

SUMMARY OF QUANTITIES

SPECIALTY ITEM	SPECIAL PROVISION	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
						80% FEDERAL 20% LOCAL			
						ROADWAY 0004 URBAN	BRIDGE 0011 URBAN	TRAINEES 0042 URBAN	UTILITIES 0043 URBAN
•		78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	43	43			
•	S	78200410	GUARDRAIL MARKERS, TYPE A	EACH	4	4			
•	S	78200520	BARRIER WALL MARKERS, TYPE B	EACH	4	4			
•	S	78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2			
*	S	88600600	DETECTOR LOOP REPLACEMENT	FOOT	220	220			
	S	X0326806	WASHOUT BASIN	L SUM	1	1			
	S	X0350810	BOLLARD REMOVAL	EACH	2	2			
•	S	X2090215	SELECT GRANULAR BACKFILL, SPECIAL	CU YD	17				17
	S	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	100	100			
	S	X4021000	TEMPORARY ACCESS (PRIVATE ENTRANCE)	EACH	4	4			
	S	X4022000	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	2			
	S	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SO YD	1,094	1,094			
	S	X5030305	CONCRETE WEARING SURFACE, 5"	SO YD	184		184		
•	S	X5610662	WATER MAIN TO BE ABANDONED, 12"	FOOT	211				211
	S	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	97		97		
	S	X6020074	INLETS, TYPE A, TYPE 3V FRAME AND GRATE	EACH	3	3			
	S	X6020116	CONTROL STRUCTURES, 6' DIAMETER (SPECIAL)	EACH	1	1			
•	S	X6310195	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT), MODIFIED	EACH	2	2			
•	S	X6310214	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)	EACH	2	2			
	S	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1			
	S	X7010237	CHANGEABLE MESSAGE SIGN, SPECIAL	CAL DA	28	28			
	S	XX002895	SANITARY MANHOLES TO BE RECONSTRUCTED WITH NEW FRAME & LID	EACH	3	3			
•	S	XX007169	NON-PRESSURE CONNECTION	EACH	1				1
	S	XX008945	WATER VALVES TO BE REMOVED	EACH	1				1
	S	Z0013797	STABILIZED CONSTRUCTION ENTRANCE	SO YD	150	150			
	S	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
	S	Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	68	68			
*	S	Z0041900	POLYETHYLENE ENCASUREMENT	FOOT	236				236
*	S	Z0045100	PRESSURE CONNECTION 12" X 12"	EACH	1				1
	S	Z0055905	TEMPORARY CONSTRUCTION FENCE	FOOT	200	200			
	S	Z0056608	STORM SEWER (WATER MAIN REQUIREMENTS) 12 INCH	FOOT	53	53			
	S	Z0056612	STORM SEWER (WATER MAIN REQUIREMENTS) 18 INCH	FOOT	45	45			
	S	Z0076600	TRAINEES	HOUR	500			500	
	S	Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500			500	
		Y0327367	STEEL CASING PIPE, BORED AND JACKED 24"	FOOT	40				40
		60107600	Pipe Underdrains 4"	FOOT	200	200			

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WILLS BURKE KELSEY ASSOCIATES LTD.
 116 West Main Street, Suite 201
 St. Charles, Illinois 60174

USER NAME = nparr1s	DESIGNED -	REVISED -
PLOT SCALE = 1:1	DRAWN -	REVISED -
PLOT DATE = 12/15/2014	CHECKED -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

