)

* At Beams 2 and 8, relocate studs to midway between adjacent rows to allow clearance for Drainage Scupper DS-12.



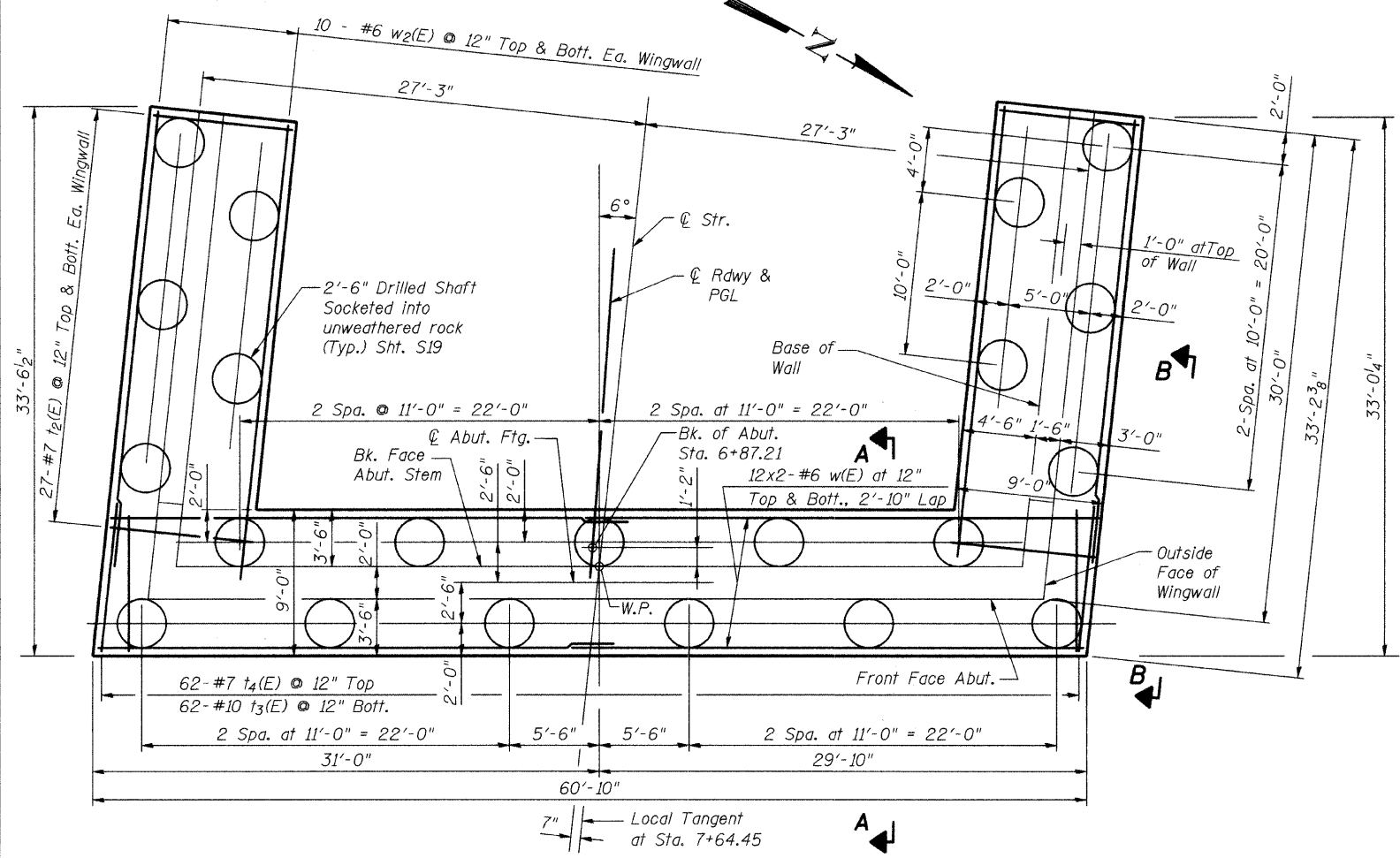
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CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bollinger, Lach & Associates, Inc.

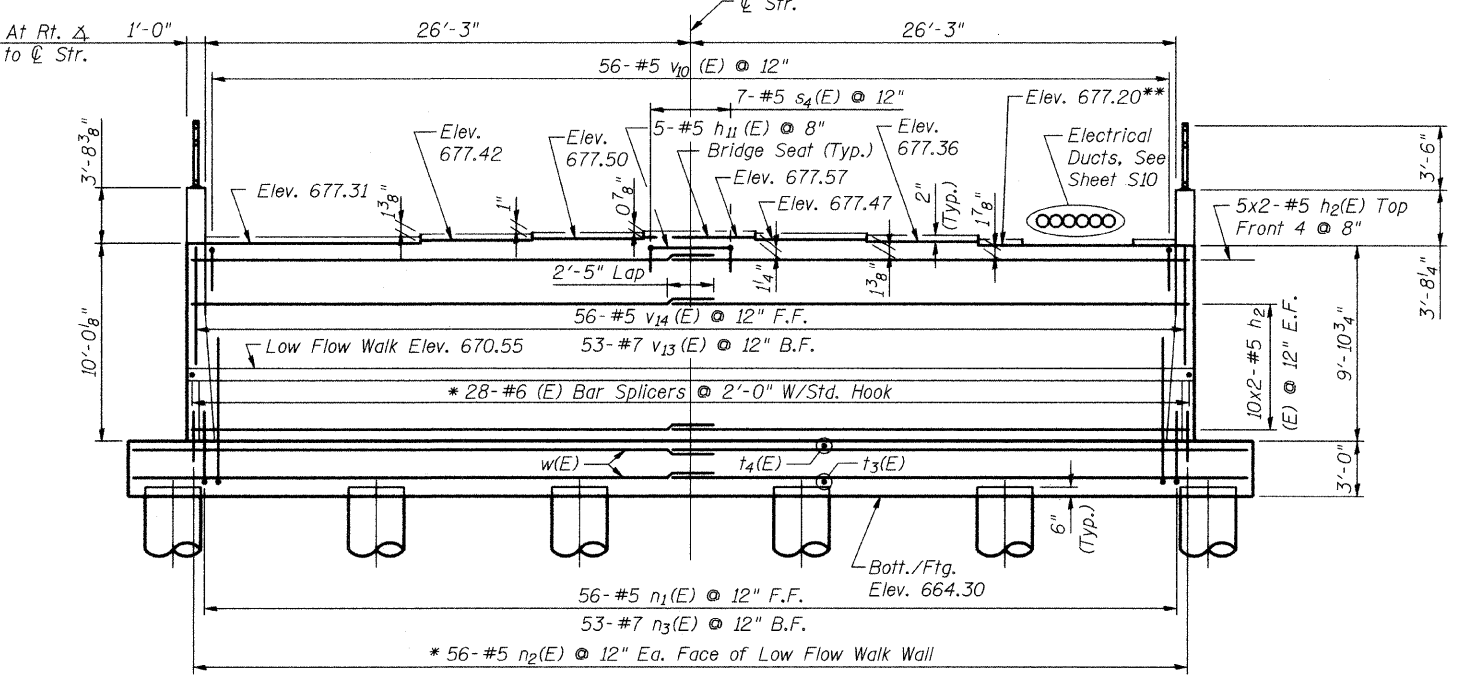
STRUCTURAL STEEL FRAMING PLAN
JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. S18 of S34 SHEETS
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FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

* 00-00116-00-BR

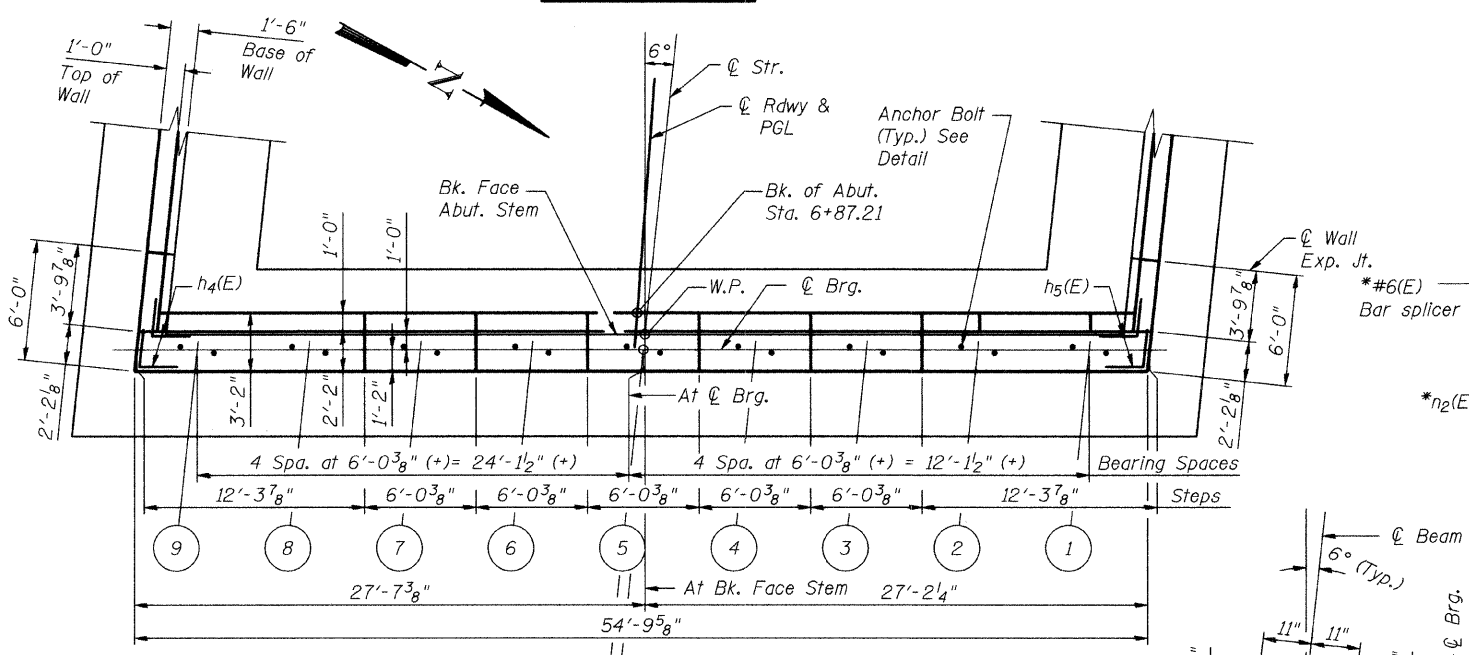


FOOTING PLAN

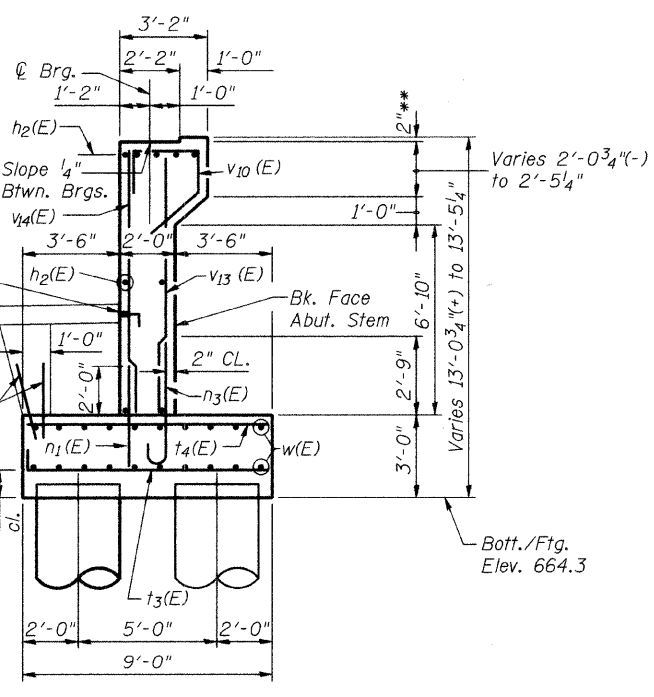


ELEVATION

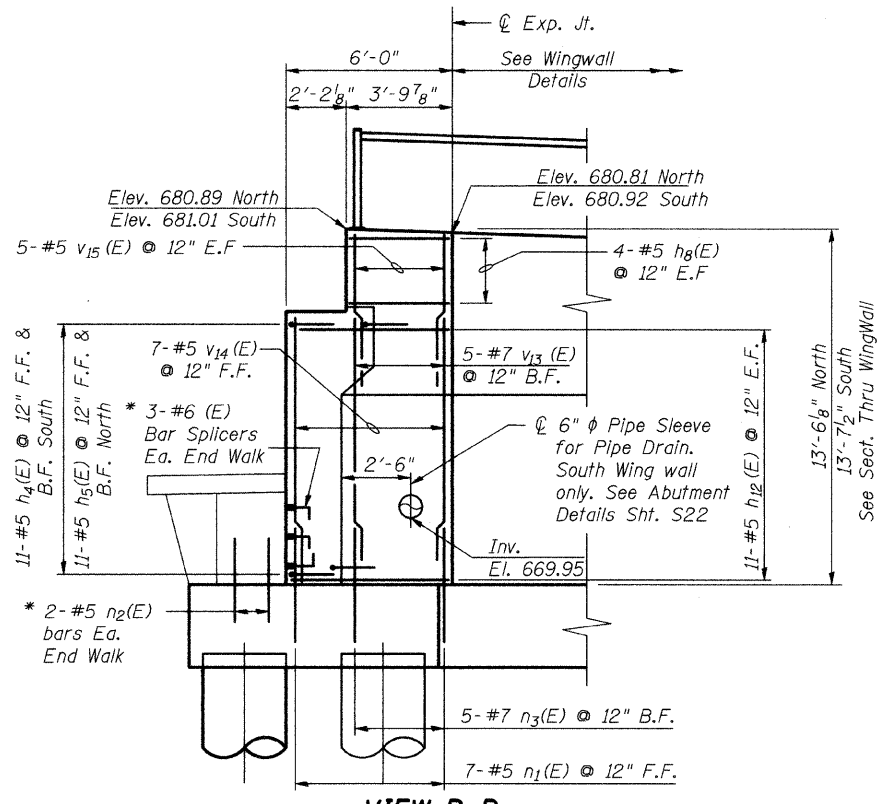
* See Low-Flow Walkway Sht. S23 for details.
 ** Rear Haunch to remain level with Bridge Seat between Beams 1 and 2. See Sht. S10 of S34.



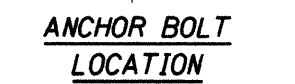
TOP PLAN



SECTION A-A



VIEW B-B



ANCHOR BOLT LOCATION

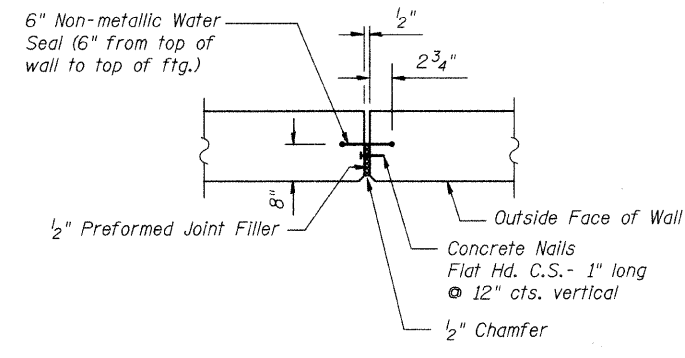
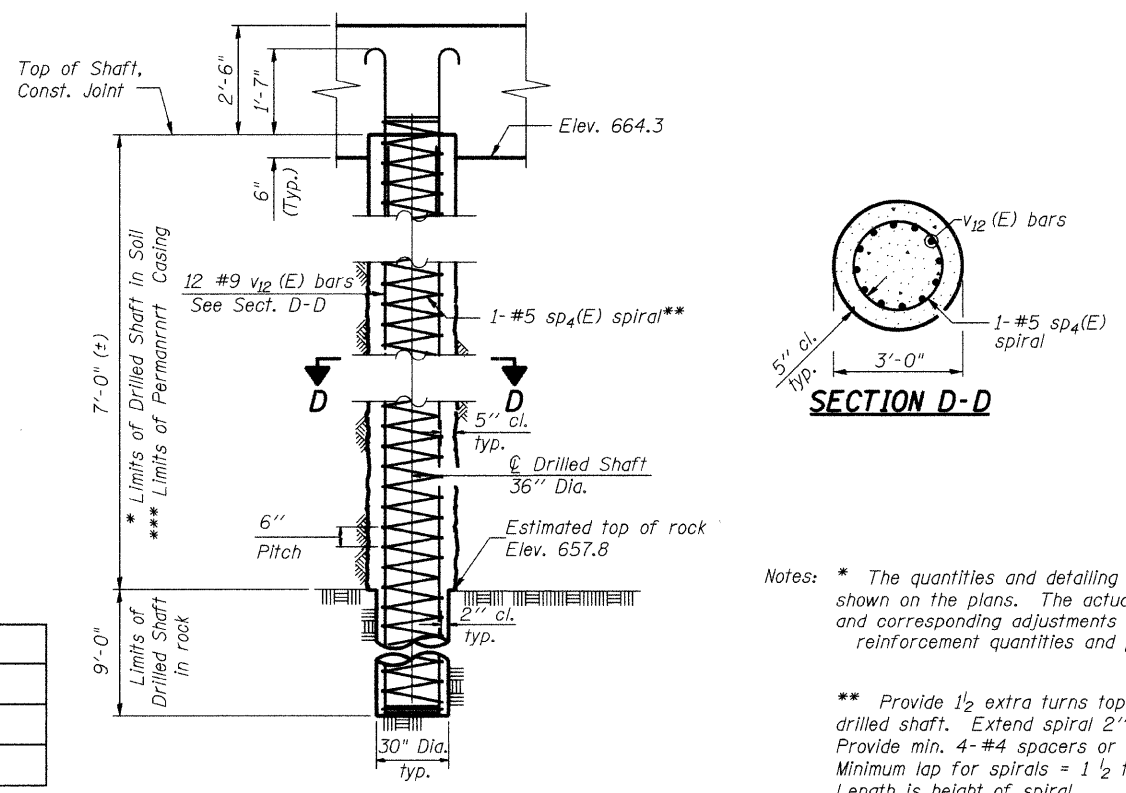
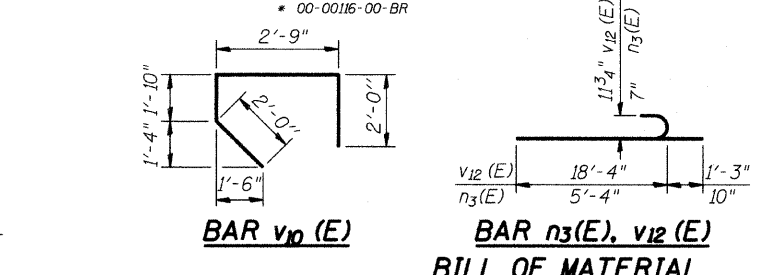
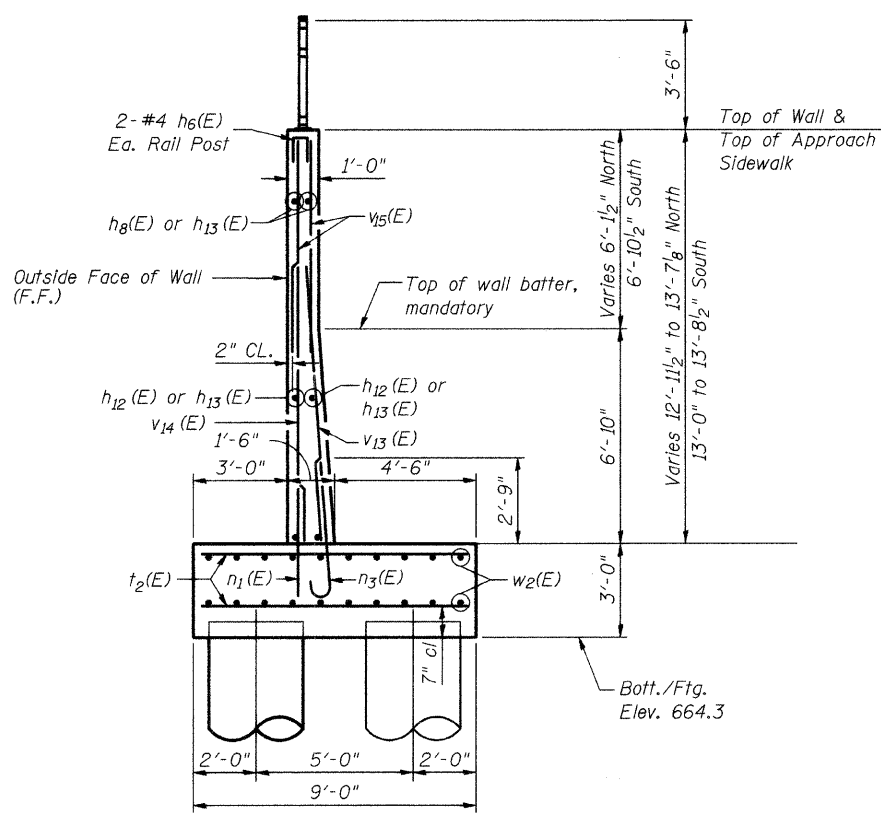
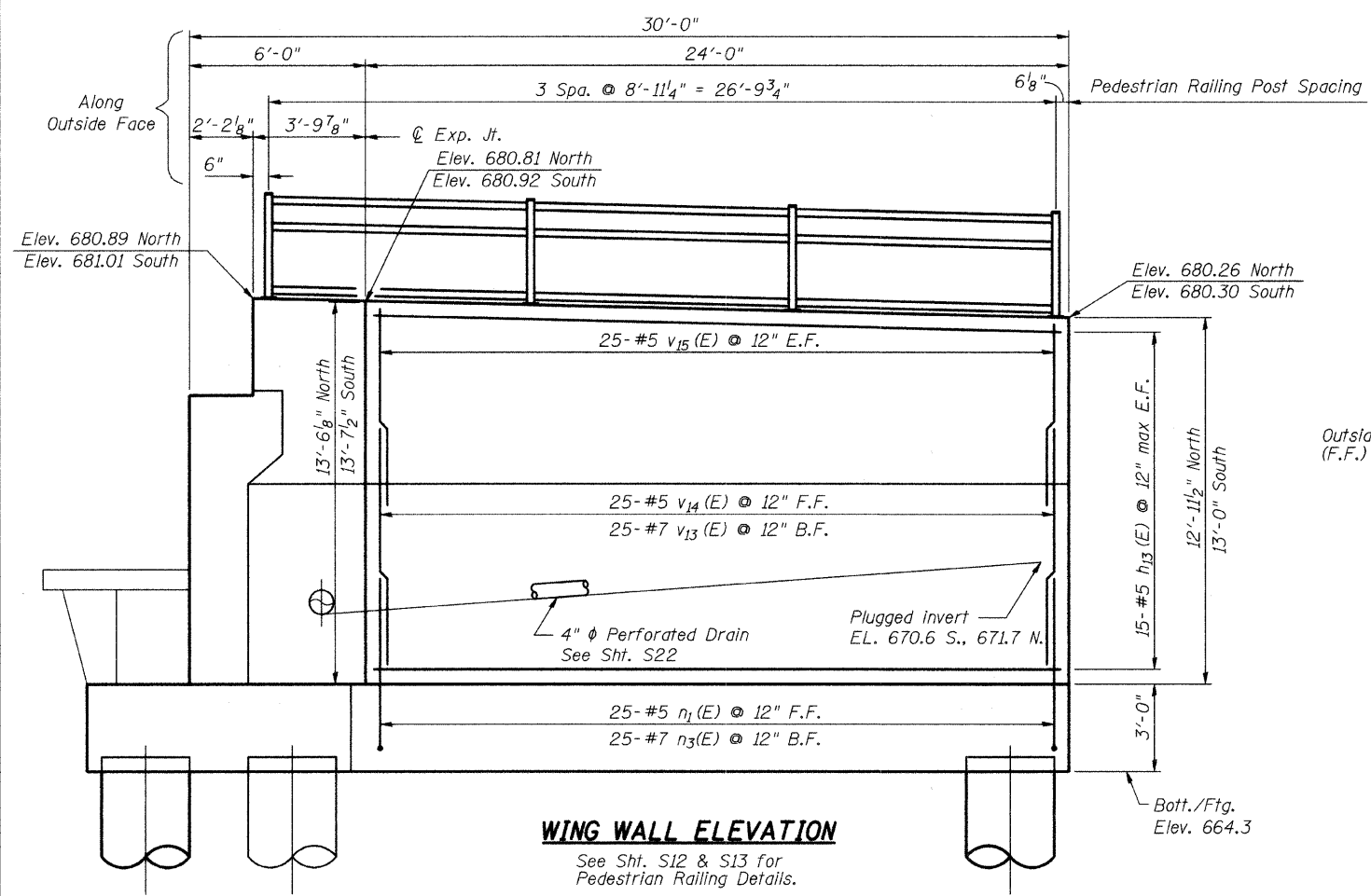
DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

Bollinger, Lach & Associates, Inc.

WEST ABUTMENT PLAN AND ELEVATION

JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER
 FAU 3570 SECTION 00-00116-00-BR
 DUPAGE COUNTY
 STA. 7+64.45
 STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#	DUPAGE	106	40	S19
of 534 SHEETS				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	



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

** Provide 1/2 extra turns top and bottom of each drilled shaft. Extend spiral 2" above top of shaft. Provide min. 4-#4 spacers or equivalent. Minimum lap for spirals = 1 1/2 turns. Length is height of spiral.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used.

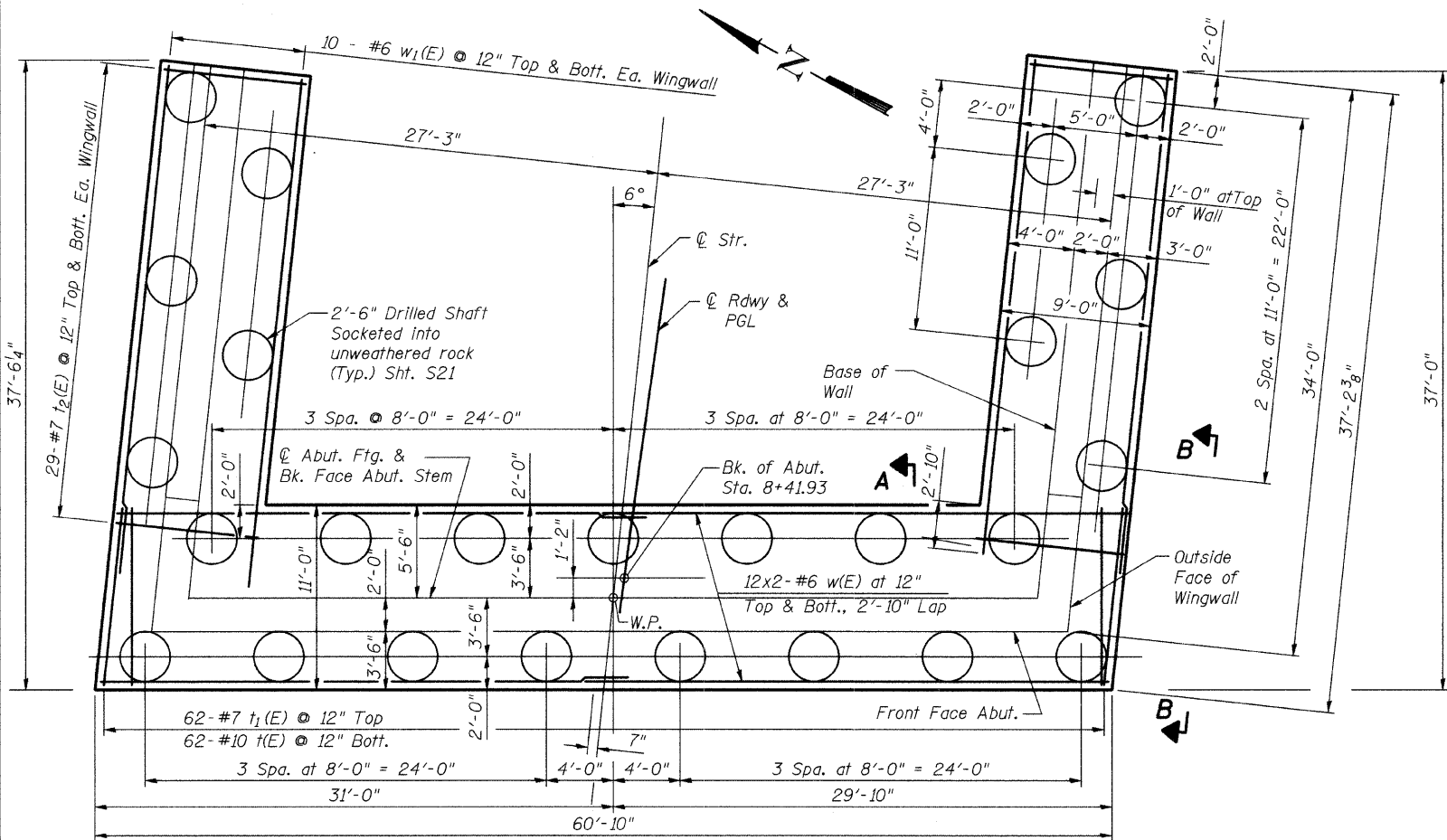
Pay limits for the Permanent Casing are based on the minimum length shown.

DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

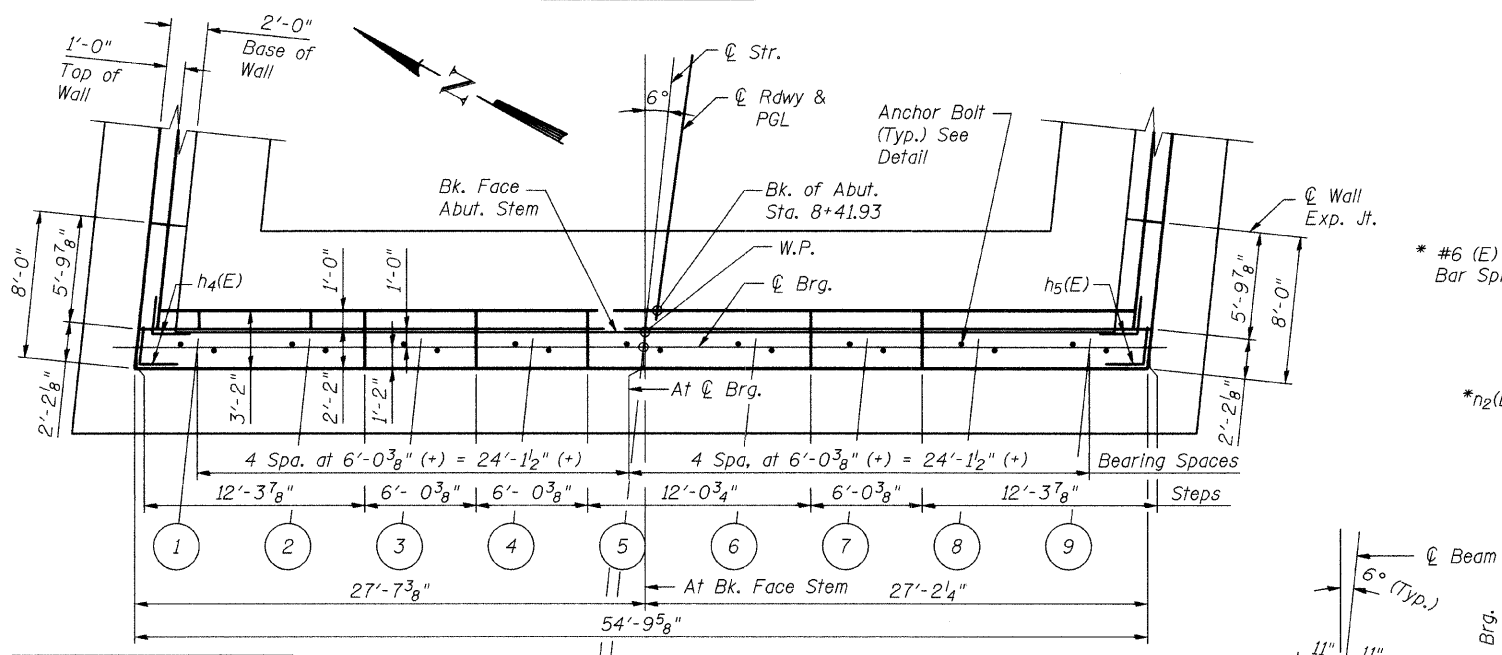
Bollinger, Lach & Associates, Inc.

WEST ABUTMENT DETAILS
JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

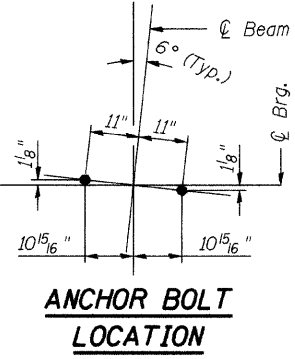
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*	DUPAGE	106	41		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT -		



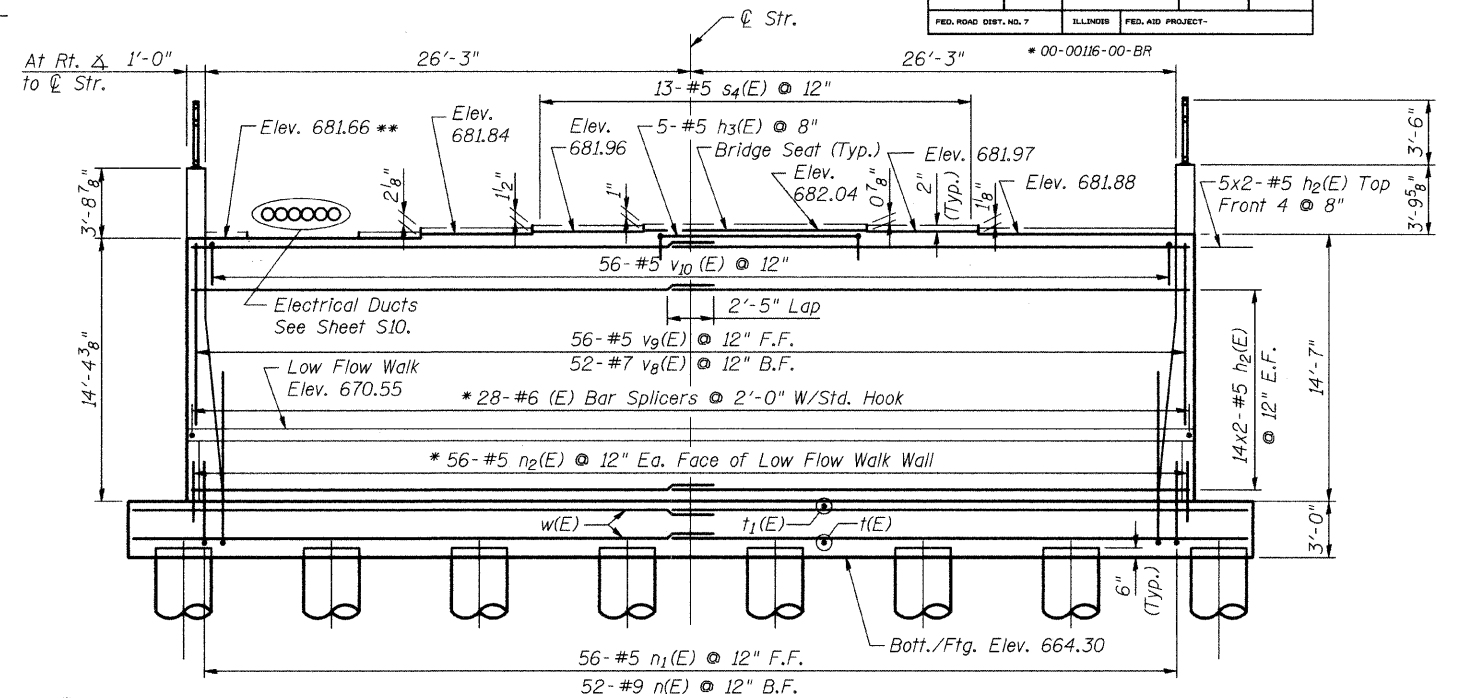
FOOTING PLAN



TOP PLAN

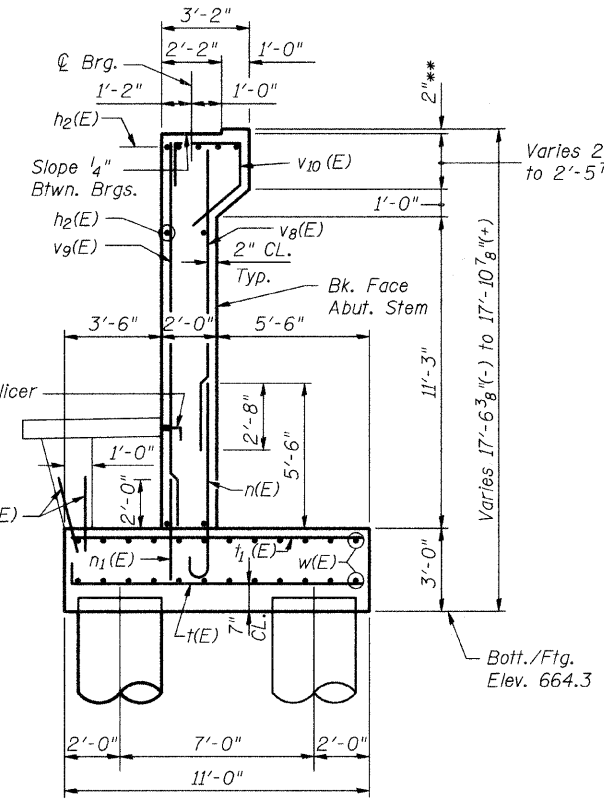


ANCHOR BOLT LOCATION

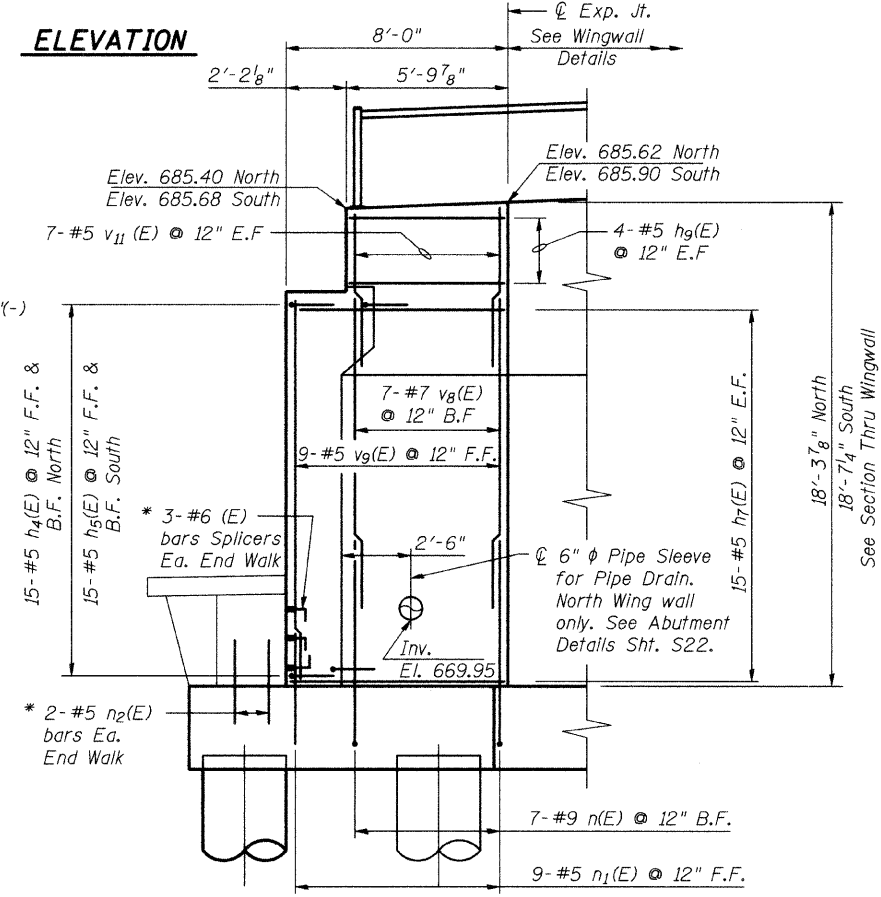


ELEVATION

* See Low-Flow Walkway Sht. S23 for details.
 ** Rear Haunch to remain level with Bridge Seat between Beams 1 and 2. See sht. S10 of S34.



SECTION A-A



VIEW B-B

EAST ABUTMENT PLAN AND ELEVATION

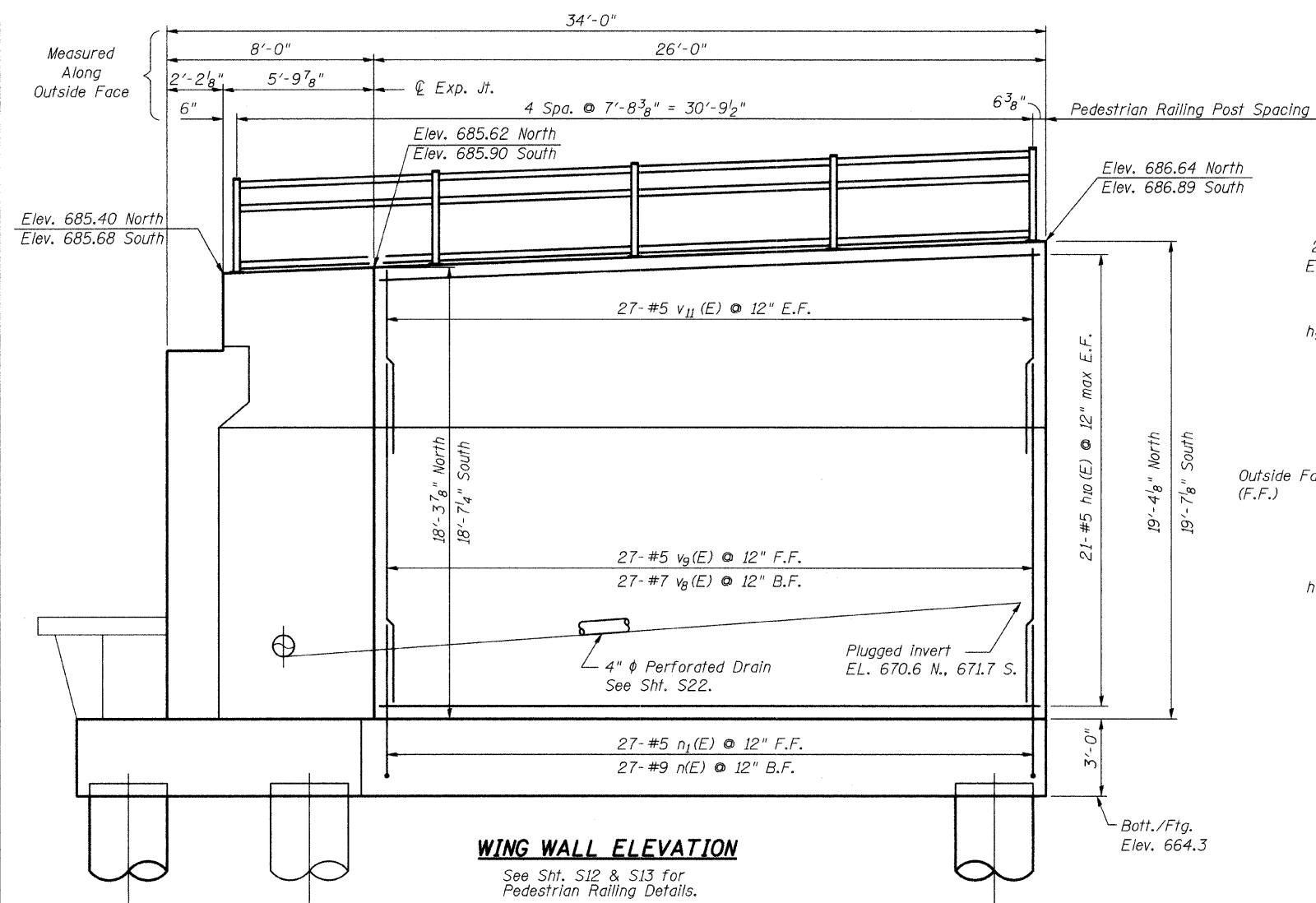
JEFFERSON AVENUE OVER
 WEST BRANCH DUPAGE RIVER
 FAU 3570 SECTION 00-00116-00-BR
 DUPAGE COUNTY
 STA. 7+64.45
 STRUCTURE NUMBER 022-6756

DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

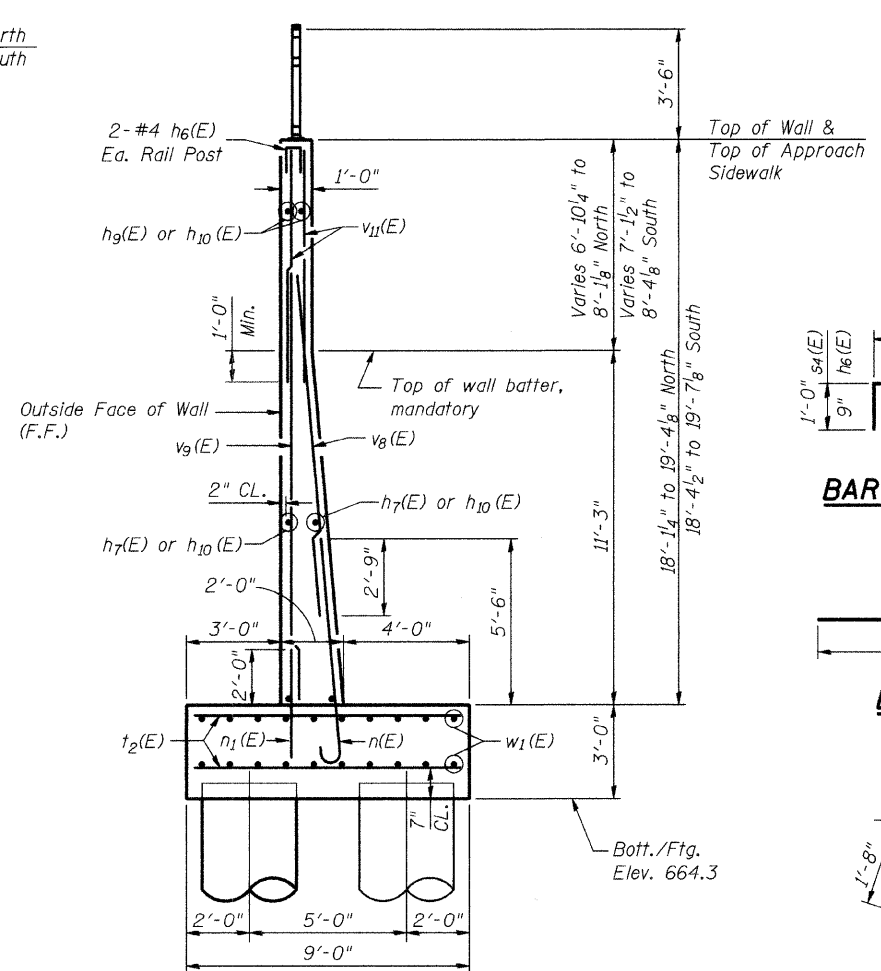
B Bollinger, Lach & Associates, Inc.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

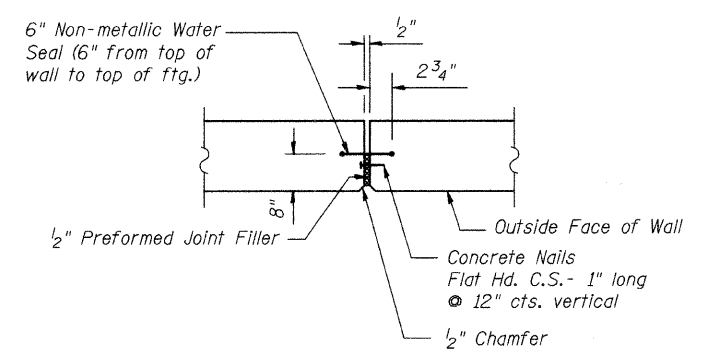
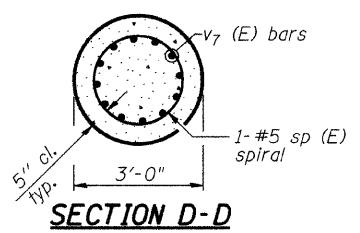
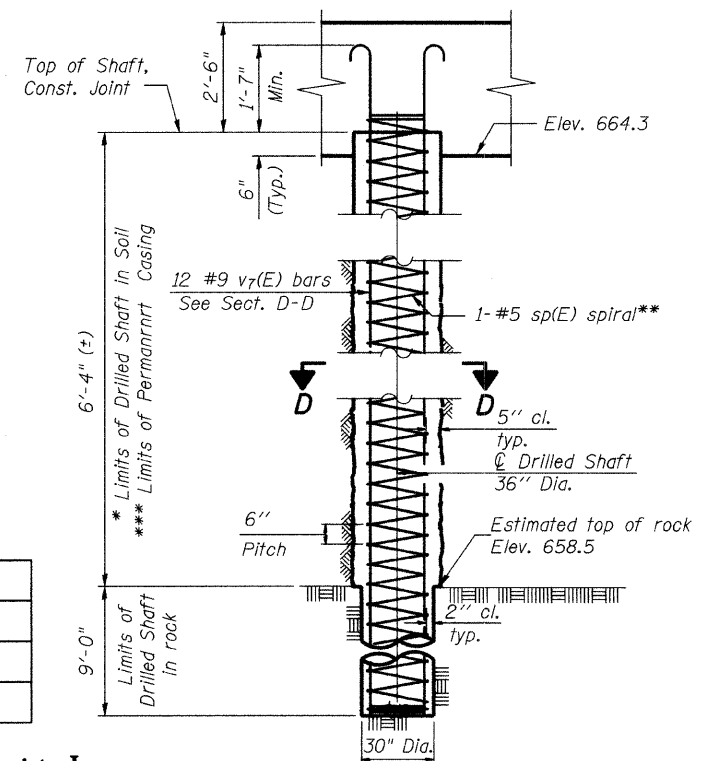
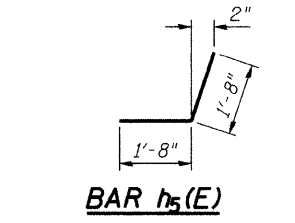
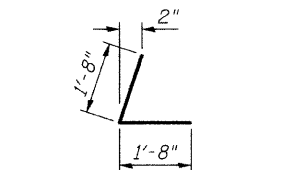
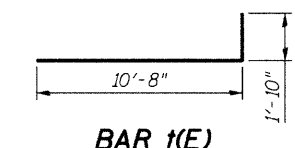
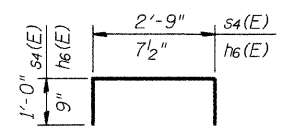
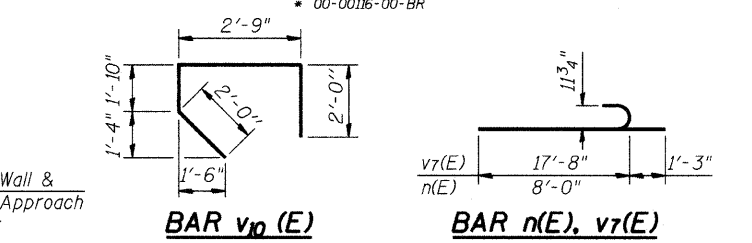
* 00-00116-00-BR



WING WALL ELEVATION
See Sht. S12 & S13 for Pedestrian Railing Details.



SECTION THRU WING WALL
See Sht. S22 & S29 of S34 for Drain, Geocomposite Wall Drain and PJF at top of Wall



WALL EXPANSION JOINT

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

** Provide 1/2 extra turns top and bottom of each drilled shaft. Extend spiral 2' above top of shaft. Provide min. 4-#4 spacers or equivalent. Minimum lap for spirals = 1 1/2 turns. Length is height of spiral.

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used.

Pay limits for the Permanent Casing are based on the minimum length shown.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	66	#5	28'-6"	—
h3(E)	5	#5	11'-9"	—
h4(E)	30	#5	3'-4"	L
h5(E)	30	#5	3'-4"	J
h6(E)	20	#4	2'-2"	—
h7(E)	60	#5	7'-8"	—
h8(E)	16	#5	5'-6"	—
h10(E)	84	#5	25'-8"	—
n(E)	120	#9	9'-3"	—
n1(E)	128	#5	4'-6"	—
n2(E)	116	#5	2'-4"	—
s4(E)	13	#5	4'-9"	—
sp(E)	25	#5	15'-10"	—
t1(E)	62	#10	12'-6"	—
t2(E)	116	#7	8'-8"	—
v7(E)	300	#9	18'-11"	—
v8(E)	120	#7	11'-5"	—
v9(E)	128	#5	14'-1"	—
v10(E)	56	#5	8'-7"	—
v11(E)	136	#5	9'-3"	—
w(E)	48	#6	31'-8"	—
w1(E)	40	#6	29'-0"	—

Concrete Structures	Cu. Yd.	252.2
Reinforcement Bars, Epoxy Coated	Pound	52,400
Structure Excavation	Cu. Yd.	987
Underwater Structure Excavation Protection, Location 4	Each	1
Drilled Shaft in Soil	Cu. Yd.	41.9
Drilled Shaft in Rock	Cu. Yd.	40.9
Bar Splicers	Each	34
Permanent Casing	Foot	160
Pedestrian Railing	Foot	62
Pipe Drains 4"	Foot	10
Geocomposite Wall Drain	Sq. Yd.	162
Concrete Headwall for Pipe Drains	Each	1
Porous Granular Embankment (Special)	Cu. Yd.	440

Reinforcement Bars designated (E) shall be epoxy coated.

DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

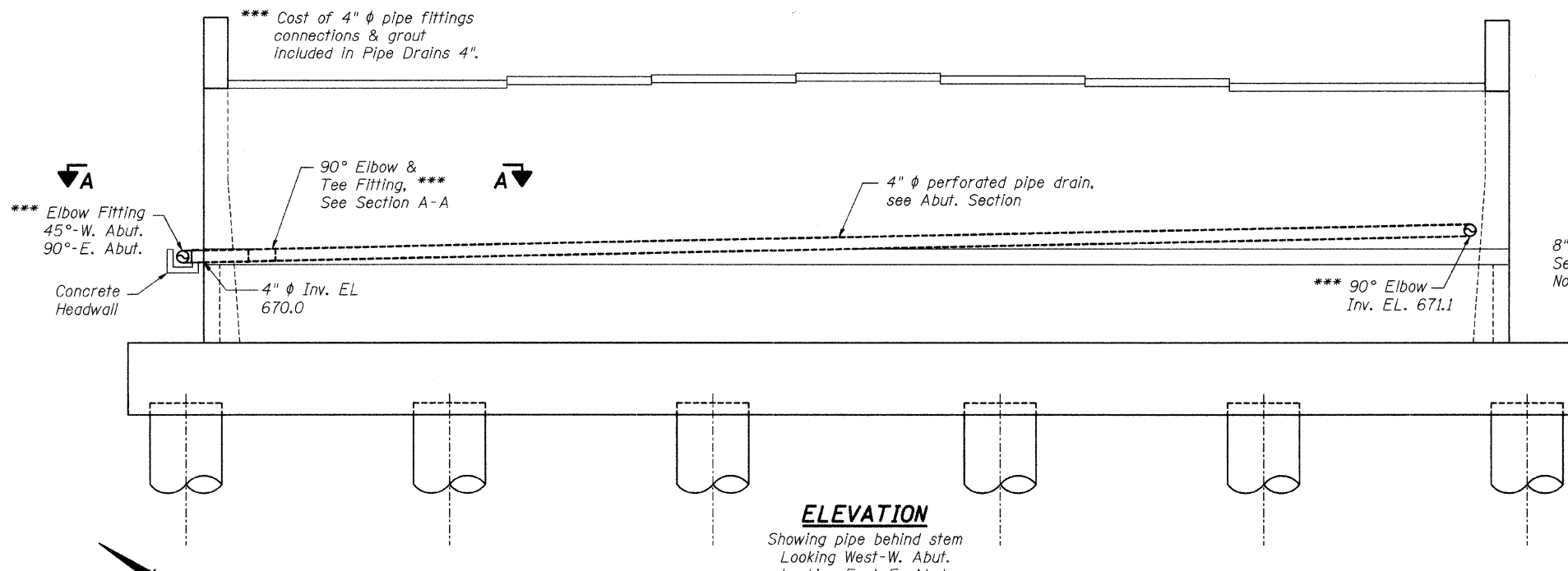
B Bollinger, Lach & Associates, Inc.

DRILLED SHAFT ELEVATION

EAST ABUTMENT DETAILS
JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

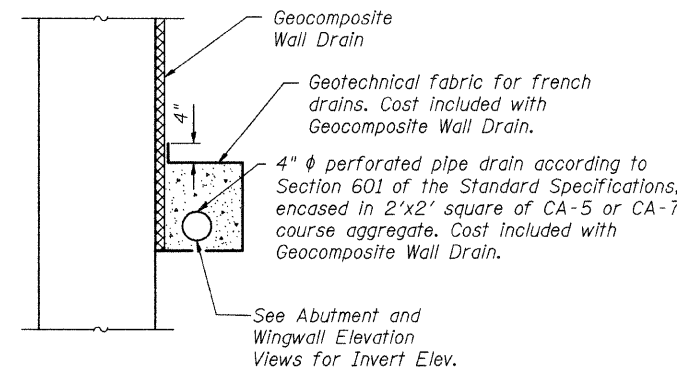
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#		DUPAGE	106	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

* 00-00116-00-BR

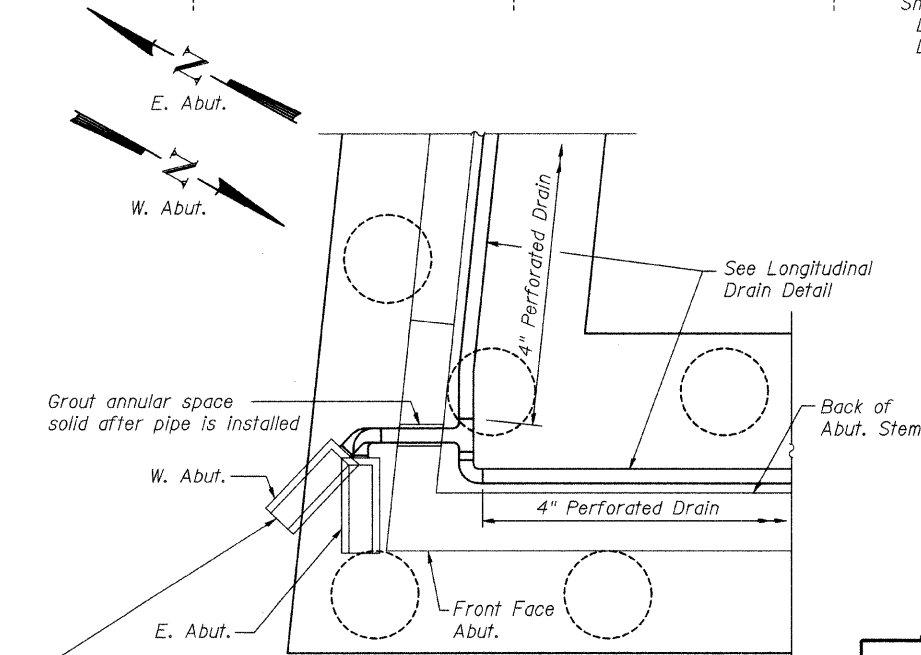


ELEVATION

Showing pipe behind stem
Looking West-W. Abut.
Looking East-E. Abut.

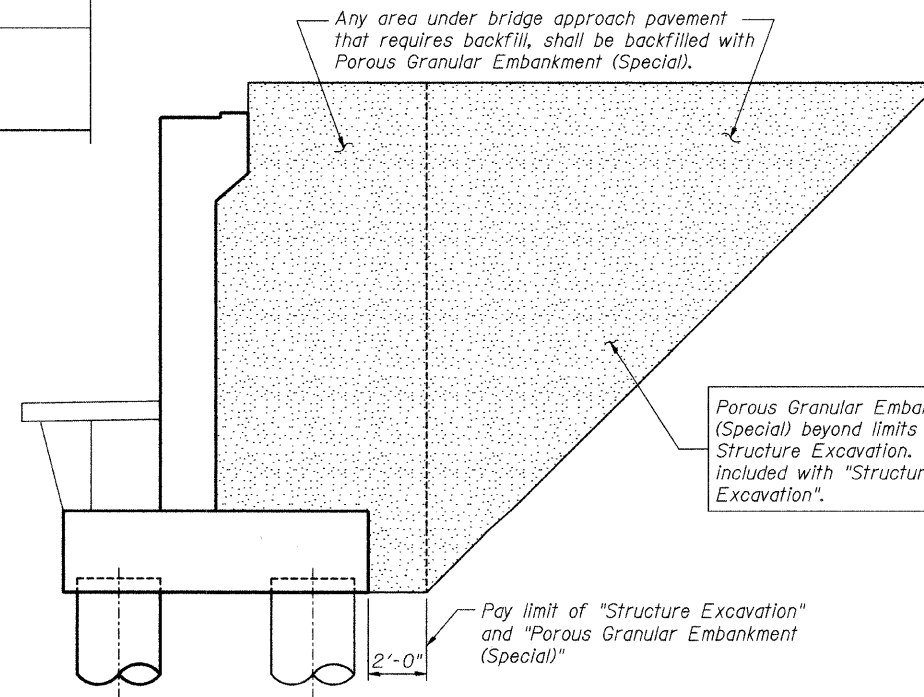


LONGITUDINAL DRAIN DETAIL

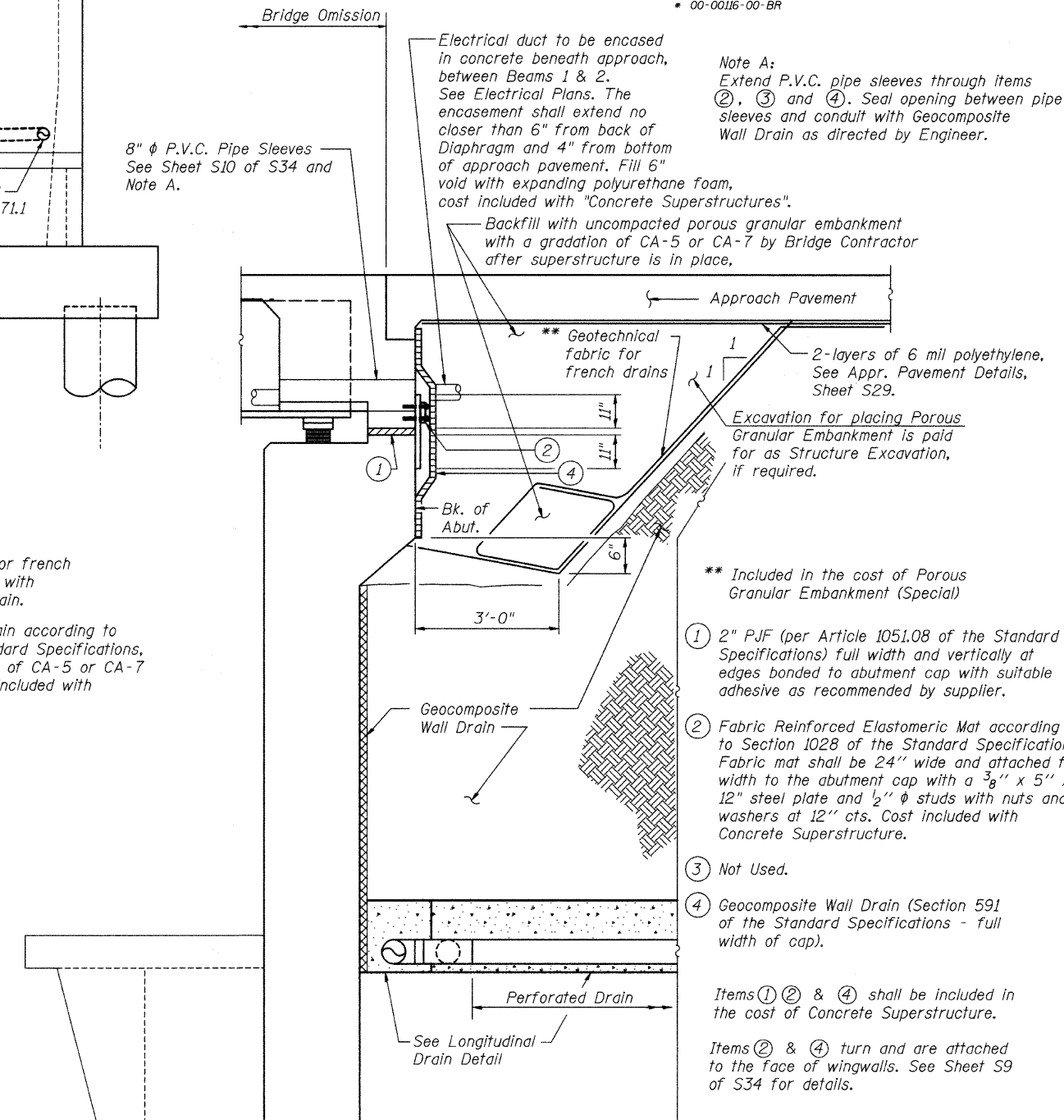


SECTION A-A

At W. Abut. place headwall on "Sub-Base Granular Material, Type B" if headwall is on top of riprap. Cost included with sub-base item.



EXCAVATION AND BACKFILL DETAIL



SECTION THRU SEMI-INTEGRAL ABUTMENT

- ** Included in the cost of Porous Granular Embankment (Special)
- 2" PJF (per Article 1051.08 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.
 - Fabric Reinforced Elastomeric Mat according to Section 1028 of the Standard Specifications. Fabric mat shall be 24" wide and attached full width to the abutment cap with a 3/8" x 5" x 12" steel plate and 1/2" ϕ studs with nuts and washers at 12" cts. Cost included with Concrete Superstructure.
 - Not Used.
 - Geocomposite Wall Drain (Section 591 of the Standard Specifications - full width of cap).

ABUTMENT DETAILS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

Bollinger, Lach & Associates, Inc.

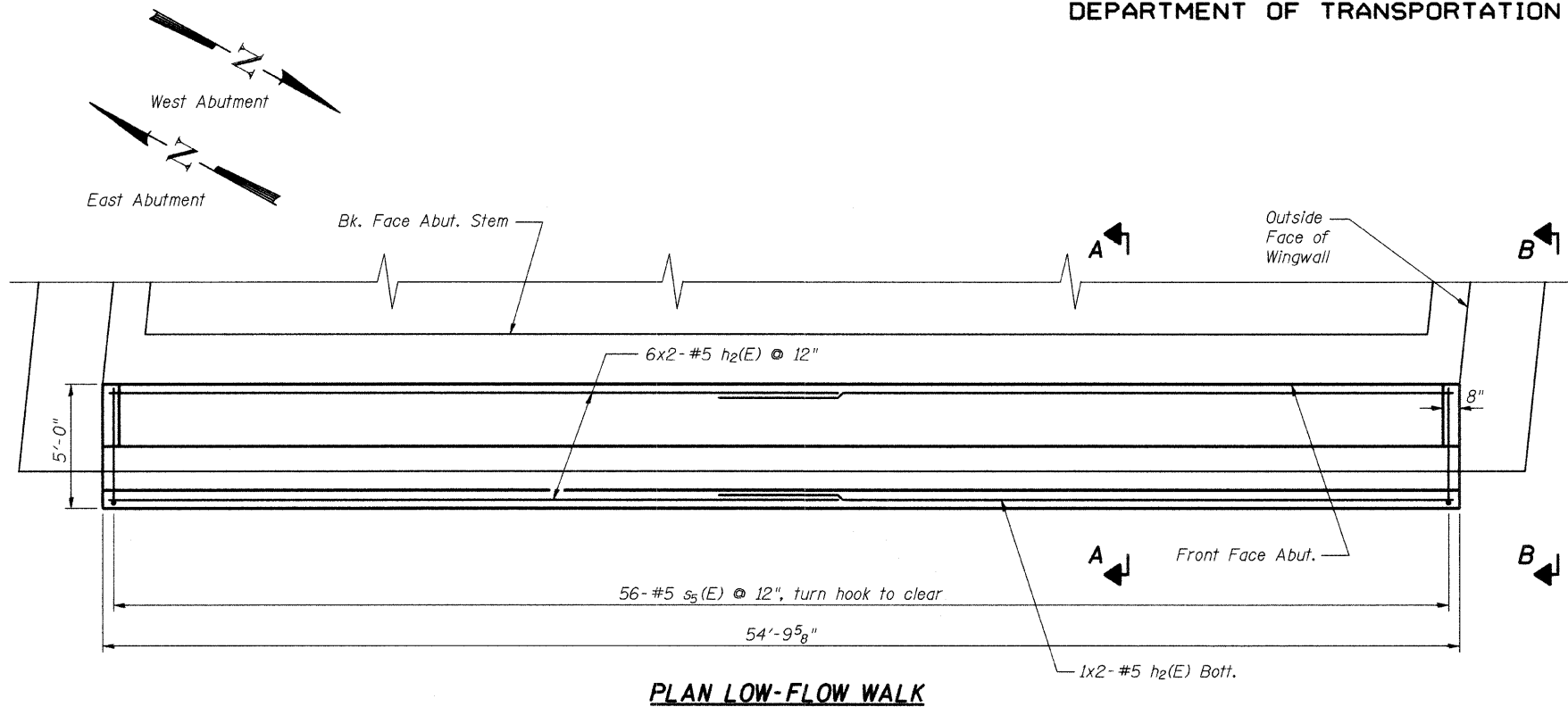
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

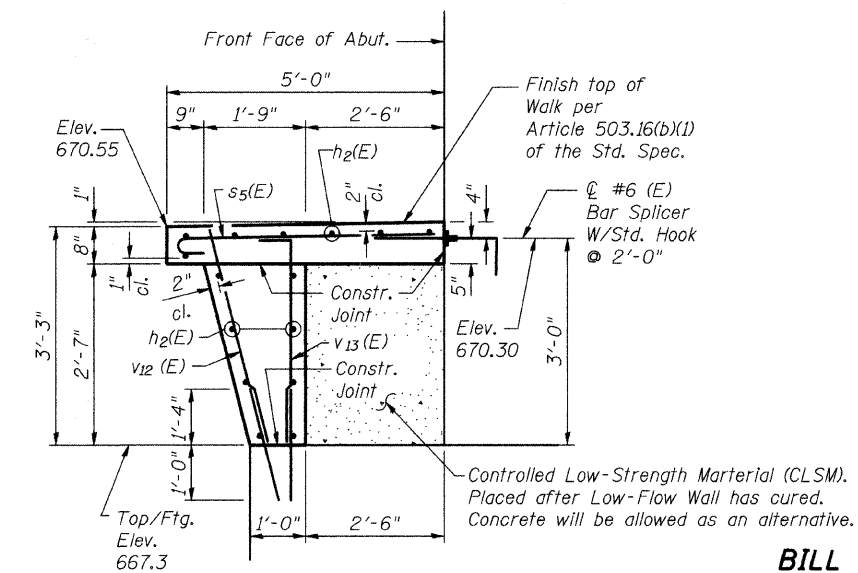
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DUPAGE	106	44
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. S23
of 534 SHEETS

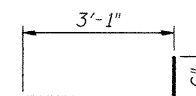
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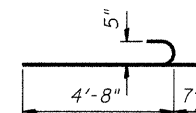
PLAN LOW-FLOW WALK



SECTION A-A



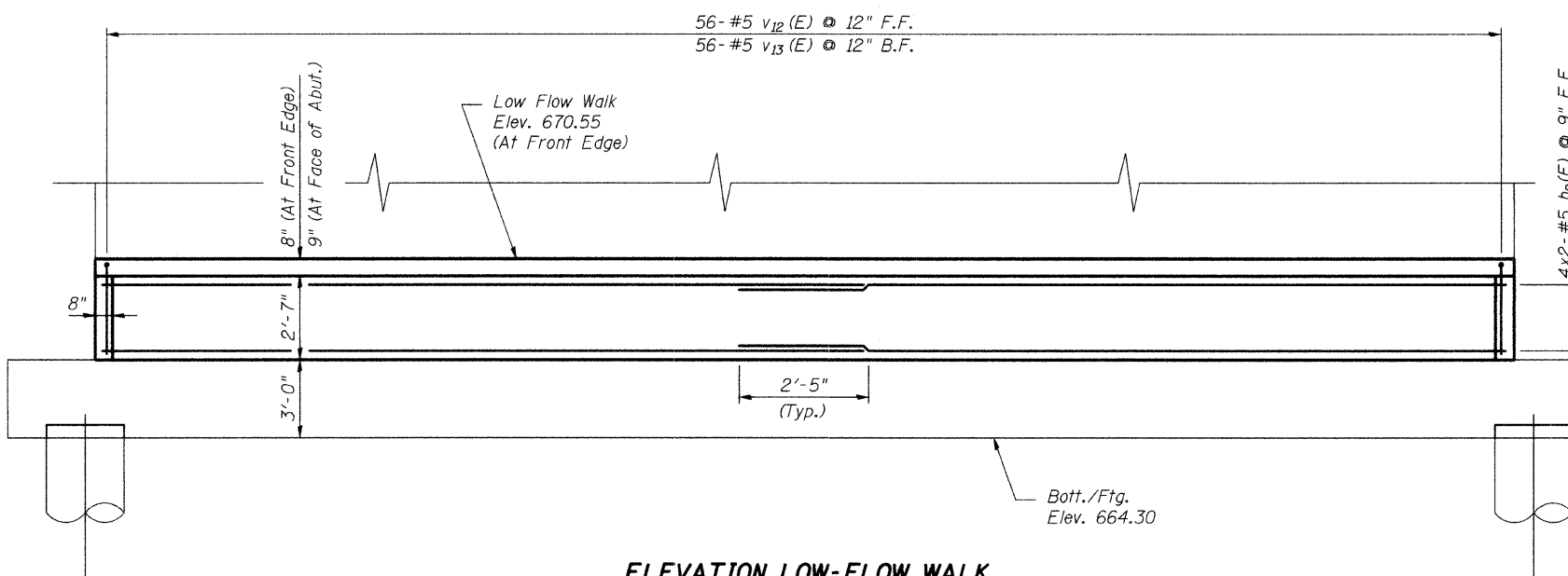
BAR v13(E)



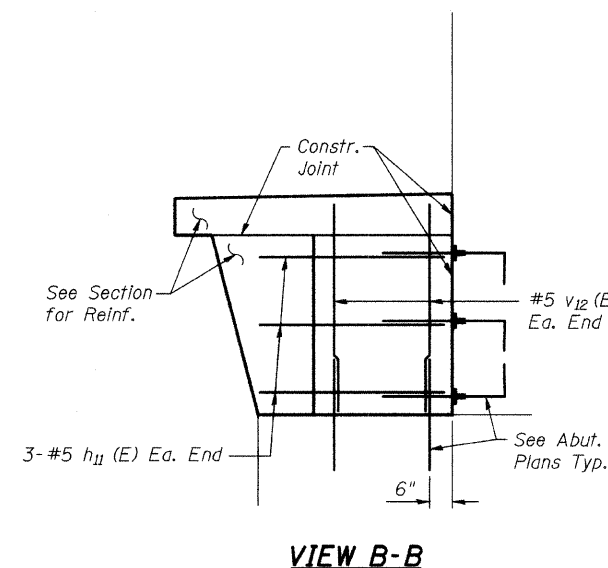
BAR s5(E)

BILL OF MATERIAL
(For Two Low-Flow Walks)

Bar	No.	Size	Length	Shape
h2(E)	60	#5	28'-6"	—
h11(E)	12	#5	3'-4"	—
s5(E)	112	#5	5'-3"	⌋
v12(E)	120	#5	3'-1"	—
v13(E)	112	#5	3'-7"	—
Concrete Structures		Cu. Yd.		30
Reinforcement Bars, Epoxy Coated		Pound		3250
Controlled Low-Strength Material		Cu. Yd.		26



ELEVATION LOW-FLOW WALK



VIEW B-B

DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

B Bollinger, Lach & Associates, Inc.

Note:
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.
All construction joints shall be bonded.

