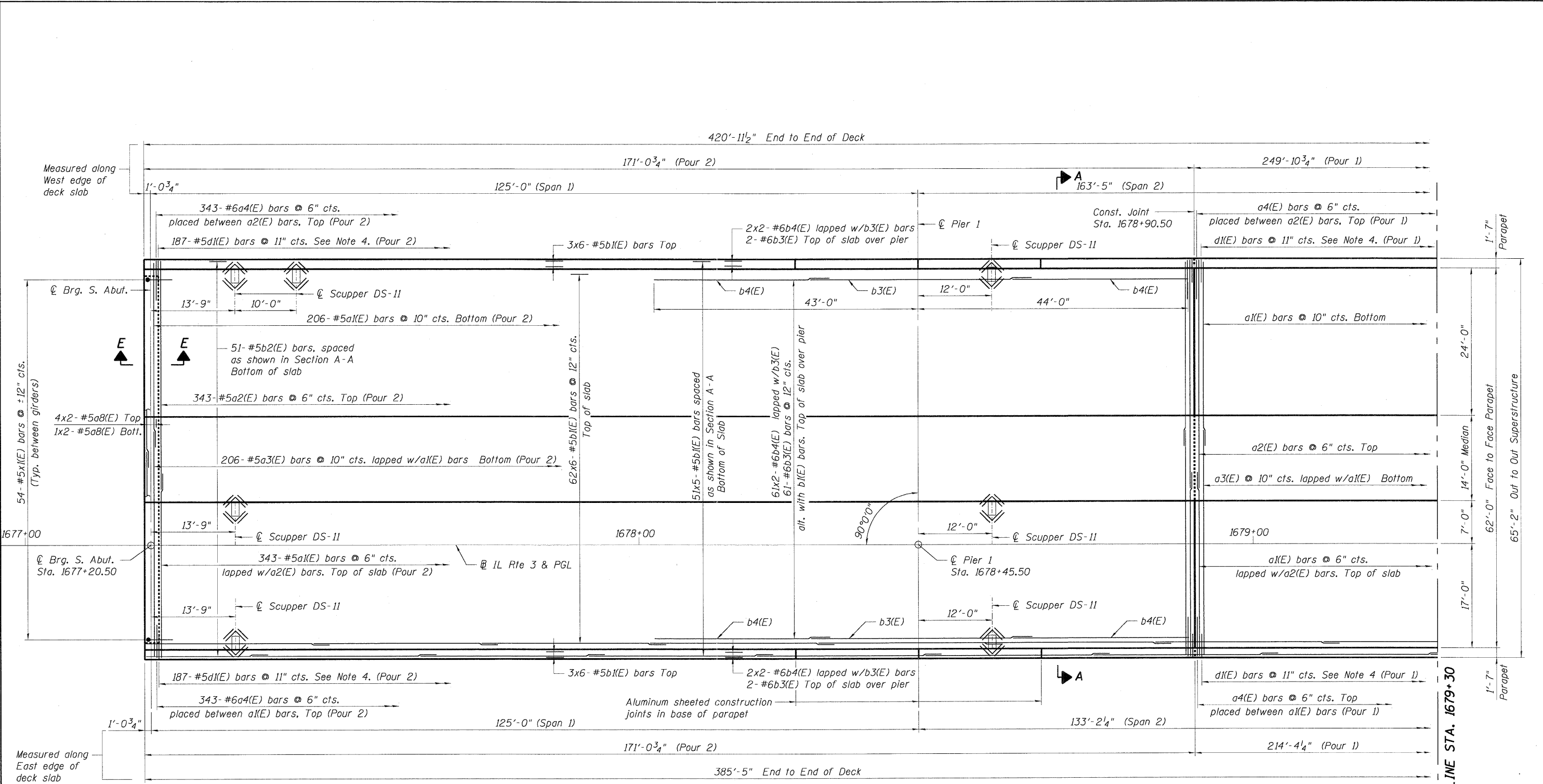


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 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE
 DECK PLAN 1 OF 3
 F.A.P. RTE. 998 SECTION 82-2-1HVB-1 COUNTY ST. CLAIR TOTAL SHEETS 345 SHEET NO. 202
 SN 082-0329 CONTRACT NO. 76D05
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

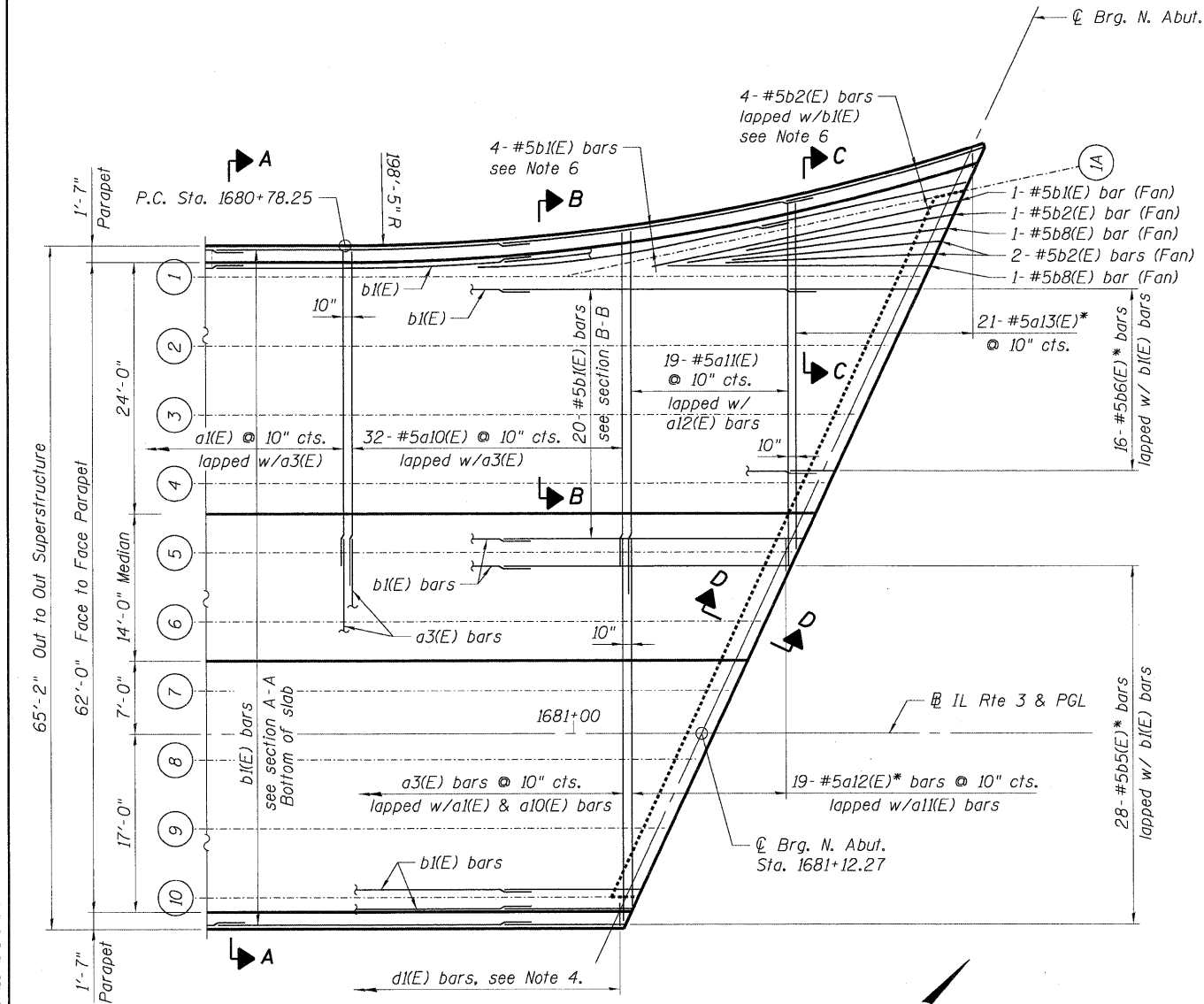


DECK PLAN

- Notes:**
- See Sheet SB-19 for Bar List and Bill of Material.
 - Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 - Minimum Lap for Deck Reinforcement:
 #5 Bars = 2'-7"
 #6 Bars = 3'-1"
 - Space bars to miss Parapet Joints.
 - For section A-A, see Sheet SB-13, for section E-E, see Sheet SB-18.

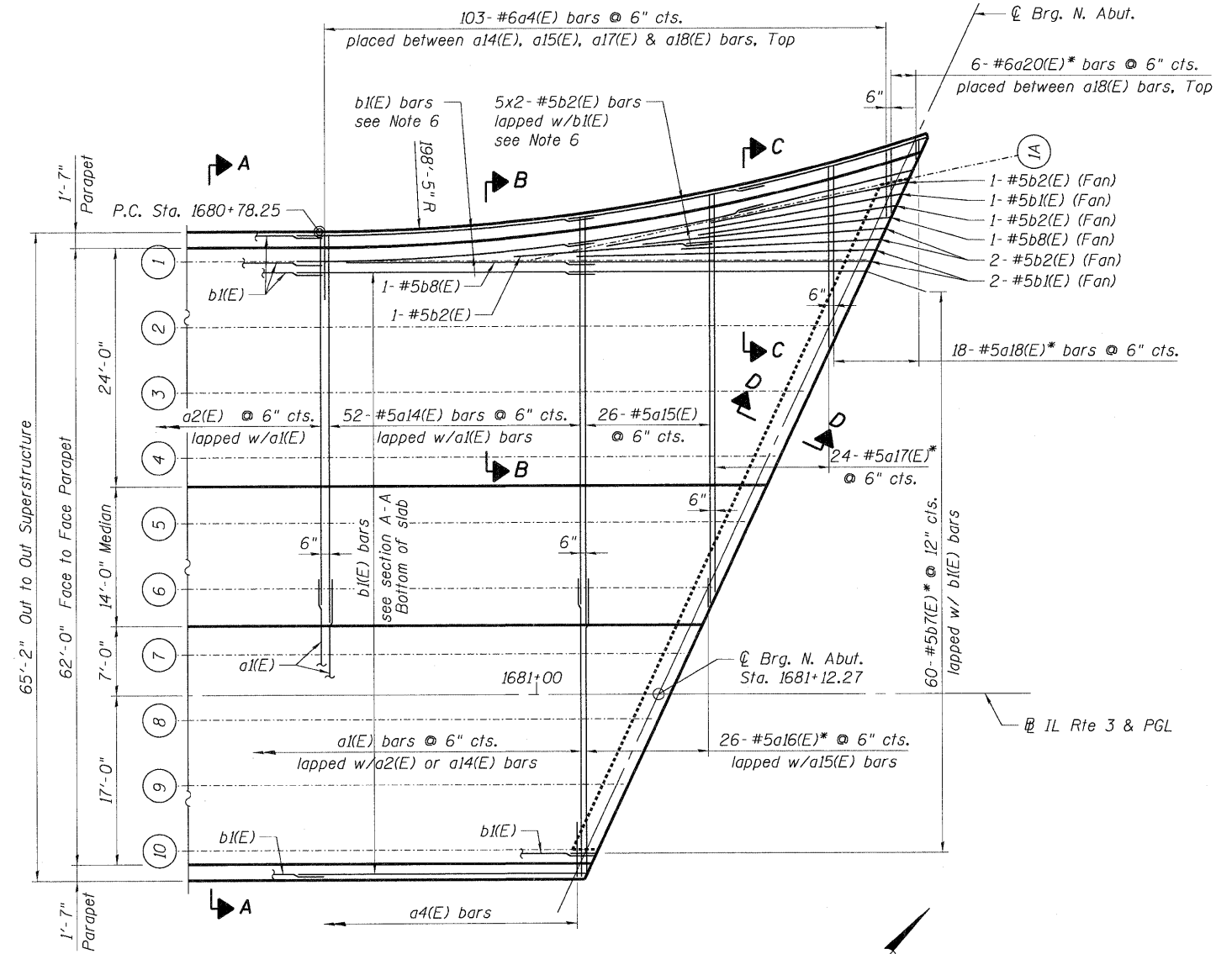
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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS



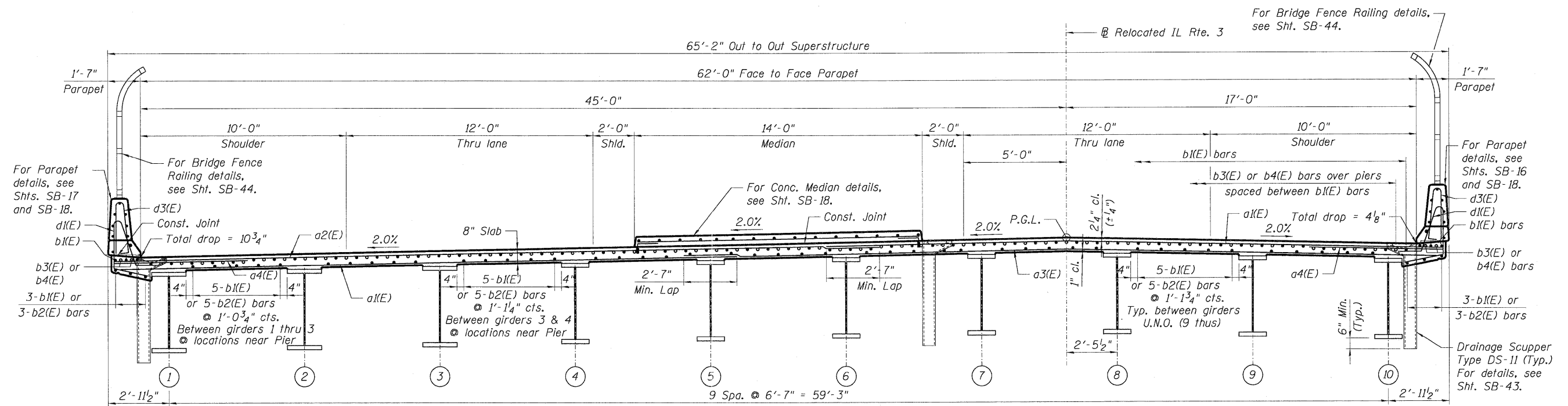
DECK PLAN - BOTTOM BARS

* Cut bars according to cutting diagram.

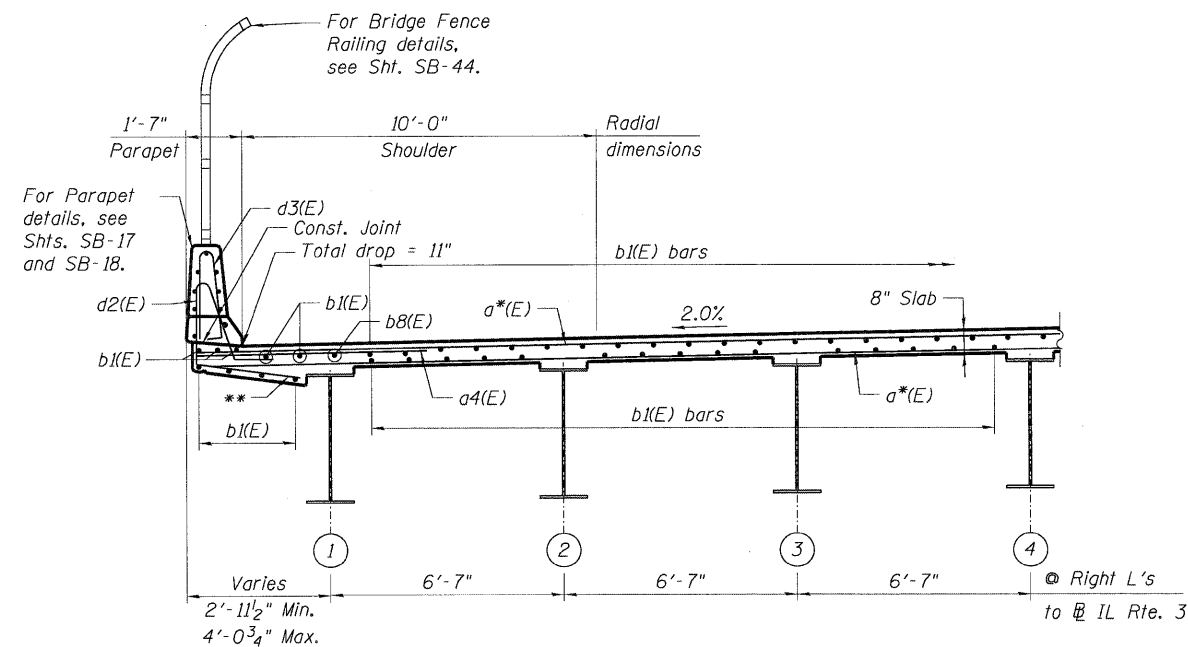


DECK PLAN - TOP BARS

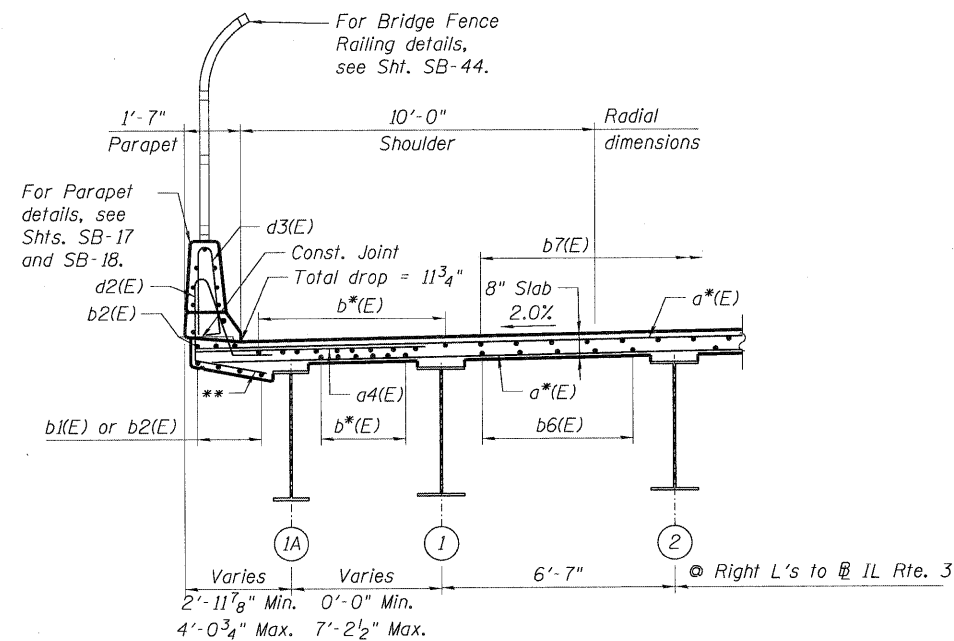
- Notes:**
1. See Sheet SB-19 for Bar List and Bill of Material.
 2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 3. Minimum Lap for Deck Reinforcement:
#5 Bars = 2'-7"
 4. Space bars to miss Parapet Joints.
 5. For sections A-A, B-B & C-C, see Sheet SB-13, for section D-D, see Sht. SB-18.
 6. Longitudinal b(E) bars shall be sprung into place to be concentric at the spacing noted.



SECTION A-A
(Sta. 1677+20.50 to Sta. 1680+78.25)



SECTION B-B
(Sta. 1680+78.25 to Sta. 1680+99.11)



SECTION C-C
(Sta. 1680+99.11 to Sta. 1681+39.47)

Notes:

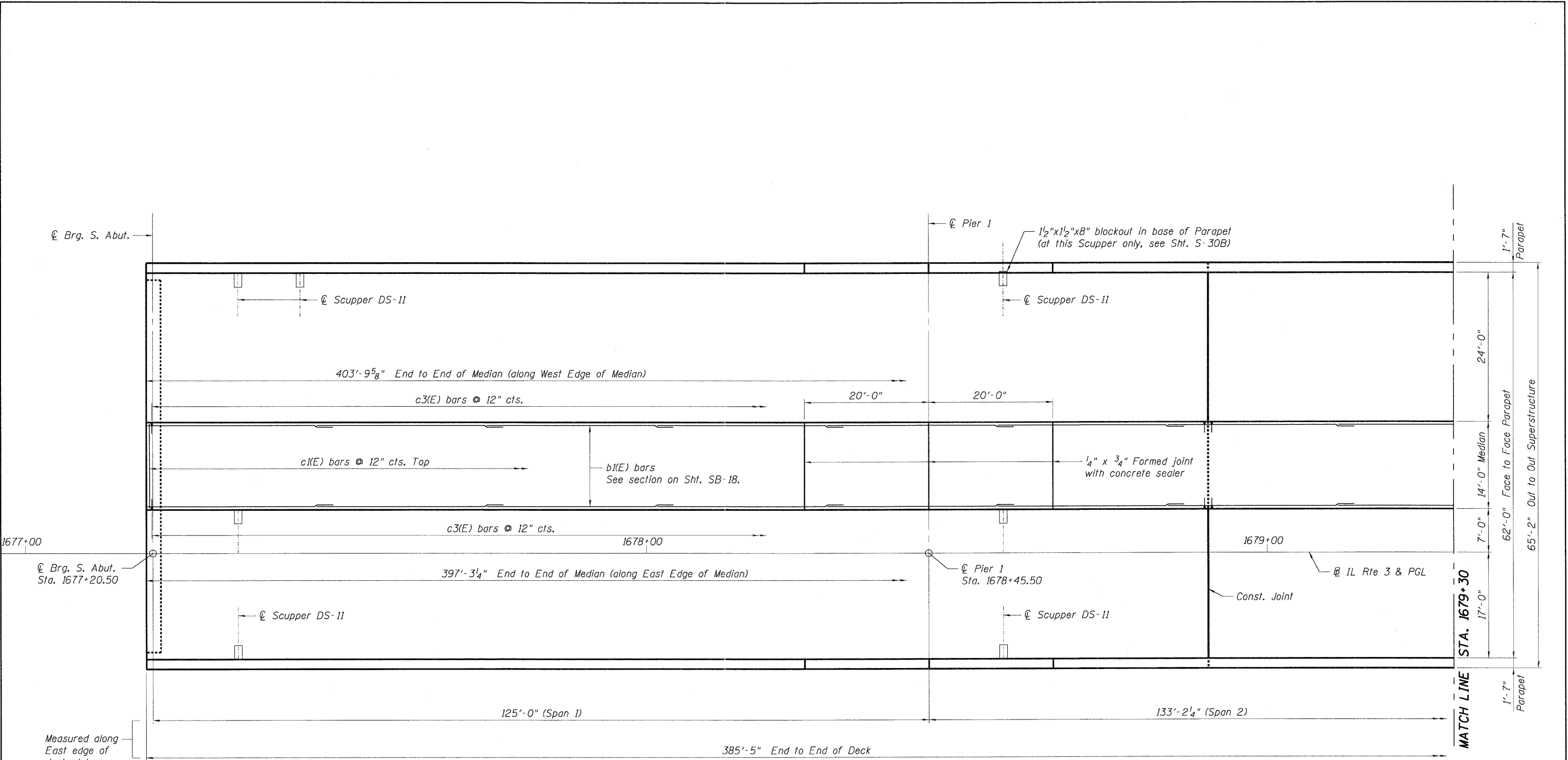
1. For scupper spacing, see Sheet SB-10.
2. For Deck details and Bar List, see Sheets SB-18 & SB-19.
3. For section A-A, B-B and C-C locations, see Sheets SB-10 thru SB-12.

* For bar designation, see deck plans.
** Cut bar to fit if required.

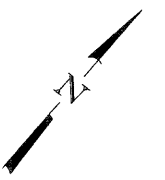
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 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE		DECK CROSS SECTIONS		F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 205
SCALE: SHEET NO. SB-13 OF SB-63 STA. 1679+16.65 TO STA.				SN 082-0329		CONTRACT NO. 76D05		
				FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

FILE NAME = USER NAME = #USER# DESIGNED - JLR REVISED - DRAWN - FD REVISED - CHECKED - JRH REVISED - DATE - 05/13/11 REVISED -



MEDIAN PLAN



Notes:

1. See Sheet SB-19 for Bar List and Bill of Material.
2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. Minimum Lap for Median Reinforcement:
#5 Bars = 2'-7"

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 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

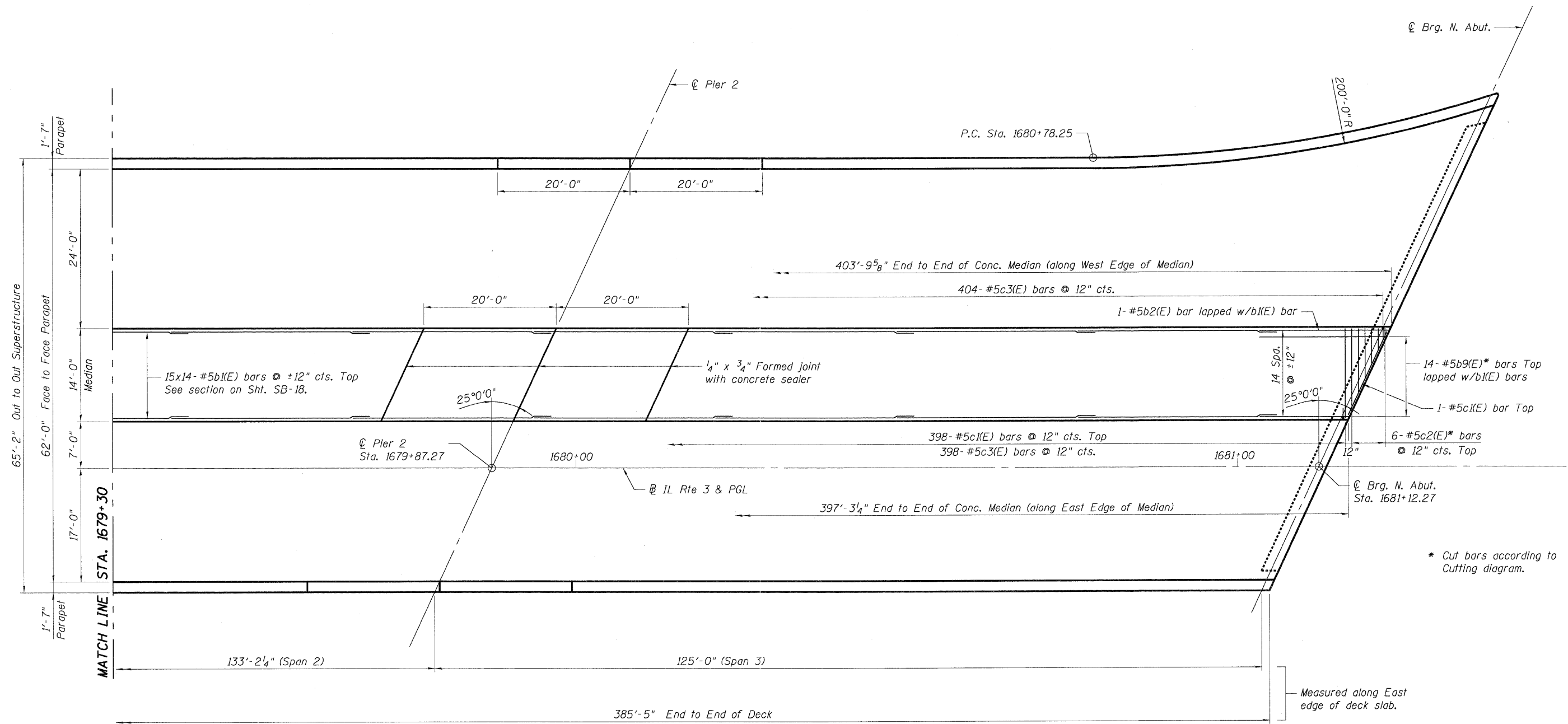
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 IL 3 OVER
 TRRA & ST. CLAIR AVENUE

MEDIAN DETAILS	
1 OF 2	
SCALE:	SHEET NO. SB-14 OF SB-63
STA. 1679+16.65	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	206
SN 082-0329			CONTRACT NO. 76D05	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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 PLOT SCALE = 1/8" = 1'-0" PLOT DATE = 05/13/11
 TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

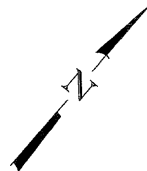


* Cut bars according to Cutting diagram.

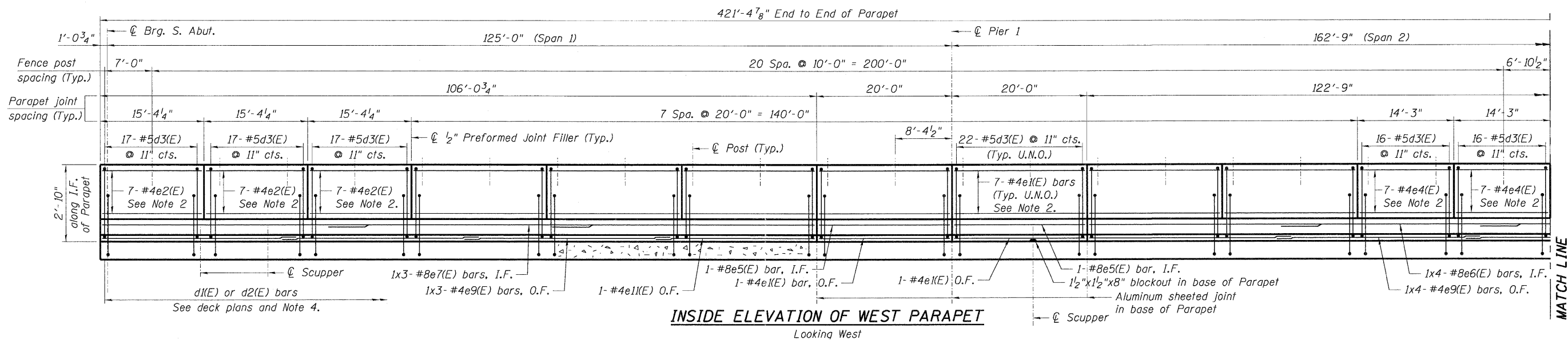
Notes:

1. See Sheet SB-19 for Bar List and Bill of Material.
2. Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. Minimum Lap for Median Reinforcement:
#5 Bars = 2'-7"

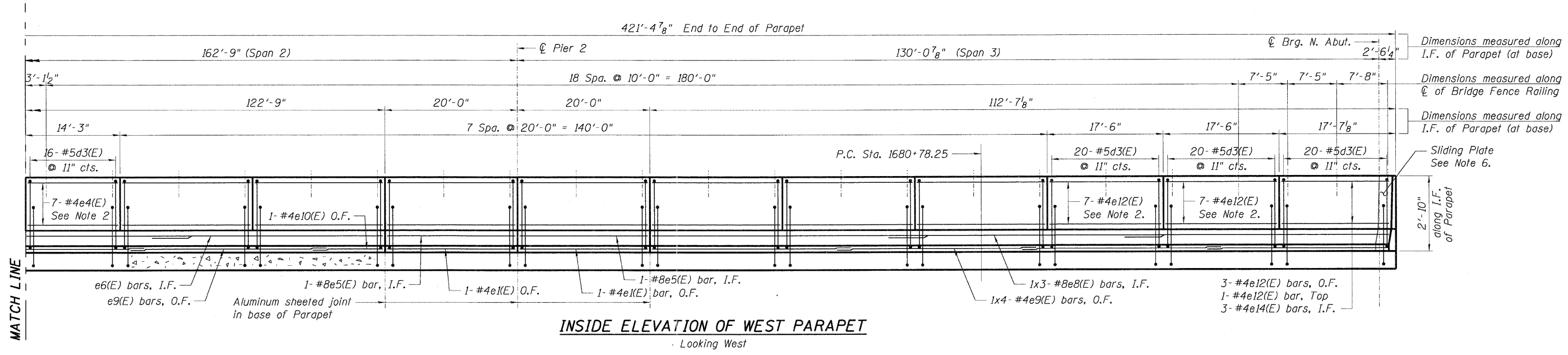
MEDIAN PLAN



TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	FILE NAME = SB-15.DWG USER = JLR	DESIGNED - JLR DRAWN - FD	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	MEDIAN DETAILS 2 OF 2	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 207
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INSIDE ELEVATION OF WEST PARAPET
Looking West



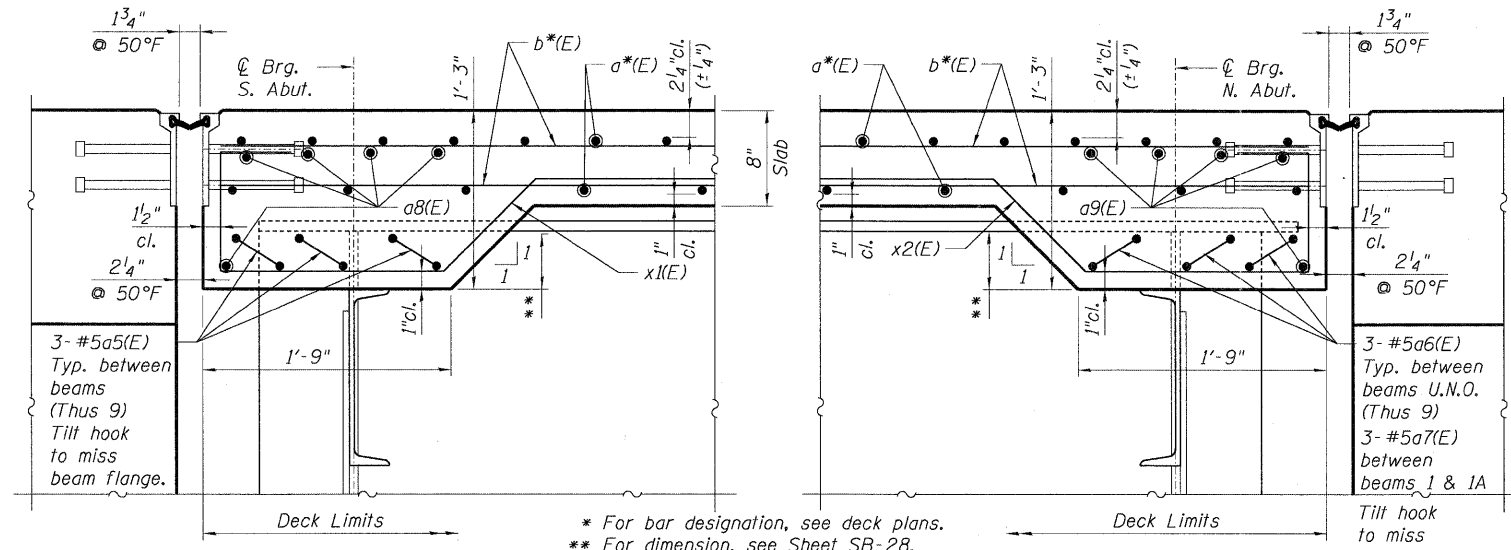
INSIDE ELEVATION OF WEST PARAPET
Looking West

- Notes:**
1. See Sheet SB-19 for Bar List and Sheet SB-18 for Parapet details.
 2. Reinforcement shall be spaced as shown in details on Sht.SB-18.
 3. I.F. denotes inside face
O.F. denotes outside face
 4. Space bars to miss Parapet Joints.
 5. Longitudinal e(E) bars shall be sprung into place to be concentric at the spacing noted.
 6. For Sliding plate details at joint, see Sheet SB-22.
 7. Minimum Lap for Parapet Reinforcement:
#4 Bars = 2'-1"
#8 Bars = 5'-5"

FILE NAME = USER NAME = #USER# DESIGNED - JLR REVISED - DRAWN - FD REVISED - CHECKED - JRH REVISED - DATE - 05/13/11 REVISED -
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 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

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FILE NAME = USER NAME = *USER* DESIGNED - JLR REVISED - DRAWN - FD REVISED - CHECKED - JRH REVISED - DATE - 05/13/11 REVISED -



SOUTH EDGE BEAM DETAIL SECTION E-E

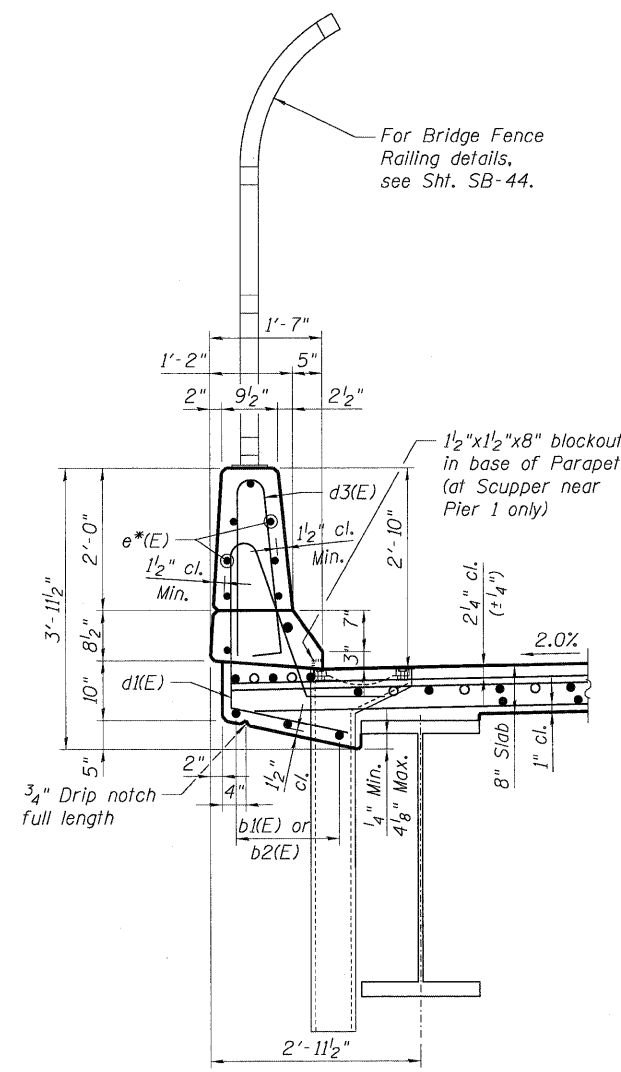
(Horiz. dim. @ Rt. L's)

NORTH EDGE BEAM DETAIL SECTION D-D

(Horiz. dim. @ Rt. L's)

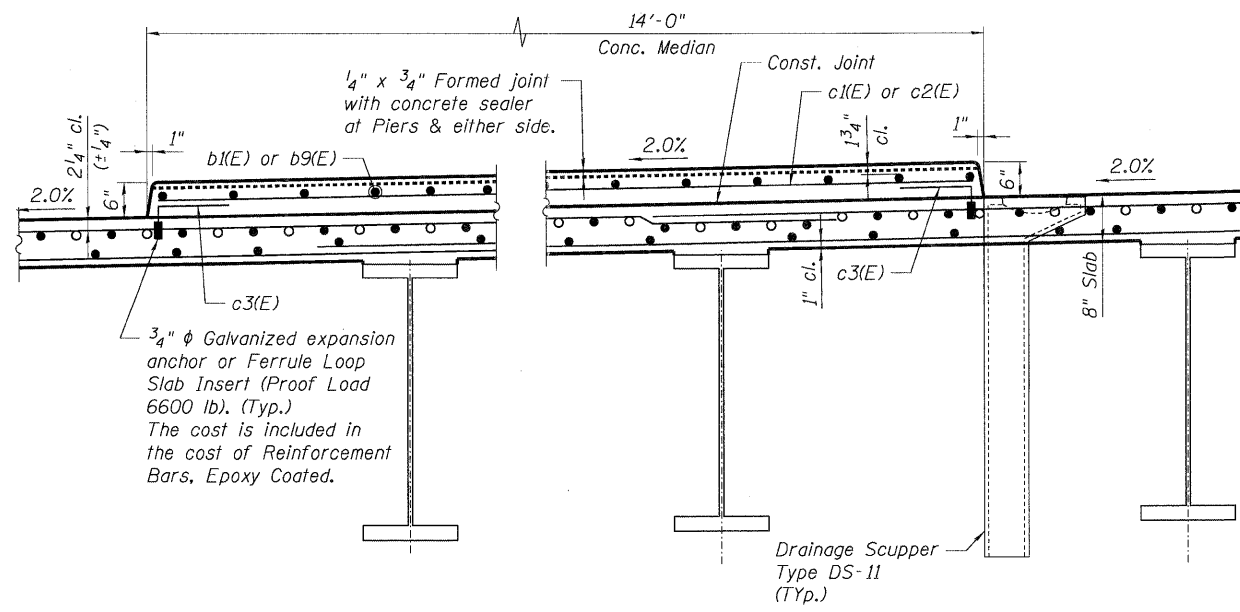
Notes:

- 1. For Bar List and Bill of Material, see Sheet SB-19.
- 2. For section E-E and D-D locations, see Sheets SB-10 & SB-11.



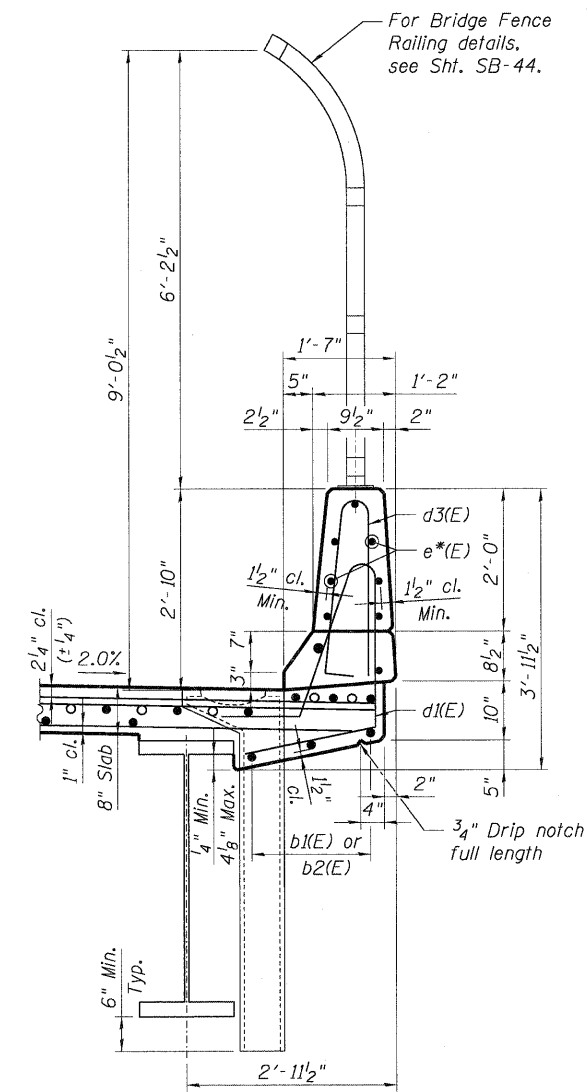
WEST PARAPET SECTION

Looking North



CONCRETE MEDIAN DETAIL SECTION

Looking North



EAST PARAPET SECTION

Looking North

TENG

TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
CHICAGO, ILLINOIS

FILE NAME =	USER NAME = *USER*	DESIGNED - JLR	REVISED -
FILE		DRAWN - FD	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
IL 3 OVER
TRRA & ST. CLAIR AVENUE

DECK DETAILS

SCALE:	SHEET NO. SB-18 OF SB-63	STA. 1679+16.65 TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	210
	SN 082-0329			CONTRACT NO. 76D05
	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

BAR LIST

Bar	No.	Size	Length	Shape
a1(E)	1204	#5	30'-0"	—
a2(E)	719	#5	37'-3"	—
a3(E)	464	#5	36'-8"	—
a4(E)	1594	#6	6'-6"	—
a5(E)	27	#5	7'-6"	—
a6(E)	27	#5	8'-2"	—
a7(E)	3	#5	9'-5"	—
a8(E)	10	#5	33'-8"	—
a9(E)	10	#5	42'-4"	—
a10(E)	32	#5	31'-10"	—
a11(E)	19	#5	34'-7"	—
a12(E)*	10	#5	36'-8"	—
a13(E)*	11	#5	32'-11"	—
a14(E)	52	#5	39'-0"	—
a15(E)	26	#5	41'-0"	—
a16(E)*	14	#5	30'-0"	—
a17(E)*	12	#5	58'-2"	—
a18(E)*	9	#5	18'-6"	—
a19(E)	56	#5	1'-6"	—
a20(E)*	3	#6	8'-5"	—
b1(E)	1853	#5	30'-0"	—
b2(E)	74	#5	20'-0"	—
b3(E)	130	#6	36'-0"	—
b4(E)	260	#6	28'-7"	—
b5(E)*	14	#5	40'-0"	—
b6(E)*	8	#5	16'-8"	—
b7(E)*	30	#5	32'-6"	—
b8(E)	4	#5	25'-0"	—
b9(E)*	7	#5	32'-9"	—
c1(E)	399	#5	13'-7"	—
c2(E)*	3	#5	13'-7"	—
c3(E)	802	#5	1'-3"	—
x1(E)	54	#5	6'-5"	—
x2(E)	61	#5	6'-7"	—
d1(E)	815	#5	7'-6"	—
d2(E)	69	#5	8'-8"	—
d3(E)	893	#5	5'-7"	—
e1(E)	190	#4	19'-8"	—
e2(E)	59	#4	15'-0"	—
e3(E)	21	#4	17'-7"	—
e4(E)	21	#4	13'-11"	—
e5(E)	8	#8	19'-8"	—
e6(E)	7	#8	34'-10"	—
e7(E)	9	#8	39'-0"	—
e8(E)	3	#8	41'-1"	—
e9(E)	20	#4	30'-0"	—
e10(E)	2	#4	10'-7"	—
e11(E)	3	#4	22'-3"	—
e12(E)	18	#4	17'-1"	—
e13(E)	4	#4	14'-7"	—
e14(E)	3	#4	16'-8"	—

* Cut bars according to Cutting diagram.

BILL OF MATERIAL

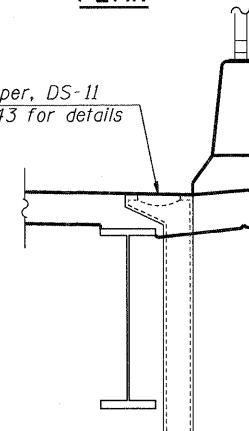
Item	Unit	Total
Concrete Superstructure	Cu. Yd.	894.5
Reinforcement Bars, Epoxy Coated	Pound	213,500
Bridge Deck Grooving	Sq. Yd.	1,977
Protective Coat	Sq. Yd.	3,152
Name Plates	Each	1

2-#5a19(E) bars at 4" cts.
Tied to bottom of top
reinforcement mat. (Typ.)



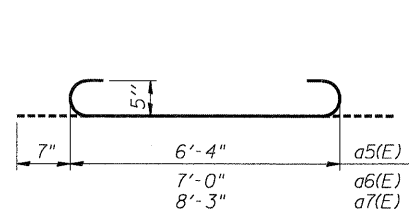
Note:
Cut longitudinal reinforcement
to clear drainage scuppers.

PLAN

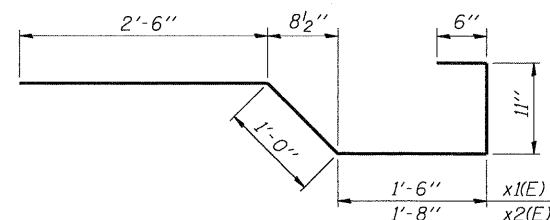


Drainage Scupper, DS-11
See Sht. SB-43 for details

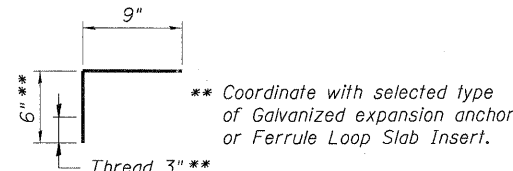
SECTION A-A



BARS a5(E), a6(E) & a7(E)

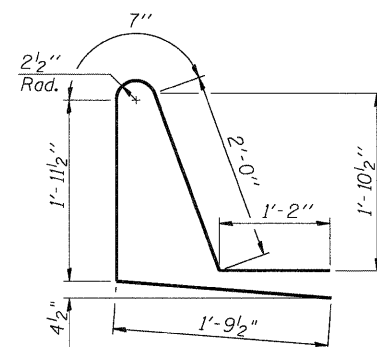


BARS x1(E) & x2(E)

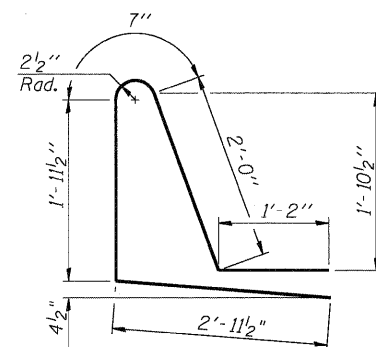


BAR c3(E)

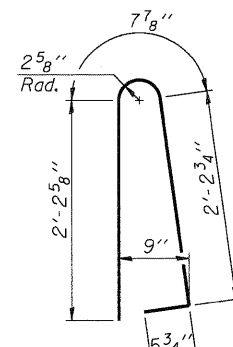
*** Coordinate with selected type
of Galvanized expansion anchor
or Ferrule Loop Slab Insert.



BAR d1(E)



BAR d2(E)

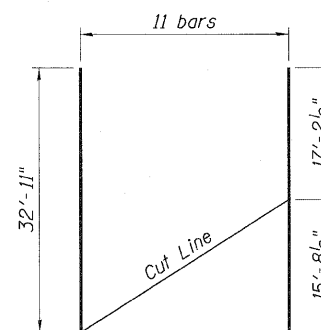


BAR d3(E)

TABLE

Bar	A	B	C	D	N
a12(E)	17'-6"	19'-2"	1'-5"	35'-3"	10***
a16(E)	14'-7"	15'-5"	8"	29'-4"	14***
a17(E)	28'-7"	29'-7"	18'-1"	40'-1"	12
a18(E)	8'-9 1/2"	9'-8 1/2"	1'-4"	17'-2"	9
a20(E)	3'-9"	4'-8"	1'-11"	6'-6"	3
b5(E)	20'-0"	20'-0"	11'-5"	28'-7"	14
b6(E)	7'-10"	8'-10"	4'-4"	12'-4"	8
b7(E)	16'-0"	16'-6"	2'-6"	30'-0"	30
b9(E)	13'-4"	19'-5"	16'-2"	16'-7"	7
c2(E)	5'-8 1/2"	7'-10 1/2"	1'-5"	12'-2"	3

**BARS a12(E), a16(E),
a17(E), a18(E), a20(E), b5(E),
b6(E), b7(E), b9(E) & c2(E)**



BAR a13(E)***

*** After cutting discard the shortest
bar(s) in set as required.

Notes:

1. Reinforcement bars designated (E) shall be epoxy coated.

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 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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PLOT DATE = #DATE#

DESIGNED - JLR	REVISED -
DRAWN - FD	REVISED -
CHECKED - JRH	REVISED -
DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 IL 3 OVER
 TRRA & ST. CLAIR AVENUE

DECK BAR LIST

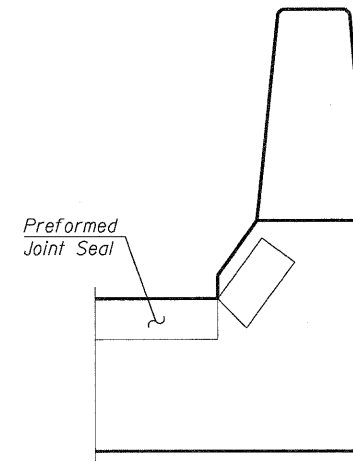
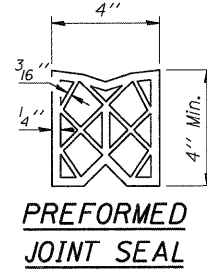
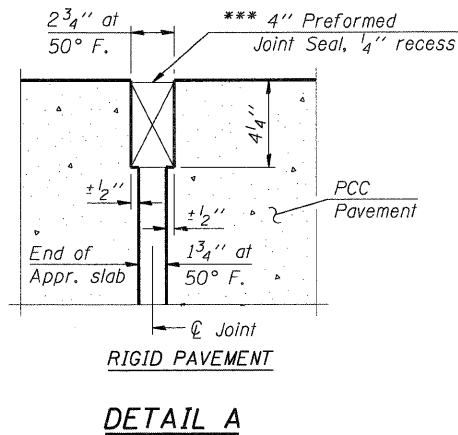
SCALE: SHEET NO. SB-19 OF SB-63 STA. 1679+16.65 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	211
SN 082-0329			CONTRACT NO. 76D05	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

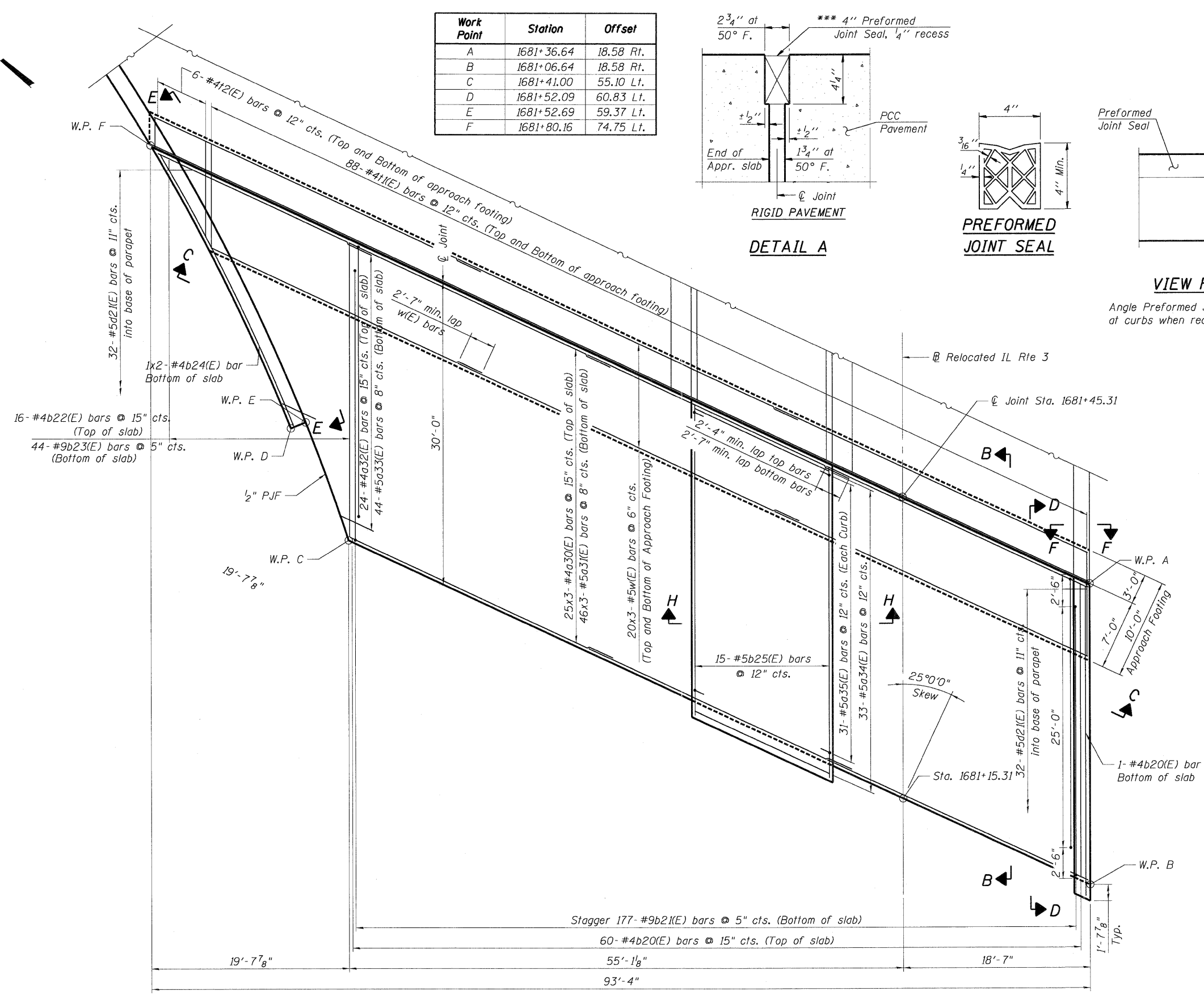
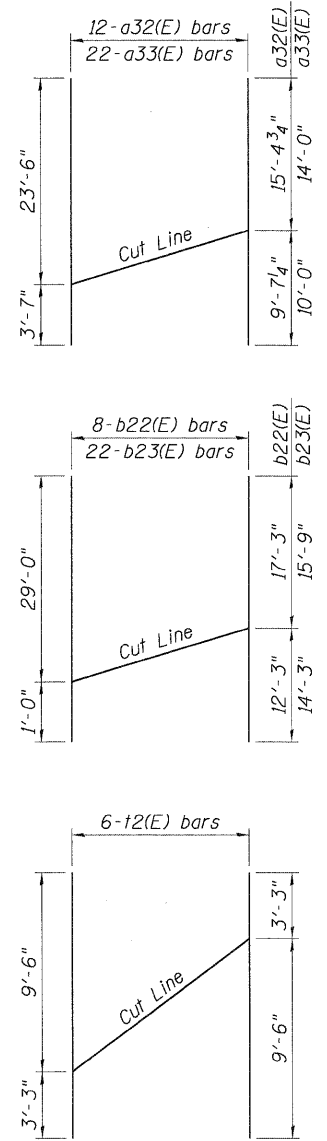
Work Points

Work Point	Station	Offset
A	1681+36.64	18.58 Rt.
B	1681+06.64	18.58 Rt.
C	1681+41.00	55.10 Lt.
D	1681+52.09	60.83 Lt.
E	1681+52.69	59.37 Lt.
F	1681+80.16	74.75 Lt.

*** Cost included with Concrete Superstructure.



Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



- NOTES:**
- See sheet SB-21 for Sections B-B & C-C and H-H and Views D-D & E-E.
 - a30(E) thru a33(E) bar spacings measured along @ Roadway.
 - Tilt b21(E) bars as required to maintain clearance.
 - Bars indicated thus 25x3-#5 etc. indicated 25 lines of bars with 3 lengths per line.
 - See cutting diagrams for a32(E), a33(E), b22(E), b23(E) and 12(E) bars.

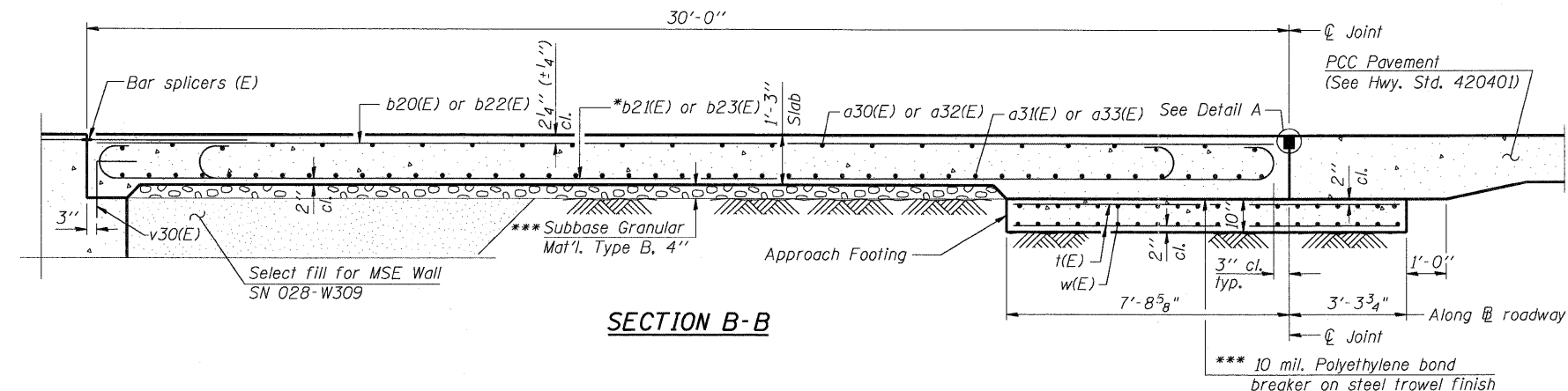
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 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
 IL 3 OVER TRRA & ST. CLAIR AVENUE
 NORTH APPROACH SLAB PLAN
 SCALE: SHEET NO. SB-20 OF SB-63 STA. 1679+16.65 TO STA.
 F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO. 998 82-2-1HVB-1 ST. CLAIR 345 212
 SN 082-0329 CONTRACT NO. 76D05
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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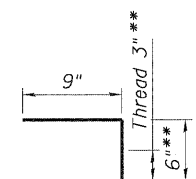
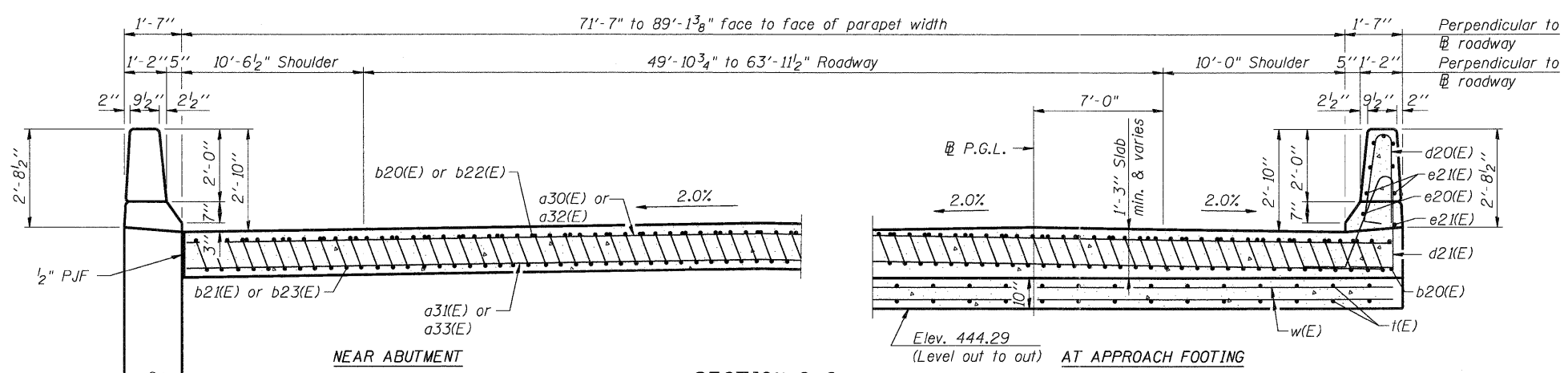
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a30(E)	75	#4	28'-7"	
a31(E)	138	#5	28'-9"	
a32(E)*	12	#4	27'-1"	
a33(E)*	22	#5	27'-1"	
a34(E)	33	#5	15'-0"	
a35(E)	62	#5	1'-3"	
b20(E)	61	#4	29'-8"	
b21(E)	177	#9	29'-9"	
b22(E)*	8	#4	30'-0"	
b23(E)*	22	#9	30'-0"	
b24(E)	2	#4	16'-4"	
b25(E)	15	#5	31'-4"	
d20(E)	66	#5	5'-7"	
d21(E)	64	#5	7'-11"	
e20(E)	1	#8	31'-4"	
e21(E)	8	#4	31'-4"	
e22(E)	2	#8	17'-1"	
e23(E)	16	#4	15'-5"	
f1(E)	176	#4	10'-8"	
f2(E)*	6	#4	12'-9"	
w(E)	120	#4	36'-0"	
Protective Coat		Sq. Yd.	303	
Concrete Superstructure		Cu. Yd.	131.8	
Concrete Structures		Cu. Yd.	29.6	
Reinforcement Bars, Epoxy Coated		Pound	34,650	

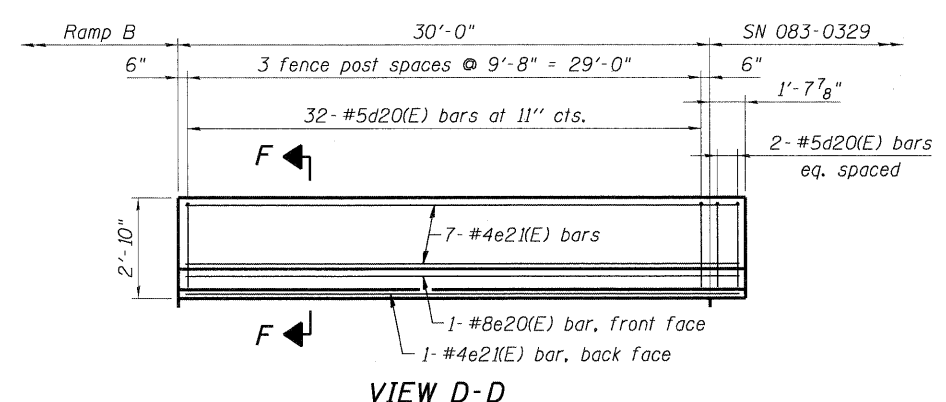
*Cut bars according to cutting diagram.



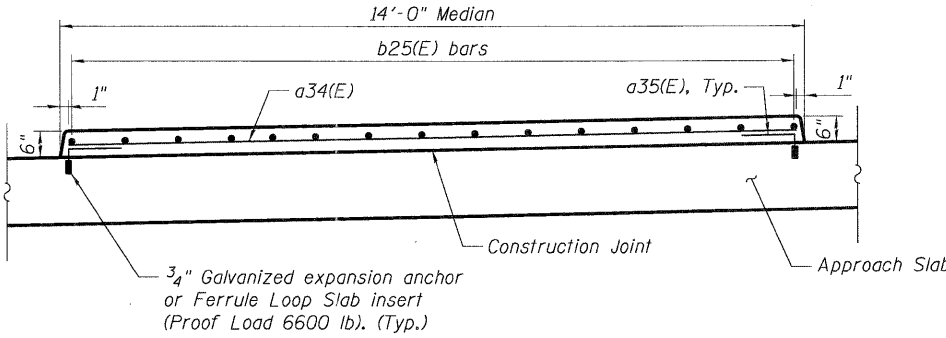
* Tilt #9b21(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



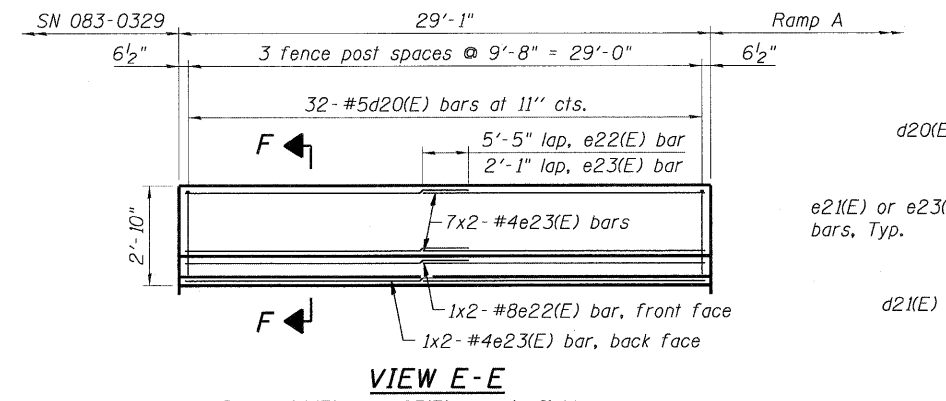
BAR a35(E)
 **Coordinate with selected type of Galvanized expansion anchor or Ferrule Loop Slab Insert.



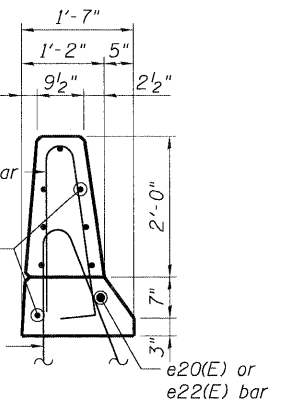
VIEW D-D



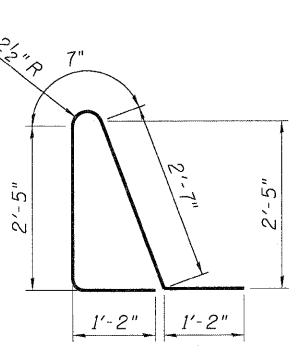
SECTION H-H



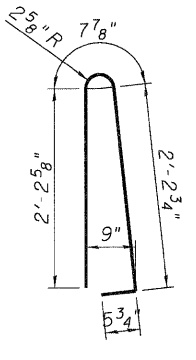
VIEW E-E



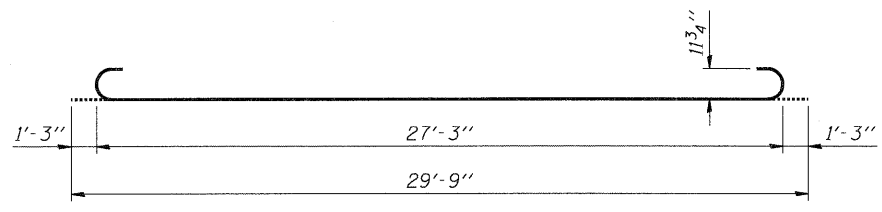
SECTION F-F



BAR d21(E)



BAR d20(E)

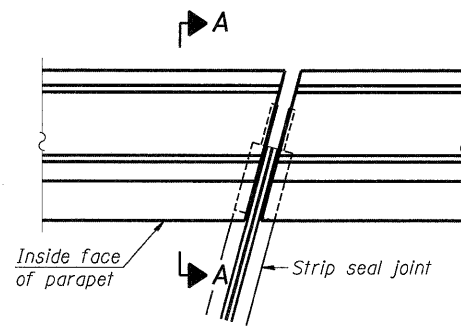


BAR b21(E)

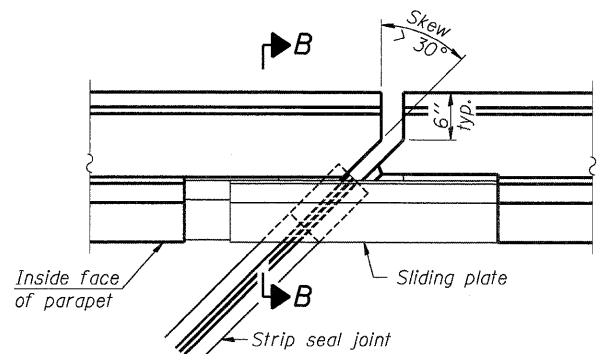
NOTES:

- See sheet SB-20 for Detail A and View F-F.
- Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
- Approach footing concrete shall be paid for as Concrete Structures.
- Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
- For v30(E) bar details, see sheet SB-39.
- The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
- For bar splicer details, see sheet SB-42.
- Cost of excavation for approach footing included with Concrete Structures.
- Cost of expansion anchors/inserts included with Reinforcement Bars, Epoxy Coated.
- For bridge fence details, see Sht. SB-44.

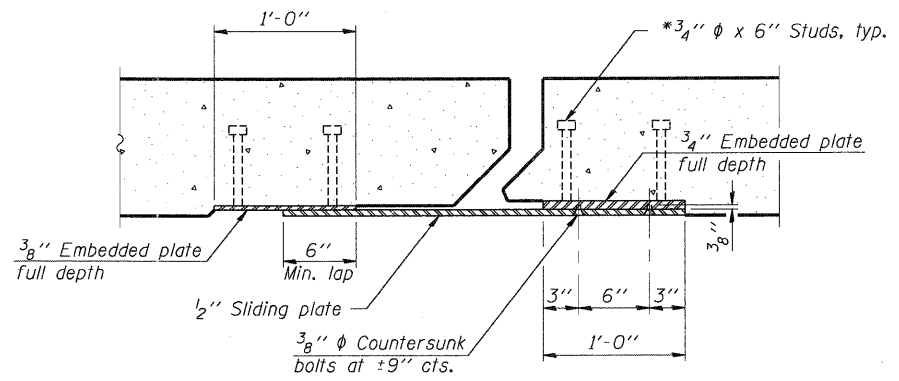
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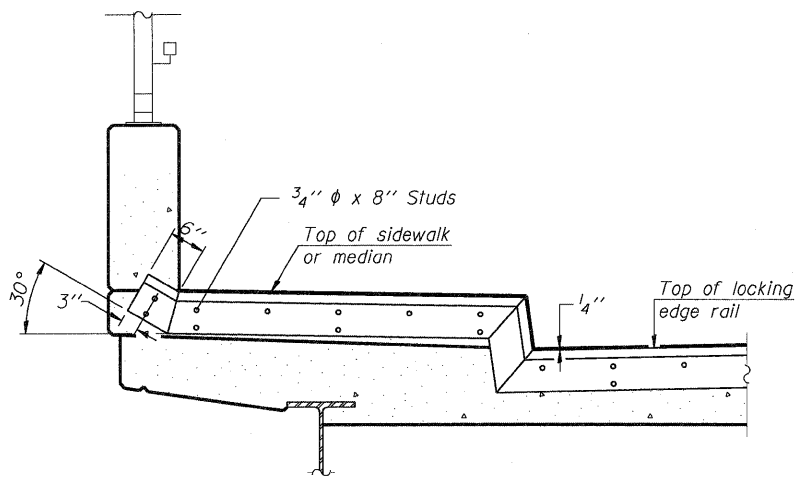
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$) Showing point block
West Parapet - North Abutment only

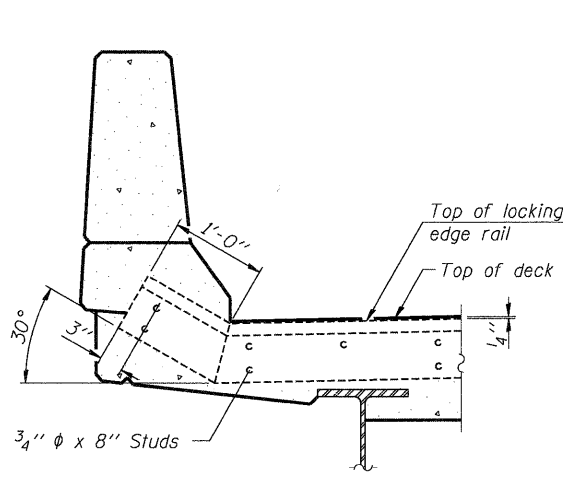


SECTION C-C

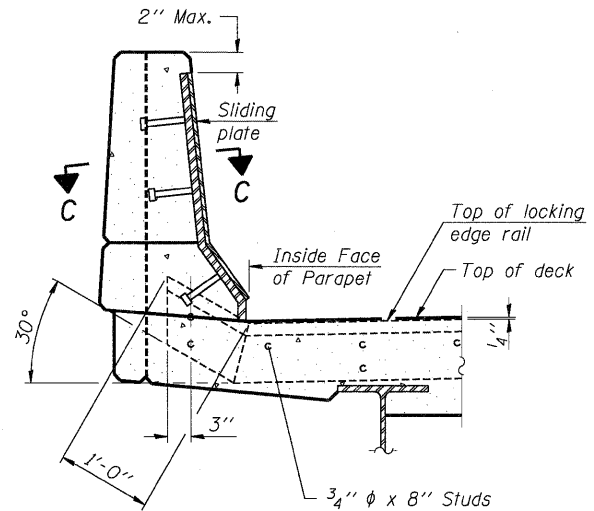


**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**

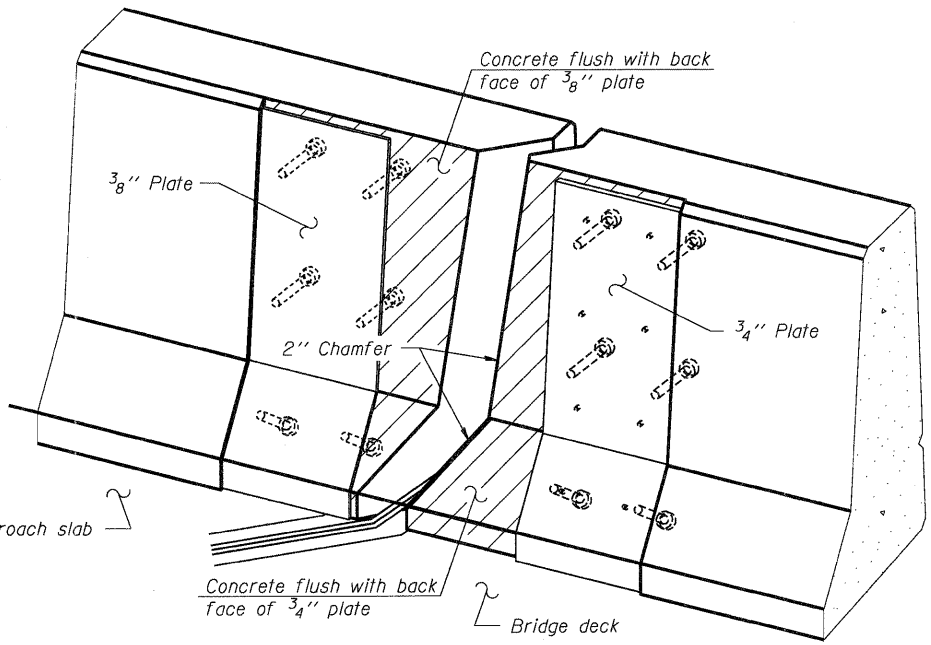
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

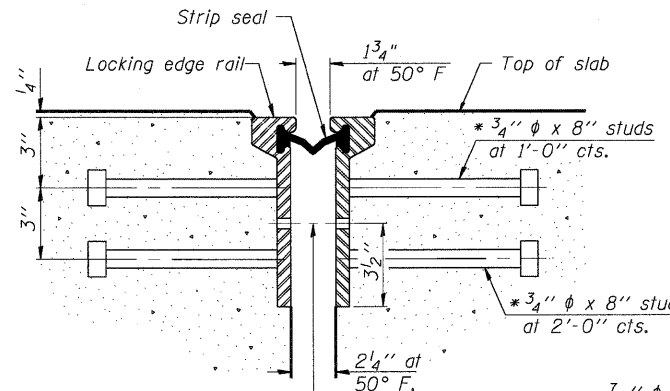
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

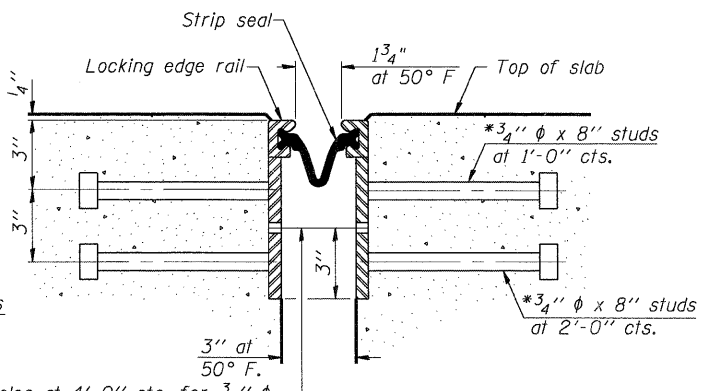
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

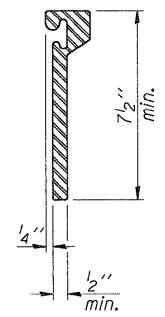
Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.



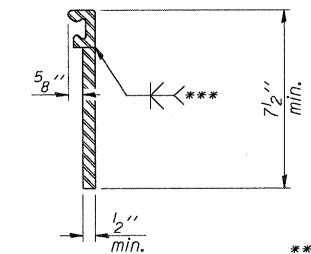
**SECTION THRU
ROLLED RAIL JOINT**



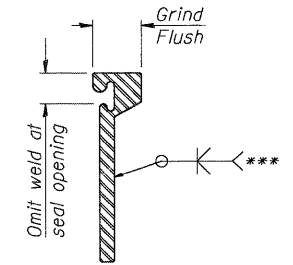
**SECTION THRU
WELDED RAIL JOINT**



**ROLLED
EXTRUDED RAIL**



WELDED RAIL



**LOCKING EDGE
RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	141

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

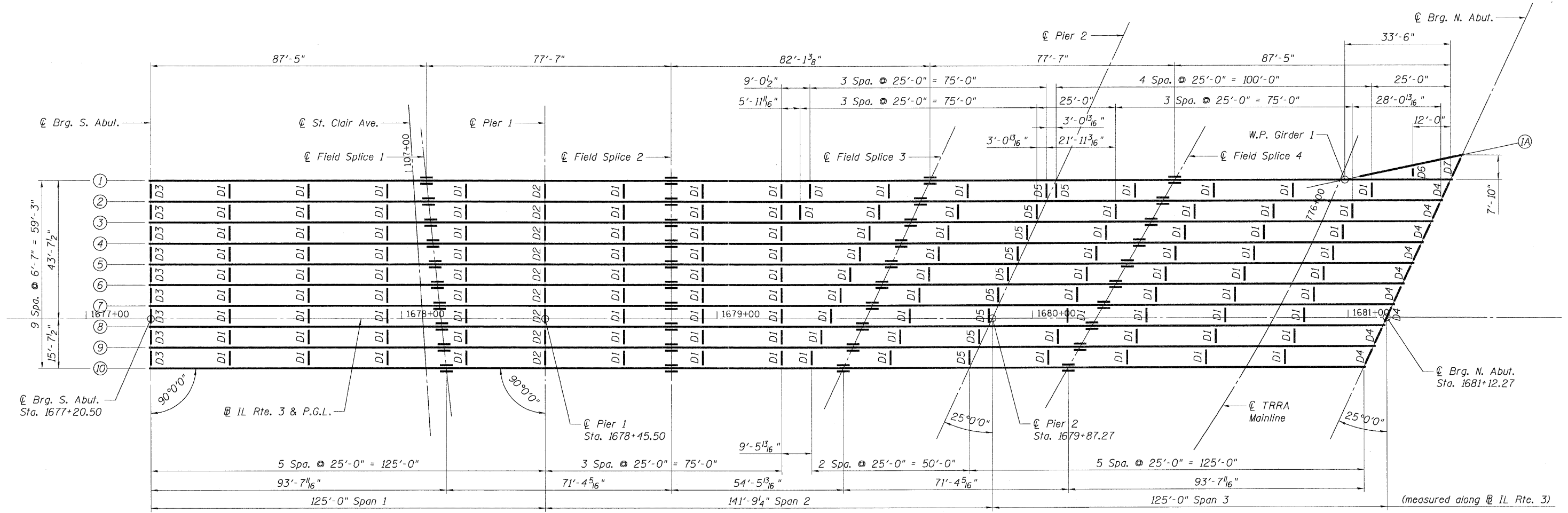
10/20/10 CONN. 99-001 E.D. CHY. NEWMARKO \\\FS-0044\VA\VAL\J.D. TRAVIS 87\2202\2005\08\1\STRUCT\CONV.01 DESIGN\0820329\SHEET\0820329-CONN-10-001-SHT-ELJ.D00

EJ-SSJ

7-1-10

FILE NAME =	USER NAME = \$USER\$	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	EXPANSION JOINT DETAILS			F.A.P. RTE. 998	SECTION 82-2-IHVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 214
#FILE#		DRAWN - TCG	REVISED -		SCALE:	SHEET NO. SB-22 OF SB-63	STA. 1679+16.65	TO STA.	SN 082-0329		CONTRACT NO. 76D05	
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PLOT DATE = \$DATE\$		DATE - 05/13/11	REVISED -						FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

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 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
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 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE
 FRAMING PLAN
 F.A.P. RTE. 998 SECTION 82-2-1HVB-1 COUNTY ST. CLAIR TOTAL SHEETS 345 SHEET NO. 215
 SN 082-0329 CONTRACT NO. 76D05
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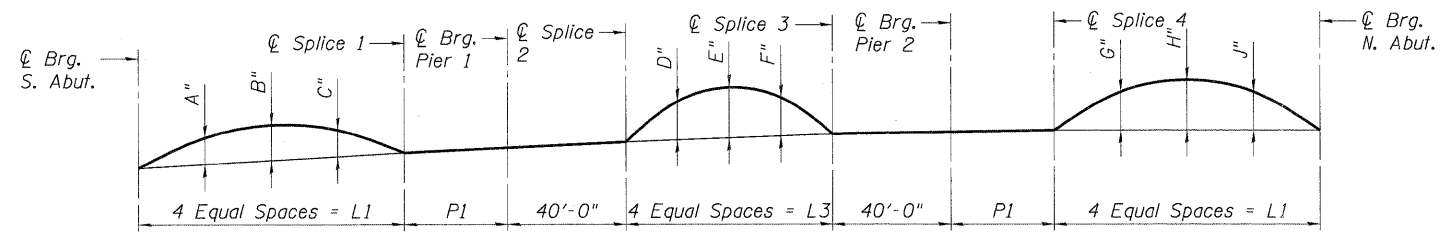


FRAMING PLAN

TOP OF WEB ELEVATIONS

(For fabrication only)

Girder	℄ Brg. S. Abut.	Splice 1	℄ Brg. Pier 1	Splice 2	Splice 3	℄ Brg. Pier 2	Splice 4	℄ Brg. N. Abut.
1	440.09	442.68	443.54	444.44	445.69	446.06	446.41	446.49
2	440.22	442.83	443.67	444.57	445.82	446.16	446.48	446.64
3	440.35	442.89	443.79	444.68	445.89	446.27	446.61	446.78
4	440.48	443.15	443.94	444.82	445.99	446.38	446.72	446.92
5	440.62	443.30	444.07	444.95	446.16	446.48	446.85	447.06
6	440.75	443.46	444.20	445.06	446.18	446.58	446.96	447.20
7	440.88	443.61	444.32	445.17	446.22	446.69	447.08	447.34
8	440.91	443.67	444.35	445.19	446.19	446.68	447.08	447.37
9	440.78	443.56	444.22	445.04	446.00	446.51	446.92	447.25
10	440.65	443.46	444.09	444.90	445.81	446.35	446.77	447.12
1A					G1 =	446.77	Abut. =	446.21



CAMBER DIAGRAM

For L1, L3, and P1 dimensions see Sheet SB-24

Girder	A	B	C	D	E	F	G	H	J
1	2 3/4	3 3/4	2 3/4	3 1/4	4 1/4	3 1/4	3 1/4	4 1/4	3 1/4
2	2 1/2	3 1/4	2 1/2	3	4	3	2 1/2	3 1/4	2 1/2
3	2 1/2	3 1/4	2 1/2	3	4	3	2 3/4	3 3/4	2 3/4
4	2 3/4	3 3/4	2 3/4	2 1/4	3	2 1/4	2 3/4	3 1/2	2 3/4
5	2 3/4	3 3/4	2 3/4	2 3/4	3 1/2	2 3/4	2 3/4	3 3/4	2 3/4
6	3	4	3	2	2 1/2	2	3	4	3
7	3	4	3	2	2 1/2	2	3	4	3
8	3	4	3	2	2 1/2	2	3	4	3
9	3	4	3	2	2 1/2	2	3	4	3
10	3	4	3	2	2 1/2	2	3	4	3

NOTES:

- All structural steel shall be AASHTO M 270 Grade 50 except diaphragms, fill plates, and shim plates may be Grade 36.
- All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

		0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
Is	(in4)	19,898	40,458	17,341
Ic (n)	(in4)	54,034		44,154
Ic (3n)	(in4)	37,766		31,883
Ic (cr)	(in4)		45,405	
Ss	(in3)	1,177	1,795	916
Sc (n)	(in3)	1,574		1,227
Sc (3n)	(in3)	1,449		1,129
Sc (cr)	(in3)		1,869	
DC1	(k/ft)	0.917	1.039	0.889
M DC1	(k-ft)	1,000	1,856	337
DC2	(k/ft)	0.205	0.205	0.205
M DC2	(k-ft)	229	388	97
DW	(k/ft)	0.240	0.240	0.240
M DW	(k-ft)	268	454	113
M LL+IM	(k-ft)	1,636	1,839	1,317
Mu (Strength I)	(k-ft)	4,801	6,704	3,017
φf Mn	(k-ft)	7,260		5,889
fs DC1	(ksi)	10.2	12.4	4.4
fs DC2	(ksi)	1.9	2.5	1.0
fs DW	(ksi)	2.2	2.9	1.2
fs LL+IM	(ksi)	12.5	11.8	12.9
fs (Service II)	(ksi)	30.5	33.2	23.4
0.95 Rh Fyf	(ksi)	47.5	47.5	47.5
fs Total (Strength I)	(ksi)	40.3	43.7	31.1
φf Fn	(ksi)		50.0	
Vf	(k)	63.6	62.7	

		0.4 Span 1 or 0.6 Span 3	Pier 1 or Pier 2	0.5 Span 2
Is	(in4)	19,898	40,458	17,341
Ic (n)	(in4)	52,798		43,249
Ic (3n)	(in4)	36,776		31,108
Ic (cr)	(in4)		45,050	
Ss	(in3)	1,177	1,795	916
Sc (n)	(in3)	1,566		1,221
Sc (3n)	(in3)	1,438		1,121
Sc (cr)	(in3)		1,863	
DC1	(k/ft)	0.925	1.047	0.897
M DC1	(k-ft)	1,027	1,826	288
DC2	(k/ft)	0.205	0.205	0.205
M DC2	(k-ft)	233	379	84
DW	(k/ft)	0.240	0.240	0.240
M DW	(k-ft)	273	444	99
M LL+IM	(k-ft)	1,675	1,874	1,338
Mu (Strength I)	(k-ft)	4,916	6,702	2,955
φf Mn	(k-ft)	6,966		5,829
fs DC1	(ksi)	10.5	12.2	3.8
fs DC2	(ksi)	1.9	2.4	0.9
fs DW	(ksi)	2.3	2.9	1.1
fs LL+IM	(ksi)	12.8	12.1	13.1
fs (Service II)	(ksi)	31.4	33.2	22.8
0.95 Rh Fyf	(ksi)	47.5	47.5	47.5
fs Total (Strength I)	(ksi)	41.4	43.7	30.4
φf Fn	(ksi)		50.0	
Vf	(k)	55.2	55.0	

Is, Ss: Noncomposite moment of inertia and section modulus of the steel section used for computing fs (Strength I and Service II) due to noncomposite dead loads

Ic (n), Sc (n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, n, used for computing fs (Strength I and Service II) in uncracked sections due to short-term composite live loads

Ic (3n), Sc (3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, 3n, used for computing fs (Strength I and Service II) in uncracked sections due to long-term composite (superimposed) dead loads

Ic (cr), Sc (cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement used for computing fs (Strength I and Service II) in cracked sections due to both short-term composite live loads and long-term composite dead loads

DC1: Unfactored noncomposite dead load
M DC1: Unfactored moment due to noncomposite dead load
DC2: Unfactored long-term composite (superimposed excluding future wearing surface) dead load
M DC2: Unfactored moment due to long-term composite (superimposed excluding future wearing surface) dead load
DW: Unfactored long-term composite (superimposed future wearing surface only) dead load
M DW: Unfactored moment due to long-term composite (superimposed future wearing surface only) dead load
M LL+IM: Unfactored moment due to live load plus dynamic load allowance (impact)
Mu (Strength I): Factored design moment
1.25 [(M DC1) + (M DC2)] + 1.5 (M DW) + 1.75 (M LL+IM)
φf Mn: Compact composite positive moment capacity computed according to Article 6.10.7.1
fs DC1: Unfactored stress at outside face of controlling steel flange due to vertical noncomposite dead loads as calculated below
(M DC1) / Ss
fs DC2: Unfactored stress at outside face of controlling steel flange due to vertical composite dead loads as calculated below
(M DC2) / [Sc (3n)] or (M DC2) / [Sc (cr)] as applicable
fs DW: Unfactored stress at outside face of controlling steel flange due to vertical composite future wearing surface loads as calculated below
(M DW) / [Sc (3n)] or (M DW) / [Sc (cr)] as applicable
fs LL+IM: Unfactored stress at outside face of controlling steel flange due to vertical composite live plus impact loads as calculated below
(M LL+IM) / [Sc (n)] or (M LL+IM) / [Sc (cr)] as applicable
fs (Service II): Sum of stresses as computed below
(fs DC1) + (fs DC2) + (fs DW) + 1.3 (fs LL+IM)
0.95 Rh Fyf: Composite stress capacity for Service II loading according to Article 6.10.4.2
fs Total (Strength I): Sum of stresses as computed below
1.25 [(fs DC1) + (fs DC2)] + 1.5 (fs DW) + 1.75 (fs LL+IM)
φf Fn: Composite factored flexural resistance of controlling flange for Strength I loading according to Article 6.10.7.2 or 6.10.8
Vf: Maximum vertical fatigue shear force range under Fatigue I load combination computed according to Article 6.10.10

		S. Abut.	Pier 1	Pier 2	N. Abut.
R DC1	(k)	40.1	160.5	160.5	40.1
R DC2	(k)	8.9	33.0	33.0	9.0
R DW	(k)	10.5	38.6	38.6	10.5
R LL+IM	(k)	87.8	180.0	180.0	96.0
R Total	(k)	147.3	412.1	412.0	155.5

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 DRAWN - CCE
 CHECKED - JLR
 DATE - 05/13/11

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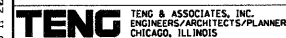
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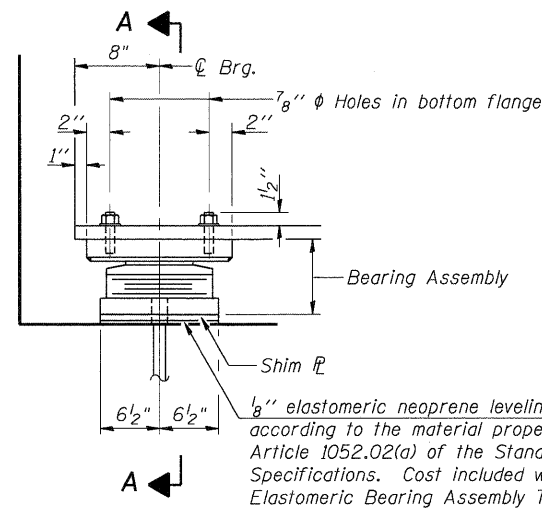
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 IL 3 OVER
 TRRA & ST. CLAIR AVENUE

GIRDER TABLES
 2 OF 2
 SCALE: SHEET NO. SB-26 OF SB-63 STA. 1679+16.65 TO STA.

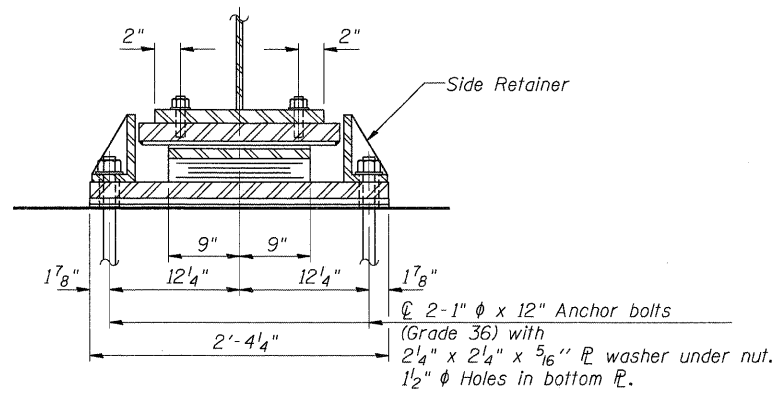
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	218

SN 082-0329 CONTRACT NO. 76D05
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT

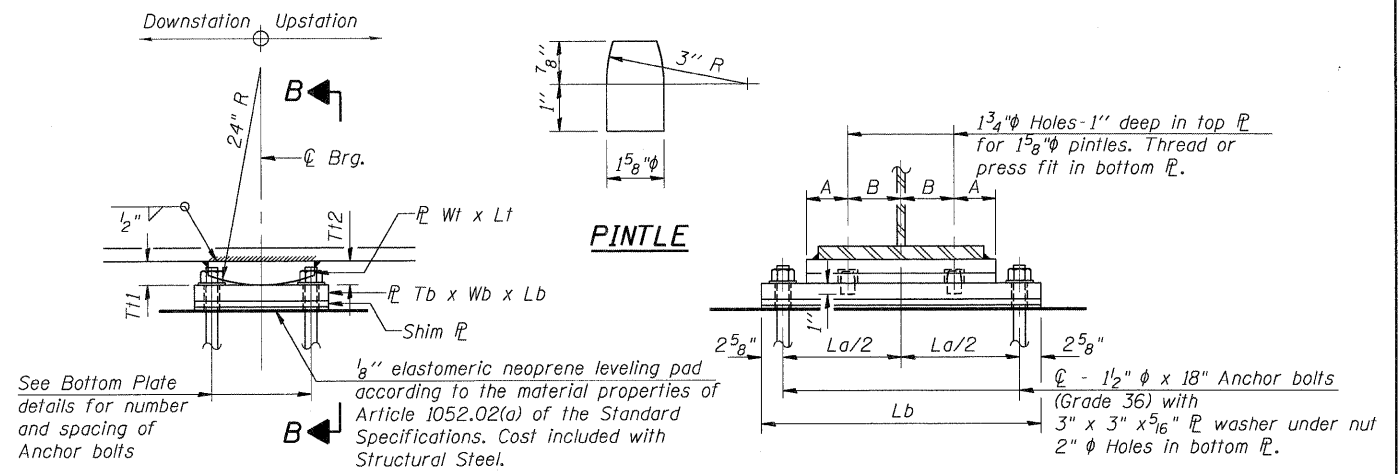




ELEVATION AT ABUT.



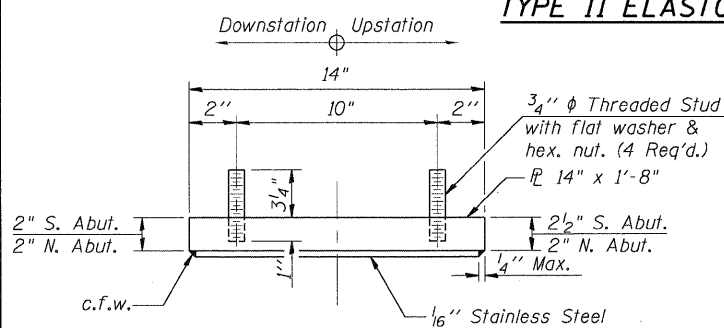
SECTION A-A



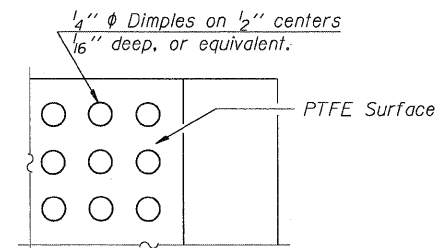
ELEVATION AT PIER

SECTION B-B

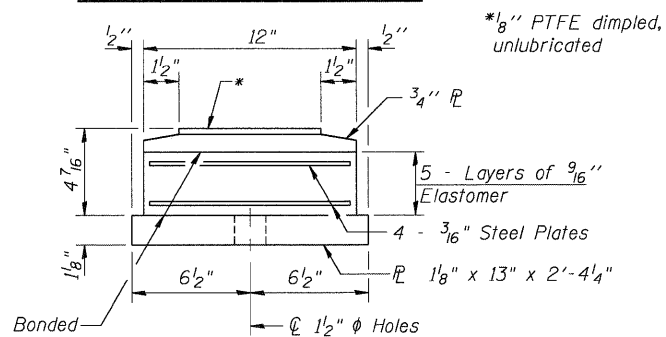
TYPE II ELASTOMERIC EXP. BRG.



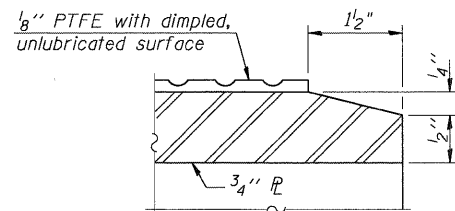
TOP BEARING ASSEMBLY



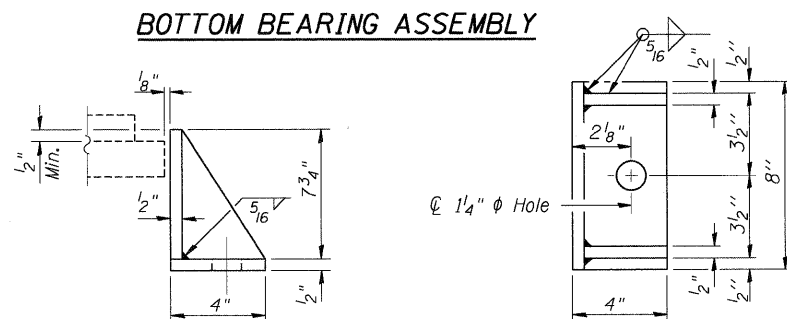
PLAN-PTFE SURFACE



BOTTOM BEARING ASSEMBLY

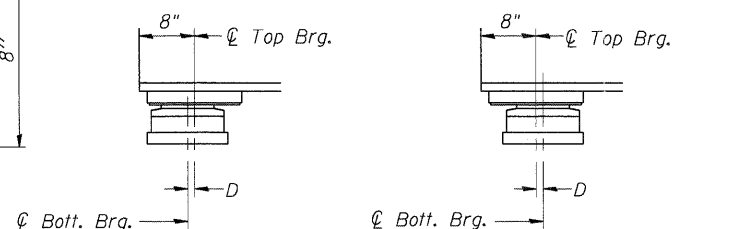


SECTION THRU PTFE



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



BELOW 50°F.

(Move bott. brg. away from fixed brg.)

ABOVE 50°F.

(Move bott. brg. toward fixed brg.)

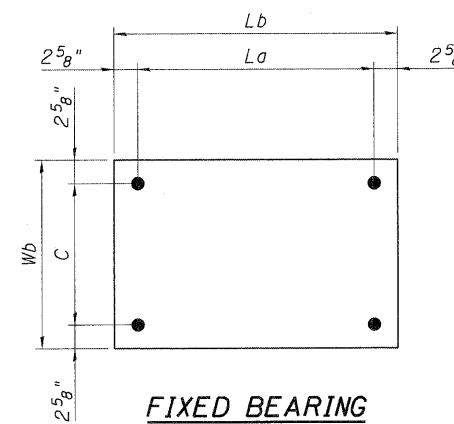
SETTING ANCHOR BOLTS AT EXP. BRG.

D=8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

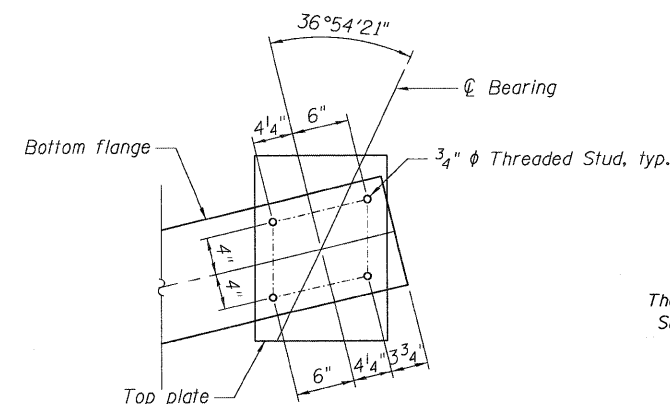
FIXED BEARINGS AT PIERS

BEARING DIMENSIONS AT PIERS 1 & 2

Bearing Location	T11	T12	Wt	Lt	A	B	Tb	Wb	Lb	La	C
Girders 1-3	1 3/4"	2"	9"	1'-9 1/2"	5 3/4"	5"	2 3/8"	14 1/2"	2'-6 3/4"	2'-1 1/2"	9 1/4"
Girders 4-10	1 3/4"	2"	9"	1'-5 1/2"	4 3/4"	4"	2 3/8"	16 1/4"	2'-2 3/4"	1'-9 1/2"	11"



FIXED BEARING BOTTOM PLATE



GIRDER 1A

TOP BEARING PLATE DETAIL

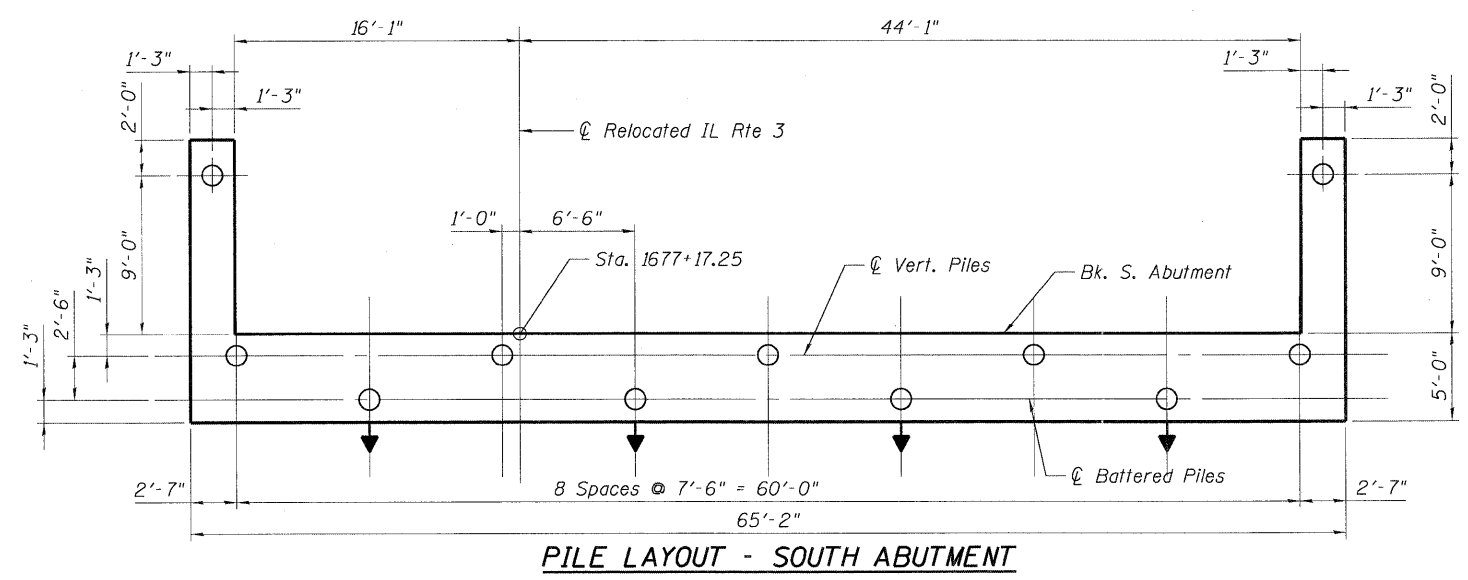
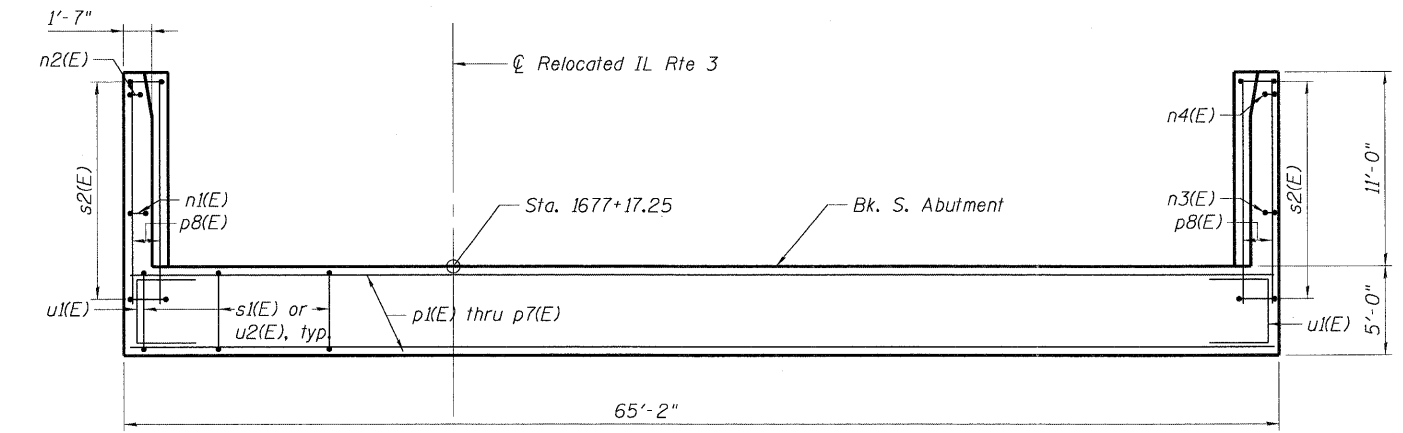
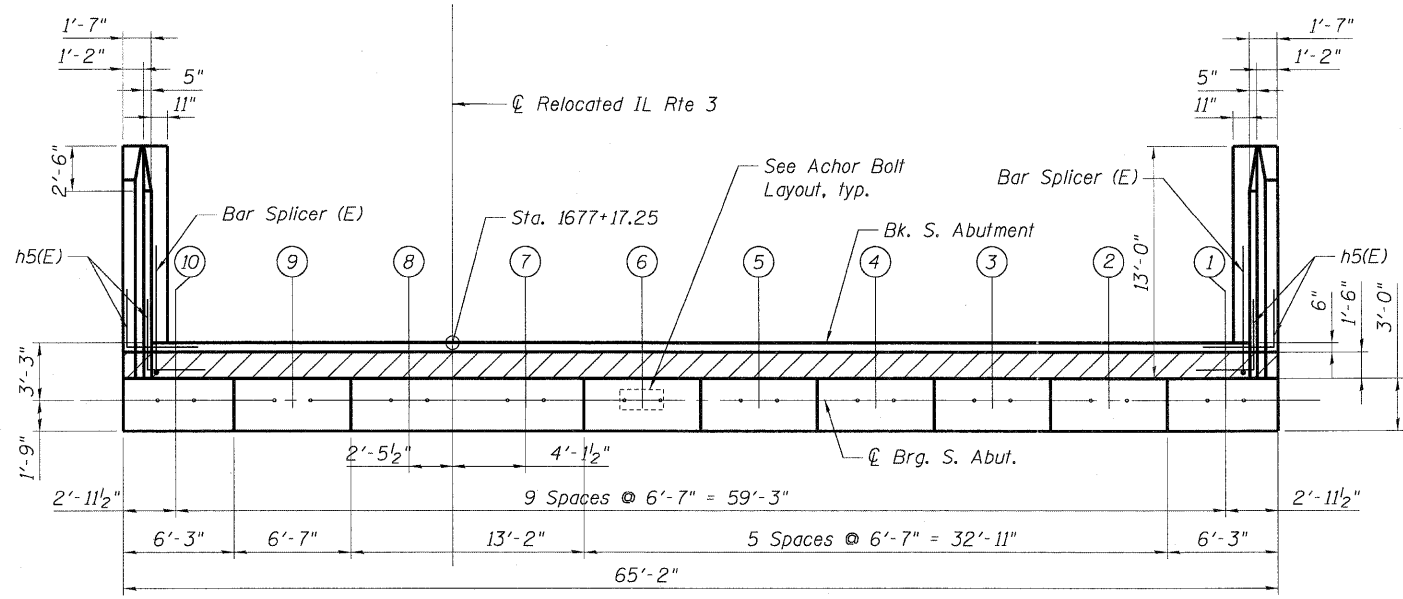
NOTES:

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 - Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
 - Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 - Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.
 - The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
 - Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
 - The structural steel plates of the fixed bearing assemblies shall conform to the requirements of AASHTO M 270 Grade 50.
 - Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
 - Bearings for Girder B shall be installed with 3/8" shims at South Abutment and Pier 1 and with 1/2" shim at North Abutment. Shims shall be adjusted if bearing seats are constructed higher or lower than shown on substructure sheets.
- The anchor bolt sizes and grades shown constitute a calculated structural fuse. Substitution of higher anchor bolt diameters and/or grades will not be allowed.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	21
Anchor Bolts, 1"	Each	42
Anchor Bolts, 1 1/2"	Each	80

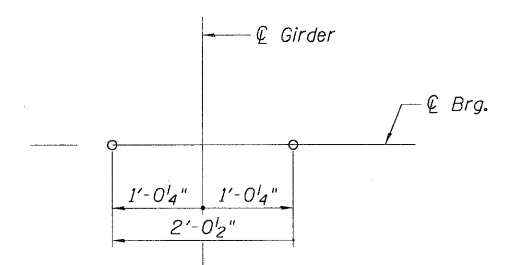
082010 CON-99-001-BRDJDN \\FS-004\YAM\VAL\J.D. TRANS. 07-2202\20666-000\STRUCT\CD\DR\ DESIGN\082029\5\HEET\082029\CONK-10-001-SHT-BRDJDN
 5-11-2011 9:56:52
 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS



BEARING SEAT ELEVATIONS

Girder	Elevations
1	435.78
2	435.91
3	436.04
4	436.17
5	436.30
6	436.43
7	436.57
8	436.17
9	436.47
10	436.34

*Bearing at Girder 8 shall be installed with $\frac{3}{8}$ " shim. Adjust $\frac{3}{8}$ " shim if bearing seat is constructed higher or lower than shown above.



PILE DATA

Type: MS14X0.25 Metal Shell Piles
 Nominal Required Bearing: 413 kips/pile
 Factored Resistance Available: 227 kips/pile
 Est. Length: 87 ft
 No. Production Piles: 10
 No. Test Piles: 1

NOTES:

- Hatched area of abutment backwall to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
- For Anchor Bolt and Bearing details, see Sht. SB-29.
- ➔ Indicates battered pile.
- For details of piles, see Sht. SB-45.
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.

FILE NAME = ... USER NAME = SUSERS ... DESIGNED - MDJ ... REVISIONS ... DATE - 05/13/11 ...

SOUTH ABUTMENT BAR LIST

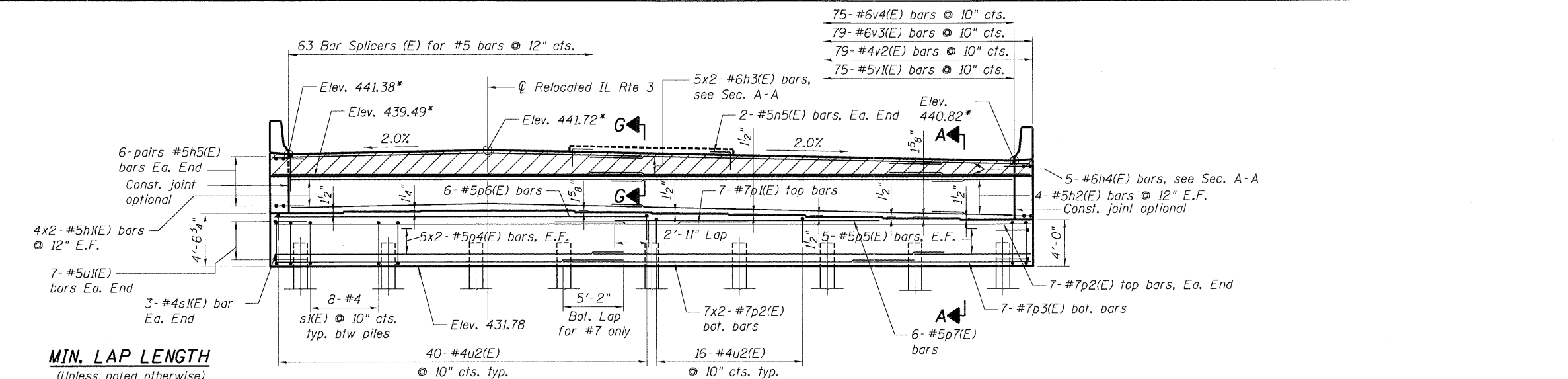
Bar	No.	Size	Length	Shape
h1(E)	16	#5	30'-0"	—
h2(E)	8	#5	6'-10"	—
h3(E)	10	#6	30'-0"	—
h4(E)	5	#6	13'-8"	—
h5(E)	24	#5	7'-3"	L
h6(E)	28	#5	12'-8"	—
h7(E)	20	#5	12'-9"	—
n1(E)	16	#6	16'-10"	U
n2(E)	8	#6	8'-5"	U
n3(E)	16	#6	15'-8"	U
n4(E)	8	#6	7'-10"	U
n5(E)	4	#5	3'-6"	L
p1(E)	7	#7	16'-6"	—
p2(E)	28	#7	30'-0"	—
p3(E)	7	#7	15'-2"	—
p4(E)	20	#5	30'-0"	—
p5(E)	10	#5	10'-0"	—
p6(E)	6	#5	32'-3"	—
p7(E)	6	#5	22'-8"	—
p8(E)	24	#6	12'-8"	—
s1(E)	70	#4	17'-5"	□
s2(E)	28	#4	9'-5"	□
u1(E)	14	#5	9'-9"	U
u2(E)	56	#4	8'-9"	U
v1(E)	75	#5	4'-5"	Γ
v2(E)	79	#4	3'-11"	—
v3(E)	79	#6	7'-8"	—
v4(E)	75	#6	6'-3"	—
v5(E)	8	#6	6'-8"	—
v6(E)	32	#6	7'-4"	—
v7(E)	40	#5	6'-8"	—

For details of Bar Splicers, see sheet SB-42.
For details of piles, see sheet SB-45.

SOUTH ABUTMENT BILL OF MATERIALS

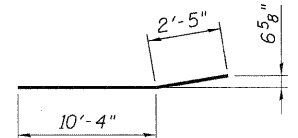
Item	Unit	Total
Concrete Structures	Cu. Yd.	95.0
Reinforcement Bars, Epoxy Coated	Pound	10,960
Furnishing Metal Shell Piles 14"x0.250"	Foot	870
Driving Piles	Foot	870
Test Pile Metal Shells	Each	1
Structure Excavation	Cu. Yd.	174.0
Concrete Sealer	Sq. Ft.	618

- NOTES:**
- Bars indicated thus 5x3-#5 etc. indicates 5 lines with 3 lengths per line.
 - E.F. indicates each face.
 - The exposed end of v(E) bars are to be protected. The unused half of the abutment bar splicers to be incorporated into the approach slab are to be stored by the Contractor at a location as directed by the Engineer.

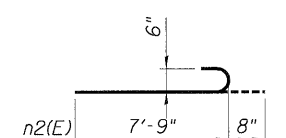


MIN. LAP LENGTH
(Unless noted otherwise)

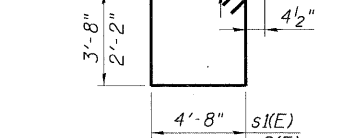
Bar Size	Lap
#5	2'-7"
#6	4'-5"
#7	5'-10"



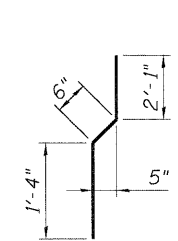
BAR h7(E)



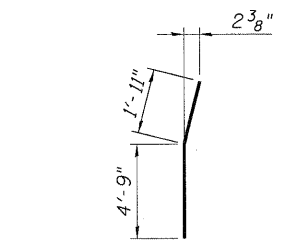
BARS n2(E) & n4(E)



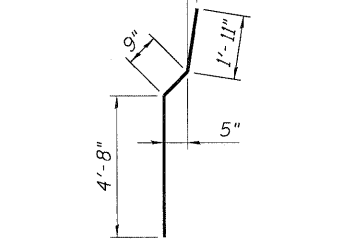
BARS s1(E) & s2(E)



BAR v2(E)



BAR v5(E)



BAR v6(E)

BARS n1(E), n3(E), u1(E), & u2(E)

Bar	A	B
n1(E)	7'-9"	1'-4"
n3(E)	7'-2"	1'-4"
u1(E)	2'-7"	4'-7"
u2(E)	2'-2"	4'-5"

BARS n1(E), n3(E), u1(E), & u2(E)

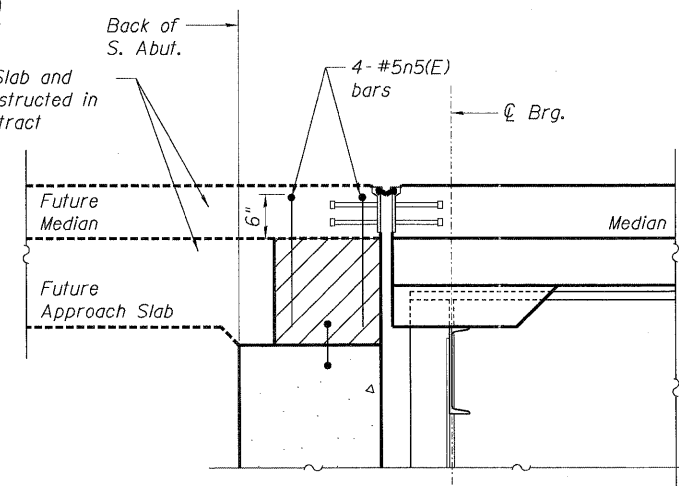
BARS h5(E), n5(E), & v1(E)

Bar	C	D
h5(E)	3'-3"	4'-0"
n5(E)	1'-9"	1'-9"
v1(E)	1'-11"	2'-6"

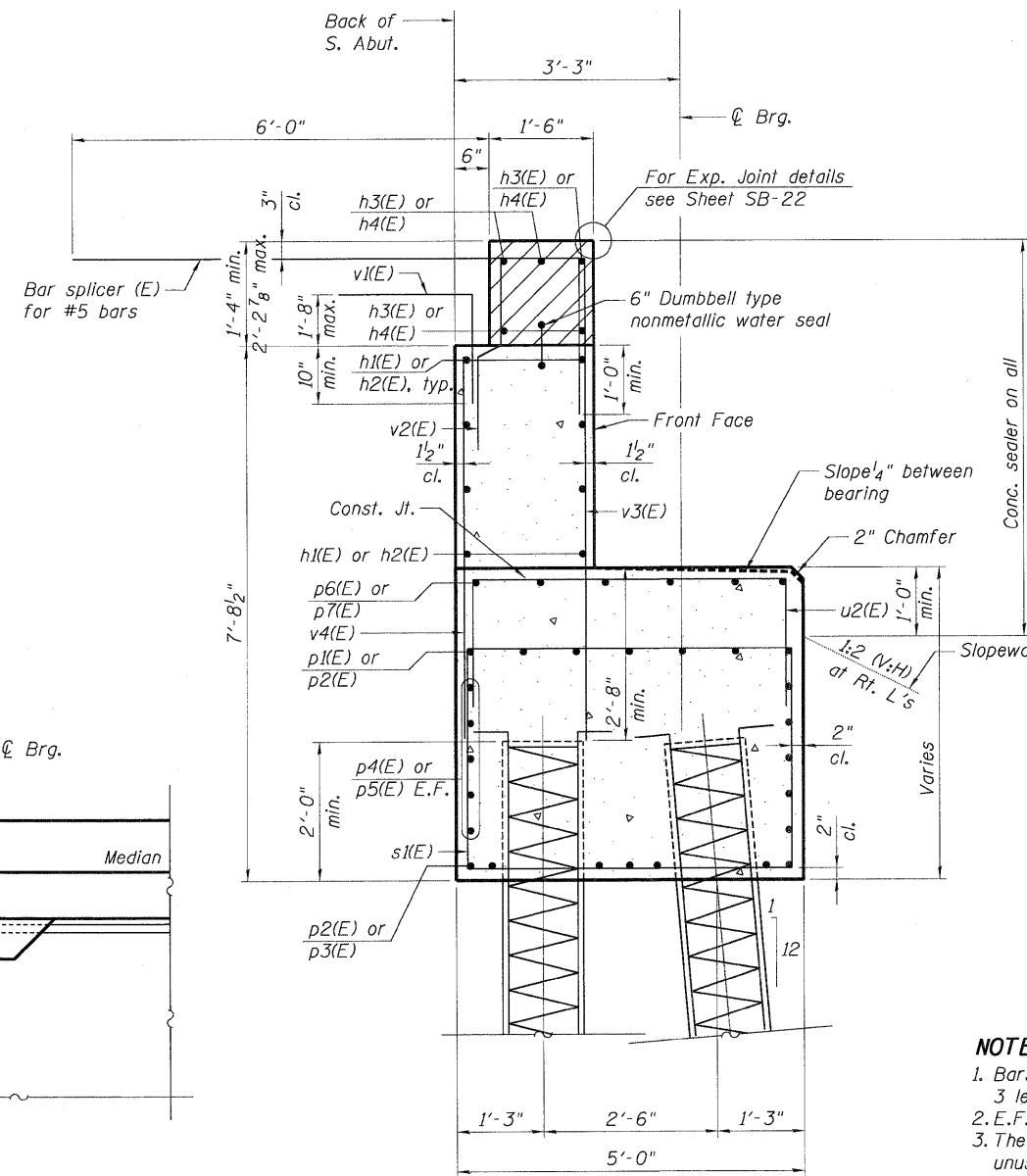
BARS h5(E), n5(E), & v1(E)

ELEVATION

(Looking South)
*Elevations @ Front Face of Backwall



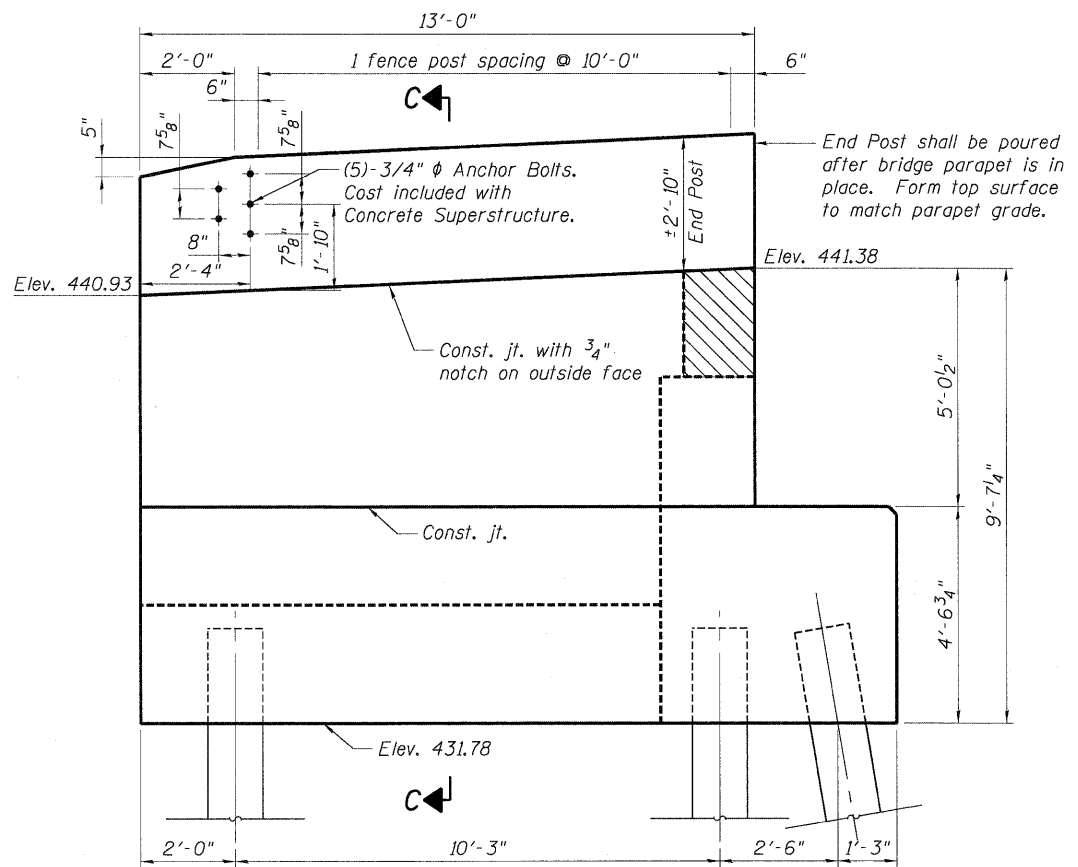
SECTION G-G



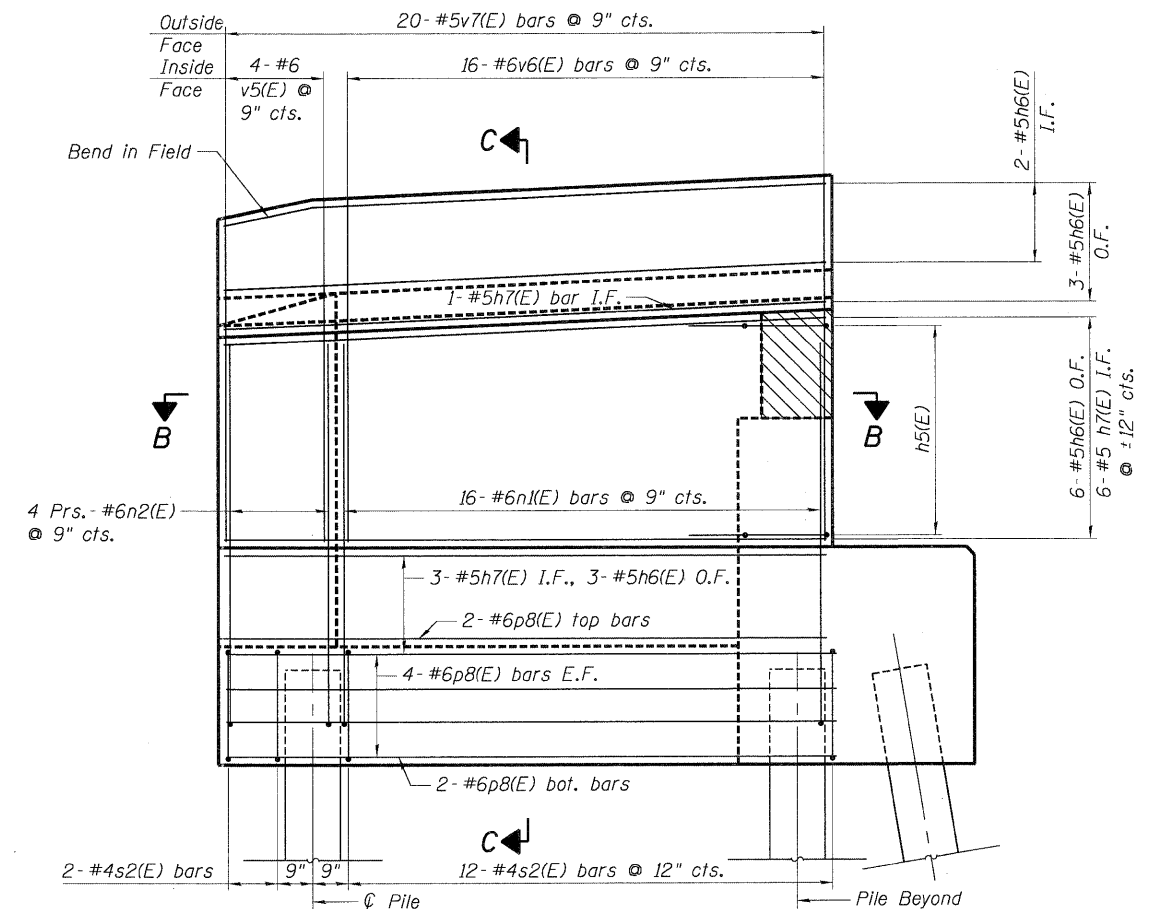
SECTION A-A

FILE NAME = USER NAME = #USER# DESIGNED - MDJ REVISED - DRAWN - MDJ REVISED - CHECKED - JLR REVISED - DATE - 05/13/11 REVISED -
 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
 SOUTH ABUTMENT ELEVATION & SECTION
 STA. 1679+16.65 TO STA.

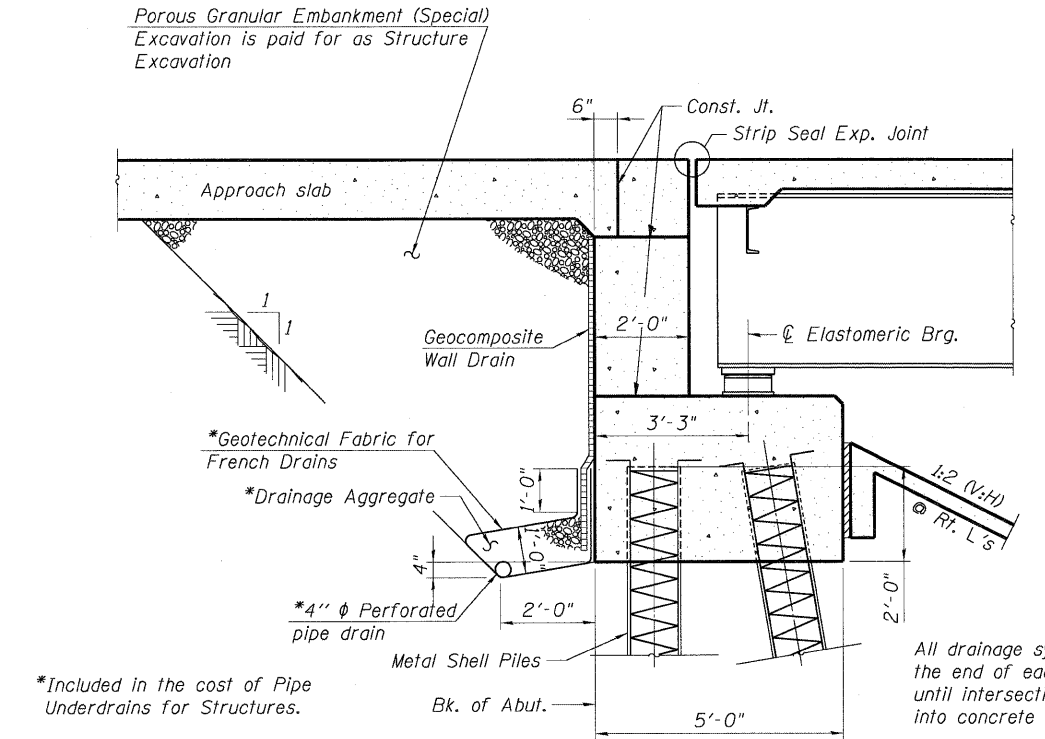
FILE NAME = _____ USER NAME = *USER* DESIGNED - MDJ REVISIONS - _____
 #FILE# _____ DRAWN - MDJ REVISIONS - _____
 PLT SCALE = #SCALE# CHECKED - JLR REVISIONS - _____
 PLOT DATE = #DATE# DATE - 05/13/11 REVISIONS - _____



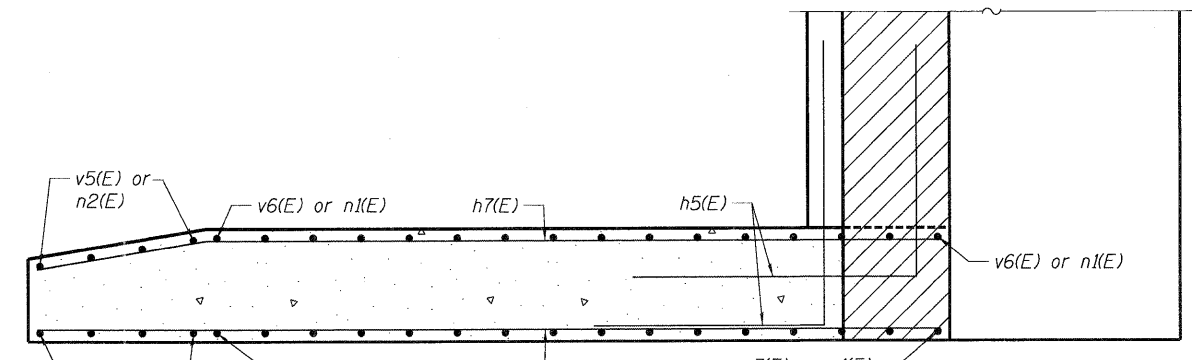
WING WALL ELEVATION
(Looking West - Showing Dimensions)



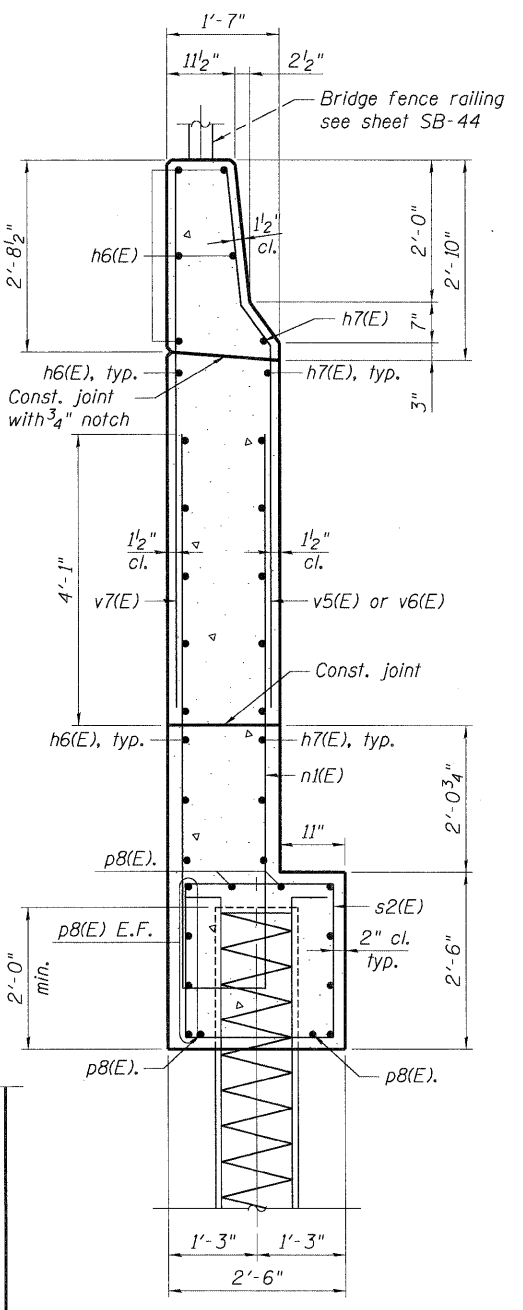
WING WALL ELEVATION
(Looking West - Showing Reinforcement)



SECTION THRU SOUTH ABUTMENT
(Horizontal dim. @ Rt. L's)



SECTION B-B



SECTION C-C

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls.

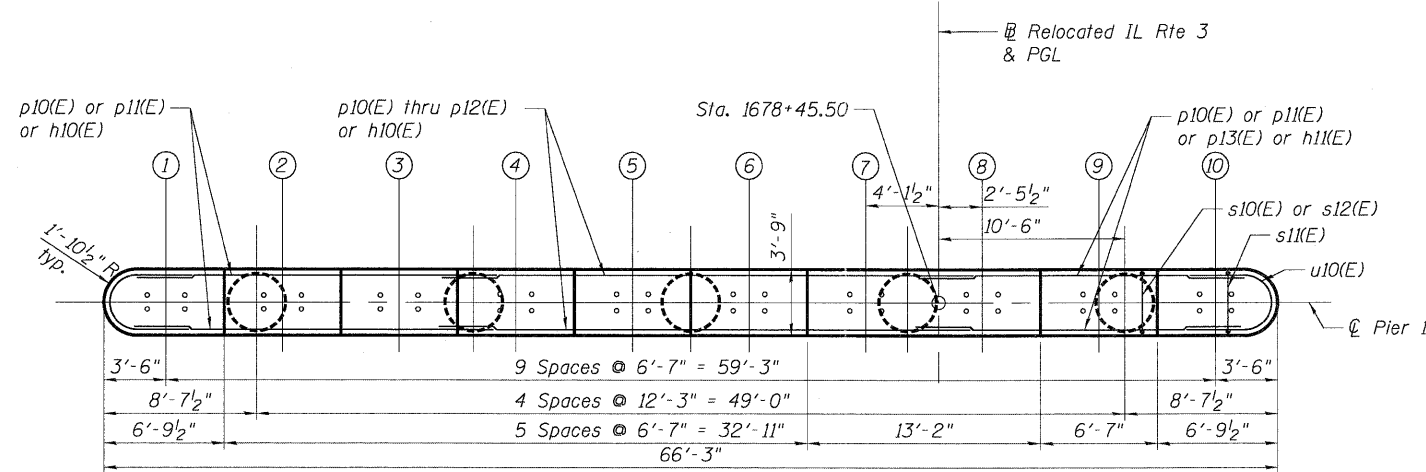
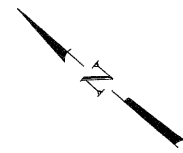
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 IL 3 OVER
 TRRA & ST. CLAIR AVENUE

SOUTH ABUTMENT
EAST WINGWALL & DETAILS

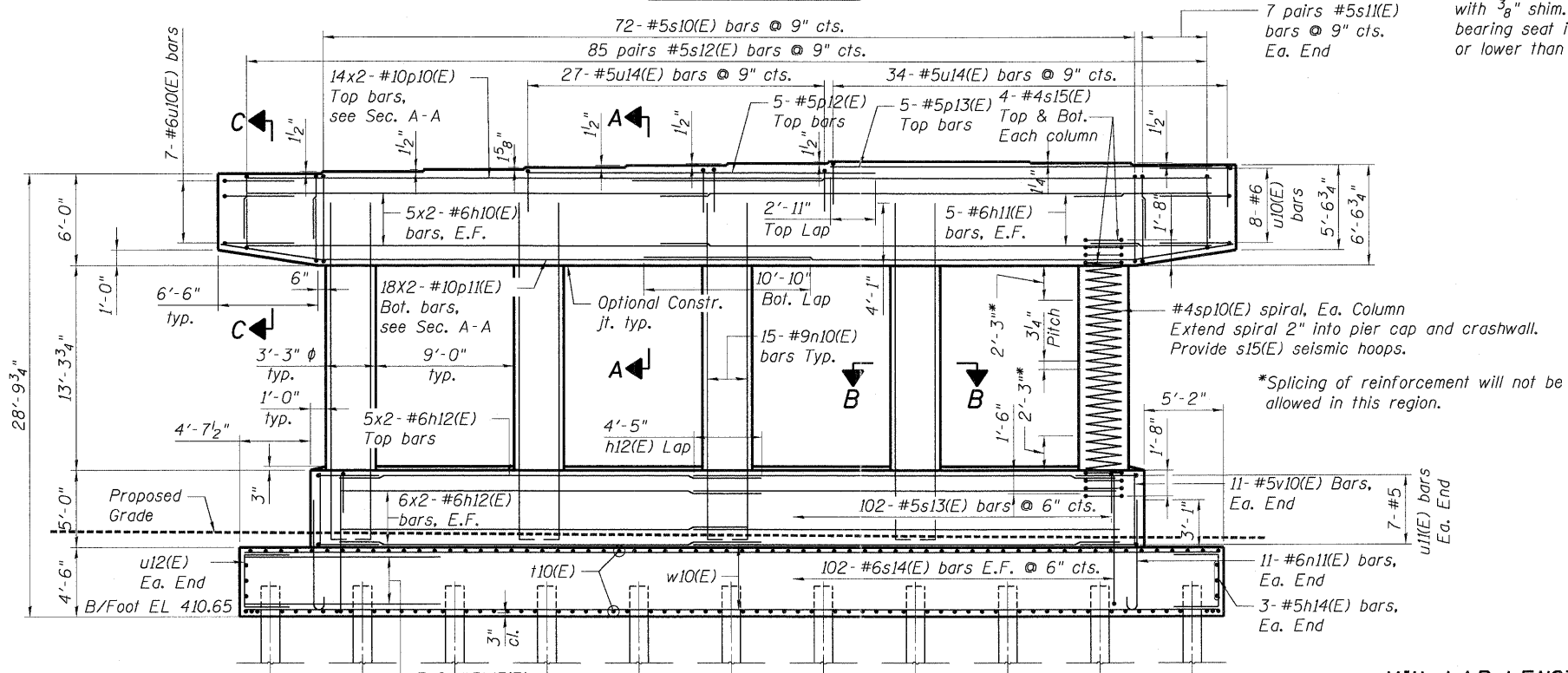
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HBV-1	ST. CLAIR	345	224
SN 082-0329		CONTRACT NO. T6D05		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



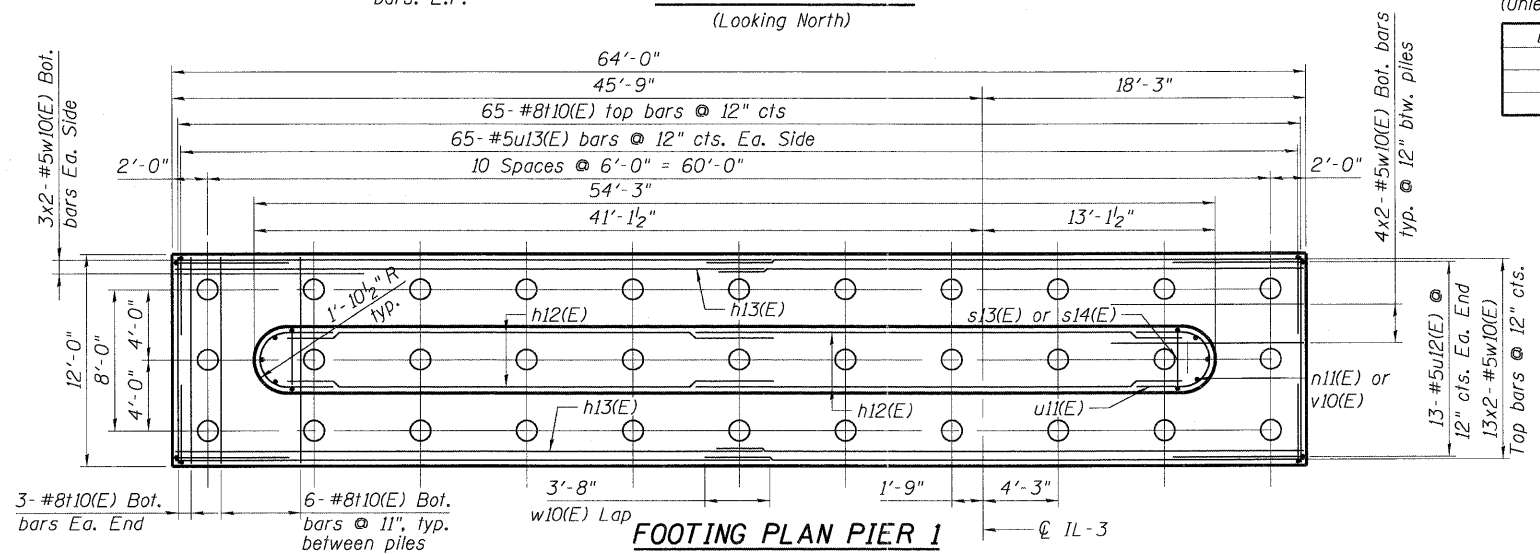
SCALE: SHEET NO. SB-32 OF SB-63 STA. 1679+16.65 TO STA.



CAP PLAN PIER 1



ELEVATION PIER 1 (Looking North)

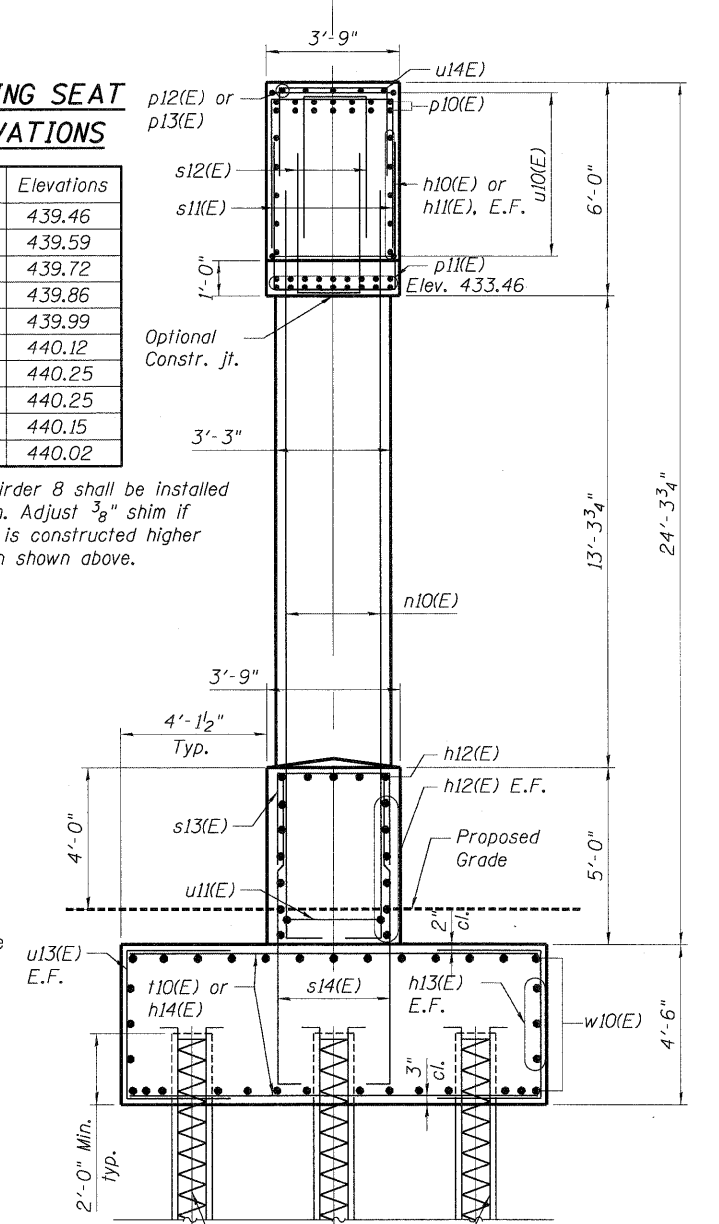


FOOTING PLAN PIER 1

BEARING SEAT ELEVATIONS

Girder	Elevations
1	439.46
2	439.59
3	439.72
4	439.86
5	439.99
6	440.12
7	440.25
8	440.25
9	440.15
10	440.02

Bearing at Girder 8 shall be installed with 3/8" shim. Adjust 3/8" shim if bearing seat is constructed higher or lower than shown above.



END VIEW PILE DATA

Type: MS14X0.25 Metal Steel Piles
Nominal Required Bearing: 413 kips/pile
Factored Resistance Available: 227 kips/pile
Est. Length: 57 ft
No. Production Piles: 32
No. Test Piles: 1

MIN. LAP LENGTH

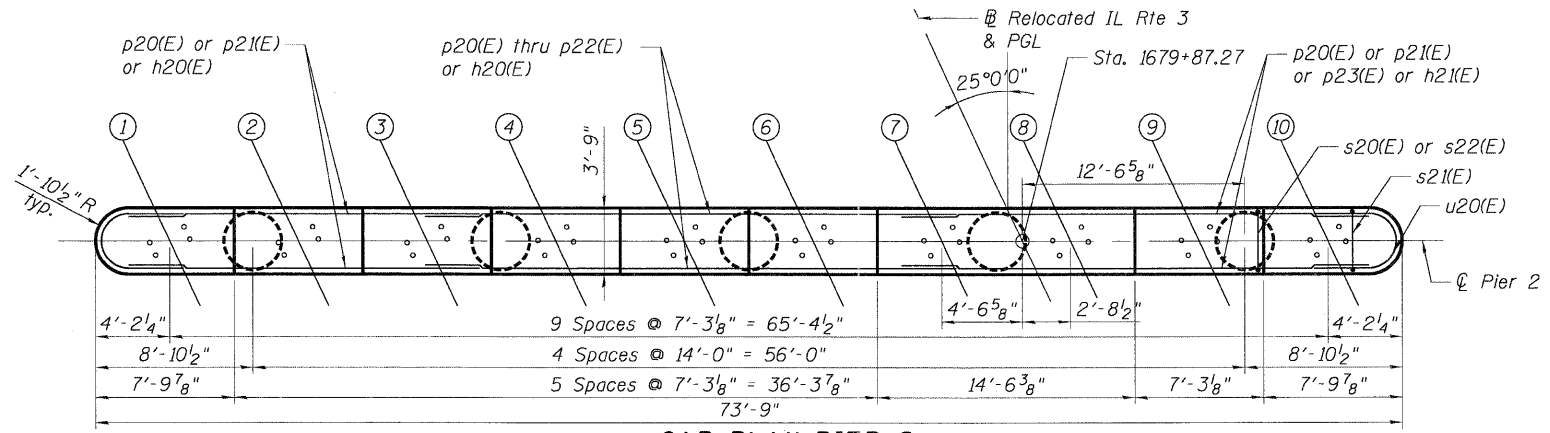
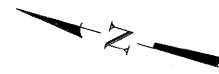
Bar Size	Lap
#5	2'-7"
#6	3'-1"
#10	12'-4"

NOTES:

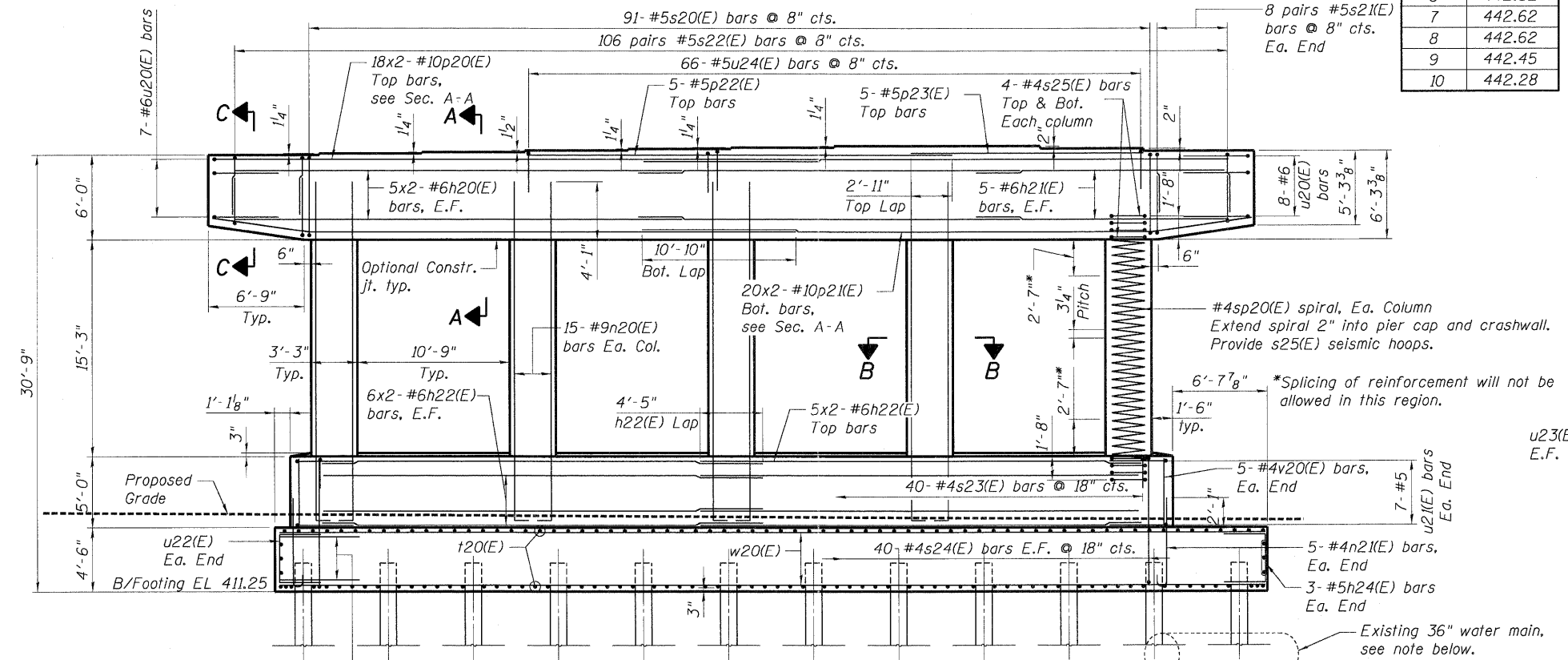
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.
- For details of piles, see sheet SB-45.
- E.F. indicates each face.
- Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.
- Space u12(E) & u13(E) bars to miss piles.
- When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

08/23/2010 10:00:00 AM... TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

Project information block including FILE NAME, USER NAME, DESIGNED, REVISED, STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION, PIER 1 PLAN & ELEVATION, and SHEET NO. 345 of 226.



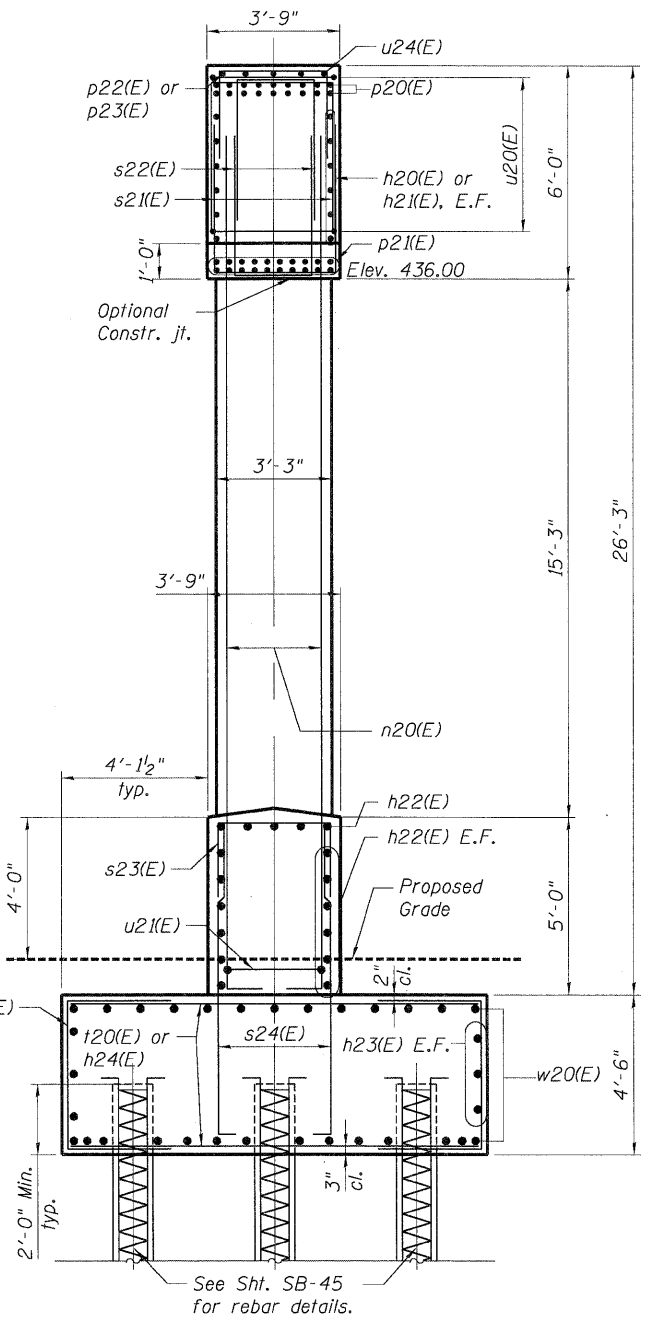
CAP PLAN PIER 2



ELEVATION PIER 2
(Looking North)

BEARING SEAT ELEVATIONS

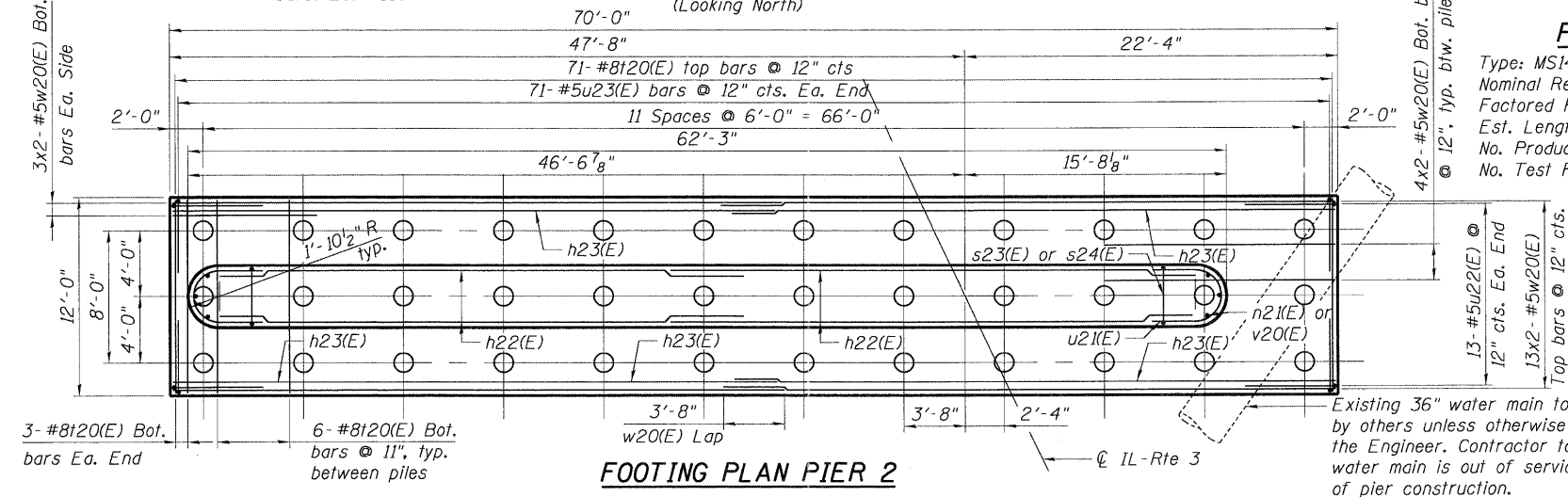
Girder	Elevations
1	442.00
2	442.10
3	442.20
4	442.32
5	442.42
6	442.52
7	442.62
8	442.62
9	442.45
10	442.28



END VIEW

MIN. LAP LENGTH
(Unless noted otherwise)

Bar Size	Lap
#5	2'-7"
#6	3'-1"
#10	12'-4"



FOOTING PLAN PIER 2

PILE DATA

Type: MS14X0.25 Metal Shell Piles
 Nominal Required Bearing: 413 kips/pile
 Factored Resistance Available: 227 kips/pile
 Est. Length: 59 ft
 No. Production Piles: 35
 No. Test Piles: 1

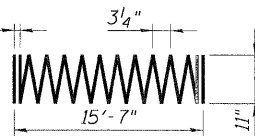
NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. For details of piles, see sheet SB-45.
4. E.F. indicates each face.
5. Bars indicated thus 5x3-#5 etc. indicates 5 lines of bars with 3 lengths per line.
6. Space u22(E) & u23(E) bars to miss piles.
7. When splicing of spiral reinforcement is necessary, the spirals shall be provided with 1/2 extra turns at the ends to be spliced. These additional turns shall either be welded together according to AWS D1.4, or shall both terminate with a 135° standard hook.

Existing 36" water main to be removed by others unless otherwise directed by the Engineer. Contractor to confirm 36" water main is out of service before start of pier construction.

18052925.CDW-10-002.P1.DGN, 18052925.CDW-09-001.BR.DSN, 18052925.CDW-10-002.P1.DGN, 18052925.CDW-10-003.SHT-PL.DGN
 NEWLAND \S-9044\ARK\VALU.LD\TRANS.07\2202\28865.00\AS\PROJECT\CAD\01.DES\IGN\052029\SH-01\082023\01.DGN-10-003-SHT-PL.DGN

Provide 1/2 extra turns
shop welded together per
AWS D1.4 top and bottom.

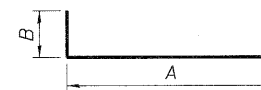


Length = 554'-9"
BAR sp20(E)

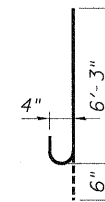
(For information only - length calculated
as continuous bar ignoring splices)

A & B DIMENSIONS

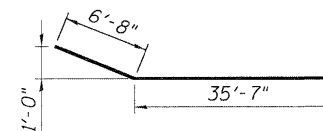
Bar	A	B
n20(E)	24'-4"	1'-7"
s24(E)	8'-11"	8"



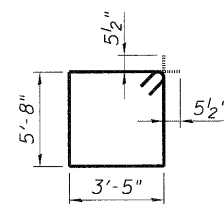
BARS n20(E) & s24(E)



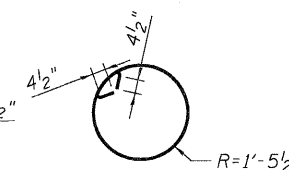
BAR n21(E)



BAR p21(E)



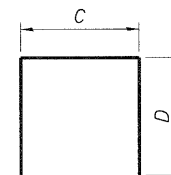
BAR s20(E)



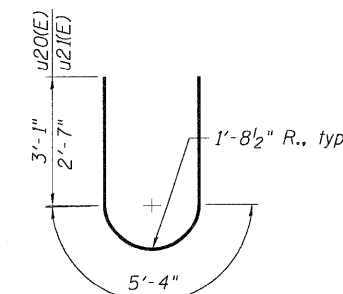
BAR s25(E)

C & D DIMENSIONS

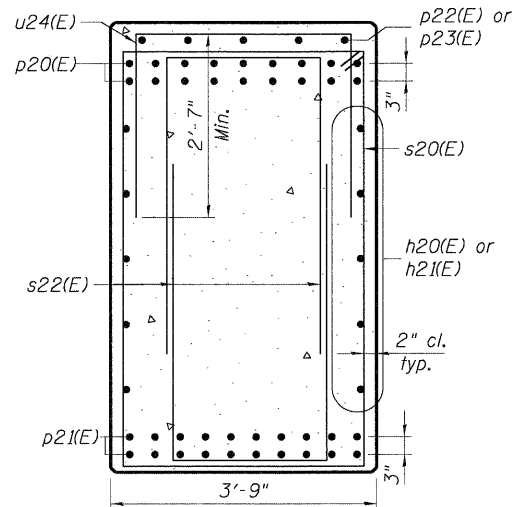
Bar	C	D
s21(E)	3'-5"	4'-2"
s22(E)	2'-2"	4'-2"
s23(E)	3'-5"	2'-1"
u22(E)	3'-11"	2'-11"
u23(E)	4'-1"	2'-11"
u24(E)	3'-1"	2'-0"



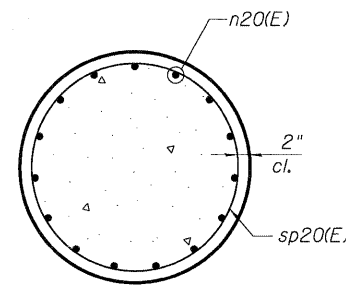
BARS s21(E), s22(E), s23(E), u22(E), u23(E) & u24(E)



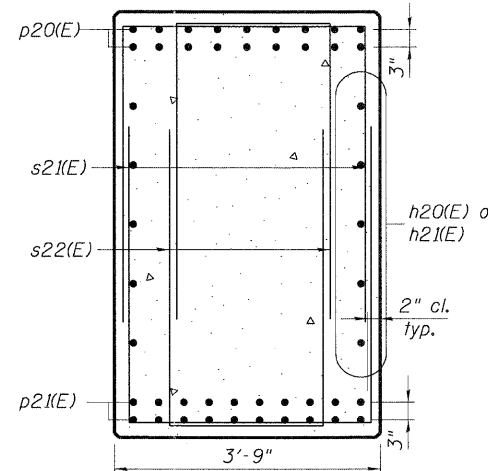
BAR u20(E) & u21(E)



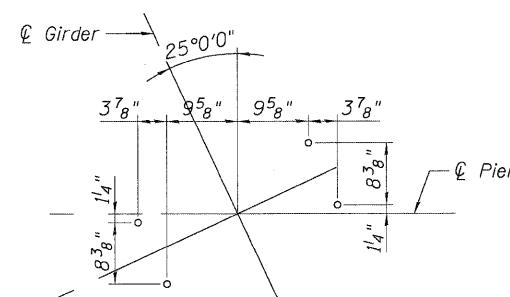
SECTION A-A



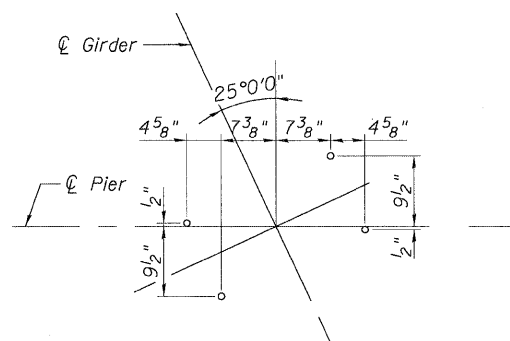
SECTION B-B



SECTION C-C



ANCHOR BOLT LAYOUT
(Girder 1-3)



ANCHOR BOLT LAYOUT
(Girder 4-10)

**PIER 2
BAR LIST**

Bar	No.	Size	Length	Shape
h20(E)	20	#6	30'-0"	—
h21(E)	10	#6	16'-2"	—
h22(E)	34	#6	31'-6"	—
h23(E)	12	#5	36'-2"	—
h24(E)	6	#5	11'-8"	—
n20(E)	75	#9	25'-11"	U
n21(E)	10	#4	6'-9"	U
p20(E)	36	#10	41'-2"	—
p21(E)	40	#10	42'-3"	—
p22(E)	5	#5	30'-0"	—
p23(E)	5	#5	16'-3"	—
s20(E)	91	#5	19'-1"	□
s21(E)	32	#5	11'-9"	□
s22(E)	212	#5	10'-6"	□
s23(E)	40	#4	7'-7"	□
s24(E)	80	#4	9'-7"	□
s25(E)	40	#4	10'-7"	○
sp20(E)	5	#4	15'-7"	—
t20(E)	143	#8	11'-8"	—
u20(E)	15	#6	11'-6"	U
u21(E)	14	#5	10'-6"	U
u22(E)	26	#5	9'-9"	□
u23(E)	142	#5	9'-11"	□
u24(E)	66	#5	7'-1"	□
v20(E)	10	#4	4'-10"	—
w20(E)	54	#5	36'-8"	—

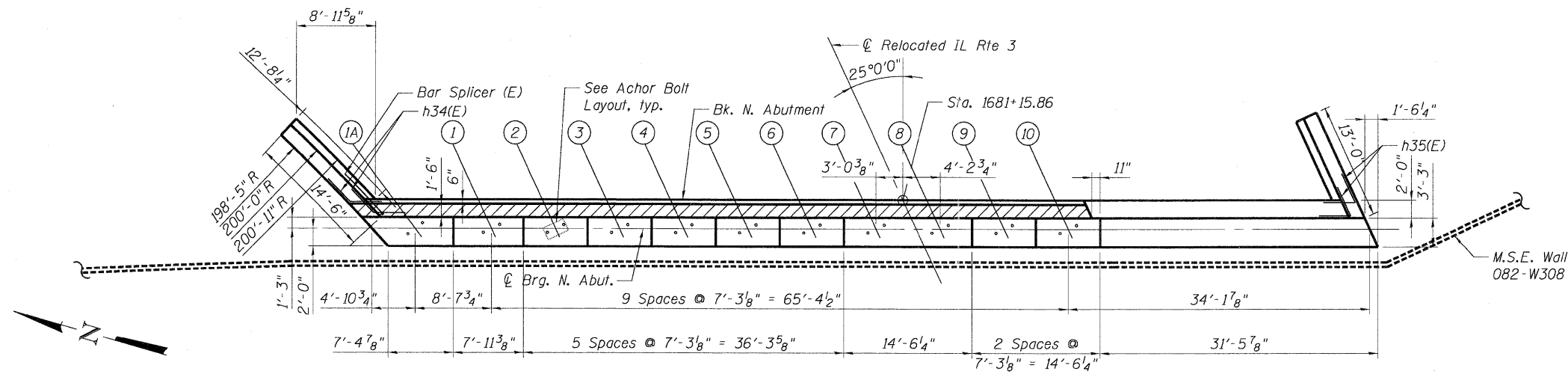
**

** Length is the height of the spiral

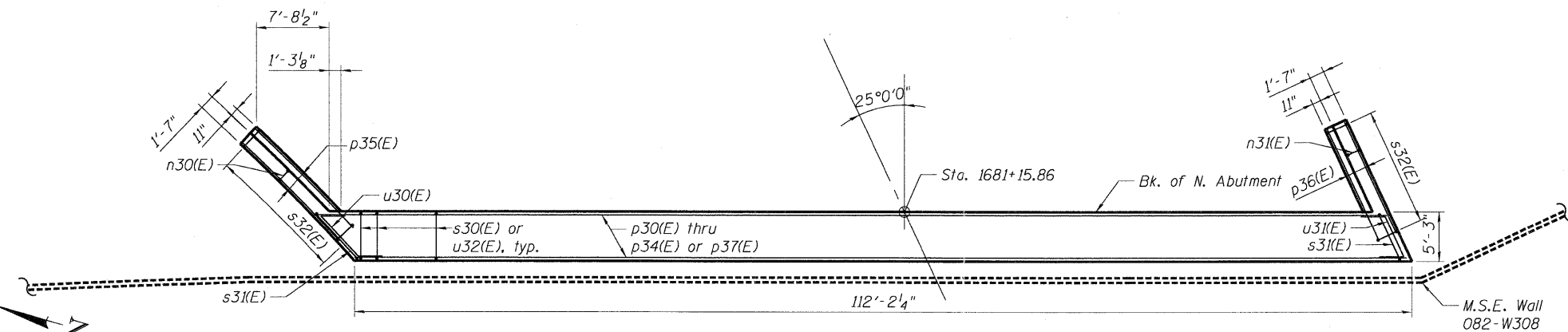
**PIER 2
BILL OF MATERIAL**

Item	Unit	Total
Concrete Structures	Cu. Yd.	271.2
Reinforcement Bars, Epoxy Coated	Pound	40,380
Furnishing Metal Shell Piles 14"X0.250"	Foot	2,065
Driving Piles	Foot	2,065
Test Pile Metal Shells	Each	1
Structure Excavation	Cu. Yd.	245

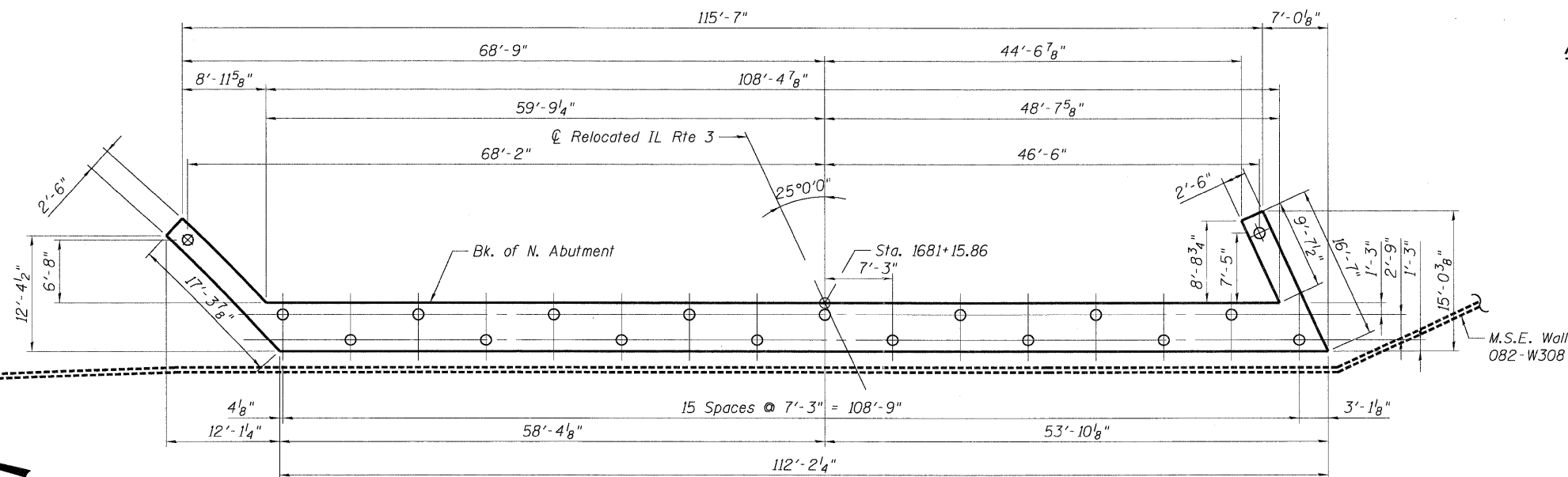
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TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE
 F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 998 82-2-1HVB-1 ST. CLAIR 345 229
 SN 082-0329 CONTRACT NO. 76D05
 SCALE: SHEET NO. SB-37 OF SB-63 STA. 1679+16.65 TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



TOP VIEW



PLAN - NORTH ABUTMENT CAP

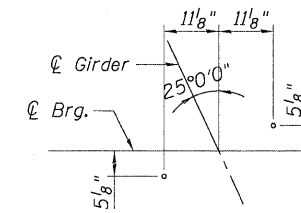


PILE LAYOUT - NORTH ABUTMENT

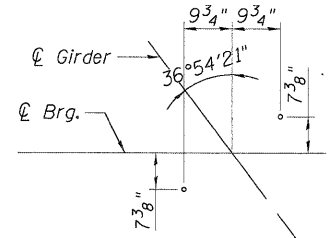
BEARING SEAT ELEVATIONS

Girder	Elevations
1A	441.84
1	442.20
2	442.35
3	442.49
4	442.63
5	442.77
6	442.91
7	443.04
* 8	443.04
9	442.95
10	442.82

*Bearing at Girder 8 shall be installed with 1/2" shim. Adjust 1/2" shim if bearing seat is constructed higher or lower than shown above.



ANCHOR BOLT LAYOUT
(Girder 1-10)



ANCHOR BOLT LAYOUT
(Girder 1A)

PILE DATA

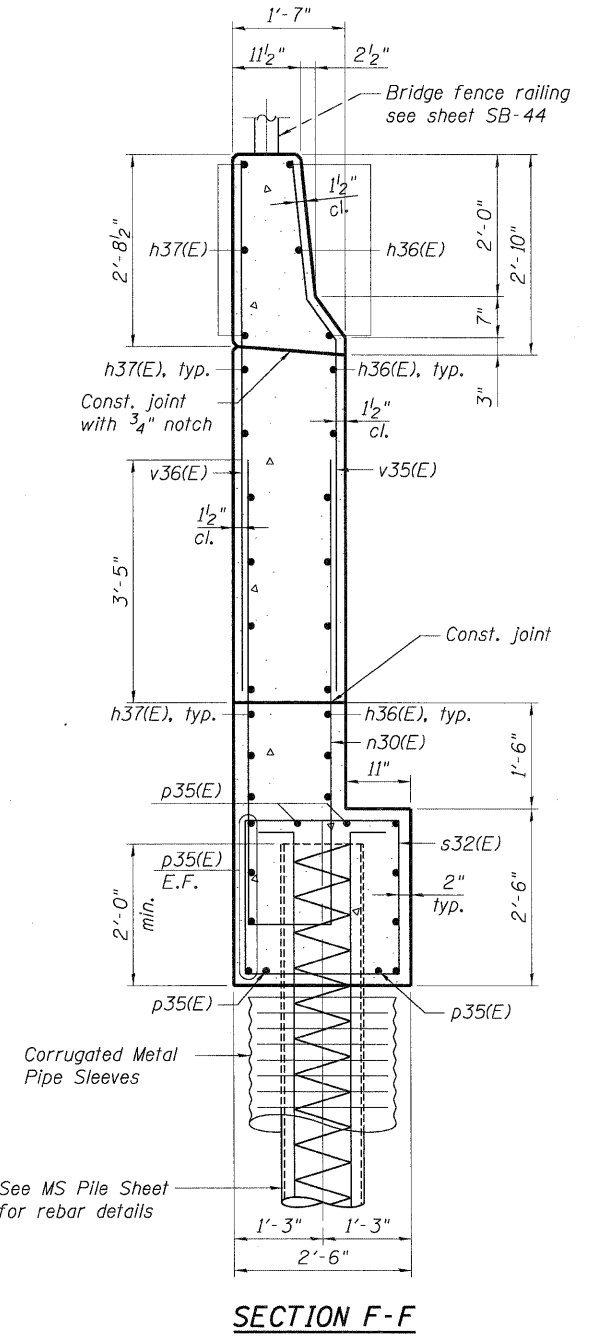
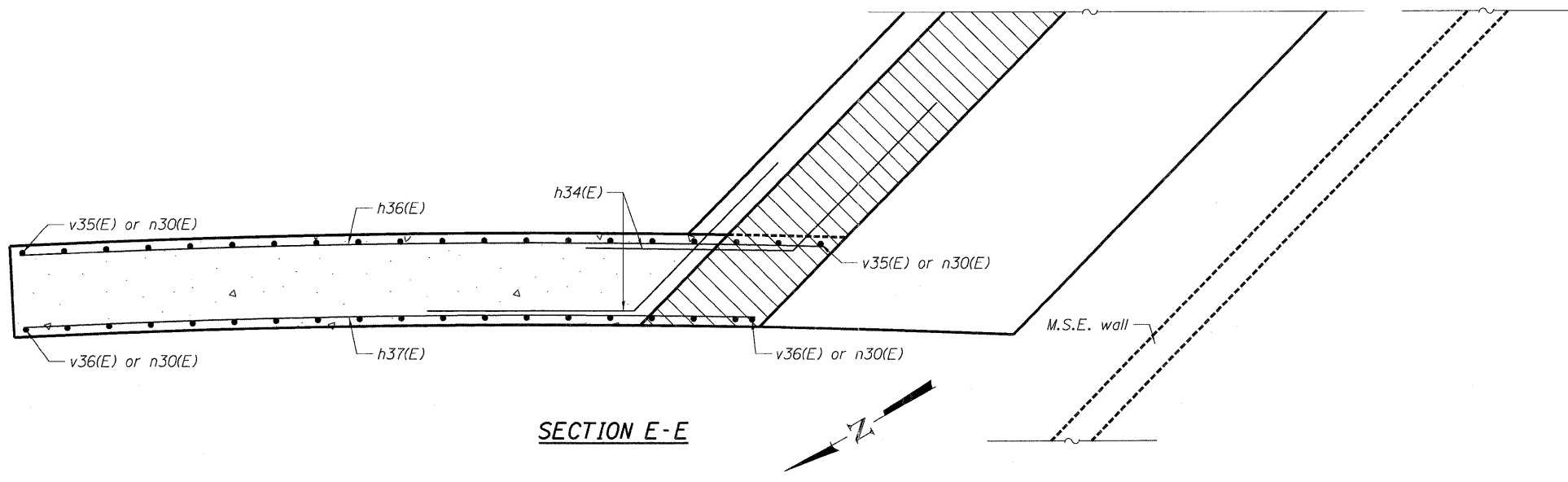
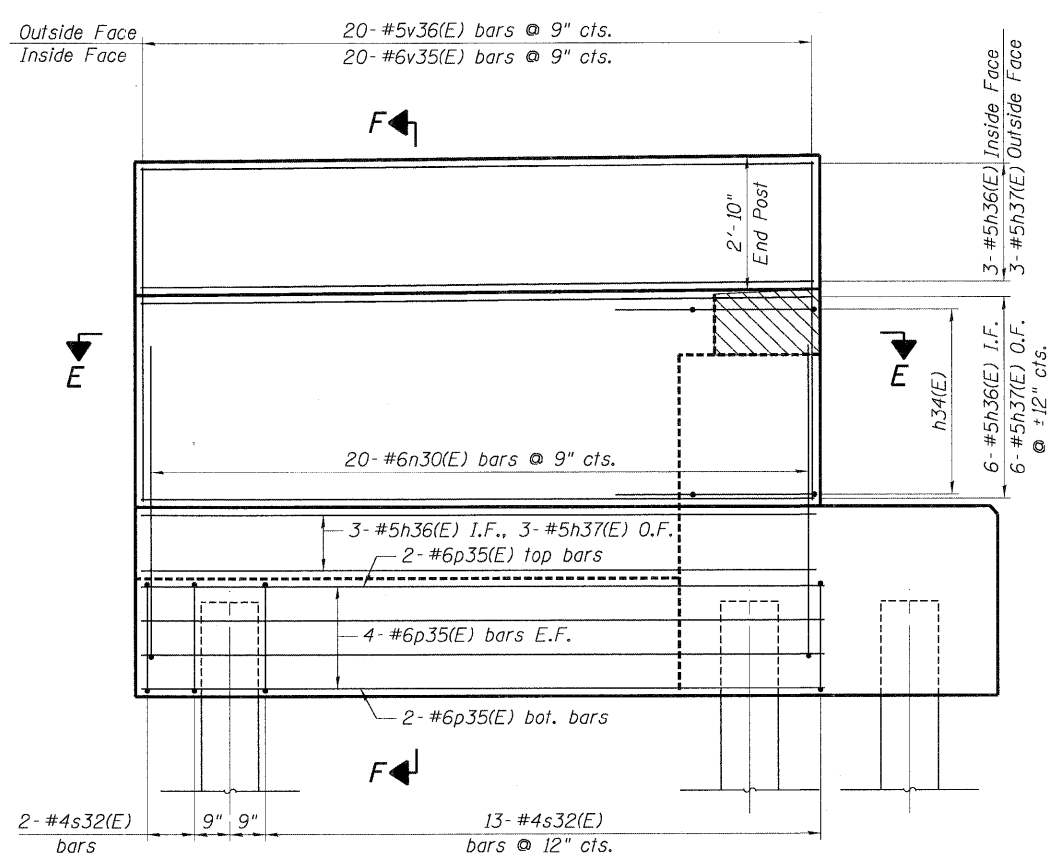
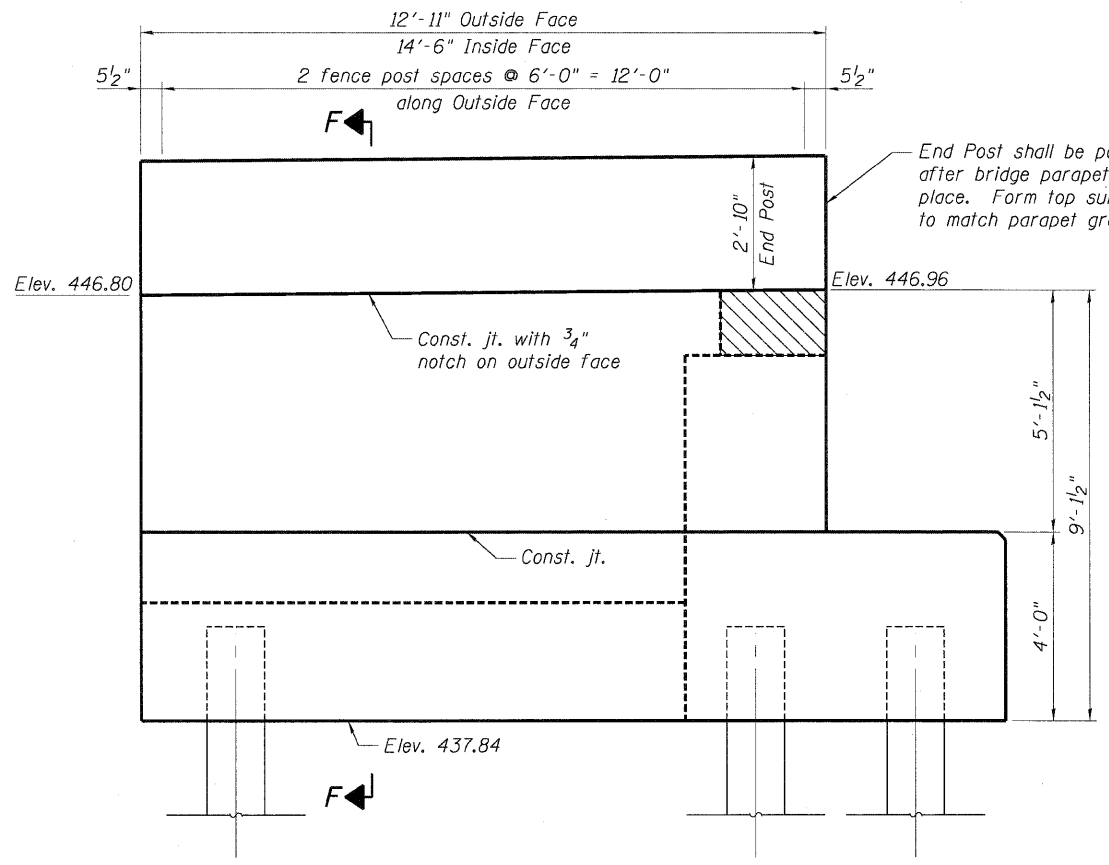
Type: MS14X0.25 Metal Shell Piles
 Nominal Required Bearing: 413 kips/pile
 Factored Resistance Available: 227 kips/pile
 Est. Length: 81 ft
 No. Production Piles: 17
 No. Test Piles: 1

NOTES:

- Hatched area of abutment backwall to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
- Longitudinal h34(E), h36(E), and p35(E) bars shall be sprung into place to be concentric at the spacing noted.
- For details of piles, see Sht. SB-45.
- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.

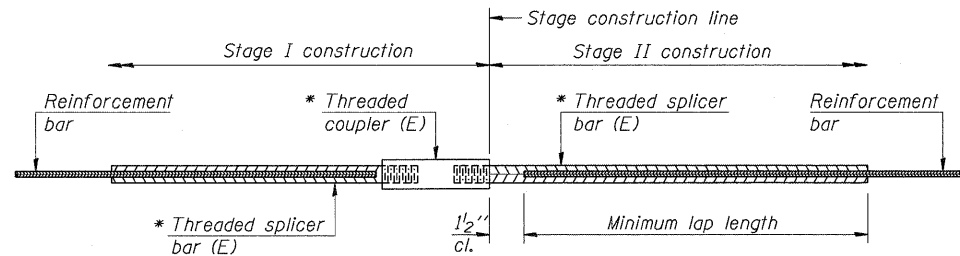
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 USER NAME = *USER*
 DESIGNED - MDJ
 DRAWN - MDJ
 CHECKED - JLR
 DATE - 05/13/11
 REVISED -
 REVISED -
 REVISED -
 REVISED -



NOTES:
1. Space n30(E) bars to miss piles.

<p>TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS</p>	USER NAME = *USER* PLOT SCALE = *SCALE* PLOT DATE = *DATE*	DESIGNED - MDJ DRAWN - MDJ CHECKED - JLR DATE - 05/13/11	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	NORTH ABUTMENT WEST WINGWALL & DETAILS	F.A.P. RTE. 998 SECTION 82-2-1HVB-1 COUNTY ST. CLAIR TOTAL SHEETS 345 SHEET NO. 233
	SCALE:	SHEET NO. SB-41 OF SB-63	STA. 1679+16.65 TO STA.	SN 082-0329 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	CONTRACT NO. 76D05	CONTRACT NO. 76D05



STANDARD BAR SPLICER ASSEMBLY

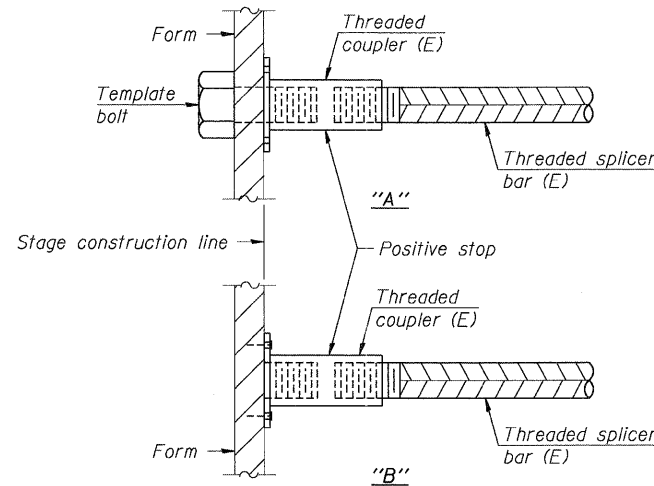
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

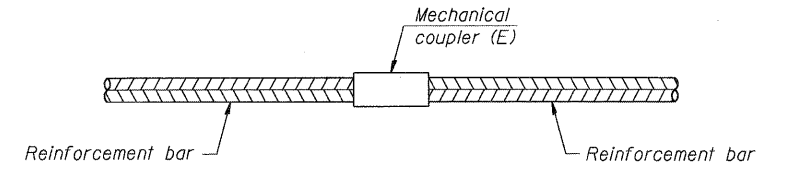
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



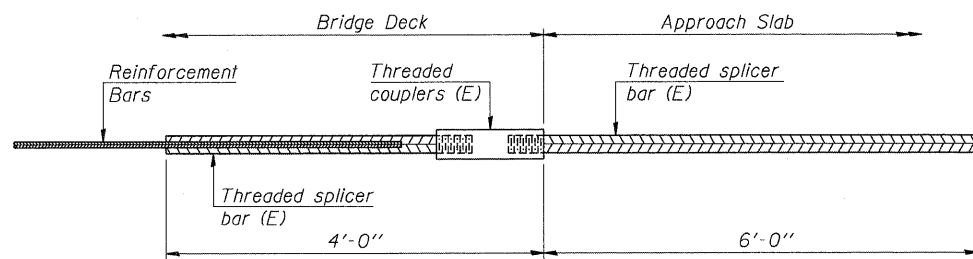
INSTALLATION AND SETTING METHODS

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



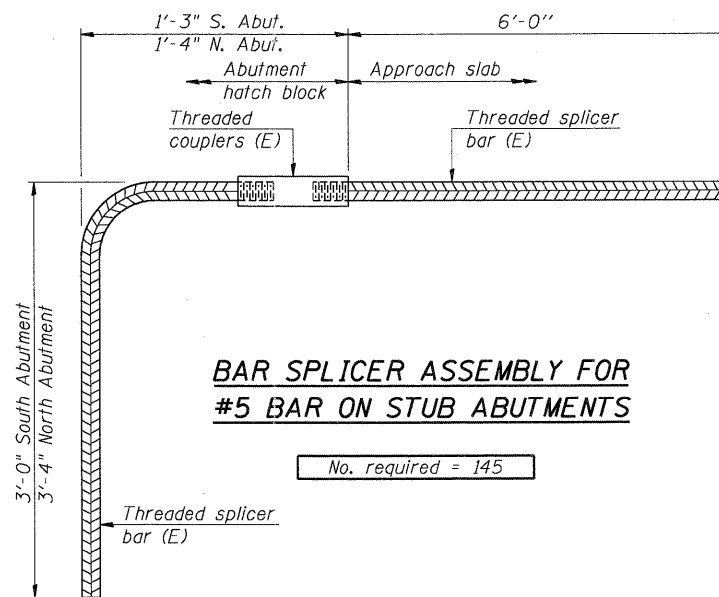
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 145

NOTES:

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

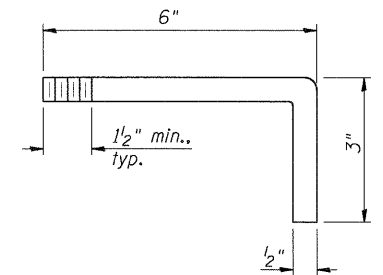
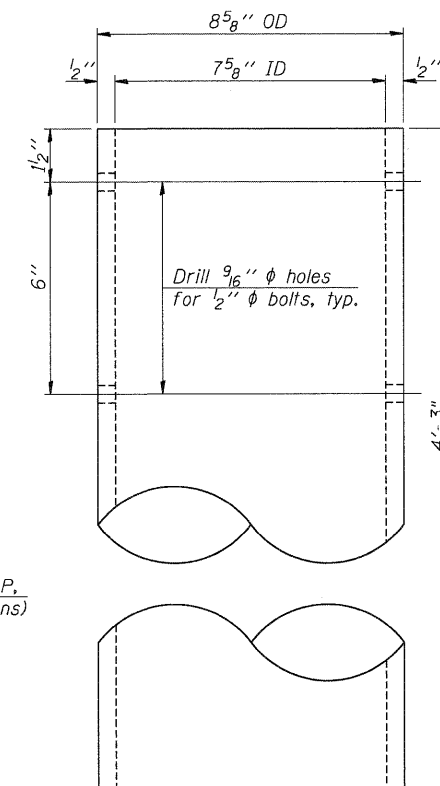
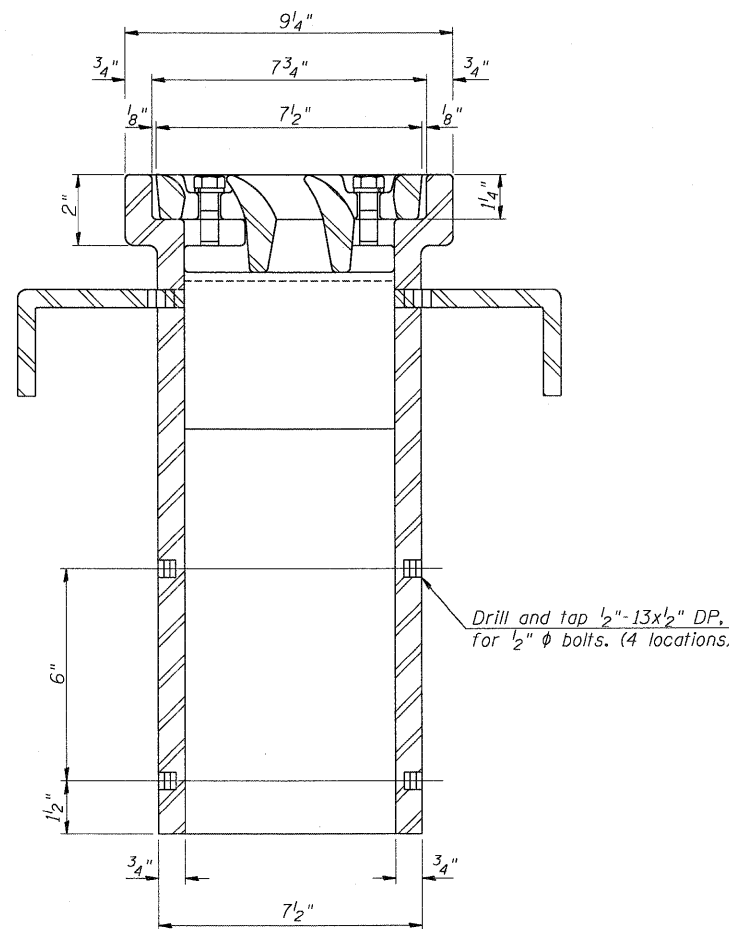
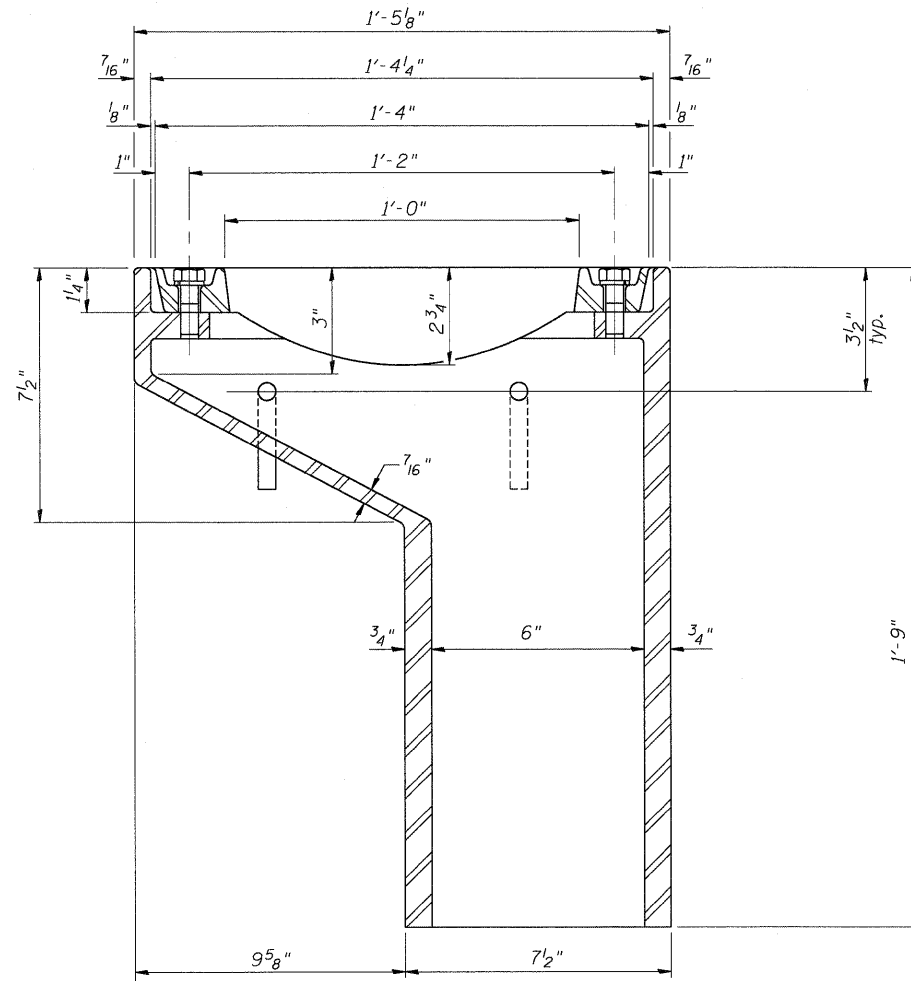
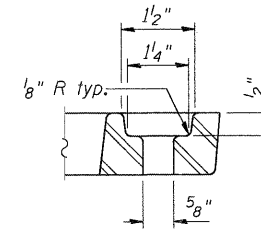
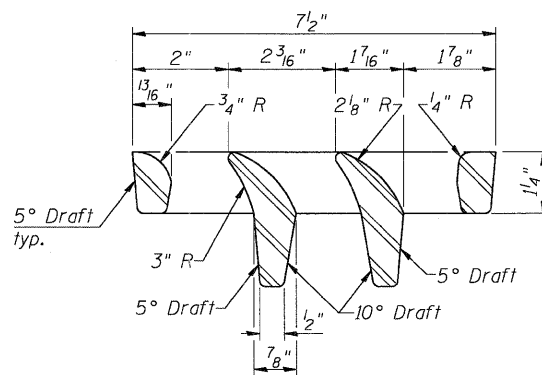
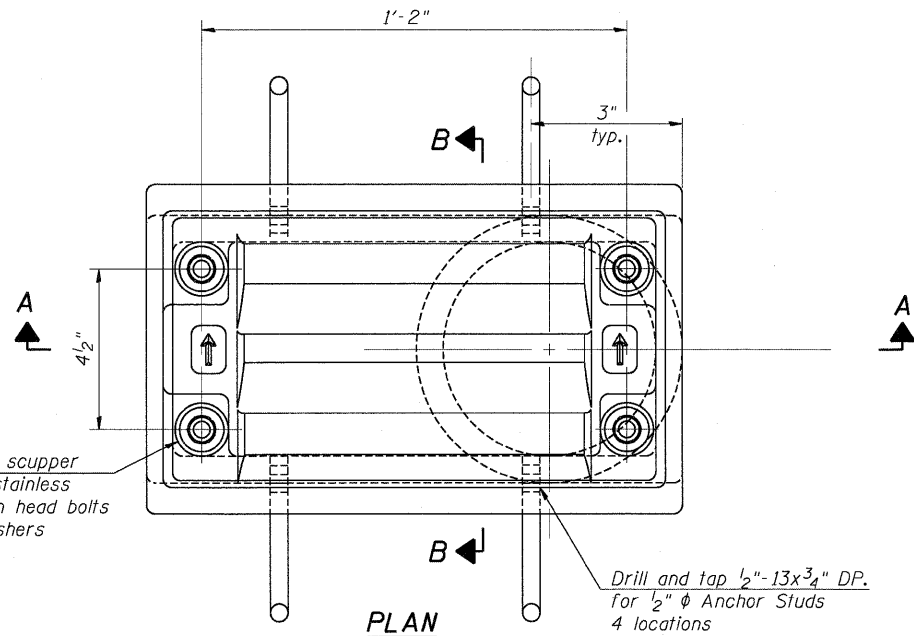
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 TENG & ASSOCIATES, INC.
 CHICAGO, ILLINOIS

BSD-1

7-1-10

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	BAR SPLICER DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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					SCALE:	SHEET NO. SB-42 OF SB-63	STA. 1679+16.65 TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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-11.
 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.



See sheet SB-13 for scupper location relative to parapet.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	7

DS-11

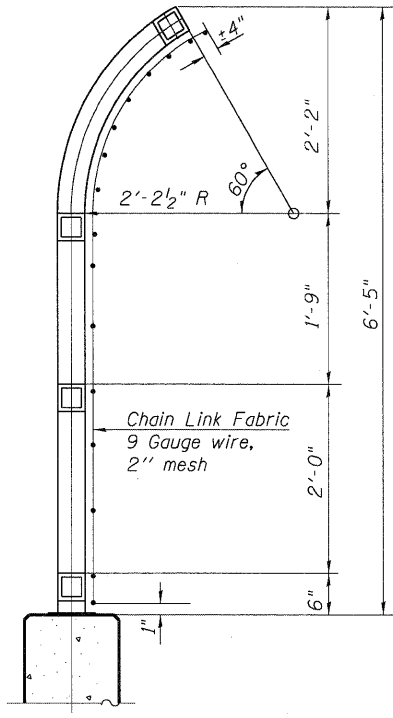
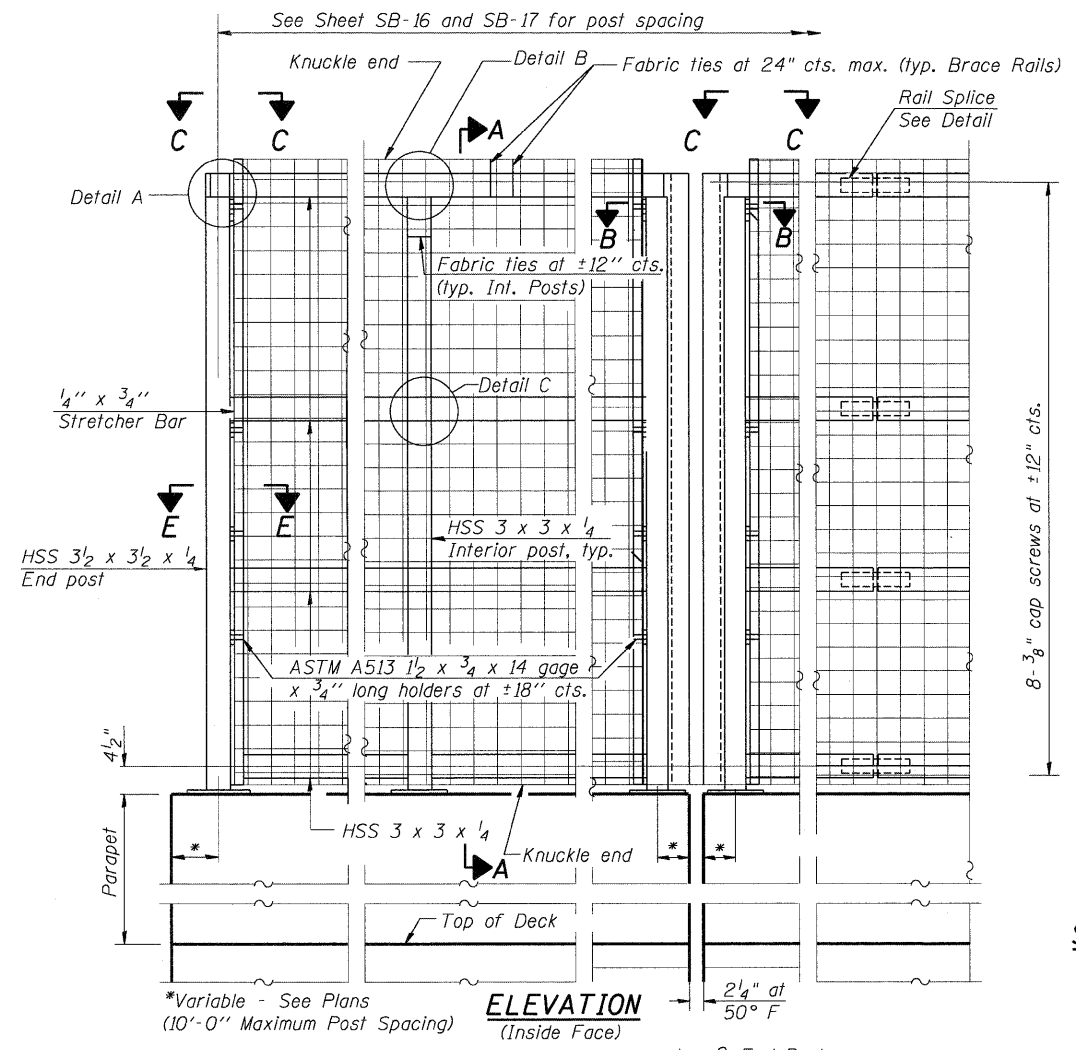
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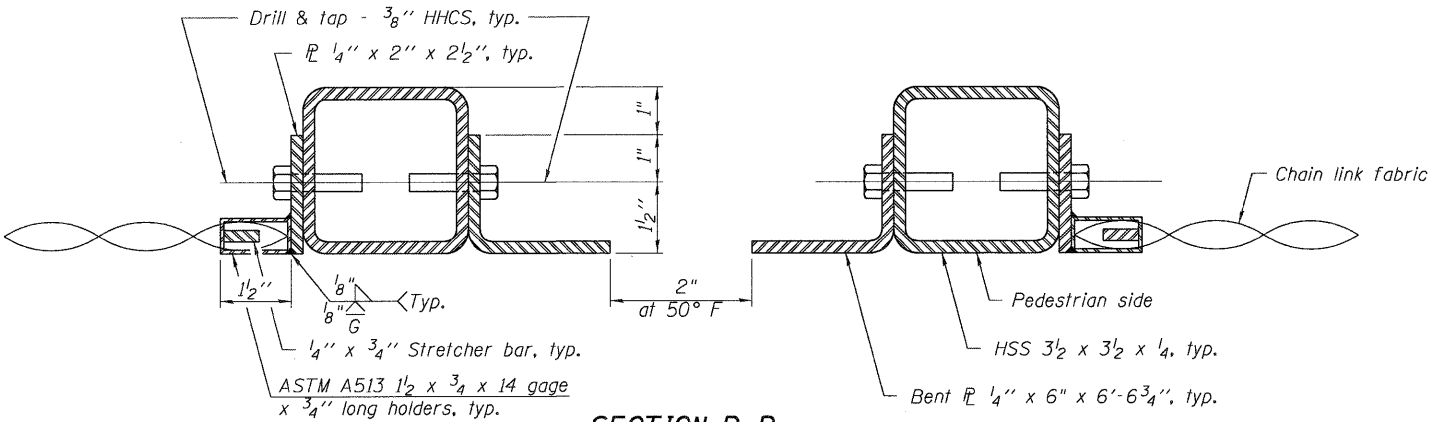
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TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

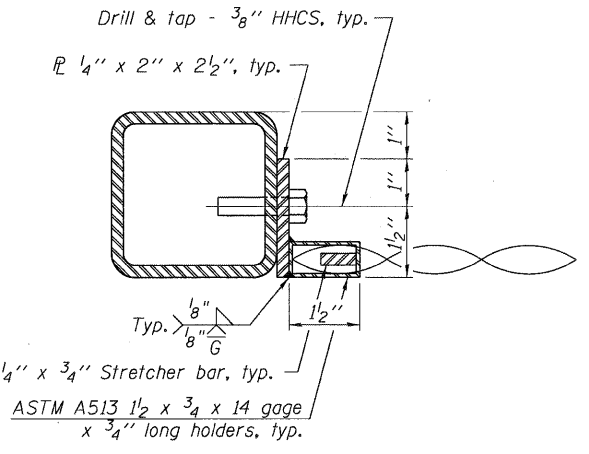
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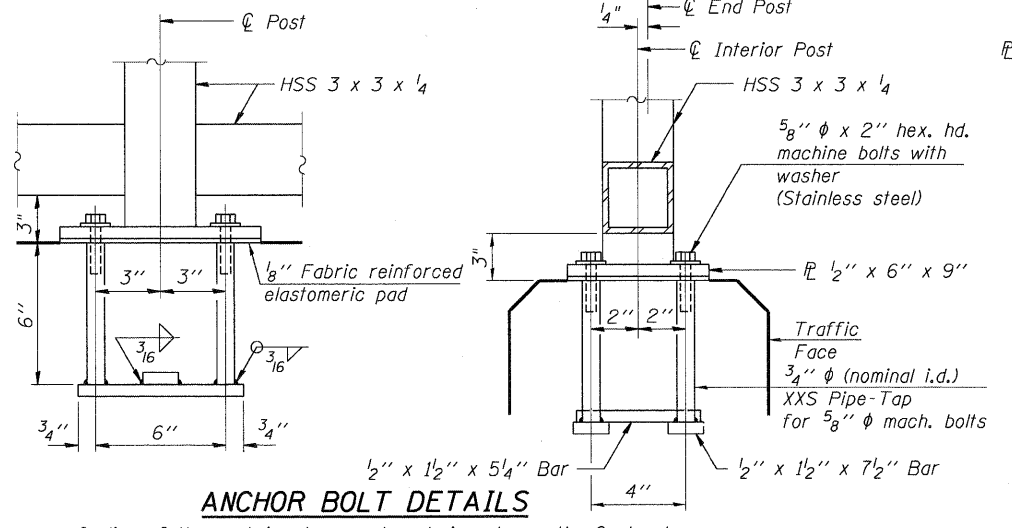
SECTION A-A



SECTION B-B
(At Expansion Joint)

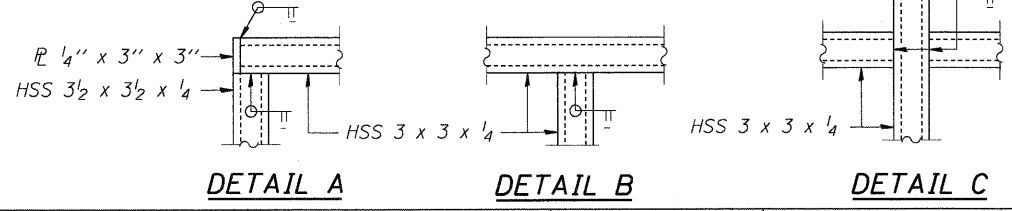


SECTION E-E



ANCHOR BOLT DETAILS

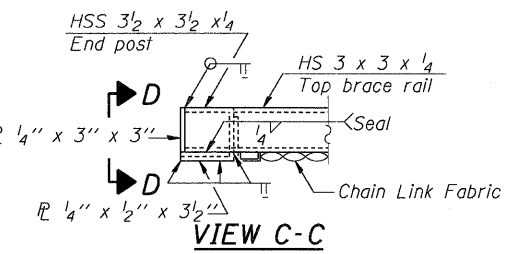
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



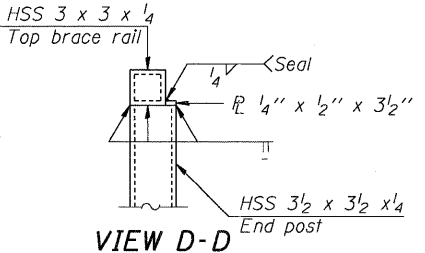
DETAIL A

DETAIL B

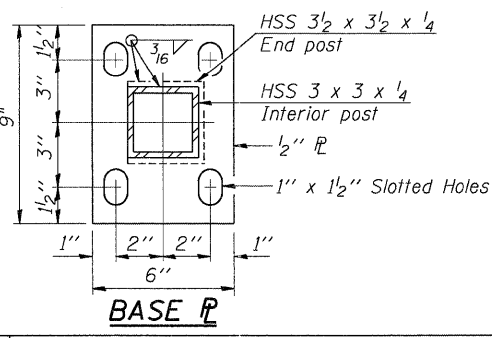
DETAIL C



VIEW C-C



VIEW D-D

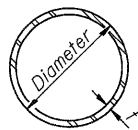


BASE P

NOTE:
All post, railing, splices, anchor devices and plates shall be painted using the DuPont Imron 2.1 HG High Gloss Polyurethane (Includes Mix Quality "VF") or approved equal. The color of the final finish coat shall be Black.

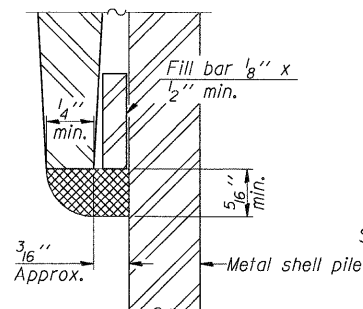
BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	905

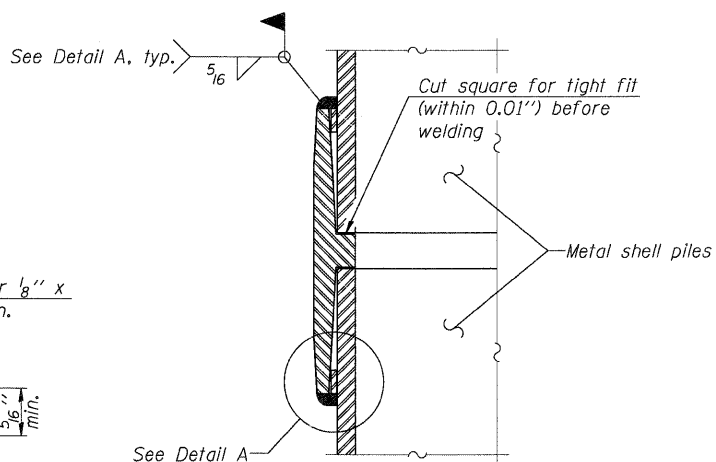


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361

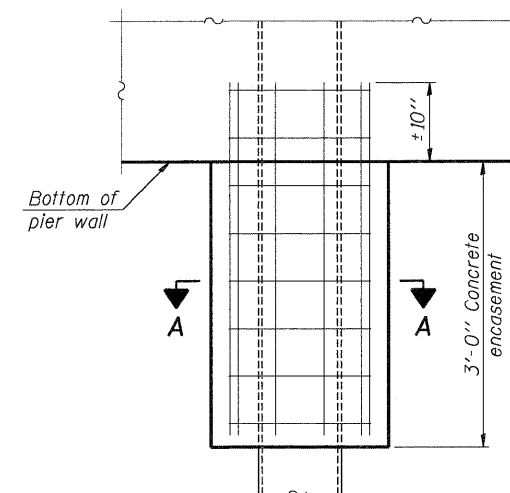


DETAIL A

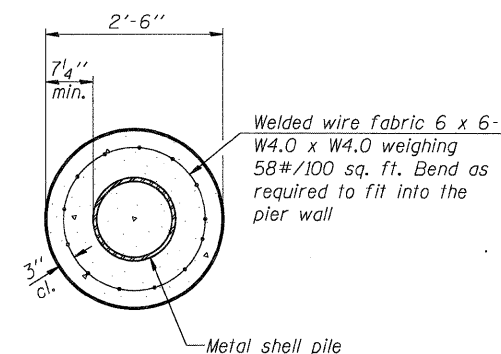


Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



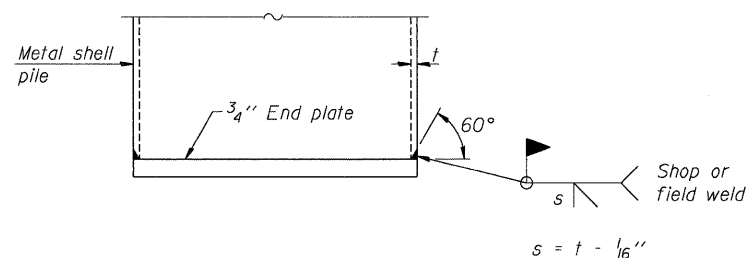
ELEVATION



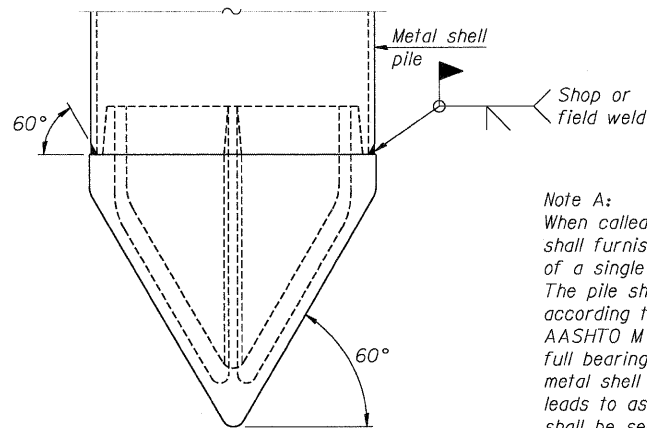
SECTION A-A

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

CONCRETE ENCASEMENT



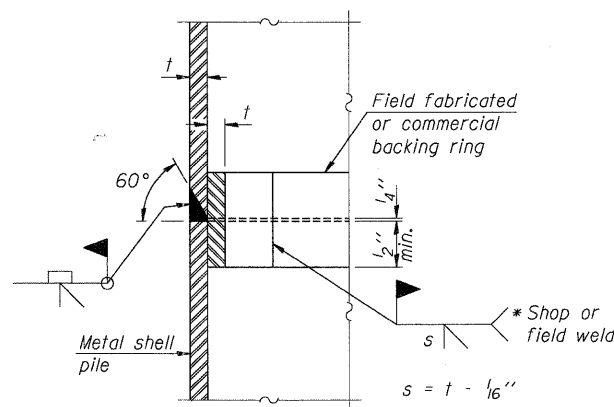
END PLATE ATTACHMENT



Note A:
 When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.

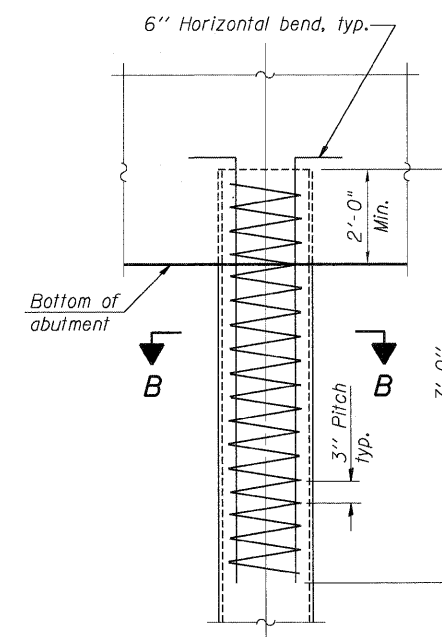
METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

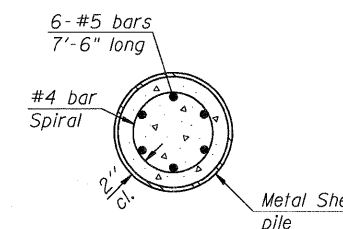


COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION



SECTION B-B

METAL SHELL REINFORCEMENT AT ALL SUBSTRUCTURES

Note:
 The metal shell piles shall be according to ASTM A 252 Grade 3.

\\FS-0644\AM\VALI.TD-TRANS.07\2282\28868-001\STRUCT\CAD\01 DESIGN\08203234\SHEET\08203234-CONV-10-002-SHT-M5.DGN
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 TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
 TENG

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		METAL SHELL PILE DETAILS		F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
08203234-CONV-10-002-SHT-M5.DGN	#USER#	TCG	JLR	IL 3 OVER TRRA & ST. CLAIR AVENUE		SCALE: SHEET NO. SB-45 OF SB-63 STA. 1679+16.65 TO STA.		998	82-2-1HVB-1	ST. CLAIR	345	237
	#SCALE#	05/13/11							SN 082-0329			CONTRACT NO. 76D05
	#DATE#											FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SB-109

SB-109 Run-1

SB-109 Run-2

SOIL BORING LOG		PAGE 4 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/11-12/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic		GSI JOB No. 08201	
STRUCT. NO. 082-W309	Surface Water Elev. n/a	DEPTH (ft)	MOIST (%)
Station: --	Stream Bed Elev. n/a		
BORING NO. SB-109	Groundwater Elevation:		
Station: 24+26	First Encounter n/a		
Offset: 37.5' Right	Upon Completion n/a		
Ground Surface Elev. 415.9	After 24 Hrs. n/a		
<p>Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8% 290.9-125</p> <p>RUN 1</p>			
<p>RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout.</p> <p>Recovery=100.0% R.Q.D.=35.0% 285.9-130</p> <p>RN 2</p>			
<p>End Of Boring @ -130.0' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5" Casing Used 3" Casing Used</p>			

ROCK CORE LOG		PAGE 1 of 2	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/11-12/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair CORING METHOD Rotary Wash		GSI JOB No. 08201	
STRUCT. NO. 082-W309	CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	DEPTH (ft)	RECOVERY (%)
Station: --	Core Diameter 2.0 in		
BORING NO. SB-109	Top of Rock Elev. 300.9		
Station: 24+26	Begin Core Elev. 300.9		
Offset: 37.5' Right			
Ground Surface Elev. 415.9			
<p>RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8%</p>			

ROCK CORE LOG		PAGE 2 of 2	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/11-12/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair CORING METHOD Rotary Wash		GSI JOB No. 08201	
STRUCT. NO. 082-W309	CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	DEPTH (ft)	RECOVERY (%)
Station: --	Core Diameter 2.0 in		
BORING NO. SB-109	Top of Rock Elev. 300.9		
Station: 24+26	Begin Core Elev. 300.9		
Offset: 37.5' Right			
Ground Surface Elev. 415.9			
<p>RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout.</p>			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) S--Shelby Tube Sample VS--Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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 CONN-10-007-SHT-MS.DGN

SB-116

PAGE 1 of 4

SOIL BORING LOG

DATE 7/15-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. **SB-116**
Station: 1677+24
Offset: 72.5' Left
Ground Surface Elev. 409.1

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
AS	-	-	80	SILTY CLAY-gray-soft (A-7) Wet	388.6			
408.1	2			CLAY LOAM with Cinders-black-medium dense (Fill) Wet	386.1			
406.1	5		29					
	1		90	SILTY CLAY-dark gray-soft (A-7) Wet	383.6			65
	2							
	-5	4	2.38					
	2		82	SILTY CLAY-dark brown-stiff to very stiff (A-6) Wet	383.6			
	2							
	3		1.08					28
400.6								
	1			SANDY LOAM-gray-very loose to dense (A-2)				
	0		0.25					30
	-10	1						
	1		89	SILTY CLAY-brown & gray-soft to medium stiff (A-6/A-7) Wet				
	1							
	1		0.75					30
	1		81					
	1							
	-15	1	0.49					19
393.6								
	1			SANDY LOAM-gray-very loose (A-2)				
	1							
	1		NP					21
391.1								
	1		57	SILTY CLAY-gray-soft (A-7) Wet				
	0							
	0		0.25					25

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

SB-116

PAGE 2 of 4

SOIL BORING LOG

DATE 7/15-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. **SB-116**
Station: 1677+24
Offset: 72.5' Left
Ground Surface Elev. 409.1

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				SANDY LOAM-very loose to dense (A-2)	388.6			
	21							
	24							
	28	NP	22					
	22							
	26			SAND-brown & gray-medium dense to dense (A-3)				
	-25	28	NP					20
	14							
	21							
	23	NP	21					
	21							
	23							
	-23	24	NP					20
	-50	24	NP					21
	8							
	8							
	11	NP	25					
	8							
	10							
	-55	10	NP					24
	8							
	7			SANDY LOAM-dark gray-medium dense (A-2) Trace Organics				
	12	NP	22					34
	7							
	8			SAND-gray-medium dense (A-3)				
	8							
	-60	11	NP					21

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

SB-116

PAGE 3 of 4

SOIL BORING LOG

DATE 7/15-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic

STRUCT. NO. 082-0329
Station: --
BORING NO. **SB-116**
Station: 1677+24
Offset: 72.5' Left
Ground Surface Elev. 409.1

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	DESCRIPTION	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
				SAND with Gravel-gray-very dense (A-1-b)	307.6			
	8							
	7							
	5	NP	25					NR
	16			SAND with Gravel-brown-medium dense (A-1-b)				
	8							
	-85	10	NP					15
	11							
	10							
	9	NP	12					15
	11							
	11							
	-90	13	NP					16
	9							
	10							
	10	NP	15					
	10							
	10							
	-95	17	NP					15
	21							
	30							
	50/5	NP	14					
	50/5							
	100	NP	9					

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

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 DESIGN: 0820318-CONN-99-001-80.DSN
 SHEET: 0820318-CONN-99-001-80.DSN
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

SB-116

SB-116 Run-1

SB-116 Run-2

SOIL BORING LOG		PAGE 4 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic	
STRUCT. NO. 082-0329		STATION: --	
BORING NO. SB-116		STATION: 1677+24	
Offset: 72.5' Left		Ground Surface Elev. 409.1	
DEPT H	B L O W S	U C S	M O I S T
(ft)	(blows)	(tsf)	(%)
Surface Water Elev. n/a		D E P T H	
Stream Bed Elev. n/a		B L O W S	
Groundwater Elevation: n/a		U C S	
First Encounter n/a		M O I S T	
Upon Completion n/a		Qu	
After 24 Hrs. 398.6		(ft) (blows) (tsf) (%)	
RUN 2 (-119.5' to -124.5') Mississippi System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout with some intersecting vertical fractures. 1/2" clay partings @ -119.7' & -119.8'. Recovery = 98.5%. R.Q.D. = 35.1% 284.6			
End Of Boring @ -124.5'			
Hollow Stem Augers To -10.0'			
Rotary Drilling To Completion			
Diedrich Automatic Hammer			
10' Of Casing Used			
-125			
-130			
-135			
-140			

ROCK CORE LOG		PAGE 1 of 2	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		CORING METHOD Rotary Wash	
STRUCT. NO. 082-0329		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	
BORING NO. SB-116		STATION: 1677+24	
Offset: 72.5' Left		Ground Surface Elev. 409.1	
DEPT H	C O R E	R E C O V E R Y	R . Q . D
(ft)	(#)	(%)	(%)
Top of Rock Elev. 299.6		C O R E	
Begin Core Elev. 299.6		S T R E N G T H	
		(mic)	
		/ft	
		(tsf)	
RUN 1 (-109.5' to -119.5') Mississippi System, Valmeyeran Series Limestone Light gray & fine grained with horizontal to wavy bedding. Numerous horizontal fractures throughout. 1/4" clay parting @ -113.5'. 299.6			
Color pictures of the cores Yes Cores will be stored for examination for XX			
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)			
-114.5			
-119.5			

ROCK CORE LOG		PAGE 2 of 2	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		CORING METHOD Rotary Wash	
STRUCT. NO. 082-0329		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	
BORING NO. SB-116		STATION: 1677+24	
Offset: 72.5' Left		Ground Surface Elev. 409.1	
DEPT H	C O R E	R E C O V E R Y	R . Q . D
(ft)	(#)	(%)	(%)
Top of Rock Elev. 299.6		C O R E	
Begin Core Elev. 299.6		S T R E N G T H	
		(mic)	
		/ft	
		(tsf)	
RUN 2 (-119.5' to -124.5') Mississippi System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout with some intersecting vertical fractures. 1/2" clay partings @ -119.7' & -119.8'. 289.6			
Color pictures of the cores Yes Cores will be stored for examination for XX			
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)			
-124.5			
-129.5			

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SB-117

SOIL BORING LOG						PAGE <u>1</u> of <u>4</u>			
ROUTE <u>170/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>				DATE <u>6/4-8/2009</u>			
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>				LOGGED BY <u>DR</u>			
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>				GSI JOB No. <u>08201</u>			
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>---</u>		Stream Bed Elev. <u>n/a</u>							
BORING NO. <u>SB-117</u>		Groundwater Elevation:				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>1678+67</u>		First Encounter <u>405.6</u>							
Offset: <u>59.0' Left</u>		Upon Completion <u>n/a</u> ▽							
Ground Surface Elev. <u>416.6</u>		After 24 Hrs. <u>n/a</u> ▽							
		AS	-	27	SILTY LOAM-very loose (A-4) 396.1				
SILTY CLAY-brown & gray-very stiff (A-6) Fill	413.6								
CINDERS & SAND-black-very loose to loose (Fill) Wet									
SILTY CLAY-dark gray-very soft (A-6) Wet									
SILTY LOAM-gray-very loose to loose (A-4)									
SILTY LOAM-dark brown & gray-very loose (A-4)									

SB-117

SOIL BORING LOG						PAGE <u>2</u> of <u>4</u>			
ROUTE <u>170/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>				DATE <u>6/4-8/2009</u>			
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>				LOGGED BY <u>DR</u>			
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>				GSI JOB No. <u>08201</u>			
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>---</u>		Stream Bed Elev. <u>n/a</u>							
BORING NO. <u>SB-117</u>		Groundwater Elevation:				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>1678+67</u>		First Encounter <u>405.6</u>							
Offset: <u>59.0' Left</u>		Upon Completion <u>n/a</u> ▽							
Ground Surface Elev. <u>416.6</u>		After 24 Hrs. <u>n/a</u> ▽							
		3							
SANDY LOAM-dark gray-loose to medium dense (A-2)									
SAND-brown & gray-medium dense to dense (A-3)									
SAND-brown & gray-medium dense to dense (A-3)									
SAND-brown & gray-medium dense to dense (A-3)									

SB-117

SOIL BORING LOG						PAGE <u>3</u> of <u>4</u>			
ROUTE <u>170/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>				DATE <u>6/4-8/2009</u>			
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>				LOGGED BY <u>DR</u>			
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>				GSI JOB No. <u>08201</u>			
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>---</u>		Stream Bed Elev. <u>n/a</u>							
BORING NO. <u>SB-117</u>		Groundwater Elevation:				DEPT TH BUL OW S UC S Qu MO IST S T (%)			
Station: <u>1678+67</u>		First Encounter <u>405.6</u>							
Offset: <u>59.0' Left</u>		Upon Completion <u>n/a</u> ▽							
Ground Surface Elev. <u>416.6</u>		After 24 Hrs. <u>n/a</u> ▽							
		20							
SAND-brown & gray-medium dense to dense (A-3)									
SAND with Gravel-brown-medium dense to very dense (A-1-b)									
SAND-brown & gray-medium dense to dense (A-3)									

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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 266) The Unit Dry Weight (pcf) is noted in *italics* above moist (%)
 NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 266) The Unit Dry Weight (pcf) is noted in *italics* above moist (%)
 NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 266) The Unit Dry Weight (pcf) is noted in *italics* above moist (%)
 NR-No Recovery

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS	SOIL BORING LOGS		F.A.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE#	PLOT SCALE = #SCALE#	DRAWN - TCG	REVISED -	DEPARTMENT OF TRANSPORTATION	5 OF 18		998	82-2-1HVB-1	ST. CLAIR	345	242
		PLOT DATE = #DATE#	CHECKED - JLR	REVISED -	IL 3 OVER				SN 082-0329	CONTRACT NO. 76D05		
		DATE - 05/13/11	REVISED -	TRRA & ST. CLAIR AVENUE	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	SCALE:	SHEET NO. SB-50 OF SB-63		STA. 1679+16.65	TO STA.	

SB-118

SB-118

SB-118

SOIL BORING LOG		PAGE 1 of 4	
ROUTE <u>I70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>	
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>	
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>	
Station: <u>--</u>		Stream Bed Elev. <u>n/a</u>	
BORING NO. <u>SB-118</u>		Groundwater Elevation:	
Station: <u>1680+17</u>		First Encounter <u>n/a</u>	
Offset: <u>38.0' Left</u>		Upon Completion <u>n/a</u> ▾	
Ground Surface Elev. <u>417.2</u>		After 24 Hrs. <u>n/a</u> ▾	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)
	AS	NP	11
CINDERS & SAND-black-loose (Fill)	4		10
	4		11
	5	NP	21
414.2			
TOPSOIL-black	2		7
	2		10
	1		12
411.7			
SANDY LOAM-brown-medium dense (A-2)	2		8
	3		12
	7	NP	10
409.2			
SILTY LOAM-brown-loose (A-4)	3		4
	4		4
	4		6
	10	NP	26
406.7			
SAND-brown & gray-loose to dense (A-3)	13		15
	17		24
	22	NP	10
	8		7
	11		23
	9	NP	23
	3		13
	3		8
	6	NP	18
	7		17
	14		17
	18	NP	19
	20		25
	25	NP	22

SOIL BORING LOG		PAGE 2 of 4	
ROUTE <u>I70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>	
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>	
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>	
Station: <u>--</u>		Stream Bed Elev. <u>n/a</u>	
BORING NO. <u>SB-118</u>		Groundwater Elevation:	
Station: <u>1680+17</u>		First Encounter <u>n/a</u>	
Offset: <u>38.0' Left</u>		Upon Completion <u>n/a</u> ▾	
Ground Surface Elev. <u>417.2</u>		After 24 Hrs. <u>n/a</u> ▾	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)
	10		8
	12		8
	8	NP	25
314.2			
SAND-brown & gray-loose to dense (A-3)	3		16
	6		27
	6	NP	24
311.7			
SAND-gray-medium dense to dense (A-3)	4		20
	4		30
	3	NP	26
	4		21
	6		28
	8	NP	24
306.7			
SANDY LOAM-brown & gray-medium dense (A-2)	5		9
	7		13
	7	NP	23
	7		13
	7	NP	23
303.2			
SAND with Gravel-brown & gray-medium dense to dense (A-1-b)	5		10
	7		15
	8	NP	29
	6		20
	8		15
	12		12
	9	NP	14
	13	NP	17

SOIL BORING LOG		PAGE 3 of 4	
ROUTE <u>I70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>	
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>	
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>	
STRUCT. NO. <u>082-0329</u>		Surface Water Elev. <u>n/a</u>	
Station: <u>--</u>		Stream Bed Elev. <u>n/a</u>	
BORING NO. <u>SB-118</u>		Groundwater Elevation:	
Station: <u>1680+17</u>		First Encounter <u>n/a</u>	
Offset: <u>38.0' Left</u>		Upon Completion <u>n/a</u> ▾	
Ground Surface Elev. <u>417.2</u>		After 24 Hrs. <u>n/a</u> ▾	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)
	8		15
	8		33
	7	NP	14
	5		50
	5		NP
	5		13
314.2			
SAND-brown & gray-medium dense to dense (A-3)	8		15
	8		33
	7	NP	14
	5		50
	5		NP
	5		13
311.7			
SAND-brown & gray-medium dense to dense (A-3)	4		8
	4		12
	3	NP	26
	4		21
	6		28
	8	NP	24
306.7			
SAND & Gravel-brown & gray-very dense (A-1)	9		5
	10		38
	14	NP	17
	9		5
	10		38
	12	NP	19
	9		5
	11		38
	13	NP	17
	10		5
	12		38
	11	NP	17
	10		5
	12		38
	11	NP	17

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D208) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D208) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D208) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

S:\99999\CONNS-99-001-MS.DGN, \9920319-CONNS-99-001-MS.DGN, \9920319-CONNS-99-001-MS.DGN
 S:\11-2011-958207\NEW\PROJECT\CAD\01 DESIGN\9920319\9920319-SHEET\0820329-CONNS-1P-012-SHT-MS.DGN
 S:\11-2011-958207\NEW\PROJECT\CAD\01 DESIGN\9920319\9920319-SHEET\0820329-CONNS-1P-012-SHT-MS.DGN
 S:\11-2011-958207\NEW\PROJECT\CAD\01 DESIGN\9920319\9920319-SHEET\0820329-CONNS-1P-012-SHT-MS.DGN

FILE NAME =		USER NAME = #USER#		DESIGNED -		REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SOIL BORING LOGS 7 OF 18				F.A.P. RTE. 998		SECTION 82-2-1HVB-1		COUNTY ST. CLAIR		TOTAL SHEETS 345		SHEET NO. 244	
PLOT SCALE = #SCALE#		DRAWN - TCG		CHECKED - JLR		REVISED -		IL 3 OVER TRRA & ST. CLAIR AVENUE				SCALE: SHEET NO. SB-52 OF SB-63 STA. 1679+16.65 TO STA.				SN 082-0329		CONTRACT NO. 76D05		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
PLOT DATE = #DATE#		DATE - 05/13/11		REVISED -																					

SB-122

SOIL BORING LOG		PAGE 1 of 4
		DATE 7/13-14/2009
		LOGGED BY DR
		CSI JOB No. 08201
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic		
STRUCT. NO. 082-W309 Station: --	DEPTHS (ft) (ft/6" (tsf) (%)	MOISTURE (%) (tsf) (%)
BORING NO. SB-122 Station: 1677+24 Offset: 22.5' Right Ground Surface Elev. 411.7	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2
CLAY LOAM-dark brown-medium stiff (A-6) Fill, Wet 410.7	AS - 29	
SILTY CLAY-brown-medium stiff to stiff (A-6) Wet 388.2	1 1.5P 24 2 1.75P 29	0 67 0 52
SAND-gray-medium dense (A-3) 403.7	1 2 0.75P 33	2 67 8 NP 25
SILTY LOAM-brown-very loose to loose (A-4) 398.7	1 1 - 34 2 1 1 32	7 25 6 NP 26
SANDY LOAM-gray-medium dense (A-2) 398.7	1 3 32	6 26
SILTY CLAY-brown & gray-medium stiff (A-6) Wet 393.7	1 2 0.58 33 3 82	6 25 5 NP 27
SILTY CLAY-gray-soft (A-7) Wet 393.7	1 1 0.25P 59	6 28

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Blow, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-122

SOIL BORING LOG		PAGE 2 of 4
		DATE 7/13-14/2009
		LOGGED BY DR
		CSI JOB No. 08201
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic		
STRUCT. NO. 082-W309 Station: --	DEPTHS (ft) (ft/6" (tsf) (%)	MOISTURE (%) (tsf) (%)
BORING NO. SB-122 Station: 1677+24 Offset: 22.5' Right Ground Surface Elev. 411.7	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2
SANDY LOAM-gray-medium dense (A-2) 363.7	6 18 6 16 7 NP 25	10 NP 20
SAND-gray-medium dense to dense (A-3) 363.7	7 7 7 4 8 NP 24	10 21 11 21 16 NP 21
SAND-gray-medium dense to dense (A-3) 363.7	8 7 6 6 6 8 8 NP 21	13 22 10 22 11 NP 22
SAND & GRAVEL-gray-dense (A-1) 336.2	13 21 13 16 14 NP 19	16 8 13 NP 8
SAND with Gravel-gray-medium dense (A-1-b) 333.7	6 8 7 7 15 NP 20	8 18 7 18 11 NP 18
COBBLES-gray-medium dense (A-1-a) 313.7	9 22 8 14 9 NP 21	22 2 14 2

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Blow, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-122

SOIL BORING LOG		PAGE 3 of 4
		DATE 7/13-14/2009
		LOGGED BY DR
		CSI JOB No. 08201
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic		
STRUCT. NO. 082-W309 Station: --	DEPTHS (ft) (ft/6" (tsf) (%)	MOISTURE (%) (tsf) (%)
BORING NO. SB-122 Station: 1677+24 Offset: 22.5' Right Ground Surface Elev. 411.7	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. 401.2
COBBLES-gray-medium dense (A-1-a) 331.2	14 18 20 16 22 NP 14	50/57 NP 15
SAND with Gravel-gray-medium dense to dense (A-1-b) 308.7	15 10 17 11 21 NP 13	35 11 40 11 105 NP 11
SAND-gray-medium dense to dense (A-3) 323.7	8 8 8 NP 24 8 NP 24	11 21 10 21 16 NP 21
SAND & GRAVEL-gray-very dense (A-1) 301.7-110	9 13 12 10 15 NP 13	50/47 NP 14
SAND-gray-medium dense to dense (A-3) 338.7	6 6 8 8 7 NP 26	14 26 11 26 22 NP 22
SAND & GRAVEL-gray-dense (A-1) 336.2	13 21 13 16 14 NP 19	16 8 13 NP 8
SAND with Gravel-gray-medium dense (A-1-b) 333.7	6 8 7 7 15 NP 20	8 18 7 18 11 NP 18
COBBLES-gray-medium dense (A-1-a) 313.7	9 22 8 14 9 NP 21	22 2 14 2

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Blow, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

N:\999999-CON-99-001-MS.DGN 08201318-CON-99-001-RELDGN
 5-11-2011 9:55:13
 NEWMAN\08201318-CON-99-001-RELDGN\STRUCT\CAD\01 DESIGN\08201318\08201318-SHEET\08201318-001-10-014-SHT-MS.DGN

SB-122

SOIL BORING LOG									
PAGE 4 of 4					DATE 7/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Dedrich Automatic					STRUCT. NO. 082-W309				
Station: ---					BORING NO. SB-122				
Station: 1677+24					Station: 1677+24				
Offset: 22.5' Right					Offset: 22.5' Right				
Ground Surface Elev. 411.7					Ground Surface Elev. 411.7				
D	B	U	M		D	B	U	M	
E	L	C	O		E	L	C	O	
P	O	S	I		P	O	S	I	
T	W	T	S		T	W	S	S	
H	S	Qu	Qu		H	S	Qu	S	
(ft)	(#)	(%)	(%)		(ft)	(#)	(%)	(%)	
<p>Surface Water Elev. n/a</p> <p>Stream Bed Elev. n/a</p> <p>Groundwater Elevation:</p> <p>First Encounter n/a</p> <p>Upon Completion n/a</p> <p>After 24 Hrs. 401.2</p>									
<p>RUN 2 (-120.0' to -125.0')</p> <p>Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding & some chert replacement. Horizontal fractures @ -120.8', -121.5' & -124.8'.</p> <p>Recovery=100.0%</p> <p>R.Q.D.=100.0%</p> <p>286.7-125</p> <p>End Of Boring @ -125.0'</p> <p>Hollow Stem Augers To -10.0'</p> <p>Rotary Drilling To Completion</p> <p>CME Automatic Hammer</p> <p>10' Casing Used</p>									
<p>-130</p> <p>-135</p> <p>-140</p>									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D1208). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery

SB-122 Run-1

ROCK CORE LOG									
PAGE 1 of 2					DATE 7/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
Station: ---					BORING NO. SB-122				
Station: 1677+24					Station: 1677+24				
Offset: 22.5' Right					Offset: 22.5' Right				
Ground Surface Elev. 411.7					Ground Surface Elev. 411.7				
D	C	R	C	S	D	C	R	C	S
E	O	E	O	T	E	O	E	O	T
P	R	R	R	R	P	R	R	R	R
T	U	U	U	U	T	U	U	U	U
H	N	N	N	N	H	N	N	N	N
(ft)	(#)	(%)	(%)	(min)	(ft)	(#)	(%)	(%)	(min)
<p>CORING BARREL TYPE & SIZE NX Double Swivel-10 ft</p> <p>Core Diameter 2.0 in</p> <p>Top of Rock Elev. 301.7</p> <p>Begin Core Elev. 301.7</p>									
<p>RUN 1 (-110.0' to -120.0')</p> <p>Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding & some chert replacement. Numerous horizontal fractures throughout. 1/2" clay parting @ -110.7'.</p>									
<p>301.7</p> <p>115</p> <p>-120</p>									

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

SB-122 Run-2

ROCK CORE LOG									
PAGE 2 of 2					DATE 7/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
Station: ---					BORING NO. SB-122				
Station: 1677+24					Station: 1677+24				
Offset: 22.5' Right					Offset: 22.5' Right				
Ground Surface Elev. 411.7					Ground Surface Elev. 411.7				
D	C	R	C	S	D	C	R	C	S
E	O	E	O	T	E	O	E	O	T
P	R	R	R	R	P	R	R	R	R
T	U	U	U	U	T	U	U	U	U
H	N	N	N	N	H	N	N	N	N
(ft)	(#)	(%)	(%)	(min)	(ft)	(#)	(%)	(%)	(min)
<p>CORING BARREL TYPE & SIZE NX Double Swivel-10 ft</p> <p>Core Diameter 2.0 in</p> <p>Top of Rock Elev. 301.7</p> <p>Begin Core Elev. 301.7</p>									
<p>RUN 2 (-120.0' to -125.0')</p> <p>Mississippian System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding & some chert replacement. Horizontal fractures @ -120.8', -121.5' & -124.8'.</p>									
<p>291.7</p> <p>2</p> <p>-125</p> <p>-130</p>									

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

A:\999999\CHN\99-081\MS.DGN_0820318\CONN-99-081-80.DGN
 5-11-2011 9:56:16
 N:\S\5-8044\JAN\VAL.D 01\TRANS-07\2222\28668-081\STRUCT\CAD\01\DESIGN\0820329\SHEET\0820329-CONN-10-015-SHT-MS.DGN
 N:\S\5-8044\JAN\VAL.D 01\TRANS-07\2222\28668-081\STRUCT\CAD\01\DESIGN\0820329\SHEET\0820329-CONN-10-015-SHT-MS.DGN

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	SOIL BORING LOGS 10 OF 18	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 247
	PLOT SCALE = \$SCALE\$	DRAWN - TCG	REVISED -			SN 082-0329		CONTRACT NO. 76D05		
PLOT DATE = \$DATE\$	CHECKED - JLR	REVISED -	FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				
DATE - 05/13/11				SCALE:		SHEET NO. SB-55 OF SB-63		STA. 1679+16.65 TO STA.		

SB-124

SOIL BORING LOG																							
PAGE <u>4</u> of <u>4</u>						DATE <u>5/22-27/2009</u>																	
LOGGED BY <u>DR</u>						LOGGED BY <u>DR</u>																	
GSI JOB No. <u>08201</u>						GSI JOB No. <u>08201</u>																	
ROUTE <u>I70/IL3</u>			DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>																				
SECTION <u>82-2-1HVB-1</u>			LOCATION <u>I-70 & Illinois Route 3</u>																				
COUNTY <u>St. Clair</u>			DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>																				
STRUCT. NO. <u>082-0329</u>			Surface Water Elev. <u>n/a</u>			DEPTH (ft)			UCS (tsf)			MOIST (tsf)											
Station: <u>--</u>			Stream Bed Elev. <u>n/a</u>																				
BORING NO. <u>SB-124</u>			Groundwater Elevation: <u>n/a</u>																				
Station: <u>1679+71</u>			First Encounter <u>n/a</u>																				
Offset: <u>46.5' Right</u>			Upon Completion <u>n/a</u>																				
Ground Surface Elev. <u>417.2</u>			After 24 Hrs. <u>396.7</u>																				
Recovery= <u>89.0%</u> R.Q.D.= <u>69.0%</u>			<u>296.7</u>			RUN 1																	
RUN 2 (-120.5' to -127.0) Mississippi System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding & some chert replacement. Horizontal fractures @ -120.8', -121.3', -122.5', -122.9', -123.0', -123.2', -123.6', -124.2', -124.6', -125.1', -125.4', -125.6', -125.9', -126.1', -126.4', -126.6' & -126.7'.												-125			-145								
Recovery= <u>98.9%</u>			R.Q.D.= <u>55.4%</u>			<u>290.2</u>																	
End Of Boring @ -127.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4" Casing Used												-130			-150								

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italic above moist (%)
 NR-No Recovery

SB-124 Run-1

ROCK CORE LOG														
PAGE <u>1</u> of <u>2</u>						DATE <u>5/22-27/2009</u>								
LOGGED BY <u>DR</u>						LOGGED BY <u>DR</u>								
GSI JOB No. <u>08201</u>						GSI JOB No. <u>08201</u>								
ROUTE <u>I70/IL3</u>			DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>											
SECTION <u>82-2-1HVB-1</u>			LOCATION <u>I-70 & Illinois Route 3</u>											
COUNTY <u>St. Clair</u>			CORING METHOD <u>Rotary Wash</u>											
STRUCT. NO. <u>082-0329</u>			CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>			DEPTH (ft)			CORRECTION (%)			RECOVERY (%)		
Station: <u>--</u>			Core Diameter <u>2.0 in</u>											
BORING NO. <u>SB-124</u>			Top of Rock Elev. <u>301.2</u>											
Station: <u>1679+71</u>			Begin Core Elev. <u>301.2</u>											
Offset: <u>46.5' Right</u>														
Ground Surface Elev. <u>417.2</u>														

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-124 Run-2

ROCK CORE LOG														
PAGE <u>2</u> of <u>2</u>						DATE <u>5/22-27/2009</u>								
LOGGED BY <u>DR</u>						LOGGED BY <u>DR</u>								
GSI JOB No. <u>08201</u>						GSI JOB No. <u>08201</u>								
ROUTE <u>I70/IL3</u>			DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>											
SECTION <u>82-2-1HVB-1</u>			LOCATION <u>I-70 & Illinois Route 3</u>											
COUNTY <u>St. Clair</u>			CORING METHOD <u>Rotary Wash</u>											
STRUCT. NO. <u>082-0329</u>			CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>			DEPTH (ft)			CORRECTION (%)			RECOVERY (%)		
Station: <u>--</u>			Core Diameter <u>2.0 in</u>											
BORING NO. <u>SB-124</u>			Top of Rock Elev. <u>301.2</u>											
Station: <u>1679+71</u>			Begin Core Elev. <u>301.2</u>											
Offset: <u>46.5' Right</u>														
Ground Surface Elev. <u>417.2</u>														

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

N:\9820199\CONV.PP.001\MS.DGN_19820329.CONV.PP.001\BO.DGN
 5-11-2011 9:58:39
 N:\S-0044\VAH\VAULT.D-TFRMS.07\2202-20865-001\STRUCT\CAD\01 DESIGN\0820329\ SHEET\0820329.CONV.10-019-SHT.MS.DGN
 NEMMANN

FILE NAME #	USER NAME #	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	SOIL BORING LOGS 14 OF 18	F.A.P RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 251	
FILE #	PLOT SCALE #	DRAWN - TCG	REVISED -			SN 082-0329 CONTRACT NO. 76D05					
	PLOT DATE #	CHECKED - JLR	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE - 05/13/11	REVISED -			SCALE: SHEET NO. SB-59 OF SB-63 STA. 1679+16.65 TO STA.					



SB-125

SB-125 Run-1&2

SB-125 Run-3&4

SOIL BORING LOG PAGE 4 of 4
 DATE 5/5/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-0329
 Station: ---

BORING NO. SB-125
 Station: 1680+85
 Offset: 46.5' Right

DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
Surface Water Elev.							
Stream Bed Elev.							
Groundwater Elevation:							
First Encounter							
Upon Completion							
After 24 Hrs.							
Recovery=100.0% R.Q.D.=90.0% 296.7							
RUN 1 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -121.3', -121.8' & -122.5'. Recovery=95.0% R.Q.D.=81.7% 293.7							
RUN 2 (-123.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8', -125.5', -125.6', -125.7', -125.9', -126.0', -126.1', -126.8' & -126.9'. Recovery=97.5% R.Q.D.=62.5% 289.7							
RUN 3 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=25.0% 286.7							
RUN 4 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=25.0% 286.7							
End Of Boring @ -130.5' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4" Casing Used							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-She by Tube Sample VS-Vane Shear Test
 The SPI (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
 NR-No Recovery

ROCK CORE LOG PAGE 1 of 2
 DATE 5/5/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
 Station: ---

BORING NO. SB-125
 Station: 1680+85
 Offset: 46.5' Right

DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (mir)	STRENGTH (tsf)
Surface Water Elev.					
Stream Bed Elev.					
Groundwater Elevation:					
First Encounter					
Upon Completion					
After 24 Hrs.					
Recovery=100.0% R.Q.D.=90.0% 301.7					
RUN 1 (-115.5' to -120.5') (-115.5' to -115.8') Cobbles (-115.8' to -120.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -116.4', -116.7', -117.2', -117.7', -118.1', -119.6' & -119.7'. 1/2" clay parting @ -120.5'. Recovery=100.0% R.Q.D.=81.7% 301.4					
RUN 2 (-120.5' to -123.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -121.3', -121.8' & -122.5'. Recovery=100.0% R.Q.D.=81.7% 296.7					

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

ROCK CORE LOG PAGE 2 of 2
 DATE 5/5/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-0329
 Station: ---

BORING NO. SB-125
 Station: 1680+85
 Offset: 46.5' Right

DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (mir)	STRENGTH (tsf)
Surface Water Elev.					
Stream Bed Elev.					
Groundwater Elevation:					
First Encounter					
Upon Completion					
After 24 Hrs.					
Recovery=100.0% R.Q.D.=90.0% 293.7					
RUN 3 (-123.5' to -127.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -124.8', -125.5', -125.6', -125.7', -125.9', -126.0', -126.1', -126.8' & -126.9'. Recovery=100.0% R.Q.D.=25.0% 289.7					
RUN 4 (-127.5' to -130.5') Mississippian System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=25.0% 286.7					

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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 5-11-2011 9:56:36
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

SB-129

SB-129

SB-129

SOIL BORING LOG		PAGE 1 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/7-8/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic		GSI JOB No. 08201	
STRUCT. NO. 082-0329	Station: ---	Surface Water Elev. <u>n/a</u>	DEPTH (ft)
		Stream Bed Elev. <u>n/a</u>	BLOW COUNTS
BORING NO. SB-129	Station: 1681+48	Groundwater Elevation:	U C S
	Offset: 80.5' Left	First Encounter <u>n/a</u>	M O I S T
	Ground Surface Elev. 416.8	Upon Completion <u>n/a</u>	T H S Qu T
		After 24 Hrs. <u>n/a</u>	(ft) (/6") (tsf) (%)
SANDY LOAM with Cinders-black (Fill) 415.8	AS NP 12	SANDY LOAM-brown & gray-very loose to loose (A-2)	3 1
			2 2 NP 30
SILTY CLAY-dark brown, gray & black-soft to stiff (A-7) Wet	2 1.25P 25	393.8	2 NP 30
			0 79
			1 5
			-5 1 0.43 40
			-25 9 NP 26
			411.3
			2 8
			3 7
			3 NP 26
			8 NP 26
SILT-brown & gray-loose (A-4)	3 NP 25	SAND-brown & gray-medium dense to dense (A-3)	5
			7
			-10 ST NP 20
			-30 15 NP 29
			3 17
			3 22
			3 NP 29
			2 16
			2 19
			-15 2 NP 29
			-35 24 NP 22
			2 12
			2 15
			2 NP 34
			398.8
			7
SANDY LOAM-brown & gray-very loose to loose (A-2)	2 NP 27		6
			-20 3 NP 27
			-40 8 NP 25

SOIL BORING LOG		PAGE 2 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/7-8/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic		GSI JOB No. 08201	
STRUCT. NO. 082-0329	Station: ---	Surface Water Elev. <u>n/a</u>	DEPTH (ft)
		Stream Bed Elev. <u>n/a</u>	BLOW COUNTS
BORING NO. SB-129	Station: 1681+48	Groundwater Elevation:	U C S
	Offset: 80.5' Left	First Encounter <u>n/a</u>	M O I S T
	Ground Surface Elev. 416.8	Upon Completion <u>n/a</u>	T H S Qu T
		After 24 Hrs. <u>n/a</u>	(ft) (/6") (tsf) (%)
SAND-medium dense to dense (A-3) 376.3	4	SANDY LOAM-medium dense (A-2) 356.3	6
	89		6
SILTY CLAY LOAM-brown & gray-soft (A-4/A-6) Wet	3 0.3B 31		11 NP 26
373.8			7 11
			8 13
		SAND-gray-medium dense to dense (A-3)	9 15
			-65 12 NP 21
			-45 10 NP 28
			6 6
			6 13
SAND-brown & gray-medium dense (A-3)	8 NP 26		17 NP 23
			8 NP 26
			5 11
			4 12
			-50 8 NP 25
			-70 13 NP 22
			6 13
			8 14
			10 NP 29
			9 NP 23
			7 8
		Trace organics from -73.5' to -75.0'.	11
			-75 14 NP 26
			-95 13 NP 17
			361.3
			7 9
			6 12
SANDY LOAM-gray-medium dense (A-2)	10 NP 27		13 NP 21
			8 NP 15
			338.8
			9 10
			5 10
			-60 9 NP 27
			-80 10 NP 17

SOIL BORING LOG		PAGE 3 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/7-8/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic		GSI JOB No. 08201	
STRUCT. NO. 082-0329	Station: ---	Surface Water Elev. <u>n/a</u>	DEPTH (ft)
		Stream Bed Elev. <u>n/a</u>	BLOW COUNTS
BORING NO. SB-129	Station: 1681+48	Groundwater Elevation:	U C S
	Offset: 80.5' Left	First Encounter <u>n/a</u>	M O I S T
	Ground Surface Elev. 416.8	Upon Completion <u>n/a</u>	T H S Qu T
		After 24 Hrs. <u>n/a</u>	(ft) (/6") (tsf) (%)
			316.3
			9 14
SAND with Gravel-brown & gray-medium dense (A-1-b)	9 NP 14		16 16
			22 NP 13
			25 25
			44 44
			-105 34 NP 12
			331.3
			6 50/5"
			13 NP 15
			16 NP 15
			12 50/4"
			9 9
SAND-brown & gray-medium dense (A-3)	-90 12 NP 14		-110 NP 11
			9 20
			30 30
			10 NP 13
			50/5" NP 39
			8 28
			12 50/6"
			-95 13 NP 17
			-115 NP 27
			300.8
		Drillers Observation: Apparent Bedrock 300.3	
		RUN 1 (-116.5' to -126.5')	
		Mississippian System, Valmeyron Series Limestone	
		Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -117.1', -117.5', -118.3', -119.5', -119.7', -120.4', -120.7', -121.5', -121.7'	RUN 1

999999 CONN-99-091-MS.DCN... TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetration... ST-Shealy Tube Sample VS-Vane Shear Test

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetration... ST-Shealy Tube Sample VS-Vane Shear Test

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetration... ST-Shealy Tube Sample VS-Vane Shear Test

FILE NAME =	USER NAME = USER	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	SOIL BORING LOGS 17 OF 18	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 254	
FILE#	PLOT SCALE = SCALE	DRAWN - TCG	REVISED -			SCALE:	SHEET NO. SB-62 OF SB-63	STA. 1679+16.65	TO STA.	CONTRACT NO. 76D05	
TENC & ASSOCIATES, INC.	PLOT DATE = DATE	CHECKED - JLR	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				
		DATE - 05/13/11	REVISED -								

SB-129

SB-129 Run-1

SB-129 Run-2

SOIL BORING LOG							
DEPT				BLOW S			
UCS		MOIST		UCS		MOIST	
ROUTE 170/IL3 DESCRIPTION 1-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08 SECTION 82-2-1HVB-1 LOCATION 1-70 & Illinois Route 3 COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic STRUCT. NO. 082-0329 Station: -- BORING NO. SB-129 Station: 1681+48 Offset: 80.5' Left Ground Surface Elev. 416.8							
Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter n/a Upon Completion n/a After 24 Hrs. n/a							
RUN 1 (-122.1' to -126.4') Recovery=100.0% R.Q.D.=89.5%							
RUN 2 (-126.5' to -131.5') Mississippi System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=22.0%							
End Of Boring @ -131.5' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4" Casing Used							

ROCK CORE LOG							
DEPT				BLOW S			
UCS		MOIST		UCS		MOIST	
ROUTE 170/IL3 DESCRIPTION 1-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08 SECTION 82-2-1HVB-1 LOCATION 1-70 & Illinois Route 3 COUNTY St. Clair CORING METHOD Rotary Wash STRUCT. NO. 082-0329 Station: -- BORING NO. SB-129 Station: 1681+48 Offset: 80.5' Left Ground Surface Elev. 416.8							
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft Core Diameter 2.0 in Top of Rock Elev. 300.8 Begin Core Elev. 300.3							
RUN 1 (-116.5' to -126.5') Mississippi System, Valmeyeran Series Limestone Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -117.1', -117.5', -118.3', -119.5', -119.7', -120.4', -120.7', -121.5', -122.1', -122.8', -123.0', -124.1', -125.2', -125.8', -126.3' & -126.4'.							

ROCK CORE LOG							
DEPT				BLOW S			
UCS		MOIST		UCS		MOIST	
ROUTE 170/IL3 DESCRIPTION 1-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08 SECTION 82-2-1HVB-1 LOCATION 1-70 & Illinois Route 3 COUNTY St. Clair CORING METHOD Rotary Wash STRUCT. NO. 082-0329 Station: -- BORING NO. SB-129 Station: 1681+48 Offset: 80.5' Left Ground Surface Elev. 416.8							
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft Core Diameter 2.0 in Top of Rock Elev. 300.8 Begin Core Elev. 300.3							
RUN 1 (-126.5' to -131.5') Mississippi System, Valmeyeran Series Limestone Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout.							

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

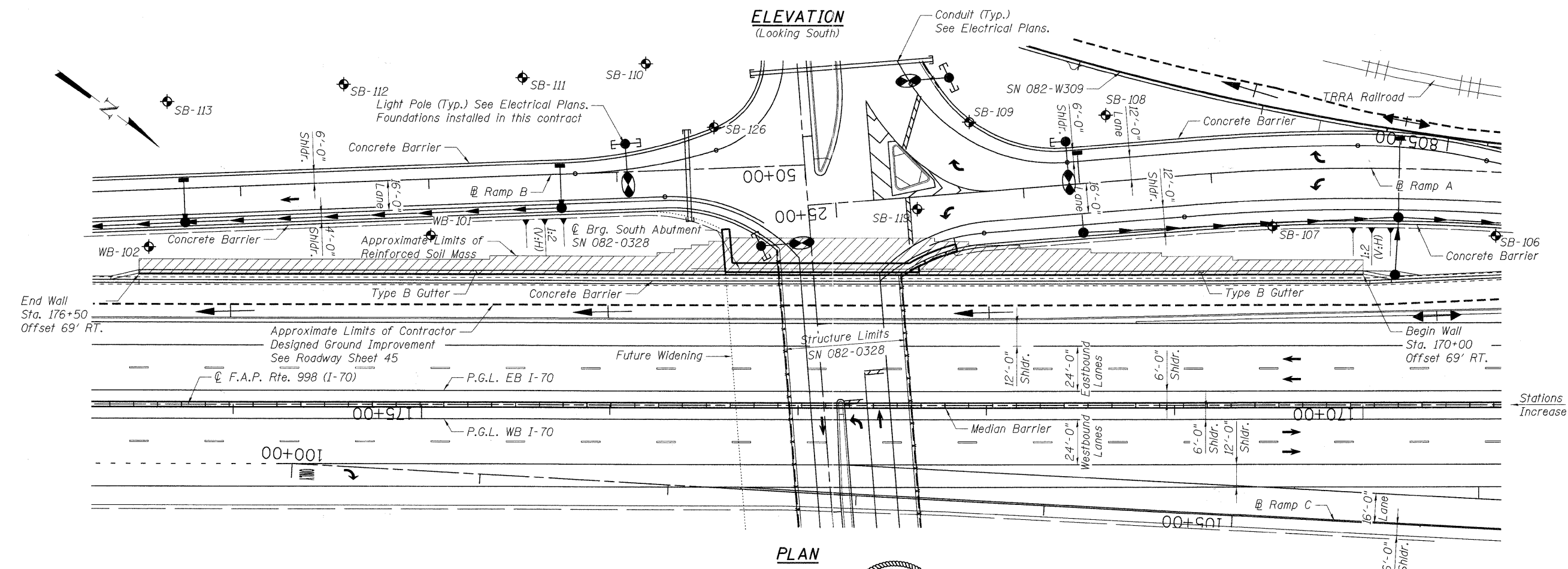
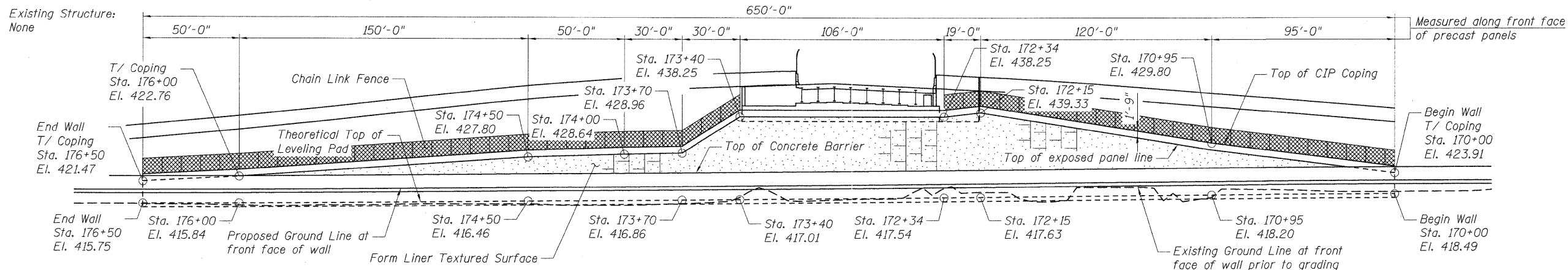
Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

1999-99-CON-99-001-MS.DCN 0820318 CON-99-001-80.DCN
 5-11-2011 9:58:42 NEWMANN W:\FS-8044\MAIN\VAULT_10-TRMS-07-2202-20868-001\STRUCT\CAD\01 DESIGN\0820329\DRILLING\0820329-CON-10-023-SIT-MS.DCN

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION IL 3 OVER TRRA & ST. CLAIR AVENUE	SOIL BORING LOGS 18 OF 18 SCALE: SHEET NO. SB-63 OF SB-63 STA. 1679+16.65 TO STA.			F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 255
	#FILEL#	PLOT SCALE = #SCALE#	DRAWN - TCG	REVISED -					SN 082-0329	CONTRACT NO. 76D05			
	PLOT DATE = #DATE#	DATE - 05/13/11	CHECKED - JLR	REVISED -					FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Bench Mark:
 Monument No. 8: Aluminum disk set in the south end of a headwall to a box culvert under Illinois Route 3, 0.7 miles south of Canal Street, 0.1 miles south of Industrial Drive and north of single railroad track. El. 401.95



ELEVATION
 (Looking South)

PLAN

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS
 $f'_c = 4,500$ psi (Precast Panels)



BYRON T. DANLEY

EXPIRES: 11/30/12
 DATE: 6/27/11

LEGEND

- Soil Boring Location
- Reinforced Soil Mass

NOTE:

Stations and offsets are measured from the ϕ Relocated I-70 to the front face of the MSE wall panels.

GENERAL PLAN
 RELOCATED IL RTE 3 OVER I-70
 F.A.P. RTE. 14 SEC. 82-2-IHVB-1
 ST. CLAIR COUNTY
 STA. 170+00.00 TO STA. 176+50.00
 STRUCTURE NO. 082-W308

FILE NAME = #FILEL#	USER NAME = #USER#	DESIGNED - TCG	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	GENERAL PLAN & ELEVATION		F.A.P. RTE. 998	SECTION 82-2-IHVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 256
	PLOT SCALE = #SCALE#	CHECKED - JLR	REVISED -		SCALE:	SHEET NO. RA-1 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	SN 082-W308		CONTRACT NO. T6D05	
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT						
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS											

SEISMIC DATA*

Soil Site Class = D

Return Period, Tr [yrs]	1000
Design Spectral Accel. at 1.0 sec, SD1 [g]	0.20
Design Spectral Accel. at 0.2 sec, SDS [g]	0.39
Importance Category	Essential
Seismic Performance Zone	2

* Seismic Data based on site-specific analysis.

INDEX OF SHEETS

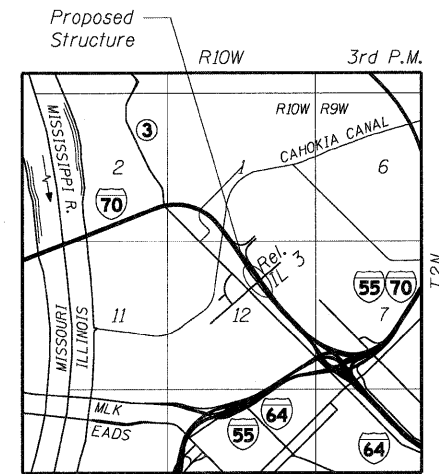
- RA-1 General Plan & Elevation
- RA-2 General Data
- RA-3 Details
- RA-4 Coping Details, 1 of 2
- RA-5 Coping Details, 2 of 2
- RA-6 to RA-25 Soil Boring Logs, 1 to 20

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Structures	Cu Yd	27.8
Form Liner Textured Surface	Sq Ft	8,561.0
Reinforcement Bars, Epoxy Coated	Pound	2,850
Chain Link Fence, 4' Attached to Structure	Foot	544
Mechanically Stabilized Earth Retaining Wall	Sq Ft	8,561

GENERAL NOTES

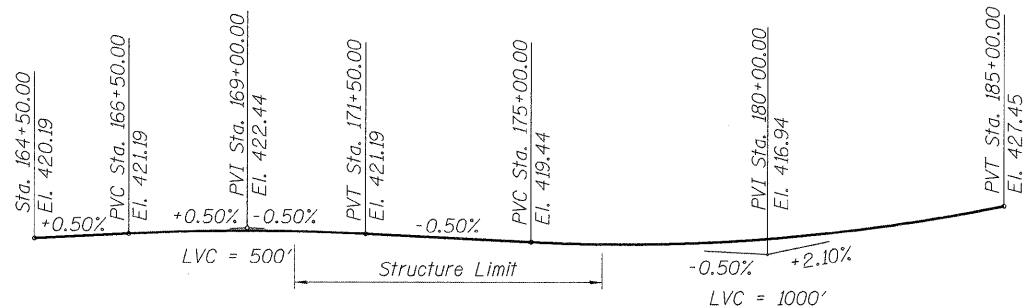
1. Contractor Designed Ground Improvement (Performance Specification) - The Contractor will determine the appropriate ground improvement technology and required vertical and horizontal limits of improvement to meet the performance criteria. Ground Improvement will be completed prior to placing the embankment and constructing the leveling pad for the MSE wall.
2. For Anchorage Slab details, see Sheets 122 thru 135.
3. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Light pole foundations and buried conduit shown on Sht. RA-1 to be installed in this contract. Light poles to be installed by others. See electrical plans.



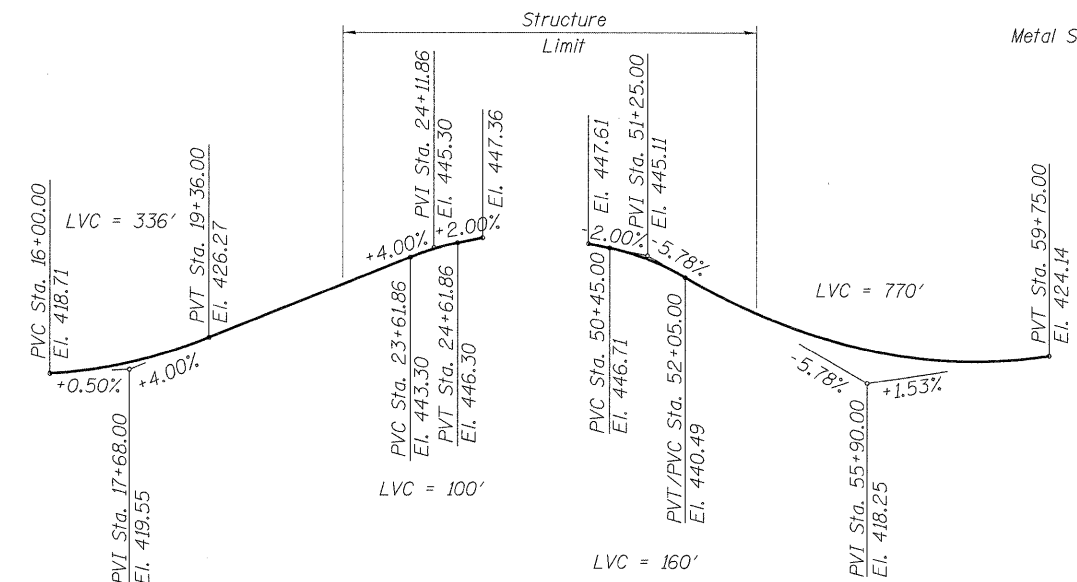
LOCATION SKETCH

\082\0318-CONN-99-001-00.DGN
 5-11-2011 9:59:10
 \NFS-004\AVVA\VAULT\JOB-TRNS-07\2282\20868-00\STRUCT\CAD\BI DESIGN\082\308\SHEET\082\308-CONN-10-001-SHT-SN.DGN

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	USER NAME = \$USER\$	DESIGNED - MDJ DRAWN - MDJ CHECKED - JLR DATE - 05/13/11	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	GENERAL DATA		F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 257
	PLOT SCALE = \$SCALE\$ PLOT DATE = \$DATE\$	SCALE:	SHEET NO. RA-2 OF RA-25		STA. 170+00.00 TO STA. 176+50.00	SN 082-W308 CONTRACT NO. 76D05			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

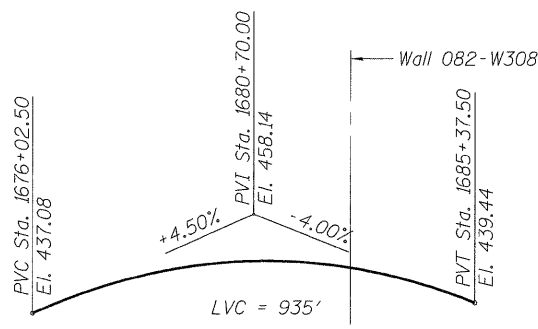


PROFILE GRADE F.A.P. RTE 998 (RELOCATED I-70)

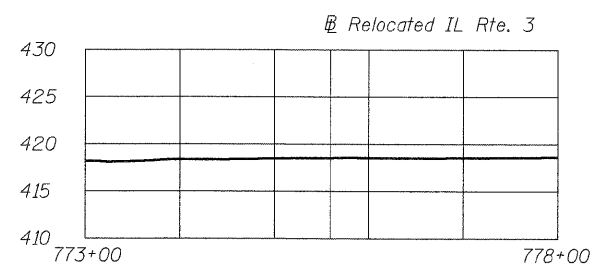


PROFILE GRADE @ RAMP A

PROFILE GRADE @ RAMP B



PROFILE GRADE @ RELOCATED IL-3



TRRA MAINLINE PROFILE

CURVE RAMP A-1

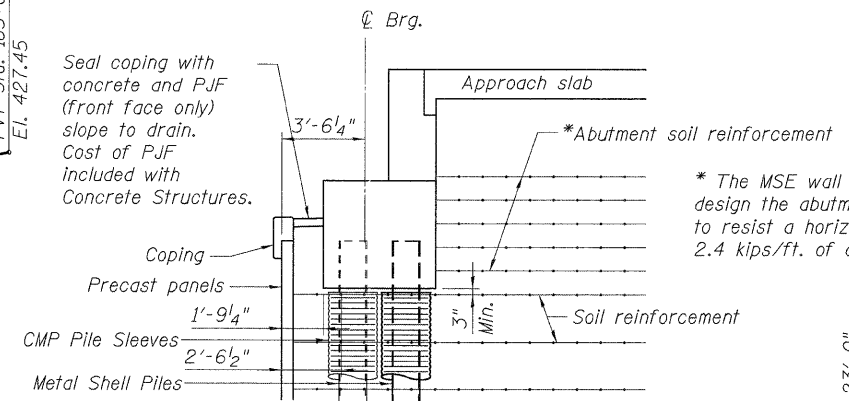
P.I. = Sta. 22+26.85
 $\Delta = 8^\circ 31' 38''$ (LT)
 $D = 4^\circ 46' 29''$
 $R = 1,200.00'$
 $L = 178.60'$
 $T = 89.46'$
 $E = 3.33'$
 P.C. = Sta. 21+37.39
 P.T. = Sta. 23+15.98

CURVE RAMP B-1

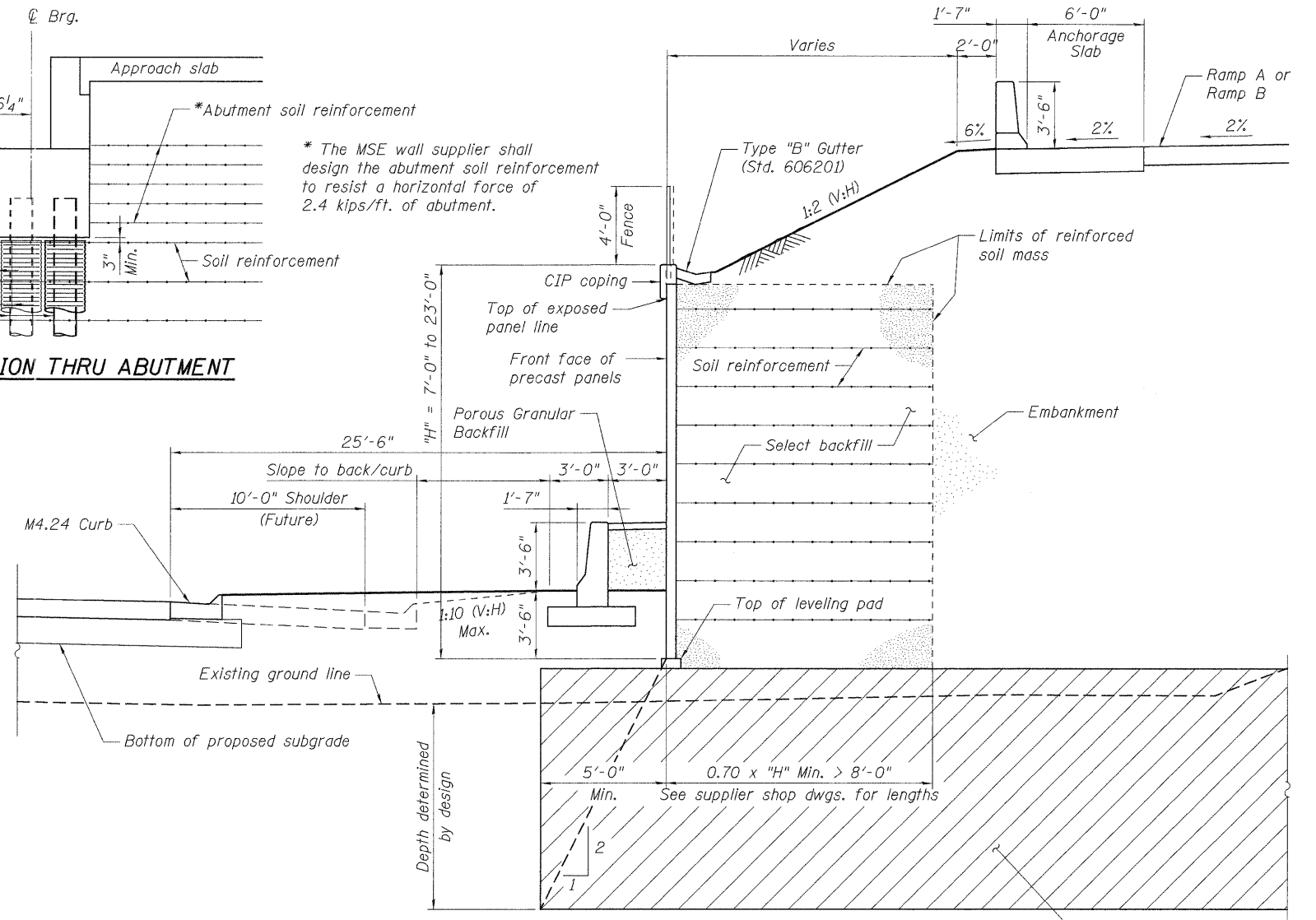
P.I. = Sta. 54+64.50
 $\Delta = 1^\circ 24' 03''$ (LT)
 $D = 0^\circ 57' 18''$
 $R = 6,000.00'$
 $L = 146.70'$
 $T = 73.35'$
 $E = 0.45'$
 P.C. = Sta. 53+91.15
 P.T. = Sta. 55+37.85

CURVE RAMP B-2

P.I. = Sta. 64+42.06
 $\Delta = 5^\circ 06' 17''$ (LT)
 $D = 1^\circ 15' 51''$
 $R = 4,532.00'$
 $L = 403.77'$
 $T = 202.02'$
 $E = 4.50'$
 P.C. = Sta. 62+40.04
 P.T. = Sta. 66+43.82



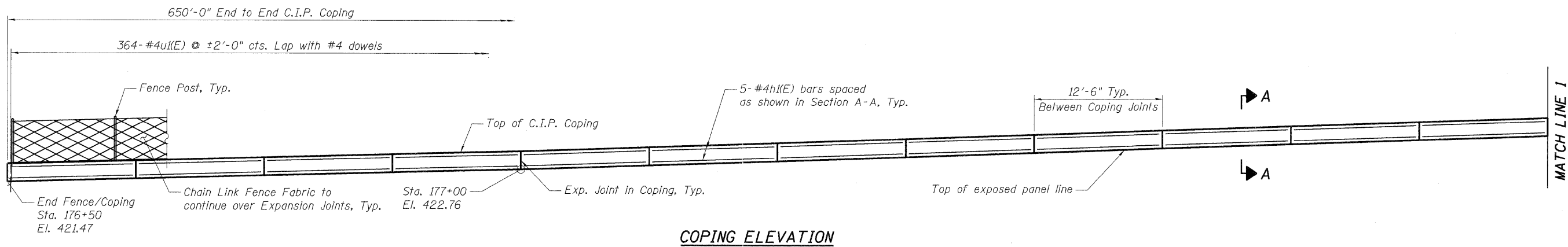
SECTION THRU ABUTMENT



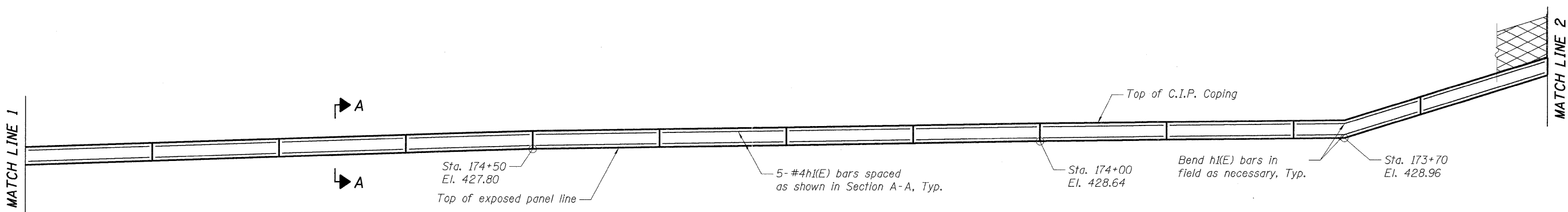
SECTION THRU MSE WALL

\082M308-COHN-10-002-MS.DGN \082M308-COHN-10-002-MS.DGN \082M308-COHN-10-002-MS.DGN \082M308-COHN-10-002-MS.DGN
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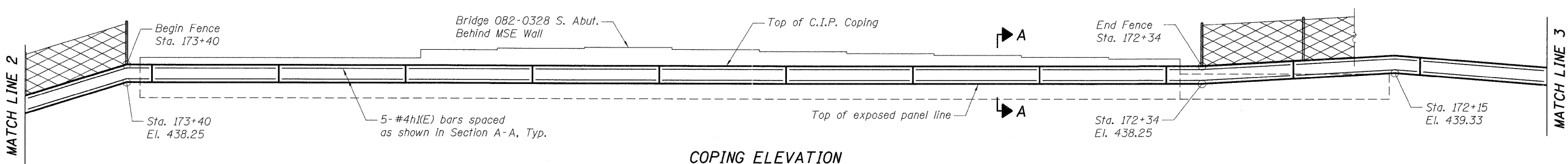
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TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = #SCALE#	CHECKED - JLR	REVISED -		SCALE:	SHEET NO. RA-3 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	SN 082-W308		CONTRACT NO. 76D05	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -								



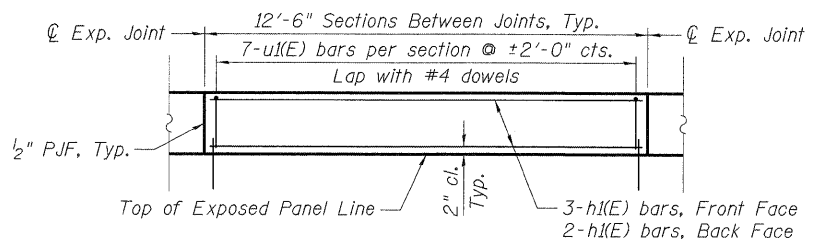
COPING ELEVATION



COPING ELEVATION



COPING ELEVATION



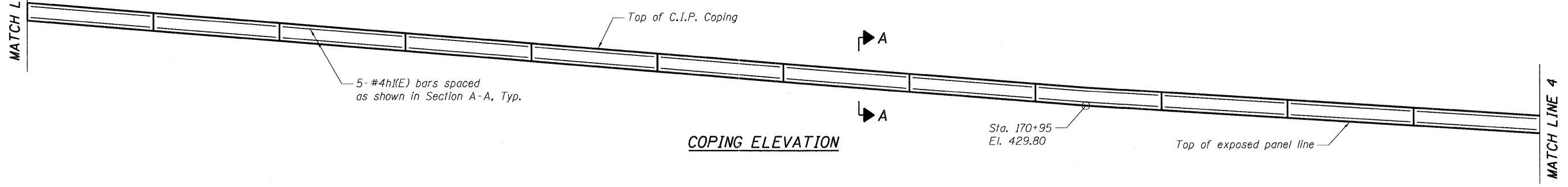
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 DRAWN - TCG
 CHECKED - JLR
 DATE - 05/13/11
 REVISIONS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 I-70 CONNECTION
 RETAINING WALL
 SHEET NO. RA-4 OF RA-25
 STA. 170+00.00 TO STA. 176+50.00
 SN 082-W308
 CONTRACT NO. 76D05

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		DATE - 05/13/11	REVISIONS				ILLINOIS FED. AID PROJECT					

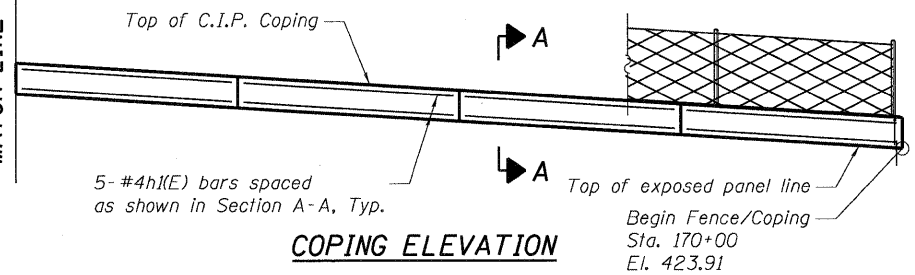
MATCH LINE 3

MATCH LINE 4

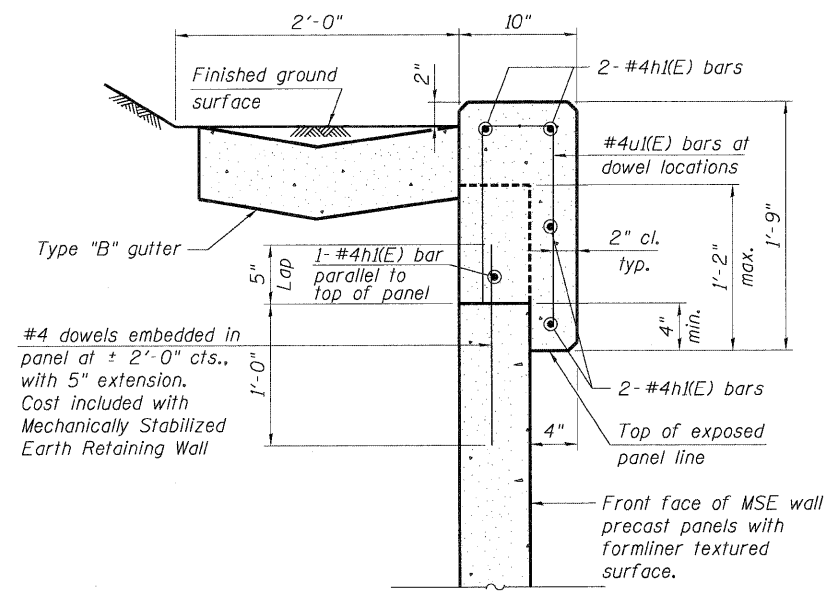


COPING ELEVATION

MATCH LINE 4



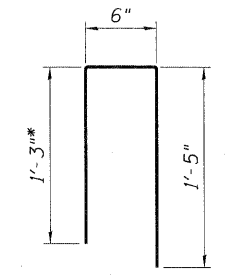
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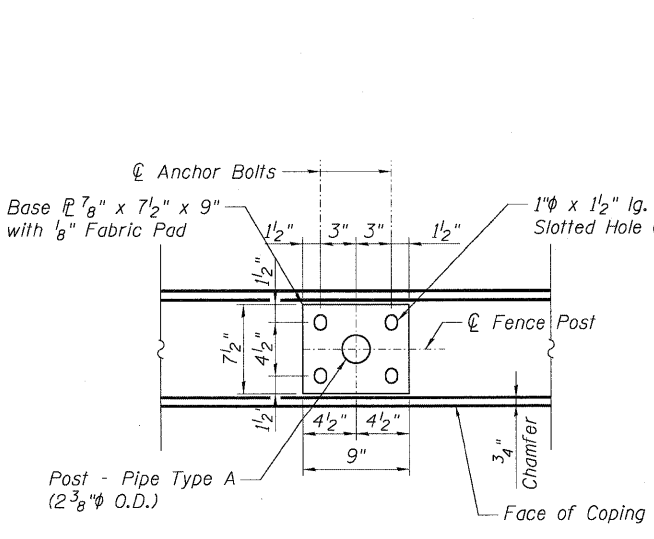
SECTION A-A

BAR LIST

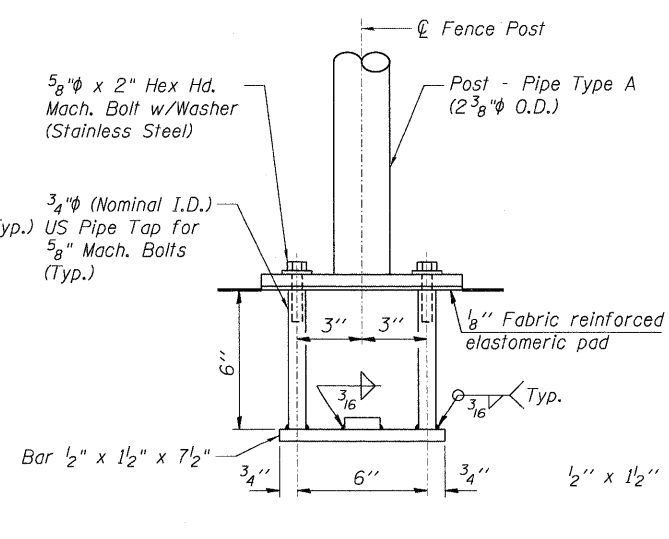
Bar	No.	Size	Length	Shape
h1(E)	260	#4	12'-0"	—
u1(E)	364	#4	3'-2"	⌐



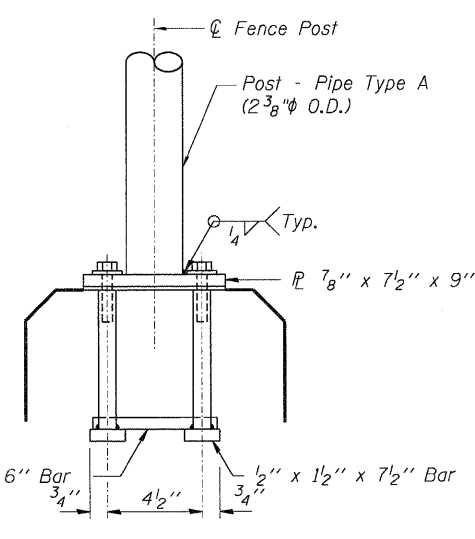
u1(E) Bar
*Cut leg in field as required



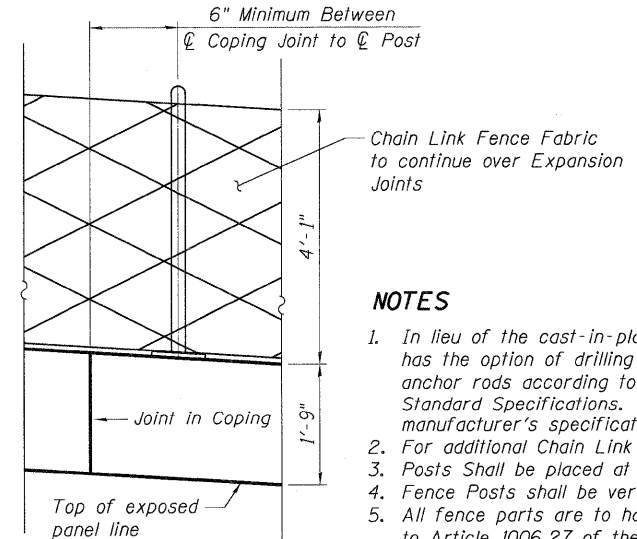
BASE PLATE PLAN



ELEVATION



SIDE VIEW



COPING JOINT DETAIL

NOTES

1. In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ stainless steel anchor rods according to Articles 509.06 and 1006.31 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.
2. For additional Chain Link Fence Details, See Std. 664001.
3. Posts Shall be placed at locations determined by the Engineer.
4. Fence Posts shall be vertical when erected.
5. All fence parts are to have a Type IV, Class B coating according to Article 1006.27 of the Standard Specifications. Color: Black.

FILE NAME = USER NAME = #USER# DESIGNED - TCG REVISED -
 DRAWN - TCG REVISED - CHECKED - JLR REVISED - DATE - 05/13/11 REVISED -
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 TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
 1002319 CONN 99 001 80 DCON 10824308 CONN 18 001 RSDCN 10824308 CONN 18 001 RSDCN 10824308 CONN 10 004 SHIT RSDCN 10824308 CONN 10 004 SHIT RSDCN 10824308 CONN 10 004 SHIT RSDCN

SB-106

SB-106

SB-106

SOIL BORING LOG		PAGE 1 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: --	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPTH (ft)	UCS (tsf)	MOIST (%)	DESCRIPTION
	AS	NP	13
414.8			CRUSHED BRICK
7			SILTY LOAM-brown & gray-loose to medium dense (A-4)
8		NP	25
392.8			CINDERS-black-medium dense (Fill)
2			SAND-brown-medium dense (A-3)
3		NP	37
410.3			SAND-brown & gray-medium dense to dense (A-3)
1			SILTY CLAY-gray-very soft (A-7) Wet
2			
407.8			CLAYEY TOPSOIL-black-very loose (A-7)
4		90	
5		1.2B	29
387.8			SANDY LOAM-gray-medium dense (A-2)
10			
7		NP	18
385.3			SILTY CLAY-brown & gray-medium stiff to stiff (A-6) Wet
2			
3		0.5P	34
402.8			SAND-brown & gray-medium dense to dense (A-3)
1			
2			
15			31
395.8			SILTY CLAY LOAM-brown & gray-loose to medium dense (A-7)
6			
4			
5			31
3			
6			
2C			30

SOIL BORING LOG		PAGE 2 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: --	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPTH (ft)	UCS (tsf)	MOIST (%)	DESCRIPTION
16			
13			
13		NP	13
12			
20			
24		NP	16
396.8			SAND-brown & gray-medium dense to dense (A-3)
10			
5			
10		NP	19
13			
13			
16		NP	21
20			
29			
29		NP	19
11			
14			
17		NP	19
9			
12			
16		NP	17
11			
14			
17		NP	19
9			
10			
21		NP	19
14			
10			
15		NP	20

SOIL BORING LOG		PAGE 3 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: --	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPTH (ft)	UCS (tsf)	MOIST (%)	DESCRIPTION
12			SAND-brown & gray-medium dense to dense (A-3)
11			
15		NP	14
312.8			SAND-brown & gray-medium dense to dense (A-3)
11			SAND with Gravel-brown & gray-medium dense (A-1-b)
14			
14		NP	13
310.3			SAND with Gravel-brown & gray-medium dense (A-1-b)
10			
12			
23		NP	16
327.8			SAND with Gravel-brown & gray-medium dense (A-1-b)
16			
11			
12		NP	12
325.3			SAND & GRAVEL-brown & gray-very dense (A-1)
11			
11			
11		NP	13
300.8-115			SAND-brown & gray-medium dense to dense (A-3)
13			
17		NP	18
11			
11			
12		NP	17
9			
9			
8			
8			
100		NP	18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shealy Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%) NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shealy Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%) NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shealy Tube Sample VS-Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%) NR-No Recovery

\\FRP001\CONV\09-001\MS.DCN \N0902318.CONV.09.021.B0.DCN
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FILE NAME =	USER NAME = *USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL		SOIL BORING LOGS 1 OF 20		F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 261
PLOT SCALE = *SCALE*	CHECKED -	REVISOR -	SCALE:					SHEET NO. RA-6 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	CONTRACT NO. 76D05		
PLOT DATE = *DATE*	DATE 05/13/11	REVISED -	FED. ROAD DIST. NO. ILLINOIS					FED. AID PROJECT				



SB-106

SB-106 Run-1

SB-106 Run-2

SOIL BORING LOG		PAGE 4 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: --	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPT H	BLOWS Qu	UCS (tsf)	MOIST (%)
Surface Water Elev. n/a		Stream Bed Elev. n/a	
Groundwater Elevation:		First Encounter n/a	
Upon Completion n/a		After 24 Hrs. 396.8	
Recovery=97.2% R.O.D.=86.9%		RUN 1	
290.8-125		-145	
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone		RUN 2	
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.5', -126.1', -126.9', -127.4', -127.9', -128.2', -129.0', -129.1', -129.3' & -129.5'.			
Recovery=100.0% R.O.D.=87.0		285.8-130	
End Of Boring @ -130.0' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer 20' Of 4" Casing Used		-135	
		-140	

ROCK CORE LOG		PAGE 1 of 2	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		CORING METHOD Rotary Wash	
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPT H	CORER RUN	RECOVERY (%)	R.Q.D. (%)
Top of Rock Elev. 300.8		Begin Core Elev. 300.8	
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone		300.8	
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.1', -115.4', -116.0', -117.3', -118.8', -119.3', -120.5', -121.9' & -122.5'. 1/4" clay parting @ -113.0'. Horizontal fractures @ -113.3' & -134.6'.		Recovery=97.2% R.Q.D.=86.9%	
		-120	
		-125	

ROCK CORE LOG		PAGE 2 of 2	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		CORING METHOD Rotary Wash	
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	
BORING NO. SB-106		STATION: 21+47	
Offset: 34.0' Left		Ground Surface Elev. 415.8	
DEPT H	CORER RUN	RECOVERY (%)	R.Q.D. (%)
Top of Rock Elev. 300.8		Begin Core Elev. 300.8	
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone		290.8	
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.5', -126.1', -126.9', -127.4', -127.9', -128.2', -129.0', -129.1', -129.3' & -129.5'.		Recovery=100.0% R.O.D.=87.0	
		-130	
		-135	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (S)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D-1586). The Unit Dry Weight (pcf) is noted in *italics* above moist (%). NR-No Recovery.

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

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 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL
 SOIL BORING LOGS 2 OF 20
 F.A.P. RTE. 998 SECTION 82-2-1HVB-1 COUNTY ST. CLAIR TOTAL SHEETS 345 SHEET NO. 262
 SN 082-W308 CONTRACT NO. 76D05
 SCALE: SHEET NO. RA-7 OF RA-25 STA. 170+00.00 TO STA. 176+50.00 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SB-107

SB-107

SB-107

SOIL BORING LOG								PAGE 1 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								DATE 5/13-14/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								GSI JOB No. 08201	
STRUCT. NO. 082-W309 Station: ---								Surface Water Elev. n/a	
BORING NO. SB-107 Station: 22+69								Stream Bed Elev. n/a	
Offset: 30.0' Left								Groundwater Elevation:	
Ground Surface Elev. 415.2								First Encounter n/a	
								Upon Completion n/a	
								After 24 Hrs. n/a	
DEPTH	BLOWS	UCS	MOIST	DEPTH	BLOWS	UCS	MOIST		
(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)		
394.7	7	AS		394.7				SILTY LOAM-very loose to loose (A-4)	
413.7	15	NP		413.7				CRUSHED STONE	
412.2	9	NP	20	412.2				CINDERS-black-medium dense (Fill)	
409.7	2	0.5P	33	409.7				LOAM-dark brown-medium stiff (A-4) Fill, Wet	
407.2	1	0.25P	34	407.2				TOPSOIL-black (A-7)	
	3		87					SILTY CLAY-brown & gray-stiff to very stiff (A-7) Wet	
402.2	2	1.0P	36	402.2				SILTY CLAY LOAM-brown & gray-very loose (A-4) Wet	
399.7	1	NP	31	399.7				SILTY LOAM-very loose to loose (A-4)	

SOIL BORING LOG								PAGE 2 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								DATE 5/13-14/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								GSI JOB No. 08201	
STRUCT. NO. 082-W309 Station: ---								Surface Water Elev. n/a	
BORING NO. SB-107 Station: 22+69								Stream Bed Elev. n/a	
Offset: 30.0' Left								Groundwater Elevation:	
Ground Surface Elev. 415.2								First Encounter n/a	
								Upon Completion n/a	
								After 24 Hrs. n/a	
DEPTH	BLOWS	UCS	MOIST	DEPTH	BLOWS	UCS	MOIST		
(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)		
374.7				374.7				SAND-medium dense (A-3)	
	2				2			WOOD	
372.2	9	NP	490	372.2				SAND-gray-medium dense to dense (A-3)	
	14				14			SAND-gray-medium dense (A-3)	
	8	NP	17		8	NP	17	SAND with Gravel-gray-loose (A-1-b)	
	12	NP	22		12	NP	22	SANDY LOAM-gray-loose (A-2)	
	4				4			SAND-gray-medium dense to dense (A-3)	
	6	NP	24		6	NP	24	SAND-gray-medium dense to very dense (A-3)	
	3				3			SAND-gray-medium dense to dense (A-3)	
	7	NP	17		7	NP	17	SAND with Gravel-gray-loose (A-1-b)	
	4	NP	24		4	NP	24	SAND-gray-medium dense to dense (A-3)	
	2				2			SAND with Gravel-gray-loose (A-1-b)	
	3	NP	30		3	NP	30	SAND-gray-medium dense to dense (A-3)	
	8				8			SAND-gray-medium dense to dense (A-3)	
	9				9			SAND-gray-medium dense to dense (A-3)	
	10	NP	22		10	NP	22	SAND-gray-medium dense to dense (A-3)	
	16				16			SAND-gray-medium dense to dense (A-3)	
	19				19			SAND-gray-medium dense to dense (A-3)	
	24	NP	23		24	NP	23	SAND-gray-medium dense to dense (A-3)	

SOIL BORING LOG								PAGE 3 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								DATE 5/13-14/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								GSI JOB No. 08201	
STRUCT. NO. 082-W309 Station: ---								Surface Water Elev. n/a	
BORING NO. SB-107 Station: 22+69								Stream Bed Elev. n/a	
Offset: 30.0' Left								Groundwater Elevation:	
Ground Surface Elev. 415.2								First Encounter n/a	
								Upon Completion n/a	
								After 24 Hrs. n/a	
DEPTH	BLOWS	UCS	MOIST	DEPTH	BLOWS	UCS	MOIST		
(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)		
329.7				329.7				SAND-gray-medium dense to very dense (A-3)	
	24				24			SAND-brown & gray-dense to very dense (A-2)	
	26	NP	24		26	NP	24	SAND & Gravel-brown & gray-very dense (A-1)	
	33				33			SAND & Gravel-gray-medium dense to dense (A-1-b)	
	43	NP	23		43	NP	23	SAND with Gravel-gray-very dense (A-1)	
	85	NP	23		85	NP	23	SAND with Gravel-brown & gray-very dense (A-1-b)	
	16				16			SAND-gray-medium dense to dense (A-1-b)	
	17	NP	17		17	NP	17	SAND-gray-medium dense to dense (A-1-b)	
	10				10			SAND-gray-medium dense to dense (A-1-b)	
	9				9			SAND-gray-medium dense to dense (A-1-b)	
	10	NP	17		10	NP	17	SAND-gray-medium dense to dense (A-1-b)	
	13				13			SAND-gray-medium dense to dense (A-1-b)	
	11				11			SAND-gray-medium dense to dense (A-1-b)	
	10	NP	17		10	NP	17	SAND-gray-medium dense to dense (A-1-b)	
	13				13			SAND-gray-medium dense to dense (A-1-b)	
	14	NP	17		14	NP	17	SAND-gray-medium dense to dense (A-1-b)	
	16				16			SAND-gray-medium dense to dense (A-1-b)	
	22	NP	15		22	NP	15	SAND-gray-medium dense to dense (A-1-b)	
	28	NP	15		28	NP	15	SAND-gray-medium dense to dense (A-1-b)	
	16				16			SAND-gray-medium dense to dense (A-1-b)	
	7				7			SAND-gray-medium dense to dense (A-1-b)	
	9	NP	24		9	NP	24	SAND-gray-medium dense to dense (A-1-b)	
	7				7			SAND-gray-medium dense to dense (A-1-b)	
	9				9			SAND-gray-medium dense to dense (A-1-b)	
	20	NP	17		20	NP	17	SAND-gray-medium dense to dense (A-1-b)	
	100	NP	17		100	NP	17	SAND-gray-medium dense to dense (A-1-b)	

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

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

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

\S:\99999-COIN-99-201-MS.DCN \9820218 CONN-99-201-80.DCN
 \S:\201_915\330 NEWKIND \S:\2002\208665-001\STRUCT\CAD\01 DESIGN\082W309\082W309-CONV-10-0023-SHT-MS.DCN
 \S:\201_915\330 NEWKIND \S:\2002\208665-001\STRUCT\CAD\01 DESIGN\082W309\082W309-CONV-10-0023-SHT-MS.DCN

TENG <small>TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS</small>		USER NAME = *USER* DESIGNED - DRAWN - TCG CHECKED - DATE - 05/13/11	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL		SOIL BORING LOGS 3 OF 20		SCALE: SHEET NO. RA-8 OF RA-25 STA. 170+00.00 TO STA. 176+50.00		F.A.P. RTE. 998 SECTION 82-2-1HVB-1 COUNTY ST. CLAIR TOTAL SHEETS 345 SHEET NO. 263 SN 082-W308 CONTRACT NO. 76D05 FED. ROAD DIST. NO. ILLINOIS/FED. AID PROJECT	
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SB-107

SB-107 Run-1

SB-107 Run-2

PAGE 4 of 4

SOIL BORING LOG

DATE 5/13-14/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-107**
Station: 22+69
Offset: 30.0' Left
Ground Surface Elev. 415.2 (ft) (/6") (tsf) (%)

DEPTH (ft)	BLWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	DEPT (ft)	BLWS	UCS	MOIST
				<u>n/a</u>	<u>n/a</u>	First Encounter <u>n/a</u> Upon Completion <u>n/a</u> After 24 Hrs. <u>n/a</u>				
Recovery=100.0% R.Q.D.=73.3%										
RUN 1										
291.7										
RUN 2 (-123.5' to -129.5') Mississippian System, Valmeyeran Series Limestone										
Light gray & fine grained with horizontal bedding. Highly fractured to -124.2'. Numerous horizontal fractures throughout.										
Recovery=100.0% R.Q.D.=52.5%										
285.7										
End Of Boring @ -129.5' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5" Casing Used 1115' Of 3" Casing Used										

PAGE 1 of 2

ROCK CORE LOG

DATE 5/13-14/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-107**
Station: 22+69
Offset: 30.0' Left
Ground Surface Elev. 415.2

DEPTH (ft)	CORE RUN	RECOVERY (%)	R.Q.D (%)	CORRECTION (min/ft)	STRENGTH (tsf)
301.7	1	100.0	73.3	n/c	10079 -114.7
RUN 1 (-113.5' to -123.5') Mississippian System, Valmeyeran Series Limestone					
Light gray & fine grained with horizontal bedding. Horizontal fractures @ -113.7', -114.0', -114.2', -114.5', -114.7', -115.1', -115.6', -116.2', -116.9', -117.0', -117.4', -117.6', -118.0', -118.1' & -118.6' 1/2" clay parting @ -119.1'. Horizontal fractures @ -119.4', -119.9', -120.7', -121.3', -122.0' & -122.6'. Transverse fracture @ -123.3'.					

PAGE 2 of 2

ROCK CORE LOG

DATE 5/13-14/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE I70/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-107**
Station: 22+69
Offset: 30.0' Left
Ground Surface Elev. 415.2

DEPTH (ft)	CORE RUN	RECOVERY (%)	R.Q.D (%)	CORRECTION (min/ft)	STRENGTH (tsf)
291.7	2	100.0	52.5	n/a	11420 -124.1
RUN 2 (-123.5' to -129.5') Mississippian System, Valmeyeran Series Limestone					
Light gray & fine grained with horizontal bedding. Highly fractured to -124.2'. Numerous horizontal fractures throughout.					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Sheby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

A:\980998\CONN-99-001\MS.DGN\8820319\CONN-99-001\BOLDEN
 NEWARK\9-11-2011\9-9-234
 \SHEET\0820319\DESIGN\8820319\8820319-118-084-SHT-MS.DGN

TENC	TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	USER NAME = #USER#	DESIGNED - DRAWN - TCG	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS 4 OF 20	F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 264
		PLOT SCALE = #SCALE#	CHECKED -	DATE = 05/13/11				SN 082-W308		CONTRACT NO. 76D05	
		PLOT DATE = #DATE#				SCALE:	SHEET NO. RA-9	OF RA-25	STA. 170+00.00	TO STA. 176+50.00	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SB-109

SOIL BORING LOG		PAGE 4 of 4	
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>		DATE <u>5/11-12/2009</u>	
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>		LOGGED BY <u>DR</u>	
COUNTY <u>St. Clair</u> DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>		GSI JOB No. <u>08201</u>	
STRUCT. NO. <u>082-W309</u>		Surface Water Elev. <u>n/a</u>	
Station: <u>--</u>		Stream Bed Elev. <u>n/a</u>	
BORING NO. <u>SB-109</u>		Groundwater Elevation:	
Station: <u>24+26</u>		First Encounter <u>n/a</u>	
Offset: <u>37.5' Right</u>		Upon Completion <u>n/a</u>	
Ground Surface Elev. <u>415.9</u>		After 24 Hrs. <u>n/a</u>	
DEPTH (ft)	BLOWS (6")	UCS (tsf)	MOIST (%)
<p>Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8% 290.9-125</p>			
<p>RUN 1</p>			
<p>RUN 2 (-125.0' to -130.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=35.0% 285.9-130</p>			
<p>RN 2</p>			
<p>End Of Boring @ -130.0' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5" Casing Used 3" Casing Used</p>			

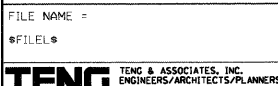
SB-109 Run-1

ROCK CORE LOG		PAGE 1 of 2		
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>		DATE <u>5/11-12/2009</u>		
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>		LOGGED BY <u>DR</u>		
COUNTY <u>St. Clair</u> CORING METHOD <u>Rotary Wash</u>		GSI JOB No. <u>08201</u>		
STRUCT. NO. <u>082-W309</u>		CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>		
Station: <u>--</u>		Core Diameter <u>2.0 in</u>		
BORING NO. <u>SB-109</u>		Top of Rock Elev. <u>300.9</u>		
Station: <u>24+26</u>		Begin Core Elev. <u>300.9</u>		
Offset: <u>37.5' Right</u>		Ground Surface Elev. <u>415.9</u>		
DEPTH (ft)	CORER RUN (#)	RECOVERY (%)	R.Q.D. (%)	STRENGTH (min/ft) (tsf)
<p>RUN 1 (-115.0' to -125.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8%</p>				
<p>300.9</p>				
<p>-115</p>				
<p>-119</p>				
<p>-125</p>				

SB-109 Run-2

ROCK CORE LOG		PAGE 2 of 2		
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>		DATE <u>5/11-12/2009</u>		
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>		LOGGED BY <u>DR</u>		
COUNTY <u>St. Clair</u> CORING METHOD <u>Rotary Wash</u>		GSI JOB No. <u>08201</u>		
STRUCT. NO. <u>082-W309</u>		CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>		
Station: <u>--</u>		Core Diameter <u>2.0 in</u>		
BORING NO. <u>SB-109</u>		Top of Rock Elev. <u>300.9</u>		
Station: <u>24+26</u>		Begin Core Elev. <u>300.9</u>		
Offset: <u>37.5' Right</u>		Ground Surface Elev. <u>415.9</u>		
DEPTH (ft)	CORER RUN (#)	RECOVERY (%)	R.Q.D. (%)	STRENGTH (min/ft) (tsf)
<p>RUN 2 (-125.0' to -130.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout.</p>				
<p>290.0</p>				
<p>-130</p>				
<p>-135</p>				

\S:\projects\CON-99-081-MS.DCN\08201B\CON-99-081-01-BL.DCN
 \S:\projects\CON-99-081-MS.DCN\08201B\CON-99-081-01-PL.DCN
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FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
#FILE#		DRAWN - TCG	REVISED -
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 I-70 CONNECTION
 RETAINING WALL

SOIL BORING LOGS		8 OF 20	
F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345
SN 082-W308		CONTRACT NO. 76D05	
SCALE:		SHEET NO. RA-13 OF RA-25	STA. 170+00.00 TO STA. 176+50.00

F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 268
SN 082-W308		CONTRACT NO. 76D05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SB-110

SB-110 Run-1

SB-110 Run-2

SOIL BORING LOG		PAGE 4 of 4	
ROUTE 70/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		Surface Water Elev. <u>n/a</u>	
Station: --		Stream Bed Elev. <u>n/a</u>	
BORING NO. SB-110		Groundwater Elevation:	
Station: 50+82		First Encounter <u>n/a</u>	
Offset: 56.5' Right		Upon Completion <u>n/a</u>	
Ground Surface Elev. <u>417.4</u>		After 24 Hrs. <u>399.4</u>	
DEPTH (ft)	BLOWS Qu	UCS (tsf)	MOIST (%)
-120.4', -120.5', -122.1', -122.5', -123.4', -123.7' & -124.9'			
Recovery=100.0% R.Q.D.=87.8%			
RUN 1			
291.9			
RUN 1 (-125.5' to -126.7')		RUN 2	
Recovery=100.0% R.Q.D.=0.0%		290.9	
End Of Boring @ -126.5'			
Hollow Stem Augers To -10.0'			
Rotary Drilling To Completion			
CME Automatic Hammer			
10' Of 4" Casing Used			
115' Of 3" Casing Used			

ROCK CORE LOG		PAGE 1 of 2			
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair		CORING METHOD Rotary Wash			
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft			
Station: --		Core Diameter 2.0 in			
BORING NO. SB-110		Top of Rock Elev. <u>302.4</u>			
Station: 50+82		Begin Core Elev. <u>301.9</u>			
Offset: 56.5' Right		Ground Surface Elev. <u>417.4</u>			
DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min/ft)	STRENGTH (tsf)
301.9	1	100.0	87.8	n/a	1182 @ -118.4
RUN 1 (-115.5' to -125.5')					
Mississippian System, Valmeyeran Series Limestone					
Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Tight vertical fracture from -115.5' to -118.0'. Horizontal fractures @ -116.2', -116.4', -117.2', -118.0', -118.1', -119.0', -119.3', -119.5', -120.4', -120.5', -122.1', -122.5', -123.4', -123.7' & -124.9'.					

ROCK CORE LOG		PAGE 2 of 2			
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair		CORING METHOD Rotary Wash			
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft			
Station: --		Core Diameter 2.0 in			
BORING NO. SB-110		Top of Rock Elev. <u>302.4</u>			
Station: 50+82		Begin Core Elev. <u>301.9</u>			
Offset: 56.5' Right		Ground Surface Elev. <u>417.4</u>			
DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min/ft)	STRENGTH (tsf)
291.9	2	100.0	0.0	n/a	n/a
RUN 2 (-125.5' to -126.7')					
Mississippian System, Valmeyeran Series Limestone					
Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Numerous horizontal fractures throughout.					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shear Tube Sample, (VS)-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D-1586) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

\\S:\9999\CONN-99-001\MELDON\18020318.CONN-99-001\BDDCN\18020318.CONN-99-001\DESIGN\082W308-SHEET\082W308-SHEET-10-010-SHT-MELDON
 \\S:\9999\CONN-99-001\MELDON\18020318.CONN-99-001\BDDCN\18020318.CONN-99-001\DESIGN\082W308-SHEET\082W308-SHEET-10-010-SHT-MELDON

SB-111

SB-111

SB-111

SOIL BORING LOG										PAGE 1 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08										DATE 4/30-5/5/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3										LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic										GSI JOB No. 08201	
STRUCT. NO. 082-W309										Surface Water Elev. n/a	
Station: --										Stream Bed Elev. n/a	
BORING NO. SB-111										Groundwater Elevation:	
Station: 51+48										First Encounter n/a	
Offset: 51.5' Right										Upon Completion n/a	
Ground Surface Elev. 416.9										After 24 Hrs. n/a	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)				
AS	NP	24									
4	6	NP	25	2	2						
413.9	6	NP	25	2	NP	32					
2	3	NP	25	2	2						
411.4	5	NP	25	2	2						
	4	NP	25	-25	2	NP	30	SANDY LOAM-brown & gray-very loose to medium dense (A-2)			
1	1		71	2	2						
408.9	2	0.5B	47	2	NP	33					
2	3	NP	31	2	2						
406.9	10	ST	NP	31	3	NP	32				
1	1		34	2	2						
403.9	2	<0.25P	34	3	NP	31					
3	4	NP	21	2	2						
398.9	3	NP	28	2	2	NP	34				
2	3	NP	30	2	2	NP	32				
2	3	NP	30	2	2	NP	32				

SOIL BORING LOG										PAGE 2 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08										DATE 4/30-5/5/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3										LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic										GSI JOB No. 08201	
STRUCT. NO. 082-W309										Surface Water Elev. n/a	
Station: --										Stream Bed Elev. n/a	
BORING NO. SB-111										Groundwater Elevation:	
Station: 51+48										First Encounter n/a	
Offset: 51.5' Right										Upon Completion n/a	
Ground Surface Elev. 416.9										After 24 Hrs. n/a	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)				
2	1			13	13						
2	NP	33		16	16						
2	NP	33		13	NP	20					
2	2			9	9						
1	1			11	11						
366.4	2	NP	32	65	10	NP	22	SAND-brown & gray-loose to dense (A-3)			
4	7			14	14						
7	7	NP	29	18	18						
7	NP	29		16	NP	26					
5	6			8	8						
366.4	6	NP	31	25	25						
7	NP	31		70	26	NP	23				
5	4			10	10						
4	2			21	21						
366.4	5	NP	27	23	NP	16					
5	2			16	16						
6	2			12	12						
366.4	6	NP	27	75	11	NP	11	SAND-brown & gray-loose to dense (A-3)			
3	2			9	9						
6	2			12	12						
6	NP	14		13	NP	19					
10	2			9	9						
15	2			12	12						
366.4	10	NP	14	80	9	NP	21	SAND-brown & gray-medium dense (A-3)			

SOIL BORING LOG										PAGE 3 of 4	
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08										DATE 4/30-5/5/2009	
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3										LOGGED BY DR	
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic										GSI JOB No. 08201	
STRUCT. NO. 082-W309										Surface Water Elev. n/a	
Station: --										Stream Bed Elev. n/a	
BORING NO. SB-111										Groundwater Elevation:	
Station: 51+48										First Encounter n/a	
Offset: 51.5' Right										Upon Completion n/a	
Ground Surface Elev. 416.9										After 24 Hrs. n/a	
DEPTH (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)	DEPT (ft)	BLOW COUNT (blows/6")	UCS (tsf)	MOISTURE (%)				
9				315.4	17			SAND-brown & gray-medium dense to dense (A-3)			
14				30	30						
14	NP	18		29	NP	11					
7				16	16						
5				20	20						
331.4	6	NP	17	105	21	NP	12	SAND with Gravel-brown & gray-dense to very dense (A-1-b)			
7				23	23						
7				22	22						
4	NP	12		23	NP	11					
7				20	20						
7				40	40						
331.4	7	NP	17	110	50	NP	9	SAND with Gravel-brown & gray-medium dense (A-1-b)			
9				19	19						
8				17	17						
8	NP	12		19	NP	10		SAND-brown & gray-dense (A-3)			
8	NP	12		19	NP	10					
8				18	18						
8				50/6"	50/6"						
323.9	8	NP	14	301.9-115	NP	8		SAND with Gravel-brown & gray-very dense (A-1-b)			
7				19	19						
8				17	17						
8	NP	15		19	NP	10					
10				18	18						
14				12	12						
323.9	10	NP	12	100	20	NP	12	SAND-brown & gray-medium dense to dense (A-3)			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

5:11:2011 9:55:55
 081-MS.DCN 10828218-CONV-98-081-MS.DCN
 07/22/2009 08:00:00
 081-MS.DCN 10828218-CONV-98-081-MS.DCN
 07/22/2009 08:00:00
 081-MS.DCN 10828218-CONV-98-081-MS.DCN
 07/22/2009 08:00:00

SB-111

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DATE 4/30-5/5/2009
LOGGED BY DR
CSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-111
Station: 51+48
Offset: 51.5' Right
Ground Surface Elev. 416.9

DEPT H	BLOWS Qu	UCS (tsf)	MOIST (%)	DEPT H	BLOWS Qu	UCS (tsf)	MOIST (%)
-123.1', -123.7', -124.0', -124.3' & -124.4'							
Recovery=100.0% R.Q.D.=82.5%				RUN 1			
291.9-125				-145			
RUN 2 (-125.0' to -127.0') Mississippi System, Valmeyeran Series Limestone Recovery=75.0% R.Q.D.=50.0%				RUN 2			
289.9				-130			
End Of Boring @ -127.0' Hollow Stem Augers To -10.0' Rotary Drilling To Completion CME Automatic Hammer 10' Of 4" Casing Used 3" Casing Used				-150			
-135				-155			
-140				-160			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (E-Bulge, S-Shear, P-Penetrometer) S'-Shelby Tube Sample, VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D 1586) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-111 Run-1

PAGE 1 of 2
DATE 4/30-5/5/2009
LOGGED BY DR
CSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-111
Station: 51+48
Offset: 51.5' Right
Ground Surface Elev. 416.9

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.9
Begin Core Elev. 301.9

DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (mir)	STRENGTH (tsf)
301.9	1	100.0	82.5	n/o	12170 -116.2
RUN 1 (-115.0' to -125.0') Mississippi System, Valmeyeran Series Limestone					
Light gray to gray with horizontal bedding. Fine grained with some chert replacement. Soft & argillaceous from -121.9' to -122.1'. Horizontal fractures @ -115.9', -116.9', -117.2', -118.5', -118.7', -119.5', -120.5', -121.0', -121.5', -121.9', -122.1', -122.9', -123.1', -123.7', -124.0', -124.3' & -124.4'.					
-120					
-125					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-111 Run-2

PAGE 2 of 2
DATE 4/30-5/5/2009
LOGGED BY DR
CSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309
Station: --
BORING NO. SB-111
Station: 51+48
Offset: 51.5' Right
Ground Surface Elev. 416.9

CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 301.9
Begin Core Elev. 301.9

DEPTH (ft)	CORER RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (mir)	STRENGTH (tsf)
291.9	2	75.0	50.0	n/a	10280 -125.1
RUN 2 (-125.0' to -127.0') Mississippi System, Valmeyeran Series Limestone					
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.4', -126.2', -126.4' & -126.6'.					
-130					
-135					

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

N:\999999\CONN-99-001\MS.DGN, N:\999999\CONN-99-001\01.DGN, N:\999999\CONN-99-001\02.DGN, N:\999999\CONN-99-001\03.DGN, N:\999999\CONN-99-001\04.DGN, N:\999999\CONN-99-001\05.DGN, N:\999999\CONN-99-001\06.DGN, N:\999999\CONN-99-001\07.DGN, N:\999999\CONN-99-001\08.DGN, N:\999999\CONN-99-001\09.DGN, N:\999999\CONN-99-001\10.DGN, N:\999999\CONN-99-001\11.DGN, N:\999999\CONN-99-001\12.DGN, N:\999999\CONN-99-001\13.DGN, N:\999999\CONN-99-001\14.DGN, N:\999999\CONN-99-001\15.DGN, N:\999999\CONN-99-001\16.DGN, N:\999999\CONN-99-001\17.DGN, N:\999999\CONN-99-001\18.DGN, N:\999999\CONN-99-001\19.DGN, N:\999999\CONN-99-001\20.DGN, N:\999999\CONN-99-001\21.DGN, N:\999999\CONN-99-001\22.DGN, N:\999999\CONN-99-001\23.DGN, N:\999999\CONN-99-001\24.DGN, N:\999999\CONN-99-001\25.DGN, N:\999999\CONN-99-001\26.DGN, N:\999999\CONN-99-001\27.DGN, N:\999999\CONN-99-001\28.DGN, N:\999999\CONN-99-001\29.DGN, N:\999999\CONN-99-001\30.DGN, N:\999999\CONN-99-001\31.DGN, N:\999999\CONN-99-001\32.DGN, N:\999999\CONN-99-001\33.DGN, N:\999999\CONN-99-001\34.DGN, N:\999999\CONN-99-001\35.DGN, N:\999999\CONN-99-001\36.DGN, N:\999999\CONN-99-001\37.DGN, N:\999999\CONN-99-001\38.DGN, N:\999999\CONN-99-001\39.DGN, N:\999999\CONN-99-001\40.DGN, N:\999999\CONN-99-001\41.DGN, N:\999999\CONN-99-001\42.DGN, N:\999999\CONN-99-001\43.DGN, N:\999999\CONN-99-001\44.DGN, N:\999999\CONN-99-001\45.DGN, N:\999999\CONN-99-001\46.DGN, N:\999999\CONN-99-001\47.DGN, N:\999999\CONN-99-001\48.DGN, N:\999999\CONN-99-001\49.DGN, N:\999999\CONN-99-001\50.DGN, N:\999999\CONN-99-001\51.DGN, N:\999999\CONN-99-001\52.DGN, N:\999999\CONN-99-001\53.DGN, N:\999999\CONN-99-001\54.DGN, N:\999999\CONN-99-001\55.DGN, N:\999999\CONN-99-001\56.DGN, N:\999999\CONN-99-001\57.DGN, N:\999999\CONN-99-001\58.DGN, N:\999999\CONN-99-001\59.DGN, N:\999999\CONN-99-001\60.DGN, N:\999999\CONN-99-001\61.DGN, N:\999999\CONN-99-001\62.DGN, N:\999999\CONN-99-001\63.DGN, N:\999999\CONN-99-001\64.DGN, N:\999999\CONN-99-001\65.DGN, N:\999999\CONN-99-001\66.DGN, N:\999999\CONN-99-001\67.DGN, N:\999999\CONN-99-001\68.DGN, N:\999999\CONN-99-001\69.DGN, N:\999999\CONN-99-001\70.DGN, N:\999999\CONN-99-001\71.DGN, N:\999999\CONN-99-001\72.DGN, N:\999999\CONN-99-001\73.DGN, N:\999999\CONN-99-001\74.DGN, N:\999999\CONN-99-001\75.DGN, N:\999999\CONN-99-001\76.DGN, N:\999999\CONN-99-001\77.DGN, N:\999999\CONN-99-001\78.DGN, N:\999999\CONN-99-001\79.DGN, N:\999999\CONN-99-001\80.DGN, N:\999999\CONN-99-001\81.DGN, N:\999999\CONN-99-001\82.DGN, N:\999999\CONN-99-001\83.DGN, N:\999999\CONN-99-001\84.DGN, N:\999999\CONN-99-001\85.DGN, N:\999999\CONN-99-001\86.DGN, N:\999999\CONN-99-001\87.DGN, N:\999999\CONN-99-001\88.DGN, N:\999999\CONN-99-001\89.DGN, N:\999999\CONN-99-001\90.DGN, N:\999999\CONN-99-001\91.DGN, N:\999999\CONN-99-001\92.DGN, N:\999999\CONN-99-001\93.DGN, N:\999999\CONN-99-001\94.DGN, N:\999999\CONN-99-001\95.DGN, N:\999999\CONN-99-001\96.DGN, N:\999999\CONN-99-001\97.DGN, N:\999999\CONN-99-001\98.DGN, N:\999999\CONN-99-001\99.DGN, N:\999999\CONN-99-001\100.DGN



SB-112

SB-112

SB-112

SOIL BORING LOG				SOIL BORING LOG				SOIL BORING LOG			
PAGE 1 of 4				PAGE 2 of 4				PAGE 3 of 4			
DATE 6/3-4/2009				DATE 6/3-4/2009				DATE 6/3-4/2009			
LOGGED BY DR				LOGGED BY DR				LOGGED BY DR			
GSI JOB No. 08201				GSI JOB No. 08201				GSI JOB No. 08201			
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08				ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08				ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic				COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic				COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic			
STRUCT. NO. 082-W309				STRUCT. NO. 082-W309				STRUCT. NO. 082-W309			
Station: ---				Station: ---				Station: ---			
BORING NO. SB-112				BORING NO. SB-112				BORING NO. SB-112			
Station: 52+43				Station: 52+43				Station: 52+43			
Offset: 51.5' Right				Offset: 51.5' Right				Offset: 51.5' Right			
Ground Surface Elev. 416.7				Ground Surface Elev. 416.7				Ground Surface Elev. 416.7			
Surface Water Elev. n/a				Surface Water Elev. n/a				Surface Water Elev. n/a			
Stream Bed Elev. n/a				Stream Bed Elev. n/a				Stream Bed Elev. n/a			
Groundwater Elevation:				Groundwater Elevation:				Groundwater Elevation:			
First Encounter n/a				First Encounter n/a				First Encounter n/a			
Upon Completion n/a				Upon Completion n/a				Upon Completion n/a			
After 24 Hrs. n/a				After 24 Hrs. n/a				After 24 Hrs. n/a			
CRUSHED ASPHALT & STONE 415.7				SAND-brown & gray-loose to dense (A-3)				SAND with Gravel-dense (A-1-b) 316.2			
SILTY CLINDERS & SAND-black-loose (FII) 413.7				SAND-brown & gray-loose to dense (A-3)				SAND-brown & gray-medium dense (A-3) 313.7			
SILTY CLAY LOAM-brown-loose (A-4) 411.2				SAND-brown & gray-loose to dense (A-3)				SAND-brown & gray-loose to dense (A-3)			
SILTY CLAY-brown & gray-medium stiff to stiff (A-4/A-6) Wet 403.7				SAND-brown & gray-loose to dense (A-3)				SAND with Gravel-brown & gray-medium dense to dense (A-1-b) 306.7-110			
SANDY LOAM-brown & gray-loose (A-2) 398.7				SAND-brown & gray-loose to dense (A-3)				SAND with Gravel-brown & gray-medium dense (A-1-b) 326.2			
SILTY LOAM-brown & gray-very loose to loose (A-4)				SAND-brown & gray-loose to dense (A-3)				SAND with Gravel-brown & gray-medium dense (A-1-b) 321.2			
				SAND-brown & gray-loose to dense (A-3)				SAND-brown & gray-medium dense (A-3) 318.7			
				SAND-brown & gray-loose to dense (A-3)				SAND with Gravel-brown & gray-dense (A-1-b)			

Table for SB-112 (Page 2) showing soil data and test results. Similar structure to Page 1, with columns for depth, blow counts, and soil descriptions.

Table for SB-112 (Page 3) showing soil data and test results. Similar structure to Page 1, with columns for depth, blow counts, and soil descriptions. Includes detailed notes on Run 1 and various soil layers.

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

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

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

\\FS-094-A\K\VAL\LD\TRANS\7202\20868-08\AS\PROJECT\CAD\01\DESIGN\082-W308\SHEET\03-01-SH-MS.DGN

SB-112

SB-112 Run-1

SB-112 Run-2

SOIL BORING LOG									
PAGE 4 of 4					DATE 6/3-4/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic					STRUCT. NO. 082-W309				
STATION: ---					BORING NO. SB-112				
Station: 52+43					Ground Surface Elev. 416.7				
Offset: 51.5' Right					Recovery=97.5% R.Q.D.=87.3%				
Ground Surface Elev. 416.7					End of Boring @ -130.0'				
DEPTH (ft)	BLOWS (blows/6")	UCS (tsf)	MOIST (%)	DEPTH (ft)	BLOWS (blows/6")	UCS (tsf)	MOIST (%)	Description	
									Surface Water Elev. n/a
									Stream Bed Elev. n/a
									Groundwater Elevation:
									First Encounter n/a
									Upon Completion n/a
									After 24 Hrs. n/a
									Recovery=100.0% R.Q.D.=91.0%
									End of Boring @ -130.0'
									Hollow Stem Augers To -10.0'
									Rotary Drilling To Completion
									CME Automatic Hammer
									10' Of 4" Casing Used

ROCK CORE LOG									
PAGE 1 of 2					DATE 6/3-4/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
STATION: ---					BORING NO. SB-112				
Station: 52+43					Ground Surface Elev. 416.7				
Offset: 51.5' Right					Recovery=97.5% R.Q.D.=87.3%				
Ground Surface Elev. 416.7					End of Boring @ -130.0'				
DEPTH (ft)	CORING BARREL TYPE & SIZE	CORE DIAMETER (in)	TOP OF ROCK ELEV.	BEGIN CORE ELEV.	DEPTH (ft)	RECOVERY (%)	R.Q.D. (%)	STRENGTH (tsf)	DESCRIPTION
	NX Double Swivel-10 ft	2.0	302.2	301.7					Light gray to gray & fine grained with horizontal bedding and some chert replacement.
									Horizontal fractures @ -115.7', -115.9', -116.3', -117.1', -117.4', -118.4', -118.6', -119.1', -119.8', -120.0', -120.4', -121.2', -121.6' & -122.1'. 1/4" clay parting @ -122.5'.
									Horizontal fracture @ -123.4'.
									Recovery=100.0% R.Q.D.=91.0%
									End of Boring @ -130.0'
									Hollow Stem Augers To -10.0'
									Rotary Drilling To Completion
									CME Automatic Hammer
									10' Of 4" Casing Used

ROCK CORE LOG									
PAGE 2 of 2					DATE 6/3-4/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
STATION: ---					BORING NO. SB-112				
Station: 52+43					Ground Surface Elev. 416.7				
Offset: 51.5' Right					Recovery=100.0% R.Q.D.=91.0%				
Ground Surface Elev. 416.7					End of Boring @ -130.0'				
DEPTH (ft)	CORING BARREL TYPE & SIZE	CORE DIAMETER (in)	TOP OF ROCK ELEV.	BEGIN CORE ELEV.	DEPTH (ft)	RECOVERY (%)	R.Q.D. (%)	STRENGTH (tsf)	DESCRIPTION
	NX Double Swivel-10 ft	2.0	302.2	301.7					Light to gray gray & fine grained with horizontal bedding. Horizontal fractures @ -126.7', -127.9', -128.5', -128.6', -128.7', -128.8', -129.0' & -129.6'.
									Recovery=100.0% R.Q.D.=91.0%
									End of Boring @ -130.0'
									Hollow Stem Augers To -10.0'
									Rotary Drilling To Completion
									CME Automatic Hammer
									10' Of 4" Casing Used

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

A:\999999\CON-89-081-MS.DCN \20020319 CON-89-081-MS.DCN \11-2011\1006088 NEWMANN \11-2011\1006088 DESIGN\82-2-1HVB-1\DESIGN\82-2-1HVB-1\82-2-1HVB-1-SHT-MS.DCN

SB-119

SB-119 Run-1

SOIL BORING LOG					ROCK CORE LOG							
ROUTE <u>I-70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange</u>		IDOT Job No. <u>D-98-059-08</u>	ROUTE <u>I-70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange</u>		IDOT Job No. <u>D-98-059-08</u>			
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>			SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>					
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u>		HAMMER TYPE <u>CME Automatic</u>	COUNTY <u>St. Clair</u>		CORING METHOD <u>Rotary Wash</u>					
STRUCT. NO. <u>082-0328</u>	Surface Water Elev. <u>n/a</u>	DEPT H (ft)	UCS (tsf)	MOIST (%)	STRUCT. NO. <u>082-0328</u>	CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>	DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min)	STRENGTH (tsf)
Station: <u>--</u>	Stream Bed Elev. <u>n/a</u>	Blows			Station: <u>--</u>	Core Diameter <u>2.0 in</u>						
BORING NO. <u>SB-119</u>	Groundwater Elevation: <u>n/a</u>	Qu			BORING NO. <u>SB-119</u>	Top of Rock Elev. <u>303.0</u>						
Station: <u>1682+57</u>	First Encounter <u>n/a</u>				Station: <u>1682+57</u>	Begin Core Elev. <u>302.0</u>						
Offset: <u>46.0' Left</u>	Upon Completion <u>n/a</u>				Offset: <u>46.0' Left</u>							
Ground Surface Elev. <u>416.0</u>	After 24 Hrs. <u>n/a</u>				Ground Surface Elev. <u>416.0</u>							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B= Bulge, S= Shear, P= Penetrometer) S= Shelby Tube Sample VS= Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in *italics* above moist (%)
NR= No Recovery

ROCK CORE LOG				
ROUTE <u>I-70/IL3</u>		DESCRIPTION <u>I-70/Relocated IL 3 Interchange</u>		IDOT Job No. <u>D-98-059-08</u>
SECTION <u>82-2-1HVB-1</u>		LOCATION <u>I-70 & Illinois Route 3</u>		
COUNTY <u>St. Clair</u>		DRILLING METHOD <u>3.25" Hollow Stem Auger</u>		HAMMER TYPE <u>CME Automatic</u>
STRUCT. NO. <u>082-0328</u>	Surface Water Elev. <u>n/a</u>	DEPTH (ft)	UCS (tsf)	MOIST (%)
Station: <u>--</u>	Stream Bed Elev. <u>n/a</u>	Blows		
BORING NO. <u>SB-119</u>	Groundwater Elevation: <u>n/a</u>	Qu		
Station: <u>1682+57</u>	First Encounter <u>n/a</u>			
Offset: <u>46.0' Left</u>	Upon Completion <u>n/a</u>			
Ground Surface Elev. <u>416.0</u>	After 24 Hrs. <u>n/a</u>			

DEPTH (ft)	RECOVERY (%)	CORRECTION (%)	R.Q.D. (%)	CORRECTION (min)	STRENGTH (tsf)
302.0	1	100.0	70.2	n/a	1004 ⁹ -114.0

RUN 1 (-114.0' to -124.0')
Mississippi System, Valmeyeran Series Limestone

Light gray & fine grained with horizontal bedding. Highly fractured to -115.8'. Horizontal fractures @ -116.2', -116.6', -117.1', -117.6', -118.2', -118.6' & -118.8'. Vertical fracture from -119.2' to -120.0'. Horizontal fractures @ -120.1', -121.5', -122.1', -122.3', -123.2' & -123.4'.

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

11-11-2011 10:08:21 FILENAME: \\FS-904\AM\VALU_I\T\ROCK\SHEET\082\308\SHEET\082\308\CONTRACT\082\308\CONTRACT\082\308\SHT-MS.DGN
5-11-2011 10:08:21 FILENAME: \\FS-904\AM\VALU_I\T\ROCK\SHEET\082\308\SHEET\082\308\CONTRACT\082\308\CONTRACT\082\308\SHT-MS.DGN

FILE NAME =				USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS 18 OF 20			F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 278	
#FILEL#				PLOT SCALE = #SCALE#	DRAWN - TCG	REVISED -		SCALE:	SHEET NO. RA-23 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	SN 082-W308 CONTRACT NO. 76D05					
TENG				PLOT DATE = #DATE#	CHECKED -	REVISED -		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT							
TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS				DATE - 05/13/11	REVISI-	REVISED -										

WB-101

SOIL BORING LOG		PAGE 1 of 2
ROUTE <u>I-70</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>		DATE <u>8/4/2009</u>
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3 Retaining Wall</u>		LOGGED BY <u>MR</u>
COUNTY <u>St. Clair</u> DRILLING METHOD <u>Hollow Stem Auger/Rotary</u> HAMMER TYPE <u>Diedrich Automatic</u>		GSI JOB No. <u>08201</u>
STRUCT. NO. <u>082-W309</u>		
Station: <u>---</u>		
BORING NO. WB-101		
Station: <u>52+00</u>		
Offset: <u>30.0' Left</u>		
Ground Surface Elev. <u>416.4</u>		

(ft) (/6") (tsf) (%)	(ft) (/6") (tsf) (%)
6.0" CONCRETE 415.9	
SILTY LOAM-brown-loose (A-4)	SILTY LOAM-brown-loose (A-4)
408.4	388.4
SILTY CLAY LOAM-brown-medium stiff (A-4/A-6) Wet	SANDY LOAM-brown-medium dense (A-2)
405.9	385.9
SANDY LOAM-brown-loose (A-2)	SILTY LOAM-gray-loose (A-4)
400.9	383.4
SILTY LOAM-brown-loose (A-4)	SAND-brown-medium dense (A-3)
	378.4
	SAND with Gravel-brown & gray-medium dense (A-1-b)
	373.4

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

WB-101

SOIL BORING LOG		PAGE 2 of 2
ROUTE <u>I-70</u> DESCRIPTION <u>I-70 Tri-Level Connection IDOT Job No. D-98-059-08</u>		DATE <u>8/4/2009</u>
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 Curved Approach Structure-Retaining Wall</u>		LOGGED BY <u>MR</u>
COUNTY <u>St. Clair</u> DRILLING METHOD <u>Hollow Stem Auger/Rotary</u> HAMMER TYPE <u>Diedrich Automatic</u>		GSI JOB No. <u>08201</u>
STRUCT. NO. <u>082-W309</u>		
Station: <u>---</u>		
BORING NO. WB-101		
Station: <u>52+00</u>		
Offset: <u>30.0' Left</u>		
Ground Surface Elev. <u>416.4</u>		

(ft) (/6") (tsf) (%)	(ft) (/6") (tsf) (%)
SAND with Gravel-brown & gray-medium dense (A-1-b)	SAND-brown & gray-medium dense to dense (A-3)
373.4	343.4
SAND-gray-medium dense to dense (A-3)	Trace organics from -66.0' to -67.5'.
365.9	340.9
WOOD	SAND with Gravel-gray-medium dense (A-1-b)
363.4	340.9
SAND-gray-dense (A-3)	SAND-gray-dense (A-3)
360.9	336.4
SAND with Gravel-brown & gray-medium dense (A-1-b)	End Of Boring @ -80.0'
358.4	Hollow Stem Augers To -10.0'
	Rotary Drilling To Completion
	Diedrich Automatic Hammer
	336.4 -80.0

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

I:\PROJECTS\CONTRACT\82-2-1HVB-1\082-W309\08201\WB-101\WB-101.DWG DATE: 08/04/09 10:54 AM
 10/24/09 10:54 AM
 5-11-2011 10:08:24
 TENG & ASSOCIATES, INC. CHICAGO, ILLINOIS
 ENGINEERS/ARCHITECTS/PLANNERS

FILE NAME :	USER NAME : #USER#	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SOIL BORING LOGS 19 OF 20				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILE#		DRAWN : TCG	REVISED :		I-70 CONNECTION RETAINING WALL	SCALE:	SHEET NO. RA-24 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	998	82-2-1HVB-1	ST. CLAIR	345	279
		CHECKED :	REVISED :										
		DATE : 05/13/11	REVISED :						SN 082-W308		CONTRACT NO. 76D05		
								FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			



WB-102

WB-102

SOIL BORING LOG									
PAGE 1 of 2					PAGE 2 of 2				
DATE 8/5/2009					DATE 8/5/2009				
LOGGED BY MR					LOGGED BY MR				
GSI JOB No. 08201					GSI JOB No. 08201				
ROUTE I-70 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08				
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3 Retaining Wall					SECTION 82-2-1HVB-1 LOCATION I-70 Curved Approach Structure-Retaining Wall				
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic					COUNTY St. Clair DRILLING METHOD _____ HAMMER TYPE _____				
STRUCT. NO. 082-W309					STRUCT. NO. 082-W309				
Station: --					Station: --				
BORING NO. WB-102					BORING NO. WB-102				
Station: 53+50					Station: 53+50				
Offset: 30.5' Left					Offset: 30.5' Left				
Ground Surface Elev. 419.6					Ground Surface Elev. 419.5				
DEPT	BLOW	UCS	MOIST	Surface Water Elev.	DEPT	BLOW	UCS	MOIST	Surface Water Elev.
H	S	Qu	T	n/a	H	S	Qu	T	n/a
(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)	
AS NP 7 SANDY LOAM-medium dense (A-2) 399.0					AS NP 19 SAND-gray-medium dense to dense (A-3)				
TOPSOIL-black					TOPSOIL-black				
418.0					418.0				
SILTY CLAY LOAM-dark brown-loose (Fill)					SILTY CLAY LOAM-dark brown-loose (Fill)				
416.5					416.5				
SILTY CLAY-brown-stiff (A-7) Wet					SILTY CLAY-brown-stiff (A-7) Wet				
82					82				
SAND-brown-medium dense to dense (A-3)					SAND-brown-medium dense to dense (A-3)				
411.5					411.5				
SILTY LOAM-brown-loose (A-4)					SILTY LOAM-brown-loose (A-4)				
409.0					409.0				
SANDY LOAM-brown-loose (A-2)					SANDY LOAM-brown-loose (A-2)				
406.5					406.5				
SAND-brown-medium dense (A-3)					SAND-brown-medium dense (A-3)				
Trace organics from -33.5' to -35.0'.					Trace organics from -33.5' to -35.0'.				
401.5					401.5				
SANDY LOAM-brown-medium dense (A-2)					SANDY LOAM-brown-medium dense (A-2)				

SOIL BORING LOG									
PAGE 1 of 2					PAGE 2 of 2				
DATE 8/5/2009					DATE 8/5/2009				
LOGGED BY MR					LOGGED BY MR				
GSI JOB No. 08201					GSI JOB No. 08201				
ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08					ROUTE I-70 DESCRIPTION I-70 Tri-Level Connection IDOT Job No. D-98-059-08				
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3 Retaining Wall					SECTION 82-2-1HVB-1 LOCATION I-70 Curved Approach Structure-Retaining Wall				
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE Diedrich Automatic					COUNTY St. Clair DRILLING METHOD _____ HAMMER TYPE _____				
STRUCT. NO. 082-W309					STRUCT. NO. 082-W309				
Station: --					Station: --				
BORING NO. WB-102					BORING NO. WB-102				
Station: 53+50					Station: 53+50				
Offset: 30.5' Left					Offset: 30.5' Left				
Ground Surface Elev. 419.6					Ground Surface Elev. 419.5				
DEPT	BLOW	UCS	MOIST	Surface Water Elev.	DEPT	BLOW	UCS	MOIST	Surface Water Elev.
H	S	Qu	T	n/a	H	S	Qu	T	n/a
(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)	
AS NP 19 SAND-gray-medium dense to dense (A-3)					AS NP 19 SAND-gray-medium dense to dense (A-3)				
TOPSOIL-black					TOPSOIL-black				
418.0					418.0				
SILTY CLAY LOAM-dark brown-loose (Fill)					SILTY CLAY LOAM-dark brown-loose (Fill)				
416.5					416.5				
SILTY CLAY-brown-stiff (A-7) Wet					SILTY CLAY-brown-stiff (A-7) Wet				
82					82				
SAND-brown-medium dense to dense (A-3)					SAND-brown-medium dense to dense (A-3)				
411.5					411.5				
SILTY LOAM-brown-loose (A-4)					SILTY LOAM-brown-loose (A-4)				
409.0					409.0				
SANDY LOAM-brown-loose (A-2)					SANDY LOAM-brown-loose (A-2)				
406.5					406.5				
SAND-brown-medium dense (A-3)					SAND-brown-medium dense (A-3)				
Trace organics from -33.5' to -35.0'.					Trace organics from -33.5' to -35.0'.				
401.5					401.5				
SANDY LOAM-brown-medium dense (A-2)					SANDY LOAM-brown-medium dense (A-2)				
End Of Boring @ -80.0'					End Of Boring @ -80.0'				
Hollow Stem Augers To -10.0'					Hollow Stem Augers To -10.0'				
Rotary Drilling To Completion					Rotary Drilling To Completion				
Diedrich Automatic Hammer 399.5					Diedrich Automatic Hammer 399.5				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
 NR-No Recovery

S:\PPR\CON-98-082-MS.DGN, 10/08/27 NEWMANHD \\FS-0044\HW\OUT\ID-TRANS_07\2202\28866-081\STRUCT\CAD\01 DESIGN\082\08\08\SHEET\082\08\08\CON-10-020-SHT-MS.DGN

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#	PLOT SCALE = #SCALE#	DRAWN - TCG	REVISED -		20 OF 20				998	82-2-1HVB-1	ST. CLAIR	345	280
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT DATE = #DATE#	CHECKED -	REVISED -		SCALE:	SHEET NO. RA-25 OF RA-25	STA. 170+00.00 TO STA. 176+50.00	SN 082-W308		CONTRACT NO. 76D05			
		DATE - 05/13/11	REVISED -		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT						

SEISMIC DATA*

Soil Site Class = D

Return Period, Tr [Yrs]	1000
Design Spectral Accel. at 1.0 sec, SD1 [g]	0.20
Design Spectral Accel. at 0.2 sec, SDS [g]	0.39
Importance Category	Essential
Seismic Performance Zone	2

* Seismic Data based on site-specific analysis.

INDEX OF SHEETS

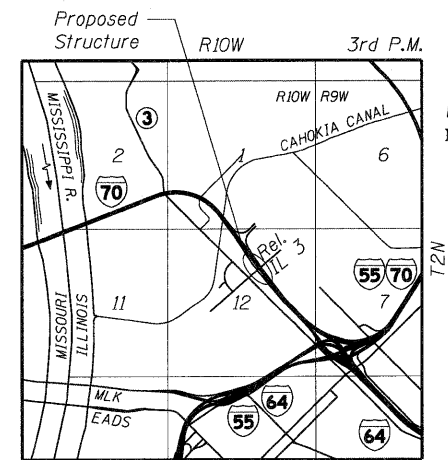
RB-1	General Plan & Elevation
RB-2	General Data
RB-3	Details
RB-4	Coping Details, 1 of 3
RB-5	Coping Details, 2 of 3
RB-6	Coping Details, 3 of 3
RB-7 to RB-32	Soil Boring Logs, 1 to 26

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	1,437
Concrete Structures	Cu Yd	33.3
Reinforcement Bars, Epoxy Coated	Pound	3,490
Chain Link Fence, 4' Attached to Structure	Foot	309
Mechanically Stabilized Earth Retaining Wall	Sq Ft	12,940

GENERAL NOTES

- Contractor Designed Ground Improvement (Performance Specification) - The Contractor will determine the appropriate ground improvement technology and required vertical and horizontal limits of improvement to meet the performance criteria. Ground Improvement will be completed prior to placing the embankment and constructing the leveling pad for the MSE wall.
- For Anchorage Slab details, see Sheets 122 thru 135.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.
- Light pole foundations and buried conduit shown on Sht. RB-1 to be installed in this contract. Light poles to be installed by others. See electrical plans.



LOCATION SKETCH

\\S:\2011\2011_10\08\52\NFS\024\AMVAULT\TRANS\07\2202\20868-00\STRUCT\CAD\01\DESIGN\02\309\1\1\052\030\CONN-10-001-SHT-SKETCH.DWG

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED - MDJ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	GENERAL DATA			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = #SCALE#	DRAWN - MDJ	REVISED -		SCALE:	SHEET NO. RB-2 OF RB-32	STA. 801+75.00 TO STA. 809+75.00	998	82-2-1HVB-1	ST. CLAIR	345	282
PLOT DATE = #DATE#	CHECKED - JLR	REVISED -	DATE - 05/13/11		REVISED -	SN 082-W309		CONTRACT NO. 76D05				
	TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS						FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			
TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS												

CURVE RAMPA-1

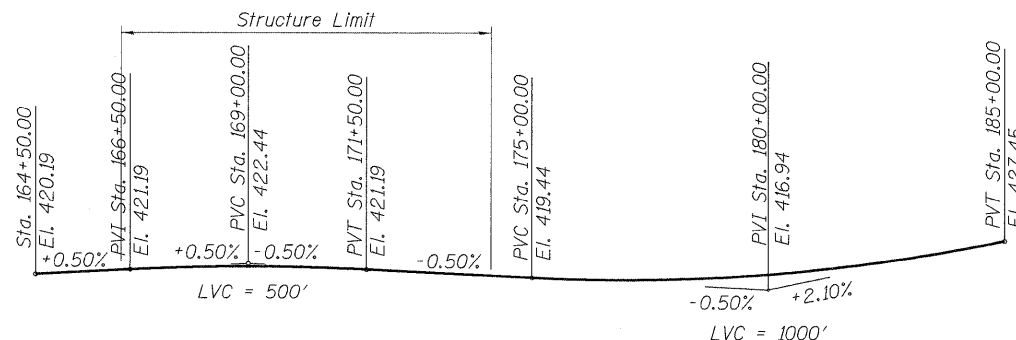
P.I. = Sta. 22+26.85
 $\Delta = 8^{\circ}31'38''$ (LT)
 $D = 4^{\circ}46'29''$
 $R = 1,200.00'$
 $L = 178.60'$
 $T = 89.46'$
 $E = 3.33'$
P.C. = Sta. 21+37.39
P.T. = Sta. 23+15.98

CURVE RAMPB-1

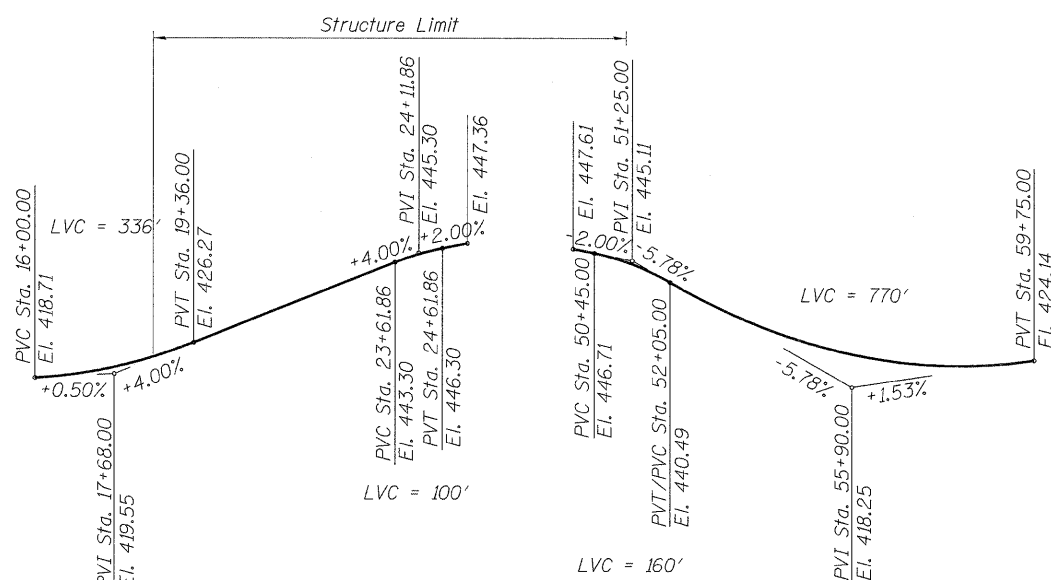
P.I. = Sta. 54+64.50
 $\Delta = 1^{\circ}24'03''$ (LT)
 $D = 0^{\circ}57'18''$
 $R = 6,000.00'$
 $L = 146.70'$
 $T = 73.35'$
 $E = 0.45'$
P.C. = Sta. 53+91.15
P.T. = Sta. 55+37.85

CURVE RET WALL

P.I. = Sta. 806+15.20
 $\Delta = 16^{\circ}28'22''$ (RT)
 $D = 3^{\circ}51'30''$
 $R = 1,485.00'$
 $L = 426.94'$
 $T = 214.95'$
 $E = 15.48'$
P.C. = Sta. 804+00.24
P.T. = Sta. 808+27.18

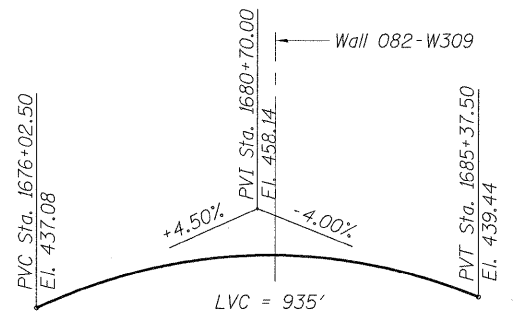


PROFILE GRADE F.A.P. RTE 998 (RELOCATED I-70)

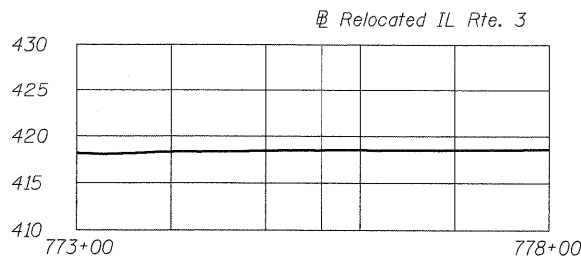


PROFILE GRADE RAMP A

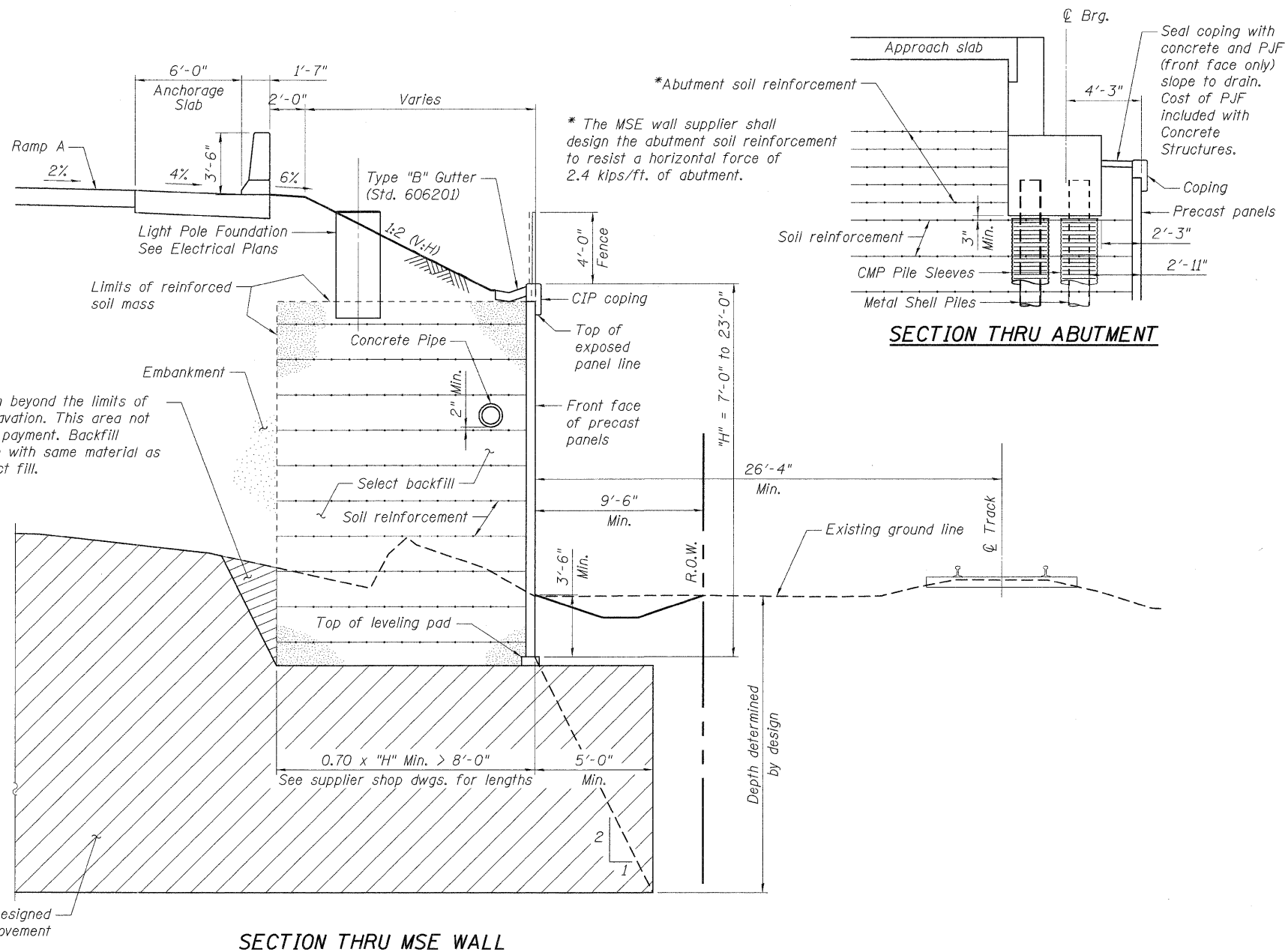
PROFILE GRADE RAMP B



PROFILE GRADE RELOCATED IL-3



TRRA MAINLINE PROFILE

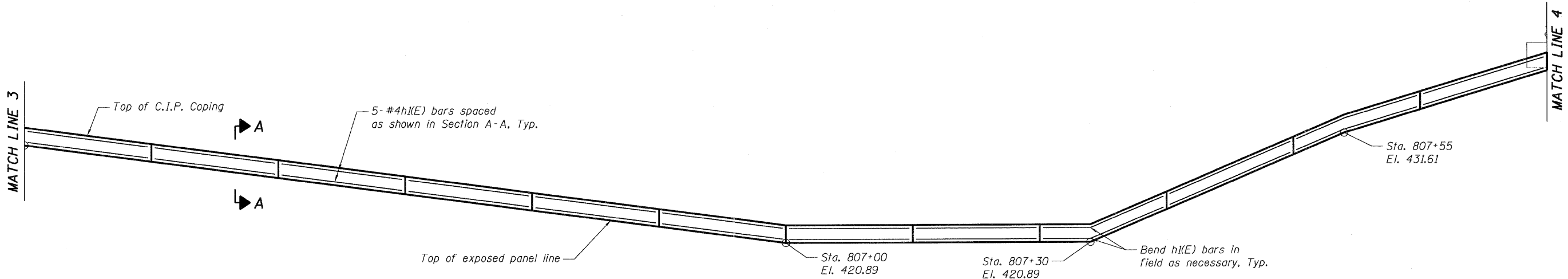


SECTION THRU MSE WALL

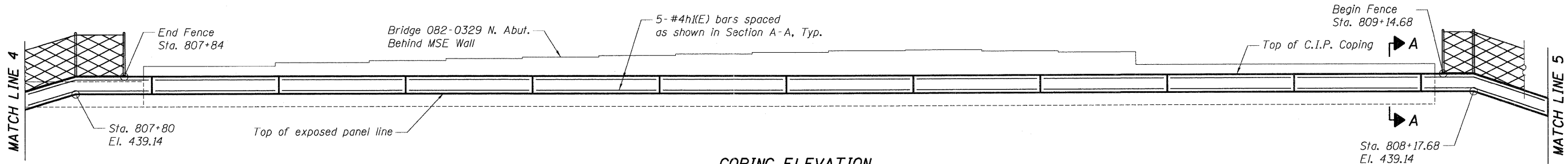
SECTION THRU ABUTMENT

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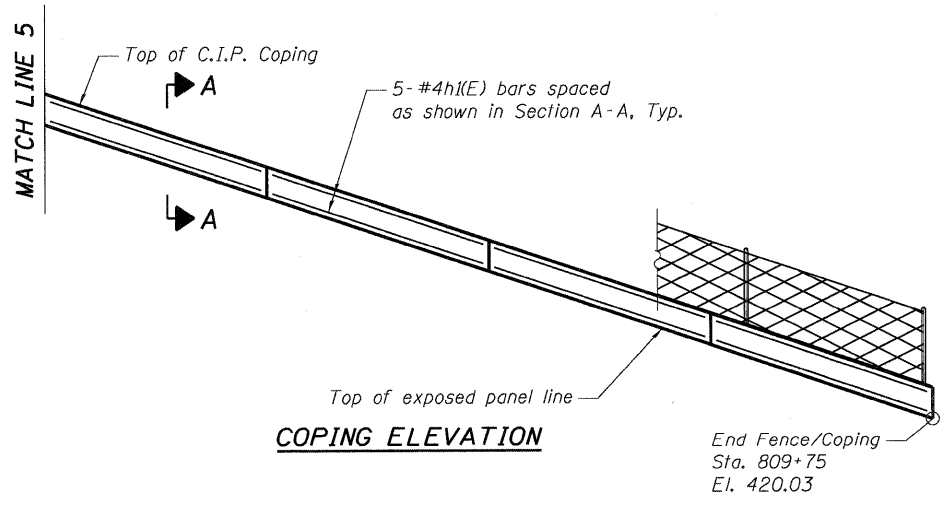
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#FILE#	PLOT SCALE = #SCALE#	CHECKED - JLR	REVISED -		SCALE:	SHEET NO. RB-3 OF RB-32	STA. 801+75.00 TO STA. 809+75.00	SN 082-W309		CONTRACT NO. 76D05		
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS												



COPING ELEVATION



COPING ELEVATION



COPING ELEVATION

A:\2011\CON-99-001-RS.DGN... \082\0329-CON-10-001-RS.DGN... \082\0329-CON-10-001-RS.DGN... \082\0329-CON-10-001-RS.DGN... \082\0329-CON-10-001-RS.DGN...
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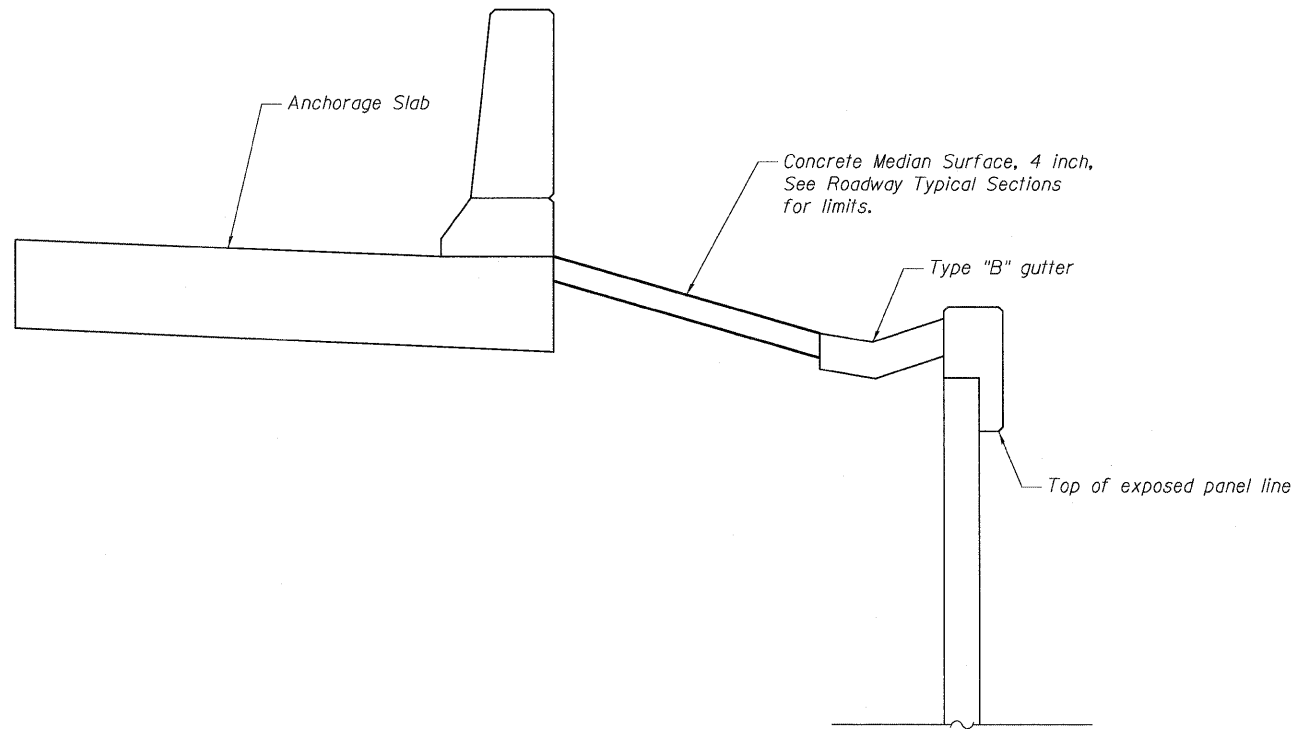
TENG
 TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

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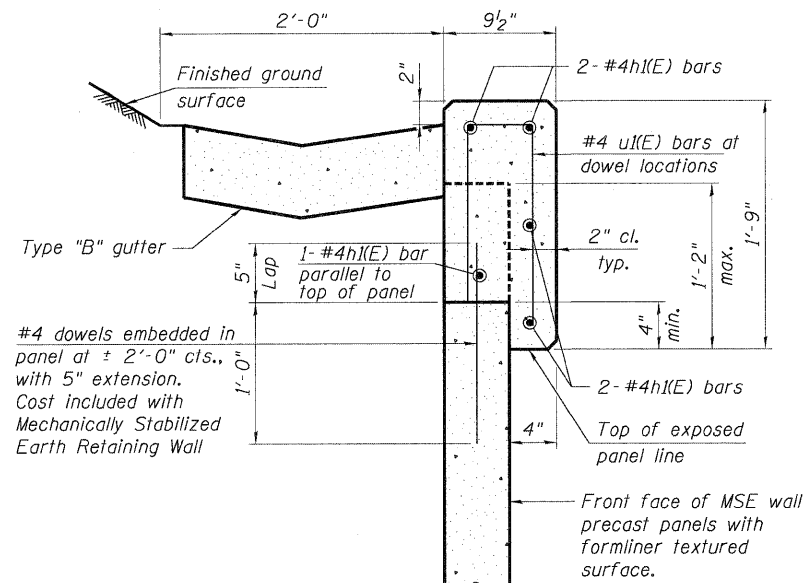
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 I-70 CONNECTION
 RETAINING WALL

COPING DETAILS
 2 OF 3
 SCALE: SHEET NO. RB-5 OF RB-32 STA. 801+75.00 TO STA. 809+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	285
SN 082-W309		CONTRACT NO. 76D05		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



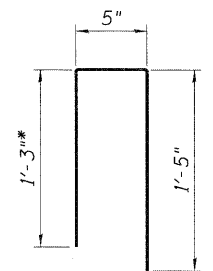
SECTION B-B



SECTION A-A

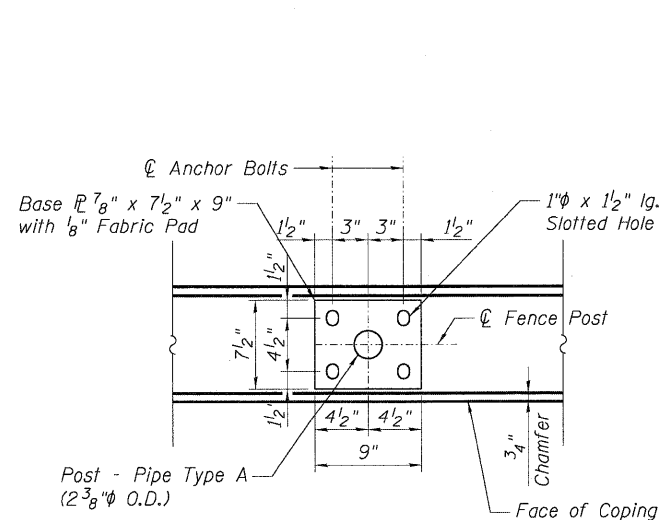
BAR LIST

Bar	No.	Size	Length	Shape
h(E)	320	#4	12'-0"	—
u(E)	448	#4	3'-1"	⌊

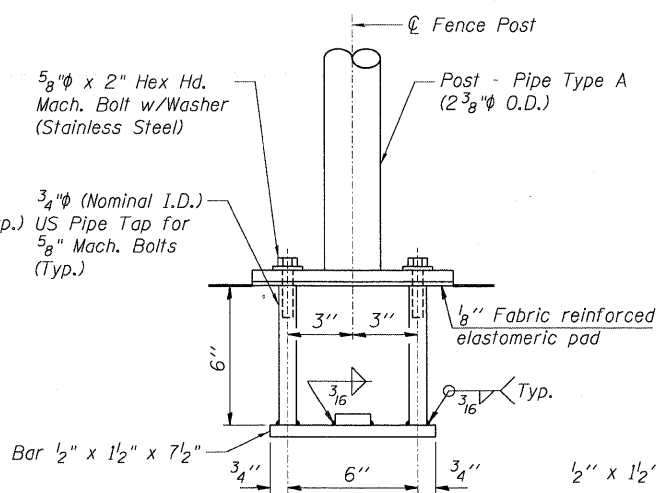


u(E) Bar

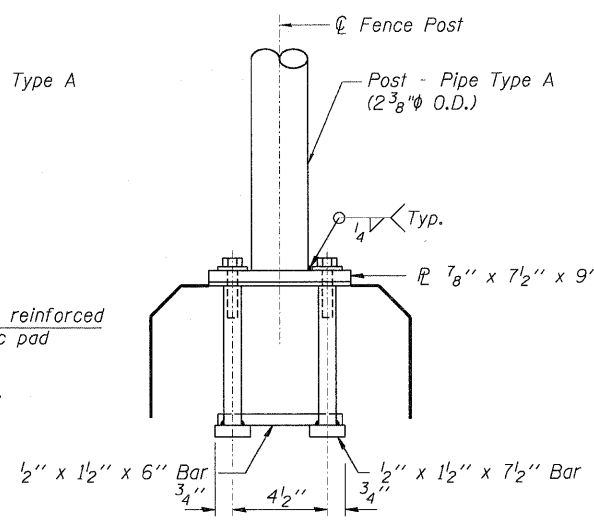
*Cut leg in field as required



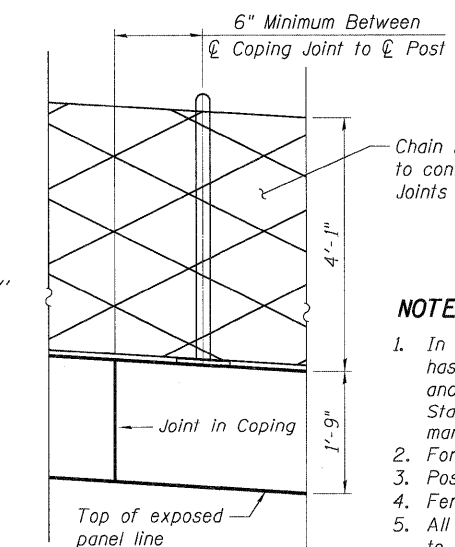
BASE PLATE PLAN



ELEVATION



SIDE VIEW



COPING JOINT DETAIL

NOTES

- In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ stainless steel anchor rods according to Articles 509.06 and 1006.31 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.
- For additional Chain Link Fence Details, See Std. 664001.
- Posts Shall be placed at locations determined by the Engineer.
- Fence Posts shall be vertical when erected.
- All fence parts are to have a Type IV, Class B coating according to Article 1006.27 of the Standard Specifications. Color: Black.

10824309 CONN. 10 003 MS.DCN 10824318 CONN. 09 001 B0.DCN 10824309 CONN. 09 001 MS.DCN 10824309 CONN. 10 003 SH-T-RS.DCN
 5-11-2011 10:01:05
 NEWMANN
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 PLOT DATE = #DATE#
 DESIGNED - TCG
 DRAWN - TCG
 CHECKED - JLR
 DATE - 05/13/11
 REVISED -
 REVISED -
 REVISED -
 REVISED -

TENG TENG & ASSOCIATES, INC.
 ENGINEERS/ARCHITECTS/PLANNERS
 CHICAGO, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
 I-70 CONNECTION
 RETAINING WALL

COPING DETAILS
3 OF 3
 SCALE: SHEET NO. RB-6 OF RB-32 STA. 801+75.00 TO STA. 809+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
998	82-2-1HVB-1	ST. CLAIR	345	286
SN 082-W309		CONTRACT NO. T6D05		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

SB-103

SB-103 Run-1

SB-103 Run-2

SOIL BORING LOG														
PAGE 4 of 4					DATE 5/19/2009									
LOGGED BY DR					GSI JOB No. 08201									
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3									
COUNTY St. Clair DRILLING METH-OD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic					STRUCT. NO. 082-W309									
BORING NO. SB-103					Station: 18+66									
Offset: 16.0' Right					Ground Surface Elev. 418.5									
Surface Water Elev. n/a					Stream Bed Elev. n/a									
Groundwater Elevation:					First Encounter 401.5									
Upon Completion n/a					After 24 Hrs. 399.5									
D E P T H (ft)					B L O W S Qu (tsf)					M O I S T U R E (%)				
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -118.1, -118.5' & -119.2'. Numerous horizontal fractures from -119.2' to -121.7'. Horizontal fractures @ -122.3', -122.9' & -123.4'. 1/8" clay partings from -123.8' to -124.1'. Horizontal fracture @ -124.6'. 2.0" clay parting @ -124.6'. Horizontal fractures @ -125.3' & -126.6'.														
Recovery=100.0% R.Q.D.=74.5%														
291.0														
RUN 2 (-127.5' to -132.5') Mississippi System, Valmeyeran Series Limestone														
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -128.2', -128.9', -129.1', -129.4', -129.8', -130.2', -130.4', -130.8', -131.1', -131.2', -131.7' & -132.0'.														
Recovery=100.0% R.Q.D.=51.0%														
286.0														
End Of Boring @ -132.5' Hollow Stem Augers To -25.0' Rotary Drilling To Completion CME Automatic Hammer 25' Of 4" Casing Used 115' Of 3" Casing Used														

ROCK CORE LOG																													
PAGE 1 of 2					DATE 5/19/2009																								
LOGGED BY					GSI JOB No. 08201																								
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3																								
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309																								
BORING NO. SB-103					Station: 18+66																								
Offset: 16.0' Right					Ground Surface Elev. 418.5																								
Coring Barrel Type & Size NX Double Swivel-10 ft					Core Diameter 2.0 in																								
Top of Rock Elev. 301.5					Begin Core Elev. 301.0																								
D E P T H (ft)					C O R E R U N (#)					R E C O V E R Y (%)					R . Q . D . (%)					C O R E T I M E (min)					S T R E N G T H (tsf)				
RUN 1 (-117.5' to -127.5') Mississippi System, Valmeyeran Series Limestone																													
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -118.1, -118.5' & -119.2'. Numerous horizontal fractures from -119.2' to -121.7'. Horizontal fractures @ -122.3', -122.9' & -123.4'. 1/8" clay partings from -123.8' to -124.1'. Horizontal fracture @ -124.6'. 2.0" clay parting @ -124.6'. Horizontal fractures @ -125.3' & -126.6'.																													
Recovery=100.0% R.Q.D.=74.5%																													
301.0																													
RUN 2 (-127.5' to -132.5') Mississippi System, Valmeyeran Series Limestone																													
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -128.2', -128.9', -129.1', -129.4', -129.8', -130.2', -130.4', -130.8', -131.1', -131.2', -131.7' & -132.0'.																													
Recovery=100.0% R.Q.D.=51.0%																													
291.0																													

ROCK CORE LOG																													
PAGE 2 of 2					DATE 5/19/2009																								
LOGGED BY					GSI JOB No. 08201																								
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3																								
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309																								
BORING NO. SB-103					Station: 18+66																								
Offset: 16.0' Right					Ground Surface Elev. 418.5																								
Coring Barrel Type & Size NX Double Swivel-10 ft					Core Diameter 2.0 in																								
Top of Rock Elev. 301.5					Begin Core Elev. 301.0																								
D E P T H (ft)					C O R E R U N (#)					R E C O V E R Y (%)					R . Q . D . (%)					C O R E T I M E (min)					S T R E N G T H (tsf)				
RUN 2 (-127.5' to -132.5') Mississippi System, Valmeyeran Series Limestone																													
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -128.2', -128.9', -129.1', -129.4', -129.8', -130.2', -130.4', -130.8', -131.1', -131.2', -131.7' & -132.0'.																													
Recovery=100.0% R.Q.D.=51.0%																													
291.0																													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetration, (S*)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (ASTM D2938). The Unit Dry Weight (pcf) is noted in Italic above moist (%). NR-No Recovery.

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

Color pictures of the cores Yes. Cores will be stored for examination for XX. The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938).

\P\99999\CONN-98-001-MS.DGN, \882018-CONN-98-001-80.DGN, \11-2011, 1020112, \FILEL, \S: 0044\AV\VAULT, D-TRANS, 07\2202\2008\001\STRUCT\CAD\01, DESIGN\082W309\DESIGN\082W309\CONN-10-002-SH1-MS.DGN

SB-104

SB-104

SB-104

SOIL BORING LOG											PAGE 1 of 4			
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08											DATE 5/9-10/2009			
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3											LOGGED BY DR			
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic											GSI JOB No. 08201			
STRUCT. NO. 082-W309											Surface Water Elev. <i>n/a</i>			
Station: --											Stream Bed Elev. <i>n/a</i>			
BORING NO. SB-104											Groundwater Elevation: <i>n/a</i>			
Station: 19+63											First Encounter <i>n/a</i>			
Offset: 7.0' Right											Upon Completion <i>n/a</i>			
Ground Surface Elev. 419.7											After 24 Hrs. 405.7			
DEPT H	BL WS Qu	UCS	MOIST (%)	DEPT H	BL WS Qu	UCS	MOIST (%)							
CLAY LOAM-brown (A-6) Fill	AS	-	17											
418.7														
	5				4									
	4				9									
CINDERS & SAND-black-loose (Fill)	3	NP	21		6	NP	18							
	3				7									
	4				11									
	4				12									
	5	NP	27		12	NP	19							
414.2														
	4				9									
	3				8									
	3	NP	12		9	NP	19							
391.7														
SILTY LOAM to LOAM-brown-loose (A-4)					2									
	2				1									
	3				3									
	4	NP	16		3	0.25P	41							
389.2														
	2				11									
	3				13									
	4	NP	26		12	NP	13							
	1				7									
	2				13									
	3	NP	32		14	NP	14							
404.2														
	7				5									
	6				12									
SANDY LOAM-brown-loose (A-2)	3	NP	23		14	NP	13							
401.7														
	5				13									
	6				16									
SAND-brown & gray-medium dense (A-3)	7				15	NP	19							

SOIL BORING LOG											PAGE 2 of 4			
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08											DATE 5/9-10/2009			
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3											LOGGED BY DR			
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic											GSI JOB No. 08201			
STRUCT. NO. 082-W309											Surface Water Elev. <i>n/a</i>			
Station: --											Stream Bed Elev. <i>n/a</i>			
BORING NO. SB-104											Groundwater Elevation: <i>n/a</i>			
Station: 19+63											First Encounter <i>n/a</i>			
Offset: 7.0' Right											Upon Completion <i>n/a</i>			
Ground Surface Elev. 419.7											After 24 Hrs. 405.7			
DEPT H	BL WS Qu	UCS	MOIST (%)	DEPT H	BL WS Qu	UCS	MOIST (%)							
					6									
					12									
					15	NP	16							
					10									
					14									
					15	NP	16							
SAND-brown & gray-medium dense (A-3)														
					11									
					14									
					16	NP	15							
					11									
					22									
					3	NP	16							
					15									
					16									
					14	NP	16							
					8									
					14									
					14	NP	14							
					14									
					14	NP	11							
					10									
					8									
					7									
					7									
					8	NP	14							
					12									

SOIL BORING LOG											PAGE 3 of 4			
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08											DATE 5/9-10/2009			
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3											LOGGED BY DR			
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic											GSI JOB No. 08201			
STRUCT. NO. 082-W309											Surface Water Elev. <i>n/a</i>			
Station: --											Stream Bed Elev. <i>n/a</i>			
BORING NO. SB-104											Groundwater Elevation: <i>n/a</i>			
Station: 19+63											First Encounter <i>n/a</i>			
Offset: 7.0' Right											Upon Completion <i>n/a</i>			
Ground Surface Elev. 419.7											After 24 Hrs. 405.7			
DEPT H	BL WS Qu	UCS	MOIST (%)	DEPT H	BL WS Qu	UCS	MOIST (%)							
SAND-medium dense (A-3)					12									
					14									
					15	NP	17							
					16									
					21									
					9									
					10	NP	16							
SAND with Gravel-brown & gray-medium dense (A-1-b)														
					19									
					27									
					30	NP	17							
					6									
					5									
					8	NP	15							
					13									
					20									
					27	NP	13							
					13									
					13	NP	15							
SAND-brown & gray-medium dense to dense (A-3)														
					14									
					16									
					15	NP	17							
					14									
					15									
					15	NP	13							
					10									
					8									
					8									
					6	NP	15							
					7									
					7									
					7									
					7	NP	14							
					12									
					12									
					12	NP	14							
					8									
					14									
					14	NP	11							
					10									
					8									
					7									
					7									
					7	NP	14							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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USER NAME = RSUSERS
DESIGNED - TCC
REVISED -
DRAWN - TCC
CHECKED -
DATE - 05/13/11
PLOT SCALE =
PLOT DATE =

TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	FILE NAME =	USER NAME = RSUSERS	DESIGNED - TCC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS 3 OF 26			F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 289
	PLOT SCALE =	CHECKED -	DATE - 05/13/11	REVISED -		SCALE:	SHEET NO. RB-9 OF RB-32	STA. 801+75.00 TO STA. 809+75.00	CONTRACT NO. 76D05				

SB-104

SB-104 Run-1

SB-104 Run-2

SOIL BORING LOG

PAGE 4 of 4

DATE 5/9-10/2009

LOGGED BY DR

GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08

SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3

COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309

Station: --

BORING NO. SB-104

Station: 19+63

Offset: 7.0' Right

Ground Surface Elev. 419.7

DEPTH (ft)	BLOW COUNT	UCS Qu (tsf)	MOIST Qu (%)	Surface Water Elev.	Stream Bed Elev.	Groundwater Elevation:	First Encounter	Upon Completion	After 24 Hrs.
				n/a	n/a	n/a	n/a	n/a	405.7
0									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

ROCK CORE LOG

PAGE 1 of 2

DATE 5/9-10/2009

LOGGED BY DR

GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08

SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3

COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309

Station: --

BORING NO. SB-104

Station: 19+63

Offset: 7.0' Right

Ground Surface Elev. 419.7

DEPTH (ft)	CORE RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min)	STRENGTH (tsf)
0					
1		98.0	67.0	n/a	9250
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

ROCK CORE LOG

PAGE 2 of 2

DATE 5/9-10/2009

LOGGED BY DR

GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08

SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3

COUNTY St. Clair CORING METHOD Rotary Wash

STRUCT. NO. 082-W309

Station: --

BORING NO. SB-104

Station: 19+63

Offset: 7.0' Right

Ground Surface Elev. 419.7

DEPTH (ft)	CORE RUN	RECOVERY (%)	R.Q.D. (%)	CORRECTION (min)	STRENGTH (tsf)
0					
1		100.0	84.0	n/a	10940
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

\\sp06p09.ccn\dms-99-001-MS.DGN, \\sp06p09.ccn\dms-99-001-MS.DGN, \\sp06p09.ccn\dms-99-001-MS.DGN, \\sp06p09.ccn\dms-99-001-MS.DGN, \\sp06p09.ccn\dms-99-001-MS.DGN

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%) NR-No Recovery

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____ The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____ The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS 4 OF 26				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - TCC	REVISED -		SCALE:	SHEET NO. RB-10 OF RB-32	STA. 801+75.00 TO STA. 809+75.00	998	82-2-1HVB-1	ST. CLAIR	345	290	
TENG TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	PLOT SCALE = #SCALE#	CHECKED -	REVISED -					SN 082-W309		CONTRACT NO. 76D05			
	PLOT DATE = #DATE#	DATE - 05/13/11	REVISED -					FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

SB-105

PAGE 1 of 4

SOIL BORING LOG

DATE 6/11-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-105**
Station: 20+59
Offset: Baseline
Ground Surface Elev. 418.7

DEPTH H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>n/a</u>		D E P T H	B L O W S	U C S Qu	M O I S T
				(ft)	(tsf)				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR=No Recovery

SB-105

PAGE 2 of 4

SOIL BORING LOG

DATE 6/11-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-105**
Station: 20+59
Offset: Baseline
Ground Surface Elev. 418.7

DEPTH H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>n/a</u>		D E P T H	B L O W S	U C S Qu	M O I S T
				(ft)	(tsf)				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR=No Recovery

SB-105

PAGE 3 of 4

SOIL BORING LOG

DATE 6/11-16/2009
LOGGED BY DR
GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309
Station: --

BORING NO. **SB-105**
Station: 20+59
Offset: Baseline
Ground Surface Elev. 418.7

DEPTH H S	B L O W S	U C S Qu	M O I S T	Surface Water Elev. <u>n/a</u>		D E P T H	B L O W S	U C S Qu	M O I S T
				(ft)	(tsf)				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)=Bulge, S=Shear, P=Penetrometer) ST=Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR=No Recovery

\SPP9999.CONN-PP-081-MS.DGN \A\0820319.CONN-PP-021.BD.DGN
 \SPP9999.CONN-PP-081-MS.DGN \A\0820319.CONN-PP-021.BD.DGN
 \SPP9999.CONN-PP-081-MS.DGN \A\0820319.CONN-PP-021.BD.DGN
 \SPP9999.CONN-PP-081-MS.DGN \A\0820319.CONN-PP-021.BD.DGN
 \SPP9999.CONN-PP-081-MS.DGN \A\0820319.CONN-PP-021.BD.DGN

SB-106

SB-106 Run-1

SB-106 Run-2

SOIL BORING LOG		PAGE 4 of 4
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/15-19/2009
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic		GSJ JOB No. 08201
STRUCT. NO. 082-W309	Surface Water Elev. <u>n/a</u>	D B U C S M
Station: --	Stream Bed Elev. <u>n/a</u>	E P T H W S Qu O U I S T
BORING NO. SB-106	Groundwater Elevation:	
Station: 21+47	First Encounter <u>n/a</u>	
Offset: 34.0' Left	Upon Completion <u>n/a</u>	
Ground Surface Elev. 415.8	After 24 Hrs. 396.8	(ft) (/6") (tsf) (%)
Recovery=97.2% R.Q.D.=86.9%		
RUN 1		
290.8-125		
RUN 2 (-125.0' to -130.0') Mississippi System, Valmeyeran Series Limestone		
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.5', -126.1', -126.9', -127.4', -127.9', -128.2', -129.0', -129.1', -129.3' & -129.5'.		
Recovery=100.0% R.Q.D.=87.0		
285.8-130		
End Of Boring @ -130.0' Hollow Stem Augers To -20.0' Rotary Drilling To Completion CME Automatic Hammer 20' Of 4" Casing Used		
-135		
-140		

ROCK CORE LOG		PAGE 1 of 2
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/15-19/2009
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR
COUNTY St. Clair CORING METHOD Rotary Wash		GSJ JOB No. 08201
STRUCT. NO. 082-W309	CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	D C R E S T
Station: --	Core Diameter 2.0 in	E P T H R U N Q D M E T H
BORING NO. SB-106	Top of Rock Elev. 300.8	(ft) (#) (%) (%) (min /ft) (tsf)
Station: 21+47	Begin Core Elev. 300.8	
Offset: 34.0' Left		
Ground Surface Elev. 415.8		
RUN 1 (-115.0' to -125.0') Mississippi System, Valmeyeran Series Limestone		
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -115.1', -115.4', -116.0', -117.3', -118.8', -119.3', -120.5', -121.9' & -122.5'. 1/4" clay parting @ -113.0'. Horizontal fractures @ -113.3' & -134.6'.		
Recovery=97.2% R.Q.D.=86.9%		
300.8		
-120		
-125		

ROCK CORE LOG		PAGE 2 of 2
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08		DATE 5/15-19/2009
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3		LOGGED BY DR
COUNTY St. Clair CORING METHOD Rotary Wash		GSJ JOB No. 08201
STRUCT. NO. 082-W309	CORING BARREL TYPE & SIZE NX Double Swivel-10 ft	D C R E S T
Station: --	Core Diameter 2.0 in	E P T H R U N Q D M E T H
BORING NO. SB-106	Top of Rock Elev. 300.8	(ft) (#) (%) (%) (min /ft) (tsf)
Station: 21+47	Begin Core Elev. 300.8	
Offset: 34.0' Left		
Ground Surface Elev. 415.8		
RUN 2 (-125.0' to -130.0') Mississippi System, Valmeyeran Series Limestone		
Light gray to gray & fine grained with horizontal bedding. Horizontal fractures @ -125.5', -126.1', -126.9', -127.4', -127.9', -128.2', -129.0', -129.1', -129.3' & -129.5'.		
Recovery=100.0% R.Q.D.=87.0		
290.8		
-130		
-135		

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B= Bulge, S= Shear, P= Penetrometer) ST= Shelby Tube Sample VS= Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR= No Recovery

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes _____ Cores will be stored for examination for XX _____
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

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SB-107

SB-107

SB-107

SOIL BORING LOG				PAGE 1 of 4				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								
STRUCT. NO. 082-W309								
STATION: ---								
BORING NO. SB-107								
Station: 22+69								
Offset: 30.0' Left								
Ground Surface Elev. 415.2								
D E P T H	B L O W S	U C S Qu	M O I S T %	Surface Water Elev.	D E P T H	B L O W S	U C S Qu	M O I S T %
(ft)	(#/6")	(tsf)	(%)	n/a	(ft)	(#/6")	(tsf)	(%)
CRUSHED STONE								
413.7	15				5			
CINDERS-black-medium dense (Fill)								
412.2	9	NP	20		9	NP	23	
LOAM-dark brown-medium stiff (A-4) Fill, Wet								
409.7	2				8			
	1				11			
	2	0.5P	33		10	NP	17	
TOPSOIL-black (A-7)								
407.2	1				10			
	1	0.25P	34		13	NP	15	
SILTY CLAY-brown & gray-stiff to very stiff (A-7) Wet								
	3		87		10			
	4				12			
	5	2.3B	31		13	NP	32	
SILTY CLAY LOAM-brown & gray-very loose (A-4) We:								
402.2	3				9			
	1				12			
	2	0.25P	32		16	NP	20	
SILTY LOAM-very loose to loose (A-4)								
	1				5			
	1	NP	31		4			
	1				6	NP	17	
	2				5			
	3	0.25P	35		8			

SOIL BORING LOG				PAGE 2 of 4				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								
STRUCT. NO. 082-W309								
STATION: ---								
BORING NO. SB-107								
Station: 22+69								
Offset: 30.0' Left								
Ground Surface Elev. 415.2								
D E P T H	B L O W S	U C S Qu	M O I S T %	Surface Water Elev.	D E P T H	B L O W S	U C S Qu	M O I S T %
(ft)	(#/6")	(tsf)	(%)	n/a	(ft)	(#/6")	(tsf)	(%)
SAND-medium dense (A-3)								
374.7					2			
WOOD								
	2				10			
	2				9		490	
SAND-gray-medium dense (A-3)								
	14				16			
	8				18			
	5	NP	17		14	NP	22	
SAND-gray-medium dense (A-3)								
	12				8			
	10				8	NP	22	
	4				8			
	6				5			
	9	NP	24		10	NP	23	
SAND with Gravel-gray-loose (A-1-b)								
362.2	2				5			
	3				4			
	3		30		5	NP	14	
SAND-gray-medium dense to dense (A-3)								
	8				5			
	9				7			
	10	NP	22		9	NP	24	
	16				7			
	19				9			
	24	NP	23		10	NP	26	

SOIL BORING LOG				PAGE 3 of 4				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08								
SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3								
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic								
STRUCT. NO. 082-W309								
STATION: ---								
BORING NO. SB-107								
Station: 22+69								
Offset: 30.0' Left								
Ground Surface Elev. 415.2								
D E P T H	B L O W S	U C S Qu	M O I S T %	Surface Water Elev.	D E P T H	B L O W S	U C S Qu	M O I S T %
(ft)	(#/6")	(tsf)	(%)	n/a	(ft)	(#/6")	(tsf)	(%)
SAND-gray-medium dense to very dense (A-3)								
	24				19			
	26				31			
	29	NP	24		46	NP	13	
SAND & Gravel-brown & gray-very dense (A-1)								
	33				21			
	43				21			
	45	NP	23		30	NP	15	
SAND with Gravel-gray-medium dense to dense (A-1-b)								
	16				24			
	17				32			
	18	NP	17		43	NP	10	
SAND with Gravel-brown & gray-very dense (A-1-b)								
	10				50/1"			
	9				110			NR
	10	NP	17					
SAND-brown & gray-dense to very dense (A-2)								
	13				50/5"			
	11							
	10	NP	17					
Run 1 (-113.5' to -123.5') Mississippi System, Volmeyer Series Limestone								
	13				115			
	14							
	16							
	22							
	28	NP	15					
	16							
	15							
	20							
	25	NP	17					

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The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrrometer) ST-S Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
 NR-No Recovery

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrrometer) ST-S Shelby Tube Sample VS-Vane Shear Test
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
 NR-No Recovery

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 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
 NR-No Recovery

FILE NAME	USER NAME	DESIGNED	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL			SOIL BORING LOGS 9 OF 26				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
FILE#	#USER#	TCCG									998	82-2-1HVB-1	ST. CLAIR	345	295	
TENG	TENG & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS	CHECKED	DATE	REVISED	DATE	SCALE:	SHEET NO.	OF	STA.	TO STA.	CONTRACT NO. 76D05					
			05/13/11				RB-15	OF	RB-32	801+75.00	TO	809+75.00	FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT

SB-107

SB-107 Run-1

SB-107 Run-2

SOIL BORING LOG									
PAGE 4 of 4					DATE 5/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic					STRUCT. NO. 082-W309				
STATION: --					BORING NO. SB-107				
Station: 22+69					Offset: 30.0' Left				
Ground Surface Elev. 415.2					Groundwater Elevation:				
First Encounter n/a					Upon Completion n/a				
After 24 Hrs. n/a					Recovery=100.0%				
R.Q.D.=73.3%					RUN 1				
291.7					RUN 2 (-123.5' to -129.5')				
Mississippian System, Valmeyeran Series Limestone					Light gray & fine grained with horizontal bedding. Highly fractured to -124.2'. Numerous horizontal fractures throughout.				
Recovery=100.0%					R.Q.D.=52.5%				
285.7					End Of Boring @ -129.5'				
Hollow Stem Augers To -12.0'					Rotary Drilling To Completion				
CME Automatic Hammer					12' Of 5" Casing Used				
1115' Of 3" Casing Used									

ROCK CORE LOG									
PAGE 1 of 2					DATE 5/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
STATION: --					BORING NO. SB-107				
Station: 22+69					Offset: 30.0' Left				
Ground Surface Elev. 415.2					Coring Barrel Type & Size NX Double Swivel-10 ft				
					Core Diameter 2.0 in				
					Top of Rock Elev. 302.2				
					Begin Core Elev. 301.7				
					RUN 1 (-113.5' to -123.5')				
301.7					Mississippian System, Valmeyeran Series Limestone				
					Light gray & fine grained with horizontal bedding. Horizontal fractures @ -113.7', -114.0', -114.2', -114.5', -114.7', -115.1', -115.6', -116.2', -116.9', -117.0', -117.4', -117.6', -118.0', -118.1' & -118.6'. 1/2" clay parting @ -119.1'. Horizontal fractures @ -119.4', -119.9', -120.7', -121.3', -122.0' & -122.6'. Transverse fracture @ -123.3'.				
					-123.5				

ROCK CORE LOG									
PAGE 2 of 2					DATE 5/13-14/2009				
LOGGED BY DR					GSI JOB No. 08201				
ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08					SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3				
COUNTY St. Clair CORING METHOD Rotary Wash					STRUCT. NO. 082-W309				
STATION: --					BORING NO. SB-107				
Station: 22+69					Offset: 30.0' Left				
Ground Surface Elev. 415.2					Coring Barrel Type & Size NX Double Swivel-10 ft				
					Core Diameter 2.0 in				
					Top of Rock Elev. 302.2				
					Begin Core Elev. 301.7				
					RUN 2 (-123.5' to -129.5')				
291.7					Mississippian System, Valmeyeran Series Limestone				
					Light gray & fine grained with horizontal bedding. Highly fractured to -124.2'. Numerous horizontal fractures throughout.				
					-128.5				
					-133.5				

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

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Color pictures of the cores Yes Cores will be stored for examination for XX
 The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

S:\9999\CONV-99-001-MS.DGN_082018-CONV-99-001-00.DGN
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SB-108

SB-108

SB-108

SOIL BORING LOG		PAGE 1 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: ---	
BORING NO. SB-108		STATION: 23+53	
Offset: 41.0' Right		Ground Surface Elev. 416.3	
DEPTH (ft)	BLU (in)	UCS (tsf)	MOIST (%)
0	AS	NP	15
2			
1			
0	NP	20	
413.3			
1			
1			
1	NP	60	
410.8			
4			
1			
1	NP	32	
408.3			
2			
2			
10	3	0.75P	30
400.8			
1			
2			
2	1.0P	28	
400.8			
15	ST	0.75P	29
400.8			
3			
4			
4	NP	23	
4			
4			
20	3	NP	27

SOIL BORING LOG		PAGE 2 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: ---	
BORING NO. SB-108		STATION: 23+53	
Offset: 41.0' Right		Ground Surface Elev. 416.3	
DEPTH (ft)	BLU (in)	UCS (tsf)	MOIST (%)
3			
3			
7	NP	27	
373.3			
6			
7			
4.5	10	NP	32
370.8			
8			
9			
10	NP	29	
388.3			
4			
6			
50	8	NP	32
365.8			
3			
4			
4	NP	36	
363.3			
5			
5			
55	6	NP	21
380.3			
7			
6			
7	NP	23	
380.3			
5			
5			
12			
60	14	NP	22

SOIL BORING LOG		PAGE 3 of 4	
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08	
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3	
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic	
STRUCT. NO. 082-W309		STATION: ---	
BORING NO. SB-108		STATION: 23+53	
Offset: 41.0' Right		Ground Surface Elev. 416.3	
DEPTH (ft)	BLU (in)	UCS (tsf)	MOIST (%)
8			
10			
10	NP	25	
310.8			
10			
13			
85	14	NP	19
310.8			
17			
18			
20	NP	16	
328.3			
9			
9			
90	12	NP	15
325.8			
12			
13			
16	NP	16	
325.8			
12			
8			
10			
95	11	NP	16
301.3-115			
21			
21			
21	NP	19	
300.3			
15			
23			
100	35	NP	18

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B)-Bulge, (S)-Shear, (P)-Penetrometer, (ST)-Shelby Tube Sample, (VS)-Vane Shear Test. The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206). The Unit Dry Weight (pcf) is noted in italics above moist (%). NR-No Recovery.

5-11-2011, 10:51:47
 \\FS-0044\ARK\VAL\LD-TRANS-07\2202\2008-08\STRUCT\CAD\01-DESIGN\082W309\082W309-SHEET-082W309-CDNN-12-011-SHT-MS.DGN
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FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL	SOIL BORING LOGS 11 OF 26		F.A.P. RTE. 998	SECTION 82-2-1HVB-1	COUNTY ST. CLAIR	TOTAL SHEETS 345	SHEET NO. 297
FILE#	PLOT SCALE = #SCALE#	DRAWN - TCC	REVISED -		SCALE:	SHEET NO. RB-17 OF RB-32	STA. 801+75.00 TO STA. 809+75.00	SN 082-W309 CONTRACT NO. 76D05		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
	PLOT DATE = #DATE#	CHECKED -	REVISED -								
		DATE - 05/13/11	REVISED -								



SB-108

SOIL BORING LOG										PAGE <u>4</u> of <u>4</u>	
										DATE <u>4/21-23/2009</u>	
										LOGGED BY <u>DR</u>	
										GSI JOB No. <u>08201</u>	
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>											
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>											
COUNTY <u>St. Clair</u> DRILLING METHOD <u>3.25" Hollow Stem Auger</u> HAMMER TYPE <u>CME Automatic</u>											
STRUCT. NO. <u>082-W309</u> Station: <u>--</u>			SURFACE WATER Elev. <u>n/a</u> Stream Bed Elev. <u>n/a</u>			DEPTH (ft)			MOISTURE (%)		
BORING NO. <u>SB-108</u> Station: <u>23+53</u> Offset: <u>41.0' Right</u>			GROUNDWATER Elevation: First Encounter <u>n/a</u> Upon Completion <u>n/a</u> After 24 Hrs. <u>n/a</u>								
Ground Surface Elev. <u>416.3</u>											
<p>fracture with X clay parting @ -120.0'. Horizontal fractures @ -121.0', -121.2', -121.6', -122.7', -123.2', -113.5' & -113.8'. Vertical fracture from -113.8' to -114.5'. Horizontal fractures @ -114.9', -115.3', -115.7' & -115.8'.</p> <p>Recovery=100.0% R.Q.D.=73.8%</p> <p style="text-align: center;">290.3</p>											
<p>RUN 2 (-126.0' to -131.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout.</p> <p>Recovery=100.0% R.Q.D.=31.0%</p> <p style="text-align: center;">285.3</p>											
<p>End Of Boring @ -131.0' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 4" Casing Used 115' Of 3" Casing Used</p>											

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-S Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO 1208) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

SB-108 Run-1

ROCK CORE LOG										PAGE <u>1</u> of <u>2</u>				
										DATE <u>4/21-23/2009</u>				
										LOGGED BY <u>DR</u>				
										GSI JOB No. <u>08201</u>				
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>														
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>														
COUNTY <u>St. Clair</u> CORING METHOD <u>Rotary Wash</u>														
STRUCT. NO. <u>082-W309</u> Station: <u>--</u>			CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>			DEPTH (ft)			CORRECTION (ft)			STRENGTH (tsf)		
BORING NO. <u>SB-108</u> Station: <u>23+53</u> Offset: <u>41.0' Right</u>			Core Diameter <u>2.0 in</u> Top of Rock Elev. <u>301.3</u> Begin Core Elev. <u>300.3</u>											
Ground Surface Elev. <u>416.3</u>														
<p>RUN 1 (-116.0' to -126.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Horizontal fractures @ -116.7', -117.3', -117.6', -118.3', -118.8', -119.0' & -119.4'. Horizontal fracture with X clay parting @ -120.0'. Horizontal fractures @ -121.0', -121.2', -121.6', -122.7', -123.2', -113.5' & -113.8'. Vertical fracture from -113.8' to -114.5'. Horizontal fractures @ -114.9', -115.3', -115.7' & -115.8'.</p>														

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

SB-108 Run-2

ROCK CORE LOG										PAGE <u>2</u> of <u>2</u>				
										DATE <u>4/21-23/2009</u>				
										LOGGED BY <u>DR</u>				
										GSI JOB No. <u>08201</u>				
ROUTE <u>I70/I13</u> DESCRIPTION <u>I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08</u>														
SECTION <u>82-2-1HVB-1</u> LOCATION <u>I-70 & Illinois Route 3</u>														
COUNTY <u>St. Clair</u> CORING METHOD <u>Rotary Wash</u>														
STRUCT. NO. <u>082-W309</u> Station: <u>--</u>			CORING BARREL TYPE & SIZE <u>NX Double Swivel-10 ft</u>			DEPTH (ft)			CORRECTION (ft)			STRENGTH (tsf)		
BORING NO. <u>SB-108</u> Station: <u>23+53</u> Offset: <u>41.0' Right</u>			Core Diameter <u>2.0 in</u> Top of Rock Elev. <u>301.3</u> Begin Core Elev. <u>300.3</u>											
Ground Surface Elev. <u>416.3</u>														
<p>RUN 2 (-126.0' to -131.0') Mississippi System, Valmeyeran Series Limestone</p> <p>Light gray & fine grained with horizontal bedding. Numerous horizontal fractures throughout.</p>														

Color pictures of the cores Yes Cores will be stored for examination for XX
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

N:\98989-CONN-99-001-MS.DGN \98989-CONN-99-001-RODLOG-5-1-2011-10-051-NENK\001\PROJECT\CAD\01_DESIGN\082-W309-SHEET\082-W309-CONN-10-012-SH-M5.DGN

SB-109

SOIL BORING LOG PAGE 1 of 4
 DATE 5/11-12/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309 Station: --
 BORING NO. **SB-109**
 Station: 24+26
 Offset: 37.5' Right
 Ground Surface Elev. 415.9

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	Description	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
412.9	3	NP	23	CINDERS-black-loose (Fill) SANDY LOAM-brown-very loose to loose (A-2/A-3)	1	NP	31	392.9
410.4	3	125P	26	SILTY CLAY-brown-stiff (A-6) Wet	4	NP	24	410.4
405.4	2	NP	16	SILTY LOAM-brown-loose (A-4) SAND-brown-loose to dense (A-3)	10	NP	25	405.4
402.9	1	<0.25P	36	SILTY CLAY-brown-very soft (A-7) Wet	18	NP	23	402.9
397.9	2	<0.25P	28	SILTY LOAM-brown-very loose to loose (A-4)	24	NP	22	397.9
	3	NP	29	SANDY LOAM-brown-very loose to loose (A-2/A-3)	30	NP	25	

SB-109

SOIL BORING LOG PAGE 2 of 4
 DATE 5/11-12/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309 Station: --
 BORING NO. **SB-109**
 Station: 24+26
 Offset: 37.5' Right
 Ground Surface Elev. 415.9

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	Description	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
375.4	6	NP	29	SAND-brown-loose to dense (A-3)	2	NP	27	375.4
372.9	3	NP	26	SANDY LOAM-gray-loose (A-2) SANDY LOAM-gray-medium dense (A-2)	8	NP	27	372.9
350.4	7	NP	26	SAND-brown-medium dense (A-3) SAND-gray-loose to medium dense (A-3)	6	NP	24	350.4
365.4	7	NP	25	SANDY LOAM-gray-medium dense (A-2)	5	NP	23	365.4
337.9	13	NP	15	SAND & GRAVEL-brown & gray-medium dense (A-1)	9	NP	9	337.9

SB-109

SOIL BORING LOG PAGE 3 of 4
 DATE 5/11-12/2009
 LOGGED BY DR
 GSI JOB No. 08201

ROUTE 170/IL3 DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08
 SECTION 82-2-1HVB-1 LOCATION I-70 & Illinois Route 3
 COUNTY St. Clair DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 082-W309 Station: --
 BORING NO. **SB-109**
 Station: 24+26
 Offset: 37.5' Right
 Ground Surface Elev. 415.9

DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)	Description	DEPTH (ft)	BLOW COUNT (blows/ft)	UCS (tsf)	MOISTURE (%)
312.9	7	NP	10	SAND & GRAVEL-brown & gray-medium dense (A-1) SAND-brown & gray-very dense (A-3)	21	NP	16	312.9
307.9	12	NP	13	SAND & GRAVEL-brown & gray-very dense (A-1) SAND-brown & gray-medium dense to dense (A-3)	11	NP	13	307.9
302.9	13	NP	15	SAND with GRAVEL-brown & gray-very dense (A-1-b)	17	NP	17	302.9
300.9-115	13	NP	14	SANDY LOAM-brown-very dense (A-2)	37	NP	37	300.9-115
317.9	9	NP	15	RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone	120			317.9

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TENC TENC & ASSOCIATES, INC. ENGINEERS/ARCHITECTS/PLANNERS CHICAGO, ILLINOIS
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION I-70 CONNECTION RETAINING WALL
SOIL BORING LOGS 13 OF 26
 FILE NAME: USER: DESIGNED: TCG REVISIONS: DATE: 05/13/11
 PLOT SCALE: PLOT DATE: F.A.P. RTE: 998 SECTION: 82-2-1HVB-1 COUNTY: ST. CLAIR TOTAL SHEETS: 345 SHEET NO.: 299
 STA. 801+75.00 TO STA. 809+75.00 SN 082-W309 CONTRACT NO. 76D05
 SCALE: SHEET NO. RB-19 OF RB-32 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SB-109

SB-109 Run-1

SB-109 Run-2

SOIL BORING LOG		PAGE 4 of 4			
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair		DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic			
STRUCT. NO. 082-W309		STATION: --			
BORING NO. SB-109		STATION: 24+26			
Offset: 37.5' Right		Ground Surface Elev. 415.9			
DEPTH (ft)	BLOW COUNT (blows/ft)	UNCONSOLIDATED QUANTITY (%)	MOISTURE (%)		
Surface Water Elev. n/a		Stream Bed Elev. n/a			
Groundwater Elevation:		First Encounter n/a			
Upon Completion n/a		After 24 Hrs. n/a			
Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8% 290.9-125				RN 1	
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout. Recovery=100.0% R.Q.D.=35.0% 285.9-130				RN 2	
End Of Boring @ -130.0' Hollow Stem Augers To -12.0' Rotary Drilling To Completion CME Automatic Hammer 12' Of 5" Casing Used 3" Casing Used					

ROCK CORE LOG		PAGE 1 of 2			
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair		CORING METHOD Rotary Wash			
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft			
BORING NO. SB-109		STATION: 24+26			
Offset: 37.5' Right		Ground Surface Elev. 415.9			
DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	R.Q.D. (%)		
Top of Rock Elev. 300.9		Begin Core Elev. 300.9			
RUN 1 (-115.0' to -125.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Horizontal fractures @ -115.7', -116.4', -116.9', -117.2', -117.4' & -117.8'. 1/2" clay parting @ -118.2'. Horizontal fractures @ -119.3', -119.6', -120.0', -120.1', -120.2', -120.4', -120.7', -120.9', -121.4', -121.7', -122.0', -122.1', -122.2', -122.3', -122.4', -122.6', -123.3', -123.9', -124.2' & -125.0'. Recovery=100.0% R.Q.D.=64.8%				300.9	
Color pictures of the cores Yes Cores will be stored for examination for XX The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)					

ROCK CORE LOG		PAGE 2 of 2			
ROUTE 170/IL3		DESCRIPTION I-70/Relocated IL 3 Interchange IDOT Job No. D-98-059-08			
SECTION 82-2-1HVB-1		LOCATION I-70 & Illinois Route 3			
COUNTY St. Clair		CORING METHOD Rotary Wash			
STRUCT. NO. 082-W309		CORING BARREL TYPE & SIZE NX Double Swivel-10 ft			
BORING NO. SB-109		STATION: 24+26			
Offset: 37.5' Right		Ground Surface Elev. 415.9			
DEPTH (ft)	CORRECTION (%)	RECOVERY (%)	R.Q.D. (%)		
Top of Rock Elev. 300.9		Begin Core Elev. 300.9			
RUN 2 (-125.0' to -130.0') Mississippian System, Valmeyeran Series Limestone Light gray & fine grained with horizontal bedding. Some chert replacement. Numerous horizontal fractures throughout.				290.0	
Color pictures of the cores Yes Cores will be stored for examination for XX The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)					

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 5-11-2011 10:20:55
 NEWARKND SATS 8044 RAYVALLE JD TRMS 977 2202 20865 001 \S1 TRUC\CD\01 DESIGN\082-W309-SHEET\082-W309-CONN-18-014-SH1-MS.DGN