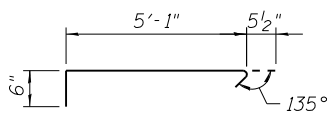


**PIER 6
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h600(E)	14	#8	39'-8"	—
h601(E)	10	#6	14'-2"	—
h602(E)	8	#6	3'-8"	—
n600(E)	80	#9	22'-2"	—
p600(E)	10	#11	44'-8"	—
p601(E)	10	#11	39'-8"	—
s600(E)	132	#6	13'-6"	—
s601(E)	108	#5	21'-3"	—
s602(E)	864	#5	6'-1"	—
s603(E)	12	#6	5'-6"	—
s604(E)	24	#6	15'-4"	—
s605(E)	106	#7	11'-0"	—
s606(E)	172	#7	14'-4"	—
** sp600	6	#6	127'-0"	—
t600(E)	38	#7	14'-0"	—
t601(E)	116	#7	21'-6"	—
t602(E)	59	#11	34'-8"	—
u600(E)	14	#6	15'-2"	—
u601(E)	15	#6	9'-8"	—
u602(E)	12	#6	8'-10"	—
u603(E)	14	#7	21'-8"	—
u604(E)	24	#7	39'-2"	—
v600(E)	40	#9	24'-6"	—
v601(E)	40	#9	22'-6"	—
v602	180	#14	43'-7"	—
v603	360	#14	45'-7"	—
v604	180	#14	37'-0"	—
w600(E)	15	#7	38'-8"	—
w601(E)	14	#7	37'-0"	—
w602(E)	72	#7	31'-6"	—
w603(E)	36	#10	54'-4"	—
w604(E)	24	#7	51'-6"	—
Concrete Structures	Cu. Yd.	1,086.7		
Reinforcement Bars	Pound	275,410		
Reinforcement Bars, Epoxy Coated	Pound	75,400		
Permanent Casing	Foot	690		
Drilled Shaft in Soil	Cu. Yd.	1262.2		
Drilled Shaft in Rock	Cu. Yd.	137.4		
Crosshole Sonic Logging	Each	6		
Coffercell (Location - 6)	Each	1		

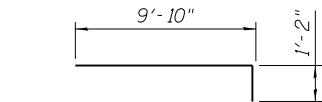
* See Special Provision.
** Length is the height of spiral



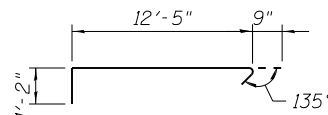
BARS s102(E), s202(E), s302(E), s402(E), s502(E), s602(E) & s702(E)

**PIER 7
BILL OF MATERIAL**

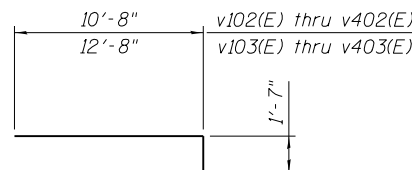
Bar	No.	Size	Length	Shape
h700(E)	14	#8	39'-8"	—
h701(E)	10	#6	14'-2"	—
h702(E)	8	#6	3'-8"	—
n700(E)	80	#9	22'-2"	—
p700(E)	10	#11	44'-8"	—
p701(E)	10	#11	39'-8"	—
s700(E)	132	#6	13'-6"	—
s701(E)	130	#5	21'-3"	—
s702(E)	1040	#5	6'-1"	—
s703(E)	12	#6	5'-6"	—
s704(E)	24	#6	15'-4"	—
s705(E)	106	#7	11'-0"	—
s706(E)	172	#7	14'-4"	—
** sp700	6	#6	91'-0"	—
t700(E)	38	#7	14'-0"	—
t701(E)	116	#7	21'-6"	—
t702(E)	59	#11	34'-8"	—
u700(E)	14	#6	15'-2"	—
u701(E)	15	#6	9'-8"	—
u702(E)	12	#6	8'-10"	—
u703(E)	14	#7	21'-8"	—
u704(E)	24	#7	39'-2"	—
v700(E)	40	#9	33'-6"	—
v701(E)	40	#9	31'-6"	—
v702	180	#14	48'-5"	—
v703	180	#14	50'-5"	—
v704	180	#14	37'-0"	—
w700(E)	15	#7	38'-8"	—
w701(E)	14	#7	37'-0"	—
w702(E)	72	#7	31'-6"	—
w703(E)	36	#10	54'-4"	—
w704(E)	24	#7	51'-6"	—
Concrete Structures	Cu. Yd.	1,107.1		
Reinforcement Bars	Pound	215,100		
Reinforcement Bars, Epoxy Coated	Pound	79,450		
Permanent Casing	Foot	474		
Drilled Shaft in Soil	Cu. Yd.	860.1		
Drilled Shaft in Rock	Cu. Yd.	137.4		
Crosshole Sonic Logging	Each	6		
Coffercell (Location - 7)	Each	1		
* Thermal Integrity Profile Testing	Each	1		



BARS s605(E) & s705(E)

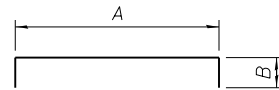


BARS s606(E) & s706(E)



BARS s103(E), s203(E), s303(E), s403(E), s503(E), s603(E) & s703(E)

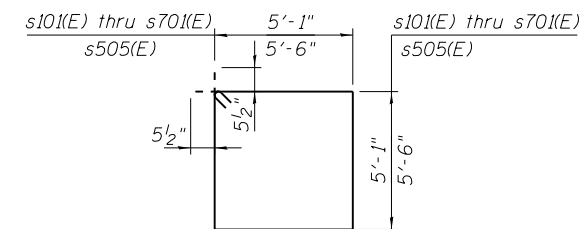
**BARS v102(E), v202(E), v302(E) & v402(E)
BARS v103(E), v203(E), v303(E) & v403(E)**



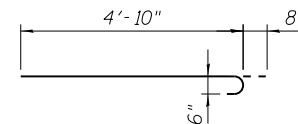
**BARS s100(E), s200(E), s300(E), s400(E), s500(E), s600(E) & s700(E)
BARS s104(E), s204(E), s304(E), s404(E), s504(E), s604(E) & s704(E)
BARS u100(E), u200(E), u300(E), u400(E), u500(E), u600(E) & u700(E)
BARS u101(E), u201(E), u301(E), u401(E), u501(E), u601(E) & u701(E)
BARS u102(E), u102(E), u102(E), u102(E), u102(E), u102(E) & u702(E)
BARS u103(E), u203(E), u303(E) & u403(E)
BAR u503(E)
BARS u603(E) & u703(E)
BARS u104(E), u204(E), u304(E) & u404(E)
BARS u604(E) & u704(E)**

BAR DIMENSIONS

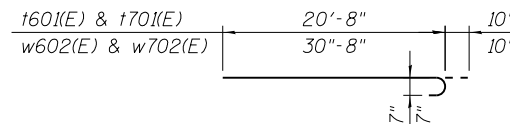
Bars	A	B
s100(E) thru s700(E)	3'-10"	4'-10"
s104(E) thru s704(E)	5'-8"	4'-10"
u100(E) thru u700(E)	5'-6"	4'-10"
u101(E) thru u701(E)	5'-8"	2'-0"
u102(E) thru u702(E)	1'-10"	3'-6"
u103(E) thru u403(E)	4'-0"	1'-0"
u503(E)	5'-5"	1'-0"
u603(E) thru u703(E)	13'-10"	3'-11"
u104(E) thru u404(E)	3'-8"	1'-0"
u604(E) thru u704(E)	31'-4"	3'-11"



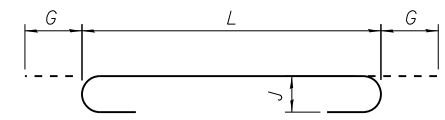
BARS s101(E), s201(E), s301(E), s401(E), s501(E), s601(E), s701(E) & s505(E)



BARS s603(E) & s703(E)



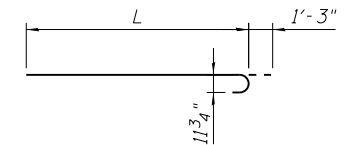
**BARS t601(E) & t701(E)
BARS w602(E) & w702(E)**



**BARS p100(E) p200(E) p300(E) p400(E) & p500(E)
BARS p600(E) & p700(E)
BARS t101(E), t201(E), t301(E) & t401(E)
BARS t602(E) & t702(E)
BARS w101(E) w201(E) w301(E) & w401(E)
BARS w600(E) & w700(E)
BARS w603(E) & w703(E)**

BAR DIMENSIONS

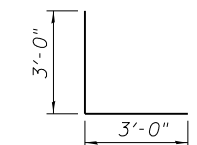
Bars	L	G	J
p100(E) thru p500(E)	41'-8"	1'-5"	1'-1 1/4"
p600(E) thru p700(E)	41'-6"	1'-7"	1'-2 3/4"
t101(E) thru t401(E)	23'-6"	1'-7"	1'-2 3/4"
t602(E) & t702(E)	31'-6"	1'-7"	1'-2 3/4"
w101(E) thru w401(E)	45'-6"	1'-7"	1'-2 3/4"
w600(E) & w700(E)	37'-0"	10"	7"
w603(E) & w703(E)	51'-6"	1'-5"	1'-1 1/4"



BARS v100(E), v200(E), v300(E), v400(E), v500(E), v600(E) & v701(E)

BAR DIMENSIONS

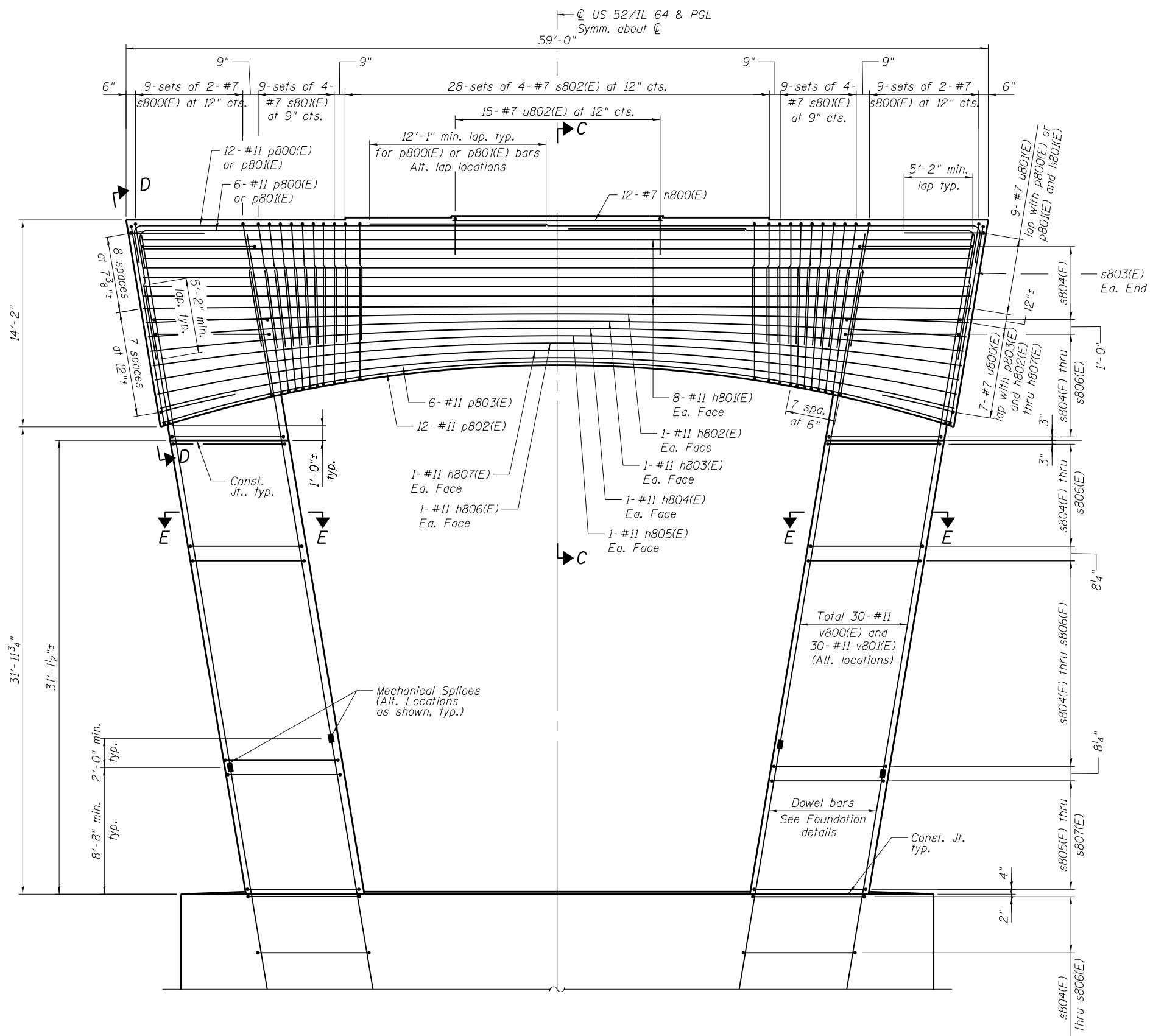
Bars	L
v100(E)	19'-10"
v101(E)	17'-10"
v200(E)	19'-9"
v201(E)	17'-9"
v300(E)	25'-7"
v301(E)	23'-7"
v400(E)	27'-6"
v401(E)	25'-6"
v500(E)	24'-7"
v501(E)	22'-7"
v600(E)	23'-3"
v601(E)	21'-3"
v700(E)	32'-3"
v701(E)	30'-3"



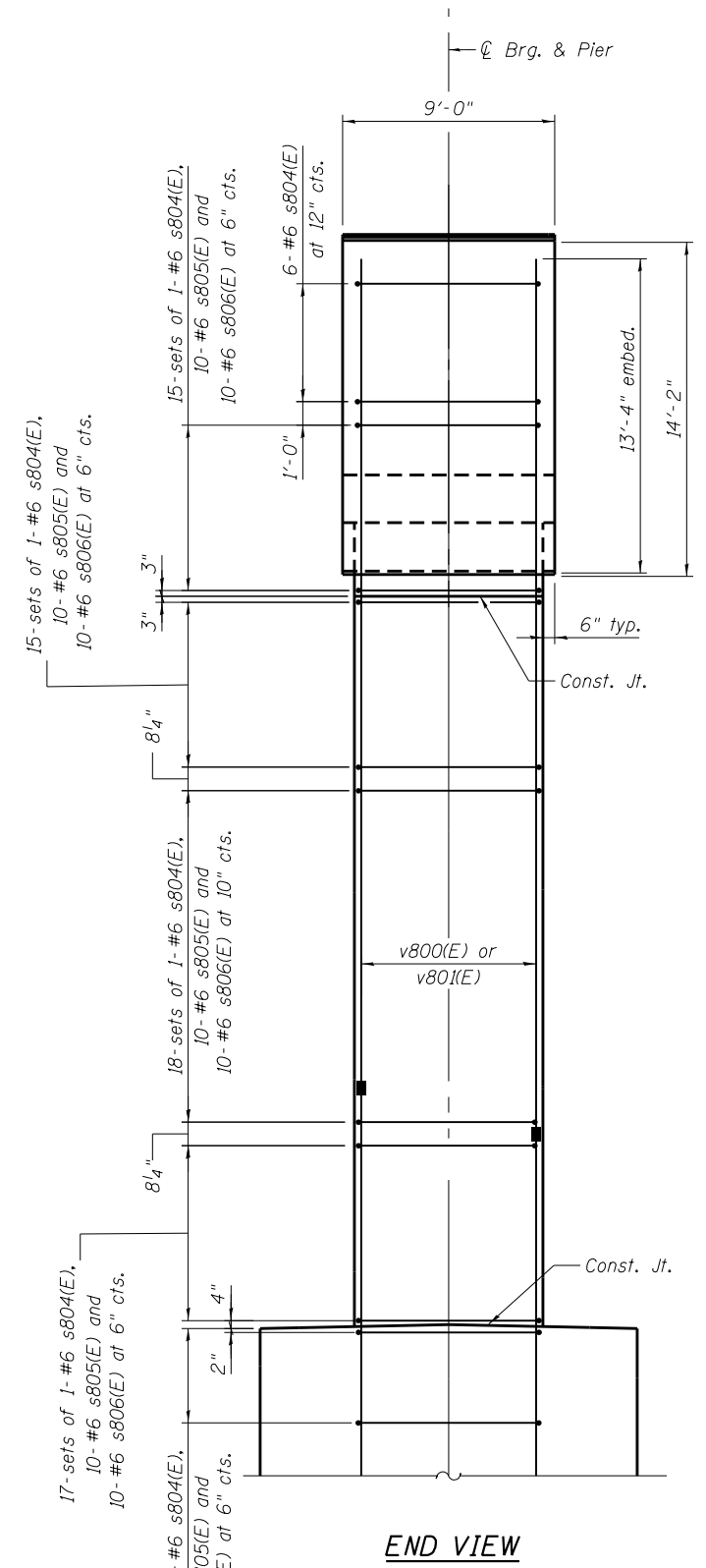
BARS w102(E), w202(E), w302(E) & w402(E)

6/25/2015 3:37:30 PM p:\012123\p012123.dgn p:\012123\Design\CADD\Bridges\Final Design\Sheets\080052-64G59-Piers-1-Thru-7-Details\Bill of Material-2.dgn

3/12/2015 9:47 AM p:\1\proj\022\p\int01\parsons.com\illinois State Documents\US521L64 - 647512\Design\CADD\Bridges\Final Design\Sheets\080052-64G59-Pier-8-Reinforcement-1.dgn



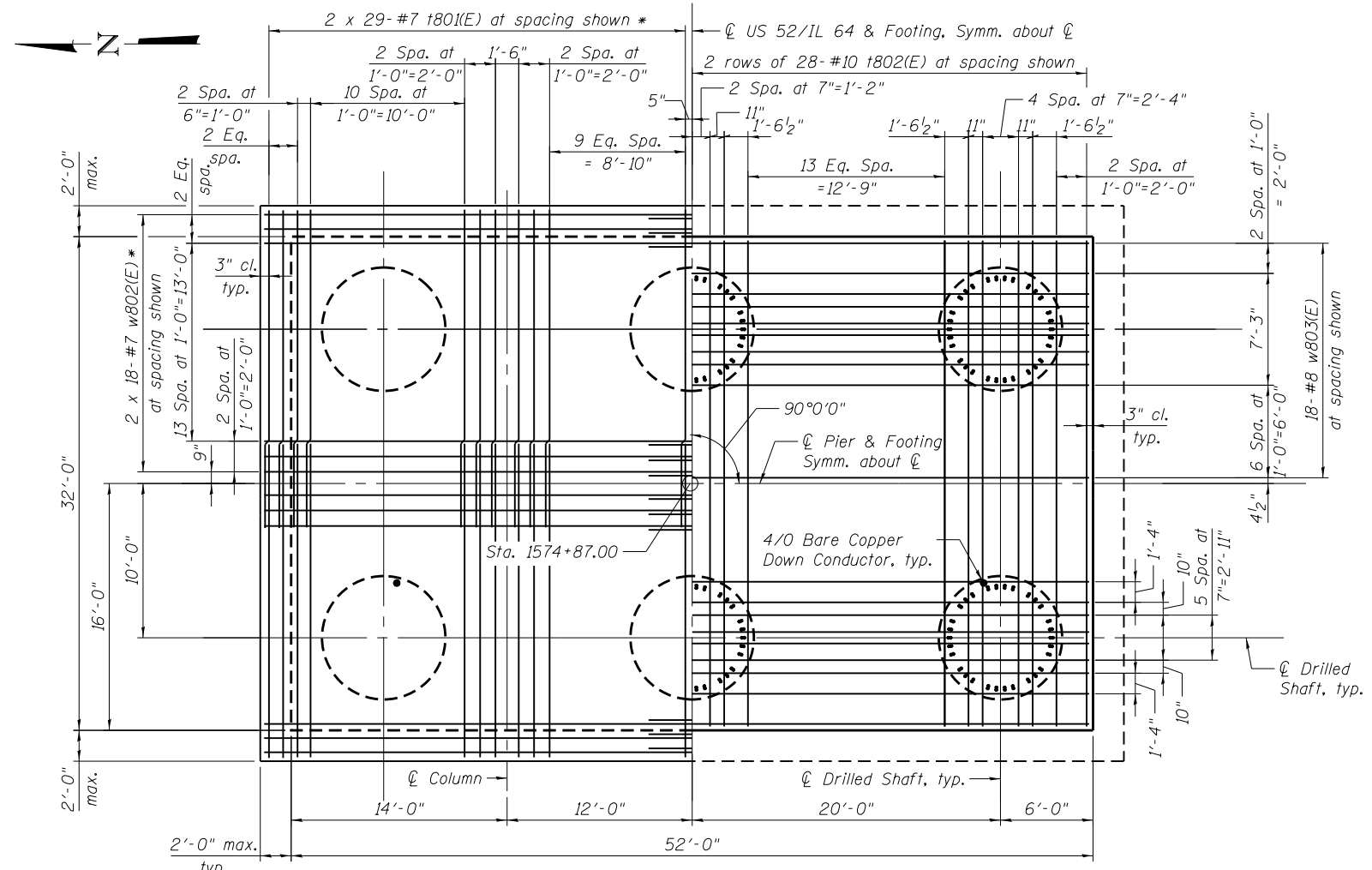
ELEVATION
(Looking East)



END VIEW

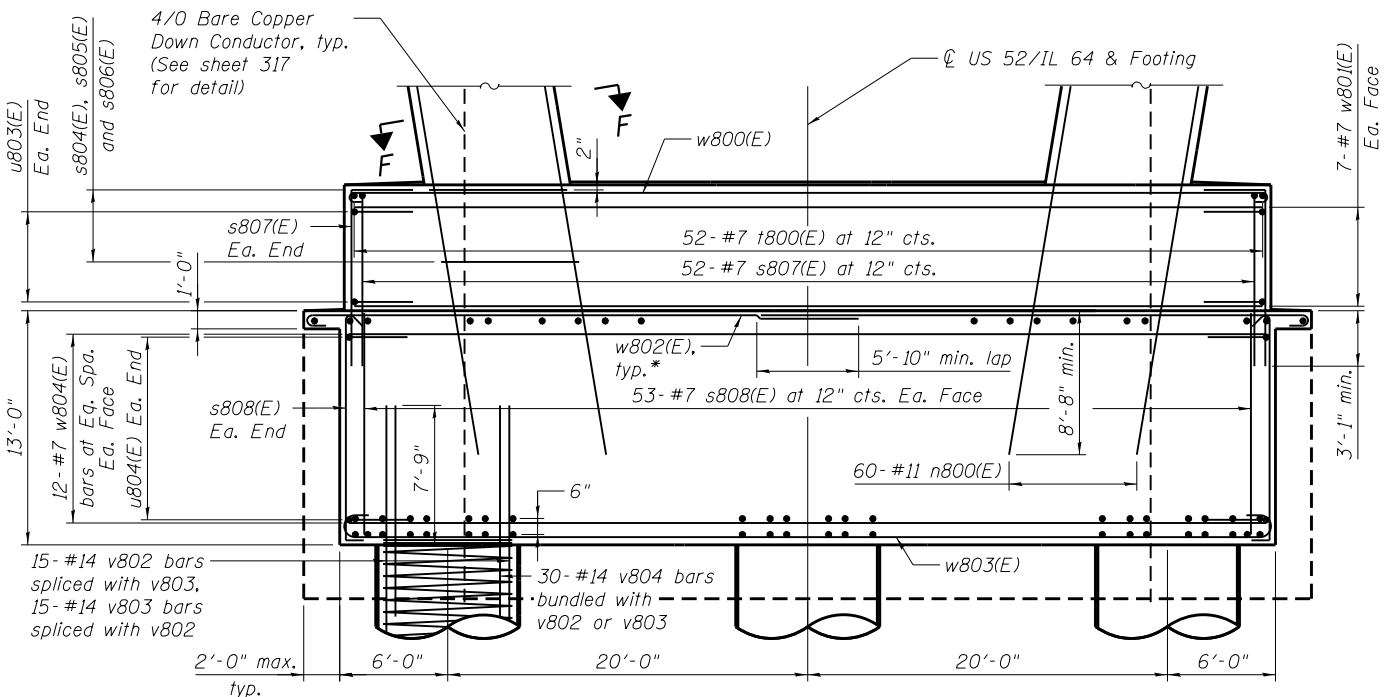
Notes:
For Pier 8 Plan and Elevation, see sheet 303.
For Sections C-C and E-E and View D-D, see sheet 305.
For Foundation details, see sheet 306.
For bar details and Bill of Materials, see sheet 307.

PARSONS FILE NAME = USER NAME = PLOT SCALE = PLOT DATE =	DESIGNED - JZ CHECKED - TBS DRAWN - HJV/SC CHECKED - TBS	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 8 REINFORCEMENT - 1 STRUCTURE NO. 008-0052 SHEET NO. 5-132 OF 177 SHEETS	F.A.P. RTE. 17 SECTION 104B-2 COUNTY CARROLL TOTAL SHEETS 528 SHEET NO. 304 CONTRACT NO. 64G59
					ILLINOIS FED. AID PROJECT

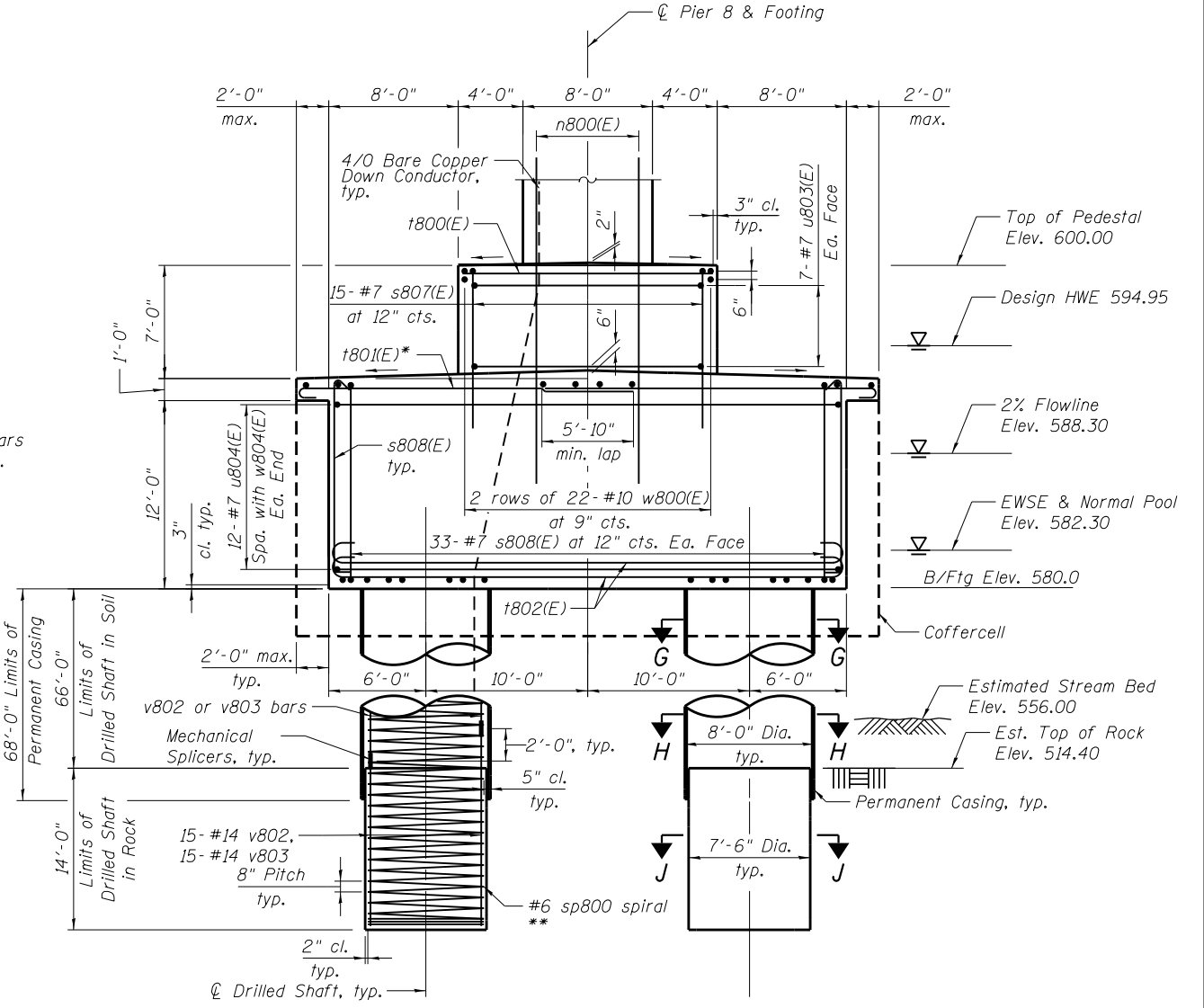


SHOWING TOP REINFORCEMENT
SHOWING BOTTOM REINFORCEMENT
FOOTING PLAN

* Tilt #7 t801(E) and w802(E) bars as required to maintain clearance.



ELEVATION
(Looking East)



END VIEW
(Looking North)

**Provide 1/2 extra turns top and bottom. Shop weld together extra spiral turns top and bottom per AWS D1.4. Extend spiral 2" into footing. Provide min. 4-#4 spacers or equivalent.
Allowable substitution: Provide 1/2 extra turns top and bottom with 135 degree standard hook into core at ends of spiral. The Permanent Casing is shown embedded 2 ft. in rock for estimate of quantities. Actual embedment to be determined by construction requirements.

Notes:
For Sections F-F thru J-J, see sheet 307.
For Pier Plan and Elevation, including column spacing, see sheet 303.
For Cap and Column reinforcement details, see sheets 304 and 305.
For additional notes, bar details and Bill of Material, see sheet 307.
For Arch Grounding and Navigation Clearance Gauges, see sheet 317.

4/28/2015 9:44:02 AM p0012323 p:\t\expl\02p\int0\parsons.com\illinois state\documents\18521164 - 647512\Design\CADD\Bridges\Final Design\Sheets\080052-64659-Pier-8-FoundationDetails.dgn

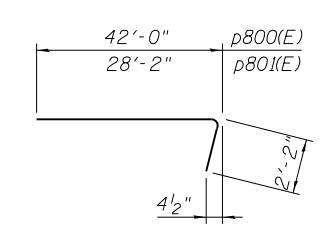
PARSONS FILE NAME = USER NAME = PLOT SCALE = PLOT DATE =	DESIGNED - TMB/TBS CHECKED - TSB/TMB DRAWN - HJV CHECKED - TSB/TMB	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 8 FOUNDATION DETAILS STRUCTURE NO. 008-0052		F.A.P. R.T.E. = 17 SECTION = 104B-2 COUNTY = CARROLL TOTAL SHEETS = 528 SHEET NO. = 306 CONTRACT NO. 64G59
				SHEET NO. 5-134 OF 177 SHEETS		ILLINOIS FED. AID PROJECT

**PIER 8
BILL OF MATERIAL**

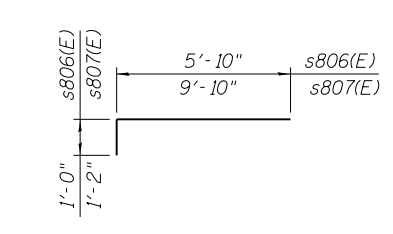
Bar	No.	Size	Length	Shape
h800(E)	12	#7	14'-2"	—
h801(E)	16	#11	56'-8"	—
h802(E)	2	#11	56'-4"	—
h803(E)	2	#11	56'-0"	—
h804(E)	2	#11	55'-9"	—
h805(E)	2	#11	55'-6"	—
h806(E)	2	#11	55'-4"	—
h807(E)	2	#11	55'-1"	—
n800(E)	120	#11	26'-8"	—
p800(E)	18	#11	44'-2"	—
p801(E)	18	#11	30'-4"	—
p802(E)	12	#11	54'-11"	—
p803(E)	6	#11	54'-11"	—
s800(E)	36	#7	27'-10"	—
s801(E)	72	#7	22'-8"	—
s802(E)	120	#7	21'-10"	—
s803(E)	40	#7	10'-5"	—
s804(E)	160	#6	31'-10"	—
s805(E)	1480	#6	6'-6"	—
s806(E)	1480	#6	6'-10"	—
s807(E)	134	#7	11'-0"	—
s808(E)	172	#7	14'-4"	—
sp800	6	#6	80'-0"	—
t800(E)	52	#7	15'-6"	—
t801(E)	116	#7	21'-6"	—
t802(E)	110	#10	34'-4"	—
u800(E)	14	#7	18'-11"	—
u801(E)	18	#7	20'-5"	—
u802(E)	15	#7	13'-8"	—
u803(E)	14	#7	23'-2"	—
u804(E)	24	#7	39'-2"	—
v800(E)	60	#11	37'-0"	—
v801(E)	60	#11	35'-0"	—
v802	180	#14	42'-11"	—
v803	180	#14	44'-11"	—
v804	180	#14	37'-0"	—
w800(E)	44	#10	53'-10"	—
w801(E)	14	#7	51'-0"	—
w802(E)	72	#7	31'-6"	—
w803(E)	36	#8	53'-4"	—
w804(E)	24	#7	51'-6"	—
Concrete Structures	Cu. Yd.		1,425.4	
Reinforcement Bars	Pound		196,640	
Reinforcement Bars, Epoxy Coated	Pound		169,210	
Concrete Sealer	Sq. Ft.		9,484	
Permanent Casing	Foot		408	
Drilled Shaft in Soil	Cu. Yd.		737.2	
Drilled Shaft in Rock	Cu. Yd.		137.4	
Crosshole Sonic Logging	Each		6	
Coffercell (Location-8)	Each		1	
Thermal Integrity Profile Testing	Each		1	

**

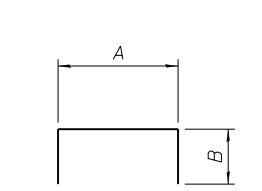
* See Special Provision.
** Length is the height of spiral



BARS p800(E) & p801(E)



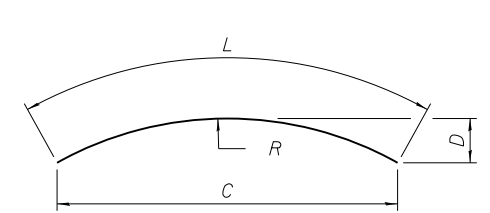
BARS s806(E) & s807(E)



**BARS s800(E), s801(E) & s802(E)
BARS u800(E), u801(E), u802(E),
u803(E) & u804(E)**

BAR DIMENSIONS

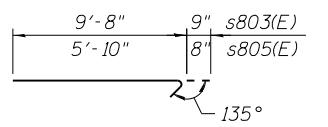
Bar	A	B
s800(E)	8'-8"	9'-7"
s801(E)	5'-8"	8'-6"
s802(E)	5'-8"	8'-1"
u800(E)	8'-5"	5'-3"
u801(E)	8'-5"	6'-0"
u802(E)	8'-8"	2'-6"
u803(E)	15'-4"	3'-11"
u804(E)	31'-4"	3'-11"



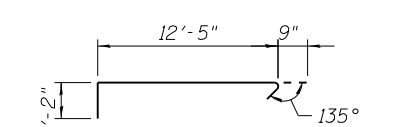
**BARS p802(E) & p803(E)
BARS h802(E), h803(E), h804(E),
h805(E), h806(E) & h807(E)**

BAR DIMENSIONS

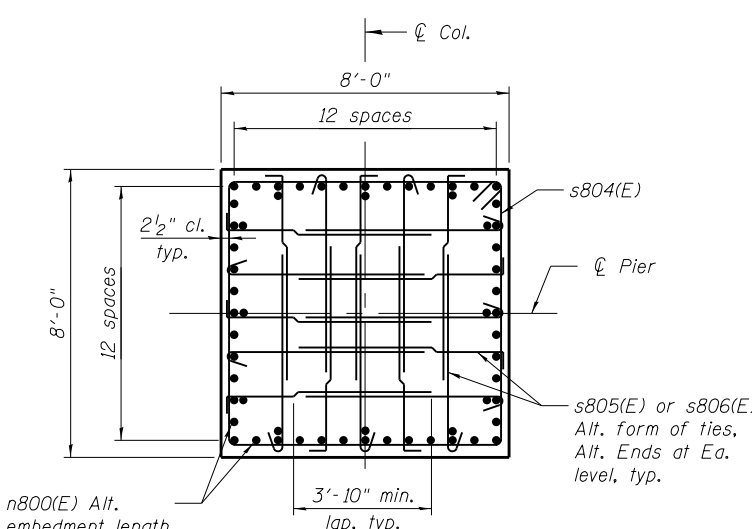
Bar	R	L	C	D
p802(E)	89'-6 1/2"	54'-11"	54'-0 3/4"	4'-2 1/8"
p803(E)	107'-11 5/8"	54'-11"	54'-3 7/8"	3'-5 5/8"
h802(E)	654'-3 1/8"	56'-4"	56'-3 3/4"	7 1/4"
h803(E)	361'-2 5/8"	56'-0"	55'-11 3/8"	1'-1"
h804(E)	248'-0"	55'-9"	55'-7 5/8"	1'-6 3/4"
h805(E)	188'-0 3/8"	55'-6"	55'-3 5/8"	2'-0 1/2"
h806(E)	150'-11 1/2"	55'-4"	55'-0 1/4"	2'-6 3/8"
h807(E)	125'-9 3/4"	55'-1"	54'-7 3/4"	3'-0"



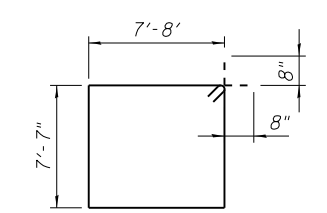
BARS s803(E) & s805(E)



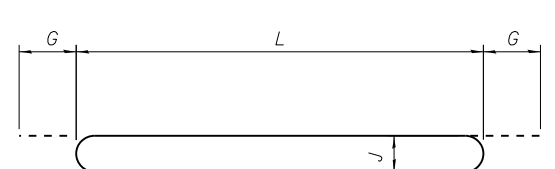
BAR s808(E)



SECTION F-F



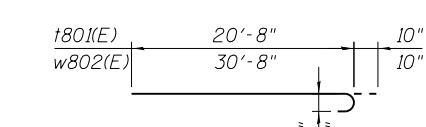
BARS s804(E)



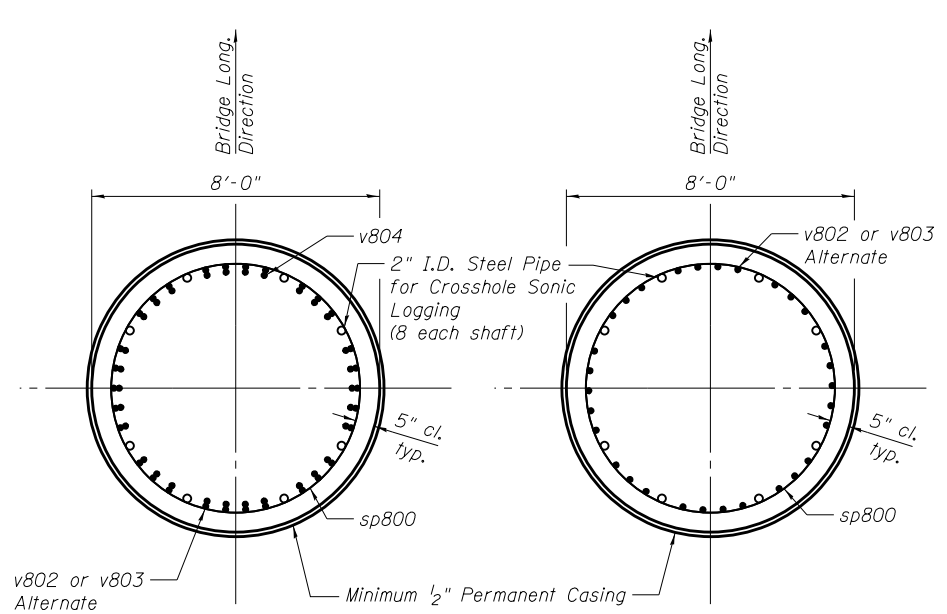
BARS t802(E), w800(E) & w803(E)

BAR DIMENSIONS

Bar	L	G	J
t802(E)	31'-6"	1'-5"	1'-1 1/4"
w800(E)	51'-0"	1'-5"	1'-1 1/4"
w803(E)	51'-6"	11"	8"

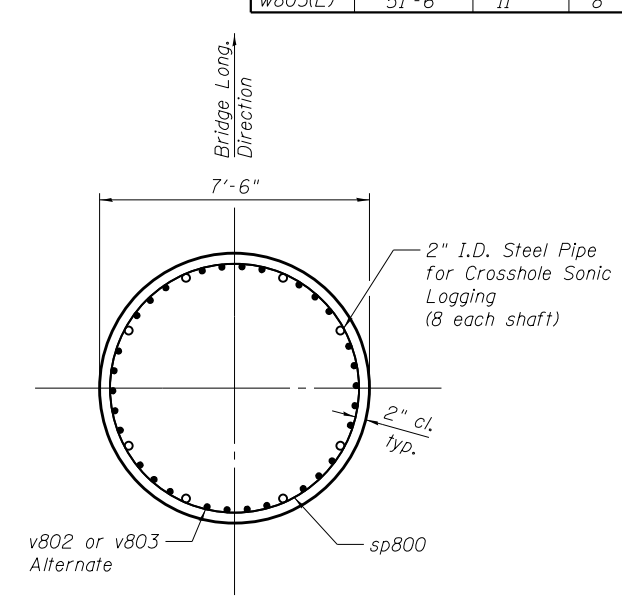


BARS t801(E) & w802(E)



SECTION G-G

SECTION H-H

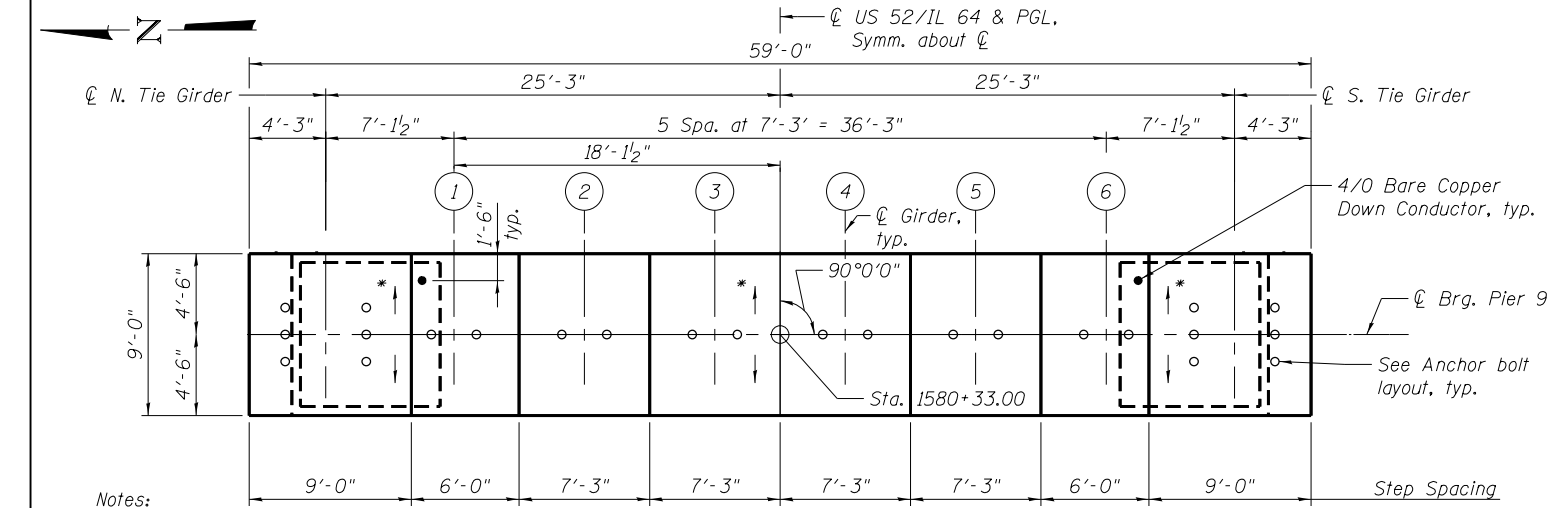


SECTION J-J

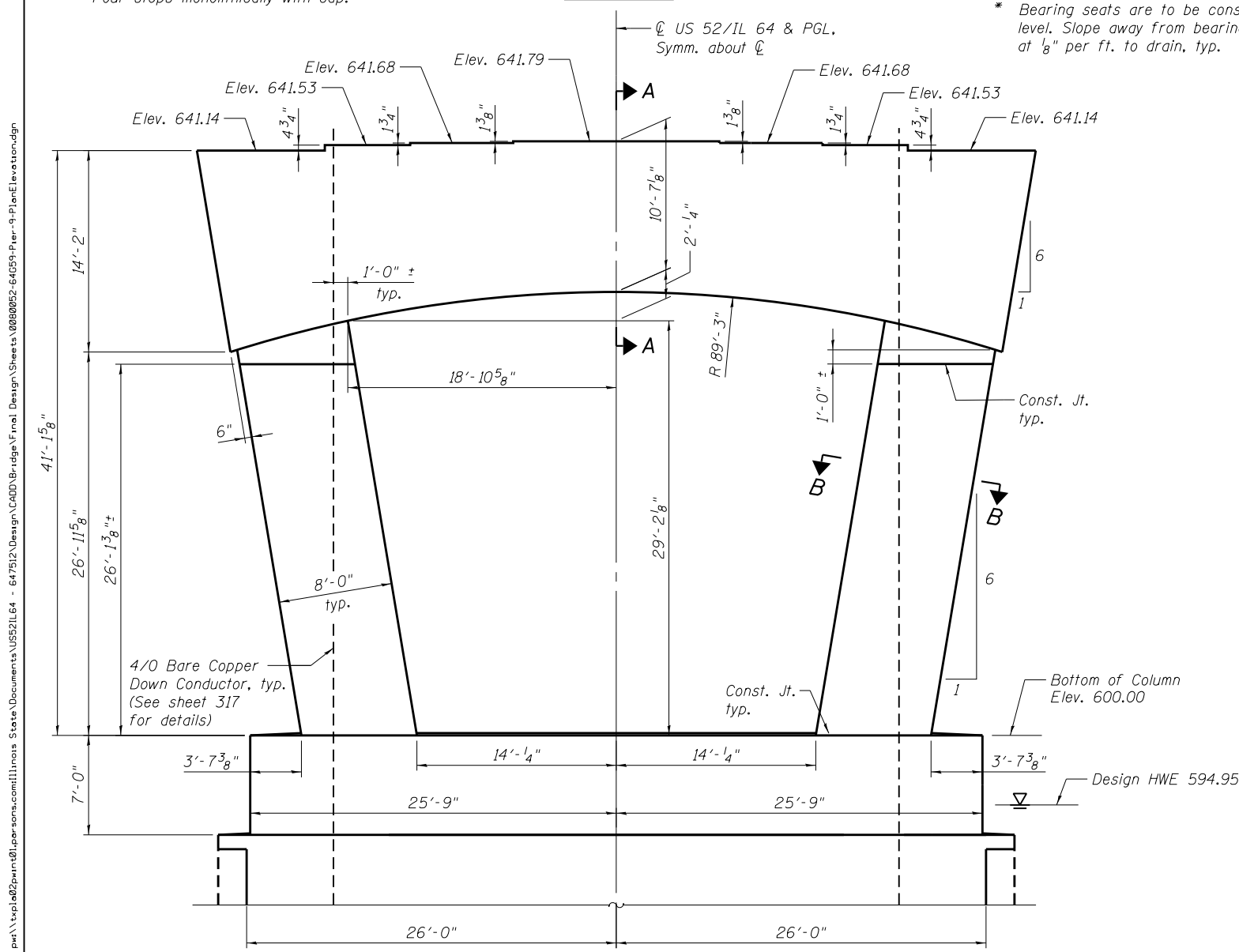
Note:
For locations of Sections F-F thru J-J, see sheet 306.
All exposed surfaces of pier cap, columns, pedestal and footing shall be treated with Concrete Sealer.
The cost for furnishing, installing, and subsequent grouting of all access tubes for crosshole sonic logging shall be included in the cost of Drilled Shaft in Soil and Drilled Shaft in Rock.
The Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on minimum length shown.
The vertical load drilled shaft foundation design is based on end bearing in bedrock. For vertical load design, penetration into rock is required to achieve the factored resistance used in design (61 ksf). The limits shown for Drilled Shaft in Rock is the minimum penetration required to achieve lateral fixity in rock for lateral load design.
Wet construction methods within the permanent casing may be required. The contractor's installation procedure shall clearly address cleaning and inspection methods proposed for use with wet construction methods which will ensure adequate end bearing on rock is achieved.

6/25/2015 3:11:02 PM p:\1\expl\02p\int01\parsons.com\illinois State Documents\18521L64 - 647512\Design\CADD\Bridges\Final Design\Sheets\080052-64059-Pier-8-Details\Bill of Material.dgn

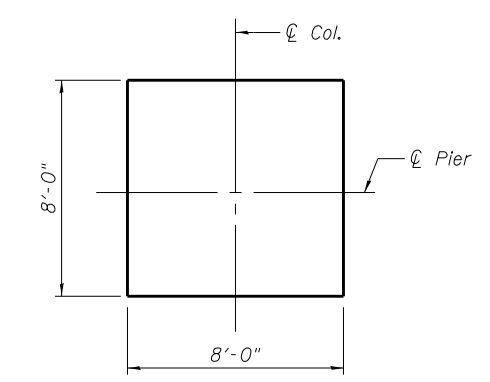
PARSONS FILE NAME = USER NAME = PLOT SCALE = PLOT DATE =	DESIGNED - JZ/TMB CHECKED - TBS DRAWN - HJV CHECKED - TBS/JZ	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 8 DETAILS AND BILL OF MATERIAL STRUCTURE NO. 008-0052	F.A.P. RT. = 17 SECTION = 104B-2 COUNTY = CARROLL TOTAL SHEETS = 528 SHEET NO. = 307 CONTRACT NO. = 64G59
	SHEET NO. 5-135 OF 177 SHEETS				ILLINOIS FED. AID PROJECT



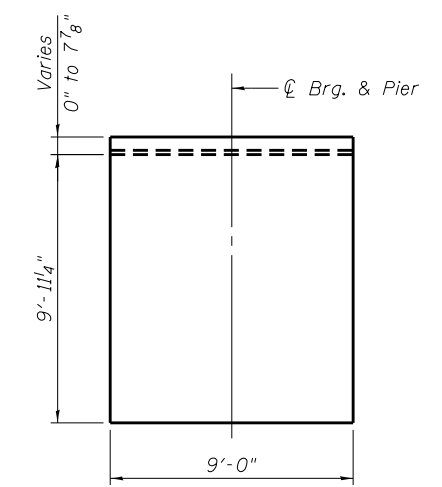
TOP PLAN



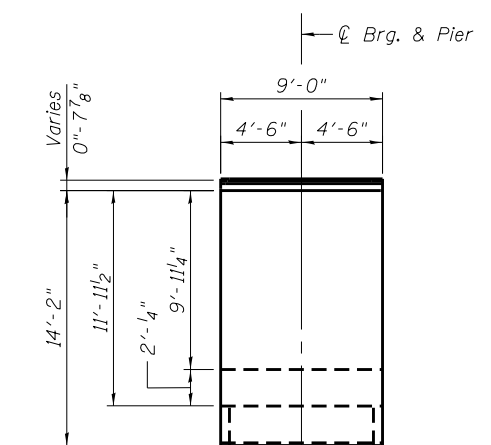
ELEVATION
(Looking East)



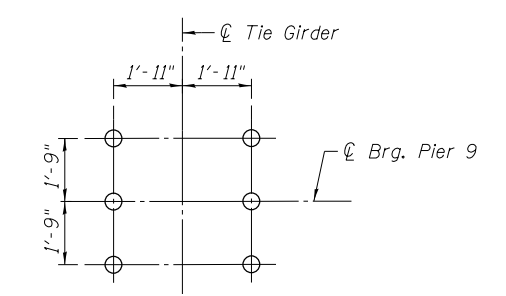
SECTION B-B



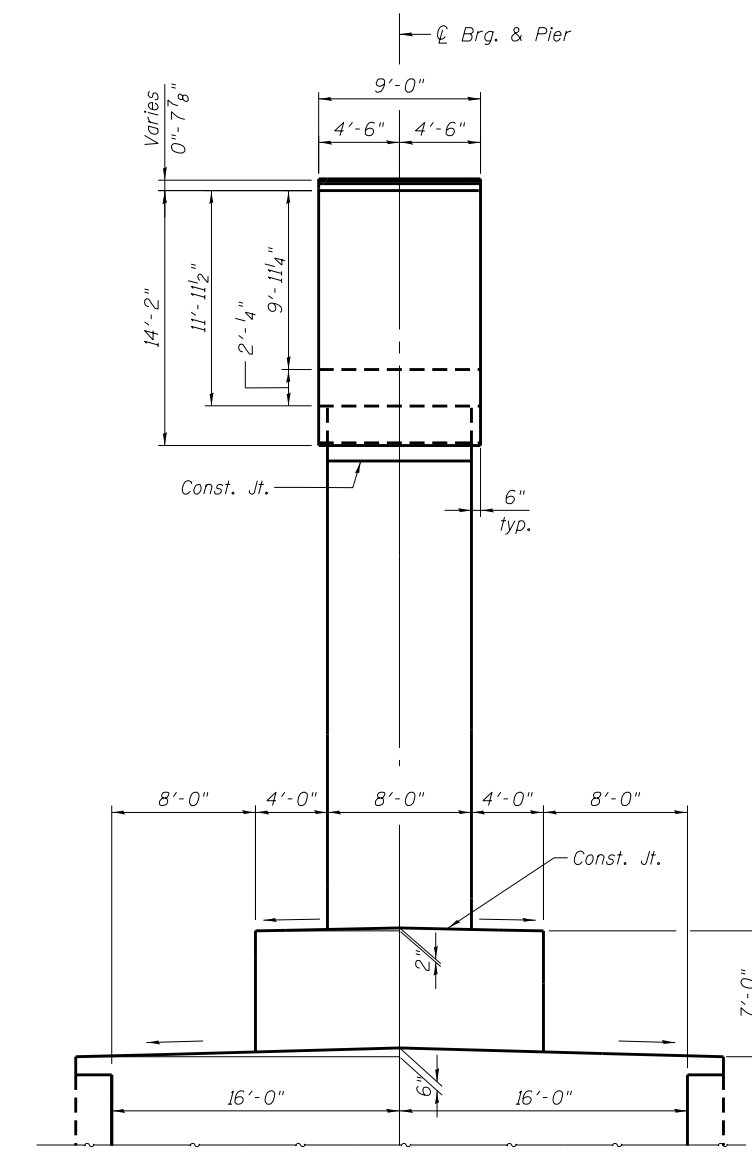
SECTION A-A



ANCHOR BOLT LAYOUT
(at Girders 1 thru 6)



ANCHOR BOLT LAYOUT
(at Tie Girders)

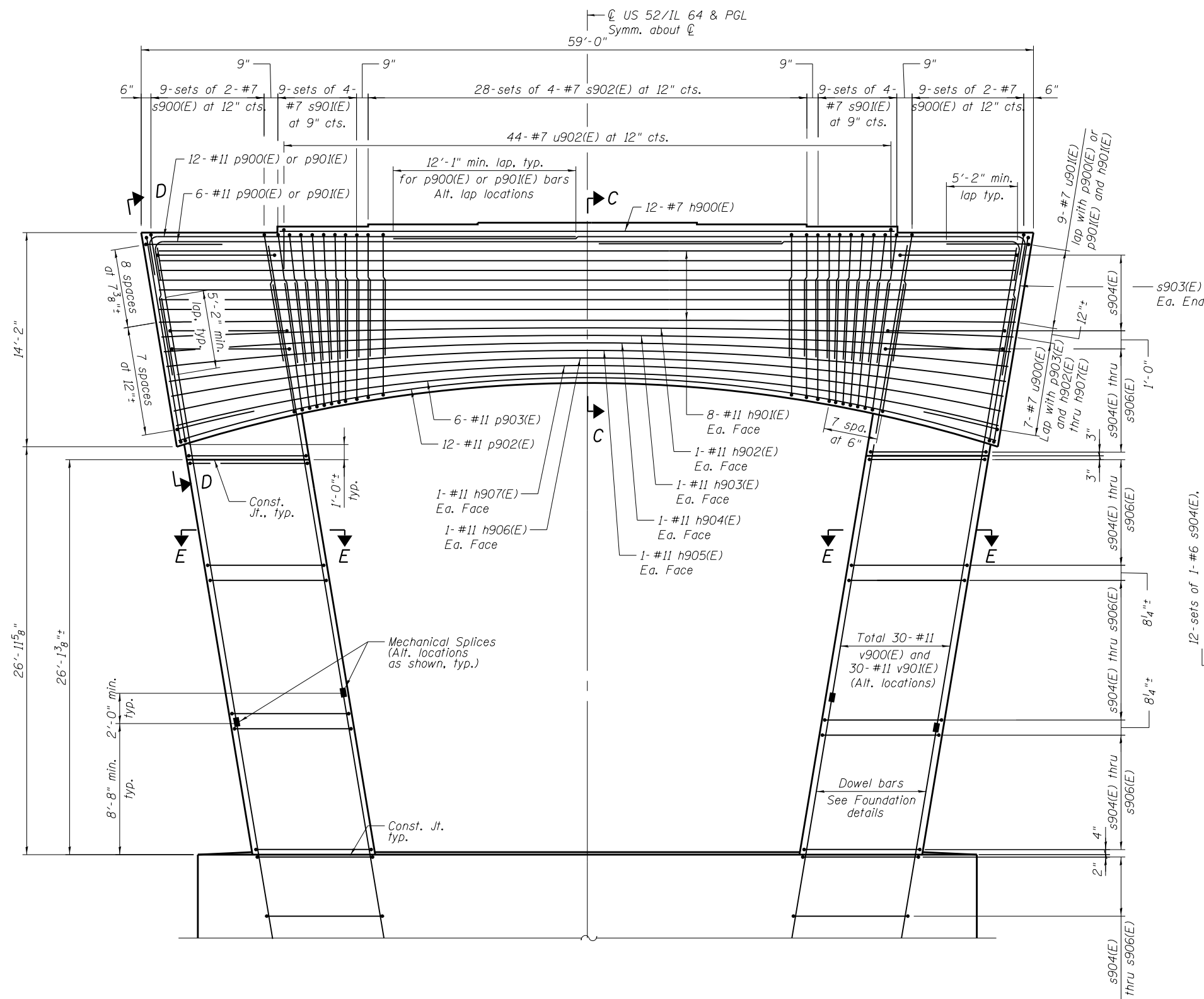


END VIEW

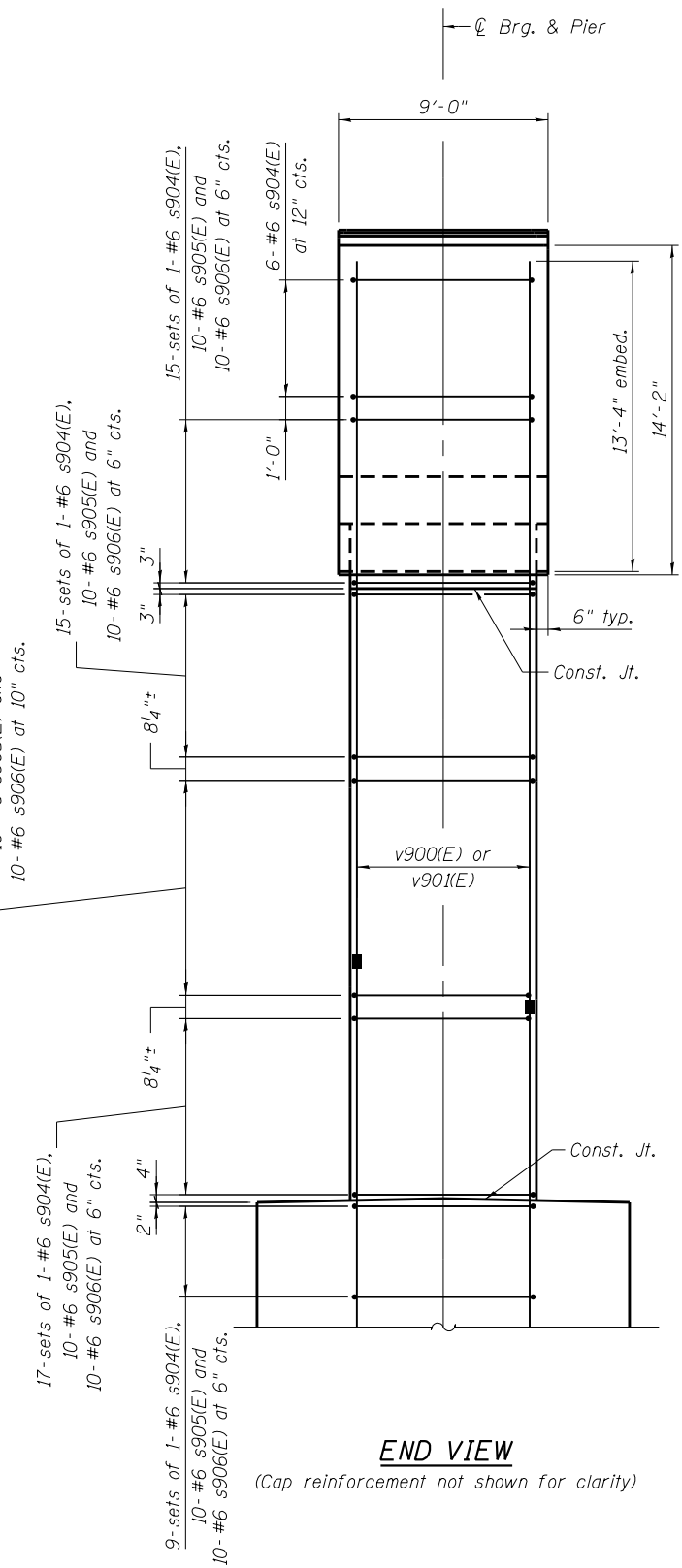
Notes:
 For Foundation details, see sheet 311.
 For Cap and Column reinforcement details, see sheets 309 and 310.
 For Arch Grounding and Navigation Clearance Gauge, see sheet 317.
 For Anchor bolt and Bearing details, see sheets 284 and 285.

FILE NAME = PARSONS	USER NAME =	DESIGNED - JZ CHECKED - TBS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 9 PLAN AND ELEVATION STRUCTURE NO. 008-0052	F.A.P. R.T.E. = 17	SECTION = 104B-2	COUNTY = CARROLL	TOTAL SHEETS = 528	SHEET NO. = 308
	PLOT SCALE =	DRAWN - HJV CHECKED - TBS	REVISED -			SHEET NO. = 308	CONTRACT NO. = 64G59			
PLOT DATE =	CHECKED - TBS	REVISED -	REVISED -	SHEET NO. 5-136 OF 177 SHEETS	ILLINOIS FED. AID PROJECT					

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ELEVATION
(Looking East)



END VIEW
(Cap reinforcement not shown for clarity)

Notes:
For Pier 9 Plan and Elevation, see sheet 308.
For Sections C-C and E-E and View D-D, see sheet 310.
For Foundation details, see sheet 311.
For bar details and Bill of Material, see sheet 312.

FILE NAME =
PARSONS

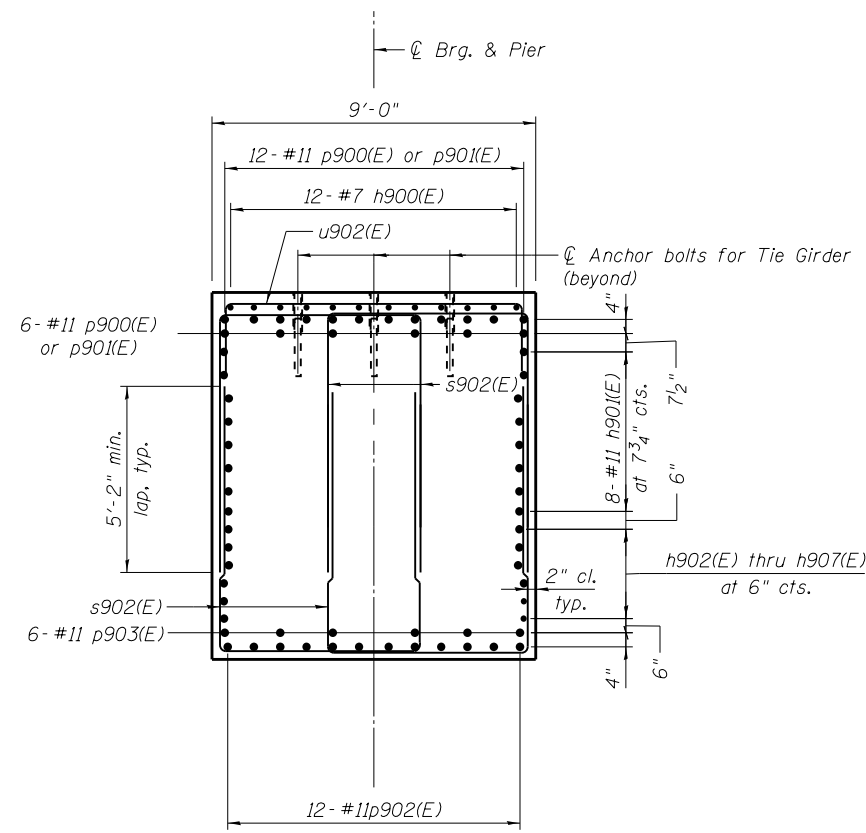
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PLOT SCALE =	CHECKED - TBS	REVISED -
PLOT DATE =	DRAWN - HJV/SC	REVISED -
	CHECKED - TBS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

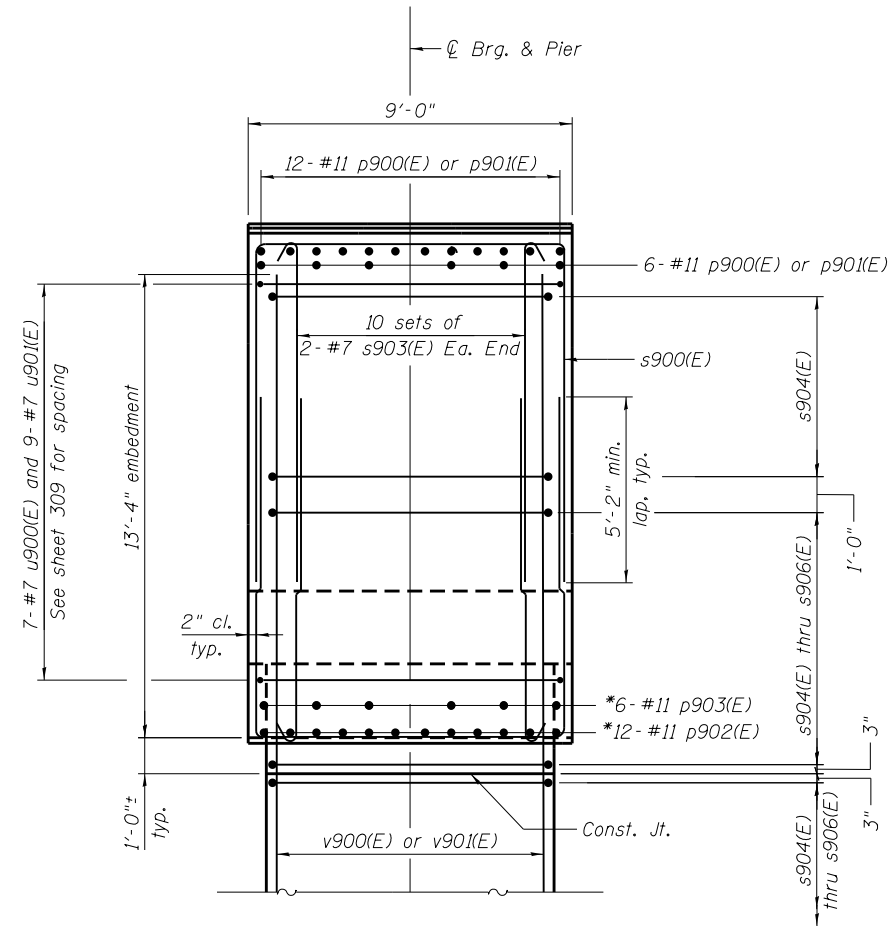
PIER 9 REINFORCEMENT - 1
STRUCTURE NO. 008-0052
SHEET NO. 5-137 OF 177 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	309
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				

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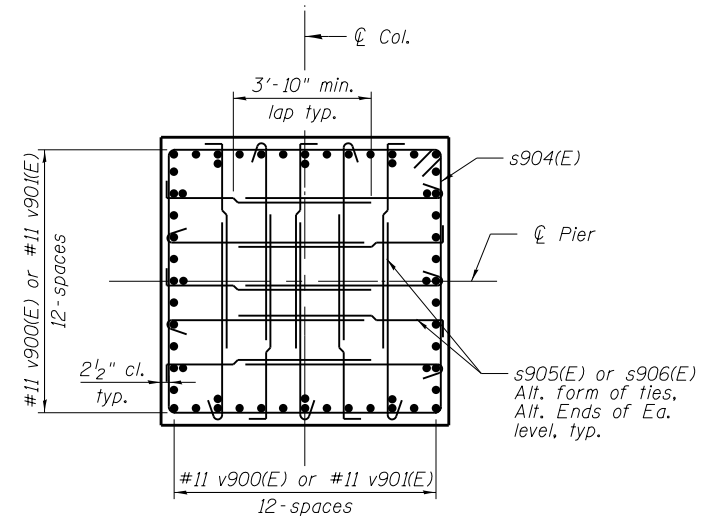


SECTION C-C
(Anchor bolts at Girders 1 thru 6 not shown for clarity)



VIEW D-D
(Anchor bolts not shown for clarity)

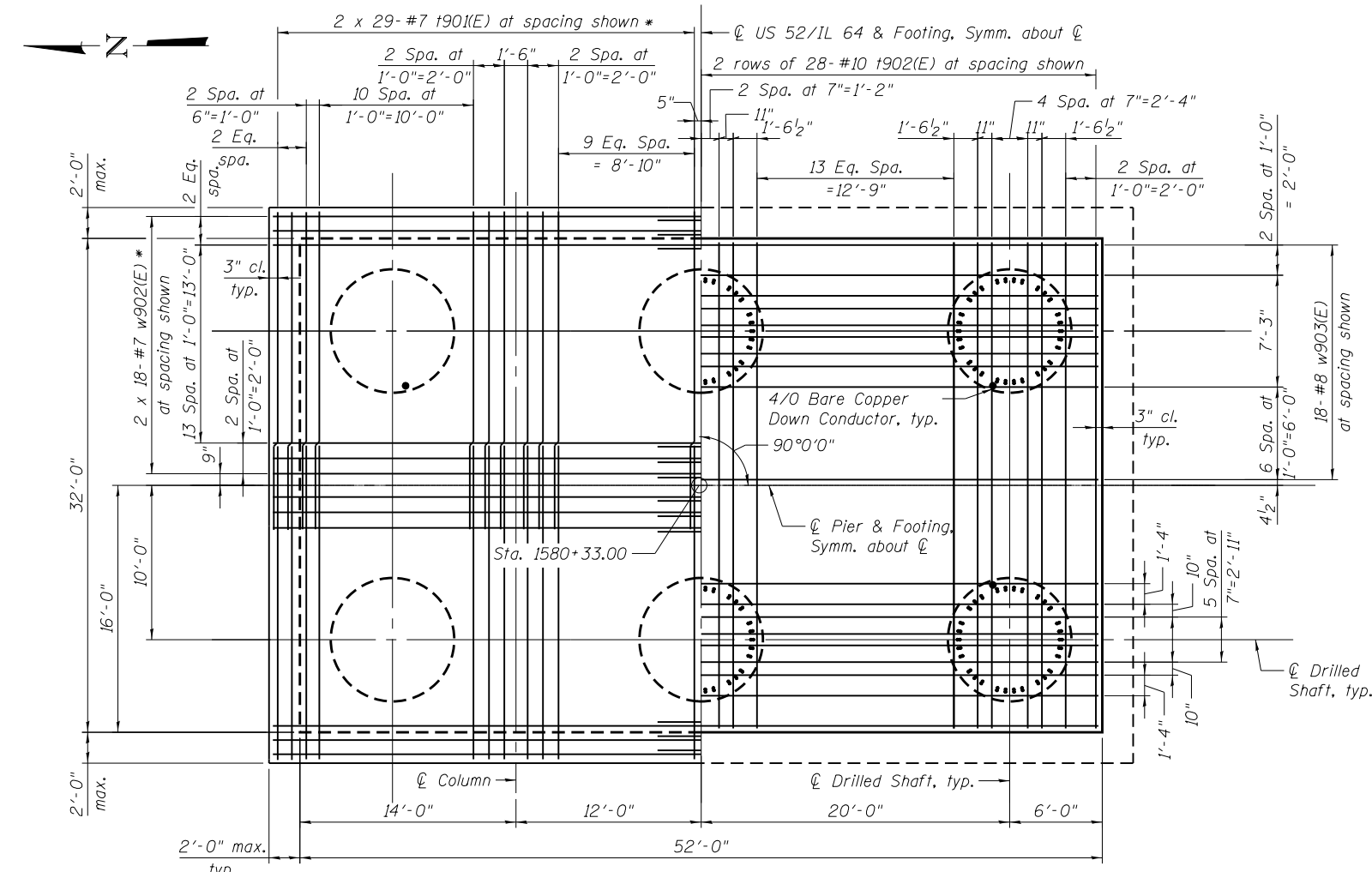
* Shift p902(E) or p903(E) slightly if necessary to clear column vertical bars.



SECTION E-E

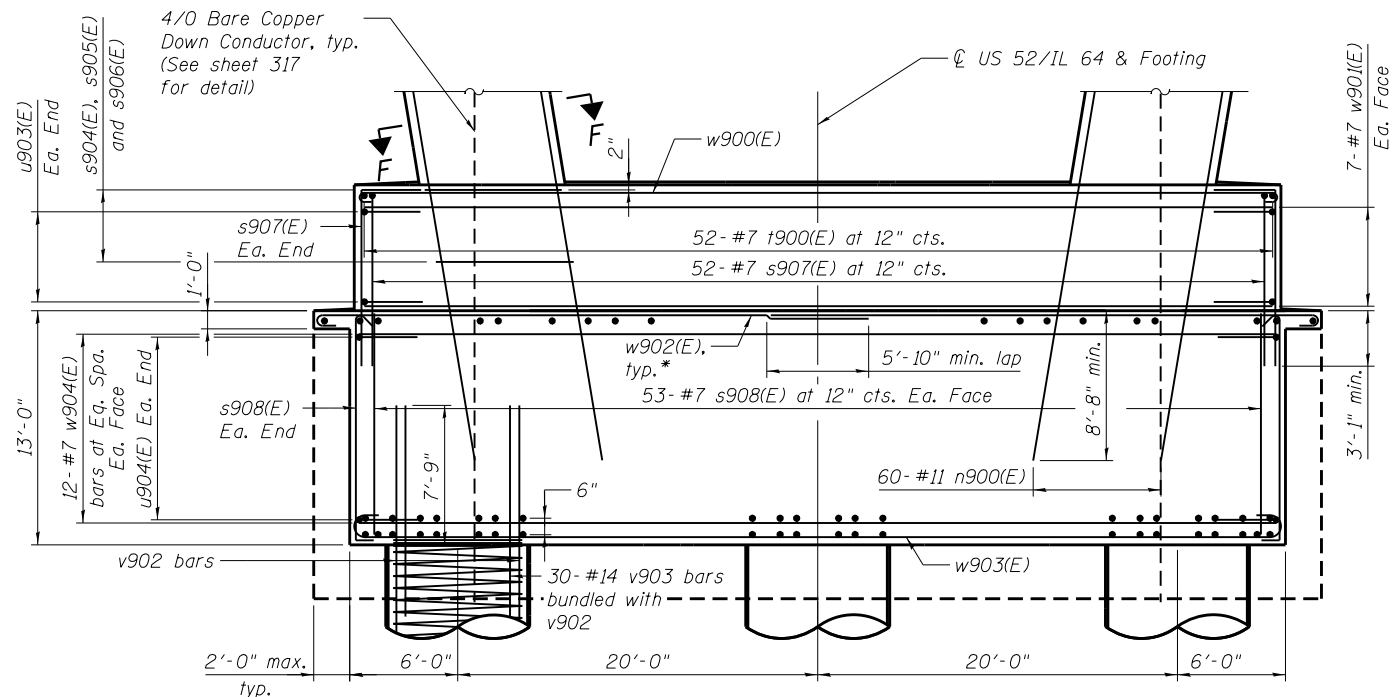
Notes:
 For Pier 9 Plan and Elevation including anchor bolt layout, see sheet 308.
 For locations of Sections C-C and E-E and View D-D, see sheet 309.
 For bar details and Bill of Material, see sheet 312.
 For bearing details at Girders 1 thru 6, see sheet 285.
 For bearing details at Tie Girders, see sheet 284.

FILE NAME =	USER NAME =	DESIGNED - JZ	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 9 REINFORCEMENT - 2 STRUCTURE NO. 008-0052	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PARSONS		CHECKED - TBS	REVISED -			17	104B-2	CARROLL	528	310	
PLOT SCALE =		DRAWN - HJV/SC	REVISED -			CONTRACT NO. 64G59					
PLOT DATE =		CHECKED - TBS	REVISED -			ILLINOIS FED. AID PROJECT					
					SHEET NO. 5-138 OF 177 SHEETS						

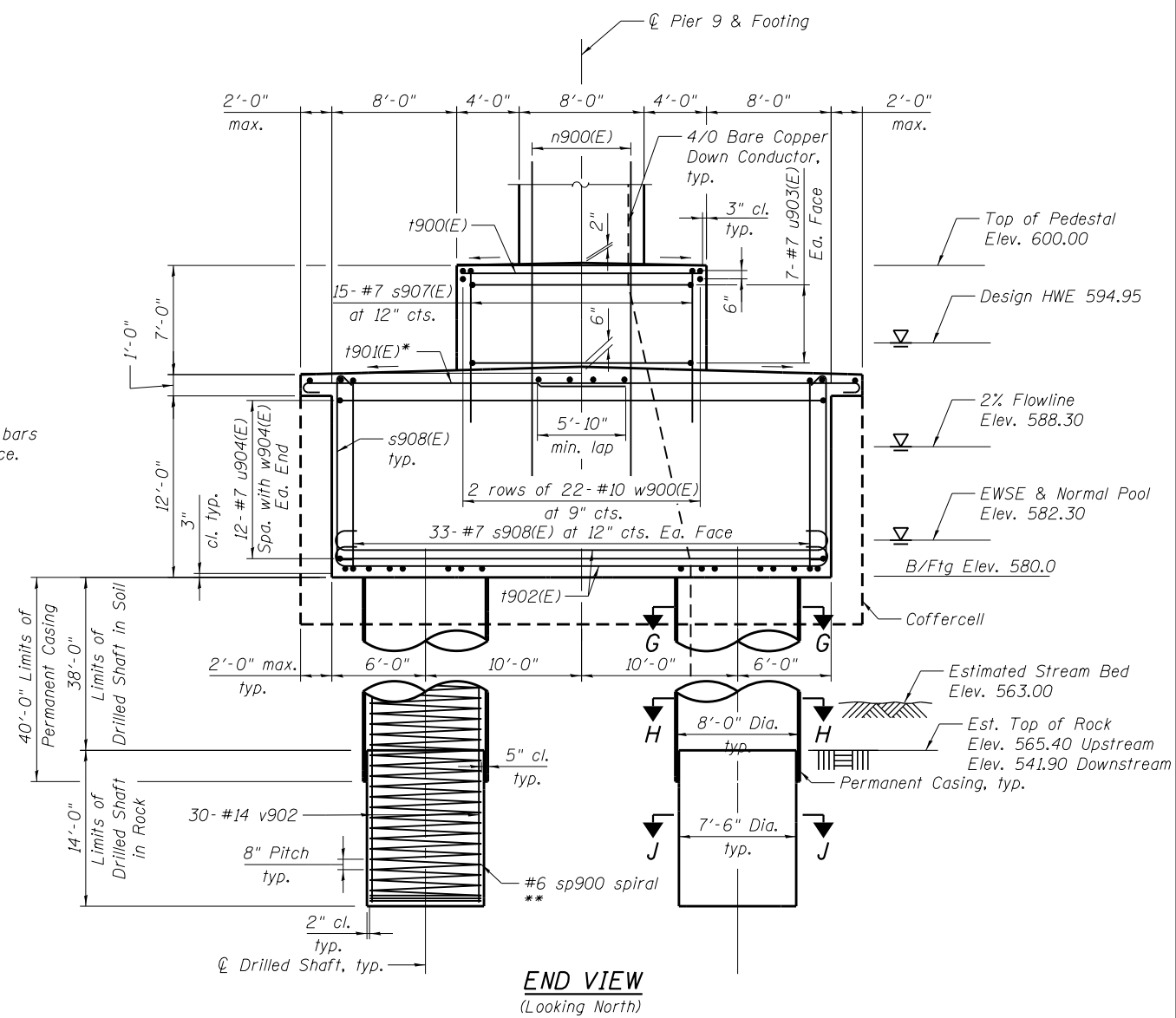


SHOWING TOP REINFORCEMENT
SHOWING BOTTOM REINFORCEMENT
FOOTING PLAN

* Tilt #7 t901(E) and w902(E) bars as required to maintain clearance.