LOW-FLOW WALKWAY
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

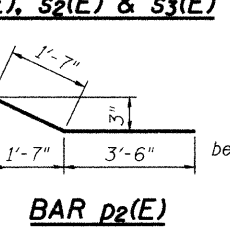
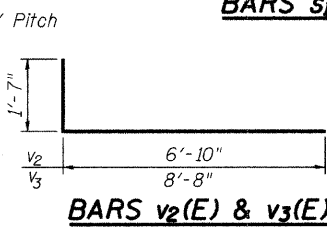
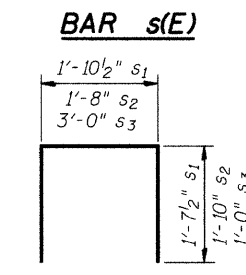
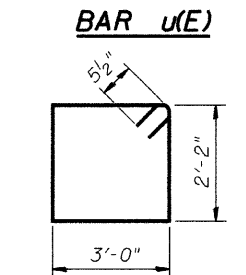
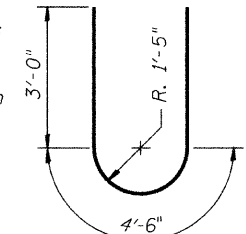
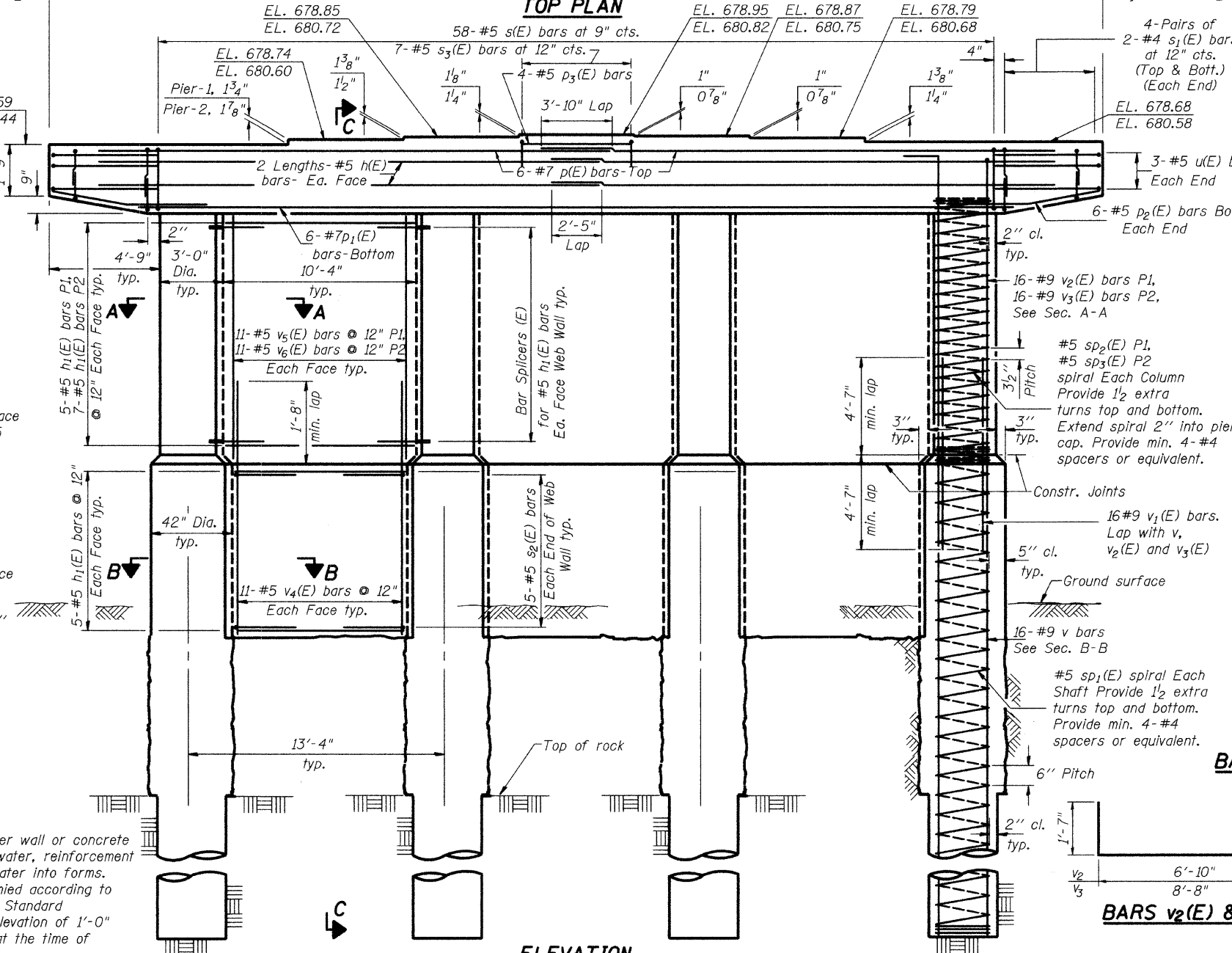
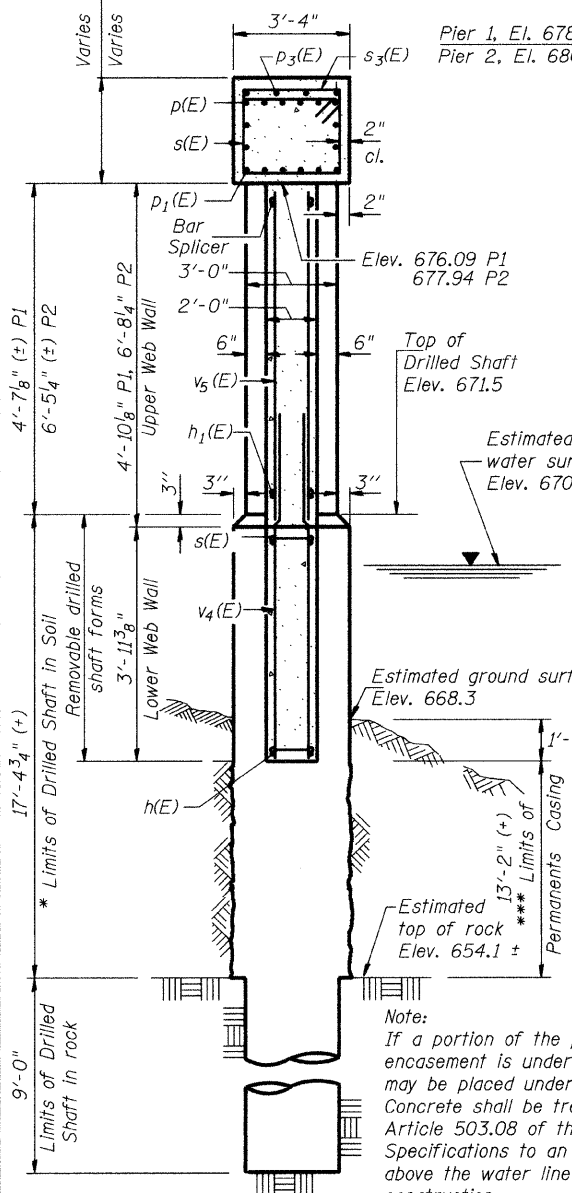
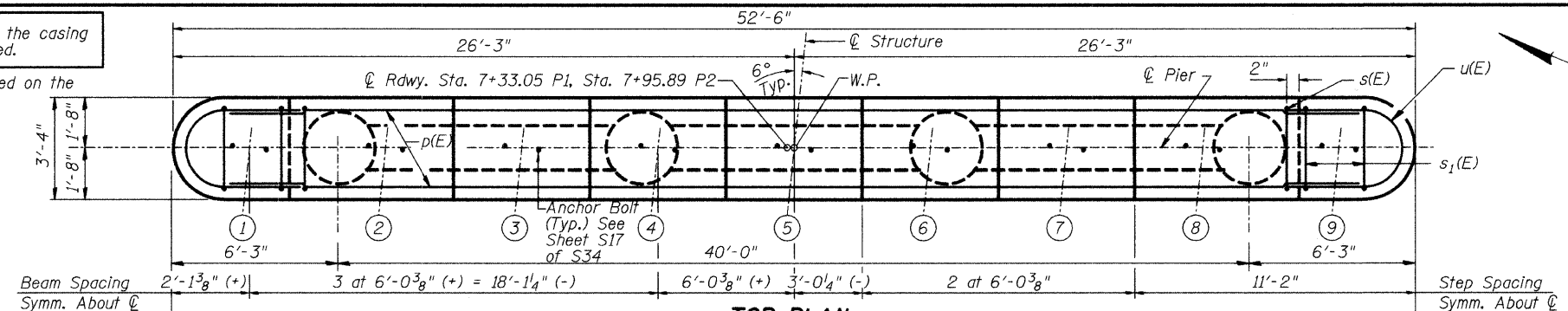
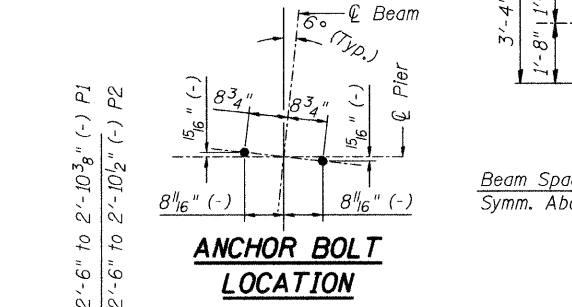
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S24
		DUPAGE	106	45	of S34 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	
* 00-00116-00-BR					

*** Contractor is responsible for determining the casing thickness and the actual tip elevation to be used.

Pay limits for the Permanent Casing are based on the minimum length shown.

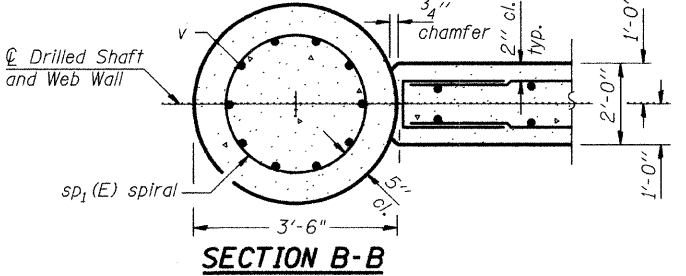
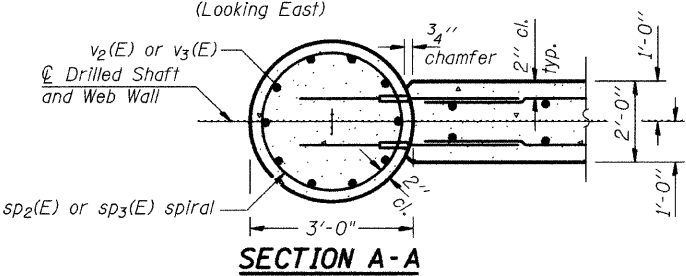
Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.



DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.



BILL OF MATERIAL - TWO PIERS

Bar	No.	Size	Length	Shape
h(E)	16	#5	25'-10"	—
h1(E)	132	#5	9'-7"	—
p(E)	24	#7	26'-8"	—
p1(E)	12	#7	43'-4"	—
p2(E)	24	#5	5'-1"	—
p3(E)	8	#5	5'-9"	—
s(E)	116	#5	11'-3"	□
s1(E)	64	#4	5'-2"	□
s2(E)	60	#5	5'-4"	□
s3(E)	14	#5	5'-0"	□
sp1(E)	8	#5	26'-5"	⋈
sp2(E)	4	#5	4'-9"	⋈
sp3(E)	4	#5	6'-7"	⋈
u(E)	12	#5	10'-6"	—
v	128	#9	26'-2"	—
v1(E)	128	#9	9'-2"	—
v2(E)	64	#9	8'-5"	—
v3(E)	64	#9	10'-3"	—
v4(E)	132	#5	5'-6"	—
v5(E)	66	#5	4'-7"	—
v6(E)	66	#5	6'-5"	—
Underwater Structure				
Excavation Protection	Each			1
Location 2				
Underwater Structure				
Excavation Protection	Each			1
Location 3				
Drilled Shaft in Soil	Cu. Yd.		49.9	
Drilled Shaft in Rock	Cu. Yd.		18.9	
Concrete Structures	Cu. Yd.		90.5	
Reinforcement Bars, Epoxy Coated	Pound		20,800	
Reinforcement Bars	Pound		11,500	
Bar Splicers	Each		144	
Permanent Casing	Foot		106	

Reinforcement Bars designated (E) shall be epoxy coated.
Cast steps monolithically with cap.
Space cap reinforcement to miss anchor bolts.
Minimum lap for spirals = 1 1/2 turns.
**Length is height of spiral.

PIERS 1 & 2

**JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
*	DUPAGE	106	46	SHEET NO. S25 of S34 SHEETS
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

* 00-00116-00-BR

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity = $1.25 \times f_y \times A_t$
(Tension in kips)
 - ② Minimum *Pull-out Strength = $0.66 \times f_y \times A_t$
(Tension in kips)
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



**** ONE PIECE**

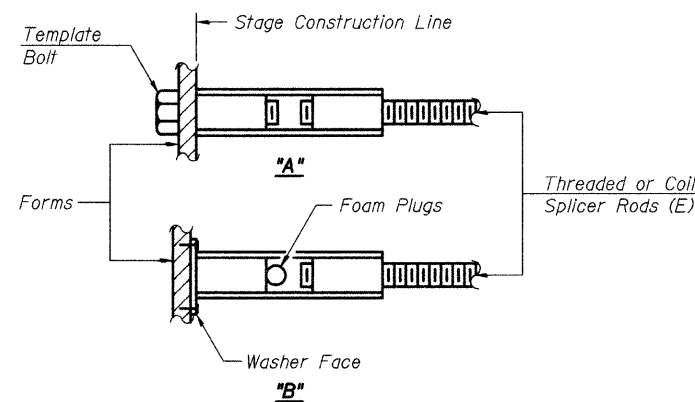
Wire Connector



WELDED SECTIONS

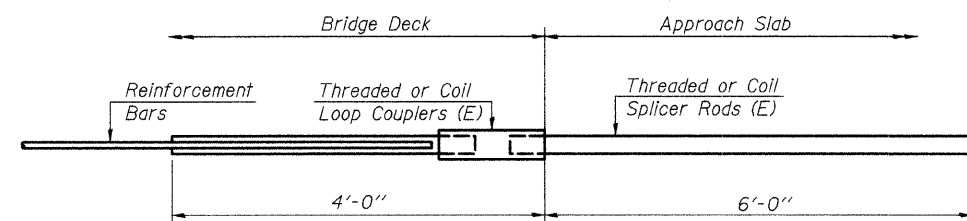
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



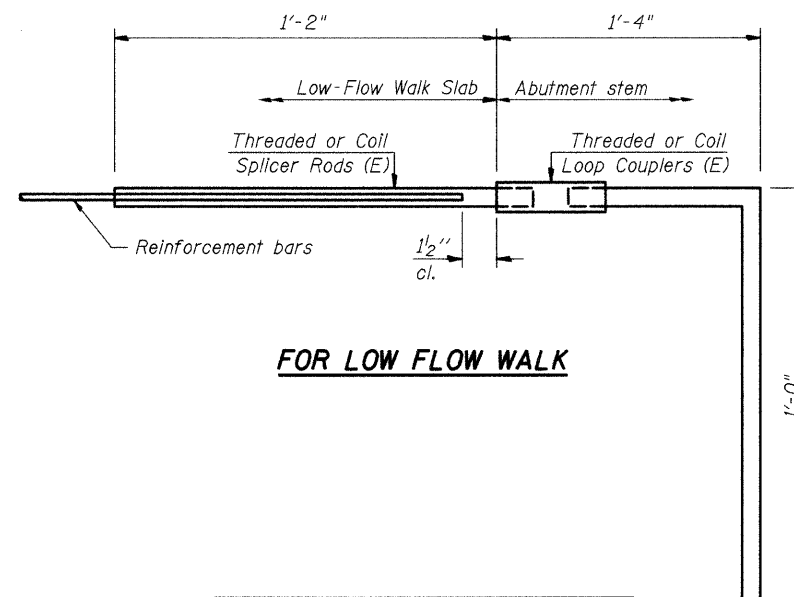
INSTALLATION AND SETTING METHODS

"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.



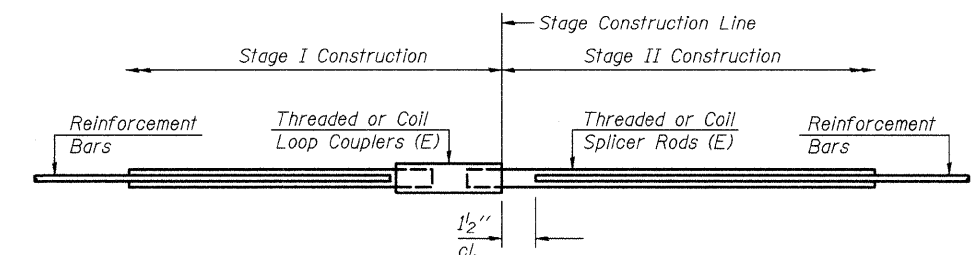
**SEMI-INTEGRAL ABUTMENT
BAR SPLICER ASSEMBLY DETAIL**

Bar Splicer for #5 bar	
Min. Capacity = 23.0 kips - tension	
Min. Pull-out Strength = 12.3 kips - tension	
No. Required = 106	



FOR LOW FLOW WALK

Bar Splicer for #6 bar	
Min. Capacity = 33.1 kips - tension	
Min. Pull-out Strength = 17.4 kips - tension	
No. Required = 68	



STANDARD

Bar Size	No. Assemblies Required	Location
#5	144	Piers

BAR SPLICER ASSEMBLY DETAILS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	
CHECKED	
DRAWN	GM
CHECKED	SRT

B Bollinger, Lech & Associates, Inc.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S26 of 534 SHEETS
	*	DUPAGE	106	47	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

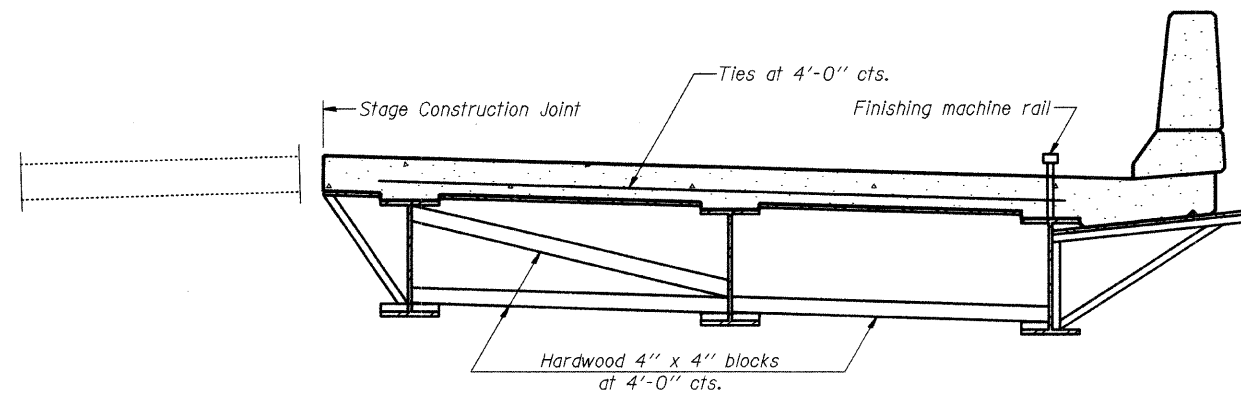
* 00-00116-00-BR

When cantilever forming brackets are used, the work shall be done according to Article 503.06 (b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

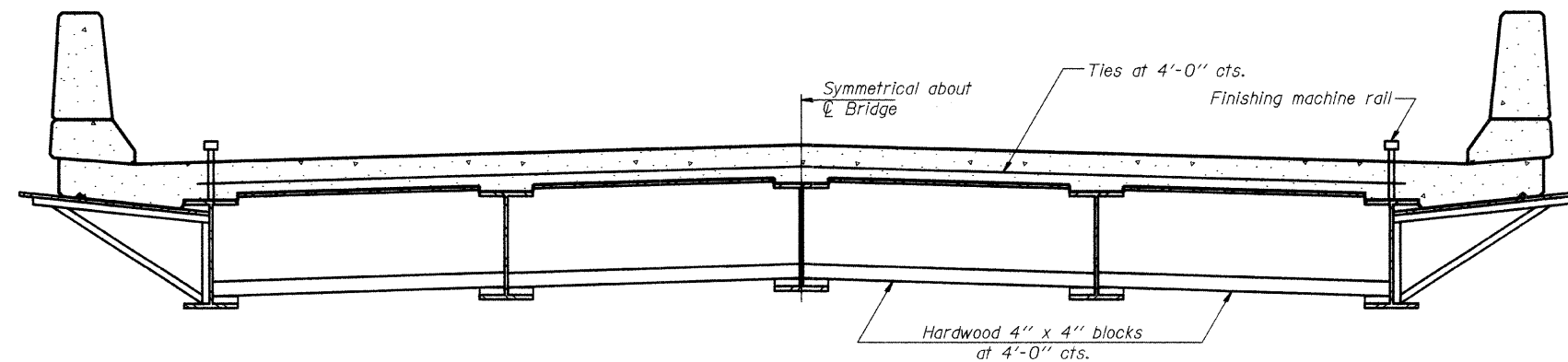
The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

DESIGNED	
CHECKED	
DRAWN	GM
CHECKED	SRT

SB-1

CANTILEVER FORMING BRACKET DETAILS

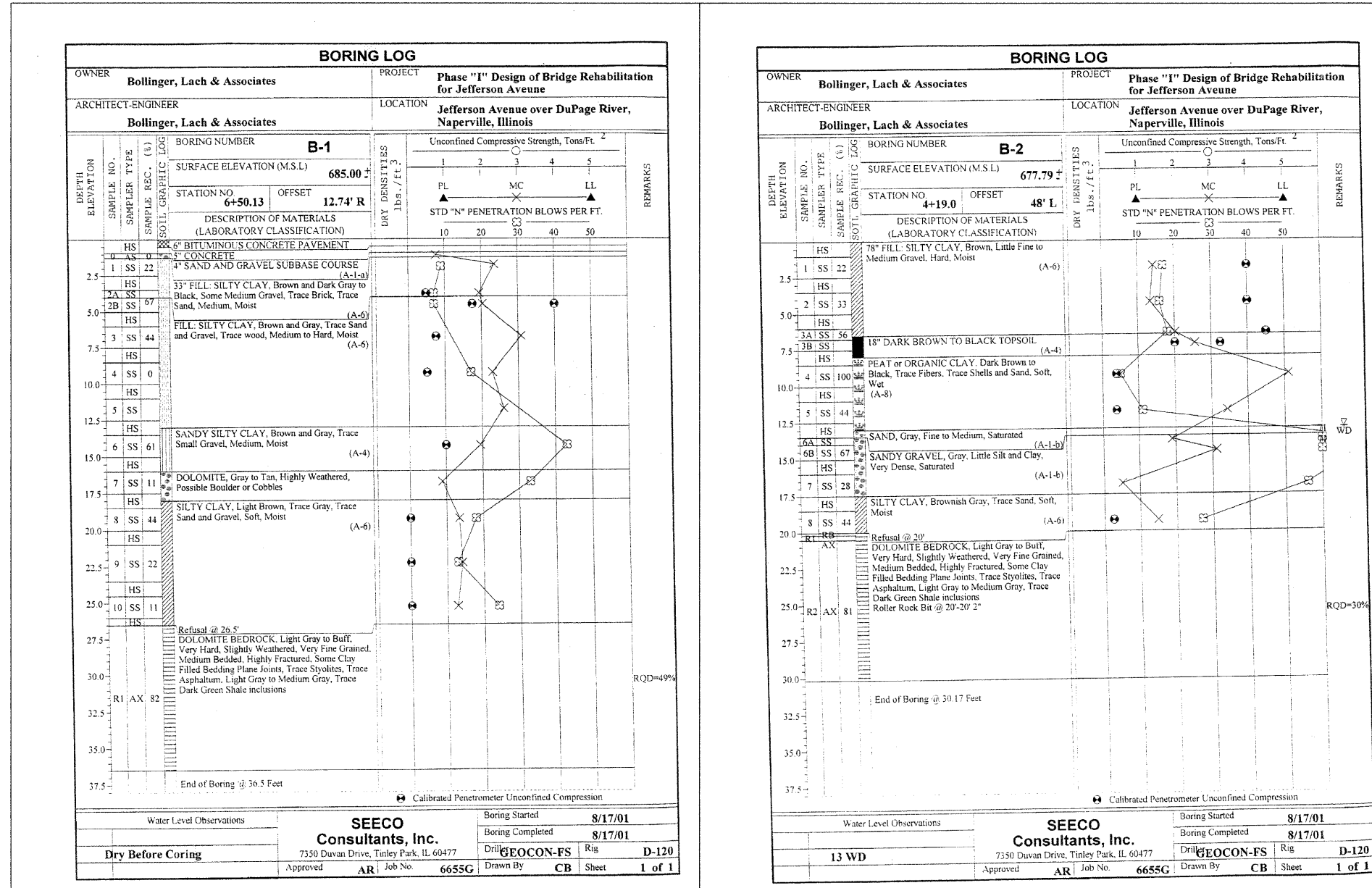
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 83827

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. S27 of 534 SHEETS
	#	DUPAGE	106	48	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

* 00-00116-00-BR



DESIGNED
CHECKED
DRAWN GM
CHECKED SRT

B Bollinger, Lach & Associates, Inc.

SOIL BORING LOGS

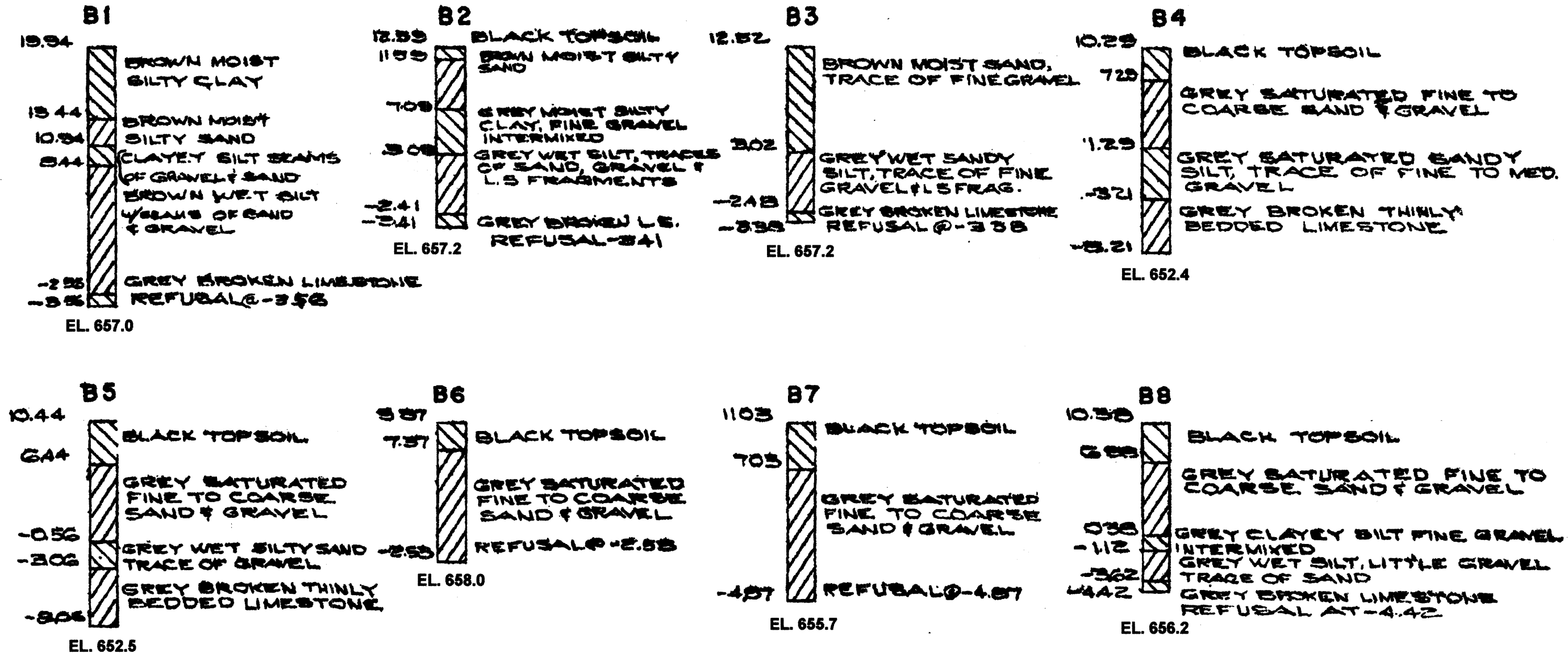
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 528
		DUPAGE	106	49 of 534 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

00-00116-00-BR

BORING TEST HOLES



DESIGNED	
CHECKED	
DRAWN	GM
CHECKED	SRT

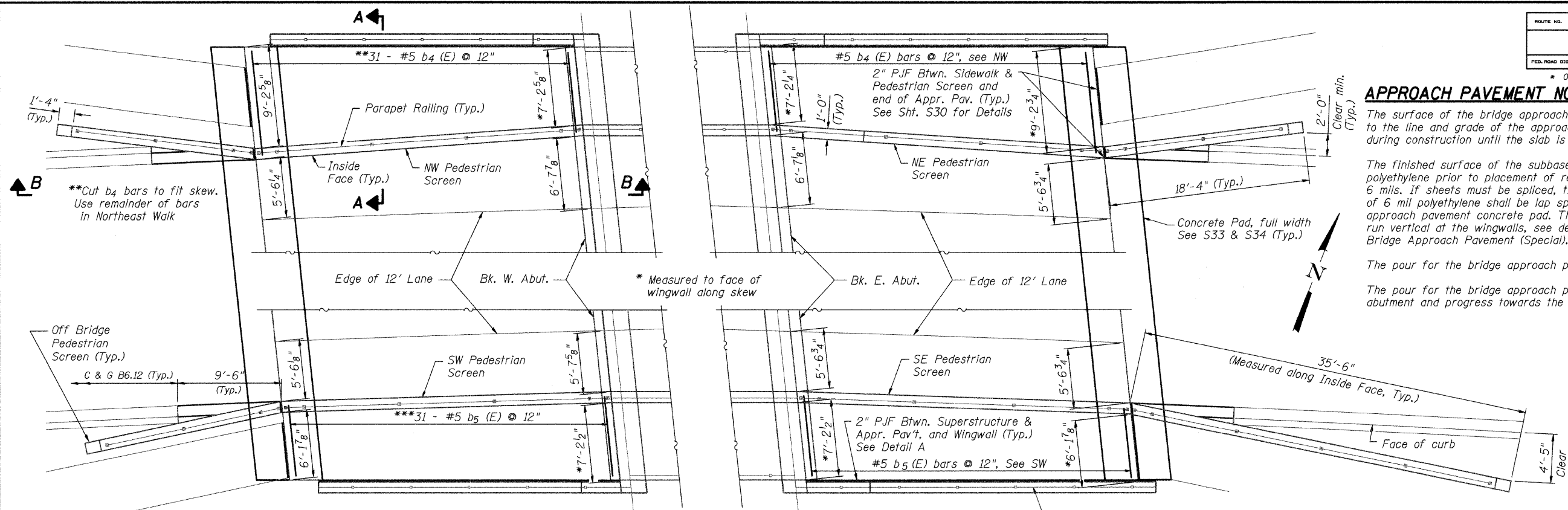
Bollinger, Lach & Associates, Inc.

Note: The information shown on this sheet is taken from existing bridge plans and is not guaranteed to be accurate and is provided only for the contractor's information. The elevations shown at the bottom of the logs are approximate conversions for the bottom elevation.

EXISTING STRUCTURE SOIL BORING LOGS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	DUPAGE		106	50
SHEET NO. S29 of S34 SHEETS				
FED. ROAD DIST. NO. 7	ALIGNMENT	FED. AID PROJECT		
		* 00-00116-00-BR		



PLAN - APPROACH PAVEMENT & OFF-BRIDGE PEDESTRIAN SCREEN

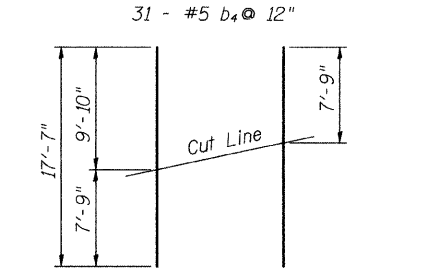
APPROACH PAVEMENT NOTES

The surface of the bridge approach pavement subbase shall be accurately constructed to the line and grade of the approach slab and a flat surface shall be maintained during construction until the slab is poured.

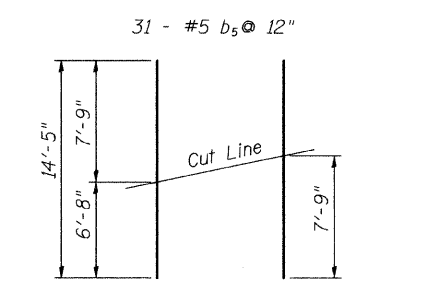
The finished surface of the subbase shall be covered with two (2) layers of polyethylene prior to placement of reinforcement. Minimum thickness of each sheet is 6 mils. If sheets must be spliced, the minimum lap shall be 18 inches. The two layers of 6 mil polyethylene shall be lap spliced on top of the 10 mil polyethylene on the approach pavement concrete pad. The two layers of 6 mil polyethylene shall turn and run vertical at the wingwalls, see details. The cost of all polyethylene is included in Bridge Approach Pavement (Special).

The pour for the bridge approach pavement shall begin in the early morning only.

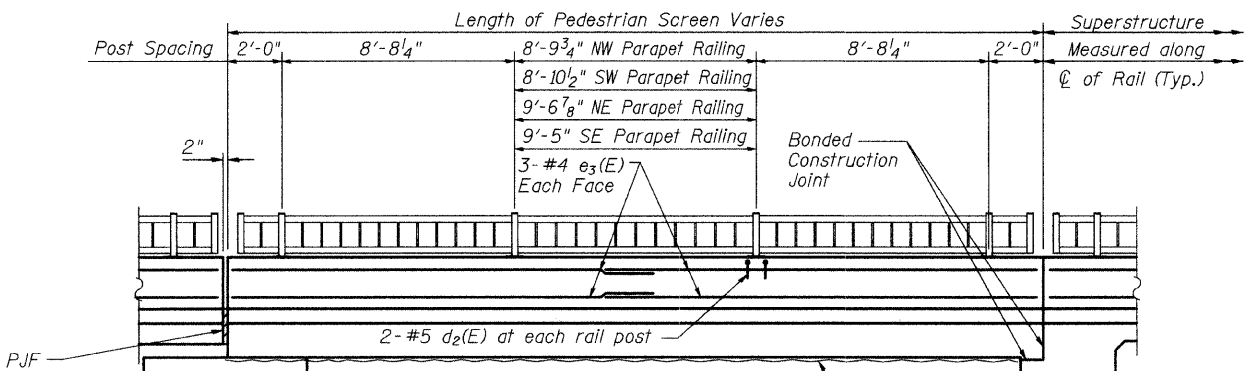
The pour for the bridge approach pavement shall begin at the end away from the abutment and progress towards the abutment.



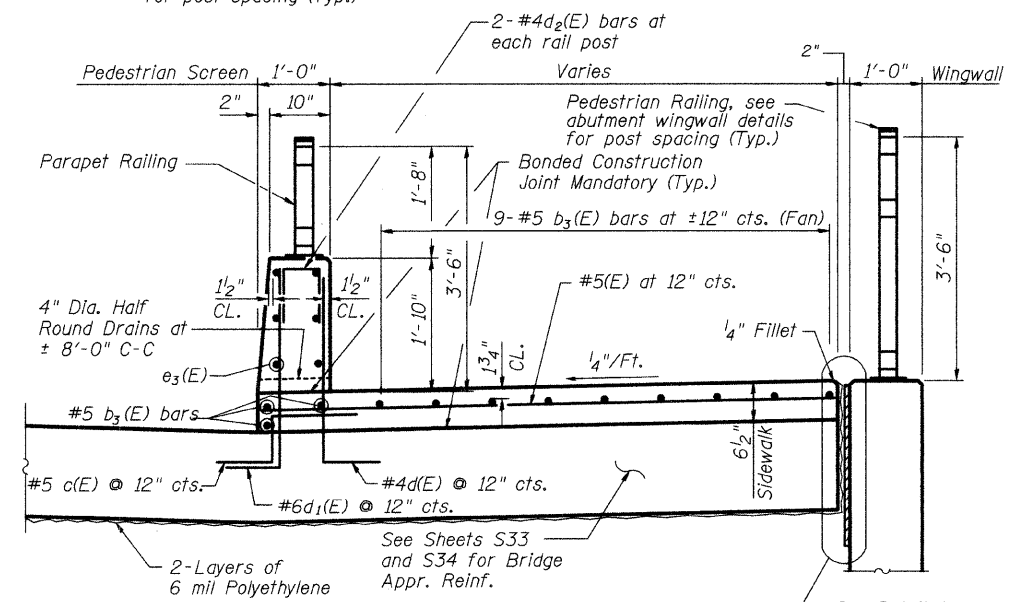
FIELD CUTTING DIAGRAM b4



FIELD CUTTING DIAGRAM b5



**SECTION B-B
INSIDE ELEVATION OF PEDESTRIAN SCREEN**
(NW Pedestrian Screen Shown)



SECTION A-A

Sequence of construction

- 2" of Preformed Joint Filler. Polyurethane Bonded Recycled Rubber conforming with the requirements of AASHTO M 153, Type IV.
- Temporary Block
- 2-layers of 6 mil thick polyethylene
- Fold polyethylene around block and temporarily secure to wingwall
- Fold polyethylene sheets onto Appr. Walk and temporarily secure
- Prime
- After sealant has cured, trim sheets flush with top of sealant
- Attach all layers of PJJ with adhesive. The bott. of the PJJ below the Appr. Pav't shall be nailed, on the wingwalls only. Adhesive shall be supplied and/or approved by the PJJ manufacturer. Face of PJJ shall be true and flat, depressions or gaps shall be filled flush with face of PJJ with an approved patching material.
- Concrete Nails Flat Hd. C.S. at 18" cts. horizontal 3/4" min. embedment in concrete
- Cost of all joint details, except polyethylene, is included in Concrete Structures.

Non staining grey, one component non-sag elastomeric gun grade polyurethane sealant, with primer, meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25, Use T.

- Notes:
- All Reinforcement bars shall be Epoxy Coated.
 - For Sidewalk and Pedestrian Screen on approach slab, cost of sidewalk concrete and all reinforcement are included in "Bridge Approach Pavement (Special)" pay item. Concrete for Pedestrian Screen is included in pay item "Concrete Superstructure".
 - For Pedestrian and Parapet Railing Details not Shown see Railing Detail Sheets in Bridge Plans.
 - The Parapet Railing, furnished and installed on Bridge Approach Pavement Shall not be paid for separately but shall be included in the unit bid price for "Pedestrian Rail (Special)". See Sheets S19 and S21.
 - Transition bicycle lane cross slope from 2% to 1.5% off of Bridge Approach Pavement.
 - For bar details not shown, see sheet S11 of S34.
 - Protective Coat shall be applied to the roadway portion of the approach pavement and to the inside and top face of the pedestrian screen.

TOTAL BILL OF MATERIAL
(Total for both Approaches)

Bar	No.	Size	Length (m)	Shape
b3(E)	48	#5	29'-9"	—
b4(E)	31	#5	17'-7"	—
b5(E)	31	#5	14'-5"	—
c(E)	124	#5	2'-5"	┌
d(E)	124	#4	3'-5"	┌
d1(E)	124	#6	3'-9"	┌
d2(E)	32	#4	2'-0"	┌
e3(E)	48	#4	15'-11"	—
Concrete Superstructure			Cu. Yd.	7.6
Bridge Approach Pavement (Special)			Sq. Yd.	348
Protective Coat			Sq. Yd.	284

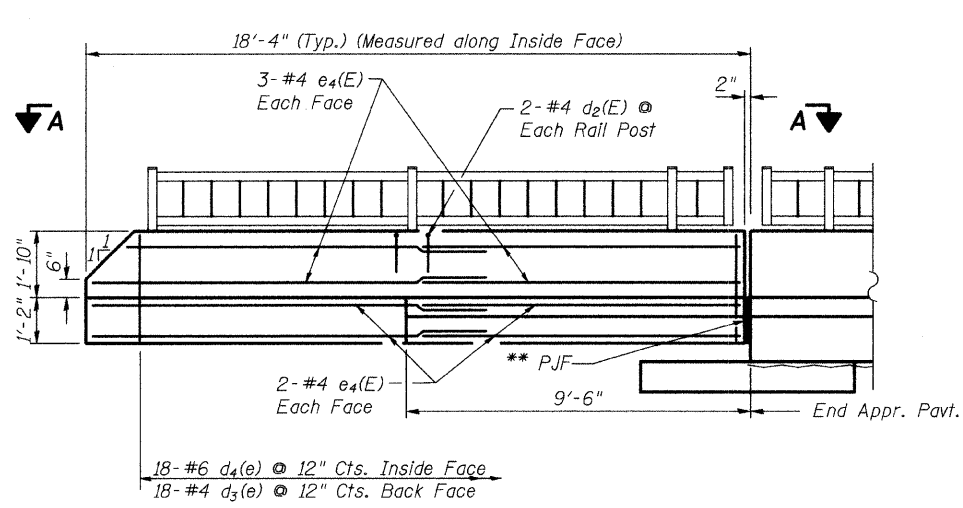
APPROACH PAVEMENT DETAILS

**JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756**

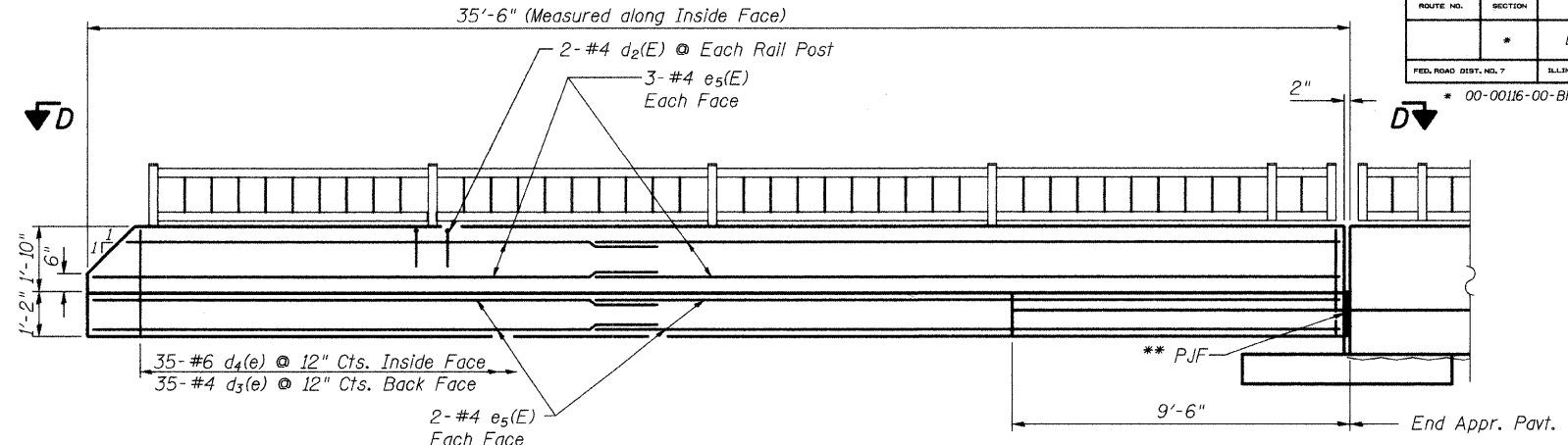
DESIGNED	JJI
CHECKED	SRT
DRAWN	GM
CHECKED	SRT

B Bellinger, Lach & Associates, Inc.

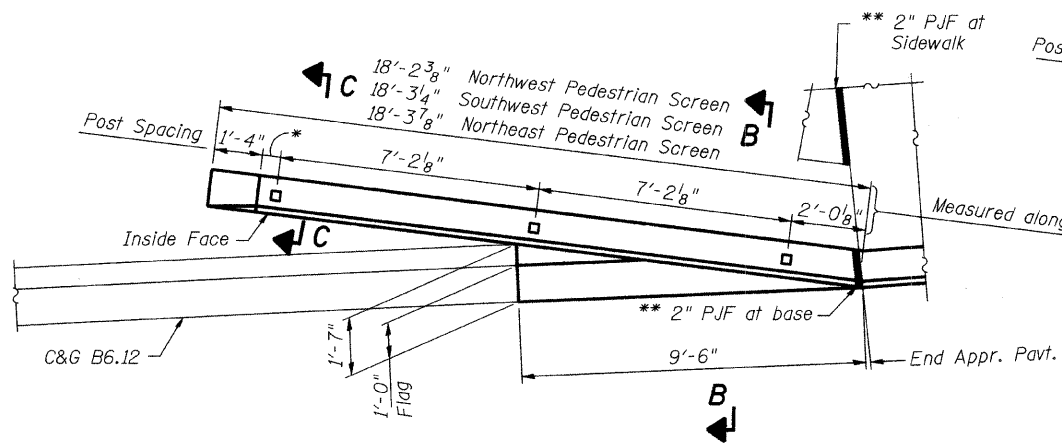
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET	SHEET NO. S30 of S34 SHEETS
#	DUPAGE		106	51	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		



TYPICAL INSIDE ELEVATION OF OFF-BRIDGE PEDESTRIAN SCREEN
(Typ. Except at Southeast Corner)

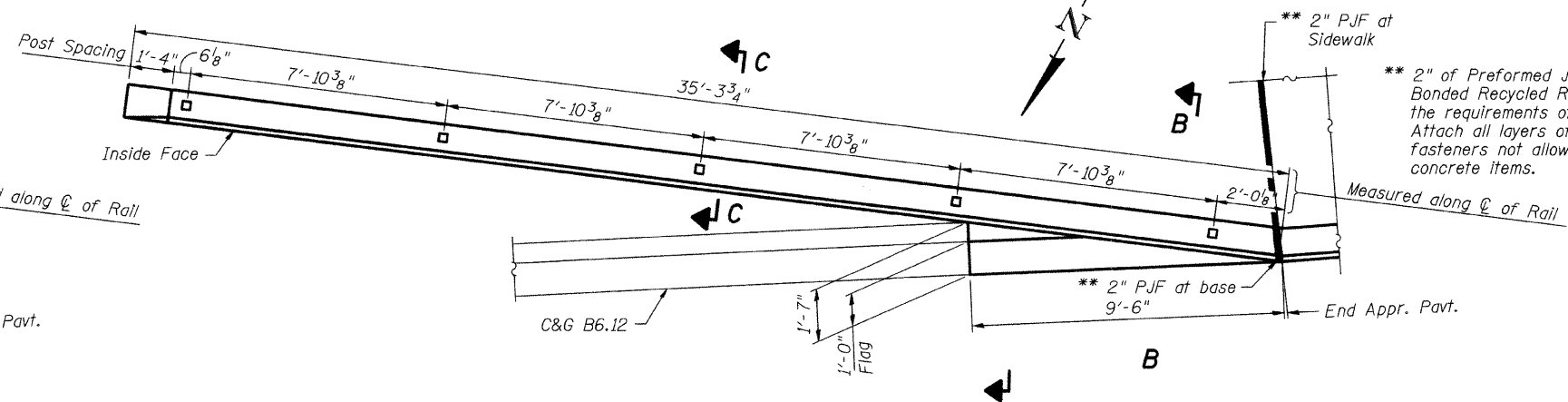


INSIDE ELEVATION OF OFF-BRIDGE PEDESTRIAN SCREEN AT SOUTHEAST CORNER



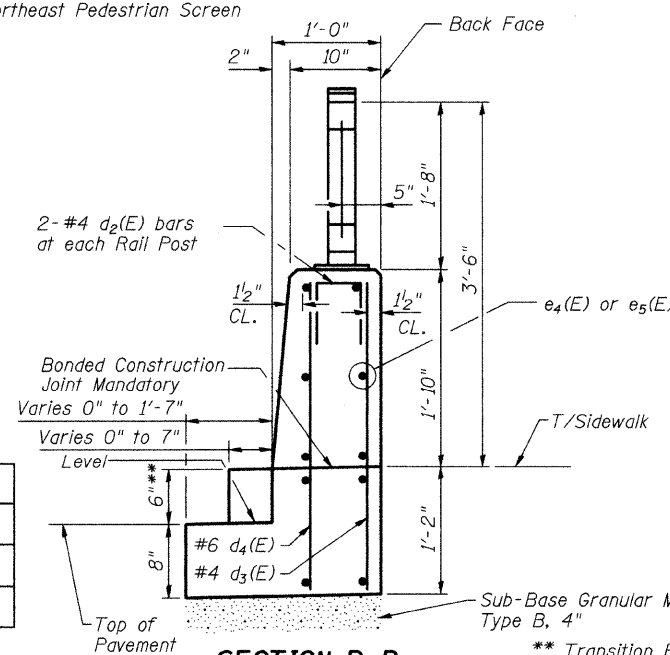
SECTION A-A
TYPICAL PLAN OFF-BRIDGE PEDESTRIAN SCREEN

- * 6" @ Northwest Pedestrian Screen
- 6 7/8" @ Southwest Pedestrian Screen
- 7 1/2" @ Northeast Pedestrian Screen

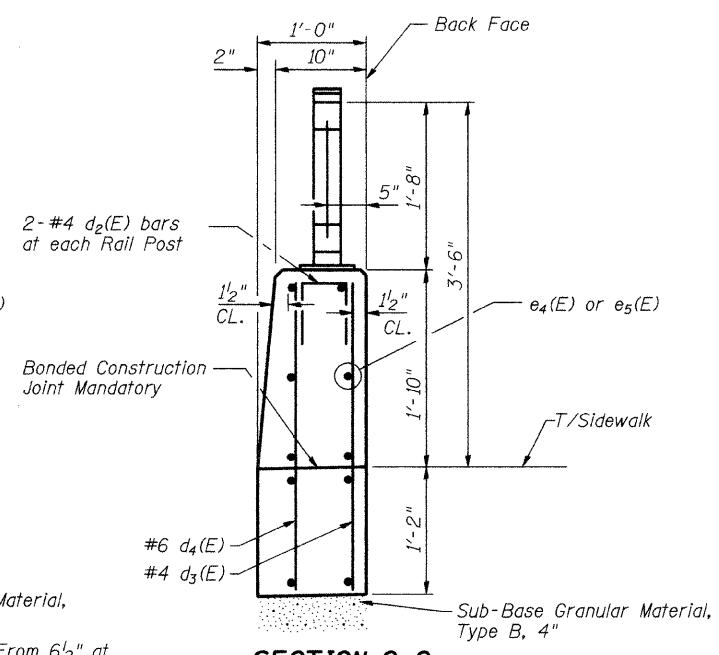


SECTION D-D
PLAN OFF-BRIDGE PEDESTRIAN SCREEN AT SOUTHEAST CORNER

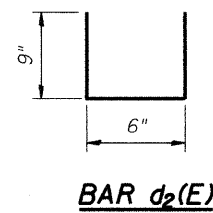
** 2" of Preformed Joint Filler, Polyurethane Bonded Recycled Rubber conforming with the requirements of AASHTO M 153, Type IV. Attach all layers of PJF with adhesive, fasteners not allowed. Cost included in concrete items.



SECTION B-B



SECTION C-C



BAR d2(E)

- NOTES:
- All reinforcement bars shall be epoxy coated.
 - For Parapet Railing details not shown see Railing Details sheets in bridge plans.
 - The Parapet Railing located beyond the limits of the bridge approach pavement, furnished and installed, is paid for as Parapet Railing, Special.
 - Sub-Base Material, excavation and backfill required for pedestrian screen construction is included Concrete Superstructure.

TOTAL BILL OF MATERIAL
(Total for Off-Bridge Pedestrian Screens)

Bar	No.	Size	Length (m)	Shape
d2(E)	28	#4	2'-0"	U
d3(E)	89	#4	2'-9"	—
d4(E)	89	#6	2'-9"	—
e4(E)	60	#4	9'-10"	—
e5(E)	20	#4	18'-5"	—
Concrete Superstructure			Cu. Yd.	10.4
Reinforcement Bars, Epoxy Coated			Pound	1210
Parapet Railing, Special			Foot	85
Protective Coat			Sq. Yd.	33

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	SRT

B Bellinger, Lach & Associates, Inc.

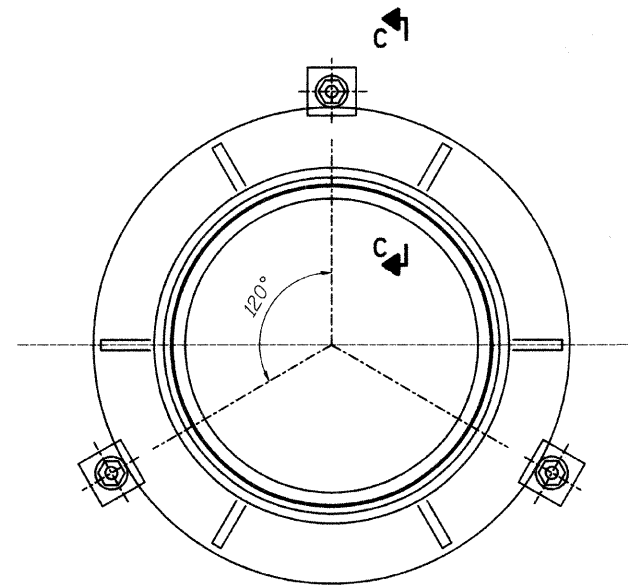
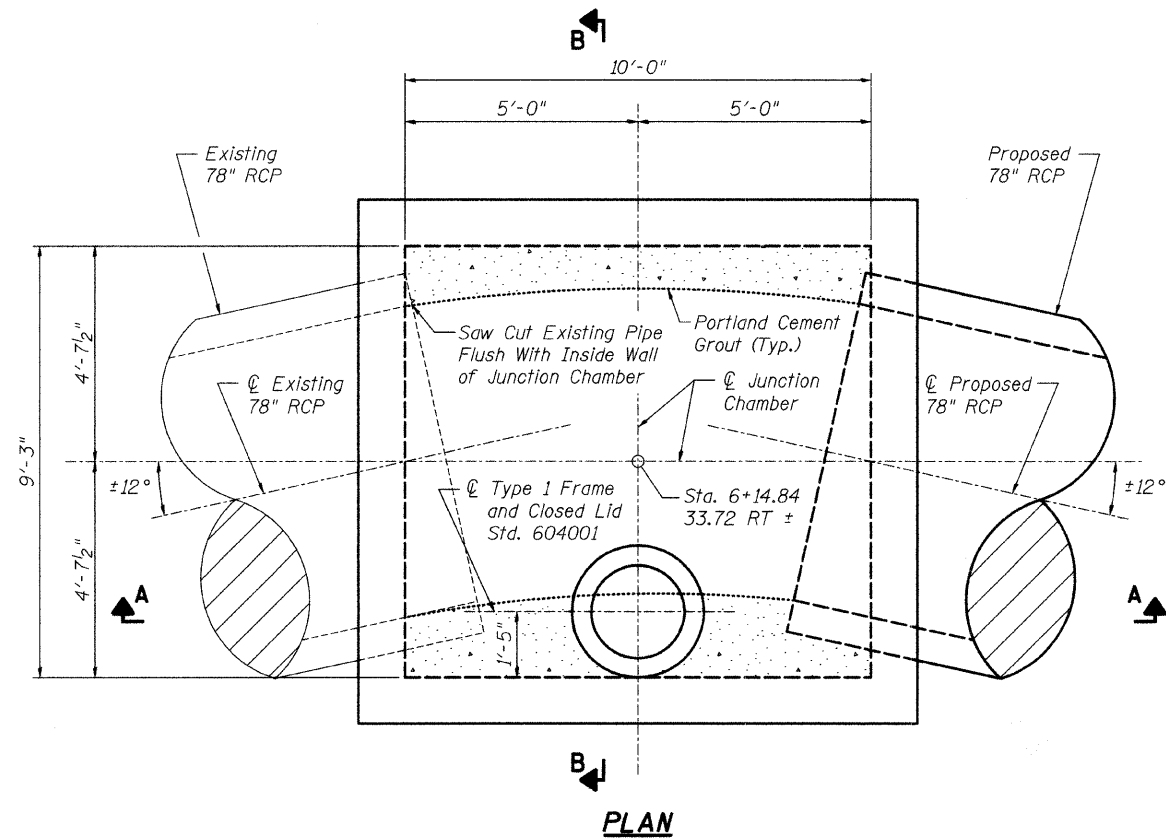
** Transition From 6 1/2" at Approach Slab to 6" at end of integral curb & gutter.

OFF-BRIDGE PEDESTRIAN SCREEN
JEFFERSON AVENUE OVER WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
	#	DUPAGE	106	52
FED. ROAD DIST. NO. 7		ILLINOIS FED. AID PROJECT-		

* 00-00116-00-BR

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAME HOLD DOWN

GENERAL NOTES:

Precast Concrete Junction Chamber shall be constructed in accordance with the Special Provision "Precast Concrete Junction Chamber" and the Standard Specifications.

Appropriate sizing and location of lifting inserts shall be the responsibility of the Contractor to assure balanced handling during installation of the Precast Concrete Junction Chamber.

The Contractor is to patch all lifting insert holes and place a minimum of one (1) inch of cover over the hardware of these devices on both top and bottom surfaces.

See Standard Drawings 604001 and 602701 for details regarding cast iron covers and frames, and details for Manhole Steps.

All existing pipe surfaces to abut new concrete shall be cleaned and roughened. Work is incidental to "Precast Concrete Junction Chamber".

The outside face of junction chamber walls and top slab shall be waterproofed according to Article 503.18 of the Standard Specifications.

It shall be at all times the Contractor's responsibility to prevent the flow in existing sewer from entering the construction site.

CONSTRUCTION NOTES:

Construction of Precast Concrete Junction Chamber shall be performed during a low flow period.

The details shown shall be modified as directed by the Engineer if a pipe joint falls within junction chamber wall.

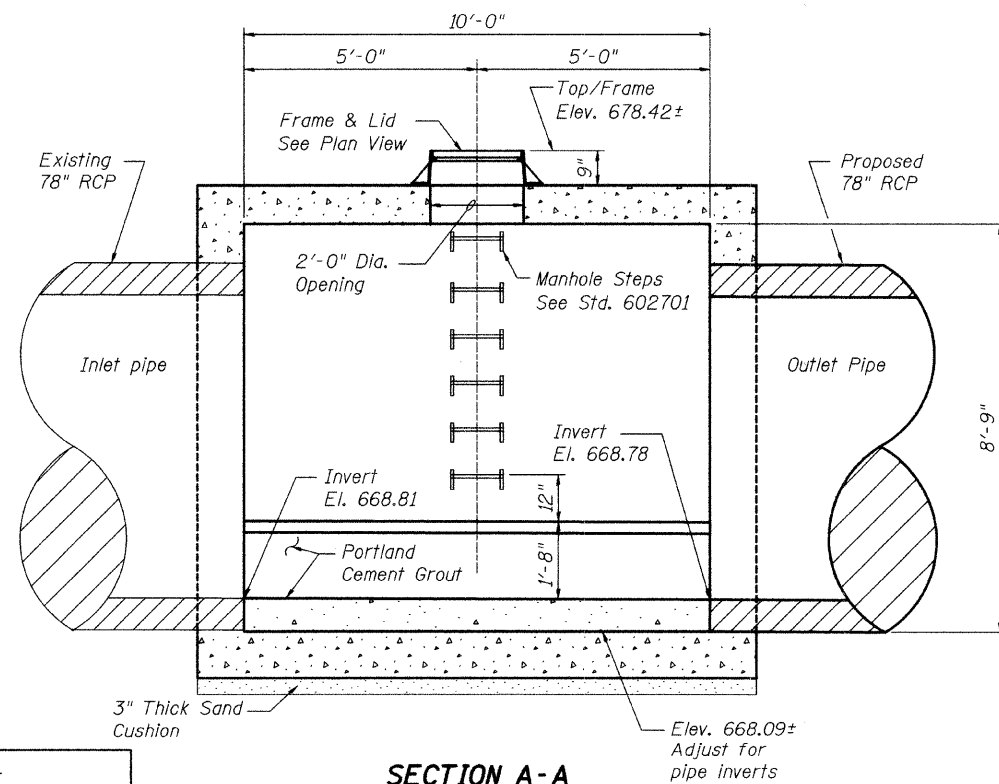
Contractor shall divert and maintain flow from the existing 78" Dia. pipe within existing sewer while performing construction of the Junction Chamber.

DESIGN SPECIFICATIONS:

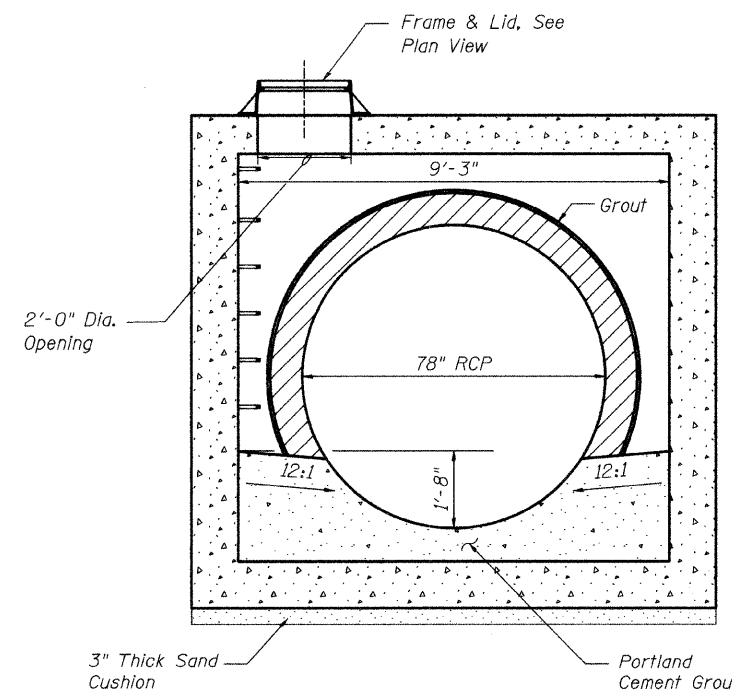
2002 AASHTO

LOADING:

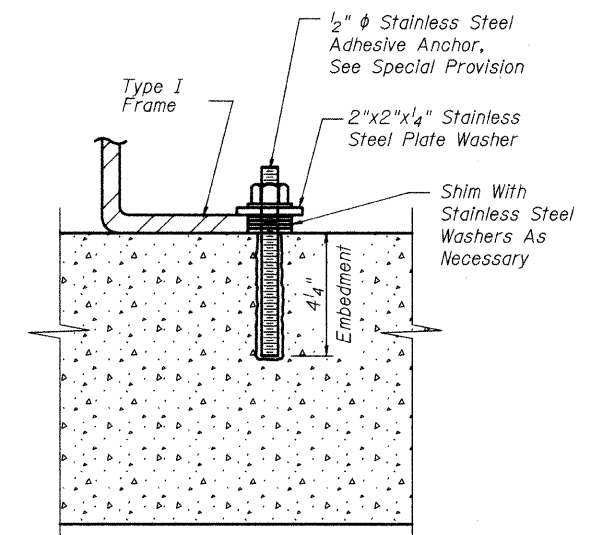
H 15



SECTION A-A



SECTION B-B



SECTION C-C

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

B Bellinger, Lach & Associates, Inc.

TOTAL BILL OF MATERIAL

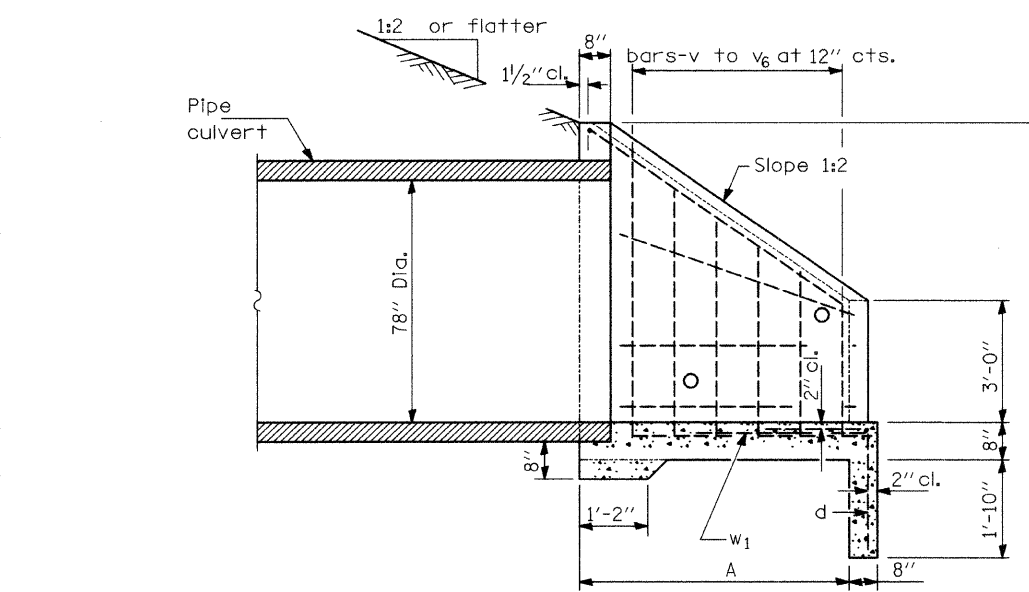
ITEM	UNIT	TOTAL
Precast Concrete Junction Chamber	Each	1

PRECAST CONCRETE JUNCTION CHAMBER

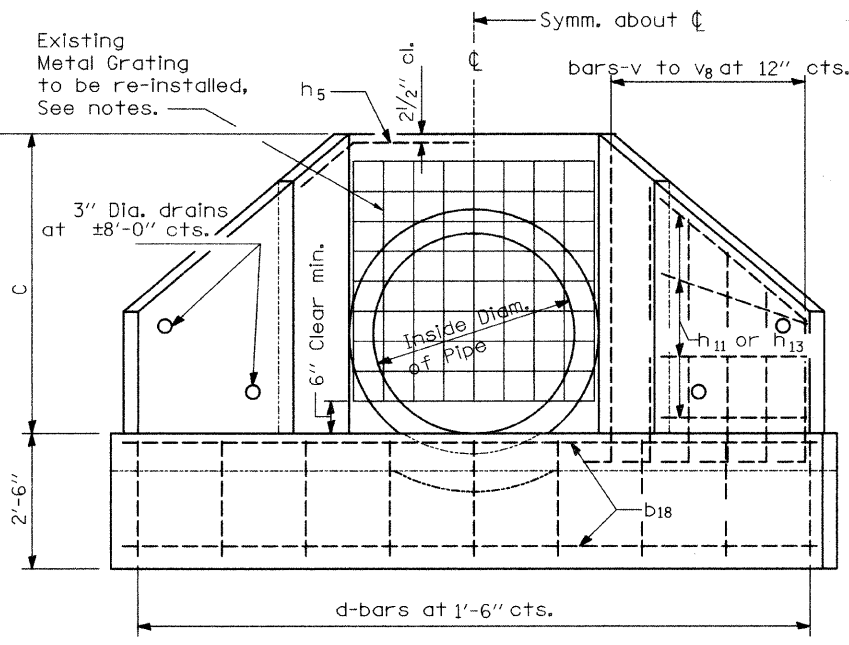
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	DUPAGE		106	53
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-

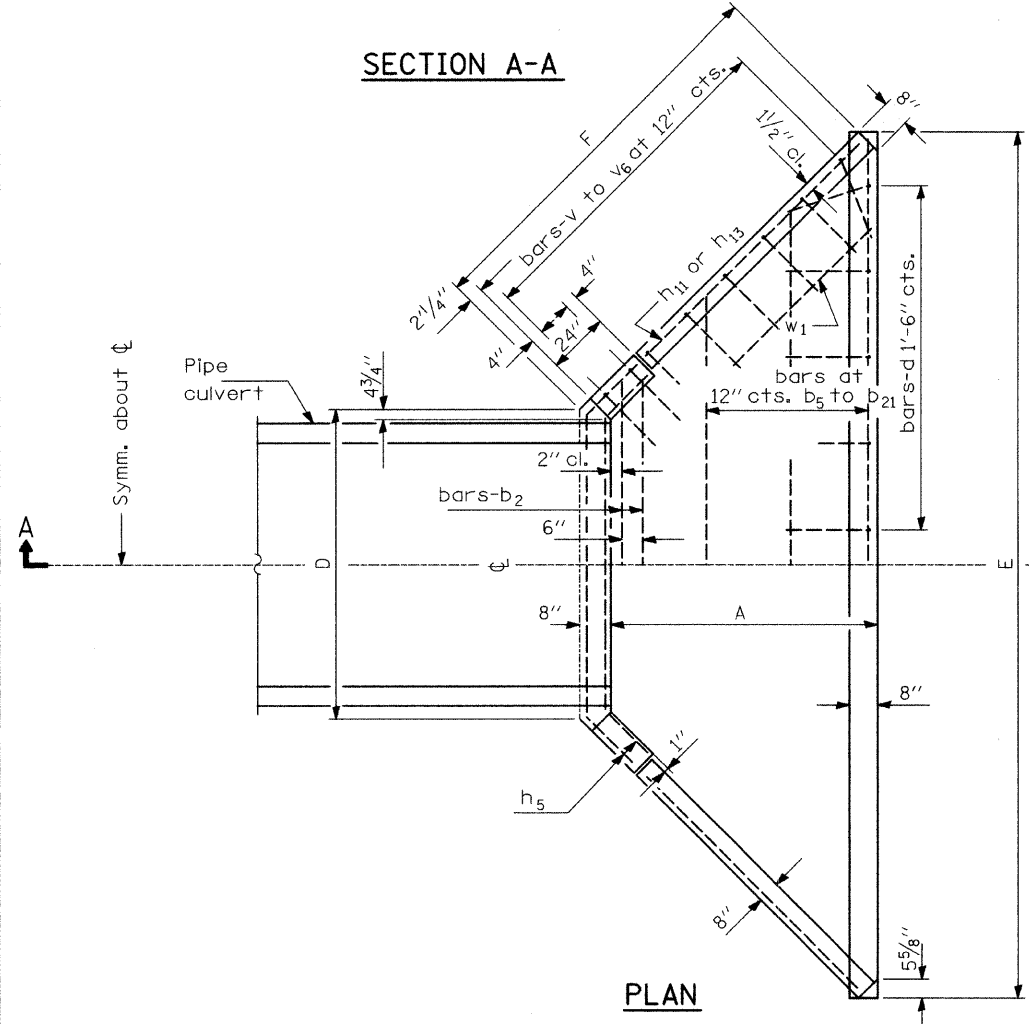
* 00-00116-00-BR



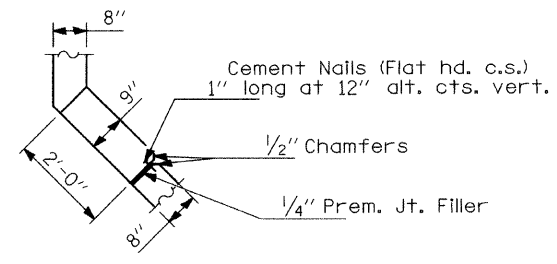
SECTION A-A



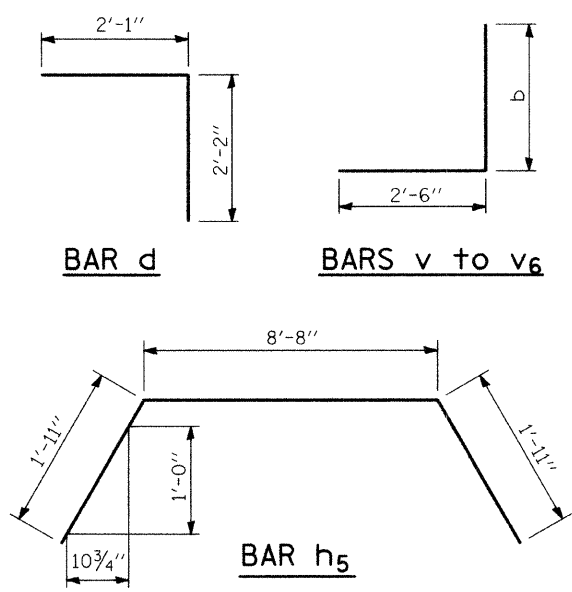
END ELEVATION



PLAN



CORNER DETAIL



BAR d
BARS v to v6
BAR h5

GENERAL NOTES:

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
The Contractor shall remove the existing metal grating and re-install the metal grating on the proposed Reinforced Concrete End Section using stainless steel expansion anchors (Hilti Kwik Bolt 3 or Approved Equal) of the same diameter and spacing as previously installed. All labor and materials necessary for removal and re-installation of metal grating shall be included in the pay item "Cast-in-Place Reinforced Concrete End Section 78", Special".
Cost of concrete and all reinforcement is included in the pay item "Cast-in-Place Reinforced Concrete End Section 78", Special".

DIMENSIONS OF BENT BARS

BAR	b	TOTAL LENGTH
v	3'-3"	5'-9"
v1	4'-0"	6'-6"
v2	5'-0"	7'-6"
v4	6'-0"	8'-6"
v6	7'-0"	9'-6"

DIMENSIONS OF STRAIGHT BARS

BARS	SIZE	LENGTH
b2	No. 5	10'-3"
b5	No. 4	12'-9"
b9	No. 4	15'-6"
b11	No. 4	17'-0"
b14	No. 4	19'-3"
b17	No. 4	21'-9"
b18	No. 4	23'-3"
b20	No. 4	25'-6"
b21	No. 4	27'-9"
h11	No. 4	8'-9"
h13	No. 4	10'-9"
w1	No. 4	10'-0"

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Cast-In-Place Reinforced Concrete End Section 78", Special	Each	1

BARS IN ONE END SECTION

78" Pipe	
BARS	No.
d	20
b2	2
b5	1
b9	1
b11	1
b14	1
b17	1
b18	1
b20	1
b21	2
h5	2
h13	12
v	4
v1	8
v2	6
v4	6
v6	8
h11	4
w1	2

CAST-IN-PLACE REINFORCED CONCRETE END SECTION 78". SPECIAL

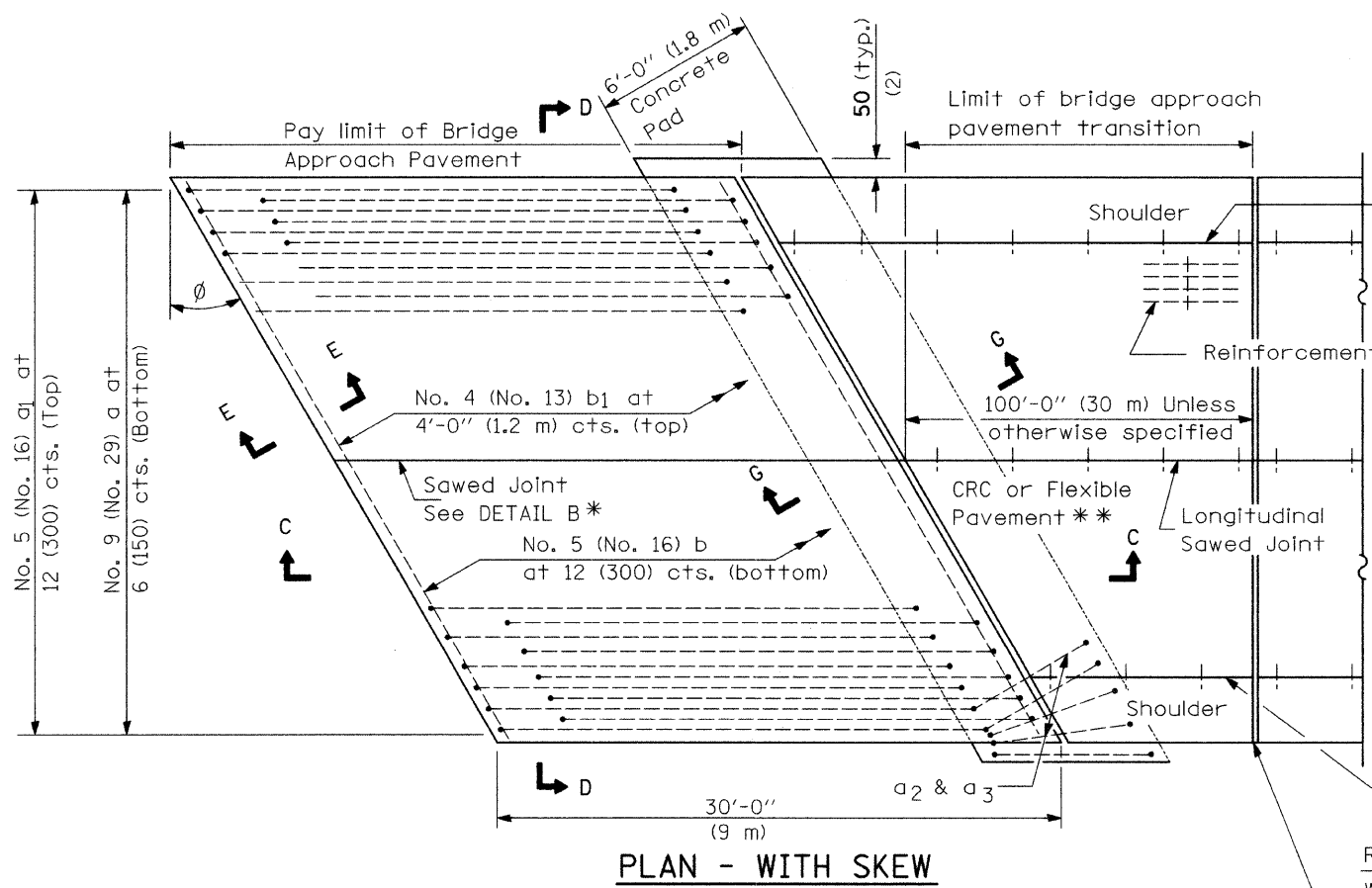
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

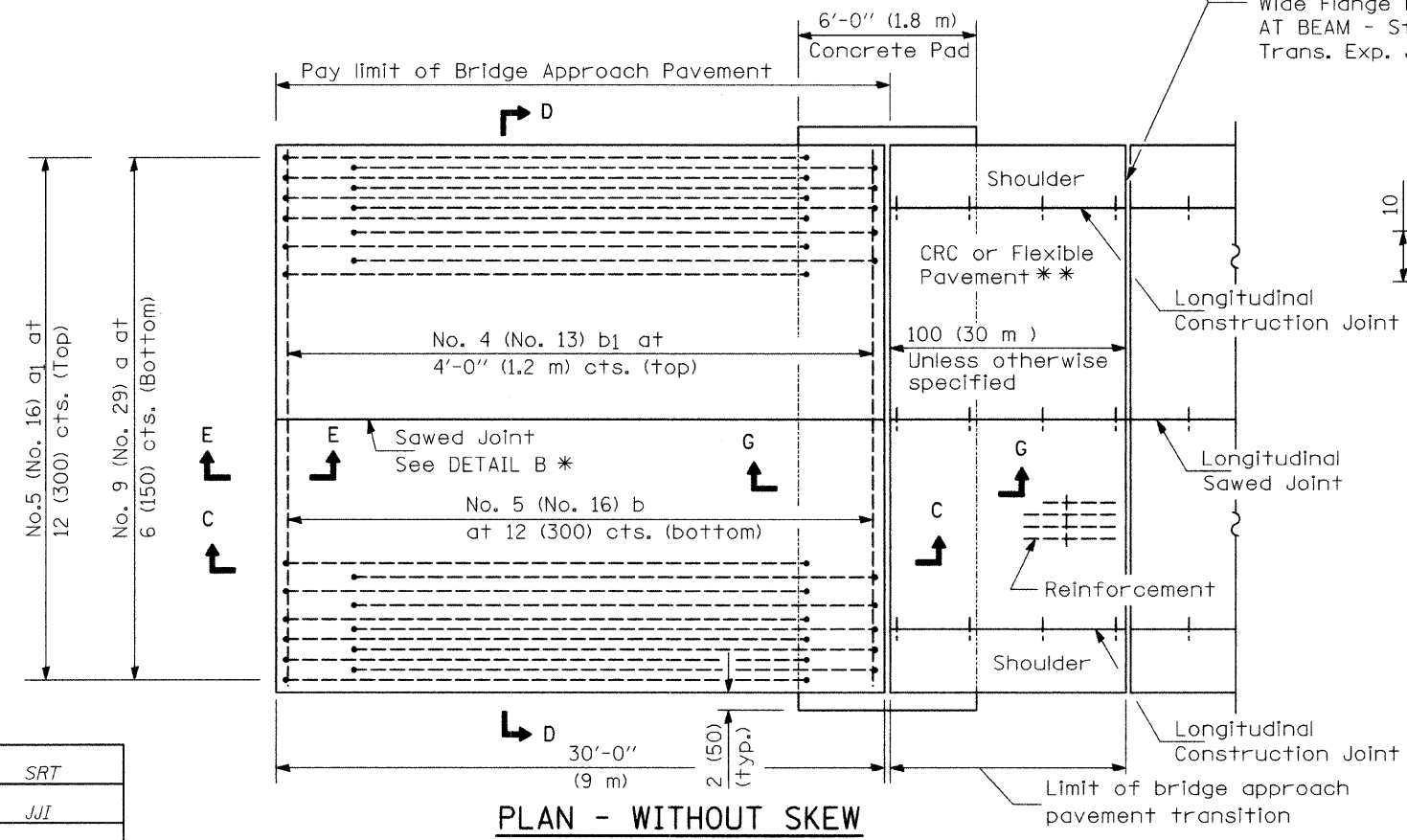
Bollinger, Lach & Associates, Inc.

