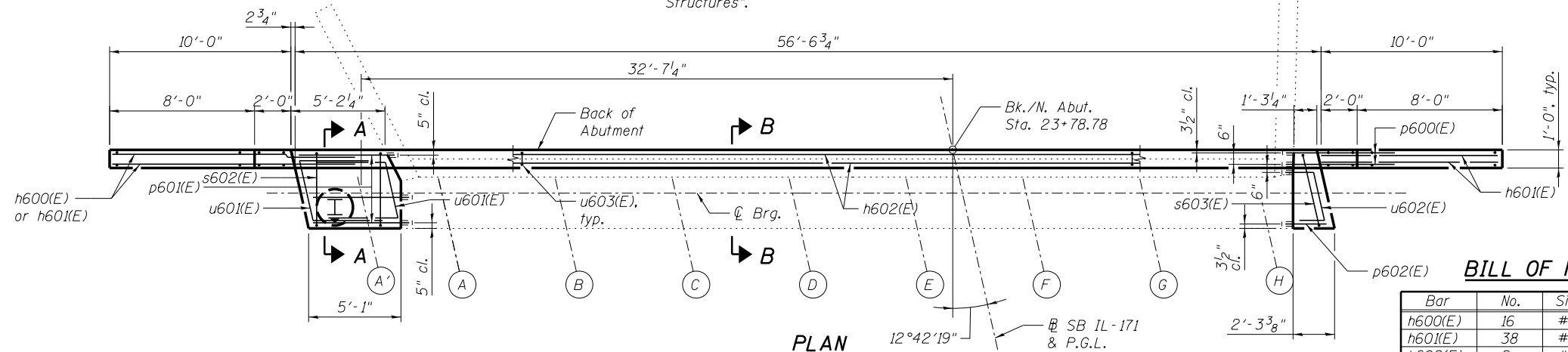
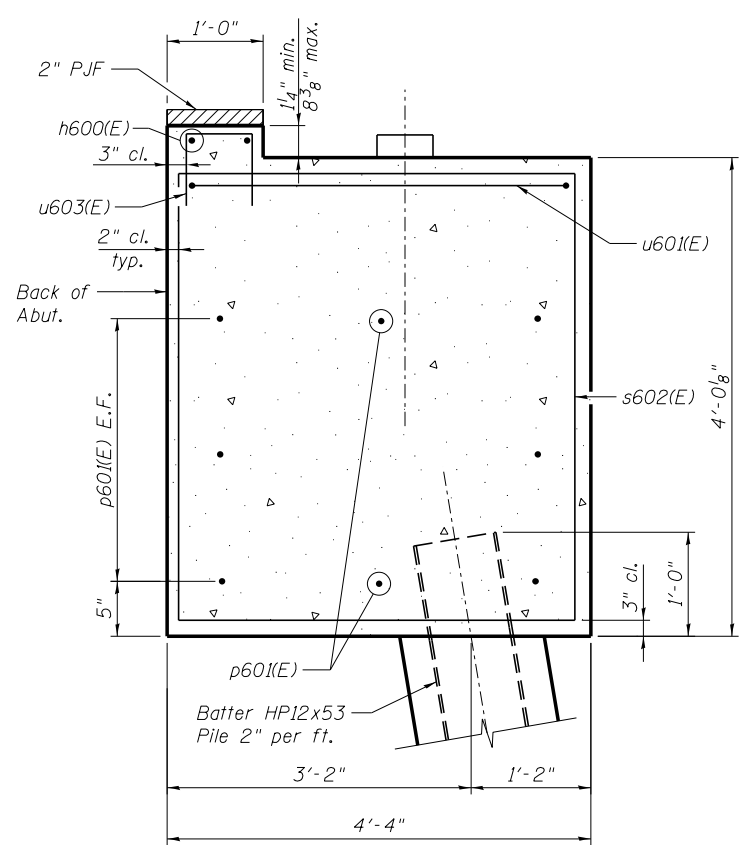
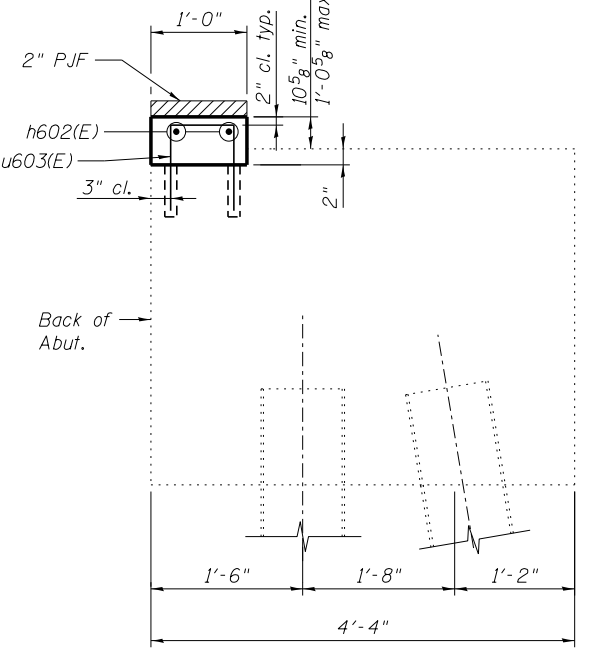


