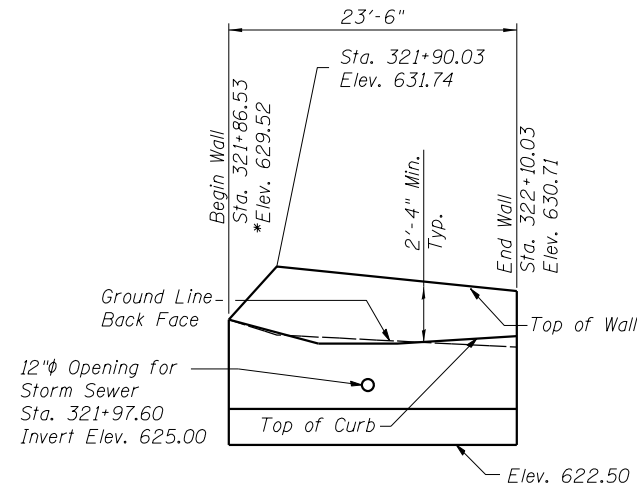
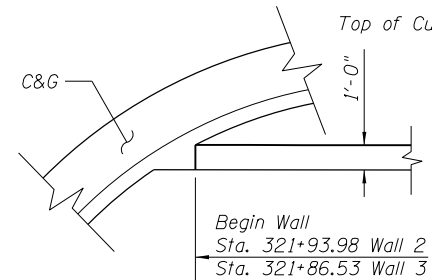


Bench Mark: Top North Bolt on rim of pipe hydrant at Southeast corner of Washington Street and Monroe Street. Elevation = 631.25

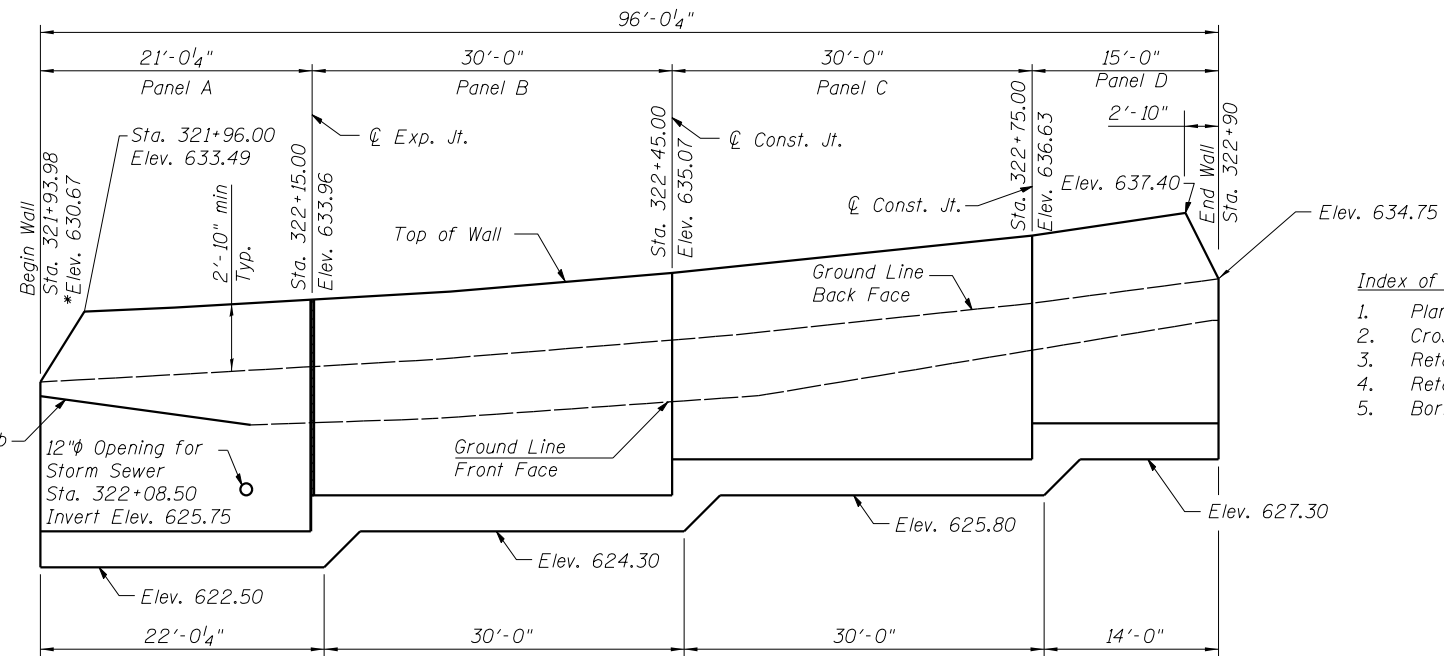
\* Elevations are to coincide with top of Roadway C&G Elevation at that location



**ELEVATION**  
Retaining Wall #3



**DETAIL A**



**ELEVATION**  
Retaining Wall #2

- Index of Sheets**
1. Plan and Elevation
  2. Cross Sections and Total Bill of Material
  3. Retaining Wall #2 - Details
  4. Retaining Wall #3 - Details
  5. Boring Log

Construction of the proposed retaining wall shall be accomplished in accordance with the provisions of the special provision for CONSTRUCTION VIBRATION AND MONITORING.

**DESIGN SPECIFICATIONS**

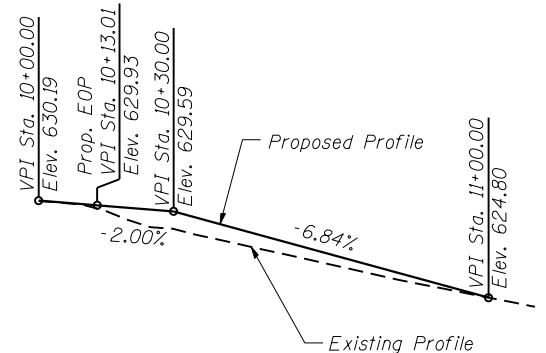
2010 AASHTO LRFD Bridge Design Specifications, 5th Edition and 2010 Interims

**DESIGN LOADING**

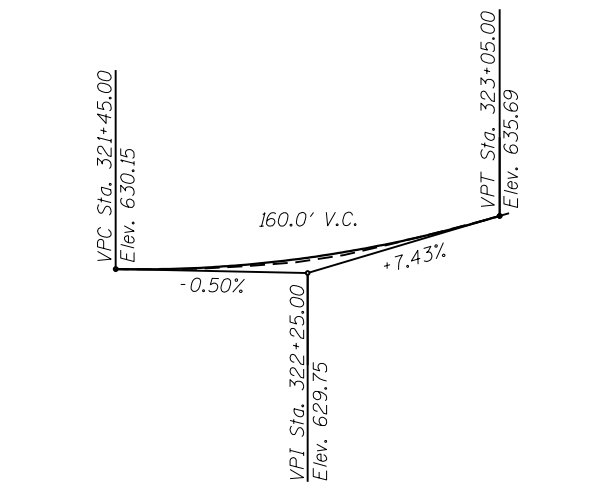
Equivalent Fluid Lateral Soil Pressure = 50 lbs/cu.ft.  
Surcharge load of 120 lbs/sq.ft.

**DESIGN STRESSES**

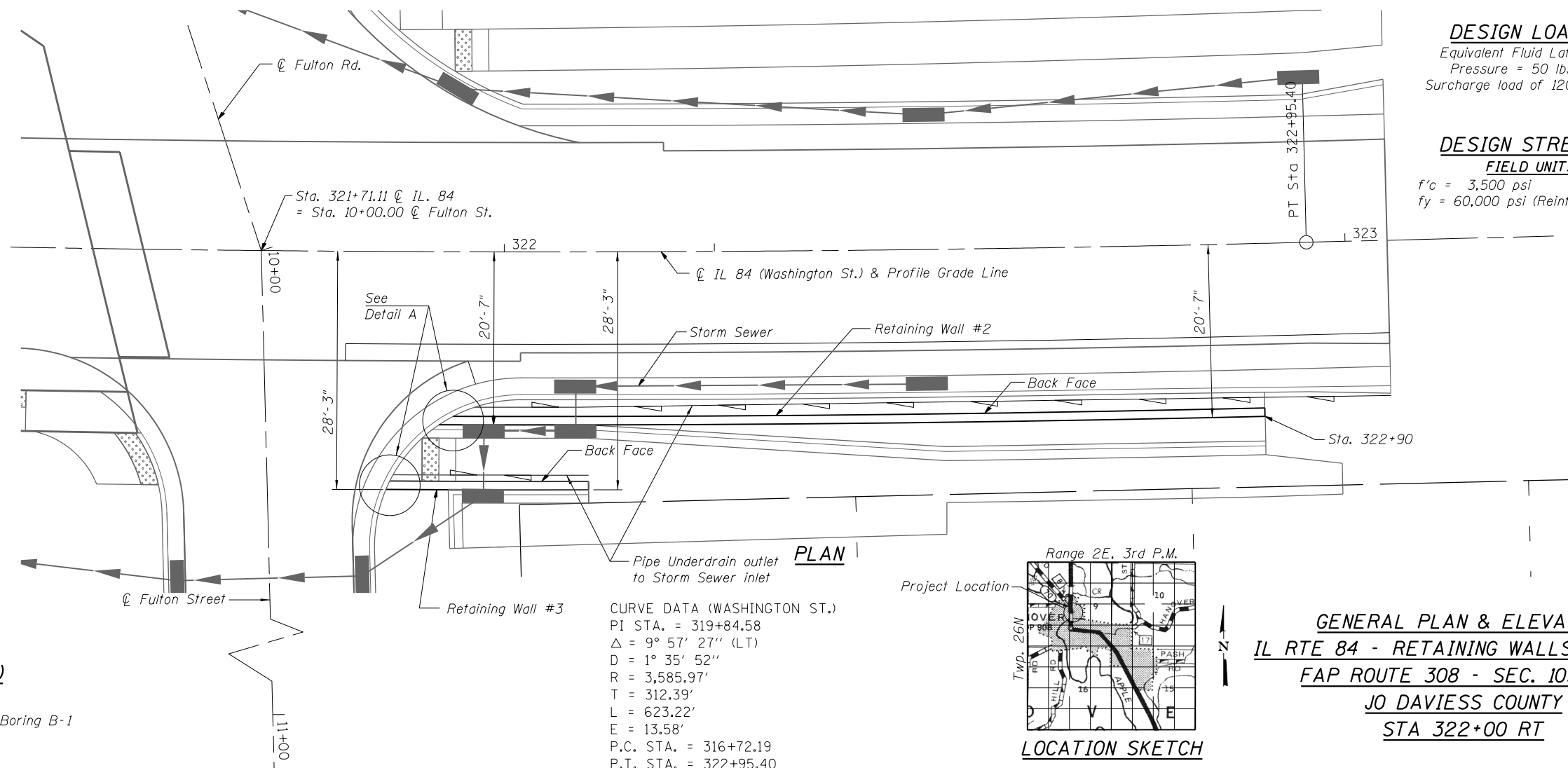
**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)



**PROFILE GRADE**  
ALONG C&G ROADWAY (FULTON STREET)

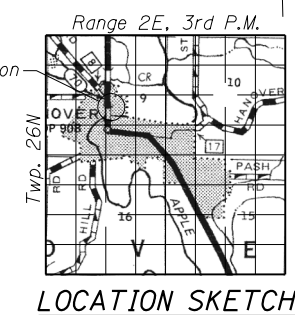


**PROPOSED PROFILE GRADE**  
ALONG C&G ROADWAY (WASHINGTON STREET)



**PLAN**

**CURVE DATA (WASHINGTON ST.)**  
PI STA. = 319+84.58  
 $\Delta = 9^\circ 57' 27''$  (LT)  
D = 1° 35' 52"  
R = 3,585.97'  
T = 312.39'  
L = 623.22'  
E = 13.58'  
P.C. STA. = 316+72.19  
P.T. STA. = 322+95.40



**LOCATION SKETCH**

**GENERAL PLAN & ELEVATION**  
**IL RTE 84 - RETAINING WALLS #2 & #3**  
**FAP ROUTE 308 - SEC. 103BR-4**  
**JO DAVIESS COUNTY**  
**STA 322+00 RT**

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PLOT DRIVER = VBA\_IDOT\_PDF...11x17.plt



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PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -
PLOT DATE = 8/6/2013	DRAWN -	REVISED -
	CHECKED -	REVISED -

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

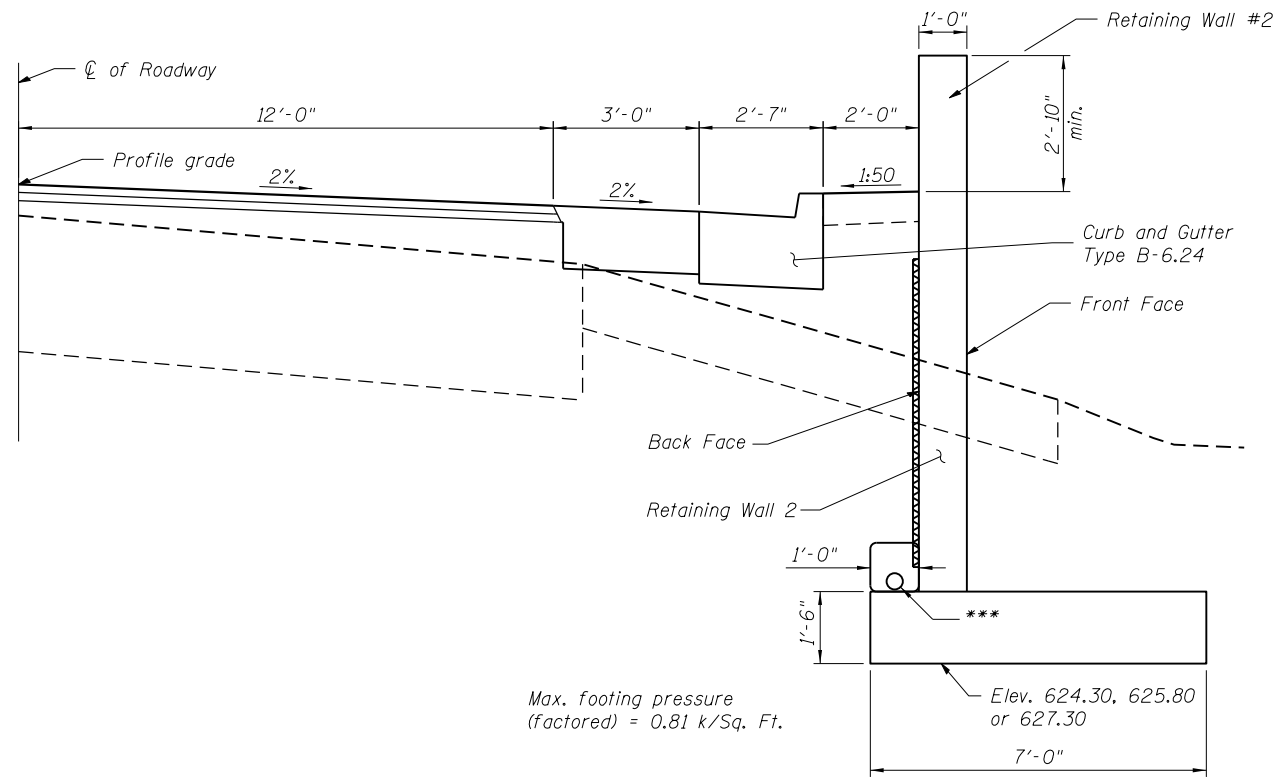
**PLAN AND ELEVATION**  
**RETAINING WALLS #2 & #3**  
SHEET NO. 1 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	103BR-4	JO DAVIESS	159	118
CONTRACT NO. 64E08				

ILLINOIS FED. AID PROJECT

**TOTAL BILL OF MATERIAL**

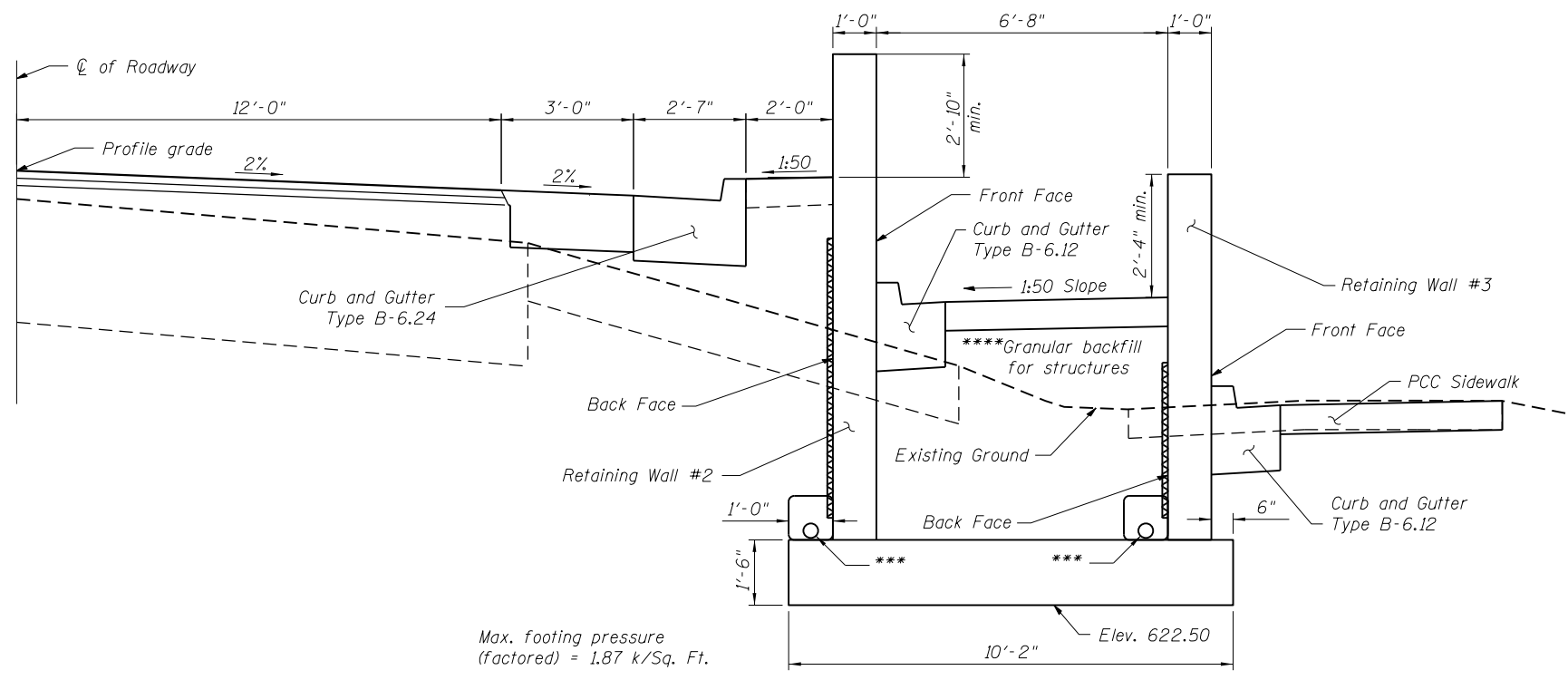
ITEM	UNIT	Quantity
Structure Excavation	Cu. Yd.	252
Concrete Structures	Cu. Yd.	85.8
Reinforcement Bars, Epoxy Coated	Pound	16,880
Geocomposite Wall Drain	Sq. Yd.	77
Granular Backfill for Structures	Cu. Yd.	95
Pipe Underdrains for Structures, 4"	Foot	140



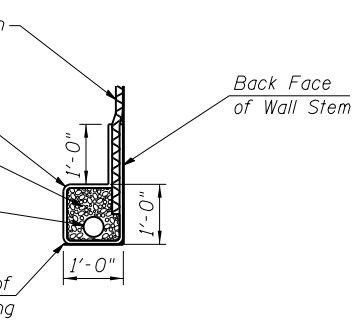
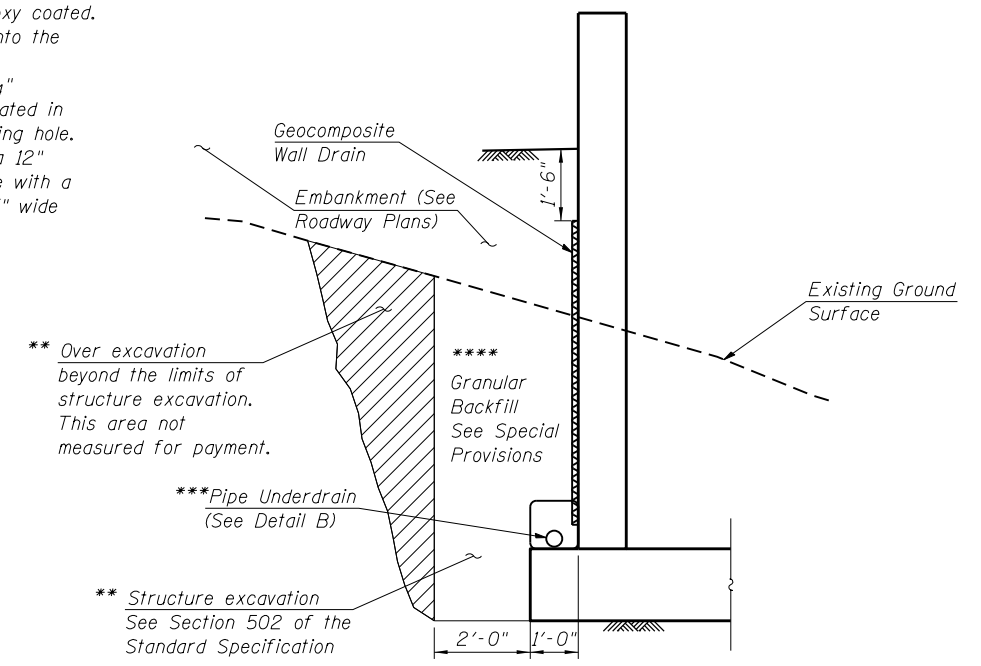
**CROSS SECTION**  
(Near Panels B,C & D)

**General Notes:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Pipe Underdrains shall be connected to drain into the nearby inlets.
3. All exposed concrete edges shall be bevelled 3/4"
4. The opening for storm sewer shall be accommodated in the geocomposite wall drain by cutting a matching hole. The edge of the cut hole shall be covered by a 12" wide strip of geotextile fabric secured in place with a continuous application of contact adhesive or 3" wide plastic tape around the perimeter.



**CROSS SECTION**  
(Near Panel A)



**DETAIL B**

- \* Included in the cost of "Pipe Underdrains for Structures"
- \*\* Backfill remainder of structure excavation and over excavation with same material specified for roadway embankment.
- \*\*\* Outlet pipe underdrain to storm sewer inlet.
- \*\*\*\* Compact in accordance with Art. 351.05(a) and (b) of the Std. Specifications.

**EXCAVATION & DRAIN DETAILS**

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PLOT DRIVER = V8...IDOT...PDF...11x17.plt



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PLOT DATE = 8/6/2013	DRAWN -	REVISED
	CHECKED -	REVISED

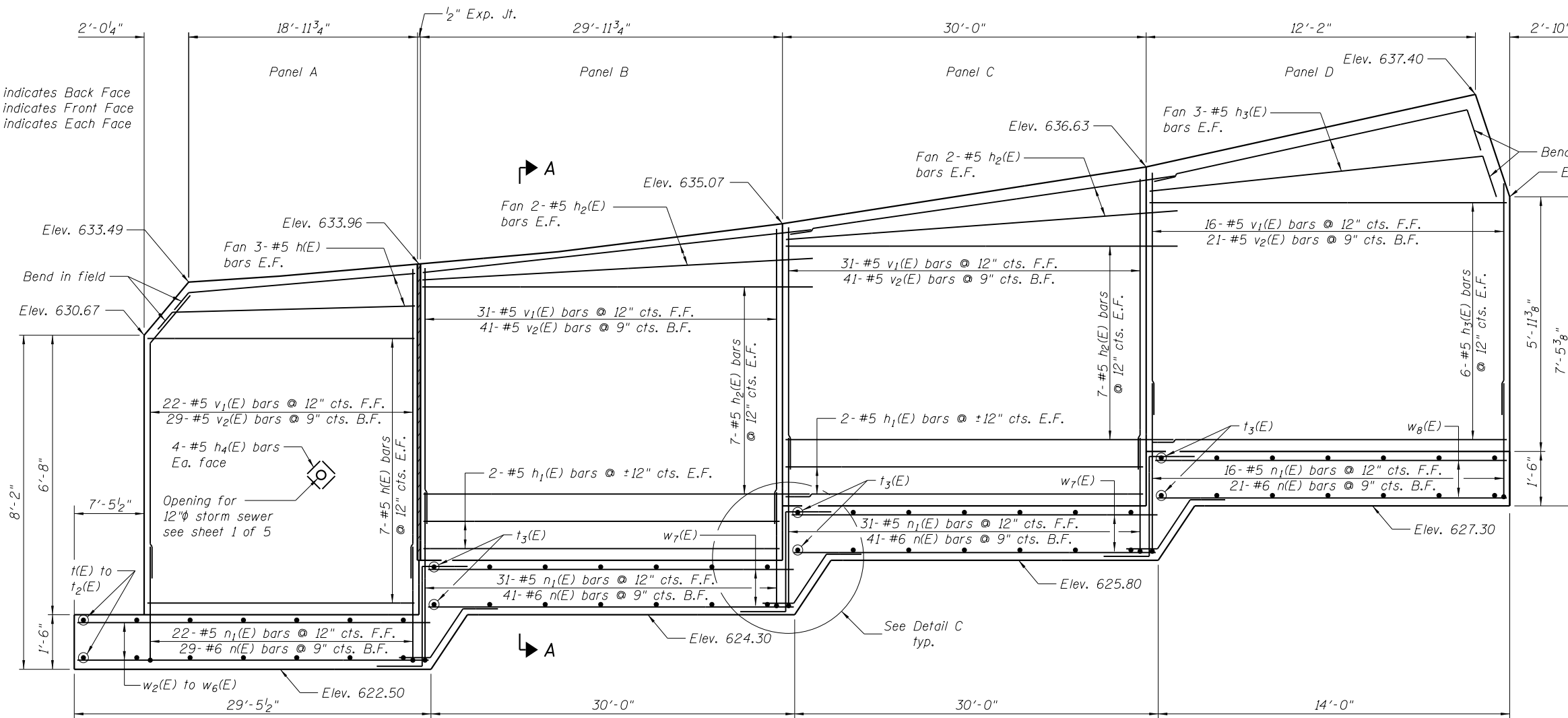
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS AND TOTAL BILL OF MATERIAL**  
**RETAINING WALLS #2 & #3**

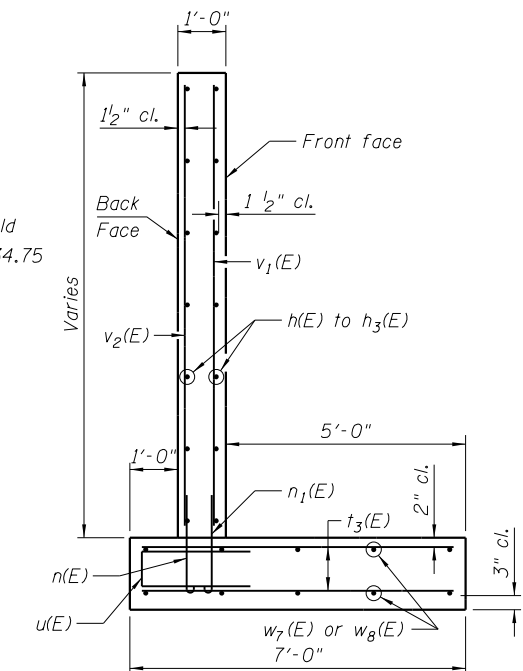
SHEET NO. 2 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	103BR-4	JO DAVIESS	159	119
CONTRACT NO. 64E08				
ILLINOIS FED. AID PROJECT				

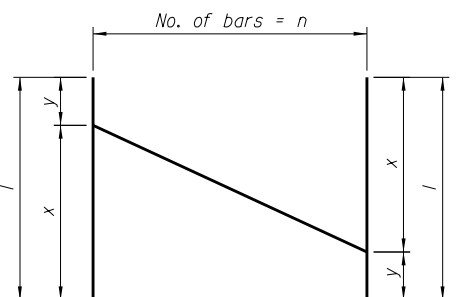
NOTE:  
 B.F. indicates Back Face  
 F.F. indicates Front Face  
 E.F. indicates Each Face



ELEVATION



SECTION AA

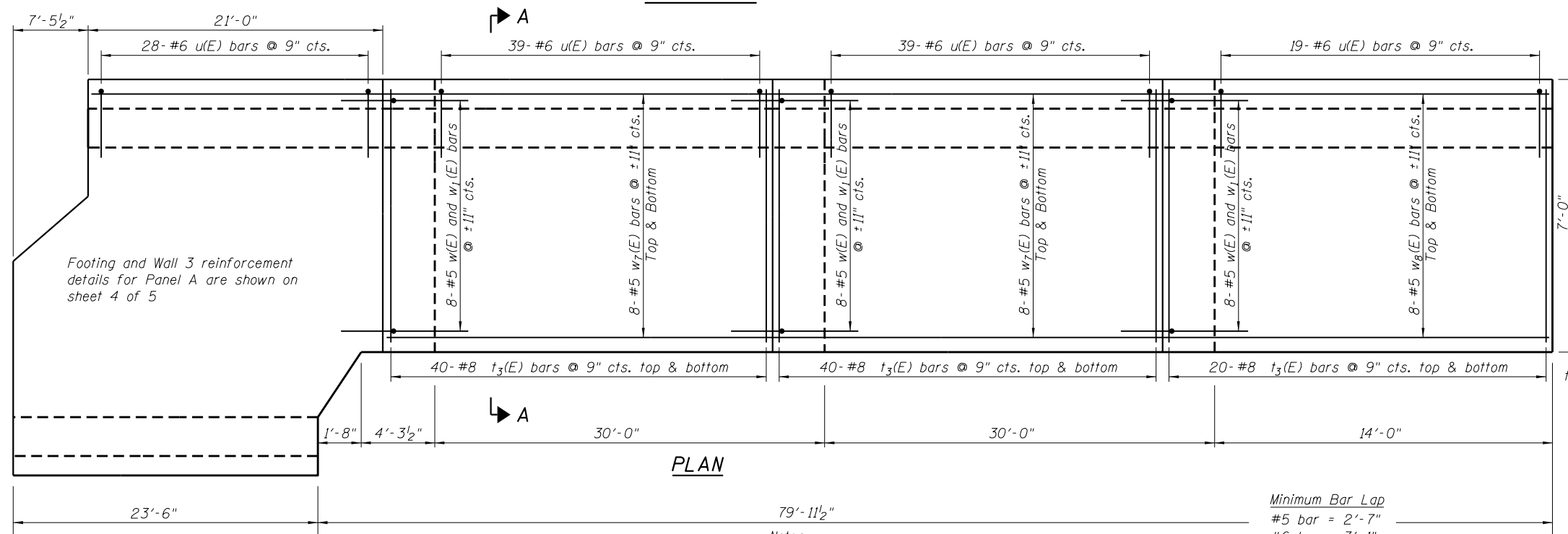


BAR CUTTING DIAGRAM

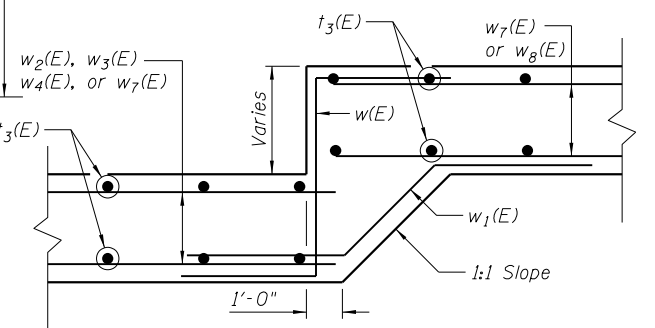
BAR CUTTING DIMENSIONS

BAR	n	x	y	l
t <sub>1</sub> (E)	10	7'-0"	5'-3"	12'-3"
t <sub>2</sub> (E)	3	8'-3"	7'-0"	15'-3"
w <sub>3</sub> (E)	2	29'-0"	22'-0"	51'-0"
w <sub>5</sub> (E)	2	24'-9"	23'-0"	47'-9"

\* Order bars full length. Cut to fit as shown and use the remainder on the opposite face.



PLAN



DETAIL C

Minimum Bar Lap  
 #5 bar = 2'-7"  
 #6 bar = 3'-1"

Notes:  
 1. For Bar Details & Bill of Material see sheet 4 of 5

FILE NAME = Z64E08-003-Rev Mat12.dgn  
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PLOT SCALE = 16x0.0000 1' = 1/4"	CHECKED -	REVISION
PLOT DATE = 8/6/2013	DRAWN -	REVISION
	CHECKED -	REVISION

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

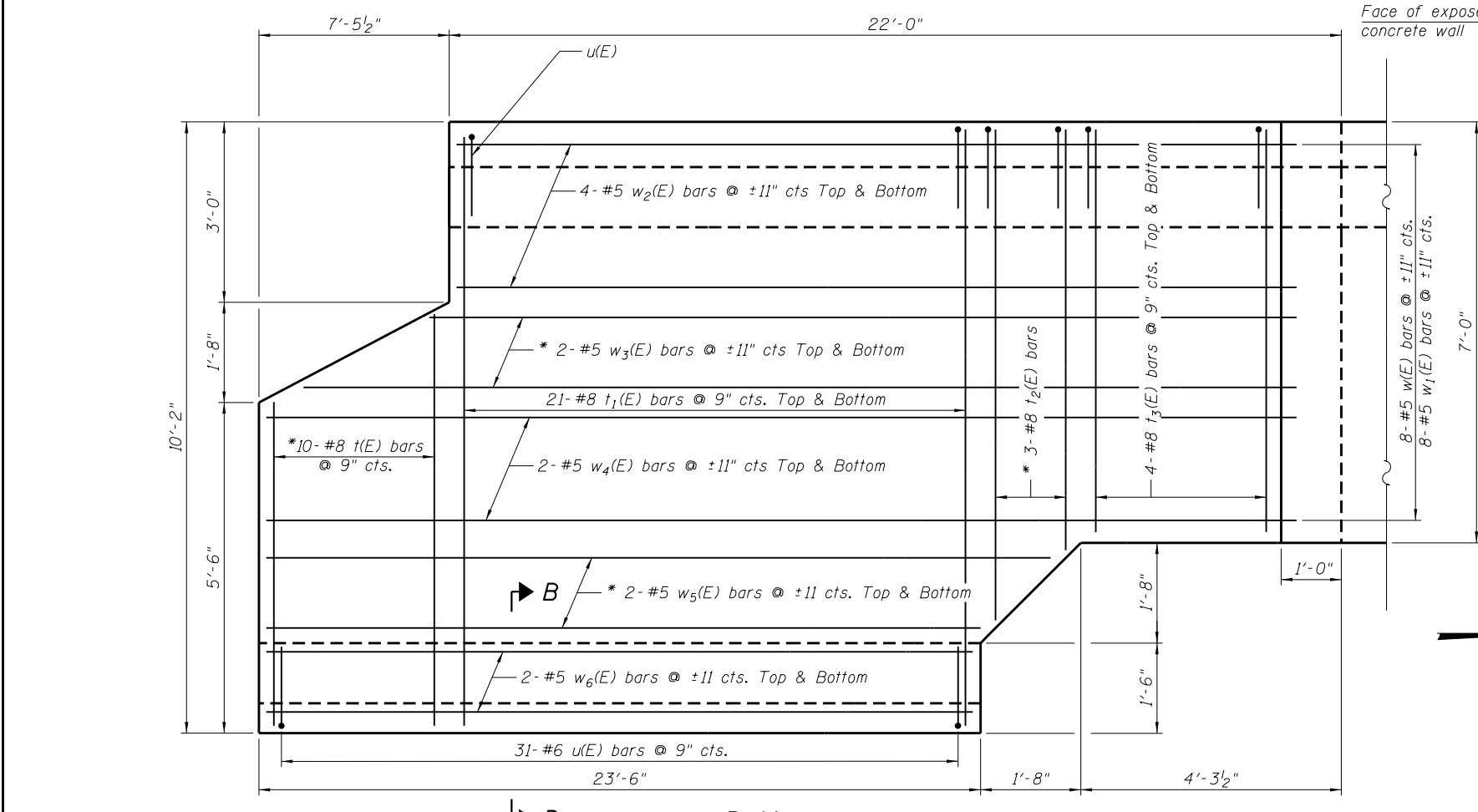
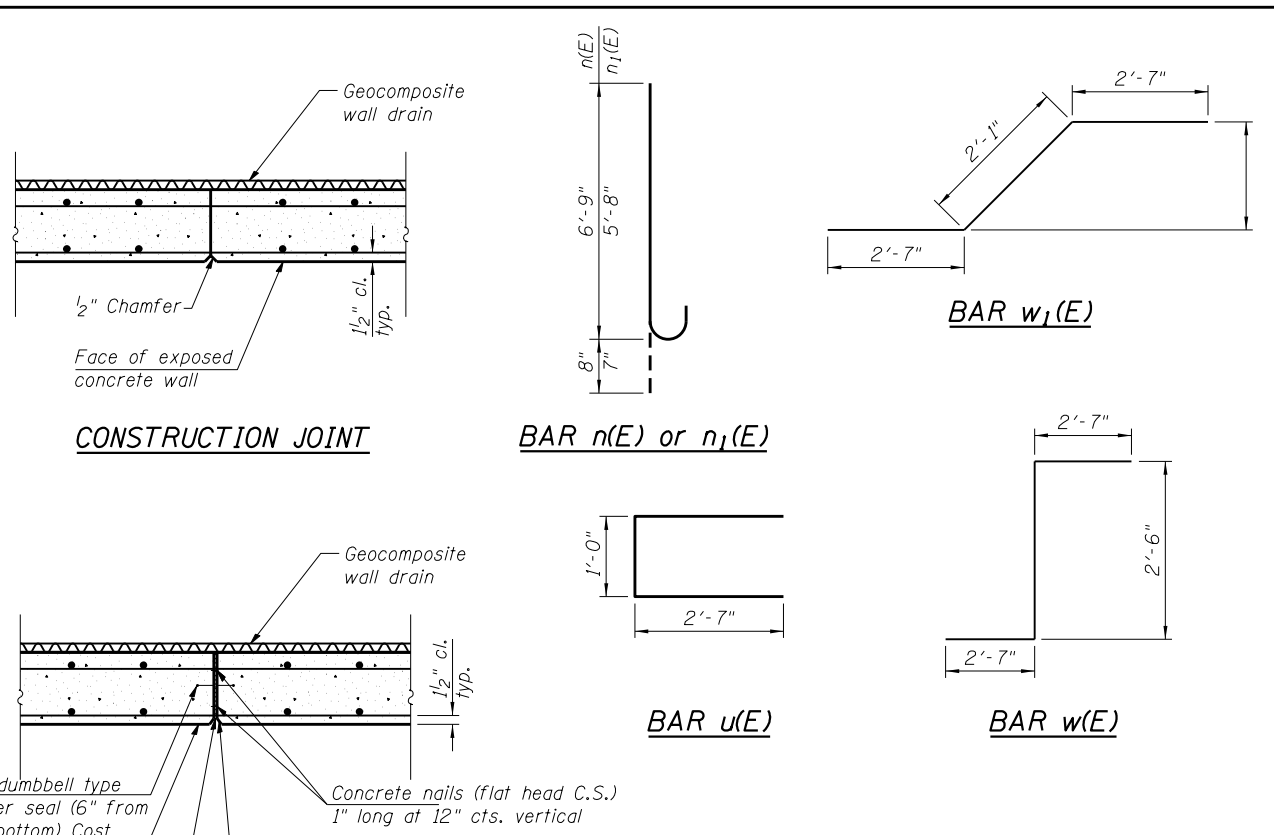
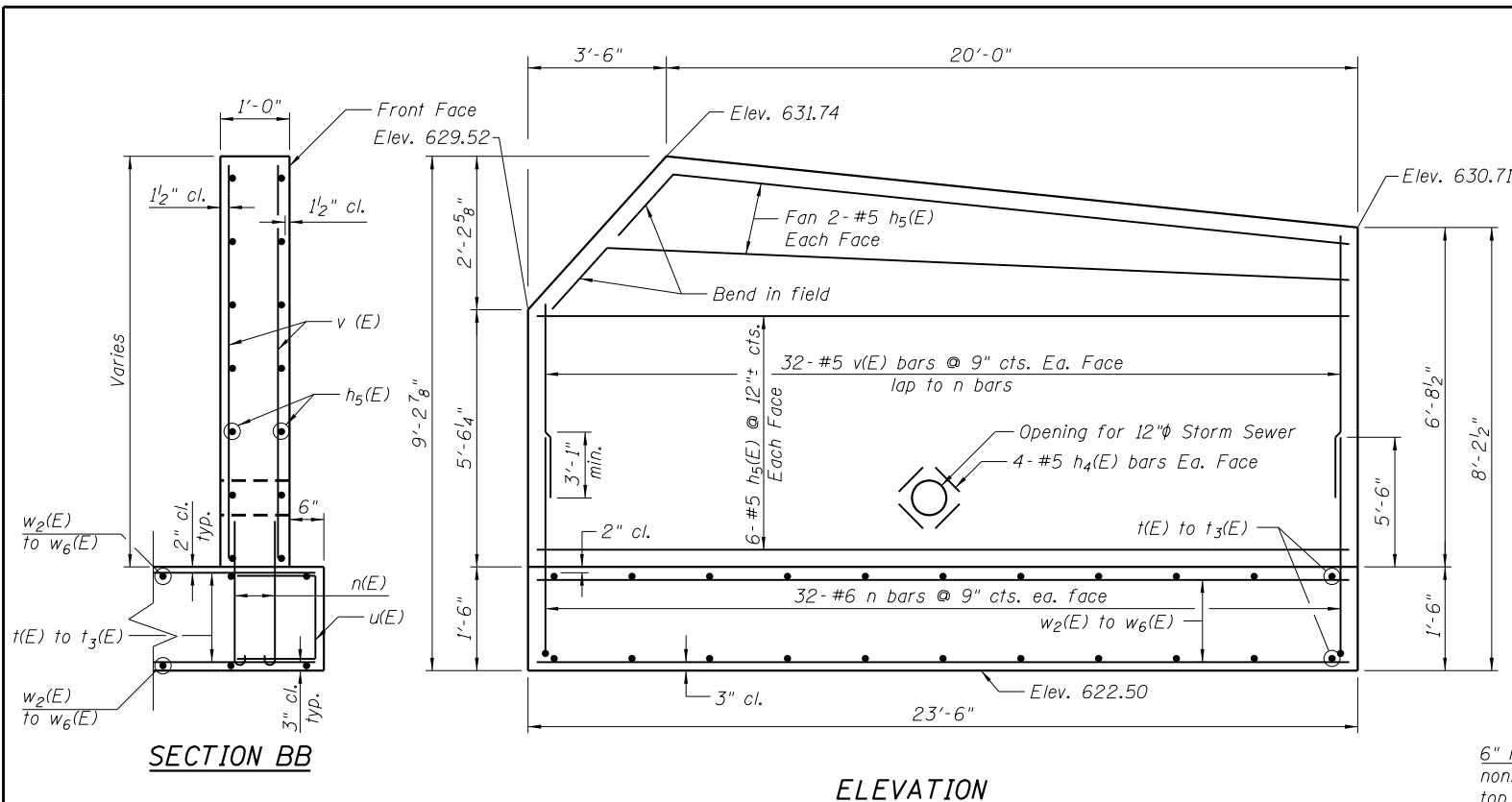
RETAINING WALL #2 - DETAILS  
 RETAINING WALLS #2 & #3

SHEET NO. 3 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	103BR-4	JO DAVIESS	159	120

CONTRACT NO. 64E08

ILLINOIS FED. AID PROJECT



**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	20	#5	20'-8"	—
h1(E)	8	#5	29'-8"	—
h2(E)	36	#5	32'-6"	—
h3(E)	18	#5	14'-9"	—
h4(E)	16	#5	1'-6"	—
h5(E)	16	#5	23'-2"	—
n(E)	196	#6	7'-5"	U
n1(E)	100	#5	6'-3"	U
t(E)	10	#8	12'-3"	—
t1(E)	42	#8	9'-10"	—
t2(E)	3	#8	15'-3"	—
t3(E)	228	#8	6'-8"	—
u(E)	156	#6	6'-2"	C
v(E)	64	#5	5'-3"	—
v1(E)	100	#5	7'-9"	—
v2(E)	132	#5	7'-6"	—
w(E)	24	#5	7'-8"	W
w1(E)	24	#5	7'-3"	W
w2(E)	8	#5	20'-9"	—
w3(E)	2	#5	51'-0"	—
w4(E)	4	#5	28'-3"	—
w5(E)	2	#5	47'-9"	—
w6(E)	4	#5	23'-0"	—
w7(E)	32	#5	29'-8"	—
w8(E)	16	#5	14'-8"	—
Concrete Structures		Cu. Yd.	85.8	
Reinforcement Bar, Epoxy Coated		Lb.	16,880	

\* See Bar Cutting Details on sheet 3 of 5

FILE NAME = Z64E08-004-Rev Wall3.dgn  
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PLOT SCALE = 1/8" = 1'-0"	CHECKED -	REVISD -
PLOT DATE = 8/6/2013	DRAWN -	REVISD -
	CHECKED -	REVISD -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL #3 - DETAILS  
 RETAINING WALLS #2 & #3

SHEET NO. 4 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	103BR-4	JO DAVIESS	159	121
CONTRACT NO. 64E08				
ILLINOIS FED. AID PROJECT				



### SOIL BORING LOG

Date 3/16/10

ROUTE FA 308 DESCRIPTION P92-057-08 Bridge over Apple River, IL 84, 100' S. of S. Hanover Hill Road LOGGED BY W. Garza

SECTION 103 BR-4 LOCATION Hanover Twp. - 9SW, SEC. , TWP. 26N, RNG. 1W

COUNTY JoDaviess DRILLING METHOD \_\_\_\_\_ HAMMER TYPE CME-45 Automatic

STRUCT. NO.	DEPTH	BLOW	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	ft	ft	ft	Hrs.
					80.00	76.50				
BORING NO. B-1										
Station 321+39										
Offset 55.00ft Rt CL										
Ground Surface Elev. 96.30										
brown SANDY LOAM				18.0						
	94.30	2								
STIFF brown SANDY LOAM		3	2.0	16.0						
	92.80	3	P							
STIFF brown SANDY CLAY LOAM		2								
	-5	4	1.8	24.0						
		4	P							
	89.30	0								
MEDIUM brown SILTY CLAY LOAM		2	0.6	27.0						
	86.80	4	B							
	-10	2								
STIFF brown SILTY CLAY LOAM		3	1.6	23.0						
		6	B							
	83.80	100/4								
Borehole continued with rock coring.										
	-15									
	-20									

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

BBS, from 137 (Rev. 8-99)



### ROCK CORE LOG

Date 3/16/10

ROUTE FA 308 DESCRIPTION P92-057-08 Bridge over Apple River, IL 84, 100' S. of S. Hanover Hill Road LOGGED BY W. Garza

SECTION 103 BR-4 LOCATION Hanover Twp. - 9SW, SEC. , TWP. 26N, RNG. 1W

COUNTY JoDaviess CORING METHOD \_\_\_\_\_

STRUCT. NO.	CORING BARREL TYPE & SIZE	DEPTH	CORRE	RECOVERY	R.Q.D.	CORE TIME	STRENGTH
Station	Core Diameter	(ft)	(#)	(%)	(%)	(min/ft)	(tsf)
BORING NO. B-1	2 in						
Station 321+39	Top of Rock Elev. 83.80						
Offset 55.00ft Rt CL	Begin Core Elev. 83.30						
Ground Surface Elev. 96.30							
Dolomite: tan-gray, dense & occasionally pitted, top half is laminated and fissile.		1	100	28	2	666.0	
t.s.f.: 80.9 to 80.4							
		-15					
		78.30					
Dolomite: as above		2	100	30		451.0	
t.s.f.: 74.6 to 74.1							
		-20					
		73.30					
Dolomite: as above, though slightly more pitted & medium to thick bedded.		3	100	82	1.8	932.0	
t.s.f.: 71.7 to 71.2							
		-25					
		68.30					
End of Boring							
		-30					

Color pictures of the cores \_\_\_\_\_  
 Cores will be stored for examination until \_\_\_\_\_

The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

BBS, form 138 (Rev. 8-99)

FILE NAME = Z64E08-005-Boring-Log.dgn  
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	CHECKED -	REVISED
PLOT SCALE = 16x0.0000" / 1"	DRAWN -	REVISED
PLOT DATE = 8/6/2013	CHECKED -	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SOIL BORINGS  
 RETAINING WALLS #2 & #3

SHEET NO. 5 OF 5 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
308	103BR-4	JO DAVIESS	159	122
CONTRACT NO. 64E08			ILLINOIS FED. AID PROJECT	