DIMENSIONS					Concrete cu. yds.	Reinf. Bars lbs.
A	C	D	E	F		
9'-3"	7'-7 1/2"	9'-3 1/2"	28'-2"	13'-4 1/2"	10.0	650

NEW CONSTRUCTION



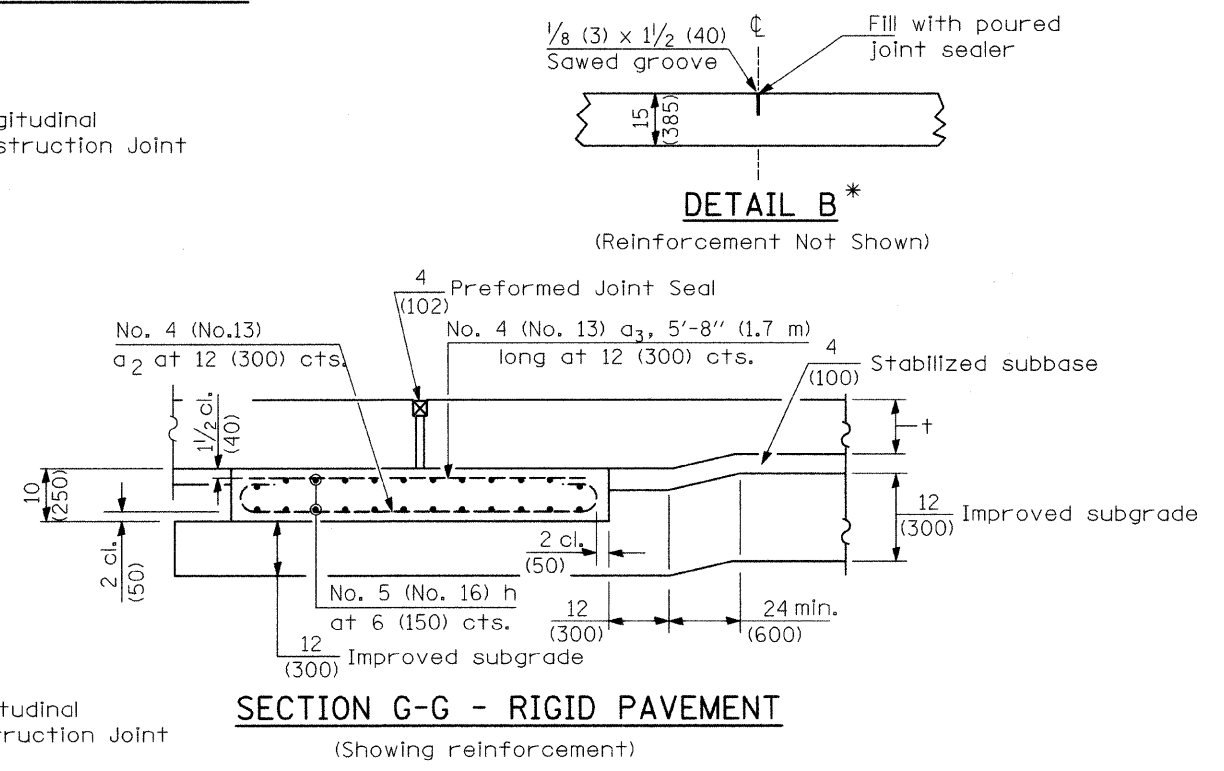
PLAN - WITH SKEW



PLAN - WITHOUT SKEW

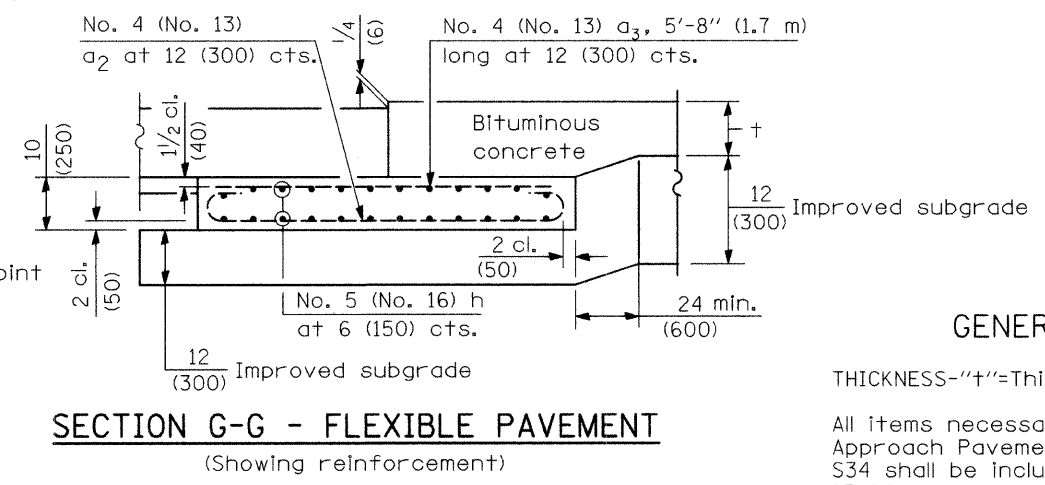
DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

* Saw ϕ or lane edge if poured two or more lane widths at a time.
** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.

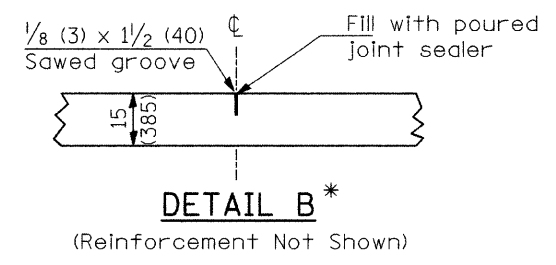


SECTION G-G - RIGID PAVEMENT
(Showing reinforcement)

Rigid Pavement only:
Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50)
Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT
(Showing reinforcement)



GENERAL NOTES

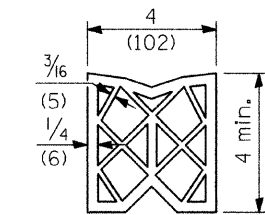
THICKNESS-"t"=Thickness of Pavement.
All items necessary to construct Bridge Approach Pavement shown on Sheets S33 & S34 shall be included in the pay item "Bridge Approach Pavement (Special)".
See Standard 420001 for joint details not shown.
All dimensions are in inches (millimeters) unless otherwise shown.

BRIDGE APPROACH PAVEMENT DETAILS

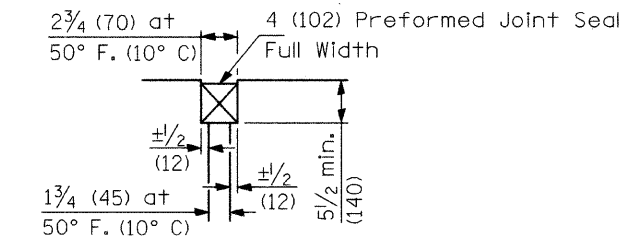
JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DUPAGE		106	55
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT-

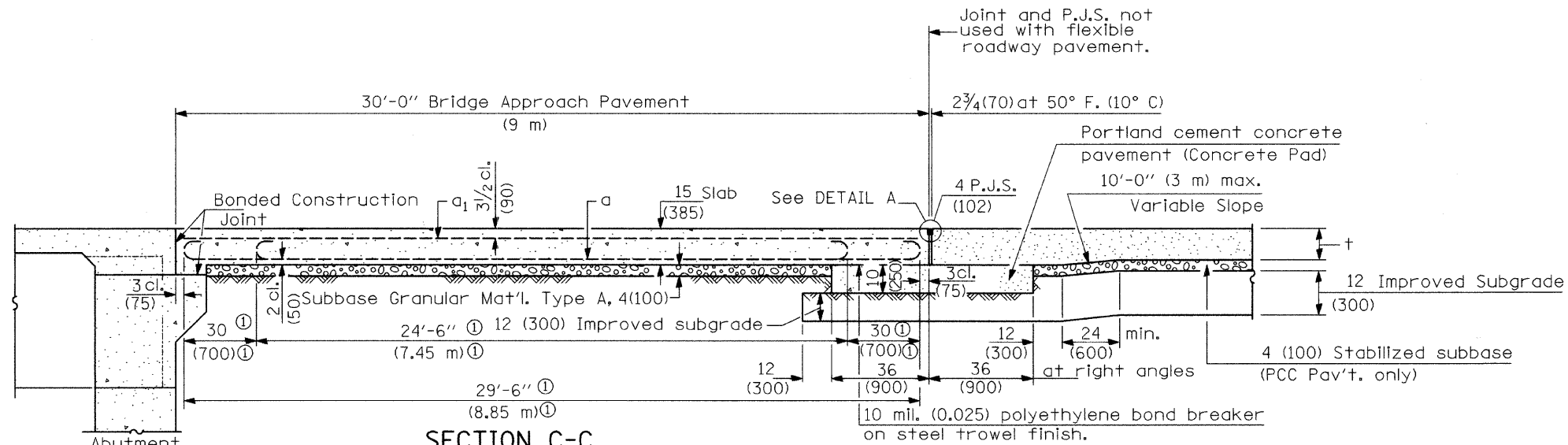
00-00116-00-BR



PREFORMED JOINT SEAL



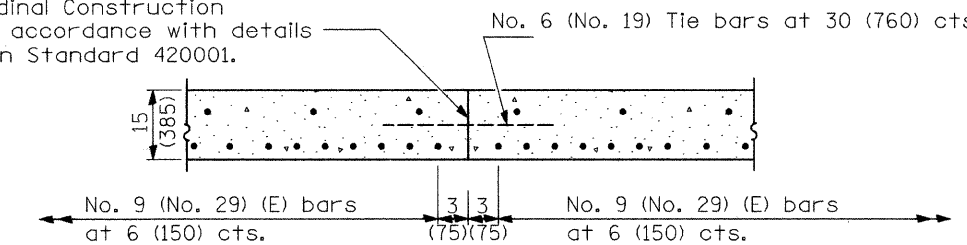
DETAIL A



SECTION C-C

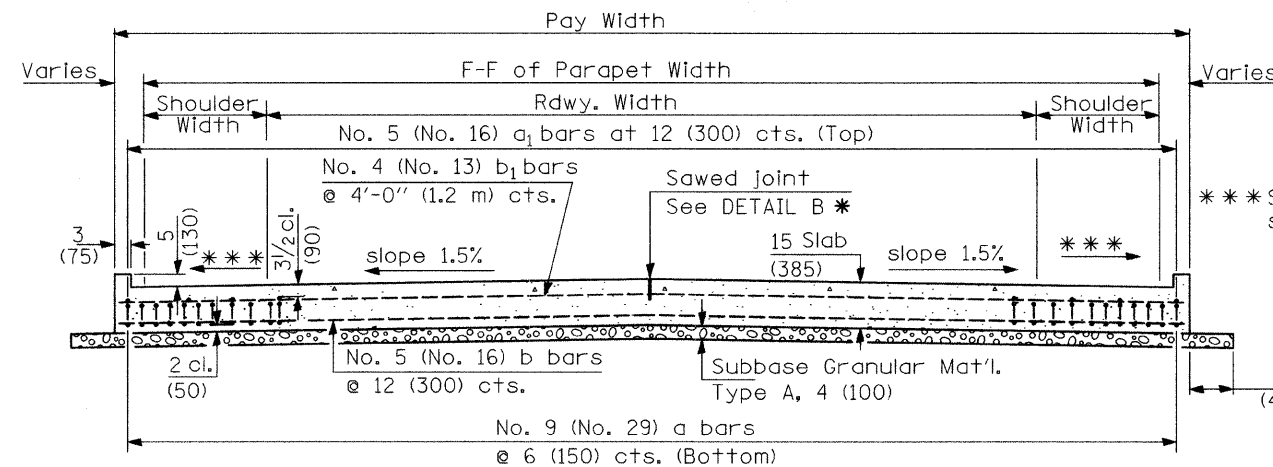
① Stagger No. 9 (No. 29) a bars as shown on plan - full width

Longitudinal Construction Joint in accordance with details shown on Standard 420001.



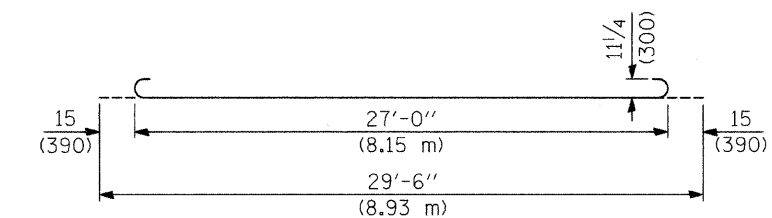
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

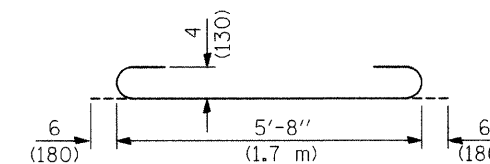


SECTION D-D

(See Plan for Dimensions not shown)



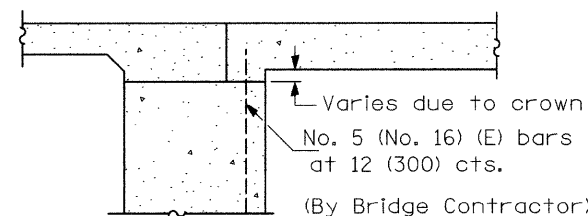
BAR a



BAR a2

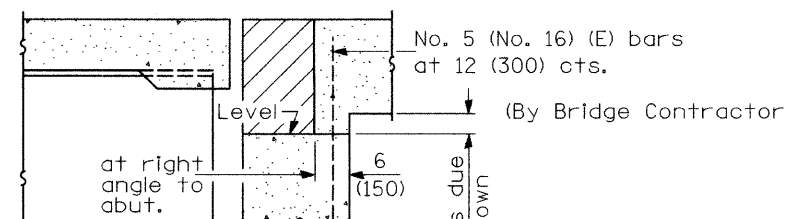
DESIGN STRESSES

$f_y = 60,000$ p.s.i. (400 MPa)
 $f'_c = 3,500$ p.s.i. (24 MPa)
 $n = 8.5$



SECTION E-E

(Integral Abutments)



SECTION E-E

(Jointed Abutments)

DESIGNED	SRT
CHECKED	JJI
DRAWN	GM
CHECKED	JJI

BRIDGE APPROACH PAVEMENT DETAILS

JEFFERSON AVENUE OVER
WEST BRANCH DUPAGE RIVER
FAU 3570 SECTION 00-00116-00-BR
DUPAGE COUNTY
STA. 7+64.45
STRUCTURE NUMBER 022-6756

PROPOSED ELECTRIC CONSTRUCTION
ALONG JEFFERSON AV. (DUPAGE COUNTY)
BETWEEN WASHINGTON ST. AND
RIVER RD. AT THE DUPAGE RIVER
IN THE CITY OF NAPERVILLE, STATE OF ILLINOIS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	56
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

SPECIAL NOTES

- 1) ALL UTILITIES MAY NOT BE SHOWN. CALL J.U.L.I.E. AT 1-800-892-0123 FOR FIELD LOCATIONS OF UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION.
- 2) THE BRUSH AND TREES SMALLER THAN 6 INCHES IN DIAMETER LOCATED IN ROAD RIGHT OF WAY AND THAT IS PRESENT ALONG MOST OF THE PROPOSED ROUTE ARE TO BE TRIMMED OR REMOVED BY THE CONTRACTOR FOR CLEARANCE TO THE PROPOSED UNDERGROUND OR OVERHEAD ELECTRIC WIRES OR EQUIPMENT AS REQUIRED AND IS UNDER THE DIRECTION OF THE CITY OF NAPERVILLE (ELECTRIC) AND PER PERMIT. ALL TREE WORK IS TO BE PERFORMED BY LANDSCAPE CONTRACTOR PROVIDED BY THE CONTRACTOR. THIS WORK IS INCIDENTAL TO THE CONTRACT.
- 3) THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES, J.U.L.I.E. PAINT MARKS, AND RECORD DRAWINGS. LOCATIONS OF UNDERGROUND UTILITIES/ STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. NO EXCAVATIONS WERE MADE DURING THE SURVEY OF THIS WORK TO LOCATE BURIED UTILITIES/STRUCTURES. BEFORE EXCAVATIONS ARE BEGUN, THE FOLLOWING OFFICES SHOULD BE CONTACTED FOR VERIFICATION OF UTILITY TYPE AND FOR FIELD LOCATIONS: TELEPHONE, GAS, ELECTRIC, WATER, SEWER AND CABLE T.V. ALL LOCATED OR POSSIBLE UNDER GROUND FACILITIES SHALL BE EXPOSED ON ALL SIDES BY EXCAVATING TO THE KNOWN OR UNKNOWN UNDER GROUND FACILITY PRIOR TO DIGGING FOUNDATIONS, TRENCHES, HANDHOLES, MANHOLES AND VAULT ETC.
- 4) EXISTING ELECTRICAL FACILITIES SHALL BE DE-ENERGIZED PRIOR TO THE CONTRACTOR AND HIS SUBCONTRACTOR'S WORKERS COMMENCING WORK. THE CONTRACTOR IS TO CONTACT THE DEPARTMENT OF PUBLIC UTILITIES, ELECTRICAL DIVISION TO DE-ENERGIZED ALL NEARBY ELECTRICAL CIRCUITS AND FACILITIES. HOWEVER, IF CONDITIONS EXIST THAT REQUIRE THE CIRCUIT TO REMAIN ENERGIZED, THE CONTRACTOR SHALL PROCEED TO WORK WITH CONDUCTORS/CABLE, PER OSHA AND NESC REGULATIONS. THE CONTRACTOR SHALL COORDINATE THE PLANNED WORK SCHEDULE, CONSTRUCTION SEQUENCE, AND ANY OUTAGE REQUEST WITH THE DPU-E ELECTRICAL CONTROL AND THE ENGINEER.
- 5) CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHILE WORKING IN, ON OR NEAR ELECTRICAL FACILITIES. HE AND ALL HIS SUBCONTRACTOR'S WORKERS SHALL FOLLOW APPROPRIATE OSHA LOCK-OUT/TAG-OUT PROCEDURES, CONFINED SPACE ENTRY, CPR AND CLEARANCE REQUIREMENTS FROM ENERGIZED EQUIPMENT.
- 6) CONNECTION TO EXISTING ELECTRICAL FACILITIES SHALL BE ACCOMPLISHED ONLY BY CONTRACTOR'S EMPLOYEES AND HIS SUBCONTRACTOR'S EMPLOYEES THAT ARE TRAINED TO WORK ON HIGH VOLTAGE FACILITIES (138KV AND 34.5KV FACILITIES OR LOWER), IN ACCORDANCE WITH OSHA REGULATIONS, 29 CFR. A MINIMUM OF TWO SUCH QUALIFIED PERSONNEL SHALL BE PRESENT WHILE WORKING ON OR NEAR THESE FACILITIES.
- 7) THE CONTRACTOR SHALL ARRANGE FOR INSPECTION OF HIS AND HIS SUBCONTRACTOR'S WORK, BY DPU-E PERSONAL PRIOR TO STARTING AND UPON COMPLETION.
- 8) THE CONTRACTOR SHALL INSTALL ALL WORK (UNLESS OTHERWISE SPECIFIED) AT EACH LOCATION TO THE FINAL ELEVATIONS AND INTENDED PURPOSE. THE CONTRACTOR'S SURVEYOR TO OBTAIN THE ELEVATION AND PROVIDE THIS ELEVATION MARK TO THE CONTRACTOR WITH A FIELD STAKE AND ELEVATION WRITTEN ON IT. IN ADDITION, ELEVATION MARKS FOR ALL PROPOSED ELECTRICAL FACILITIES SHALL BE DETERMINED. THIS WORK IS CONSIDERED INCIDENTAL TO THE CONTRACT. THE SURVEYOR SHALL PERFORM ALL LAYOUT WORK, OFFSET STAKES, PROFILE WORK, VOLUMES, CALCULATIONS, FOUNDATION WORK, AS BUILT WORK, SLOPE, GRADE, BENCHMARK WORK, ELEVATION AND DIMENSIONS PER G.P.S. ALL WORK IS TO BE DOCUMENTED AND PROVIDED TO THE CITY.
- 9) ALL WORK SHALL MEET OSHA REGULATIONS OF LATEST ISSUE.
- 10) THE CONTRACTOR SHALL REMOVE ONLY THOSE TREES, BUSHES, FLOWERS, AND SHRUBS SO DESIGNATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER, OR THOSE WHICH DIRECTLY INTERFERE WITH THE SAFETY OR QUALITY OF CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF TWO (2) DAYS IN ADVANCE OF REMOVAL OF TREES WHICH AFFECT SAFETY. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN WORKING NEAR EXISTING TREES AND SHRUBS TO AVOID DAMAGING THOSE NOT SCHEDULED FOR REMOVAL. THE CONTRACTOR SHALL PROTECT ALL OTHER TREES, BUSHES AND LANDSCAPING FEATURES. TREES REMOVED OR DAMAGED BY THE CONTRACTOR WHICH HAVE NOT BEEN DESIGNATED FOR REMOVAL, SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY. TREES TO HAVE BRANCHES OR ROOTS PRUNED SHALL BE DONE IN A NEAT AND CLEAN MANNER (I.E., WITH A SAW OR SHEARS) AND NOT TORN OR BROKEN WITH CONSTRUCTION EQUIPMENT.

GENERAL NOTES

- 1) CONTRACTOR SHALL RESTRICT HIS OPERATIONS TO EASEMENTS AND ROAD RIGHT-OF-WAY AS SHOWN ON THE DRAWINGS.
- 2) PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE TO HAVE ALL UNDERGROUND UTILITIES INCLUDING WATER, GAS, ELECTRIC, STORM SEWER, SANITARY SEWER, SPRINGLER SYSTEM, TRAFFIC CONTROL SIGNALS, TELEPHONE AND CABLE TV LOCATED AND SUITABLY MARKED. SHOULD A UTILITY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED AT ONCE. IF UTILITIES INTERFERE WITH THE CONSTRUCTION ALIGNMENT, THEY SHALL BE PROTECTED AT NO ADDITIONAL EXPENSE TO THE OWNER AND WITHOUT CLAIM BY THE CONTRACTOR FOR DELAYS DUE TO UTILITY LINES ENCOUNTERED. THE CITY OF NAPERVILLE SHALL BE NOTIFIED 96 HOURS IN ADVANCE OF WATERMAIN, SANITARY, AND ELECTRIC CROSSINGS.
- 3) INFORMATION ON THE PLANS REGARDING UNDERGROUND UTILITIES IS TAKEN FROM THE BEST AVAILABLE RECORDS, BUT IS NOT REPRESENTED AS BEING ENTIRELY CORRECT OR COMPLETE. THE CONTRACTOR SHALL NOTIFY OPERATING AGENCY IN ADVANCE OF CROSSING OVER OR UNDER ANY UTILITIES SHOWN ON THE PLANS. THE CONTRACTOR SHALL NOTIFY OPERATING AGENCY AND ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. ANY UTILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 4) MSDS SHEETS ARE REQUIRED ON THE JOB SITE FOR ALL MATERIALS USED.
- 5) THE CONTRACTOR SHALL UNDER NO CIRCUMSTANCES DISTURB OR REMOVE A TREE UNLESS SPECIFICALLY DIRECTED TO DO SO ON THE PLANS OR BY THE ENGINEER. CONTRACTOR SHALL NOTE PROTECTION OF ALL TREES, SHRUBS ETC., ALONG THE LINE OF CONSTRUCTION IS REQUIRED. WRITTEN PERMISSION FROM THE OWNER IS REQUIRED PRIOR TO ANY TREE OR SHRUB REMOVAL.
- 6) THE CONTRACTOR SHALL PROTECT ALL PROPERTY PINS AND SURVEY MONUMENTS AND SHALL RESTORE ANY WHICH ARE DISTURBED BY HIS OPERATIONS AT NO ADDITIONAL COST TO THE CONTRACT.
- 7) ALL FIELD TILE, CULVERTS, GRATES, DRAIN PIPE, ENCOUNTERED DURING CONSTRUCTION OPERATIONS AND DAMAGED SHALL BE REPAIRED WITH NEW MATERIALS PER THE SPECIFICATIONS. A RECORD OF THE LOCATION OF ALL FIELD TILE, CULVERTS OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. ALL FIELD REPAIRS SHALL BE AT CONTRACTOR'S EXPENSE.
- 8) ANY PAVEMENT OR PAVEMENT STRIPING DAMAGED OR REMOVED DURING CONSTRUCTION OPERATIONS, OTHER THAN THE AREAS SHOWN ON DRAWING 56270 SHEETS 1 THRU 73, SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO COST TO THE CITY.
- 9) ALL EXISTING UTILITY FACILITIES SHALL BE KEPT IN SERVICE DURING CONSTRUCTION EXCEPT WHERE PERMISSION IS GRANTED OTHERWISE BY THE OWNER. ALL VALVE BOXES AND VALVE VAULTS, ELECTRIC MANHOLES, SWITCH GEARS OR TRANSFORMERS SHALL REMAIN ACCESSIBLE TO THE RESPECTIVE UTILITY COMPANY.
- 10) THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING FENCE, POSTS, AND GATES DURING CONSTRUCTION. ALL WORK AND MATERIAL NECESSARY TO REPLACE EXISTING FENCE, POSTS, AND GATES DAMAGED BECAUSE OF NONCOMPLIANCE WILL BE AT CONTRACTOR'S OWN EXPENSE, AND NO EXTRA COMPENSATION WILL BE ALLOWED. ALL REPLACEMENT MATERIALS ARE TO BE NEW.
- 11) ALL EXISTING TRAFFIC SIGNS, ELECTRIC UNDERGROUND CABLES, DUCTS, FENCES, GUARDRAILS, STREET LIGHTS, STREET SIGNS, ETC., WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND NOT NOTED FOR REMOVAL OR DISPOSAL SHALL BE MAINTAINED BY THE CONTRACTOR OR TEMPORARILY RELOCATED. THIS IS CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED. DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. IN ADDITION, ALL MAILBOXES THAT INTERFERE WITH CONSTRUCTION SHALL BE SIMILARLY RELOCATED AT NO ADDITIONAL COST. CONTRACTOR SHALL PROVIDE TEMPORARY TRAFFIC, REGULATORY, AND SAFETY SIGNAGE THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES. SUCH COST SHALL BE CONSIDERED INCIDENTAL TO THE COST OF TRAFFIC CONTROL. THE COST OF A SUFFICIENT NUMBER OF FLAGGERS AND ELECTRONIC MESSAGE BOARDS TO DIRECT TRAFFIC IS INCLUDED AND IS PART OF TRAFFIC CONTROL PAY ITEM.
- 12) THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL BUSINESS, THE CONSTRUCTION SITE, RESIDENCES, AGRICULTURE AREAS, AND ALL OTHER SITES NECESSARY FOR THE MAINTENANCE OF COMMERCE AND SAFETY AT ALL TIMES. THE CONTRACTOR MAY PLACE TEMPORARY PLATES OR OTHER SUCH DEVICES IN A SAFE AND ACCESSIBLE MANOR TO TEMPORARILY MAINTAIN ACCESS. IN NO CASE MAY MORE THAN ONE POINT OF ACCESS TO ANY RESIDENCE, BUSINESS OR SITE BE UNDER CONSTRUCTION SIMULTANEOUSLY. SHOULD A PROPERTY HAVE ONLY ONE POINT OF ACCESS, THE CONTRACTOR SHALL STAGE HIS WORK SO AS TO ONLY OBSTRUCT ONE HALF OF THIS ENTRANCE AT ANY TIME AND SHALL MAINTAIN ACCESS TO HIS PROPERTY AT ALL TIME. COSTS FOR MAINTAINING ACCESS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT (SEE NOTE 28).
- 13) CONTRACTOR SHALL PLACE AND MAINTAIN TEMPORARY 2" TO 6" HMA PATCHES ACROSS ALL PAVEMENT REPAIR AREAS PRIOR TO THE INSTALLATION OF THE FINAL PAVEMENT REPAIRS. COSTS SHALL BE INCIDENTAL TO THE ASSOCIATED PAY ITEMS. PLATES MAY BE PLACED IN LIEU OF HMA PATCHES AT THE DISCRETION OF THE FIELD ENGINEER. PLATES ARE TO BE RAMPED AND PINNED IN PLACE TO PREVENT MOVEMENT AND CAPABLE OF SUPPORTING HS-20 LOADING. COUNTER SINKING OF PLATES IS REQUIRED.
- 14) THE CONTRACTOR SHALL REMOVE AND REPLACE ALL SIGNS OF ALL TYPES, SIZES, AND OWNERSHIP NECESSARY TO COMPLETE INDICATED WORK. COST OF THIS WORK SHALL BE INCIDENTAL TO THE WORK AND CONTRACT.
- 15) THE CONTRACTOR SHALL BRACE ALL STREET LIGHT POLES, DPU-E POLES, CABLE TV OR COMED POLES WITHIN THE VICINITY OF THE INDICATED WORK. COST OF THIS WORK SHALL BE INCIDENTAL TO THE WORK AND CONTRACT. ANY DELAY DUE TO OBTAINING PERMISSION OR A PERMIT FROM THE OWNER OF THE FACILITY TO SUPPORT OR RELOCATE OF ANY EXISTING FACILITY IS AT THE CONTRACTOR'S EXPENSE.
- 16) THE CONTRACTOR SHALL CONTACT THE CITY OF NAPERVILLE'S TRANSPORTATION ENGINEERING AND DEVELOPMENT BUSINESS GROUP 48 HOURS PRIOR TO PERFORMING WORK IN OR AROUND THE WORK AREA WHERE DETECTOR LOOPS OR TRAFFIC SIGNALS HAVE THE POSSIBILITY OF BEING ENCOUNTERED AND/OR DAMAGED. THE CONTRACTOR SHALL CONTACT THE DUPAGE COUNTY DEPARTMENT OF TRANSPORTATION WITH THE SAME INFORMATION.

CONTINUED ON PAGE 2

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION			MAP NO.:	CAD FILE: 00546790001C1.DWG	
PROJECT DESCRIPTION GENERAL NOTES			DRAWN BY: JK	PROJECT NO.:	
DATE	4-01 09		WORK REQUEST NO.:	CHKD:	SBC:
ISSUED			54679	APRV:	COMPLETED BY:
ENGINEER	PSM			SCALE:	NTS
REVISION		1	2	3	SHEET 1 OF 30

PROPOSED ELECTRIC CONSTRUCTION
ALONG JEFFERSON AV. (DUPAGE COUNTY)
BETWEEN WASHINGTON ST. AND
RIVER RD. AT THE DUPAGE RIVER
IN THE CITY OF NAPERVILLE, STATE OF ILLINOIS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	57
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

GENERAL NOTES (CONTINUED)

- 17) THE CONTRACTOR SHALL PROVIDE TIME DURING CONSTRUCTION OPERATIONS FOR THE LANDSCAPER TO REMOVE, PRESERVE, AND REINSTALL ANY BUSH OR SHRUB, EVERGREENS, BUSHES, SHRUBS, VINES, AND SEEDINGS SHALL BE DUG UP WITH CARE, AVOIDING INJURY TO THE PLANTS OR LOSS OR DAMAGE OF THE ROOTS. IMMEDIATELY AFTER DIGGING, ROOTS SHALL BE PROTECTED AGAINST DRYING OUT AND FREEZING BY WRAPPING ROOT SYSTEM IN BURLAP, REMOVED VEGETATION SHALL BE PLACED IN TEMPORARY STORAGE EITHER ON SITE OR AT OTHER APPROVED LOCATIONS. IF LANDSCAPER IS UNABLE TO REUSE EXISTING VEGETATION, HE SHALL REPLACE WITH SAME SIZE AND SPECIES AT HIS OWN EXPENSE. COST OF THIS WORK SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE LANDSCAPING CONTRACT AND IS PART OF THE RESTORATION (PAY ITEM).
- 18) DURING CONSTRUCTION OPERATIONS, THE CONTRACTOR IS NOT ALLOWED TO PERMANENTLY STOCK PILE MATERIAL ON SITE. CONTRACTOR SHALL SUPPLY LIGHTED BARRICADES AROUND ALL STOCKPILES AND IS RESPONSIBLE FOR THE SECURITY OF ALL THE MATERIALS STORED OFF SITE.
- 19) ALL RESTORATION IS DIRECTED BY THE CITY OR COUNTY PERMIT WHICH THE CONTRACTOR IS REQUIRED TO OBTAIN PRIOR TO STARTING WORK. ALL REQUESTS REQUIRED BY THE CITY SHALL BE HONORED AND COMPLETED BY THE LANDSCAPER AT NO EXPENSE TO THE CITY. THE LANDSCAPE CONTRACTOR SHALL PERFORM ALL RESTORATION PER CITY OF NAPERVILLE SPECIFICATIONS. THE CONTRACTOR SHALL PERFORM ALL WORK TO THE MOST RESTRICTIVE REQUIREMENT OF THE GOVERNING BODIES. THIS IS PART OF THE RESTORATION PRICE (PAY ITEM). SEE 56270-1000, TRANSMISSION LINE LANDSCAPING OVERHEAD AND UNDER GROUND FOR PROJECT GENERAL REQUIREMENTS.
- 20) ALL IDENTIFIED OR SUSPECTED UNDERGROUND FACILITIES OR OBSTRUCTIONS SHALL BE LOCATED BY HAND DIGGING TO A DEPTH OF 8 FEET, WIDTH OF 4 FEET AND LENGTH OF 5 FEET AND IDENTIFIED BY NAME AND SIZE. THIS IS PART OF THE CONDUIT AND OR MANHOLE (PAY ITEMS).
- 21) WHEN REPAIRING, REPLACING, OR INSTALLING ITEMS, THE ITEMS SUPPLIED BY THE CONTRACTOR SHALL BE NEW AND NOT USED.

- 22) THE COST TO LOCATE, SUPPORT, MOVE AND PROTECT THE UTILITIES (SHOWN ON THE DRAWINGS) SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO WORK.
- 23) ALL MATERIALS REMOVED DURING THE CONSTRUCTION OF THE PROJECT AND DESIGNATED ON THE PLANS OR BY THE CITY AS SALVAGED MATERIALS SHALL BE REMOVED, CLEANED, AND STACKED AT THE DESIGNATED CITY OF NAPERVILLE SITE. ALL UNUSED MATERIALS SHALL BE THE PROPERTY OF THE CITY.
- 24) ALL MATERIALS REMOVED BY THE CONTRACTOR, SUCH AS POLES, CONDUIT, HANDHOLES, MANHOLES, RISERS, EXCAVATED MATERIALS, WIRE, STEEL POLES, FOUNDATIONS, ANCHORS, GUYS, CROSS ARMS, INSULATOR GROUND WIRES, CONDUCTORS, AND HARDWARE AND DESIGNATED ON THE PLAN FOR REMOVAL SHALL BE REMOVED TO AN APPROPRIATE DUMP SITE FOR WASTE. DUMP TICKETS RECEIVED AND RETURNED TO THE CITY. ALL AREAS LEFT DAMAGED BY THE REMOVAL SHALL BE REPAIRED, REPLACED OR INSTALLED TO FINISHED GRADE. THIS PART OF THE WORK IS COVERED IN THE COST OF RESTORATION.
- 25) THE CITY OF NAPERVILLE DOES NOT GUARANTEE A SEQUENCE OF WORK OR AVAILABILITY OF THE WORK AREA OR QUANTITY OF WORK.
- 26) ALL WORK WILL OCCUR DURING ALL 4 SEASONS OF THE YEAR. THEREFORE, THERE SHALL BE NO COMPENSATION PAID BY THE CITY FOR SNOW, ICE, RAIN, WIND, OR HOT OR COLD WEATHER. IT IS ASSUMED THE CONTRACTOR HAS INCLUDED THESE ITEMS IN THE PRICING.
- 27) THE CONTRACTOR IS ADVISED THAT JOINTED, FISSURED ROCK, LARGE BOULDERS (12 INCHES OR LARGER) AND VERY TOUGH STRATIFIED ROCK/SHALE EXISTS FROM 1'-0" TO 10'-0" BELOW GRADE AND SOLID ROCK EXISTS FROM 10'-0" TO 20'-0" BELOW GRADE AND REQUIRES ADDITIONAL WORK AND IS INCLUDED IN THE COST OF INSTALLING THE DUCT BANK WORK OR HAND HOLE WORK, MANHOLE WORK, VAULT WORK OR RISER WORK. THE CONTRACTOR WILL EXCAVATE IN ROCK ACCORDING TO SECTION 502 OF THE STANDARD SPECIFICATIONS FOR ROCK EXCAVATION FOR STRUCTURES. THE BOTTOM OF THE TRENCH SHALL BE LINED WITH 2 INCHES OF FA2 MATERIALS OR CA-6 MATERIALS TO FORM A BEDDING FOR THE DUCT PACKAGE AND IS INCIDENTAL TO THE COST.

SEE SPECIFICATION C30-1950 FOR HDD ROCK DEFINITION AND METHOD OF PAYMENT.

- 28) THE CONTRACTOR SHALL COORDINATE AND PERFORM ALL WORK OR AS MUCH AS POSSIBLE USING TRAFFIC CONTROL AND LANE CLOSURES AS REQUIRED FOR THE BRIDGE WORK. ALL ELECTRICAL WORK REQUIRING A LANE CLOSURE OR TRAFFIC CONTROL SHALL ONLY BE ACCEPTED IF THE BRIDGE WORK IS NOT INVOLVED. THE CONTRACTOR TO INCLUDE THESE COSTS UNDER THE TRAFFIC CONTROL (PAY ITEM).

29) THE CONTRACTOR SHALL, DURING THE PROGRESS OF THE JOB, NOTE ANY AND ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL DRAWING. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF ALL RECORDED DIMENSIONS AND ELEVATIONS. ALL MANHOLES, HAND HOLES VAULTS OR RISERS, BENDS AND FITTINGS, SHALL BE TIED TO A MINIMUM OF TWO PERMANENT VISIBLE POINTS (i.e. PROPERTY IRONS AND BUILDINGS). DEVIATIONS FROM CHANGES IN GRADE SHALL ALSO BE NOTED ON THE RECORD DRAWINGS.

- 30) WATER MAIN VALVES, INCLUDING TAP VALVES, ADJACENT TO AN EXISTING WATER MAIN, AND EXISTING WATER MAIN VALVES SHALL ONLY BE OPERATED BY THE CITY OF NAPERVILLE, DEPARTMENT OF PUBLIC UTILITIES CEE/CM DIVISION PERSONNEL WITH 48-HOURS NOTICE (MONDAY-FRIDAY) 630-420-4122.

- 31) THE CONTRACTOR PERFORMING THE ELECTRICAL WORK FOR THE CITY OF NAPERVILLE SHALL BE A QUALIFIED ELECTRICAL CONTRACTOR WITH NO LESS THAN SEVEN YEARS EXPERIENCE IN THE ELECTRICAL POWER DISTRIBUTION FIELD (34kV AND BELOW ELECTRICAL WORK).

THE CONTRACTOR SHALL PROVIDE AT LEAST FOUR REFERENCES. EACH REFERENCES MUST INCLUDE THE FOLLOWING:
A) CONTRACT NAME AND PHONE NUMBER.
B) SCOPE OF WORK.
C) CONTRACT DOLLAR AMOUNT FOR ELECTRICAL DUCT, MANHOLE AND SWITCH GEAR INSTALLATION WORK COMPLETED FOR EACH REFERENCE.

- 32) CONTRACTOR IS ADVISED THE AREA HAS PRESENTLY INSTALLED A 138kV SINGLE CIRCUIT STEEL POLE LINE THAT SHALL REMAIN ENERGIZED DURING THE ENTIRE PROJECT. CONTRACTOR SHALL OBSERVE ALL OSHA SAFETY REQUIREMENTS IN THE WORK AREA.

CITY OF NAPERVILLE CONTACTS:

NDPU- WATER AND WASTEWATER
MR. PAT EYRE
(630) 420-4122

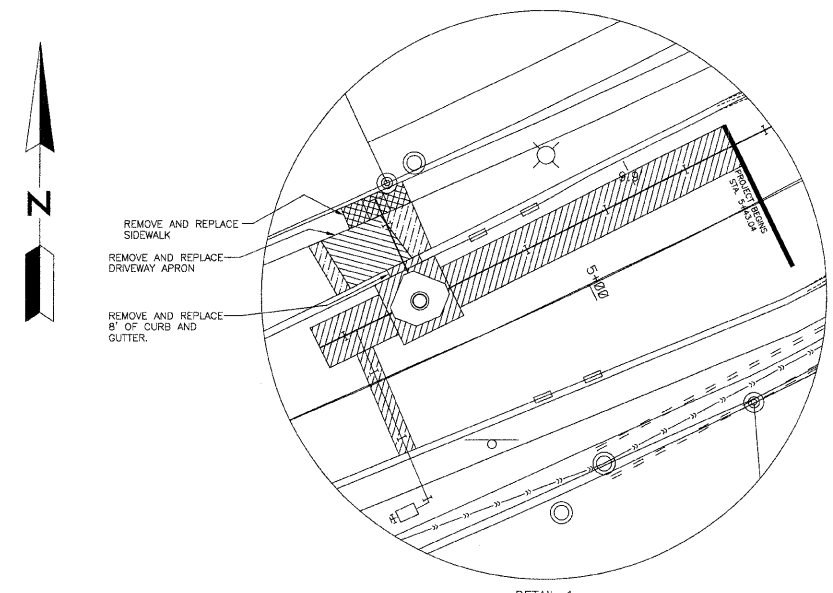
NDPU- ELECTRIC
MRS. LUCY HYNES
(630) 305-5375

NDPW- PUBLIC WORKS
MR. DAN VAN VOOREN
(630) 548-2981

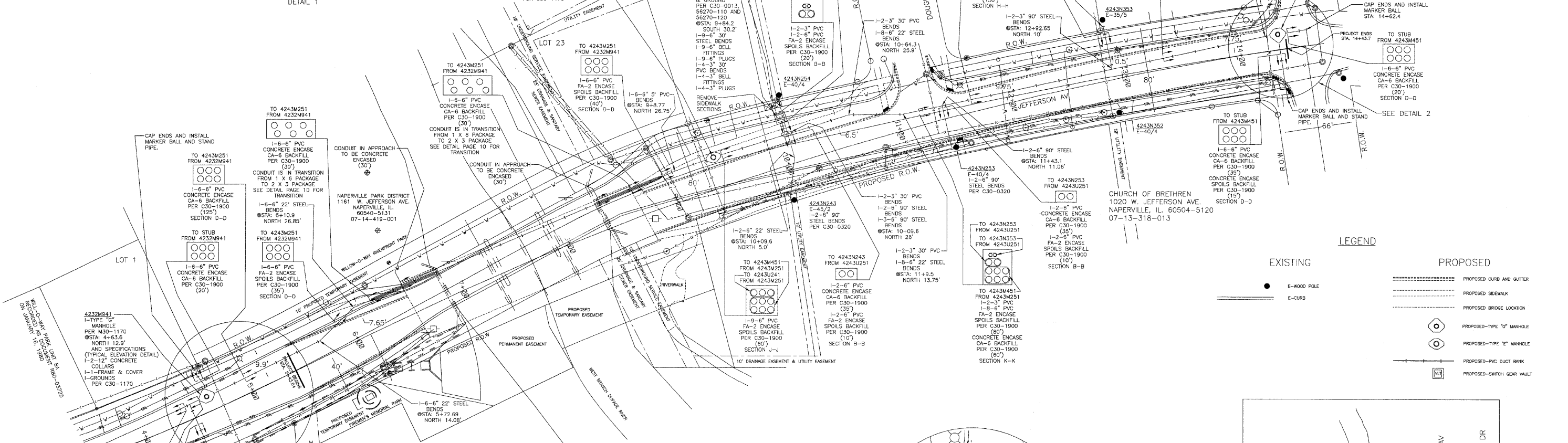
TED- TRANSPORTATION, ENGINEERING &
DEVELOPMENT BUSINESS GROUP
MR. BILL NOVACK
(630) 420-6704

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE			MAP NO.:	CAD FILE:	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION				00546790001C2.DWG	
PROJECT DESCRIPTION			DRAWN BY:	PROJECT NO.:	
GENERAL NOTES			JK	EU13-04-06	
DATE	6-01 09		WORK REQUEST NO.	CHKD:	SBC:
ISSUED			54679		COMPLETED BY:
ENGINEER	PSM		APPR:	SCALE:	
REVISION		1 2 3		NTS	SHEET 2 OF 30

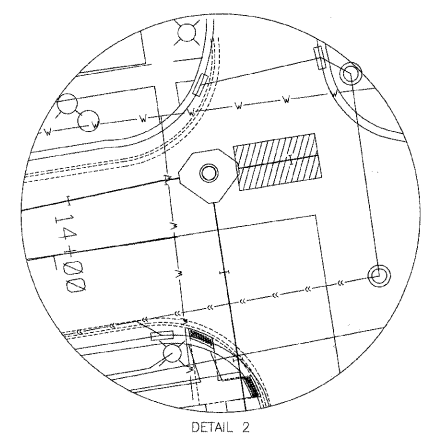
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	58
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				



- SAW CUT AND REMOVE DRIVEWAY APRON AREA = 102 SQ. YDS.
- LANDSCAPE AREA = 75 SQ. YDS. SEED = .505 ACRES SOD = 75 SQ. YDS.
- REMOVE AND REPLACE SIDEWALK AREA = 75 SQ. FT.
- SAW CUT AND REMOVE ASPHALT PAVEMENT AND PATCH AREA = 650 SQ. YDS.

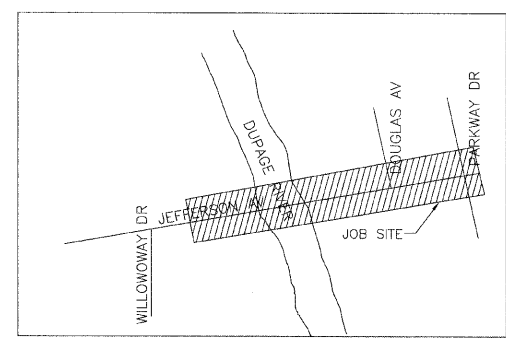


CONSTRUCTION NOTE:
 LOCATE DIRECT BURIED 3-4/0 CABLE. DIG UP 10' SECTION OF 3-4/0 CABLE NEAR HANDHOLE (4232H941). BACKFILL CABLE W/FA-2 INSTALL HANDHOLE NEXT TO TRENCH WITH FA-2. INSTALL 2-6\"/>



LEGEND

	EXISTING E-WOOD POLE		PROPOSED CURB AND GUTTER
	EXISTING E-CURB		PROPOSED SIDEWALK
			PROPOSED BRIDGE LOCATION
			PROPOSED-TYPE 'T' MANHOLE
			PROPOSED-TYPE 'E' MANHOLE
			PROPOSED-PVC DUCT BANK
			PROPOSED-SWITCH GEAR VAULT



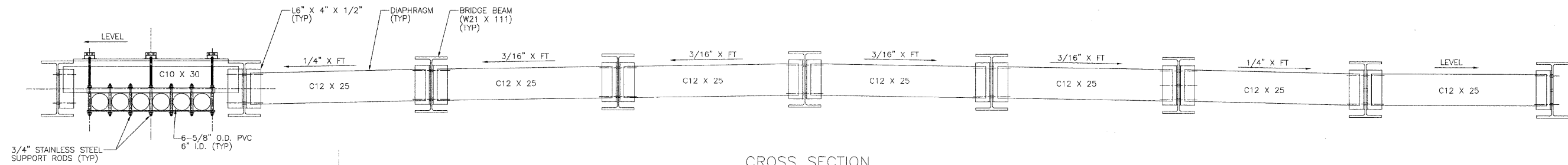
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

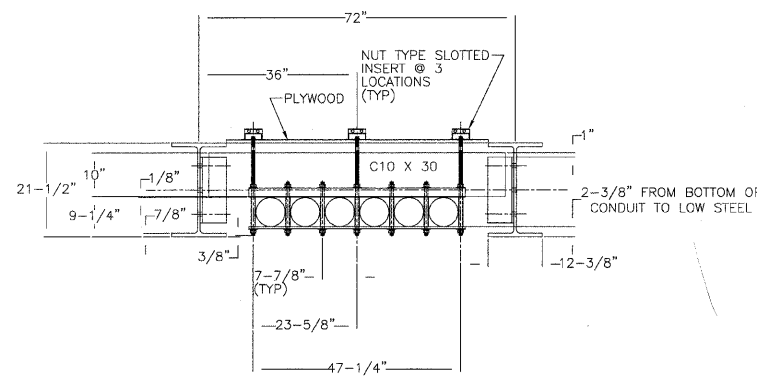
PROJECT TITLE	MAP NO.	CAD FILE:
JEFFERSON AV. BRIDGE DUCKBANK INSTALLATION	4232/4243	0054679001C3.DWG
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:
COORDINATED WITH BRIDGE IMPROVEMENT PROJECT	PM	EU13-04-06
DATE	WORK REQUEST NO.	CHKD.
6-01-09	54679	AT&T:
ISSUED	APPR.	COMPLETED BY:
ENGINEER PSM		
REVISION	SCALE:	SHEET 3 OF 30
	1"=40'	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	59
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

DUCT LOCATION IN BRIDGE



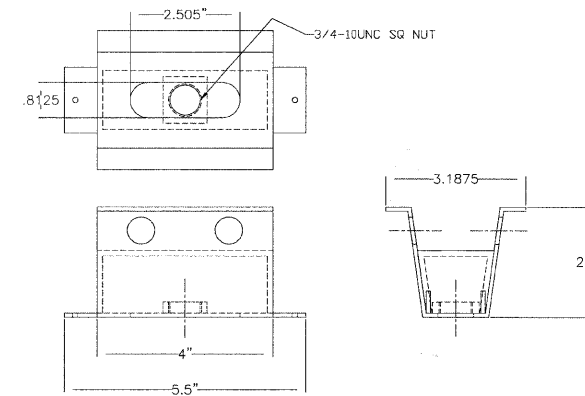
CROSS SECTION (LOOKING EAST)



SECTION A-A (SEE PAGE 5)

- CONSTRUCTION NOTE:
- 1) ALL CONDUITS AND MATERIALS SHALL BE INSTALLED ABOVE LOW STEEL ON BRIDGE. ADJUST AS APPLICABLE.
 - 2) PRE-FIT MATERIAL BEFORE FINAL INSTALLATION.
 - 3) 3/4" STAINLESS STEEL THREADED SUPPORT RODS NEED TO BE FIELD CUT. PRIOR TO INSTALLATION.
 - 4) PREEN THREADS AND TORQUE NUTS.
 - 5) MAINTAIN 1/8" GAP ON TOP AND SIDES OF CONDUIT FOR EXPANSION.

NUT TYPE SLOTTED INSERT



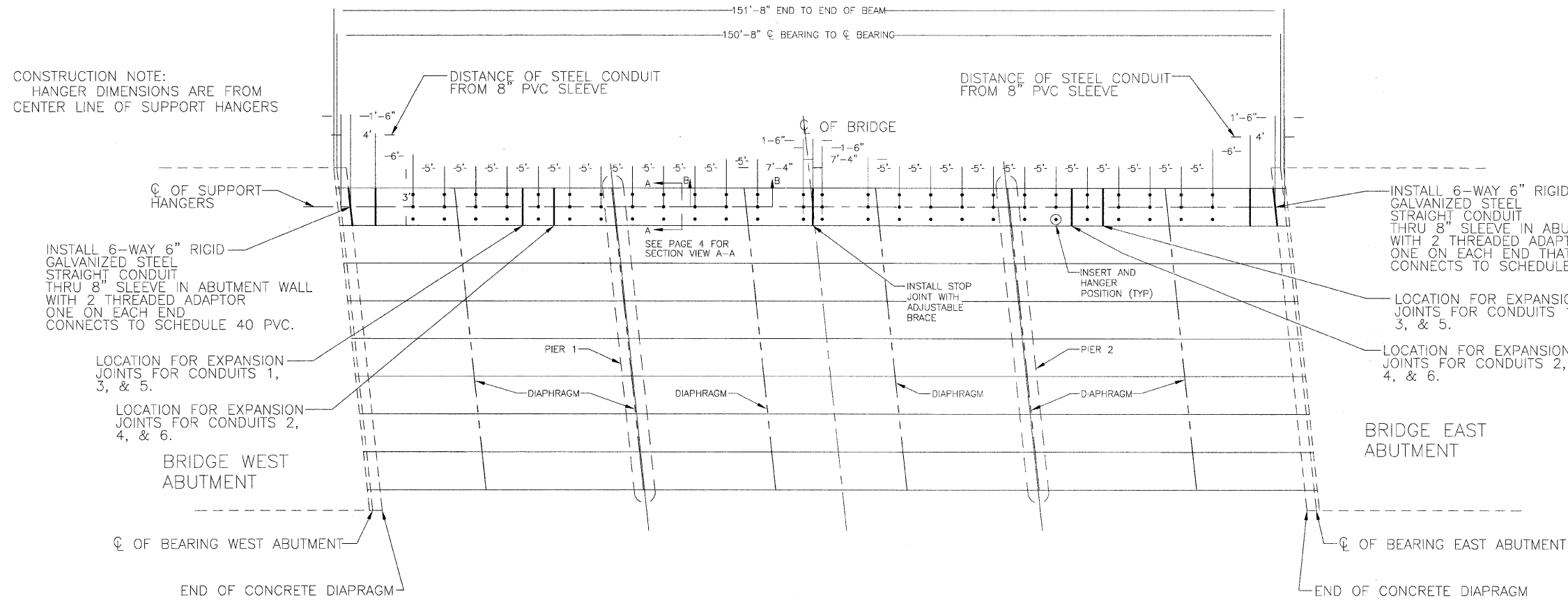
- NOTES:
- 1) WEIGHT PER FOOT FOR 6 DUCTS WITH DUCT MATERIALS AND ALL DUCTS FILLED WITH 1000 KCMIL CABLE 12KV OR 34KV CABLE IS 120 LBS./FOOT SUPPORTED BY BRIDGE.
 - 2) CONTRACTOR SHALL PROVIDE A METHOD OF CONSTRUCTION THAT WILL ENSURE THAT NO MATERIALS BEING INSTALLED OR WORKED ON FALL INTO THE RIVER.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE	JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	MAP NO.	N/A	CAD FILE	0054679001D4.DWG
PROJECT DESCRIPTION	COORDINATED WITH BRIDGE IMPROVEMENTS	DRAWN BY:	PM	PROJECT NO.:	EU13-04-06
DATE	4-01-09	WORK REQUEST NO.	54679	AT&T:	COMPLETED BY:
ISSUED		ENGINEER	PSM	APRV:	
REVISION		1	2	3	
				SCALE:	N.T.S.
				SHEET 4 OF 30	

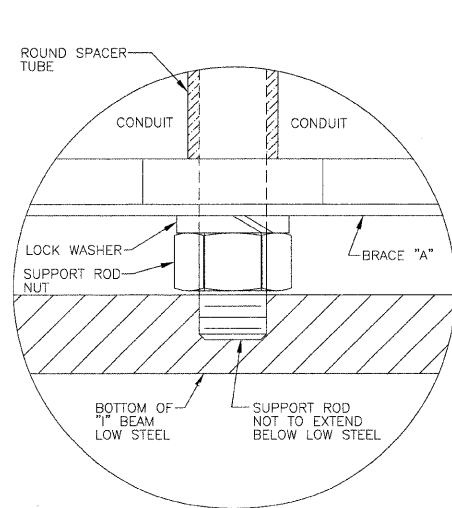
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3570	00-00116-00-BR	DUPAGE	106	60
STA.	4+38.47	TO STA.	14+62.4	
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

INSERT LAYOUT (78 PLACES)

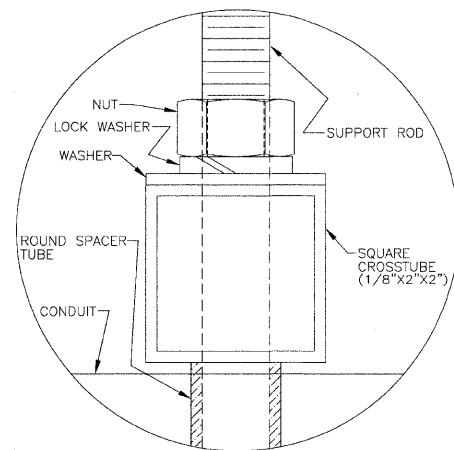
(●) = INSERT SYMBOL



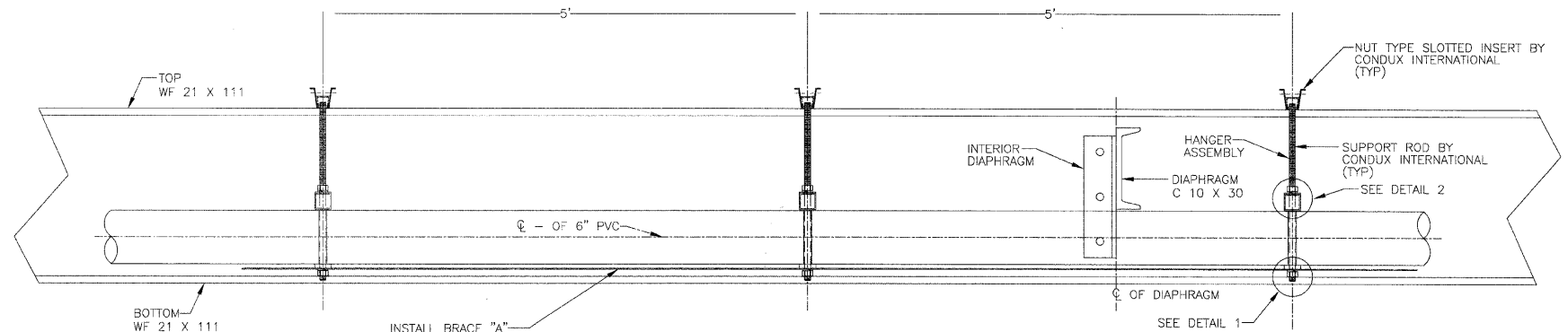
- NOTES:**
- 1) ALL NUT TYPE SLOTTED INSERTS SHALL BE NAILED TO THE PLYWOOD W/SUPPORT ROD HANGER.
 - 2) ALL INSERTS SHALL BE CHECKED VISUAL LOOKED AND HAND CHECKED TO BE SURE THAT THE INSERTS WILL NOT MOVE OR FALL OFF DURING THE CONCRETE POUR PROCESS.
 - 3) CONTRACTOR SHALL ALLOW FOR DELAY DUE TO CONCRETE CURING WHICH CAN TAKE UP TO 3 WEEKS OR MORE.



DETAIL 1



DETAIL 2

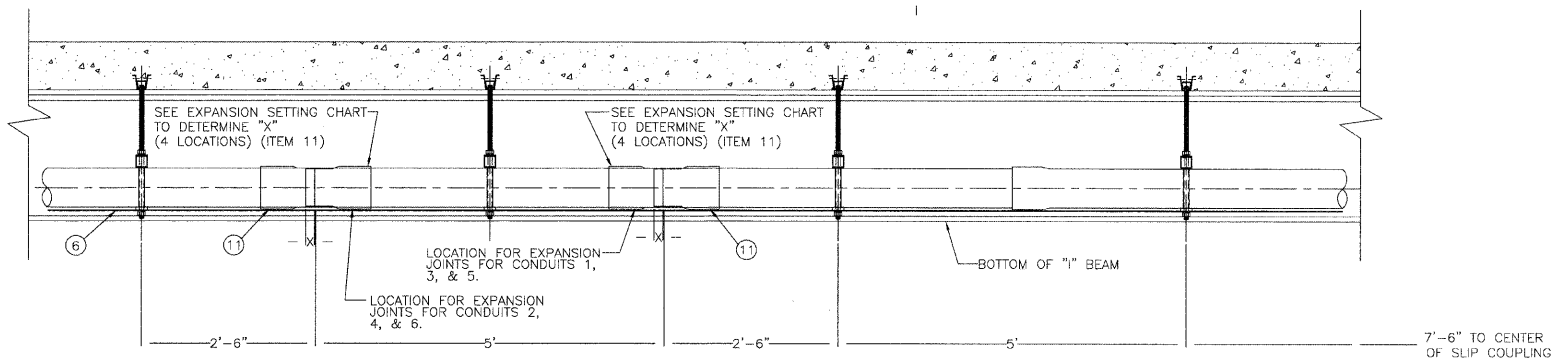
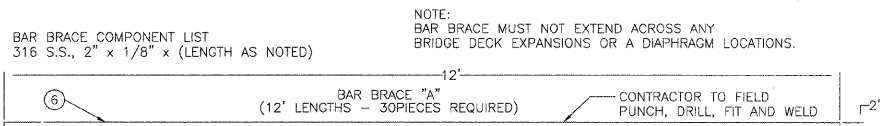
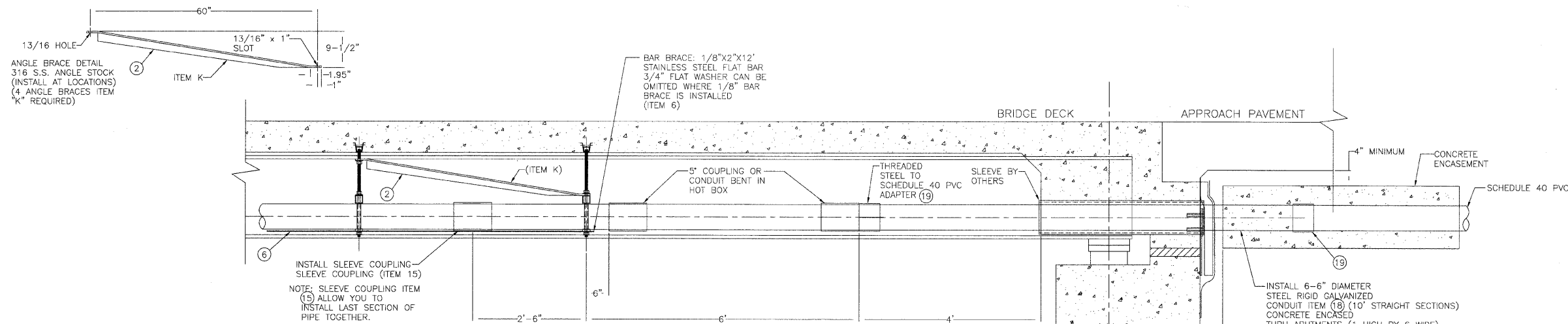


SECTION B-B

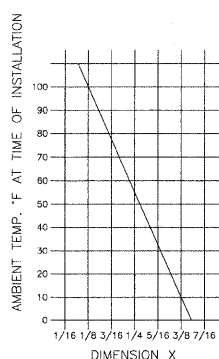
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC				
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION				
PROJECT TITLE		MAP NO.:	CAD FILE:	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION		N/A	005467900105.DWG	
PROJECT DESCRIPTION		DRAWN BY:	PROJECT NO.:	
COORDINATED WITH BRIDGE IMPROVEMENT		PM	EU13-04-06	
DATE	6-01-09	WORK REQUEST NO.	CHKD:	SBC:
ISSUED		54679	APRV:	COMPLETED BY:
ENGINEER	PSM		SCALE:	NTS
REVISION	1 2 3			SHEET 5 OF 30

UNDER BRIDGE CONDUIT ATTACHMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	61
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

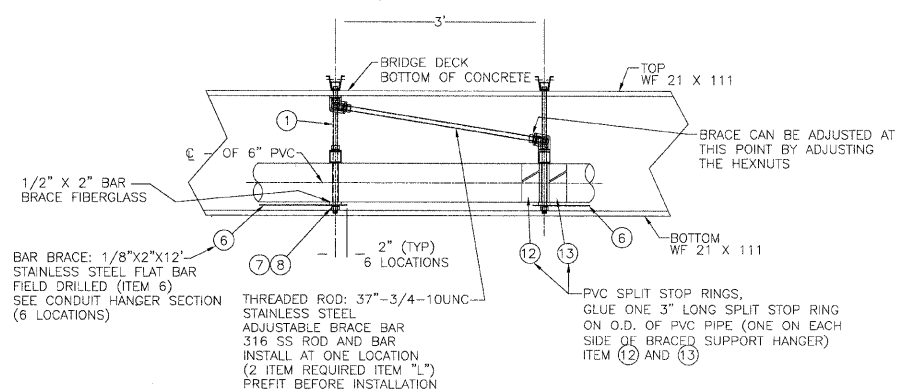


CONSTRUCTION NOTE:
CONTRACTOR TO PURCHASE AND INSTALL RIDGID
CONDUIT AND ADAPTERS.
CONTRACTOR TO PURCHASE 6" DIA. GALVANIZED
RIDGID CONDUIT FROM CHAMPION CHARTER SALES AND SVC
N3602 NORTH US2
P.O. BOX 490
IRON MOUNTAIN MICHIGAN 49801
PHONE: 906-779-2360
FAX: 906-779-2367

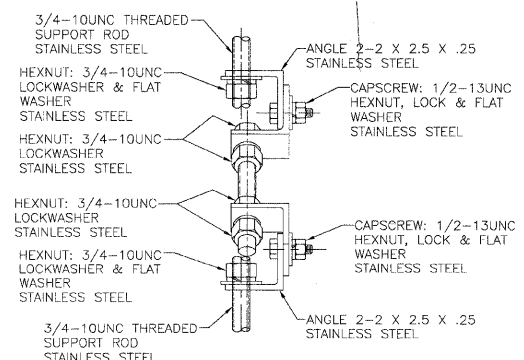


EXPANSION SETTING CHART

1) INSERT NIPPLE INTO BODY UNTIL IT REACHES BOTTOM,
MARK NIPPLE AT END OF BODY.
2) PULL NIPPLE OUT OF BODY AND DETERMINE DISTANCE "X"
CALCULATED FROM CHART.



SECTION AT MIDSPAN

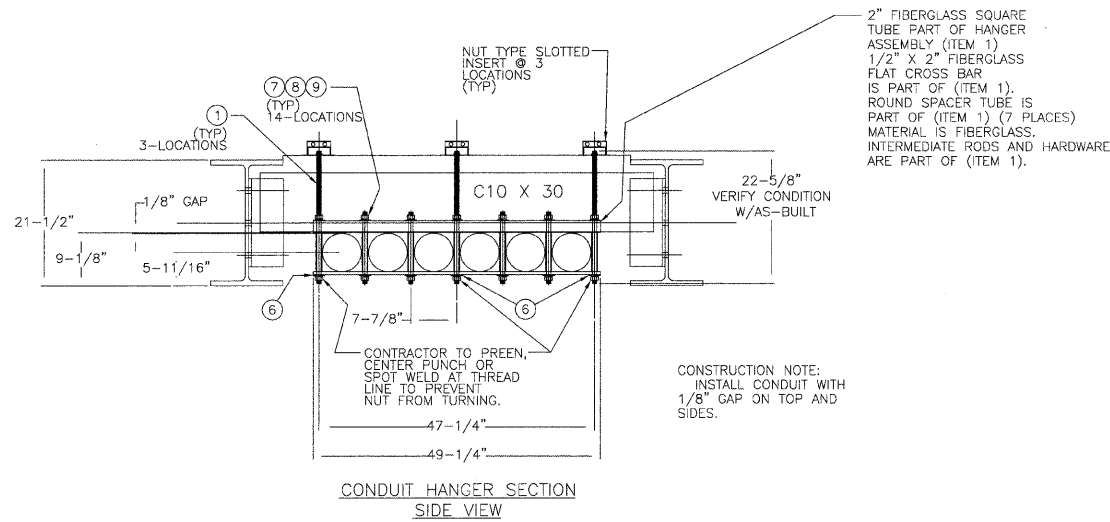


SIDE VIEW
SECTION AT MIDSPAN

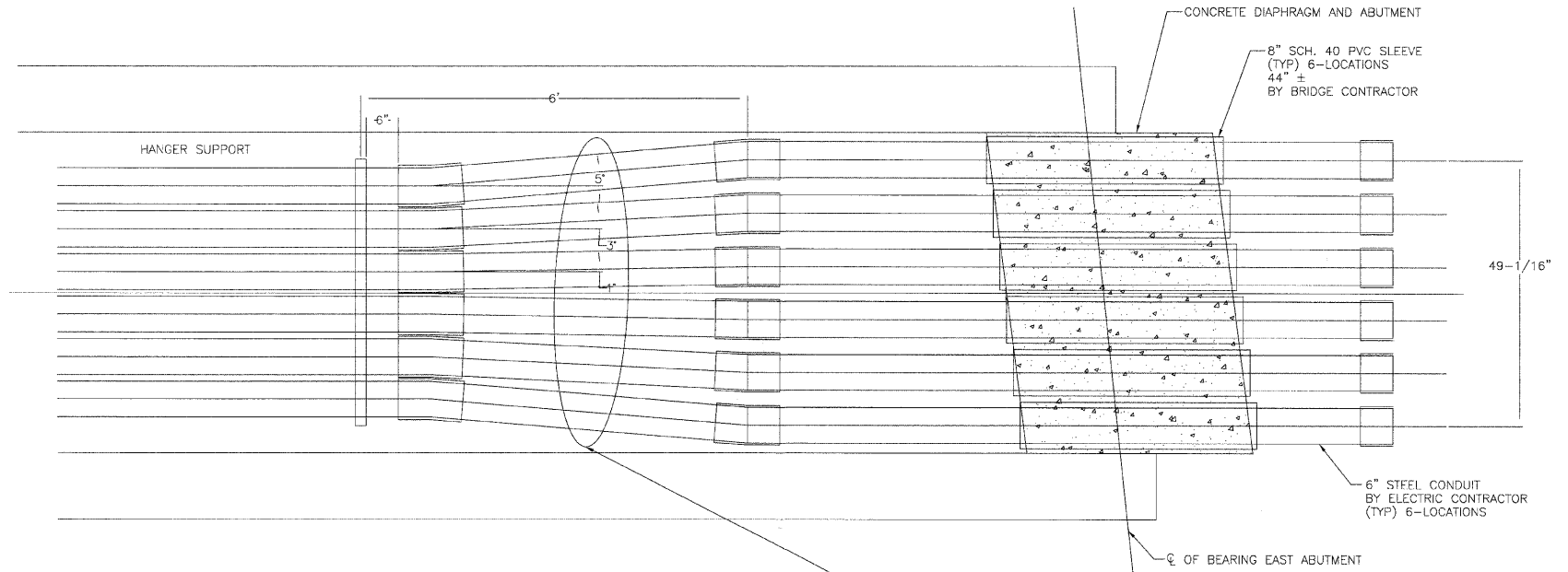
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	MAP NO.: -	CAD FILE: .DWG 0054679001D6.DWG	
PROJECT DESCRIPTION COORDINATED WITH BRIDGE IMPROVEMENT	DRAWN BY: PM	PROJECT NO.: EU13-04-06	
DATE 4-01 09	WORK REQUEST NO. 54679	CHKD:	COMPLETED BY:
ISSUED ENGINEER PSM	APRV:	SCALE: NTS	SHEET 6 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	62
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

UNDER BRIDGE CONDUIT ATTACHMENT



CONDUIT HANGER SECTION TOP VIEW BY ABUTMENT



INSTALLATION GUIDE

- BEGIN AT ONE ABUTMENT BY INSTALLING AN ADAPTER COUPLING ONTO THE STEEL CONDUIT THAT IS PROTRUDING FROM THE ABUTMENT. THIS CONDUIT IS THREADED STEEL.
- INSTALL AS MANY SUPPORTS AS REQUIRED TO REACH THE FIRST CONDUIT JOINT. THIS REQUIRES THE INSTALLATION OF CONCRETE INSERTS INTO BRIDGE DECK AT TIME OF PLACEMENT OF CONCRETE.
- NEXT INSTALL THE FIRST PIECE OF CONDUIT AND MAKE THE CONNECTION AT THE ABUTMENT ACCORDING TO STANDARD PRACTICES FOR TYPE OF CONDUIT BEING USED. CONTINUE THE PROCESS OF INSTALLING SEGMENTS OF SUPPORTS AND CONDUIT, WORKING FROM ONE ABUTMENT TO THE OTHER. NO JOINT SHOULD BE WITHIN 12 INCHES OF A HANGER. INSTALL (ITEM 6) CONTINUOUSLY FROM DIAPHRAGM TO DIAPHRAGM BY WELDING (ITEM 6) TOGETHER.
- EXPANSION JOINTS ARE INSTALLED AT (2) TWO LOCATIONS IN THE CONDUIT SYSTEM DURING THIS ONGOING ASSEMBLY PROCESS. THE EXPANSION JOINTS MUST BE PLACED AS THE REQUIRED LOCATIONS BY ATTACHING THE EXPANSION SLEEVE TO THE CONDUIT THAT IS IN PLACE. IF THE EXPANSION SLEEVE IS OF THE TYPE THAT WILL ACCEPT THE SPIGOT END OF THE NEXT CONDUIT PIECE, THEN THE NEXT CONDUIT PIECE SHOULD BE INSERTED TO THE HALFWAY POINT OF THE SLEEVE ALLOWING FOR EQUAL MOVEMENT IN EITHER DIRECTION. IF THE EXPANSION SLEEVE IS OF THE TYPE THAT REQUIRES AN EXPANSION NIPPLE, THE NIPPLE SHOULD BE ADJUSTED TO THE HALFWAY POINT OF THE SLEEVE AND SUBSEQUENTLY ASSEMBLED TO THE END OF THE NEXT CONDUIT SECTION.
 - CARE MUST BE TAKEN THAT THE EXPANSION JOINTS REMAIN AT MID-TRAVEL DURING THE REMAINDER OF THE INSTALLATION PROCESS. THE JOINT MAY BE WRAPPED WITH TAPE FOR ASSURANCE.
 - NO EXPANSION JOINT SHOULD BE CLOSER THAN 12 INCHES TO ANY SUPPORT. THE IDEAL LOCATION IS 1/2 THE DISTANCE TO THE NEXT SUPPORT.
- SPLIT STOP RINGS ARE INSTALLED ON THE CONDUIT AT ANCHOR POINTS WHICH OCCUR AT THE MIDWAY POINT BETWEEN EXPANSION JOINTS. WHICH IS THE CENTER OF THE BRIDGE WHEN AN ANCHOR POINT LOCATION IS REACHED, TWO STOP RINGS SHOULD BE SLIPPED OVER THE CONDUIT SECTION SO THAT ONE FALLS ON EACH SIDE OF THE ANCHOR POINT SUPPORT. AFTER THE CONDUIT CONNECTION HAS BEEN MADE, AND THE LAST EXPANSION JOINT HAS BEEN CHECKED TO MAKE SURE THAT IT HAS NOT MOVED, THE STOP RINGS CAN BE EPOXIED TO THE OUTSIDE OF THE CONDUIT AGAINST EACH SIDE OF THE SUPPORT. PLASTIC TIE WRAPS OR TAPE CAN BE USED TO HOLD THE STOP RINGS IN PLACE UNTIL THE EPOXY HAS CURED.
 - IT IS CONVENIENT AT THIS TIME TO INSTALL THE ANCHOR POINT BRACING (ITEM K) AND (ITEM L) BETWEEN THE ANCHOR POINT THE ANCHOR POINT SUPPORT AND THE BRIDGE DECK.
- THE LAST SECTION OF CONDUIT SHOULD BE CUT TO LENGTH SO THAT IT FITS END TO END WITH THE CONDUIT THAT PROTRUDES FROM THE ABUTMENT. IF THE TWO CONDUITS ARE THE SAME, THE CONNECTION CAN BE MADE WITH A SLEEVE COUPLING OR SLIP COUPLING. SIMPLY SLIDE THE SLEEVE ONTO ONE OF THE CONDUITS, APPLY EPOXY TO EACH END, PLACE THE ENDS TOGETHER AND SLIDE THE SLEEVE OVER THE JOINT. IF AN ADAPTER COUPLING IS REQUIRED, THEN THE LAST CONNECTION IS MADE BY RETRACTING THE LAST EXPANSION JOINT, THEREBY ALLOWING ENOUGH SPACE BETWEEN THE CONDUIT ENDS TO INSTALL THE ADAPTER. AFTER THE CONNECTION HAS BEEN MADE, THE EXPANSION JOINT SHOULD BE BACK AT MID-TRAVEL.

*THIS PRINCIPLE HOLDS TRUE FOR A TEMPERATURE RANGE OF APPROX. 50°-70°F ACCOUNT FOR YOUR JOBSITE AMBIENT TEMPERATURE WHEN INSTALLING EXPANSION JOINTS.
- CHECK ALL CONNECTIONS, PREEN THREADS, TACK WELD ALL NUTS TO RODS, CHECK LOW STEEL FOR CLEARANCE.
- CONTRACTOR SHALL PROVIDE FALL PROTECTION.

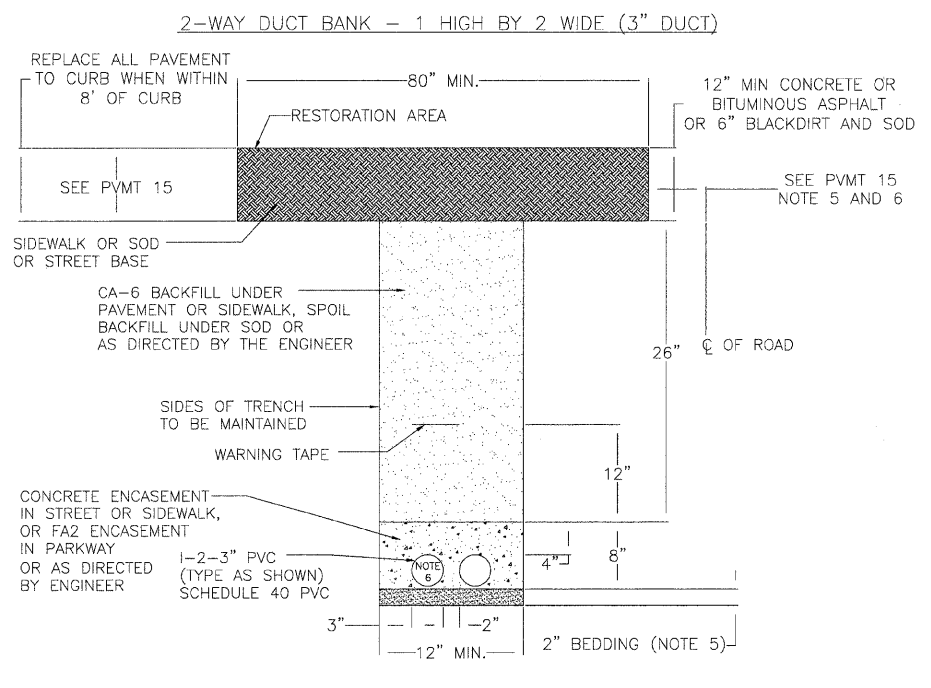
THE CONTRACTOR SHALL FURNISH UNLOAD DELIVER AND INSTALL THE FOLLOWING MATERIALS PER CITY OF NAPERVILLE'S SPECIFICATION FOR W.F. #54679 AT THE JEFFERSON ST. BRIDGE.
 MATERIAL LIST FOR BRIDGE WORK.
 CONDUX INTERNATIONAL, INC.
 P.O. BOX. 247
 145 KINGSWOOD RD.
 MANKATO, MN 56002-0247
 ATTN: BRIAN BAYNES (1-800-533-2077)

ITEM NO.	PART NO.	DESCRIPTION	QTY	UNIT
1	16126F3S12	CONDUIT SUPPORT HANGER: 1 HIGH X 6 WIDE FIBERGLASS AND STAINLESS STEEL, OPENING FOR SIX 6" PVC DUCTS, THREADED RODS THREE @ 3/4-10UNC X 22.50 LONG	26	EA.
2	TBA	HANGER BRACE "K" TYPE (ANGLE 2.50 X 2.50 X .38) STAINLESS	4	EA.
3	08610236	HANGER BRACE ADJUSTABLE STAINLESS	2	EA.
4	08409926	CONCRETE INSERT ADJUSTABLE: P-30 3/4-10UNC STAINLESS	78	EA.
5	TBA	FLAT BAR: 1/8IN. X 2.0IN. X 12FT STAINLESS STEEL	24	EA.
6	05101160	CONDUIT PVC SCH 40: 6" (6.62 O.D.) MEETING NEMA TC-2	900	FT.
7	05210060	CONDUIT STOP COUPLING: 6" PVC SCH 40	12	EA.
8	05170060	CONDUIT SLEEVE COUPLING: 6" PVC SCH 40	6	EA.
9	06101860	CONDUIT 5 DEGREE STOP COUPLING: 6" PVC SCH 40	24	EA.
10	06101360	CONDUIT EXPANSION JOINT O-RING TYPE: 6" PVC SCH 40	12	EA.
11	08501961	CONDUIT SPLIT STOP RING: 6" PVC SCH 40	12	EA.
12	06100260	CONDUIT ADAPTER: 6" PVC SCH 40 TO 6" GRE FEMALE THREAD	24	EA.
13	08519103	CONDUIT SOLVENT CEMENT	15	EA.