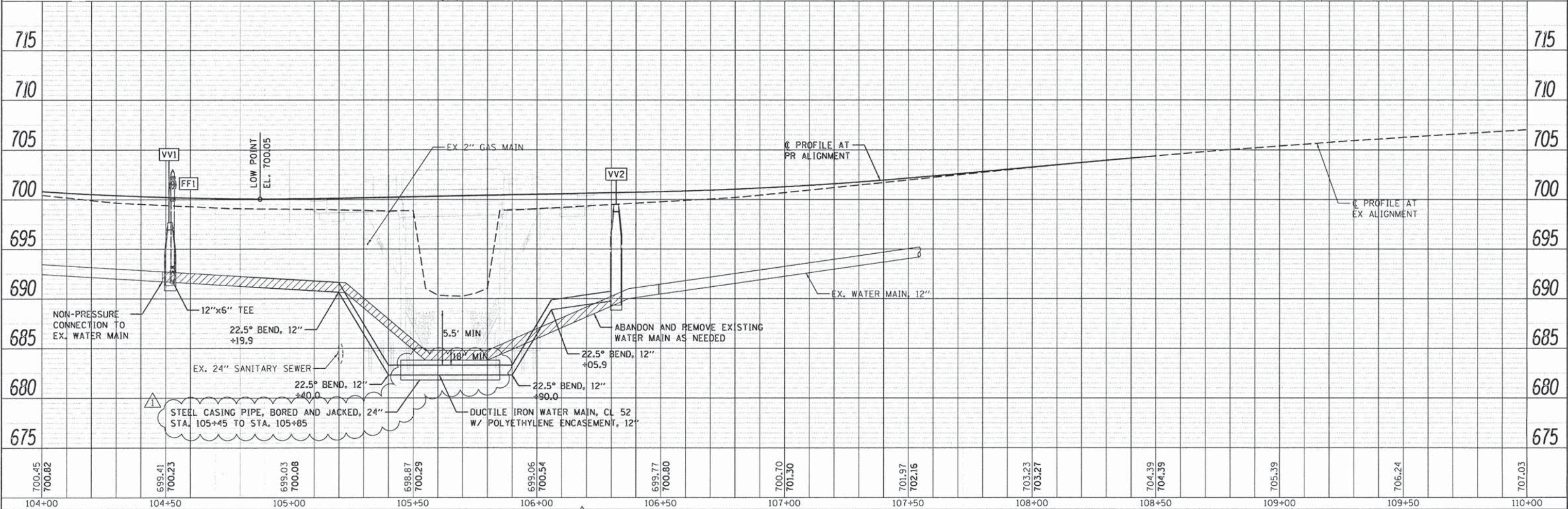
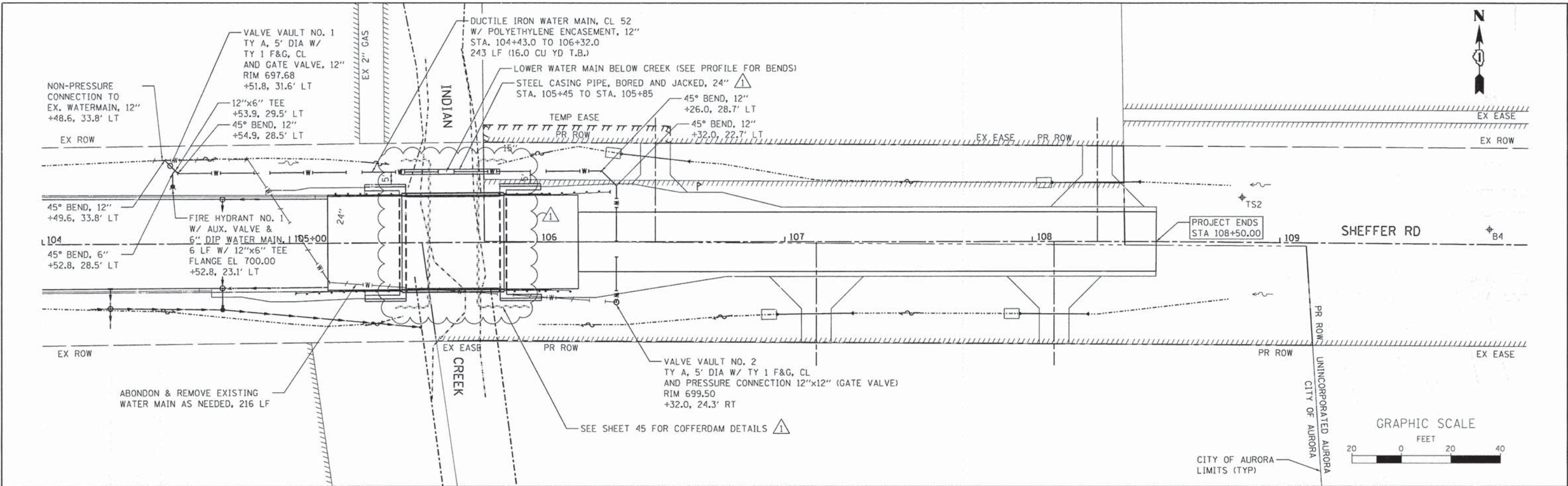
SUMMARY OF QUANTITIES			
SCALE:	SHEET NO. 4 OF 4 SHEETS	STA.	TO STA.