ELEVATION
(Looking East)



END VIEW
(Looking North)

**Provide 1/2 extra turns top and bottom. Shop weld together extra spiral turns top and bottom per AWS D1.4. Extend spiral 2" into footing. Provide min. 4-#4 spacers or equivalent.
Allowable substitution: Provide 1/2 extra turns top and bottom with 135 degree standard hook into core at ends of spiral. The Permanent Casing is shown embedded 2 ft. in rock for estimate of quantities. Actual embedment to be determined by construction requirements.

Notes:
For Sections F-F thru J-J, see sheet 312.
For Pier Plan and Elevation, including column spacing, see sheet 308.
For Cap and Column reinforcement details, see sheets 309 and 310.
For additional notes, bar details and Bill of Material, see sheet 312.
For Arch Grounding and Navigation Clearance Gauges, see sheet 317.

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		CHECKED - TBS	REVISED -
	PLOT SCALE =	DRAWN - HJV	REVISED -
	PLOT DATE =	CHECKED - TBS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 9 FOUNDATION DETAILS
STRUCTURE NO. 008-0052

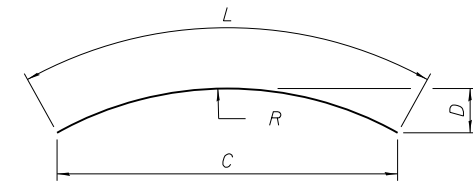
SHEET NO. 5-139 OF 177 SHEETS

F.A.P. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	311
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				

**PIER 9
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h900(E)	12	#7	43'-2"	—
h901(E)	16	#11	56'-8"	—
h902(E)	2	#11	56'-4"	—
h903(E)	2	#11	56'-0"	—
h904(E)	2	#11	55'-9"	—
h905(E)	2	#11	55'-6"	—
h906(E)	2	#11	55'-4"	—
h907(E)	2	#11	55'-1"	—
n900(E)	120	#11	26'-8"	—
p900(E)	18	#11	44'-2"	—
p901(E)	18	#11	30'-4"	—
p902(E)	12	#11	54'-11"	—
p903(E)	6	#11	54'-11"	—
s900(E)	36	#7	27'-10"	—
s901(E)	72	#7	22'-8"	—
s902(E)	120	#7	21'-10"	—
s903(E)	40	#7	10'-5"	—
s904(E)	148	#6	31'-10"	—
s905(E)	1360	#6	6'-6"	—
s906(E)	1360	#6	6'-10"	—
s907(E)	134	#7	11'-0"	—
s908(E)	172	#7	14'-4"	—
sp900	6	#6	52'-0"	—
t900(E)	52	#7	15'-6"	—
t901(E)	116	#7	21'-6"	—
t902(E)	110	#10	34'-4"	—
u900(E)	14	#7	18'-11"	—
u901(E)	18	#7	20'-5"	—
u902(E)	44	#7	13'-8"	—
u903(E)	14	#7	23'-2"	—
u904(E)	24	#7	39'-2"	—
v900(E)	60	#11	32'-0"	—
v901(E)	60	#11	30'-0"	—
v902	180	#14	59'-9"	—
v903	180	#14	37'-0"	—
w900(E)	44	#10	53'-10"	—
w901(E)	14	#7	51'-0"	—
w902(E)	72	#7	31'-6"	—
w903(E)	36	#8	53'-4"	—
w904(E)	24	#7	51'-6"	—
Concrete Structures	Cu. Yd.		1,406.7	
Reinforcement Bars	Pound		149,520	
Reinforcement Bars, Epoxy Coated	Pound		164,570	
Concrete Sealer	Sq. Ft.		9,195	
Permanent Casing	Foot		240	
Drilled Shaft in Soil	Cu. Yd.		424.5	
Drilled Shaft in Rock	Cu. Yd.		137.4	
Crosshole Sonic Logging	Each		6	
Coffercell (Location-9)	Each		1	
Thermal Integrity Profile Testing	Each		1	

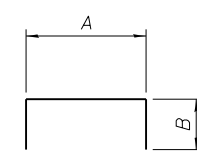
* See Special Provision.
** Length is the height of spiral



**BARS p902(E) & p903(E)
BARS h902(E), h903(E), h904(E),
h905(E), h906(E) & h907(E)**

BAR DIMENSIONS

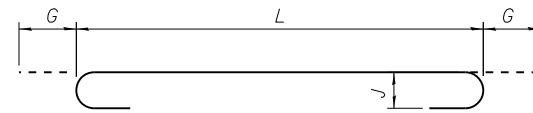
Bar	R	L	C	D
p902(E)	89'-6 ¹ / ₂ "	54'-11"	54'-0 ³ / ₄ "	4'-2 ¹ / ₈ "
p903(E)	107'-11 ⁵ / ₈ "	54'-11"	54'-3 ⁷ / ₈ "	3'-5 ⁵ / ₈ "
h902(E)	654'-3 ¹ / ₈ "	56'-4"	56'-3 ³ / ₄ "	7 ¹ / ₄ "
h903(E)	361'-2 ⁵ / ₈ "	56'-0"	55'-11 ³ / ₈ "	1'-1"
h904(E)	248'-0"	55'-9"	55'-7 ⁵ / ₈ "	1'-6 ³ / ₄ "
h905(E)	188'-0 ³ / ₈ "	55'-6"	55'-3 ⁵ / ₈ "	2'-0 ¹ / ₂ "
h906(E)	150'-11 ¹ / ₂ "	55'-4"	55'-0 ¹ / ₄ "	2'-6 ³ / ₈ "
h907(E)	125'-9 ³ / ₄ "	55'-1"	54'-7 ³ / ₄ "	3'-0"



**BARS s900(E), s901(E) & s902(E)
BARS u900(E), u901(E), u902(E),
u903(E) & u904(E)**

BAR DIMENSIONS

Bar	A	B
s900(E)	8'-8"	9'-7"
s901(E)	5'-8"	8'-6"
s902(E)	5'-8"	8'-1"
u900(E)	8'-5"	5'-3"
u901(E)	8'-5"	6'-0"
u902(E)	8'-8"	2'-6"
u903(E)	15'-4"	3'-11"
u904(E)	31'-4"	3'-11"

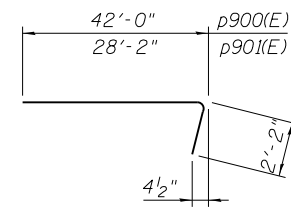
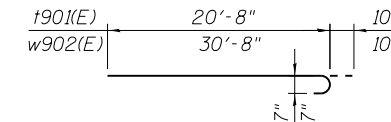


BARS t902(E), w900(E) & w903(E)

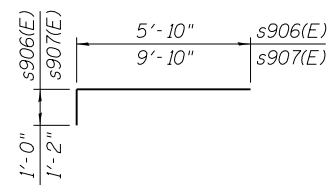
BAR DIMENSIONS

Bar	L	G	J
t902(E)	31'-6"	1'-5"	1'-4 ¹ / ₄ "
w900(E)	51'-0"	1'-5"	1'-4 ¹ / ₄ "
w903(E)	51'-6"	11"	8"

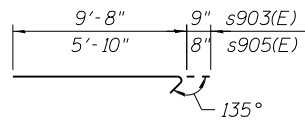
BARS t901(E) & w902(E)



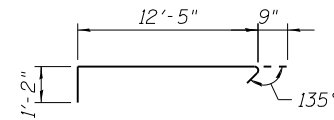
BARS p900(E) & p901(E)



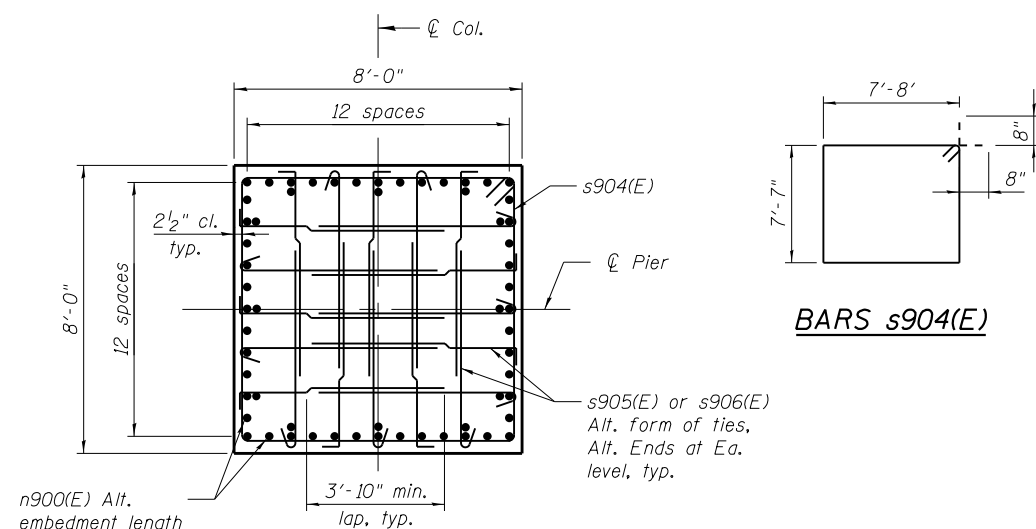
BARS s906(E) & s907(E)



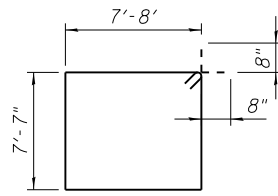
BARS s903(E) & s905(E)



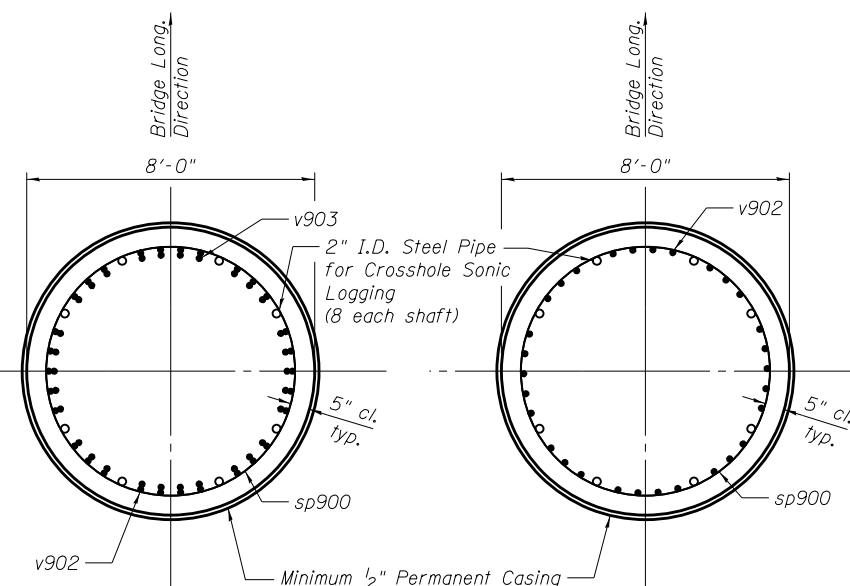
BAR s908(E)



SECTION F-F

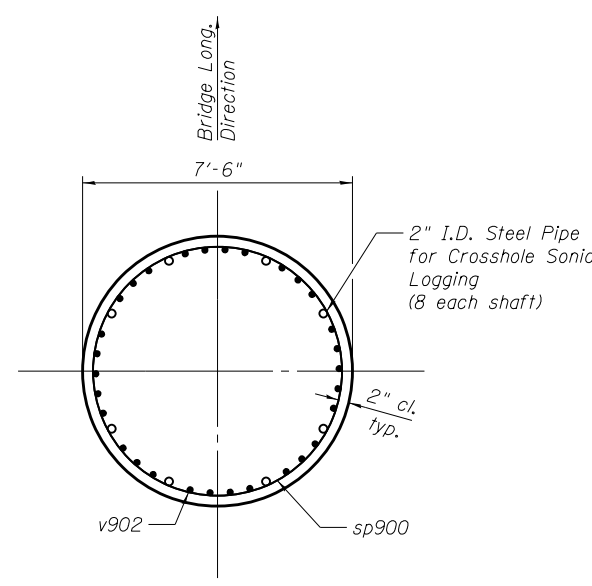


BARS s904(E)



SECTION G-G

SECTION H-H

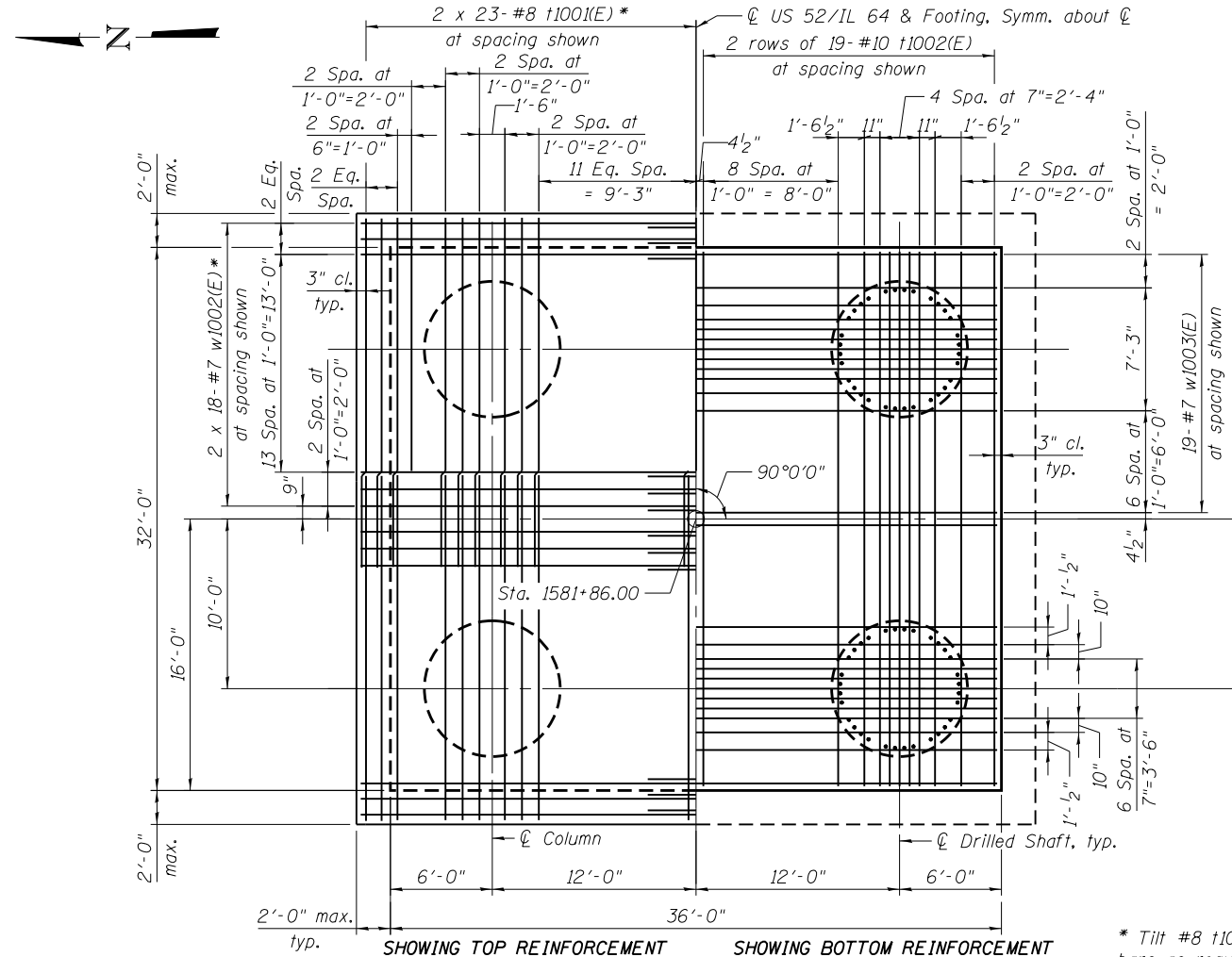


SECTION J-J

Note:

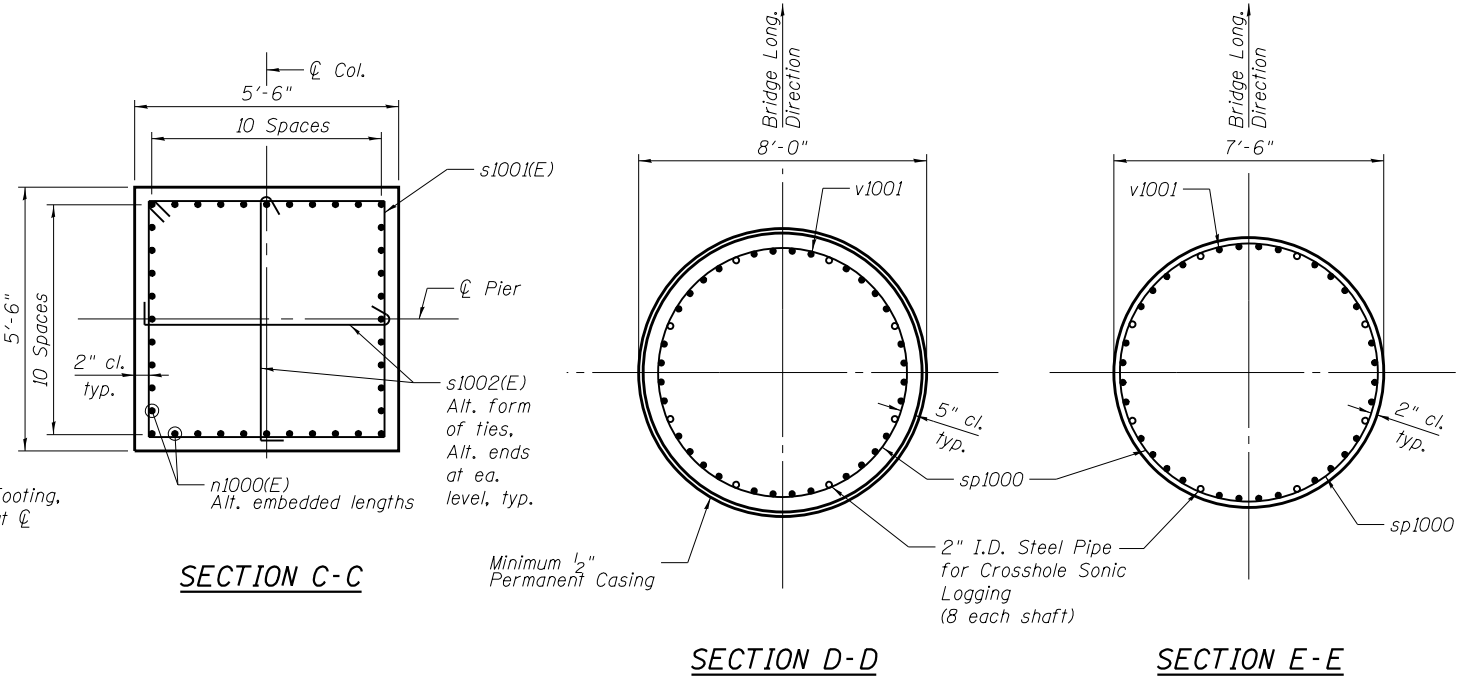
For locations of Sections F-F thru J-J, see sheet 311.
All exposed surfaces of pier cap, columns, pedestal and footing shall be treated with Concrete Sealer.
The cost for furnishing, installing, and subsequent grouting of all access tubes for crosshole sonic logging shall be included in the cost of Drilled Shaft in Soil and Drilled Shaft in Rock.
The Contractor is responsible for determining the casing thickness and the actual tip elevation to be used. See Article 516.06(d) of the Standard Specifications. Pay limits for the Permanent Casing shall be based on minimum length shown.
The vertical load drilled shaft foundation design is based on end bearing in bedrock. For vertical load design, penetration into rock is required to achieve the factored resistance used in design (80 ksf). The limits shown for Drilled Shaft in Rock is the minimum penetration required to achieve lateral fixity in rock for lateral load design.
Wet construction methods within the permanent casing may be required. The contractor's installation procedure shall clearly address cleaning and inspection methods proposed for use with wet construction methods which will ensure adequate end bearing on rock is achieved.

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SHOWING TOP REINFORCEMENT
SHOWING BOTTOM REINFORCEMENT
FOOTING PLAN

* Tilt #8 t1001(E) and #7 w1002(E) bars as required to maintain clearance.

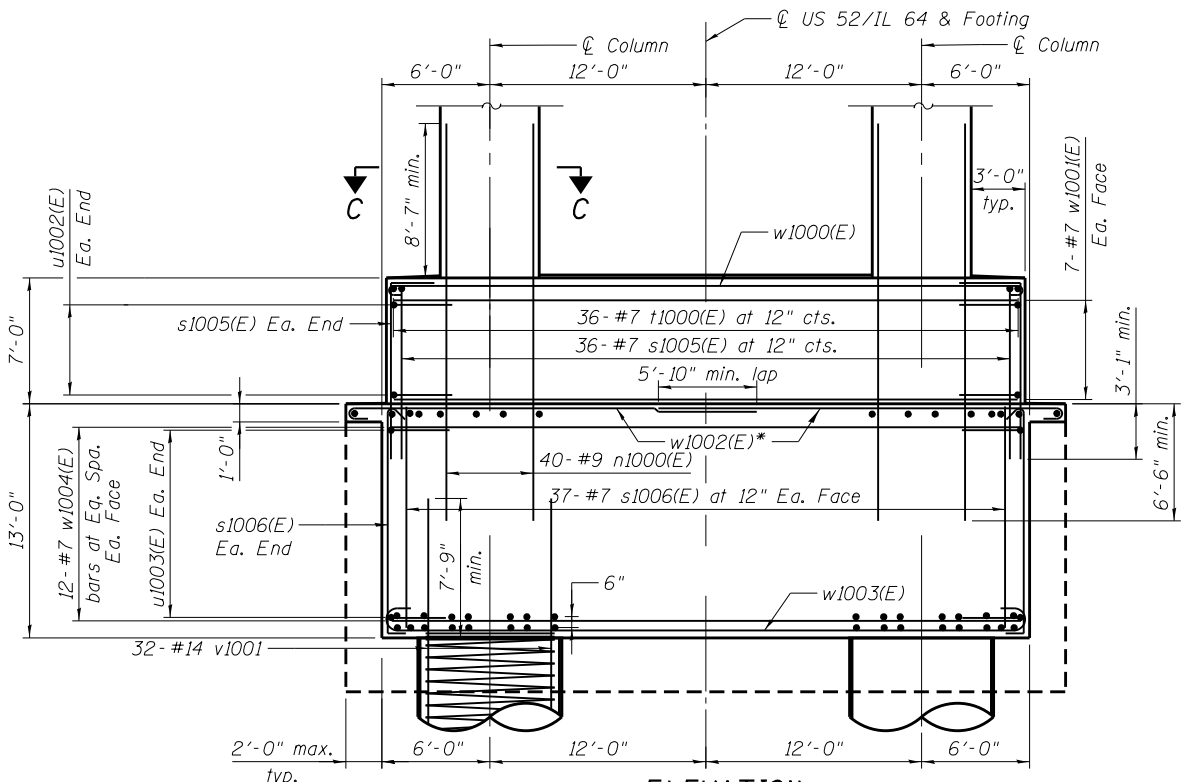


SECTION C-C

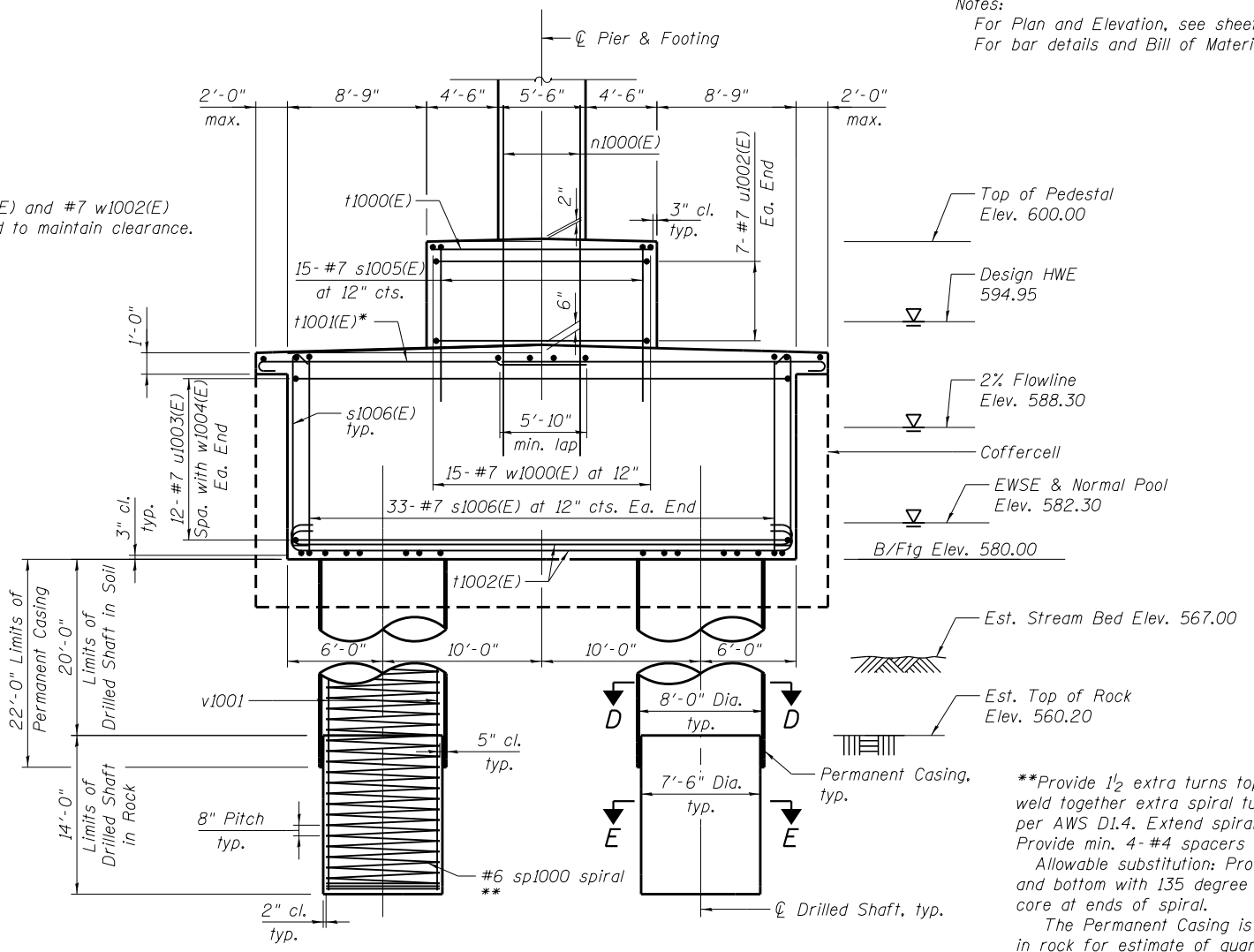
SECTION D-D

SECTION E-E

Notes:
For Plan and Elevation, see sheet 313.
For bar details and Bill of Material, see sheet 316.



ELEVATION
(Looking East)



END VIEW

***Provide 1/2 extra turns top and bottom. Shop weld together extra spiral turns top and bottom per AWS D1.4. Extend spiral 2" into footing. Provide min. 4-#4 spacers or equivalent. Allowable substitution: Provide 1/2 extra turns top and bottom with 135 degree standard hook into core at ends of spiral. The Permanent Casing is shown embedded 2 ft. in rock for estimate of quantities. Actual embedment to be determined by construction requirements.

4/28/2015 9:50:15 AM p0812329 p:\t\expl\p0812329\10-FoundationDetails.dgn

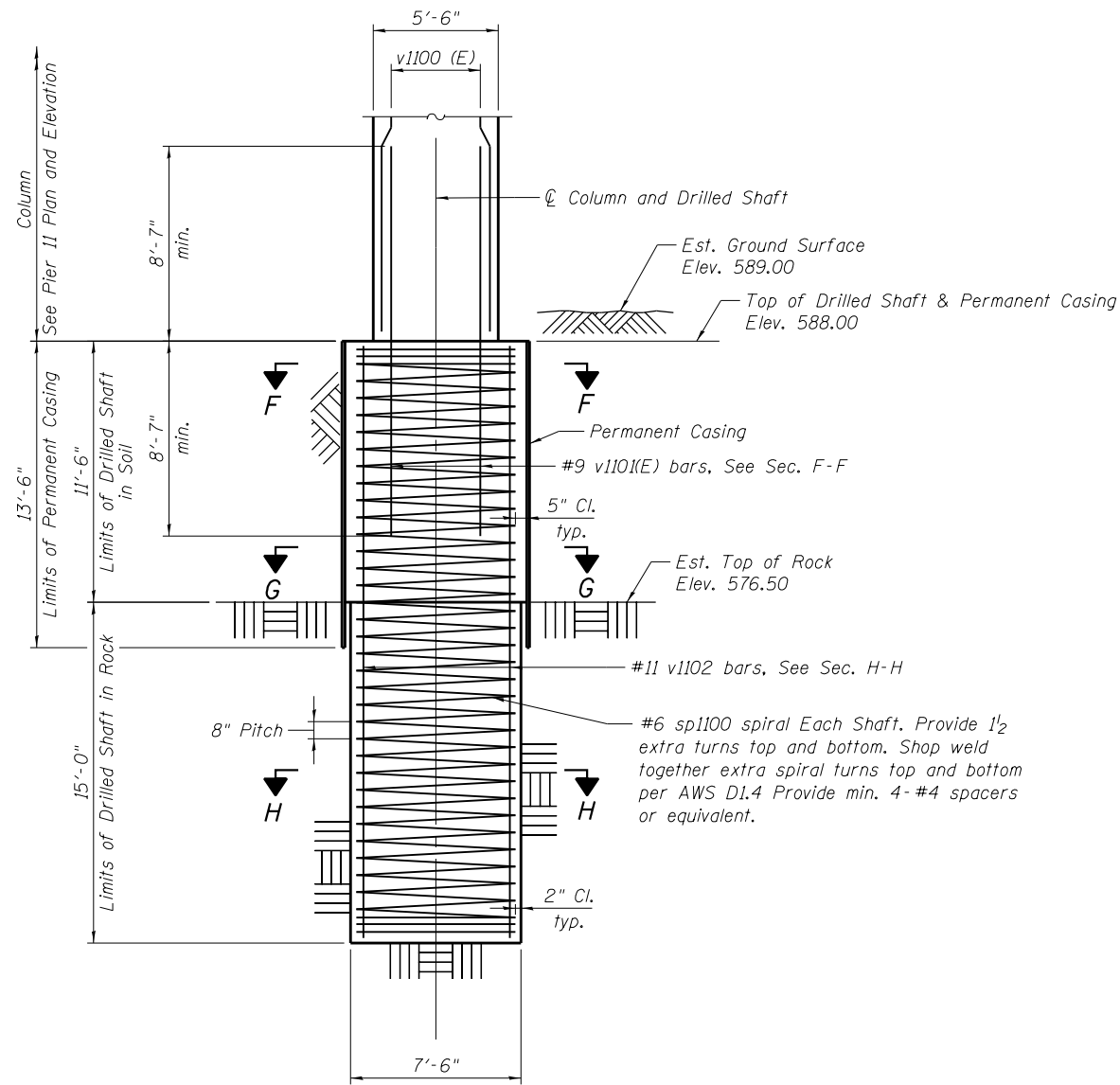
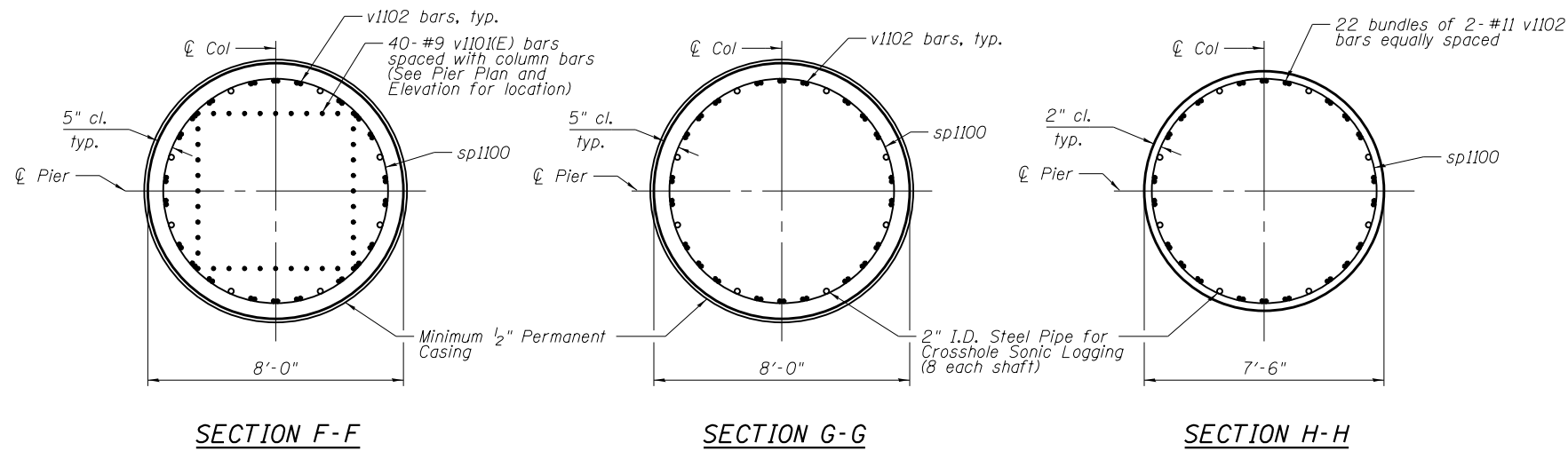


FILE NAME =	USER NAME =	DESIGNED - TMB/TBS	REVISED -
		CHECKED - TSB/TMB	REVISED -
		DRAWN - HJV	REVISED -
		CHECKED - TSB/TMB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 10 FOUNDATION DETAILS
STRUCTURE NO. 008-0052
SHEET NO. S-142 OF 177 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	314
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



DRILLED SHAFT DETAIL
 (One shaft shown, two shafts required,
 one under each column)

Notes:
 For Pier Plan and Elevation, see sheet 313.
 For bar details and Bill of Material, see sheet 316.
 The Permanent Casing is shown embedded 2 ft. in rock
 for estimate of quantities. Actual embedment to be determined
 by construction requirements.

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FILE NAME =
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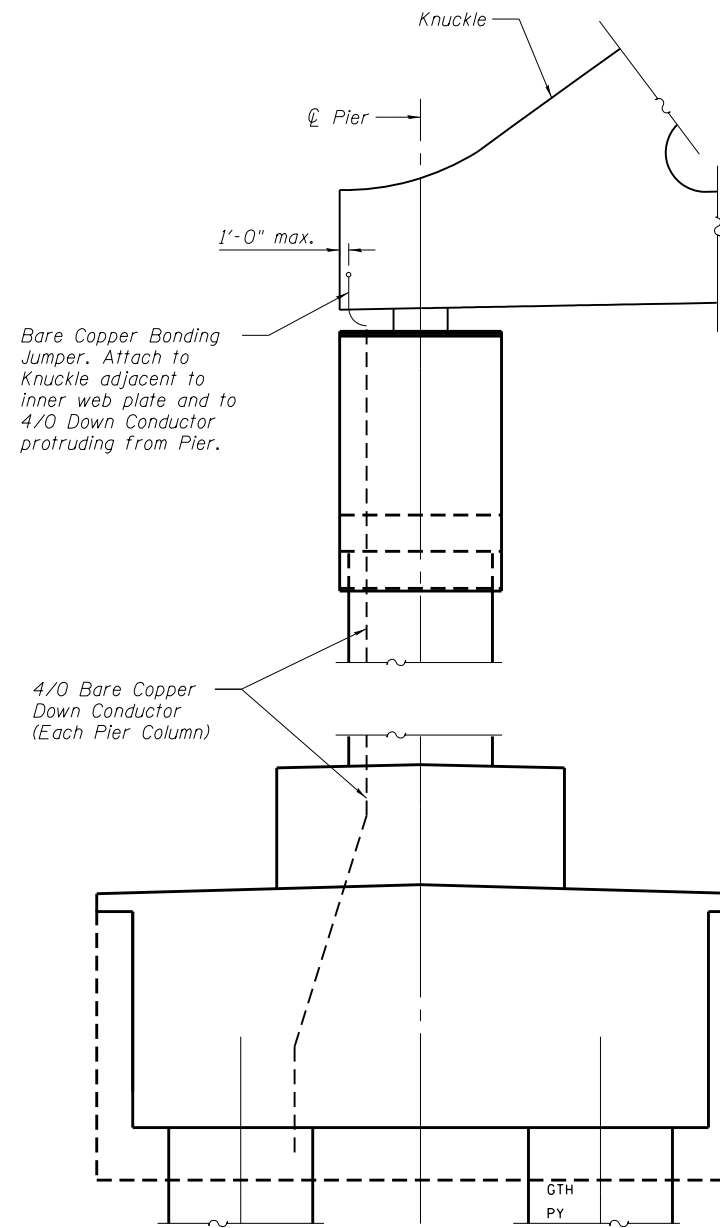
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PLOT DATE =	DRAWN - HJV	REVISED -
	CHECKED - TMB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

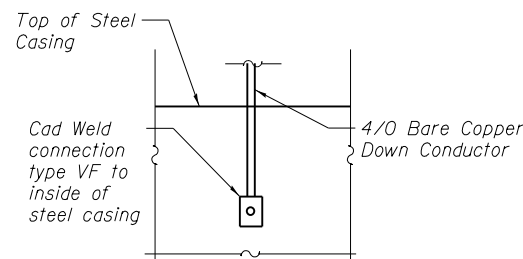
PIER 11 FOUNDATION DETAILS
STRUCTURE NO. 008-0052
 SHEET NO. S-143 OF 177 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	315
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				

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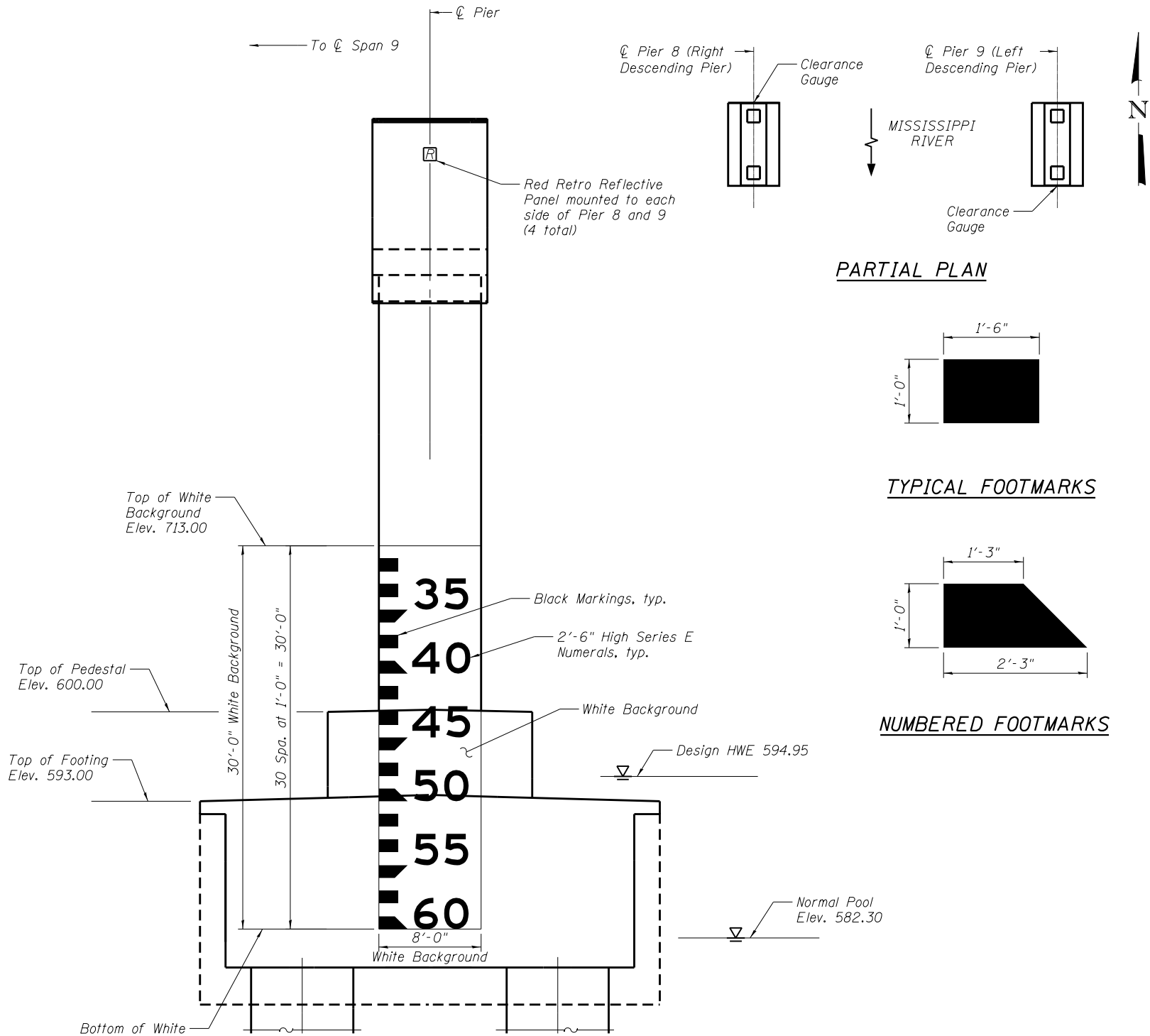


ARCH GROUNDING LAYOUT
(Typical Pier 8 and Pier 9)



GROUND CONNECTION AT STEEL CASING

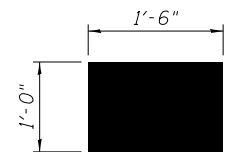
Notes:
 Furnishing, installing and testing of Arch Grounding components shall be included in the cost of Concrete Structures.
 All Arch Grounding components and work shall be in full compliance with specifications and details of Underwriters Laboratories, Inc. (UL), National Fire Protection Association (NFPA), National Electric Code (NEC) and other regulatory agencies as applicable.
 All grounding components shall be UL listed, provide Class 2 Lightning Protection and be submitted to the Engineer for approval.
 All Arch Grounding circuitry shall be field tested for electrical continuity at multiple stages of construction to ensure connectivity as directed by the Engineer. A ground resistance tester shall be used to verify ground resistance in accordance with the National Electric Code.
 Each Knuckle of the Tied Arch shall be grounded (4 total).
 Grounding attachment at Knuckle shall allow for expansion, contraction and rotation of the Tied Arch superstructure.
 4/0 Down Conductor bends shall be smooth curves with 3 ft. minimum radius.
 All down conductors placed in concrete shall be attached to adjacent reinforcing bars to prevent translation during concrete pours. The maximum spacing of the attachments shall not exceed 5 ft. The attachments shall insulate the down conductor from the reinforcing steel.
 CAD welds shall be Erico Company or approved equivalent.



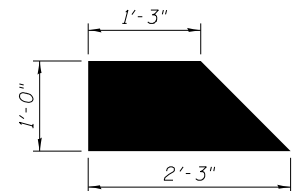
NAVIGATION CLEARANCE GAUGE

(End View Looking South at Pier 8 and North at Pier 9)

PARTIAL PLAN



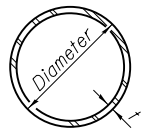
TYPICAL FOOTMARKS



NUMBERED FOOTMARKS

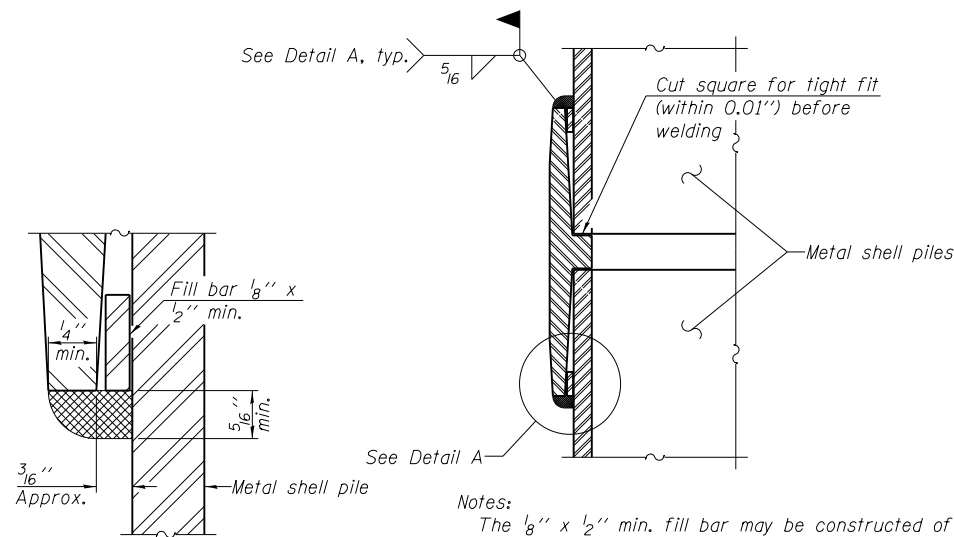
Notes:
 The Navigation Clearance Gauges shall be included in the cost of Concrete Structures.
 Clearance Gauges shall be in place prior to floating in or erecting any superstructure steel in Span 9.
 Numerals shall be Series E 2000, 30 inches and spacing shall conform to the requirements specified in the "Standard Alphabets for Highway Signs" published by the US Department of Transportation.
 For Red Retro Reflective Panels see Lighting Plans.

FILE NAME =	USER NAME =	DESIGNED - GTH	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NAVIGATION CLEARANCE GAUGES AND ARCH GROUNDING STRUCTURE NO. 008-0052	F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PARSONS		CHECKED - PY	REVISED -			17	104B-2	CARROLL	528	317	
	PLOT SCALE =	DRAWN - SSR	REVISED -			CONTRACT NO. 64G59					
	PLOT DATE =	CHECKED - PY	REVISED -			ILLINOIS FED. AID PROJECT					
					SHEET NO. 5-145 OF 177 SHEETS						



METAL SHELL PILE TABLE

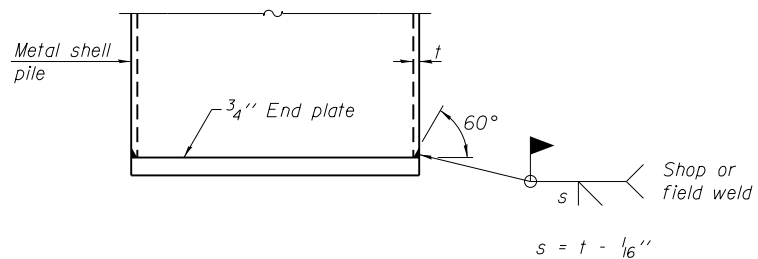
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



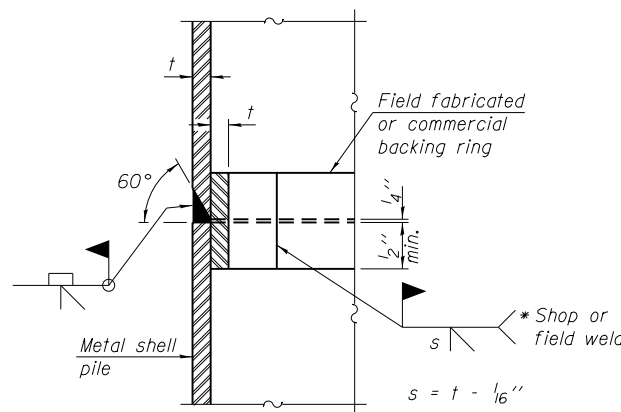
DETAIL A

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

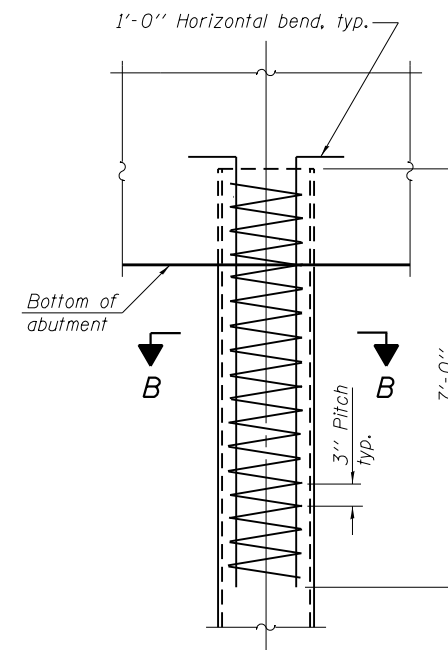


END PLATE ATTACHMENT

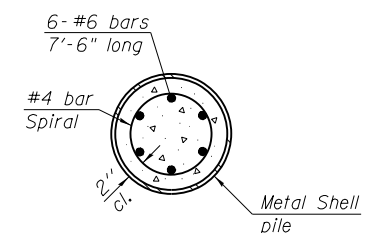


COMPLETE PENETRATION WELD SPLICE

* 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



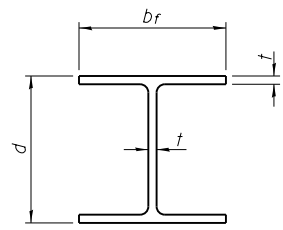
SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

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

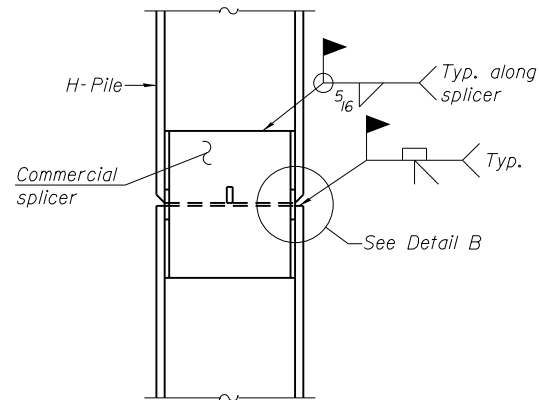
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FILE NAME =	USER NAME =	DESIGNED - JZ	REVISIONS -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	METAL SHELL PILE DETAILS STRUCTURE NO. 008-0052	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PARSONS		CHECKED - EAR	REVISIONS -			17	104B-2	CARROLL	528	318
PLOT SCALE =		DRAWN - SSR	REVISIONS -			CONTRACT NO. 64G59				
PLOT DATE =		CHECKED - EAR	REVISIONS -			ILLINOIS FED. AID PROJECT				
						SHEET NO. S-146 OF 177 SHEETS				

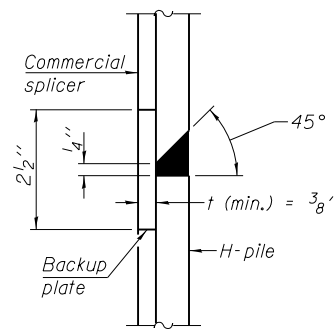


STEEL PILE TABLE

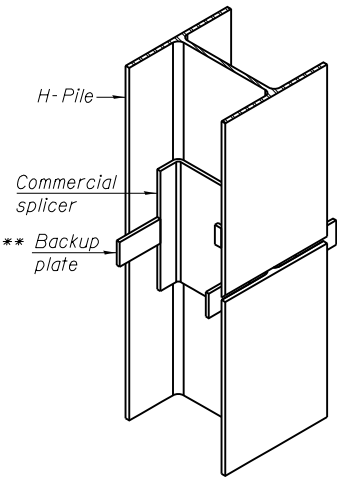
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

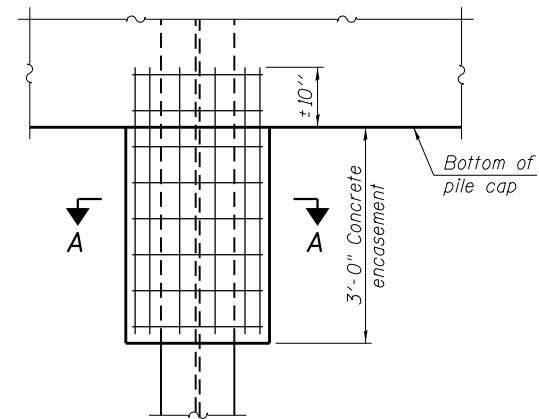


DETAIL "B"



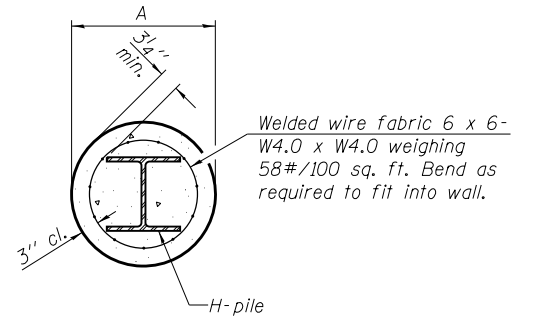
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



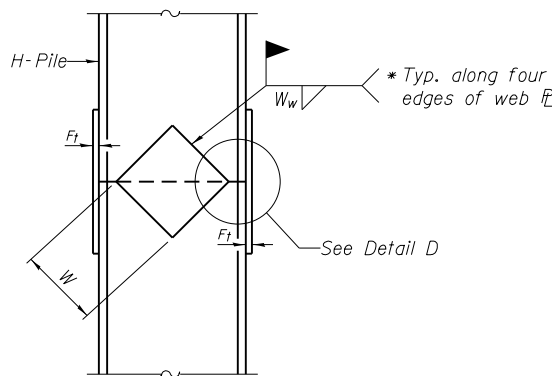
ELEVATION

PILE ENCASEMENT

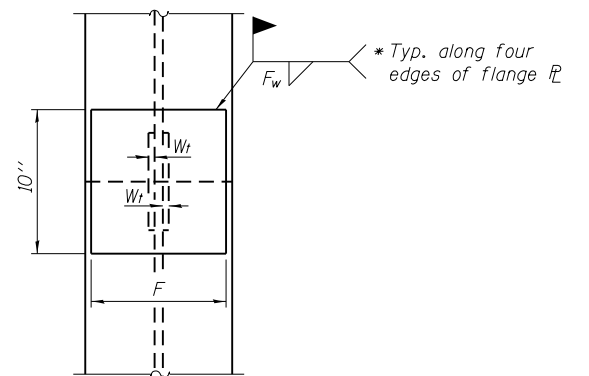


SECTION A-A

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



ELEVATION

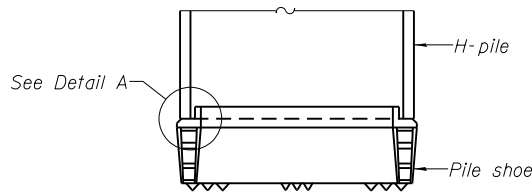


END VIEW

DETAIL D

WELDED PLATE FIELD SPLICE

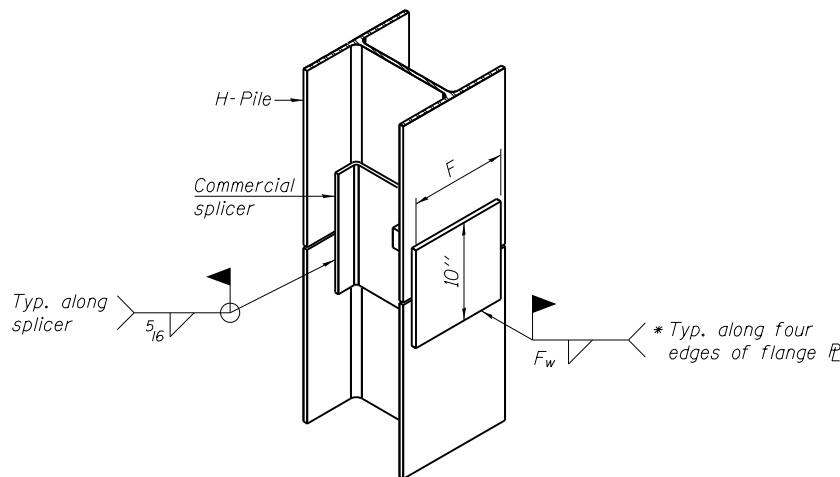
Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"



ELEVATION

DETAIL A

H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

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F-HP 1-27-12

FILE NAME =	USER NAME =	DESIGNED - JZ	REVISED -
PARSONS		CHECKED - EAR	REVISED -
	PLOT SCALE =	DRAWN - SSR	REVISED -
	PLOT DATE =	CHECKED - EAR	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HP PILE DETAILS
STRUCTURE NO. 008-0052**

SHEET NO. 5-147 OF 177 SHEETS

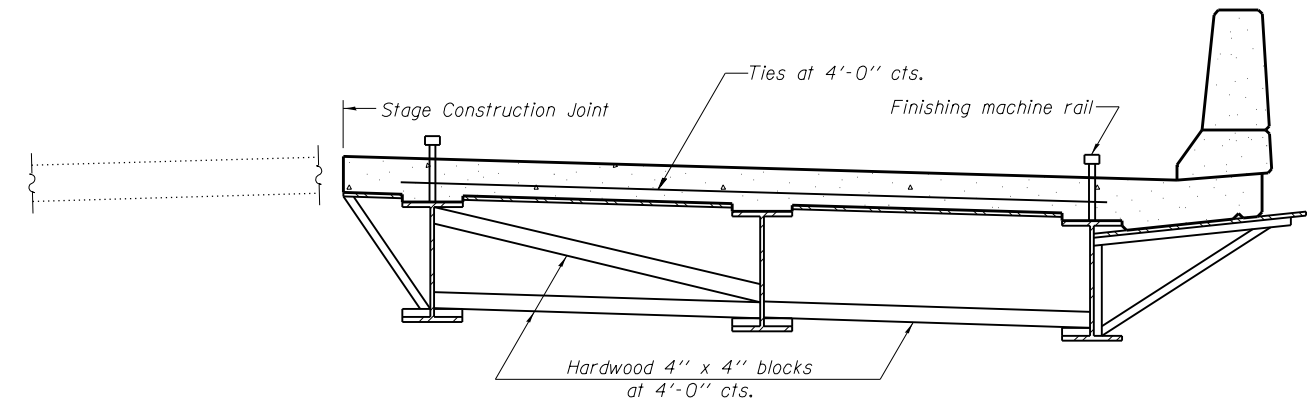
F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	319
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				

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

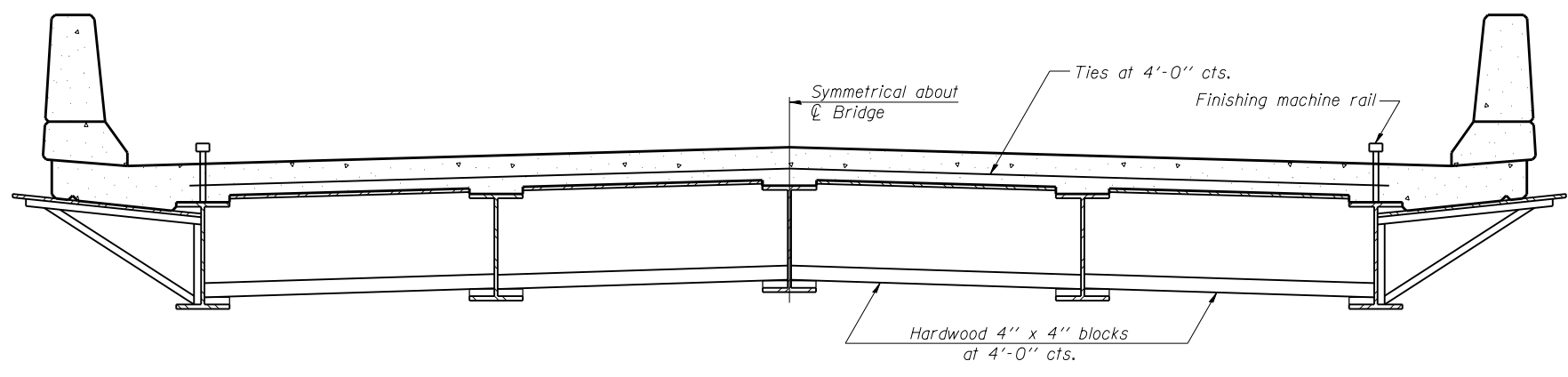
The finishing machine rails shall be placed on the top flange of the exterior beams.

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

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



**FORM BRACES FOR
STAGE CONSTRUCTION**



**FORM BRACES FOR
STANDARD CONSTRUCTION**

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SB-1 7-1-10

FILE NAME =	USER NAME =	DESIGNED - JZ	REVISED -
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	PLOT SCALE =	DRAWN - SSR	REVISED -
	PLOT DATE =	CHECKED - EAR	REVISED -

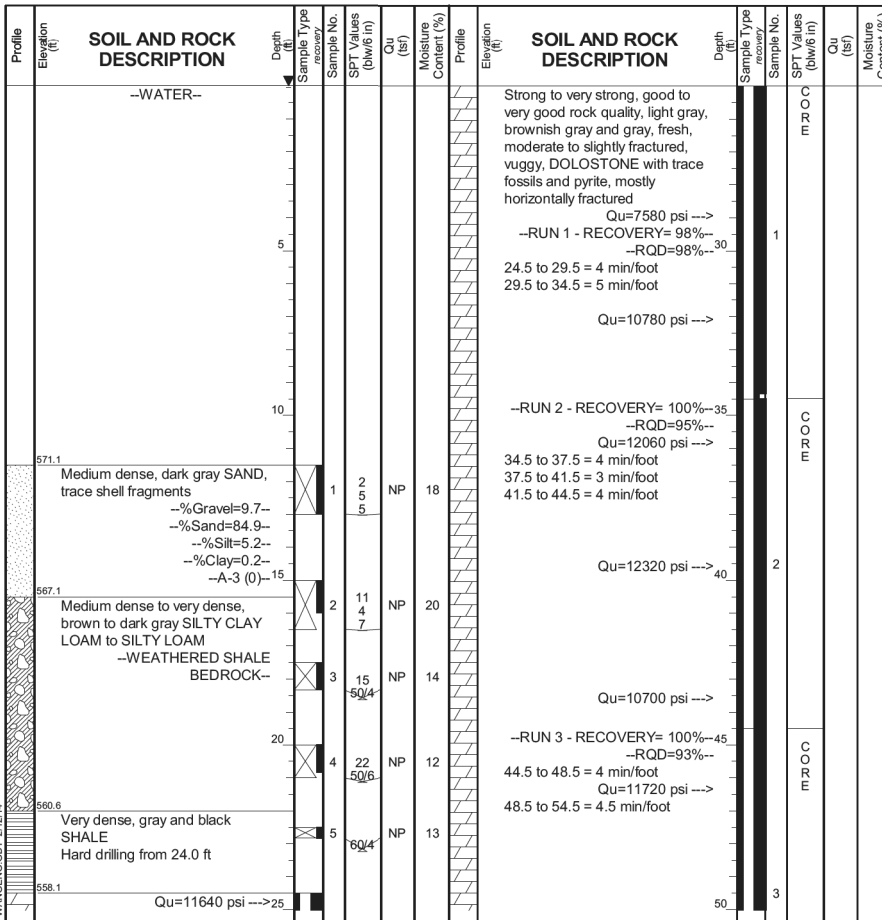
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER STRUCTURE NO. 008-0052**

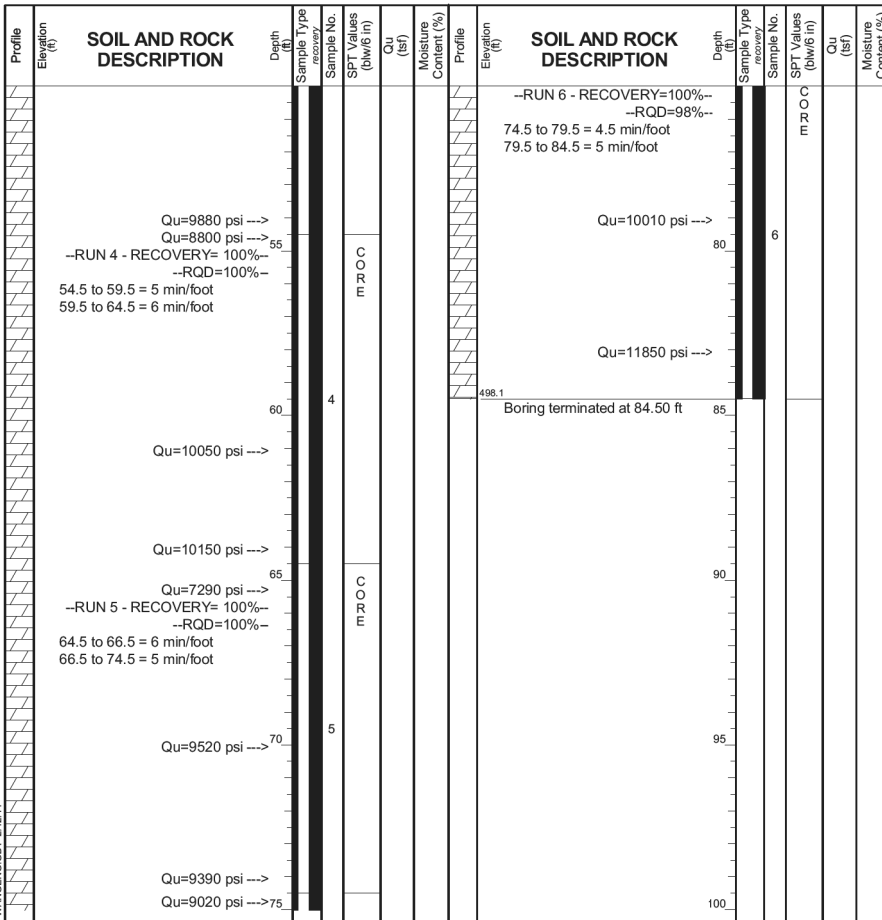
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	321
CONTRACT NO. 64G59				

SHEET NO. 5-149 OF 177 SHEETS

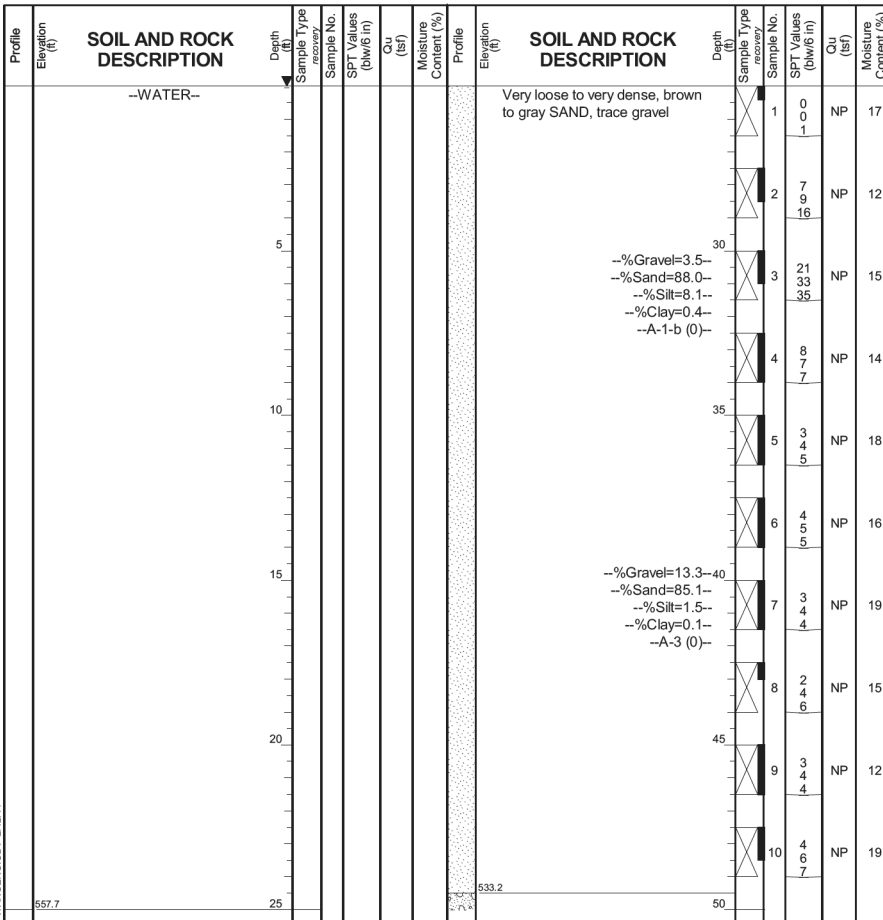
ILLINOIS FED. AID PROJECT



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-31-2011	Complete Drilling	11-01-2011
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR
Driller	R&N	Logger	F. Bozga
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion		
At Completion of Drilling	0.00 ft	Depth to Water	NA



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-31-2011	Complete Drilling	11-01-2011
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR
Driller	R&N	Logger	F. Bozga
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion		
At Completion of Drilling	0.00 ft	Depth to Water	NA



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	11-02-2011	Complete Drilling	11-03-2011
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR
Driller	R&N	Logger	F. Bozga
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion		
At Completion of Drilling	0.00 ft	Depth to Water	NA

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 WANGENG 3/20/11 GFI WANGENG.DDT 2/12/14

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
582.4	Medium dense, gray, coarse SAND, trace gravel	16	16	8	8	NP	19	502.4	Medium dense to dense, gray GRAVELLY SAND	21	21	11	8	NP	9
		17	17	5	7	NP	17		--%Gravel=15.6-- --%Sand=82.3-- --%Silt=2.0-- --%Clay=0.1-- --A-1-b (0)--	22	22	11	21	NP	21
		18	18	4	5	NP	16			23	23	10	13	NP	21
		19	19	3	8	NP	14			24	24	17	20	NP	20
		20	20	8	9	NP	16			25	25	10	10	NP	17

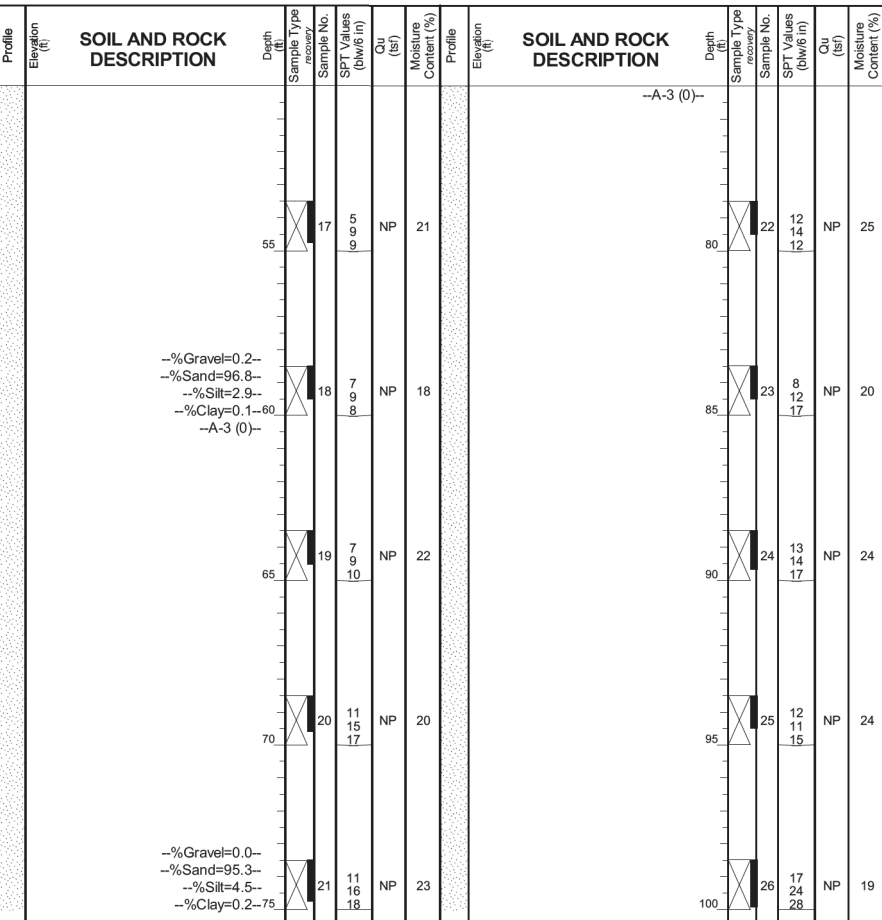
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-16-2012	Complete Drilling	11-19-2012	While Drilling	▽	0.00 ft	
Drilling Contractor	K&S	Drill Rig	CME-45	At Completion of Drilling	▽	0.00 ft	
Driller	C&E	Logger	D. Kolpacki	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion			Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
582.4	Medium dense, gray, coarse SAND, trace gravel	26	26	11	9	NP	16			27	27	15	21	NP	16
		27	27	15	21	NP	16			28	28	17	20	NP	11
		28	28	17	20	NP	11			29	29	15	18	NP	15
		29	29	15	20	NP	15								
		30	30	10	15	NP	17								
		31	31	10	15	NP	17								
		32	32	10	15	NP	17								
		33	33	10	15	NP	17								
		34	34	10	15	NP	17								
		35	35	10	15	NP	17								
		36	36	10	15	NP	17								
		37	37	10	15	NP	17								
		38	38	10	15	NP	17								
		39	39	10	15	NP	17								
		40	40	10	15	NP	17								
		41	41	10	15	NP	17								
		42	42	10	15	NP	17								
		43	43	10	15	NP	17								
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		45	45	10	15	NP	17								
		46	46	10	15	NP	17								
		47	47	10	15	NP	17								
		48	48	10	15	NP	17								
		49	49	10	15	NP	17								
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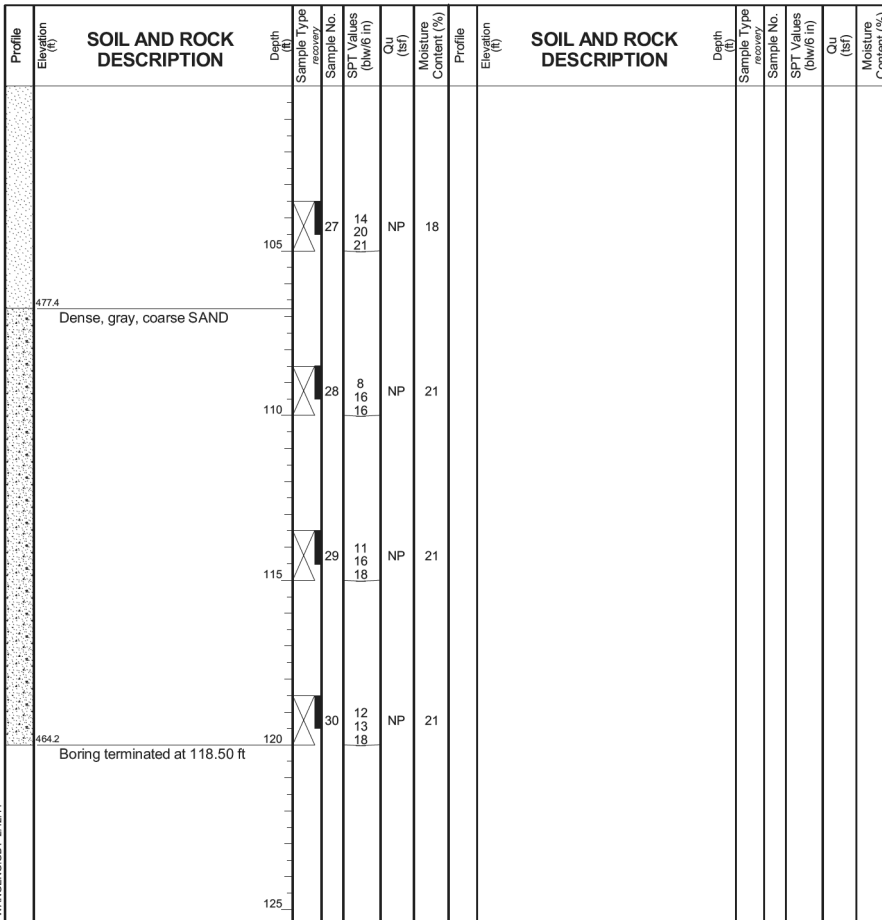
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-16-2012	Complete Drilling	11-19-2012	While Drilling	▽	0.00 ft	
Drilling Contractor	K&S	Drill Rig	CME-45	At Completion of Drilling	▽	0.00 ft	
Driller	C&E	Logger	D. Kolpacki	Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion			Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/in)	Qu (tsf)	Moisture Content (%)
582.4	--WATER--	1	1	0	0	0	55	556.4	Medium dense, gray, coarse SAND, trace gravel	11	11	2	7	NP	15
	Very loose, dark brown SILTY CLAY LOAM, trace organic matter	2	2	0	0	0	49			12	12	3	7	NP	14
		3	3	0	0	0	54			13	13	4	7	NP	21
		4	4	0	0	0	59			14	14	6	7	NP	22
		5	5	0	0	0	64			15	15	7	8	NP	22
		6	6	1	1	1	23			16	16	6	6	NR	
		7	7	0	1	1	26								
		8	8	0	0	1	17								
		9	9	1	1	1	18								
		10	10	1	1	1	20								

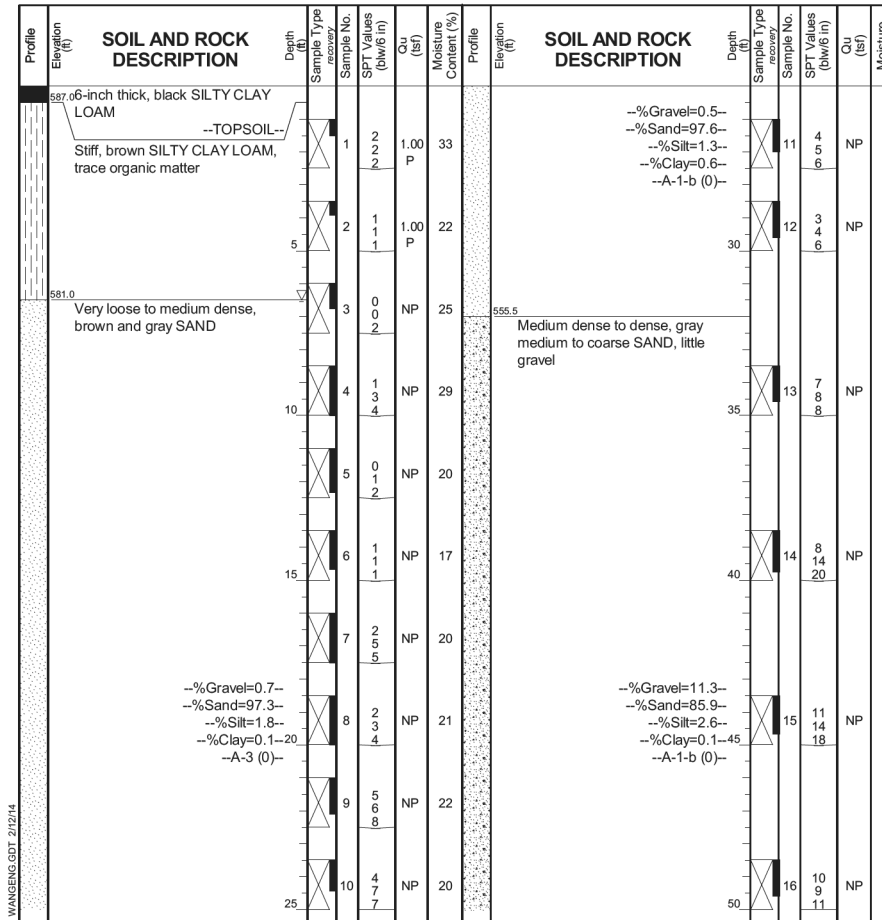
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-20-2012	Complete Drilling	11-21-2012	While Drilling	▽	0.00 ft	
Drilling Contractor	K&S	Drill Rig	CME-45				



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-17-2012	Complete Drilling	10-17-2012
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

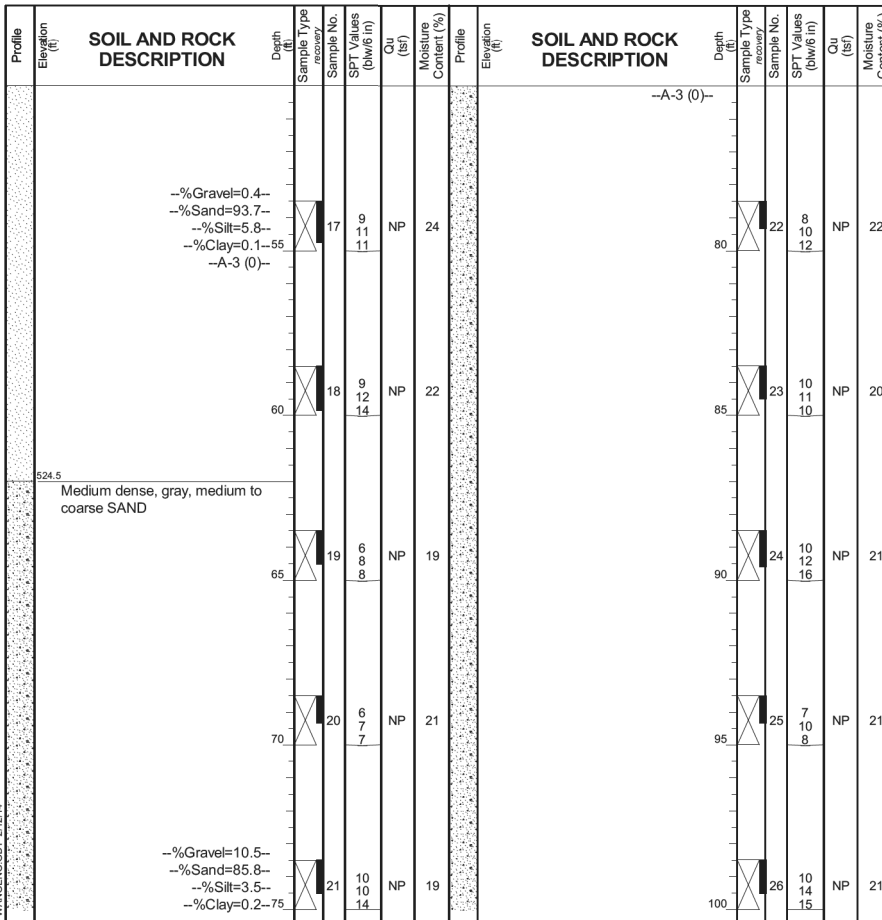


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-17-2012	Complete Drilling	10-17-2012
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

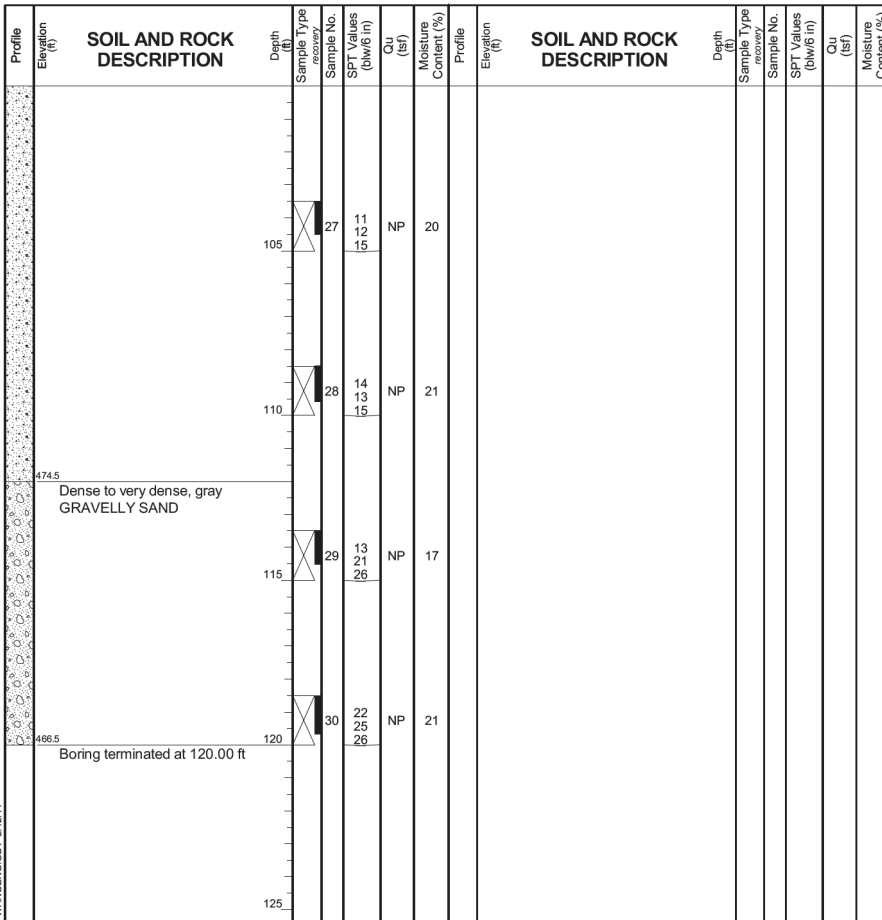


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-16-2012	Complete Drilling	10-16-2012
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

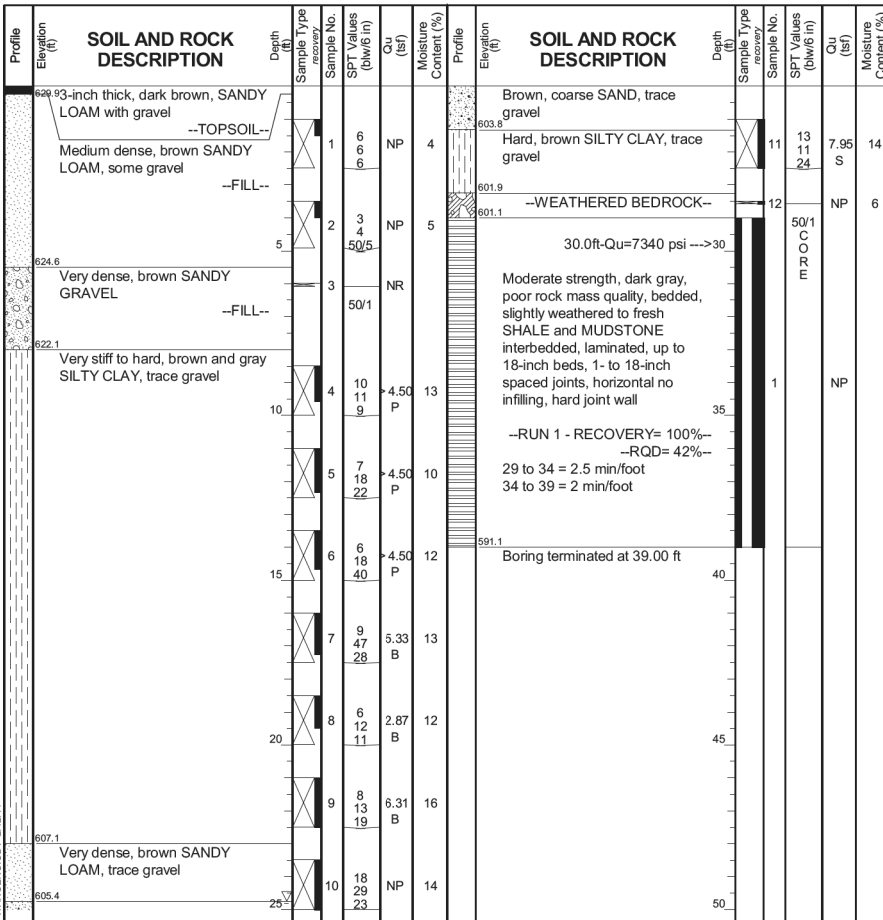
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-15-2012	Complete Drilling	10-15-2012
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K & K	Logger	D. Kolpacki
Checked by	C. Marin	Drilling Method	3.25" HSA, boring backfilled upon completion
White Drilling	6.50 ft	At Completion of Drilling	NA
Time After Drilling	NA	Depth to Water	NA

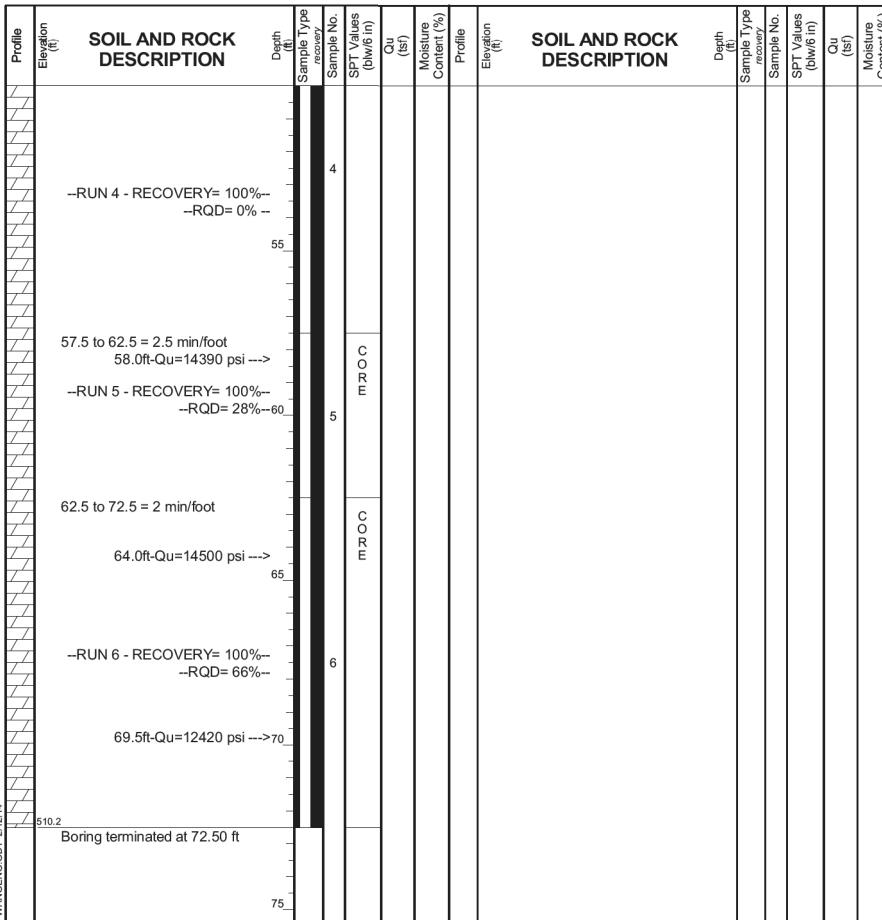


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	10-15-2012	Complete Drilling	10-15-2012
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K & K	Logger	D. Kolpacki
Checked by	C. Marin	Drilling Method	3.25" HSA, boring backfilled upon completion
White Drilling	6.50 ft	At Completion of Drilling	NA
Time After Drilling	NA	Depth to Water	NA

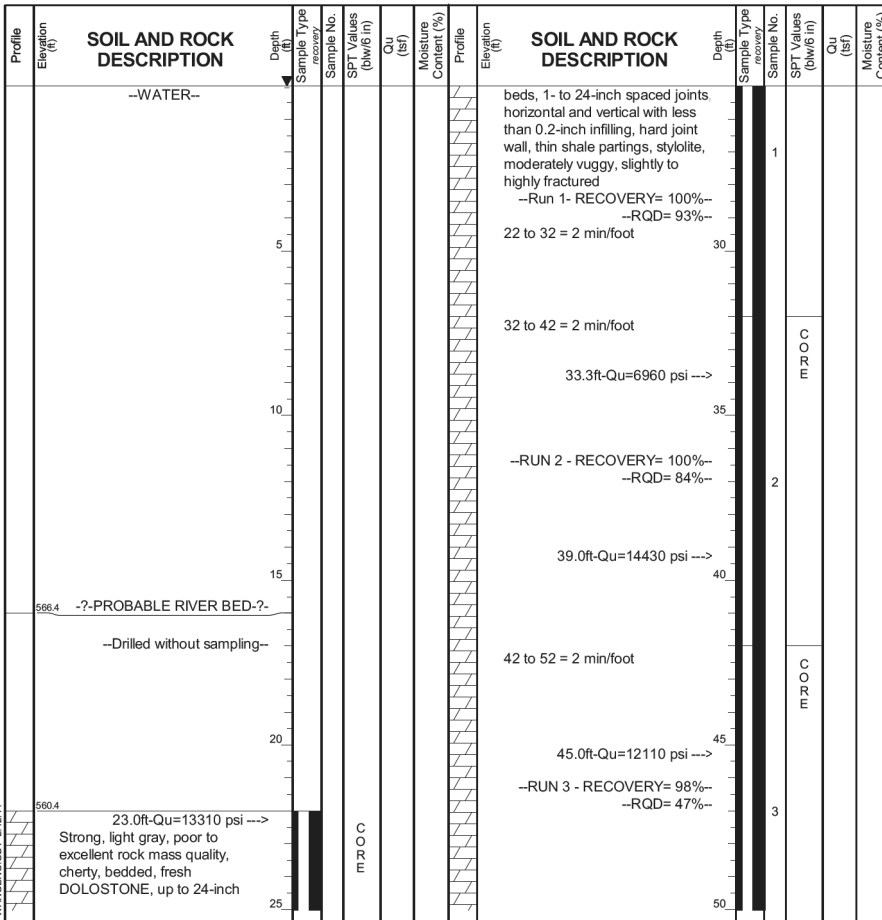


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-26-2013	Complete Drilling	09-26-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Drilling Method	2.25" HSA, boring backfilled upon completion
White Drilling	24.75 ft	At Completion of Drilling	NA
Time After Drilling	NA	Depth to Water	NA

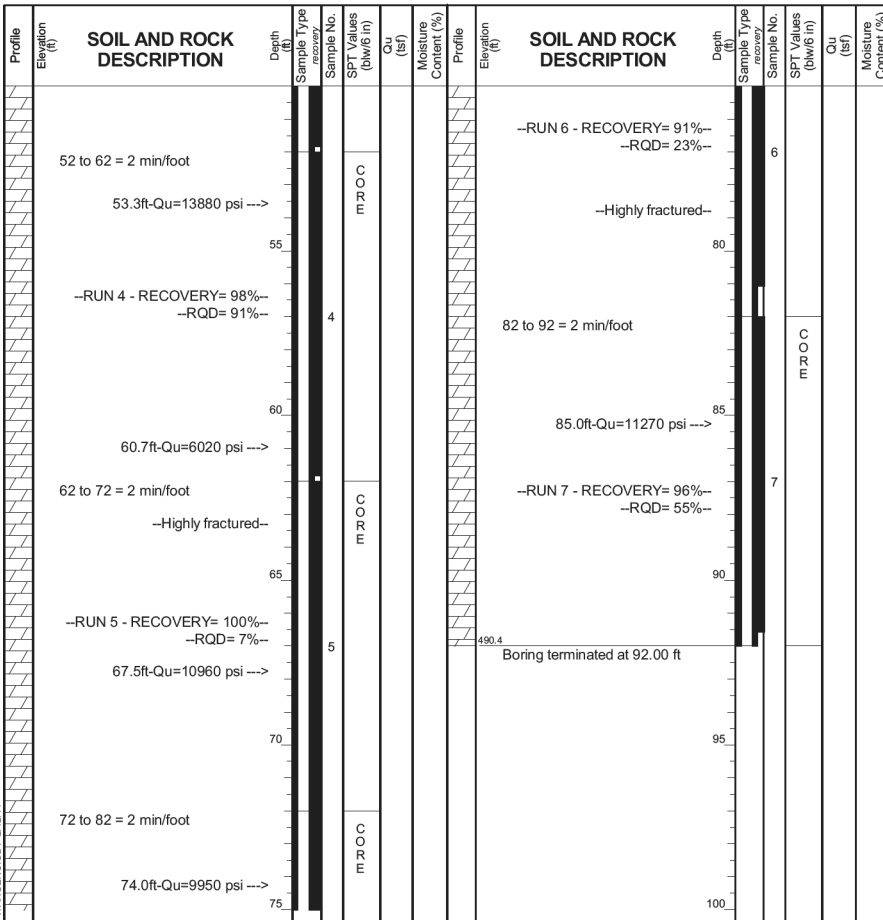
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-14-2013	Complete Drilling	08-16-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&N	Logger	F. Bozga
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

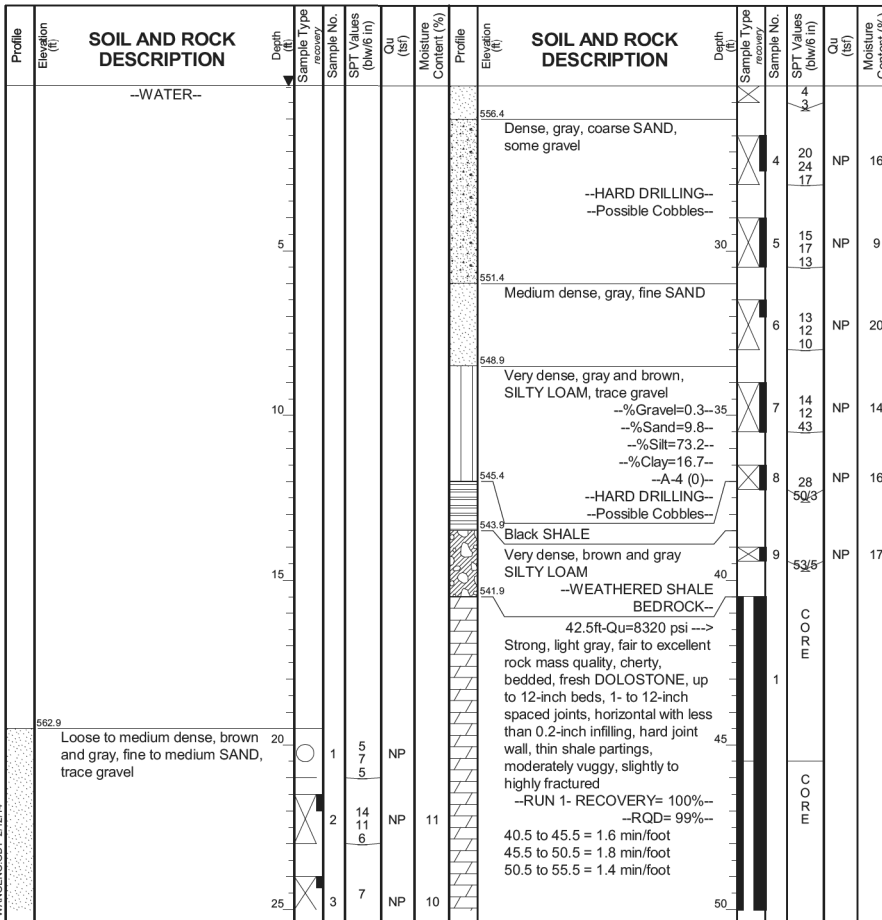


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-17-2013	Complete Drilling	09-17-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

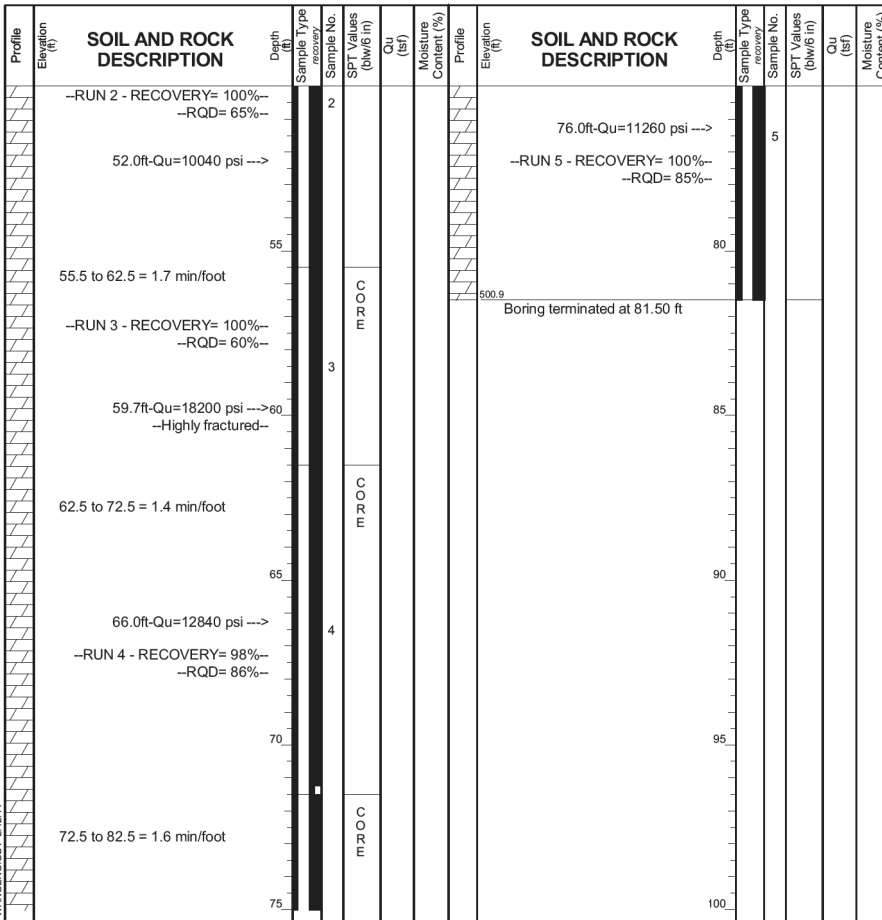


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-17-2013	Complete Drilling	09-17-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

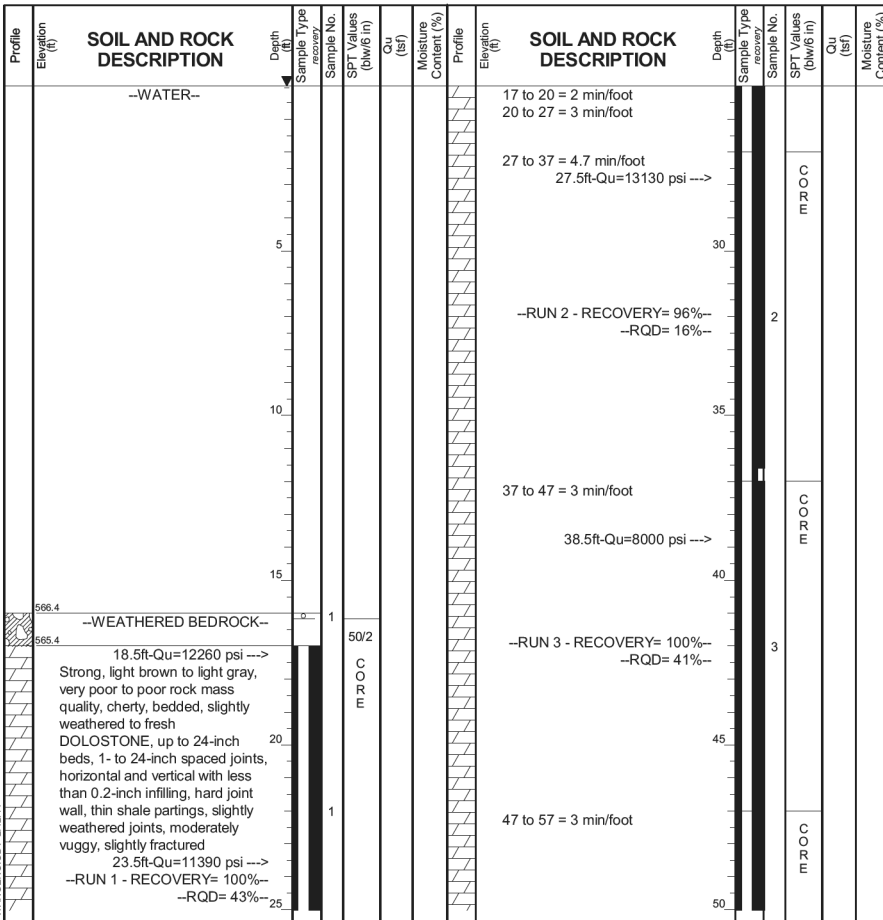
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-05-2013	Complete Drilling	09-05-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-05-2013	Complete Drilling	09-05-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-09-2013	Complete Drilling	09-09-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

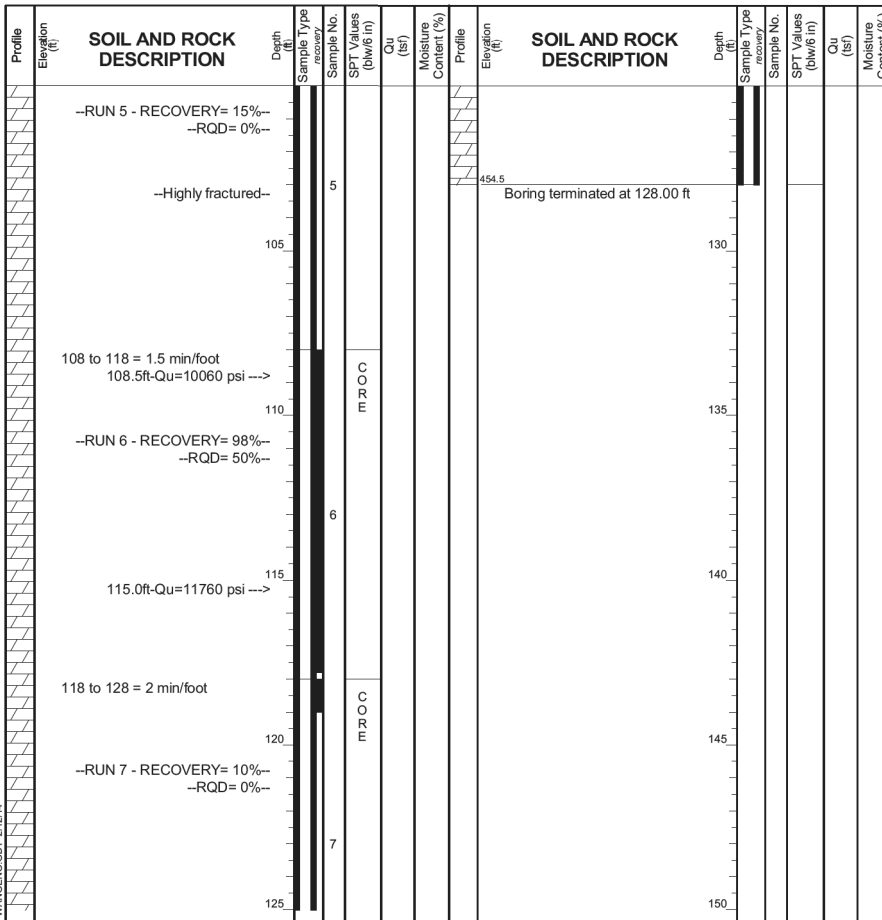
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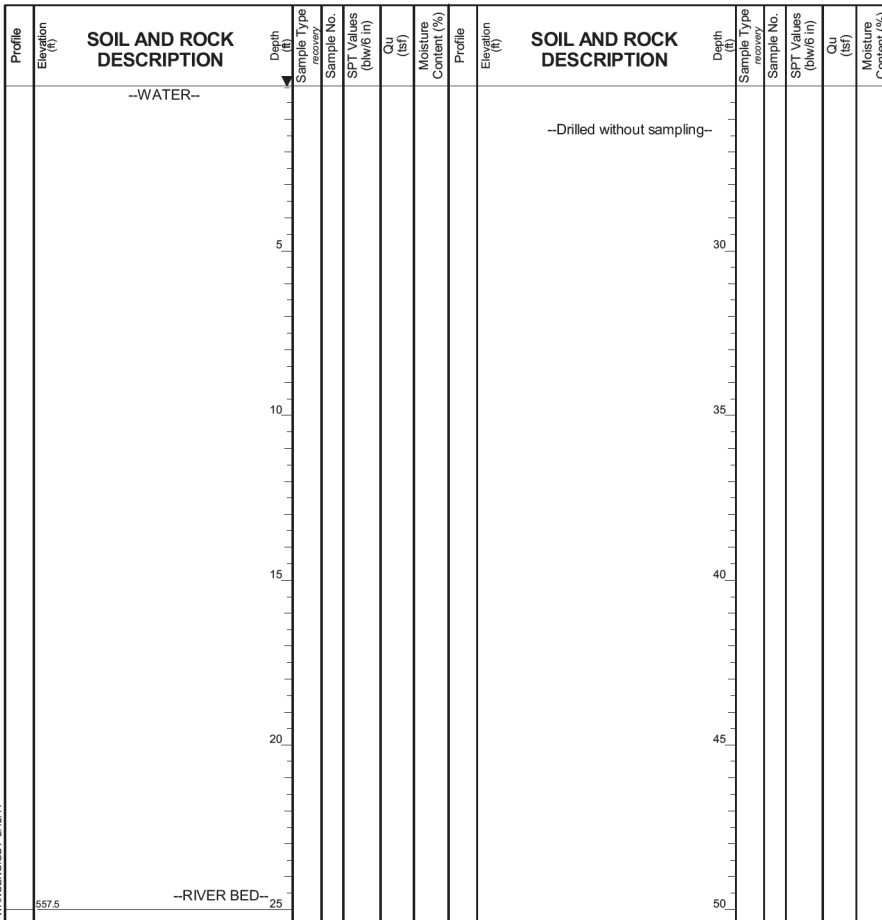
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SOIL BORING LOGS - 13
 STRUCTURE NO. 008-0052**
 SHEET NO. 5-162 OF 177 SHEETS

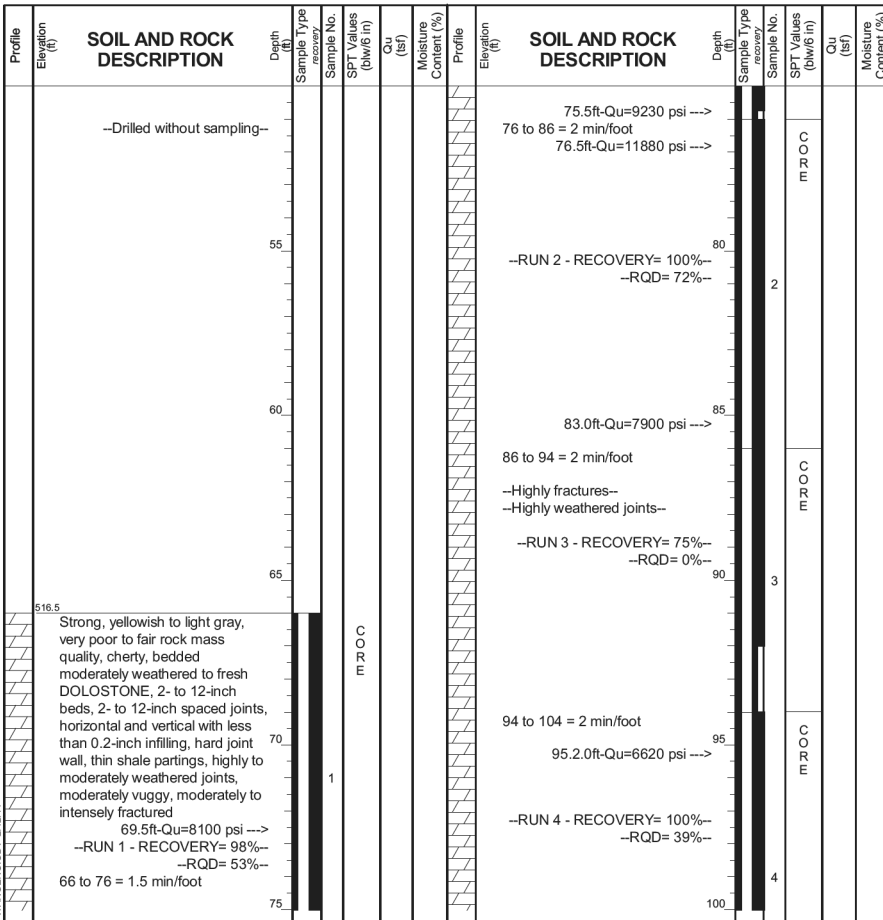
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17	104B-2	CARROLL	528	334
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-19-2013	Complete Drilling	08-21-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

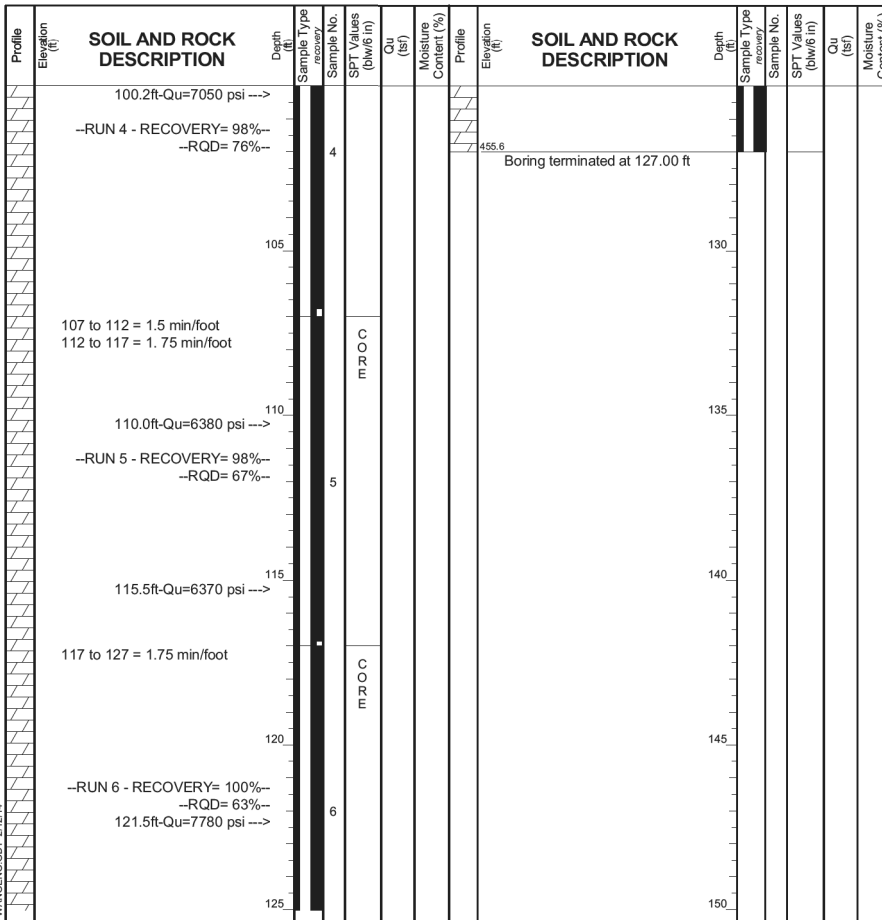


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-18-2013	Complete Drilling	09-18-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

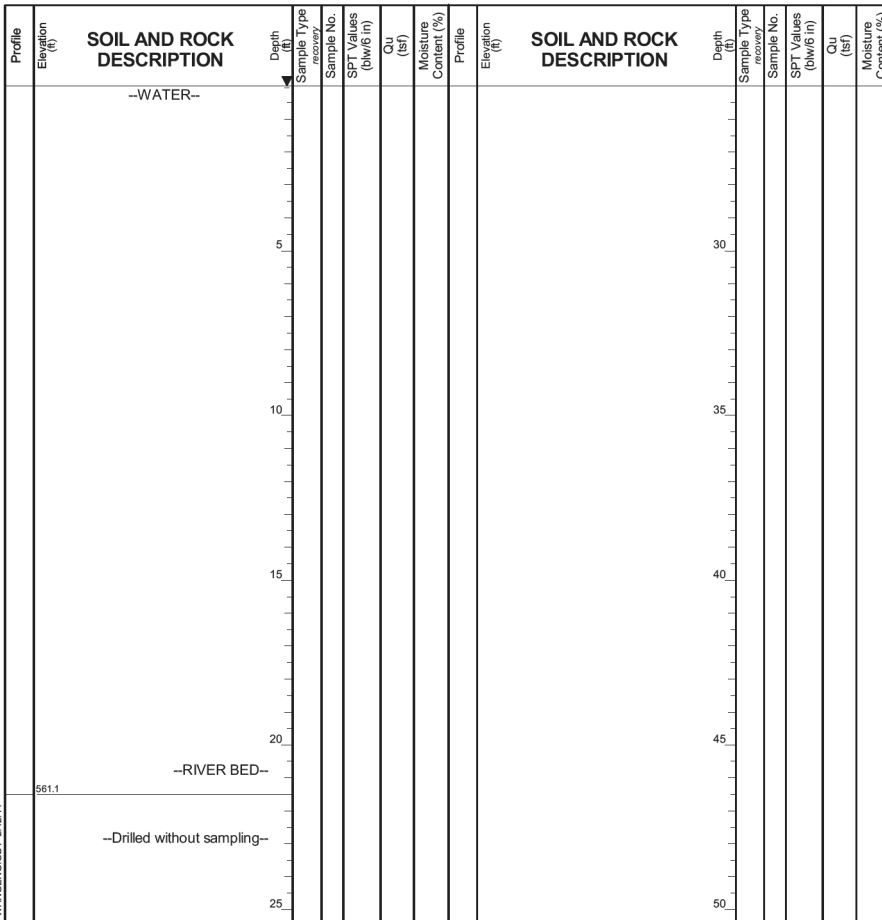


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-18-2013	Complete Drilling	09-18-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

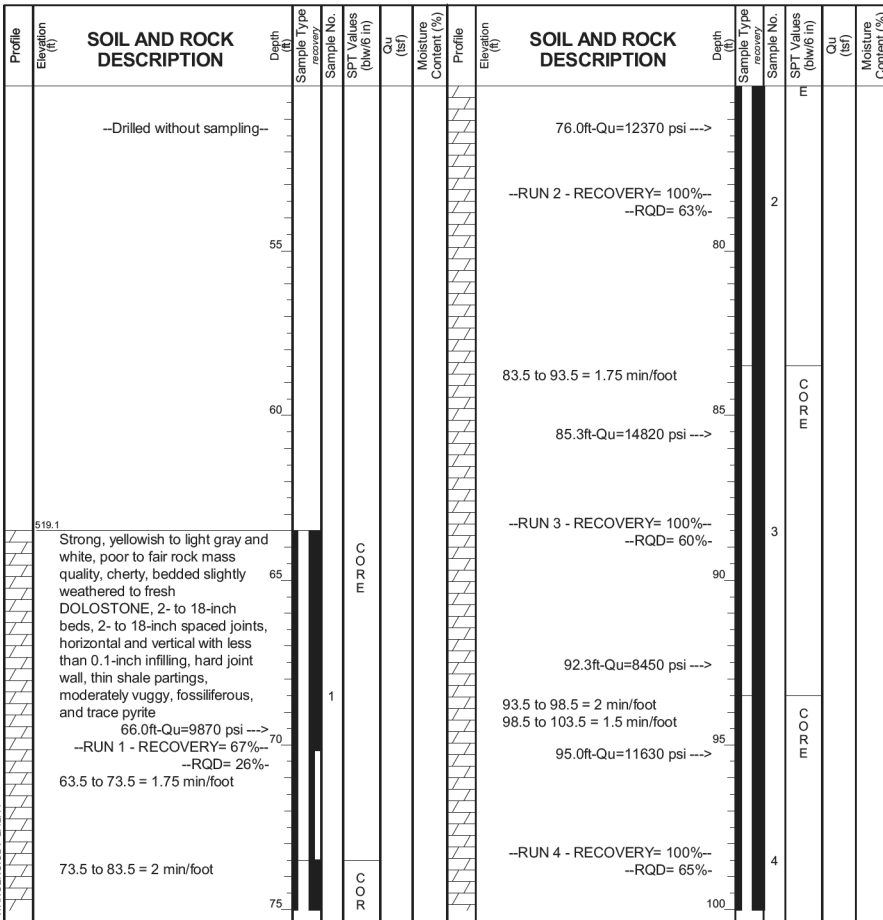
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-20-2013	Complete Drilling	09-20-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-24-2013	Complete Drilling	09-24-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	



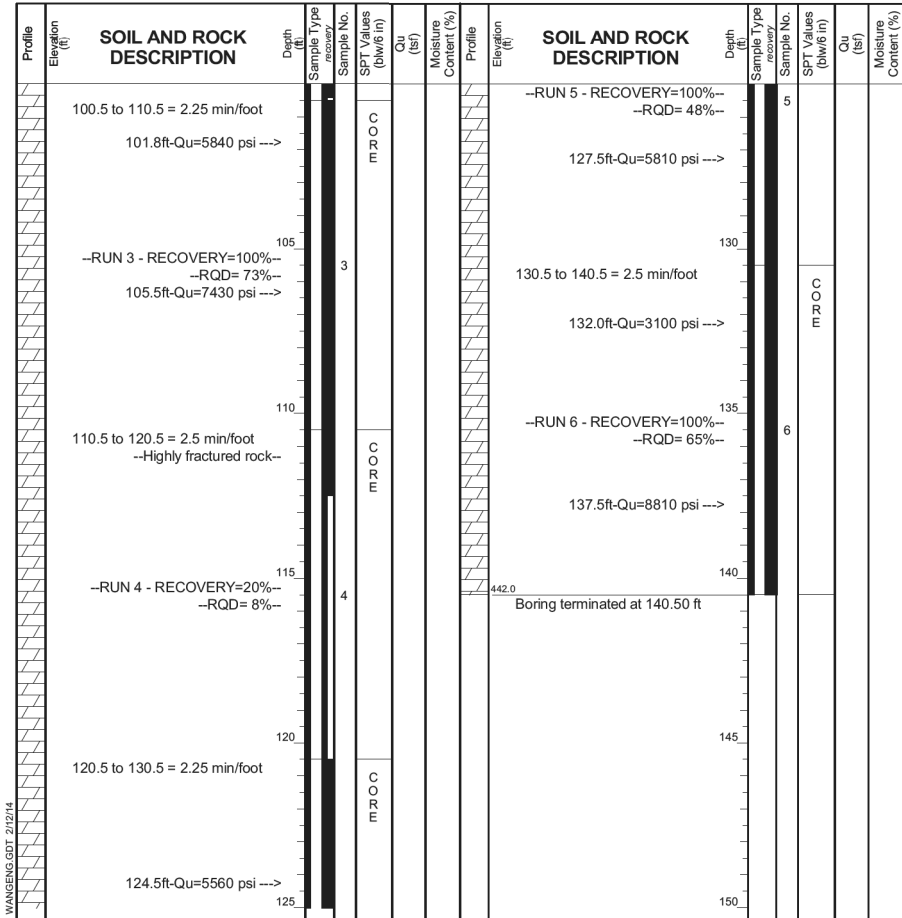
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-24-2013	Complete Drilling	09-24-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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BORING LOG BSB-17

WEI Job No.: 342-06-01
 Client: **PARSONS**
 Project: **US 52 / IL 64 Over the Mississippi River**
 Location: **Carroll County, IL and Jackson County, IA**

Datum: NAVD 88
 Elevation: 582.45 ft
 North: 1980431.61 ft
 East: 2297694.08 ft
 Station: 1572+84.54
 Offset: 13.11 RT

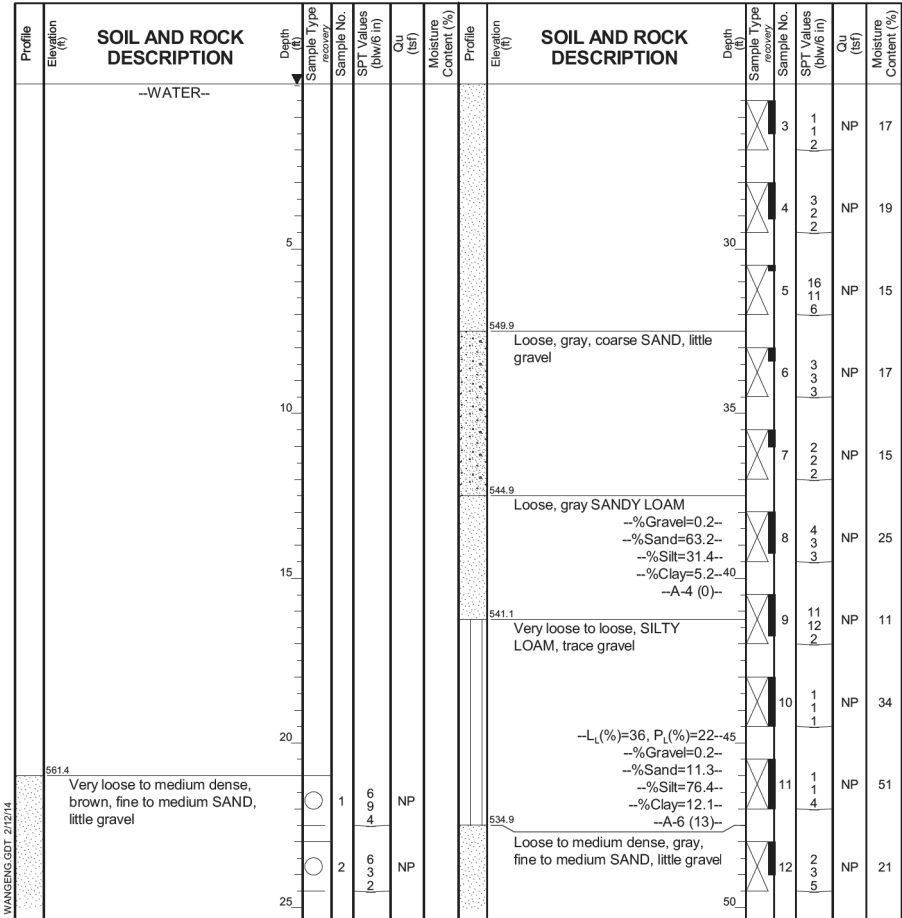


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-26-2013	Complete Drilling	08-26-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&N	Logger	D. Kolpacki
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

BORING LOG BSB-18

WEI Job No.: 342-06-01
 Client: **PARSONS**
 Project: **US 52 / IL 64 Over the Mississippi River**
 Location: **Carroll County, IL and Jackson County, IA**

Datum: NAVD 88
 Elevation: 582.37 ft
 North: 1980474.92 ft
 East: 2297700.40 ft
 Station: 1572+92.00
 Offset: 30.23 LT

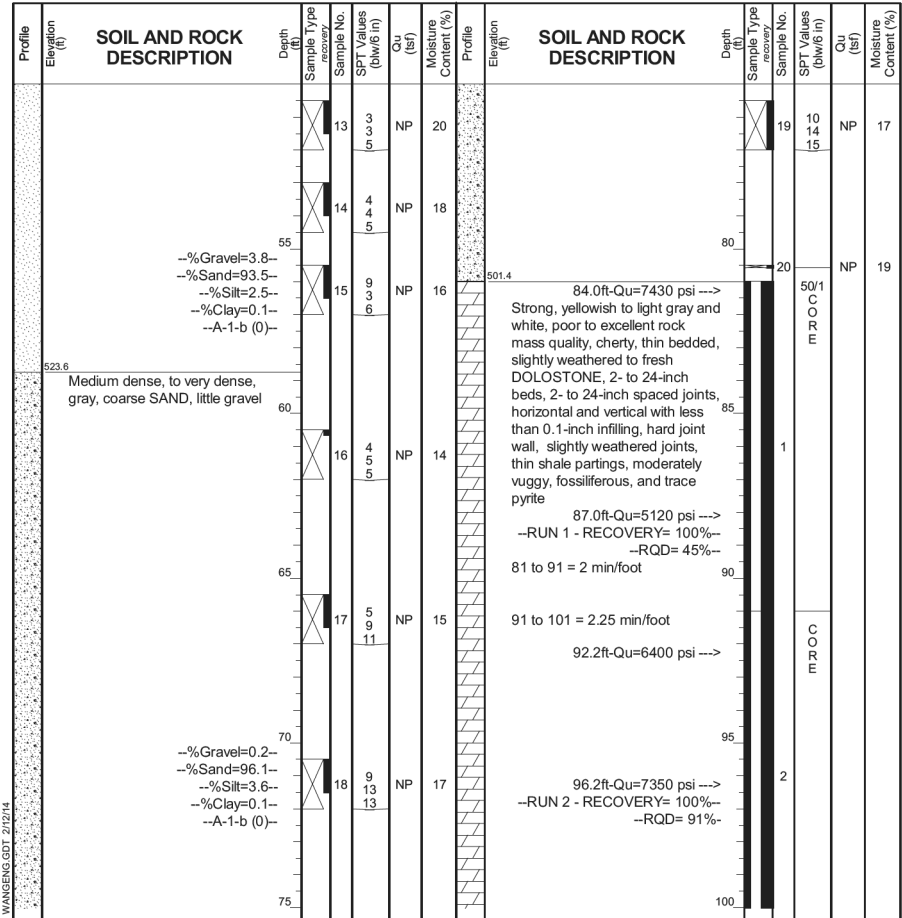


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-27-2013	Complete Drilling	08-28-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

BORING LOG BSB-18

WEI Job No.: 342-06-01
 Client: **PARSONS**
 Project: **US 52 / IL 64 Over the Mississippi River**
 Location: **Carroll County, IL and Jackson County, IA**

Datum: NAVD 88
 Elevation: 582.37 ft
 North: 1980474.92 ft
 East: 2297700.40 ft
 Station: 1572+92.00
 Offset: 30.23 LT



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-27-2013	Complete Drilling	08-28-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

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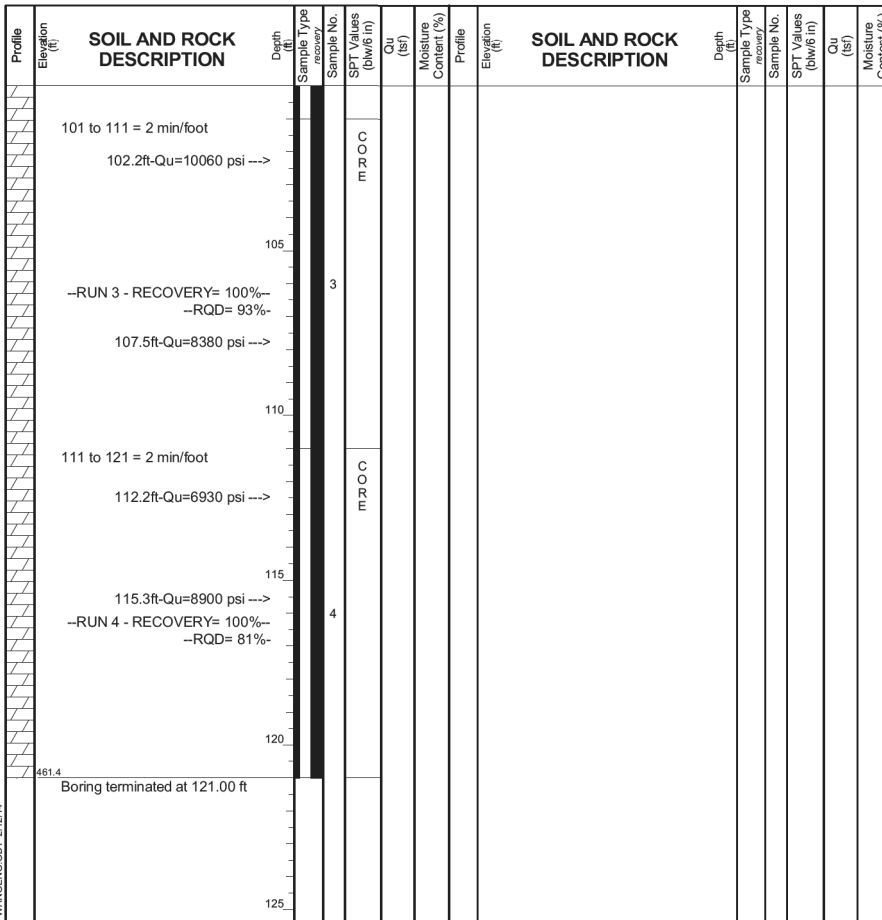
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

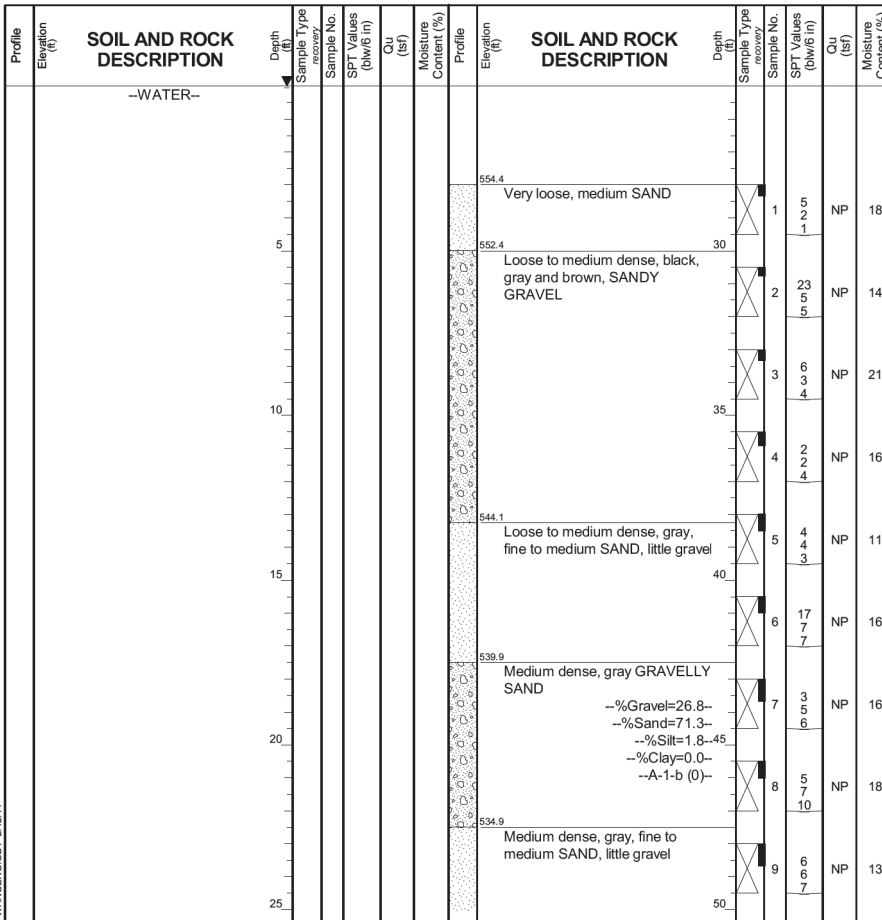
**SOIL BORING LOGS - 20
 STRUCTURE NO. 008-0052**

SHEET NO. 5-169 OF 177 SHEETS

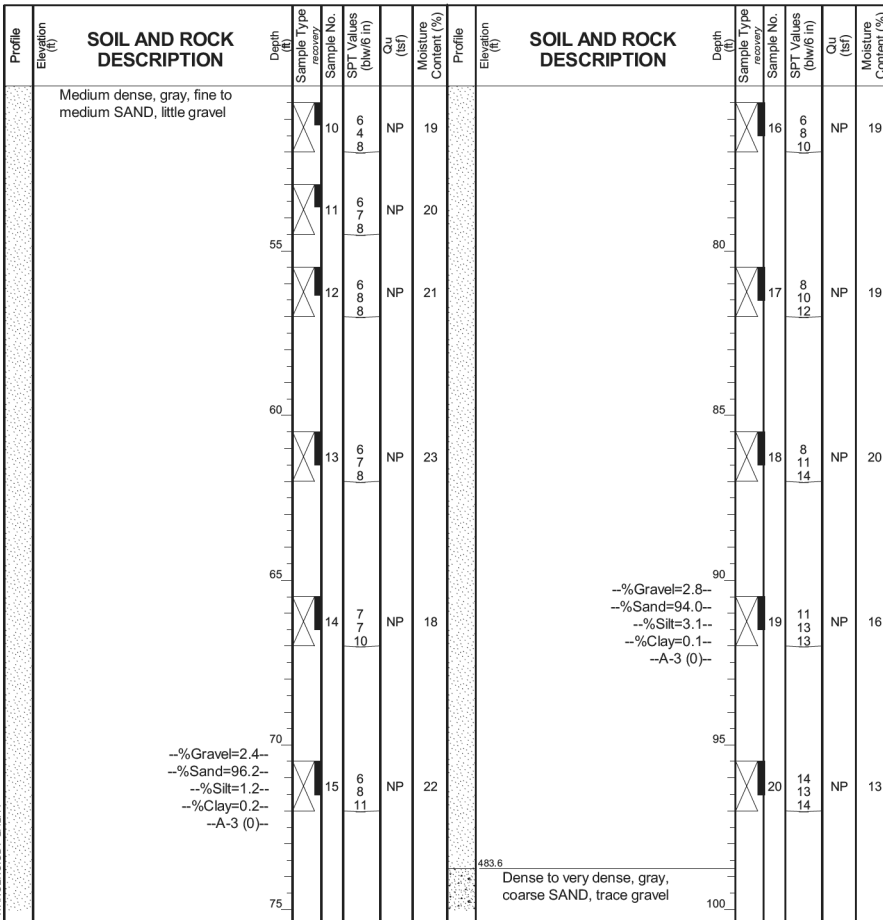
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	341
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-27-2013	Complete Drilling	08-28-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

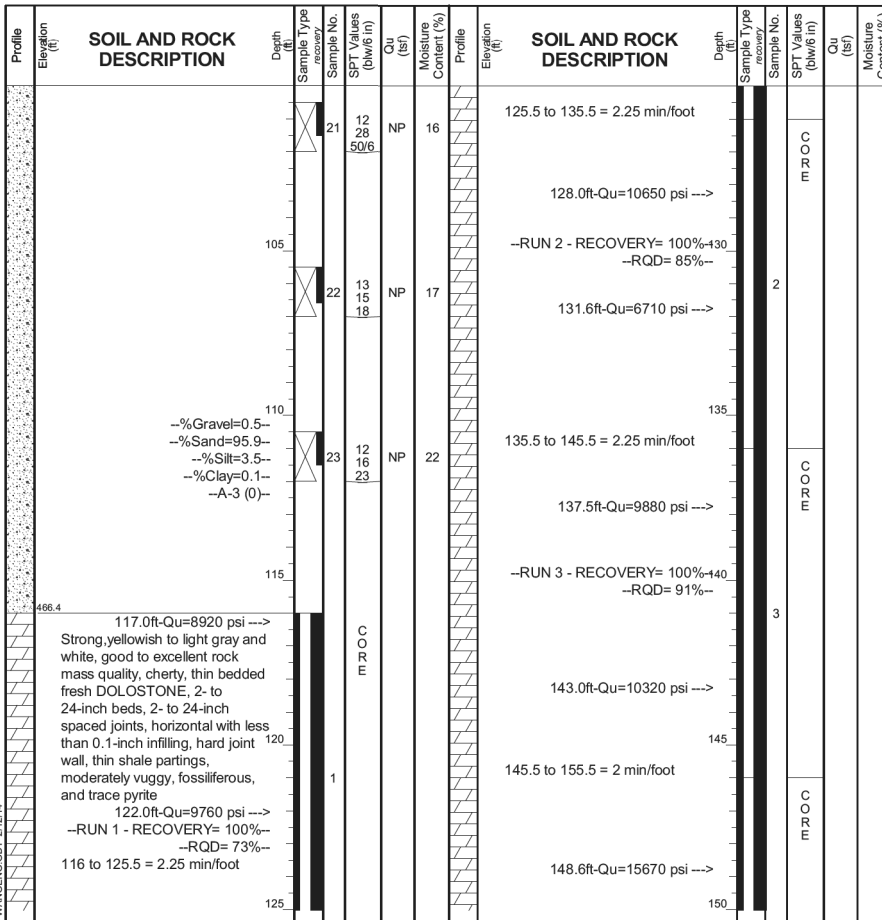


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-29-2013	Complete Drilling	08-29-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

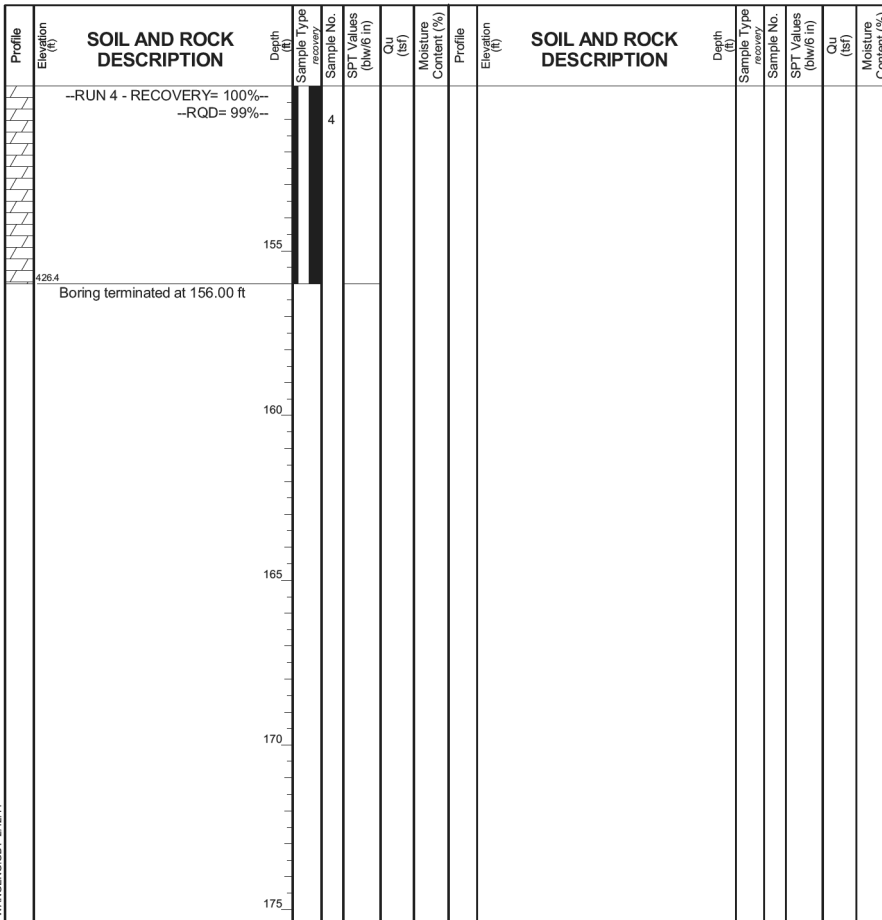


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-29-2013	Complete Drilling	08-29-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

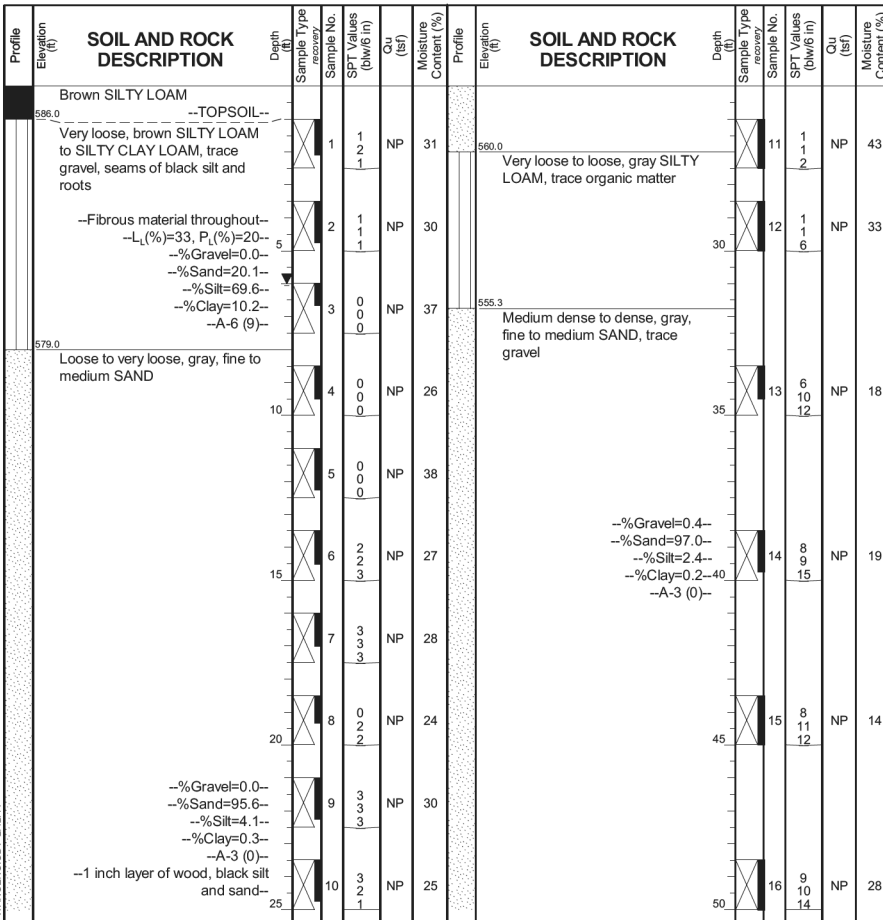
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-29-2013	Complete Drilling	08-29-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	



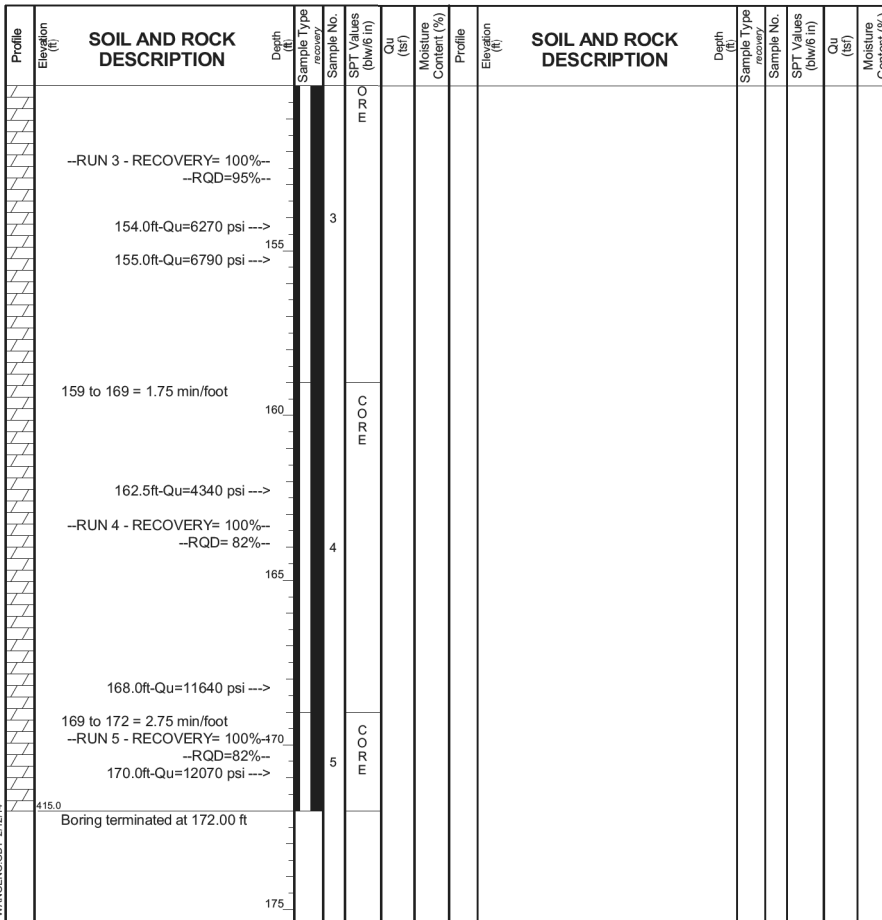
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-29-2013	Complete Drilling	08-29-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	4" Casing, mud rotary, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	



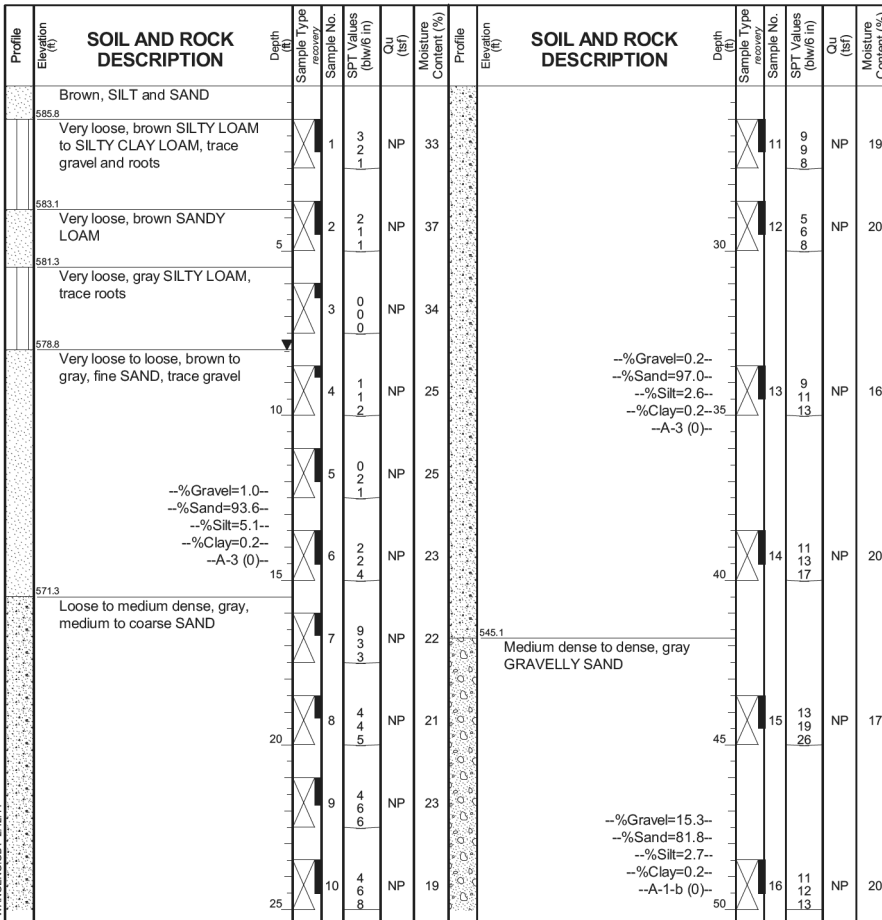
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Begin Drilling	08-19-2013	Complete Drilling	08-20-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 15', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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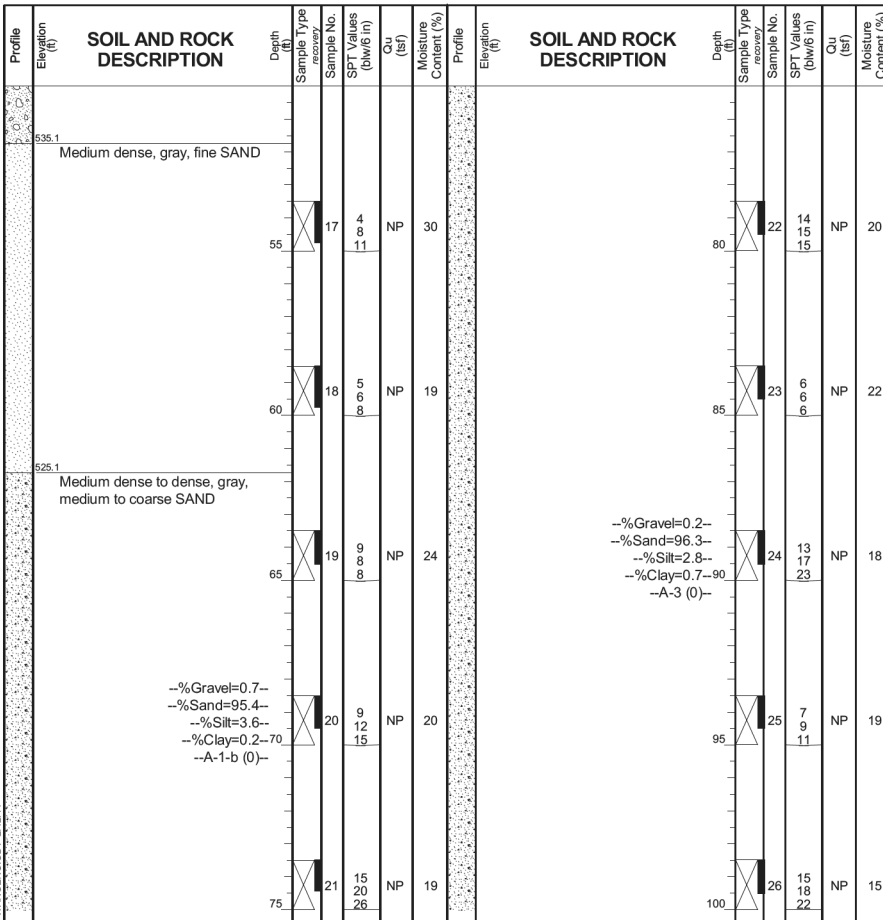
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-14-2013	Complete Drilling	08-15-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 15', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

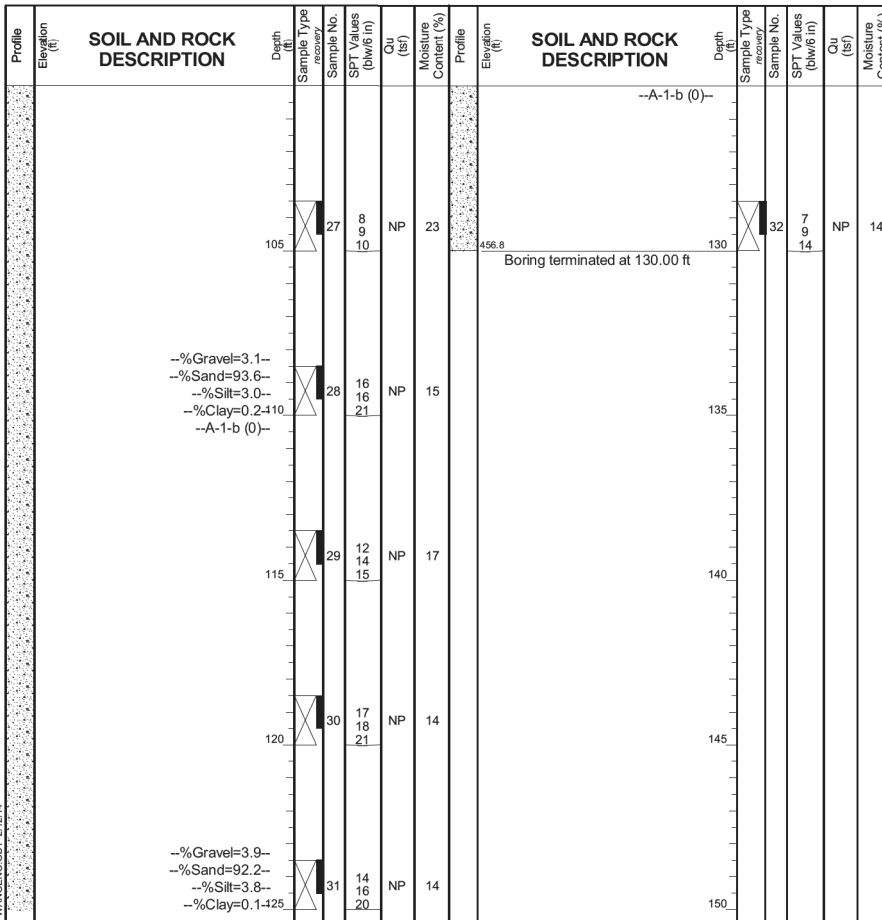


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-21-2013	Complete Drilling	08-22-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 15', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

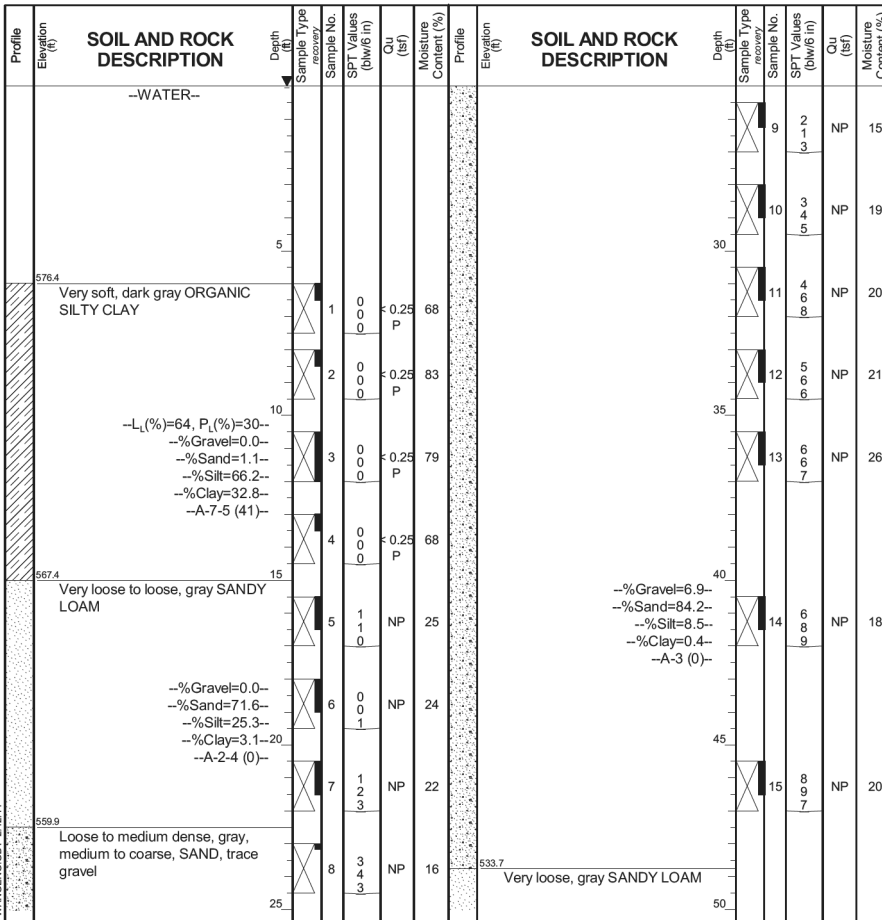


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-21-2013	Complete Drilling	08-22-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 15', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

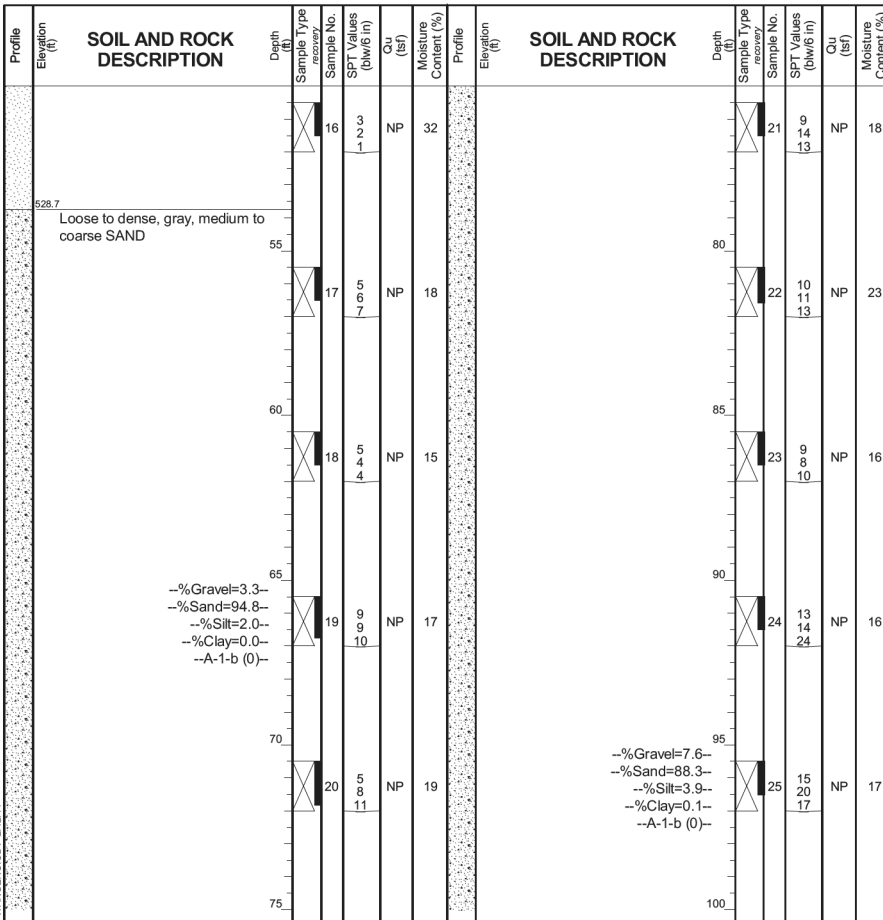
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GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	08-21-2013	Complete Drilling	08-22-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 ATV
Driller	K&K	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 15', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

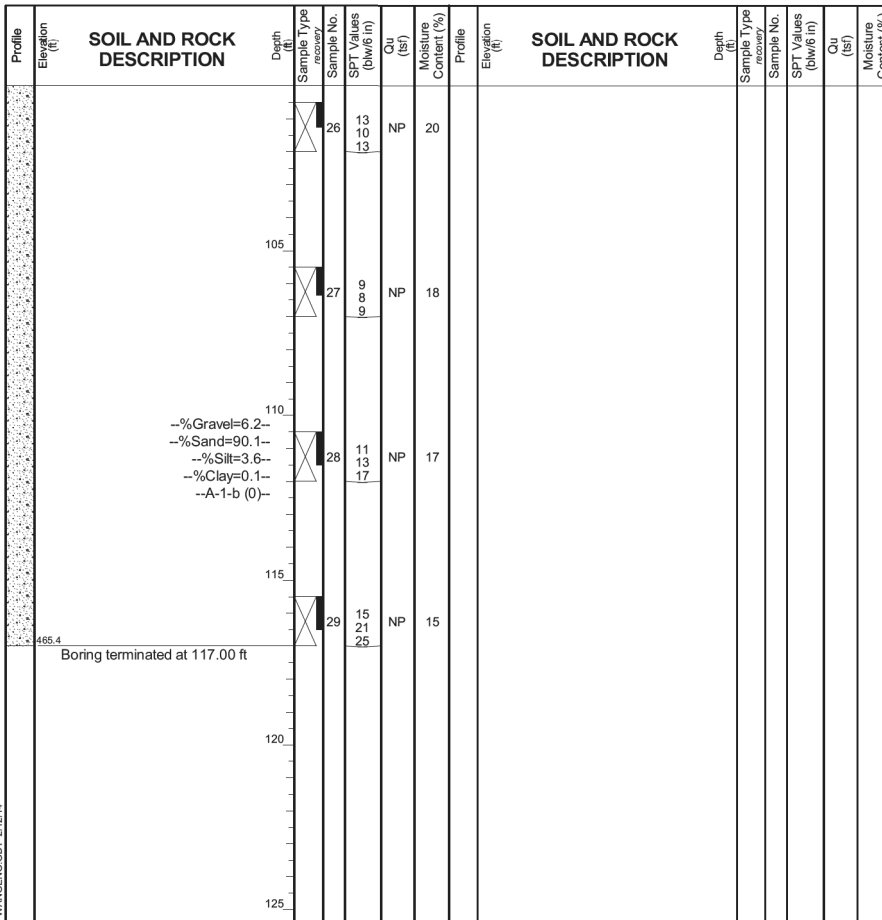


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-11-2013	Complete Drilling	09-12-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 30', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

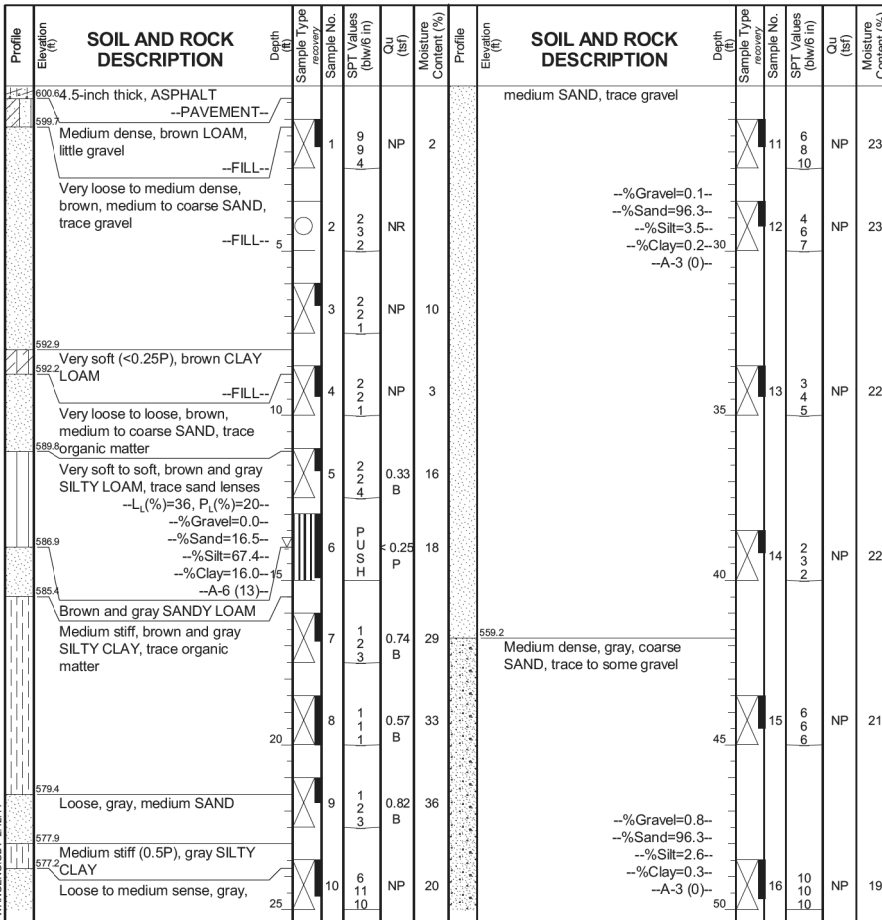


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-11-2013	Complete Drilling	09-12-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 30', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

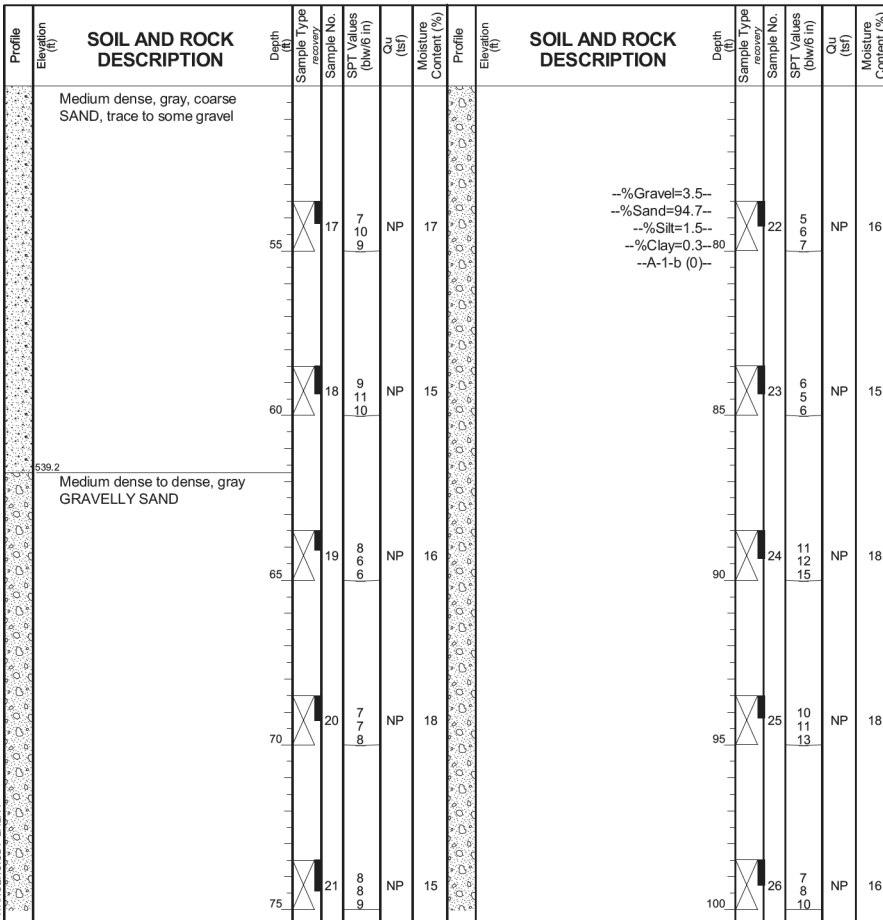
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 WANGENG 3/20/15 2:12/14 WANGENG.DDT 2/12/14



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	09-11-2013	Complete Drilling	09-12-2013
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR
Driller	R&R	Logger	A. Happel
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 30', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	11-11-2013	Complete Drilling	11-15-2013
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Tomaras
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA to 18', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

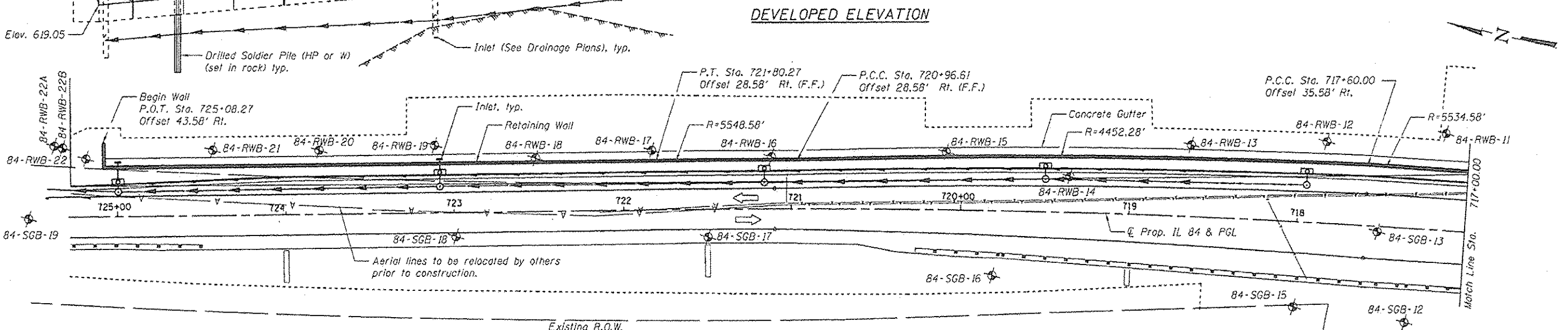
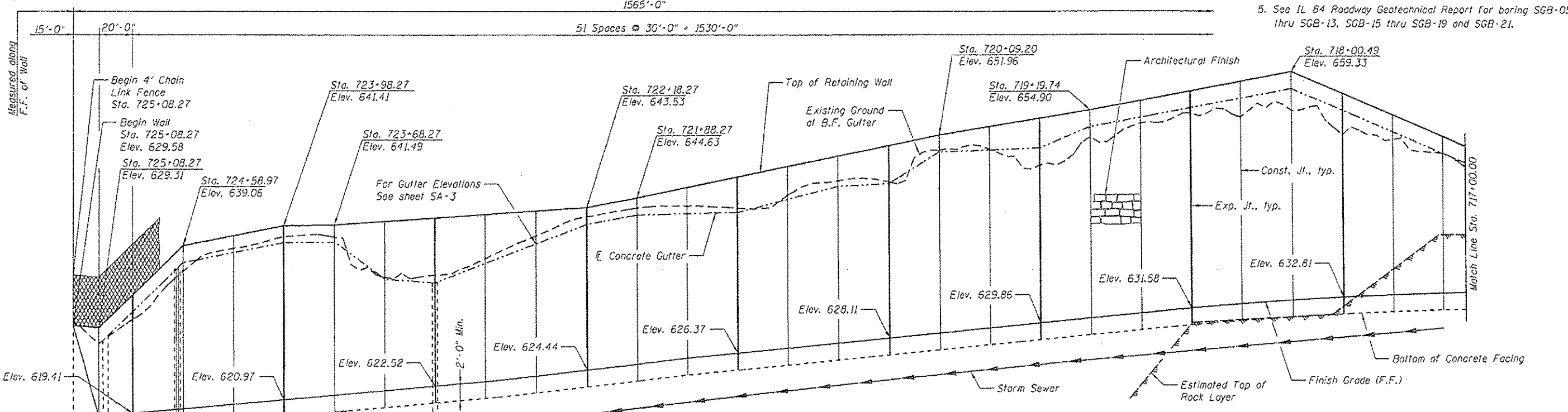


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	11-11-2013	Complete Drilling	11-15-2013
Drilling Contractor	Wang Testing Service	Drill Rig	D-50 TMR
Driller	R&N	Logger	A. Tomaras
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	3.25" HSA to 18', 4" Casing, mud rotary thereafter, boring backfilled upon completion	Depth to Water	NA

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Benchmark:
 BM CP5 - Concrete pedestal set south of the west abutment
 of Illinois River Bridge SN 008-6000 on US 52 @ Savanna @
 Sta. 1560+65.46; Offset 24.85' Lt. NAVD 88 = 597.891 Ft.
 Existing Structure: None

Notes:
 1. All Elevations are given in NAVD 1988 Datum unless noted.
 2. Ⓞ Denotes soil boring.
 3. F.F. - Front Face
 4. B.F. - Back Face
 5. See IL 84 Roadway Geotechnical Report for boring SGB-05
 thru SGB-13, SGB-15 thru SGB-19 and SGB-21.



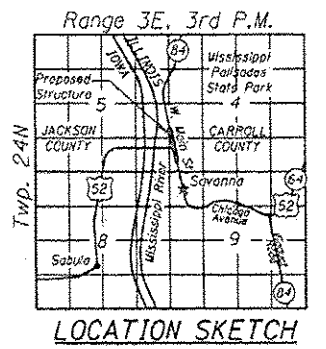
DESIGN SPECIFICATIONS
 2012 AASHTO LRFD Bridge
 Design Specifications, 6th Edition
 with 2013 Interims

DESIGN STRESSES
 FIELD UNITS
 f'c = 3,500 psi (Concrete Facing)
 f'c = 4,000 psi (Encasement Concrete)
 fy = 60,000 psi (Reinforcement)
 fy = 50,000 psi (M270 Grade 50 Piles and Structural steel)

APPROVED
 For Structural Adequacy Only
Sh. Carl Perry
 Engineer of Bridges & Structures



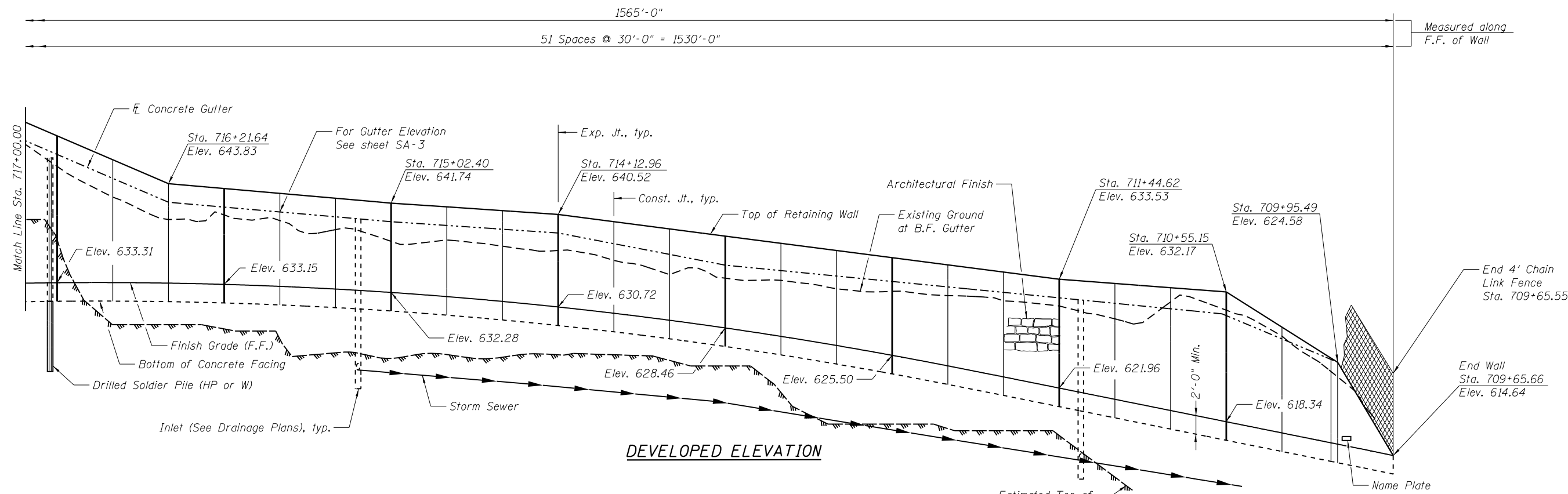
NAME: *Roger L. DiCicilio*
 EXPIRES: 11/30/16
 DATE: 5/7/15



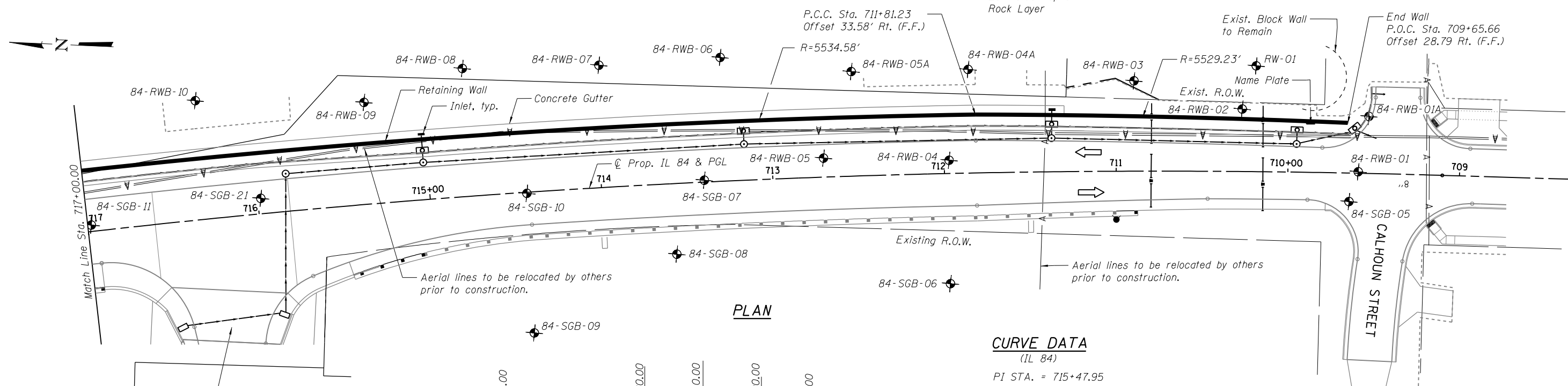
GENERAL PLAN & ELEVATION - 1
 US 52/IL 64/IL 84
 F.A.P. RTE. 17/308-SEC. 104B-2
 CARROLL COUNTY
 STATION 709+66 TO 725+08
 STRUCTURE NO. 008-7001

FILE NAME:	USER NAME:	DESIGNED - JC/VPK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.P. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:
PARSONS		CHECKED - RLD	REVISED -		17	104B-2	CARROLL	528	350
PLAT SCALE:		DRAWN - SC	REVISED -		SHEET NO. SA-1 OF 41 SHEETS				
PLAT DATE:		CHECKED - PK	REVISED -		CONTRACT NO. 64C59				

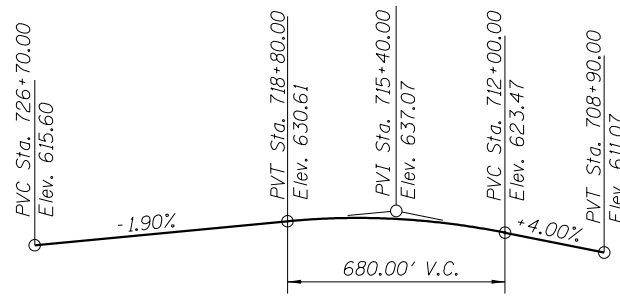
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DEVELOPED ELEVATION



PLAN



PROFILE GRADE - US 52/IL 64/IL 84

CURVE DATA

(IL 84)
 PI STA. = 715+47.95
 $\Delta = 13^\circ 11' 06''$ (LT)
 $D = 1^\circ 02' 17''$
 $R = 5,520.00'$
 $T = 637.95'$
 $L = 1,270.27'$
 $E = 36.74'$
 $e = 2.40\%$
 $T.R. = 41.00'$
 $S.E. RUN = 65.00'$
 $P.C. STA. = 709+10.00$
 $P.T. STA. = 721+80.27$

Approach to Proposed US 52/IL 64
 Over Mississippi River
 SN: 008-0052

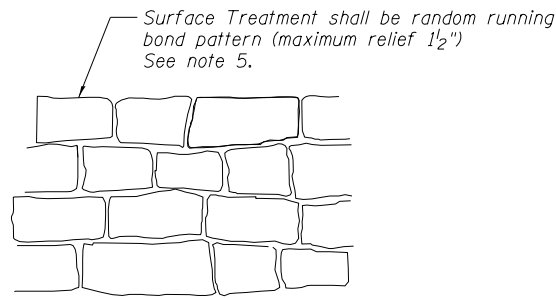
GENERAL PLAN & ELEVATION - 2
US 52/IL 64/IL 84
F.A.P. RTE. 17/308-SEC. 104B-2
CARROLL COUNTY
STATION 709+66 TO 725+08
STRUCTURE NO. 008-7001

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FILE NAME =	USER NAME =	DESIGNED - JC/PK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SHEET NO. SA-2 OF 41 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE =	DRAWN - SC	REVISED -			CONTRACT NO. 64G59		ILLINOIS FED. AID PROJECT		
	PLOT DATE =	CHECKED - PK	REVISED -							

GENERAL NOTES:

- The contractor is responsible for the design and performance of the untreated timber lagging using no less than 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
- Protective coat shall be applied to exposed surfaces of the front face of wall above the finished grade.
- Reinforcement bars designated (E) shall be epoxy coated.
- Walls to be built on straight chords between construction joints.
- Surface treatment shall be continuous across construction and expansion joints. See Special Provisions.
- Creep tests shall be performed on five percent of the ground anchors or a minimum of three ground anchors, whichever is greater.



SURFACE TREATMENT DETAIL

INDEX OF SHEETS

SA-1	General Plan & Elevation - 1
SA-2	General Plan & Elevation - 2
SA-3	General Notes & Total Bill of Material
SA-4 to SA-16	Pile and Anchor Location
SA-17 to SA-20	Pile and Anchor Schedule
SA-21	Wall Sections
SA-22	Wall Details
SA-23 to SA-27	Concrete Facing
SA-28	Chain Link Fence Attached to Structure
SA-29 to SA-41	Boring Logs

STATION 709+66 TO 725+08
 BUILT 2011 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 17 SEC. 104B-2
 STRUCTURE NO. 008-7001

NAME PLATE

See Std. 515001

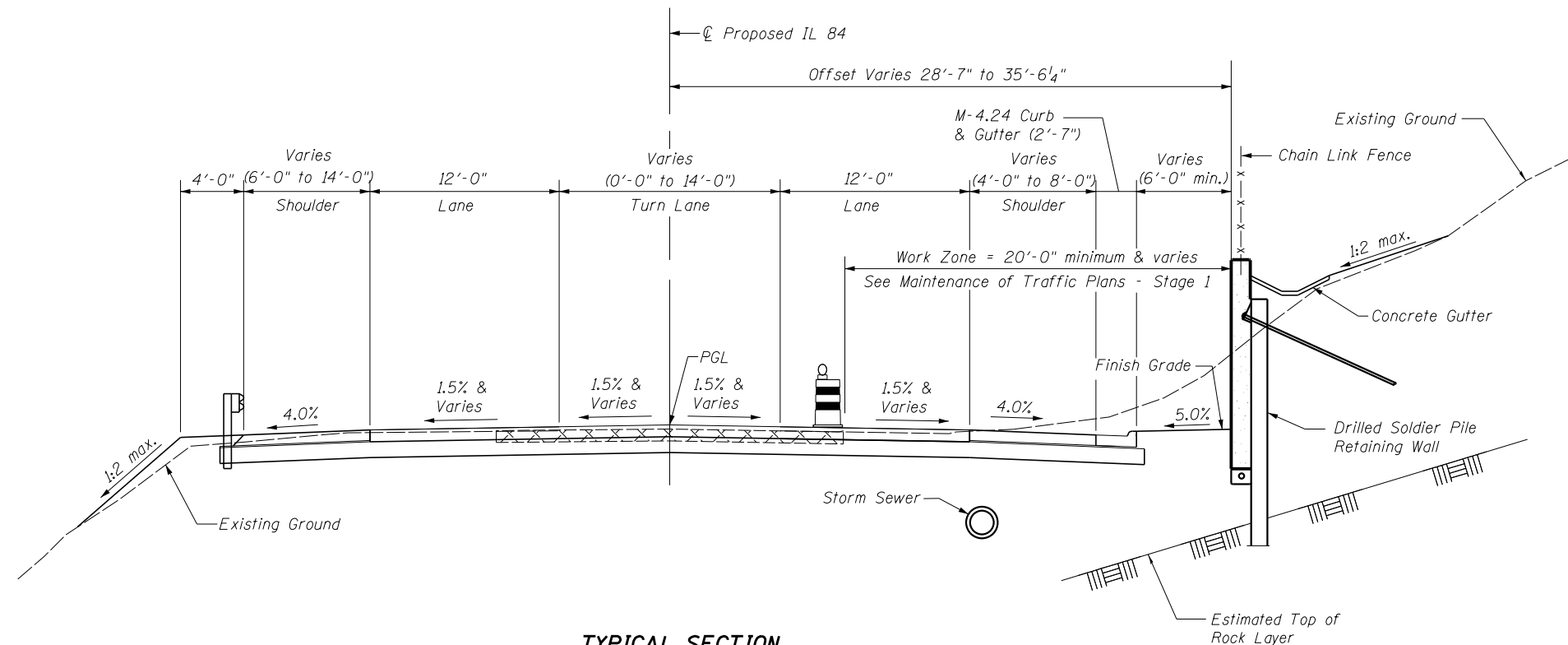
TOTAL BILL OF MATERIAL

Item	Unit	Total
STRUCTURE EXCAVATION	CU YD	3,160
ROCK EXCAVATION FOR STRUCTURES	CU YD	46
CONCRETE STRUCTURES	CU YD	1,186.8
FORM LINER TEXTURED SURFACE	SQ FT	25,352
PROTECTIVE COAT	SQ YD	2,817
STUD SHEAR CONNECTORS	EACH	11,474
REINFORCEMENT BARS, EPOXY COATED	POUND	221,170
NAME PLATES	EACH	1
GEOCOMPOSITE WALL DRAIN	SQ YD	1,386
PERMANENT GROUND ANCHOR	EACH	268
DRILLING AND SETTING SOLDIER PILES (IN SOIL)	CU FT	34,256
DRILLING AND SETTING SOLDIER PILES (IN ROCK)	CU FT	24,003
CHAIN LINK FENCE, 4', ATTACHED TO STRUCTURES	FOOT	1,565
UNTREATED TIMBER LAGGING	SQ FT	18,611
FURNISHING SOLDIER PILES (BUILT-UP SECTION)	FOOT	4,427
FURNISHING SOLDIER PILES (W SECTION)	FOOT	3,275
PIPE UNDERDRAINS FOR STRUCTURES, 4"	FOOT	1,565

GUTTER ELEVATION TABLE

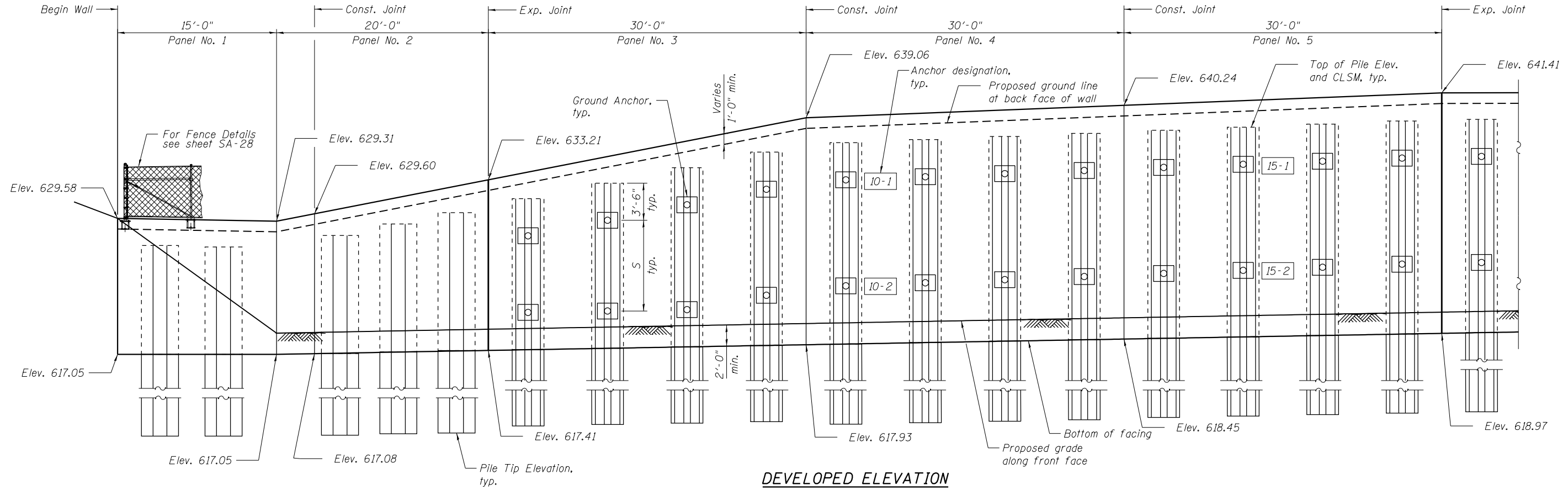
Panel No.	Gutter Elevation*	Slope ***
Inlet**	628.72	19.51%
3	631.21	19.51%
4	637.06	3.91%
5	638.24	3.91%
6	639.41	0.27%
7	639.49	-14.68%
8	635.08	-1.46%
9	634.64	7.65%
10	636.94	7.65%
11	639.23	7.65%
12	641.53	3.66%
13	642.63	0.47%
14	642.77	0.47%
15	642.91	5.08%
16	644.43	5.08%
17	645.95	0.99%
18	646.25	12.37%
19	649.96	3.26%
20	650.94	3.26%
21	651.92	3.26%
22	652.90	3.69%
23	654.00	3.69%
24	655.11	3.69%
25	656.22	3.69%
Inlet**	631.35	N/A

* Gutter Elevation given at north end of panel segment.
 ** See Roadway Plans for end points of Gutter.
 *** Slope Measured Across Panel Section.

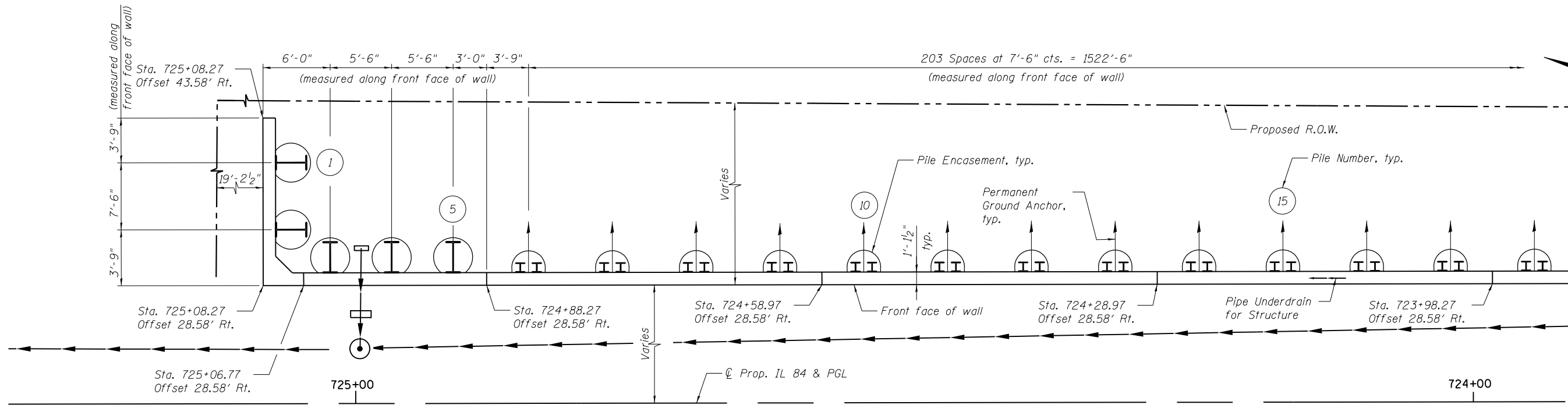


TYPICAL SECTION
(Looking North)

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DEVELOPED ELEVATION

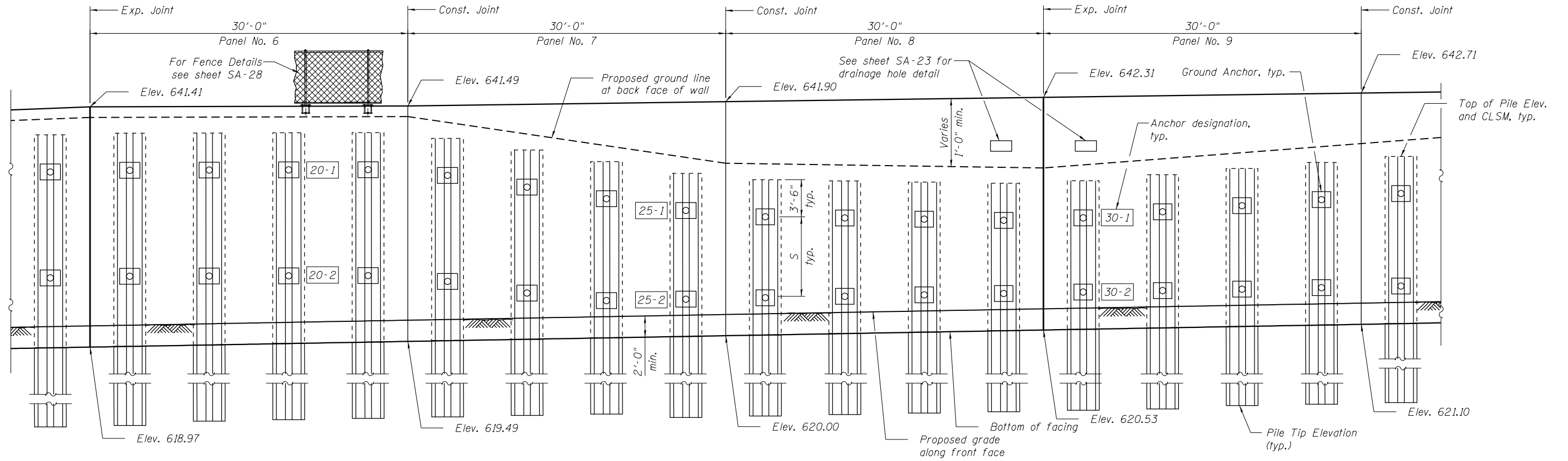


PLAN

Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

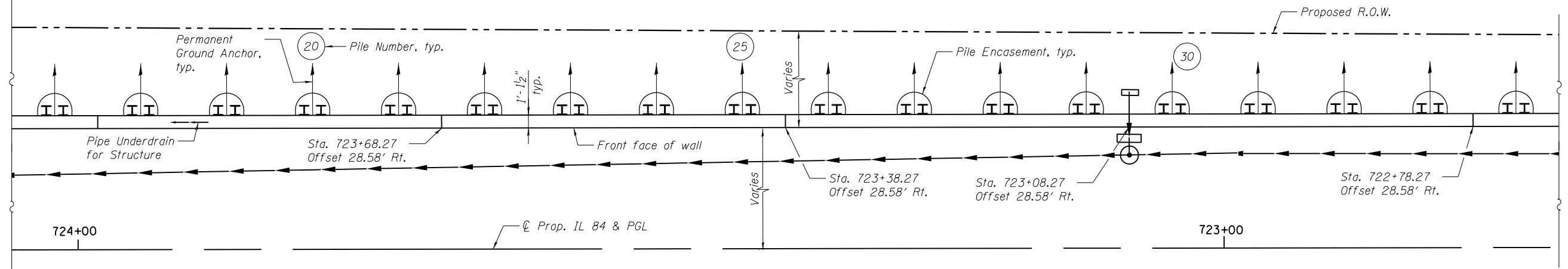
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	PLOT DATE =	CHECKED - PK	REVISED -							



DEVELOPED ELEVATION

203 Spaces at 7'-6" cts. = 1522'-6"
(measured along front face of wall)

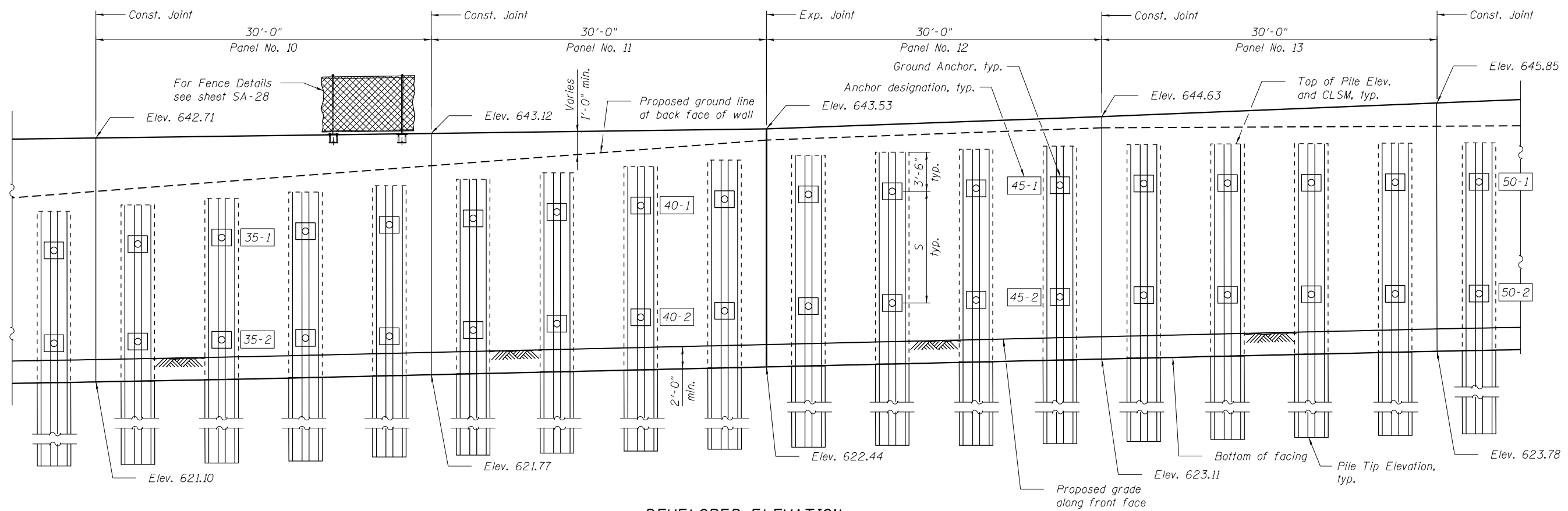


PLAN

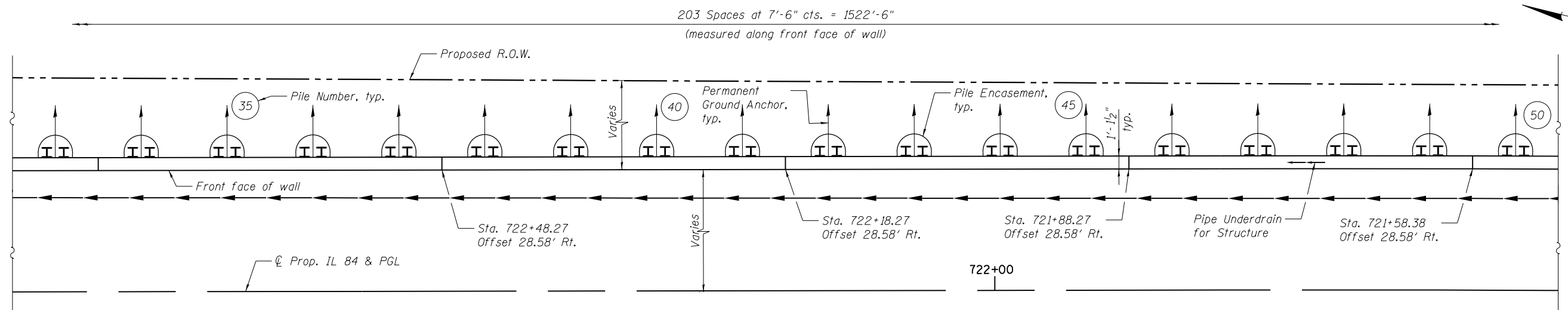
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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DEVELOPED ELEVATION

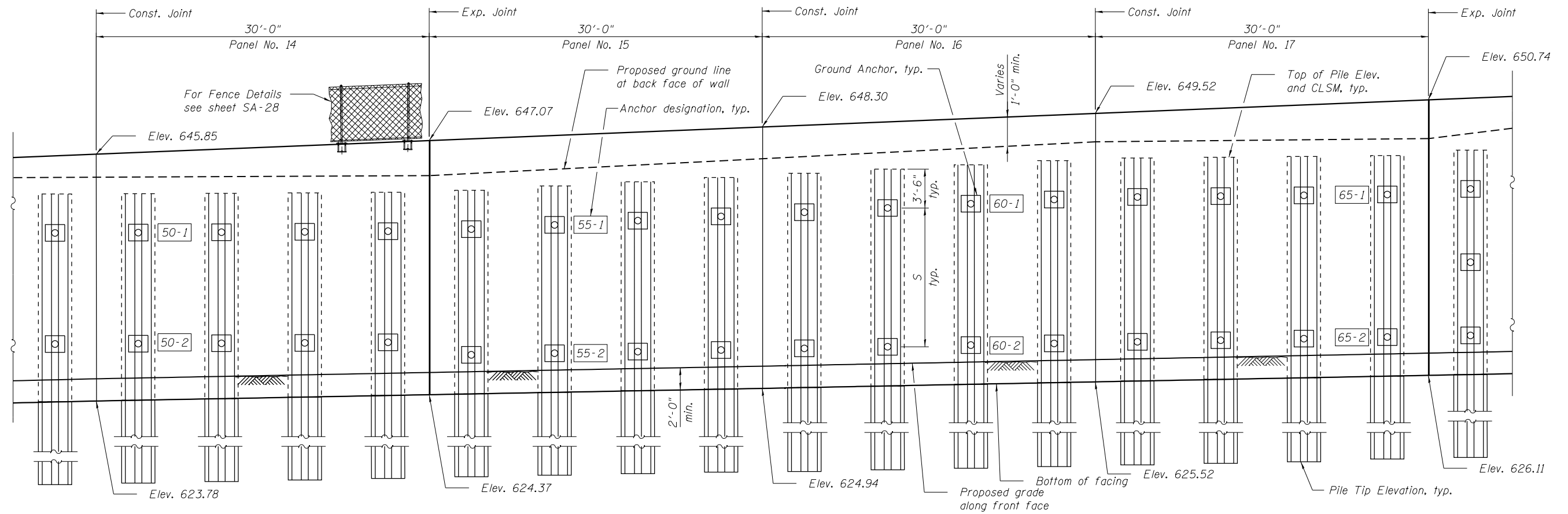


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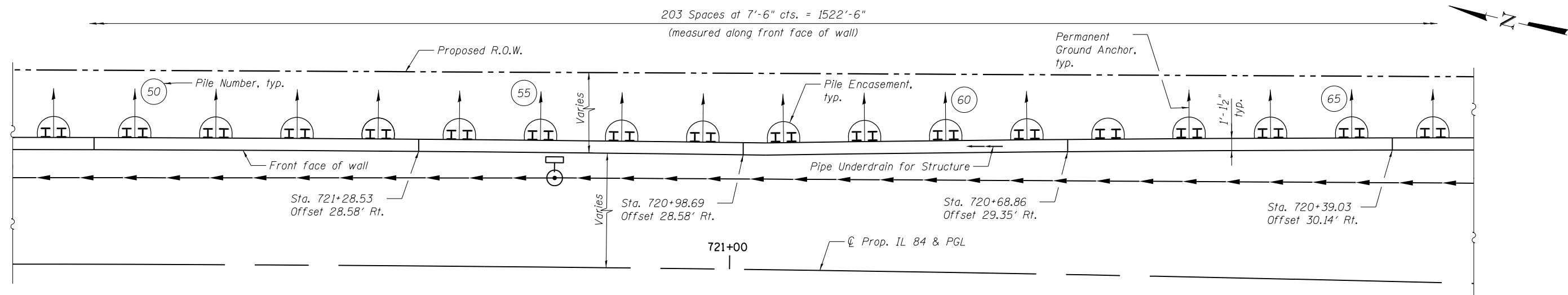
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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DEVELOPED ELEVATION

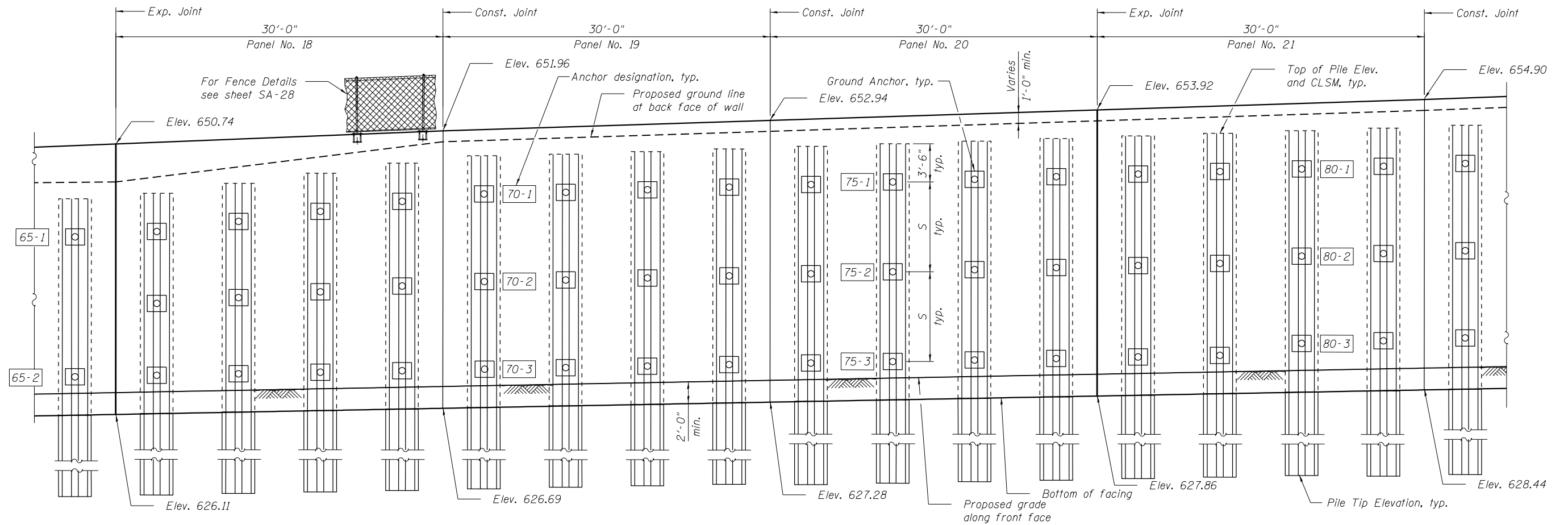


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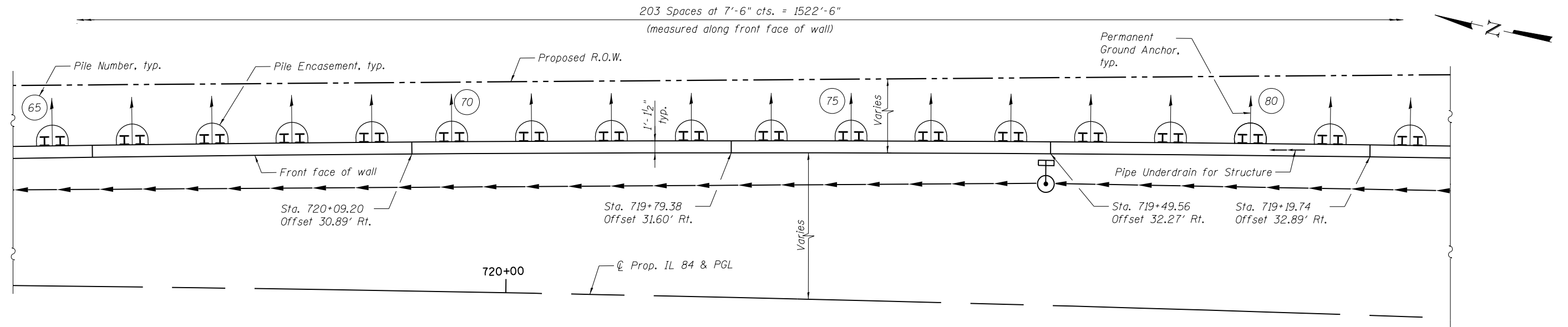
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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	CHECKED - PK	REVISED -	ILLINOIS FED. AID PROJECT							



DEVELOPED ELEVATION



PLAN

Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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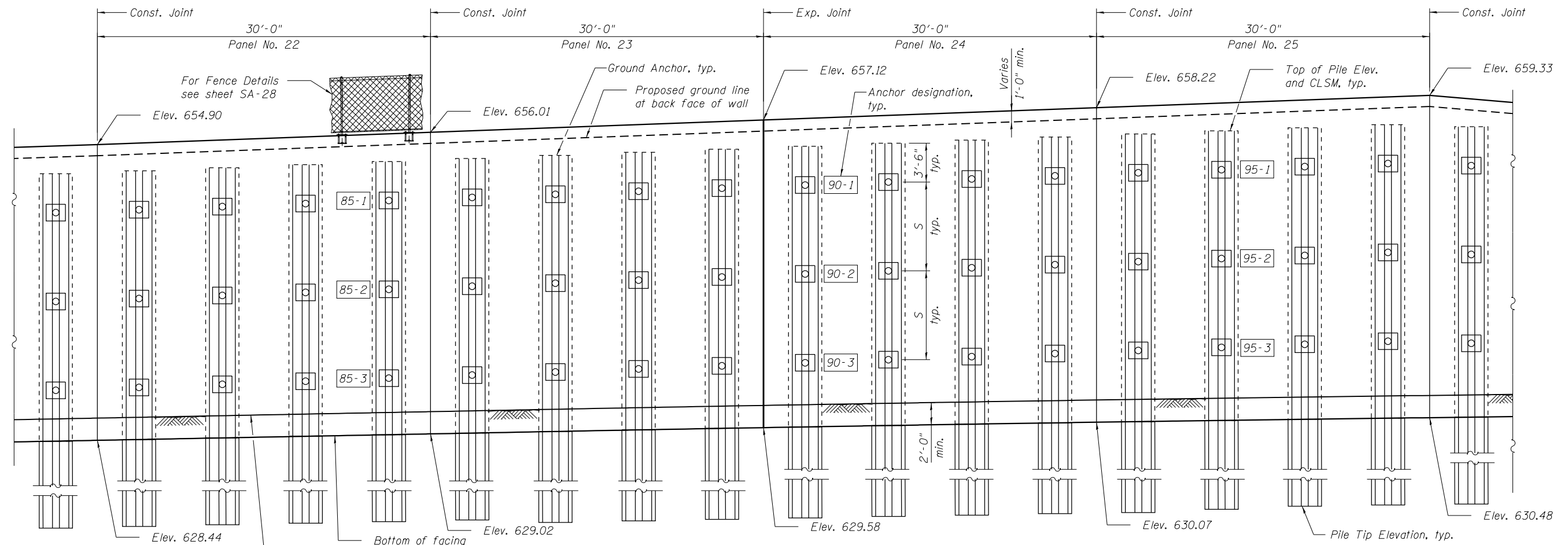
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PILE AND ANCHOR LOCATION
STRUCTURE NO. 008-7001**

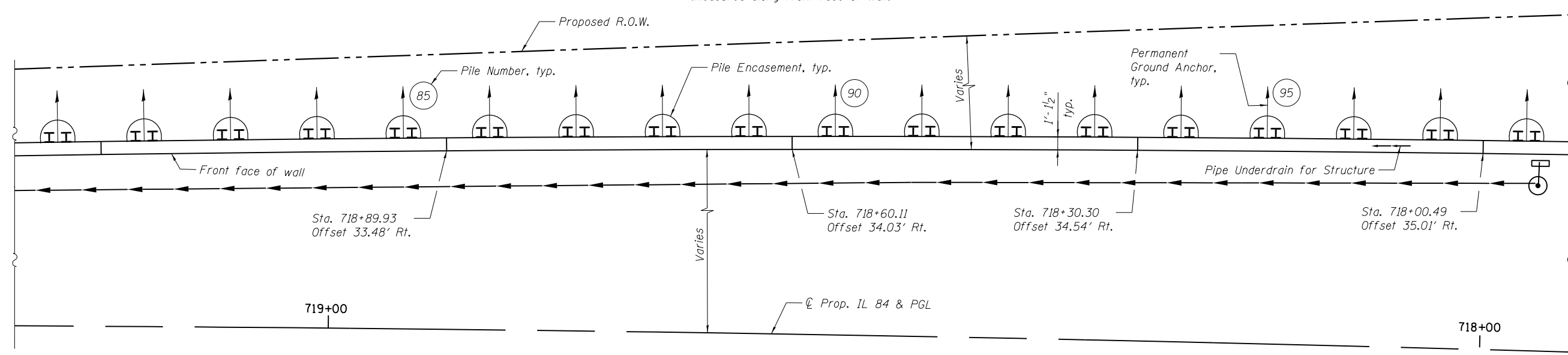
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	357
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



DEVELOPED ELEVATION

203 Spaces at 7'-6" cts. = 1522'-6"
(measured along front face of wall)

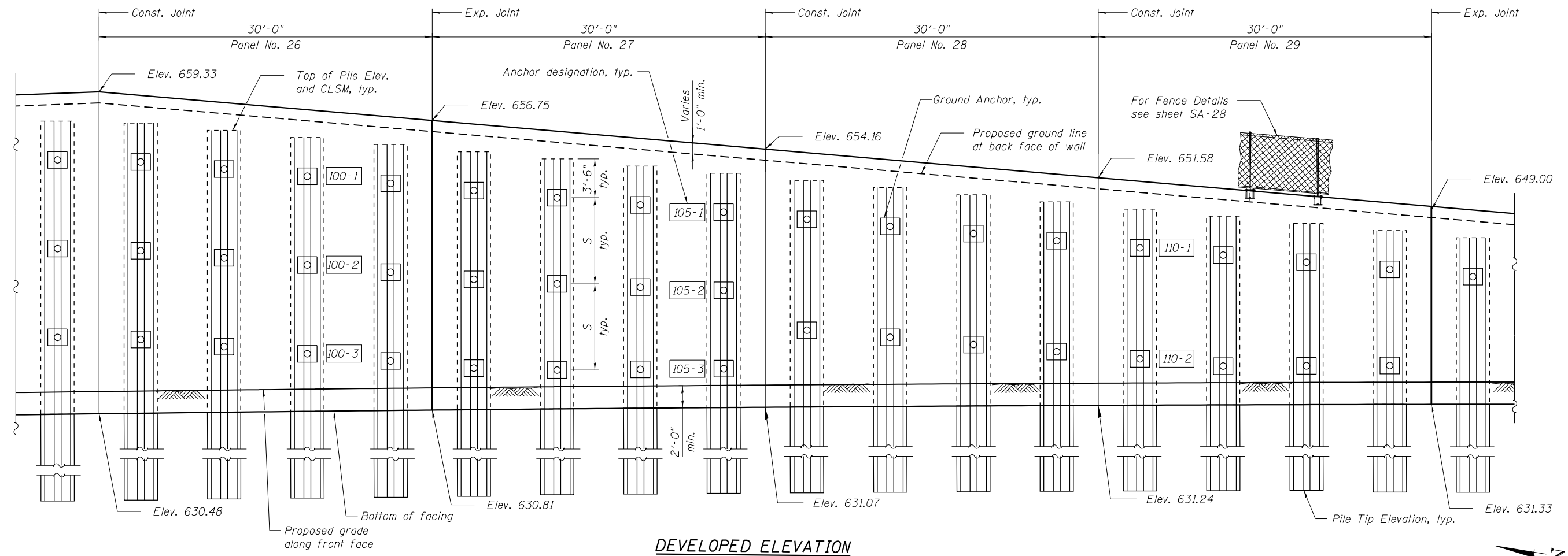


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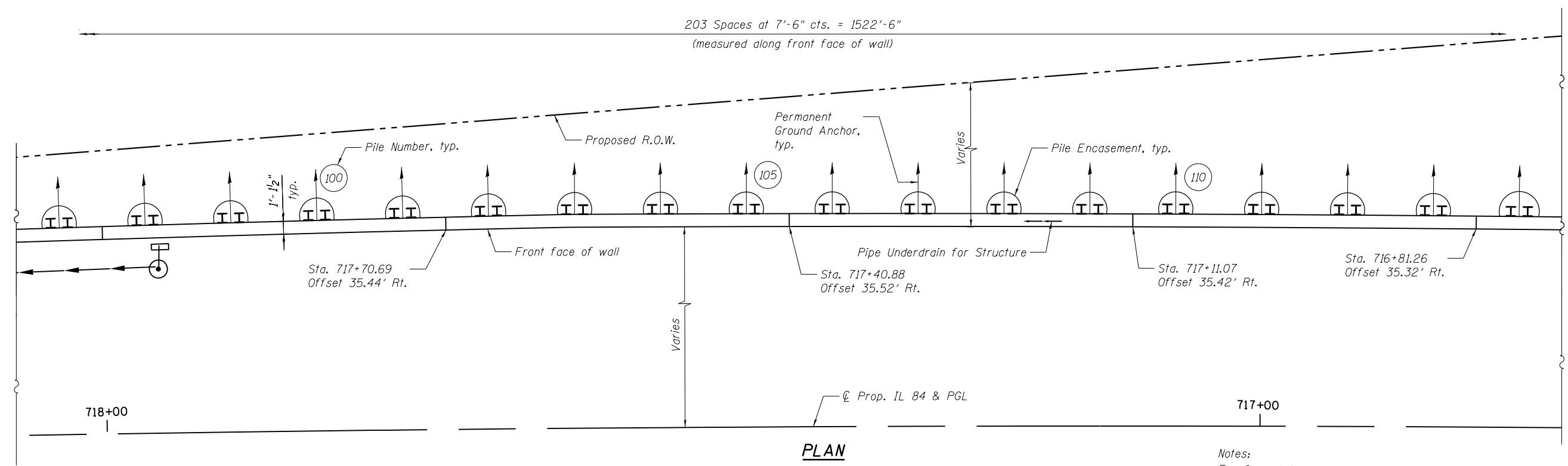
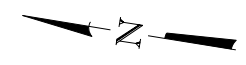
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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						ILLINOIS FED. AID PROJECT				



DEVELOPED ELEVATION

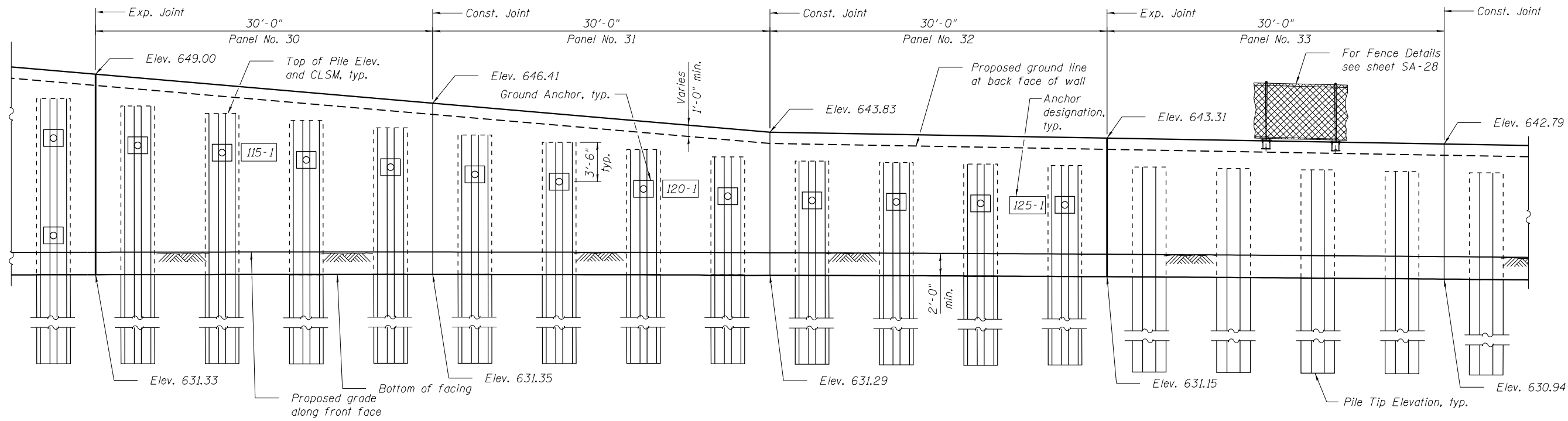


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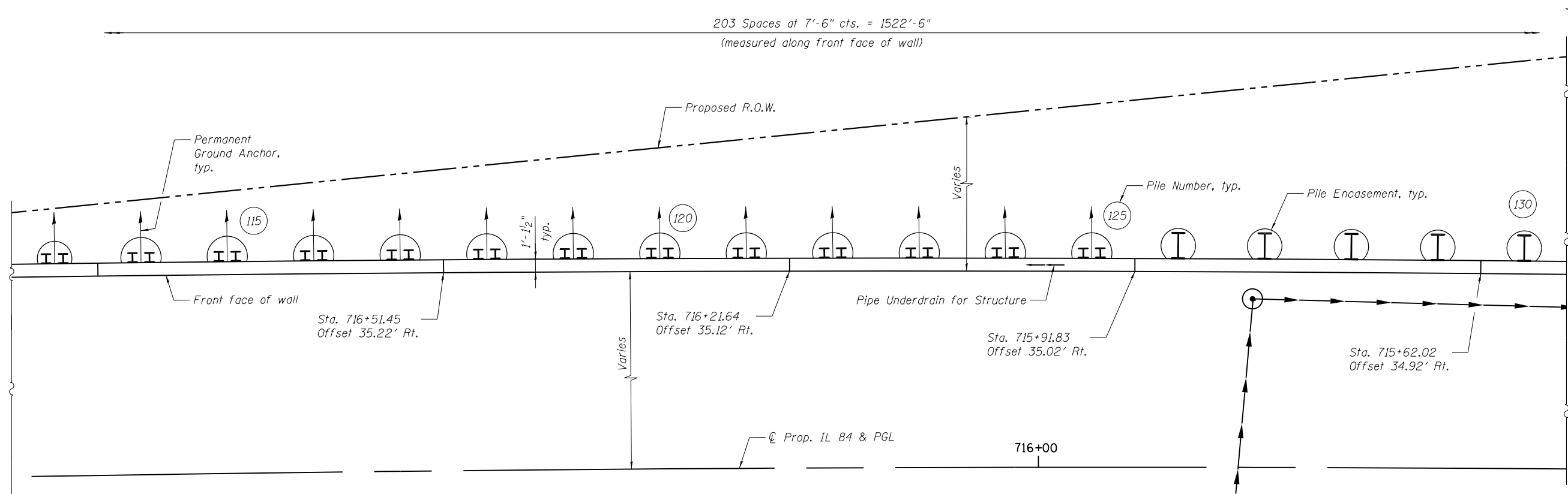
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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	PLOT DATE =	CHECKED - PK	REVISED -	SHEET NO. SA-10 OF 41 SHEETS						



DEVELOPED ELEVATION



PLAN

Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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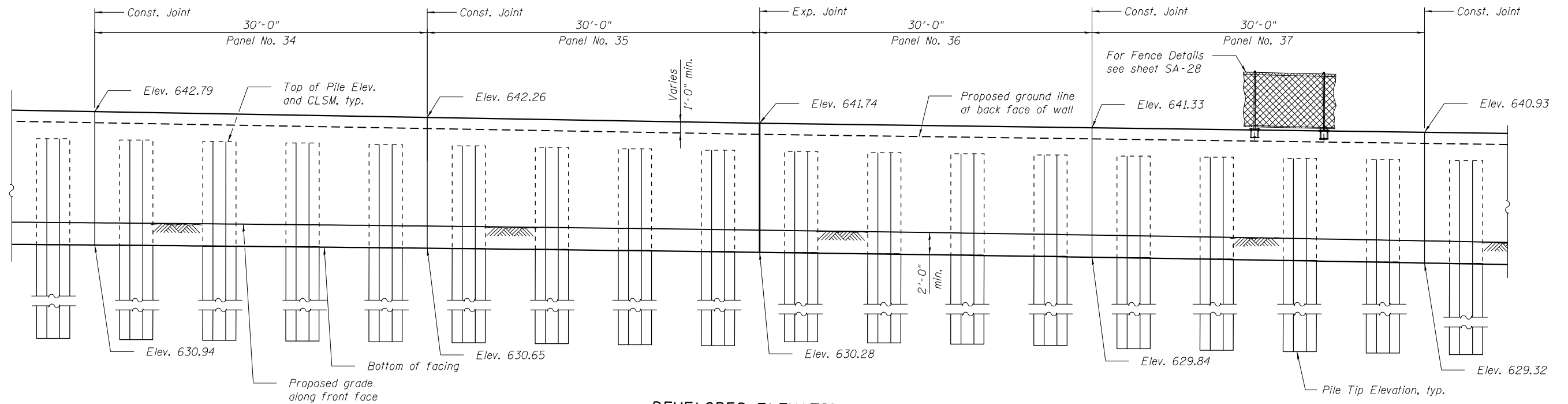
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PILE AND ANCHOR LOCATION
STRUCTURE NO. 008-7001**

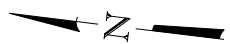
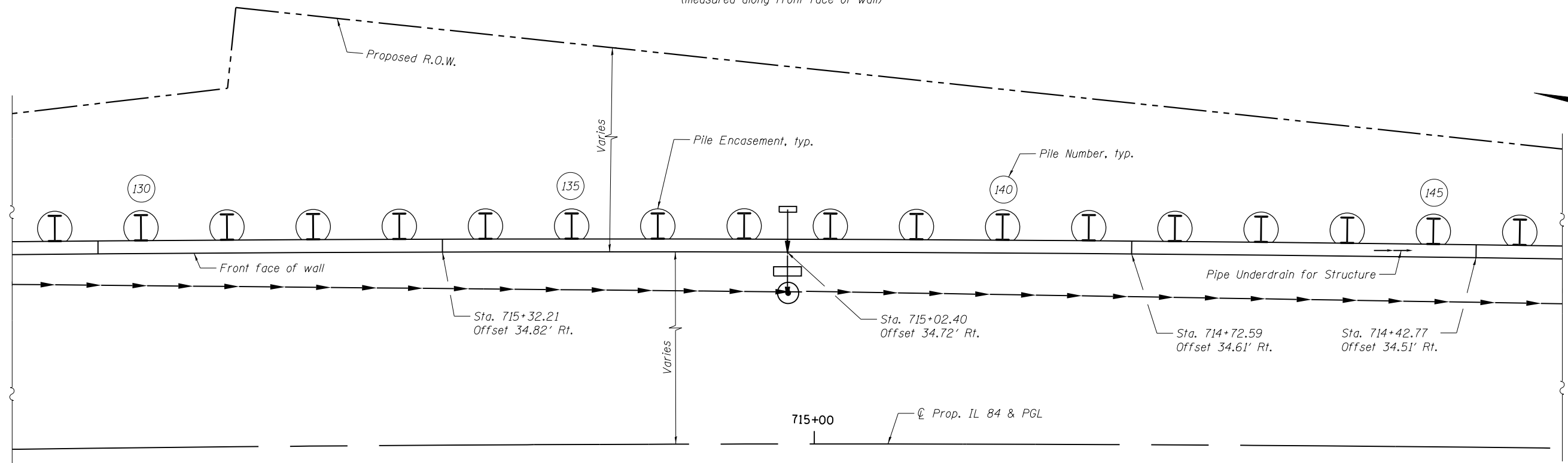
SHEET NO. SA-11 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	360
CONTRACT NO. 64G59				

ILLINOIS FED. AID PROJECT



203 Spaces at 7'-6" cts. = 1522'-6"
(measured along front face of wall)



Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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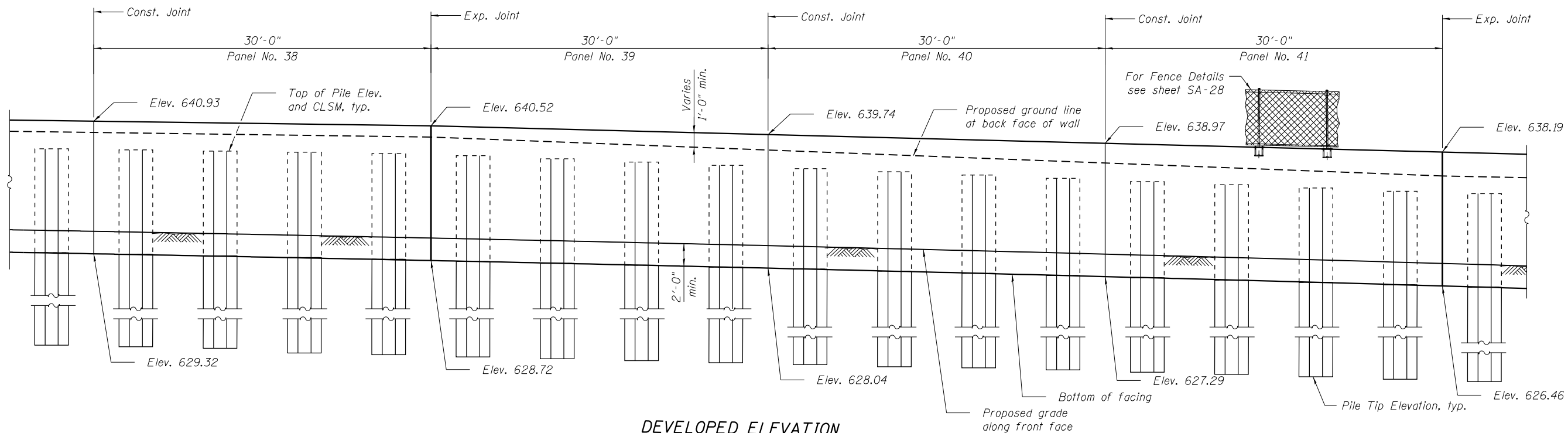
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

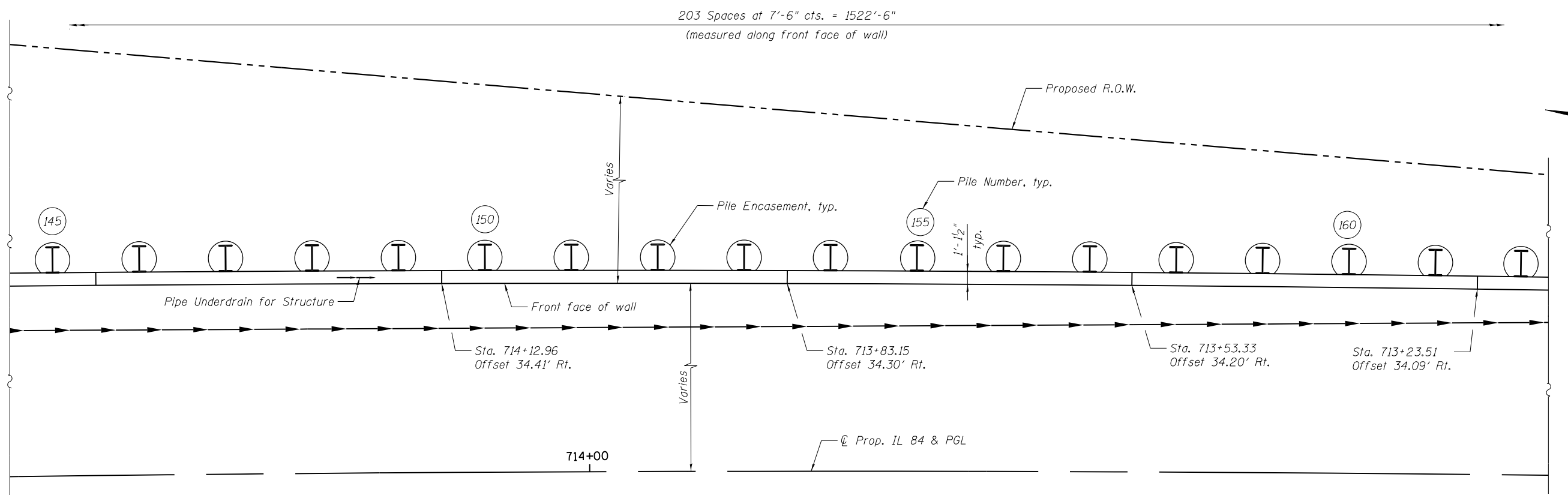
PILE AND ANCHOR LOCATION
STRUCTURE NO. 008-7001

SHEET NO. SA-12 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	361
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



DEVELOPED ELEVATION

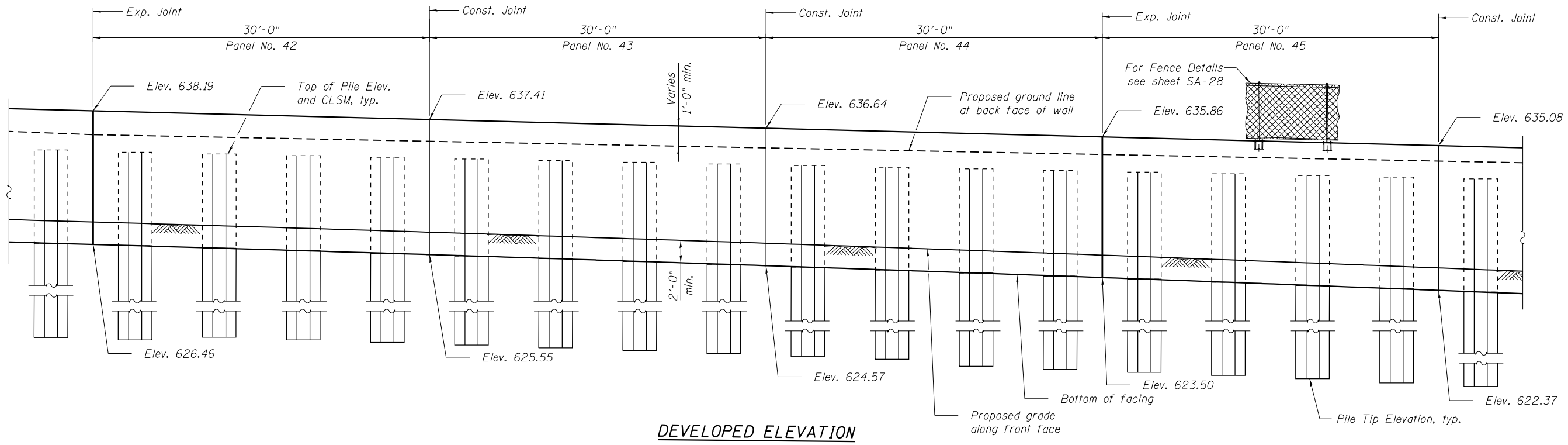


PLAN

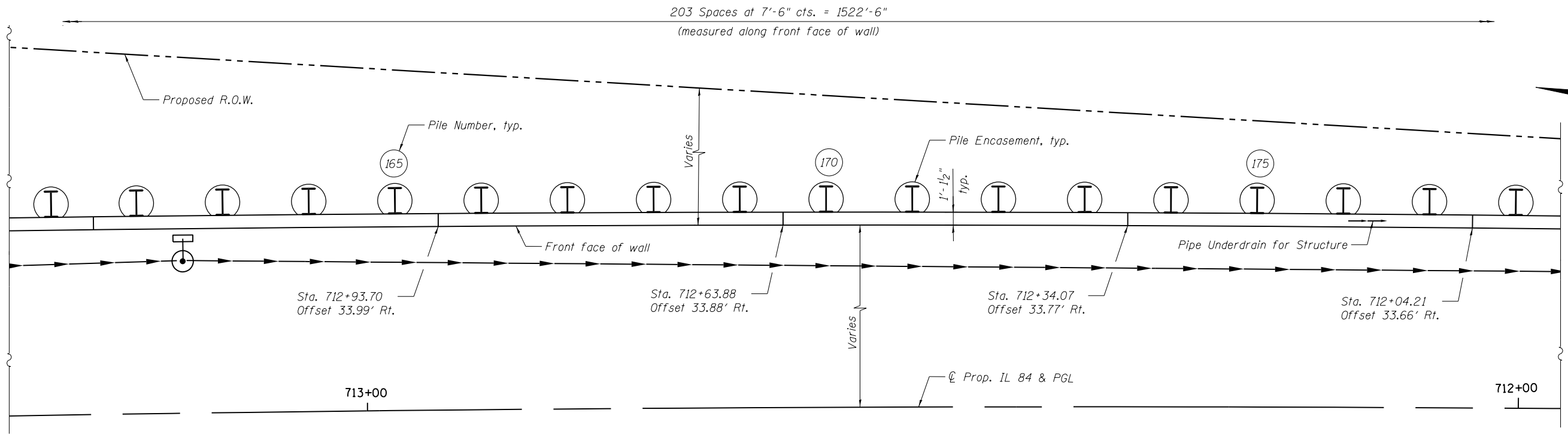
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For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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FILE NAME = PARSONS	USER NAME =	DESIGNED - PK/DSP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PILE AND ANCHOR LOCATION STRUCTURE NO. 008-7001	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN - SC	REVISED -			17	104B-2	CARROLL	528	362
PLOT DATE =	CHECKED - PK	REVISED -	SHEET NO. SA-13 OF 41 SHEETS			CONTRACT NO. 64G59				
						ILLINOIS FED. AID PROJECT				



DEVELOPED ELEVATION

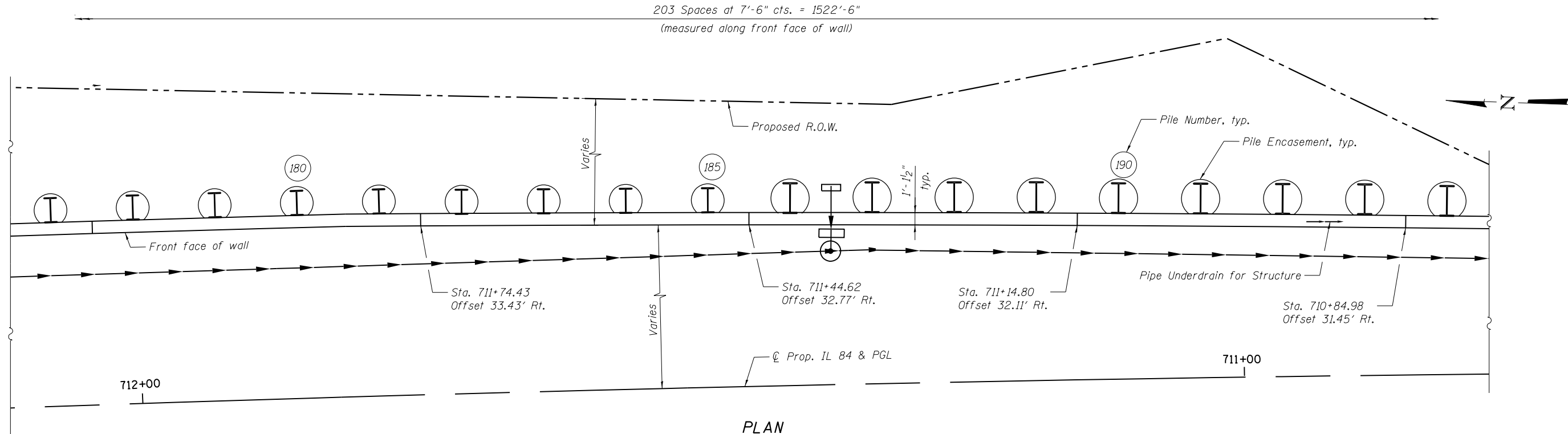
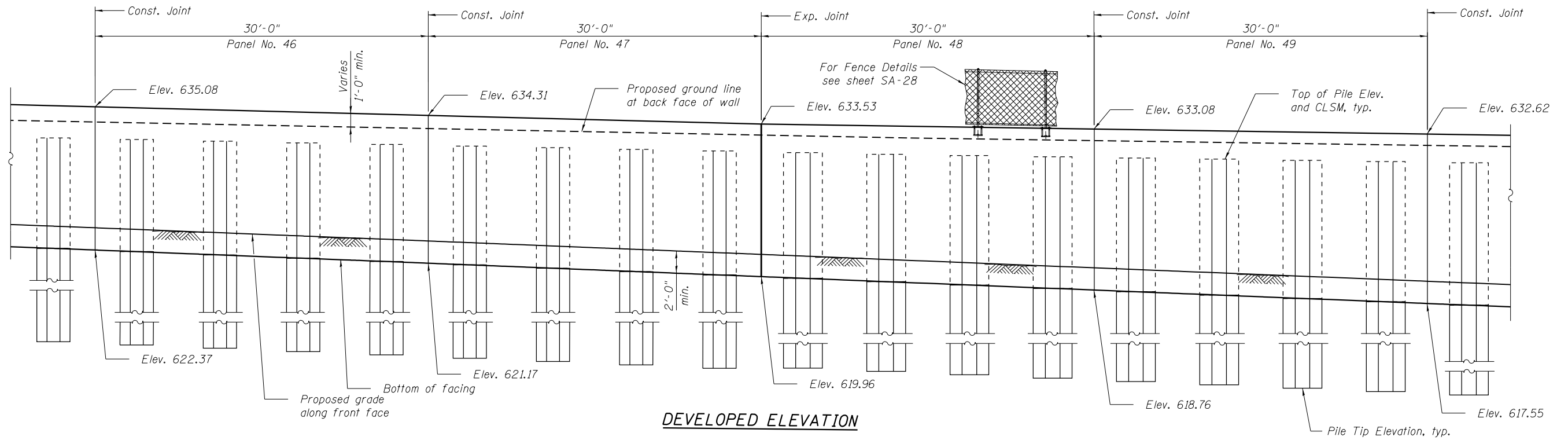


PLAN

Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

3/20/2015 2:28:29 PM p0067721.ctb p:\working\illinois\p0067721\dms02900\200111-SHT-SA-14.dgn

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	PLOT SCALE =	DRAWN - SC	REVISED -			CONTRACT NO. 64G59				
PLOT DATE =	CHECKED - PK	REVISED -	SHEET NO. SA-14 OF 41 SHEETS			ILLINOIS FED. AID PROJECT				



Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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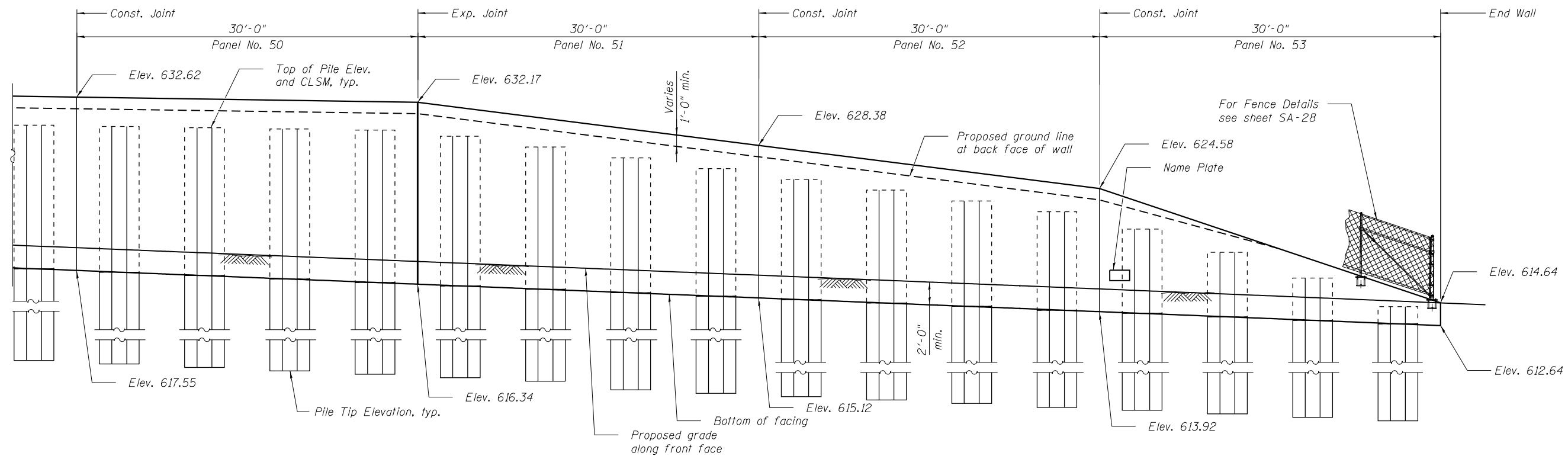
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

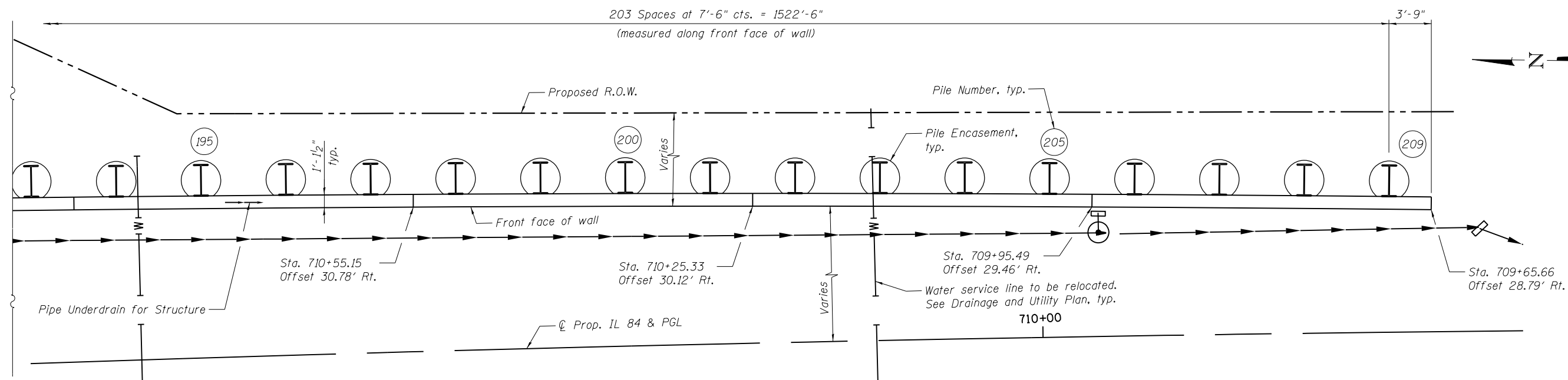
**PILE AND ANCHOR LOCATION
STRUCTURE NO. 008-7001**

SHEET NO. SA-15 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	364
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				



DEVELOPED ELEVATION



PLAN

Notes:
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

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		DRAWN - SC	REVISED -
		CHECKED - PK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PILE AND ANCHOR LOCATION
STRUCTURE NO. 008-7001**

SHEET NO. SA-16 OF 41 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	365
CONTRACT NO. 64G59				
ILLINOIS FED. AID PROJECT				

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
1	W33X201	627.01	591.05	605.57	35.97	22	617.05	-	-	-	-	-	-	42
2	W33X201	627.01	591.05	605.69	35.97	22	617.05	-	-	-	-	-	-	42
3	W33X201	627.97	584.09	605.88	43.88	24	617.09	-	-	-	-	-	-	42
4	W33X201	629.04	584.23	605.97	44.82	26	617.23	-	-	-	-	-	-	42
5	W33X201	630.12	584.36	606.06	45.75	28	617.36	-	-	-	-	-	-	42
6	(2) - HP10x57	631.43	601.47	606.15	29.96	30	617.47	6-1	90.5	15.52	28.50	44.03	6.96	36
								6-2	92.3	15.00	29.07	44.07		
7	(2) - HP10x57	632.90	601.60	606.26	31.29	32	617.60	7-1	90.5	16.61	28.50	45.11	8.29	36
								7-2	92.3	15.00	29.07	44.07		
8	(2) - HP10x57	634.36	601.73	606.37	32.63	34	617.73	8-1	90.5	17.70	28.50	46.20	9.63	36
								8-2	92.3	15.00	29.07	44.07		
9	(2) - HP10x57	635.82	601.86	606.47	33.96	38	617.86	9-1	90.5	18.79	28.50	47.29	10.00	36
								9-2	92.3	15.00	29.07	44.07		
10	(2) - HP10x57	636.71	601.99	606.58	34.72	40	617.99	10-1	90.5	19.41	28.50	47.91	10.00	36
								10-2	92.3	15.00	29.07	44.07		
11	(2) - HP10x57	637.00	602.12	606.70	34.88	40	618.12	11-1	90.5	19.54	28.50	48.04	10.00	36
								11-2	92.3	15.00	29.07	44.07		
12	(2) - HP10x57	637.30	602.25	606.84	35.04	40	618.25	12-1	90.5	19.67	28.50	48.18	10.00	36
								12-2	92.3	15.00	29.07	44.07		
13	(2) - HP10x57	637.59	602.38	606.99	35.20	40	618.38	13-1	90.5	19.80	28.50	48.31	10.00	36
								13-2	92.3	15.00	29.07	44.07		
14	(2) - HP10x57	637.88	602.51	607.17	35.37	40	618.51	14-1	90.5	19.94	28.50	48.44	10.00	36
								14-2	92.3	15.00	29.07	44.07		
15	(2) - HP10x57	638.18	602.64	607.38	35.53	40	618.64	15-1	90.5	20.07	28.50	48.57	10.00	36
								15-2	92.3	15.00	29.07	44.07		
16	(2) - HP10x57	638.47	602.77	607.62	35.69	40	618.77	16-1	90.5	20.20	28.50	48.71	10.00	36
								16-2	92.3	15.00	29.07	44.07		
17	(2) - HP10x57	638.76	602.90	607.88	35.86	42	618.90	17-1	90.5	20.34	28.50	48.84	10.00	36
								17-2	92.3	15.00	29.07	44.07		
18	(2) - HP10x57	638.92	603.03	608.16	35.88	42	619.03	18-1	90.5	20.36	28.50	48.86	10.00	36
								18-2	92.3	15.00	29.07	44.07		
19	(2) - HP10x57	638.94	603.16	608.48	35.77	42	619.16	19-1	90.5	20.27	28.50	48.77	10.00	36
								19-2	92.3	15.00	29.07	44.07		
20	(2) - HP10x57	638.96	603.30	608.81	35.66	40	619.30	20-1	90.5	20.18	28.50	48.68	10.00	36
								20-2	92.3	15.00	29.07	44.07		
21	(2) - HP10x57	638.98	603.43	609.27	35.55	40	619.43	21-1	90.5	20.09	28.50	48.59	10.00	36
								21-2	92.3	15.00	29.07	44.07		
22	(2) - HP10x57	638.43	603.55	609.94	34.88	40	619.55	22-1	90.5	19.54	28.50	48.04	10.00	36
								22-2	92.3	15.00	29.07	44.07		
23	(2) - HP10x57	637.33	603.68	610.77	33.65	36	619.68	23-1	90.5	18.53	28.50	47.04	10.00	36
								23-2	92.3	15.00	29.07	44.07		
24	(2) - HP10x57	636.23	603.81	611.70	32.42	34	619.81	24-1	90.5	17.53	28.50	46.03	9.42	36
								24-2	92.3	15.00	29.07	44.07		
25	(2) - HP10x57	635.13	603.94	612.68	31.19	32	619.94	25-1	90.5	16.53	28.50	45.03	8.19	36
								25-2	92.3	15.00	29.07	44.07		
26	(2) - HP10x57	634.53	604.07	613.65	30.46	30	620.07	26-1	90.5	15.93	28.50	44.44	7.46	36
								26-2	92.3	15.00	29.07	44.07		
27	(2) - HP10x57	634.42	604.20	614.57	30.22	30	620.20	27-1	90.5	15.73	28.50	44.24	7.22	36
								27-2	92.3	15.00	29.07	44.07		
28	(2) - HP10x57	634.31	604.33	615.37	29.98	30	620.33	28-1	90.5	15.53	28.50	44.04	6.98	36
								28-2	92.3	15.00	29.07	44.07		
29	(2) - HP10x57	634.20	604.47	616.01	29.73	28	620.47	29-1	90.5	15.34	28.50	43.84	6.73	36
								29-2	92.3	15.00	29.07	44.07		
30	(2) - HP10x57	634.43	604.60	616.56	29.83	30	620.60	30-1	90.5	15.41	28.50	43.92	6.83	36
								30-2	92.3	15.00	29.07	44.07		

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
31	(2) - HP10x57	635.00	604.74	617.09	30.26	30	620.74	31-1	90.5	15.77	28.50	44.27	7.26	36
								31-2	92.3	15.00	29.07	44.07		
32	(2) - HP10x57	635.58	604.88	617.58	30.69	30	620.88	32-1	90.5	16.12	28.50	44.62	7.69	36
								32-2	92.3	15.00	29.07	44.07		
33	(2) - HP10x57	636.15	605.03	618.01	31.13	32	621.03	33-1	90.5	16.47	28.50	44.98	8.13	36
								33-2	92.3	15.00	29.07	44.07		
34	(2) - HP10x57	636.72	605.18	618.34	31.54	32	621.18	34-1	90.5	16.82	28.50	45.32	8.54	36
								34-2	92.3	15.00	29.07	44.07		
35	(2) - HP10x57	637.30	605.35	618.57	31.95	34	621.35	35-1	90.5	17.15	28.50	45.65	8.95	36
								35-2	92.3	15.00	29.07	44.07		
36	(2) - HP10x57	637.87	605.52	618.66	32.36	34	621.52	36-1	90.5	17.48	28.50	45.98	9.36	36
								36-2	92.3	15.00	29.07	44.07		
37	(2) - HP10x57	638.45	605.68	618.59	32.76	36	621.68	37-1	90.5	17.81	28.50	46.31	9.76	36
								37-2	92.3	15.00	29.07	44.07		
38	(2) - HP10x57	639.02	605.85	618.36	33.17	36	621.85	38-1	90.5	18.14	28.50	46.64	10.00	36
								38-2	92.3	15.00	29.07	44.07		
39	(2) - HP10x57	639.59	606.02	618.07	33.57	36	622.02	39-1	90.5	18.47	28.50	46.98	10.00	36
								39-2	92.3	15.00	29.07	44.07		
40	(2) - HP10x57	640.17	606.19	617.75	33.98	38	622.19	40-1	90.5	18.80	28.50	47.31	10.00	36
								40-2	92.3	15.00	29.07	44.07		
41	(2) - HP10x57	640.74	606.36	617.41	34.38	38	622.36	41-1	90.5	19.13	28.50	47.64	10.00	36
								41-2	92.3	15.00	29.07	44.07		
42	(2) - HP10x57	641.17	606.52	617.06	34.64	38	622.52	42-1	90.5	19.34	28.50	47.85	10.00	36
								42-2	92.3	15.00	29.07	44.07		
43	(2) - HP10x57	641.44	606.69	616.71	34.75	40	622.69	43-1	90.5	19.43	28.50	47.94	10.00	36
								43-2	92.3	15.00	29.07	44.07		
44	(2) - HP10x57	641.71	606.86	616.37	34.85	40	622.86	44-1	90.5	19.52	28.50	48.02	10.00	36
								44-2	92.3	15.00	29.07	44.07		
45	(2) - HP10x57	641.99	607.03	616.03	34.96	40	623.03	45-1	90.5	19.60	28.50	48.11	10.00	36
								45-2	92.3	15.00	29.07	44.07		
46	(2) - HP10x57	642.14	607.20	615.71	34.95	40	623.20	46-1	90.5	19.59	28.50	48.10	10.00	36
								46-2	92.3	15.00	29.07	44.07		
47	(2) - HP10x57	642.18	607.36	615.41	34.82	40	623.36	47-1	90.5	19.49	28.50	47.99	10.00	36
								47-2	92.3	15.00	29.07	44.07		
48	(2) - HP10x57	642.21	607.53	615.12	34.68	38	623.53	48-1	90.5	19.38	28.50	47.88	10.00	36
								48-2	92.3	15.00	29.07	44.07		
49	(2) - HP10x57	642.26	607.70	614.82	34.56	38	623.70	49-1	90.5	19.28	28.50	47.78	10.00	36
								49-2	92.3	15.00	29.07	44.07		
50	(2) - HP10x57	642.29	607.85	614.53	34.43	38	623.85	50-1	90.5	19.17	28.50	47.68	10.00	36
								50-2	92.3	15.00	29.07	44.07		
51	(2) - HP10x57	642.32	608.00	614.25	34.32	38	624.00	51-1	90.5	19.08	28.50	47.58	10.00	36
								51-2	92.3	15.00	29.07	44.07		
52	(2) - HP10x57	642.36	608.15	613.97	34.21	38	624.15							

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
58	(2) - HP10x57	644.12	609.01	612.74	35.11	40	625.01	58-1	90.5	19.73	28.50	48.23	10.00	36
								58-2	92.3	15.00	29.07	44.07		
59	(2) - HP10x57	644.50	609.16	612.83	35.35	40	625.16	59-1	90.5	19.92	28.50	48.42	10.00	36
								59-2	92.3	15.00	29.07	44.07		
60	(2) - HP10x57	644.88	609.30	613.02	35.58	40	625.30	60-1	90.5	20.11	28.50	48.62	10.00	36
								60-2	92.3	15.00	29.07	44.07		
61	(2) - HP10x57	645.26	609.45	613.29	35.82	42	625.45	61-1	90.5	20.30	28.50	48.81	10.00	36
								61-2	92.3	15.00	29.07	44.07		
62	(2) - HP10x57	645.49	609.59	613.61	35.90	42	625.59	62-1	90.5	20.37	28.50	48.87	10.00	36
								62-2	92.3	15.00	29.07	44.07		
63	(2) - HP10x57	645.57	609.74	613.97	35.82	42	625.74	63-1	90.5	20.31	28.50	48.81	10.00	36
								63-2	92.3	15.00	29.07	44.07		
64	(2) - HP10x57	645.64	609.89	614.34	35.75	42	625.89	64-1	90.5	20.25	28.50	48.75	10.00	36
								64-2	92.3	15.00	29.07	44.07		
65	(2) - HP10x57	645.71	610.03	614.71	35.68	40	626.03	65-1	90.5	20.19	28.50	48.70	10.00	36
								65-2	92.3	15.00	29.07	44.07		
66	(2) - HP10x57	646.21	605.18	615.04	41.03	42	626.18	66-1	87.1	20.48	27.43	47.91	6.52	36
								66-2	91.4	15.16	28.79	43.95		
								66-3	83.0	15.00	26.14	41.14		
67	(2) - HP10x57	647.14	605.33	615.32	41.81	44	626.33	67-1	87.1	21.12	27.43	48.55	6.91	36
								67-2	91.4	15.48	28.79	44.27		
								67-3	83.0	15.00	26.14	41.14		
68	(2) - HP10x57	648.07	605.47	615.53	42.59	44	626.47	68-1	87.1	21.76	27.43	49.19	7.30	36
								68-2	91.4	15.80	28.79	44.59		
								68-3	83.0	15.00	26.14	41.14		
69	(2) - HP10x57	649.00	605.62	615.62	43.38	46	626.62	69-1	87.1	22.43	27.43	49.86	7.69	36
								69-2	91.4	16.15	28.79	44.94		
								69-3	83.0	15.00	26.14	41.14		
70	(2) - HP10x57	649.58	605.76	615.50	43.82	48	626.76	70-1	87.1	22.82	27.43	50.25	7.91	36
								70-2	91.4	16.36	28.79	45.15		
								70-3	83.0	15.00	26.14	41.14		
71	(2) - HP10x57	649.83	605.91	615.20	43.92	48	626.91	71-1	87.1	22.92	27.43	50.35	7.96	36
								71-2	91.4	16.42	28.79	45.21		
								71-3	83.0	15.00	26.14	41.14		
72	(2) - HP10x57	650.07	606.06	614.77	44.02	48	627.06	72-1	87.1	23.02	27.43	50.45	8.01	36
								72-2	91.4	16.48	28.79	45.27		
								72-3	83.0	15.00	26.14	41.14		
73	(2) - HP10x57	650.32	606.20	614.25	44.12	48	627.20	73-1	87.1	23.12	27.43	50.55	8.06	36
								73-2	91.4	16.54	28.79	45.33		
								73-3	83.0	15.00	26.14	41.14		
74	(2) - HP10x57	650.56	606.35	613.68	44.21	48	627.35	74-1	87.1	23.22	27.43	50.65	8.11	36
								74-2	91.4	16.60	28.79	45.39		
								74-3	83.0	15.00	26.14	41.14		
75	(2) - HP10x57	650.81	606.49	613.12	44.31	48	627.49	75-1	87.1	23.32	27.43	50.75	8.16	36
								75-2	91.4	16.66	28.79	45.45		
								75-3	83.0	15.00	26.14	41.14		
76	(2) - HP10x57	651.05	606.64	612.61	44.41	48	627.64	76-1	87.1	23.42	27.43	50.86	8.21	36
								76-2	91.4	16.72	28.79	45.51		
								76-3	83.0	15.00	26.14	41.14		
77	(2) - HP10x57	651.30	606.79	612.20	44.51	48	627.79	77-1	87.1	23.52	27.43	50.96	8.26	36
								77-2	91.4	16.78	28.79	45.57		
								77-3	83.0	15.00	26.14	41.14		
78	(2) - HP10x57	651.54	606.93	611.94	44.61	48	627.93	78-1	87.1	23.62	27.43	51.06	8.31	36
								78-2	91.4	16.84	28.79	45.63		
								78-3	83.0	15.00	26.14	41.14		

Note: See sheet SA-20 for notes.

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
79	(2) - HP10x57	651.79	607.08	611.87	44.71	48	628.08	79-1	87.1	23.73	27.43	51.16	8.36	36
								79-2	91.4	16.90	28.79	45.69		
								79-3	83.0	15.00	26.14	41.14		
80	(2) - HP10x57	652.03	607.22	612.10	44.81	50	628.22	80-1	87.1	23.83	27.43	51.26	8.00	36
								80-2	91.4	17.30	28.79	46.08		
								80-3	83.0	15.00	26.14	41.14		
81	(2) - HP10x57	652.28	607.37	613.00	44.91	50	628.37	81-1	87.1	23.93	27.43	51.36	8.00	36
								81-2	91.4	17.40	28.79	46.18		
								81-3	83.0	15.00	26.14	41.14		
82	(2) - HP10x57	652.53	607.51	614.53	45.02	50	628.51	82-1	87.1	24.04	27.43	51.48	8.00	36
								82-2	91.4	17.51	28.79	46.30		
								82-3	83.0	15.00	26.14	41.14		
83	(2) - HP10x57	652.81	607.66	616.54	45.15	50	628.66	83-1	87.1	24.18	27.43	51.61	8.00	36
								83-2	91.4	17.64	28.79	46.43		
								83-3	83.0	15.00	26.14	41.14		
84	(2) - HP10x57	653.09	607.80	618.87	45.29	50	628.80	84-1	87.1	24.31	27.43	51.74	8.00	36
								84-2	91.4	17.78	28.79	46.57		
								84-3	83.0	15.00	26.14	41.14		
85	(2) - HP10x57	653.37	607.95	621.34	45.42	50	628.95	85-1	87.1	24.44	27.43	51.88	8.00	36
								85-2	91.4	17.91	28.79	46.70		
								85-3	83.0	15.00	26.14	41.14		
86	(2) - HP10x57	653.64	608.09	623.78	45.55	50	629.09	86-1	87.1	24.58	27.43	52.01	8.00	36
								86-2	91.4	18.05	28.79	46.84		
								86-3	83.0	15.00	26.14	41.14		
87	(2) - HP10x57	653.92	608.23	626.02	45.69	50	629.23	87-1	87.1	24.72	27.43	52.15	8.00	36
								87-2	91.4	18.19	28.79	46.97		
								87-3	83.0	15.00	26.14	41.14		
88	(2) - HP10x57	654.20	608.37	627.89	45.82	52	629.37	88-1	87.1	24.86	27.43	52.29	8.00	36
								88-2	91.4	18.33	28.79	47.11		
								88-3	83.0	15.00	26.14	41.14		
89	(2) - HP10x57	654.47	608.51	629.23	45.96	52	629.51	89-1	87.1	25.00	27.43	52.43	8.00	36
								89-2	91.4	18.46	28.79	47.25		
								89-3	83.0	15.00	26.14	41.14		
90	(2) - HP10x57	654.75	608.64	629.94	46.11	52	629.64	90-1	87.1	25.14	27.43	52.58	8.00	36
								90-2	91.4	18.61	28.79	47.40		
								90-3	83.0	15.00	26.14	41.14		
91	(2) - HP10x57	655.03	608.77	630.30	46.26	52	629.77	91-1	87.1	25.30	27.43	52.74	8.00	36
								91-2	91.4	18.77	28.79	47.56		
								91-3	83.0	15.00	26.14	41.14		
92	(2) - HP10x57	655.31	608.89	630.44	46.42	52	629.89	92-1	87.1	25.46	27.43	52.89	8.00	36
								92-2	91.4	18.93	28.79	47.72		
								92-3	83.0	15.00	26.14	41.14		
93	(2) - HP10x57	655.58	609.01	630.40	46.57	52	630.01	93-1	87.1	25.62	27.43	53.05	8.00	36
								93-2	91.4	19.09	28.79	47.87		
								93-3	83.0	15.00	26.14	41.14		
94	(2) - HP10x57	655.86	609.12	630.26	46.74	54	630.12	94-1	87.1	25.78	27.43	53.22	8.00	36
								94-2	91.4	19.25	28.79	48.04		
								94-3	83.0	15.00	26.14	41.14		
95	(2) - HP10x57	656.14	609.23	630.06	46.91	54	630.23	95-1	87.1	25.96	27.43	53.39	8.00	36
								95-2	91.4	19.43	28.79	48.22		
								95-3	83.0	15.00	26.14	41.14		
96	(2) - HP10x57	656.41	609.33	629.87	47.08	54	630.33	96-1	87.1	26.14	27.43	53.57	8.00	

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)		
97	(2) - HP10x57	656.69	609.43	629.73	47.26	54	630.43	97-1	87.1	26.32	27.43	53.75	8.00	36		
								97-2	91.4	19.78	28.79	48.57				
								97-3	83.0	15.00	26.14	41.14				
98	(2) - HP10x57	656.50	609.52	629.70	46.98	54	630.52	98-1	87.1	26.03	27.43	53.47	8.00	36		
								98-2	91.4	19.50	28.79	48.29				
								98-3	83.0	15.00	26.14	41.14				
99	(2) - HP10x57	655.86	609.61	629.85	46.25	52	630.61	99-1	87.1	25.29	27.43	52.73	8.00	36		
								99-2	91.4	18.76	28.79	47.55				
								99-3	83.0	15.00	26.14	41.14				
100	(2) - HP10x57	655.21	609.69	630.22	45.52	50	630.69	100-1	87.1	24.55	27.43	51.98	8.00	36		
								100-2	91.4	18.02	28.79	46.81				
								100-3	83.0	15.00	26.14	41.14				
101	(2) - HP10x57	654.57	609.77	630.89	44.79	50	630.77	101-1	87.1	23.81	27.43	51.24	8.00	36		
								101-2	91.4	17.28	28.79	46.07				
								101-3	83.0	15.00	26.14	41.14				
102	(2) - HP10x57	653.92	609.85	631.89	44.08	48	630.85	102-1	87.1	23.08	27.43	50.51	8.00	36		
								102-2	91.4	16.55	28.79	45.34				
								102-3	83.0	15.00	26.14	41.14				
103	(2) - HP10x57	653.28	609.91	633.14	43.37	46	630.91	103-1	87.1	22.39	27.43	49.82	7.68	36		
								103-2	91.4	16.11	28.79	44.90				
								103-3	83.0	15.00	26.14	41.14				
104	(2) - HP10x57	652.63	609.97	634.53	42.66	44	630.97	104-1	87.1	21.81	27.43	49.24	7.33	36		
								104-2	91.4	15.82	28.79	44.61				
								104-3	83.0	15.00	26.14	41.14				
105	(2) - HP10x57	651.98	610.03	635.96	41.95	44	631.03	105-1	87.1	21.23	27.43	48.66	6.97	36		
								105-2	91.4	15.53	28.79	44.32				
								105-3	83.0	15.00	26.14	41.14				
106	(2) - HP10x57	651.34	615.09	637.33	36.25	42	631.09	106-1	90.5	20.66	28.50	49.16	10.00	36		
								106-2	92.3	15.00	29.07	44.07				
107	(2) - HP10x57	650.69	615.13	638.51	35.56	40	631.13	107-1	90.5	20.10	28.50	48.60	10.00	36		
								107-2	92.3	15.00	29.07	44.07				
108	(2) - HP10x57	650.05	615.17	639.42	34.87	40	631.17	108-1	90.5	19.53	28.50	48.04	10.00	36		
								108-2	92.3	15.00	29.07	44.07				
109	(2) - HP10x57	649.40	615.22	639.96	34.18	38	631.22	109-1	90.5	18.97	28.50	47.47	10.00	36		
								109-2	92.3	15.00	29.07	44.07				
110	(2) - HP10x57	648.75	615.25	628.86	33.50	36	631.25	110-1	90.5	18.42	28.50	46.92	10.00	36		
								110-2	92.3	15.00	29.07	44.07				
111	(2) - HP10x57	648.11	615.27	628.86	32.84	36	631.27	111-1	90.5	17.87	28.50	46.37	9.84	36		
								111-2	92.3	15.00	29.07	44.07				
112	(2) - HP10x57	647.46	615.30	628.86	32.17	34	631.30	112-1	90.5	17.32	28.50	45.83	9.17	36		
								112-2	92.3	15.00	29.07	44.07				
113	(2) - HP10x57	646.82	615.32	628.86	31.50	32	631.32	113-1	90.5	16.78	28.50	45.28	8.50	36		
								113-2	92.3	15.00	29.07	44.07				
114	(2) - HP12x63	646.16	615.33	628.86	30.83	32	631.33	114-1	86.0	15.00	27.09	42.09	-	42		
115	(2) - HP12x63	645.52	615.34	628.86	30.18	30	631.34	115-1	86.0	16.23	27.09	43.32	-	42		
116	(2) - HP12x63	644.87	615.34	628.86	29.53	28	631.34	116-1	86.0	15.70	27.09	42.79	-	42		
117	(2) - HP12x63	644.23	615.35	628.86	28.88	28	631.35	117-1	86.0	15.17	27.09	42.26	-	42		
118	(2) - HP12x63	643.58	615.34	628.86	28.24	26	631.34	118-1	86.0	15.00	27.09	42.09	-	42		
119	(2) - HP12x63	642.94	615.33	628.86	27.61	24	631.33	119-1	86.0	15.00	27.09	42.09	-	42		
120	(2) - HP12x63	642.29	615.31	628.86	26.98	24	631.31	120-1	86.0	15.00	27.09	42.09	-	42		
121	(2) - HP12x63	641.64	615.30	628.86	26.35	22	631.30	121-1	86.0	15.00	27.09	42.09	-	42		
122	(2) - HP12x63	641.26	615.27	627.85	25.99	22	631.27	122-1	86.0	15.00	27.09	42.09	-	42		
123	(2) - HP12x63	641.13	615.24	627.85	25.89	22	631.24	123-1	86.0	15.00	27.09	42.09	-	42		
124	(2) - HP12x63	641.00	615.21	627.85	25.80	22	631.21	124-1	86.0	15.00	27.09	42.09	-	42		
125	(2) - HP12x63	640.87	615.17	627.85	25.70	20	631.17	125-1	86.0	15.00	27.09	42.09	-	42		

Note: See sheet SA-20 for notes.

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
126	W27x161	640.74	605.13	626.45	35.61	20	631.13	-	-	-	-	-	-	36
127	W27x161	640.61	605.07	626.45	35.54	20	631.07	-	-	-	-	-	-	36
128	W27x161	640.48	605.02	626.45	35.46	20	631.02	-	-	-	-	-	-	36
129	W27x161	640.35	604.97	626.45	35.38	20	630.97	-	-	-	-	-	-	36
130	W27x161	640.22	604.90	626.45	35.32	20	630.90	-	-	-	-	-	-	36
131	W27x161	640.09	604.83	626.45	35.26	20	630.83	-	-	-	-	-	-	36
132	W27x161	639.96	604.76	626.45	35.20	20	630.76	-	-	-	-	-	-	36
133	W27x161	639.83	604.69	626.45	35.14	20	630.69	-	-	-	-	-	-	36
134	W27x161	639.70	604.60	625.54	35.09	20	630.60	-	-	-	-	-	-	36
135	W27x161	639.57	604.51	625.54	35.06	20	630.51	-	-	-	-	-	-	36
136	W27x161	639.44	604.42	625.54	35.02	20	630.42	-	-	-	-	-	-	36
137	W27x161	639.31	604.33	625.54	34.98	20	630.33	-	-	-	-	-	-	36
138	W27x161	639.19	604.23	625.54	34.96	20	630.23	-	-	-	-	-	-	36
139	W27x161	639.09	604.12	625.54	34.97	20	630.12	-	-	-	-	-	-	36
140	W27x161	638.99	604.00	625.54	34.98	20	630.00	-	-	-	-	-	-	36
141	W27x161	638.88	603.89	625.54	34.99	20	629.89	-	-	-	-	-	-	36
142	W27x161	638.78	603.77	625.54	35.01	20	629.77	-	-	-	-	-	-	36
143	W27x161	638.68	603.64	625.54	35.04	20	629.64	-	-	-	-	-	-	36
144	W27x161	638.58	603.51	625.54	35.07	20	629.51	-	-	-	-	-	-	36
145	W27x161	638.48	603.38	625.54	35.09	20	629.38	-	-	-	-	-	-	36
146	W27x161	638.37	603.24	625.71	35.13	20	629.24	-	-	-	-	-	-	36
147	W27x161	638.27	603.09	625.71	35.18	20	629.09	-	-	-	-	-	-	36
148	W27x161	638.17	602.94	625.71	35.23	20	628.94	-	-	-	-	-	-	36
149	W27x161	638.07	602.79	625.71	35.28	20	628.79	-	-	-	-	-	-	36
150	W27x161	637.87	602.63	625.71	35.24	20	628.63	-	-	-	-	-	-	36
151	W27x161	637.58	602.46	625.71	35.12	20	628.46	-	-	-	-	-	-	36
152	W27x161	637.30	602.29	624.00	35.00	20	628.29	-	-	-	-	-	-	36
153	W27x161	637.01	602.13	624.00	34.88	20	628.13	-	-	-	-	-	-	36
154	W27x161	636.72	601.95	624.00	34.77	20	627.95	-	-	-	-	-	-	36
155	W27x161	636.43	601.76	624.00	34.67	18	627.76	-	-	-	-	-	-	36
156	W27x161	636.14	601.57	624.00	34.57	18	627.57	-	-	-	-	-	-	36
157	W27x161	635.86	601.38	624.00	34.47	18	627.38	-	-	-	-	-	-	36
158	W27x161	635.57	601.18	624.00	34.38	18	627.18	-	-	-	-	-	-	36
159	W27x161	635.28	600.98	624.00	34.30	18	626.98	-	-	-	-	-	-	36
160	W27x161	634.99	600.77	624.33	34.22	18	626.77	-	-	-	-	-	-	36
161	W27x161	634.70	600.56	624.33	34.14	18	626.56	-	-	-	-	-	-	36
162	W27x161	634.49	600.34	618.57	34.14	18	626.34	-	-	-	-	-	-	36
163	W27x161	634.34	600.12	618.57	34.22	18	626.12	-	-	-	-	-	-	36
164	W27x161	634.19	599.89	618.57	34.30	18	625.89	-	-	-	-	-	-	36
165	W27x161	634.04	599.66	618.57	34.									

PILE AND ANCHOR SCHEDULE

Pile Number	Pile Type	Top Of Pile Elevation	Pile Tip Elevation	Estimated Top Of Rock Elevation	Estimated Pile Length	Number Of Studs Per Beam	Top Of Encasement Elevation	Anchor Number	Design Load (Kip)	Minimum Unbonded Length (Feet)	Estimated Bonded Length (Feet)	Estimated Total Length (Feet)	Spacing 'S' (Feet)	Encasement Diameter (Inch)
182	W27x161	631.54	595.02	608.33	36.52	22	621.02	-	-	-	-	-	-	36
183	W27x161	631.40	594.72	608.33	36.68	22	620.72	-	-	-	-	-	-	36
184	W27x161	631.25	594.42	608.33	36.83	24	620.42	-	-	-	-	-	-	36
185	W27x161	631.10	594.12	608.33	36.99	24	620.12	-	-	-	-	-	-	36
186	W33X201	630.96	588.81	608.33	42.14	24	619.81	-	-	-	-	-	-	42
187	W33X201	630.81	588.51	608.33	42.30	24	619.51	-	-	-	-	-	-	42
188	W33X201	630.69	588.21	608.33	42.48	24	619.21	-	-	-	-	-	-	42
189	W33X201	630.58	587.91	608.33	42.68	26	618.91	-	-	-	-	-	-	42
190	W33X201	630.48	587.60	608.33	42.87	26	618.60	-	-	-	-	-	-	42
191	W33X201	630.37	587.30	608.33	43.07	26	618.30	-	-	-	-	-	-	42
192	W33X201	630.26	587.00	608.33	43.26	26	618.00	-	-	-	-	-	-	42
193	W33X201	630.15	586.70	608.33	43.45	26	617.70	-	-	-	-	-	-	42
194	W33X201	630.05	586.40	606.11	43.65	26	617.40	-	-	-	-	-	-	42
195	W33X201	629.94	586.09	606.11	43.84	28	617.09	-	-	-	-	-	-	42
196	W33X201	629.83	585.79	606.11	44.04	28	616.79	-	-	-	-	-	-	42
197	W33X201	629.72	585.49	606.11	44.23	28	616.49	-	-	-	-	-	-	42
198	W33X201	629.18	585.19	606.11	44.00	28	616.19	-	-	-	-	-	-	42
199	W33X201	628.23	584.88	606.11	43.35	26	615.88	-	-	-	-	-	-	42
200	W33X201	627.29	584.58	606.11	42.71	26	615.58	-	-	-	-	-	-	42
201	W33X201	626.34	584.27	606.11	42.06	24	615.27	-	-	-	-	-	-	42
202	W33X201	625.39	588.81	606.11	36.58	22	614.81	-	-	-	-	-	-	42
203	W33X201	624.44	588.19	606.11	36.25	22	614.19	-	-	-	-	-	-	42
204	W33X201	623.49	587.57	606.11	35.92	22	613.57	-	-	-	-	-	-	42
205	W33X201	622.54	586.95	606.11	35.59	22	612.95	-	-	-	-	-	-	42
206	W33X201	621.01	586.63	606.11	34.38	18	612.63	-	-	-	-	-	-	42
207	W33X201	618.97	586.60	606.11	32.38	14	612.60	-	-	-	-	-	-	42
208	W33X201	616.71	586.57	606.11	30.15	10	612.57	-	-	-	-	-	-	42
209	W33X201	614.20	586.54	606.11	27.66	4	612.54	-	-	-	-	-	-	42

Notes:

Rock elevation at each pile is estimated by interpolating between rock elevations provided in soil boring logs and using borings contained in the IL 84 Roadway Geotechnical Report.

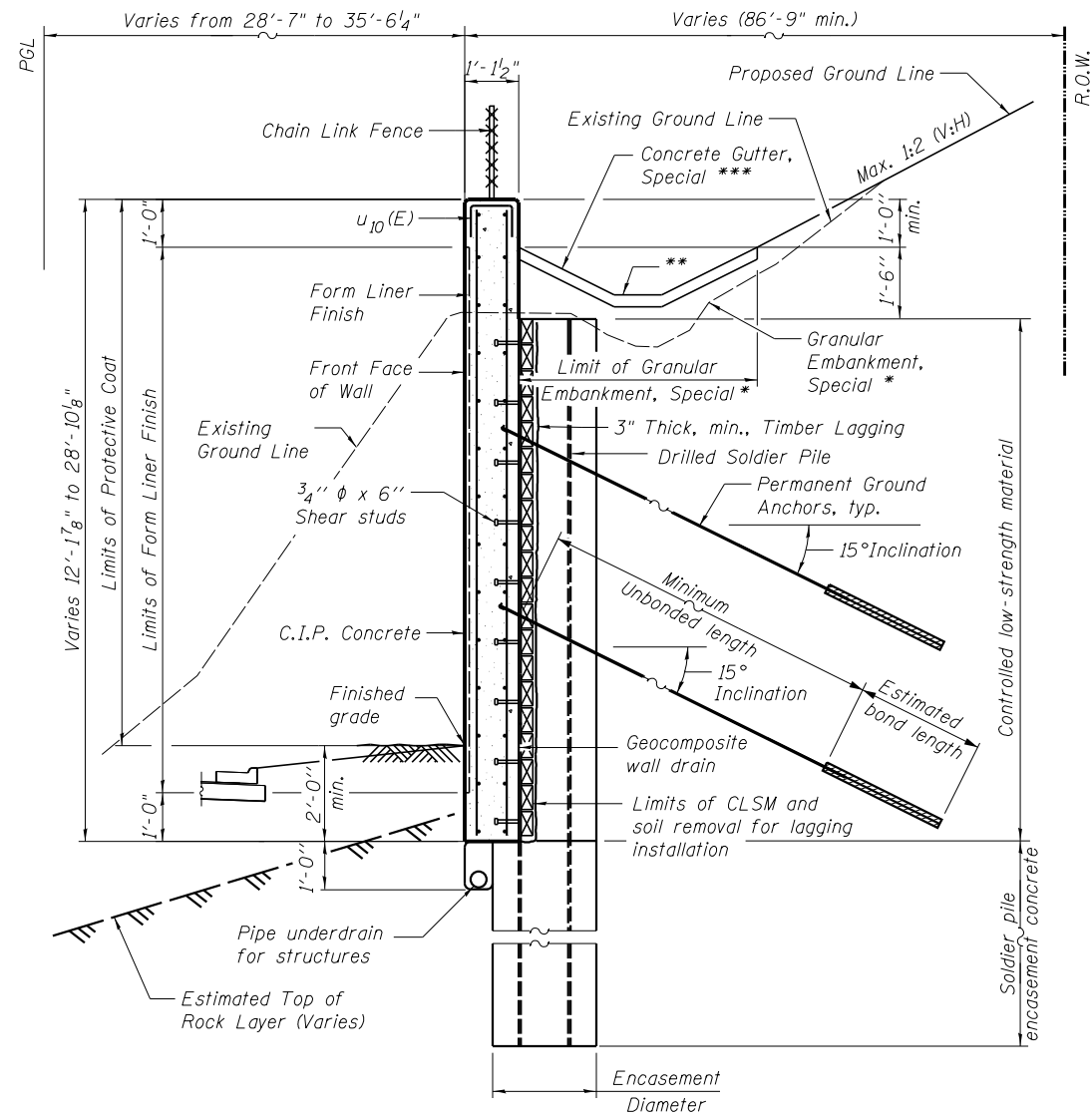
Number of studs shown in Pile and Anchor Schedules is per beam. There are two beams per built-up section.

Design Load is unfactored.

Design Load in Pile and Anchor Schedule is along anchor.

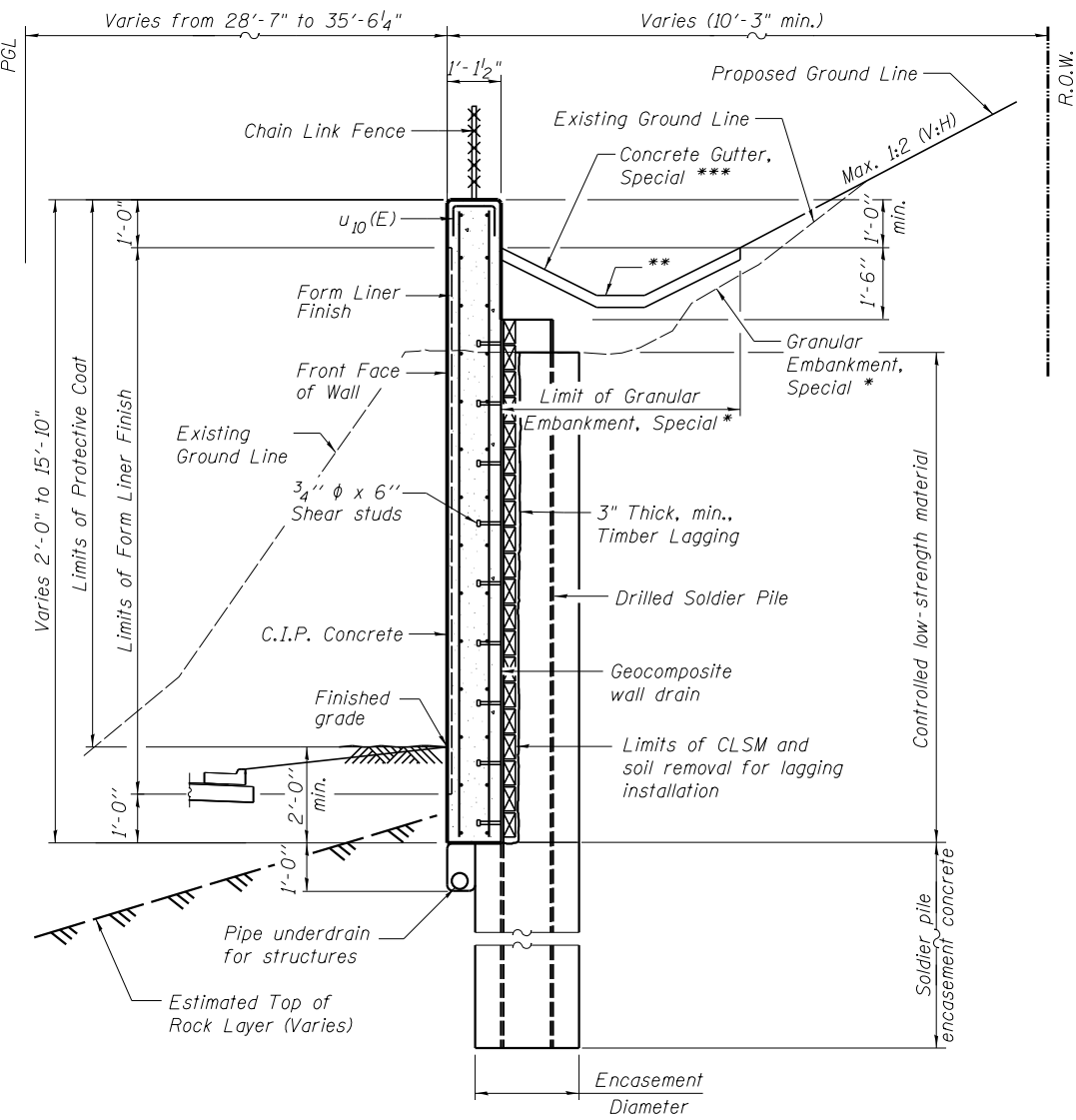
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PARSONS		CHECKED - RLD	REVISED -			17	104B-2	CARROLL	528	369	
PLOT SCALE =		DRAWN - SC	REVISED -			CONTRACT NO. 64G59					
PLOT DATE =		CHECKED - RLD	REVISED -			SHEET NO. SA-20 OF 41 SHEETS					
ILLINOIS FED. AID PROJECT											



WALL SECTION THRU DRILLED SOLDIER PILE WALL
(with Ground Anchor)

* See Roadway Plans for Quantity.
** Gutter Elevation
*** For Concrete Gutter Detail See Roadway Plans



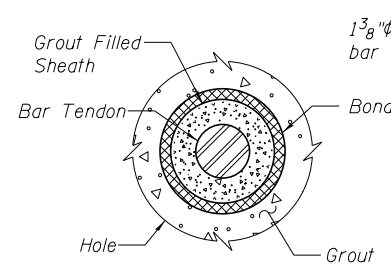
WALL SECTION THRU DRILLED SOLDIER PILE WALL

**** The Contractor shall furnish and install Permanent Ground Anchors meeting the requirements for design load and unbonded length as shown on the plans, and fitting within the R.O. W. limits of the site. All elements (drilled hole, sheath bondbreaker, encapsulation, tendons, bonded length, etc.) shall be selected and designed by the Contractor. All materials and work shall be in compliance with the special provision

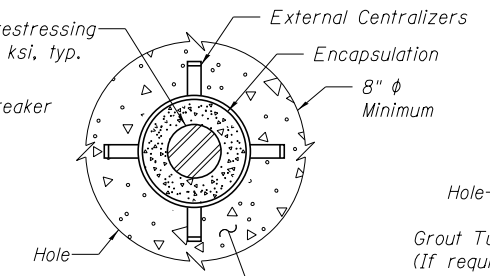
For Ground Anchor and Pile Encasement details see sheets SA-17 to SA-20.

SUGGESTED SEQUENCE OF CONSTRUCTION

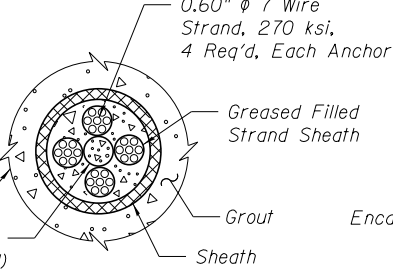
1. Drill holes for soldier piles. At locations where the soldier pile shaft excavations are adjacent to a proposed inlet behind the wall (see Roadway Plans for Drainage Details), the Contractor shall take appropriate measures to prevent the fluid CLSM placed in one shaft from breaking through the soil into an adjacent shaft due to the close proximity of the shafts.
2. Set soldier pile.
3. Place soldier pile encasement concrete and controlled low-strength material (CLSM), as shown on plans.
4. Begin earth excavation. Remove only earth and CLSM as necessary to install timber lagging.
5. Install permanent ground anchors. Earth excavation shall be no more than two feet below anchor location.
6. Test permanent ground anchors and fill cover with anti-corrosion grout.
7. Complete remaining earth excavation and installation of wall components as in Step 5.
8. Install geocomposite wall drain.
9. Install stud shear connectors.
10. Backfill timber lagging.
11. Construct concrete facing.



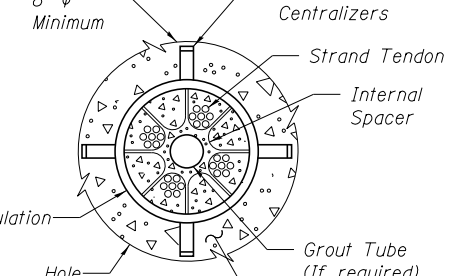
BAR TENDON DETAIL
(Unbonded)



BAR TENDON DETAIL
(Bonded)



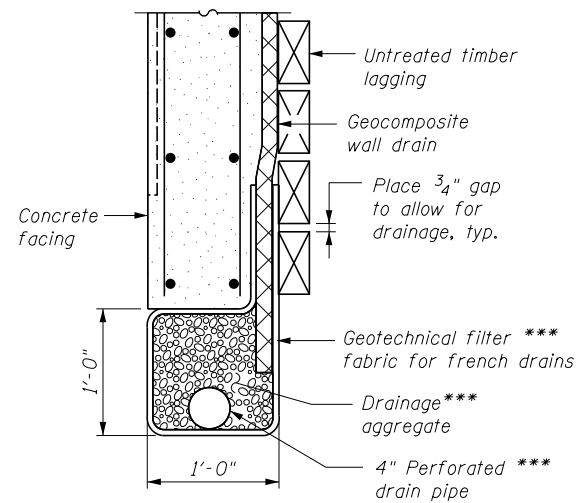
STRAND TENDON DETAIL
(Unbonded)



STRAND TENDON DETAIL
(Bonded)

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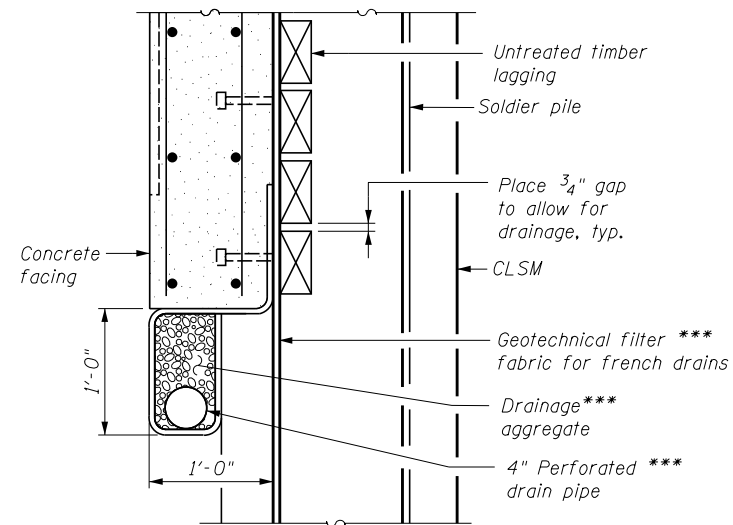
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	PLOT SCALE =	CHECKED - RLD	REVISED -			17	104B-2	CARROLL	528	370
	PLOT DATE =	DRAWN - SC	REVISED -			CONTRACT NO. 64G59		ILLINOIS FED. AID PROJECT		
		CHECKED - PK	REVISED -			SHEET NO. SA-21 OF 41 SHEETS				



PIPE UNDERDRAIN DETAIL

(between piles)

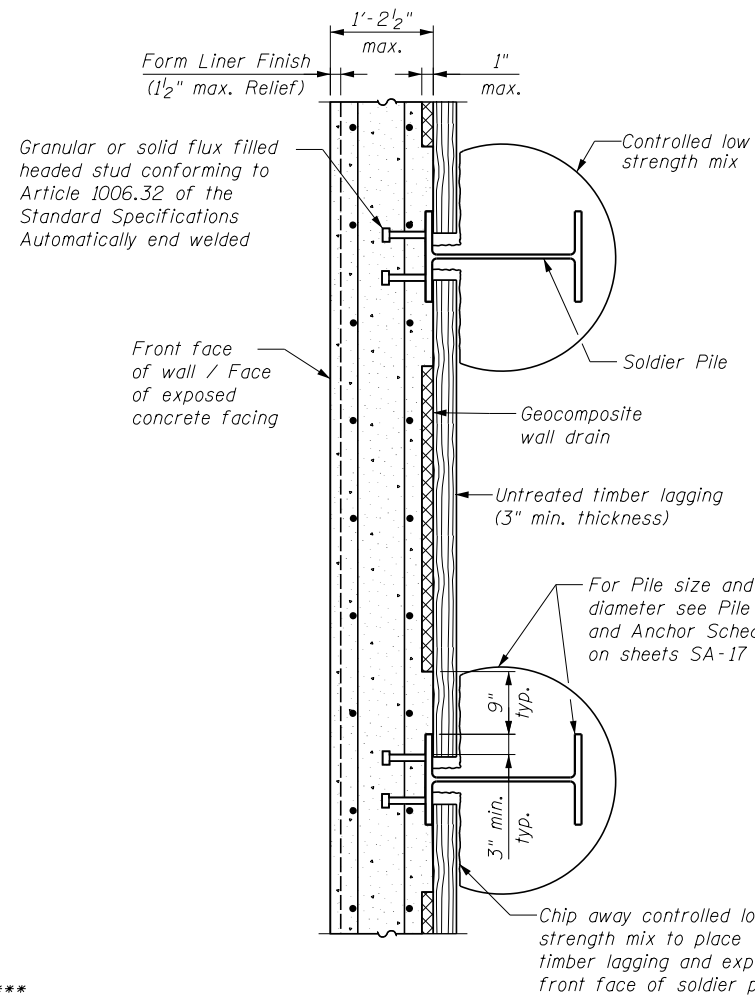
*** Included in the cost of Pipe Underdrains for Structures.



PIPE UNDERDRAIN DETAIL

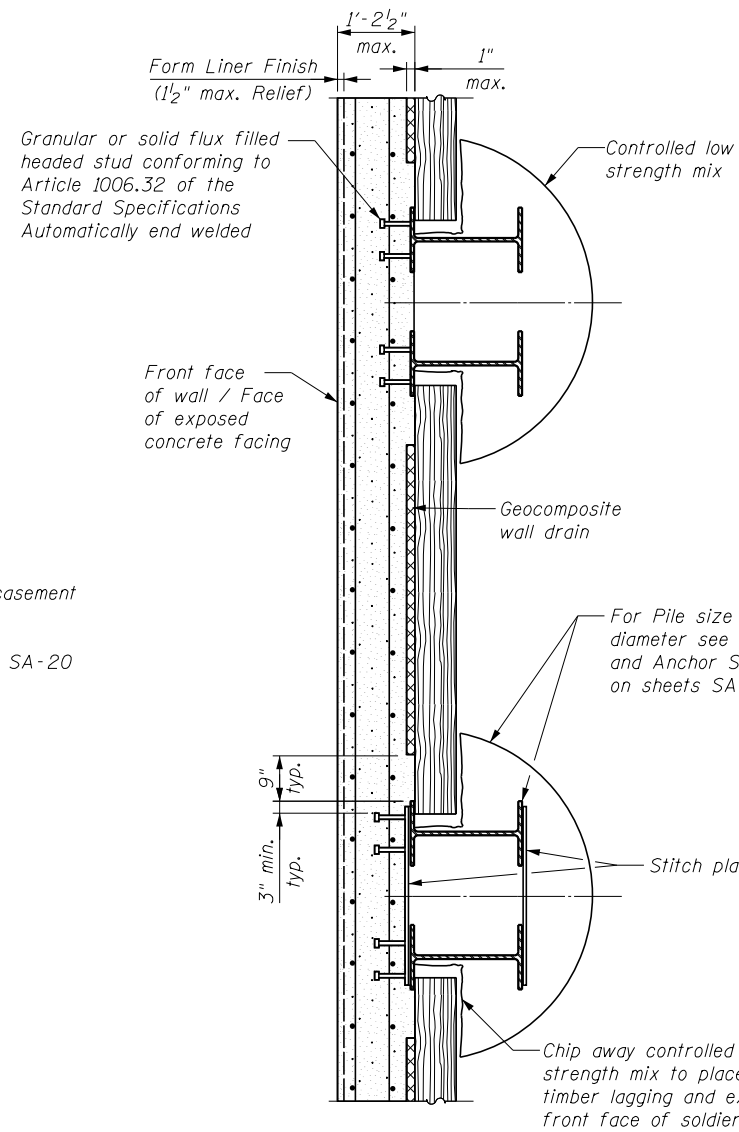
(at piles)

*** Included in the cost of Pipe Underdrains for Structures.



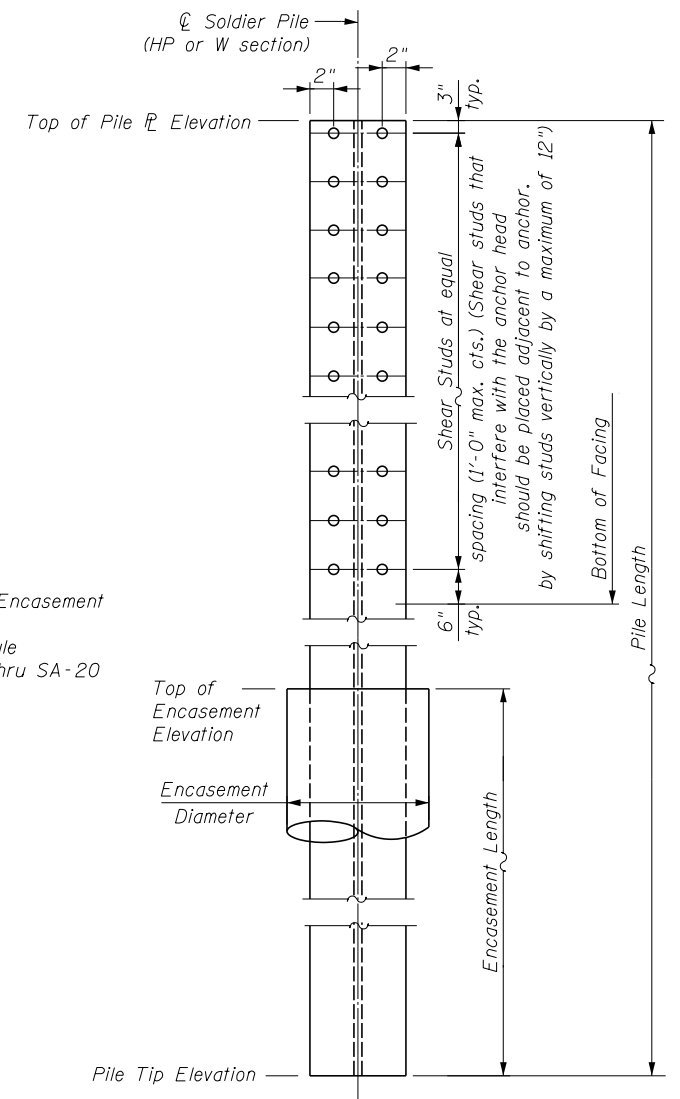
SECTION THRU DRILLED SOLDIER PILE WALL

(Without Ground anchors)

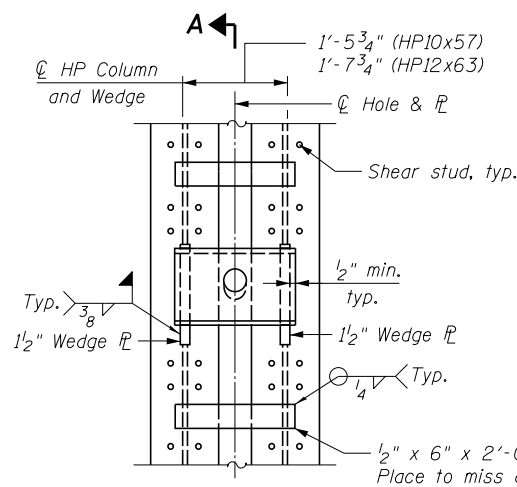


SECTION THRU DRILLED SOLDIER PILE WALL

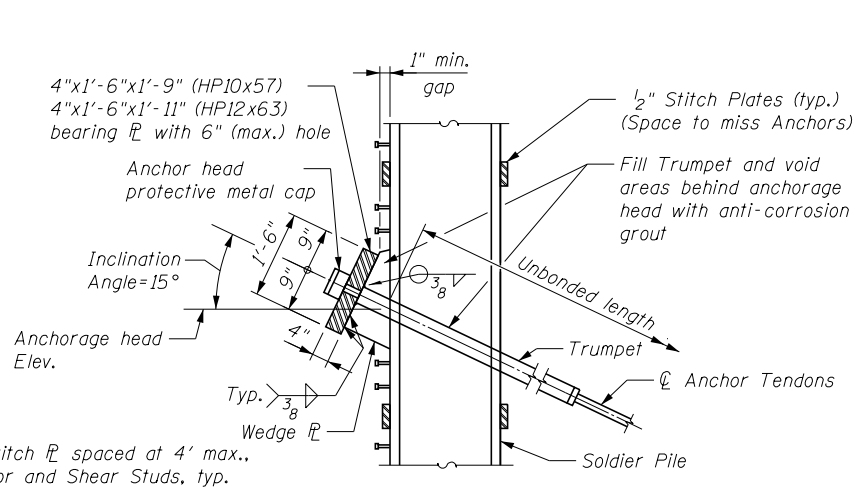
(With Ground anchors)



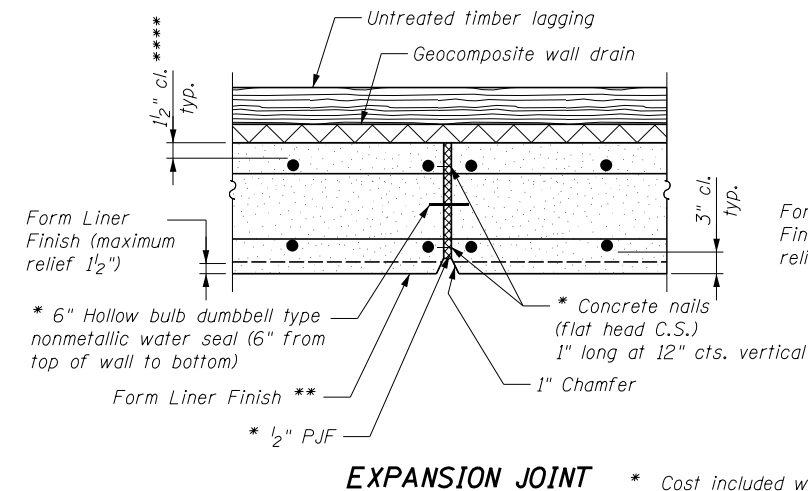
SOLDIER PILE ELEVATION AND SHEAR STUD CONNECTION DETAIL



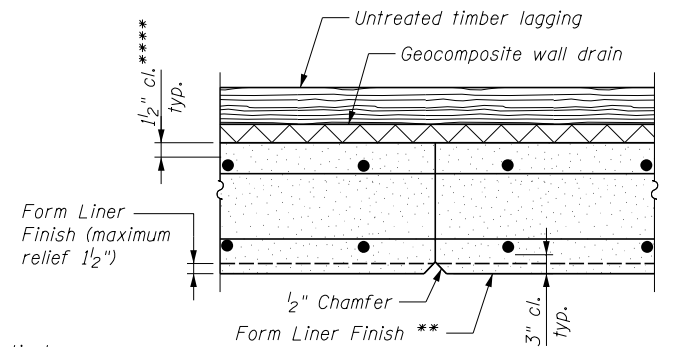
ELEVATION



SECTION A-A



EXPANSION JOINT

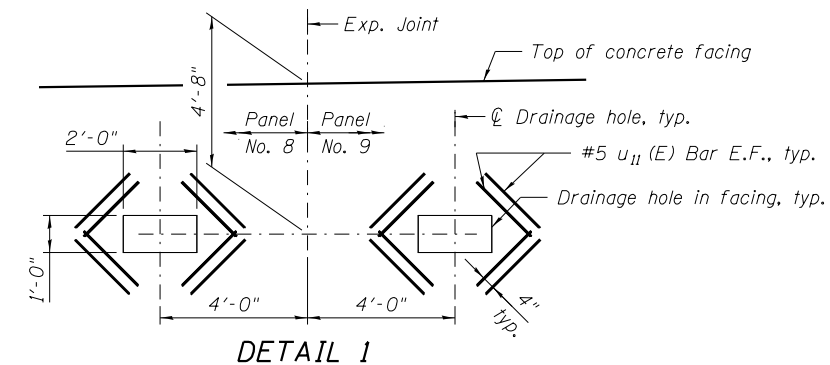
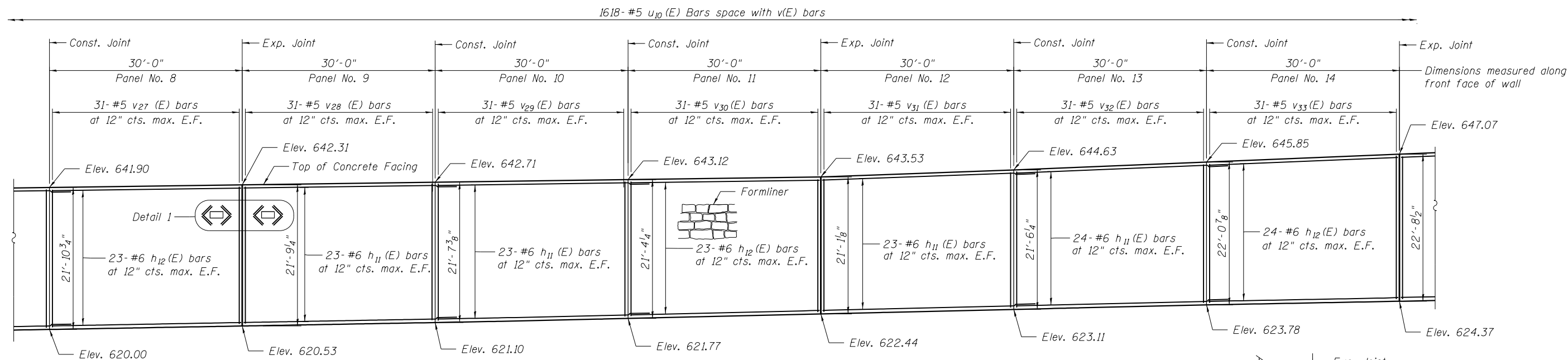
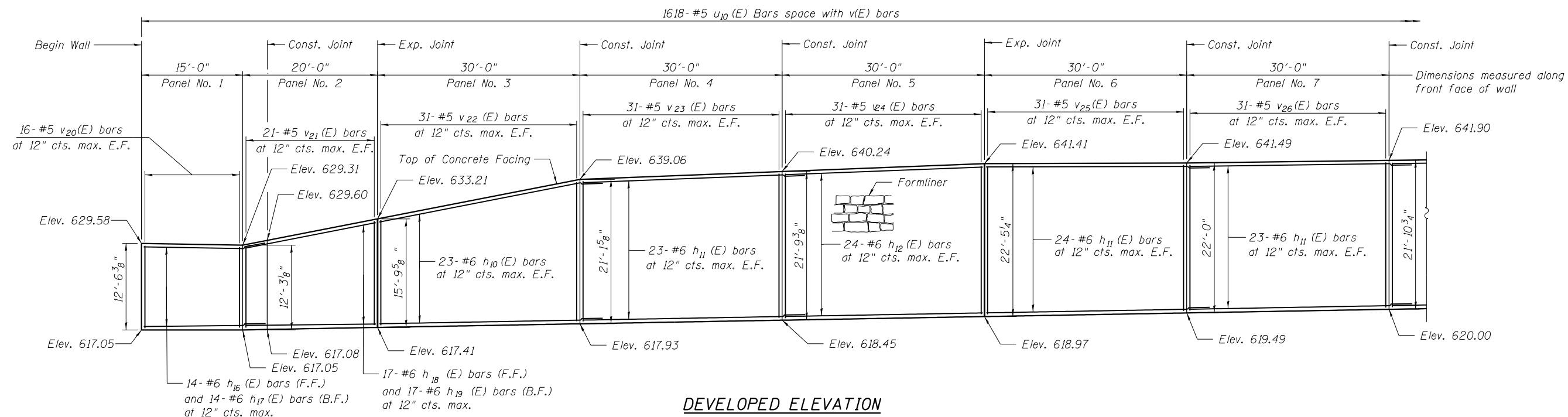


CONSTRUCTION JOINT

* Cost included with Concrete Structures
 ** Form Liner finish shall be continuous across construction and expansion joints with no interruption in the pattern.
 **** 1/2" cl. from geocomposite wall drain soldier pile flange, or stitch plate whichever thickness is greater. Geocomposite wall drain thickness shall not exceed 1 inch.

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	PLOT SCALE =	DRAWN - SC	REVISED -			17	104B-2	CARROLL	528	371
PLOT DATE =	CHECKED - PK	REVISED -	REVISED -	SHEET NO. SA-22 OF 41 SHEETS	ILLINOIS FED. AID PROJECT	CONTRACT NO. 64G59				

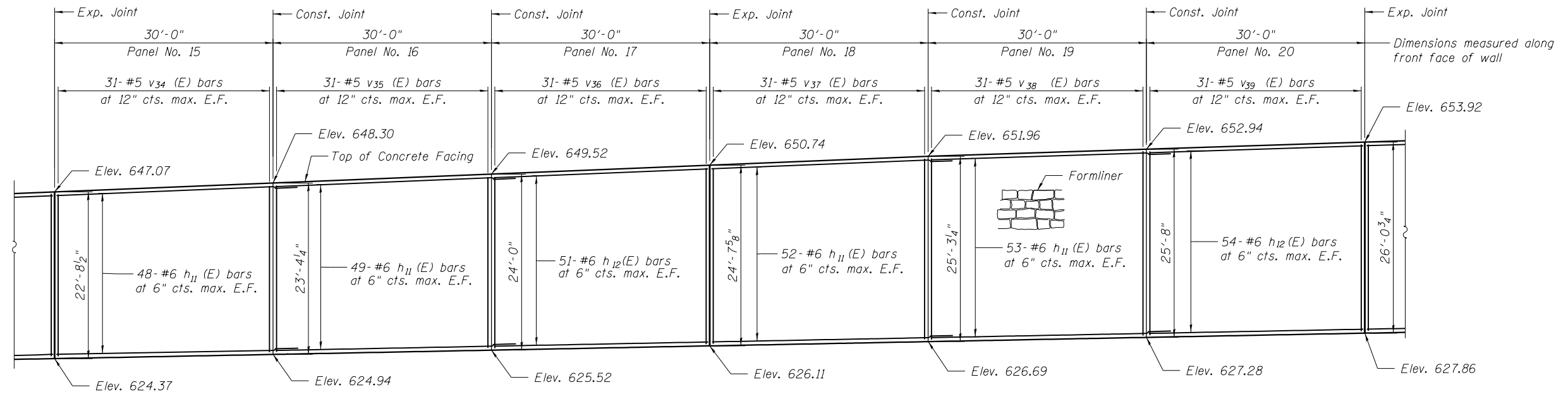


Notes:
 Reinforcement in wall shall be spaced to miss shear studs.
 See sheet SA-03 for Form Liner Details.
 Min. lap for #6 bar = 4'-5"

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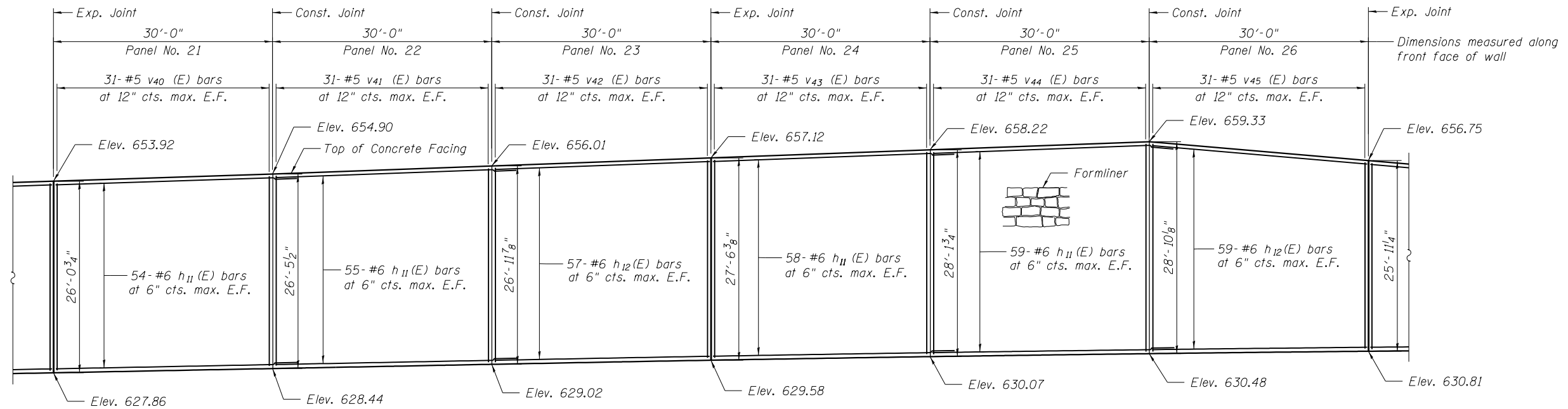
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PARSONS		CHECKED - RLD	REVISED -			CONTRACT NO. 64G59					
PLOT SCALE =		DRAWN - SC	REVISED -			ILLINOIS FED. AID PROJECT					
PLOT DATE =		CHECKED - RLD	REVISED -			SHEET NO. SA-23 OF 41 SHEETS					

1618-#5 u₁₀ (E) Bars space with v(E) bars



DEVELOPED ELEVATION

1618-#5 u₁₀ (E) Bars space with v(E) bars

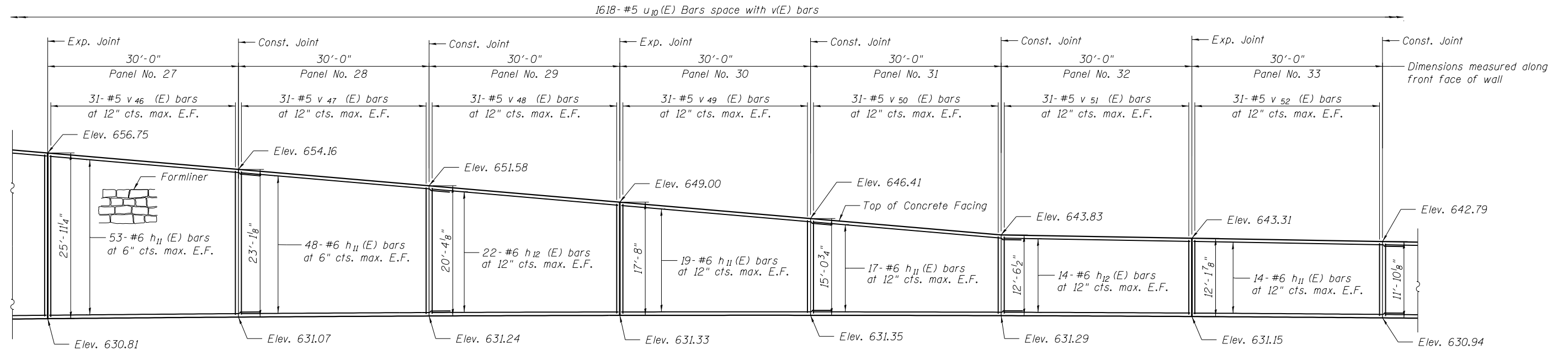


DEVELOPED ELEVATION

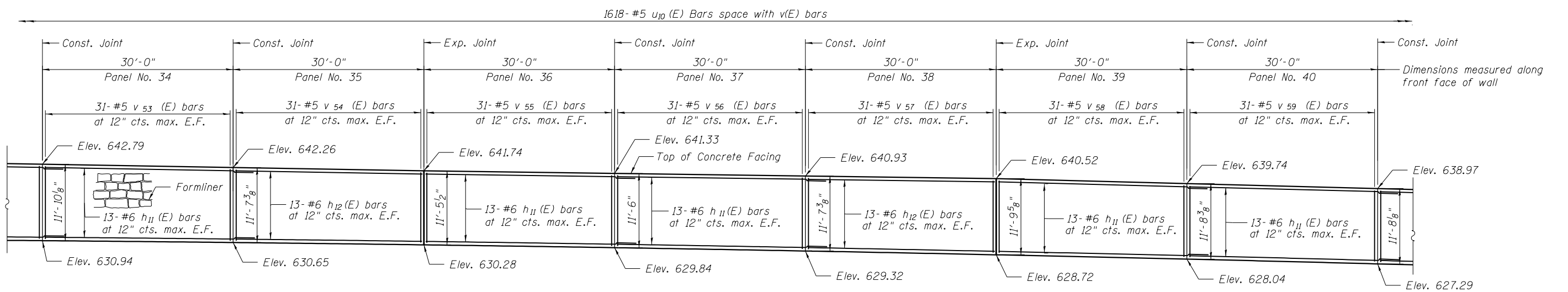
Notes:
 Reinforcement in wall shall be spaced to miss shear studs.
 See sheet SA-03 for Form Liner Details.
 Min. lap for #6 bar = 4'-5"

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PLOT DATE =	CHECKED - RLD	REVISED -	REVISED -	SHEET NO. SA-24 OF 41 SHEETS		CONTRACT NO. 64G59			ILLINOIS FED. AID PROJECT	



DEVELOPED ELEVATION

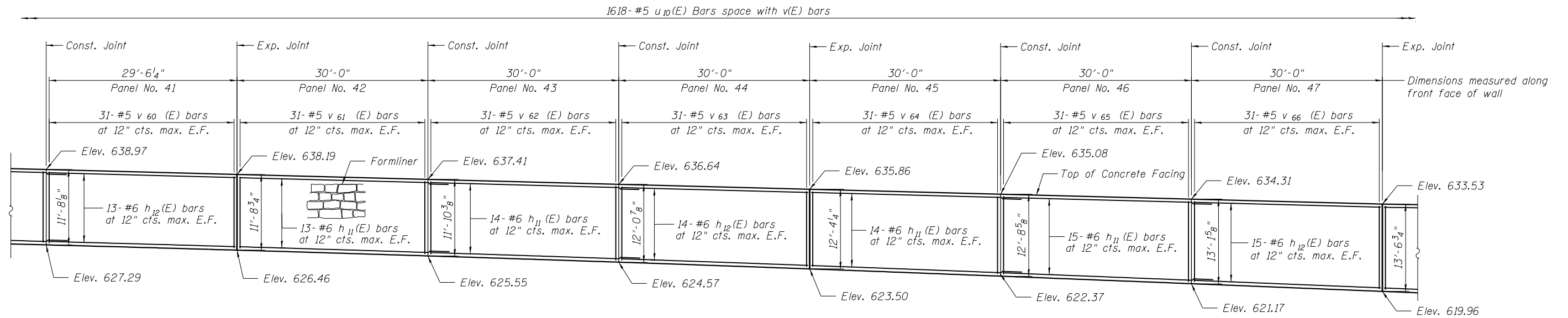


DEVELOPED ELEVATION

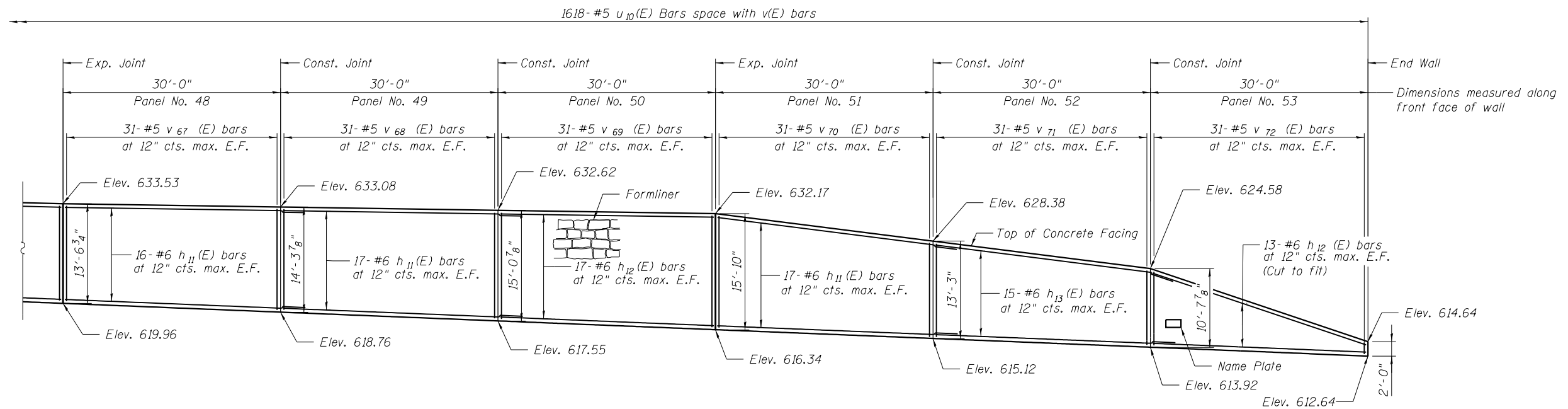
Notes:
 Reinforcement in wall shall be spaced to miss shear studs.
 See sheet SA-03 for Form Liner Details.
 Min. lap for #6 bar = 4'-5"

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PARSONS		CHECKED - RLD	REVISED -			17	104B-2	CARROLL	528	374	
PLOT SCALE =		DRAWN - SC	REVISED -			CONTRACT NO. 64G59					
PLOT DATE =		CHECKED - RLD	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. SA-25 OF 41 SHEETS					



DEVELOPED ELEVATION



DEVELOPED ELEVATION

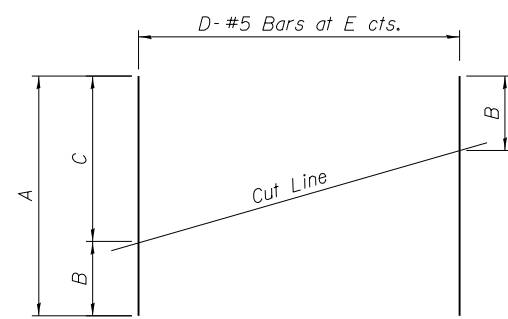
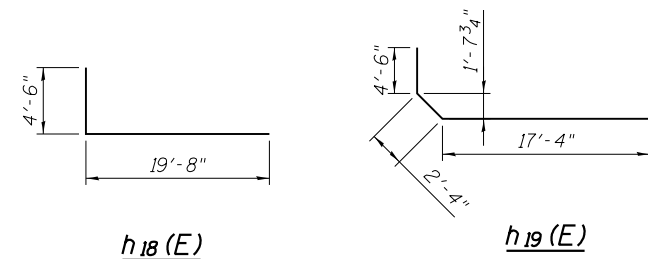
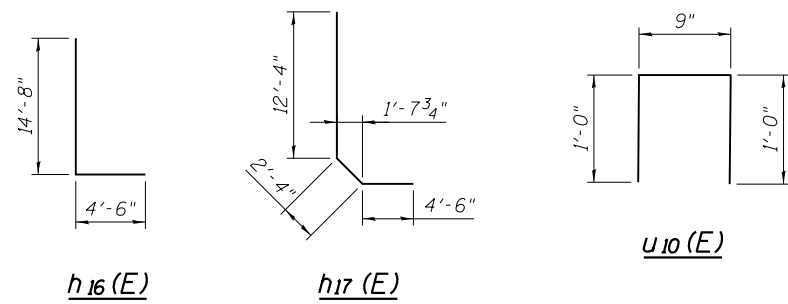
Notes:
 Reinforcement in wall shall be spaced to miss shear studs.
 See sheet SA-03 for Form Liner Details.
 Min. lap for #6 bar = 4'-5"

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PARSONS		CHECKED - RLD	REVISED -			17	104B-2	CARROLL	528	375
PLOT SCALE =		DRAWN - SC	REVISED -			CONTRACT NO. 64G59				
PLOT DATE =		CHECKED - RLD	REVISED -			SHEET NO. SA-26 OF 41 SHEETS				
						ILLINOIS FED. AID PROJECT				

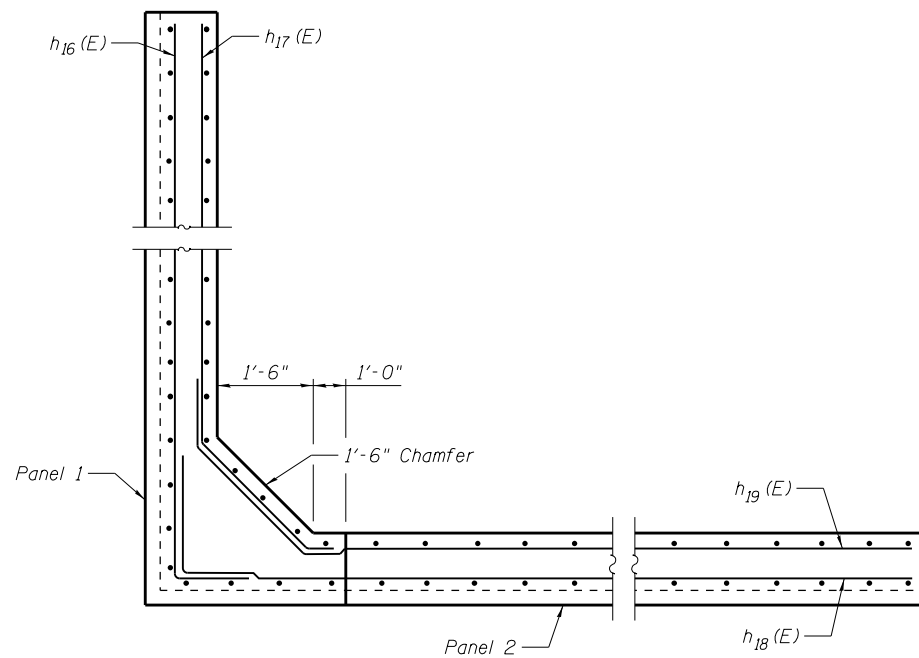
BAR LIST

BAR	NO.	SIZE	LENGTH	SHAPE
h10(E)	46	#6	35'-0"	—
h11(E)	1826	#6	34'-9"	—
h12(E)	898	#6	29'-8"	—
h13(E)	338	#6	35'-9"	—
h16(E)	14	#6	14'-8"	—
h17(E)	17	#6	19'-2"	—
h18(E)	14	#6	24'-2"	—
h19(E)	17	#6	24'-2"	—
v20(E)	16	#5	24'-1"	—
v21(E)	21	#5	27'-5"	—
v22(E)	31	#5	36'-4"	—
v23(E)	31	#5	42'-3"	—
v24(E)	31	#5	43'-6"	—
v25(E)	31	#5	43'-9"	—
v26(E)	31	#5	43'-3"	—
v27(E)	31	#5	43'-0"	—
v28(E)	31	#5	42'-8"	—
v29(E)	31	#5	42'-3"	—
v30(E)	31	#5	41'-9"	—
v31(E)	31	#5	41'-11"	—
v32(E)	31	#5	42'-11"	—
v33(E)	31	#5	44'-1"	—
v34(E)	31	#5	45'-4"	—
v35(E)	31	#5	46'-8"	—
v36(E)	31	#5	48'-0"	—
v37(E)	31	#5	49'-3"	—
v38(E)	31	#5	50'-3"	—
v39(E)	31	#5	51'-1"	—
v40(E)	31	#5	51'-11"	—
v41(E)	31	#5	52'-10"	—
v42(E)	31	#5	53'-10"	—
v43(E)	31	#5	55'-0"	—
v44(E)	31	#5	56'-4"	—
v45(E)	31	#5	54'-1"	—
v46(E)	31	#5	48'-4"	—
v47(E)	31	#5	42'-9"	—
v48(E)	31	#5	37'-4"	—
v49(E)	31	#5	32'-1"	—
v50(E)	31	#5	26'-11"	—
v51(E)	31	#5	24'-0"	—
v52(E)	31	#5	23'-4"	—
v53(E)	31	#5	22'-9"	—
v54(E)	31	#5	22'-4"	—
v55(E)	31	#5	22'-3"	—
v56(E)	31	#5	22'-5"	—
v57(E)	31	#5	22'-9"	—
v58(E)	31	#5	22'-10"	—
v59(E)	31	#5	22'-8"	—
v60(E)	31	#5	22'-9"	—
v61(E)	31	#5	22'-11"	—
v62(E)	31	#5	23'-3"	—
v63(E)	31	#5	23'-9"	—
v64(E)	31	#5	24'-5"	—
v65(E)	31	#5	25'-3"	—
v66(E)	31	#5	26'-1"	—
v67(E)	31	#5	27'-3"	—
v68(E)	31	#5	28'-9"	—
v69(E)	31	#5	30'-3"	—
v70(E)	31	#5	28'-5"	—
v71(E)	31	#5	23'-3"	—
v72(E)	31	#5	12'-0"	—
u10(E)	1618	#4	2'-9"	—
u11(E)	32	#5	3'-0"	—



BAR CUTTING DIAGRAM

Order bars full length and cut as shown



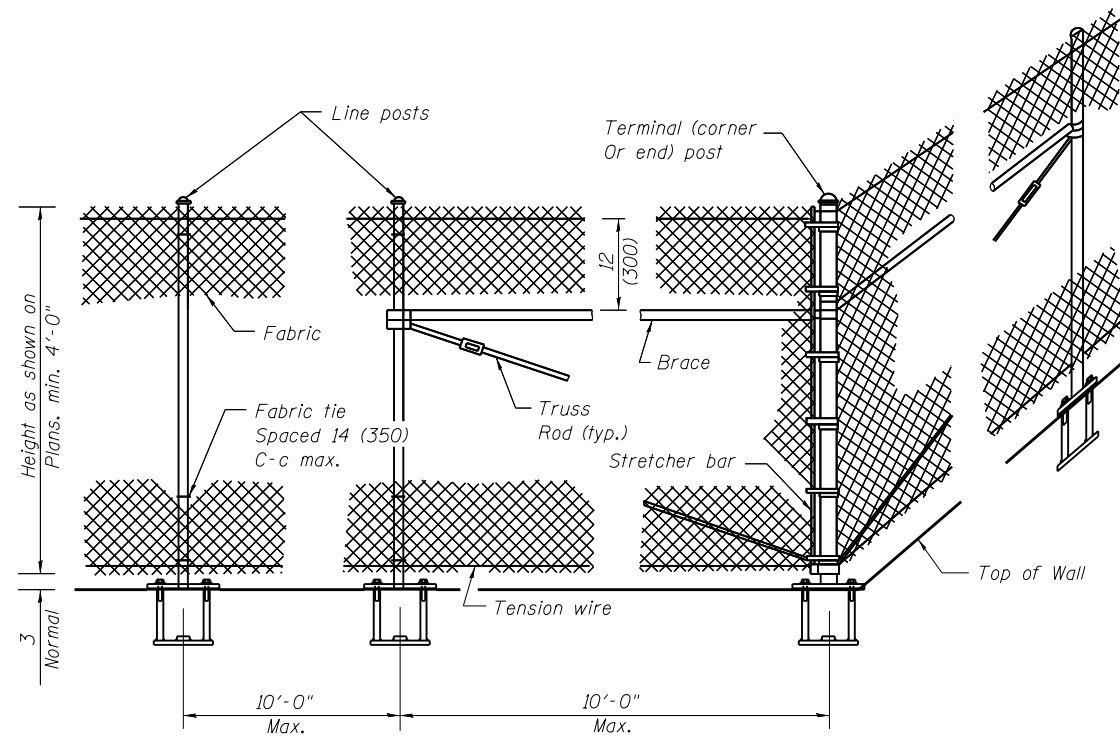
CORNER DETAIL

BAR TABLE SCHEDULE

BAR	A	B	C	D	E
v20(E)	24'-1"	12'-2"	11'-11"	16	1'-0"
v21(E)	27'-5"	11'-11"	15'-6"	21	1'-0"
v22(E)	36'-4"	15'-6"	20'-10"	31	1'-0"
v23(E)	42'-3"	20'-10"	21'-5"	31	1'-0"
v24(E)	43'-6"	21'-5"	22'-1"	31	1'-0"
v25(E)	43'-9"	22'-1"	21'-8"	31	1'-0"
v26(E)	43'-3"	21'-8"	21'-7"	31	1'-0"
v27(E)	43'-0"	21'-7"	21'-5"	31	1'-0"
v28(E)	42'-8"	21'-5"	21'-3"	31	1'-0"
v29(E)	42'-3"	21'-3"	21'-0"	31	1'-0"
v30(E)	41'-9"	21'-0"	20'-9"	31	1'-0"
v31(E)	41'-11"	20'-9"	21'-2"	31	1'-0"
v32(E)	42'-11"	21'-2"	21'-9"	31	1'-0"
v33(E)	44'-1"	21'-9"	22'-4"	31	1'-0"
v34(E)	45'-4"	22'-4"	23'-0"	31	1'-0"
v35(E)	46'-8"	23'-0"	23'-8"	31	1'-0"
v36(E)	48'-0"	23'-8"	24'-4"	31	1'-0"
v37(E)	49'-3"	24'-4"	24'-11"	31	1'-0"
v38(E)	50'-3"	24'-11"	25'-4"	31	1'-0"
v39(E)	51'-1"	25'-4"	25'-9"	31	1'-0"
v40(E)	51'-11"	25'-9"	26'-2"	31	1'-0"
v41(E)	52'-10"	26'-2"	26'-8"	31	1'-0"
v42(E)	53'-10"	26'-8"	27'-2"	31	1'-0"
v43(E)	55'-0"	27'-2"	27'-10"	31	1'-0"
v44(E)	56'-4"	27'-10"	28'-6"	31	1'-0"
v45(E)	54'-1"	28'-6"	25'-7"	31	1'-0"
v46(E)	48'-4"	25'-7"	22'-9"	31	1'-0"
v47(E)	42'-9"	22'-9"	20'-0"	31	1'-0"
v48(E)	37'-4"	20'-0"	17'-4"	31	1'-0"
v49(E)	32'-1"	17'-4"	14'-9"	31	1'-0"
v50(E)	26'-11"	14'-9"	12'-2"	31	1'-0"
v51(E)	24'-0"	12'-2"	11'-10"	31	1'-0"
v52(E)	23'-4"	11'-10"	11'-6"	31	1'-0"
v53(E)	22'-9"	11'-6"	11'-3"	31	1'-0"
v54(E)	22'-4"	11'-3"	11'-1"	31	1'-0"
v55(E)	22'-3"	11'-1"	11'-2"	31	1'-0"
v56(E)	22'-5"	11'-2"	11'-3"	31	1'-0"
v57(E)	22'-9"	11'-3"	11'-6"	31	1'-0"
v58(E)	22'-10"	11'-6"	11'-4"	31	1'-0"
v59(E)	22'-8"	11'-4"	11'-4"	31	1'-0"
v60(E)	22'-9"	11'-4"	11'-5"	31	1'-0"
v61(E)	22'-11"	11'-5"	11'-6"	31	1'-0"
v62(E)	23'-3"	11'-6"	11'-9"	31	1'-0"
v63(E)	23'-9"	11'-9"	12'-0"	31	1'-0"
v64(E)	24'-5"	12'-0"	12'-5"	31	1'-0"
v65(E)	25'-3"	12'-5"	12'-10"	31	1'-0"
v66(E)	26'-1"	12'-10"	13'-3"	31	1'-0"
v67(E)	27'-3"	13'-3"	14'-0"	31	1'-0"
v68(E)	28'-9"	14'-0"	14'-9"	31	1'-0"
v69(E)	30'-3"	14'-9"	15'-6"	31	1'-0"
v70(E)	28'-5"	15'-6"	12'-11"	31	1'-0"
v71(E)	23'-3"	12'-11"	10'-4"	31	1'-0"
v72(E)	12'-0"	10'-4"	1'-8"	31	1'-0"

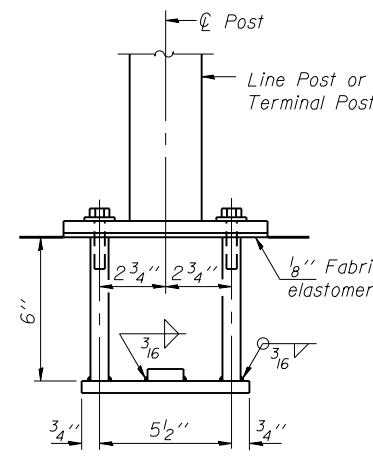
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	SHEET NO. SA-27 OF 41 SHEETS				ILLINOIS FED. AID PROJECT



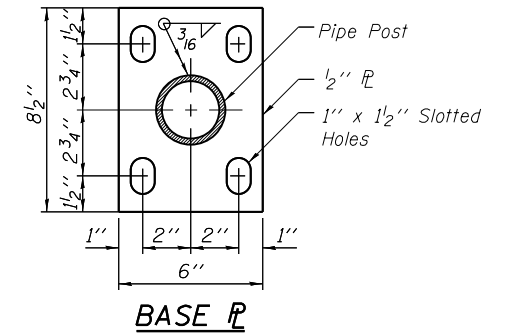
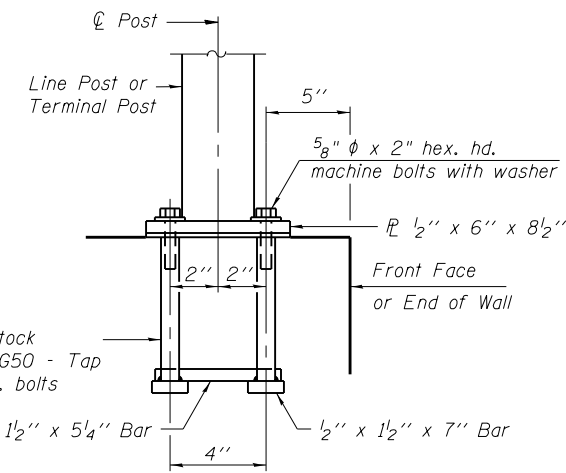
LINE POST ARRANGEMENT

CORNER OR END POST ARRANGEMENT



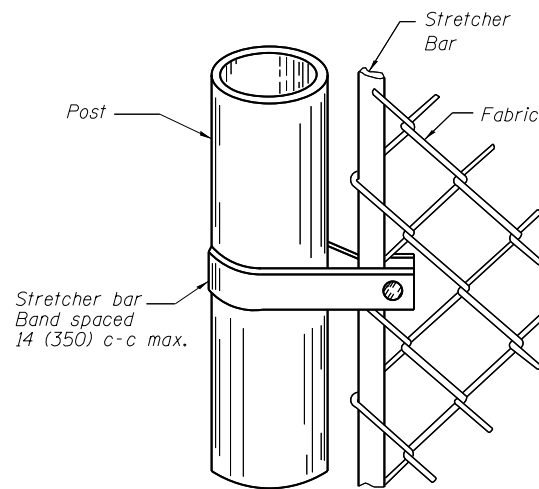
ANCHOR BOLT DETAILS

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

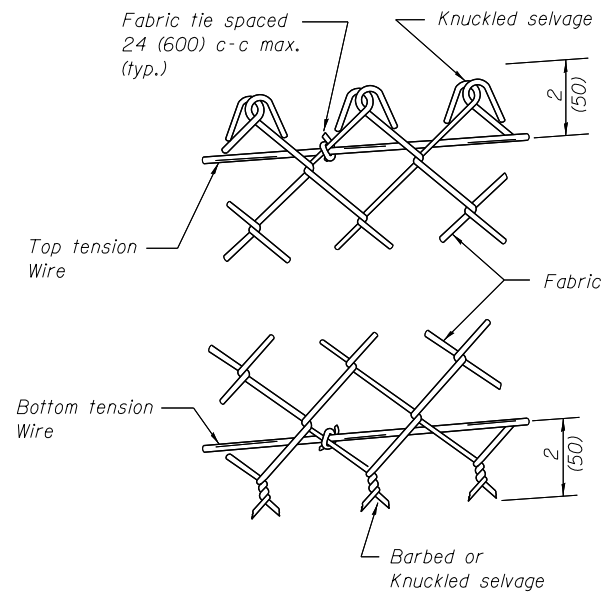


BILL OF MATERIAL

ITEM	UNIT	TOTAL
Chain Link Fence, 4' Attached to Structure	Foot	1565



METHOD OF FASTENING STRETCHER BAR TO POST



METHOD OF TYING FABRIC TO TENSION WIRES

Notes:
Wire fabric, Posts, Fence framework, Tension wire, Fabric ties, and fittings shall be vinyl-coated (black).

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FILE NAME =	USER NAME =	DESIGNED - PK	REVISED -
PARSONS		CHECKED - RLD	REVISED -
	PLOT SCALE =	DRAWN - SC	REVISED -
	PLOT DATE =	CHECKED - RLD	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE ATTACHED TO STRUCTURE
STRUCTURE NO. 008-7001

SHEET NO. SA-28 OF 41 SHEETS

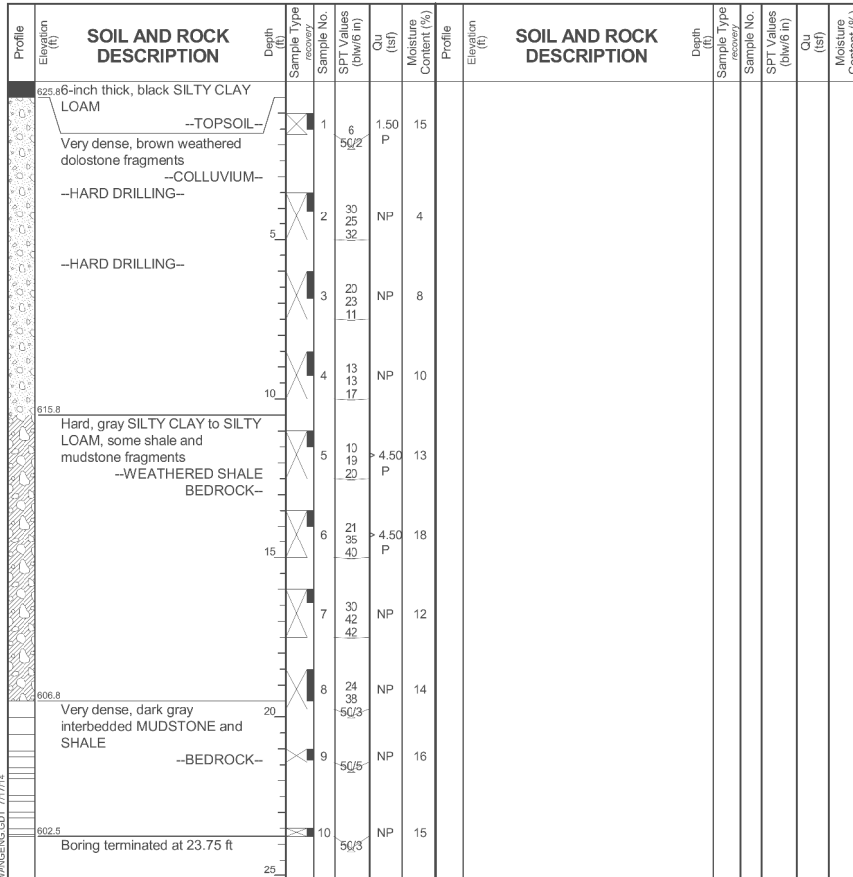
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL	528	377
				CONTRACT NO. 64G59

ILLINOIS FED. AID PROJECT

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RW-01
 WEI Job No.: 342-06-02
 Client: **PARSONS**
 Project: **US 52 over Mississippi River and IL 84 Retaining Wall**
 Location: **Carroll County, IL**

Datum: NAVD 88
 Elevation: 626.25 ft
 North: 1979857.76 ft
 East: 2299120.56 ft
 Station: 710+26.71
 Offset: 36.96 RT

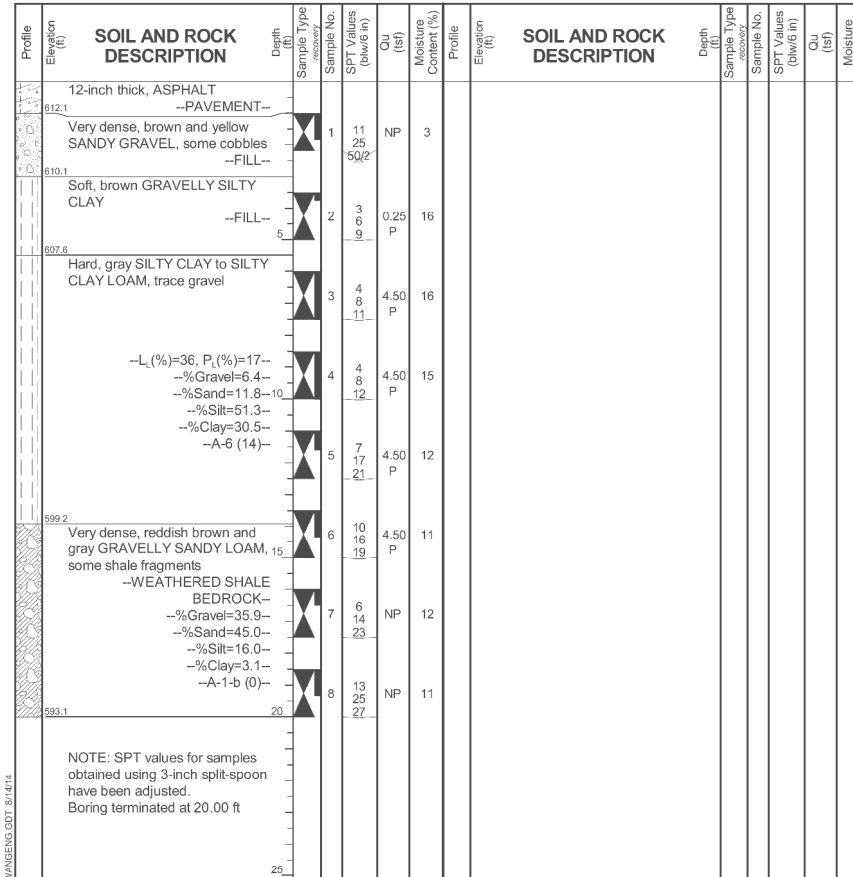


GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	11-21-2011	Complete Drilling	11-21-2011	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Services	Drill Rig	B-57 TMR	At Completion of Drilling	▽	DRY	
Driller	R&N	Logger	F. Bozga	Checked by	C. Marin	NA	
Drilling Method	3.5" HSA	Depth to Water	7	NA			

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-01
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 613.08 ft
 North: 1979795.75 ft
 East: 2299061.45 ft
 Station: 709+59.03
 Offset: 01.10 RT

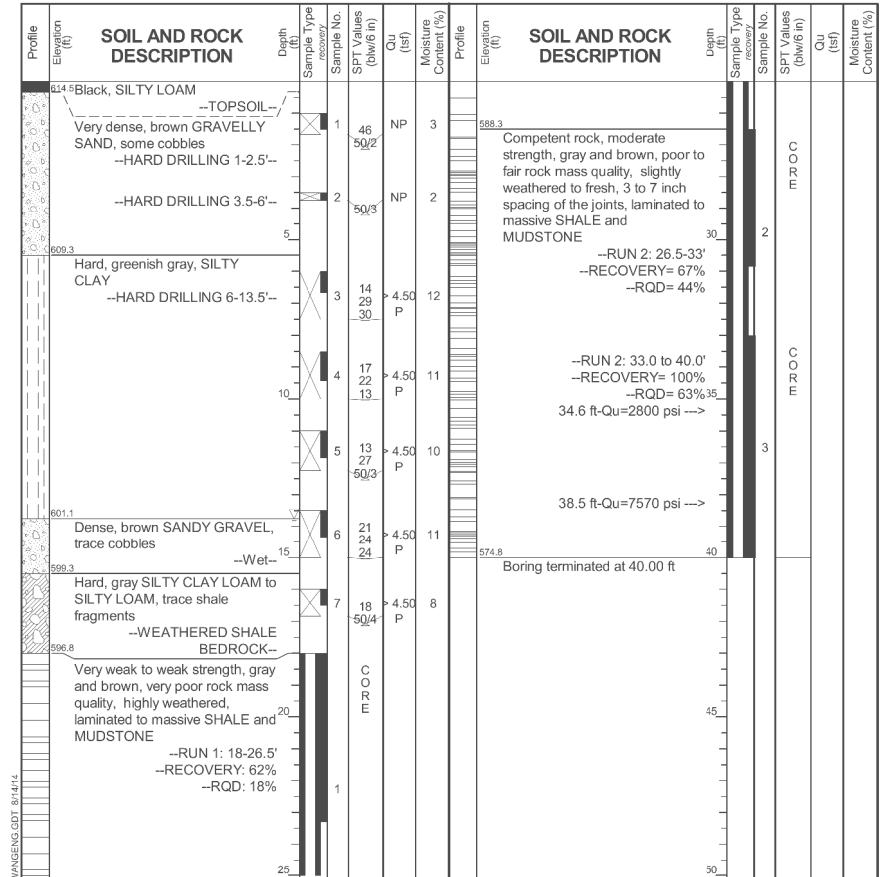


GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-13-2013	Complete Drilling	12-13-2013	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Services	Drill Rig	CME 55 TMR	At Completion of Drilling	▽	DRY	
Driller	R&N	Logger	A. Tomaras	Checked by	C. Marin	NA	
Drilling Method	3.25" HSA, boring backfilled upon completion	Depth to Water	7	NA			

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

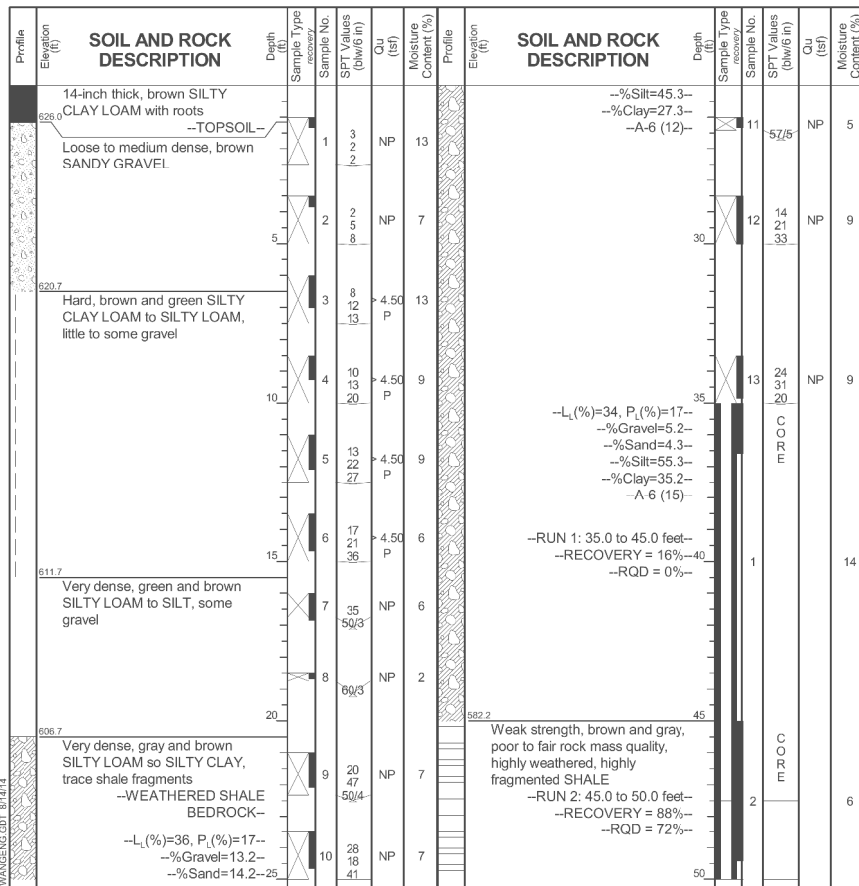
BORING LOG 84-RWB-01A
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 614.83 ft
 North: 1979790.91 ft
 East: 2299093.98 ft
 Station: 709+53.35
 Offset: 33.49 RT



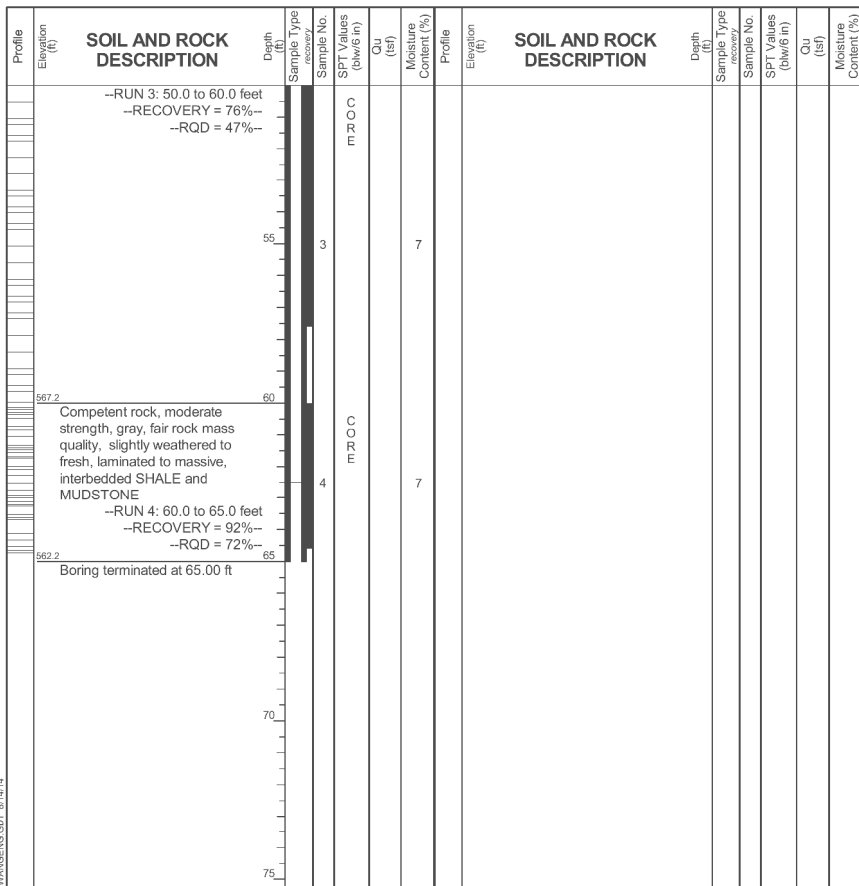
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-08-2014	Complete Drilling	05-08-2014	While Drilling	▽	13.75 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R&J	Logger	A. Tomaras	Checked by	C. Marin	NA	
Drilling Method	3.25" HSA, boring backfilled upon completion	Depth to Water	7	NA			

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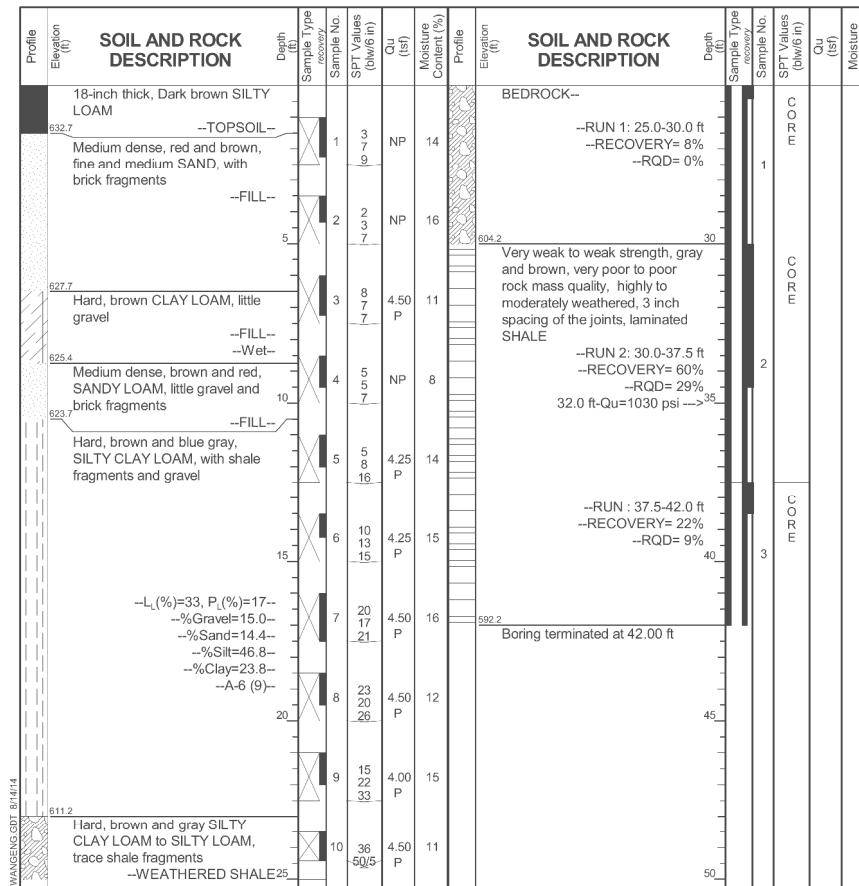
GENERAL NOTES
 Begin Drilling 07-08-2014 Complete Drilling 07-08-2014
 Drilling Contractor Wang Testing Services Drill Rig D-50 Turbo ATV
 Driller K&P Logger M. de los Reyes Checked by C. Marin
 Drilling Method 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA



GENERAL NOTES
 Begin Drilling 07-08-2014 Complete Drilling 07-08-2014
 Drilling Contractor Wang Testing Services Drill Rig D-50 Turbo ATV
 Driller K&P Logger M. de los Reyes Checked by C. Marin
 Drilling Method 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water NA



GENERAL NOTES
 Begin Drilling 06-10-2014 Complete Drilling 06-10-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&K Logger A. Happel Checked by C. Marin
 Drilling Method 2.25" HSA, 2.5' interval to 25', Rock core thereafter

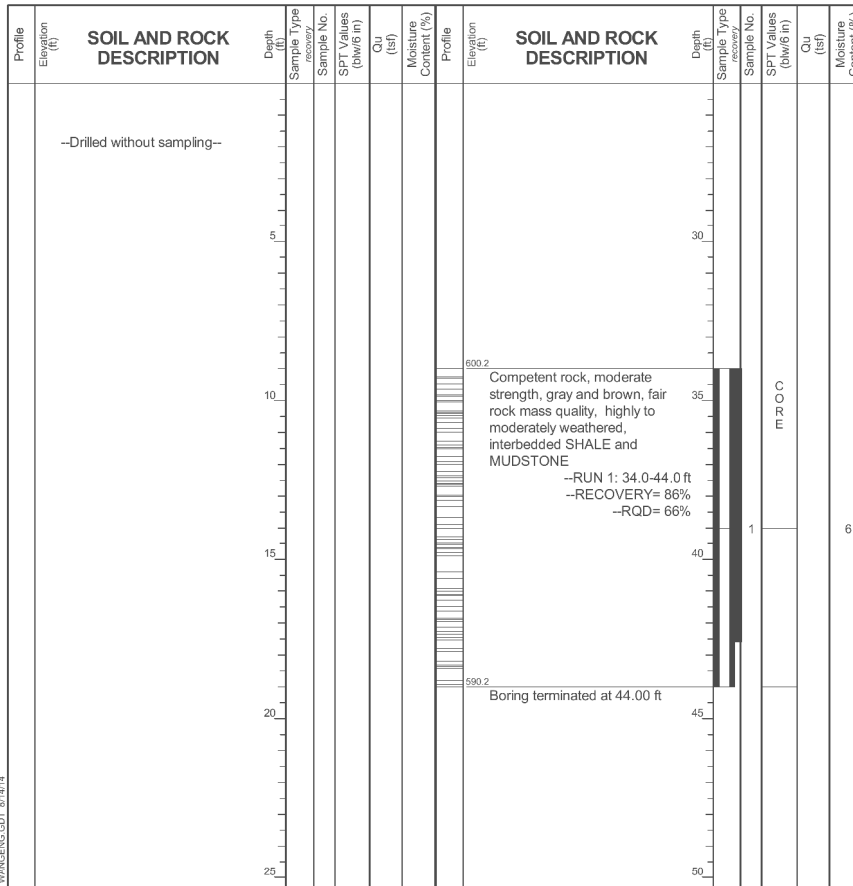
WATER LEVEL DATA
 While Drilling NA
 At Completion of Drilling 12.5 (MUD)
 Time After Drilling NA
 Depth to Water NA

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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-03A
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 634.19 ft
 North: 1979928.56 ft
 East: 2299108.70 ft
 Station:
 Offset:

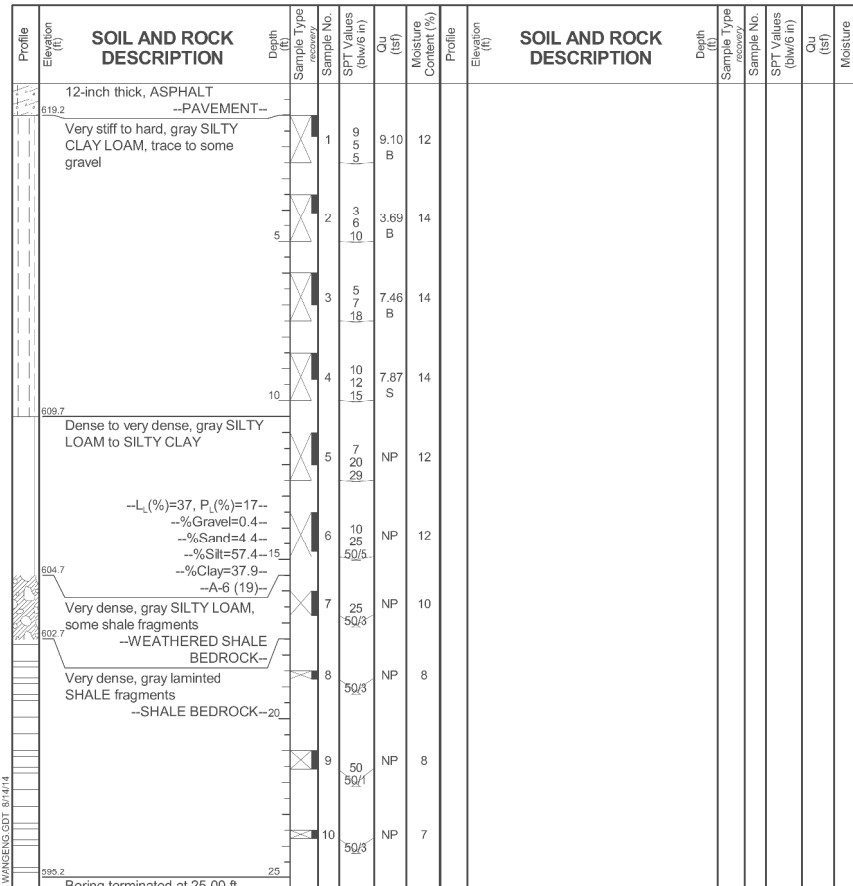


GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-08-2014	Complete Drilling	07-08-2014	While Drilling	NA	At Completion of Drilling	NA
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 Turbo ATV	Time After Drilling	NA	Depth to Water	NA
Driller	K&P	Logger	M. de los Reyes	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			
Drilling Method	3.25" HSA, boring backfilled upon completion						

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-04
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 620.24 ft
 North: 1980034.13 ft
 East: 2299057.75 ft
 Station: 711+97.10
 Offset: 08.96 RT

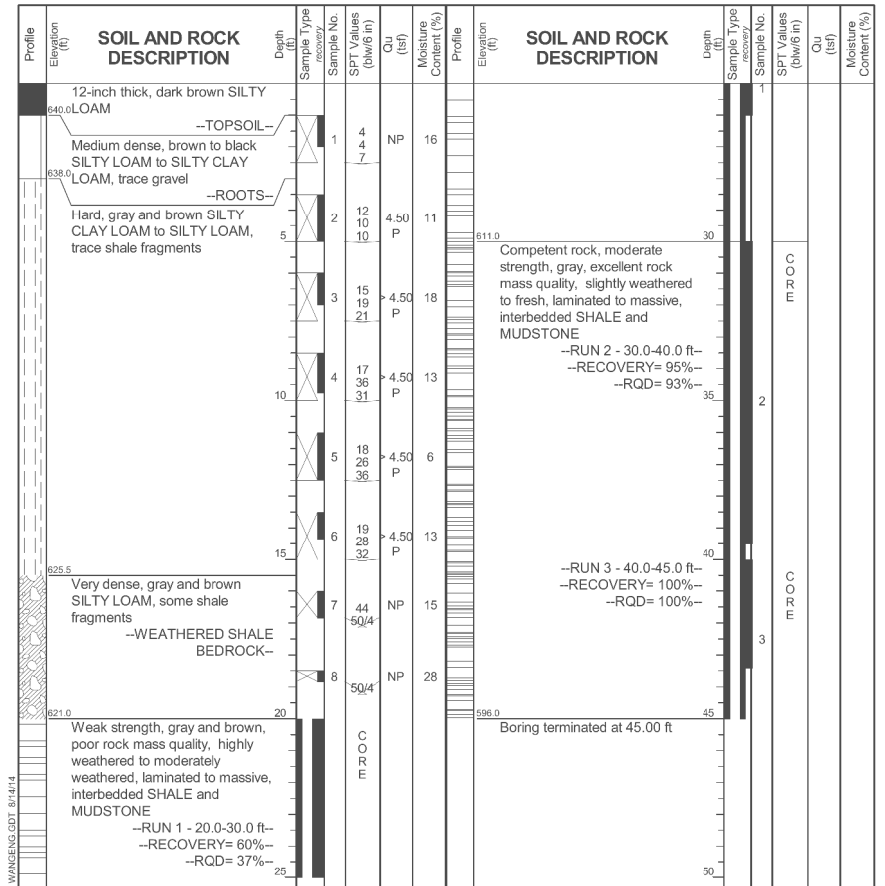


GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-13-2013	Complete Drilling	12-13-2013	While Drilling	DRY	At Completion of Drilling	DRY
Drilling Contractor	Wang Testing Services	Drill Rig	CME 55 TMR	Time After Drilling	NA	Depth to Water	NA
Driller	R&N	Logger	A. Tomaras	Checked by	C. Marin	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
Drilling Method	3.25" HSA, boring backfilled upon completion						

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-04A
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 641.04 ft
 North: 1980025.39 ft
 East: 2299111.74 ft
 Station: 711+84.78
 Offset: 61.62 RT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-29-2014	Complete Drilling	05-30-2014	While Drilling	DRY	At Completion of Drilling	NA
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV	Time After Drilling	NA	Depth to Water	NA
Driller	N&K	Logger	A. Happel	Checked by	C. Marin	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion						

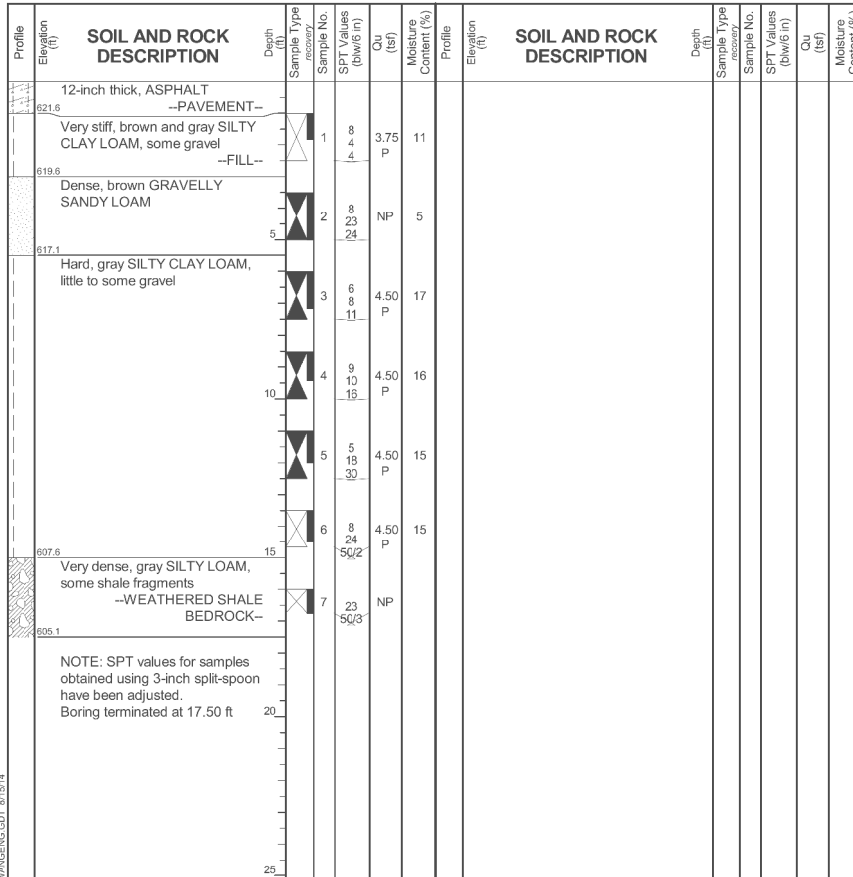
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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-05 Page 1 of 1

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 622.57 ft
 North: 1980107.26 ft
 East: 2299055.79 ft
 Station: 712+70.03
 Offset: 12.61 RT



GENERAL NOTES

Begin Drilling 12-13-2013 Complete Drilling 12-13-2013

Drilling Contractor **Wang Testing Services** Drill Rig **CME 55 TMR**

Driller **R&N** Logger **A. Tomaras** Checked by **C. Marin**

Drilling Method **3.25" HSA, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling DRY

At Completion of Drilling DRY

Time After Drilling NA

Depth to Water NA

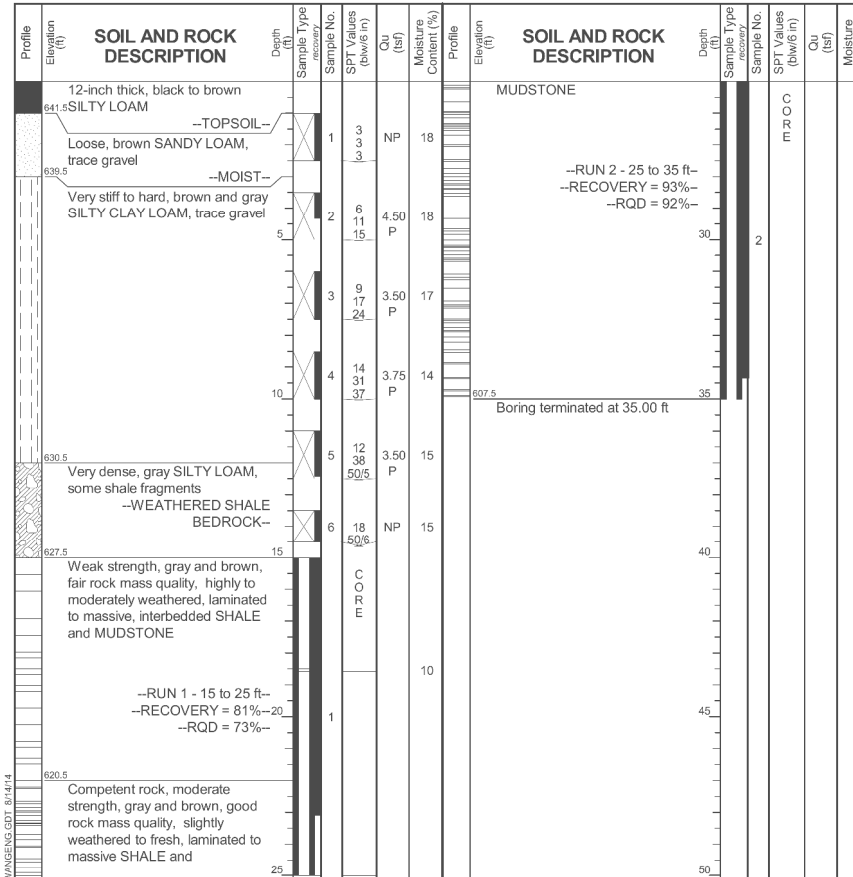
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-05A Page 1 of 1

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 642.49 ft
 North: 1980093.36 ft
 East: 2299106.90 ft
 Station: 712+52.12
 Offset: 62.42 RT



GENERAL NOTES

Begin Drilling 05-29-2014 Complete Drilling 05-29-2014

Drilling Contractor **Wang Testing Services** Drill Rig **D-25 ATV**

Driller **N&K** Logger **A. Happel** Checked by **C. Marin**

Drilling Method **2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling NA

At Completion of Drilling DRY

Time After Drilling NA

Depth to Water NA

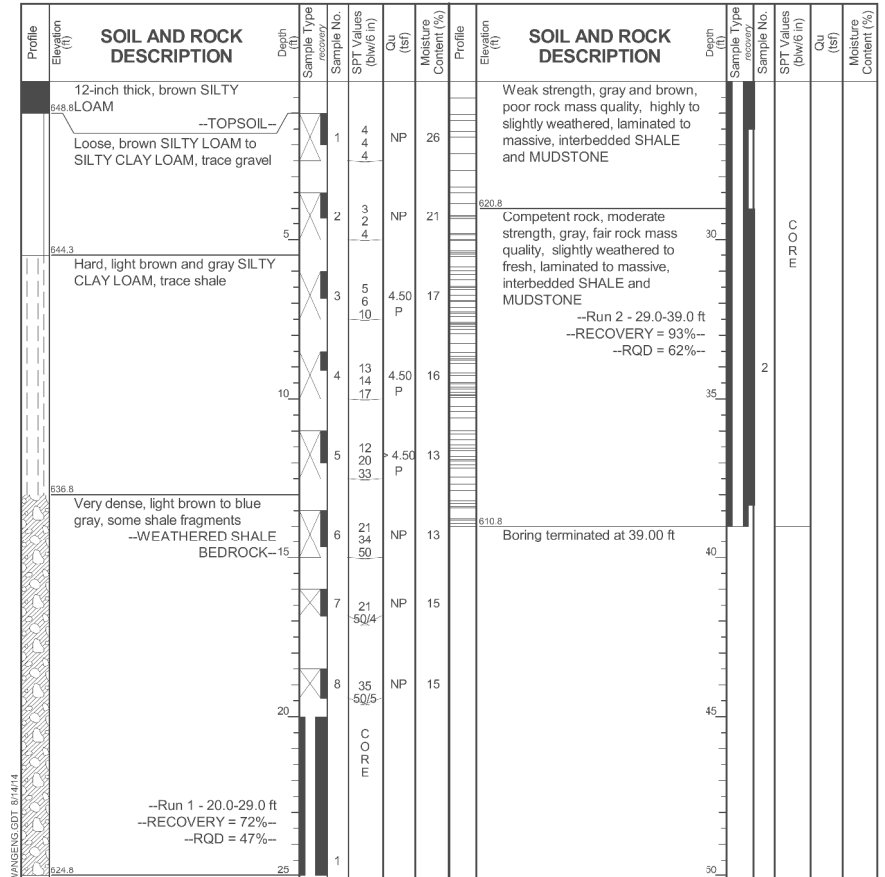
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-06 Page 1 of 1

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 649.83 ft
 North: 1980170.00 ft
 East: 2299111.79 ft
 Station: 713+27.12
 Offset: 72.95 RT



GENERAL NOTES

Begin Drilling 05-28-2014 Complete Drilling 05-28-2014

Drilling Contractor **Wang Testing Services** Drill Rig **D-25 ATV**

Driller **A. Happel** Checked by **C. Marin**

Drilling Method **2.25" HSA to 10', mud rotary thereafter, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling NA

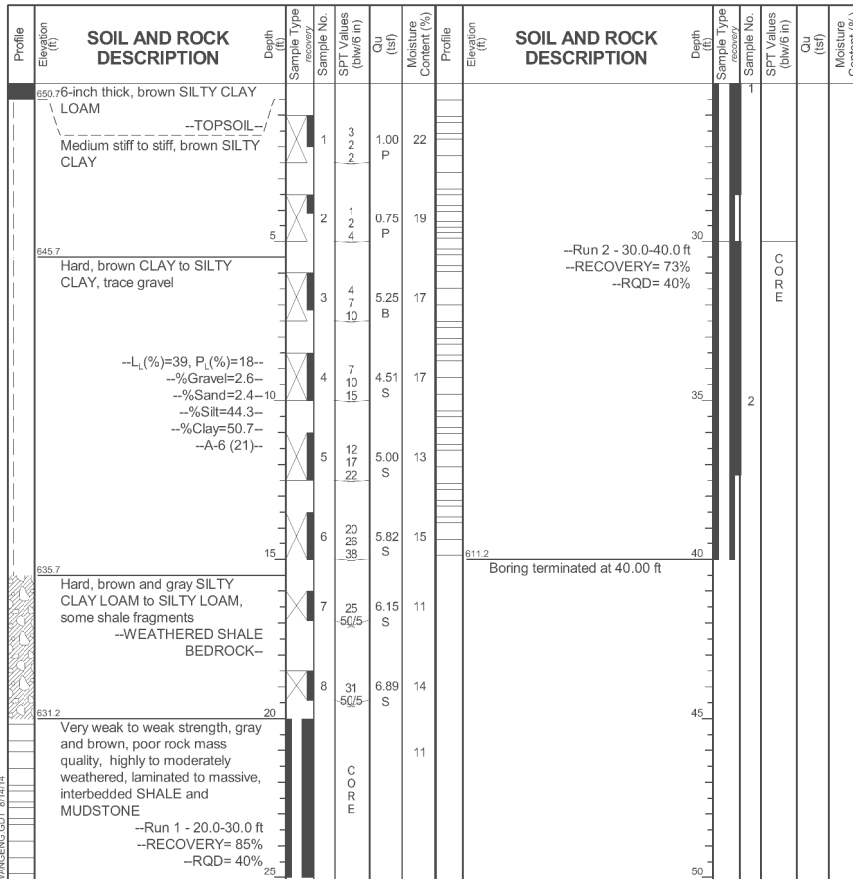
At Completion of Drilling NA

Time After Drilling NA

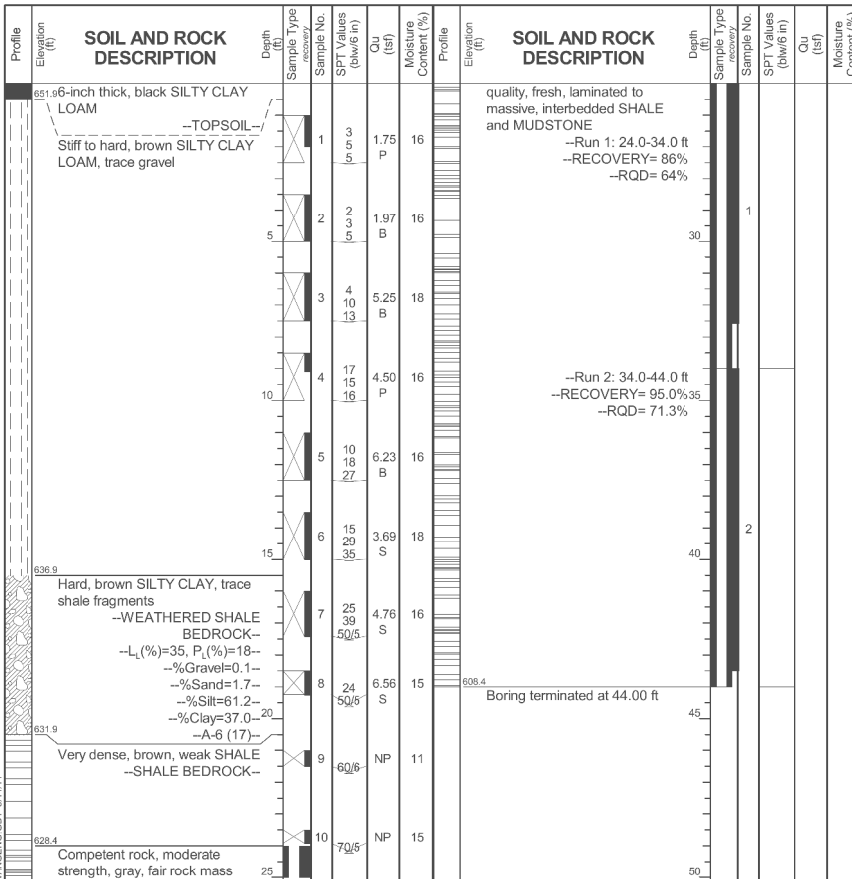
Depth to Water NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

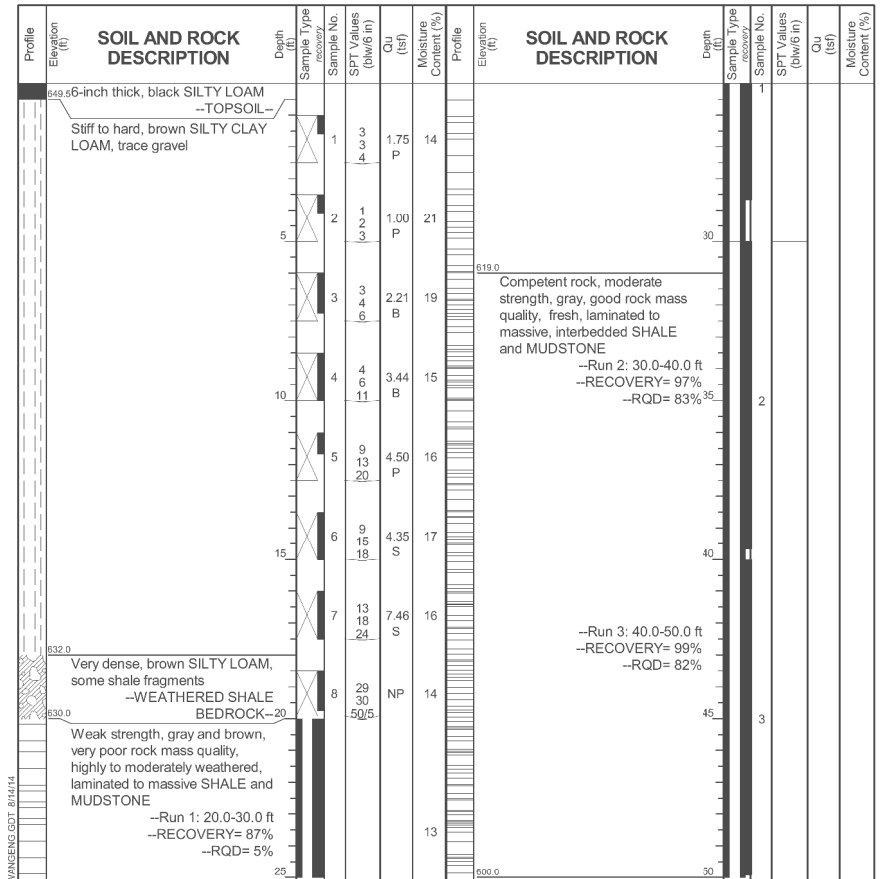
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GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-21-2014	Complete Drilling	05-21-2014	While Drilling	NA	At Completion of Drilling	NA
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV	Time After Drilling	NA	Depth to Water	NA
Driller	N&J	Logger	F. Bozga	Checked by	C. Marin	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring			backfilled upon completion			



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-20-2014	Complete Drilling	05-21-2014	While Drilling	NA	At Completion of Drilling	NA
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV	Time After Drilling	NA	Depth to Water	NA
Driller	N&J	Logger	F. Bozga	Checked by	C. Marin	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring			backfilled upon completion			



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-20-2014	Complete Drilling	05-20-2014	While Drilling	NA	At Completion of Drilling	NA
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV	Time After Drilling	NA	Depth to Water	NA
Driller	N&J	Logger	F. Bozga	Checked by	C. Marin	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring			backfilled upon completion			

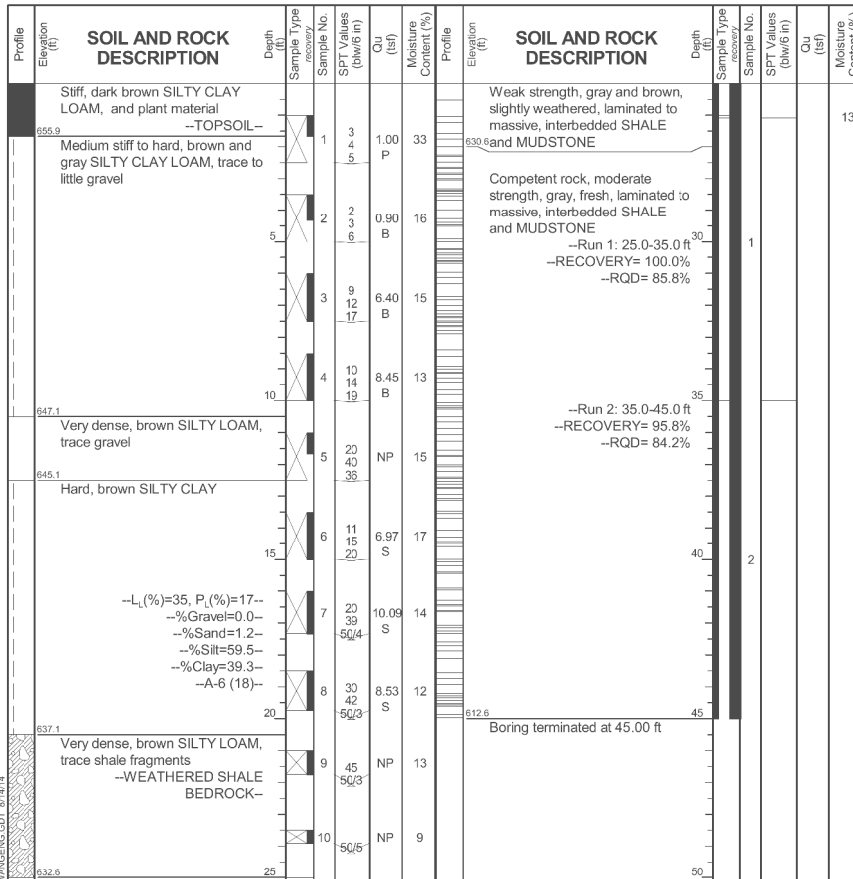
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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-10 Page 1 of 1

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 657.61 ft
 North: 1980474.33 ft
 East: 2299073.23 ft
 Station: 717+14.16
 Offset: 72.49 RT



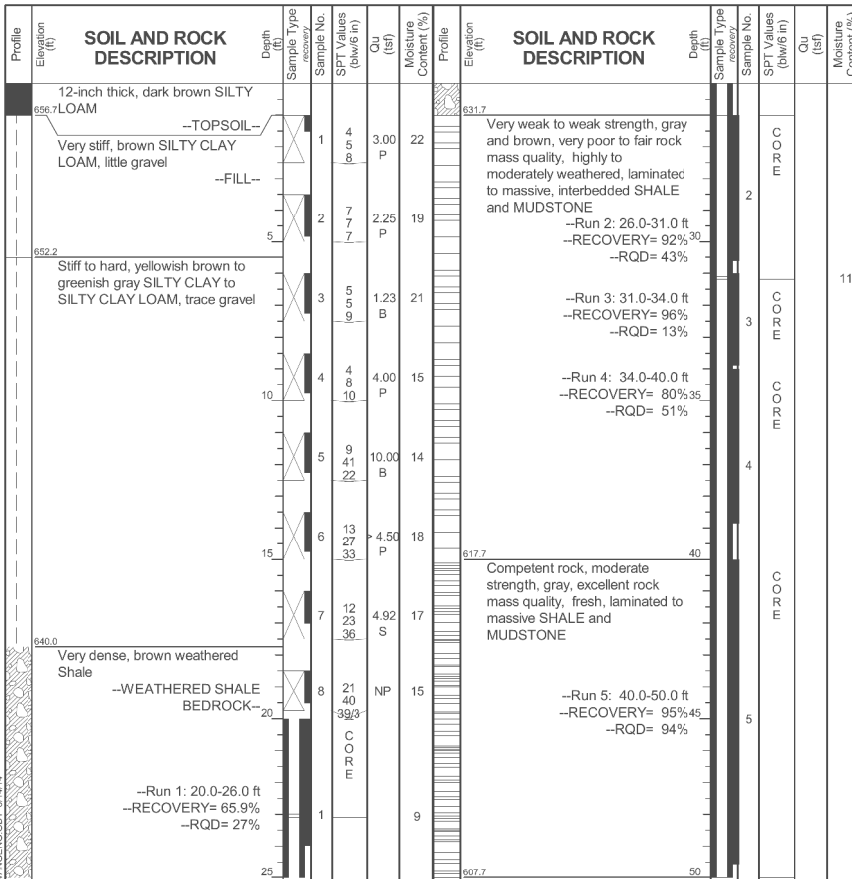
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-19-2014	Complete Drilling	05-19-2014
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV
Driller	N&J	Logger	F. Bozga
Checked by	C. Marin	Depth to Water	NA
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
backfilled upon completion			

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-11 Page 1 of 1

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 657.75 ft
 North: 1980556.76 ft
 East: 2299048.46 ft
 Station: 717+14.16
 Offset: 60.87 RT



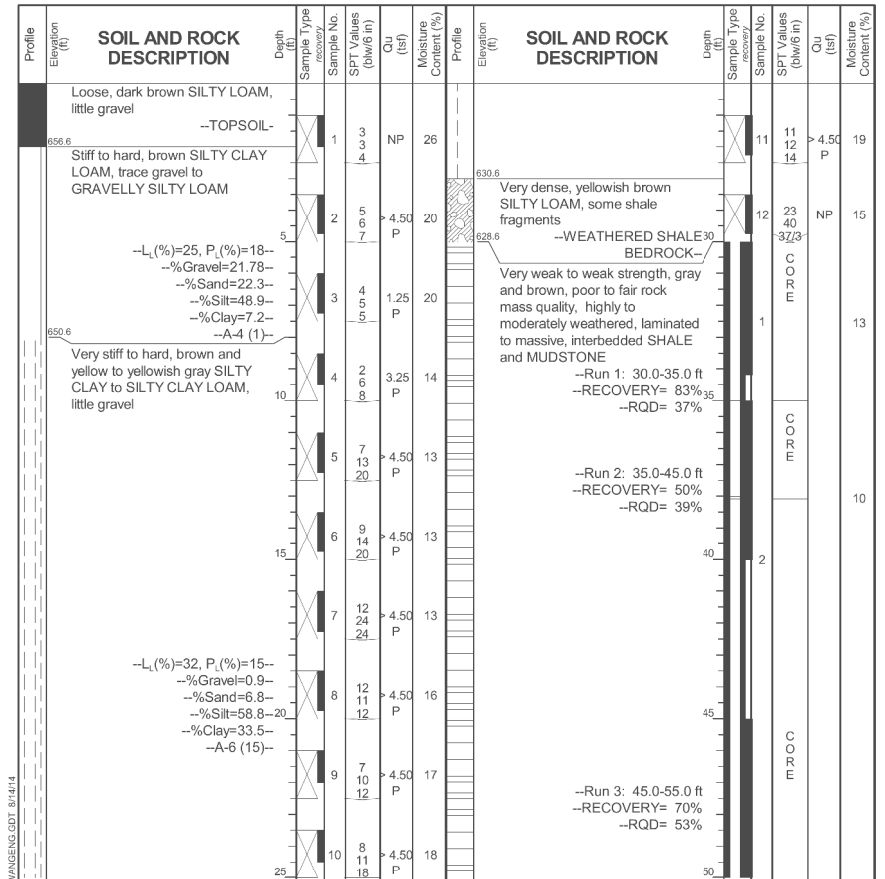
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-14-2014	Complete Drilling	05-15-2014
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV
Driller	N&J	Logger	D. Kolpacki
Checked by	C. Marin	Depth to Water	NA
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
backfilled upon completion			

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-12 Page 1 of 2

WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 658.58 ft
 North: 1980624.99 ft
 East: 2299027.78 ft
 Station: 717+14.16
 Offset: 52.07 RT



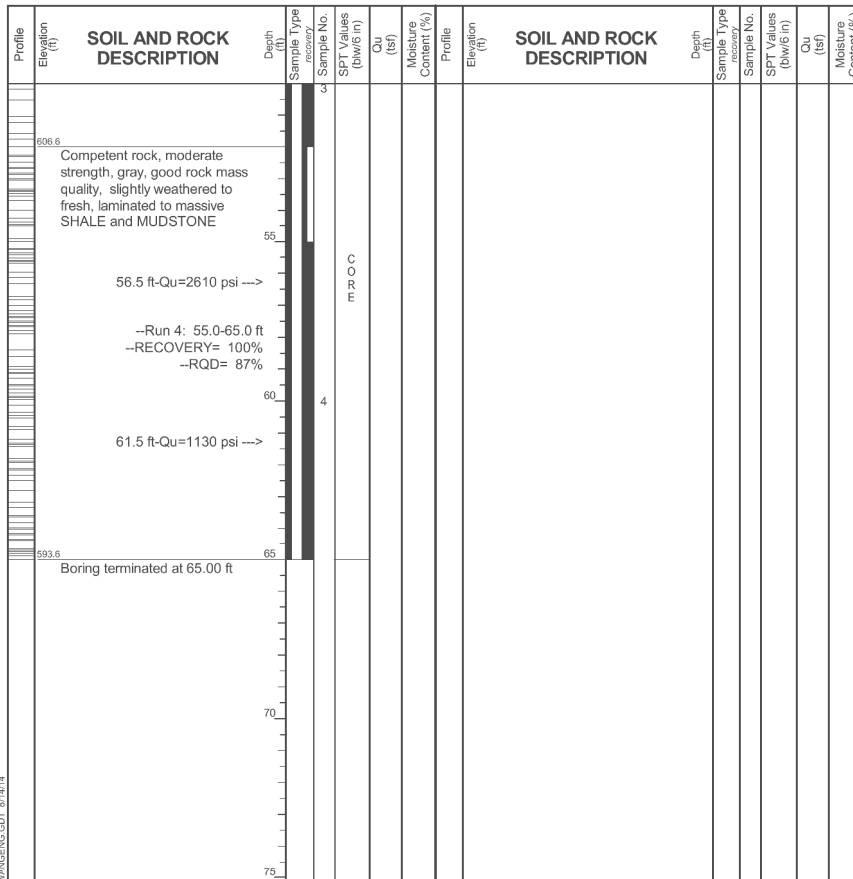
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-13-2014	Complete Drilling	05-14-2014
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV
Driller	N&J	Logger	D. Kolpacki
Checked by	C. Marin	Depth to Water	NA
Drilling Method	2.25" HSA to 10', mud rotary thereafter, boring	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	
backfilled upon completion			

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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-12 Page 2 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 658.58 ft
 North: 1990624.99 ft
 East: 2299027.78 ft
 Station: 717+84.18
 Offset: 52.07 RT



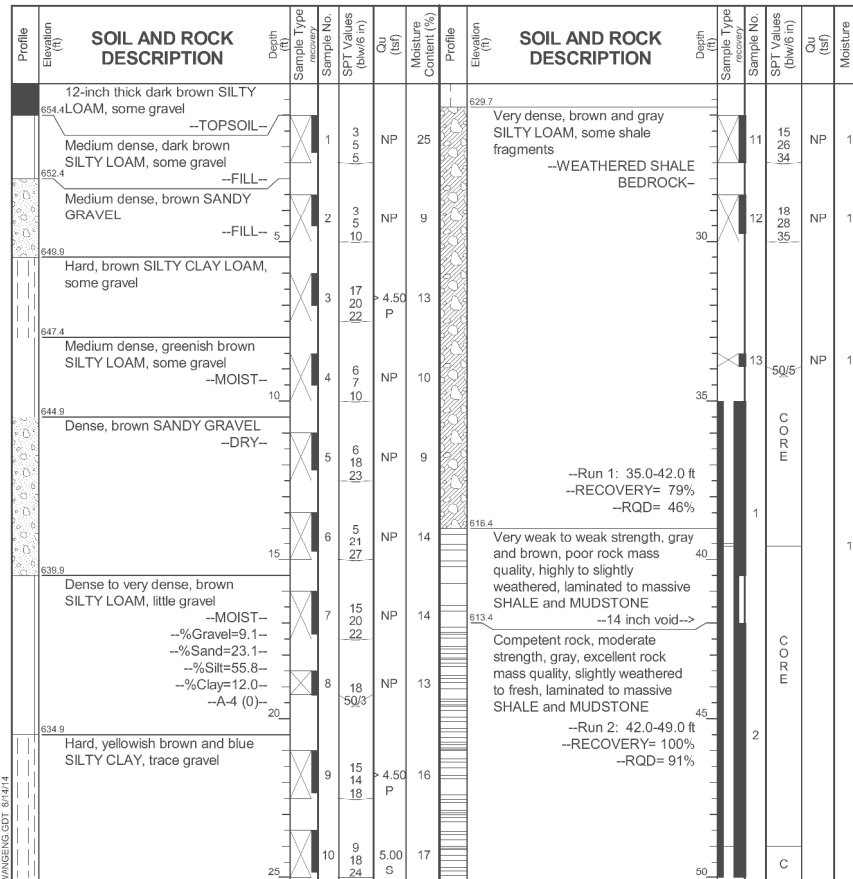
GENERAL NOTES
 Begin Drilling 05-13-2014 Complete Drilling 05-14-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&J Logger D. Kolpacki Checked by C. Marin
 Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
 backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water 7 NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-13 Page 1 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 655.44 ft
 North: 1990702.79 ft
 East: 2299007.77 ft
 Station: 718+63.42
 Offset: 46.74 RT



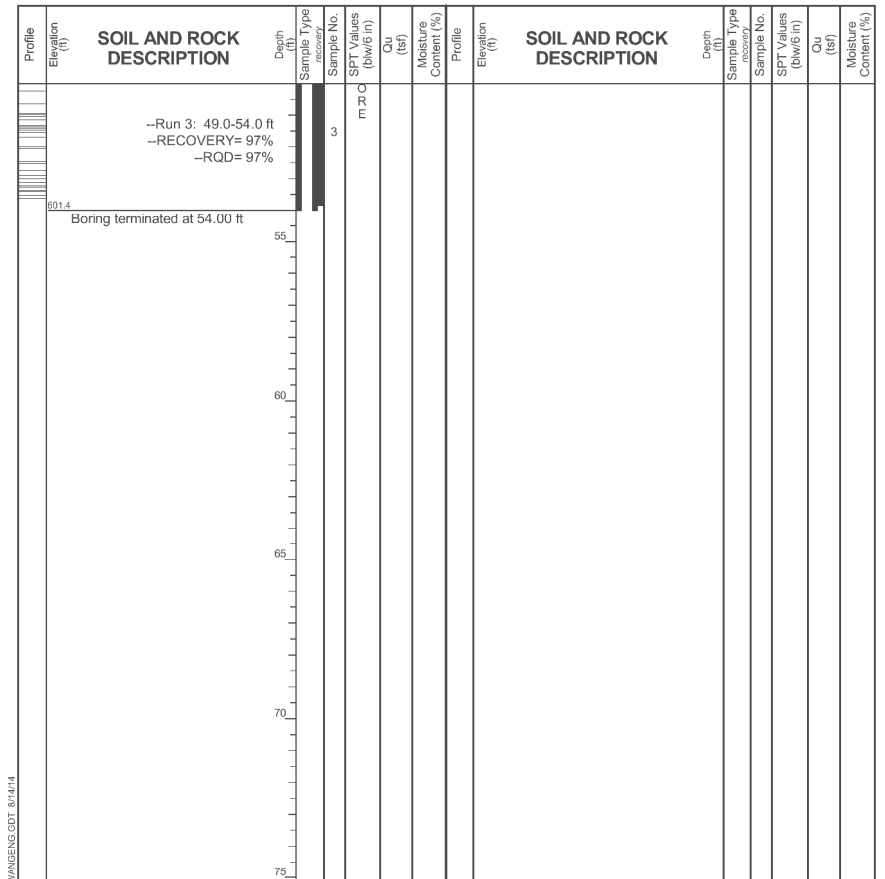
GENERAL NOTES
 Begin Drilling 05-15-2014 Complete Drilling 05-16-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&J Logger D. Kolpacki Checked by C. Marin
 Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
 backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water 7 NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-13 Page 2 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 655.44 ft
 North: 1990702.79 ft
 East: 2299007.77 ft
 Station: 718+63.42
 Offset: 46.74 RT



GENERAL NOTES
 Begin Drilling 05-15-2014 Complete Drilling 05-16-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&J Logger D. Kolpacki Checked by C. Marin
 Drilling Method 2.25" HSA to 10', mud rotary thereafter, boring
 backfilled upon completion

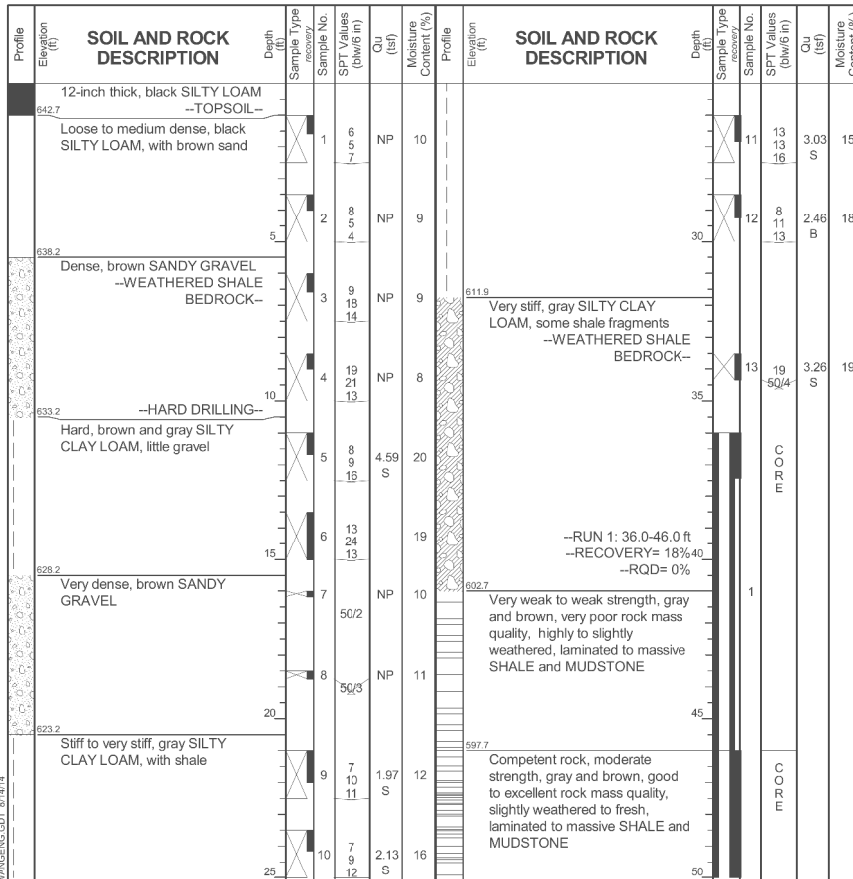
WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling DRY
 Time After Drilling NA
 Depth to Water 7 NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

3/11/2015 7:28:27 PM p:0067721 c:\p\w\king\illinois\p0067721\dms02900\200111-SHT-SA-35.dgn

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-14 Page 1 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.68 ft
 North: 1980769.05 ft
 East: 2298973.05 ft
 Station: 719+34.94
 Offset: 25.61 RT



GENERAL NOTES

Begin Drilling 06-05-2014 Complete Drilling 06-05-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&K Logger A. Happel Checked by C. Marin
 Drilling Method 2.25" HSA. 2.5' interval to 36', Rock core thereafter

WATER LEVEL DATA

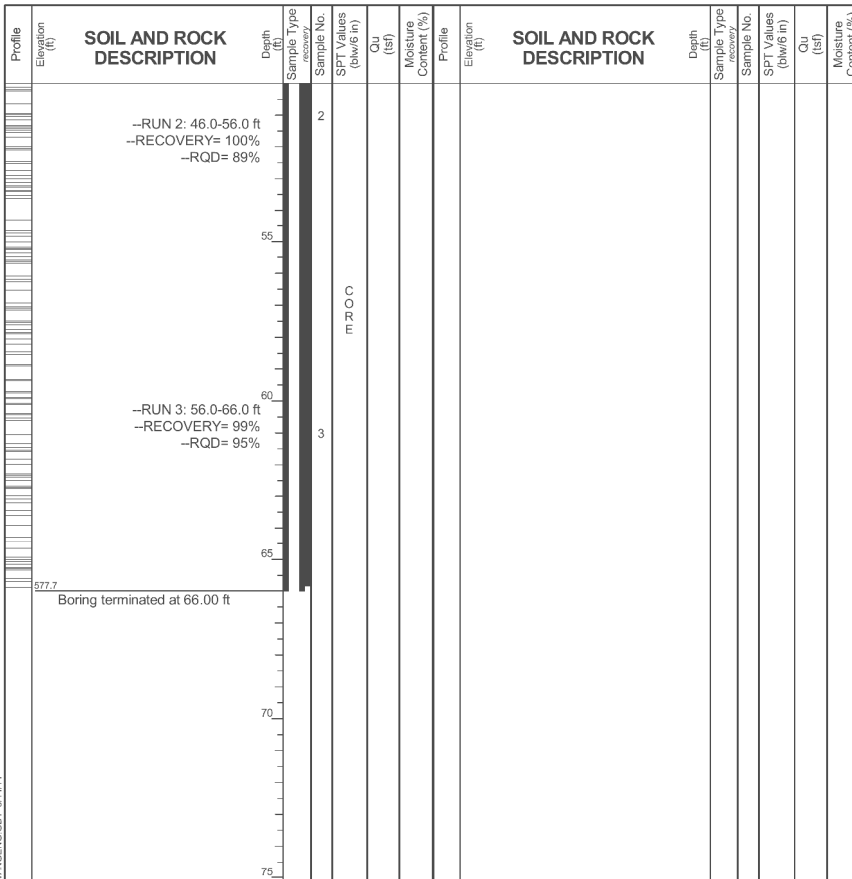
While Drilling ▽ NA
 At Completion of Drilling ▽ NA
 Time After Drilling NA
 Depth to Water 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-14 Page 2 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.68 ft
 North: 1980769.05 ft
 East: 2298973.05 ft
 Station: 719+34.94
 Offset: 25.61 RT



GENERAL NOTES

Begin Drilling 06-05-2014 Complete Drilling 06-05-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&K Logger A. Happel Checked by C. Marin
 Drilling Method 2.25" HSA. 2.5' interval to 36', Rock core thereafter

WATER LEVEL DATA

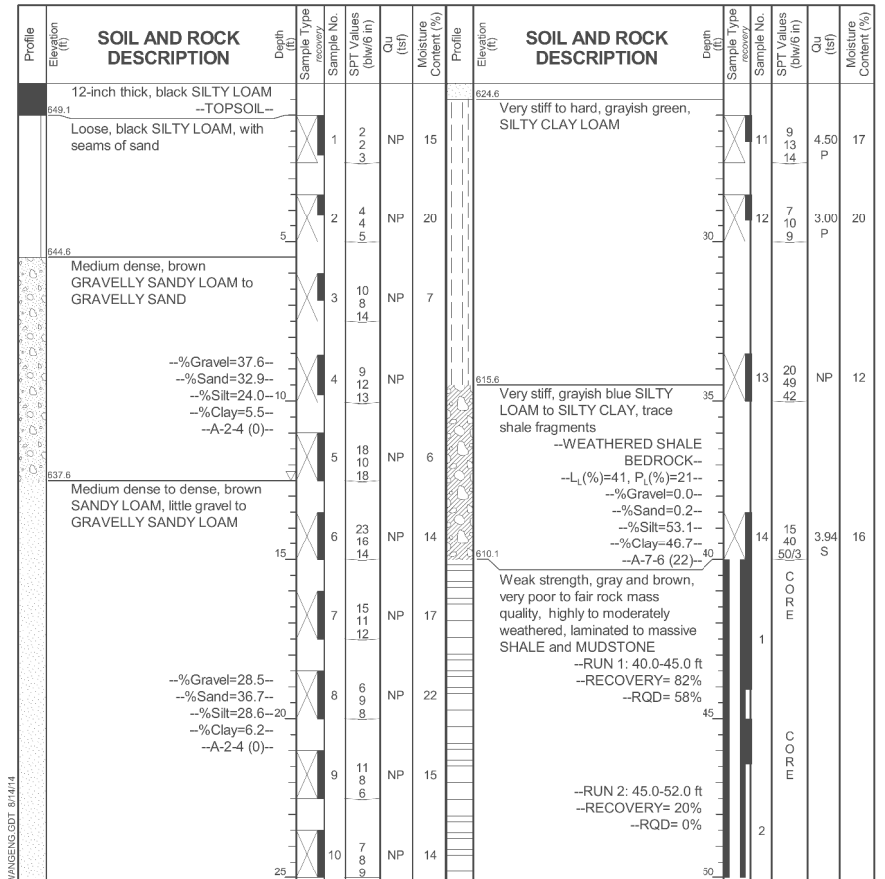
While Drilling ▽ NA
 At Completion of Drilling ▽ NA
 Time After Drilling NA
 Depth to Water 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-15 Page 1 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 650.10 ft
 North: 1980843.99 ft
 East: 2298970.76 ft
 Station: 720+08.27
 Offset: 39.07 RT



GENERAL NOTES

Begin Drilling 06-03-2014 Complete Drilling 06-03-2014
 Drilling Contractor Wang Testing Services Drill Rig D-25 ATV
 Driller N&K Logger A. Happel Checked by C. Marin
 Drilling Method 2.25" HSA. 2.5' interval to 40', Rock core thereafter

WATER LEVEL DATA

While Drilling ▽ 12.50 ft
 At Completion of Drilling ▽ 12.5 (MUD)
 Time After Drilling NA
 Depth to Water 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

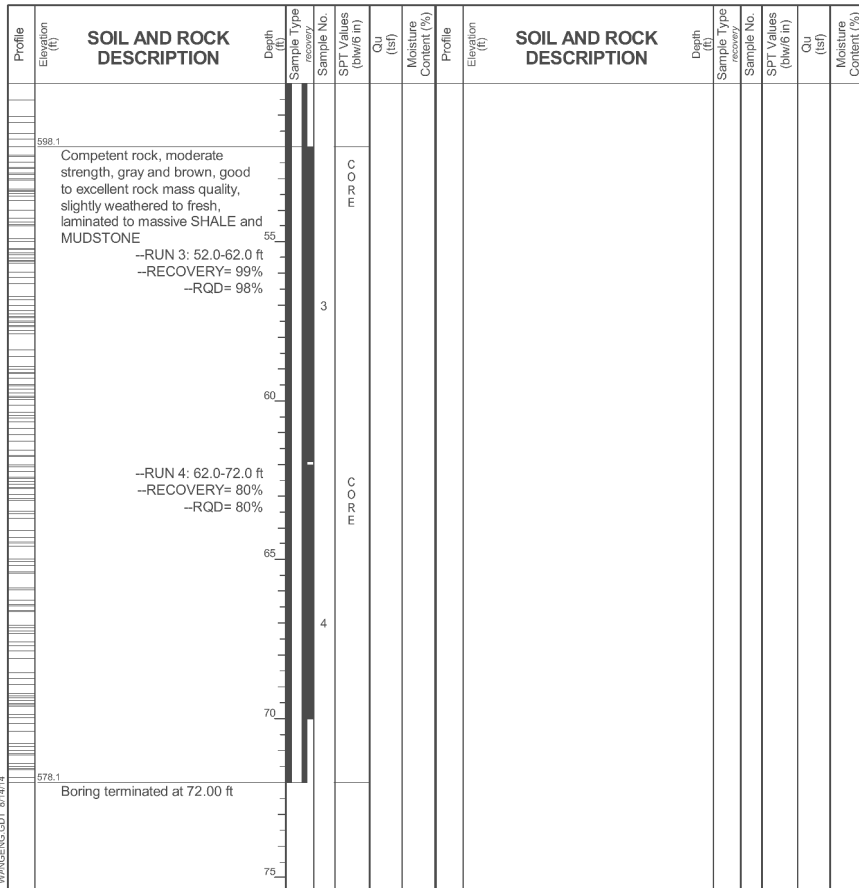
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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-15
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 650.10 ft
 North: 1980843.99 ft
 East: 2298970.78 ft
 Station: 720+08.27
 Offset: 39.07 RT

Page 2 of 2



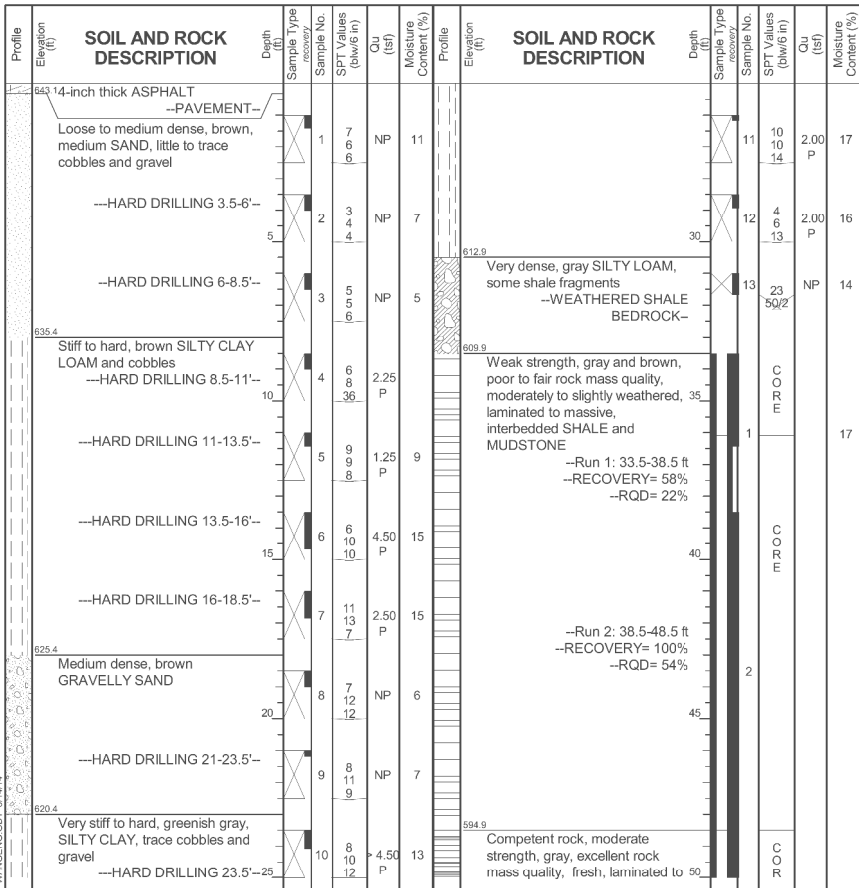
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	06-03-2014	Complete Drilling	06-03-2014	While Drilling	▽	12.50 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D-25 ATV	At Completion of Drilling	▽	12.5 (MUD)	
Driller	N&K	Logger	A. Happel	Checked by	C. Marin	NA	
Drilling Method	2.25" HSA, 2.5' interval to 40', Rock core thereafter			Depth to Water	∇	NA	

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-16
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.41 ft
 North: 1980944.06 ft
 East: 2298944.57 ft
 Station: 721+11.15
 Offset: 35.99 RT

Page 1 of 2



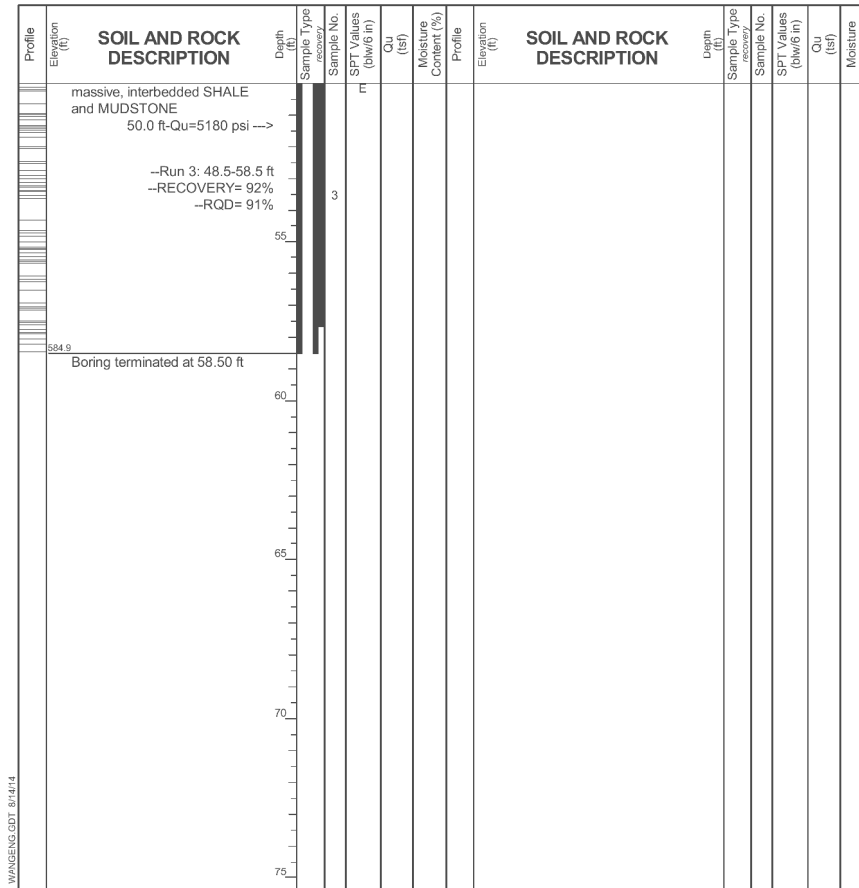
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-07-2014	Complete Drilling	05-07-2014	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R&J	Logger	A. Tomaras	Checked by	C. Marin	NA	
Drilling Method	3.25" HSA, boring backfilled upon completion			Depth to Water	∇	NA	

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-16
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.41 ft
 North: 1980944.06 ft
 East: 2298944.57 ft
 Station: 721+11.15
 Offset: 35.99 RT

Page 2 of 2



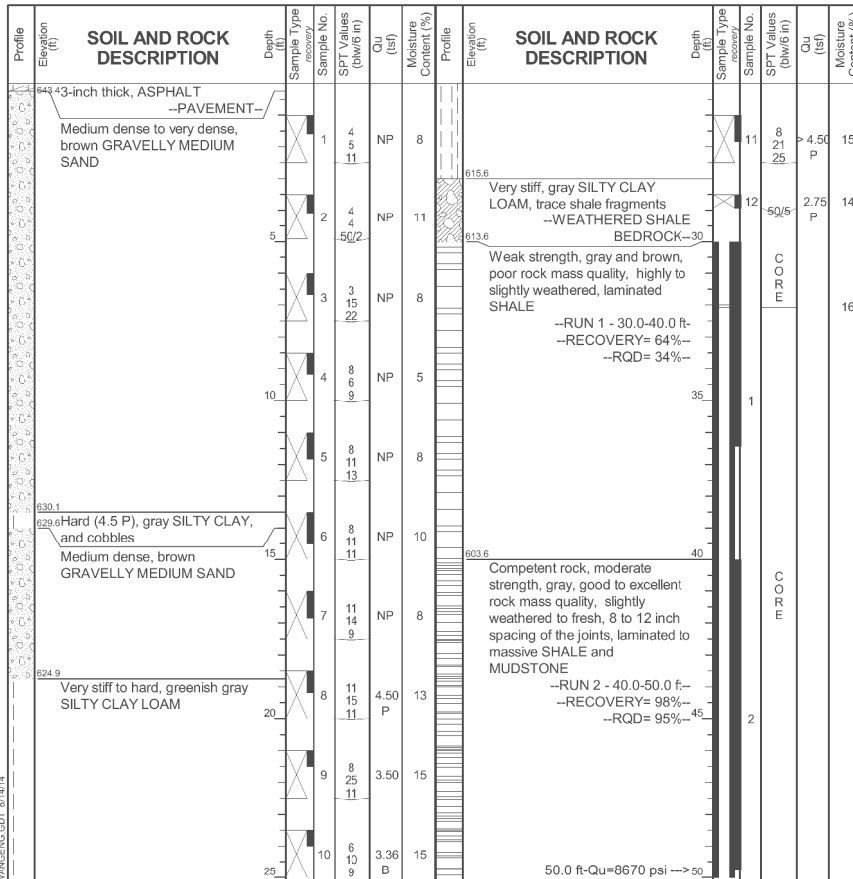
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-07-2014	Complete Drilling	05-07-2014	While Drilling	▽	DRY	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R&J	Logger	A. Tomaras	Checked by	C. Marin	NA	
Drilling Method	3.25" HSA, boring backfilled upon completion			Depth to Water	∇	NA	

3/11/2015 7:33:05 PM p:0067721 c:\p\w\king\illinois\p0067721\dms02\908\200111-SHT-SA-37.dgn

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-17 Page 1 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.81 ft
 North: 198 10 14.52 ft
 East: 2298932.04 ft
 Station: 721+82.61
 Offset: 39.95 RT



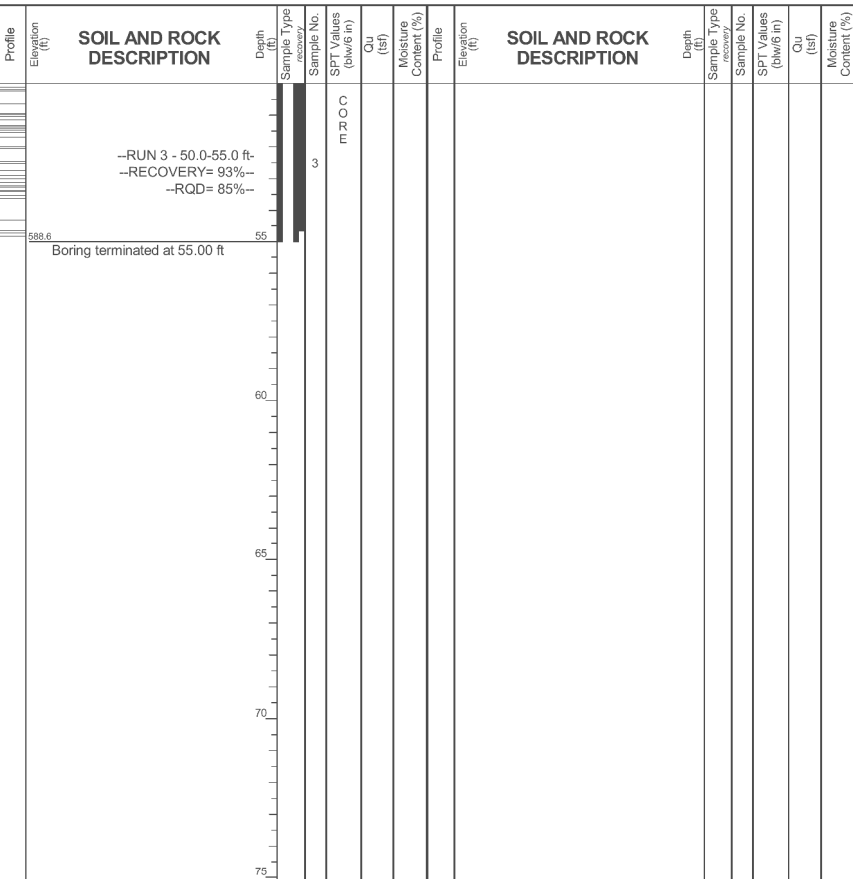
GENERAL NOTES
 Begin Drilling 05-06-2014 Complete Drilling 05-06-2014
 Drilling Contractor Wang Testing Services Drill Rig D-50 TMR
 Driller R&J Logger A. Tomaras Checked by C. Marin
 Drilling Method 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling NA
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-17 Page 2 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 643.81 ft
 North: 198 10 14.52 ft
 East: 2298932.04 ft
 Station: 721+82.61
 Offset: 39.95 RT



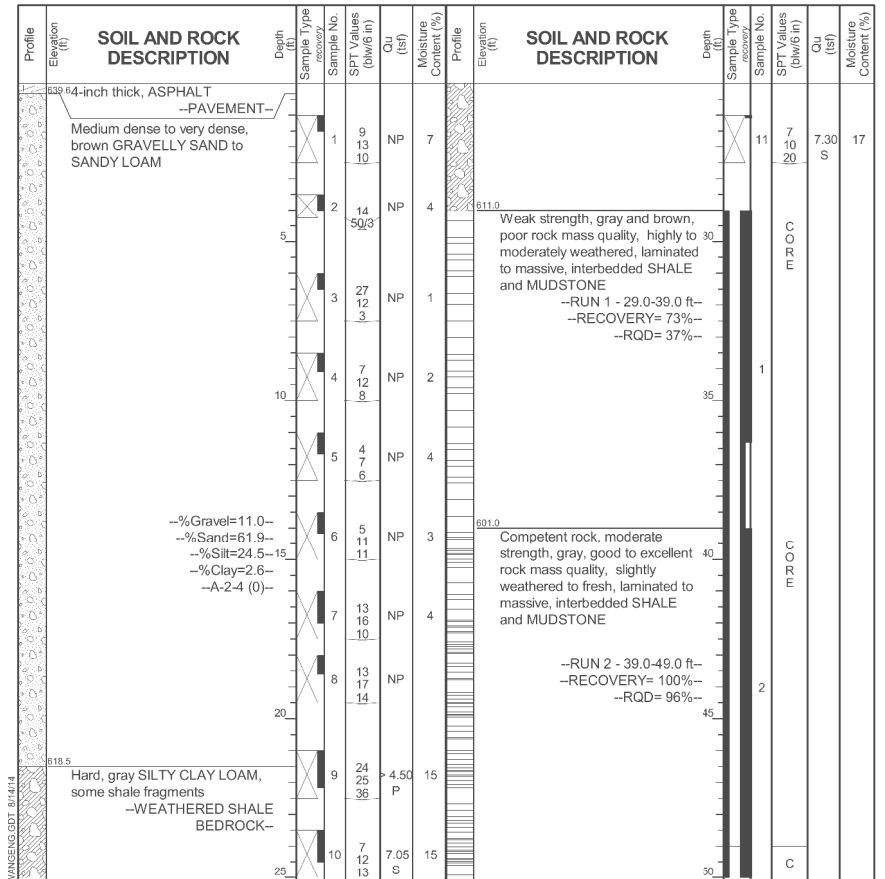
GENERAL NOTES
 Begin Drilling 05-06-2014 Complete Drilling 05-06-2014
 Drilling Contractor Wang Testing Services Drill Rig D-50 TMR
 Driller R&J Logger A. Tomaras Checked by C. Marin
 Drilling Method 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling NA
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-18 Page 1 of 2
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 639.96 ft
 North: 198 1080.42 ft
 East: 2298911.88 ft
 Station: 722+51.37
 Offset: 35.43 RT



GENERAL NOTES
 Begin Drilling 05-05-2014 Complete Drilling 05-05-2014
 Drilling Contractor Wang Testing Services Drill Rig D-50 TMR
 Driller R&J Logger A. Tomaras Checked by C. Marin
 Drilling Method 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling DRY
 At Completion of Drilling NA
 Time After Drilling NA
 Depth to Water NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

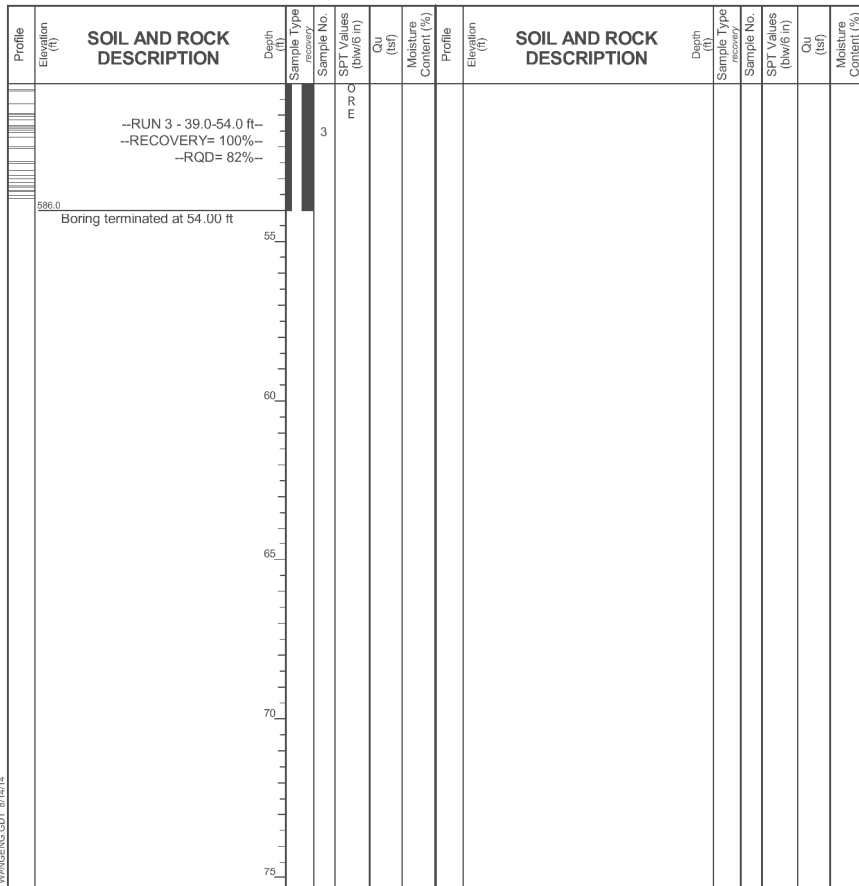
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Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-18
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carrol County, Illinois**

Datum: NAVD 88
 Elevation: 639.96 ft
 North: 1981080.42 ft
 East: 2298911.88 ft
 Station: 722+51.37
 Offset: 35.43 RT

Page 2 of 2



GENERAL NOTES

Begin Drilling: 05-05-2014 Complete Drilling: 05-05-2014 While Drilling: DRY

Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR At Completion of Drilling: NA

Driller: R&J Logger: A. Tomaras Checked by: C. Marin Time After Drilling: NA

Drilling Method: 3.25" HSA, boring backfilled upon completion Depth to Water: 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

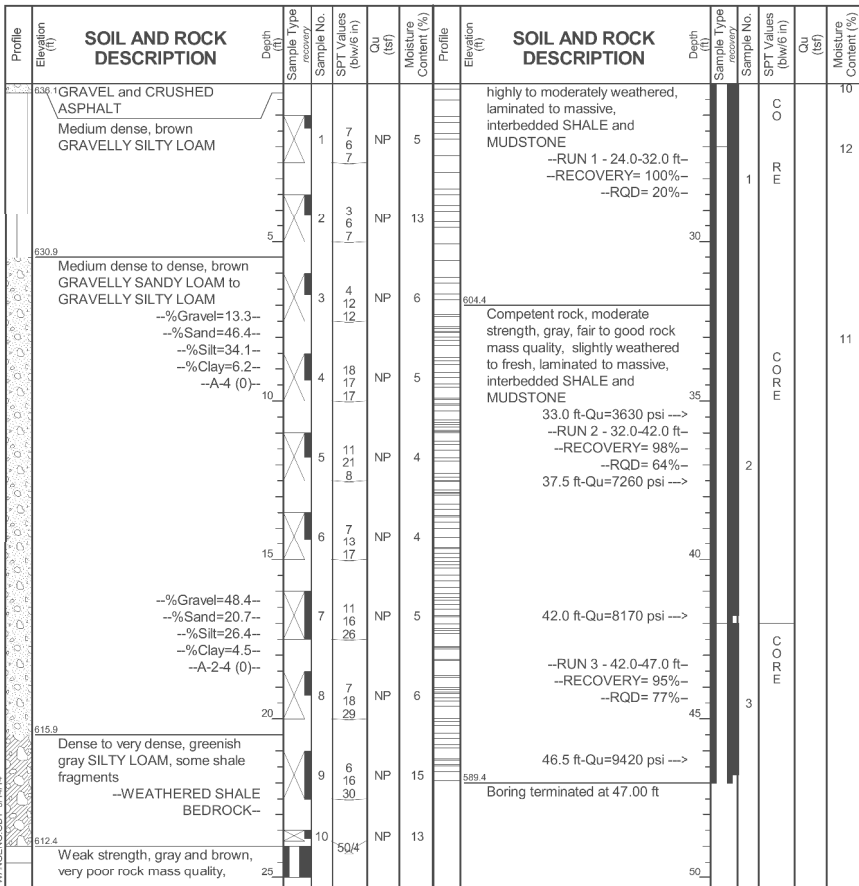
WATER LEVEL DATA

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-19
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carrol County, Illinois**

Datum: NAVD 88
 Elevation: 636.36 ft
 North: 1981140.31 ft
 East: 2298905.67 ft
 Station: 723+11.09
 Offset: 43.11 RT

Page 1 of 1



GENERAL NOTES

Begin Drilling: 05-02-2014 Complete Drilling: 05-02-2014 While Drilling: NA

Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR At Completion of Drilling: 8 (MUD)

Driller: R&J Logger: F. Bozga Checked by: C. Marin Time After Drilling: NA

Drilling Method: 2.25" SSA, 4" casing, boring backfilled upon completion Depth to Water: 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

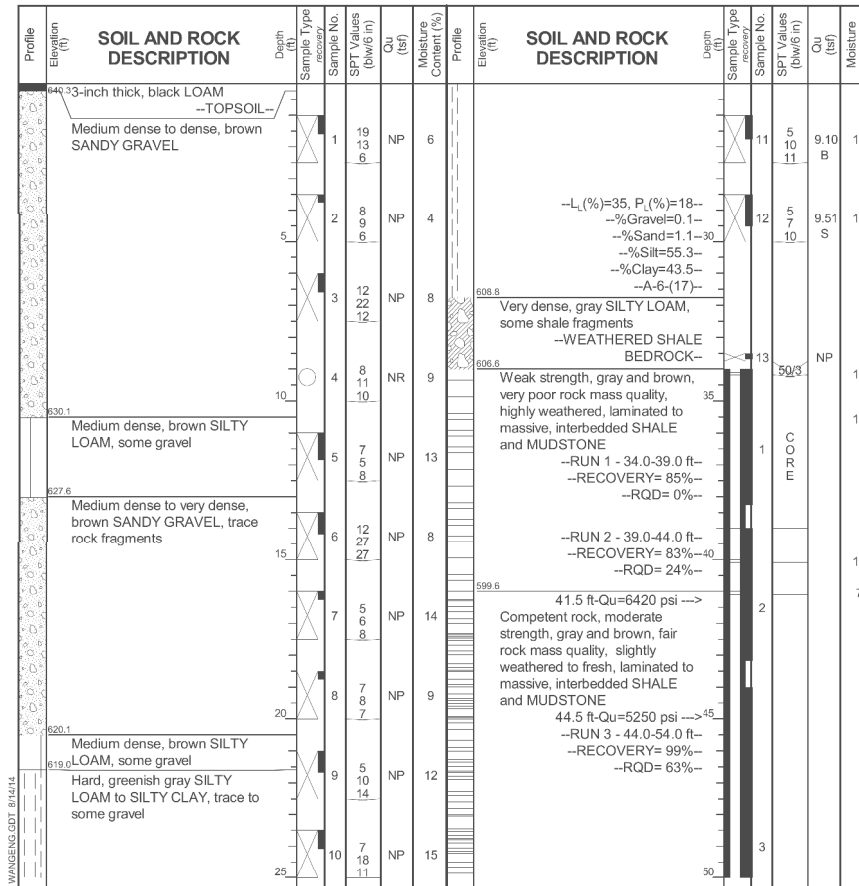
WATER LEVEL DATA

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-20
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carrol County, Illinois**

Datum: NAVD 88
 Elevation: 640.57 ft
 North: 1981206.53 ft
 East: 2298887.04 ft
 Station: 723+79.81
 Offset: 40.16 RT

Page 1 of 2



GENERAL NOTES

Begin Drilling: 05-01-2014 Complete Drilling: 05-01-2014 While Drilling: NA

Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR At Completion of Drilling: 8 (MUD)

Driller: R&J Logger: F. Bozga Checked by: C. Marin Time After Drilling: NA

Drilling Method: 2.25" SSA, 4" casing, boring backfilled upon completion Depth to Water: 7 NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WATER LEVEL DATA

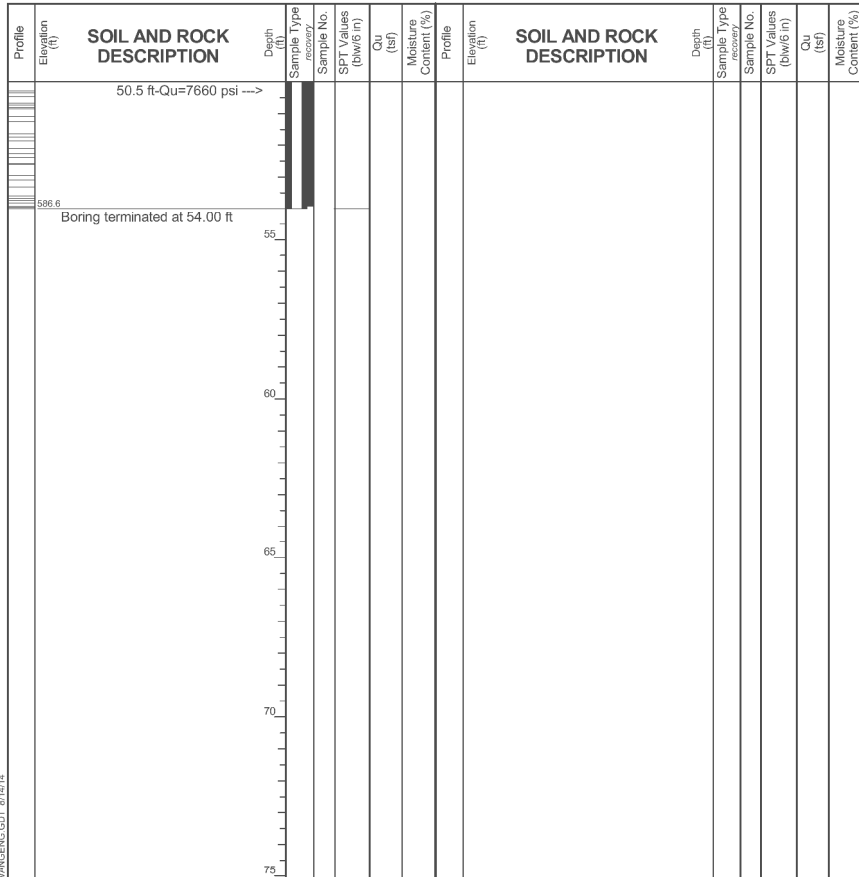
3/11/2015 7:38:39 PM p:0067721 c:\p\w\king\illinois\p0067721\dms02\900\200111-SHT-SA-39.dgn

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-20
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 640.57 ft
 North: 1981206.53 ft
 East: 229887.04 ft
 Station: 723+79.81
 Offset: 40.16 RT

Page 2 of 2



GENERAL NOTES

Begin Drilling: 05-01-2014 Complete Drilling: 05-01-2014
 Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
 Driller: R&J Logger: F. Bozga Checked by: C. Marin
 Drilling Method: 2.25" SSA, 4" casing, boring backfilled upon completion

WATER LEVEL DATA

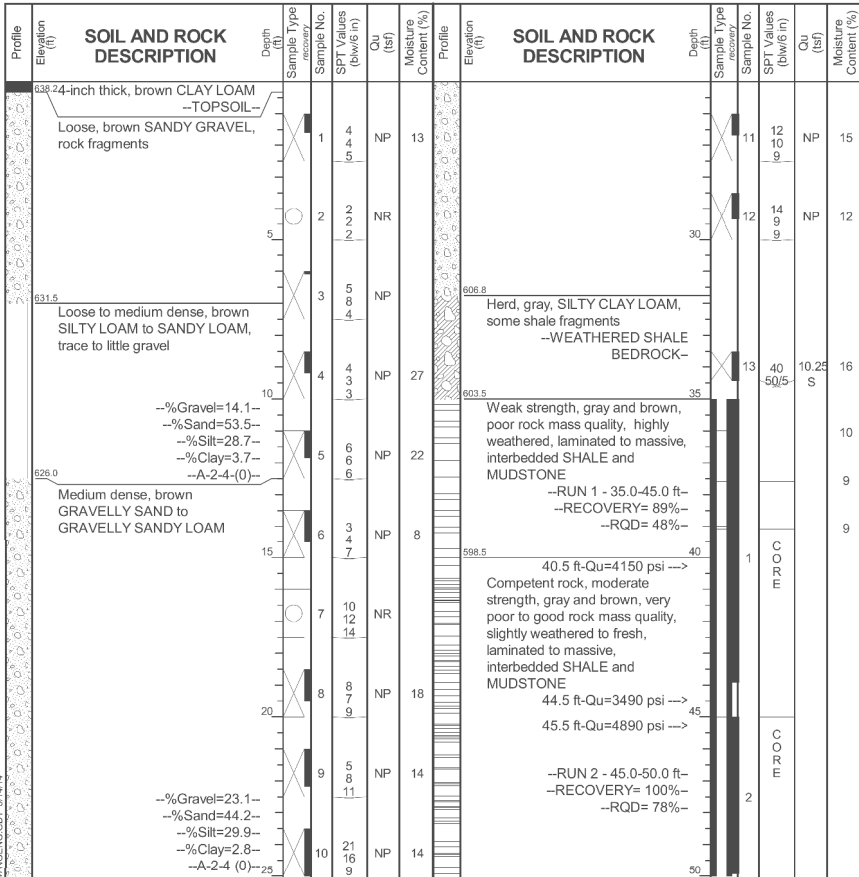
While Drilling: NA
 At Completion of Drilling: 8 (MUD)
 Time After Drilling: NA
 Depth to Water: 7 NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-21
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 638.55 ft
 North: 1981268.13 ft
 East: 2298872.46 ft
 Station: 724+43.12
 Offset: 40.09 RT

Page 1 of 2



GENERAL NOTES

Begin Drilling: 04-29-2014 Complete Drilling: 04-30-2014
 Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
 Driller: R&J Logger: F. Bozga Checked by: C. Marin
 Drilling Method: 2.25" SSA, 4" casing, boring backfilled upon completion

WATER LEVEL DATA

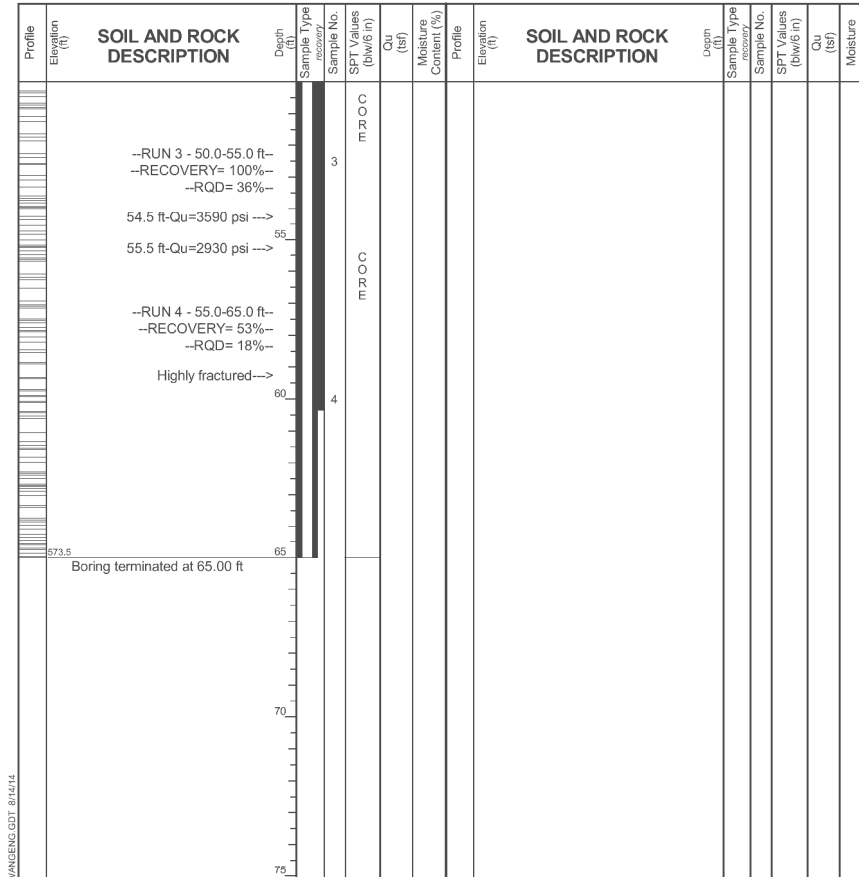
While Drilling: NA
 At Completion of Drilling: 8 (MUD)
 Time After Drilling: NA
 Depth to Water: 7 NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-21
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 638.55 ft
 North: 1981268.13 ft
 East: 2298872.46 ft
 Station: 724+43.12
 Offset: 40.09 RT

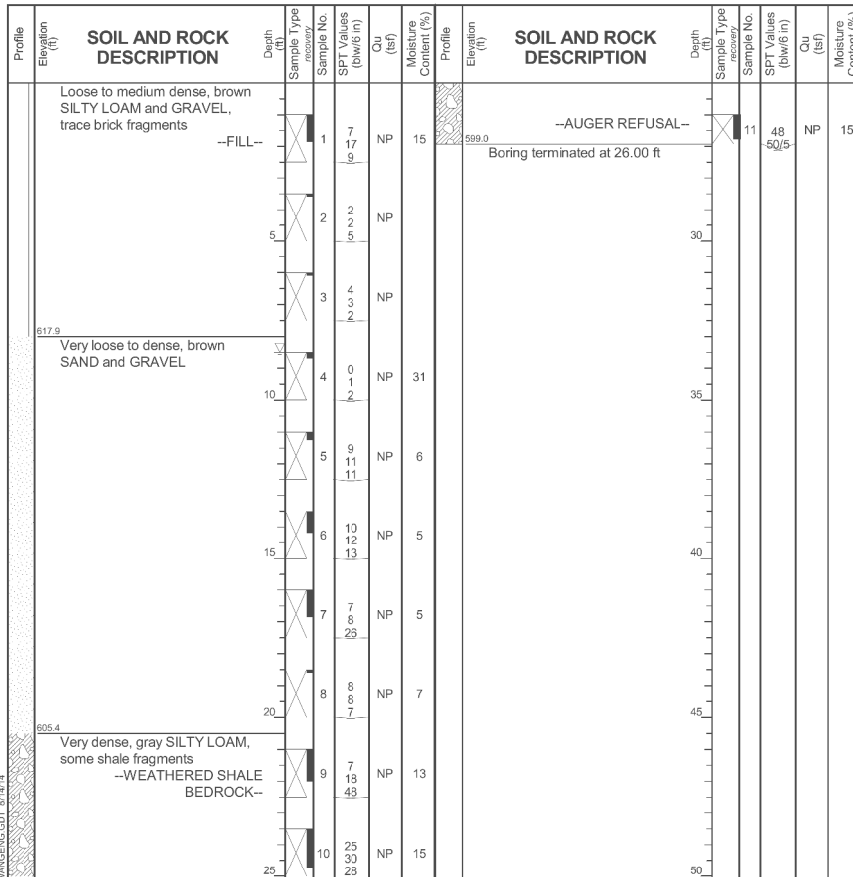
Page 2 of 2



Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-22
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 625.90 ft
 North: 1981354.94 ft
 East: 2298853.16 ft
 Station: 725+32.04
 Offset: 41.20 RT



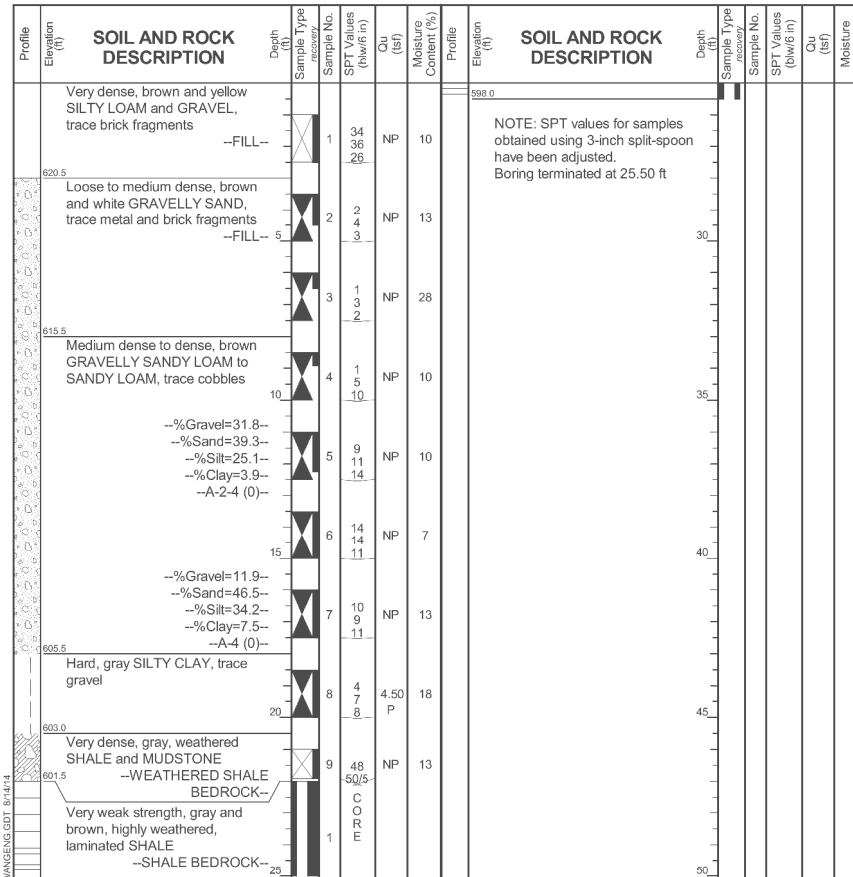
GENERAL NOTES
 Begin Drilling: 12-09-2013 Complete Drilling: 12-09-2013
 Drilling Contractor: Wang Testing Services Drill Rig: CME 55 TMR
 Driller: R&N Logger: A. Tomaras Checked by: C. Marin
 Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling: 8.50 ft
 At Completion of Drilling: 15.5 (MUD)
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-22A
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 623.54 ft
 North: 1981359.22 ft
 East: 2298857.62 ft
 Station: 725+36.90
 Offset: 42.34 RT



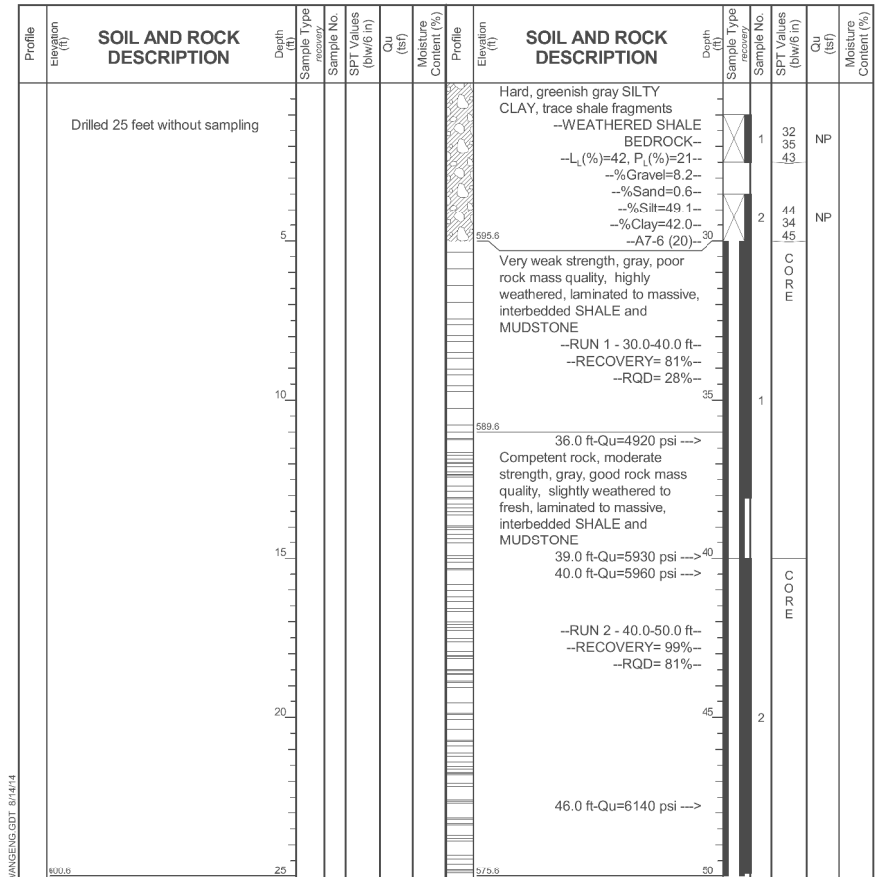
GENERAL NOTES
 Begin Drilling: 12-10-2013 Complete Drilling: 12-10-2013
 Drilling Contractor: Wang Testing Services Drill Rig: CME 55 TMR
 Driller: R&N Logger: A. Tomaras Checked by: C. Marin
 Drilling Method: 3.25" HSA, boring backfilled upon completion

WATER LEVEL DATA
 While Drilling: DRY
 At Completion of Drilling: DRY
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG 84-RWB-22B
 WEI Job No.: 342-06-02
 Client: **Parsons Transportation Group, Inc.**
 Project: **US 52 / IL 64 / IL 84**
 Location: **Carroll County, Illinois**

Datum: NAVD 88
 Elevation: 625.62 ft
 North: 1981337.87 ft
 East: 2298862.26 ft
 Station: 725+18.12
 Offset: 34.84 RT

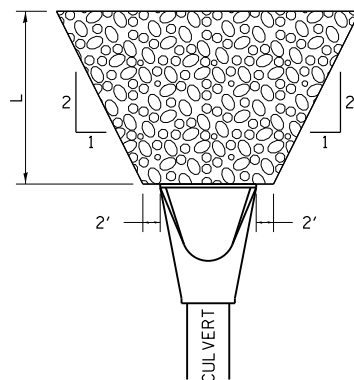


GENERAL NOTES
 Begin Drilling: 04-28-2014 Complete Drilling: 04-28-2014
 Drilling Contractor: Wang Testing Services Drill Rig: D-50 TMR
 Driller: R&J Logger: F. Bozga Checked by: C. Marin
 Drilling Method: 2.25" SSA, 4" casing, boring backfilled upon completion

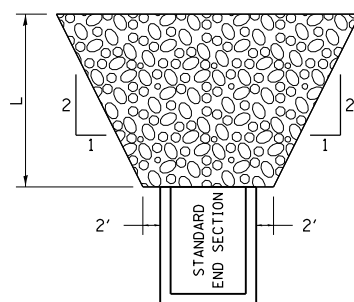
WATER LEVEL DATA
 While Drilling: NA
 At Completion of Drilling: 6.5 (MUD)
 Time After Drilling: NA
 Depth to Water: NA
 The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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RIPRAP AT END SECTIONS



FLARED END SECTION



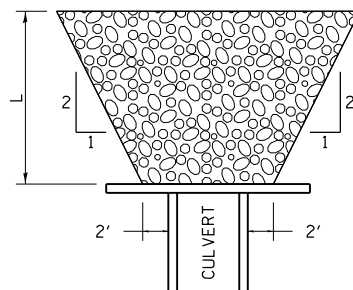
STANDARD END SECTION

REVISED - 11-12-14
2-10-14

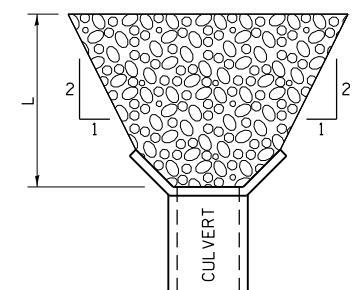
THE LENGTH OF RIPRAP (L) IS TO BE THREE (3) TIMES THE 10 YEAR CULVERT OUTLET VELOCITY, FROM THE WATERWAY INFORMATION TABLE (WIT).

IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH (L).

STANDARD END SECTION:
542001 (PIPE), 542011 (ELLIPTICAL)
DISTRICT STANDARD 10.1 (BOX).



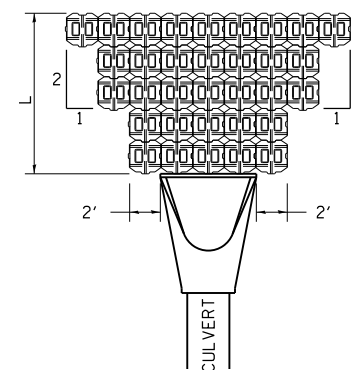
CULVERT WITH HEADWALL



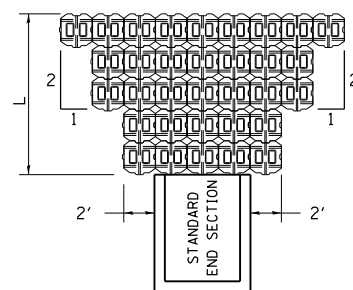
CULVERT WITH WING WALLS

RIPRAP AT END SECTIONS 19.4

CONCRETE REVETMENT MAT AT END SECTIONS



FLARED END SECTION



STANDARD END SECTION

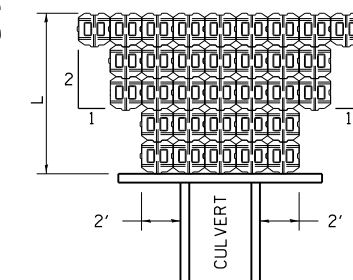
REVISED - 11-12-14

THE LENGTH OF BLOCK MAT (L) IS TO BE THREE (3) TIMES THE 10 YEAR CULVERT OUTLET VELOCITY, FROM THE WATERWAY INFORMATION TABLE (WIT).

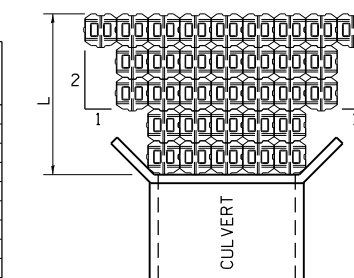
IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, INSTALL BLOCK BANK TO BANK FOR LENGTH (L).

STANDARD END SECTION:
542001 (PIPE), 542011 (ELLIPTICAL)
DISTRICT STANDARD 10.1 (BOX).

Station	Offset	Velocity (ft/sec)	Slope (ft/ft)	Depth of Flow (ft)	Shear Stress (lb/ft ²)
98+73	54.1' LT	9.9	0.005	3.25	1.01



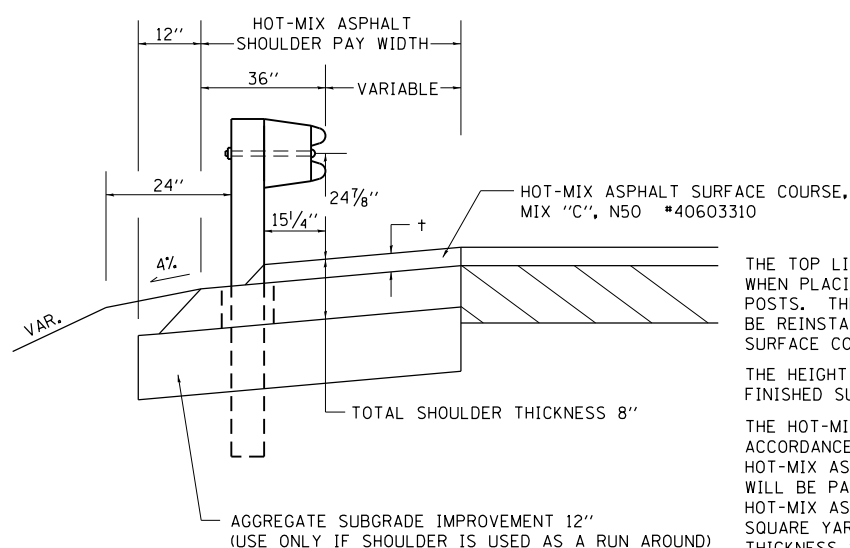
CULVERT WITH HEADWALL



CULVERT WITH WING WALLS

CONCRETE REVETMENT MAT AT END SECTIONS 19.4a

DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARDRAIL



REVISED - 6-27-14
REVISED - 8-27-13
3-13-13

† = SEE TYPICAL SECTIONS FOR THICKNESS

GENERAL NOTES

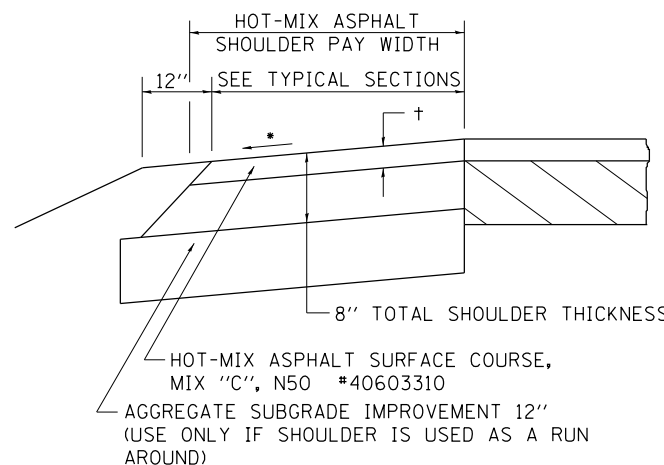
THE TOP LIFT SHALL NOT BE PLACED BEHIND THE GUARDRAIL POSTS. WHEN PLACING THE TOP LIFT THE RAIL MUST BE REMOVED FROM THE POSTS. THE POST SHALL NOT BE REMOVED. THE RAIL ELEMENT SHALL BE REINSTALLED WITHIN 72 HOURS OF THE COMPLETION OF THE SURFACE COURSE.

THE HEIGHT OF THE GUARDRAIL SHALL BE SET 24 7/8" FROM THE FINISHED SURFACE.

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N50 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED. THE REMOVAL & REINSTALLATION OF THE GUARDRAIL WILL BE INCLUDED IN THE COST OF THE HOT-MIX ASPHALT SURFACE COURSE, MIXTURE C, N50.

DETAIL OF HOT-MIX ASPHALT SHOULDER AT GUARDRAIL 23.4

HOT-MIX ASPHALT SHOULDER



REVISED - 3-13-13

GENERAL NOTES

THE HOT-MIX ASPHALT SHOULDER SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 482 EXCEPT THE TOP LIFT SHALL BE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. THE WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310 AND SQUARE YARD FOR HOT-MIX ASPHALT SHOULDERS OF THE THICKNESS SPECIFIED.

USE HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310. WHEN RESURFACING EXISTING HOT-MIX ASPHALT SHOULDERS, THE THICKNESS IS SHOWN ON THE TYPICAL SECTIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER TON FOR HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 #40603310.

REMOVAL OF MATERIAL FOR PLACEMENT OF THE HOT-MIX ASPHALT SHOULDER TO BE PAID FOR IN UNITS FOR EXCAVATING AND GRADING EXISTING SHOULDERS OR IN CUBIC YARDS FOR EARTH EXCAVATION OR EARTH EXCAVATION WIDENING.

* 4% WHEN MAINLINE IS ON TANGENT. FOR CROSS SLOPE ON SUPERELEVATION SECTION, SEE HIGHWAY STANDARD 482001 OR 482006.

HOT-MIX ASPHALT SHOULDER 23.4a

FILE NAME = c:\p\work\king\illinois\35361\dm04105\20011SP1_201.dgn

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	DRAWN - IDOT	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - IDOT	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

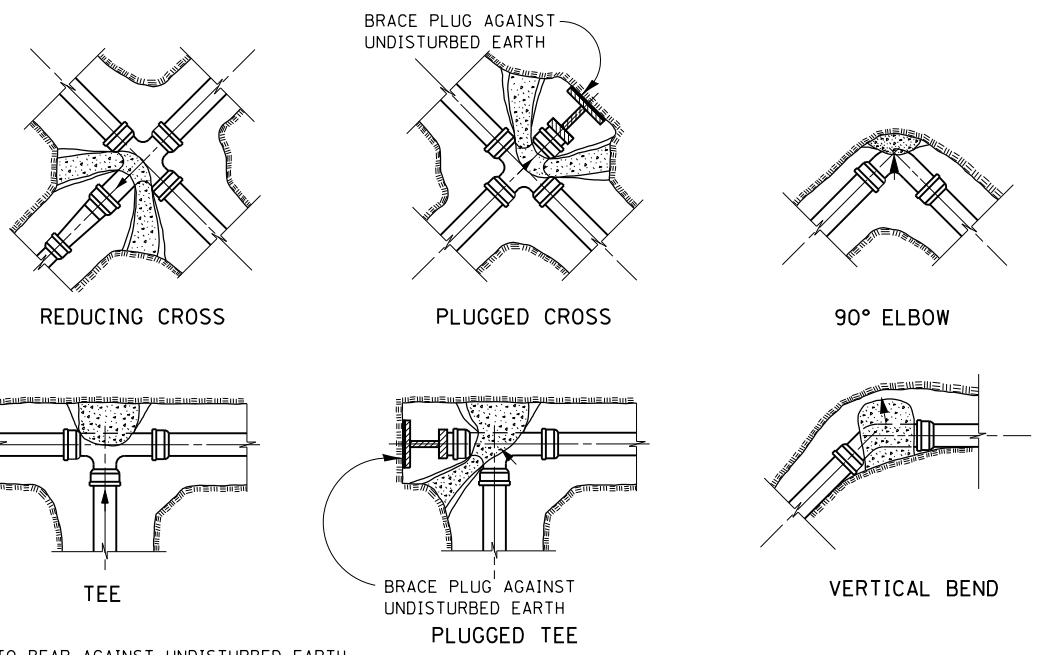
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	391
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

THRUST BLOCK DETAILS



NOTES:
 ALL BLOCKS TO BEAR AGAINST UNDISTURBED EARTH.
 ARROWS INDICATE DIRECTION OF THRUST.
 ALL BLOCKS TO BE CLASS SI CONCRETE.
 ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

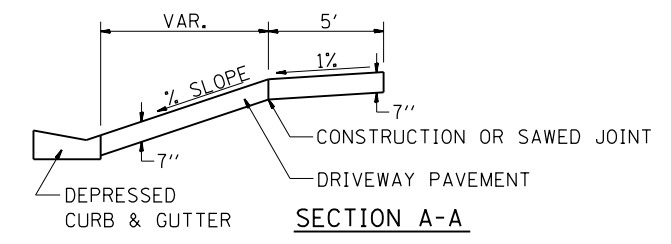
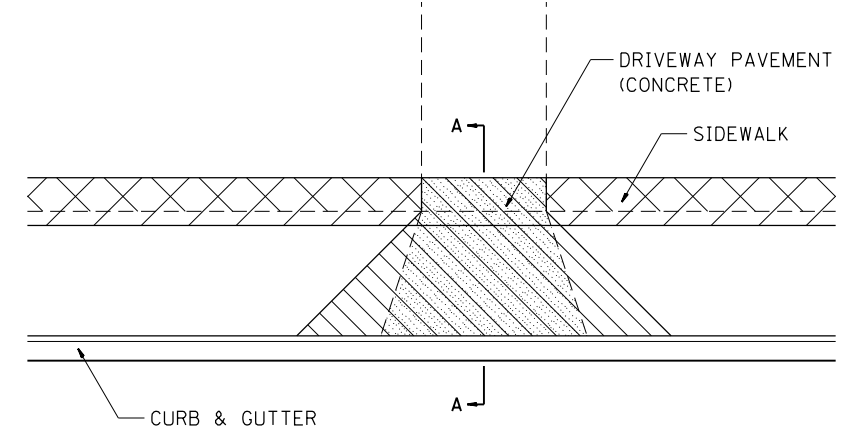
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-03-11

THRUST BLOCK DETAILS 34.4

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

- PAY FOR AS
- SIDEWALK REMOVAL
 - DRIVEWAY PAVEMENT REMOVAL
 - PCC SIDEWALK 5
 - PCC DRIVEWAY PAVEMENT 7



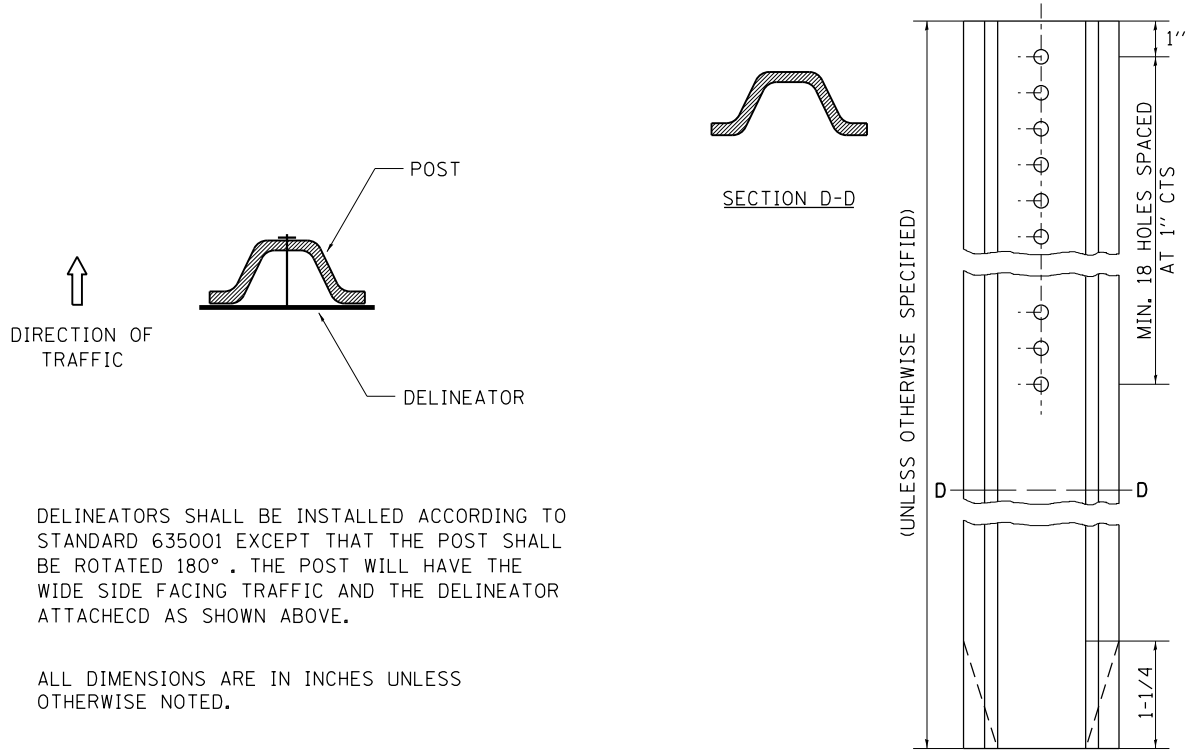
FOR DETAILS ON DIMENSIONS AND GRADES, SEE DISTRICT STANDARD 25.1 OR PLANS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 6-27-14
 10-03-11

SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS 35.4

DELINEATOR AND POST ORIENTATION



DELINEATORS SHALL BE INSTALLED ACCORDING TO STANDARD 635001 EXCEPT THAT THE POST SHALL BE ROTATED 180°. THE POST WILL HAVE THE WIDE SIDE FACING TRAFFIC AND THE DELINEATOR ATTACHED AS SHOWN ABOVE.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-03-11

DELINEATOR AND POST ORIENTATION 37.4

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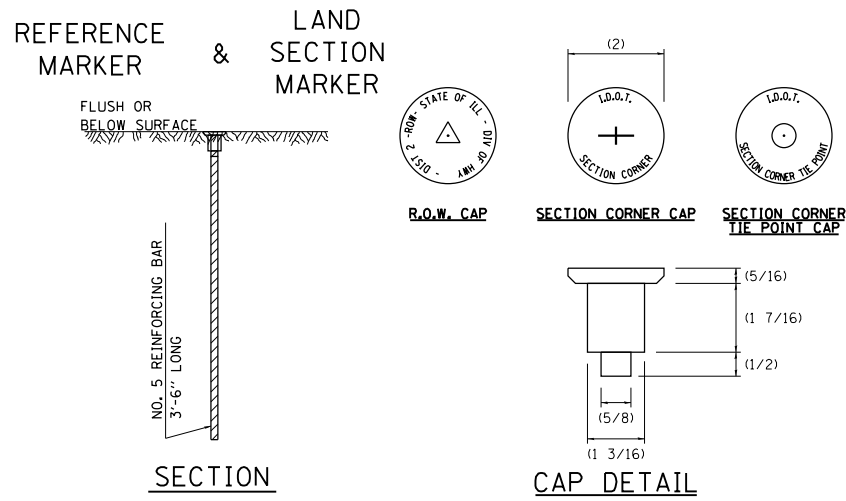
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	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED -	REVISED -
PLOT DATE = 3/20/2015	DATE = 03-12-2015	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

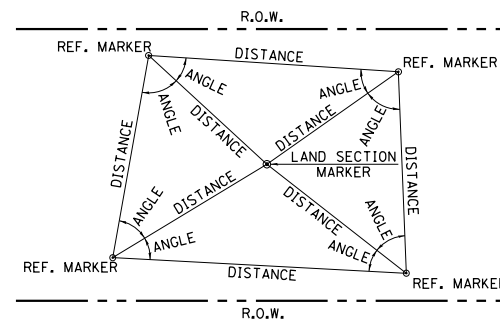
REGION 2 / DISTRICT 2 STANDARD	
IDOT	
SCALE: N/A	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	392
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

LAND SECTION & REFERENCE MARKERS



METHOD OF REFERENCING MARKERS



METHOD OF REFERENCING POINTS

REFERENCE MARKERS SHALL BE USED TO TIE IN PERMANENT LAND SECTION AND 1/4 SECTION CORNERS. WHERE LAND SECTION MARKERS FALL IN THE SHOULDERS OR GRAVEL SURFACES, THE TOP OF THE BAR SHALL BE KEPT 3" BELOW THE SURFACE. LAND SECTION MARKERS LOCATED IN TRAFFIC LANES SHALL BE REPLACED BY CORE DRILL AND RESETTING PIN.

ALUMINUM CAPS SHALL BE PLACED ON TOP OF THE REINFORCEMENT BAR. THERE ARE 3 TYPES OF CAPS, ONE FOR THE RIGHT-OF-WAY CORNERS, ONE FOR THE SECTION CORNERS AND ONE FOR THE SECTION CORNER TIE POINTS. THE CAPS WILL BE SUPPLIED BY THE SURVEYOR WHO IS RESPONSIBLE FOR MONUMENTING CORNERS.

REVISED - 03-05-10

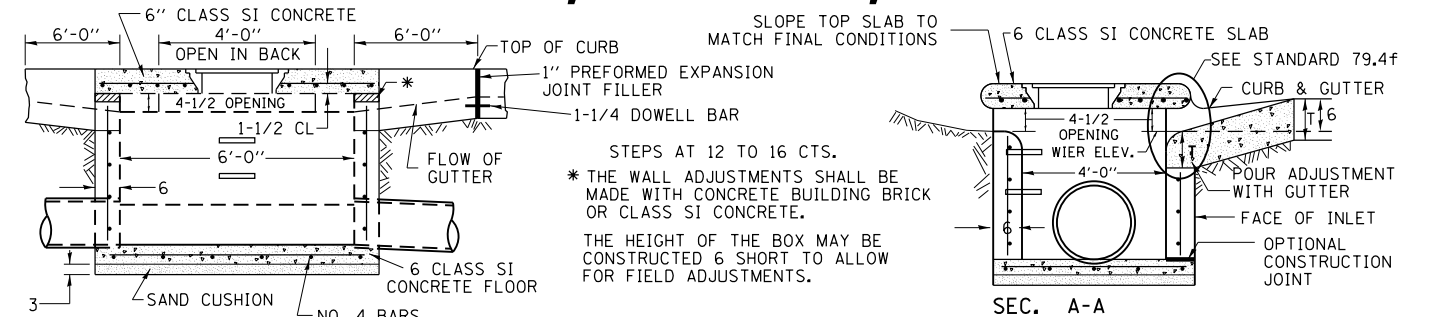
USE INSTRUMENT TIES TO NEARBY LAND-MARKS (STEEPLES, TOWERS, SILOS, ETC....) IN CULTIVATED FIELDS, SET 28" OR MORE BELOW GROUND SURFACE.

IN FENCE LINE OR PROTECTED AREA SET TOP AT GROUND LEVEL SO AS NOT TO BE DISTURBED BY MOWING.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

LAND SECTION & REFERENCE MARKERS 63.4

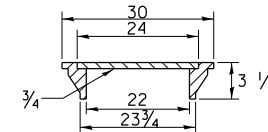
INLETS, SPECIAL, NO. 4



FRONT VIEW

SEE STANDARD 602701 FOR DETAILS OF STEPS. 1" PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET. CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS. REINFORCEMENT FOR INLETS, SPECIAL, NO. 4 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

LIGHT WEIGHT MANHOLE CASTING



TOTAL WEIGHT 160 LBS.

REVISED - 8-27-13
REVISED - 10-04-11

NOTES

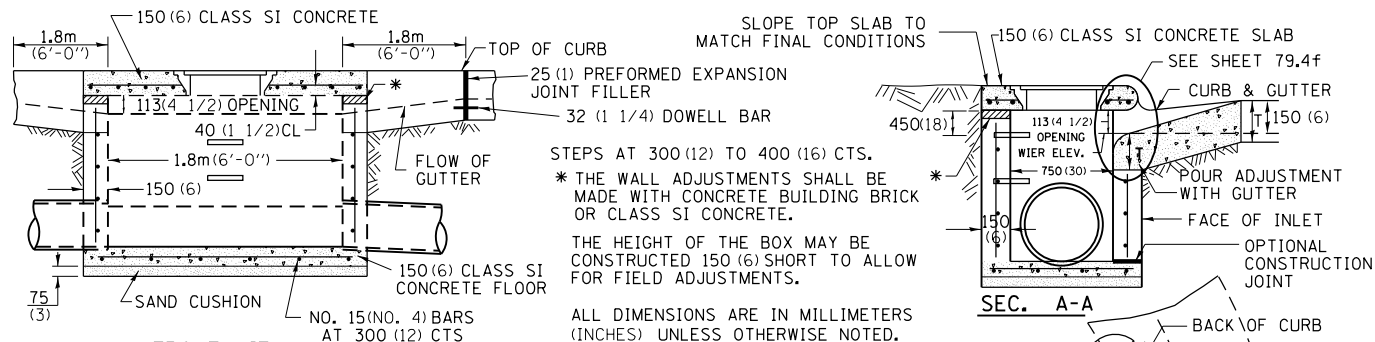
STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 5 FOOT. THE INLET SHALL BE CAST IN PLACE OR PRECAST. EXCEPT AS NOTED HEREON INLETS, SPECIAL, NO. 4 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 4 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED). THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET. THE CURB AND GUTTER ADJACENT TO AND 6 FOOT ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION. ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS OR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

TOP VIEW

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

INLETS, SPECIAL, NO. 4 79.4a

INLET SPECIAL NO. 5



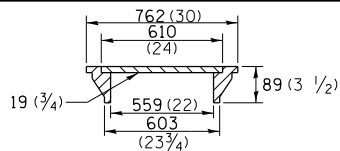
FRONT VIEW

NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS. 25 (1) PREFORMED EXPANSION JOINTS AS SHOWN SHALL BE PROVIDED ON EACH SIDE OF INLET. CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTAL SECTIONS. REINFORCEMENT FOR INLET SPECIAL NO. 5 SHALL BE ACCORDING TO DISTRICT STANDARD 79.4g

STEPS AT 300 (12) TO 400 (16) CTS. * THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE. THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 150 (6) SHORT TO ALLOW FOR FIELD ADJUSTMENTS. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED. STEPS SHALL BE OMITTED WHEN DEPTH OF INLET IS LESS THAN 1.5 m (5 FT.). THE INLET SHALL BE CAST IN PLACE OR PRECAST. EXCEPT AS NOTED HEREON INLET SPECIAL NO. 5 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS. THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL NO. 5 SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE FRAME, LID, REINFORCEMENT BARS, FLOOR AND TOP SLABS, CAST IRON STEPS (IF USED). THE CURB AND GUTTER WILL BE PAID FOR SEPARATELY AND WILL BE MEASURED THROUGH THE INLET. THE CURB AND GUTTER ADJACENT TO AND 1.8m (6 FT) ON EITHER SIDE OF THE INLET SHALL BE CONSTRUCTED AS SHOWN WITH NO ADDITIONAL COMPENSATION FOR THE TRANSITION. ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS (SPECIAL) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

LIGHT WEIGHT MANHOLE CASTING

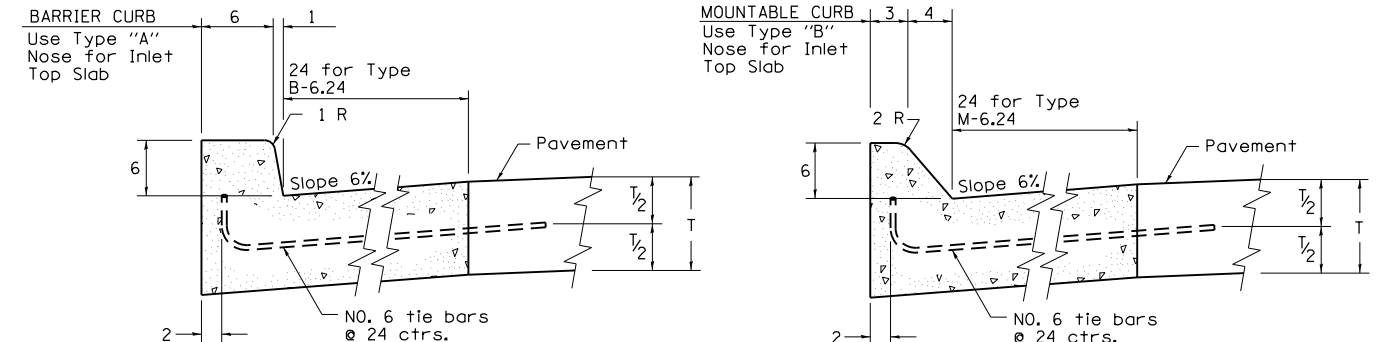


TOTAL WEIGHT 73 KG. (160 LBS.)

REVISED - 4-4-11

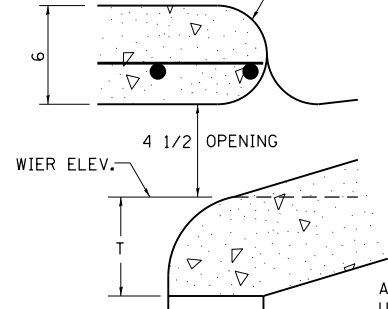
INLET SPECIAL NO. 5 79.4b

NOSE TYPE FOR INLET TOP SLAB



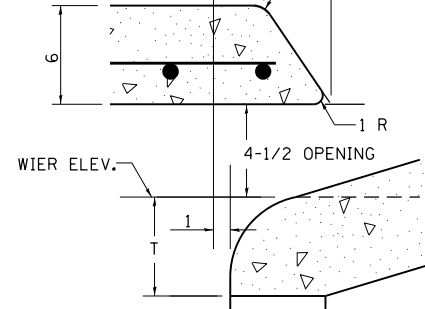
TYPE "A"

TO BE USED ON EXISTING OR PROPOSED 6 BARRIER CURB



TYPE "B"

TO BE USED ON PROPOSED 6 MOUNTABLE CURB



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-05-11

NOSE TYPE FOR INLET TOP SLAB 79.4f

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PLOT SCALE = 100.0000' / 1"	CHECKED - IDOT	REVISED -
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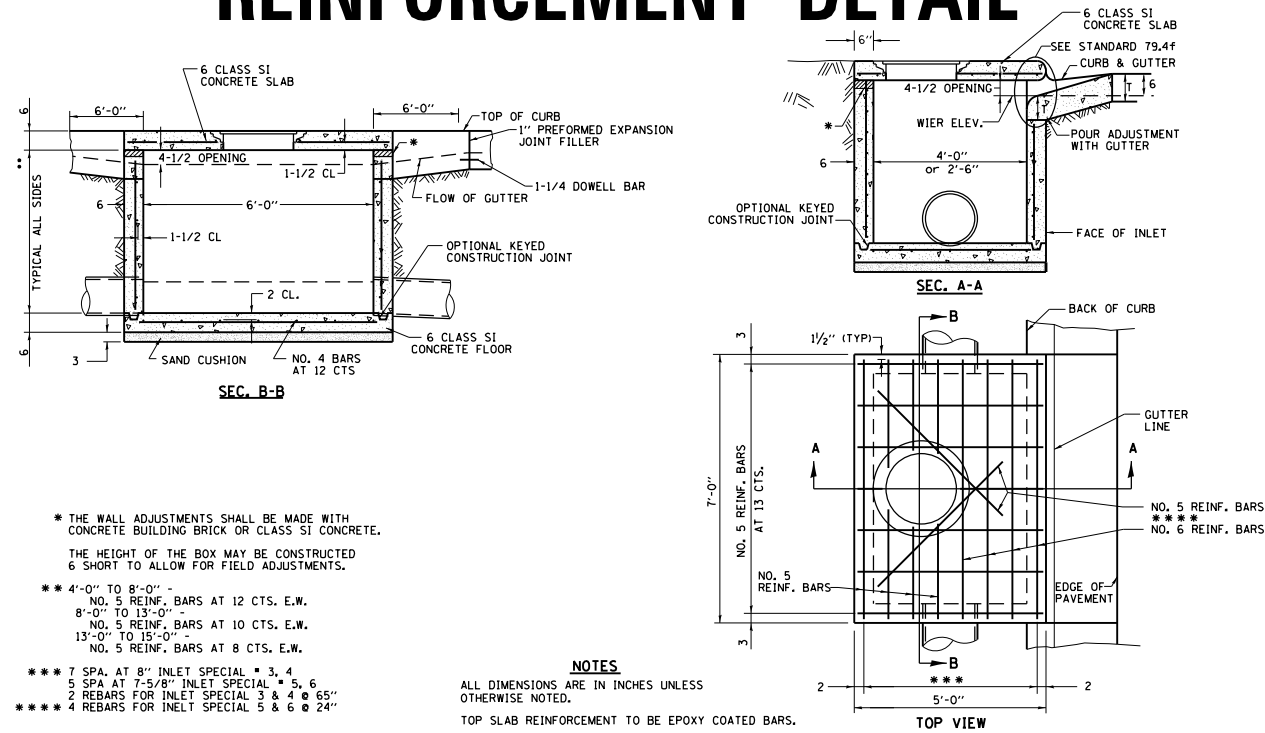
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 /DISTRICT 2 STANDARD

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 17	SECTION 104B-2	COUNTY CARROLL/JACKSON	TOTAL SHEETS 528	SHEET NO. 393
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

INLETS, SPECIAL, NO. 3, 4, 5, 6 REINFORCEMENT DETAIL



* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS S1 CONCRETE. THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

*** 4'-0" TO 8'-0" - NO. 5 REINF. BARS AT 12 CTS. E.W.
8'-0" TO 13'-0" - NO. 5 REINF. BARS AT 10 CTS. E.W.
13'-0" TO 15'-0" - NO. 5 REINF. BARS AT 8 CTS. E.W.

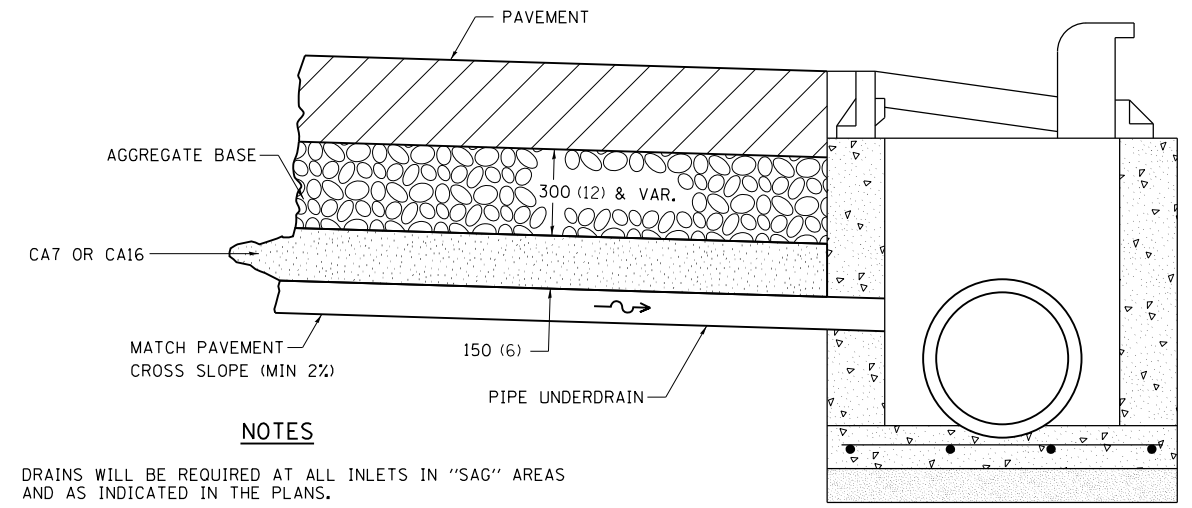
***** 7 SPA. AT 8" INLET SPECIAL * 3, 4
5 SPA AT 7-5/8" INLET SPECIAL * 5, 6
2 REBARS FOR INLET SPECIAL 3 & 4 @ 65"
***** 4 REBARS FOR INLET SPECIAL 5 & 6 @ 24"

NOTES
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
TOP SLAB REINFORCEMENT TO BE EPOXY COATED BARS.

REVISED - 8-27-13
10-05-11

INLETS, SPECIAL, NO. 3, 4, 5, 6 REINFORCEMENT DETAIL 79.4g

DRAIN FOR AGGREGATE BASES IN URBAN AREAS

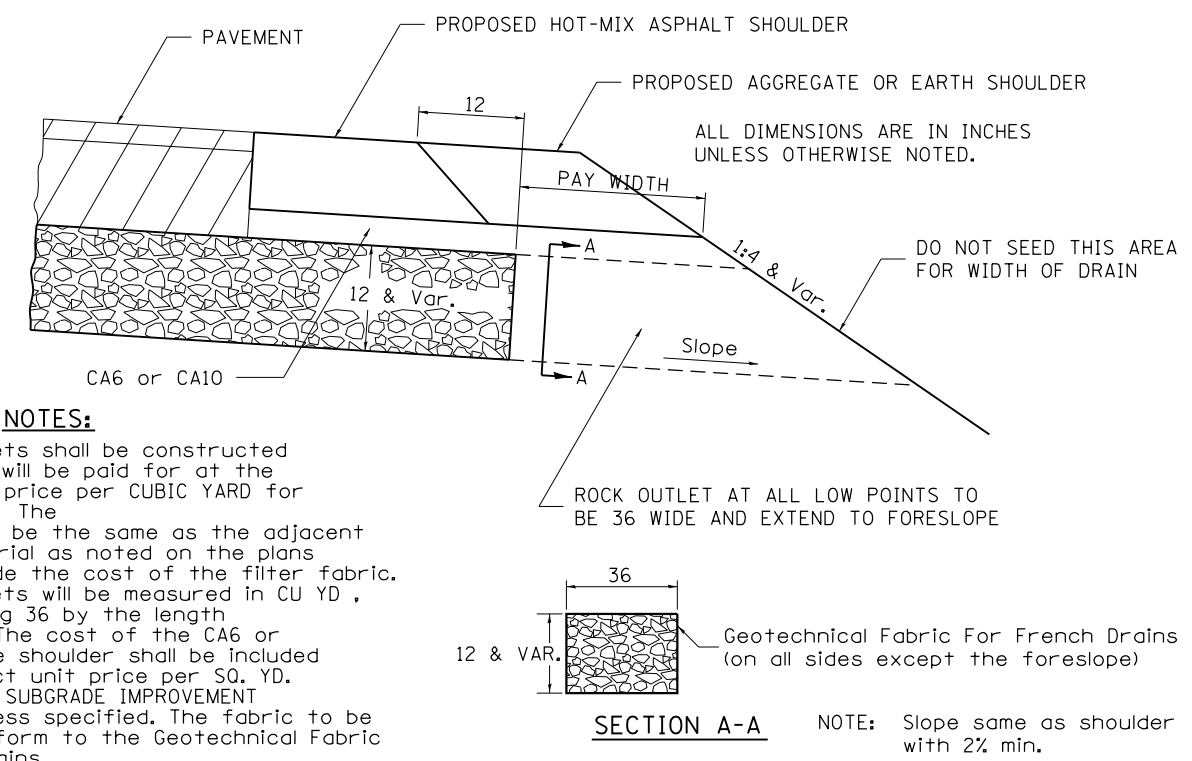


NOTES
DRAINS WILL BE REQUIRED AT ALL INLETS IN "SAG" AREAS AND AS INDICATED IN THE PLANS.
THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METER (FOOT) FOR PIPE UNDERDRAINS OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 4-4-11

DRAIN FOR AGGREGATE BASES IN URBAN AREAS 88.4

DRAIN FOR AGGREGATE BASE COURSE



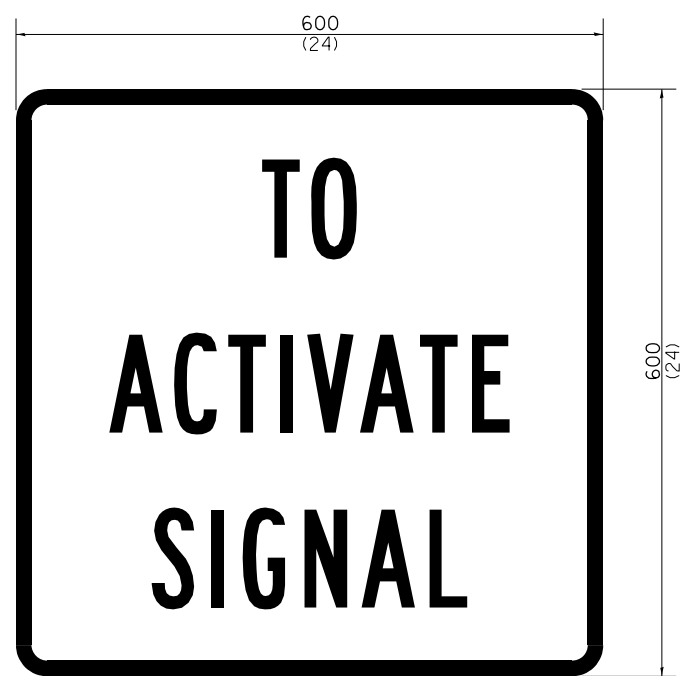
NOTES:
The rock outlets shall be constructed using CA7 and will be paid for at the contract unit price per CUBIC YARD for FRENCH DRAINS. The thickness shall be the same as the adjacent sub-base material as noted on the plans and shall include the cost of the filter fabric. The Rock outlets will be measured in CU YD, the width being 36 by the length shown above. The cost of the CA6 or CA10 under the shoulder shall be included in the contract unit price per SQ. YD. for AGGREGATE SUBGRADE IMPROVEMENT of the thickness specified. The fabric to be used shall conform to the Geotechnical Fabric For French Drains

SECTION A-A NOTE: Slope same as shoulder with 2% min.

REVISED - 8-27-13
REVISED - 10-09-12

DRAIN FOR AGGREGATE BASE COURSE 96.4

STOP LINE SIGN FOR TEMPORARY SIGNALS



SIZE: 600(24) x 600(24)
100(4) CAPITAL LETTERS - BLACK
13(1/2) BORDER - BLACK
WHITE REFLECTIVE - TYPE AP
HIGH INTENSITY PRISMATIC SHEETING

GENERAL NOTE:
THIS SIGN SHALL BE INSTALLED AT THE STOP LINE AS DIRECTED BY ENGINEER.
ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.

REVISED - 1-22-07

STOP LINE SIGN FOR TEMPORARY SIGNALS 99.4

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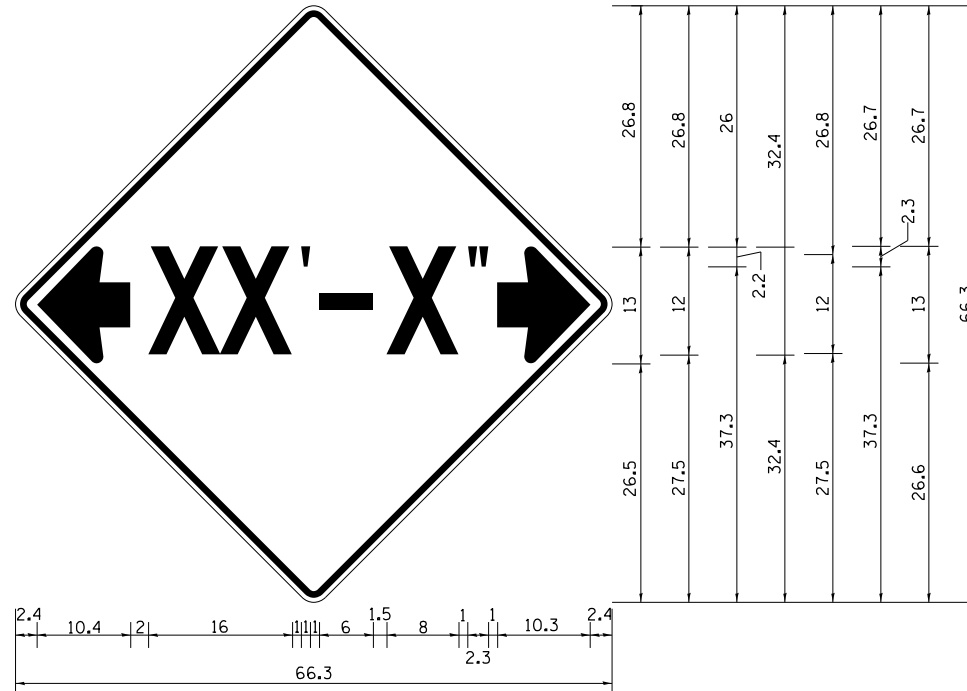
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DRAWN - IDOT	CHECKED - IDOT	REVISED -
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PLOT DATE = 3/20/2015		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

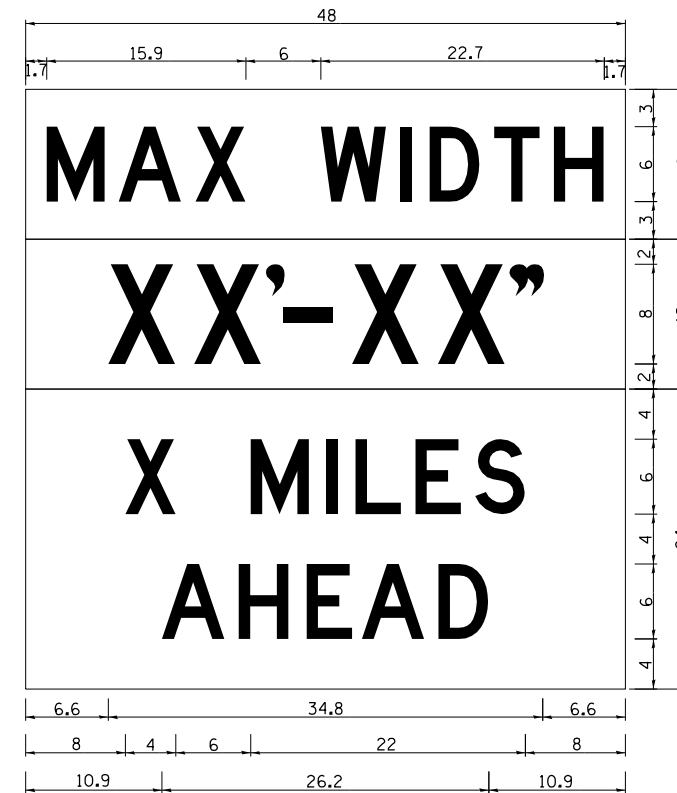
REGION 2 / DISTRICT 2 STANDARD	
SCALE: N/A	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	394
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



NOTES
 W12-2 - Horizontal Clearance Sign
 48.0" across sides, 1.9" Radius,
 0.8" Border, 0.5" Indent, Black on
 Orange; Standard Arrow Custom
 10.4" X 8.1" 180° Black II Inch
 D Series Lettering; Standard Arrow
 Custom 10.4" X 8.1" 0°



W12-I103 (Width is 8D);
 No border, Black on White;
 [MAX WIDTH] D;

No border, Black on Orange;
 [XX'-XX''] D;

No border, Black on White;
 [X MILES] D; [AHEAD] D;

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 5-15-09

INFORMATIONAL WARNING SIGNS (FOR NARROW TRAVEL LANES) 39.2

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PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

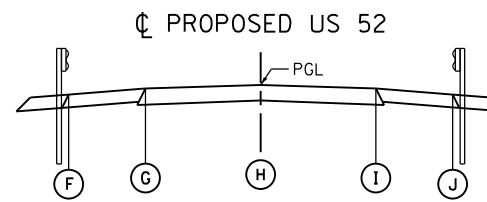
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 /DISTRICT 2 STANDARD

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	395
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

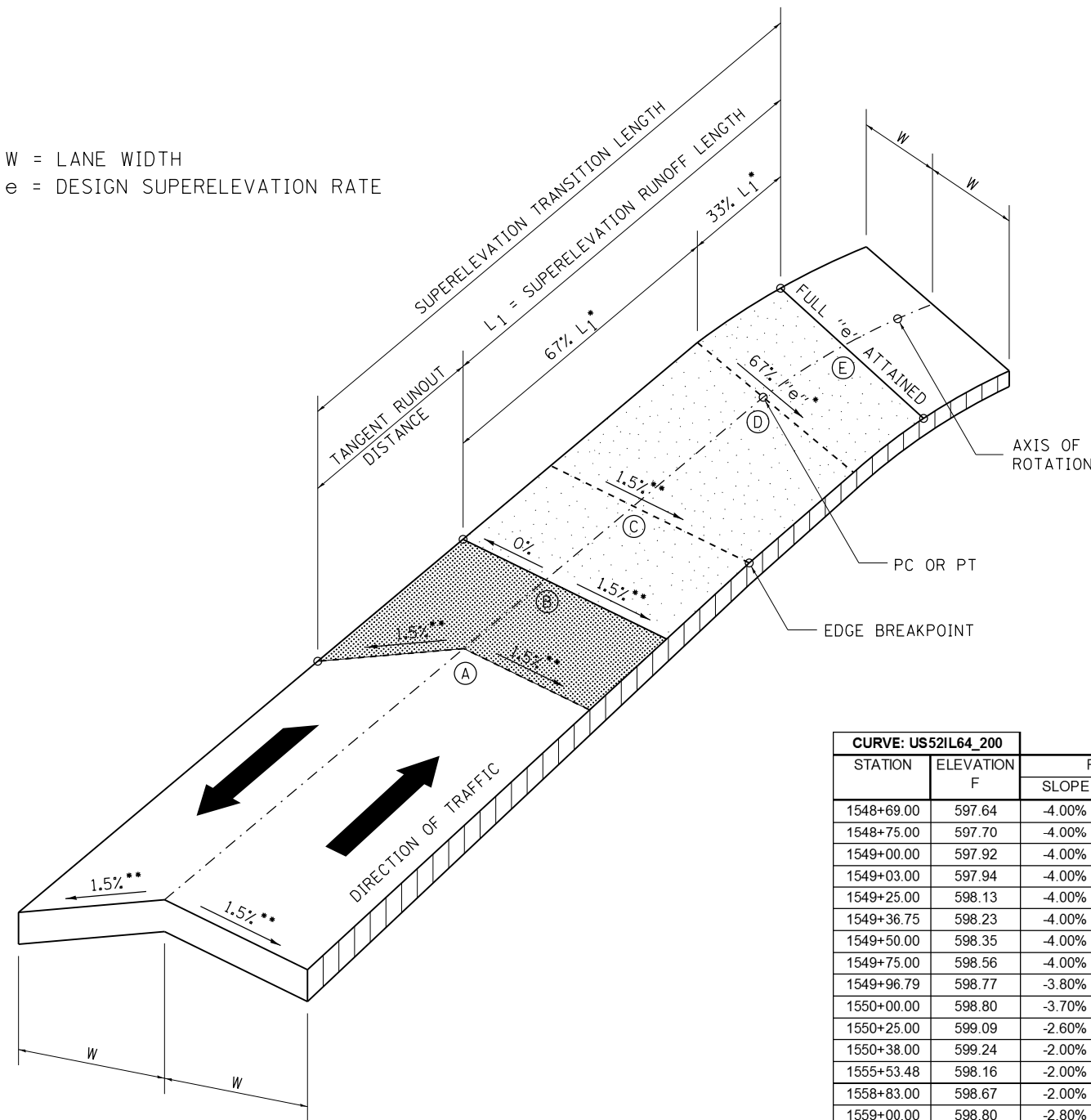
SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY



TRANSITION CURVE TABLE

CURVE #	P.I. STA.	SUPERELEVATION "e"	W	SUPERELEVATION TRANSITION LENGTH	TANGENT RUNOUT DISTANCE	SUPERELEVATION RUNOFF LENGTH
US52-IL64_200	1555+53.48	6.0%	12.00	169	34	135
IL84_210	715+47.95	2.4%	16.00	156	71	85
IL84_220	726+74.38	3.8%	12.00	140	40	100

W = LANE WIDTH
e = DESIGN SUPERELEVATION RATE



CURVE: US52IL64_200

STATION	ELEVATION F	F TO G		ELEVATION G	G TO H		ELEVATION H (PGL)	H TO I		ELEVATION I	I TO J		ELEVATION J	DETAIL POINT	COMMENTS
		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH			
1548+69.00	597.64	-4.00%	8.00	597.96	-1.5%	12.00	598.14	-1.5%	12.00	597.96	-4.00%	8.00	597.64	A	BEGIN TANGENT RUNOUT
1548+75.00	597.70	-4.00%	8.00	598.02	-1.2%	12.00	598.16	-1.5%	12.00	597.98	-4.00%	8.00	597.66		
1549+00.00	597.92	-4.00%	8.00	598.24	-0.1%	12.00	598.25	-1.5%	12.00	598.07	-4.00%	8.00	597.75		
1549+03.00	597.94	-4.00%	8.00	598.26	0.0%	12.00	598.26	-1.5%	12.00	598.08	-4.00%	8.00	597.76	B	BEGIN SUPER ELEVATION RUNOFF
1549+25.00	598.13	-4.00%	8.00	598.45	1.0%	12.00	598.33	-1.5%	12.00	598.15	-4.00%	8.00	597.83		
1549+36.75	598.23	-4.00%	8.00	598.55	1.5%	12.00	598.37	-1.5%	12.00	598.19	-4.00%	8.00	597.87	C	REVERSE CROWN
1549+50.00	598.35	-4.00%	8.00	598.67	2.1%	12.00	598.41	-2.1%	12.00	598.16	-4.00%	8.00	597.84		
1549+75.00	598.56	-4.00%	8.00	598.88	3.2%	12.00	598.50	-3.2%	12.00	598.11	-4.00%	8.00	597.79		
1549+96.79	598.77	-3.80%	8.00	599.07	4.2%	12.00	598.57	-4.2%	12.00	598.06	-4.20%	8.00	597.73	D	P.C. STATION
1550+00.00	598.80	-3.70%	8.00	599.09	4.3%	12.00	598.58	-4.3%	12.00	598.06	-4.30%	8.00	597.72		
1550+25.00	599.09	-2.60%	8.00	599.30	5.4%	12.00	598.65	-5.4%	12.00	598.00	-5.40%	8.00	597.57		
1550+38.00	599.24	-2.00%	8.00	599.40	6.0%	12.00	598.68	-6.0%	12.00	597.96	-6.00%	8.00	597.48	E	BEGIN FULL SUPERELEVATION
1555+53.48	598.16	-2.00%	8.00	598.32	6.0%	12.00	597.60	-6.0%	12.00	596.88	-6.00%	8.00	596.40		P.I. STATION
1558+83.00	598.67	-2.00%	8.00	598.83	6.0%	12.00	598.11	-6.0%	12.00	597.39	-6.00%	8.00	596.91	E	END FULL SUPERELEVATION
1559+00.00	598.80	-2.80%	8.00	599.02	5.2%	12.00	598.40	-5.2%	12.00	597.77	-5.20%	8.00	597.36		
1559+25.00	599.06	-3.90%	8.00	599.38	4.1%	12.00	598.88	-4.1%	12.00	598.39	-4.10%	8.00	598.06		
1559+37.38	599.26	-4.00%	8.00	599.58	3.6%	12.00	599.15	-3.6%	12.00	598.72	-4.00%	8.00	598.40	D	P.T. STATION
1559+50.00	599.48	-4.00%	8.00	599.80	3.0%	12.00	599.44	-3.0%	12.00	599.08	-4.00%	8.00	598.76		
1559+75.00	599.98	-4.00%	8.00	600.30	1.9%	12.00	600.07	-1.9%	12.00	599.85	-4.00%	8.00	599.53		
1559+84.25	600.19	-4.00%	8.00	600.51	1.5%	12.00	600.33	-1.5%	12.00	600.15	-4.00%	8.00	599.83	C	REVERSE CROWN
1560+00.00	600.55	-4.00%	8.00	600.87	0.8%	12.00	600.78	-1.5%	12.00	600.60	-4.00%	8.00	600.28		
1560+18.00	601.01	-4.00%	8.00	601.33	0.0%	12.00	601.33	-1.5%	12.00	601.15	-4.00%	8.00	600.83	B	END SUPERELEVATION RUNOFF
1560+25.00	601.20	-4.00%	8.00	601.52	-0.3%	12.00	601.55	-1.5%	12.00	601.37	-4.00%	8.00	601.05		
1560+50.00	601.91	-4.00%	8.00	602.23	-1.4%	12.00	602.40	-1.5%	12.00	602.22	-4.00%	8.00	601.90		
1560+52.00	601.97	-4.00%	8.00	602.29	-1.5%	12.00	602.47	-1.5%	12.00	602.29	-4.00%	8.00	601.97	A	END TANGENT RUNOUT

NOTE: SLOPE IS IN RELATION TO THE PGL

NOTE: ROUND ALL EDGE BREAKPOINTS IN FIELD.

- * CURVE US52IL64.200 USES 70%/30% DISTRIBUTION ENTERING THE CURVE AND 60%/40% EXITING THE CURVE. CURVE IL84_220 USES 50%/50% DISTRIBUTION ENTERING AND EXITING THE CURVE.
- ** THE CROSS SLOPE ENTERING CURVE IL84_210 IS 2.0%.

FILE NAME = c:\p\sectking\illinois\35361\dm04105\200111SP1_2005.dgn

REVISED - 11-09-06

USER NAME = 35361	DESIGNED - OS	REVISED -
	DRAWN - RB	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - JC	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

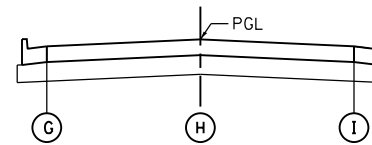
SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY

45.2

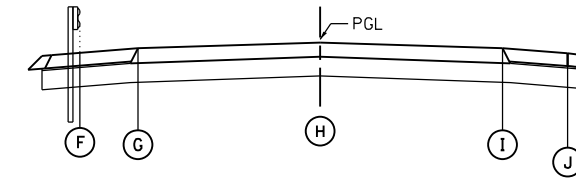
REGION 2 /DISTRICT 2 STANDARD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
SCALE: N/A		17	104B-2	CARROLL/JACKSON	528	396
SHEET 1 OF 2 SHEETS		CONTRACT NO. 64G59		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY

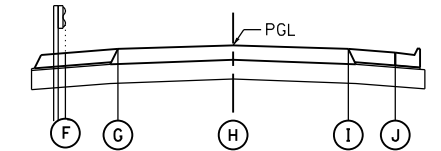
☉ PROPOSED US 52/IL 64/IL 84
707+83.00 TO 709+39.00



☉ PROPOSED US 52/IL 64/IL 84
721+52.00 TO 722+91.00
724+62.00 TO 726+02.00



☉ PROPOSED IL 84
727+47.00 TO 728+87.00



CURVE: IL84_210															
STATION	ELEVATION F	F TO G		ELEVATION G	G TO H		ELEVATION H (PGL)	H TO I		ELEVATION I	I TO J		ELEVATION J	DETAIL POINT	COMMENTS
		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH			
707+83.00	N/A	N/A	N/A	607.50	-2.0%	16.00	607.82	-2.0%	16.00	607.50	N/A	N/A	N/A	A	BEGIN TANGENT RUNOUT
708+00.00	N/A	N/A	N/A	607.96	-2.0%	16.00	608.28	-1.5%	16.00	608.04	N/A	N/A	N/A		
708+25.00	N/A	N/A	N/A	608.68	-2.0%	16.00	609.00	-0.8%	16.00	608.87	N/A	N/A	N/A		
708+50.00	N/A	N/A	N/A	609.46	-2.0%	16.00	609.78	-0.1%	16.00	609.76	N/A	N/A	N/A		
708+54.00	N/A	N/A	N/A	609.59	-2.0%	16.00	609.91	0.0%	16.00	609.91	N/A	N/A	N/A	B	BEGIN SUPER ELEVATION RUNOFF
708+75.00	N/A	N/A	N/A	610.30	-2.0%	16.00	610.62	0.6%	16.00	610.72	N/A	N/A	N/A		
709+00.00	N/A	N/A	N/A	611.20	-2.0%	16.00	611.52	1.3%	16.00	611.73	N/A	N/A	N/A		
709+10.00	N/A	N/A	N/A	611.57	-2.0%	16.00	611.89	1.6%	16.00	612.15	N/A	N/A	N/A	D	P.C. STATION
709+24.83	N/A	N/A	N/A	612.15	-2.0%	16.00	612.47	2.0%	16.00	612.79	N/A	N/A	N/A	C	REVERSE CROWN
709+29.00	N/A	N/A	N/A	612.16	-2.0%	16.00	612.48	2.0%	16.00	612.80	N/A	N/A	N/A		
709+39.00	N/A	N/A	N/A	612.65	-2.4%	16.00	613.03	2.4%	16.00	613.42	N/A	N/A	N/A	E	BEGIN FULL SUPERELEVATION
715+47.95	N/A	N/A	N/A	631.37	-2.4%	32.15	632.14	2.4%	19.00	632.60	-4.00%	6.73	632.33		P.I. STATION
721+52.00	624.84	-4.00%	8.00	625.16	-2.4%	12.00	625.45	2.4%	12.00	625.73	-4.00%	8.00	625.41	E	END FULL SUPERELEVATION
721+75.00	624.47	-4.00%	8.00	624.79	-1.8%	12.00	625.01	1.8%	12.00	625.23	-4.00%	8.00	624.91		
721+80.27	624.40	-4.00%	8.00	624.72	-1.6%	12.00	624.91	1.6%	12.00	625.10	-4.00%	8.00	624.78	D	P.T. STATION
721+83.88	624.34	-4.00%	8.00	624.66	-1.5%	12.00	624.84	1.5%	12.00	625.02	-4.00%	8.00	624.70	C	REVERSE CROWN
722+00.00	624.03	-4.00%	8.00	624.35	-1.5%	12.00	624.53	1.0%	12.00	624.65	-4.00%	8.00	624.33		
722+25.00	623.56	-4.00%	8.00	623.88	-1.5%	12.00	624.06	0.3%	12.00	624.10	-4.00%	8.00	623.78		
722+37.00	623.33	-4.00%	8.00	623.65	-1.5%	12.00	623.83	0.0%	12.00	623.83	-4.00%	8.00	623.51	B	END SUPERELEVATION RUNOFF
722+50.00	623.08	-4.00%	8.00	623.40	-1.5%	12.00	623.58	-0.4%	12.00	623.54	-4.00%	8.00	623.22		
722+75.00	622.61	-4.00%	8.00	622.93	-1.5%	12.00	623.11	-1.1%	12.00	622.98	-4.00%	8.00	622.66		
722+91.00	622.31	-4.00%	8.00	622.63	-1.5%	12.00	622.81	-1.5%	12.00	622.63	-4.00%	8.00	622.31	A	END TANGENT RUNOUT

NOTE: SLOPE IS IN RELATION TO THE PGL

CURVE: IL84_220															
STATION	ELEVATION F	F TO G		ELEVATION G	G TO H		ELEVATION H (PGL)	H TO I		ELEVATION I	I TO J		ELEVATION J	DETAIL POINT	COMMENTS
		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH		SLOPE	WIDTH			
724+62.00	619.22	-4.00%	4.00	619.38	-1.5%	12.00	619.56	-1.5%	12.00	619.38	-4.00%	5.93	619.14	A	BEGIN TANGENT RUNOUT
724+75.00	619.03	-4.00%	4.00	619.19	-1.0%	12.00	619.31	-1.5%	12.00	619.13	-4.00%	5.50	618.91		
725+00.00	618.66	-4.00%	4.00	618.82	-0.1%	12.00	618.83	-1.5%	12.00	618.65	-4.00%	4.67	618.47		
725+02.00	618.64	-4.00%	4.00	618.80	0.0%	12.00	618.80	-1.5%	12.00	618.62	-4.00%	4.60	618.43	B	BEGIN SUPER ELEVATION RUNOFF
725+25.00	618.31	-4.00%	4.00	618.47	0.9%	12.00	618.36	-1.5%	12.00	618.18	-4.00%	4.00	618.02		
725+41.47	618.07	-4.00%	4.00	618.23	1.5%	12.00	618.05	-1.5%	12.00	617.87	-4.00%	4.00	617.71	C	REVERSE CROWN
725+50.00	617.94	-4.00%	4.00	618.10	1.8%	12.00	617.88	-1.8%	12.00	617.67	-4.00%	4.00	617.51		
725+51.32	617.93	-4.00%	4.00	618.09	1.9%	12.00	617.86	-1.9%	12.00	617.63	-4.00%	4.00	617.47	D	P.C. STATION
725+75.00	617.59	-4.00%	4.00	617.75	2.8%	12.00	617.41	-2.8%	12.00	617.07	-4.00%	4.00	616.91		
726+00.00	617.22	-4.00%	4.00	617.38	3.7%	12.00	616.93	-3.7%	12.00	616.49	-4.00%	4.00	616.33		
726+02.00	617.19	-4.00%	4.00	617.35	3.8%	12.00	616.90	-3.8%	12.00	616.44	-4.00%	4.00	616.28	E	BEGIN FULL SUPERELEVATION
726+74.38	615.82	-4.00%	4.00	615.98	3.8%	12.00	615.52	-3.8%	12.00	615.07	-4.00%	4.00	614.91		PI STATION
727+47.00	614.62	-4.00%	4.00	614.78	3.8%	12.00	614.32	-3.8%	12.00	613.86	-4.00%	4.00	613.70	E	END FULL SUPERELEVATION
727+50.00	614.56	-4.00%	4.00	614.72	3.7%	12.00	614.28	-3.7%	12.00	613.83	-4.00%	4.00	613.67		
727+75.00	614.11	-4.00%	4.00	614.27	2.7%	12.00	613.94	-2.7%	12.00	613.62	-4.00%	4.00	613.46		
727+97.31	613.74	-4.00%	4.00	613.90	1.9%	12.00	613.68	-1.9%	12.00	613.45	-4.00%	4.00	613.29	D	P.T. STATION
728+00.00	613.70	-4.00%	4.00	613.86	1.8%	12.00	613.65	-1.8%	12.00	613.43	-4.00%	4.00	613.27		
728+07.53	613.58	-4.00%	4.00	613.74	1.5%	12.00	613.56	-1.5%	12.00	613.38	-4.00%	4.00	613.22	C	REVERSE CROWN
728+25.00	613.32	-4.00%	4.00	613.48	0.8%	12.00	613.39	-1.5%	12.00	613.21	-4.00%	4.00	613.05		
728+47.00	613.03	-4.00%	4.00	613.19	0.0%	12.00	613.19	-1.5%	12.00	613.01	-4.00%	6.00	612.77	B	END SUPER ELEVATION RUNOFF
728+50.00	612.99	-4.00%	4.00	613.15	-0.1%	12.00	613.17	-1.5%	12.00	612.99	-4.00%	6.00	612.75		
728+75.00	612.69	-4.00%	4.00	612.85	-1.1%	12.00	612.98	-1.5%	12.00	612.80	-4.00%	6.00	612.56		
728+87.00	612.57	-4.00%	4.00	612.73	-1.5%	12.00	612.91	-1.5%	12.00	612.73	-4.00%	6.00	612.49	A	END TANGENT RUNOUT

NOTE: SLOPE IS IN RELATION TO THE PGL

SUPERELEVATION TRANSITION ON TWO-LANE HIGHWAY

45.2

FILE NAME = c:\pwork\king\illinois\35361\dm04105\20011SP1_207.dgn

REVISED - 11-09-06

USER NAME = 35361	DESIGNED - OS	REVISED -
	DRAWN - RB	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - JC	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

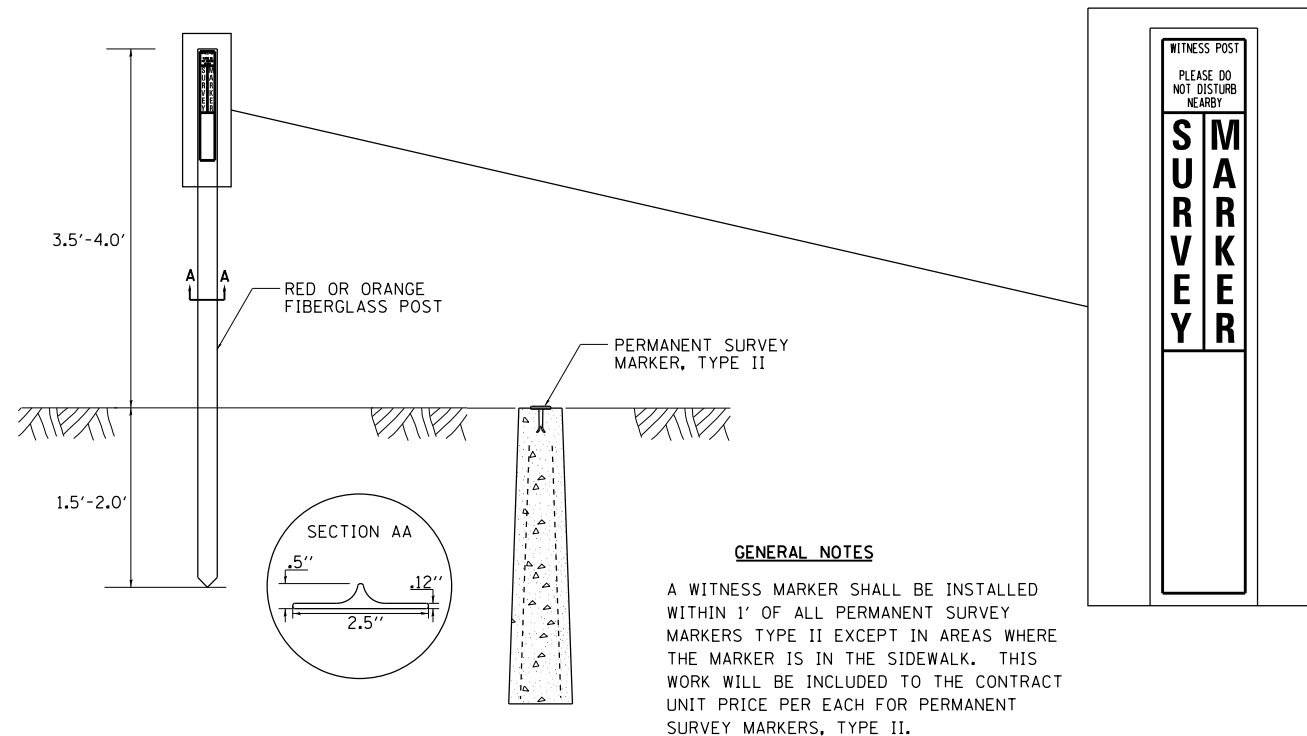
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 /DISTRICT 2 STANDARD

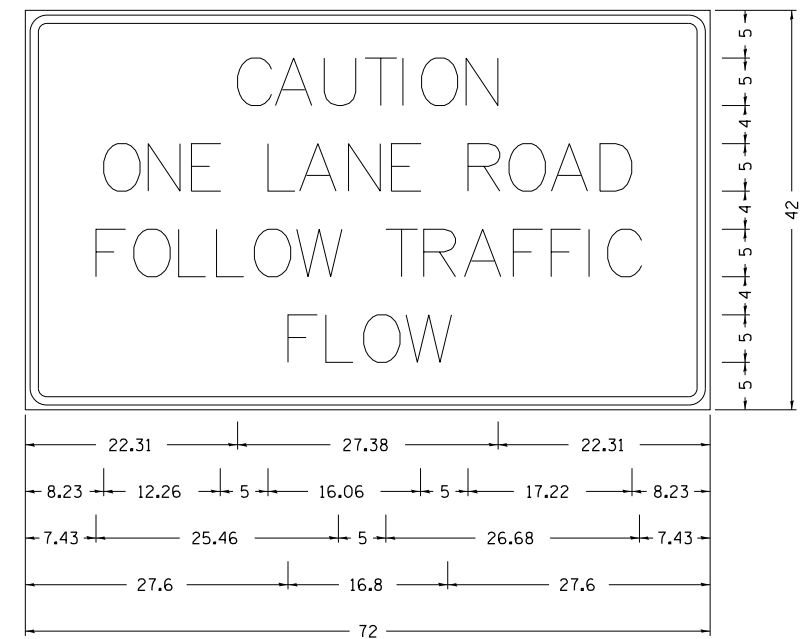
SCALE: N/A SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	397
CONTRACT NO. 64G59			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II



ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS



Type AA Fluorescent Orange Sheeting ;
 2.25" Radius, 0.88" Border, 0.50" Indent, Black on Orange;
 [CAUTION] D; [ONE LANE ROAD] D;
 [FOLLOW TRAFFIC] D; [FLOW] D

Table Of Widths And Spaces

22.31	C	3.36	0.62	A	4.18	0.94	U	3.36	0.94	T	3.04	0.94	I	0.78	1.17	O	3.52	1.17	N	3.36	22.31
8.23	O	3.51	1.17	N	3.36	1.18	E	3.04													
	L	3.05	0.31	A	4.18	0.94	N	3.36	1.17	E	3.05										
	R	3.36	0.93	O	3.52	0.94	A	4.18	0.93	D	3.36	8.23									
7.43	F	3.04	0.94	O	3.52	1.17	L	3.04	0.94	L	3.05	0.94	O	3.51	0.94	W	4.37				
	T	3.05	0.94	R	3.36	0.94	A	4.18	0.93	F	3.05	0.94	F	3.04	0.94	I	0.78	1.18	C	3.35	7.43
27.60	F	3.05	0.94	L	3.04	0.94	O	3.52	0.93	W	4.38	27.60									

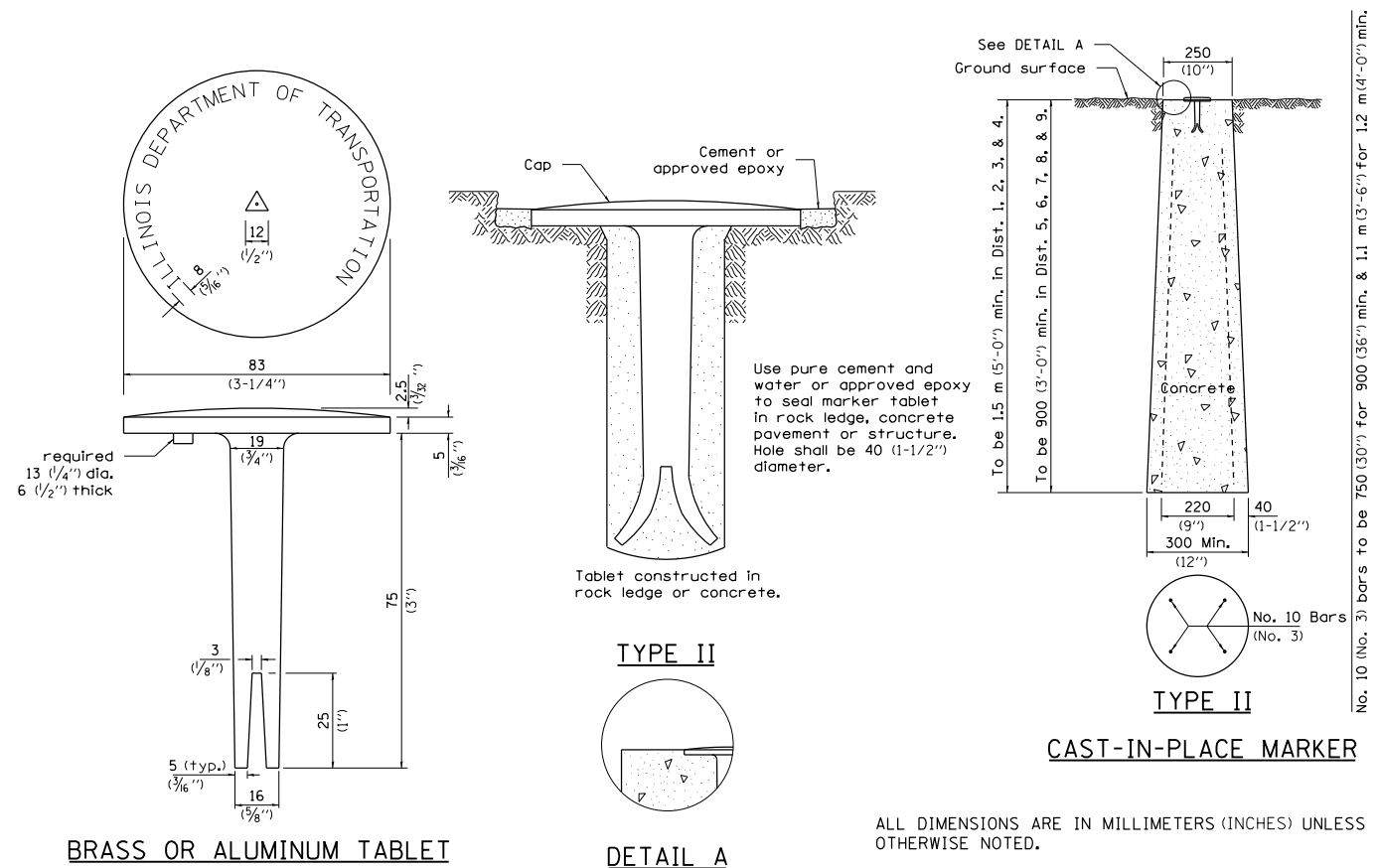
GENERAL NOTES

THIS SIGN SHALL BE INSTALLED AT ENTRANCES LOCATED BETWEEN THE TEMPORARY SIGNALS AS DIRECTED BY THE ENGINEER.
 ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

THE COST TO FURNISH, INSTALL AND REMOVE THIS SIGN AT THE REQUIRED LOCATIONS SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701316.

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

PERMANENT SURVEY MARKERS, TYPE II



WITNESS MARKER & PERMANENT SURVEY MARKERS, TYPE II 66.2

ENTRANCE SIGN FOR USE WITH TEMPORARY SIGNALS 75.2

FILE NAME = c:\p\work\king\illinois\35361\dm\04105\20011SPL_2005.dgn

REVISED - 4-4-11

REVISED - 10-28-05

USER NAME = 35361	DESIGNED - IDOT	REVISED -
DRAWN - IDOT	REVISED -	
PLOT SCALE = 100.0000' / in.	CHECKED - IDOT	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

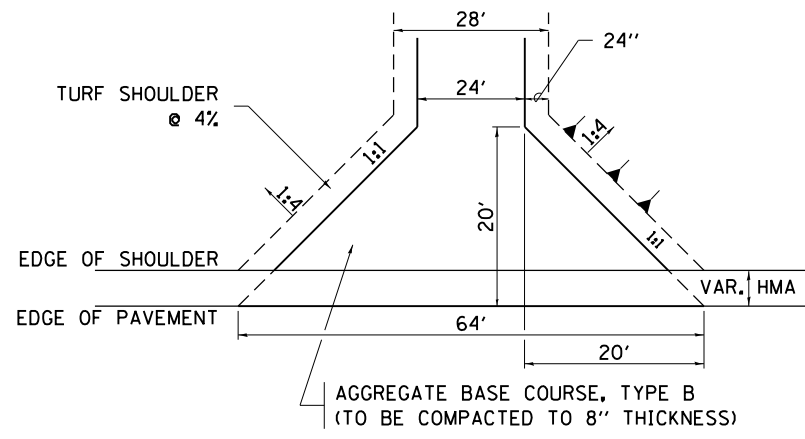
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

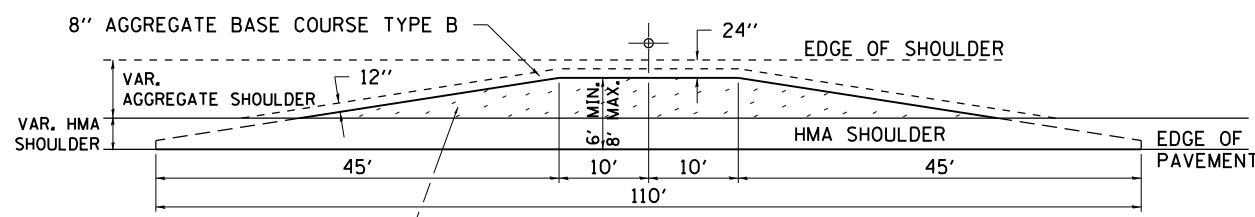
SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	398
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

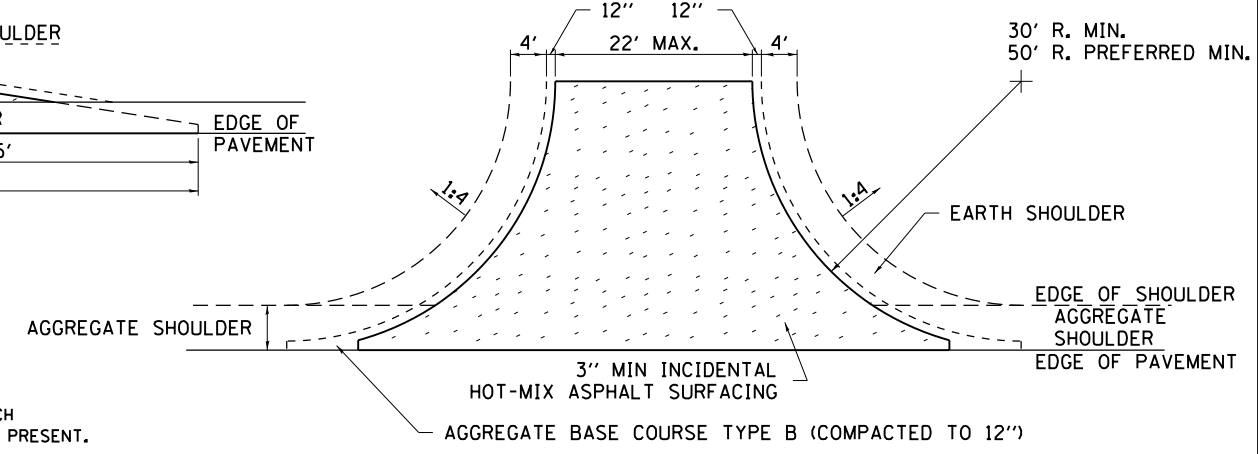
HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS



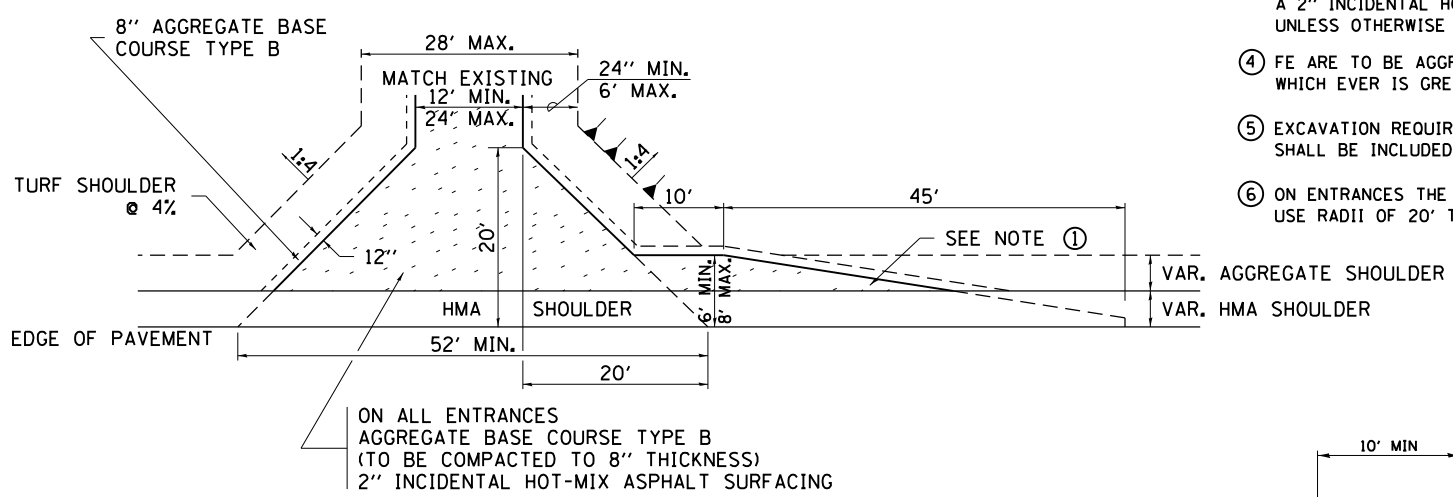
FIELD ENTRANCE



MAILBOX TURNOUT

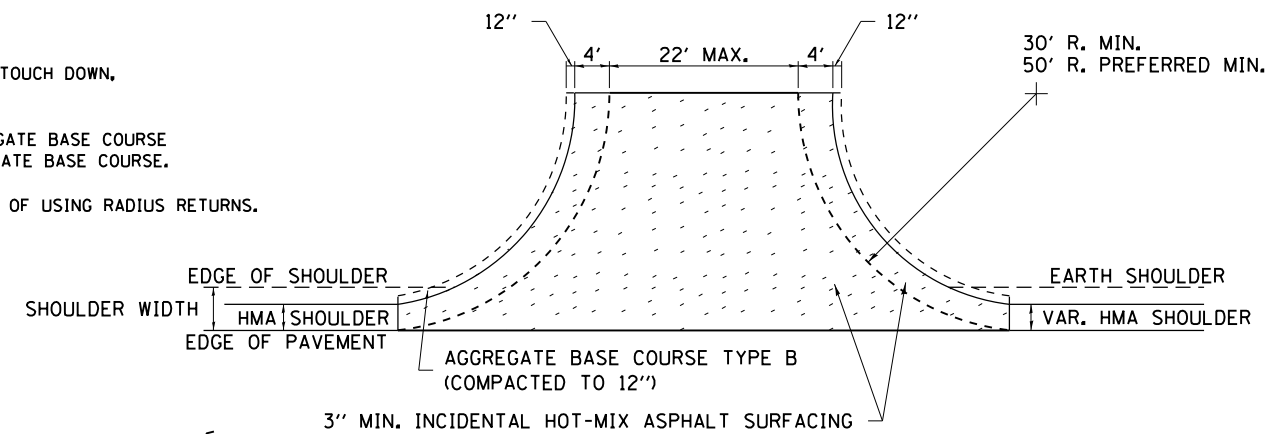


SIDE ROAD RETURN/EARTH SHOULDER

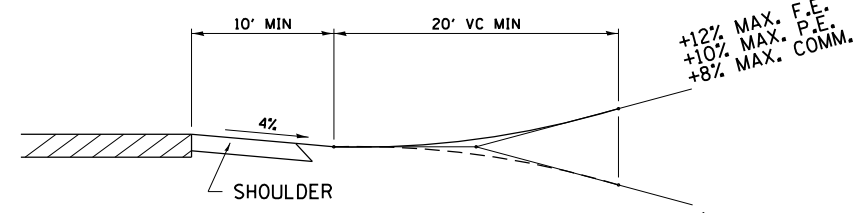


PRIVATE ENTRANCE

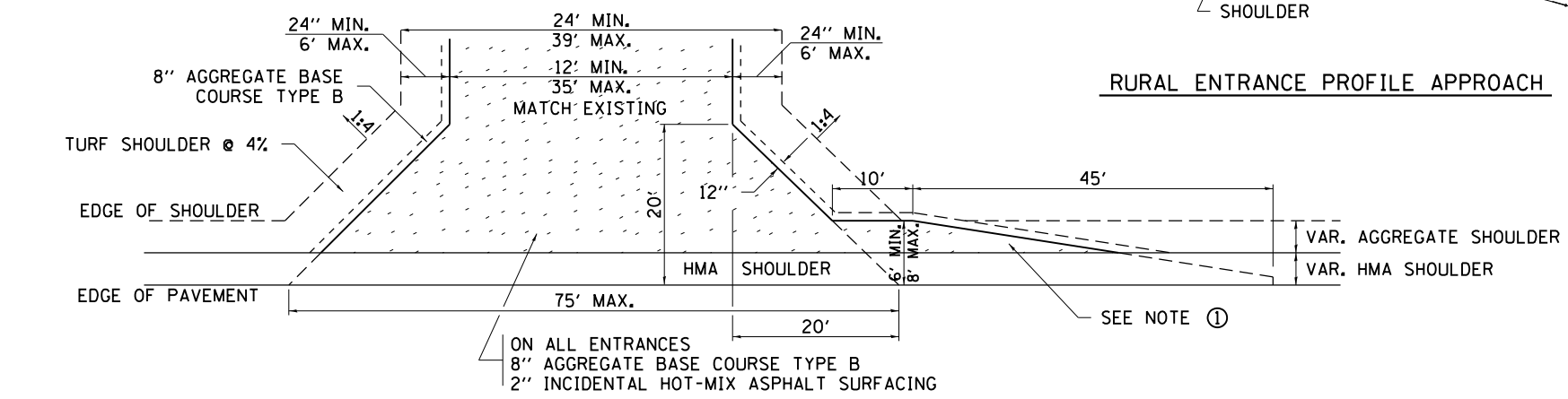
- NOTE**
- TURNOUTS ARE TO BE CONSTRUCTED ON THE APPROACH SIDE OF ALL PE & CE REGARDLESS IF A MAILBOX IS PRESENT.
 - ALL PE & CE ARE TO BE SURFACED TO RIGHT OF WAY LINE. AREA BEHIND RIGHT OF WAY SHALL MATCH EXISTING SURFACE.
 - ALL PE & CE TO BE CONSTRUCTED WITH AN 8" AGGREGATE BASE COURSE, TYPE B AND WITH A 2" INCIDENTAL HOT-MIX ASPHALT SURFACING, UNLESS OTHERWISE NOTED.
 - FE ARE TO BE AGGREGATE TO RIGHT OF WAY OR TOUCH DOWN, WHICH EVER IS GREATEST.
 - EXCAVATION REQUIRED FOR PLACEMENT OF AGGREGATE BASE COURSE SHALL BE INCLUDED IN THE COST OF THE AGGREGATE BASE COURSE.
 - ON ENTRANCES THE CONTRACTOR HAS THE OPTION OF USING RADIUS RETURNS. USE RADII OF 20' TO 60'.



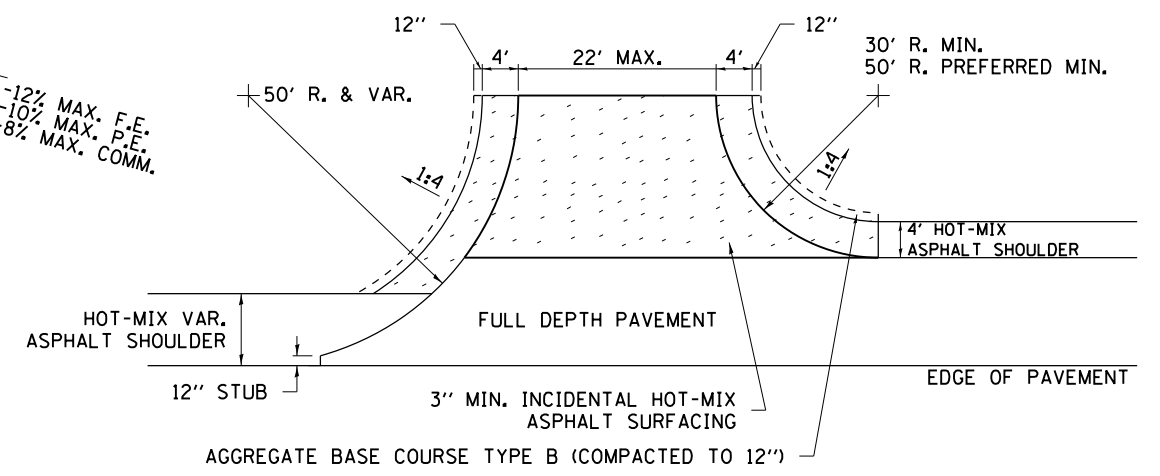
SIDE ROAD RETURN/HMA SHOULDER



RURAL ENTRANCE PROFILE APPROACH



COMMERCIAL ENTRANCE



SIDE ROAD RETURN WITH RIGHT TURN LANE

HOT-MIX ASPHALT APPROACHES AND MAILBOX RETURNS

20.1

FILE NAME = c:\p\sect\king\illinois\35361\dm\04105\20011SP1_2009.dgn

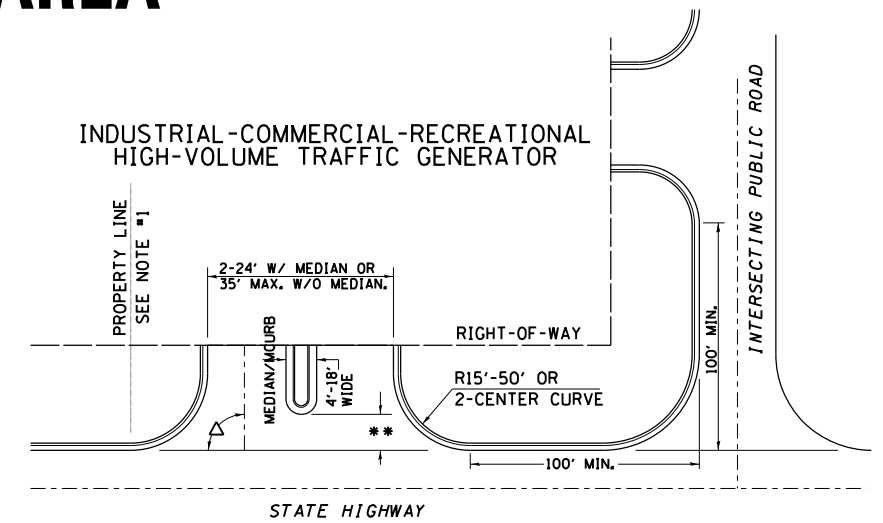
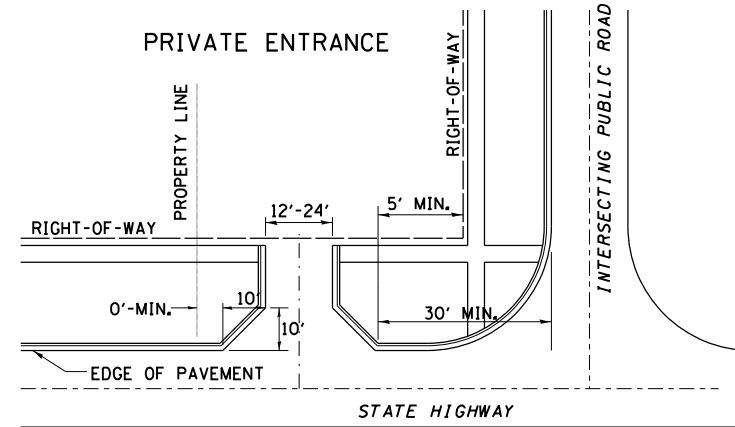
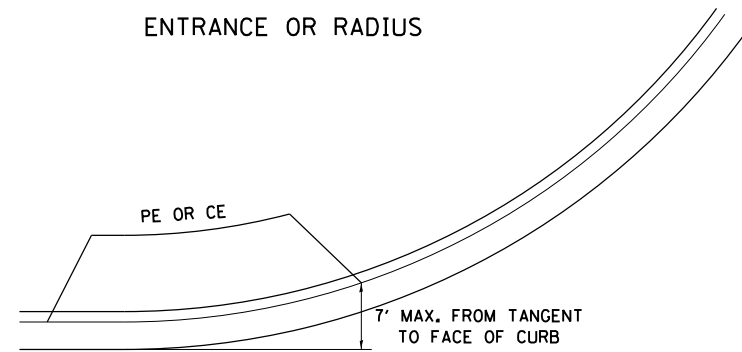
USER NAME = 35361	DESIGNED - IDOT	REVISED - 12-07-10
	DRAWN - IDOT	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - IDOT	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

REGION 2 / DISTRICT 2 STANDARD			
SCALE: N/A	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	399
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

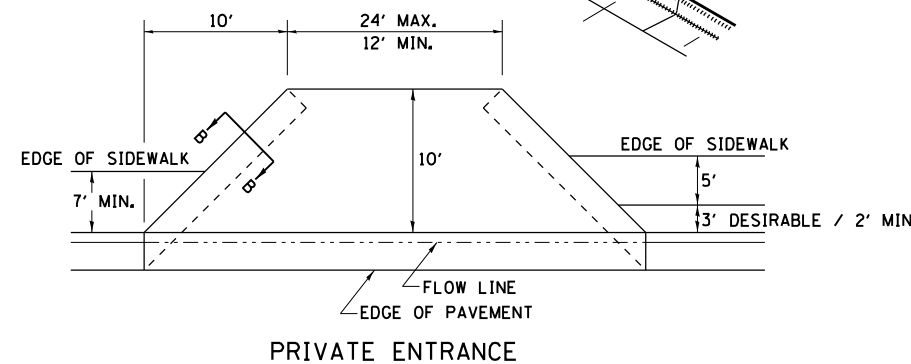
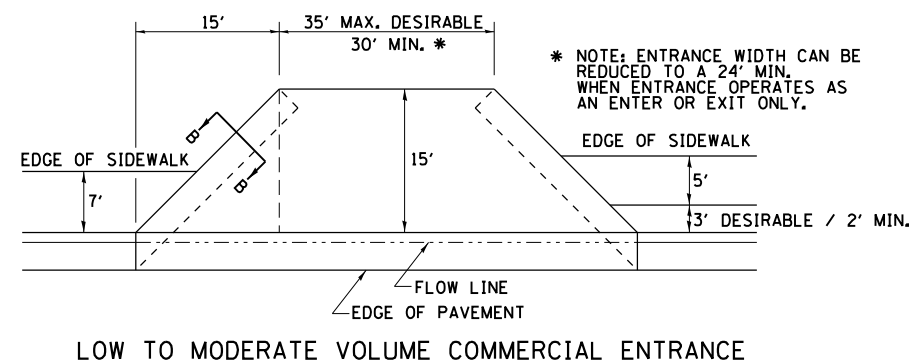
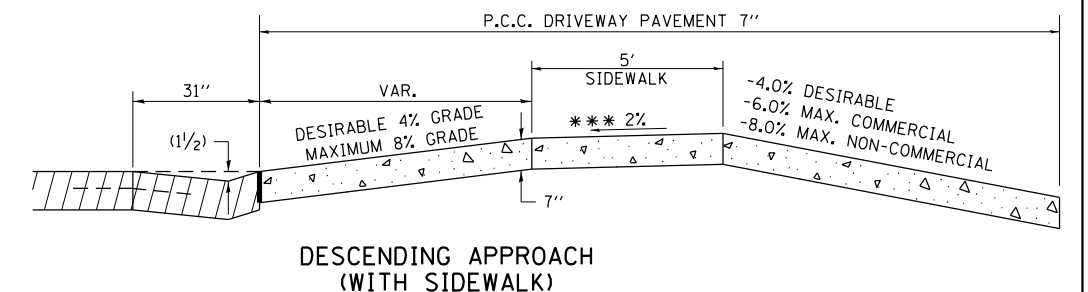
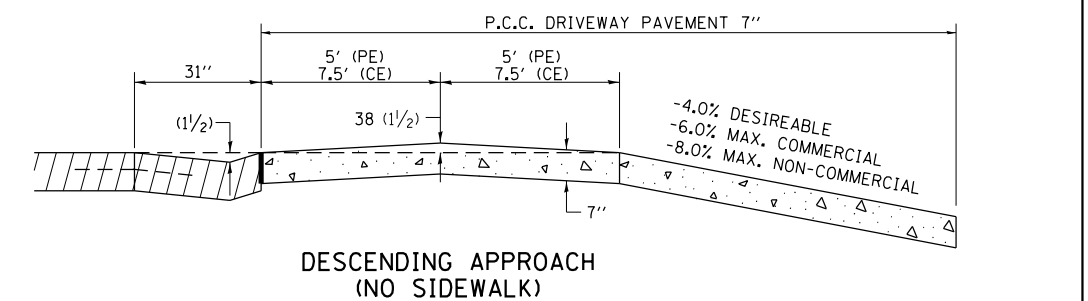
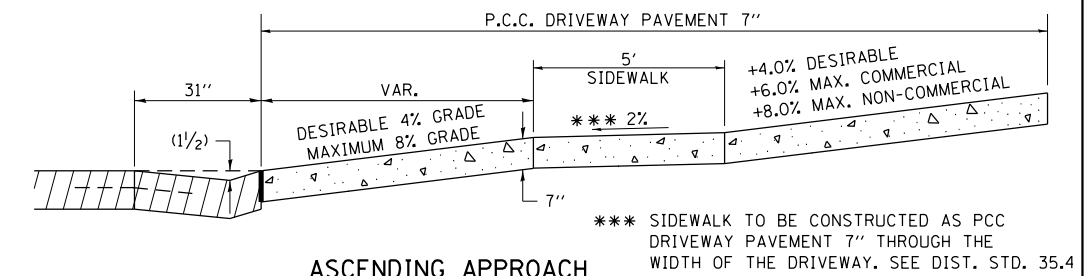
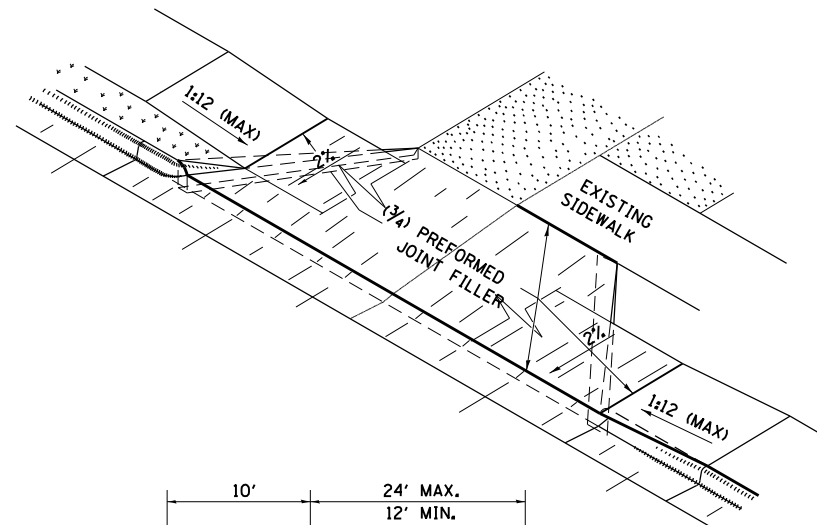
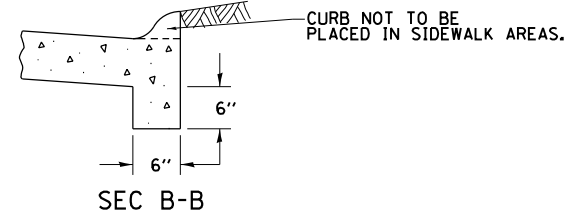
ENTRANCE APPROACHES – URBAN AREA



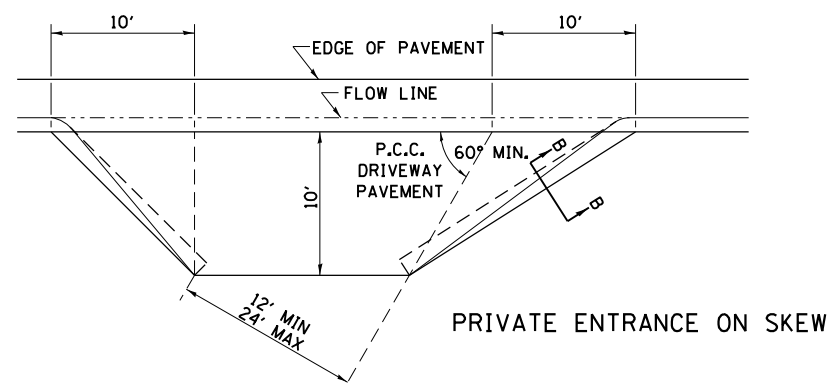
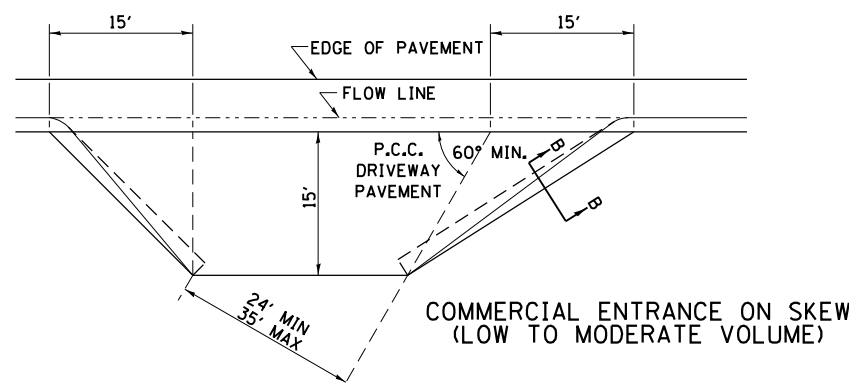
A MINIMUM OF 440 FEET SHALL BE MAINTAINED BETWEEN CENTER LINES OF ADJACENT DRIVEWAYS. Δ 90° DESIRABLE, 45° MIN. ANGLE PERMITTED ONLY FOR ONE-WAY DRIVEWAYS. 60° MIN. ANGLE FOR TWO-WAY DRIVEWAYS.

NOTE: #1 ENCROACHMENT ON THE ADJACENT PROPERTY OWNER LAND REQUIRES HIS OR HER WRITTEN APPROVAL.

** 4'-10" IF HIGHWAY CURBED.
AT EDGE OF SHOULDER IF HIGHWAY UNCURBED.



NOTE: CURVED ENTRANCE RETURNS MAY BE USED FOR LOW TO MODERATE VOLUME LOCATIONS WITH REVIEW ON A CASE-BY-CASE BASIS.



ENTRANCE APPROACHES – URBAN AREA

25.1

FILE NAME = c:\p\work\king\illinois\35361\dm04105\20011SP1_210.dgn

USER NAME = 35361	DESIGNED - IDOT	REVISED - 12-07-10
	DRAWN - IDOT	REVISED -
PLOT SCALE = 100.0000' / 1"	CHECKED - IDOT	REVISED -
PLOT DATE = 3/20/2015	DATE - 03-12-2015	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

SCALE: N/A SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
17	104B-2	CARROLL/JACKSON	528	400
CONTRACT NO. 64G59				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				