CONDUIT HANGER SUPPORTS BY CONDUX INTERNATIONAL, INC. (TOTAL 26 HANGER LOCATIONS) EXCEPT ITEM 18

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.:	CAD FILE: DWG	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	-	0054679001D7.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
COORDINATED WITH BRIDGE IMPROVEMENT	JK	EU13-04-06	
DATE	4-01 09	WORK REQUEST NO.:	CHKD:
ISSUED		54679	AMERITECH:
ENGINEER	PSM	APRV:	SCALE:
REVISION	1 2 3		NTS
			SHEET 7 OF 30

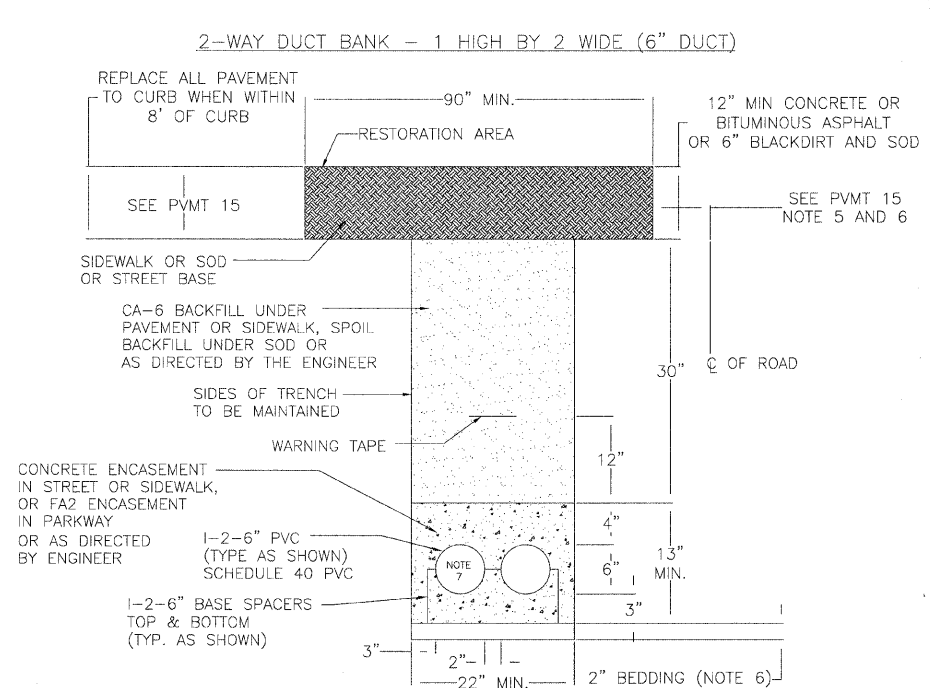
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	63
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL
SECTION A-A

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION A-A
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 20 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = 10 FEET (FA2 ENCASED) CA-6 BACKFILL

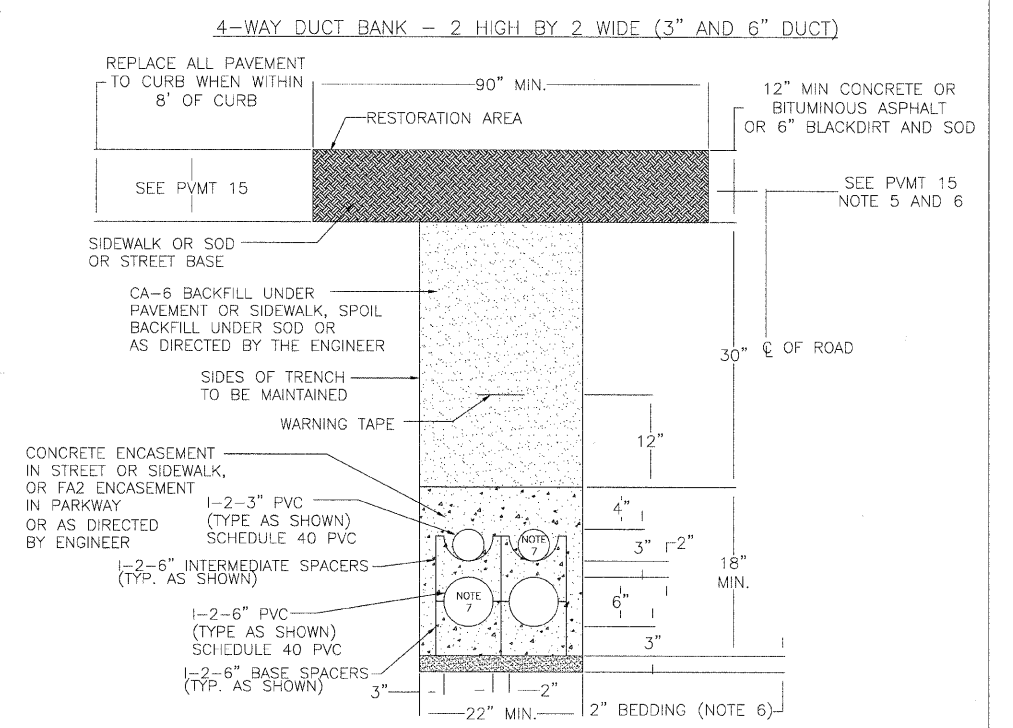
- NOTE:
1) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
2) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
3) ALL CABLES BY OTHERS.
4) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
5) INSTALL BEDDING FA-2 OR CA-6.
6) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
7) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL
SECTION B-B

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION B-B
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = 70 FEET CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 20 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

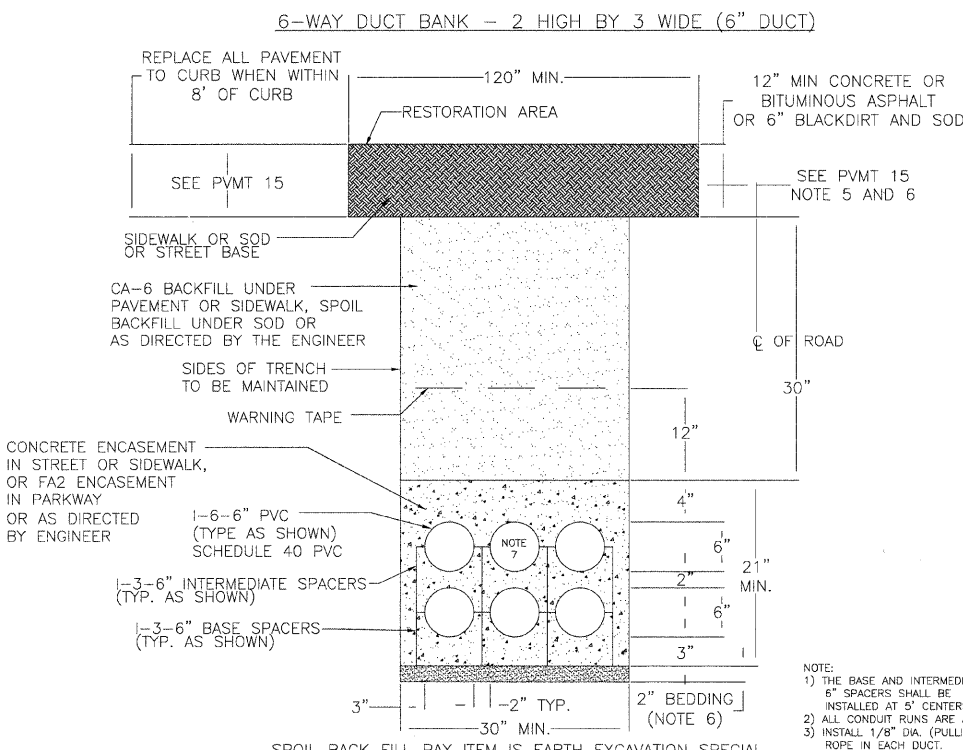
- NOTE:
1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
4) ALL CABLES BY OTHERS.
5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
6) INSTALL BEDDING FA-2 OR CA-6.
7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL
SECTION C-C

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION C-C
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 20 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

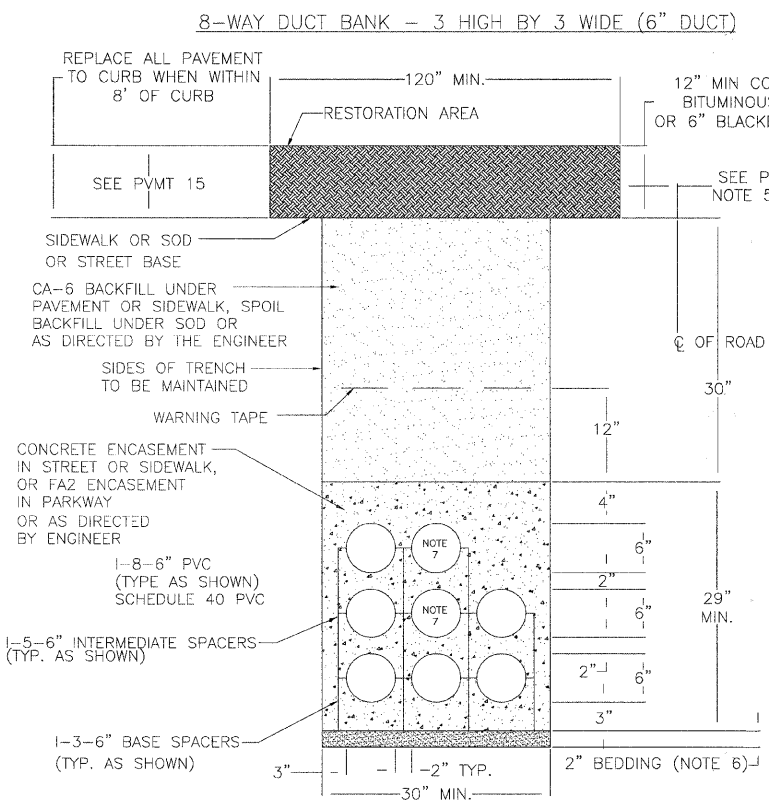
- NOTE:
1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
4) ALL CABLES BY OTHERS.
5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
6) INSTALL BEDDING FA-2 OR CA-6.
7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL
SECTION D-D

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION D-D
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = 380 FEET CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 40 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

- NOTE:
1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
4) ALL CABLES BY OTHERS.
5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
6) INSTALL BEDDING FA-2 OR CA-6.
7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL
SECTION F-F

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION F-F
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = 10 FEET CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

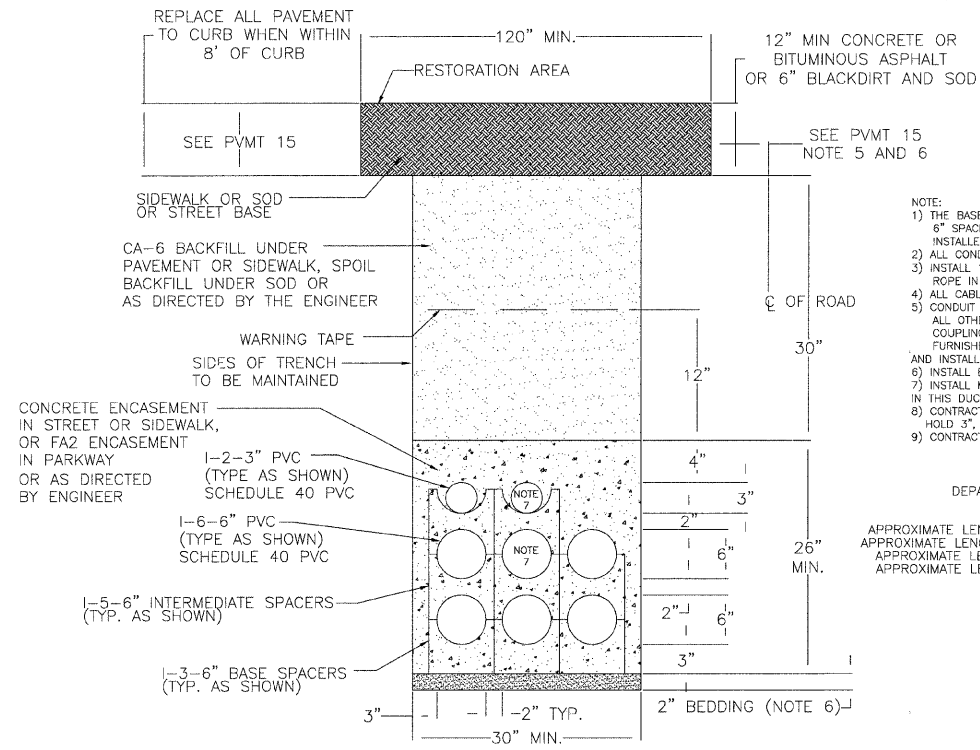
- NOTE:
1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
4) ALL CABLES BY OTHERS.
5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
6) INSTALL BEDDING FA-2 OR CA-6.
7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.

- 1) RESTORATION BY ELECTRICAL CONTRACTOR IS TEMPORARY, AND SHALL BE MAINTAINED BY THE ELECTRICAL CONTRACTOR UNTIL FINAL RESTORATION BY ROAD CONTRACTOR. (UNLESS NOTED)
2) ROUGH GRADE AREA TO WITH IN 4" OF FINAL GRADE.
3) ELECTRICAL CONTRACTOR TO COORDINATE WITH RESIDENT ENGINEER.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.	CAD FILE:	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION		0054679000108.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
TRENCH SECTION DETAILS	PM	EU13-04-06	
DATE	4-01	WORK REQUEST NO.	CHCK:
ISSUED	09	54679	SEB:
ENGINEER	PSM	APRV:	SCALE:
REVISION	1 2 3		NTS
			SHEET 8 OF 30

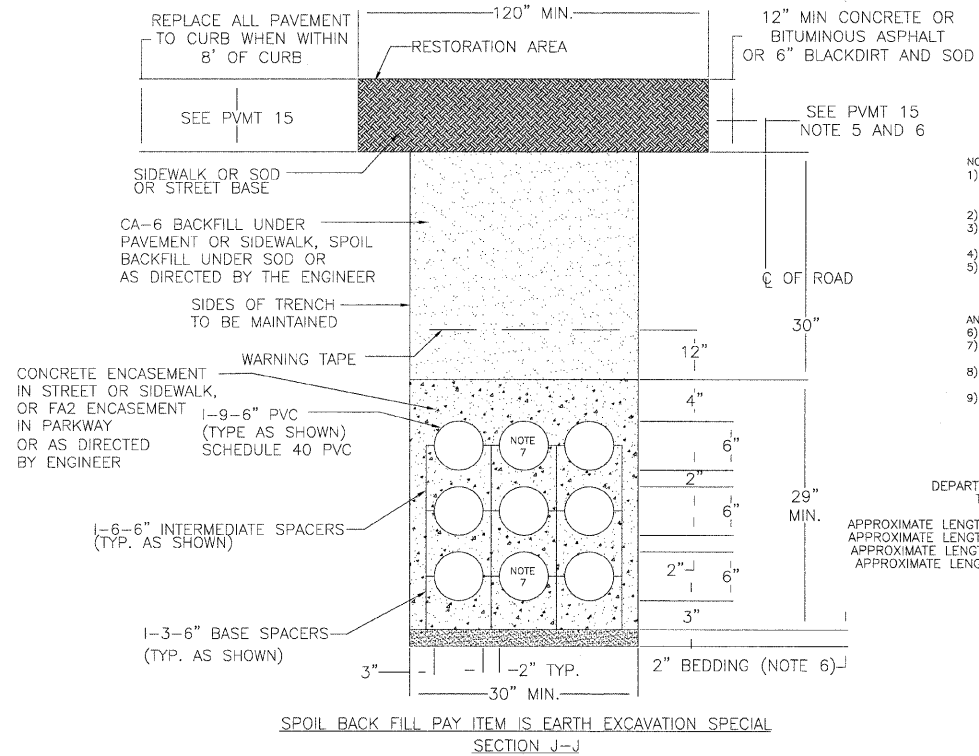
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	67
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

8-WAY DUCT BANK - 3 HIGH BY 3 WIDE (2-3" AND 6-6" DUCT)



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL SECTION H-H

9-WAY DUCT BANK - 3 HIGH BY 3 WIDE (6" DUCT)

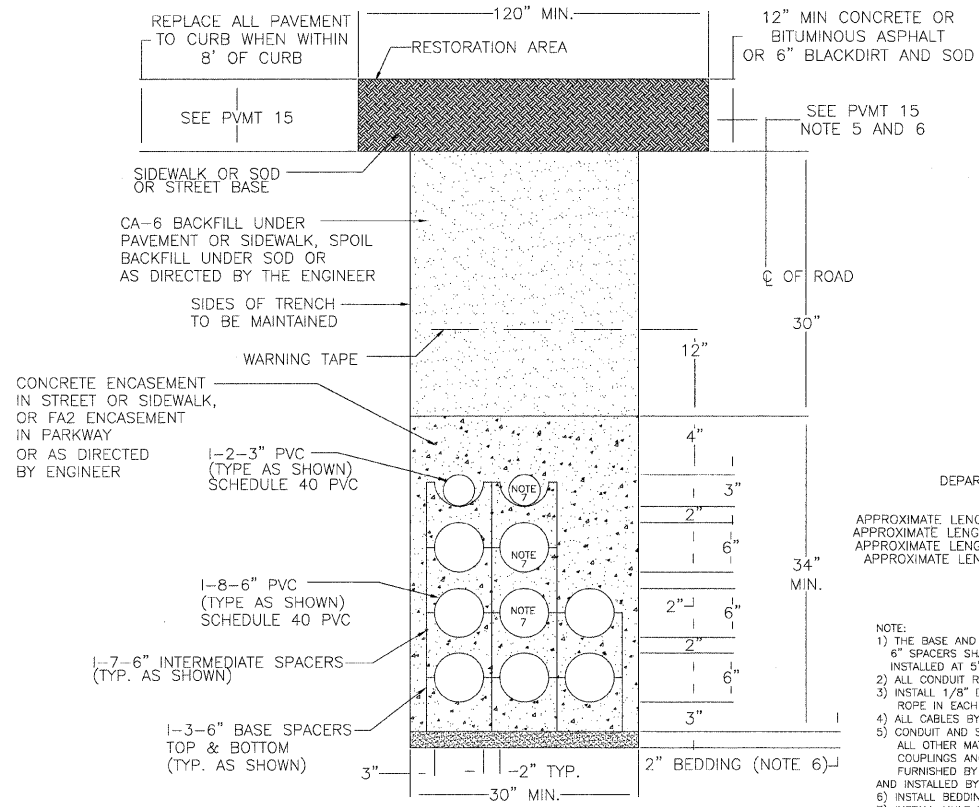


SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL SECTION J-J

- NOTE:
- 1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
 - 2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
 - 3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
 - 4) ALL CABLES BY OTHERS.
 - 5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
 - 6) INSTALL BEDDING FA-2 OR CA-6.
 - 7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
 - 8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
 - 9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION J-J
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 60 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

10-WAY DUCT BANK - 4 HIGH BY 3 WIDE (3" AND 6" DUCT)

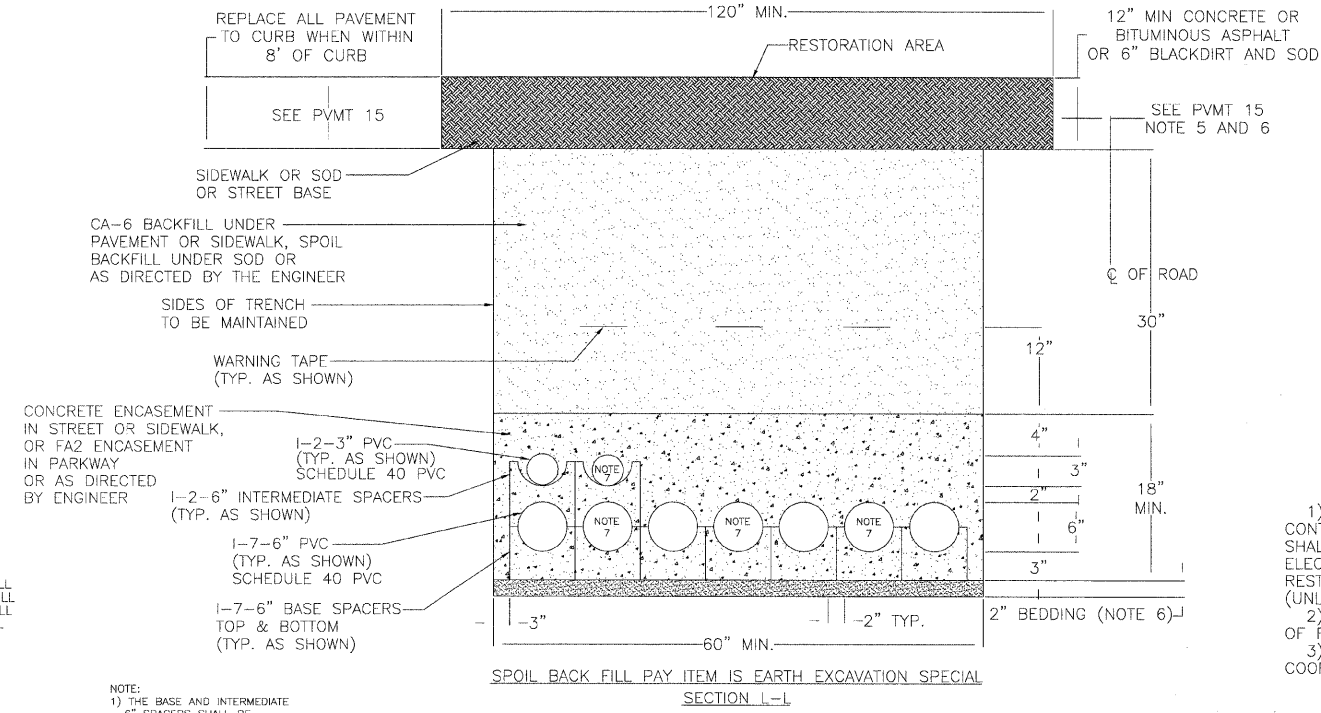


SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL SECTION K-K

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION K-K
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = 60 FEET CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = 110 FEET (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) CA-6 BACKFILL

- NOTE:
- 1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
 - 2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
 - 3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
 - 4) ALL CABLES BY OTHERS.
 - 5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
 - 6) INSTALL BEDDING FA-2 OR CA-6.
 - 7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
 - 8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
 - 9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.

9-WAY DUCT BANK - 2 HIGH BY 7 WIDE (3" AND 6" DUCT)



SPOIL BACK FILL PAY ITEM IS EARTH EXCAVATION SPECIAL SECTION L-L

- NOTE:
- 1) THE BASE AND INTERMEDIATE 6" SPACERS SHALL BE INSTALLED AT 5' CENTERS.
 - 2) ALL CONDUIT RUNS ARE ASSEMBLED IN FIELD.
 - 3) INSTALL 1/8" DIA. (PULLING) NYLON ROPE IN EACH DUCT.
 - 4) ALL CABLES BY OTHERS.
 - 5) CONDUIT AND SPACERS AND ALL OTHER MATERIALS INCLUDING GLUE, COUPLINGS AND MANHOLE ENTRANCES FURNISHED BY CITY OF NAPERVILLE AND INSTALLED BY CONTRACTOR.
 - 6) INSTALL BEDDING FA-2 OR CA-6.
 - 7) INSTALL MULE TAPE OR #12 COPPER WIRE THHN IN THIS DUCT ONLY.
 - 8) CONTRACTOR TO SUPPLY PLASTIC TIES TO HOLD 3", 5", AND 6" CONDUIT TO 6" SPACERS.
 - 9) CONTRACTOR TO INSTALL DUCT RUN PER C30-1900.

CITY OF NAPERVILLE
DEPARTMENT OF PUBLIC UTILITIES-ELECTRIC
TYPICAL CONDUIT SECTION L-L
75TH STREET
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE SPOIL BACKFILL
APPROXIMATE LENGTH = (NONE) CONCRETE ENCASE CA-6 BACKFILL
APPROXIMATE LENGTH = (NONE) (FA2 ENCASED) SPOIL BACKFILL
APPROXIMATE LENGTH = 10 FEET (FA2 ENCASED) CA-6 BACKFILL

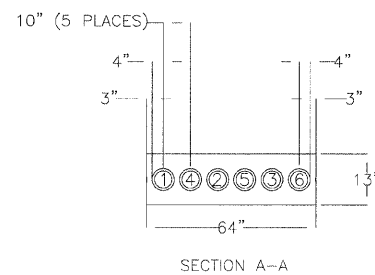
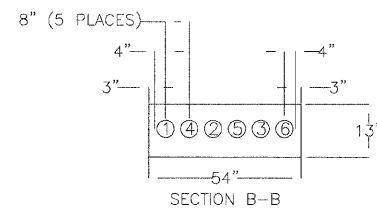
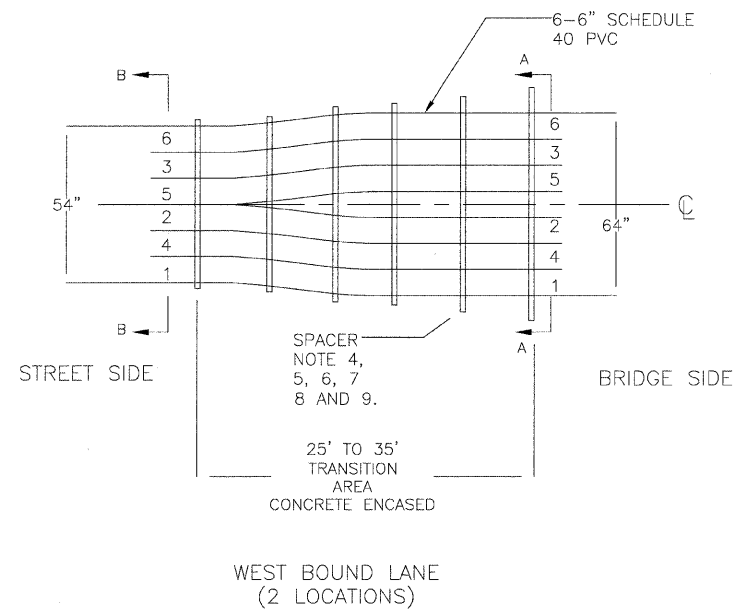
- 1) RESTORATION BY ELECTRICAL CONTRACTOR IS TEMPORARY, AND SHALL BE MAINTAINED BY THE ELECTRICAL CONTRACTOR UNTIL FINAL RESTORATION BY ROAD CONTRACTOR. (UNLESS NOTED)
- 2) ROUGH GRADE AREA TO WITH IN 4" OF FINAL GRADE.
- 3) ELECTRICAL CONTRACTOR TO COORDINATE WITH RESIDENT ENGINEER.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC				
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION				
PROJECT TITLE	JEFFERSON AT. BRIDGE DUCTBANK INSTALLATION		MAP NO.:	CAD FILE:
PROJECT DESCRIPTION	TRENCH SECTION DETAILS		DRAWN BY:	PROJECT NO.:
DATE	4-01		PM	EU13-04-06
ISSUED	09			COMPLETED BY:
ENGINEER	PSM			
REVISION	1	2	3	
WORK REQUEST NO.	54679		CHKD:	SCALE:
APPRV:				NTS
				SHEET 9 OF 30

TRANSITION OF CONDUIT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	65
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

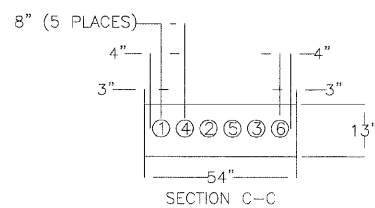
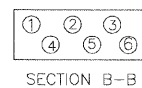
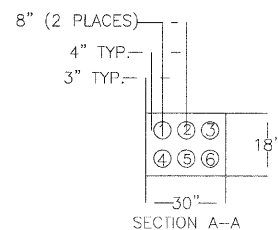
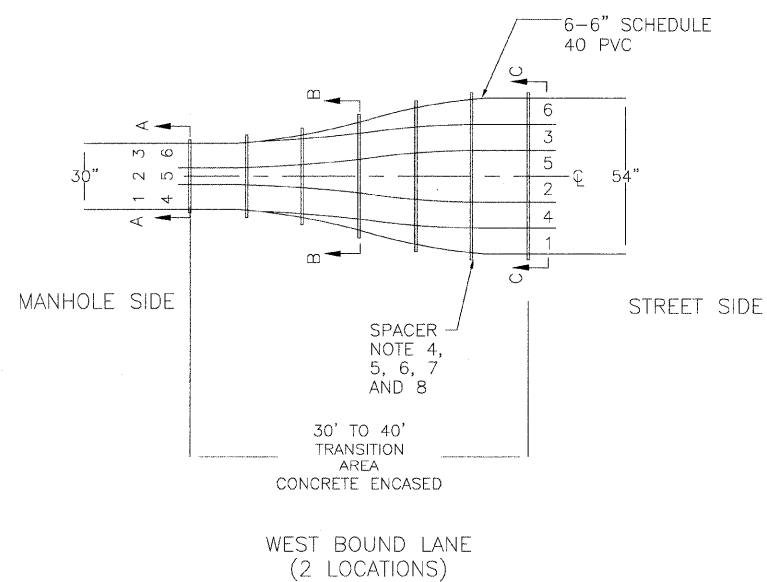
TRANSITION OF CONDUIT
FROM 1 HIGH BY 6 WIDE (10" CENTER)
TO 1 HIGH BY 6 WIDE (8" CENTER)
(6 INCH DUCT)



- 1 - THE DUCTS IN TRANSITION/TRANSPOSING FROM SECTION A-A TO SECTION B-B SHALL FOLLOW UNIFORM RADIUS REVERSE CURVES, WHICH LIE IN THE PLANE OF CURVED SURFACES, INDICATED IN THE PLAN OF DUCT AXES.
- 2 - SEPARATION BETWEEN DUCTS AND SHEATHING THICKNESS SHALL BE THE SAME AS FOR THE STANDARD FORMATION IN THE REMAINDER OF THE RUN.
- 3 - ALL EQUIPMENT, TOOLS AND MATERIAL TO COMPLETE THE TRANSPOSITION WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR THE SCHEDULE 40 PVC CONDUIT.
- 4 - CONTRACTOR TO SUPPLY SPACERS, COUPLING, ADAPTERS, TIES, AND WOOD FORM MATERIALS.
- 5 - USE PLASTIC TIES AS REQUIRED.
- 6 - USE 5 DEGREE BENDS AS REQUIRED.
- 7 - CONTRACTOR SHALL ASSEMBLE, PRE FIT, LEVEL, CUT ARRANGE, CHOP, CHIP, SUPPORT AND SECURE DUCT FOR A COMPLETE JOB.
- 8 - ALL CONDUITS SHALL BE ENCASED IN CONCRETE AND FORMED IN FIELD BY THE CONTRACTOR. USING FORMS CUT TO FIT OF WOOD ALL MATERIALS FURNISHED BY THE CONTRACTOR.
- 9 - CONTRACTOR TO FORM BENDS IN FIELD USING A HOT BOX IF MANUFACTURED BENDS ARE NOT ACCEPTABLE. ALL DUCT TO REMAIN ROUND.
- 10 - ALL EQUIPMENT AND TOOLS FURNISHED BY CONTRACTOR.
- 11 - ALL SCHEDULE 40 PVC CONDUIT SHALL BE SUPPLIED BY THE CITY AND INSTALLED BY THE CONTRACTOR.
- 12 - ALL STEEL TO PLASTIC COUPLING AND HDPE TO STEEL AND HDPE TO PLASTIC SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

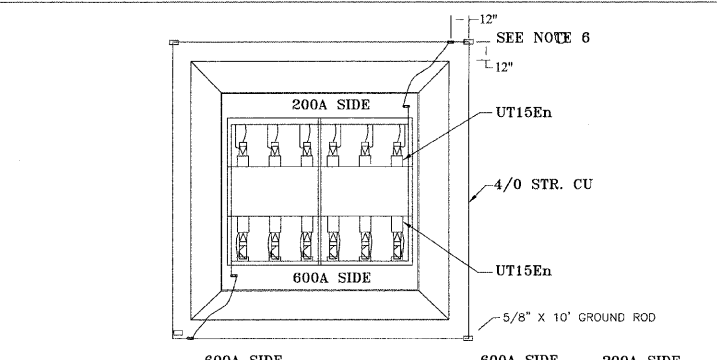
TRANSPOSING OF CONDUIT

TRANSPOSING OF CONDUIT (SCHEDULE 40 PVC)
FROM 1 HIGH BY 6 WIDE
TO 2 HIGH BY 3 WIDE
(6 INCH DUCT)



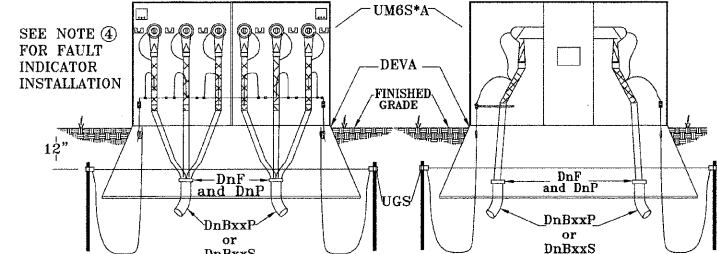
- 1 - THE DUCTS IN TRANSITION/TRANSPOSING FROM SECTION A-A TO SECTION B-B SHALL FOLLOW UNIFORM RADIUS REVERSE CURVES, WHICH LIE IN THE PLANE OF CURVED SURFACES, INDICATED IN THE PLAN OF DUCT AXES.
- 2 - SEPARATION BETWEEN DUCTS AND SHEATHING THICKNESS SHALL BE THE SAME AS FOR THE STANDARD FORMATION IN THE REMAINDER OF THE RUN.
- 3 - ALL EQUIPMENT, TOOLS AND MATERIAL TO COMPLETE THE TRANSPOSITION WILL BE FURNISHED AND INSTALLED BY THE CONTRACTOR, EXCEPT FOR THE SCHEDULE 40 PVC CONDUIT.
- 4 - CONTRACTOR TO SUPPLY SPACERS, COUPLING, ADAPTERS, TIES, AND WOOD FORM MATERIALS.
- 5 - USE PLASTIC TIES AS REQUIRED.
- 6 - USE 5 DEGREE BENDS AS REQUIRED.
- 7 - CONTRACTOR SHALL ASSEMBLE, PRE FIT, LEVEL, CUT ARRANGE, CHOP, CHIP, SUPPORT AND SECURE DUCT FOR A COMPLETE JOB.
- 8 - ALL CONDUITS SHALL BE ENCASED IN CONCRETE AND FORMED IN FIELD BY THE CONTRACTOR. USING FORMS CUT TO FIT OF WOOD ALL MATERIALS FURNISHED BY THE CONTRACTOR.
- 9 - CONTRACTOR TO FORM BENDS IN FIELD USING A HOT BOX IF MANUFACTURED BENDS ARE NOT ACCEPTABLE. ALL DUCT TO REMAIN ROUND.
- 10 - ALL EQUIPMENT AND TOOLS FURNISHED BY CONTRACTOR.
- 11 - ALL SCHEDULE 40 PVC CONDUIT SHALL BE SUPPLIED BY THE CITY AND INSTALLED BY THE CONTRACTOR.
- 12 - ALL STEEL TO PLASTIC COUPLING AND HDPE TO STEEL AND HDPE TO PLASTIC SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION			MAP NO.:	CAD FILE: 0054679001D10.DWG	
PROJECT DESCRIPTION TRENCH SECTION DETAILS			DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06	
DATE 6-01 09	ISSUED	ENGINEER PSM	WORK REQUEST NO. 56270	CHKD:	APRV:
REVISION	1	2	3	SCALE: NTS	SHEET 10 OF 30



NOTES (CONTINUED):

- 8) THIS DRAWING SHOWS AN EXISTING SWITCH GEAR WITH CABLE INSTALLED WITH MATERIAL LIST ON RIGHT.
- 9) CONTRACTOR TO OBTAIN OUTAGE OF SWITCH GEAR PRIOR TO DOING ANY WORK.
- 10) CONTRACTOR TO INSTALL 3", 5" AND 6" CONDUIT INTO EXISTING AS SPECIFIED IN SPECIFICATIONS CAP AND PLUGS ALL CONDUITS.
- 11) ALL GROUNDING CONNECTIONS AND TERMINATORS SHALL BE INSPECTED TO DETERMINE CONDITION OF CONNECTIONS BY THE CONTRACTOR REPORT FINDING.



- NOTES:**
1. BENDS SHALL BE INSTALLED PER FIELD CONDITION.
 2. SPARES NOT SHOWN.
 3. INSTALL ELBOW ARRESTERS AT NORMAL OPEN SWITCH LOCATIONS ON 600A SIDE.
 4. SEE C30-1010 FOR FAULT INDICATOR LOCATION.
 5. FOR VAULT INSTALLATIONS ONLY, INSTALL LIDS - DEVAL
 6. GROUND GRID INSTALLED 12" FROM VAULT AND 12" BELOW GRADE.
 7. CONTRACTOR IS ADVISED THIS SPECIFICATION INDICATES WHAT IS INSIDE AN EXISTING ENERGIZED SWITCH GEAR THAT IS TO BE WORKED IN BY THE CONTRACTOR.

THE ASSEMBLY CODE UTABI - BUSHING INSERT, 15KV 200 Amps WAS ELIMINATED AFTER S&C ADDED THE BUSHING INSERT OPTION TO ALL NEW PME SWITCHGEAR! THE UTABI OPTION IS STILL AVAILABLE FOR USE AS A REPLACEMENT OPTION.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	3Ø 15kV AIR SWITCH MODULE ASSEMBLY	DATE: 4-22-07 Page 1 of 3 C30-0013
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DEVA: VAULT, AIR SWITCH

Item Code	Description 1	Description 2	TE	A	TC	PC	F	AE	M	AL
284 100 00120	EXTENDER, 1Ø TRF VAULT	44" X 44" X 9" W/25 X25" OPEN	1							
284 101 00010	VAULT, AIR SWITCH	74" X 76" X 36" (FIBER-CRETE)		1						
284 101 00020	VAULT, 1Ø TRF/FUSE CAN	44" X 44" X 32" (FIBER-CRETE)			1					
284 101 00030	VAULT, 3Ø PLUG CAN	25" X 69" X 36" (FIBER-CRETE)				1				
284 101 00040	VAULT, 3Ø FUSE CAN	49" X 69" X 36" (FIBER-CRETE)					1			
284 101 00100	EXTENDER, AIR SWITCH VAULT	74" X 76" X 9" (FIBER-CRETE)						1		
NON	CA-5	CRUSHED LIMESTONE			1	.25	.25	.5		
NON	VAULT, 12.47KV PRI. METERING	56" X 56" X 20" (FIBER-CRETE)							1	
NON	LID, AIR SWITCH VAULT	2-PIECE DESIGN W/HARDWARE								1

DnBxxP: BEND, PVC

Assembly	Item Code	Description 1	Description 2	Qty
D3B30P	285 101 00025	ELBOW, PVC 30 DEG 3"	STANDARD RADIUS SCH 40	1
D3B45P	285 101 00030	ELBOW, 3Ø R PVC 45 DEG 3"	SCH 40	1
D3B90P	285 101 00040	ELBOW, 3Ø R PVC 90 DEG 3"	SCH 40	1
D5B30P	285 101 00080	ELBOW, 3Ø R PVC 30 DEG 5"	SCH 40	1
D5B45P	285 101 00090	ELBOW, 3Ø R PVC 45 DEG 5"	SCH 40	1
D5B90P	285 101 00100	ELBOW, 3Ø R PVC 90 DEG 5"	SCH 40	1
D6B30P	285 101 00220	ELBOW, 4Ø R PVC 30 DEG 6"	SCH 40	1
D6B45P	285 101 00230	ELBOW, 4Ø R PVC 45 DEG 6"	SCH 40	1
D6B90P	285 101 00240	ELBOW, 4Ø R PVC 90 DEG 6"	SCH 40	1

D3BxxS: BEND, 3" STEEL

Item Code	Description 1	Description 2	D3B90S
285 101 00140	ELBOW, 3Ø R STL 90 DEG 3"	GALVANIZED	1
285 102 00040	COUPLING, PVC 3"	LONG LINE SCH 40	1

D5BxxS: BEND, 5" STEEL

Item Code	Description 1	Description 2	D5B30S	D5B45S	D5B90S
285 101 00160	ELBOW, 3Ø R STL 30 DEG 5"	GALVANIZED	1		
285 101 00170	ELBOW, 3Ø R STL 45 DEG 5"	GALVANIZED		1	
285 101 00180	ELBOW, 3Ø R STL 90 DEG 5"	GALVANIZED			1
285 102 00110	COUPLING, PVC 5"	LONG LINE SCH 40	1	1	1

D6BxxS: BEND, 6" STEEL

Item Code	Description 1	Description 2	D6B11S	D6B22S	D6B30S	D6B45S	D6B90S
285 101 00186	ELBOW, 4Ø R STL 11 DEG 6"	GALVANIZED	1				
285 101 00196	ELBOW, 4Ø R 22.5 DEG 6"	GALVANIZED		1			
285 101 00190	ELBOW, 4Ø R STL 30 DEG 6"	GALVANIZED			1		
285 101 00200	ELBOW, 4Ø R STL 45 DEG 6"	GALVANIZED				1	
285 101 00210	ELBOW, 4Ø R STL 90 DEG 6"	GALVANIZED					1
285 102 00140	COUPLING, PVC 6"	LONG LINE SCH 40	1	1	1	1	1

DnF: BELL FITTING, PVC

Item Code	Description 1	Description 2	D3F	D5F	D6F
285 103 00040	BELL FITTING, PVC 3"	SCH 40 & SCH 80	1	1	
285 103 00080	BELL FITTING, PVC 5"	SCH 40 & SCH 80		1	
285 103 00100	BELL FITTING, PVC 6"	SCH 40 & SCH 80			1

DnP: PLUG, PVC

Item Code	Description 1	Description 2	D3P	D5P	D6P
285 103 00030	PLUG, PVC 3"	WITH PULL TAB	1	1	
285 103 00070	PLUG, PVC 5"	WITH PULL TAB		1	
285 103 00090	PLUG, PVC 6"	WITH PULL TAB			1

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	3Ø 15kV AIR SWITCH MODULE ASSEMBLY	DATE: 10-22-06 PAGE: 2 OF 3 C30-0013
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	66
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

UFASMU: FUSE UNIT, 15KV, SMU20

Item Code	Description 1	Description 2	25	50	65	80	100	140	200
289 105 00030	FUSE UNIT, SMU20, 15KV	25K							
289 105 00040	FUSE UNIT, SMU20, 15KV	50K							
289 105 00050	FUSE UNIT, SMU20, 15KV	65K			1				
289 105 00060	FUSE UNIT, SMU20, 15KV	80K				1			
289 105 00070	FUSE UNIT, SMU20, 15KV	100K					1		
289 105 00080	FUSE UNIT, SMU20, 15KV	140K						1	
289 105 00090	FUSE UNIT, SMU20, 15KV	200K							1

UGS: GROUNDING, SWITCHGEAR

Item Code	Description 1	Description 2	UGS	UGSV	UGSE
280 107 00070	CH BASK SD	4/0 7-STR		75	45
283 156 00010	GROUND ROD, COPPER CLAD	5/8" X 10'		4	
284 199 00184	CLAMP, CABLE TO FLAT GND	#6 SOL - 250 MCM CU		4	
286 100 00260	CONNECTOR, WEDGE CU	4/0 STR (7) - 4/0 STR (7)		4	2
286 100 00320	CONNECTOR, WEDGE CU	4/0 STR (7) - 5/8" ROD		4	4
286 101 00010	SHELL, WEDGE AMP	WHITE		6	4
286 199 00220	BREAK-AWAY	1/0-4/0 STR X 1/0 - 4/0 STR		12	- 12

UI15: FAULTED CIRCUIT INDICATOR

Item Code	Description 1	Description 2	UI15	UI16	UI17
283 199 00210	GUARD, WIRE	SPIRAL	4	8	8
284 120 00010	FAULT INDICATOR, 1/0 - 4/0	15KV		3	
284 120 00020	FAULT INDICATOR, 750 - 1000	15KV			3
284 120 00030	INDICATOR CABLE, 3 TO 1	10 FOOT			1
284 120 00040	INDICATOR CABLE, 1 TO 1	6 FOOT			
284 120 00050	TIES, CABLE	SMALL	4	6	6
284 120 00060	CLIP	ADHESIVE BACKED	4	6	6

UM6S*A: SWITCH, PAD MOUNTED

Item Code	Description 1	Description 2	2A	3A	2AA	3AA
NON	3PH, 2-WAY AUTOMATED SWITCH	15KV, 600A				
NON	3PH, 3-WAY AUTOMATED SWITCH	15KV, 600A				
284 200 00050	3PH, 2-WAY	8.3/15KV, 600A	1			1
284 200 00060	3PH, 3-WAY	8.3/15KV, 600A		1		
284 199 00310	SIGN NOTICE/OBSTRUCTION	8" X 8"	2	2	2	2
287 109 00240	PADLOCK, BRONZE	W/1-1/2" SHACKLE	4	5	5	5

UTAB: BUSHING INSERT, 15KV 200

Item Code	Description 1	Description 2	Qty
284 117 00060	INSERT, LOADER/BREAK BUSHING	15KV, 200A	1*

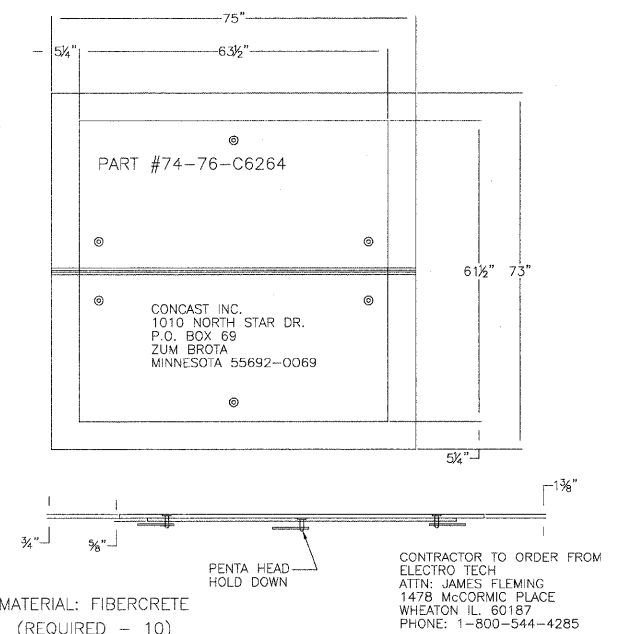
UT15AE: ARRESTER, ELBOW, 9KV

Item Code	Description 1	Description 2	B	E	P
284 116 00020	ARRESTER, ELBOW	9/10 kV		1	
284 116 00030	ARRESTER, PARKING STAND	9/10 kV			1
284 116 00040	ARRESTER, BUSHING INSERT	9/10kV			1
286 199 00220	CONNECTOR, BREAKAWAY CU	1/0 - 4/0 STR	1	1	1

UT15E: ELBOW, 15KV

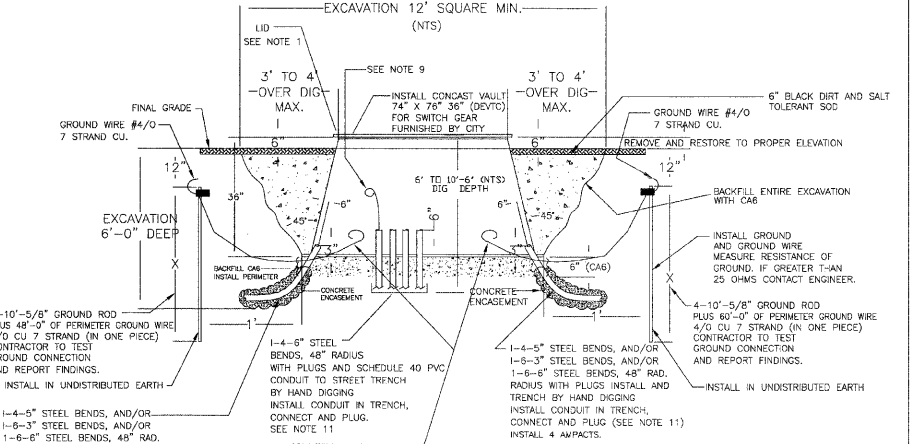
Item Code	Description 1	Description 2	10	10F	40	40F	C75	C99	10	40	75	99
284 109 00010	FUSE, ELBOW 8kV	30A										
284 117 00020	ELBOW, FUSED 8.3KV 200A	1/0 STR AL 175-220 MIL		1								
284 117 00030	ELBOW, 15KV 200A	1/0 STR AL 175-220 MIL			1							
284 117 00031	ELBOW, 15KV 200A EXTENDED	1/0 STR AL 175-220 MIL									1	
284 117 00040	ELBOW, 15KV 200A	4/0 STR AL 175-220 MIL										1
284 117 00041	ELBOW, 15KV 200A EXTENDED	4/0 STR AL 175-220 MIL										1
284 117 00065	ELBOW, 15KV 600A, W/LRTP	750 MCM STR AL 175-220 MIL										1
284 117 00066	ELBOW, 15KV 600A EXTENDED	750 MCM STR AL 175-220 MIL										1
284 117 00065	ELBOW, 15KV 600A, W/LRTP	1000 MCM STR AL 175-220 MIL										1
284 117 00098	ELBOW, 15KV 600A EXTENDED	1000 MCM STR AL 175-220 MIL										1
284 117 00400	ELBOW, 15KV 600A	4/0 STR AL 175-220 MIL										1
284 117 00430	KIT CABLE JACKET SEAL	1/0-4/0 (0.85"-1.50")	1	1	1	1	1	1	1	1	1	1
284 117 00440	KIT CABLE JACKET SEAL	250-1000 MCM (1.50"-2.67")										
255 199 00100	CABLE CLEANER	QUARTS	.01	.01	.01	.01	.01	.01	.01	.01	.01	.01
284 199 00120	CAP, INSULATED W/GROUND	15KV 200A										1

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	3Ø 15kV AIR SWITCH MODULE ASSEMBLY	DATE: 10-22-06 PAGE: 3 OF 3 C30-0013
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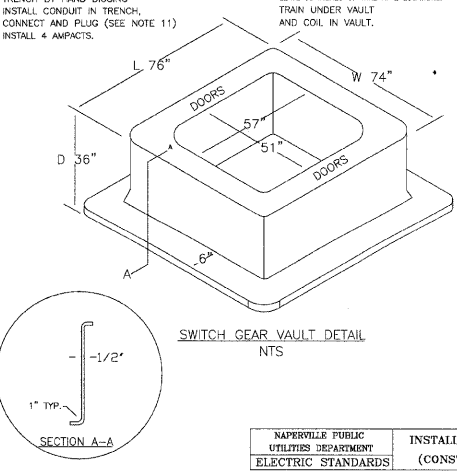


- NOTE:**
- 1) INSTALL THIS COVER OVER SWITCH GEAR VAULT UNTIL SWITCH IS INSTALLED.
 - 2) RETURN COVER TO CITY OF NAPERVILLE'S STOCK ROOM.
 - 3) CONTRACTOR TO FURNISH LID.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	SWITCH GEAR VAULT COVER (50 LBS.)	DATE: 05-01-05 Page 1 of 1 56270-110
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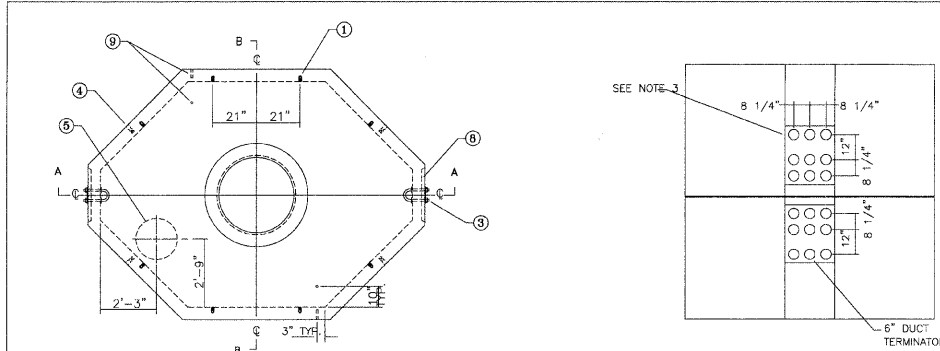
- NOTES:**
- 1) INSTALL LID OVER OPENING FURNISHED BY CONTRACTOR.
 - 2) ESTIMATED WEIGHT - 700 LBS TO 800 LBS.
 - 3) VAULT MATERIAL - FIBERCRETE FORMED.
 - 4) INSTALL TOP OF VAULT 6" ABOVE FINAL GRADE.
 - 5) INSTALL GALVANIZED STEEL ELBOWS INTO VAULT.
 - 6) CONTACT CITY ELECTRICAL ENGINEER FOR LOCATION OF THE ELBOWS IN THE VAULT AND ORIENTATION OF VAULT.
 - 7) INSTALL 4-5/8" DIA. X 10'-0" LONG GROUND RODS FOR EACH VAULT. LOCATE ONE ROD AT EACH OF THE CORNERS. INSTALL 1 FOOT FROM THE CORNER. GROUND ROD TO BE DRIVEN 12" BELOW FINISHED GRADE.
 - 8) ALL MATERIALS INSTALLED SHALL BE FURNISHED BY CITY OF NAPERVILLE OR CONTRACTOR AS NEW AT EACH LOCATION USED MATERIALS ARE NOT ACCEPTABLE.
 - 9) INSTALL MULE TAPE OR #12 COPPER WIRE THIN INTO VAULT AND TIE OFF TO LID AND LEAVE TAIL TO CONNECT TOO.
 - 10) TEST GROUNDS TO 25 OHMS (REPORT FINDINGS).
 - 11) BENDS SHALL BE INSTALLED PER FIELD CONDITIONS USE 11', 22', 30', 45' AND 90' STEEL BENDS.
 - 12) CONTACT ON SITE INSPECTOR FOR ORIENTATION ONLY.
 - 13) TESTING EQUIPMENT BY CONTRACTOR.
 - 14) TESTING RESULTS TO BE GIVEN TO THE CITY IN WRITTEN FORM.
 - 15) VAULT, GROUND MATERIALS, PLASTIC AND STEEL BENDS AND GROUND WIRE FURNISHED BY CITY, INSTALLED BY CONTRACTOR.
 - 16) CUT VAULT TO INSTALL CONDUIT AS REQUIRED.
 - 17) SEE SPEC. C30-6332 FOR VAULT EXTENDER.



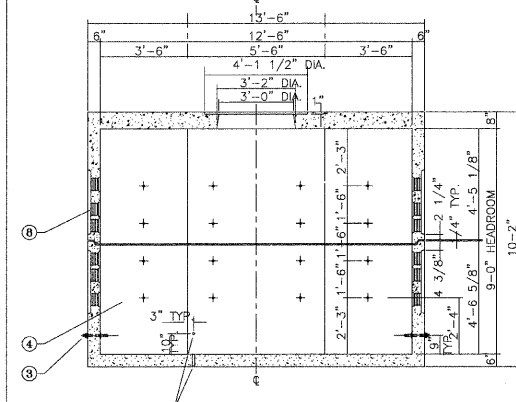
NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	INSTALL NEW SWITCH GEAR VAULT	DATE: 05-01-06 Page 1 of 1 56270-120
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.	CAD FILE	
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION		00546790001D11.DWG	
PROJECT DESCRIPTION	PROJECT NO.	DRAWN BY:	
DETAILS	EU13-04-06	JK, PM	
DATE	4-01	WORK REQUEST NO.	CHKD:
09			
ISSUED		54679	SBC:
ENGINEER	PSM		APRV:
REVISION	1	2	3
SCALE:	NTS		
SHEET NO.	SHEET 11 OF 30		

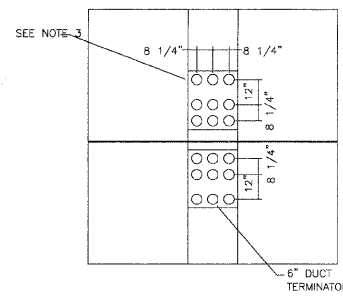
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	67
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				



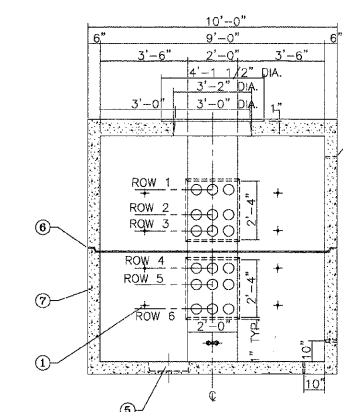
PLAN VIEW



SECTION A-A



6" DUCT TERMINATOR
ENDWALL SHOWN

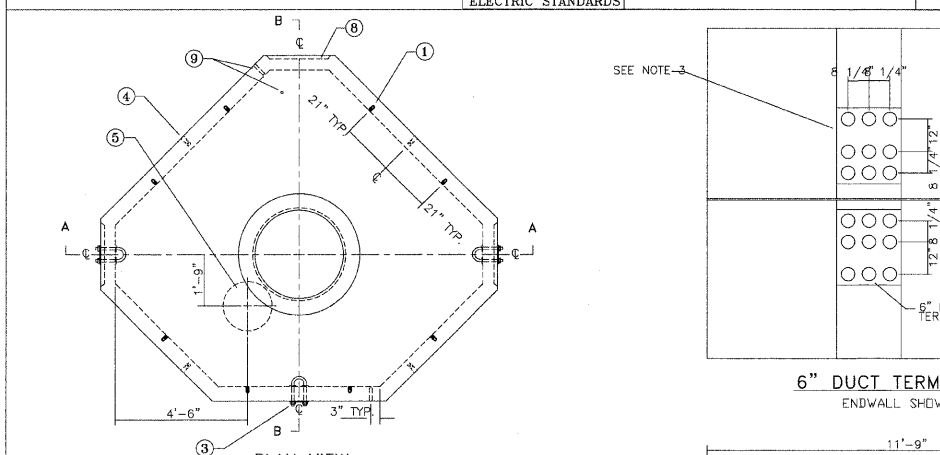


SECTION B-B

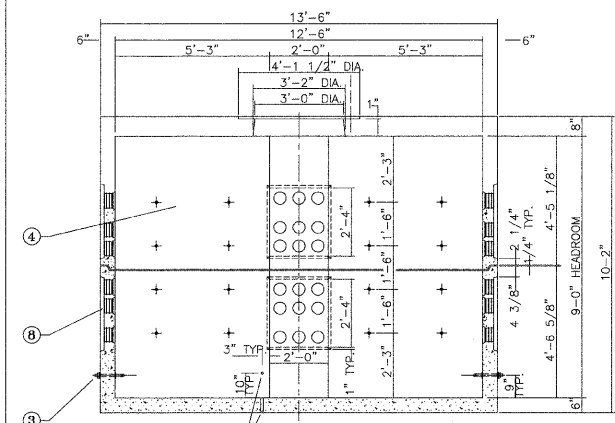
ITEM	DESCRIPTION	QTY	NOTE
	TOTAL MANHOLE WEIGHT	4500 P.S.I. CONC.	43,000 LBS.
⑦	TOP SECTION WEIGHT		22,000 LBS.
	BASE SECTION WEIGHT		21,000 LBS.
⑦	REBAR, EPOXY COATED		2
⑨	1" x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT	4	
⑧	6" DUCT TERMINATORS	36	3
⑥	1" BUTYL RUBBER JOINT SEALANT	4 ROLLS	
⑤	IBT SUMP DEPRESSION	1	
④	6" LIFTING ANCHORS	8	
③	1" S.S. PULLING IRONS	2	4
①	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER	32	

- NOTES:
- CONCRETE: 4500 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
 - DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
 - PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES.
 - B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
 - EARTH COVER: MIN. 2.0', MAX. 5.0'
 - AASHTO HS-20 WHEEL LOAD AND APPLICABLE IMPACT.
 - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
 - GROUNDWATER AT 3'-0" BELOW GRADE.
 - C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
 - SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

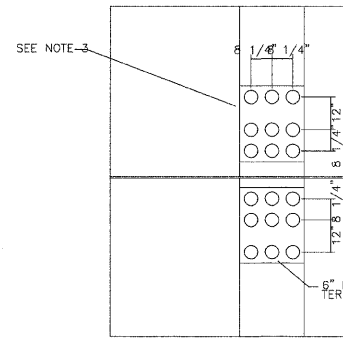
NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	TYPE E MANHOLE	DATE: 12-24-04 M30-1160
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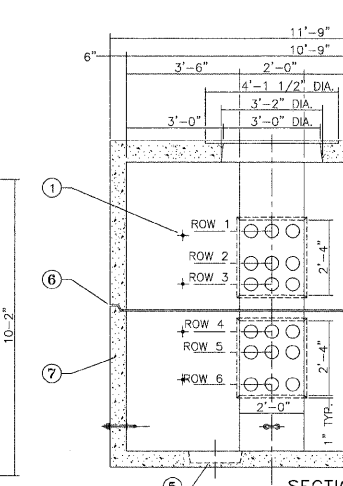
PLAN VIEW



SECTION A-A



6" DUCT TERMINATOR
ENDWALL SHOWN



SECTION B-B

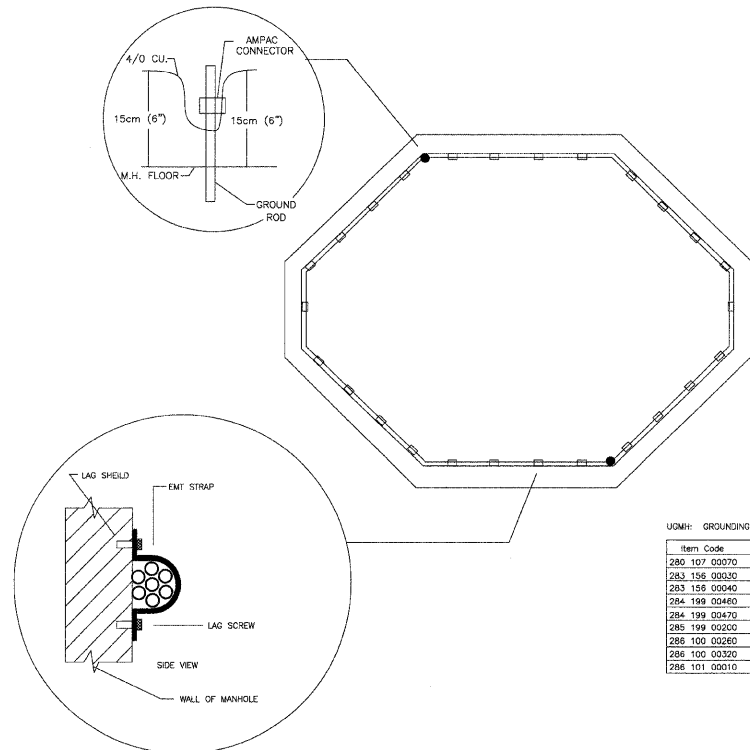
ITEM	DESCRIPTION	QTY	NOTE
	TOTAL MANHOLE WEIGHT	4500 P.S.I. CONC.	46,000 LBS.
⑦	TOP SECTION WEIGHT		24,000 LBS.
	BASE SECTION WEIGHT		22,000 LBS.
⑦	REBAR, EPOXY COATED		2
⑨	1" x 5 1/2" GROUND WIRE HOLE, 1/2" KNOCKOUT	4	
⑧	6" DUCT TERMINATORS	54	3
⑥	1" BUTYL RUBBER JOINT SEALANT	4 ROLLS	
⑤	IBT SUMP DEPRESSION	1	
④	6" LIFTING ANCHORS	8	
③	1" S.S. PULLING IRONS	3	4
①	CABLE RACK INSERTS: 1/2" 304 STAINLESS STEEL THREADED INSERTS EACH WITH 1/2" x 2" 304 S.S. HEX HEAD BOLT, 1/2" S.S. WASHER, AND 1/2" PVC WASHER	32	

- NOTES:
- CONCRETE: 4500 psi @ 28 DAYS, 5%-8% ENTRAINED AIR, 4" MAX. SLUMP.
 - REBAR: ASTM A-615 GRD. 60, EPOXY COATED.
 - DUCT ENTRANCE: SINGLE DUCT TERMINATORS TO ACCEPT 6" DIAMETER SCH. 40 PVC CONDUIT. SEE DETAIL THIS SHEET.
 - PLEASE NOTE PULLING IRON DESIGNED AS PER A.C.I. 318 FOR WORKING LOAD CAPACITY OF 28,000 POUNDS APPLIED COINCIDENT TO THE MAJOR AXIS OF THE PULLING IRON.
 - IDENTIFICATION: IMPRESSED INTO CEILING OF VAULT.
 - DESIGN CRITERIA:
 - A.) DESIGNED AND BUILT IN ACCORDANCE WITH ASTM C858 STANDARD SPECIFICATION FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES.
 - B.) ALL LOADING AS PER ASTM C857 "MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" INCLUDING:
 - EARTH COVER: MIN. 2.0', MAX. 5.0'
 - AASHTO HS-20 WHEEL LOAD AND APPLICABLE IMPACT.
 - VERTICAL AND LATERAL SOIL PRESSURES DETERMINED USING A SOIL DENSITY OF 120 PCF.
 - GROUNDWATER AT 3'-0" BELOW GRADE.
 - C.) STRUCTURAL DESIGN PERFORMED USING AASHTO STRENGTH DESIGN METHOD.
 - D.) REINFORCING COVER REQUIREMENTS AS PER ACI 318.
 - SEE SPECIFICATION C30-1900 FOR ROW IDENTIFICATION WITH CONDUIT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	TYPE G MANHOLE	DATE: 12-24-04 M30-1170
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	MAP NO.:	CAD FILE: 00546790001012.DWG	
PROJECT DESCRIPTION MANHOLES DETAILS	DRAWN BY: JK, PM	PROJECT NO.:	
DATE 4-01 09	WORK REQUEST NO. 54679	CHKD:	PROJECT NO.:
ISSUED	APPR:	SBC:	COMPLETED BY:
ENGINEER PSM	SCALE: NTS	SHEET 12 OF 30	
REVISION	1 2 3		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	68
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

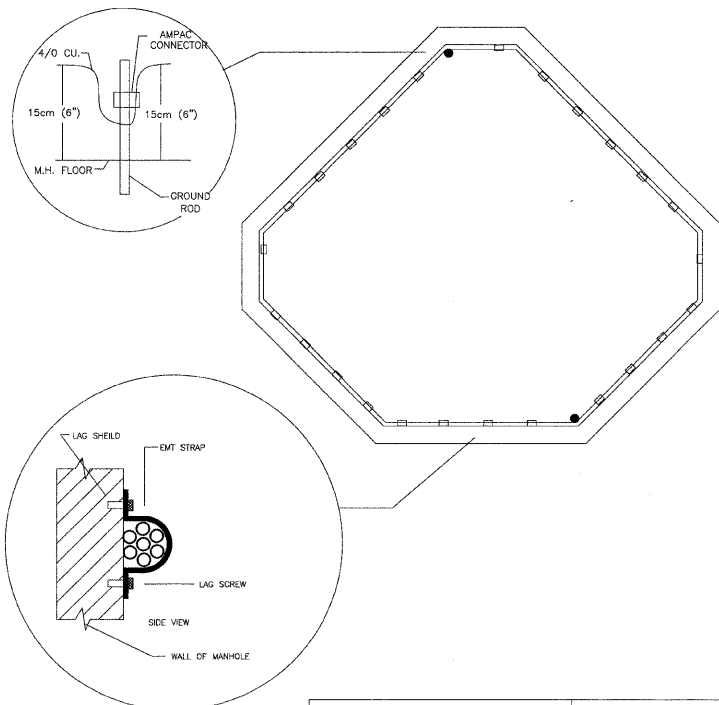


UGMH: GROUNDING MANHOLE				UGMH	UGMHG	UGMHR
Item Code	Description 1	Description 2	Qty	Qty	Qty	
280 107 00070	CU BARE SD	4/0 7-STR	40	40		
283 158 00030	GROUND ROD, COPPER CLAD	5/8" X 5' USE 10 FOOTER	4		4	
283 158 00040	COUPLING, BRONZE	5/8" ROD	2		2	
284 199 00460	LAG SHIELD, LEAD SHORT	1/4"	26			
284 199 00470	LAG SCREW, SS	1/4" X 1"	26	26		
285 199 00200	STRAP, EMT	1/2" SS	26	26		
286 100 00280	CONNECTOR, WEDGE CU	4/0 STR(7) - 4/0 STR(7)	1	1		
286 100 00320	CONNECTOR, WEDGE CU	4/0 STR(7) - 5/8" ROD	2	2		
286 101 00010	SHELL, WEDGE AMP	WHITE	3	3		

- KEEP 4/0 CU IN ONE PIECE AROUND INNER WALL; TIE TOGETHER WITH ONE AMPAC. 4/0 IS SUPPORTED ALONG INNER WALL OF M.H., 15cm (6") ABOVE M.H. FLOOR, AT (2 FOOT) INTERVALS.
- COPPER STRAP AND LEAD ANCHOR SHALL BE INSTALL AT 60cm (TWO FOOT) INTERVALS.
- THE TWO KNOCKOUTS IN THE FLOOR SHOULD BE USED. IF SOLID ROCK IS ENCOUNTERED UNDER THE MANHOLE, REFER TO ENGINEERING.
- TWO 1.5 METER (5') GROUND RODS AND ONE COUPLING SHOULD BE INSTALLED WITH A DRIVING STUD PER KNOCKOUT.

ASSEMBLY CODES		
CODE	QTY	DESCRIPTION
UGMH	1	GROUNDING MANHOLE

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING DETAIL TYPE "E" MANHOLE	DATE: 03-17-04 C30-1160
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UGMH: GROUNDING MANHOLE				UGMH	UGMHG	UGMHR
Item Code	Description 1	Description 2	Qty	Qty	Qty	
280 107 00070	CU BARE SD	4/0 7-STR	40	40		
283 158 00030	GROUND ROD, COPPER CLAD	5/8" X 5' USE 10 FOOTER	4		4	
283 158 00040	COUPLING, BRONZE	5/8" ROD	2		2	
284 199 00460	LAG SHIELD, LEAD SHORT	1/4"	26			
284 199 00470	LAG SCREW, SS	1/4" X 1"	26	26		
285 199 00200	STRAP, EMT	1/2" SS	26	26		
286 100 00280	CONNECTOR, WEDGE CU	4/0 STR(7) - 4/0 STR(7)	1	1		
286 100 00320	CONNECTOR, WEDGE CU	4/0 STR(7) - 5/8" ROD	2	2		
286 101 00010	SHELL, WEDGE AMP	WHITE	3	3		

- KEEP 4/0 CU IN ONE PIECE AROUND INNER WALL; TIE TOGETHER WITH ONE AMPAC. 4/0 IS SUPPORTED ALONG INNER WALL OF M.H., 15cm (6") ABOVE M.H. FLOOR, AT (2 FOOT) INTERVALS.
- COPPER STRAP AND LEAD ANCHOR SHALL BE INSTALL AT 60cm (TWO FOOT) INTERVALS.
- THE TWO KNOCKOUTS IN THE FLOOR SHOULD BE USED. IF SOLID ROCK IS ENCOUNTERED UNDER THE MANHOLE, REFER TO ENGINEERING.
- TWO 1.5 METER (5') GROUND RODS AND ONE COUPLING SHOULD BE INSTALLED WITH A DRIVING STUD PER KNOCKOUT.

ASSEMBLY CODES		
CODE	QTY	DESCRIPTION
UGMH	1	GROUNDING MANHOLE

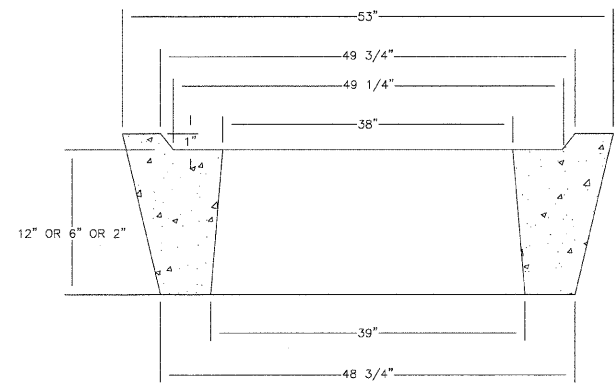
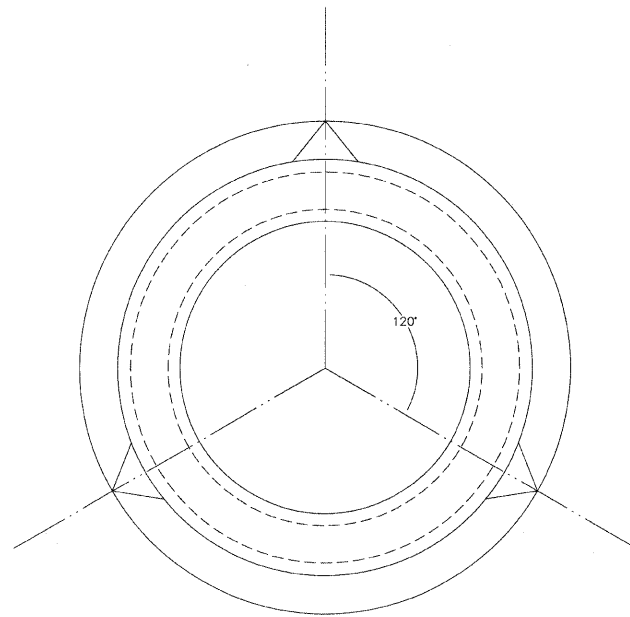
NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING DETAIL TYPE "G" MANHOLE	DATE: 03-17-04 C30-1170
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NOTES:

- ALL MANHOLES SHALL BE INSTALLED AND GROUNDS INSTALLED AND GROUND RODS TESTED IMMEDIATELY.
- IF TESTING INDICATES A GROUND RESISTANCE MORE THAN 25 OHMS ADDITIONAL RODS NEED TO BE ADDED OR COUNTER POISE INSTALLED.
- THE COUNTER POISE IF REQUIRED, WILL BE INSTALLED IN THE TRENCH WHEN THE DUCT IS INSTALLED. INSTALL 4/0 BARE 7-STRAND COPPER WIRE THRU THE 2-KNOCKOUTS IN WALL. TRAIN AROUND MANHOLE TO DUCT RUNS AND INSTALL 200 FEET OF COUNTER POISE IN TWO DIRECTIONS FROM MANHOLE ABOVE DUCT AND BEFORE BACK FILLING.
- CONTRACTOR IS ADVISED IF THE DUCT IS INSTALLED PRIOR TO MANHOLE WORK. THE CONTRACTOR SHALL TEST SOIL RESISTANCE AT MANHOLE LOCATION PRIOR TO INSTALLING DUCT.
- AFTER COUNTER POISE IS INSTALLED GROUNDS SHALL BE RETESTED AND FINDINGS GIVEN TO THE CITY.

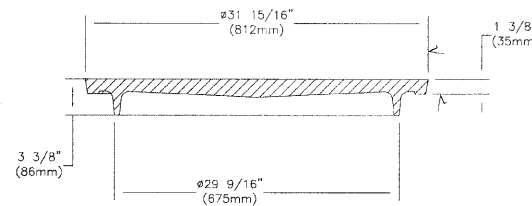
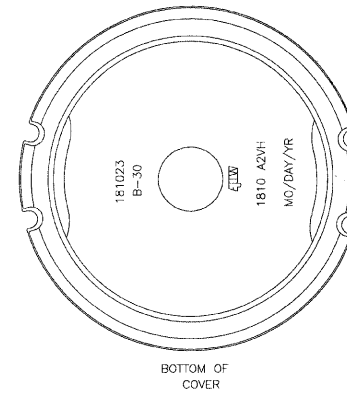
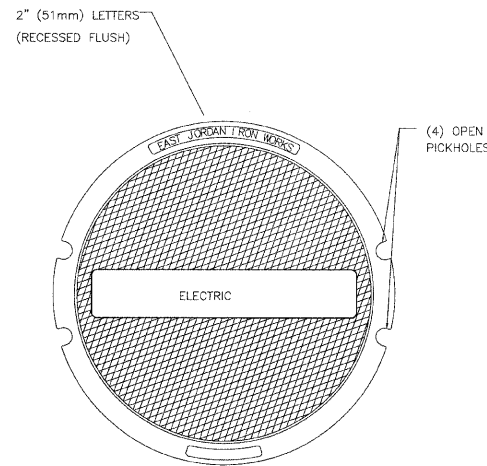
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE	MAP NO.:	CAD FILE:			
JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION		0054679001D13.DWG			
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:			
MANHOLE DETAILS	JK, PM	EU13-04-06			
DATE	4-01 09	WORK REQUEST NO.	CHKD:	SBC:	COMPLETED BY:
		54679			
ISSUED	PSM	APPR:	SCALE:		
ENGINEER			NTS	SHEET 13 OF 30	
REVISION	1	2	3		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	69
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				



- NOTES:
1. CONCRETE 4500 PSI AT 28 DAYS
 2. EACH ADJUSTING RING SHALL COME WITH 14 FEET OF 1" INCH DIAMETER JOINT SEALANT TAPE.

**MANHOLE
ADJUSTING RING**

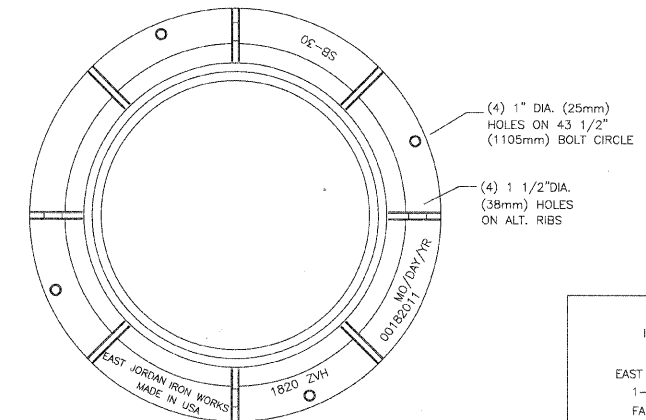


EAST JORDAN
IRON WORKS, INC.
P.O. BOX 439
EAST JORDAN, MI. 49727
1-800-874-4100
FAX 231-536-4458

EST. WT.
COVER: 295 LBS 134kg

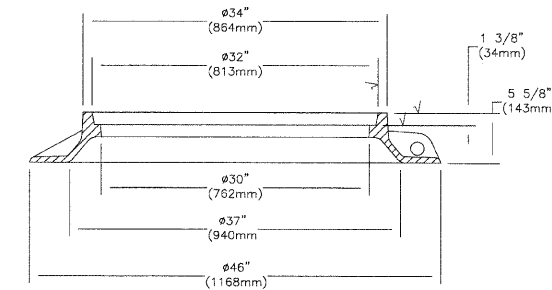
✓ MACHINED SURFACE

COVER SECTION



EAST JORDAN
IRON WORKS, INC.
P.O. BOX 439
EAST JORDAN, MI. 49727
1-800-874-4100
FAX 231-536-4458

EST. WT.
FRAME: 295 LBS 134kg



✓ MACHINED SURFACE

FRAME SECTION

NOTES:

- 1) CONTRACTOR IS ADVISED THE MANHOLE AS SUPPLIED FROM UTILITY CONCRETE PRODUCTS (UCP). IS SHIPPED WITH 2-12" ADJUSTING RING ONLY.
- 2) CONTRACTOR IS ADVISED THAT 2" AND 6" ADJUSTING RINGS ARE AVAILABLE FROM THE CITY, IF REQUESTED BY THE CONTRACTOR. CONTRACTOR TO PICK UP AND IS INCIDENTAL TO THE CONTRACT.
- 3) COVERS AND FRAME SECTIONS ARE TO BE PICKED UP AT THE CITY STORAGE YARD AND IS INCIDENTAL TO THE CONTRACT.