F.A.U. RTE. 2421	SECTION 11-00298-00-BR	COUNTY KANE	TOTAL SHEETS 85	SHEET NO. 7
CONTRACT NO. 61B08				ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	BY	DATE
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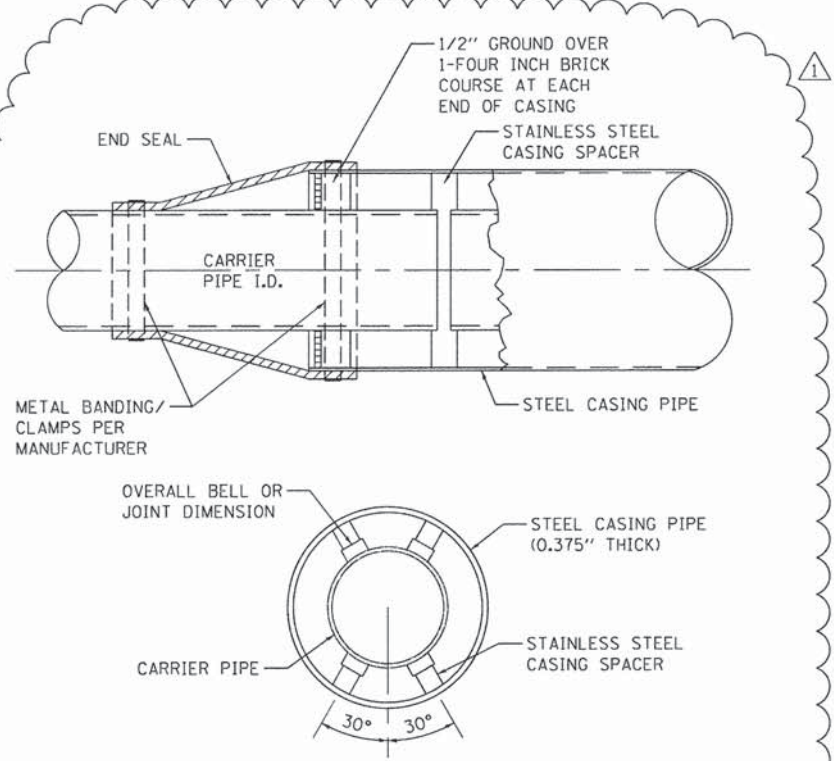
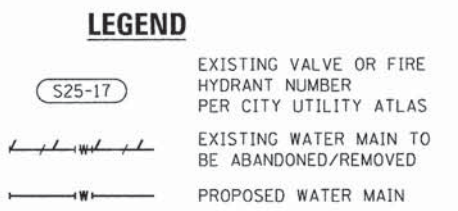
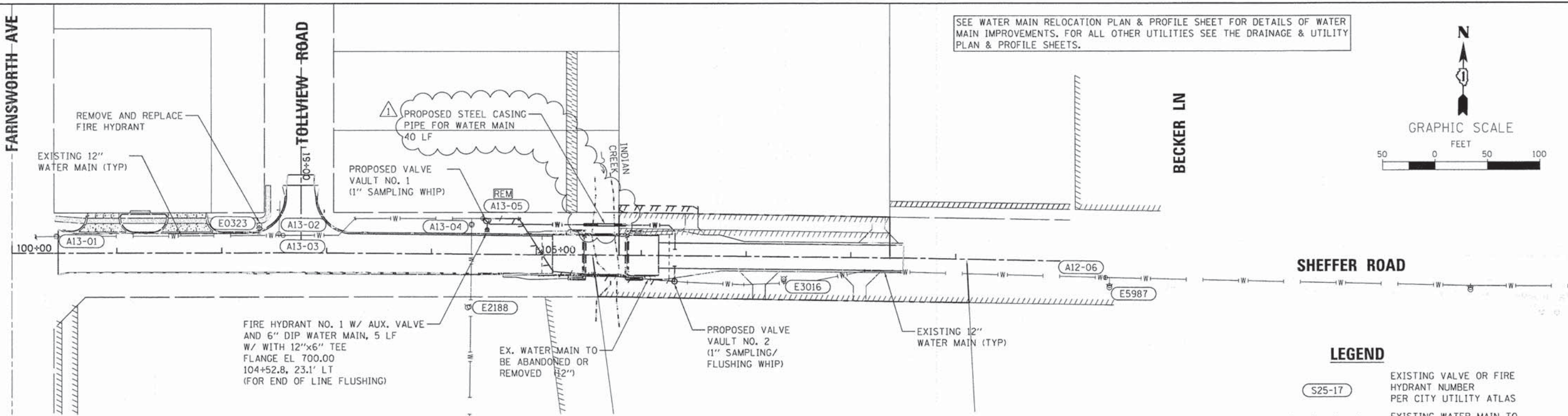
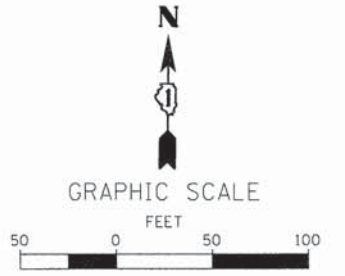
PROFILE	SURVEYED	BY	DATE
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	STRUCTURE NOTATIONS CHFD		
	NO.		