*Drill and grout bars according to Article 584 of the Standard Specifications. See Embedment Depth table for hole depth. Cost to be included in "Concrete Structures".



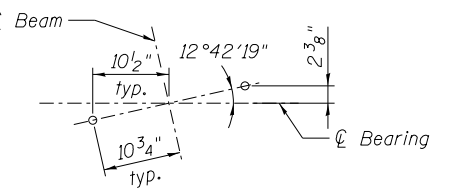
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h600(E)	16	#6	11'-6"	—
h601(E)	38	#6	9'-8"	—
h602(E)	2	#5	56'-2"	—
p600(E)	14	#6	6'-0"	—
p601(E)	8	#7	5'-10"	—
p602(E)	4	#6	2'-10"	—
s602(E)	6	#5	16'-1"	□
s603(E)	1	#5	15'-5"	□
u601(E)	5	#6	11'-9"	U
u602(E)	4	#6	6'-11"	U
u603(E)	57	#4	3'-7"	U
v601(E)	16	#5	10'-5"	—
v602(E)	12	#5	7'-8"	—
Structure Excavation		Cu. Yd.	102	
Concrete Structures		Cu. Yd.	10.7	
Reinforcement Bars, Epoxy Coated		Pound	1,840	
Test Pile Steel HP12x53		Each	1	
Pile Shoes		Each	1	
Geocomposite Wall Drain		Sq. Yd.	69	
Concrete Encasement		Cu. Yd.	0.35	
Granular Backfill for Structures		Cu. Yd.	102	
Cleaning Bridge Seats		Sq. Ft.	98	
Pipe Underdrains for Structures 4"		Foot	57	



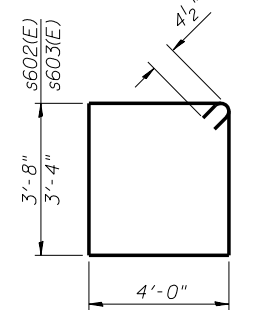
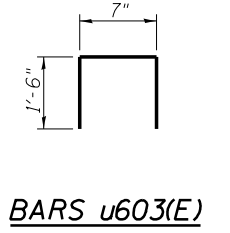
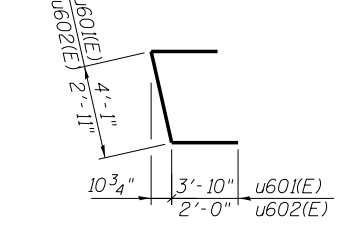
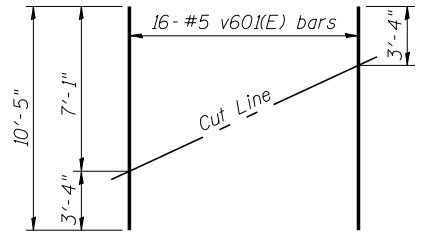
PILE DATA

Type: HP12x53 with Pile Shoes
Nominal Required Bearing: 211 kips
Allowable Resistance Available: 70 kips
Est. Length: 40'
No. Production Piles: 0
No. Test Piles: 1



EMBEDMENT DEPTH

BAR SIZE	EMBEDMENT
#4	6"
#6	10"
#7	12"



- NOTES:**
- E.F. denotes Each Face, E.S. denotes Each Side.
 - For details of piles, see sheet SH30.
 - For concrete encasement details, see sheet SH30.

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10093

FILE NAME	USER NAME	DESIGNED	CHECKED	DRAWN	PLOT DATE	REVISIONS
016-0488-60J16-024-N Abutment Widening	jsurber	CMK	JAW	CMK	12/20/2013	CMK, JAW

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT WIDENING DETAILS
STRUCTURE NO. 016-0488

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
373	2013-038B-R	COOK	821	762

CONTRACT NO. 60J16

ILLINOIS FED. AID PROJECT

SHEET NO. SH24 OF SH36 SHEETS

Y:\chicago\100005\100093\Eng_Docs\Phase_1\15N_016_0488_0489_1st_Ave_cover_ICC.RRV.Final\Final_0488\016-0488-60J16-024-N Abutment Widening Details.dgn 9:53:53 AM 7/16/2014