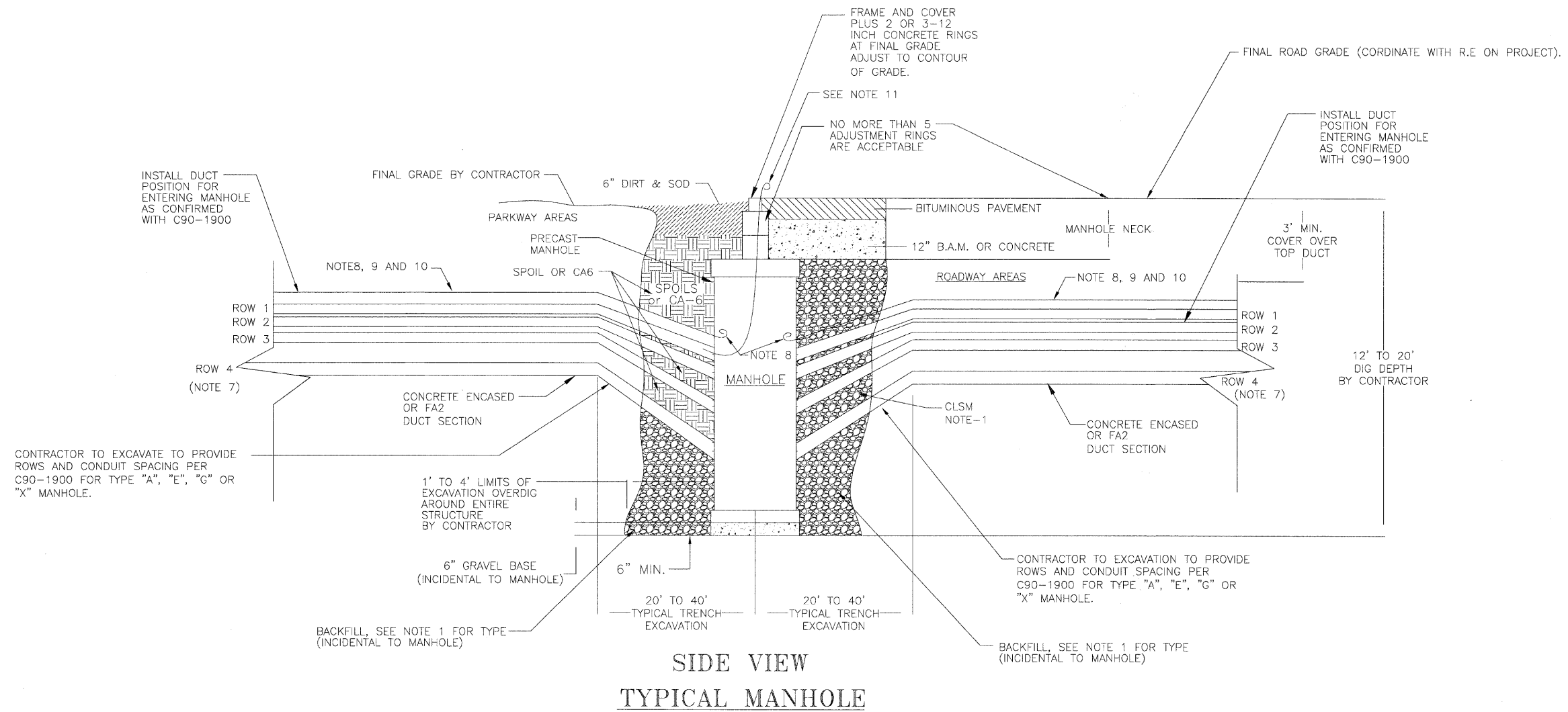
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		MAP NO.: -	CAD FILE: 0054679001D14.DWG
PROJECT DESCRIPTION MANHOLE DETAILS		DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06
DATE 4-01 09	WORK REQUEST NO. 54679	CHKD:	COMPLETED BY:
ISSUED	ENGINEER PSM	APRV:	SCALE: NTS
REVISION	1 2 3		SHEET 14 OF 30

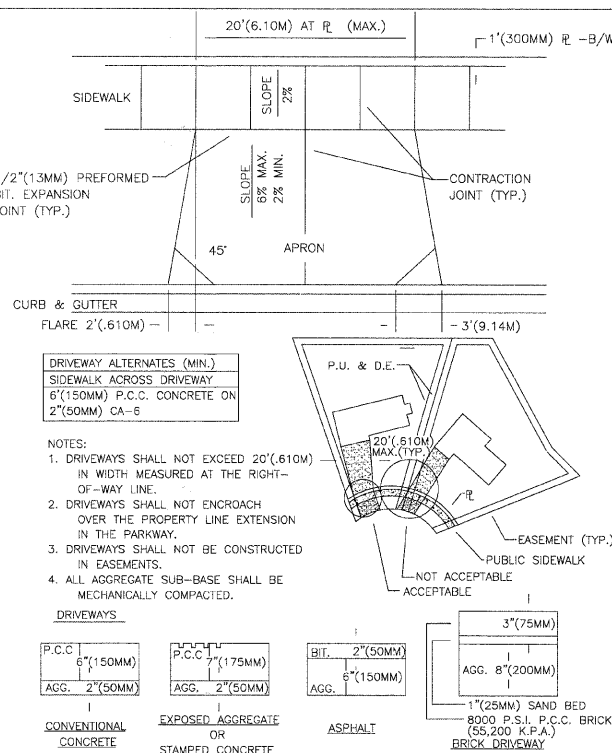
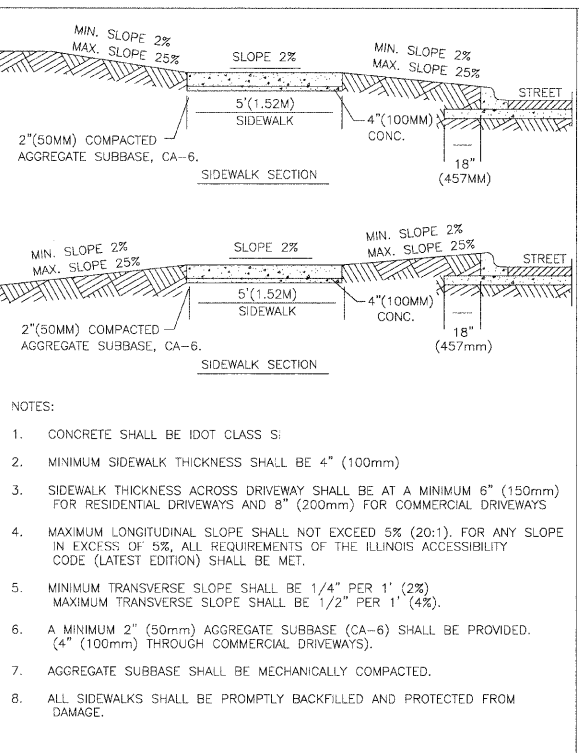
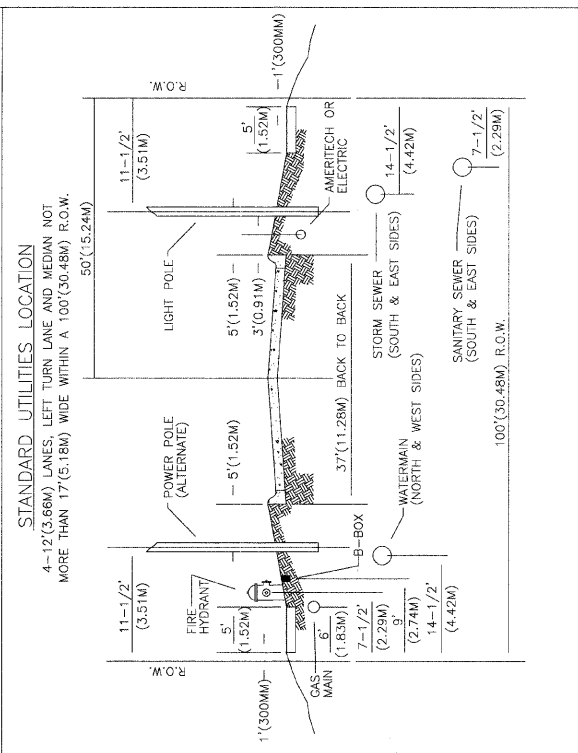
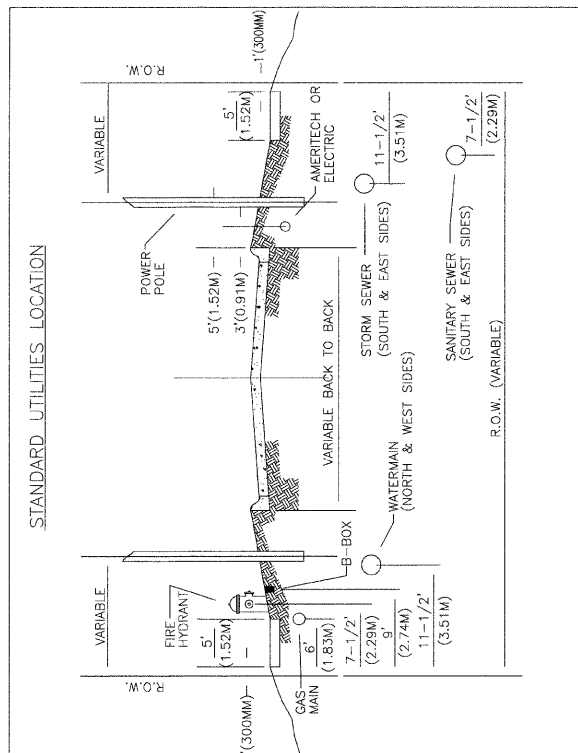
TYPICAL EXCAVATION DETAIL TYPE "A", "E", "G" OR "X" MANHOLE

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	70
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT 83827				



- NOTE:**
1. CA6 BACKFILL TO BE PLACED 360 DEGREES AROUND MANHOLES TO GRADE. MINUS SURFACE RESTORATION. WHERE MANHOLE IS WITHIN 5' OF ROADWAY, CLSM BACKFILL TO BE USED TO FILL TO TOP OF ROOF OF MANHOLE AND CA6 BACKFILL TO FILL TO GRADE.
 2. SEE MANHOLE DETAIL DRAWINGS FOR DIMENSIONS AND WEIGHT.
 3. CONTRACTOR TO ESTABLISH FINAL ELEVATION, LEVEL AND GRADE FOR MANHOLE.
 4. MANHOLES DELIVERED TO SITE BY MANUFACTURER. CONTRACTOR TO COORDINATE UNLOAD, STORE AND INSTALL (TAIL GATE DELIVERY BY UCP).
 5. CONTRACTOR SHALL SUPPORT AND REROUTE UTILITIES AS REQUIRED.
 6. CONTRACTOR SHALL INSTALL CONDUIT INTO MANHOLES PER C30-1900, AND IS PART OF PRICE TO INSTALL MANHOLE.
 7. ROWS 5 AND 6 OMITTED FOR CLARITY.
 8. LEAVE 20 FEET OF 4/0 BARE COPPER CONDUCTOR FOR TAIL (COUNTER POISE).
 9. INSTALL 250 FEET OF 4/0 BARE COPPER CONDUCTOR ABOVE DUCT BANK, COUNTER POISE, IF NEEDED IN 2 DIRECTIONS..
 10. CORE DRILL 1 1/2" HOLE THRU WALL OF 6" THICK MANHOLE WALL TO CONNECT COUNTER POISE. IF KNOCK OUTS ARE NOT INSTALLED.
 11. INSTALL #12 THHN WIRE (25' AND COIL) FROM MIDDLE DUCT TO MANHOLE COVER, LEAVING 12" TAIL (USED FOR LOCATING).
 12. ALL OF THE ABOVE ITEMS AND DETAIL EXCEPT ITEM 9, ARE INCLUDED IN THE COST OF INSTALLING THE MANHOLE.
 13. INSTALL MANHOLE PER O.S.H.A REGULATIONS OF LATEST ISSUE.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC				
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION				
PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		MAP NO.:	CAD FILE: 0054679001D15.DWG	
PROJECT DESCRIPTION MANHOLE DETAILS		DRAWN BY: JK, PM	PROJECT NO.:	
DATE 4-01 09	WORK REQUEST NO. 54679	CHKD:	COMPLETED BY:	
ISSUED PSM	APRV:	SCALE: NTS	SHEET 15 OF 30	
REVISION	1	2	3	



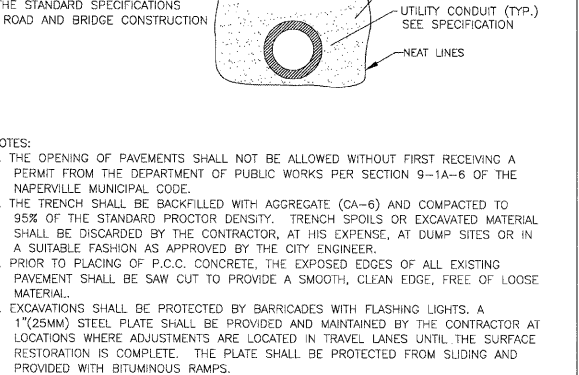
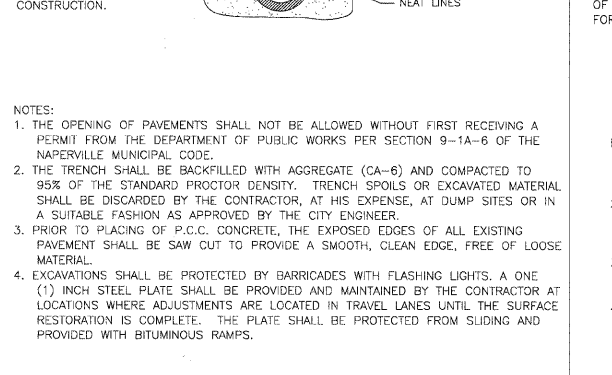
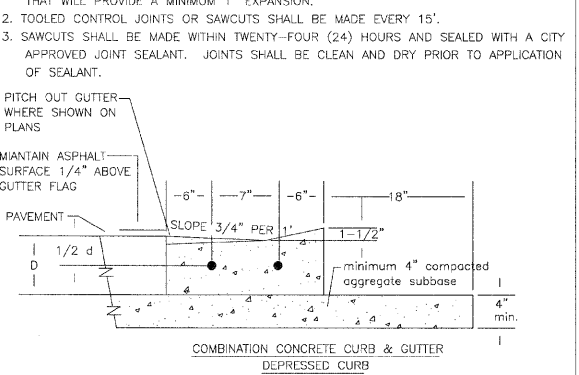
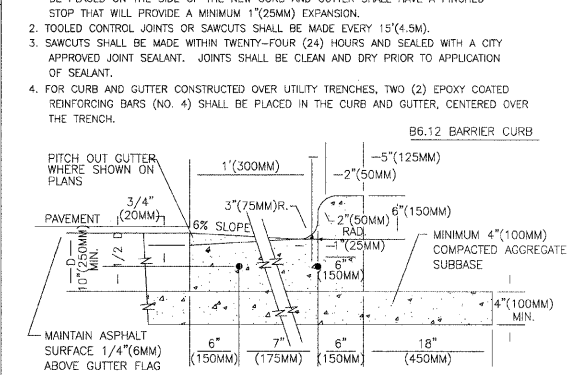
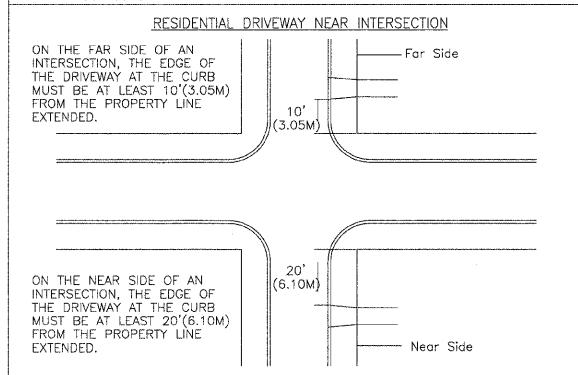
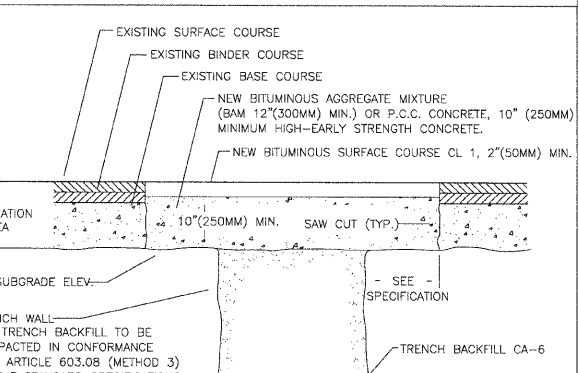
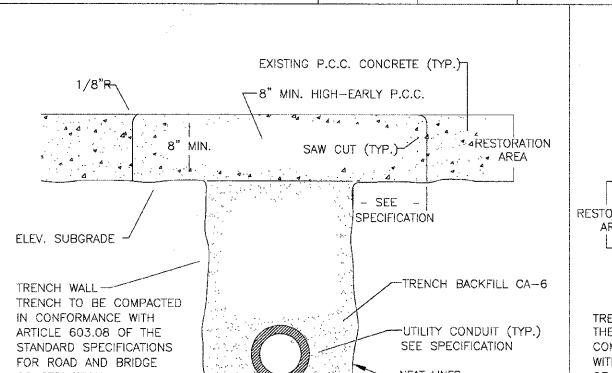
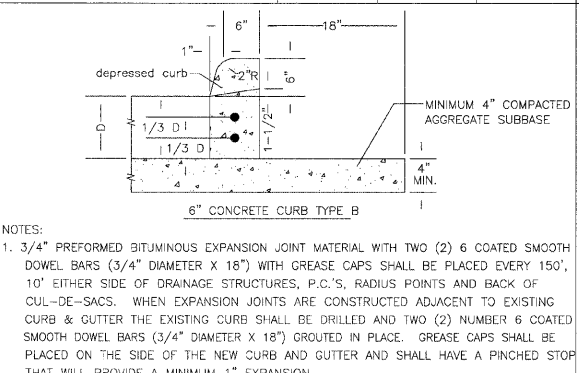
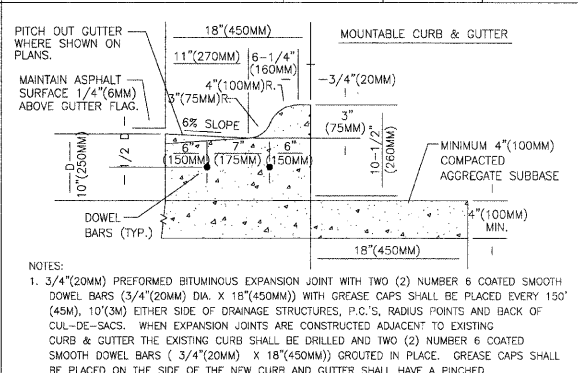
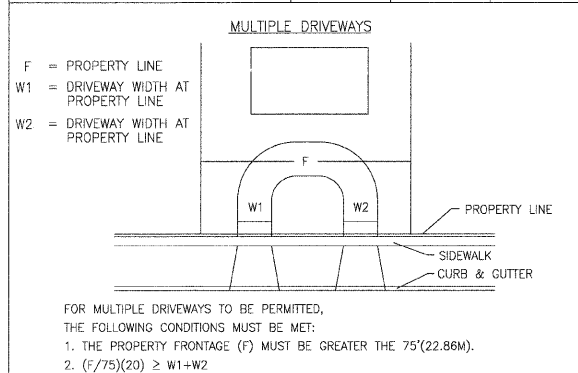
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	71
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

Title: STANDARD UTILITIES LOCATION
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 9/21/98 REV: SHEET: 1 OF 2 Detail: MISC 1

Title: STANDARD UTILITIES LOCATION
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 9/29/98 REV: SHEET: 2 OF 2 Detail: MISC 1

Title: SIDEWALK
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 6/8/98 REV: SHEET: PVMT 3

Title: TYPICAL RESIDENTIAL DRIVEWAY DETAIL
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 6/2/98 REV: SHEET: 1 OF 2 Detail: PVMT 9



Title: TYPICAL RESIDENTIAL DRIVEWAY DETAIL
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 6/2/98 REV: SHEET: 2 OF 2 Detail: PVMT 9

Title: CURB & GUTTER
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 6/2/98 REV: SHEET: PVMT 11

Title: Curb & Gutter
City of Naperville Standard Detail
Scale: N.T.S. Date: 11/13/94 Detail: PVMT 12

Title: Utility Trench Paving Section Thru Existing Rigid Pavements
City of Naperville Standard Detail
Scale: N.T.S. Date: 1/13/94 Detail: PVMT 14

Title: UTILITY TRENCH PAVING SECTION THROUGH EXISTING FLEXIBLE PAVEMENTS
CITY OF NAPERVILLE STANDARD DETAIL
Approved By: DATE: 6/8/98 REV: SHEET: PVMT 15

NOTES:
1) SEE GENERAL SPECIFICATIONS FOR CHANGES TO THE ABOVE SPECIFICATIONS.

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.	CAD FILE:	
75TH ST. AND WASHINGTON ST. ROAD IMPROVEMENTS		0054679001D16.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
TRENCH SECTION DETAILS	JK, PM	EU13-04-06	
DATE	WORK REQUEST NO.	CHKD:	COMPLETED BY:
4-01-09	54679		
ISSUED	ENGINEER	APPRV:	SCALE:
PSM			NTS
REVISION	1	2	3
			SHEET 16 OF 30

CONDUIT RUN TRENCH PREPARATION

THESE INSTRUCTIONS COVER DESIGN AND CONSTRUCTION INFORMATION NECESSARY FOR THE LAY-OUT AND INSTALLATION OF CONDUIT RUNS.

SAFEGUARDING UNDERGROUND FACILITIES

IN ORDER TO SAFEGUARD THE UNDERGROUND FACILITIES OF BOTH THE CITY OF NAPERVILLE AND OTHERS, APPLICABLE INSTRUCTIONS AND PROCEDURES COVERING THE PROVISIONS OF ANY AGREEMENT BETWEEN THE CITY OF NAPERVILLE AND ANOTHER UTILITY CONCERNING INTERCHANGE OF INFORMATION AND CONSTRUCTION WORK PRACTICES SHALL BE FOLLOWED. BEFORE ANY SOIL IS DISTURBED, J.U.L.I.E. MUST BE NOTIFIED TO MARK ALL UTILITIES IN THE AREA OF THE TRENCH.

CONDUIT RUN LAYOUT

CONDUIT RUNS AND MANHOLES SHOULD BE LOCATED SO THAT THE RUN WILL FOLLOW AS NEARLY AS POSSIBLE A STRAIGHT LINE BETWEEN MANHOLES. IF OBSTRUCTIONS MAKE THIS IMPRACTICAL, THE RUN MAY BE CURVED AS NECESSARY.

CONDUIT RUNS BETWEEN MANHOLES SHALL HAVE AN OVERALL LENGTH FROM MANHOLE TO MANHOLE NOT TO EXCEED 475 FT. SPECIAL CASES INVOLVING LONGER LENGTHS MAY BE CONSIDERED BY THE ENGINEER, BUT ONLY IF SPECIALLY ORDERED CABLE REELS CAN ACCOMMODATE THIS LONG-FULL CONSTRUCTION.

A CONDUIT RUN MAY ENTER A STANDARD MANHOLE AT A MAXIMUM ANGLE OF 15° TO THE RESPECTIVE AXIS OF THE MANHOLE. IN CASES WHERE A LARGER ANGLE IS REQUIRED, THE MANHOLE SHALL BE REDESIGNED TO OBTAIN SATISFACTORY CABLE PULLING AND TRAINING CONDITIONS. IN LOCATIONS WHERE STREET LINES ARE NOT DETERMINED BY CURBS, SIDEWALKS OR BUILDINGS, THE EXACT POSITION OF THE CONDUIT RUN SHALL BE DETERMINED BY A SURVEY.

THE PROPOSED TRENCH MAY BE MARKED OFF BY MEANS OF A CHALK LINE IN UNPAVED TERRITORY AND BY A ROUTE IDENTIFICATION SPRAY PAINTED IN PAVED TERRITORY. BOTH SIDES OF THE TRENCH SHALL BE MARKED IF THE TRENCH IS TO BE DUG BY HAND. IF A MACHINE IS TO BE USED, ONLY ONE SIDE OF THE TRENCH NEED BE MARKED.

EXCAVATION

THE STANDARD WIDTH OF THE TRENCH SHALL BE EQUAL TO THE OVERALL WIDTH OF THE CONDUIT RUN AS SHOWN ON PAGE 6 FOR REGULAR FORMATIONS, AND SHALL BE ADJUSTED TO INCLUDE WHERE TRANPOSITIONS ARE NECESSARY TO PASS OBSTRUCTIONS. THE SIDES OF THE TRENCH SHALL BE TRIMMED SMOOTHLY TO GIVE A UNIFORM THICKNESS OF CONCRETE AROUND THE CONDUIT. THE SIDES OF THE EXCAVATION SHALL BE SHORED IN ACCORDANCE WITH SAFETY REGULATING COMMISSION PRACTICES TO PREVENT CAVE-INS.

DEPTH OF TRENCH

THE DEPTH OF THE TRENCH IN THE RUN IS GOVERNED BY THE MINIMUM DEPTH OF THE CONDUIT RUN BELOW THE STREET SURFACE OR ESTABLISHED GRADE, THE HEIGHT OF THE DUCT SECTION, AND THE PRESENCE OF OBSTRUCTIONS. AT THE APPROACH TO THE MANHOLE, THE MINIMUM DISTANCE FROM THE MANHOLE ROOF TO THE TOP DUCTS AND THE FANNING OF THE DUCTS AT THE DUCT ENTRANCE OF THE MANHOLE ALSO GOVERN THE DEPTH OF THE TRENCH.

IF CINDERS, SLAG, RUBBISH FILL OR OTHER MATERIAL HAVING POOR HEAT CONDUCTING PROPERTIES ARE UNCOVERED IN THE EXCAVATION, THE WIDTH AND DEPTH OF THE TRENCH SHALL BE INCREASED. THIS EXTRA SPACE IS TO PROVIDE FOR THE PLACING OF SPECIAL BACKFILL GRAVEL AROUND THE CONDUIT.

THE MINIMUM DISTANCE FROM THE TOP OF A CONDUIT RUN TO THE SURFACE OF A ROADWAY OR ESTABLISHED GRADE SHALL BE 2 FEET 6 INCHES EXCEPT WHERE THE CONDUIT PASSES UNDER A VIADUCT AND CAUSES A SUMP IN THE LINE. IN THIS CASE THE MINIMUM DISTANCE SHALL BE 3 FEET 0 INCHES. CONDUIT RUNS WHICH PASS UNDER RAILROAD SWITCH TRACKS, OR MAIN LINE TRACKS SHALL HAVE THE MINIMUM DISTANCE OF 4 FEET 2 INCHES BELOW THE TOP OF THE RAIL.

THE HEIGHT OF THE DUCT SECTION FOR VARIOUS STANDARD CONDUIT FORMATIONS OF DUCTS IS SHOWN ON PAGE 6, AND SHALL BE ADJUSTED FOR TRANPOSITION SECTIONS.

THE MINIMUM DISTANCE FROM THE TOP OF THE DUCTS TO THE MANHOLE ROOF IS SPECIFIED ON THE MANHOLE DRAWINGS AND THE SEPARATION OF THE DUCTS AT THE MANHOLE DUCT ENTRANCE IS SHOWN ON THE MANHOLE STANDARDS. THIS WILL DETERMINE THE MINIMUM WIDTH AND DEPTH OF THE TRENCH AT THE MANHOLE.

OBSTRUCTIONS AFFECT THE DEPTH OF THE TRENCH IN THAT THE GRADE OF THE CONDUIT RUN MUST BE ADJUSTED TO AVOID THEM. THE ENTIRE TRENCH SHOULD BE OPENED BETWEEN MANHOLES BEFORE ANY CONDUIT IS LAID TO ASCERTAIN THE EXISTENCE AND POSITION OF ANY OBSTRUCTIONS.

WHEN THE REQUIRED DEPTH OF THE TRENCH IS KNOWN FOR ALL POINTS, THE GRADE MAY BE ESTABLISHED.

GRADE

IN GENERAL, ALL CONDUIT RUNS SHALL BE UNIFORMLY GRADED SO THAT WATER WILL DRAIN INTO THE MANHOLES FROM ANY POINT IN THE RUN. THE EXCEPTIONS TO THIS RULE ARE CONDUIT RUNS WHICH PASS UNDER RIVERS, VIADUCTS, AND ABNORMAL OBSTRUCTIONS IN THE RUN. IT IS ESSENTIAL THAT THE CONDUIT RUN SHALL BE UNIFORMLY GRADED SO THAT THERE WILL BE NO RIPPLES IN THE RUN.

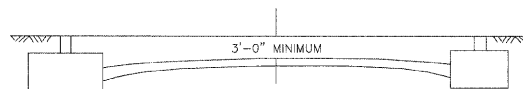
THE MINIMUM GRADE FOR A CONDUIT RUN SHALL BE 1 INCH PER 100 FT. ALL GRADES SHALL BE ESTABLISHED WITH A LEVEL BY THE CONTRACTOR'S ENGINEER AND MARKED BY WOODEN GRADE STAKES ON THE CENTER LINE OF THE BOTTOM OF THE TRENCH. THE STAKES SHALL BE SET 5 FT. APART WHEN CONCRETE CONDUIT IS TO BE INSTALLED AND 10 FT. APART FOR PLASTIC CONDUIT ALONE.

THE TOP OF THE GRADE STAKE SHALL INDICATE THE TOP SURFACE OF THE BOTTOM CONDUIT CONCRETE ENCASUREMENT.

AFTER THE GRADE OF THE CONDUIT RUN HAS BEEN ESTABLISHED BY MEANS OF THE GRADE STAKES, THE BOTTOM OF THE TRENCH SHALL BE TRIMMED 3 INCHES BELOW THE TOP OF THE STAKES EXCEPT WHERE THE TRENCH CROSSES A RAILROAD TRACK. IN SUCH CASES THE BOTTOM SHALL BE TRIMMED 6 INCHES BELOW THE TOP OF THE STAKES. TRENCHES WHICH HAVE BEEN DUG TOO DEEP AND THEN PARTIALLY REFILLED SHALL BE TAMPED SOLID AFTER REFILLING BEFORE POURING THE CONCRETE ENCASUREMENT.

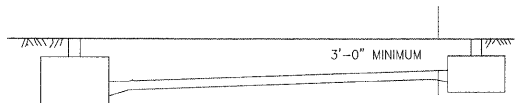
DOUBLE SLOPE GRADING

THE MOST DESIRABLE METHOD OF GRADING A CONDUIT RUN BETWEEN MANHOLES IS ILLUSTRATED IN THE SKETCH SHOWN BELOW. THE MINIMUM DISTANCE FROM THE TOP OF THE CONDUIT RUN TO THE STREET SURFACE IS 3 FT. 0 INCHES, AT THE CENTER OF THE RUN. FROM THERE THE RUN FALLS IN A DOUBLE SLOPE AND DRAINS TOWARD BOTH MANHOLES.



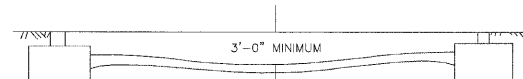
SINGLE SLOPE GRADING

WHERE THE STREET LEVEL SLOPES FROM ONE MANHOLE TO THE OTHER, OR WHERE OBSTRUCTIONS WILL NOT PERMIT DOUBLE SLOPE GRADING, THE CONDUIT RUN SHALL BE GRADED IN ONLY ONE DIRECTION AS SHOWN.



GRADING UNDER VIADUCT OR LARGE OBSTRUCTIONS

A CONDUIT RUN, WHICH IS TO BE INSTALLED UNDER A VIADUCT WHERE THE STREET GRADE IS DEPRECATED, OR UNDER A LARGE OBSTRUCTION, MAY BE GRADED WITH A SUMP IN THE LINE AS SHOWN, PROVIDED THAT THE SINGLE SLOPE GRADING METHOD IS NOT PRACTICAL OR ECONOMICAL. THE TOP OF THE RUN SHALL BE AT LEAST 3 FT. BELOW STREET GRADE TO PREVENT FREEZING. IF THE STREET GRADE IS LEVEL UNDER THE VIADUCT THIS RULE DOES NOT APPLY.



F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	72
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

CONDUIT RUN INSTALLATION

MONOLITHIC METHOD

APPLICATION

- THIS STANDARD COVERS THE PROCEDURE TO BE FOLLOWED WHEN INSTALLING CONCRETE ENCASED CONDUIT BY THE MONOLITHIC METHOD. THIS METHOD CONSISTS OF BUILDING UP THE LAYERS OF CONDUIT ON SPACERS AND THEN POURING THE CONCRETE ENCASUREMENT IN A MONOLITHIC MASS.

GENERAL

- THE SIZE AND TYPE OF CONDUIT IS GIVEN ON M30-1500 BUT SHALL BE SPECIFIED FOR EACH JOB ON THE INSTALLATION DRAWINGS.
- SPLIT CONDUIT, IF AVAILABLE, MAY BE USED TO REBUILD OR CHANGE THE LOCATION OF EXISTING DUCTS THAT CONTAIN CABLES.
- ALL CONDUIT TRENCHES SHALL BE DUG WITH A 100 FOOT HEADWAY TO ALLOW FOR VERTICAL ADJUSTMENTS.
- INSTALL ALL TRENCHES AS PER OSHA STANDARDS FOR OPEN CUTTING THE GROUND.
- ALL CONDUIT WITH BROKEN ENDS SHALL BE CUT, AND USED WHENEVER POSSIBLE.

TRENCH PREPARATION

THE PREPARATION OF THE TRENCH FOR CONDUIT RUNS SHALL BE AS PRESCRIBED ON PAGE 1 OF THIS STANDARD, WHERE SWAMPY OR UNSTABLE SOIL IS ENCOUNTERED, CONDUIT SHALL BE PLACED ON A CONCRETE BASE, LAYING THE CONDUIT AFTER THE CONCRETE IS LEVELLED AND STARTS TO SET. AT THIS POINT THE BASE OF THE CONCRETE WILL SUPPORT THE CONDUIT AND PERMIT THE BASE SPACERS TO BE DEPRECATED AND TO FIND AN EVEN BEARING WHILE THE BASE CONCRETE IS STILL YIELDING. THE BASE CONCRETE IS BY VOLUME: 1 PART PORTLAND CEMENT, 3 PARTS #2 TORPEDO SAND, AND 5 PARTS 3/4 INCH TO #4 GRAVEL (NOT CRUSHED STONE).

IF THE CONDUIT DOES NOT REST ON UNDISTURBED EARTH WITHIN 3 FEET OF THE MANHOLE OR VAULT, BRIDGE THE GAP TO THE UNDISTURBED EARTH WITH A 6 INCH BASE OF REINFORCED CONCRETE. THIS CONCRETE SHALL BE A "DENSE SHEATHING" (PAGE 5) WITH #4 REINFORCING BARS ON 6 INCH CENTERS, 3 INCHES FROM THE BOTTOM.

CONCRETE MIX FOR CONDUIT ENCASUREMENT (SHEATHING)

(a) READY-MIXED

READY MIXED CONCRETE DELIVERED TO THE JOB SHALL BE SPECIFIED AS 3000 POUNDS PER SQUARE INCH MINIMUM (AT 28 DAYS) CONCRETE. THE COARSE AGGREGATE SHALL BE PEA GRAVEL. THE FINE AGGREGATE SHALL BE #2 TORPEDO SAND. SLUMP AT POINT OF DELIVERY SHALL NOT BE MORE THAN 4 INCHES NOR LESS THAN 2 INCHES.

MINIMUM CEMENT CONTENT SHALL BE 3 1/2 BAGS OF TYPE I PORTLAND CEMENT PER CUBIC YARD. FLY ASH SHALL BE INCORPORATED INTO THE MIX ON THE BASIS OF 20 POUNDS PER SACK OF CEMENT. INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN BETWEEN 4 PERCENT AND 6 PERCENT OF AIR IN THE CONCRETE.

EXCEPT AS OTHERWISE DESIGNATED IN THIS STANDARD, ANY READY-MIXED CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SPECIFICATIONS FOR READY-MIXED CONCRETE (ASTM C94 LATEST EDITION).

READY-MIXED CONCRETE SHALL BE PLACED WITHIN 1 HOUR AFTER WATER HAS BEEN ADDED TO THE MIX.

(b) BATCH-MIXED

WHEN THE CONCRETE IS MIXED ON THE JOB, A PRE-BAGGED CEMENT MIX CONSISTING BY WEIGHT OF 70 PERCENT PORTLAND CEMENT AND 30 PERCENT FLY ASH SHALL NORMALLY BE USED. THE CONCRETE MIX PROPORTIONS BY VOLUME (RODDED SATURATED SURFACE DRY BASIS) SHALL BE: 1 PART OF PRE-BAGGED MIX (1 BAG IS 1 CUBIC FOOT), 3 1/2 PARTS OF #2 TORPEDO SAND, AND 2 1/2 PARTS PEA GRAVEL. MAXIMUM WATER CONTENT, INCLUDING FREE SURFACE MOISTURE IN AGGREGATES, SHALL NOT EXCEED 7 GALLONS PER BAG OF CEMENT MIX. SLUMP SHALL BE AS SPECIFIED ABOVE UNDER READY-MIXED CONCRETE.

IN THE EVENT THAT THE PRE-BAGGED CEMENT MIX IS NOT AVAILABLE, 1 BAG OF TYPE I PORTLAND CEMENT SHALL BE SUBSTITUTED FOR 1 BAG OF THE CEMENT MIX. WATER CONTENT, SLUMP, AND THE CONCRETE MIX PROPORTIONS SHALL REMAIN AS STATED IN THE PRECEDING PARAGRAPH.

THE AGGREGATES SHALL BE MEASURED BEFORE BEING PUT IN THE MIXER, AND SHALL BE IN SUCH PROPORTIONS THAT ONE FULL BAG OF CEMENT WILL BE USED IN EACH BATCH. ALL CONCRETE SHALL BE MIXED FOR A MINIMUM OF TWO MINUTES IN A MACHINE MIXER.

HAND MIXING SHALL NOT BE DONE EXCEPT BY THE SPECIAL PERMISSION OF THE ENGINEER. NO MORTAR OR CONCRETE SHALL BE "RETEMPERED" EITHER BY REMIXING OR BY THE ADDITION OF ANY MATERIALS OR ADJUTURES. THE DRUM OF THE MIXER SHALL BE COMPLETELY EMPTIED BEFORE RECEIVING MATERIALS FOR THE SUCCEEDING BATCH. CONCRETE THAT HAS OBTAINED ITS INITIAL SET BEFORE BEING PLACED SHALL BE DISCARDED AND NOT USED ON THE JOB.

COLD WEATHER CONCRETING (BELOW 40°F)

INGREDIENTS OF CONCRETE POURED WHEN THE SURROUNDING AIR IS BELOW 40° F SHALL BE HEATED SO THAT THE TEMPERATURE OF THE CONCRETE AFTER PLACEMENT IS NEITHER LOWER THAN 55° F NOR GREATER THAN 65° F. PLUG ENDS OF CONDUIT RUN TO PREVENT AIR CIRCULATION. PROTECT CONCRETE FROM FREEZING FOR A MINIMUM OF 48 HOURS.

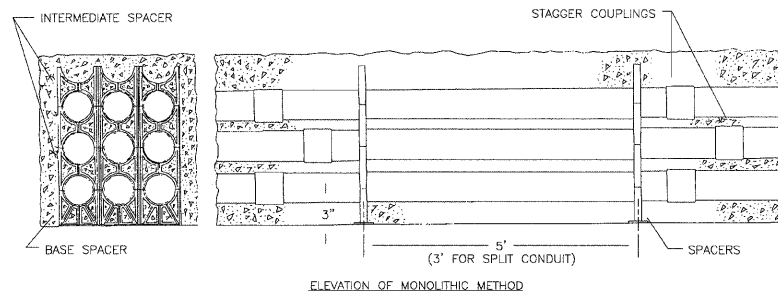
WHEREVER POSSIBLE, ALL CONCRETE MATERIALS AND ALL REINFORCEMENT, FORMS, FILLERS AND GROUND WITH WHICH CONCRETE IS TO COME IN CONTACT SHOULD BE FREE FROM FROST.

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NAPERVILLE PUBLIC UTILITIES DEPARTMENT	DUCTBANK CONSTRUCTION SPECIFICATION	DATE: 04-24-07 Page 3 of 12 C30-1900
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LAYING CONDUIT



CONDUIT INSTALLATION

THE STANDARD ARRANGEMENT AND SEPARATION OF DUCTS AND THE THICKNESS OF CONCRETE SHEATHING SHALL BE AS SHOWN ON PAGE 7 FOR CONDUIT RUNS UNDER MAIN LINE RAILROAD TRACK, OR ON PAGE 6 OF THIS STANDARD FOR ALL OTHER LOCATIONS. IF SPECIAL ARRANGEMENTS ARE REQUIRED, THE SECTIONAL OUTLINE OF THE DUCTS SHALL BE SHOWN ON THE INSTALLATION DRAWINGS. TRANSPPOSITION OF THE DUCTS, MADE NECESSARY BY OBSTRUCTIONS, SHALL BE MADE FOLLOWING THIS STANDARD, BUT SHALL BE DONE ONLY WHEN SPECIFIED IN THE DRAWINGS OR WHEN SPECIALLY AUTHORIZED BY THE ENGINEER AFTER UNFORESEEN OBSTRUCTIONS ARE UNCOVERED.

THE FIRST LAYER OF THE CONDUIT SHALL BE LAID ON PLASTIC 6 INCH BASE SPACERS (DPU-E #285-199-00170) HORIZONTALLY LOCKED, WHICH WILL PROVIDE A 3-INCH LAYER OF CONCRETE BELOW THE CONDUIT. THEY SHALL BE PLACED AT INTERVALS OF APPROXIMATELY 3 FEET. ALL OF THE SUCCEEDING LAYERS ARE PLACED ON PLASTIC 6 INCH INTERMEDIATE SPACERS (DPU-E #285-199-00180) VERTICALLY LOCKED TO PREVIOUSLY PLACED SPACERS. THE CONDUIT COUPLINGS SHALL BE STAGGERED SO THAT NO COUPLING IS IN-LINE WITH THE COUPLING ON AN ADJACENT CONDUIT. WHEN THE REQUIRED LAYERS OF CONDUIT ARE BUILT UP, THE ENTIRE ASSEMBLY SHALL BE BRACED TO PREVENT LATERAL AND VERTICAL MOVEMENT. WHEN THE INSTALLATION OF SPLIT DUCT IS SPECIFIED, PLACE SPACERS AT THREE FOOT INTERVALS.

THE CONCRETE SHALL BE THOROUGHLY SPADED AND PUDDLED IN AND AROUND THE CONDUIT PACKAGE, BRACING SHALL BE REMOVED WHEN CONCRETE HAS STARTED TO SET AND THERE IS NO FURTHER DANGER THAT DUCTS WILL FLOAT OR MOVE OUT OF ALIGNMENT. HOLES LEFT BY BRACING SHOULD THEN BE FILLED WITH GROUT.

IN FORMATIONS GREATER THAN 4 DUCTS HIGH, THE PREFERRED PRACTICE IS TO INSTALL THE FORMATION IN TWO LAYERS WITH THE CONCRETE BEING POURED IN 2 STEPS. THIS WILL PREVENT THE SPACERS FROM SPREADING OUT UNEVENLY AND CREATING UNEVEN VARIANCES IN CLEARANCES BETWEEN CONDUITS. THIS PROCEDURE WILL ALSO ENSURE THAT THERE IS A CONCRETE ENVELOPE AROUND EVERY DUCT AND DECREASE VERTICAL DROP TO THE LOWEST POSSIBLE DISTANCE WHEN POURING THE CONCRETE.

UNFINISHED CONSTRUCTION

IF THE CONDUIT RUN MUST BE TEMPORARILY LEFT UNFINISHED DURING CONSTRUCTION, CONDUIT SHALL BE CLOSED WITH PLASTIC CONDUIT PLUGS. IF THE CONDUIT RUN IS TO BE DEAD-ENDED, FOR COMPLETION AT SOME FUTURE TIME, THE END OF EACH CONDUIT SHALL BE PLUGGED AND STAGGERED APPROXIMATELY 3 INCHES FROM THE ADJACENT CONDUIT. THE END OF THE CONCRETE SHEATHING SHALL BE STEPPED BACK APPROXIMATELY 6 INCHES FOR EACH HORIZONTAL ROW OF CONDUIT. THE ENDS OF THE INSTALLED CONDUIT SHALL EXTEND BEYOND THE SHEATHING TO PERMIT CONNECTION TO FUTURE CONDUIT.

IN INSTANCES WHERE THE CONDUIT ENDS MAY NOT BE EASILY LOCATED, INSTALL AN ELECTRONIC MARKER BALL (DPU-E #284-199-00250) TO ASSIST IN LOCATION. AFTER THE CONDUIT IS INSTALLED, BACKFILL THE HOLE COVERING THE CONDUIT ENDS APPROXIMATELY 6 TO 12 INCHES AND INSERT MARKER IN HOLE ABOVE THE CONDUIT END. LAY MARKER ON FLAT GROUND AND CONTINUE BACKFILLING, INSURING THAT THE MARKER STAYS IN A HORIZONTAL POSITION SO THAT IT MAY BE LOCATED BY THE LOCATOR TOOL.

TRANSPOSING AROUND OBSTRUCTIONS

WHEN SMALL OBSTRUCTIONS ARE ENCOUNTERED, AND IT IS NOT ECONOMICAL OR DESIRABLE TO INSTALL THE CONDUIT RUN BELOW THE OBSTRUCTION, THE CONDUIT PACKAGE MAY BE TRANSPPOSED. IN SUCH AN OPERATION, A 1-INCH SPACE SHALL BE LEFT ABOVE AND BELOW, BETWEEN THE CONCRETE SHEATH AND THE OBSTRUCTION. A 6 INCH GAP SHALL BE LEFT AROUND UTILITIES THAT ARE OBSTRUCTIONS. EACH PORTION OF THE TRANSPPOSED CONDUIT SECTION SHALL BE INSTALLED AS A DOUBLE REVERSE CURVE USING A MINIMUM RADIUS OF 300 FEET.

THE SPACE BETWEEN THE TWO PORTIONS OF THE TRANSPPOSED SECTION SHALL BE COMPLETELY FILLED WITH CONCRETE TO

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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.:	CAD FILE:	
JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		0054679001D17.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
DETAILS	JK, PM	EU13-04-06	
DATE	4-01 09	WORK REQUEST NO.	54679
ISSUED	PSM	CHKD:	
ENGINEER		APPR:	
REVISION	1 2 3	SCALE:	NTS
		SHEET	17 OF 30

CONDUIT RUN INSTALLATION

CONDUIT BELLS

ALL CONDUITS SHALL TERMINATE AT A PRE-CAST MANHOLE IN PLASTIC CONDUIT ENTRANCE BELL ENDS AS SHOWN ON PAGE 8 OF THIS STANDARD. ALL CONDUITS SHALL TERMINATE AT A VAULT PER THIS STANDARD. IF CONDUIT PLUGS ARE USED, THEY SHOULD BE REMOVED AFTER CONSTRUCTION IS COMPLETED UNLESS OTHERWISE SPECIFIED.

BACKFILLING

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET, THE TRENCH SHALL BE BACKFILLED. SAND OR OTHER STATE OR MUNICIPAL APPROVED MATERIAL SHALL BE USED UNDER PAVEMENTS EXCEPT WHEN THE EXCAVATED MATERIAL IS FINE, DRY, CAN BE WELL COMPACTED, AND WILL NOT SETTLE AFTER PAVEMENT IS RESTORED. IF THE EXCAVATION IS MADE IN SANDY SOIL, THE REMOVED MATERIAL MAY BE USED FOR BACKFILL IF SATISFACTORY TO THE ENGINEER. LAKE SAND SHALL NEVER BE USED FOR THE BACKFILL IN CONDUIT TRENCHES BECAUSE OF ITS POOR HEAT-CONDUCTING PROPERTIES. ALL BACKFILL IN PAVED AREAS SHALL BE THOROUGHLY COMPACTED AND FLOODED.

CONDUIT RUNS IN PARKWAYS MAY BE BACKFILLED WITH THE EXCAVATED MATERIAL IF IT IS CLAY, COARSE SAND, OR CA6 GRAVEL. ALL BACKFILL MATERIALS SHALL BE FREE OF ALL ORGANIC MATERIALS AND ROCKS LARGER THAN 1".

WHEN LAKE SAND, PEAT, CINDERS, SLAG, OR OTHER MATERIALS WITH POOR HEAT CONDUCTING PROPERTIES ARE ENCOUNTERED IN THE CONDUIT EXCAVATION, THERMAL BACKFILL SHALL BE ADDED AROUND AND ABOVE THE CONDUIT, AS SPECIFIED ON THE INSTALLATION PLANS OR BY THE ENGINEER. THIS THERMAL BACKFILL WILL BE SPECIFIED OR BANK RUN GRAVEL FROM A LOCATION APPROVED BY THE ENGINEER.

PAVING, CURBS, SIDEWALKS

REPLACEMENT OF PAVING, CURBS, AND SIDEWALKS SHALL BE DONE IN ACCORDANCE WITH THE MUNICIPAL OR STATE REQUIREMENTS.

CONDUIT PREPARATION

AFTER THE CONCRETE SHEATHING HAS ATTAINED ITS INITIAL SET, EACH CONDUIT SHALL BE RODDED AND MANDRELLED BY THE CONTRACTOR OR CREW, THROUGH EACH OF THE CONDUITS. WHEN A PREVIOUSLY DEAD-END CONDUIT RUN IS EXTENDED, THE ENTIRE RUN SHALL BE RODDED AND MANDRELLED. CONDUIT RUNS CONTAINING OR TERMINATING IN SMALL RADIUS BENDS THAT WILL NOT PERMIT THE PASSAGE OF A STANDARD SIZE MANDREL, SHALL BE MANDRELLED THROUGH THEIR STRAIGHT PORTION PRIOR TO THE CONSTRUCTION OR INSTALLATION OF THE BENDS. THE MANDRELING OF SMALL RADIUS BENDS SHALL BE DONE WITH A FLEXIBLE MANDREL NO SMALLER IN DIAMETER THAN 1/2 INCH LESS THAN THE NOMINAL DIAMETER OF THE BEND.

WHEN REQUESTED, THE CONTRACTOR SHALL AS A PART OF THE MANDRELING OPERATION, PULL IN AND LEAVE IN CERTAIN DESIGNATED DUCTS A #12 SOL. CU. MARKER CABLE (DPU-E# 280-113-00040, WHITE), (DPU-E# 280-113-00041, BLACK), (DPU-E# 280-113-00042, RED), (DPU-E# 280-113-00043, GREEN), (DPU-E# 280-113-00044, BLUE), (DPU-E# 280-113-00045, ORANGE), OR (DPU-E# 280-113-00046, YELLOW). ADDITIONALLY A 22GA. DETECTABLE MULETAPE 1250# STRENGTH @ 3000' (DPU-E# 450-024-00010), MAY BE USED. EITHER OPTION WILL BE FURNISHED BY THE CITY OF NAPERVILLE DPU-E.

LATERALS

CONDUIT LATERALS THAT ARE TO BE CONCRETE ENCASED SHALL BE INSTALLED IN THE SAME MANNER AS MAIN CONDUIT RUNS. LATERALS THAT TERMINATE AT MANHOLE WALLS SHALL BE CONSTRUCTED AS SHOWN ON THIS STANDARD. THOSE THAT TERMINATE AT A POLE SHALL BE CONSTRUCTED PER PAGE 9 OF THIS STANDARD. THOSE TERMINATING AT AN EQUIPMENT FOUNDATION SHALL BE CONSTRUCTED PER THAT SPECIFIC EQUIPMENT FOUNDATION STANDARD.

DENSE CONDUIT SHEATHING FOR SPECIAL CONDITIONS

WHEN SPECIFIED ON THE INSTALLATION DRAWINGS, CONDUIT RUNS TO BE INSTALLED IN KNOWN CORROSIVE LOCATIONS, SUCH AS IN CINDER FILL ADJACENT TO COAL STORAGE PILES, IN GAS PURIFIER SLAG, ETC., SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING INSTRUCTIONS. ALL OTHER PROCEDURES GIVEN IN PRECEDING PAGES OF THIS STANDARD SHALL BE FOLLOWED.

FA-2 CONDUIT ENCASEMENT

CONDUIT RUNS IN PARKWAY NOT UNDER, BIKE PATHS, SIDEWALKS OR DRIVEWAY MAY BACKFILL WITH FA-2. AGGREGATE TO THE DIMENSIONS SHOWN ON PAGE 6.

THE OUTER SHEATHING ALL AROUND SHALL BE 4 INCHES THICK.

CONCRETE SHALL CONSIST OF THE FOLLOWING MIX:

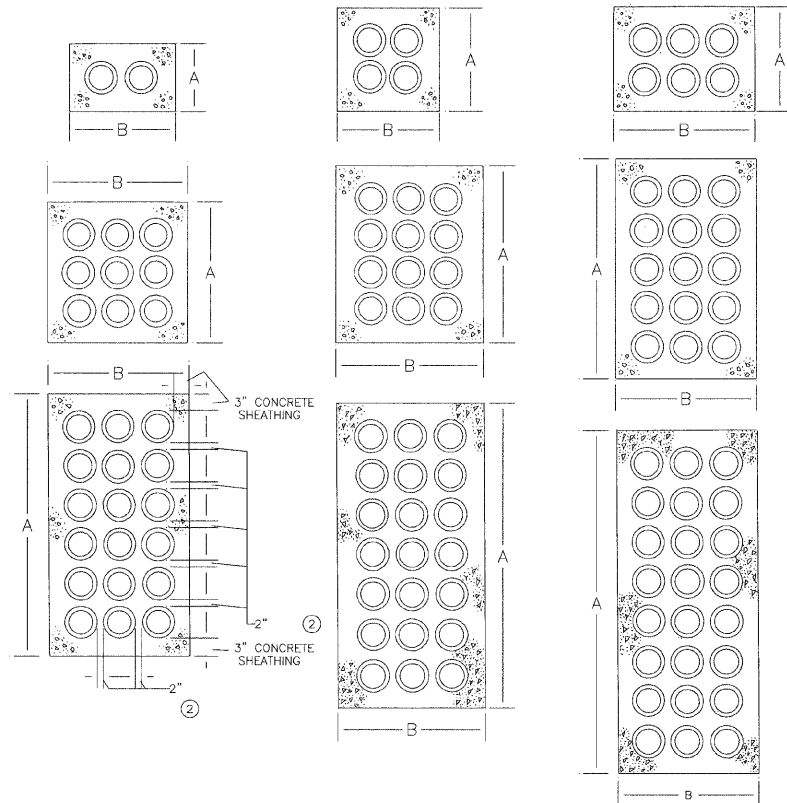
- 1 PART TYPE 1 PORTLAND CEMENT
 - 2 PARTS #2 TORPEDO SAND
 - 2 PARTS PEA GRAVEL (NOT CRUSHED LIME STONE)
 - 1/2 BAG OF FLY ASH SHALL BE ADDED TO THE MIX FOR EACH BAG OF PORTLAND CEMENT USED.
- FOR AN ALTERNATIVE TO PORTLAND CEMENT AND FLY ASH, LUMINITE CEMENT SHALL BE SPECIFIED. INCLUDE AIR ENTRAINMENT AGENT TO ENTRAIN 7 1/2 PERCENT OF AIR IN CONCRETE.

INCLUDING FREE SURFACE MOISTURE IN THE AGGREGATES OF NOT MORE THAN 6 GALLONS OF WATER PER BAG OF CEMENT SHALL BE USED.

MINIMUM SLUMP SHALL BE 2 INCHES AND MAXIMUM SLUMP IS 4 INCHES.

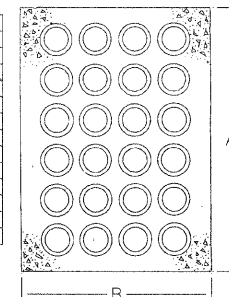
CONDUIT RUN FORMATIONS

BETWEEN MANHOLES



NO. OF DUCTS	DIMENSIONS (2) (3)			
	5" CONDUIT		6" CONDUIT	
	A*	B*	A*	B*
6	11 3/4"	19"	12 3/4"	21 1/2"
9	19"	26 1/2"	21 1/2"	28 1/2"
12	26 1/2"	33 3/4"	28 1/2"	35 3/4"
15	33 3/4"	41"	35 3/4"	43"
18	41"	48 1/4"	43"	50 3/4"
24(3X8)	55 1/2"	63"	55 1/2"	64 3/4"
24(4X6)	63"	71"	64 3/4"	73"

* DIMENSIONS ARE TO THE NEXT LARGER 1/4"



NOTES:
APPLICATION
 • THIS STANDARD SHALL BE USED FOR THE ARRANGEMENT OF CONDUIT FORMATIONS BETWEEN MANHOLES.
INFORMATION
 1 THIS STANDARD COVERS THE ARRANGEMENT OF THE CONDUIT IN CONDUIT RUNS AND LATERALS.
 2 THE SEPARATION BETWEEN CONDUITS SHALL BE 2" INCHES. CONCRETE SHEATHING SHALL BE 3" INCHES THICK EXCEPT WHERE A CONDUIT RUN IS UNDER RAILROAD SWITCH TRACKS OR MAIN LINE RAILROAD TRACKS. THEN THE SHEATHING SHALL BE AS SHOWN ON PAGE 7.
 3 THESE DIMENSIONS REFLECT THE USE OF PLASTIC BASE SPACERS WHICH PROVIDES A HORIZONTAL AND VERTICAL SEPARATION AT OR GREATER THAN THE MINIMUM REQUIREMENTS.

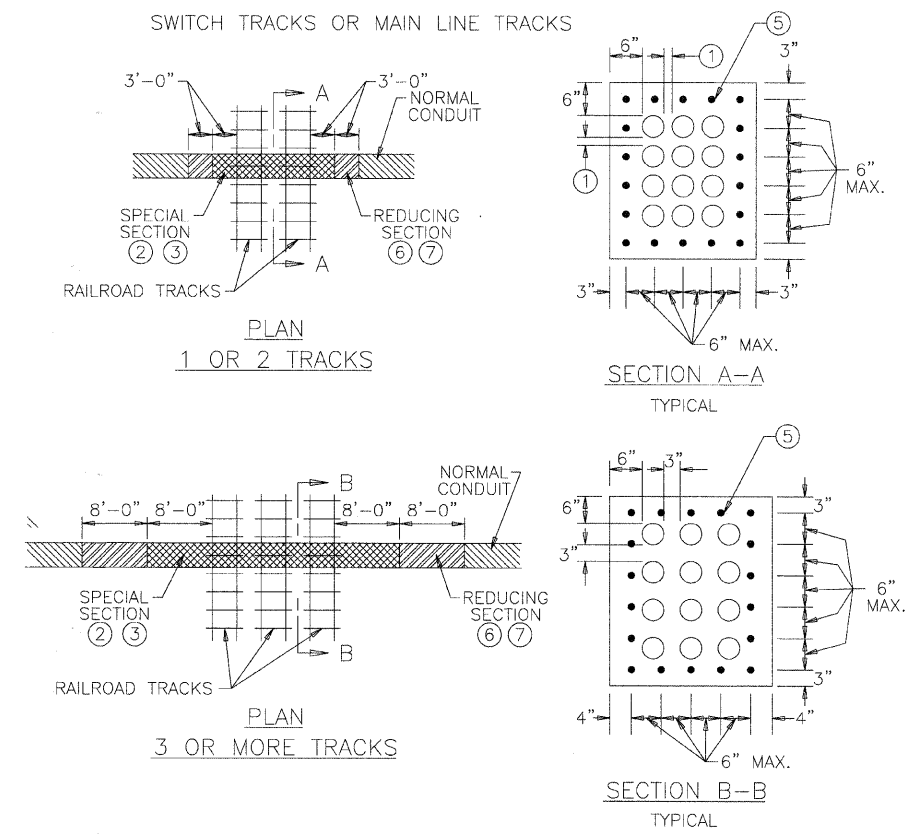
NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	DUCTBANK CONSTRUCTION SPECIFICATION	DATE: 04-24-07 Page 5 of 12 C30-1900
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NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	DUCTBANK CONSTRUCTION SPECIFICATION	DATE: 04-24-07 Page 6 of 12 C30-1900
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	73
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

CONDUIT RUN RR TRACK CROSSING

SWITCH TRACKS OR MAIN LINE TRACKS



NOTES:
APPLICATION
 • THIS STANDARD SHALL BE USED FOR THE FORMATION OF CONDUIT RUNS THAT CROSS UNDER RAILROAD TRACKS.
INFORMATION
 1 NORMAL DUCT SPACING AS ON PAGE 6 (2 INCHES).
 2 TOP OF SPECIAL SECTION TO BE AT LEAST 50" BELOW TOP OF RAIL.
 3 CONCRETE MIXTURE OF SPECIAL SECTION TO BE OF DENSE SHEATHING, SEE PAGE 5.
 4 LEAVE TRACK SHORING IN PLACE AT LEAST 7 DAYS UNLESS QUICK SETTING CEMENT IS USED.
 5 #6 GRADE 60 REINFORCING BARS, OVERLAP THE ENDS 18".
 6 DUCTS OF REDUCING SECTION TO BE LAID AS REVERSE CURVE.
 7 REDUCE HORIZONTAL AND VERTICAL SEPARATION OF DUCTS FROM 3" TO NORMAL, AND THE ENVELOPE FROM 6" TO 3". CONCRETE MIXTURE OF REDUCING SECTION TO BE NORMAL SHEATHING.

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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.:	CAD FILE:
PROJECT DESCRIPTION	DETAILS	DRAWN BY:	PROJECT NO.:
DATE	4-01 09	WORK REQUEST NO.	54679
ISSUED	PSM	CHKD:	SBC:
ENGINEER		APRV:	SCALE:
REVISION	1 2 3		NTS
			SHEET 18 OF 30

CONDUIT ENTRANCE INTO MANHOLE/HANDHOLE

APPLICABLE TO SWITCHGEAR AND TRANSFORMER VAULTS

GENERAL

CONDUIT ENTRANCES INTO MANHOLES/HANDHOLES SHALL NORMALLY BE MADE WITH PLASTIC ENTRANCE BELLS PER FIGURE 1 OR 2. THE ENTRANCE CONDUIT SHALL BE PLASTIC OR STEEL ENCASED IN CONCRETE AS PER FIGURE 1 AND 2 BELOW, SPECIFIED BY THE ENGINEER ON THE CONSTRUCTION DRAWINGS.

POCKETS

DUCT POCKETS SHALL BE PROVIDED IN WALLS WHERE SPECIFIED ON CONSTRUCTION DRAWINGS. POCKET NOT REQUIRED ON NEWER STYLE MANHOLE DESIGNS (FIGURE 2). TYPICAL POCKET DIMENSIONS ARE INDICATED BELOW ON FIGURE 1.

CONDUIT SPACING

CONDUIT SHALL NORMALLY BE SUPPORTED BY VERTICAL AND HORIZONTALLY INTERLOCKED PLASTIC SPACERS TO PROVIDE ALIGNMENT WITH PLASTIC ENTRANCE BELL UNITS AT 1/4 IN. SPACING.

ENTRANCE BELL UNITS

PLASTIC 6 INCH ENTRANCE BELLS, DPU-E# 285-103-00100 SHALL BE USED ON CONDUIT ENTRANCES TO MANHOLES.

ENTRANCE PIPES

GALVANIZED STEEL CONDUIT, M30-1550, SHALL BE USED FOR ALL BENDS. PIPES INTENDED FOR CABLES ON INITIAL INSTALLATION SHALL BE CAPPED WITH PLUGS (DPU-E# 285-103-00090) TO PREVENT CONTAMINATION FROM ENTERING THE PIPES.

INSTALLATION METHODS

EVERY EFFORT SHALL BE MADE TO INSURE A WATERTIGHT INSTALLATION OF ENTRANCE PIPES. WHERE PIPES ARE INSTALLED THROUGH AN OPENING LEFT IN A MANHOLE, OR BROKEN OUT OF AN EXISTING MANHOLE WALL, SURFACES SHALL BE CLEANED, WETTED AND COVERED WITH A COATING OF 3 TO 1 SAND AND CEMENT MORTAR. IF BRICKWORK IS EXISTING ON THE INNER FACE OF WALL, IT SHALL ALSO BE COATED WITH A SAND AND CEMENT MORTAR. AN ALTERNATE PROCEDURE IS TO DRILL HOLES IN THE WALL AND GROUT THE PIPES IN PLACE WITH A SAND AND CEMENT MORTAR. THE INSIDE SURFACE OF THE HOLES SHALL BE ROUGHENED TO OBTAIN A STRONG AND WATERTIGHT BOND.

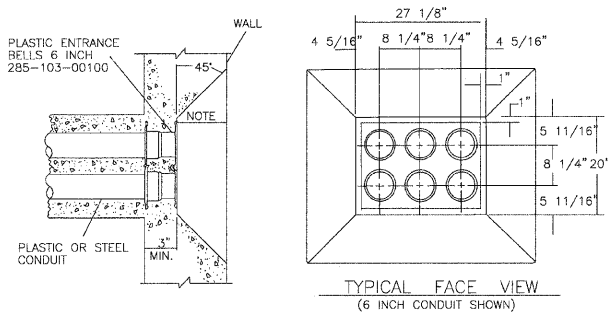


FIG. 1 MANHOLE ENTRANCE WITH PLASTIC TERMINATORS (OLDER STYLE) FOR PLASTIC OR STEEL CONDUIT (POCKET TYPE)

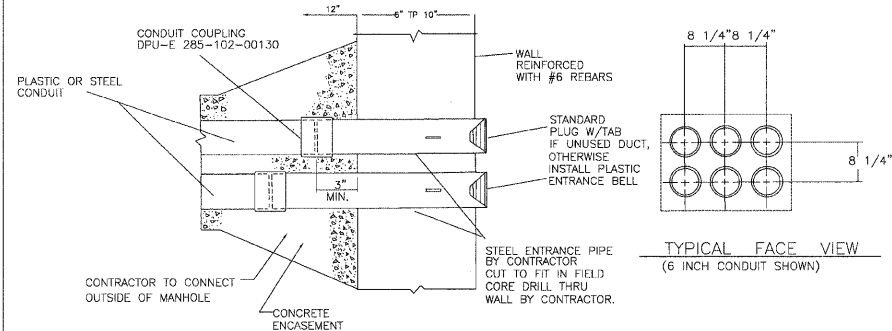


FIG. 2 ENTRANCE IN MANHOLE/HANDHOLE (NEWER STYLE)

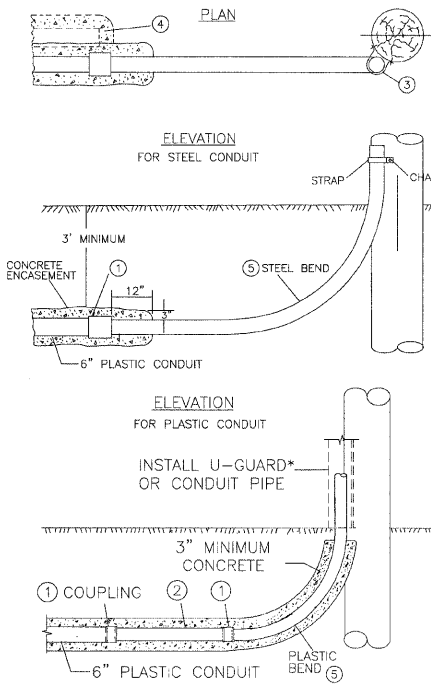
CONDUIT TO RISER AT POLE

DUCTBANK
CONDUIT TO RISER AT POLE
FOR PLASTIC OR STEEL CONDUIT

RISER CONSTRUCTION
FOLLOW CONSTRUCTION STANDARD C20-5220

APPLICATION

THIS STANDARD SHALL BE USED WHEN A TRANSITION FROM A SINGLE DUCT TO SINGLE RISER PIPE IS REQUIRED.



SUPPLEMENTARY MATERIAL

① IF BELLED END OF PLASTIC CONDUIT CAN BE CONNECTED TO STEEL BEND OMIT COUPLING.

NOTES:

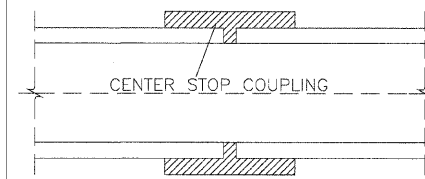
- FIRST SECTION ABOVE ELBOW MUST BE SCHEDULE 80.
- FOR LARGER POLES (>50'), ADDITIONAL CONDUIT AND HARDWARE MAY BE REQUIRED.
- STEEL BEND AND POLE BRACKET EXISTING FROM PREVIOUS DUCT BANK INSTALLATION.
- INSTALL STEEL BEND AND POLE BRACKET AND CHANNEL.
- INSTALL SPARE OF CONDUIT UP POLE WITH BEND, ATTACH TO BRACKET AND PLUG.

INFORMATION

- FIELD CUT SO THAT A GOOD CONNECTING FIT CAN BE MADE BETWEEN THE CONDUITS AND BENDS.
- LOCATE THE BEND ON A QUADRANT OF THE POLE WHERE IT IS THE LEAST SUSCEPTIBLE TO DAMAGE BY VEHICLES.
- IF SPARE DUCT IS INSTALLED, PLUG AT BOTH ENDS AND ENCASE IN CONCRETE WHEN NECESSARY.
- SCHEDULE 80 PVC DOES NOT REQUIRE CONCRETE ENCASEMENT.
- CONDUIT TO A U-GUARD* RISER FOLLOWS C20-5222, FOR USE AS MAINTENANCE ONLY.

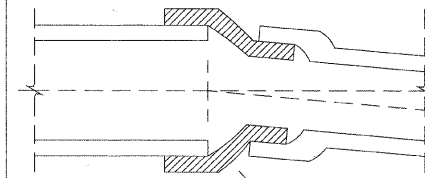
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	77
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

PLASTIC CONDUIT COUPLINGS FOR CONCRETE ENCASED PLASTIC CONDUIT



PLASTIC TO PLASTIC OR PLASTIC TO STEEL COUPLING

SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00040	PLASTIC TO PLASTIC
5"	285-102-00110	PLASTIC TO PLASTIC
6"	285-102-00140	PLASTIC TO PLASTIC
5"	285-102-00110	PLASTIC TO STEEL
6"	285-102-00140	PLASTIC TO STEEL



PLASTIC TO PLASTIC 5° COUPLING

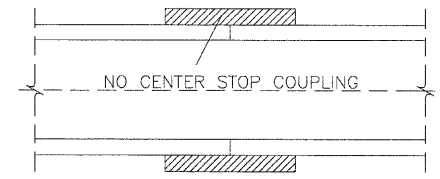
SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00050	PLASTIC TO PLASTIC
5"	285-102-00120	PLASTIC TO PLASTIC
6"	285-102-00150	PLASTIC TO PLASTIC

PLUG W/PULL TAB

SIZE	DPU-E #
3"	285-103-00030
5"	285-103-00070
6"	285-103-00090

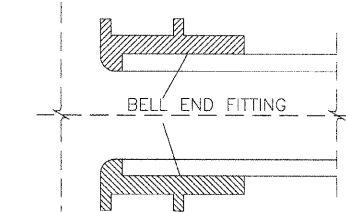
APPLICATION

THIS STANDARD SHALL BE USED FOR THE INSTALLATION OF CONDUIT CONNECTIONS ON CONCRETE ENCASED PLASTIC CONDUIT DUCTBANK.



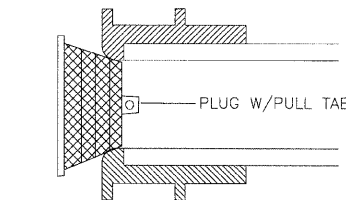
PLASTIC TO PLASTIC OR PLASTIC TO STEEL SLEEVE

SIZE	DPU-E #	MATERIAL / USE
3"	285-102-00060	PLASTIC TO PLASTIC
5"	285-102-00100	PLASTIC OR STEEL
6"	285-102-00130	PLASTIC OR STEEL



PLASTIC BELL END FITTINGS

SIZE	DPU-E #	MATERIAL
3"	285-103-00040	PLASTIC
5"	285-103-00080	PLASTIC
6"	285-103-00100	PLASTIC

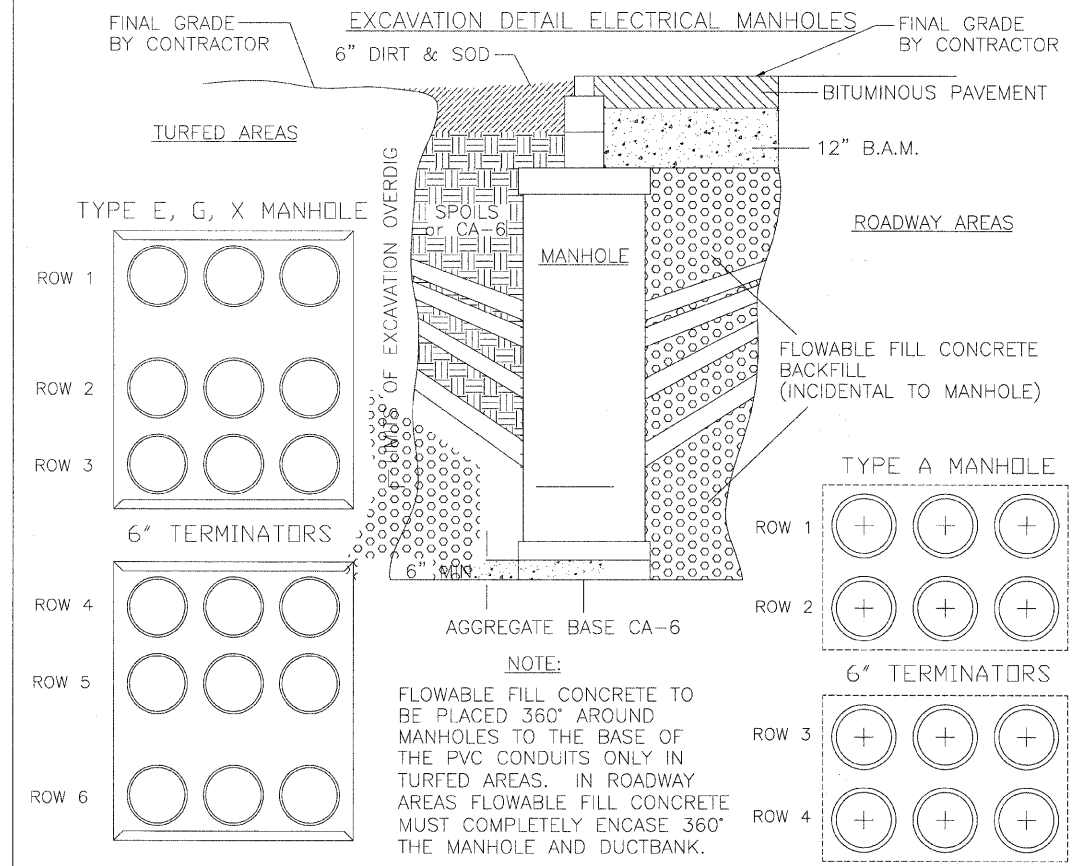
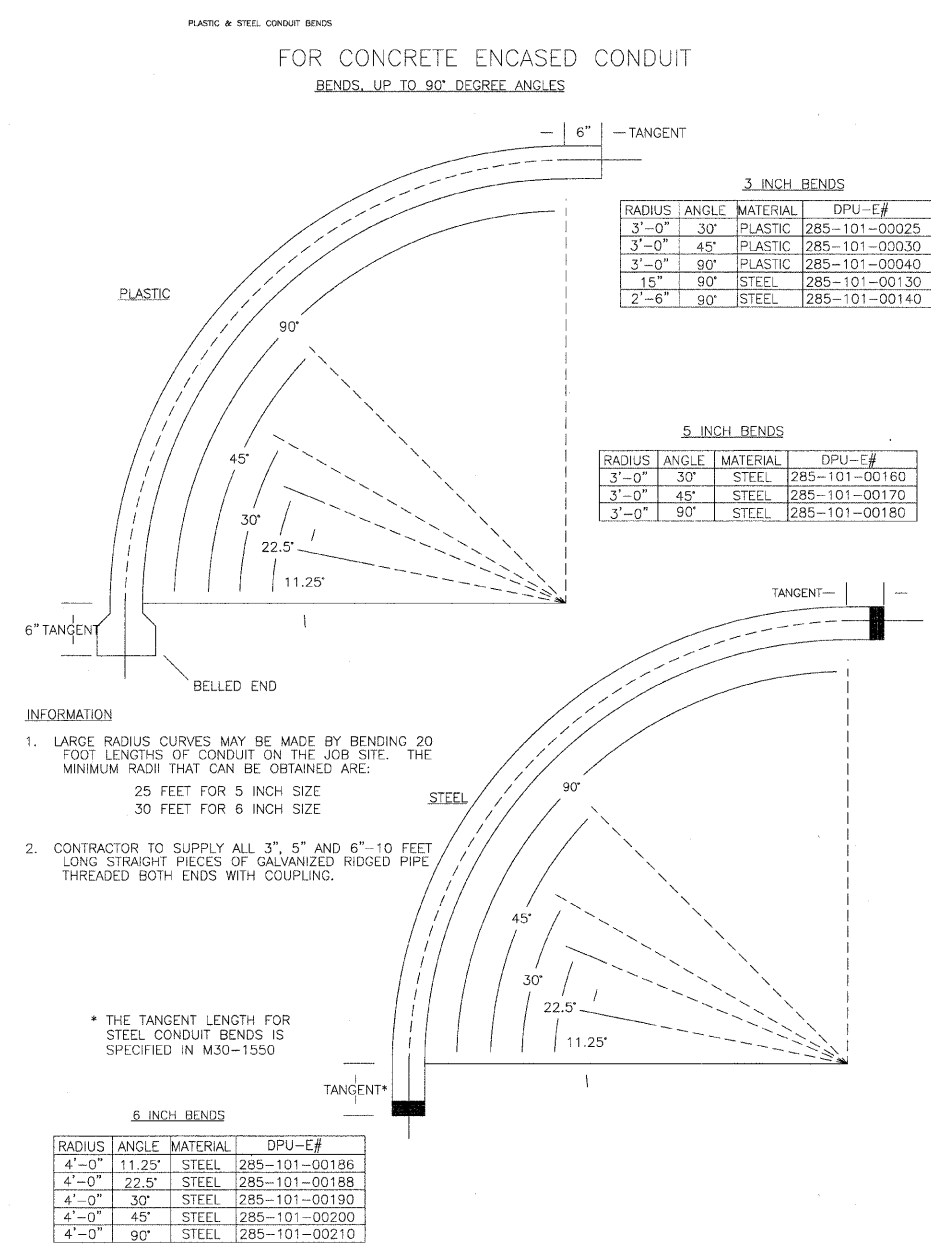


THE 6" EXPANDING PLUG W/EYE NUT DPU-E# 285-103-00150

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE	JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.:	---	CAD FILE:	0054679001D19.DWG
PROJECT DESCRIPTION	DETAILS	DRAWN BY:	JK, PM	PROJECT NO.:	EU13-04-06
DATE	4-01-09	WORK REQUEST NO.	54679	SBC:	COMPLETED BY:
ISSUED	PSM	APRV:		SCALE:	NTS
REVISION	1 2 3				SHEET 19 OF 30



TYPICAL DUCT BANK ARRANGEMENT FOR PORT USAGE INTO MANHOLES

TYPE	ROW 1	ROW 2	ROW 3	ROW 4	ROW 5	ROW 6
4-WAY DUCT BANK	-----	-----	-----	2 X 6"	2 X 6"	-----
6-WAY DUCT BANK	-----	-----	-----	3 X 6"	3 X 6"	-----
8-WAY DUCT BANK	-----	-----	2 X 6"	3 X 6"	3 X 6"	-----
9-WAY DUCT BANK	-----	-----	3 X 6"	3 X 6"	3 X 6"	-----
10-WAY DUCT BANK	-----	1 X 6"	3 X 6"	3 X 6"	3 X 6"	-----
12-WAY DUCT BANK	-----	3 X 6"	3 X 6"	3 X 6"	3 X 6"	-----

FILL THE OUTSIDE DUCTS IN EACH ROW FIRST

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE	MAP NO.:	CAD FILE:
JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	---	0054679001D20.DWG
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:
DETAILS	JK, PM	EU13-04-06
DATE	WORK REQUEST NO.	CHKD:
4-01-09	54679	
ISSUED	APPRV:	SCALE:
ENGINEER PSM		NTS
REVISION	1	2
	3	

SHEET 20 OF 30

GROUND ELECTRODE MEASUREMENT

SCOPE:

GROUNDING TESTS SHALL BE DONE FOR MANHOLE GROUNDS, GROUND ROD CONNECTIONS AND COUNTERPOISE CONNECTIONS TO ENSURE THE INTEGRITY OF THE ELECTRODE INSTALLATION. TESTING OF THE GROUND SYSTEM AND CONNECTIONS SHALL BE DONE USING THE CLAMP-ON RESISTANCE TEST METHOD FOR GROUND RODS AND COUNTERPOISE.