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 USER NAME = nparre:s
 DESIGNED - MNB
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 CHECKED - SBP
 PLOT DATE = 4/7/2015
 REVISION - 4/8/15
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WILLS BURKE KELSEY ASSOCIATES LTD 116 West Main Street, Suite 201 St. Charles, Illinois 60174		USER NAME = nparre:s	DESIGNED - MNB	REVISED - 4/8/15	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		WATER MAIN RELOCATION PLAN & PROFILE		F.A.U. RTE. 2421	SECTION 11-00298-00-BR	COUNTY KANE	TOTAL SHEETS 85	SHEET NO. 29
SCALE: 1"=20'		SHEET NO. 1 OF 1 SHEETS		STA. 104+00.00 TO STA. 108+80.00		ILLINOIS FED. AID PROJECT		CONTRACT NO. 61808					

SEE WATER MAIN RELOCATION PLAN & PROFILE SHEET FOR DETAILS OF WATER MAIN IMPROVEMENTS. FOR ALL OTHER UTILITIES SEE THE DRAINAGE & UTILITY PLAN & PROFILE SHEETS.



- NOTES:**
1. THE WATERMAIN SHALL BE 'CENTER SPACED' AND RESTRAINED ON TOP AND BOTTOM UTILIZING CASING SPACERS EQUALLY SPACED PER MANUFACTURING RECOMMENDATIONS.
 2. CASING SPACERS ARE TO BE BOLT-ON STYLE FABRICATED OF 304 STAINLESS STEEL.
 3. CASING IS TO BE SEALED AT BOTH ENDS WITH A WATER TIGHT SYNTHETIC RUBBER, CONICAL SHAPED SEAL.
 4. WATERMAIN JOINTS WITHIN THE CASING SHALL BE RESTRAINED.