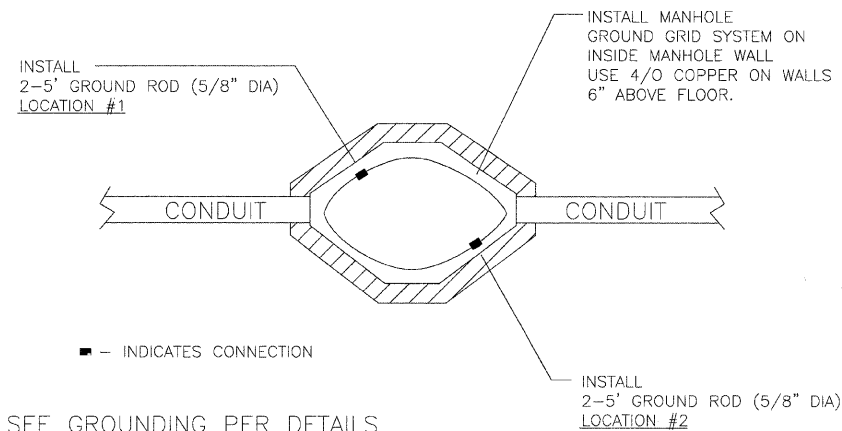
CLAMP-ON GROUND RESISTANCE TEST (NORMAL TEST) / THREE POINT FALL OF POTENTIAL TEST (NORMAL TEST)

TESTS SHALL BE PERFORMED WHEN THE GROUND IS NOT FROZEN TO ELIMINATE HIGH RESISTANCE READINGS IN THE MANHOLES. THE CLAMP ON TEST SHALL BE DONE AT EACH GROUND ROD AND COUNTERPOISE CONNECTION AND FROM THE MANHOLE PERIMETER GROUND CABLE TO THE GROUND ROD. AEMC INSTRUMENT MODEL 3710, 3730, OR EQUIVALENT MAY BE USED. THE CLAMP ON GROUND METER SHALL BE CLAMPED ON TO THE POWER NEUTRAL BETWEEN THE UTILITY TRANSFORMER, POLE GROUND, SWITCH GEAR GROUND AND THE SITE GROUND. THE USER MUST BE AWARE THAT A 0.7 READING INDICATES A CONTINUITY LOOP AND NOT A GROUND RESISTANCE. IF A POWER NEUTRAL IS NOT CLOSE TO THE NEW INSTALLATION THEN THE THREE POINT FALL OF Ω POTENTIAL, GROUND RESISTANCE CAN BE USED.

ALL TESTING MATERIAL AND TOOLS ARE FURNISHED BY THE CONTRACTOR. THIS SPECIFICATION IS USED TO TEST HANDHOLES, SWITCH GEAR VAULTS, MANHOLES, TRANSFORMER VAULTS AND OTHER EQUIPMENT AS DIRECTED.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING WITH GROUND RODS (DETAIL)	DATE: 05-01-05 Page 1 of 7 56270-100
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STANDARD MANHOLE (GROUNDING WITH RODS)

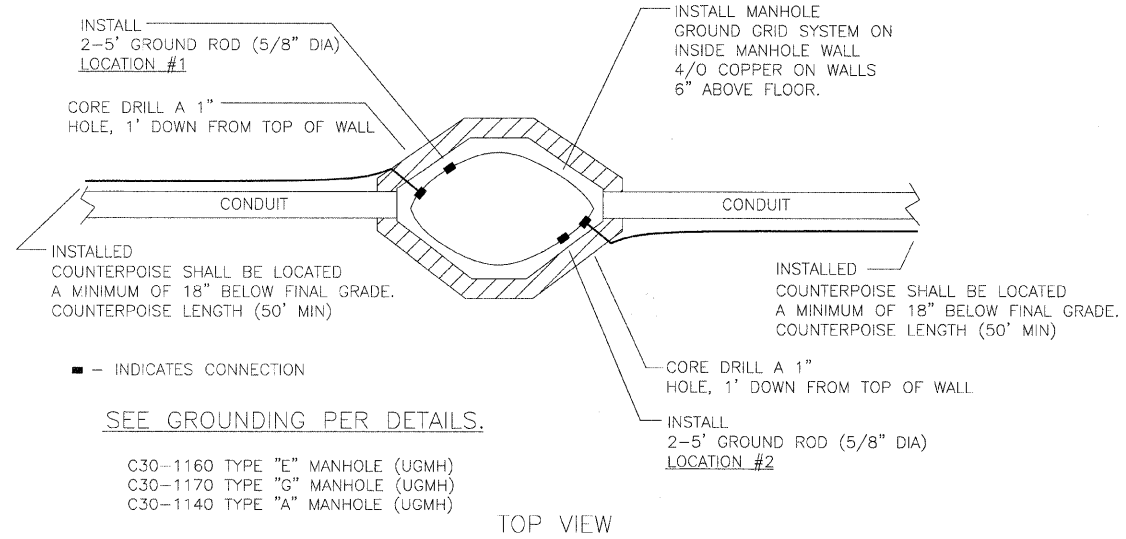


C30-1160 TYPE "E" MANHOLE (UGMH)
C30-1170 TYPE "G" MANHOLE (UGMH)
C30-1140 TYPE "A" MANHOLE (UGMH)

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING WITH GROUND RODS (DETAIL)	DATE: 05-01-05 Page 3 of 7 56270-100
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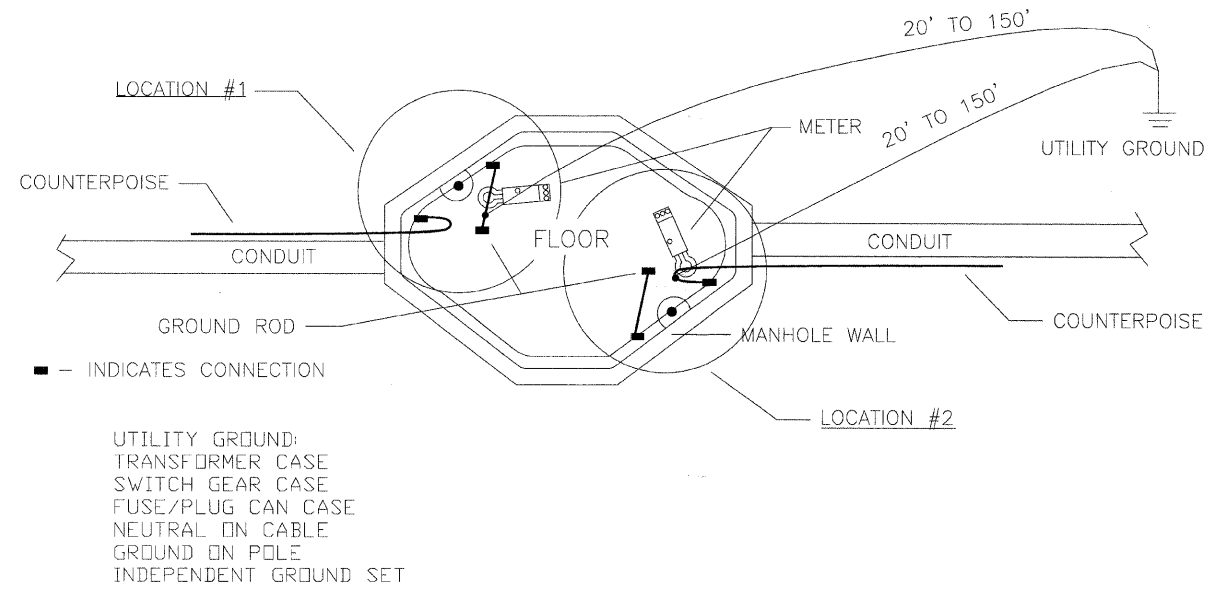
CLAMP ON METER TEST STANDARD MANHOLE

(GROUNDING WITH GROUND RODS AND COUNTERPOISE)



NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING WITH GROUND RODS (DETAIL)	DATE: 05-01-05 Page 2 of 7 56270-100
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PLACEMENT OF METER FOR READING



NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	GROUNDING WITH GROUND RODS (DETAIL)	DATE: 05-01-05 Page 4 of 7 56270-100
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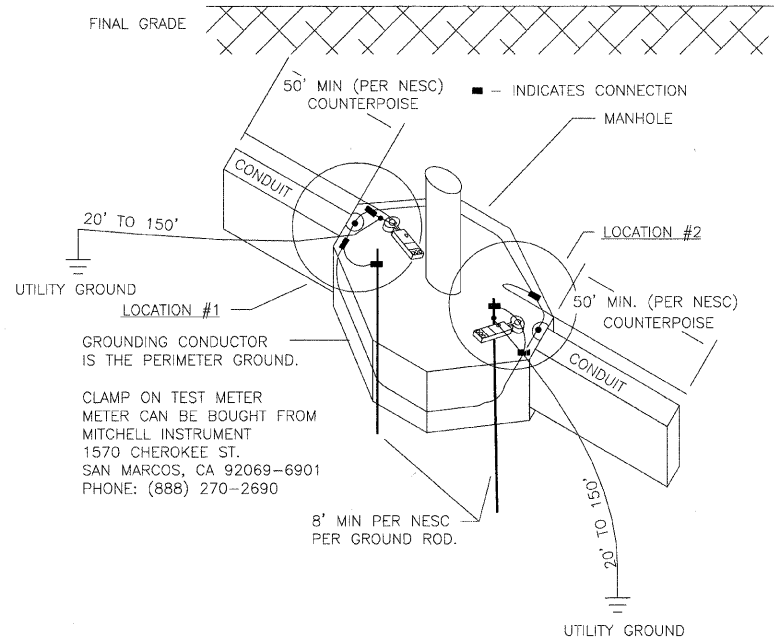
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	76
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE	JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		MAP NO.:	---	CAD FILE:	0054679001D21.DWG
PROJECT DESCRIPTION	DETAILS		DRAWN BY:	JK, PM	PROJECT NO.:	EU13-04-06
DATE	4-01-09	WORK REQUEST NO.	54679	CHKD:	SBC:	COMPLETED BY:
ISSUED		APPR:		SCALE:	NTS	SHEET 21 OF 30
ENGINEER	PSM					
REVISION	1	2	3			

SAMPLE INSTALLATION (CLAMP ON METER)



CLAMP ON TEST METER
METER CAN BE BOUGHT FROM
MITCHELL INSTRUMENT
1570 CHEROKEE ST.
SAN MARCOS, CA 92069-6901
PHONE: (888) 270-2690

NOTE:

OBSERVE ALL SAFETY REQUIREMENTS AND THEN REMOVE COVERING ON THE GROUND CONDUCTOR IF PRESENT AND PROVIDE SUFFICIENT ROOM FOR THE MODEL 3710/3730 JAWS, WHICH MUST BE ABLE TO CLOSE EASILY AROUND THE CONDUCTOR. THE JAWS CAN BE PLACED AROUND THE GROUND ROD ITSELF.
NOTE: THE CLAMP MUST BE PLACED SO THAT THE JAWS ARE IN AN ELECTRICAL PATH FROM THE SYSTEM NEUTRAL OR GROUND WIRE TO THE GROUND ROD, OR COUNTERPOISE.
SELECT THE CURRENT RANGE "A". CLAMP ONTO THE GROUND CONDUCTOR AND MEASURE THE GROUND CURRENT. THE MAXIMUM CURRENT RANGE IS 30 A. IF THE GROUND CURRENT EXCEEDS 5 A, GROUND RESISTANCE MEASUREMENTS ARE NOT POSSIBLE. DO NOT PROCEED FURTHER WITH THE MEASUREMENT. REMOVE THE CLAMP-ON TESTER FROM THE CIRCUIT, NOTING THE LOCATION FOR MAINTENANCE, AND CONTINUE TO THE NEXT TEST LOCATION. RECORD CURRENT ON DATA SHEET.

AFTER NOTING THE GROUND CURRENT, SELECT THE GROUND RESISTANCE RANGE Ω (OHM) AND MEASURE THE RESISTANCE DIRECTLY. THE READING YOU MEASURE WITH THE 3710/3730 INDICATES THE RESISTANCE OF THE ROD, RESISTANCE OF THE COUNTERPOISE, BUT ALSO OF THE CONNECTION TO THE SYSTEM NEUTRAL AND ALL BONDING CONNECTIONS BETWEEN THE NEUTRAL AND THE ROD.
RECORD 2 OR 4 RESISTANCE READINGS ON DATA SHEET. IF ANY ONE READING IS ABOVE 25 OHMS, CONTACT DPU-E IMMEDIATELY.
SEND COMPLETED DATA SHEET TO THE PROJECT ENGINEER AND RECORDS.

**DATA SHEET FOR RECORDING
GROUND RESISTANCE MEASUREMENT
BY THE CLAMP ON GROUND RESISTANCE TEST METHOD**

DATE: _____
TYPE OF METER AND MFG.: _____
MANHOLE NUMBER + TYPE: _____
POLE NUMBER + SIZE: _____
STREET ADDRESS: _____
NAME OF PERSON PERFORMING TEST: _____
W.F. #: _____
TEMPERATURE (AIR): ____°F
SIZE OF GROUND RODS: 5/8 DIA COPPER CLAD, UNLESS NOTED
SIZE OF CABLE FOR GROUND WIRE AND/OR COUNTERPOISE IS 4/0 COPPER (BARE) 7 STRAND, UNLESS NOTED

INSTALL FEET OF GROUND RODS TOTAL PER LOCATION		INSTALL FEET OF COUNTERPOISE TOTAL PER LOCATION		MEASURED RESISTANCE OF GROUND RODS (OHMS)		MEASURED RESISTANCE OF COUNTERPOISE (OHMS)		MEASURED RESISTANCE OF GROUND RODS AND COUNTERPOISE (OHMS)		SOIL CONDITION i.e. ROCK, CLAY SAND, WET OR DRY		METHOD OF CONNECTION TO GROUND RODS i.e. CADWELD BOLTED, AMPACT, CRIMP.		CURRENT READING (AMPS)		MEASURED WATER LEVEL IN MANHOLE (FT)		REMARKS	
LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2	LOCATION #1	LOCATION #2		

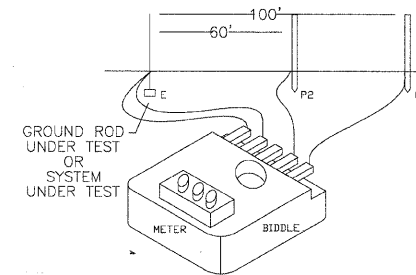
NOTE:
A HIGH READING INDICATES ONE OR MORE OF THE FOLLOWING:
1) POOR GROUND RODS.
2) OPEN GROUND CONDUCTOR.
3) HIGH RESISTANCE, DUE TO POOR CONNECTIONS ON RODS, HARDWARE & CLAMPS.
4) METER CLAMP IS IMPROPERLY CLOSED.
5) FAULTY METER.

**DATA SHEET FOR RECORDING
GROUND RESISTANCE BY THE FALL OF POTENTIAL METHOD.**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	77
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

DATE: _____
TYPE OF METER AND MFG.: _____
MANHOLE NUMBER + TYPE: _____
POLE NUMBER + SIZE: _____
STREET ADDRESS: _____
NAME OF PERSON PERFORMING TEST: _____
W.F. #: _____
TEMPERATURE (AIR): ____°F
SIZE OF GROUND RODS: 5/8 DIA COPPER CLAD, UNLESS NOTED
SIZE OF CABLE FOR GROUND WIRE AND/OR COUNTERPOISE IS 4/0 COPPER (BARE) 7 STRAND, UNLESS NOTED

TEST INSTRUMENT:
MANUFACTURER: _____
MODEL NO.: _____
CALIBRATION DATE: _____



TEST METHOD USED
1) 3 POINT ELECTRODE AC "FALL-OF-POTENTIAL"

LOCATION	TEST METHOD	NO. OF RODS	ROD SIZE & LENGTH	DISTANCE BETWEEN RODS (FT.)	AUX. ELECTRODE TEST POINT (FT.)		RESISTANCE OHMS	REMARKS
					P2	C2		

NOTE

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.:	CAD FILE:	
JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		0054679001D22.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
DETAILS	JK, PM	EU13-04-06	
DATE	4-01 09	WORK REQUEST NO.	CHKD:
ISSUED		54679	SBC:
ENGINEER	PSM	APRV:	SCALE:
REVISION	1 2 3		NTS
			SHEET 22 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	78
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

I. GENERAL

- A. THIS SPECIFICATION COVERS THE SODDING AND SEEDING THAT ARE APPLICABLE TO ALL CITY PROPERTIES.
- B. ALL CONTRACTOR'S OPERATIONS ON CITY PROPERTIES SHALL MEET THE APPROVAL OF AND SHALL BE DONE TO THE SATISFACTION OF THE GENERAL SUPERINTENDENT OF THE CITY OR HIS AUTHORIZED REPRESENTATIVE.
- C. THE CONTRACTOR SHALL DEPOSIT WITH THE CITY A CERTIFIED OR CASHIER'S CHECK IN AN AMOUNT AS SPECIFIED IN "SPECIAL INSTRUCTIONS" OF THE "GENERAL SPECIFICATION AND INSTRUCTIONS TO BIDDERS". THE CONTRACTOR SHALL ALSO FURNISH THE CITY WITH A CERTIFICATE OF INSURANCE, PUBLIC LIABILITY AND PROPERTY DAMAGE. IN THE EVENT THE INSURANCE IS DEEMED UNSATISFACTORY BY THE CITY, THE CONTRACTOR SHALL, UPON REQUEST, FURNISH THE CITY WITH A SURETY BOND IN AN AMOUNT AS SPECIFIED IN THE SPECIFICATION "SPECIAL INSTRUCTIONS" OF THE "GENERAL SPECIFICATION".
- D. ALL WORK SHALL BE PAID FOR WORK, IN PLACE. ALL MEASUREMENT MADE BY THE CITY OF NAPERVILLE WITH ASSISTANCE OF THE CONTRACTOR OR NO ASSISTANCE IS FINAL.

II. NOTIFICATION

THE CONTRACTOR SHALL GIVE THE CITY 72 HOURS PRIOR NOTICE, EXCLUSIVE OF SATURDAYS, SUNDAYS OR LEGAL HOLIDAYS, BEFORE STARTING WORK OR ANY OPERATIONS ON THE CITY'S PROPERTY.

III. TREE REMOVAL AND PROTECTION

- A. ONLY TREES AND/OR OTHER PLANTINGS MARKED WITH PAINT SHALL BE REMOVED OR TRIMMED. ALL OTHER TREES OR PLANTINGS WITHIN THE WORK AREA ARE TO BE PROTECTED BY WOOD CRIBBING. ALL OTHER WORK REQUIRED SHALL BE DIRECTED BY THE PROJECT ENGINEER.

IV. SODDING

- B. ALL CONSTRUCTION STORAGE OF EQUIPMENT AND MATERIALS SHALL BE CONFINED TO THE RIGHT-OF-WAY OR SET ASIDE AREA PROVIDED BY THE CONTRACTOR OFF SITE AND SUBJECT TO THE APPROVAL OF THE GENERAL SUPERINTENDENT OF THE CITY OR HIS AUTHORIZED REPRESENTATIVE. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFIRMED TO THE RIGHT-OF-WAY.
 - C. ALL SURPLUS EXCAVATED MATERIALS SHALL BE DISPOSED OF OFF THE CITY'S PROPERTY. ALL TREES, STUMPS AND OTHER DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE DISPOSED OF OFF THE CITY'S PROPERTY.
 - D. IMMEDIATELY AFTER CONSTRUCTION OPERATIONS HAVE BEEN COMPLETED, ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE GRADED AS NEARLY AS POSSIBLE TO THEIR ORIGINAL CONTOURS EXCEPT AREAS OF EXCAVATION WHICH SHALL BE NEATLY CROWNED OVER TO ALLOW FOR SETTLEMENT.
 - E. THE CONTRACTOR SHALL RETAIN A LICENSED LANDSCAPE CONTRACTOR APPROVED BY THE CITY TO PERFORM ALL THE FINAL TOPSOILING, FINE GRADING AND SEEDING OR SODDING WORK IN ACCORDANCE WITH PARAGRAPH E AND F BELOW. THE SEEDING OR SODDING SHALL BE DONE UNDER THE SUPERVISION OF THE CITY IN THE PROPER SEASON FOR SUCH WORK AND SHALL BE AT NO COST TO THE CITY.
 - F. THE GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED WITH SOD AND 6 INCHES OF BLACK PULVERIZED DIRT, AREA PREPARED, EXISTING DIRT AND GRASS DEBRIS REMOVED AND DISPOSED OF OFF SITE, MADE LEVEL AND GRADED, ALL AREAS SHALL PROMOTE DRAINAGE, ALL EXCAVATED MATERIALS AND EXISTING GRASS AND LANDSCAPING SHALL BE REMOVED AND UNACCEPTABLE FILL REMOVED AND DEPOSITED OFF SITE.
 - G. ALL GRASS WORK AREA'S SHOWN ON THE CONSTRUCTION DRAWINGS PLUS ALL OTHER AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR AND IS INCIDENTAL TO THE WORK. THE CONTRACTOR IS ADVISED SOME OF THE WORK AREAS ARE BETWEEN ROAD WAY PROPERTY LINES AND WITHIN THE ROAD AREA AS SHOWN ON COUNTY DRAWINGS SHALL BE DONE TO THE DUPAGE COUNTY DEPARTMENT OF TRANSPORTATION, SATISFACTION OF THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR SURFACE RESTORATION, FOR ALL AREA'S INSIDE/OUTSIDE THE ROAD AREA'S. THE CONTRACTOR SHALL REVIEW ALL DRAWING PREPARED TO DETERMINE THE EXACT LIMITS OF THE ROADWAY TO DETERMINE THE RESTORATION AREA'S, WHICH IS THEREFORE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL NOT BE GIVEN ANY CONSIDERATION BY THE OWNER FOR ANY CLAIM ARISING OUT OF A LACK OF UNDERSTANDING, INTENT, OR INTERPRETATION NOT CONSIDER WITH DRAWINGS OF THE ROAD AS APPLIED TO SURFACE RESTORATION.
- ALL GRASS AREAS SHALL BE RESTORED WITH A MINIMUM 6 INCH LAYER OF DELIVERED SCREENED RICK DARK PULVERIZED TOP SOIL. TOP SOIL SHALL NOT BE PULVERIZED ON THE JOB SITE PRIOR TO THE APPLICATION OF THE TOP SOIL ALL EXCAVATIONS SHALL BE PROPERLY BACKFILLED AND COMPACTED SO AS MINIMIZE FUTURE SETTLEMENT. TOP SOIL SHALL BE FREE FROM ROOTS STICKS, WEEDS, BRUSH, STONES, OR OTHER LITTER, WASTE PRODUCTS OR VISIBLE ORGANIC MATERIALS SUCH AS WOOD. IT SHALL BE A LOAMY MIXTURE HAVING AT LEAST 90 PERCENT PASSING THE NO 10 SIEVE.

IV. SODDING (CONTINUED)

- H. A SAMPLE, FREE FROM EXTRANEIOUS MATERIALS, SHALL COMPLY WITH FOLLOWING REQUIREMENTS. IT SHALL CONTAIN NOT LESS THEN 1 PERCENT NOR MORE THAN 10 PERCENT ORGANIC MATTER AS DETERMINED BY THE TEST FOR ORGANIC MATTER IN ACCORDANCE WITH AASHTO T 194. IT SHALL CONTAIN NOT LESS THAN 12 PERCENT NOR MORE THAN 50 PERCENT CLAY AS DETERMINED IN ACCORDANCE WITH AASHTO 88. THE SAND CONTENT SHALL NOT EXCEED 55 PERCENT AS DETERMINED IN ACCORDANCE WITH AASHTO T 88.
- I. THE PH OF THE SAMPLE SHALL NOT BE LOWER THAN 5.0 OR HIGHER THAN 8.0. THE PH SHALL BE DETERMINED WITH AN ACCEPTABLE PH METER, IN THAT PORTION OF THE SAMPLE PASSING THE NO. 10 SIEVE, IN ACCORDANCE WITH THE SUGGESTED METHODS OF TEST FOR HYDROGEN ION CONCENTRATION (PH) OF SOILS INCLUDED IN THE PROCEDURES FOR TESTING SOILS ISSUED DECEMBER 1964 BY THE AMERICAN SOCIETY FOR TESTING AND MATERIALS.
- J. FERTILIZER SHALL BE A COMPLETE FERTILIZER, PART OF THE ELEMENTS OF WHICH IS DERIVED FROM ORGANIC SOURCES. IT SHALL CONTAIN A MINIMUM OF 5 PERCENT NITROGEN, 10 PERCENT PHOSPHORUS AND 5 PERCENT POTASH BY WEIGHT.
- K. SOD SHALL BE GOOD QUALITY KENTUCKY BLUE GRASS (POA PRATENSIS). SODDING SHALL BE DONE IN ACCORDANCE SECTION 252 (SODDING) OF THE LATEST REVISION OF THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, ILLINOIS DEPARTMENT OF TRANSPORTATION. THE SOD SHALL BE SALT TOLERANT. THE SOD SHALL BE STAKED TO MAINTAIN POSITION ON THE GROUND DUE TO A SLOPE OR A POSSIBLE TURNOFF.
- L. THE SOD SHALL BE STAKED ON ALL SLOPES OF 1:4 (V:H) OR STEEPER. SOD SHALL BE STAKED WITH NOT LESS THAN 4 STAKES WITH NOT LESS THAN 4 STAKES PER SQUARE YARD, WITH A MINIMUM OF ONE STAKE FOR EACH PIECE OF SOD, STAKES SHALL BE INSTALLED SO THEY HOLD THE SOD FIRMLY AND PRESENT NO DANGER TO PEDESTRIAN OR MOVING CREWS.
- M. WITHIN 2 HOURS AFTER THE SOD HAS BEEN PLACED, 5 GALLONS OF WATER PER SQUARE YARD SHALL BE APPLIED. ANOTHER WATERING WITHIN 3 DAYS OF THE PLACEMENT SHALL BE APPLIED (5 GAL/S.Y.), THEN ONE MORE WATERING WITHIN 5 DAYS OF THE LAST AT THE SAME 5 GAL/S.Y. RATE. HOWEVER, IN THE ABSENCE OF 1 INCH OF RAIN PER WEEK, SODDED AREAS SHALL BE WATERED A MINIMUM OF 3 TIMES A WEEK WITH 5 GALLONS OF WATER PER SQUARE YARD APPLIED FOR NOT LESS THAN 6 WEEKS USING CONTRACTOR'S SUPPLIED WATER AND AS CALLED FOR IN ACCORDANCE WITH SECTION 250 AND SECTION 252 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE LATEST REVISION, ILLINOIS DEPARTMENT OF TRANSPORTATION. ALL WATERING SHALL START THE DAY THE SOD IS FIRST PUT DOWN. ALL WATER USED SHALL BE CONTRACTOR SUPPLIED WATER. A FAILURE TO WATER THE SOD MAY RESULT IN THE CITY OF NAPERVILLE REJECTING ALL RESTORATION WORK PERFORMED. CITY OF NAPERVILLE SHALL REQUIRE ALL SOD IN AN AREA REMOVED, RE-PREP THE AREA, AND INSTALL NEW SOD.
- N. THE CONTRACTOR AT HIS EXPENSE SHALL DISPOSE OF SURPLUS MATERIALS AND WASTE ITEMS.
- O. SODDING SHALL BE MEASURED BY THE SQUARE YARD. ALL TURFED AREAS RESTORED WITH SOD WITHIN THE LIMITS OF RESTORATION WILL BE ELIGIBLE FOR PAYMENT. AREAS BEYOND THE PUBLIC RIGHT-OF-WAY OR THE EASEMENT AREAS SHOWN THAT ARE DISTURBED BY THE CONTRACTOR'S ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IN NO CASE SHALL THE PAY LIMITS FOR RESTORATION EXTEND BEYOND 20 FEET TOTAL WIDTH/RADIUS FROM THE CENTER OF THE PROPOSED UTILITY BEING CONSTRUCTED OR A 20 FEET WIDTH FOR A TRENCH LENGTH.
- P. CONTRACTOR IS ADVISED SODDING INSTALLATION, REMOVAL AND REPLACEMENT IS INCLUDED IN THE APPROPRIATE UNIT PRICING FOR FOUNDATIONS, POLE ERECTION, CONDUIT WORK, MANHOLE WORK AND VAULT WORK OR AS SPECIFIED.
- Q. ALL VANDALISM, RUTS, OR DAMAGE OF ANY KIND SHALL BE CAUSE FOR REPLACEMENT AT CONTRACTOR'S COST.
- R. PAYMENT FOR SODDING SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER SQUARE YARD FOR SALT TOLERANT SODDING. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS TO COMPLETE THE ITEM AS SHOWN ON THE PLANS AND AS SPECIFIED. FERTILIZING AND INITIAL WATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR SODDING.
- S. THE SODDING AND RESTORATION WORK SHALL CARRY A 1 YEAR 6 MONTHS GUARANTEE FROM THE DATE OF FINAL PAYMENT AND IS INCLUDED IN THE PRICING FOR THIS TEM.

V. SEEDING

- A. THE WORK SHALL INCLUDE THE SEEDING AND FERTILIZING OF ALL DISTURBED AREAS ALONG THE PROPOSED IMPROVEMENTS AS DIRECTED BY THE ENGINEER.
- B. SEEDING AND FERTILIZING MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 250 OF THE STANDARD SPECIFICATIONS. SEED SHALL BE CLASS 1A, SALT TOLERANT LAWN MIXTURE.
- C. CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIALS, DEBRIS AND RUBBISH RESULTING FROM CONSTRUCTION OPERATIONS, AND AN STONES OR BOULDERS LARGER THAN 1 INCH SHALL BE REMOVED FROM THE SITE.
- D. THE GROUND SHALL BE PREPARED PRIOR, BUT NOT IN EXCESS OF 24 HOURS BEFORE THE SEED IS PLACED. THE SOIL SHALL BE WORKED UNTIL IT IS RELATIVELY FREE FROM DEBRIS, WASHES, GULLIES, CLODS AND STONES. THE SURFACE SHALL BE WORKED TO A DEPTH OF NOT LESS THAN 3 INCHES, WITH A DISK, TILLER, OR THEIR EQUIPMENT APPROVED BY THE ENGINEER. PREPARED SURFACES THAT BECOME CRUSTED SHALL BE REWORKED TO AN ACCEPTABLE CONDITION FOR SEEDING AND A MINIMUM 6 INCHES OF PULVERIZED TOP SOIL SHALL BE PLACED OVER ALL DISTRIBUTED AREAS. ALL SOIL SURFACES SHALL BE MOIST WHEN THE SEED IS APPLIED. AREAS SHOWN TO BE AGRICULTURE IN NATURE SHALL BE RESTORED WITH AN EQUAL DEPTH OF TOP SOIL. SEEDED AREAS SHALL BE COVERED IMMEDIATELY AN EXCELSIOR BLANKET IS INCLUDED IN THIS WORK.
- E. FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATES:
 NITROGEN FERTILIZER NUTRIENTS 90 LBS/ACRE.
 PHOSPHORUS FERTILIZER NUTRIENTS 54 LBS/ACRE.
 POTASSIUM FERTILIZER NUTRIENTS 36 LBS/ACRE.
- F. HYDRO SEEDED WITH APPROVED GRASS SEED AT A RATE OF 175 POUNDS PER ACRE AND MULCHED AS DIRECTED BY THE CITY OF NAPERVILLE. THE CONTRACTOR SHALL FURNISH APPROVED TOP SOIL TO INSURE A 6 INCH COVERAGE OVER THE AREA TO SEEDED AND WATERED. THE SEED IS TO BE MIXED IN THE FOLLOWING PROPERTIES.
 40 LBS. KENTUCKY BLUE GRASS PLUS FERTILIZER PER IDOT REQUIREMENTS.
 40 LBS. ALTA FESCUE GRASS.
 20 LBS. PERENNIAL RYE GRASS.
- G. AREAS BEYOND THE PUBLIC RIGHT-OF-WAY OR THE EASEMENT AREAS SHOWN THAT ARE DISTURBED BY THE CONTRACTOR'S ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. IN NO CASE SHALL THE PAY LIMITS FOR RESTORATION EXTEND BEYOND 20 FEET TOTAL WIDTH/RADIUS FROM THE CENTER OF THE PROPOSED UTILITY BEING CONSTRUCTED OR A 20 FEET WIDTH FOR A TRENCH LENGTH.
- H. ALL SEEDED AREAS SHALL BE MOWED 4 TIMES TO A HEIGHT OF 3 INCHES. THE CUT MATERIAL SHALL NOT BE WIND ROWED OR LEFT IN A LUMPY CONDITION BY EVENLY DISTRIBUTED. AREAS BEYOND THE WORK AREA LIMITS SHOWN ON THE PLAN SHALL BE RESTORED TO BETTER OR EQUAL CONDITIONS AT THE CONTRACTOR'S EXPENSE.
- I. WITHIN 2 HOURS AFTER THE SEED HAS BEEN PLACED, 3 GALLONS OF WATER PER SQUARE YARD SHALL BE APPLIED. ANOTHER WATERING WITHIN 3 DAYS OF THE PLACEMENT SHALL BE APPLIED (3 GAL/S.Y.), THEN ONE MORE WATERING WITHIN 5 DAYS OF THE LAST AT THE SAME 3 GAL/S.Y. RATE. HOWEVER, IN THE ABSENCE OF 1 INCH OF RAIN PER WEEK, SEEDED AREAS SHALL BE WATERED A MINIMUM OF 3 TIMES A WEEK, WITH 3 GALLONS OF WATER PER SQUARE YARD APPLIED FOR NOT LESS THAN 6 WEEKS USING CONTRACTOR'S SUPPLIED WATER AND AS CALLED FOR IN ACCORDANCE WITH SECTION 250 AND SECTION 252 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE LATEST REVISION, ILLINOIS DEPARTMENT OF TRANSPORTATION. ALL WATERING SHALL START THE DAY THE SEED IS FIRST PUT DOWN. ALL WATER USED SHALL BE CONTRACTOR SUPPLIED WATER. A FAILURE TO WATER THE SEED MAY RESULT IN THE CITY OF NAPERVILLE REJECTING ALL RESTORATION WORK PERFORMED. CITY OF NAPERVILLE SHALL REQUIRE ALL SEEDED AREAS REMOVED, RE-PREP THE AREA, AND INSTALL NEW SEED.
- J. THIS WORK INCLUDES ALL SEED, FERTILIZER, WATERING, OTHER MATERIALS, LABOR EQUIPMENT AND INCIDENTALS TO COMPLETE THE JOB OR AS DIRECTED BY THE ENGINEER ON A UNIT OF PER ACRE.
- K. THE SEEDING AND RESTORATION WORK SHALL CARRY A 1 YEAR 6 MONTHS GUARANTEE FROM THE DATE OF FINAL PAYMENT (RECEIPT OF AS BUILTS') AND IS INCLUDED IN PRICING FOR THIS ITEM.
- L. CONTRACTOR IS ADVISED SEEDING INSTALLATION, REMOVAL AND REPLACEMENT IS INCLUDED IN THE APPROPRIATE UNIT PRICING FOR FOUNDATIONS, POLE ERECTION, CONDUIT WORK, MANHOLE WORK AND VAULT WORK OR AS SPECIFIED.
- M. ALL VANDALISM, RUTS, OR DAMAGE OF ANY KIND SHALL BE CAUSE FOR REPLACEMENT AT CONTRACTOR'S COST.
- N. PAYMENT FOR SEEDING SHALL BE MADE AT THE CONTRACT UNIT PRICE BID PER ACRE FOR SEEDING. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, EQUIPMENT AND INCIDENTALS TO COMPLETE THE ITEM AS SHOWN ON THE PLANS AND AS SPECIFIED. FERTILIZING AND INITIAL WATERING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR SEEDING.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	SODDING AND SEEDING WORK ON CITY PROPERTY OVERHEAD OR UNDERGROUND CONSTRUCTION (CONSTRUCTION SPECIFICATION)	DATE: 05-01-06 Page 1 of 3 56270-200
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NAPERVILLE PUBLIC UTILITIES DEPARTMENT	SODDING AND SEEDING WORK ON CITY PROPERTY OVERHEAD OR UNDERGROUND CONSTRUCTION (CONSTRUCTION SPECIFICATION)	DATE: 05-01-06 Page 2 of 3 56270-200
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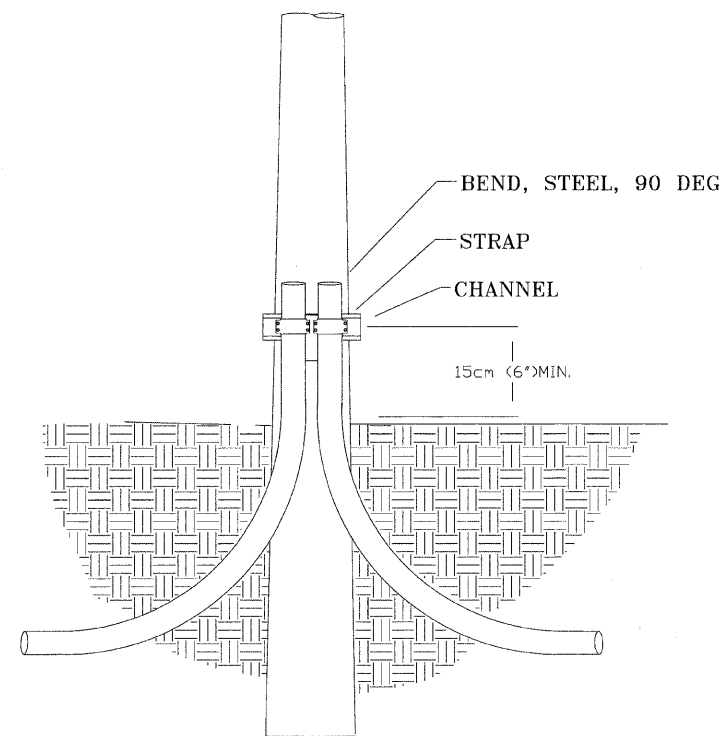
NAPERVILLE PUBLIC UTILITIES DEPARTMENT	SODDING AND SEEDING WORK ON CITY PROPERTY OVERHEAD OR UNDERGROUND CONSTRUCTION (CONSTRUCTION SPECIFICATION)	DATE: 05-01-06 Page 3 of 3 56270-200
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.:	CAD FILE:
PROJECT DESCRIPTION		DRAWN BY:	PROJECT NO.:
DATE		4-01-06	54679
ISSUED	ENGINEER	PSM	APRV:
REVISION	1	2	3
SHEET 23 OF 30		SCALE:	NTS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	79
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

DnB90SA: STANDOFF BEND ASSEMBLY

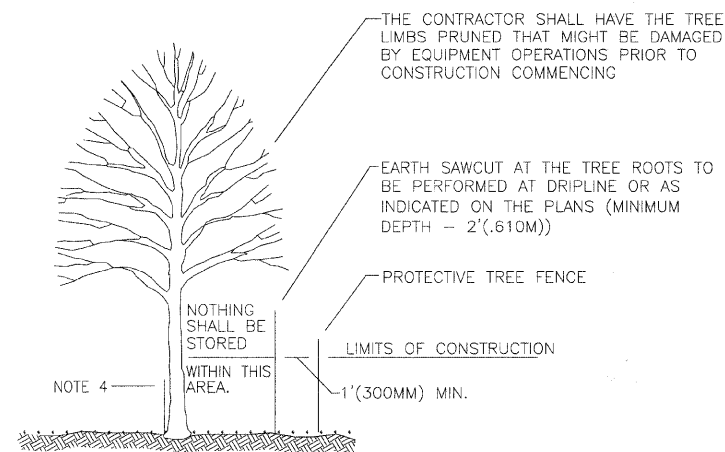
Item Code	Description 1	Description 2	DnB90SA		
			Qty	Qty	Qty
285 101 00140	ELBOW, 30°R STL 90 DEG 3"	GALVANIZED	2		
285 101 00180	ELBOW, 36°R STL 90 DEG 5"	GALVANIZED		2	
285 101 00210	ELBOW, 48°R STL 90 DEG 6"	GALVANIZED			2
285 102 00040	COUPLING, PVC 3"	LONG LINE SCH 40	2		
285 102 00110	COUPLING, PVC 5"	LONG LINE SCH 40		2	
285 102 00140	COUPLING, PVC 6"	LONG LINE SCH 40			2
285 199 00005	BRACKET, POLE, 3"	STANDOFF	1	1	1
285 199 00030	STRAP, 3" CONDUIT	WITH 2 BOLT, NUT & WASHERS	2		
285 199 00040	STRAP, 5" CONDUIT	WITH 2 BOLT, NUT & WASHERS		2	
285 199 00050	STRAP, 6" CONDUIT	WITH 2 BOLT, NUT & WASHERS			2
285 199 00070	CHANNEL, 12"	4-WAY T-SLOT	1	1	
285 199 00080	CHANNEL, 24"	4-WAY T-SLOT			1



ASSEMBLY CODES		
CODE	QTY	DESCRIPTION
DnB90SA	1	Standoff Bend Assembly
n is dependent on size		

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	STEEL BEND STUBS AT RISER POLE	DATE: 06-29-04 Page 1 of 1 C30-0320
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TREE PROTECTION DETAIL

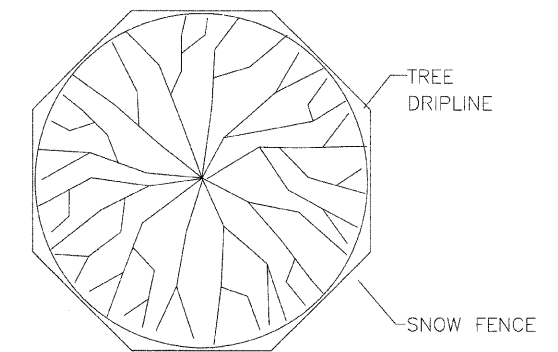


NOTE:

- IF A UTILITY MUST BE WITHIN 15 FEET OF A TREE TRUNK, IT IS RECOMMENDED THAT IT BE AUGERED.
- ALL TREES PROTECTED SHALL BE DEEP ROOT FERTILIZED.
- ALL TREES SHALL BE WATERED.
- PROTECT TREES WITH PLANKS FOR 10' ABOVE GROUND AND COMPLETELY AROUND TREE.
- ALL MATERIALS SUPPLIED BY CONTRACTOR.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	TREE PROTECTION DETAIL	DATE: 06-01-06 Page 1 of 1 56270-300
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RECOMMENDED PRACTICES FOR TREES TO BE SAVED



- SNOW FENCE SHALL EXTEND TO THE DRIPLINE OF THE TREE. THE SNOW FENCE SHALL BE HIGH ENOUGH SO AS TO BE VISIBLE TO ALL CONSTRUCTION PERSONNEL.
- GRADE CHANGES, UTILITY TRENCHES, STORAGE OF CONSTRUCTION MATERIAL, DUMPING OF WASTE OR STORAGE OF CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED WITHIN SNOW FENCING.
- IF A UTILITY MUST BE WITHIN 15'(4.57M) OF A TREE TRUNK, IT IS RECOMMENDED THAT IT BE AUGERED.
- ALL TREES TO BE SAVED WHICH HAVE BEEN SUBJECTED TO CONSTRUCTION ACTIVITY WITHIN THE DRIPLINE SHOULD BE SELECTIVELY THINNED 10% BY AN ARBORIST SKILLED AT THE SELECTIVE THINNING PROCEDURE. NONE OF THE TREES SHALL BE TOPPED, HEADED BACK, SKINNED (REMOVAL OF THE INTERIOR BRANCHES), OR CLIMBED WITH SPIKES. ALL DEAD WOOD SHOULD BE REMOVED TO AVOID HAZARD.
- IT IS RECOMMENDED THAT FOLLOWING CONSTRUCTION, TREES BE MAINTAINED IN THEIR NATIVE CONDITION. NO LAWN SHOULD BE PLACED AROUND THE TREES. IT IS RECOMMENDED THAT THE AREA BE MULCHED WITH 2"(50MM) OF DECOMPOSED LEAVES AND 2"(50MM) OF WOOD CHIPS OR BARK.
- ALL TREES PROTECTED SHALL BE DEEP ROOT FERTILIZED.
- ALL TREES SHALL BE WATERED.
- ALL MATERIALS SUPPLIED BY CONTRACTOR.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	RECOMMENDED PRACTICES FOR TREES TO BE SAVED	DATE: 06-01-06 Page 1 of 1 56270-310
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.: -	CAD FILE: 0054679001D24.DWG	
PROJECT DESCRIPTION DETAILS	DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06	
DATE 4-01-09	WORK REQUEST NO. 54679	CHKD:	SBC:
ISSUED ENGINEER PSM	APPR:	SCALE: NTS	COMPLETED BY:
REVISION	1	2	3
			SHEET 24 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	80
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

FOUNDATION AGGREGATE
ILLINOIS DEPARTMENT OF TRANSPORTATION
(CA8 OR CA9)

1. SCOPE
- 1.1 THIS SPECIFICATION COVERS FOUNDATION AGGREGATE CONSISTING OF CRUSHED STONE OR GRAVEL FOR USE IN STABILIZING OR SUSTAINING POLES AND STRUCTURES.
2. GENERAL
- 2.1 AGGREGATE SUPPLIED UNDER THIS SPECIFICATION SHALL COMPLY WITH ILLINOIS DEPARTMENT OF TRANSPORTATION SPECIFICATION, FOR GRADE CA8 (OR GRADE CA9 COARSE AGGREGATE) LATEST REVISION.
3. PHYSICAL PROPERTIES
- 3.1 GRADATION - THE AGGREGATE SHALL BE MIXED UNIFORMLY, SHALL BE WELL GRADED FROM THE MAXIMUM TO MINIMUM SIZE BETWEEN THE LIMITS SPECIFIED, AND WHEN TESTED WITH LABORATORY SIEVES (SQUARE OPENINGS), SHALL CONFORM TO THE GRADATION GIVEN IN THE FOLLOWING TABLE, WHICH SHOWS THE TOTAL PERCENTAGE PASSING EACH SIEVE.
- | | PERCENTAGE BY WEIGHT PASSING SIEVE | | | | |
|-----|------------------------------------|-------|-------|-------|------|
| | 1" | 1/2" | #4 | #16 | #200 |
| CA8 | 97±3 | 55±10 | 10±5 | 3±3 | - |
| CA9 | 97±3 | 60±15 | 30±15 | 10±10 | 6±6 |
- 3.2 DELETERIOUS SUBSTANCES - THE AGGREGATE SHALL CONSIST OF TOUGH, DURABLE PARTICLES, REASONABLY FREE FROM AN EXCESS OF SOFT AND UNSOUND MATERIAL AND OTHER OBJECTIONABLE MATTER.
- 3.3 OTHER PROPERTIES - AGGREGATE SUPPLIED UNDER THIS SPECIFICATION SHALL BE CAPABLE OF PASSING THE REQUIREMENTS FOR SOUNDNESS, RESISTANCE TO ABRASION, FREEZING AND THAWING AND LACK OF EXCESSIVE REACTIVE MATERIALS AS LISTED IN ASTM SPECIFICATION C33. THESE TESTS WILL BE ORDERED ON AGGREGATE OF QUESTIONABLE QUALITY ONLY WHEN THE SIZE OF THE SQUARE OF THE AGGREGATE AND THE POSSIBILITY OF IDENTIFYING FUTURE DELIVERIES FROM THIS SOURCE JUSTIFY SUCH TESTS.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	FOUNDATION AGGREGATE	DATE: 06-01-05
ELECTRIC STANDARDS	ILLINOIS DEPARTMENT OF TRANSPORTATION (MATERIAL SPECIFICATION)	Page 1 of 2 56270-900

4. SAMPLING
- 4.1 SEPARATE SAMPLES SHALL BE TAKEN FROM DIFFERENT PARTS OF THE STOCK PILE. THIS SHOULD BE DONE TO OBTAIN A COMPOSITE SAMPLE REPRESENTING THE AVERAGE OF THE PILE. AFTER THOROUGHLY MIXING THE COMPOSITE SAMPLE, IT SHALL BE Poured THROUGH THE SAMPLE CUTTER TO REDUCE ITS SIZE TO THAT REQUIRED FOR THE TESTS. THE BALANCE SHALL BE DISCARDED.
5. TESTING
- 5.1 THE PROPERTIES SPECIFIED IN THIS SPECIFICATION SHALL BE DETERMINED BY TESTS LISTED IN ASTM SPECIFICATION C33 OF LATEST ISSUE.
6. PACKAGING
- 6.1 THIS MATERIAL WILL BE PURCHASED EITHER IN BULK OR WEATERPROOF BAGS. "50 LBS. BAGS".
7. SUPPLEMENTARY SPECIFICATIONS
- 7.1 ASTM SPECIFICATION C33-90 OR LATEST REVISION.
8. ACCEPTANCE
- 8.1 ALL PROVISIONS OF THE PURCHASE ORDER SHALL APPLY.
9. CONSTRUCTION INFORMATION
- 9.1 THE CONTRACTOR SHALL FURNISH ALL ITEMS ON THIS SPECIFICATION.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	FOUNDATION AGGREGATE	DATE: 06-01-05
ELECTRIC STANDARDS	ILLINOIS DEPARTMENT OF TRANSPORTATION (MATERIAL SPECIFICATION)	Page 2 of 2 56270-900

INSTRUCTION FOR INSTALLING
AND FURNISHING RIP-RAP

THE CONTRACTOR SHALL FURNISH, INSTALL, REMOVE AND REPLACE THE RIP-RAP OF THE TYPE AND OF THE LOCATION SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. PROPOSED RIP-RAP SHALL BE GRADATED, EX. 107 MINIMUM THROUGH SIZE. RIP-RAP SHALL BE IN ACCORDANCE WITH SECTION 281 OF THE ILLINOIS STANDARD SPECIFICATIONS OF MATERIALS.

THE RIP-RAP INSTALLATION, REMOVE AND REPLACE SHALL BE MEASURED FOR PAYMENT IN PLACE, AND THE AREA COMPUTED IN SQUARE YARDS.

THE WORK FOR RIP-RAP IN PLACE OF THE TYPE SHOWN ON THE PLANS AND SPECIFIED HEREIN OR AS SHOWN ABOVE SHALL INCLUDE 2" MINIMUM THICKNESS, FURNISHING, INSTALLATION AND APPROXIMATELY 10% OVERLAP. A COMPLETE 10% PLUS FURNISHING AND GRADING.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	INSTRUCTION FOR INSTALLING AND FURNISHING RIP-RAP	DATE: 06-01-05
ELECTRIC STANDARDS		Page 1 of 1 56270-910

COARSE AGGREGATE

1. SCOPE
- 1.1 THIS SPECIFICATION COVERS COARSE AGGREGATE CONSISTING OF CRUSHED STONE OR GRAVEL FOR USE IN CONCRETE.
2. GENERAL
- 2.1 COARSE AGGREGATE SUPPLIED UNDER THIS SPECIFICATION SHALL COMPLY WITH ASTM SPECIFICATION C33-90 OF LATEST REVISION.
3. PHYSICAL PROPERTIES
- 3.1 GRADING - THE COARSE AGGREGATE SHALL BE WELL GRADED BETWEEN THE FOLLOWING LIMITS:

SIZE NO.	NOMINAL SIZE	PERCENTAGE BY WEIGHT PASSING SIEVE						
		1"	3/4"	1/2"	3/8"	#4	#8	#16
8	3/8" TO #8	-	-	100	85 TO 100	10 TO 30	0 TO 10	0 TO 5
7	1/2" TO #4	-	100	90 TO 100	40 TO 70	0 TO 15	0 TO 5	-
67	3/4" TO #4	100	90 TO 100	-	20 TO 55	0 TO 10	0 TO 5	-

- 3.2 DELETERIOUS SUBSTANCES (CLASS 3S) - THE AMOUNT OF DELETERIOUS SUBSTANCES IN COARSE AGGREGATE SHALL NOT EXCEED THE FOLLOWING ITEM.

ITEM	MAXIMUM PERMISSIBLE PERCENTAGE BY WEIGHT OF TOTAL SAMPLE
CLAY LUMPS AND FRIABLE PARTICLES	5.0
SUM OF CLAY LUMPS, FRIABLE PARTICLES AND CHERT	7.0
COAL AND IGNITE	0.5
MATERIAL FINER THAN #200 SIEVE	1.0

- 3.3 OTHER PROPERTIES - COARSE AGGREGATE SUPPLIED UNDER THIS SPECIFICATION SHALL BE CAPABLE OF PASSING THE REQUIREMENTS FOR SOUNDNESS, RESISTANCE TO ABRASION, FREEZING AND THAWING AND LACK OF EXCESSIVE REACTIVE MATERIALS AS LISTED IN ASTM SPECIFICATION C33. THESE TESTS WILL BE ORDERED ON COARSE AGGREGATE OF QUESTIONABLE QUALITY ONLY WHEN THE SIZE OF THE SOURCE OF THE AGGREGATE AND THE POSSIBILITY OF IDENTIFYING FUTURE DELIVERIES FROM THIS SOURCE JUSTIFY SUCH TESTS.
- 3.4 WEIGHT - THE QUANTITY IS IN TONS. UNIT OF ISSUE IS POUNDS. THE WEIGHT SHOULD BE DETERMINED AS LOADED IN THE HAULING UNIT, INCLUDING ANY NATURAL MOISTURE PRESENT. DO NOT ADD WATER.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	COARSE AGGREGATE	DATE: 06-01-05
ELECTRIC STANDARDS	(MATERIAL SPECIFICATION)	Page 1 of 2 56270-920

4. SAMPLING
- 4.1 SEPARATE SAMPLES SHALL BE TAKEN FROM DIFFERENT PARTS OF THE STOCK PILE. THIS SHOULD BE DONE TO OBTAIN A COMPOSITE SAMPLE REPRESENTING THE AVERAGE OF THE PILE. AFTER THOROUGHLY MIXING THE COMPOSITE SAMPLE, IT SHALL BE Poured INTO A PILE AND QUARTERED IN FOUR EQUAL PARTS. OPPOSITE QUARTERS SHALL BE DISCARDED, AND THE QUARTERING REPEATED UNTIL THE DESIRED SAMPLE REMAINS.
5. TESTING
- 5.1 THE PROPERTIES SPECIFIED IN THIS SPECIFICATION SHALL BE DETERMINED BY TESTS LISTED IN ASTM SPECIFICATION C33 OF LATEST REVISION.
- 5.2 ALL TEST RESULTS AND SAMPLES SHALL BE DELIVERED TO THE DEPARTMENT OF PUBLIC UTILITIES (ELECTRIC) 1392 AURORA AV. NAPERVILLE, IL. 60566.
6. SUPPLEMENTARY SPECIFICATIONS
- 6.1 ASTM SPECIFICATION C33-90 OR LATEST REVISION.
7. ESTIMATED WEIGHT
- 7.1 WEIGHT PER CUBIC FOOT.
- COARSE AGGREGATE - 90 LBS. - 95 LBS. LOOSE
130 LBS. DRY COMPACTED
140 LBS. WET COMPACTED
OPTIMUM MOISTURE
- NOTE: THE ABOVE WEIGHTS ARE FOR ESTIMATING PURPOSES ONLY. FOR EXACT WEIGHTS USE LABORATORY TEST RESULTS.
8. ACCEPTANCE
- 8.1 ALL PROVISIONS OF THE PURCHASE ORDER SHALL APPLY.
9. CONSTRUCTION INFORMATION
- 9.1 THE CONTRACTOR SHALL FURNISH ALL ITEMS ON THIS SPECIFICATION.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	COARSE AGGREGATE	DATE: 06-01-05
ELECTRIC STANDARDS	(MATERIAL SPECIFICATION)	Page 2 of 2 56270-920

INSTRUCTION FOR INSTALLING, REMOVAL AND REPLACEMENT
OF BITUMINOUS PAVEMENT (TYPE-II)

THIS SPECIFICATION COVERS THE REMOVAL, REPAIR, AND REPLACEMENT OF BITUMINOUS PAVEMENT (TYPE-II) ON EXISTING SUBGRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, REPAIR, AND REPLACEMENT OF BITUMINOUS PAVEMENT (TYPE-II) ON EXISTING SUBGRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, REPAIR, AND REPLACEMENT OF BITUMINOUS PAVEMENT (TYPE-II) ON EXISTING SUBGRADE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, REPAIR, AND REPLACEMENT OF BITUMINOUS PAVEMENT (TYPE-II) ON EXISTING SUBGRADE.

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NAPERVILLE PUBLIC UTILITIES DEPARTMENT	INSTRUCTION FOR INSTALLING, REMOVAL AND REPLACEMENT OF BITUMINOUS PAVEMENT (TYPE II)	DATE: 06-01-05
ELECTRIC STANDARDS		Page 1 of 1 56270-930

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE	JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.:	-	CAD FILE:	0054679001D25.DWG
PROJECT DESCRIPTION	DETAILS	DRAWN BY:	JK, PM	PROJECT NO.:	EU13-04-06
DATE	4-01-09	WORK REQUEST NO.	54679	CHKD:	
ISSUED		APPR:		SBC:	COMPLETED BY:
ENGINEER	PSM	SCALE:	NTS	SHEET	25 OF 30
REVISION	1	2	3		

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	81
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

IV. PLANTING (CONTINUED):

- 17) ALL TREES AND SHRUBS SHALL BE TOP THINNED OR PRUNED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE. PRUNING SHALL BE ONLY FOR THE PURPOSE OF BRACING TOPS TO ROOTS AND FOR THE REMOVAL OF INTERFERING BRANCHES AND BAD CROTCHES, BUT SHALL NOT CHANGE THE NATURAL GROWTH OR APPEARANCE OF THE PLANT.
- 18) ALL TOP THINNING OR PRUNING SHALL BE PERFORMED WITH THE PROPER TOOLS, PRUNING SHEARS OR LOPPING TOOLS. NORMAL TOP PRUNING OF BALLED STOCK WILL REQUIRE REMOVAL OF APPROXIMATELY ONE QUARTER OF THE BRANCHES; OF BARE ROOTED STOCK APPROXIMATELY ONE THIRD OF THE BRANCHES. ALL PRUNING WOUNDS SHALL BE PAINTED WITH AN APPROVED TREE WOUND DRESSING.

V. FERTILIZER

- 1) FERTILIZER SHALL BE A CONTROLLED RELEASE TYPE, SUCH AS MAGAMP, DISTRIBUTED BY JEFFY PRODUCTS OF AMERICA, P.O. BOX 338, WEST CHICAGO, ILLINOIS 60185, OR APPROVED EQUAL. THE FERTILIZER SHALL BE PLACED DIRECTLY INTO PLANTING PITS IN QUANTITIES AND METHOD AS SHOWN ON PLAN.

APPLICATION RATES AND METHODS FOR MAGAMP

a) 10 IN. BALL	2 OZS. COARSE	PLACE IN BOTTOM OF PLANTING PIT PRIOR TO PLANTING.
b) 12-16 IN. BALL	4 OZS. COARSE	PLACE IN BOTTOM OF PLANTING PIT PRIOR TO PLANTING.
c) 16-20 IN. BALL	8 OZS. COARSE	PLACE IN BOTTOM OF PLANTING PIT PRIOR TO PLANTING.
d) 2 FT. BALL	10-12 OZS. COARSE	PLACE IN BOTTOM OF PLANTING PIT PRIOR TO PLANTING.
e) 3 FT. BALL	1 TO 2 LBS. COARSE	PLACE IN BOTTOM OF PLANTING PIT PRIOR TO PLANTING.
f) BARE ROOT PLANTING 12 IN. TO 9 FT. TALL	2 OZS. TO 2 LBS. COARSE	PLACE IN BOTTOM OF PLANTING PIT AND COVER WITH 1/2 TO 1 IN. SOIL BARRIER.

VI. INSPECTION

- 1) INSPECTION OF ALL STOCK MAY BE MADE AT POINT OF ORIGIN OR POINT OF DELIVERY, OR BOTH BY OWNER'S REPRESENTATIVE. STOCK WHICH CANNOT BE SHOWN FOR INSPECTION ON TWENTY-FOUR HOUR NOTICE MAY BE REJECTED. AN INSPECTION DURING DIGGING WILL BE MADE WHENEVER SUCH EXAMINATION IS DEEMED DESIRABLE. FINAL INSPECTION WILL BE MADE BY THE SAME REPRESENTATIVE WHEN THE MATERIAL IS DELIVERED. THE OWNER RESERVES THE RIGHT TO REJECT ALL STOCK WHICH IS FOUND UNSATISFACTORY UPON DELIVERY.

VII. DELIVERY

- 1) ALL PLANTS SHALL BE PACKED FOR DELIVERY TO ENSURE ADEQUATE PROTECTION AGAINST CLIMATIC, SEASONAL, OR ANY OTHER INJURY DURING TRANSPORT. THE ROOTS OF BARE-ROOTED STOCK SHALL BE CAREFULLY PROTECTED WITH WET STRAW, MOSS OR OTHER SUITABLE PACKING MATERIAL WHICH WILL ENSURE THE ARRIVAL OF PLANTS AT THE DESTINATION IN GOOD CONDITION. SPECIAL ATTENTION SHALL BE GIVEN TO ENSURE PROMPT DELIVERY, CAREFUL HANDLING IN LOADING, PROTECTION BY CANVAS OR OTHER ACCEPTED METHODS IN TRANSIT, AND UNLOADING AT THE POINT OF DELIVERY.
- 2) THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR ALL UNPLANTED STOCK ON THE SITE BY CAREFULLY HEELING IN OR BY OTHER STANDARD APPROVED PRACTICES.

VIII. ROOT PRUNING

- 1) THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, A REGISTERED ARBORIST, A REGISTERED LANDSCAPE ARCHITECT, AND APPURTENANCES NECESSARY TO PERFORM TREE AND EVERGREEN ROOT PRUNING WORK SHALL BE COMPLETED IN CONFORMANCE WITH SECTION 201 OF THE "STANDARD ROAD SPECIFICATIONS" LATEST EDITION. THIS SHALL BE COMPLETED FOR ALL TREES ENCRUSHING UPON THE CONSTRUCTION AREA. ANY ROOTS ENCOUNTERED SHALL BE TREATED WITH THIS METHOD AS DIRECTED BY THE CITY.
- 2) ROOT PRUNING USING AN APPROVED MECHANICAL ROOT PRUNING SAW, OR LOPPER AS DIRECTED BY A REGISTERED ARBORIST, SHALL BE PERFORMED PRIOR TO DIGGING WHERE NOTED ON THE PLANS, PER CUSTOMER REQUEST OR AS DIRECTED BY THE ENGINEER. WHENEVER ROOTS OF PLANT MATERIAL ARE TO REMAIN EXPOSED DURING CONSTRUCTION, THE DAMAGED ROOTS ARE TO BE REMOVED BY CUTTING THEM OFF CLEANLY. PRUNING SHALL BE DONE IN THE PRESENCE OF THE ENGINEER AND/OR REGISTERED ARBORIST AND IN SUCH A MANNER AS TO PRESERVE THE NATURAL GROWTH HABIT.
- 3) ANY DAMAGE TO THE ROOT ZONE, AS DETERMINED BY THE ENGINEER AND/OR ARBORIST SHALL BE COMPENSATED BY PRUNING AN EQUIVALENT AMOUNT OF THE TOP VEGETATIVE GROWTH OF THE PLANT MATERIAL WITHIN 1 WEEK FOLLOWING ROOT DAMAGE. FERTILIZER NUTRIENTS SHALL BE APPLIED WITHIN 48 HOURS AFTER ROOT DAMAGE OCCURS. A FERTILIZER WITH A 1:1:1 RATION SHALL BE APPLIED AT THE RATE OF 5 LBS. OF NUTRIENTS PER 1000 SQ. FT.
- 4) APPLICATION SHALL BE ACCOMPLISHED BY PLACING DRY FERTILIZER IN HOLES IN THE SOIL. HOLES SHALL BE 8 TO 12 INCHES DEEP AND SPACED 2 FEET APART IN AN AREA BEGINNING 30 INCHES FROM THE BASE OF THE PLANT. HOLES CAN BE PUNCHED WITH A PUNCH BAR, DUG WITH A SPADE, DRILLED WITH AN AUGER OR ANY METHOD APPROVED BY THE ENGINEER. APPROXIMATELY 0.02 LB. OF FERTILIZER NUTRIENTS SHALL BE PLACED BY IN EACH HOLE (250 HOLES PER 1000 SQ. FT.).
- 5) IF THE ENGINEER OR ARBORIST DETERMINE THAT THE HOLE METHOD OF FERTILIZER PLACEMENT IS NOT PRACTICAL OR DESIRABLE, AN APPROVED METHOD OF UNIFORM SURFACE APPLICATION WILL BE ALLOWED.
- 6) IN THE CASE OF INADEQUATE RAINFALL, AS DETERMINED BY THE ENGINEER, SUPPLEMENTAL WATER SHALL BE APPLIED WITHIN 48 HOURS OF ANY ROOT DAMAGE. THE WATER SHALL BE APPLIED AT THE RATE OF 2 GALLONS PER SQ. YD. OF SURFACE WITHIN THE ROOT ZONE OF PLANT MATERIAL HAVING SUSTAINED DAMAGE TO THE ROOT ZONE. THREE SUBSEQUENT WEEKLY WATERING AT 2 GALLONS PER SQ. YD. SHALL BE APPLIED IF DEEMED NECESSARY BY THE ENGINEER. ADDITIONAL WATERING MAY BE REQUIRED. THE ENGINEER SHALL DIRECT THIS WORK.

IX. SUPPLEMENTAL WATERING

- 1) THIS WORK SHALL CONSIST OF FURNISHING SUPPLEMENTAL WATERING IN CONFORMANCE WITH IDOT ARTICLE 252.09 OF THE STANDARD SPECIFICATIONS.
- 2) SUPPLEMENTAL WATERING WILL BE MEASURED FOR PAYMENT IN UNITS OF 1000 GALLONS OF WATER APPLIED ON THE SODDED AREAS.
- 3) CONTRACTOR IS ADVISED SUPPLEMENTAL WATERING IS INCLUDED IN THE UNIT PRICING PER STRUCTURES, ERECTION, OR OTHER REMOVAL AND/OR FOUNDATION INSTALLATION. SUPPLEMENTAL WATERING IS AT THE DIRECTION OF THE ENGINEER.

X. MULCHING

- 1) THIS ITEM OF WORK SHALL INCLUDE THE MULCHING OF SEEDED AREAS ALONG THE PROPOSED IMPROVEMENTS AT THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
- 2) MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH SECTION 251 OF THE STANDARD SPECIFICATIONS. MULCH SHALL BE APPLIED AS HYDRAULIC MULCH AS SPECIFIED IN IDOT ARTICLE 251.03 (c), METHOD 3 OF THE STANDARD SPECIFICATIONS. MULCH SHALL BE APPLIED TO ALL SEEDED AREAS WITHIN 24 HOURS FROM THE TIME SEED HAS BEEN APPLIED.
- 3) CONTRACTOR IS ADVISED MULCHING IS INCLUDED IN THE UNIT PRICING PER FOOT FOR INSTALLING CONDUIT, FOUNDATION POLE OR REMOVAL.
- 4) MULCHING WILL BE MEASURED IN PLACE IN ACRES OF SURFACE AREA MULCHED. THE PRICE SHALL INCLUDE ALL MATERIALS, LABOR, EQUIPMENT FOR PLACING THE MULCH OVER SEEDED AREAS AS SPECIFIED. MULCHING SHALL BE AT THE DIRECTION OF THE ENGINEER.

XI. CONTRACTOR'S RESPONSIBILITY AND GUARANTEE

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PLANTS FOR ONE YEAR FOLLOWING THE DATE OF PLACEMENT INCLUDING WATERING ALL PLANTS AT THE TIME OF PLANTING AND AS NEEDED THROUGHOUT THE GROWING SEASON. HE SHALL VISIT THE SITE MONTHLY DURING THE GROWING SEASON TO CHECK THE PLANTS' CONDITION, AND SHALL REPORT HIS FINDINGS TO THE OWNER'S REPRESENTATIVE.

IF AT THE TIME OF HIS VISIT, OR DURING A ROUTINE CHECK BY THE OWNER'S REPRESENTATIVE, IT IS DETERMINED THE PLANTS NEED WATER, THE PLANTS SHALL BE WATERED WITHIN THREE DAYS FROM THAT DATE. NOTICE WILL BE GIVEN THE CONTRACTOR BY THE OWNER'S REPRESENTATIVE BY TELEPHONE AND BY LETTER.

- 2) ALL PLANTS, WHICH WITHIN EIGHTEEN MONTHS FOLLOWING THE DATE OF THE PLANTING AND ACCEPTANCE BY THE OWNER, ARE IN AN UNHEALTHY CONDITION OR ARE UNSHAPELY DUE TO DEAD OR DYING PARTS, EXCEPT THOSE PLANTS WHOSE CONDITION IS CAUSED BY VANDALISM OR BY RABBITS, SHALL BE REPLACED AT NO EXTRA COST TO THE OWNER. ALL REPLACEMENT PLANTS SHALL BE SELECTED, DELIVERED AND PLANTED IN ACCORDANCE WITH THIS SPECIFICATION. ALL REPLACEMENT PLANTS SHALL BE GUARANTEED FOR EIGHTEEN MONTHS FROM TIME OF REPLACEMENT AND SHALL RECEIVE THE SAME CARE AND TREATMENT AS THE ORIGINAL PLANTING.

THE CONTRACTOR WITH THE WRITTEN REPORT FROM THE ARBORIST, AND THE OWNER'S REPRESENTATIVE WILL DETERMINE, AND WILL AGREE IN WRITING, THE CAUSES OF THE PLANT'S DEATH OR DISFIGURATION. THE CONTRACTOR WILL RECEIVE IN WRITING A LIST OF ALL PLANTS THAT SHALL BE REPLACED. UPON RECEIPT OF THIS LIST, THE CONTRACTOR SHALL, WITHIN THE SAME PLANTING SEASON AS THE DATE OF THE LIST, REMOVE ALL PLANTS ON THE LIST AND REPLACE THEM WITH HEALTHY PLANTS.

THE CONTRACTOR SHALL FURNISH AND HAVE AVAILABLE DURING THE LENGTH OF THE PROJECT A LICENSED, CERTIFIED ARBORIST FOR RECOMMENDATIONS, PURCHASE OF PLANT MATERIALS, DIRECTIONS, SUGGESTION AND GENERAL OVERSIGHT OF ALL ROOT PRUNING AND PLANTING OPERATIONS.

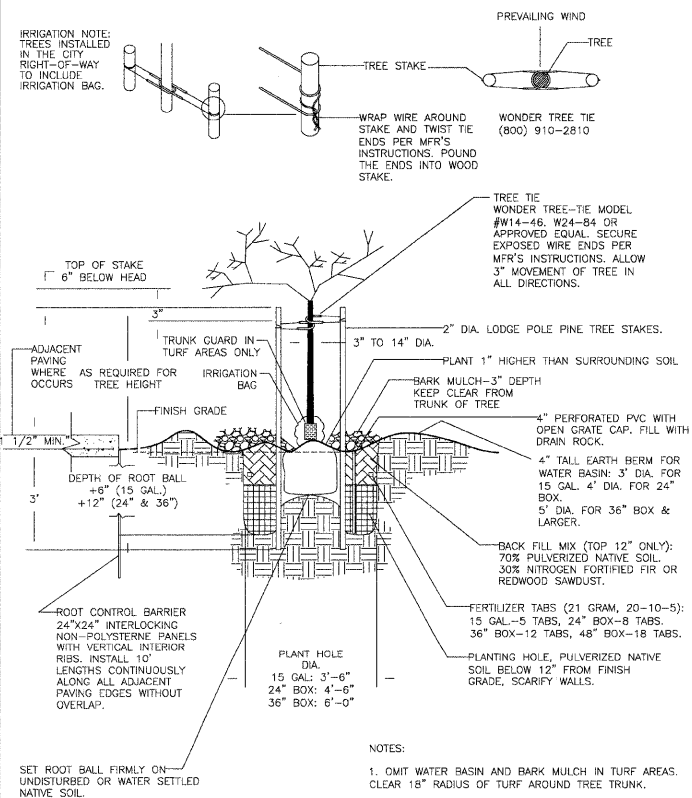
- 3) CONTRACTOR SHALL FURNISH, DELIVER, INSTALL STORE, AND MAINTAIN ALL PLANT MATERIALS INCLUDING TREES, SHRUBS AND FLOWERS FOR THE DURATION OF THE CONTRACT AND GUARANTEE PERIOD. ALL WATERING AND WINTER PROTECTION AT THE CONTRACTOR'S COST AND IS INCLUDED IN THE PRICING.
- 4) THE CONTRACTOR SHALL FURNISH ALL MATERIALS, FEES, TOOLS, FERTILIZER, WATER AND PLANT MAINTENANCE ON THIS SPECIFICATION PLUS ALL LANDSCAPING MATERIALS AND LABOR.
- 5) CONTRACTOR SHALL PROVIDE FOR PROTECTION OF TREES, SHRUBS AND EVERGREENS.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TRANSMISSION LINE LANDSCAPING OVERHEAD OR UNDERGROUND (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 7 of 11 56270-1000
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NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TRANSMISSION LINE LANDSCAPING OVERHEAD OR UNDERGROUND (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 8 of 11 56270-1000
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NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TRANSMISSION LINE LANDSCAPING OVERHEAD OR UNDERGROUND (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 9 of 11 56270-1000
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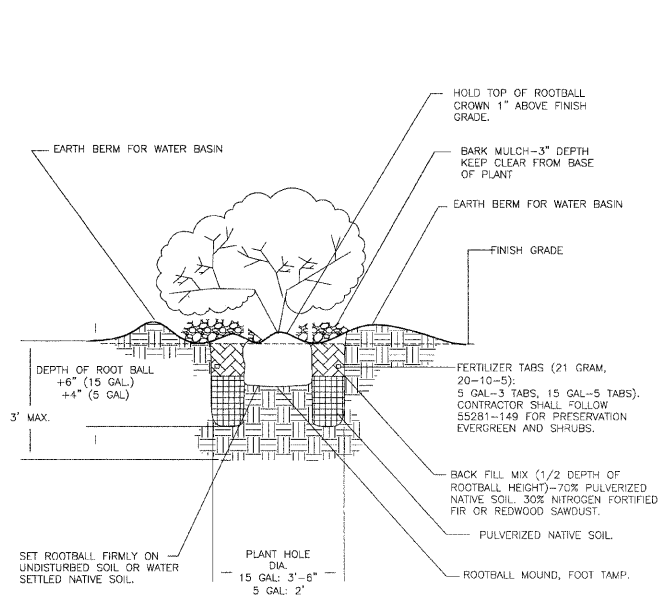
TREE PLANTING "DETAIL"



- NOTES:
1. OMIT WATER BASIN AND BARK MULCH IN TURF AREAS. CLEAR 18" RADIUS OF TURF AROUND TREE TRUNK.
 2. ROOT BARRIER REQUIRED WHEN TREE IS LOCATED WITHIN EIGHT FEET OF PAVING.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TRANSMISSION LINE LANDSCAPING OVERHEAD OR UNDERGROUND (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 10 of 11 56270-1000
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EVERGREEN AND SHRUB PLANTING "DETAIL"



- IRRIGATION NOTE:
- WATER 3 TIMES A WEEK FOR 8 WEEKS. MINIMUM MORE, IF WEATHER CONDITIONS REQUIRE IT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	TRANSMISSION LINE LANDSCAPING OVERHEAD OR UNDERGROUND (CONSTRUCTION SPECIFICATION)	DATE: 05-01-05 Page 11 of 11 56270-1000
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE	MAP NO.:	CAD FILE:	
JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION		0054679001D26.DWG	
PROJECT DESCRIPTION	DRAWN BY:	PROJECT NO.:	
DETAILS	JK, PM	EU13-04-06	
DATE	4-01-09	WORK REQUEST NO.	CHKD:
ISSUED		54679	SBC:
ENGINEER	PSM	AFRV:	COMPLETED BY:
REVISION	1 2 3	SCALE:	NTS
			SHEET 26 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	82
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

INSTRUCTION FOR INSTALLING AND REMOVING A SILT FENCE

THE CONTRACTOR SHALL FURNISH AND INSTALL AND LINEAR FEET IN PLACE WITH ALL MATERIAL, EQUIPMENT AND LABOR FOR THE INSTALLATION OF A GEOTECHNICAL SILT FENCE FOR TEMPORARY EROSION CONTROL.

GEOTECHNICAL FABRIC. FABRIC FOR SILT FENCE SHALL CONSIST OF WOVEN OR NONWOVEN FILAMENTS OF POLYPROPYLENE, POLYESTER OR POLYETHYLENE. NONWOVEN FABRIC MAY BE NEEDLE PUNCHED, HEAT-BONDED, RESIN-BONDED OR COMBINATION THEREOF. THE FILAMENTS IN THE SILT FENCE FABRIC MUST BE DIMENSIONALLY STABLE (I.E., TO EACH OTHER), RESISTANT TO DELAMINATION, AND MUST BE FREE FROM ANY CHEMICAL TREATMENT OR COATING THAT MIGHT SIGNIFICANTLY REDUCE POROSITY AND PERMEABILITY. BOTH FABRICS SHALL BE RESISTANT TO ULTRAVIOLET RADIATION. THE FABRICS SHALL COMPLY WITH THE FOLLOWING PHYSICAL PROPERTIES.

PHYSICAL PROPERTIES	SILT FILTER FENCE FABRIC
GRAB TENSILE STRENGTH (LBS.) ASTM D 4632	200 (MIN.) †
GRAB ELONGATION @ BREAK (%) ASTM D 4632	12 (MIN.) †
BURST STRENGTH (PSI) - ASTM D 751	250 (MIN.) ‡
TRAPEZOIDAL TEAR STRENGTH (LBS.) ASTM D 4533	-----
WIDTH (FT.)	3.5 (MIN.)
WEIGHT (OZ/SQ) - ASTM D 3776	4.0 (MIN.)
EQUIVALENT OPENING SIZE (EOS) SIEVE NO. CORPUS OF ENGRS. CS-02215	30 (MIN.) (NON-WOVEN) ‡ 50 (MIN.) (WOVEN) ‡

† FOR WOVEN FABRIC, TEST RESULTS SHALL BE REFERENCED TO ORIENTATION WITH WARP OR WEAVE, AND WHICH EVER THE CASE MAY BE, BOTH WOVEN AND NONWOVEN FABRIC SHALL BE TESTED WET.
‡ TEST RESULTS MAY BE OBTAINED BY MANUFACTURER'S CERTIFICATION.

STAKES MAY BE EITHER WOODEN OR METAL POSTS.
THE FILTER BLANKET SHALL BE DELIVERED TO THE JOBSITE IN SUCH A MANNER AS TO FACILITATE HANDLING AND INCORPORATION INTO THE WORK WITHOUT DAMAGE. IN NO CASE SHALL THE FABRIC BE STORED OR EXPOSED TO DIRECT SUNLIGHT THAT MIGHT SIGNIFICANTLY DIMINISH ITS STRENGTH OR TOUGHNESS PRIOR TO ITS INTENDED USE AS A SILT FENCE. THE FABRIC SHALL BE RESISTANT TO ULTRAVIOLET RADIATION FOR THE DURATION OF THE CONSTRUCTION PROJECT.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	INSTRUCTION FOR INSTALLING AND REMOVING A SILT FENCE	DATE: 05-01-05 Page 1 of 2 56270-1100
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INSTRUCTION FOR INSTALLING AND REMOVING A SILT FENCE

EXISTING WOODEN OR METAL POSTS SPACED AT ABOUT 1.5M (5FT.) INTERVALS MAY BE UTILIZED TO SUPPORT THE FILTER FABRIC. IN NEW CONSTRUCTION WHERE THERE ARE NO EXISTING POSTS AVAILABLE FOR SUPPORT, 1.8 M (6 FT.) LENGTHS OF TREATED 50 MM X 100 MM (2 INCH X 4 INCH) TIMBER OR GALVANIZED METAL POSTS SPACED AT ABOUT 1.5 M (5 FT.) SHALL BE INSTALLED. THE TIMBER OR METAL POSTS SHALL BE SET IN PREVIOUSLY DUG HOLES AND BACKFILLED TO FORM A STABLE SUPPORT FOR THE FABRIC, OR MAY BE DRIVEN PROVIDED THEY ARE PROTECTED BY A SUITABLE DRIVING CAP AND NO DAMAGE IS DONE TO ANY PORTION OF THE POST. THE POSTS SHALL BE SET PLUMB TO THE REQUIRED DEPTH AND ALIGNMENT WITH ADEQUATE MATERIAL STABILITY. A SMALL TRENCH OF ABOUT 150 MM (6 INCH) WIDTH AND 150 MM (6 INCH) DEPTH SHALL THEN BE EXCAVATED ON THE UPSTREAM SIDE OF THE SILT FENCE TO BURY AND ANCHOR THE LOWER PORTION ON THE FABRIC. THE FABRIC SHALL FIRST BE ATTACHED TO THE POSTS BY AN APPLICABLE MEANS. METAL STAPLES OR NAILS CAN BE USED TO ATTACH THE FABRIC TO WOODEN POSTS. WITH THE MINIMUM WIDTH OF THE FABRIC OF 1.1 M (3.5 FT.), ABOUT 300 MM (12 INCHES) SHALL BE BURIED IN THE TRENCH AND THEN BACKFILLED WITH NATURAL MATERIAL, TAMPING THE BACKFILL TO PROVIDE GOOD ANCHORAGE AND PREVENT SURFACE WATER RUNOFF FROM UNDERMINING THE FENCE.

THE SILT FILTER FENCE SHALL BE SATISFACTORILY MAINTAINED SO AS TO KEEP FUNCTIONING DURING THE LIFE OF THE PROJECT. THIS SHALL INCLUDE REMOVAL OF TRAPPED SEDIMENT AND CLEANING THE FABRIC OF TRAPPED SEDIMENT.

SILT FENCE WILL BE MEASURED IN LINEAR FEET OF FENCE IN PLACE.
THE WORK INCLUDES ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED MAINTENANCE OF THE FENCE, REMOVAL OF THE FENCE WHEN NO LONGER NEEDED, AND RESTORATION OF THE AREA.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	INSTRUCTION FOR INSTALLING AND REMOVING A SILT FENCE	DATE: 05-01-05 Page 2 of 2 56270-1100
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INSTRUCTION FOR REMOVAL AND REPLACEMENT OF P.C.C. SIDEWALK

THIS ITEM SHALL CONSIST OF THE REMOVAL OF EXISTING AND INSTALLATION OF NEW P.C.C. SIDEWALK OF VARIOUS TYPES AT THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL ALSO INCLUDE THE PREPARATION OF 6 INCHES CA-6 SUB-GRADE AND BASE, AND THE PLACEMENT OF A P.C.C. SIDEWALK OF 4 INCHES THICKNESS OR AS SPECIFIED ON THE PLANS, IN ACCORDANCE WITH SECTIONS 423 AND 440 OF THE STANDARD SPECIFICATIONS. CONCRETE SHALL BE IDOT CLASS S1.

SIDEWALK TO BE REMOVED SHALL BE AS INDICATED ON THE PLANS AND MARKED BY THE ENGINEER IN THE FIELD. WHEN THE SIDEWALK IS DAMAGED BY THE CONTRACTOR AND THAT ARE NOT MARKED FOR REMOVAL SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR IS ADVISED SIDEWALK REMOVAL AND REPLACEMENT IS INCLUDED IN THE APPROPRIATE UNIT PRICING FOR SWITCH GEAR VAULTS, SIDE WALK SPLICE BOXES, MANHOLES TRENCHES AND HANDHOLES.

P.C.C. SIDEWALK REMOVAL AND REPLACEMENT WILL BE MEASURED FOR PAYMENT IN PLACE, AND THE AREA COMPUTED IN SQUARE FEET. THE SIDEWALK IS 5 FEET WIDE BY 4 INCHES THICK WITH 6 INCHES OF CA-6 COMPACTED BACKFILL UNDER THE SIDEWALK. SIDEWALK INSTALLATION SHALL BE DONE FROM APRIL 15 TO NOVEMBER 15. ALL SIDEWALKS REMOVED AND/OR NOT COMPLETED BEFORE NOVEMBER 15 ARE TO BE TEMPORARILY PATCHED FOR WINTER SERVICE AND MAINTAINED BY THE CONTRACTOR. MEASUREMENT SHALL BE CONSIDERED FULL COMPENSATION FOR SAW CUTTING, EXCAVATING, STEEL PLATING, FLASHING SIGNBOARDS, REMOVAL AND DISPOSAL OF EXCAVATED MATERIALS, REMOVAL AND INSTALLATION OF TRENCH BACKFILL TO PREPARE SIDEWALK TO MATCH EXISTING SIDEWALK, PAVEMENT AND CURB AND GUTTER, CONCRETE PLACING AND FINISHING, 6 INCHES OF BLACK DIRT AND SOD, PEDESTRIAN TRAFFIC CONTROL, PLACING OF TEMPORARY COLD PATCH AND/OR CA-6 FOR WINTER, USE OF STEEL PLATES ACROSS DRIVEWAYS, ARROW BOARDS, 2 COATS OF CURING/SEALING COMPOUND, TRAFFIC CONTROL, LINE AND GRADE, PRESSURE WASHING OF ADJACENT SIDEWALKS TO REMOVE GREASE, STAINS OR OTHER MATERIALS NECESSARY TO COMPLETE THIS ITEM TO THE SATISFACTION OF THE ENGINEER. ALL SIDEWALKS INSTALLED SHALL BE USEABLE AS INTENDED. ALL VANDALISM OR DAMAGE OF ANY KIND SHALL BE CAUSE FOR REPLACEMENT AT CONTRACTOR'S COST.

SIDEWALK THICKNESS INCREASES TO 6 INCHES WHEN IT IS PART OF A RESIDENTIAL DRIVEWAY AND 9 INCHES THICK WHEN IT IS PART OF A COMMERCIAL DRIVEWAY.

THE CONTRACTOR SHALL BE PAID FOR ALL SIDEWALK REPLACEMENT SHOWN ON THE DRAWINGS AND OR DIRECTED BY THE ENGINEER.
THE ALL OTHER SIDEWALKS DAMAGED OR REMOVED BY THE CONTRACTOR IS INCIDENTAL TO THE CONTRACT.

ALL SIDEWALKS UNDERMINED OR DAMAGE OR MADE UNUSABLE OR CRACKED, IN ANY WAY BY THE CONSTRUCTION ACTIVITY SHALL BE REMOVED IN THE ENTIRETY AND INSTALLED NEW BY THE CONTRACTOR AT NO COST TO THE OWNER.

THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LINEAR FOOT FOR P.C.C. SIDEWALK REMOVAL AND REPLACEMENT, OF THE THICKNESS SPECIFIED, WHICH PRICE SHALL INCLUDE ALL REQUIRED EXPANSION JOINTS, SPECIAL TEXTURING, VARIABLE HEIGHT EDGE TREATMENTS AT SIDEWALK RAMPS, DISPOSAL AND ANTI-GRADE PREPARATION, FINISHING, PROTECTION OF THE WORK, ALL MATERIALS, LABOR, EQUIPMENT AND APPURTENANCES REQUIRED FOR A COMPLETE ITEM.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	INSTRUCTION FOR REMOVAL AND REPLACEMENT OF P.C.C. SIDEWALK	DATE: 05-01-05 Page 1 of 1 56270-1110
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RESTORATION OF WORK AREA AND ADJACENT AREA

THE CONTRACTOR IS ADVISED THE CUSTOMER MUST BE SATISFIED WITH ALL ASPECTS OF THE RESTORATION. THE CONTRACTOR SHALL START ALL AREAS THAT HAVE BEEN DISRUPTED DUG ON COMPACTED OR OTHER WISE USED BY THE CONTRACTOR'S ACTIVITY. ALL RESTORATION SHALL BEGIN WITHIN THREE WEEKS AFTER THE INITIAL ENTRY ONTO THE CUSTOMER'S PROPERTY. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO FINISH EACH PARCEL OF PROPERTY IN AN ORDERLY AND CONTINUOUS EFFORT TO THE FINISH. LARGE LAPSES OF TIME FROM STARTING TO FINISH ARE NOT ACCEPTABLE. THE CONTRACTOR SHALL BE REQUESTED TO INCREASE THE WORK FORCE AT NO COST TO SPEED UP THE RESTORATION PROCESS WHEN THE RESTORATION PROCESS TAKES LONGER THAN 6 WEEKS AT ANY LOCATION.

THE WORK AREA SHALL BE KEPT CLEAN AND GOOD HOUSEKEEPING IS THE RULE OF THE DAY. THE STORING STOCK PILING OR LEAVING MATERIALS IN THE WORK AREA OVER NIGHT IS NOT ACCEPTABLE. THE EQUIPMENT SHALL BE RETURNED TO THE STAGING AREAS AT THE END OF EACH DAY. ALL PERSONAL VEHICLES SHALL NOT BE PARKED ON ANY OF THE CITY OF NAPERVILLE STREETS.

THE LANDSCAPING PERIOD IS USUALLY APRIL 1 TO NOVEMBER 1. THE CONTRACTOR SHALL FINISH ALL LANDSCAPING STARTED IN THE WORK YEAR BY NOVEMBER 15 OF THE YEAR STARTED OR SOONER.

THE CONTRACTOR SHALL INSTALL ONLY SALT TOLERANT SOD AND 6 INCHES OF BLACK DIRT IN GREEN AREAS, AND GRASS AREAS OF ALL TYPES, AND/OR DIRT AREAS THAT HAVE BEEN DUG, EXCAVATED, DISRUPTED OR DAMAGED OR WORN BY USE. ALL LANDSCAPING SHALL BE FINISHED, INSTALLED, ROLLED, STAKED, SUPPLIED AND APPLIED WITH SUFFICIENT QUANTITIES OF WATER AND FERTILIZER TO PROMOTE GROWTH.

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS SUPPLIED AND INSTALLED BY THE CONTRACTOR FOR ONE YEAR FROM THE COMPLETION DATE OF THE CONTRACT. ALL MATERIALS INSTALLED SHALL BE REPLACED WITH NEW MATERIAL IN THE ENTIRETY IF AFTER ONE YEAR THE MATERIALS FAIL.

THE CONTRACTOR SHALL BE SUPPLIED WITH A TREE SURVEY PERFORMED BY THE CONTRACTOR'S ARBORIST AND WILL THE BENCHMARK USED TO RESTORE THE MINIMUM AMOUNT OF LANDSCAPING. THE CONTRACTOR SHALL TAKE A VIDEO OF THE ENTIRE RIGHT-OF-WAY PRIOR TO PERFORMANCE WORK. THIS VIDEO ALSO SHALL BE USED AS A BENCHMARK FOR RESTORATION.

THE CONTRACTOR SHALL PROVIDE A UNIT THAT IS THE TOTAL COST OF ALL LANDSCAPING AND RESTORATION OF THE CITY OF NAPERVILLE'S RIGHTS OF WAYS AND EASEMENTS TO BE DONE AND REQUIRED BUT NOT COVERED UNDER ANOTHER PRICE ITEM AS REQUIRED FOR A COMPLETE THE JOB. THIS UNIT INCLUDES, BUT NOT LIMITED TO, ALL LABOR, TRANSPORTATION, MATERIALS, HAULING, LOADING, UNLOADING, PLACING, INSTALLING, REMOVAL AND DISPOSAL OF ALL MATERIALS OFF-SITE FOR A COMPLETE JOB.

THIS WORK WILL BE PAID FOR AT THE CONTRACT PRICE OF A LUMP SUM AND SHALL INCLUDE ALL LABOR MATERIALS EQUIPMENT TRANSPORTATION AND INCIDENTALS REQUIRED TO PERFORM THE WORK AND MEETS ALL THE GOVERNMENTAL AND CUSTOMER REQUIREMENTS.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	RESTORATION OF WORK AREA AND ADJACENT AREA	DATE: 05-01-05 Page 1 of 2 56270-1130
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RESTORATION OF WORK AREA AND ADJACENT AREA

THE CONTRACTOR IS ADVISED THE CUSTOMER MUST BE SATISFIED WITH ALL ASPECTS OF THE RESTORATION. THE CONTRACTOR SHALL START ALL AREAS THAT HAVE BEEN DISRUPTED DUG ON COMPACTED OR OTHER WISE USED BY THE CONTRACTOR'S ACTIVITY. ALL RESTORATION SHALL BEGIN WITHIN THREE WEEKS AFTER THE INITIAL ENTRY ONTO THE CUSTOMER'S PROPERTY. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO FINISH EACH PARCEL OF PROPERTY IN AN ORDERLY AND CONTINUOUS EFFORT TO THE FINISH. LARGE LAPSES OF TIME FROM STARTING TO FINISH ARE NOT ACCEPTABLE. THE CONTRACTOR SHALL BE REQUESTED TO INCREASE THE WORK FORCE AT NO COST TO SPEED UP THE RESTORATION PROCESS WHEN THE RESTORATION PROCESS TAKES LONGER THAN 6 WEEKS AT ANY LOCATION.

THE WORK AREA SHALL BE KEPT CLEAN AND GOOD HOUSEKEEPING IS THE RULE OF THE DAY. THE STORING STOCK PILING OR LEAVING MATERIALS IN THE WORK AREA OVER NIGHT IS NOT ACCEPTABLE. THE EQUIPMENT SHALL BE RETURNED TO THE STAGING AREAS AT THE END OF EACH DAY. ALL PERSONAL VEHICLES SHALL NOT BE PARKED ON ANY OF THE CITY OF NAPERVILLE STREETS.

THE LANDSCAPING PERIOD IS USUALLY APRIL 1 TO NOVEMBER 1. THE CONTRACTOR SHALL FINISH ALL LANDSCAPING STARTED IN THE WORK YEAR BY NOVEMBER 15 OF THE YEAR STARTED OR SOONER.

THE CONTRACTOR SHALL INSTALL ONLY SALT TOLERANT SOD AND 6 INCHES OF BLACK DIRT IN GREEN AREAS, AND GRASS AREAS OF ALL TYPES, AND/OR DIRT AREAS THAT HAVE BEEN DUG, EXCAVATED, DISRUPTED OR DAMAGED OR WORN BY USE. ALL LANDSCAPING SHALL BE FINISHED, INSTALLED, ROLLED, STAKED, SUPPLIED AND APPLIED WITH SUFFICIENT QUANTITIES OF WATER AND FERTILIZER TO PROMOTE GROWTH.

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS SUPPLIED AND INSTALLED BY THE CONTRACTOR FOR ONE YEAR FROM THE COMPLETION DATE OF THE CONTRACT. ALL MATERIALS INSTALLED SHALL BE REPLACED WITH NEW MATERIAL IN THE ENTIRETY IF AFTER ONE YEAR THE MATERIALS FAIL.

THE CONTRACTOR SHALL BE SUPPLIED WITH A TREE SURVEY PERFORMED BY THE CONTRACTOR'S ARBORIST AND WILL THE BENCHMARK USED TO RESTORE THE MINIMUM AMOUNT OF LANDSCAPING. THE CONTRACTOR SHALL TAKE A VIDEO OF THE ENTIRE RIGHT-OF-WAY PRIOR TO PERFORMANCE WORK. THIS VIDEO ALSO SHALL BE USED AS A BENCHMARK FOR RESTORATION.

THE CONTRACTOR SHALL PROVIDE A UNIT THAT IS THE TOTAL COST OF ALL LANDSCAPING AND RESTORATION OF THE CITY OF NAPERVILLE'S RIGHTS OF WAYS AND EASEMENTS TO BE DONE AND REQUIRED BUT NOT COVERED UNDER ANOTHER PRICE ITEM AS REQUIRED FOR A COMPLETE THE JOB. THIS UNIT INCLUDES, BUT NOT LIMITED TO, ALL LABOR, TRANSPORTATION, MATERIALS, HAULING, LOADING, UNLOADING, PLACING, INSTALLING, REMOVAL AND DISPOSAL OF ALL MATERIALS OFF-SITE FOR A COMPLETE JOB.

THIS WORK WILL BE PAID FOR AT THE CONTRACT PRICE OF A LUMP SUM AND SHALL INCLUDE ALL LABOR MATERIALS EQUIPMENT TRANSPORTATION AND INCIDENTALS REQUIRED TO PERFORM THE WORK AND MEETS ALL THE GOVERNMENTAL AND CUSTOMER REQUIREMENTS.

NAPERVILLE PUBLIC UTILITIES DEPARTMENT ELECTRIC STANDARDS	RESTORATION OF WORK AREA AND ADJACENT AREA	DATE: 05-01-05 Page 2 of 2 56270-1130
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CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC			
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION			
PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION	MAP NO.: -	CAD FILE: 0054679001D27.DWG	
PROJECT DESCRIPTION DETAILS	DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06	
DATE 4-01 09	WORK REQUEST NO. 54679	CHKD:	SBC:
ISSUED	APPRV:	SCALE: NTS	COMPLETED BY:
ENGINEER PSM	1	2	3
REVISION			
			SHEET 27 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	83
STA. 4+38.47	TO STA. 14+62.4			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT 83827				

PLANTING TREES, SHRUBS, AND EVERGREENS 3" TO 5" DIA., 6" TO 8" DIA., 9" TO 11" DIA. AND 12" TO 15" DIA.

THIS WORK SHALL CONSIST OF PLANTING TREES, SHRUBS AND EVERGREENS OF VARIOUS SIZES AND TRUNK DIAMETERS. THE CONTRACTOR SHALL CAREFULLY EXAMINE THE PROPOSED LOCATION FOR FOREIGN UTILITIES, ROOM FOR GROWTH, SUITABLE DRAINAGE AND SUNLIGHT OR SHADE. THE ARBORIST SHALL BE ON THE PROJECT DURING THE ENTIRE PROCESS AND SHALL DIRECT THE PLANTING.

PRIOR TO PLANTING, EXAMINE THE AREA FOR OVERHEAD OBSTRUCTIONS WHEN DIGGING AND MOVING. CONTRACTOR SHALL UNDERTAKE ANY PRUNING REQUIRED REMOVING POORLY- POSITIONED OR DAMAGED LIMBS. THE CONTRACTOR SHALL IDENTIFY IF THE SPECIES, OR SOME PORTION THEREOF, IS DISEASED. THE CONTRACTOR SHALL DETERMINE IF THE TREE OR EVERGREEN IS A SAFETY CONCERN PRIOR TO PERFORMING ANY WORK. FOR EXAMPLE, IF IT CREATES A LINE OF SIGHT PROBLEM FOR VEHICLES. IF IN THE OPINION OF THE ARBORIST THE TREE OR EVERGREEN IS NOT PLANTABLE THEN THE TREE SHALL NOT BE PLANTED. CONTRACTOR SHALL EXAMINE THE NEW SITE FOR THE TREE'S HABITAT REQUIREMENTS. FOR EXAMPLE: WIND PROTECTION: TIME OF YEAR, SOIL PH, SUNLIGHT, DRAINAGE AND MOISTURE REQUIREMENTS. PLANT IN EARLY FALL, BEFORE FIRST FREEZE OR IN THE SPRING BEFORE THE BUDS ON THE TREES OR EVERGREENS BEGIN TO SWELL.

THE CONTRACTOR SHALL BE REQUESTED TO PLANT THE FOLLOWING TREE SPECIES:

USE IS GALLON SIZE OR 4 FEET HIGH OR 4" DIAMETER AS APPLICABLE.

RIVER BIRCH	SARGENT CRAB TREE
HACKBERRY	NINE BARK DARTS GOLD
HAWTHORN	SUMAC SMOOTH
LINDEN AMERICAN	ARROW WOOD VIBURNUM
MAPLE SILVER	WIEGELA FLORIDA
MAPLE NORWAY	CLEVELAND PEAR
OAK PIN	JAPANESE YEW
RED OAK	SUMATRAN YEW
ASH GREEN	ARBORVITAE GLOBE
SUMAC	ARBORVITAE TECHN
COLORADO SPRUCE	ARBORVITAE AMERICAN
BALSAM	MUGHO PIVE
SPRUCE	BOXWOOD WINTERGREEN
PINES OF VARIOUS SPECIES	DWARF RED BUCK EYE

THE CONTRACTOR SHALL PREPARE A DESIGN OF THE PLANTED TREE AS IT FITS ON THE PROPERTY BY AN ARCHITECT LANDSCAPER. THE DRAWING SHALL BE GIVEN TO THE ENGINEER.

THE CONTRACTOR SHALL GET APPROVAL FOR PLANTING FROM THE CITY OF NAPERVILLE PRIOR TO PLANTING.

THE CONTRACTOR SHALL IDENTIFY WHAT TYPE OF TREE SHALL BE PLANTED AND PREPARE TREE FOR SHIPPING AND PLANTING

THE CONTRACTOR SHALL MAINTAIN ALL ACTIVITIES WITHIN THE EASEMENTS OR PUBLIC WAYS ANY AND ALL OTHER MEANS TO PERFORM THE WORK IS AT THE CONTRACTORS EXPENSE AND SHALL OBTAIN PERMISSION FROM ALL LAND OWNERS TO USE THEIR PROPERTY.

THE CONTRACTOR UNDER THE DIRECTION OF AN ARBORIST SHALL PREPARE THE SITE FOR THE PLANTING, FERTILIZE, WATER, TRIM ADD MULCH, STAKE AS NECESSARY, PROVIDE DRAINAGE AND MAINTAIN FOR ONE YEAR.

TREES, SHRUBS AND EVERGREENS TO BE PLANTED SHALL BE MEASURED IN INCH-DIAMETER. THE DIAMETER WILL BE MEASURED AT A POINT FOUR (4) FEET ABOVE THE HIGHEST GROUND LEVEL AT THE BASE OF THE TREE OR EVERGREEN AND WILL BE DETERMINED BY ASSURING THE CIRCUMFERENCE OF THE TREE AND DIVIDING THIS MEASURED CIRCUMFERENCE BY 3.1416.

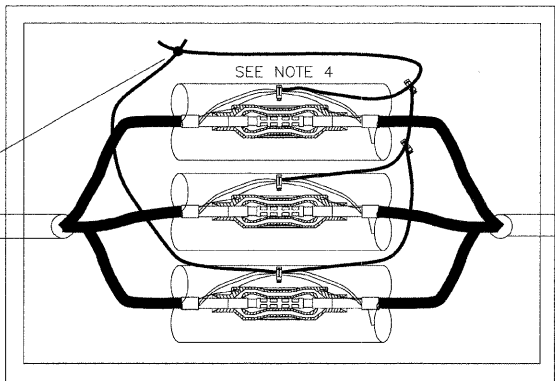
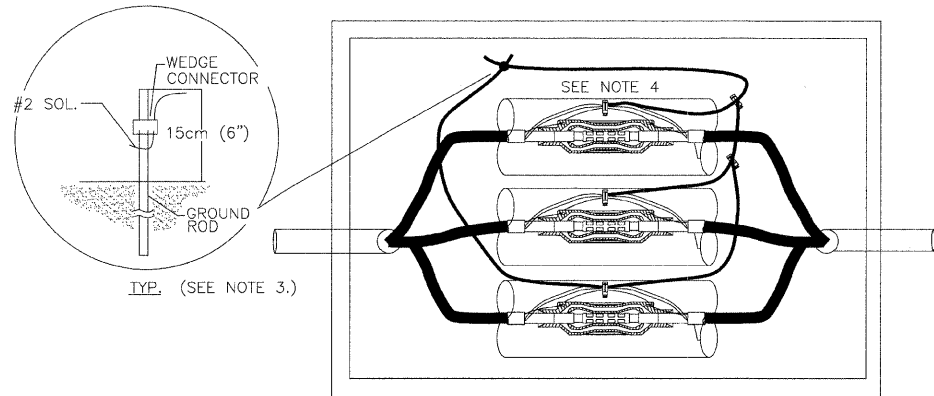
THE BASIS OF PAYMENT:

THIS WORK SHALL BE PAID FOR AT THE CONTRACT PRICE FOR EACH TREE SPECIES INSTALLED COMPLETE AND PLANTED, 3 INCHES TO 5 INCHES, 6 INCHES TO 8 INCHES OR 9 INCHES TO 11 INCHES OR 12 INCHES TO 15 INCHES. THIS INCLUDES EXCAVATING, REMOVING BALL, FERTILIZERS, EQUIPMENT OF ALL TYPES, HAULING, LOADING, UNLOADING, TRAFFIC CONTROL, STORAGE, NEW 6" INCH LAYER OF BLACK DIRT, MULCH, EDGING, STAKING, REMOVE ALL EXCAVATED MATERIAL OFF SITE, REMOVING AND INSTALLING FENCES, TEMPORARY WORK TO GET TO SITE, SETTING AND ALIGNING, PROVIDE TREES WITH ALL WATERING AND FERTILIZER AS REQUIRED, WITH MAINTENANCE AND ONE-YEAR GUARANTEE FROM LAST PAYMENT FOR THE ENTIRE PROJECT.

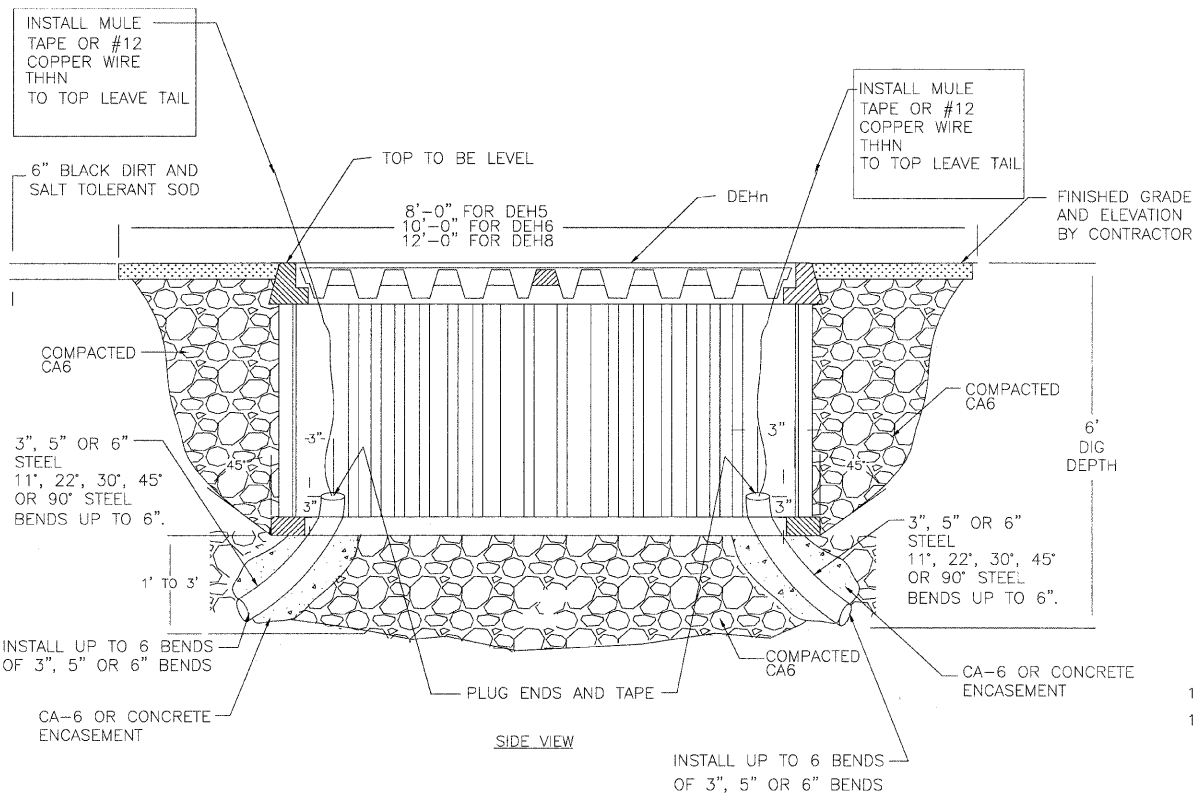
NAPERVILLE PUBLIC UTILITIES DEPARTMENT	PLANTING TREES, SHRUBS, AND EVERGREENS 3" TO 5" DIA., 6" TO 8" DIA., 9" TO 11" DIA. AND 12" TO 15" DIA.	DATE: 05-01-05 Page 1 of 1 56270-1210
ELECTRIC STANDARDS		

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION			MAP NO.:	CAD FILE: 0054679001D28.DWG	
PROJECT DESCRIPTION DETAILS			DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06	
DATE	4-01 09		WORK REQUEST NO.	CHKD:	SBC:
ISSUED			54679		COMPLETED BY:
ENGINEER	PSM			AFRY:	SCALE: NTS
REVISION		1	2	3	SHEET 28 OF 30

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	84
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				



TOP VIEW



SIDE VIEW

ASSEMBLY CODES		
CODE	QTY	DESCRIPTION
DEHn	1	SPLICE BOX
DnBxxP	**	BEND, PVC
DnBxxS	**	BEND, STEEL
UGHn	1	GROUNDING HANDHOLE

n dependent on size
xx bend angle dependent on field condition (typically 30°)
** quantity is dependent on application

NOTE:

- BENDS SHALL BE INSTALLED PER FIELD CONDITION.
- SPARES NOT SHOWN.
- GROUNDING WILL NOT BE INSTALLED AT TIME OF HANDHOLE INSTALLATION, BUT WILL BE INSTALLED WITH SPLICE.
- BREAK-AWAY MUST BE WRAPPED WITH AQUA SEAL MASTIC TO PREVENT TEARING OF HEAT SHRINK WRAP AROUND SLEEVE.
- INSTALL COVERS BEFORE BACKFILLING OPERATIONS TO HELP SUPPORT UPPER BOX SECTION WHILE EARTH IS PLACED AND COMPACTED.
- EXCAVATION:
8' LONG BY 6' DEEP BY 6' WIDE DEH5.
10' LONG BY 6' DEEP BY 6' WIDE DEH6.
12' LONG BY 6' DEEP BY 6' WIDE DEH8.
- BACK FILL WITH COMPACTED CA6.
- CUT HANDHOLE TO INSTALL PIPE, IF REQUIRED.
- ALL MATERIALS BY THE CITY EXCEPT BACKFILL AND RESTORATION.
- CABLE WORK NOT REQUIRED.
- RESTORATION BY CONTRACTOR.

DEHn: HANDHOLE (SPLICE BOX)

Item Code	Description 1	Description 2	DEH			
			5	6	8	8A
Qty	Qty	Qty	Qty	Qty	Qty	Qty
284 104 00010	HANDHOLE	36" X 60" X 36"	1			
284 104 00020	HANDHOLE	48" X 78" X 36"		1		
284 104 00030	HANDHOLE	48" X 96" X 36"			1	
284 104 00040	HANDHOLE, ADJUSTABLE	48" X 96" X 36"				1

DnBxxP: BEND, PVC

Assembly	Item Code	Description 1	Description 2	Qty
D3B30P	285 101 00025	ELBOW, PVC 30 DEG 3"	STANDARD RADIUS SCH 40	1
D3B45P	285 101 00030	ELBOW, 36"R PVC 45 DEG 3"	SCH 40	1
D3B90P	285 101 00040	ELBOW, 36"R PVC 90 DEG 3"	SCH 40	1
D5B30P	285 101 00080	ELBOW, 36"R PVC 30 DEG 5"	SCH 40	1
D5B45P	285 101 00090	ELBOW, 36"R PVC 45 DEG 5"	SCH 40	1
D5B90P	285 101 00100	ELBOW, 36"R PVC 90 DEG 5"	SCH 40	1
D6B30P	285 101 00220	ELBOW, 48"R PVC 30 DEG 6"	SCH 40	1
D6B45P	285 101 00230	ELBOW, 48"R PVC 45 DEG 6"	SCH 40	1
D6B90P	285 101 00240	ELBOW, 48"R PVC 90 DEG 6"	SCH 40	1

D3BxxS: BEND, 3" STEEL

Item Code	Description 1	Description 2	Qty
285 101 00140	ELBOW, 30"R STL 90 DEG 3"	GALVANIZED	1
285 102 00040	COUPLING, PVC 3"	LONG LINE SCH 40	1

D5BxxS: BEND, 5" STEEL

Item Code	Description 1	Description 2	D5B30S	D5B45S	D5B90S
Qty	Qty	Qty	Qty	Qty	Qty
285 101 00160	ELBOW, 36"R STL 30 DEG 5"	GALVANIZED	1		
285 101 00170	ELBOW, 36"R STL 45 DEG 5"	GALVANIZED		1	
285 101 00180	ELBOW, 36"R STL 90 DEG 5"	GALVANIZED			1
285 102 00110	COUPLING, PVC 5"	LONG LINE SCH 40	1	1	1

D6BxxS: BEND, 6" STEEL

Item Code	Description 1	Description 2	D6B11S	D6B22S	D6B30S	D6B45S	D6B90S
Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
285 101 00186	ELBOW, 48"R STL 11 DEG 6"	GALVANIZED	1				
285 101 00188	ELBOW, 48"R 22.5 DEG 6"	GALVANIZED		1			
285 101 00190	ELBOW, 48"R STL 30 DEG 6"	GALVANIZED			1		
285 101 00200	ELBOW, 48"R STL 45 DEG 6"	GALVANIZED				1	
285 101 00210	ELBOW, 48"R STL 90 DEG 6"	GALVANIZED					1
285 102 00140	COUPLING, PVC 6"	LONG LINE SCH 40	1	1	1	1	1

UGHn: GROUNDING, HANDHOLE

Item Code	Description 1	Description 2	UGH1	UGH3
Qty	Qty	Qty	Qty	Qty
280 107 00020	CU BARE SD	#2 SOL	10	30
283 156 00010	GROUND ROD COPPER CLAD	5/8" X 10'	1	1
286 100 00320	CONNECTOR, WEDGE CU	4/0 STR(7) - 5/8" ROD	1	1
286 101 00010	SHELL, WEDGE AMP	BLUE	1	1
286 199 00210	CONNECTOR, BREAK-AWAY CU	2SOL-2/OSTR X 2SOL-2/OSTR		2

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
ELECTRIC STANDARDS
HANDHOLE ASSEMBLY
DATE: 04-07-04
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C30-6336

NAPERVILLE PUBLIC UTILITIES DEPARTMENT
ELECTRIC STANDARDS
HANDHOLE ASSEMBLY
DATE: 04-07-04
Page 2 of 2
C30-6336

CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC

CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION

PROJECT TITLE	JEFFERSON AV. BRIDGE DUCTBANK INSTALLATION	MAP NO.:		CAD FILE:	0054679001D29.DWG
PROJECT DESCRIPTION	HANDHOLE DETAILS	DRAWN BY:	JK, PM	PROJECT NO.:	EU13-04-06
DATE	6-01 09	WORK REQUEST NO.	54679	CHKD:	
ISSUED	PSM	APPR:		SBC:	
ENGINEER		SCALE:	NTS	COMPLETED BY:	
REVISION	1 2 3				

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	85
STA. 4+38.47		TO STA. 14+62.4		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT 83827				

ELECTRIC DUCT BANK MATERIALS SUPPLIED BY THE CITY OF NAPERVILLE

Item Description	Part No.	HTE Code	Qty.	Unit
Transformer Vault Single Phase Fiber	284-101-00020	DEVTC	0	Each
Transformer Vault Extender	284-100-00120	DEVTE	0	Each
Transformer Vault 3 Phase Concrete (UCP)	28410200120	DEVT 1000C	0	Each
Manhole Type "A" PRECAST UCP	284-103-00140	DEMA	0	Each
Manhole Type "E" PRECAST UCP	284-103-00160	DEME	1	Each
Manhole Type "G" PRECAST UCP	284-103-00170	DEMG	2	Each
Manhole Type "X" PRECAST UCP		DEMX	0	Each
Vault, Switchgear, 74"x76" Fibercrete	284-101-00010	DEVA	1	Each
Transformer Vault Three Phase Concrete	284-102-00110	DEVT1500 C	0	Each
Pedestal Wide Base up right	284-105-00010	UPA	0	Each
Conduit 3" Dia. Schedule 40 PVC Pipe	285-100-00040	D3C	700	Feet
Conduit 6" Dia. Schedule 40 PVC Pipe	285-100-00070	D6C	6360	Feet
Conduit 5" Dia. Schedule 40 PVC Pipe	285-100-00060	D5C	0	Feet
Elbow 6" Steel 48" Radius, 90°	285-101-00210	D6B90S	15	Each
Elbow 6" Steel 48" Radius, 45°	285-101-00200	D6B45S	0	Each
Elbow 6" Steel 48" Radius, 22°	285-101-00188	D6B22S	30	Each
Elbow 6" Steel 48" Radius, 30°	285-101-00190	D6B30S	10	Each
Elbow 6" Steel 48" Radius, 11°	285-101-00186	D6B11S	0	Each
Elbow 5" Steel 36" Radius, 90°	285-101-00100	D5B90S	0	Each
Elbow 5" Steel 36" Radius, 30°	285-101-00080	D5B30S	0	Each
Elbow 3" Sch. 40 PVC 36" Radius, 90°	285-100-00040	D3B90P	0	Each
Coupling Sleeve 6" PVC Long Line	285-102-00130	D6V	12	Each
Coupling 6" Long Line Schedule 40 PVC	285-102-00140	D6L	61	Each
Coupling 6" Schedule 40 PVC 5°	285-102-00150	D6L5	30	Each
Coupling Sleeve 5" PVC Long Line	285-102-00070	D5V	0	Each
Coupling 5" Long Line Schedule 40 PVC	285-102-00080	D5L	0	Each
Coupling 5" Schedule 40 PVC 5°	285-102-00120	D5L5	0	Each
Coupling Sleeve 3" PVC Long Line	285-102-00030	D3V	0	Each
Coupling 3" Long Line Schedule 40 PVC	285-102-00065	D3L	0	Each
Coupling 3" Schedule 40 PVC 5°	285-102-00040	D3L5	0	Each
Bell Fitting PVC 6" Schedule 40	285-103-00040	D6F	10	Each
Bell Fitting PVC 5" Schedule 40	285-103-00080	D5F	0	Each
Bell Fitting PVC 3" Schedule 40	285-103-00040	D3F	4	Each
Plug, PVC 6" with Pull Tab	285-103-00030	D6P	39	Each
Plug, PVC 5" with Pull Tab	285-103-00070	D5P	0	Each
Plug, PVC 3" with Pull Tab	285-103-00030	D3P	4	Each
Cement PVC Quarts with Brush 24hr Dry Summer	285-199-00090	DMG	24	Each

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	LIST OF ELECTRIC DUCT BANK MATERIALS	DATE: 4-01-09
ELECTRIC STANDARDS		Page 1 of 3
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ELECTRIC DUCT BANK MATERIALS SUPPLIED BY THE CITY OF NAPERVILLE

Item Description	Part No.	HTE Code	Qty.	Unit
Spacer, Base PVC, 6"	285-199-00170	D6R	552	Each
Spacer, Intermediate PVC 6"	285-199-00180	D6R1	1140	Each
Handhole 4'x8' (Fibercrete)/1000	284-104-00030	DEH8	0	Each
Handhole 4'x6' (Fibercrete)/4/0	284-104-00020	DEH6	1	Each
Handhole 3'x5' (Fibercrete)/1/0	284-104-00010	DEH5	0	Each
Stud Driving for End of Ground Rod	283 156 00050	UGDRS	0	Each
Strap 6" Conduit (Riser)	285 199 00050	D6B90SA	4	Each
Strap. EMT 1/2"	285-199-00200	DEMG	0	Each
Conduit, Sch. 80 PVC 6"	285 100 00075	DRC6	0	Each
Bracket, Pole 3"	285 199 00005	DRC6	0	Each
Chanel, 12"	285 199 00070	DRC6	2	Each
Marker Power Ball Red	284-199-00250	n/a	6	Each
Grounding #2 solid Copper (500 ft / reel)	280-107-00020	UGMH	30	Feet
Grounding 4/0 Stranded Bare Copper/19 strand (500 ft / reel)	280-107-00070	UGMH	195	Feet
Grounding Rod Copper Clad 5/8"X10'	283-156-00010	UGS	5	Each
5 Ft ground Rod Copper Clad 5/8" (manholes)	283-156-00030	UGMH	12	Each
Ground Rod Coupling Bronze 5/8" rod	283-156-00040	UGMH	6	Each
Clamp, Cable to Flat Ground	284-199-00184		0	Each
Tape Caution Cable (10 Foot Lengths)	284-199-00270	DOT	1800	Each
Elbow PVC 30 Deg 3"	285-101-00025	D3B30P	12	Each
Elbow PVC 45 Deg 3"	285-101-00030	D3B45P	0	Each
Extender Air Switch Vault Fiber	284-101-00100	DEVAE	0	Each
Copper Bare #4 7 Strand (500 ft /reel)	280-107-00050	UGT3	0	FT
Mule Tape 1250 # (3000Ft on a reel)	450-024-00010		0	Reel
#12 THHN Copper Wire	280-113-00044	TEDOTW	1800	FT
Lag Shield Lead Short	284-199-00460	n/a	0	Each
Lag Screw SS	284-199-00470	n/a	0	Each
Connector Wedge #4 str. to 5/8 Rod	286-100-00320	UGMH	11	Each
Shell Wedge Amp (White)	286-101-00010	UGMH	0	Each
Shell Wedge Amp (Blue)	286-101-00010	UGMH	0	Each
Break - Away #4 str. to #4 str.	286-199-00010	UGMH	0	Each
Break Away for Grounding	286-199-00220	UGS	0	Each
Frame and Cover for Manholes type "B"	284-103-00050	DEML	3	Each
12" Ring for Manhole	284-103-00100	DEMR	2	Each
6" Ring for Manhole	284-103-00090	DEMR6	4	Each
2" Ring for Manhole	284-103-00070	DEMR2	4	Each
Butyl Mastic	892-370-00004		4	Roll

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	LIST OF ELECTRIC DUCT BANK MATERIALS	DATE: 4-01-09
ELECTRIC STANDARDS		Page 2 of 3
		56270-1320

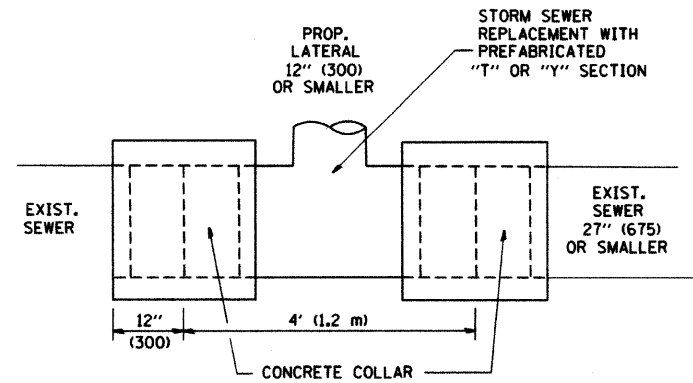
ELECTRIC DUCT BANK MATERIALS SUPPLIED BY THE CITY OF NAPERVILLE

Item Description	Part No.	HTE Code	Qty.	Unit
Duct Polyethylene 3" coil-able on a reel	285-100-00030		0	Feet
Duct Polyethylene 6" coil-able on a reel	285-100-00072		0	Feet
Bracket Pole 3" stand off	285-199-00005	DRC	2	Each
Strap, 6" conduit with bolts washers	285-199-00050	DRC	4	Each
Channel 24" 4 way T- Slot	285-199-00080	DRC	0	Each
Connector Wedge cu 4/0 to 4/0	286-100-00260	UGMH	8	Each
Connector Wedge cu 4/0 to 5/8" ground rod	286-100-00320	UGMH	11	Each

NAPERVILLE PUBLIC UTILITIES DEPARTMENT	LIST OF ELECTRIC DUCT BANK MATERIALS	DATE: 4-01-09
ELECTRIC STANDARDS		Page 3 of 3
		56270-1320

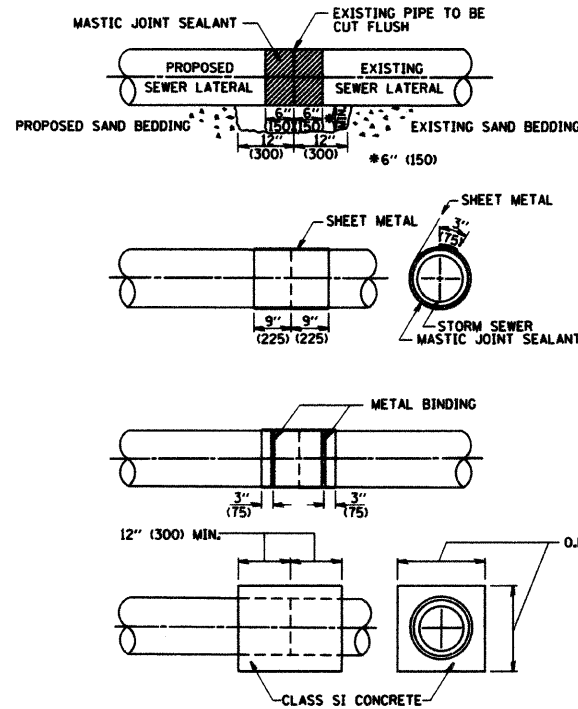
CITY OF NAPERVILLE/DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC					
CALL J.U.L.I.E. 48 HRS. PRIOR TO CONSTRUCTION					
PROJECT TITLE JEFFERSON ST. BRIDGE DUCTBANK INSTALLATION			MAP NO.:	CAD FILE: 0054679001D30.DWG	
PROJECT DESCRIPTION DETAILS			DRAWN BY: JK, PM	PROJECT NO.: EU13-04-06	
DATE 4-01-09	ISSUED	ENGINEER PSM	WORK REQUEST NO. 54679	CHKD:	APRV:
REVISION	1	2	3	SCALE: NTS	SHEET 30 OF 30

F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DuPage	106	86
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

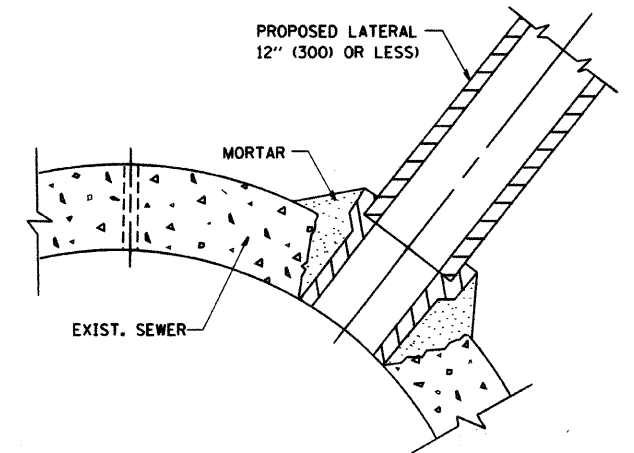


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

- CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
- APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
- BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12' x 6' (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
- CUT A PIECE OF SHEET METAL GAGE NO. 19 L1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
- WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
- LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
- PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
- WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
- PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	07/25/90
M. DE YONG	02/05/92
M. DE YONG	05/08/92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	06/12/96

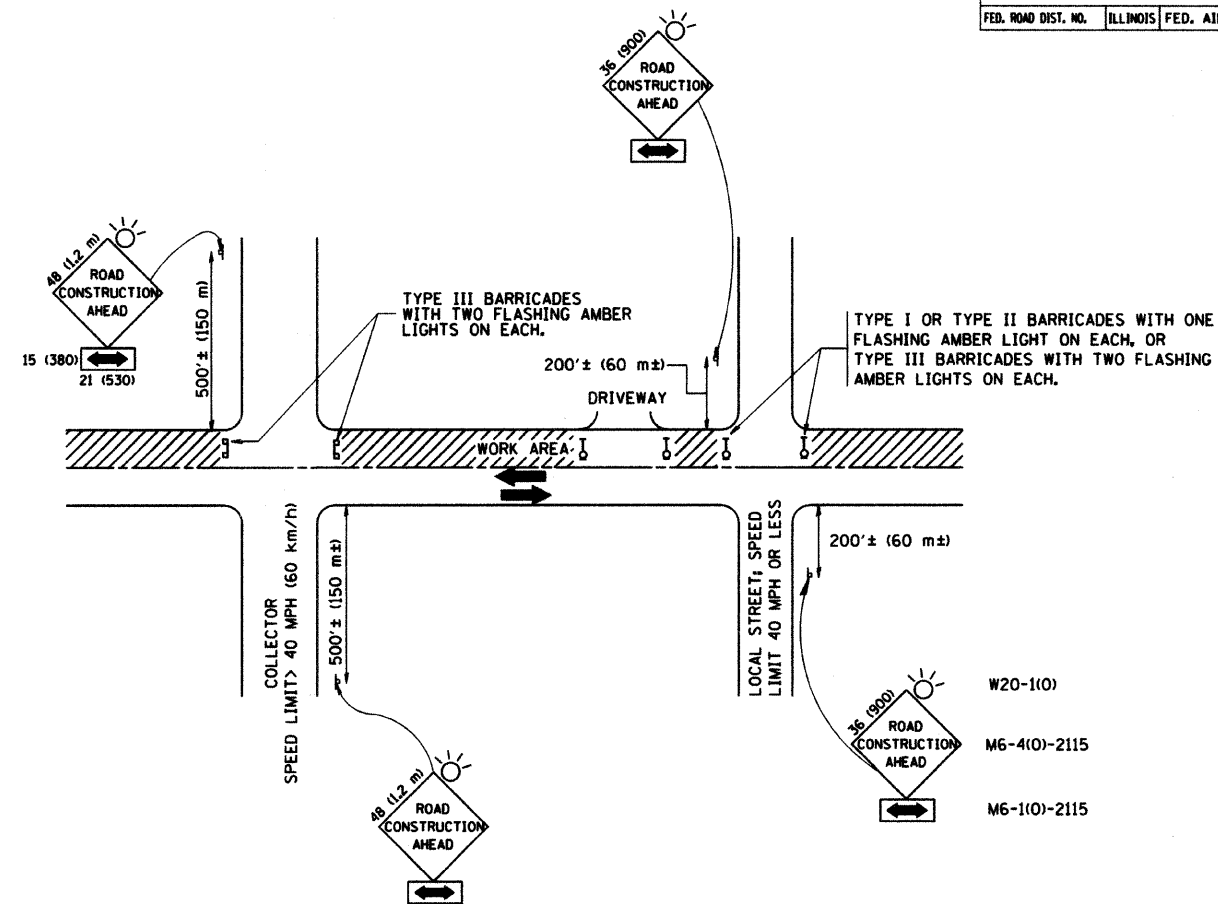
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

BD500-01 (BD-7)

F.A.I.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DuPage	106	87
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

- SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

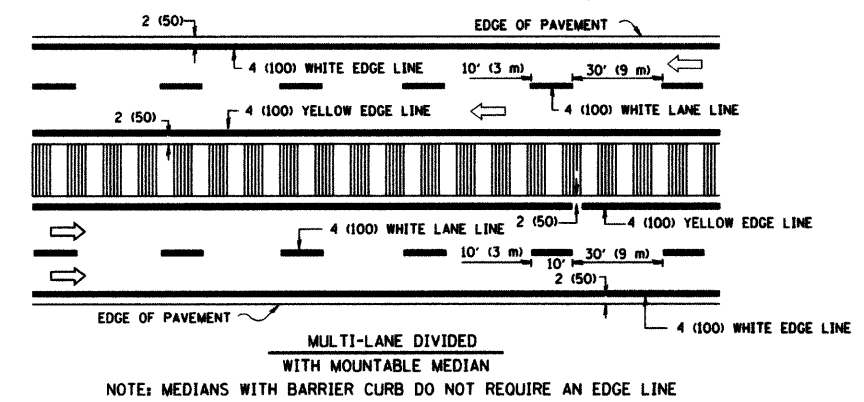
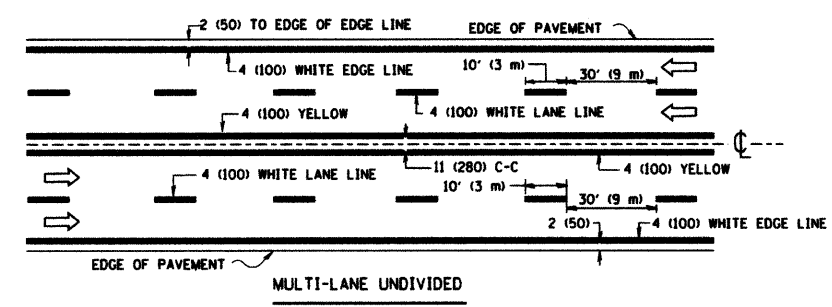
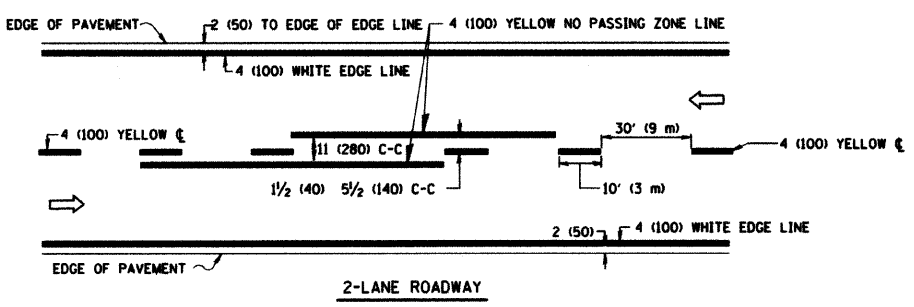
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: NONE

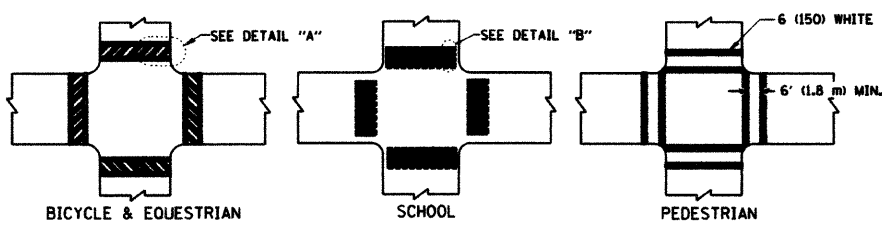
DRAWN BY
 CHECKED BY

TC-10

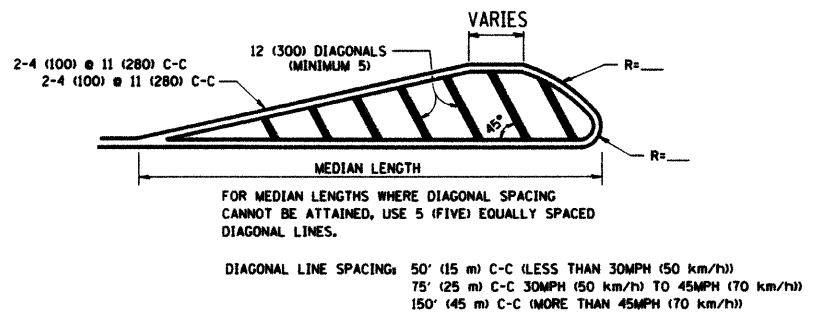
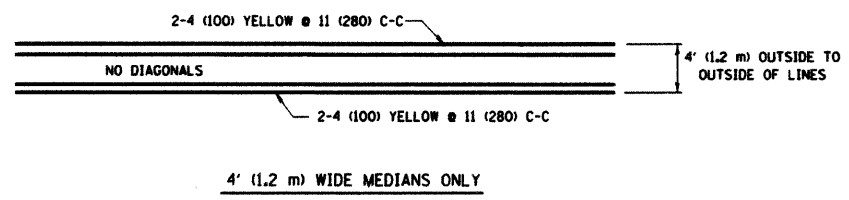
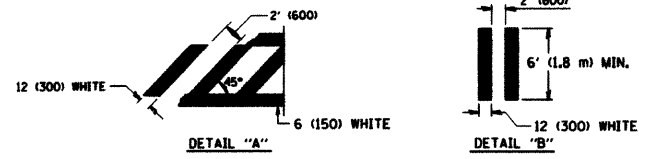
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DuPage	106	88
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



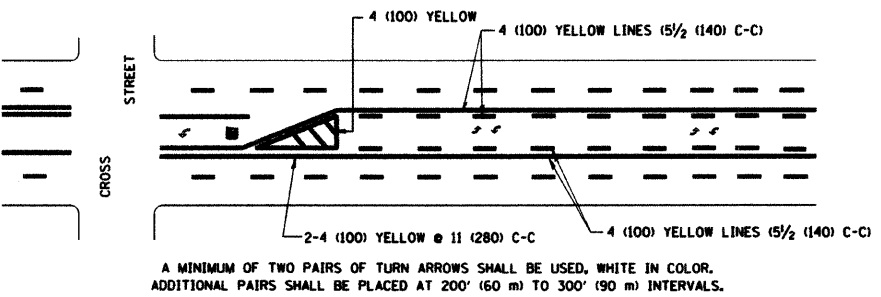
TYPICAL LANE AND EDGE LINE MARKING



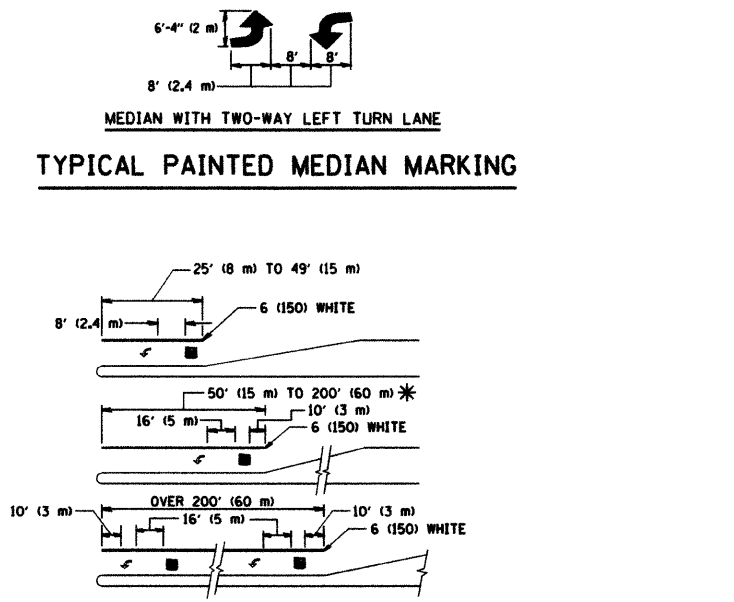
TYPICAL CROSSWALK MARKING



MEDIANS OVER 4' (1.2 m) WIDE

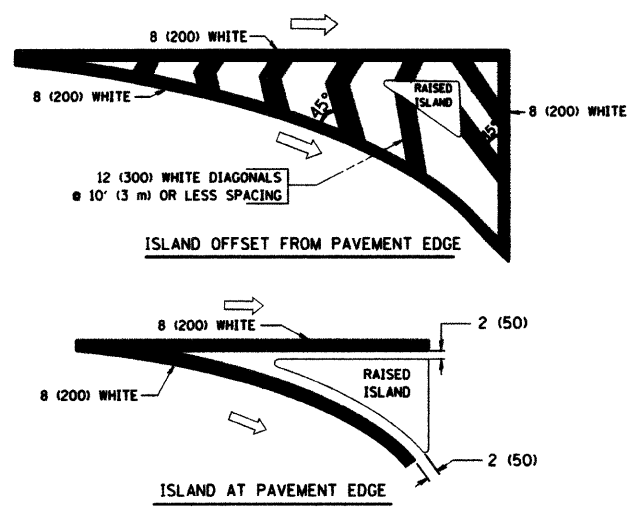


TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

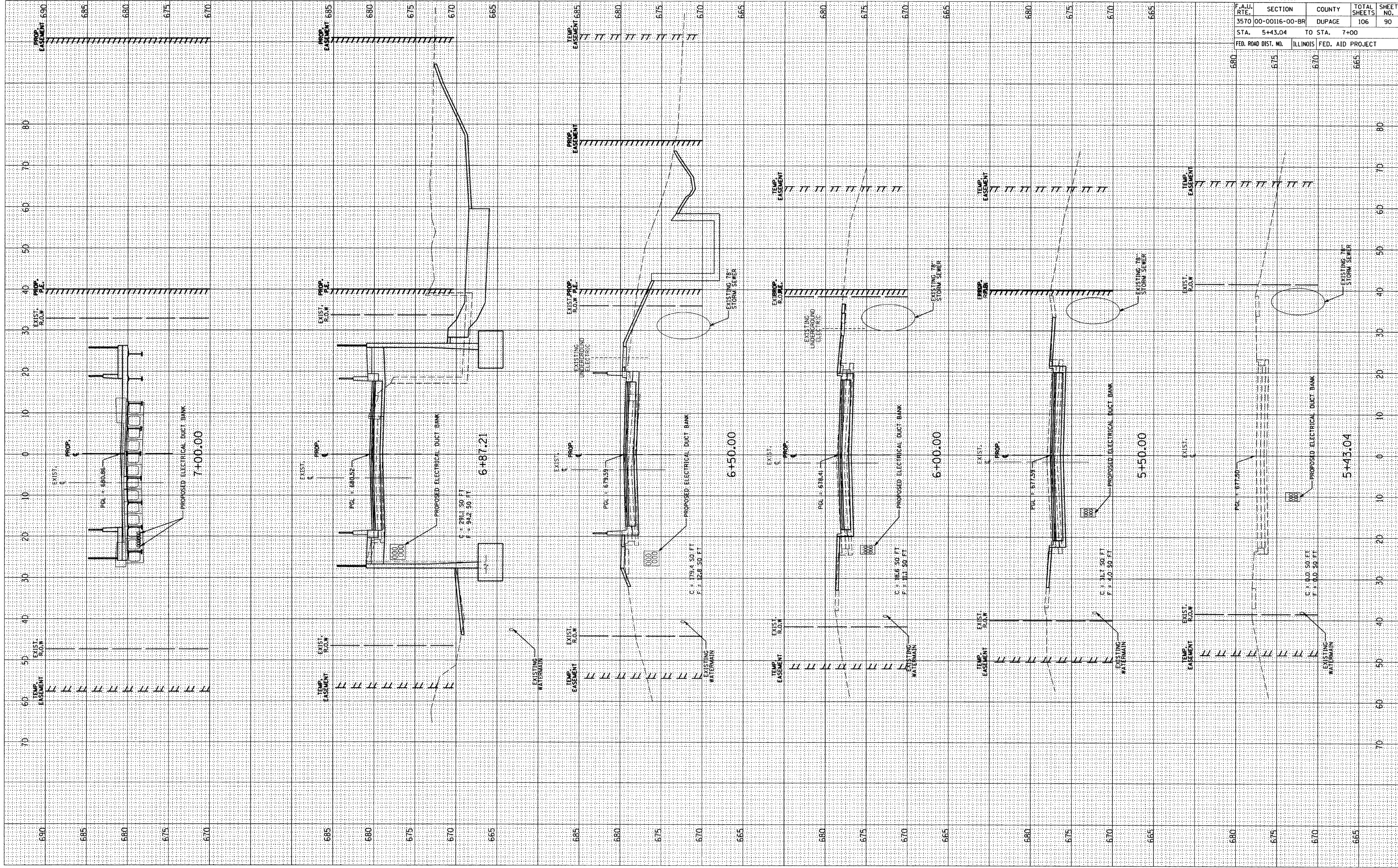
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 TYPICAL PAVEMENT MARKINGS

SCALE: NONE
 DRAWN BY CADD
 CHECKED BY

PLOT DATE = 3/6/2007
 FILE NAME = K:\projects\131313.dwg
 PLOT SCALE = 0.8000 / in.
 USER NAME = bward

FINAL SURVEY DATE
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ORIGINAL SURVEY DATE
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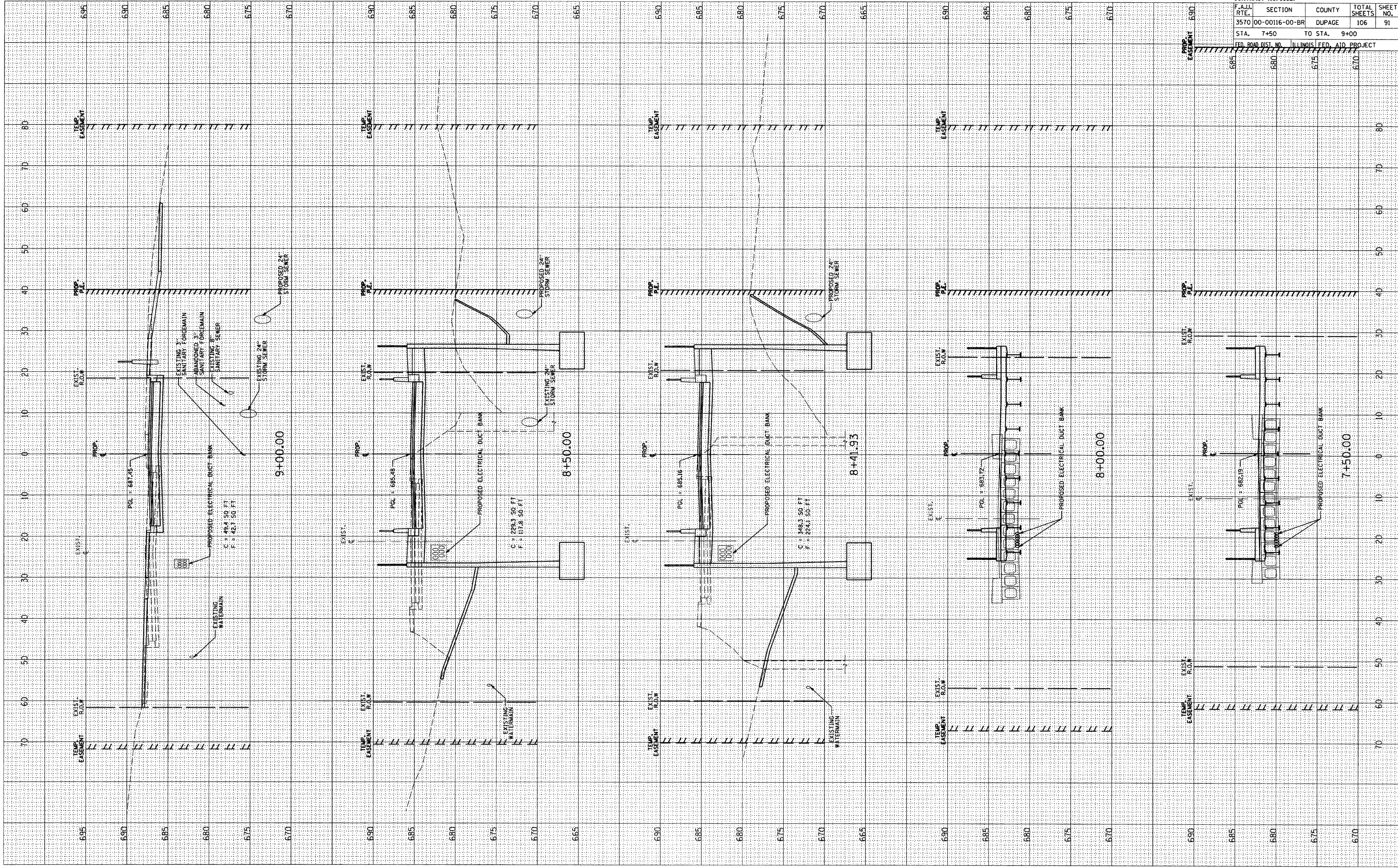


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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 5+43.04		TO STA. 7+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	91
STA. 7+50	TO STA. 9+00			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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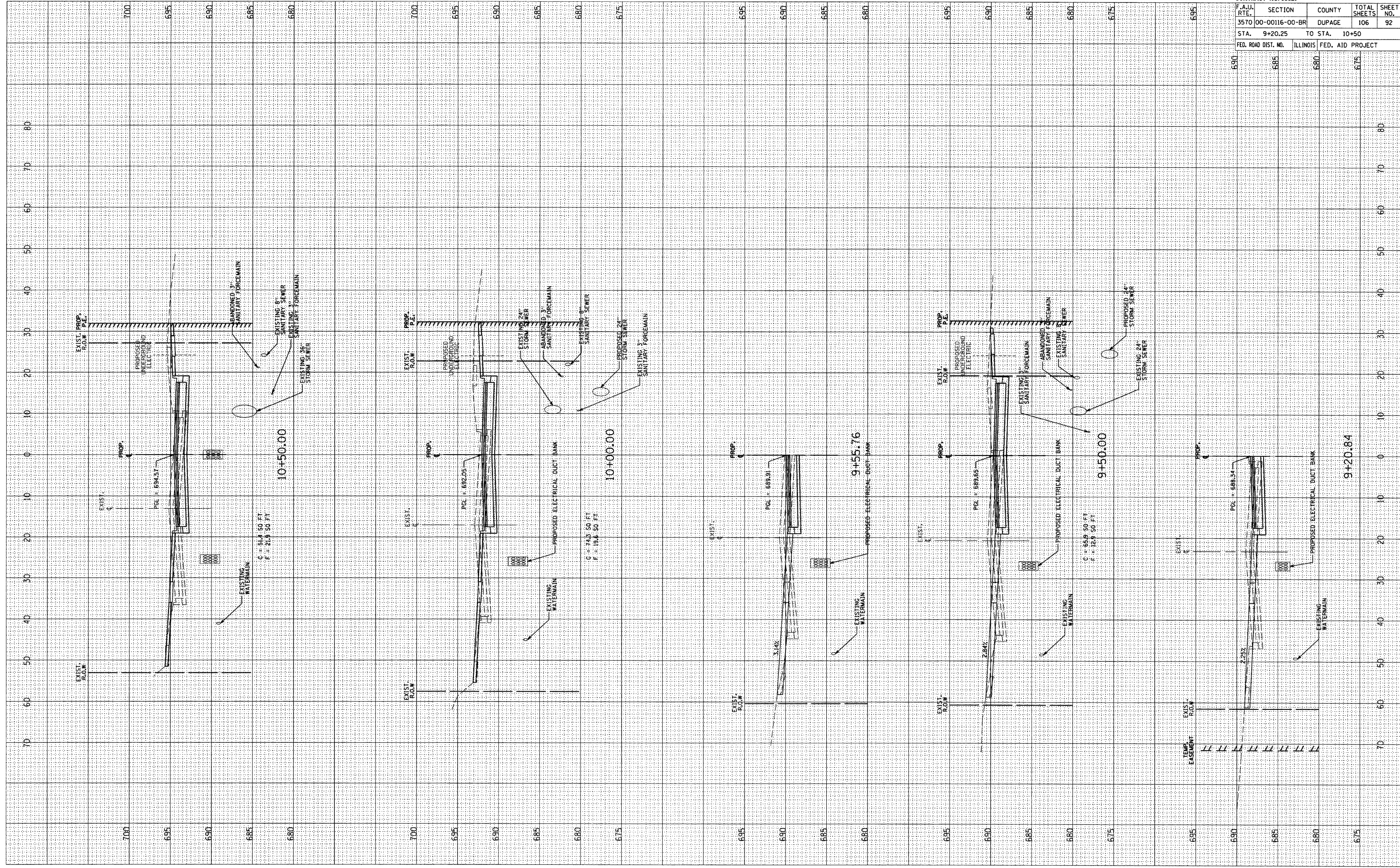
ORIGINAL SURVEY	BY	DATE
PLOTTED		
NOTE BOOK		
TEMPLATE		
AREAS CHECKED		
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CONTRACT NO. 83827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	92
STA.	TO STA.		10+50	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

FINAL SURVEY	BY	DATE
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NOTE BOOK		
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SURVEY		
TEMPLATE		
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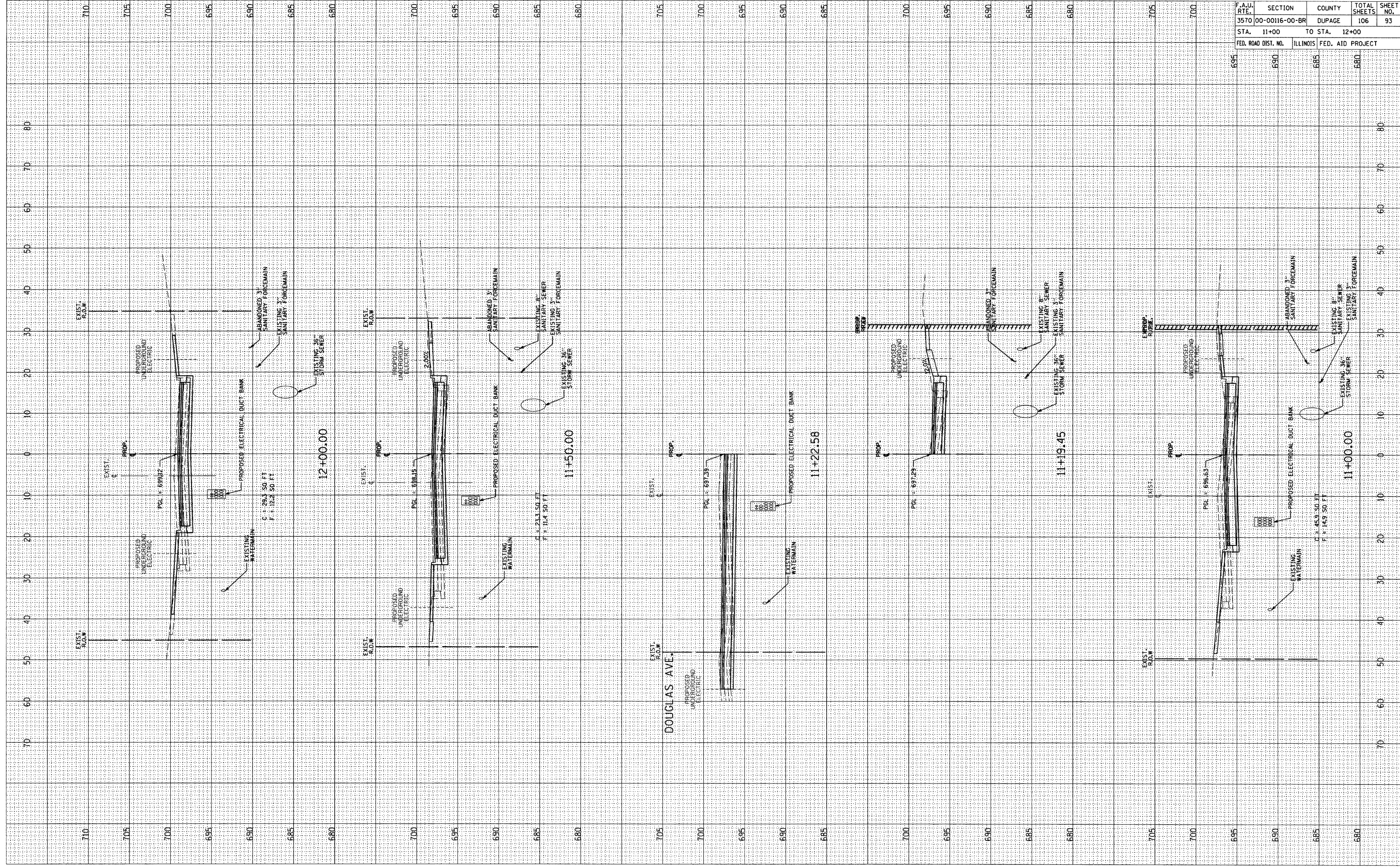


FINAL SURVEY
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 TEMPLATE
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ORIGINAL SURVEY
 PLOTTED
 TEMPLATE
 NOTE BOOK
 AREAS
 CHECKED

CONTRACT NO. 83827

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	93
STA. 11+00	TO STA. 12+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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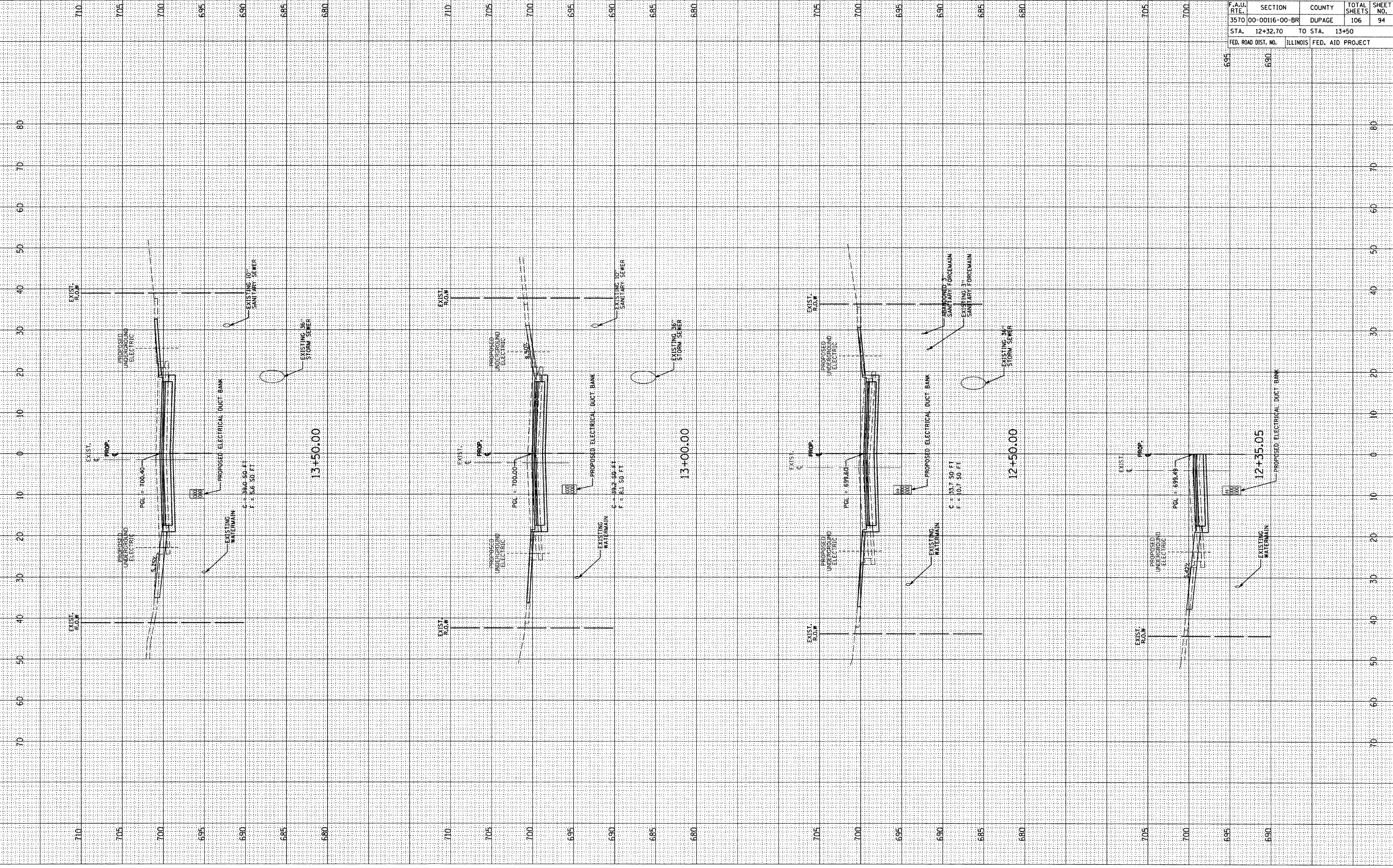
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STA. 12+32.70	TO STA. 13+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY	BY	DATE
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TEMPLATE		
AREAS CHECKED		

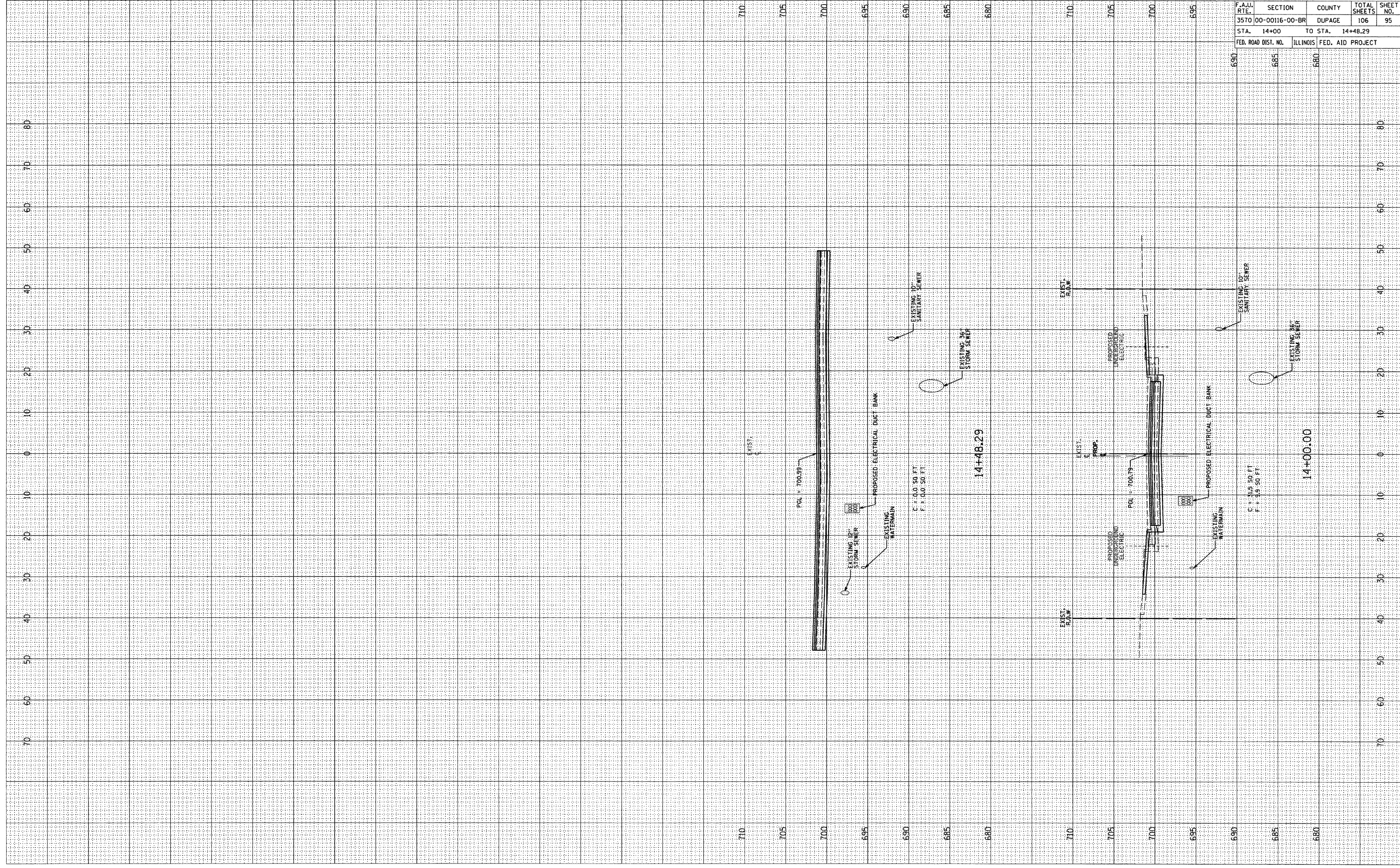
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NOTED		
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AREAS CHECKED		



F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 14+00	TO STA. 14+48.29			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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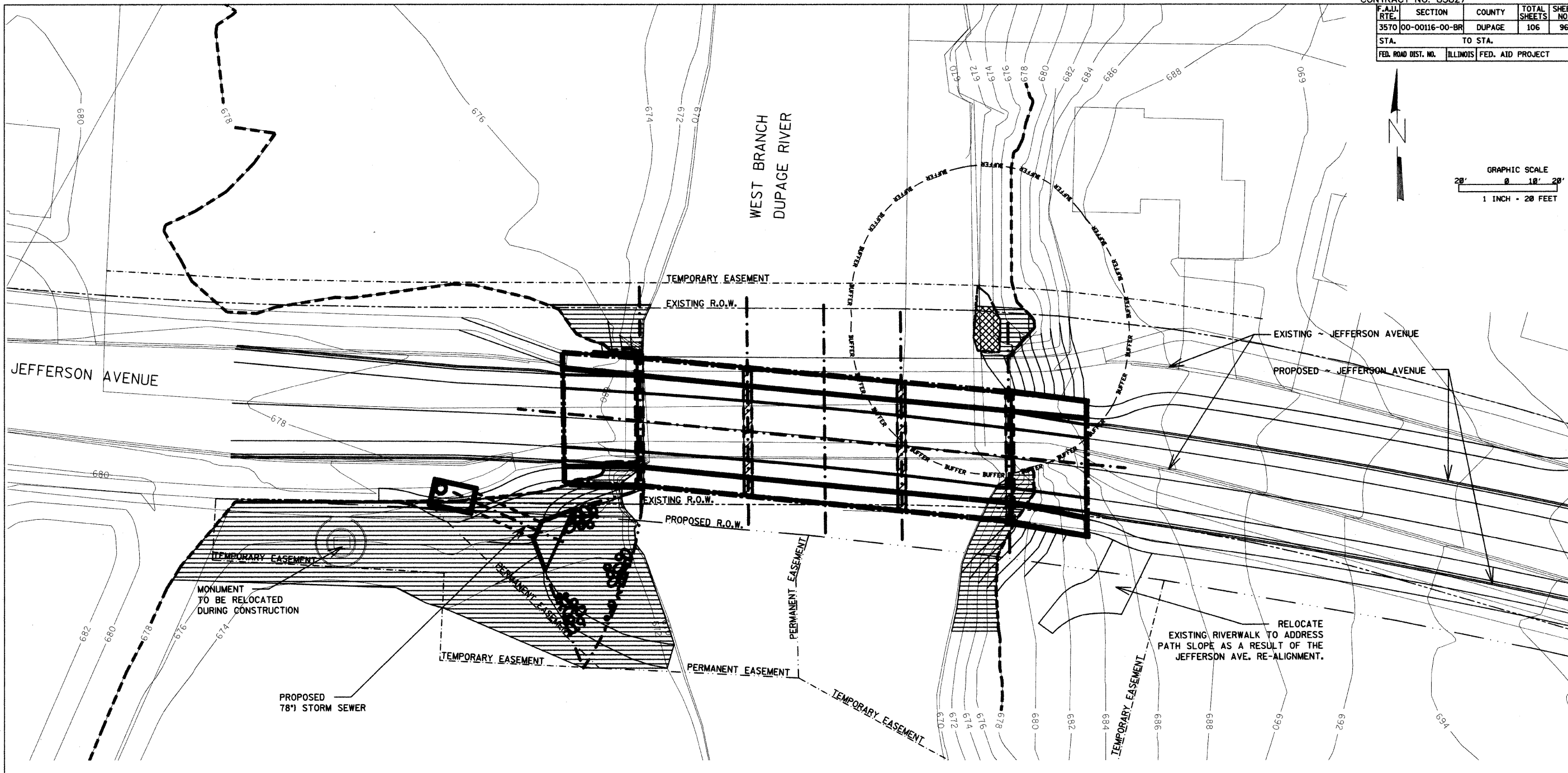
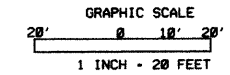
ORIGINAL SURVEY	BY	DATE
QUANTITY		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
CHECKED		
NO.		