PIPE CASING DETAIL FOR WATER MAINS

FIRE HYDRANT TO BE REMOVED AND REPLACED

- THE EXISTING FIRE HYDRANT AT STA. 102+35.9, 26.2' LT (#E0323) WILL BE REMOVED AND A NEW FIRE HYDRANT ASSEMBLY WILL BE CONSTRUCTED AT THE SAME LOCATION. THE NEW FIRE HYDRANT SHALL BE SET TO THE PROPOSED ELEVATION SHOWN IN THE PLANS.
- ISOLATE EXISTING WATER MAIN BY CLOSING WATER VALVES AT STA. 100+42.5 (#A13-01), STA. 102+58.5 (A13-03) AND STA. 102+54.5 (A13-02).
- INSTALL NEW FIRE HYDRANT AT STA. 102+35.9, 26.2' LT. FLUSH FIRE HYDRANT BEFORE OPENING ALL VALVES.
- PUT EXISTING WATER MAIN INTO SERVICE BY OPENING ALL PREVIOUSLY CLOSED VALVES.

SEQUENCE OF OPERATION NOTES

THE WATER MAIN INSTALLATION SEQUENCE OF CONSTRUCTION LISTED BELOW IS A SUGGESTED SEQUENCE OF OPERATIONS AND DOES NOT, NOR IS IT INTENDED, TO DEPICT ALL THE WORK REQUIRED BY THE CONTRACTOR TO CONSTRUCT THE NEW WATER MAIN AND APPURTENANCES AS SHOWN IN THE PLANS. THE SEQUENCE OF OPERATION IS GIVEN AS AN AIDE AND GUIDE FOR THE CONTRACTOR'S USE TO ESTABLISH NECESSARY GUIDELINES REQUIRED BY THE CITY OF AURORA FOR SHUTTING DOWN OF EXISTING WATER MAINS. THE CONTRACTOR MAY WISH TO MAKE REVISIONS OR MODIFICATIONS TO THE SEQUENCE OF OPERATION AND/OR CONSTRUCTION METHODS. THE CONTRACTOR WILL COORDINATE AND FINALIZE THE SEQUENCE OF CONSTRUCTION OPERATIONS WITH THE ENGINEER AND CITY OF AURORA WATER PRODUCTION DIVISION.

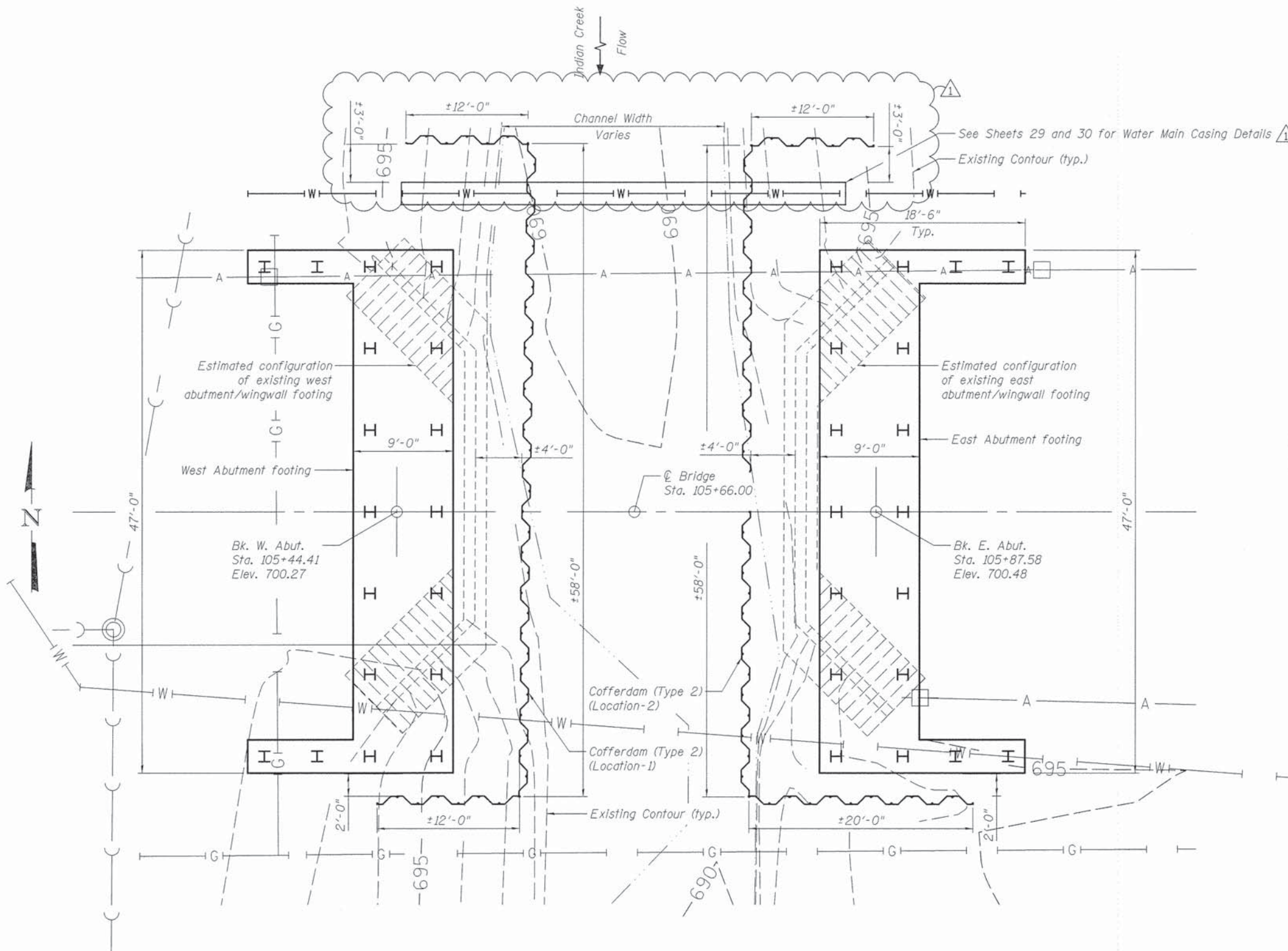
12" WATER MAIN INSTALLATION SEQUENCE OF CONSTRUCTION

- MAINTAIN EXISTING WATER SERVICE THROUGH PROJECT CORRIDOR BY UTILIZING EXISTING 12" WATER MAIN BETWEEN EXISTING VALVES AT STA. 104+48.64 (#A13-05) AND STA. 110+00.00 (#A12-06).
- INSTALL NEW 12" GATE VALVE AND VAULT (VV#1 - NON-PRESSURE) AT STA. 104+51.8, 31.6' LT. AND NEW 12" GATE VALVE AND VAULT (VV#2 - PRESSURE CONNECTION) AT STA 106+32.00, 24.3' RT. (SEE WATER MAIN RELOCATION PLAN AND PROFILE)
- KEEP NEW VALVES AT STA. 104+51.8 AND 106+32.0 CLOSED AFTER INSTALLATION.
- INSTALL NEW WATER MAIN AND APPURTENANCES BETWEEN PRESSURE CONNECTIONS FROM STA. 104+51.8, 31.6' LT. TO STA. 106+32.00, 24.3' RT.
- INSTALL NEW FIRE HYDRANT (FH#1) AT STA. 104+52.8, 23.1' LT. NEW FIRE HYDRANT SHALL BE TO BE USED FOR END OF LINE FLUSHING OPERATIONS.
- CONNECT "WHIPS" (CORPORATION STOPS) AT THE NEW VALVE (VV#1) AT 104+51.8 AND (VV#2) AT STA. 106+32.0 FOR TESTING AND CHLORINATION. ADDITIONAL WHIPS MAY BE REQUIRED BY CITY OF AURORA.
- FLUSH, PRESSURE TEST, DISINFECT, CHLORINATE AND FLUSH NEW WATER MAIN. FLUSH NEW WATER MAIN USING NEWLY INSTALLED "WHIPS" AND NEW FIRE HYDRANT (FH#1).
- ISOLATE EXISTING WATER MAIN BETWEEN STA. 104+48.6 (#A13-05) TO STA. 106+32.0 VV#2) BY CLOSING EXISTING WATER VALVES ON THE WEST END AT STA. 102+58 (#A13-03), STA. 104+38 (#A13-04 - STORAGE FACILITY) AND THE EAST END AT STA. 110+00 (#A12-06).
- DISCONNECT EXISTING WATER MAIN AT PRESSURE CONNECTION AT STA. 106+32.0. PROVIDE PLUG AND RESTRAINED JOINTING. REMOVE EXISTING VALVE AT STA. 104+48.6 (#A13-05) AND MAKE NON-PRESSURE CONNECTION TO THE EXISTING WATER MAIN. PROVIDE RESTRAINED JOINTING. THIS WORK SHALL BE COMPLETED WITHIN 1 HOUR TIME PERIOD AND COMPLETED SIMULTANEOUSLY.
- RE-FLUSH SYSTEM BY OPENING EXISTING WATER VALVES ON THE WEST END AT STA. 102+58 (#A13-03) AND THE EAST END AT STA. 110+00 (#A12-06). OPEN NEW VALVES AT STA. 104+51.8 (VV#1) AND STA. 106+32.0 (VV#2). KEEP EXISTING VALVE (#A13-04 - STORAGE FACILITY) CLOSED. FLUSH USING NEW FIRE HYDRANT (FH#1) AT STA. 104+52.8 AND EXISTING FIRE HYDRANT AT STA. 107+36 (E3016).
- OPEN EXISTING VALVE AT STA. 104+38 (#A13-04 - STORAGE FACILITY) AND FLUSH LATERAL USING EXISTING FIRE HYDRANT AT STA. 104+35, 51' RT. (E2188).
- REMOVE OR ABANDON EXISTING 12" WATER MAIN AS NEEDED TO CONSTRUCT BRIDGE AND ROADWAY IMPROVEMENTS.

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WILLS BURKE KELSEY ASSOCIATES LTD. 116 West Main Street, Suite 201 St. Charles, Illinois 60174 WBK	USER NAME = bpottorff	DESIGNED - SBP	REVISED - 4/8/15	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WATER MAIN RELOCATION SEQUENCE OF CONSTRUCTION		F.A.U. RTE. 2421	SECTION 11-00298-00-BR	COUNTY KANE	TOTAL SHEETS 85	SHEET NO. 30	
	PLOT SCALE = 1:50	CHECKED - MNB	REVISED -				CONTRACT NO. 61B08					
	PLOT DATE = 4/8/2015	DATE - 4/8/15	REVISED -				ILLINOIS FED. AID PROJECT					

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PLAN

- NOTES**
- Cofferdam (Type 2) (Location-1) and Cofferdam (Type 2) (Location-2) will be required for the removal of the existing abutment footings, proposed water main, and for the construction of the new abutments.
 - The design, construction and required submittals for Cofferdam (Type 2) (Location-1) and Cofferdam (Type 2) (Location-2) shall conform to the special provision "Cofferdams".
 - The Cofferdam Water Elevation 694.45 is taken as 3 feet above the Estimated Water Surface Elevation 691.45. The top of cofferdam shall be set at or above Elevation 694.45.
 - Existing plans are not available for the existing bridge. Therefore, the foundation and footing geometry are not known, as is whether the foundation is supported on piles.
 - The construction of the new abutments and the installation of piles may interfere with the existing abutment foundations. After construction of the cofferdams, the Contractor is required to determine the extent and depth of the existing abutment and wingwall foundations and remove portions of the existing foundations for the construction of the new abutments.

BILL OF MATERIAL

Item	Unit	Quantity
Cofferdam (Type 2) (Location - 1)	Each	1
Cofferdam (Type 2) (Location - 2)	Each	1

WILLS BURKE KELSEY ASSOCIATES LTD. 116 West Main Street, Suite 201 St. Charles, Illinois 60174 WBK	USER NAME = nparr1s	DESIGNED - DLS	REVISED - 4/8/15
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	PLOT DATE = 4/7/2015	DRAWN - DLS	REVISED -
		CHECKED - AEU	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE LAYOUT AND COFFERDAM DETAILS
STRUCTURE NO. 045-6053
SHEET NO. 3 OF 18 SHEETS

FAU RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2421	11-00298-00-BR	KANE	85	45
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 61B08	