CONTRACT NO. 83827

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	96
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

IMPACT PLAN	REVISIONS	Date:
	SUBMITTAL	
	80% SUBMITTAL	



JEFFERSON AVENUE BRIDGE
Impact Plan
Naperville, Illinois

1 IMPACT PLAN
W1.0

- LEGEND**
- FLOODPLAIN/RIPARIAN ENVIRONMENT BOUNDARY
 - - - WETLAND BOUNDARY
 - - - WETLAND BUFFER
 - - - BRIDGE LIMITS
 - ▨ RIPARIAN ENVIRONMENT IMPACT
 - ▩ WETLAND IMPACT
 - ▧ WATERS OF THE U.S. IMPACT
 - - - TEMPORARY EASEMENT
 - - - PERMANENT EASEMENT
 - - - EXISTING R.O.W.
 - - - PROPOSED R.O.W.

IMPACT SUMMARY TABLE

IMPACT TYPE	SIZE (ACRES)
WETLAND	0.004
WATERS OF U.S.	0.008
RIPARIAN ENVIRONMENT	0.245

NOTE:
Wetland and Riparian Impacts illustrated by Planning Resources. All other information has been provided by Bollinger and Lach Associates and is assumed to be accurate.

WETLAND CONSULTANT: PLANNING RESOURCES INC.
DATE OF DELINEATION: 8/8/01

REVIEWED BY: K.M.J.	APPROVED BY: E.D.W.	DRAWN/DESIGNED BY: E.D.W.	PROJECT NO.: P20164-00
			Date: 2.17.04
300 WEST LIBERTY DRIVE NAPERVILLE, ILLINOIS 60563 PH: 630.688.5278 FAX: 630.688.4152			Scale: 1"=20'-0"

Drawing
W1.0
Impact Plan

GENERAL NOTES:

A) THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED TO BE INCLUSIVE. THIS INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AND THE LANDSCAPE ARCHITECT AS TO THE LOCATION AND ELEVATION OF THESE UTILITIES AND, WHEN SHOWN, IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDERS. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT HORIZONTAL AND VERTICAL LOCATIONS OF SUCH UTILITIES AND EXERCISE CARE DURING OPERATIONS SO AS NOT TO DAMAGE THEM. EACH CONTRACTOR AND SUBCONTRACTOR SHALL OBTAIN FROM RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION AND ELEVATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM. PRIOR TO EXCAVATING, CALL JOINT UTILITIES LOCATION INFORMATION FOR EXCAVATORS (J.U.L.I.E.) AT 1-800-842-0123.

B) THE CONTRACTOR MUST FURNISH, INSTALL, AND MAINTAIN CONSTRUCTION FENCE AT WORK AREA AND/OR AROUND EXISTING TREES TO REMAIN AS SHOWN. THE CONSTRUCTION FENCE LOCATION COINCIDES WITH THE LIMITS OF CONSTRUCTION WHERE SHOWN. THIS FENCE MAY BE TAKEN DOWN PERIODICALLY TO AID IN CERTAIN CONSTRUCTION TASKS, HOWEVER MUST BE RE-ERECTED AT THE END OF EACH WORKING DAY.

C) EARTHWORK AND PAVING SPECIFICATIONS: THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION", AND ALL ADDENDA THERETO, SHALL GOVERN THE EARTHWORK AND PAVING WORK UNDER THIS CONTRACT, EXCEPT AS MODIFIED BY THESE SPECIFICATIONS.

D) UNDERGROUND SPECIFICATIONS: THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION", SHALL GOVERN THE UNDERGROUND WORK UNDER THIS CONTRACT, EXCEPT AS MODIFIED BY THESE SPECIFICATIONS.

E) NO PLAN SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION". PRIOR TO COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE ENGINEER'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO LANDSCAPE ARCHITECT BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE LANDSCAPE ARCHITECT PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE LANDSCAPE ARCHITECT SHALL BE FINAL AND CONCLUSIVE.

F) COMPLIANCE WITH LOCAL ORDINANCES: ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE LOCAL AUTHORITY'S ORDINANCES AND STANDARDS.

G) GUARANTEE: ALL WORK PERFORMED BY THE CONTRACTOR AND SUBCONTRACTOR UNDER THIS CONTRACT SHALL BE GUARANTEED TO THE LOCAL AUTHORITY AND OWNER BY EACH CONTRACTOR AND SUBCONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS AFTER THE FINAL ACCEPTANCE OF THE WORK AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.

H) ALL PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS OTHERWISE SPECIFIED.

I) CONTRACTOR SHALL VIDEO TAPE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.

J) THE LANDSCAPE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, SINCE THESE ARE SOLELY THE CONTRACTOR'S RESPONSIBILITY UNDER THE CONTRACT FOR CONSTRUCTION. THE LANDSCAPE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE THE CONTRACTORS, SUBCONTRACTORS, OR THEIR AGENTS. COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL RULES IS AND SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

K) TIME IS OF THE ESSENCE. CONTRACTORS MUST START WORK IMMEDIATELY UPON NOTICE TO PROCEED.

L) ALL WORK SHALL COMPLY WITH THE CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT FOR PHYSICALLY HANDICAPPED PEOPLE.

M) ALL WORK SHALL BE ACCOMPLISHED IN A FIRST-CLASS MANNER, COMPLETE AND READY FOR THE USE INTENDED. CONTRACTORS SHALL BE RESPONSIBLE FOR FAULTY MATERIALS AND WORKMANSHIP AND SHALL REMEDY ANY DEFECTS THERETO AND SHALL PAY FOR ANY DAMAGES TO OTHER WORK RESULTING THEREFROM, WHICH SHALL APPEAR FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE WORK.

**DEMOLITION PLAN
GENERAL NOTES:**

A) THE CONTRACTOR SHALL PROVIDE SAFETY FENCE AND/OR OTHER BARRIERS NECESSARY TO KEEP PARK USERS FROM ENTERING WORK AREAS. SAFETY FENCE SHALL ALSO BE USED AROUND EXISTING TREES WHICH ARE NEAR CONSTRUCTION AREAS. FENCE DIAMETER AT TREES SHALL EQUAL THE DIAMETER OF THE CROWN SHOWN ON THE PLAN OR DRIFLINE. USE STANDARD ENGINEERS SCALE TO DETERMINE APPROPRIATE LENGTHS/ DIAMETER OF FENCE. SEE PLAN FOR APPROXIMATE LOCATION OF SAFETY FENCE.

B) ALL UTILITIES SHALL BE LOCATED BY J.U.L.I.E. AT THE DIRECTION OF THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.

C) ALL ITEMS DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF OFF SITE IN A LEGAL AND ACCEPTABLE MANNER AND AS OTHERWISE SPECIFIED IN THE DRAWINGS OR BY THE OWNER.

D) TAKE SPECIAL CARE TO CHECK THE SITE PERIODICALLY AS NOT TO LEAVE OPEN EXCAVATIONS OR PROTRUDING OBJECTS WHICH CAN BE HARMFUL TO SITE.

E) ALL AREAS SHOWN TO BE REGRADED SHALL HAVE ALL TURF AND TOPSOIL REMOVED (EXCEPT WITHIN DRIFLINE OF TREES). SEE PLAN.

**DEVELOPMENT PLAN
GENERAL NOTES:**

A) SAVING OF REMOVAL ITEMS AS NOTED ON THE PLANS SPECIFIED AS REQUIRED BY THE LANDSCAPE ARCHITECT SHALL BE CONSIDERED TO BE INCIDENTAL TO THE COST OF THE ITEM BEING REMOVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

B) EXISTING TOPOGRAPHY AND SPOT ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK. REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT. PROPOSED GROUND ELEVATIONS MAY BE REVISED TO MEET FIELD CONDITIONS.

C) DEBRIS DEPOSITED IN THE FLOW OF ANY STRUCTURES SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CLOSE OF CONSTRUCTION OPERATIONS, ALL STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE CONTRACT.

D) THE CONTRACTOR SHALL ADHERE TO LIMITS OF RESTORATION SHOWN. WORK OUTSIDE THESE LIMITS WILL NOT BE PAID FOR UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT.

E) CONSTRUCTION STAKING FOR THE PROJECT SHALL BE PERFORMED BY THE CONTRACTOR AND CONSIDERED INCIDENTAL TO THE CONTRACT.

F) ALL FRAMES AND GRATES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION WILL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.

G) NO CONCRETE SHALL BE REPLACED UNTIL THE FORMS HAVE BEEN INSPECTED FOR LINE, GRADE AND SUBGRADE CONDITIONS BY THE LANDSCAPE ARCHITECT. IT IS SUGGESTED THAT THE INSPECTIONS BE ARRANGED FOR, AT LEAST 24 HOURS IN ADVANCE OF THE CONCRETE PLACEMENT.

H) THE ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES OF PROPOSED PAVEMENT, WALKS OR TURF UNLESS OTHERWISE INDICATED.

I) A SMOOTH TRANSITION SHALL BE EFFECTED BETWEEN NEW AND EXISTING CONSTRUCTION, DIFFERENT PHASES OF CONSTRUCTION, AND TEMPORARY CONSTRUCTION.

J) ALL CURVES SHALL BE SMOOTH AND CONTINUOUS AS SHOWN IN THE DRAWINGS. SHARP BENDS OR KINKS IN THE PAVEMENT SHALL BE REMOVED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

K) UNLESS OTHERWISE NOTED, ALL CURB AND PAVEMENT ANGLES SHALL BE CONSTRUCTED AT 90 DEGREE OR 45 DEGREE ANGLES.

L) ALL PROPOSED RADIUS DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

M) THE LANDSCAPE ARCHITECT SHALL REVIEW ALL HARD SURFACE PAVEMENT ELEVATIONS PRIOR TO CONSTRUCTION. GIVE LANDSCAPE ARCHITECT 24 HOURS NOTICE. ALL HARD SURFACE PAVEMENTS SHALL DRAIN COMPLETELY AT 1.0% MIN. SLOPE (UNLESS OTHERWISE SPECIFIED).

**SITE GRADING PLAN
GENERAL NOTES:**

A) THE CONTRACTOR SHALL EXCAVATE, BACKFILL, COMPACT, GRADE AND SHAPE THE SUBGRADE AS DEPICTED IN THE PLAN. HE SHALL IMPORT OR EXPORT ADDITIONAL SUBSOIL AS NECESSARY.

B) ALL EXCAVATED TOPSOIL SHALL BE RE-USED BY THE CONTRACTOR. IF CONSTRUCTION YIELDS ADDITIONAL TOPSOIL, IT SHALL BE STOCKPILED ON SITE IN AN AREA DESIGNATED BY THE LANDSCAPE ARCHITECT.

C) WHEN EXCAVATING, BACKFILLING, OR GRADING BENEATH TREE DRIFLINE, REVIEW ALL PROPOSED WORK WITH THE LANDSCAPE ARCHITECT.

D) FINISHED GRADE ELEVATIONS IN TURF AND LANDSCAPED AREAS SHALL BE APPROXIMATELY 2" ABOVE ADJACENT PAVEMENTS, CURBS, ETC. TO ALLOW FOR SETTLEMENT.

E) THE LOCATIONS OF STRUCTURES AND UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED TO BE INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXACT LOCATION AND THE EXISTING OF ANY NOT SHOWN BY CONTACTING JOINT UTILITIES LOCATION INFORMATION FOR EXCAVATORS (J.U.L.I.E.) AT 1-800-842-0123 PRIOR TO EXCAVATING.

F) EXISTING CONDITIONS SHALL BE VERIFIED BY GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO LANDSCAPE ARCHITECT IMMEDIATELY PRIOR TO CONSTRUCTION.

G) PROPOSED CONTOURS SHOWN ARE FINISH GRADES AND READ TO TOP OF PAVEMENT AND SOIL GRADE.

H) EXISTING TREES SHALL REMAIN AS NOTED ON PLANTING PLAN. PROTECT TREES AS DETAILED UNTIL COMPLETION OF CONSTRUCTION.

I) THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT GRADED AREAS FROM, AND AS NECESSARY RESTORE TO GRADE, ANY RUTS, WASHES OR OTHER CHANGES FROM THE DESIGN ELEVATIONS SHOWN HEREON, UNTIL

GRADING WORK IS ACCEPTED BY THE OWNER AND LANDSCAPE ARCHITECT.

J) THE CONTRACTOR SHALL RESTORE TO THE ORIGINAL CONDITION, ADJACENT (OFF-SITE) PROPERTY DISTURBED BY HIS OPERATIONS.

K) THE GENERAL CONTRACTOR SHALL STRIP TOPSOIL FROM CONSTRUCTION AREAS AND STOCKPILE TOPSOIL IN AN AREA AGREED UPON BY LANDSCAPE ARCHITECT. PLACE TOPSOIL IN MANNER SO AS TO NOT CONFLICT WITH OTHER TRADES AND CONSTRUCTION PROCESSES.

L) ALL GRADING SHALL BE DONE TO INSURE POSITIVE DRAINAGE AWAY FROM FOUNDATIONS AND STRUCTURES. MINIMUM SLOPE OF 1% IN TURF AREAS.

M) ANY FILL MATERIAL REQUIRED TO BRING GRADES UP TO PROPOSED ELEVATIONS SHALL BE PROVIDED BY GENERAL CONTRACTOR.

N) ALL SIDEWALKS SHALL BE GRADED TO SLOPES NO GREATER THAN 1:20 (5%) IN DIRECTION OF TRAVEL. CROSS SLOPES TO BE NO GREATER THAN 1:50 (2%).

O) THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR DISTRIBUTING 4" OF TOPSOIL THROUGHOUT THE LAWN AND PLANTING AREAS. AREAS ARE TO BE FREE OF CONSTRUCTION DEBRIS BEFORE SPREADING TOPSOIL. ROUGH GRADING IS RESPONSIBILITY OF EARTH WORK CONTRACTOR. LANDSCAPE CONTRACTOR TO BE RESPONSIBLE FOR FINISH GRADING AND PREPARING LAWN AND PLANTING BEDS.

**LANDSCAPE PLAN
GENERAL NOTES:**

A) THE CONTRACTOR SHALL AVOID ALL EXISTING UTILITIES-UNDERGROUND AND OVERHEAD WHERE APPLICABLE. WHERE UNDERGROUND UTILITIES EXISTS, FIELD ADJUSTMENTS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL.

B) PLANT TREES AND SHRUBS AFTER THE FINAL GRADES HAVE BEEN ESTABLISHED AND PRIOR TO THE PLANTING OF LAWNS.

C) PRUNE BROKEN OR CROSS BRANCHING AT THE TIME OF PLANTING. DO NOT REMOVE LEADER.

D) ALL PLANT MATERIAL SHALL BE FULLY GUARANTEED FOR ONE YEAR FROM THE DATE OF ACCEPTANCE. DEAD OR UNHEALTHY PLANTS SHALL BE REPLACED AS SOON AS CONDITIONS PERMIT.

E) FINE GRADE, FERTILIZE, AND SOD/SEED ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS AS SHOWN. ALL TURF AREAS SHALL NOT POND NOR PUDDLE. ALL TURF AREAS SHALL RECEIVE 6" THICK BLACK TOPSOIL - ALLOW FOR SETTLEMENT.

F) WHERE PLANTING BEDS MEET TURF AREAS, THE CONTRACTOR SHALL PROVIDE A CULTIVATED EDGE. MULCH ALL SHRUB BEDS TO THE LINE SHOWN. THE CONTRACTOR SHALL FURNISH AND INSTALL 3" LAYER OF SHREDDED HARDWOOD CEDAR MULCH UNDER ALL TREE PLANTINGS AND SHRUB BEDS. (SUBMIT SAMPLE, SEE SPECS.)

G) THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT PLANTS ON SITE WHETHER STOCK FILED OR PLANTED IN PLACE.

H) IN CASE OF DISCREPANCIES BETWEEN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICATE.

I) AN APPROVED PRE-EMERGENT HERBICIDE SHALL BE APPLIED IN ALL PLANTING BEDS AT A RATE SPECIFIED BY MANUFACTURER FOR EACH PLANT VARIETY.

J) STORE ALL PLANTS ON SITE OUT OF DIRECT WINDS IN AN AREA DESIGNATED BY THE LANDSCAPE ARCHITECT

K) ALL PLANTS SHALL BE GROUPED TOGETHER BY SPECIES AND SIZE AND SHALL BE COVERED WITH MULCH OR COMPOST TO PREVENT DESICCATION.

L) FOR ALL GROUNDCOVERS, ROTOTILL 2" OF SPHAGNUM PEAT INTO TOPSOIL TO A DEPTH OF 6" TO YIELD A HOMOGENOUS MIXTURE OF TOPSOIL AND PEAT.

M) ALL PLANTING AREAS/BEDS SHALL RECEIVE FILTER FABRIC (AS APPROVED) AND 3" OF SHREDDED BARK MULCH. CUT HOLES THROUGH FABRIC FOR PLANTS.

N) GROUNDCOVER AREAS SHALL ONLY RECEIVE 1-1/2" SHREDDED BARK MULCH (NO FABRIC). CAREFULLY REMOVE MULCH AROUND PLANT BASE.

O) ALL EXCAVATED TOPSOIL SHALL BE RE-USED BY THE CONTRACTOR OR IF CONSTRUCTION YIELDS ADDITIONAL TOPSOIL, IT SHALL BE STOCKPILED ON SITE IN AN AREA DESIGNATED BY THE OWNER FOR RE-USE BY THE CONTRACTOR PRIOR TO IMPORTING NEW TOPSOIL (IF ANY).

P) BERMS AND LANDFORMS SHOWN ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL UTILIZE EXISTING SUBSOIL AND SHALL GRADE AS SHOWN IF SUFFICIENT MATERIAL EXISTS ON SITE OR, IF THE OWNER DESIRES, HE MAY IMPORT FILL MATERIAL FOR BUILDING OF BERMS IF INSUFFICIENT MATERIAL EXISTS ON SITE. IF EXCESS SUBSOIL EXISTS ON SITE, THE CONTRACTOR SHALL EXCAVATE AND TRANSPORT THE EXCESS MATERIAL TO THE VILLAGE OR PARK DISTRICT DUMP SITE (WITHIN 2 MILES OF THE SITE). THE CONTRACTOR SHALL MAKE HIMSELF AWARE OF SUCH QUANTITIES PRIOR TO SUBMITTING HIS BID.

Q) THE CONTRACTOR SHALL GIVE AT LEAST 48 HOURS NOTICE TO THE LANDSCAPE ARCHITECT PRIOR TO PLANTING OPERATIONS SO THAT THE LANDSCAPE ARCHITECT CAN VERIFY PLANTS IMMEDIATELY PRIOR TO PLANTING. IF NOTICE IS NOT GIVEN BY THE CONTRACTOR, HE SHALL REMOVE/REPLACE PLANTS AS DIRECTED BY THE LANDSCAPE ARCHITECT AT NO ADDITIONAL EXPENSE TO THE OWNER.

R) ALL PLANTS SHALL BE PLANTED PER THESE DRAWINGS AND SPECIFICATIONS. PLANTINGS NOT FOUND TO BE IN COMPLIANCE SHALL BE REPLANTED CORRECTLY AT THE ADDITIONAL EXPENSE TO THE OWNER.

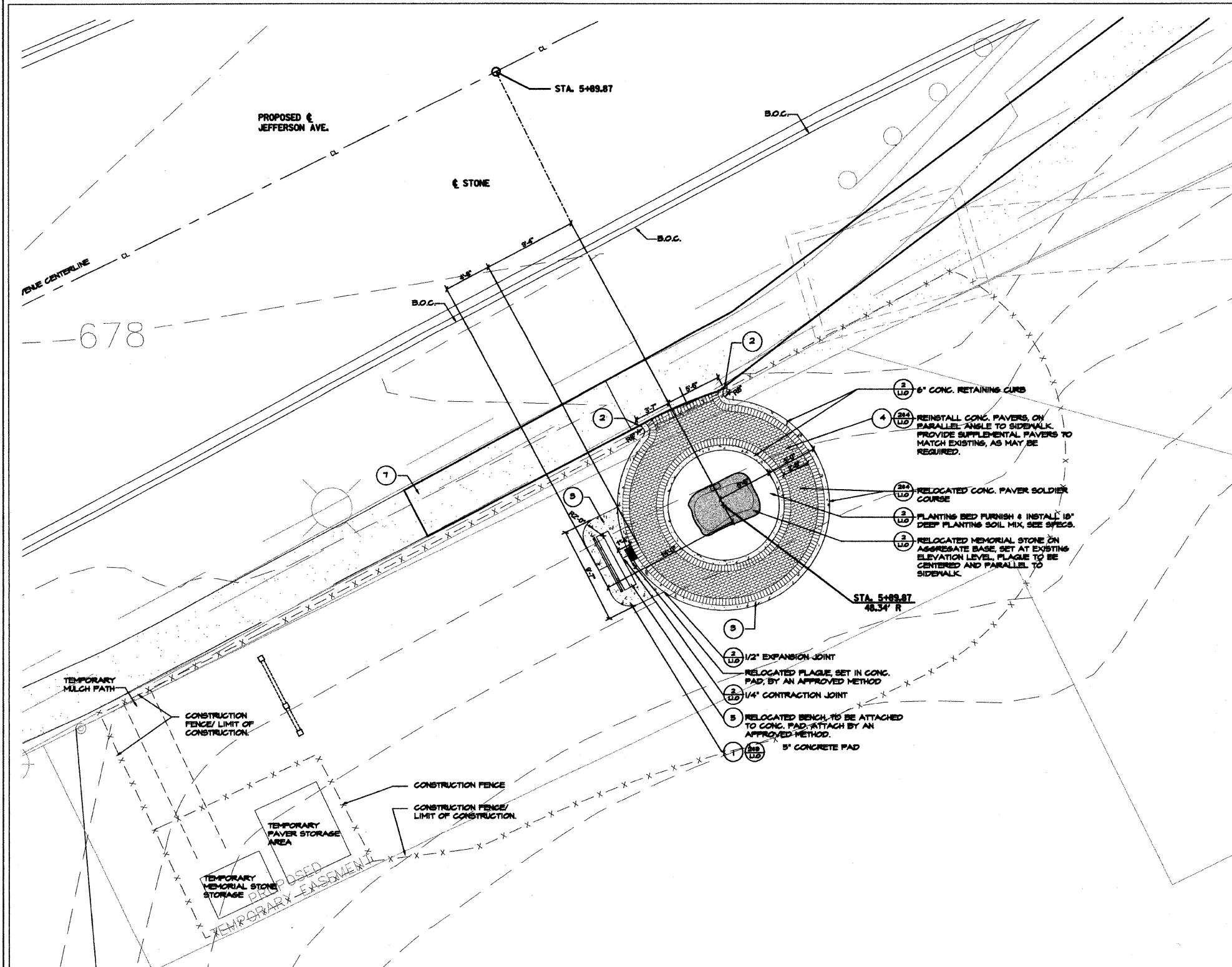
S) FOR TREES PLANTED IN TURF AREAS, PROVIDE FOR EACH A 6' 0" DIAMETER, 3" THICK MULCH RIMS (REMOVE EXTRA TURF) WITH CULTIVATED EDGE. THIS SHALL BE INCIDENTAL TO TREE PLANTING.

GENERAL NOTES	REVISIONS	Date:			
	SUBMITTAL				

FIREMEN'S MEMORIAL
Naperville, Illinois

REVIEWED BY:	APPROVED BY:	DRAWING NUMBER BY:	PROJECT NO.:
		BCL	P20164-01
PLANNING RESOURCES INC. P.O. BOX 1070 NAPERVILLE, IL 60563	Date: 10.06.05		

Drawing
SD1.0
General Notes



DEVELOPMENT PLAN NOTES:

1. 5' CONCRETE PAD. SCORE WALK IN 5' MODULES OR AS SHOWN AND PROVIDE 1/2" EXPANSION JOINTS AS SHOWN. BACKFILL WALK WHERE APPLICABLE WITH TOPSOIL BY AN APPROVED METHOD.
2. MEET EXISTING PAVEMENT ELEVATION WITH NEW BITUMINOUS CONCRETE PAVEMENT AND RELOCATED PAVERS. ALL PAVEMENT TRANSITIONS SHALL BE SMOOTH AND SUBTLE. ANY ABRUPT OR NOTICEABLE ELEVATION CHANGES SHALL BE REMOVED OR REPAIRED AT NO ADDITIONAL EXPENSE TO THE PARK DISTRICT.
3. CONCRETE CURB AND PAD. EXCAVATE TO SUBGRADES INDICATED AND INSTALL NEW CONC. PITCH WALKWAY AT A MIN. 1% IN THE DIRECTION OF THE DRAINAGE PATTERN SHOWN. BACKFILL WALK WITH TOPSOIL & BLEND INTO SURROUNDING GRADE.
4. EXCAVATE TO SUBGRADES SHOWN AND INSTALL EXISTING PAVERS, PAVING PATTERN & ALIGNMENT, AND CORNER TREATMENT TO MATCH EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS AND LAYOUT OF EXISTING PAVERS. CONTRACTOR TO SUPPLEMENT ADDITIONAL PAVERS AS NECESSARY.
5. REINSTALL EXISTING BENCH IN NEW PAVEMENT AREA AS SHOWN. MATCH EXISTING ATTACHMENT METHODS.
6. ALL ITEMS TO BE REUSED ARE TO BE STORED ON-SITE, WITHIN THE CONSTRUCTION FENCING LIMITS.
7. EXISTING PAVEMENT TO BE PROTECTED DURING CONSTRUCTION WITH ANY DAMAGE TO BE REPAIRED BY CONTRACTOR AT HIS EXPENSE. PEDESTRIAN WALKS TO REMAIN OPEN AND FREE OF CONSTRUCTION DEBRIS AT ALL TIMES WITHIN REASON. DURING SUCH TIMES THAT PEDESTRIAN WALKS NEED TO BE CLOSED, THE CONTRACTOR SHALL PROVIDE CONSTRUCTION FENCING TO PROTECT THE SAFETY OF THE RESIDENTS AND TO MAINTAIN THE TRAFFIC FLOW.

DEVELOPMENT PLAN	REVISIONS
	DATE:
SUBMITTAL	

FIREMEN'S MEMORIAL
Naperville, Illinois

REVIEWED BY:	APPROVED BY:	DESIGNED/DRAWN BY:	PROJECT NO.:
		BCL	P20164-01

PLANNING RESOURCES, INC.
Date: 10.06.05

Drawing
SD3.0
Development Plan

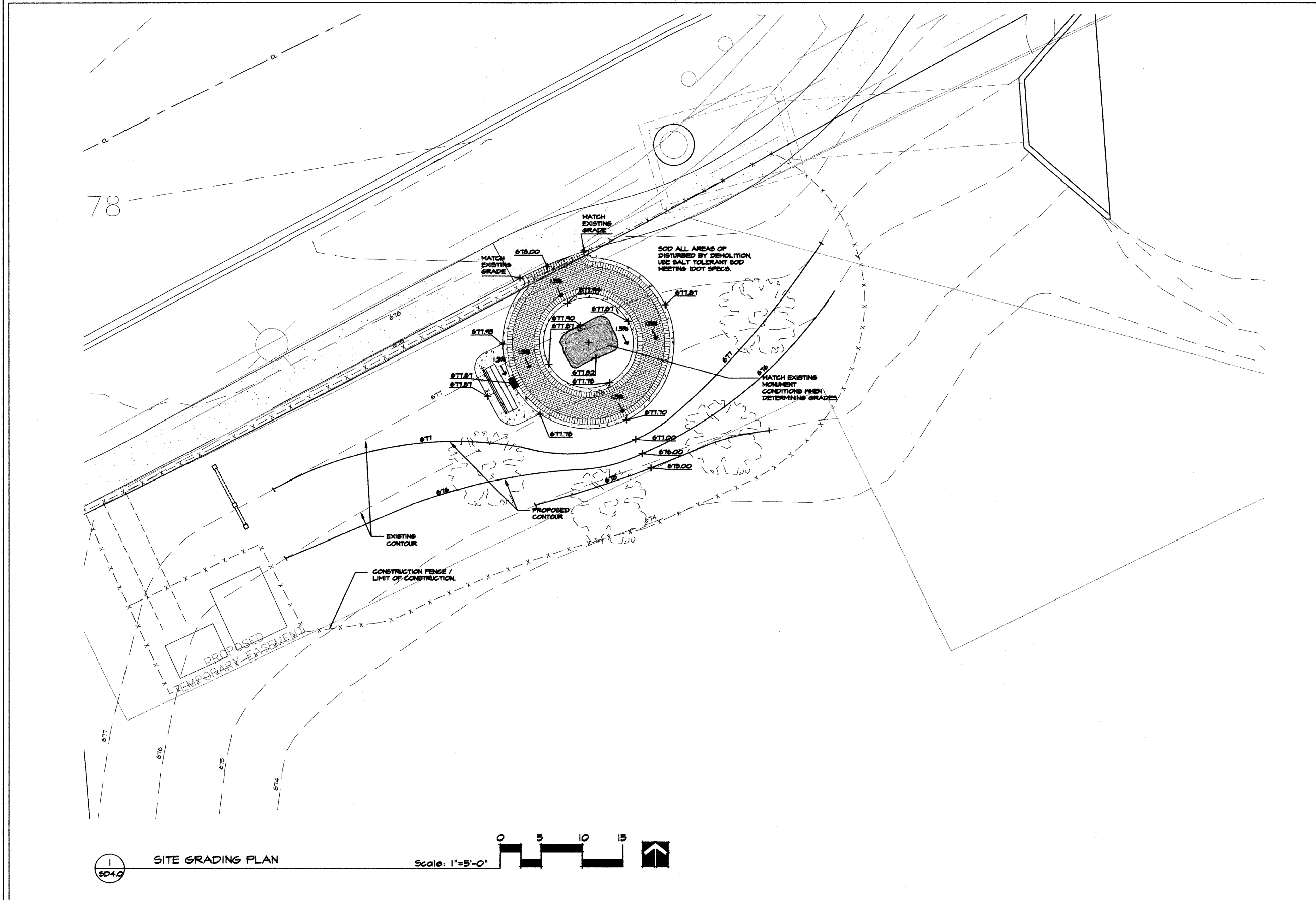
SD3.0

DEVELOPMENT PLAN

Scale: 1"=5'-0"



CONTRACT NO. 03027				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	100
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SITE GRADING PLAN	REVISIONS
	DATE:
SUBMITTAL	

FIREMEN'S MEMORIAL
Naperville, Illinois

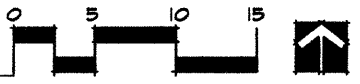
REVIEWED BY:	APPROVED BY:	DRAWN/DESIGNED BY:	PROJECT NO.:
	PLANNING RESOURCES INC.	BCL	P20164-01
	Date: 10.06.05		

Drawing
SD4.0
Site Grading Plan



SITE GRADING PLAN

Scale: 1"=5'-0"



CONTRACT NO. 03827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	102
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



Land Planning
Landscape Architecture
Environmental Site Design

17 COURT PLAZA - NAPERVILLE, IL 60540 - 630.303.3900 Fax 630.303.3994

project:

RIVERWALK JEFFERSON AVE. GATEWAY PLAZA

Brethren Peace Plaza
NAPERVILLE, ILLINOIS

sheet description:

Existing Conditions & Demolition Plan

SCALE NOTE:
ATTENTION: THE SCALE ON THIS PLAN DRAWING
1/8" = 10' IS DIFFERENT THAN THAT OF THE BRIDGE
RECONSTRUCTION PLANS AND AS SHOWN ON THE
ENGINEERING COVER SHEET. PLAN USERS TAKE NOTICE.



scale: 1/8" = 10'

8/04/2005	Per New Bike Parking Area
8/02/2005	Per RMC Review Comments
10/09/2005	Per IDOT Review
8/19/2005	Per Bollinger, Lach & Associates Prefinal Plan Review Comments
7/15/2005	Per City Review Comments ASA Drawing
8/18/2005	Per RW Commission Review 80% Progress Print

revisors:

original issue date: **2 MAY 2005**

drawn by:

checked by:

project no: **25005**

sheet no:

L.1 of 5

NOTE:
ADD 2" TO TREE SIZE DIAMETERS SHOWN ON
THIS SHEET FOR CURRENT TREE SIZE.
UPDATED TREE REMOVAL SIZES ARE SHOWN
ON EXISTING CONDITIONS SHEET.

FOR COORDINATION OF WORK IN THIS AREA,
SEE BRIDGE RECONSTRUCTION PLANS AS
PREPARED BY BOLLINGER, LACH & ASSOC.

- ORNAMENTAL METAL FENCE - TO BE REMOVED
- EXISTING SIGN - TO BE REMOVED
- EXISTING GRANITE MILEAGE MARKER
TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING SHRUBS
- TO BE REMOVED
- EXISTING CHAIN LINK FENCE
- TO BE REMOVED
- EXISTING CHAIN LINK FENCE - TO REMAIN
- INFORMATION SIGN
TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING REDBUD TREE - TO BE REMOVED
- MONUMENT AND PLAQUE - TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING GATE AND FENCE - TO REMAIN
- EXPOSED AGGREGATE TRASH RECEPTACLE
- TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING REDBUD TREE - TO BE REMOVED
- BRICK PAVERS
TO BE REMOVED, SAVED AND RE-USED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING SHRUBS - TO BE REMOVED
- EXISTING TREES - TO BE REMOVED
- CONCRETE CURB - TO BE REMOVED
- EXISTING
SHEPHERD'S CROOK LIGHT
- TO REMAIN
- SAWCUT AND REMOVE
ASPHALT PATH
AND CONCRETE CURB
- EXISTING TREES - TO BE PRESERVED
- CONC. CURB - TO REMAIN

- 6' WOOD BENCH TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- EXISTING TREES - TO BE REMOVED
PER BASE BRIDGE WORK
- REGULATION SIGN TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION
- MUTT MITT POST TO BE RELOCATED
SEE SHEET L.2 FOR NEW LOCATION

LEGEND:

- EXISTING TREE TO BE PRESERVED
- EXISTING TREE TO BE REMOVED
- EXISTING SHRUBS TO BE REMOVED

- CONC. CURB - TO BE REMOVED
- GUARDRAIL - TO REMAIN
- EXISTING TREES - TO BE PRESERVED
- ASPHALT PATH - TO BE REMOVED
- EXISTING 100 YR. FLOODPLAIN
- CONC. CURB - TO REMAIN
- ASPHALT PATH - TO REMAIN

BASE INFORMATION:

BASE SHEET BACKGROUND EXISTING CONDITIONS, PROPOSED
BRIDGE IMPROVEMENTS, TOPOGRAPHY, FLOODPLAIN AND
TREE LOCATIONS AS PER SURVEY INFORMATION PREPARED
BY BOLLINGER, LACH & ASSOCIATES AND SUPPLEMENTED
WITH FIELD INVESTIGATIONS AND SURVEYS CONDUCTED BY
SIGNATURE DESIGN GROUP, INC. IN MAY & JULY 2005.

SCHEDULE OF QUANTITIES:

SEE SHEET L.5 FOR A SCHEDULE OF QUANTITIES.

CONTRACT NO. 03827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	103
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



Land Planning
Landscape Architecture
Environmental Site Design

17 COURT PLACE - NAPERVILLE, IL 60540 - 630.305.3965 Fax 630.305.8994

project:

RIVERWALK JEFFERSON AVE. GATEWAY PLAZA

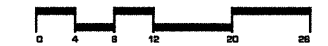
Brethren Peace Plaza

NAPERVILLE, ILLINOIS

sheet description:

Layout and Grading Plan

SCALE NOTE:
ATTENTION: THE SCALE ON THIS PLAN DRAWING
1/8" = 10' IS DIFFERENT THAN THAT OF THE BRIDGE
RECONSTRUCTION PLANS AND AS SHOWN ON THE
ENGINEERING COVER SHEET. PLAN USERS TAKE NOTICE.



scale: 1/8" = 10'

8/04/2005	Per New Bike Parking Area
8/05/2005	Per RMC Review Comments
10/08/2005	Per IDOT Review
8/19/2005	Per Bollinger, Lach & Associates Preliminary Plan Review Comments
7/19/2005	Per City Review Comments ADA Grading
8/18/2005	Per RW Commission Review 80% Progress Prints

original issue date: **2 MAY 2005**

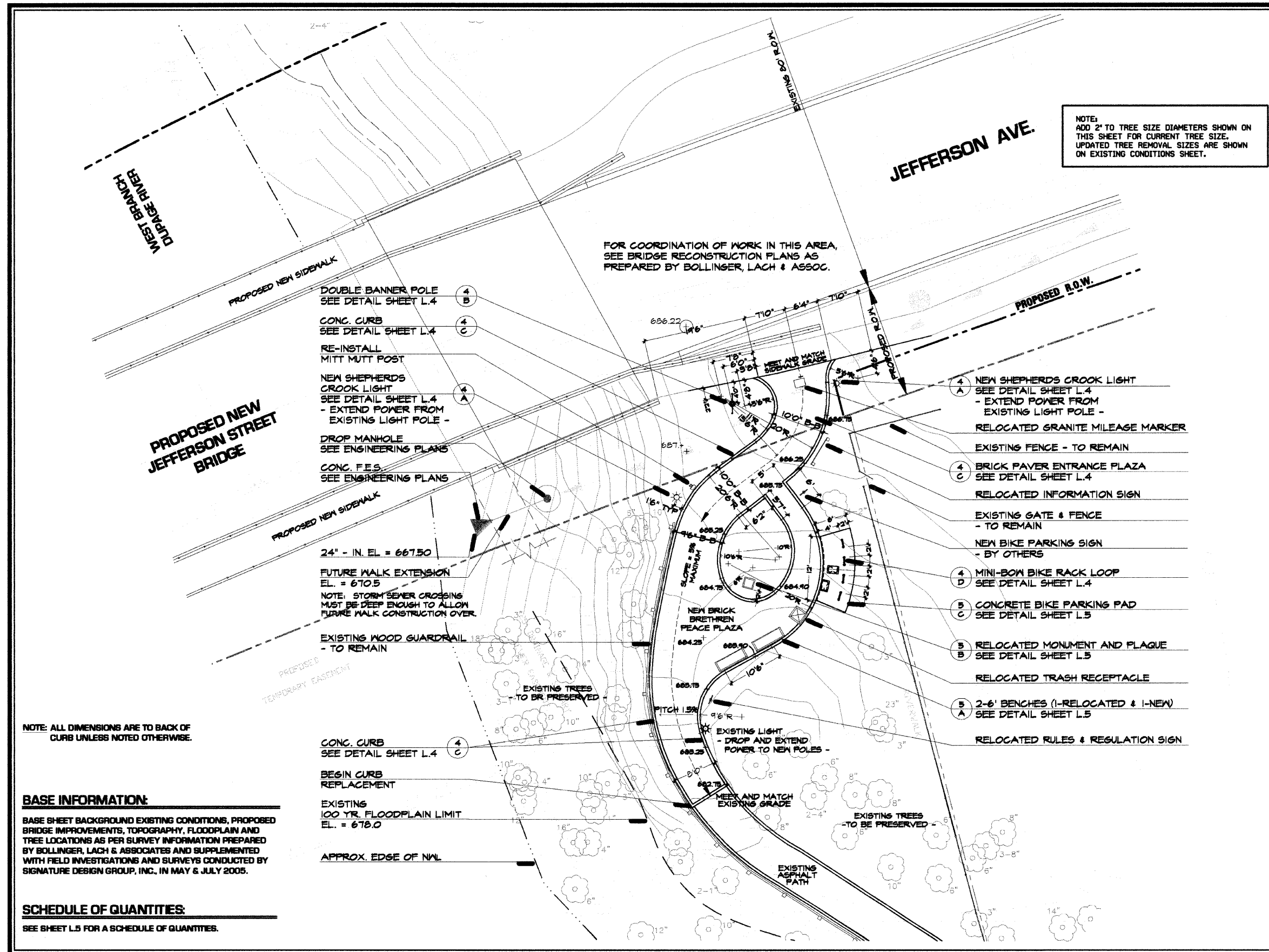
drawn by:

checked by:

project no: **25005**

sheet no:

L.2 of 5



NOTE: ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.

BASE INFORMATION:
BASE SHEET BACKGROUND EXISTING CONDITIONS, PROPOSED BRIDGE IMPROVEMENTS, TOPOGRAPHY, FLOODPLAIN AND TREE LOCATIONS AS PER SURVEY INFORMATION PREPARED BY BOLLINGER, LACH & ASSOCIATES AND SUPPLEMENTED WITH FIELD INVESTIGATIONS AND SURVEYS CONDUCTED BY SIGNATURE DESIGN GROUP, INC. IN MAY & JULY 2005.

SCHEDULE OF QUANTITIES:
SEE SHEET L.5 FOR A SCHEDULE OF QUANTITIES.

PLANT LIST:

Code	Scientific Name	Common Name	Size	Qty	Remarks
SHADE TREES					
AAB	Acer x freemanii 'Autumn Blaze'	Autumn Blaze Maple	4.0'	4	B&B
TCG	Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden	4.0'	1	B&B
EVERGREEN TREES					
PSW	Pinus strobus	Eastern White Pine	7'	3	B&B
EVERGREEN SHRUBS					
BGV	Buxus microphylla 'Green Velvet'	Green Velvet Boxwood	24"	5	5 Gallon Container
TOM	Thuja occidentalis 'Mission'	Mission Arborvitae	6'	6	B&B
ORNAMENTAL SHRUBS					
APBB	Asclepias parviflora 'Rogers'	Rogers Bottle Buckeye	36"	3	B&B
CTS	Chaenactis speciosa 'Texas Scarlet'	Texas Scarlet Quince	18"	23	5 Gallon Container
HAA	Hydrangea arborescens 'Annabelle'	Annabelle Hydrangea	24"	41	5 Gallon Container
KJP	Kerria japonica 'Preniflora'	Double-Flowering Japanese Kerria	24"	17	5 Gallon Container
RAG	Rhus aromatica 'Gro-low'	Gro-Low Fragrant Sumac	24"	45	5 Gallon Container
RTE	Rhus Typhina 'Balliger'	Tiger Eyes Cattleleaf Sumac	36"	12	Multi-Steem, 5G Container
RKO	Rosa 'Knockout'	Knockout Shrub Rose	18"	7	3 Gallon Container
VP	Viburnum prunifolium	Blackhaw Viburnum	5'	2	B&B
PERENNIALS / ORNAMENTAL GRASSES					
AAF	Asilbe chinensis 'Fanal'	Fanal Astilbe	1 G	30	Container
AML	Alchemilla mollis	Lady's Mantle	1 G	72	Container
CKF	Calamagrostis acutiflora 'Karl Forester'	Karl Forester Feather Reed Grass	3 G	5	Container
HAM	Hosta 'August Moon'	August Moon Hosta	1 G	100	Container
HPA	Hosta plantaginea 'Patriot'	Patriot Hosta	1 G	20	Container
HGS	Hosta 'Gold Standard'	Gold Standard Hosta	1 G	40	Container
ICB	Iris sibirica 'Caesar's Brother'	Caesar's Brother Siberian Iris	1 G	7	Container
NBW	Nepeta x faassenii 'Blue Wonder'	Blue Wonder Catmint	1 G	50	Container
SMN	Salvia x superba 'May Night'	May Night Salvia	1 G	10	Container
GROUNDCOVERS					
WT	Waldsteinia fragarioides	Barren Strawberry	3"	360	Container
ANNUALS					
AF	Annual Flowers	Annual Flowers	Flats		BY PARK DISTRICT
MISCELLANEOUS					
AB	Accent Boulder	Accent Boulder (Native Limestone)	30"	2	30" DIA. ACCENT BOULDER From On-Site Excavation

NOTES:

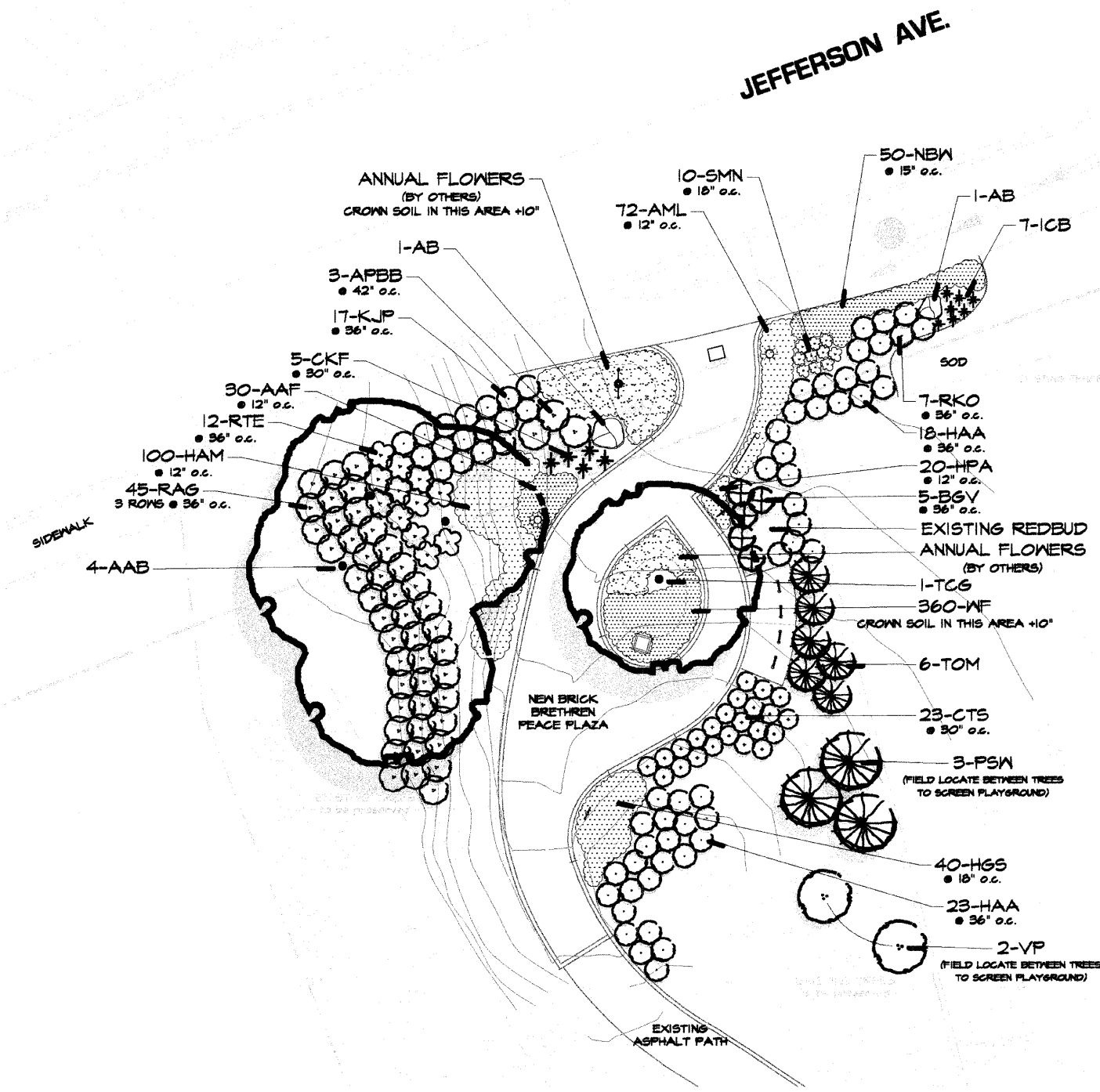
- Restore all turf areas as noted with an approved blend of improved Kentucky Bluegrass Sod with a mineral soil back.
- Final grading shall provide slopes which are smooth and continuous. Positive drainage shall be provided in all areas.
- Prior to turf installation all areas shall be fertilized with a 12-12-12 granular fertilizer at a rate of 400 lbs. per Acre.
- Prepare perennial, ornamental grass, groundcover and annual flower beds with 1 CY. composted leaf mulch per 100 SF, resodded to an 8" depth.
- Mulch all trees and shrub beds with a minimum of three inches shredded hardwood bark mulch.
- Mulch perennial, ornamental grass, groundcover and annual beds with minimum of one inch shredded hardwood bark mulch.
- All bed lines and tree saucers require a 4" deep spaced edge between lawn and mulch areas.
- Plant material sizing, branching and ball sizes shall conform to the "American Standards for Nursery Stock" (latest edition) by the American Association of Nurserymen, Inc.
- Plant material shall be nursery grown and be either balled and burlapped or container grown. Sizes and spreads on plant list represent minimum requirements.
- Quantity lists are supplied as a convenience. Contractor shall verify all quantities, and in case of a discrepancy, the plan shall prevail.
- The Landscape Contractor shall adjust plant locations in field to maintain appropriate spacing from fire hydrants, light poles, all utility structures, driveways and sidewalks. Approval of the Landscape Architect is required when field adjustments to be implemented do not conform to the intent of the plans.
- Contractor shall report any discrepancies in the field to the Landscape Architect and/or Owner.
- The Landscape Contractor shall verify locations of all underground utilities prior to digging, is required to Contact J.U.L.I.E. (1.800.882.0123), and any other public or private agency necessary for utility location 48 hours prior to construction.
- Where underground utilities exist, all field adjustments must be approved by the landscape architect.
- The Landscape Contractor shall water plant material, seed and sod areas until the plants have become adequately established and until final acceptance by the owner. Owner to provide all supplemental watering and proper care and maintenance of all plant materials, seed and sod areas after acceptance of Landscape Contractors work.
- No plants are to be changed or substituted without the approval of the Landscape Architect and the City of Naperville.
- Landscape Contractor shall warrant all material and labor for a period of one year from the date of final acceptance and shall repair any defects and replace all dead plant material as required during the warranty period.

BASE INFORMATION:

BASE SHEET BACKGROUND EXISTING CONDITIONS, PROPOSED BRIDGE IMPROVEMENTS, TOPOGRAPHY, FLOODPLAIN AND TREE LOCATIONS AS PER SURVEY INFORMATION PREPARED BY BOLLINGER, LACH & ASSOCIATES AND SUPPLEMENTED WITH FIELD INVESTIGATIONS AND SURVEYS CONDUCTED BY SIGNATURE DESIGN GROUP, INC. IN MAY & JULY 2005.

SCHEDULE OF QUANTITIES:

SEE SHEET L5 FOR A SCHEDULE OF QUANTITIES.



Land Planning
Landscape Architecture
Environmental Site Design

17 COURT PLACE - NAPERVILLE, IL 60540 - 630.353.9900 Fax: 630.353.9994

project:

**RIVERWALK
JEFFERSON AVE.
GATEWAY PLAZA**

Brethren Peace Plaza

NAPERVILLE, ILLINOIS

sheet description:

**Planting
Plan**

SCALE NOTE:
ATTENTION: THE SCALE ON THIS PLAN DRAWING 1/8" = 10' IS DIFFERENT THAN THAT OF THE RECONSTRUCTION PLANS AND AS SHOWN ON THE ENGINEERING COVER SHEET. PLAN USERS TAKE NOTICE.



scale: 1/8" = 10'

6/04/2005	Per New Bike Parking Area
6/06/2005	Per RMC Review Comments
10/26/2005	Per IDOT Review
6/15/2005	Per Bollinger, Lach & Associates Preliminary Plan Review Comments
7/18/2005	Per City Review Comments ADA Grading
6/18/2005	Per RMC Commission Review 60% Progress Prints

original issue date: **2 MAY 2005**

drawn by: [Signature]
checked by: [Signature]
project no: **25005**
sheet no:

CONTRACT NO. 03027				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	105
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



Land Planning
Landscape Architecture
Environmental Site Design

17 COURT PEACE - NAPERVILLE, IL 60540 - 630.303.3960 Fax 630.303.3994

project:

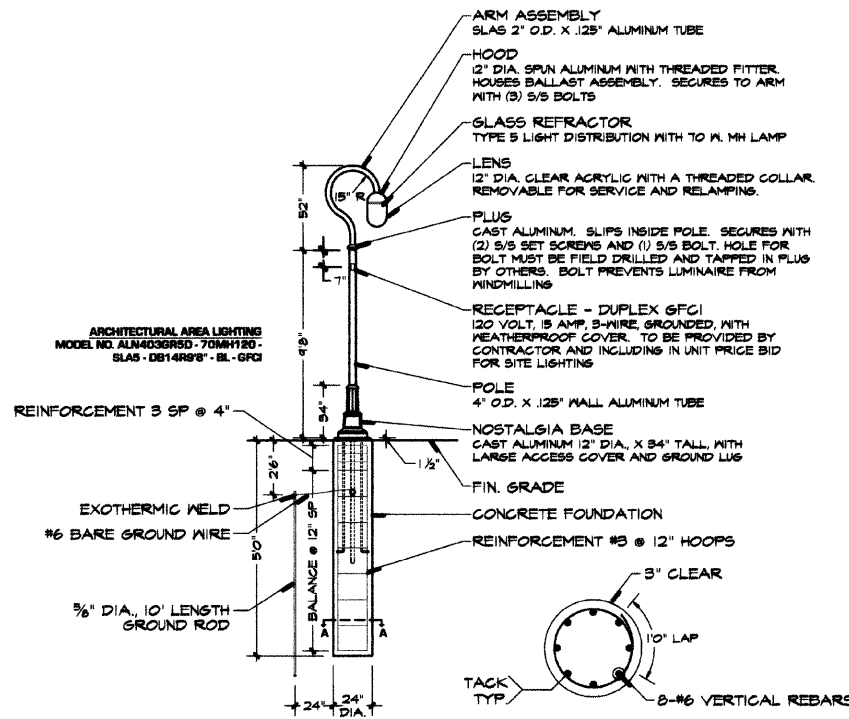
**RIVERWALK
JEFFERSON AVE.
GATEWAY PLAZA**

Brethren Peace Plaza

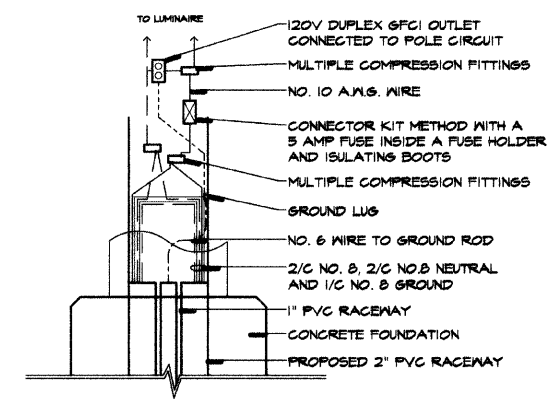
NAPERVILLE, ILLINOIS

sheet description:

**Construction
Details**

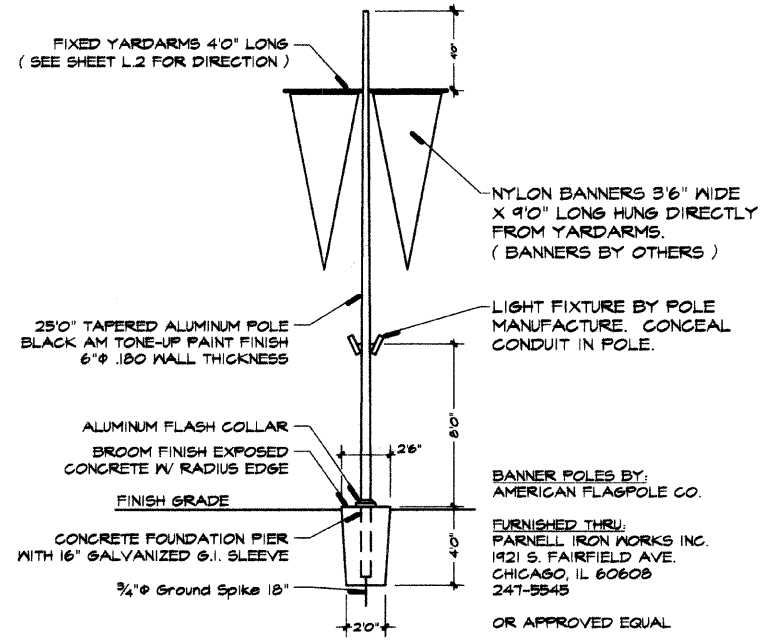


ELEVATION FOUNDATION SECTION A-A



POLE HANDHOLE WIRING DIAGRAM

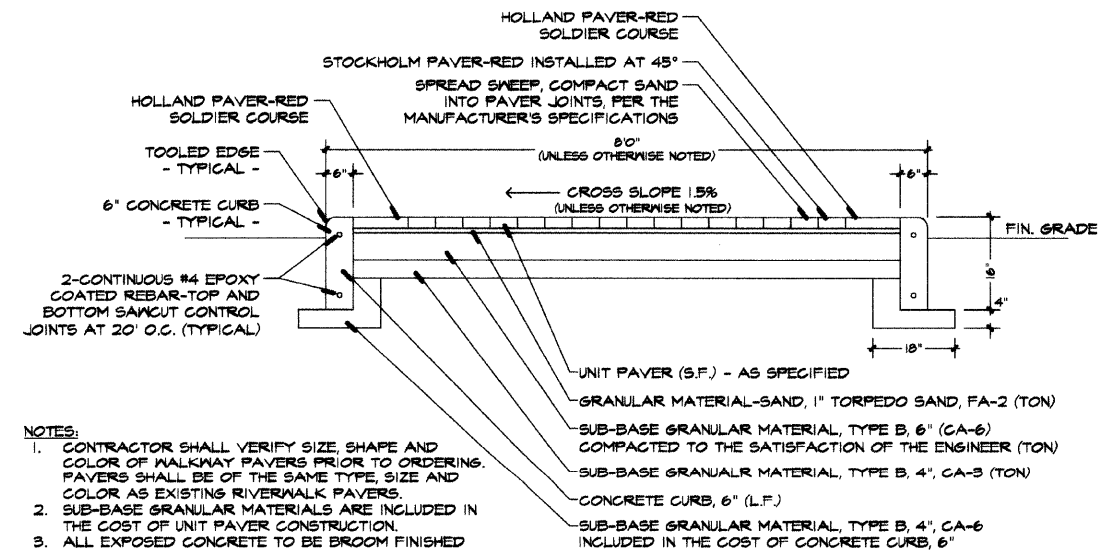
NOTE: POWER TO BE SUPPLIED FROM EXISTING LIGHT POLE 25 FT. SOUTH. COST TO EXTEND CONDUIT AND WIRE TO NEW LIGHT POLE SHALL BE INCLUDED IN COST OF NEW LIGHT POLE.



DOUBLE BANNER POLE DETAIL

**4
A** SHEPARD'S CROOK LIGHT POLE DETAIL

N.T.S.

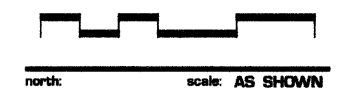


NOTES:

- CONTRACTOR SHALL VERIFY SIZE, SHAPE AND COLOR OF WALKWAY PAVERS PRIOR TO ORDERING. PAVERS SHALL BE OF THE SAME TYPE, SIZE AND COLOR AS EXISTING RIVERWALK PAVERS.
- SUB-BASE GRANULAR MATERIALS ARE INCLUDED IN THE COST OF UNIT PAVEMENT CONSTRUCTION.
- ALL EXPOSED CONCRETE TO BE BROOM FINISHED.

**4
C** BRICK WALKWAY PAVING DETAIL

N.T.S.



10/26/2005	Per IDOT Review
8/15/2005	Per Bollinger, Lach & Associates Professional Plan Review Comments
7/15/2005	Per City Review Comments ADA Grading
6/16/2005	Per R/W Commission Review 80% Program Prints

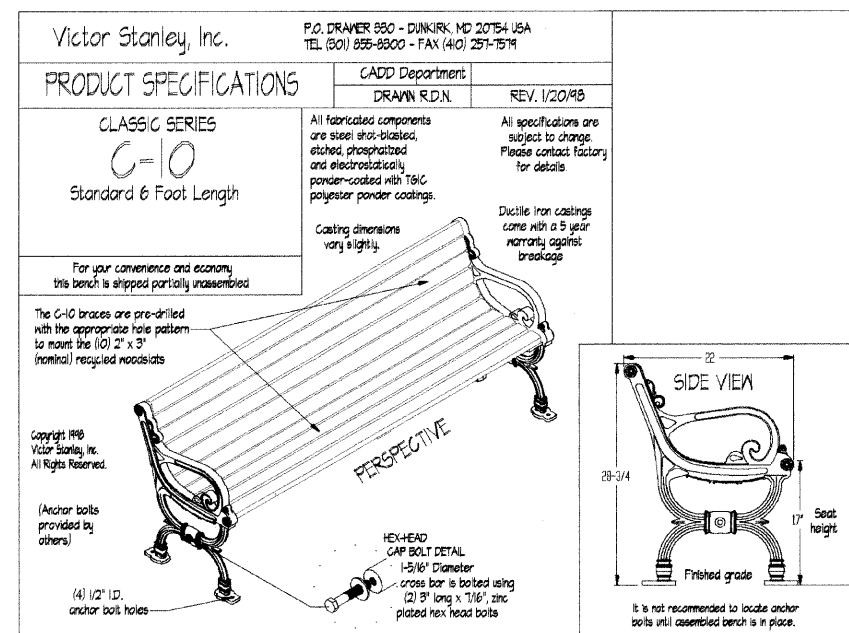
original issue date: **2 MAY 2005**
drawn by: _____
checked by: _____
project no.: **25005**
sheet no.: _____



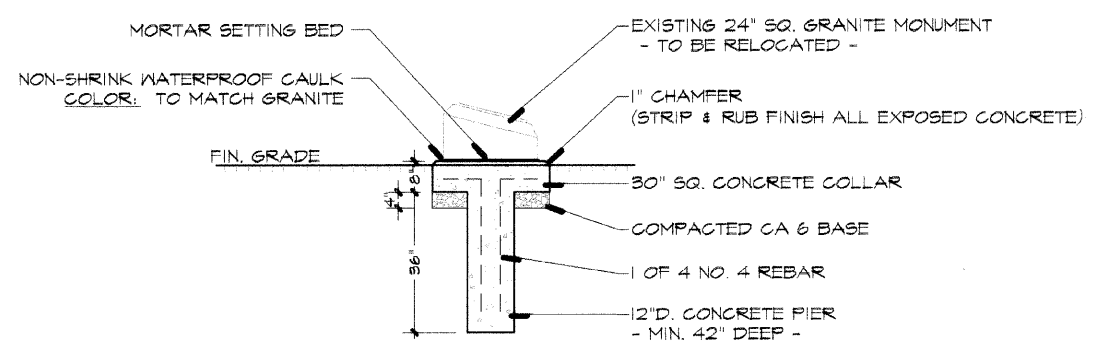
L4 of 5

CONTRACT NO. 03827				
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3570	00-00116-00-BR	DUPAGE	106	106
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

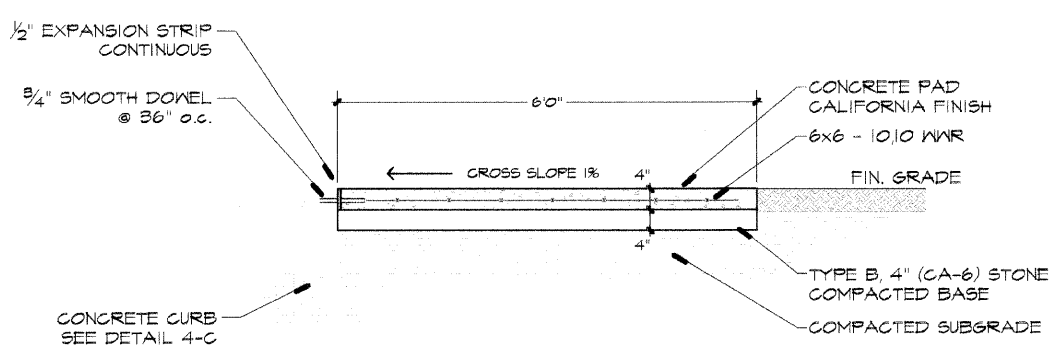
SCOPE OF WORK		UNIT	TOTAL QTY.
ITEM			
DEMOLITION			
TREE REMOVAL (6-15 CAL. IN.) (IN ADDITION TO ENGINEER'S QUANTITIES)	CAL. IN.		113
SHRUB REMOVAL	EACH		28
ORNAMENTAL METAL FENCE REMOVAL	TOTAL		1
SIGN REMOVAL	EACH		1
CHAINLINK FENCE REMOVAL	L.F.		28
REMOVE AND STORE TRASH RECEPTACLE	EACH		1
REMOVE AND STORE MONUMENT AND PLAQUE	TOTAL		1
REMOVE AND STORE GRANITE MILEAGE MARKER	TOTAL		1
REMOVE PALLETIZE AND SHRINKWRAP PAVERS	S.F.		480
REMOVE AND STORE INFORMATION SIGN	EACH		1
REMOVE AND STORE 6' WOOD BENCH	EACH		1
REMOVE AND STORE REGULATION SIGN	EACH		1
REMOVE AND STORE MUTT MITT POST	EACH		1
SAWCUT ASPHALT PATH AND CURB	L.F.		8
REMOVE CONCRETE BARRIER CURB	L.F.		130
REMOVE ASPHALT PATH	S.F.		430
HARDSCAPES			
NEW CONCRETE BARRIER CURB	L.F.		254
RE-INSTALL SAVED PAVERS	S.F.		480
PROVIDE AND INSTALL NEW PAVERS	S.F.		645
RE-INSTALL GRANITE MILEAGE MARKER	TOTAL		1
NEW CONCRETE BIKE PARKING PAD	S.F.		86
PROVIDE AND INSTALL BOW-BIKE RACK LOOPS	EACH		4
RE-INSTALL MUTT MITT POST	TOTAL		1
RE-INSTALL MONUMENT AND PLAQUE ON NEW FOUNDATION	TOTAL		1
RE-INSTALL TRASH RECEPTACLE	EACH		1
RE-INSTALL STORED 6' WOOD BENCH	EACH		1
PROVIDE AND INSTALL NEW MATCHING 6' WOOD BENCH	EACH		1
RE-INSTALL INFORMATION SIGN	EACH		1
RE-INSTALL RULES AND REGULATIONS SIGN	EACH		1
PROVIDE, INSTALL AND WIRE NEW SHEPHERDS CROOK LIGHT	EACH		2
PROVIDE AND INSTALL DOUBLE BANNER POLE	EACH		1
ROUGH GRADING	S.Y.		100
DEBRIS REMOVAL	TOTAL		1
PLANT MATERIALS - (SEE SHEET L3 FOR DETAILED LIST OF PLANT MATERIAL.)			
AAB	Acer x freemanii 'Autumn Blaze', 4.0"	EACH	4
TCG	Tilia cordata 'Greenspire', 4.0"	EACH	1
PSW	Pinus strobus, 7'	EACH	3
TOM	Thuja occidentalis 'Mission', 6'	EACH	6
CTS	Chaenomeles speciosa 'Texas Scarlet', 5G	EACH	23
VP	Viburnum prunifolium, 5'	EACH	2
BGV	Buxus microphylla 'Green Velvet', 24"	EACH	5
APBB	Aesculus parviflora 'Rogers', 36"	EACH	3
HAA	Hydrangea arborescens 'Annabelle', 5G	EACH	41
KJP	Kerria japonica 'Pleniflora', 24"	EACH	17
RAG	Rhus aromatica 'Gro-low', 5G	EACH	45
RTE	Rhus typhina 'Baltiger', 36"	EACH	12
RKO	Rosa 'Knockout', 3G	EACH	7
AML	Alchemilla mollis, 1G	EACH	72
AAF	Astilbe chinensis 'Fanal', 1G	EACH	30
CKF	Calamagrostis acutiflora 'Karl Forester', 3G	EACH	5
HAM	Hosta 'August Moon', 1G	EACH	100
HPA	Hosta plantaginea 'Patriot'	EACH	20
HGS	Hosta 'Gold Standard', 1G	EACH	40
ICB	Iris sibirica 'Caesar's Brother', 1G	EACH	7
NBW	Nepeta x faassenii 'Blue Wonder', 1G	EACH	50
SMN	Salvia x superba 'May Night', 1G	EACH	10
WF	Waldsternia fragarioides, 3"	EACH	360
AB	Accent Boulder	EACH	2
	Compost	C.Y.	6
	Topsail	C.Y.	5
	Shredded Hardwood Bark Mulch	C.Y.	24
	Bluegrass Sod (SEE ENGINEERS PLANS FOR TURF RESTORATION)		



5 A 6' WOOD BENCH DETAIL N.T.S.



5 B RELOCATED MONUMENT CONCRETE BASE DETAIL N.T.S.



5 C CONCRETE BIKE PARKING PAD DETAIL N.T.S.



Land Planning
Landscape Architecture
Environmental Site Design

project:
**RIVERWALK
JEFFERSON AVE.
GATEWAY PLAZA**
Brethren Peace Plaza
NAPERVILLE, ILLINOIS

sheet description:
**Summary
of Quantities
and
Construction Details**



6/04/2005	Per New Bike Parking Area
8/02/2005	Per PWC Review Comments
10/28/2005	Per IDOT Review
5/15/2006	Per Bollinger, Lush & Associates Preliminary Plan Review Comments
7/19/2006	Per City Review Comments
8/18/2006	Per RW Commission Review
	8/18/2006 Progress Prints

original issue date: **2 MAY 2005**

drawn by:
checked by:
project no: **25005**
sheet no: