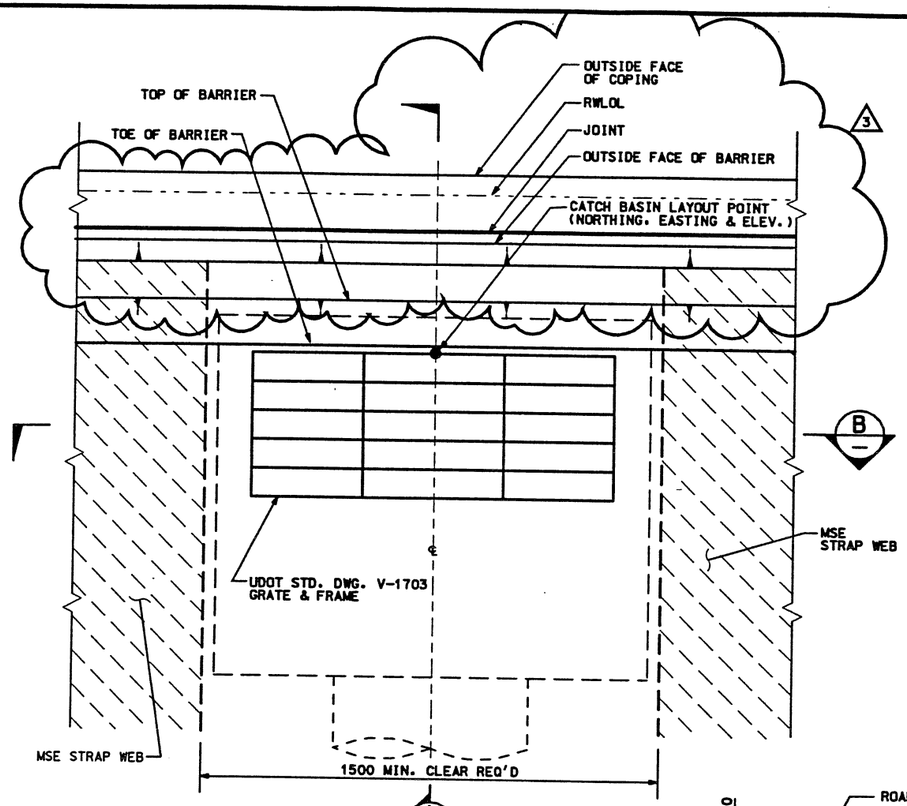
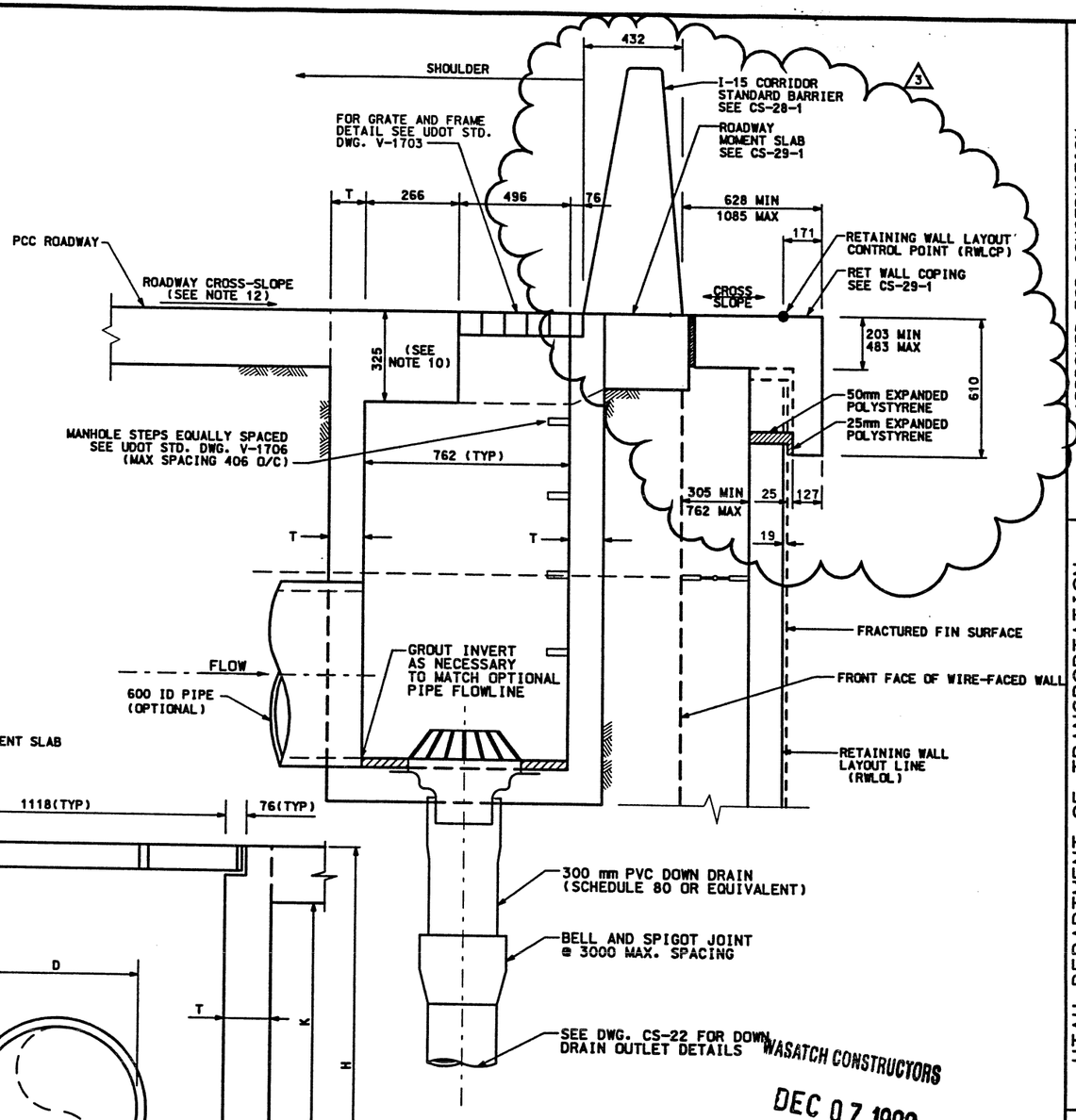


PLAN: SITUATION & LAYOUT

NTS



SECTION A

NTS

SECTION B

NTS

GENERAL NOTES:
1. ALL REINFORCING STEEL SHALL BE EPOXY COATED. DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31, GRADE 60.
2. GRATE SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.
3. CONTRATOR MAY ELECT TO CONSTRUCT BOX AS DETAILED IN OPTION 1 OR OPTION 2. SEE SHEET 3 & 4.
4. ALL CAST-IN-PLACE CONCRETE SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE SPECIFIED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51mm EXCEPT WHERE NOTED OTHERWISE.
6. STRUCTURAL STEEL GRATING SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO AASHTO DESIGNATION M-270, GRADE 36 (ASTM A-709, GRADE 36).
7. SEE DRAWING CS-17 FOR GRATING AND FRAME DETAILS.
8. SEE ROADWAY DRAINAGE PLANS FOR DETAILS OF INSTALLATION, INCLUDING ORIENTATION OF UNITS, NUMBER OF UNITS REQUIRED, TYPE OF UNITS, LAYOUT CONTROL POINT IDENTIFICATION AND SIZE/LOCATION OF PIPES.
9. UNIT MAY BE PRE-CAST OR FORMED AND CAST-IN-PLACE. CARE SHOULD BE EXERCISED WHEN TRANSPORTING OR PLACING PRE-CAST UNITS TO AVOID DAMAGE OR MISALIGNMENT.
10. THICKNESS OF ROADWAY MOMENT SLAB. DESIGN OF CATCH BASIN ASUMES 325mm THICKNESS. SEE CS-29 FOR EXACT DIMENSION. FOR ALL THICKNESS OTHER THAN 325mm ,ADJUST "K" DIMENSION ACCORDINGLY.
11. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
12. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).

DESIGN DATA:
MS-18 OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH CURRENT AASHTO AND INTERIM SPECIFICATIONS

CAST-IN-PLACE STRUCTURAL CONCRETE: fc = 21 MPa, n=6
PRE-CAST STRUCTURAL CONCRETE: fc = 21 MPa, n=6,
REINFORCING STEEL: fy = 420 MPa
STRUCTURAL STEEL: fy = 250 MPa

INDEX OF SHEETS:
1- SITUATION AND LAYOUT
2- ROADWAY BARRIER AND WALL COPING REINFORCEMENT:
3- CATCH BASIN DETAILS - OPTION 1
4- CATCH BASIN DETAILS - OPTION 2

LICENSED PROFESSIONAL ENGINEER
No. 97-342329-2202
JAMES F. KLEMZ
STATE OF UTAH
11-25-98

WASATCH CONSTRUCTORS

DEC 07 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	11/24/98	REVISED RET. WALL COPING

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN MWB 3/98	CHECK BRB 3/98	TRACKING NO.	23134
DRAWN JLJ 3/98	CHECK BRB 3/98		
QUANT. N/A	CHECK N/A		

APPROVAL RECOMMD. 3/30/98 — MARK V. ROBA — PROJECT DESIGN ENGINEER
APPROVED 3/30/98 — JOHN TERRY — SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION
MSE MULTI-STAGE CATCH BASIN B2
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-21-1

SHT. ____ OF ____

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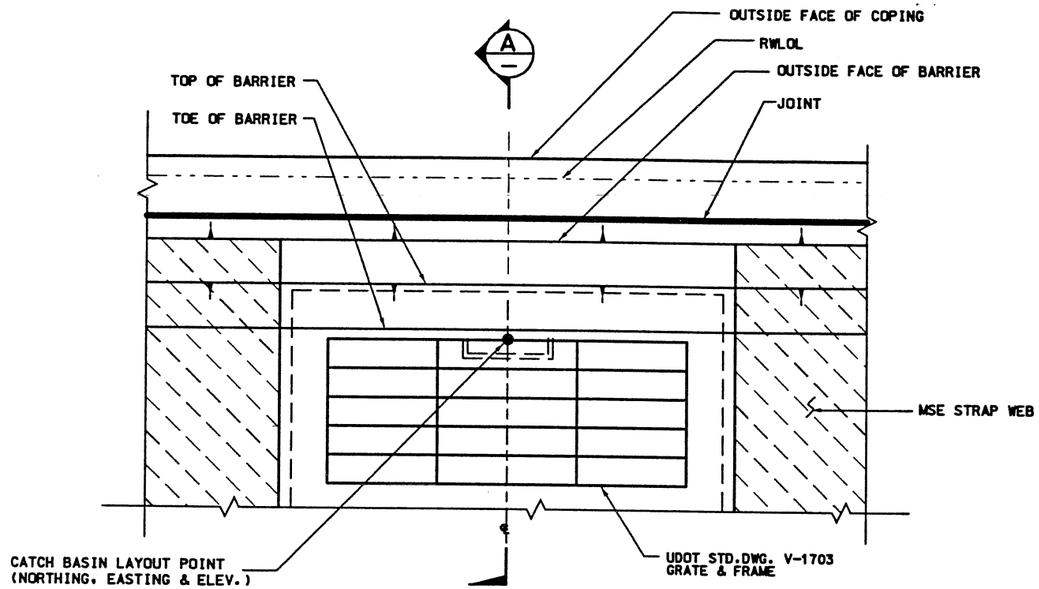
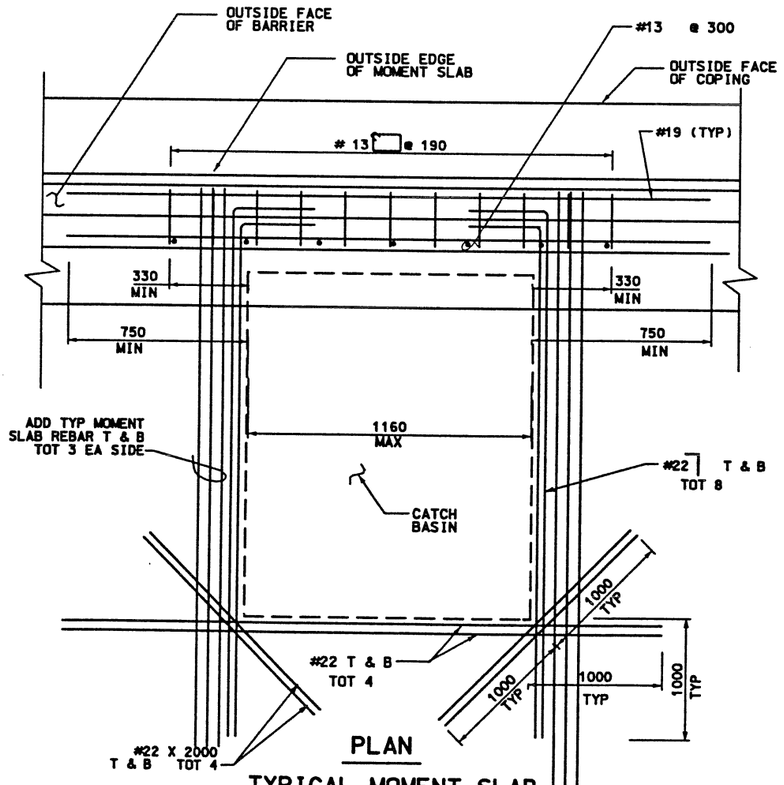


PLAN

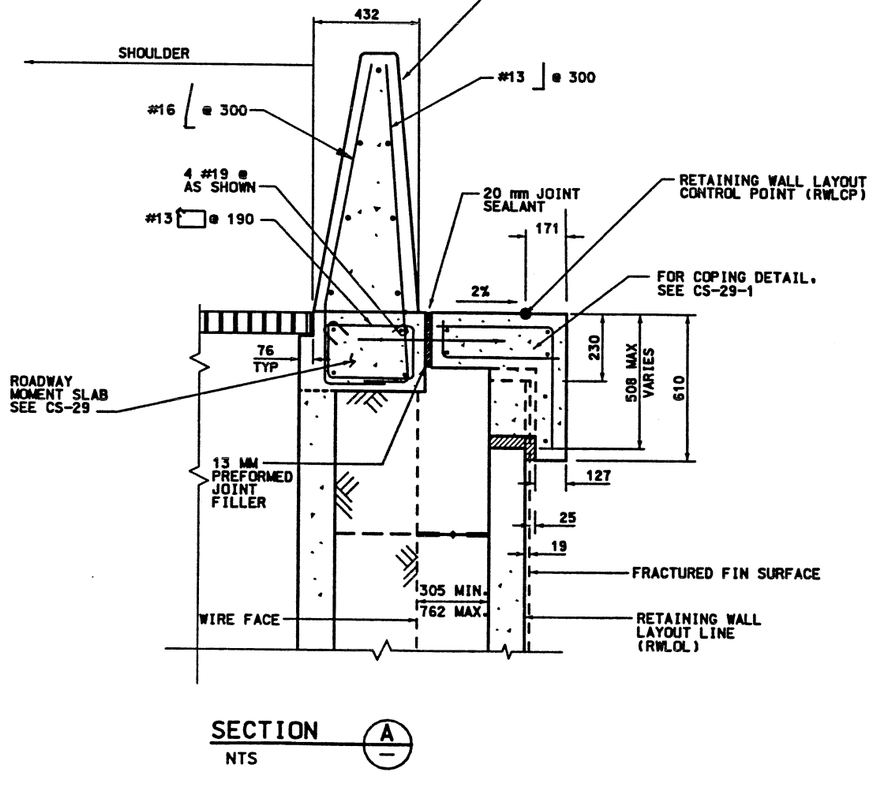
ROADWAY BARRIER AT CATCH BASIN

NTS



PLAN

TYPICAL MOMENT SLAB REINFORCEMENT AT CATCH BASIN



SECTION A

NTS

WASATCH CONSTRUCTORS

DEC 07 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	11/20/98	MODIFIED COPING DETAIL - TOTAL SHEET REVISION

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN MWB 3/98 CHECK BMB 3/98 TRACKING NO. 23134

DRAWN JLJ 3/98 CHECK BMB 3/98

QUANT. N/A CHECK N/A

APPROVAL RECOMMENDED 3/30/98 MARK V. BOBA PROJECT DESIGN ENGINEER

APPROVED 3/30/98 JOHN TERRY SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION

MSE MULTI-STAGE CATCH BASIN B2

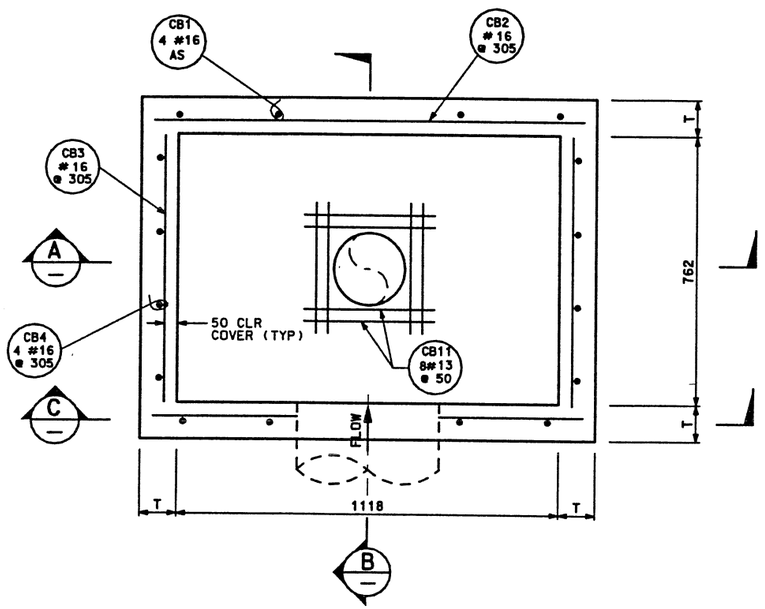
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

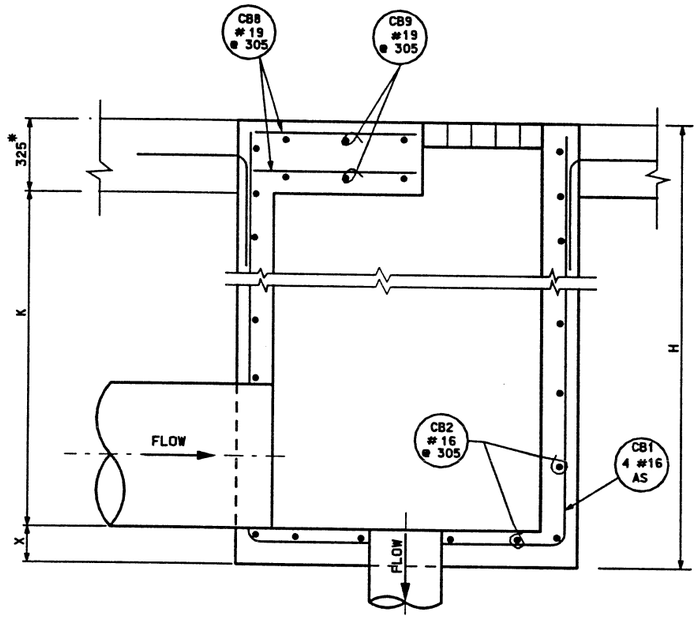
DWG. NO. CS-21-2

SHT. ____ OF ____



PLAN VIEW AT PIPE CENTERLINE

NTS



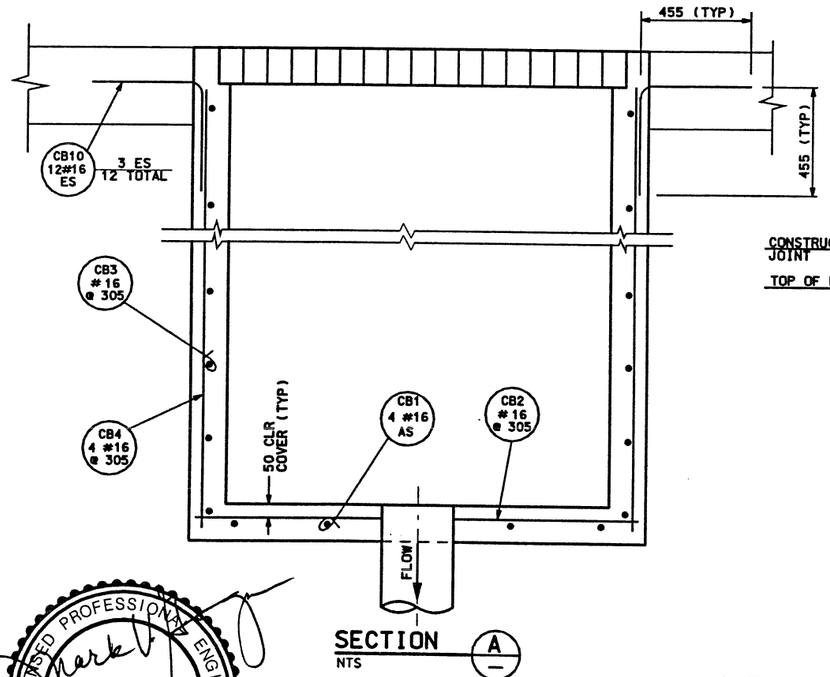
SECTION B

NTS

* 325 DIMENSION IS GIVEN FOR INTEGRAL CONSTRUCTION OF CATCH BASIN LID WITH ROADWAY PCCP. MINIMUM REQUIRED THICKNESS OF LID IS 305. IF MINIMUM IS USED. ADJUST 'K' DIMENSION ACCORDINGLY; 'H' REMAINS THE SAME.

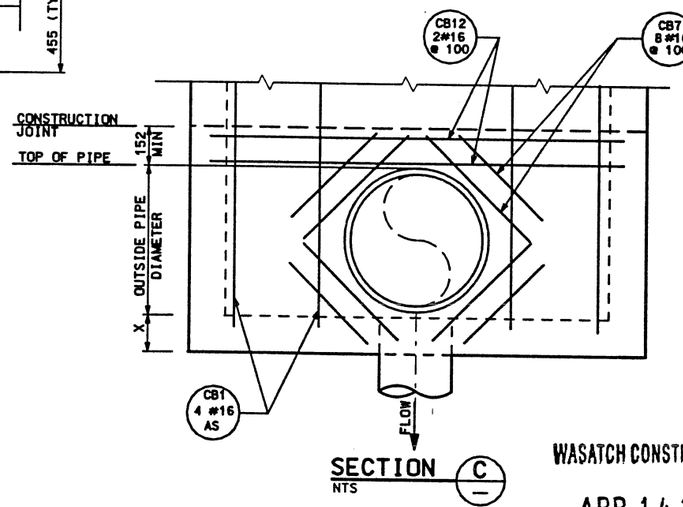
CONSTRUCTION TABLE - COLUMN 'A'

LINE	# OF MANHOLE STEPS	DIMENSIONS H	K	T	X
1	-	1194	691	152	178
2	2	1346	843	152	178
3	2	1499	996	152	178
4	3	1651	1148	152	178
5	3	1803	1300	152	178
6	4	1956	1453	152	178
7	4	2108	1605	152	178
8	5	2286	1758	152	203
9	5	2438	1910	152	203
10	6	2590	2062	152	203
11	6	2743	2215	152	203
12	7	2895	2367	152	203
13	7	3048	2520	152	203
14	8	3200	2672	152	203
15	8	3352	2824	152	203
16	9	3505	2977	152	203
17	9	3657	3129	152	203
18	10	3810	3282	178	203
19	10	3962	3434	178	203
20	11	4114	3586	178	203
21	11	4267	3739	178	229
22	12	4419	3891	178	229
23	12	4572	4044	178	229
24	13	4724	4196	178	229
25	13	4876	4348	178	229
26	14	5029	4501	178	229
27	14	5181	4653	178	229
28	15	5334	4806	178	229
29	15	5486	4958	178	229
30	16	5638	5110	178	229
31	16	5791	5263	178	229
32	17	5943	5415	178	229
33	17	6096	5568	178	229
34	18	6274	5720	178	254
35	18	6426	5872	178	254
36	19	6579	6025	178	254
37	19	6731	6177	178	254
38	20	6884	6330	203	254
39	20	7036	6482	203	254
40	21	7188	6634	203	254
41	21	7341	6787	203	254
42	22	7493	6939	203	254
43	22	7646	7092	203	254
44	23	7798	7244	203	254
45	23	7950	7396	203	254
46	24	8103	7549	203	279
47	24	8280	7701	203	279
48	25	8433	7854	203	279
49	25	8585	8006	203	279
50	26	8737	8158	203	279
51	26	8890	8311	203	279
52	27	9042	8463	203	279
53	27	9220	8616	203	304
54	28	9372	8768	203	307



SECTION A

NTS



SECTION C

NTS

BARRIER REINFORCING STEEL SCHEDULE

MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	4	VARIES	VAR / VAR
CB2	@ 305	16	–	VARIES	VARIES
CB3	@ 305	16	–	VARIES	VARIES
CB4	AS SHOWN	16	8	VARIES	VARIES
CB7	@ 100	16	8	VARIES	VARIES
CB8	@ 305	19	–	VARIES	VARIES
CB9	@ 305	19	–	VARIES	VARIES
CB10	AS SHOWN	16	12	910	455 / 455
CB11	@ 50	13	8	VARIES	VARIES
CB12	@ 100	16	2	VARIES	VARIES

WASATCH CONSTRUCTORS

APR 14 1998

RELEASED FOR CONSTRUCTION

CATCH BASIN CONSTRUCTION OPTION 1

LICENSED PROFESSIONAL ENGINEER
No. 98-356215-2202
MARK V GOGAS
3/30/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN MVG	3/98	CHECK BRB	3/98
DRAWN JLJ	3/98	CHECK BRB	3/98
QUANT. N/A		CHECK N/A	

MARK V. GOGA — PROJECT DESIGN ENGINEER — APPROVAL RECOMM. 3/30/98 DATE
JOHN TERRY — SECTION MANAGER — APPROVED 3/30/98 DATE

TRACING NO. 23134

I-15 CORRIDOR RECONSTRUCTION

CATCH BASIN DETAIL - OPTION 1

CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-21-3

SHT. ____ OF ____

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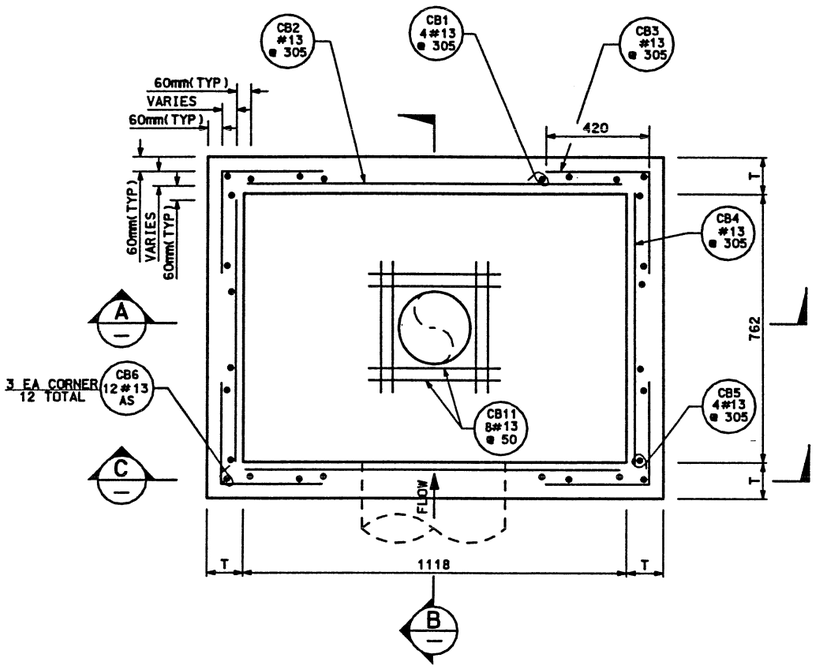
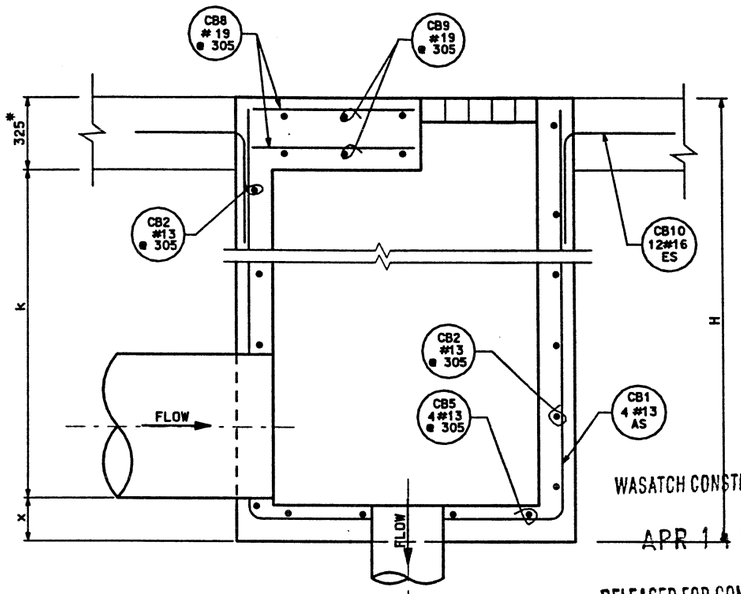


PLAN VIEW AT PIPE CENTERLINE

NTS



SECTION B

NTS

* 325 DIMENSION IS GIVEN FOR INTEGRAL CONSTRUCTION OF CATCH BASIN LID WITH ROADWAY PCCP. MINIMUM REQUIRED THICKNESS OF LID IS 305. IF MINIMUM IS USED, ADJUST 'K' DIMENSION ACCORDINGLY; 'H' REMAINS THE SAME.

WASATCH CONSTRUCTORS

APR 14 1998

RELEASED FOR CONSTRUCTION

CONSTRUCTION TABLE - COLUMN 'A'

LINE	# OF MANHOLE STEPS	DIMENSIONS H	K	T	X
1	-	1194	691	152	229
2	2	1346	843	152	229
3	2	1499	996	152	229
4	3	1651	1148	152	229
5	3	1803	1300	152	229
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15	8	3352	2824	152	229
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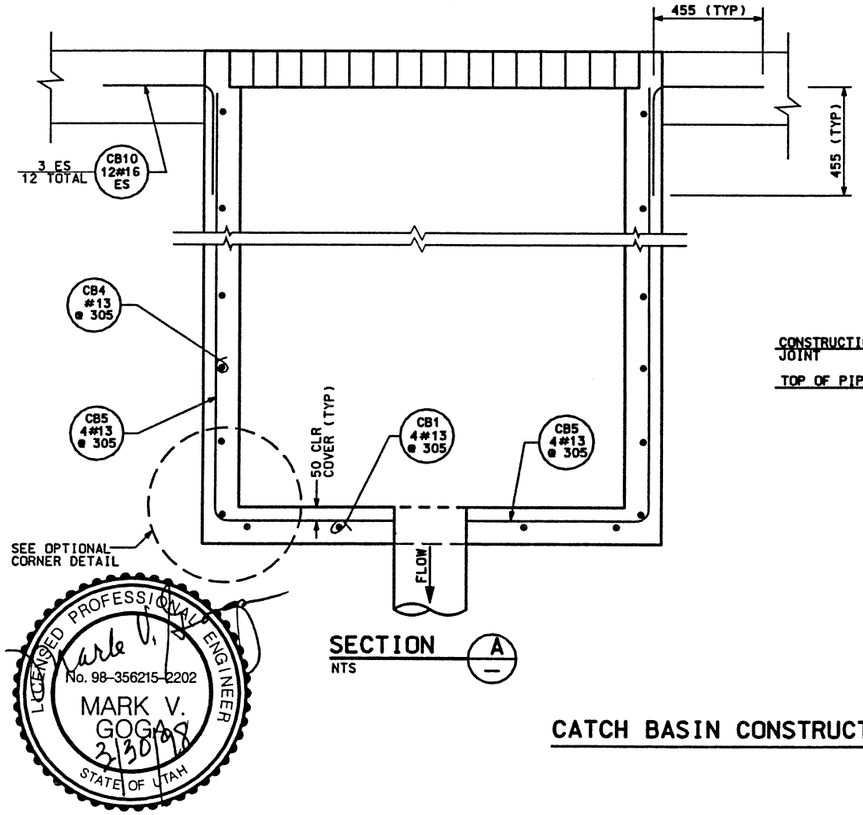
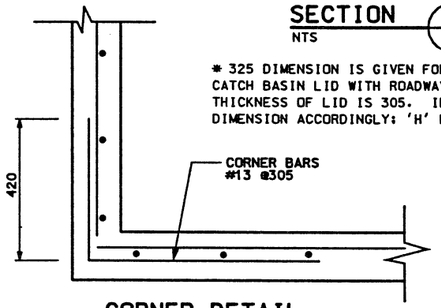
17	9	3657	3129	178	203
18	10	3810	3282	178	229
19	10	3962	3434	178	229
20	11	4114	3586	178	229
21	11	4267	3739	178	229
22	12	4419	3891	203	229
23	12	4572	4044	203	229
24	13	4724	4196	203	229
25	13	4876	4348	203	229
26	14	5029	4501	203	229
27	14	5181	4653	203	229
28	15	5334	4806	203	229
29	15	5486	4958	203	229
30	16	5638	5110	203	229
31	16	5791	5263	203	229
32	17	5943	5415	203	229
33	17	6096	5568	203	229
34	18	6274	5720	203	254
35	18	6426	5872	203	254
36	19	6579	6025	203	254
37	19	6731	6177	203	254
38	20	6884	6330	203	254
39	20	7036	6482	203	254
40	21	7188	6634	203	254
41	21	7341	6787	203	254
42	22	7493	6939	203	254
43	22	7646	7092	203	254
44	23	7798	7244	203	254
45	23	7950	7396	203	254
46	24	8103	7549	203	254
47	24	8280	7701	203	279
48	25	8433	7854	203	279
49	25	8585	8006	203	279
50	26	8737	8158	203	279
51	26	8890	8311	203	279
52	27	9042	8463	203	279
53	27	9220	8616	203	304
54	28	9372	8768	203	307



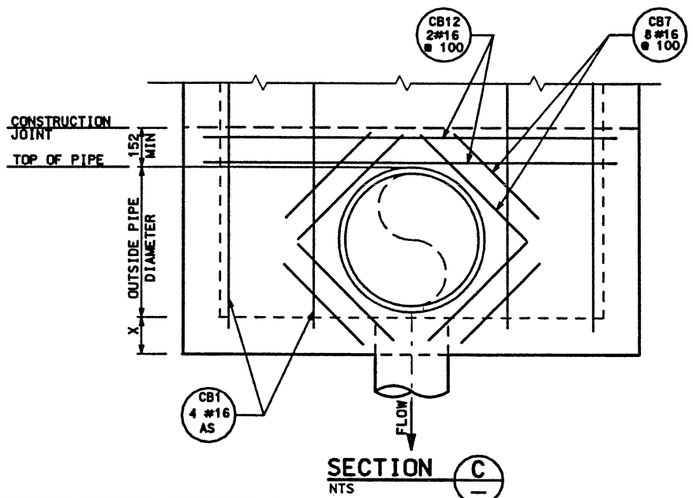
SECTION A

NTS



CORNER DETAIL

(OPTIONAL) NTS



SECTION C

NTS

BARRIER REINFORCING STEEL SCHEDULE

MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	13	8	VARIES	VAR / VAR
CB2	@ 305	13	-	VARIES	VARIES
CB3	@ 305	13	-	840	420 / 420
CB4	@ 305	13	-	VARIES	VARIES
CB5	@ 100	13	8	VARIES	VAR / VAR
CB6	@ 100	13	8	VARIES	VARIES
CB7	@ 100	16	8	VARIES	VARIES
CB8	@ 305	19	-	VARIES	VARIES
CB9	@ 305	19	-	VARIES	VARIES
CB10	AS SHOWN	16	12	910	455 / 455
CB11	@ 50	13	8	VARIES	VARIES
CB12	@ 100	16	2	VARIES	VARIES

CATCH BASIN CONSTRUCTION OPTION 2

LICENSED PROFESSIONAL ENGINEER
No. 98-356215-2202
MARK V. GOGA
3/30/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

I-15 CORRIDOR RECONSTRUCTION

CATCH BASIN DETAIL - OPTION 2

CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

TRACKING NO. 23134

DESIGN MVG 3/98 | DRAWN JLJ 3/98 | CHECK BRB 3/98 | CHECK BRB 3/98 | CHECK N/A | QUANT. N/A

MARK V. GOGA — PROJECT DESIGN ENGINEER — APPROVAL RECOMM. 3/30/98 DATE

JOHN TERRY — SECTION MANAGER — APPROVED 3/30/98 DATE

SALT LAKE COUNTY

DWG. NO. CS-21-4

SHT. ____ OF ____

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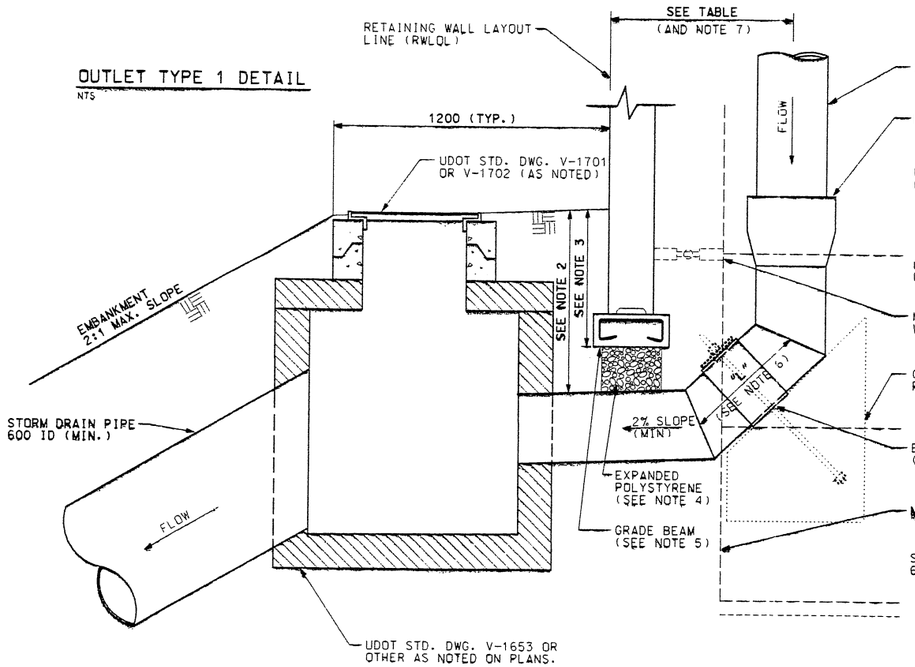
OUTLET TYPE 1 DETAIL

NTS



OUTLET TYPE 2 DETAIL

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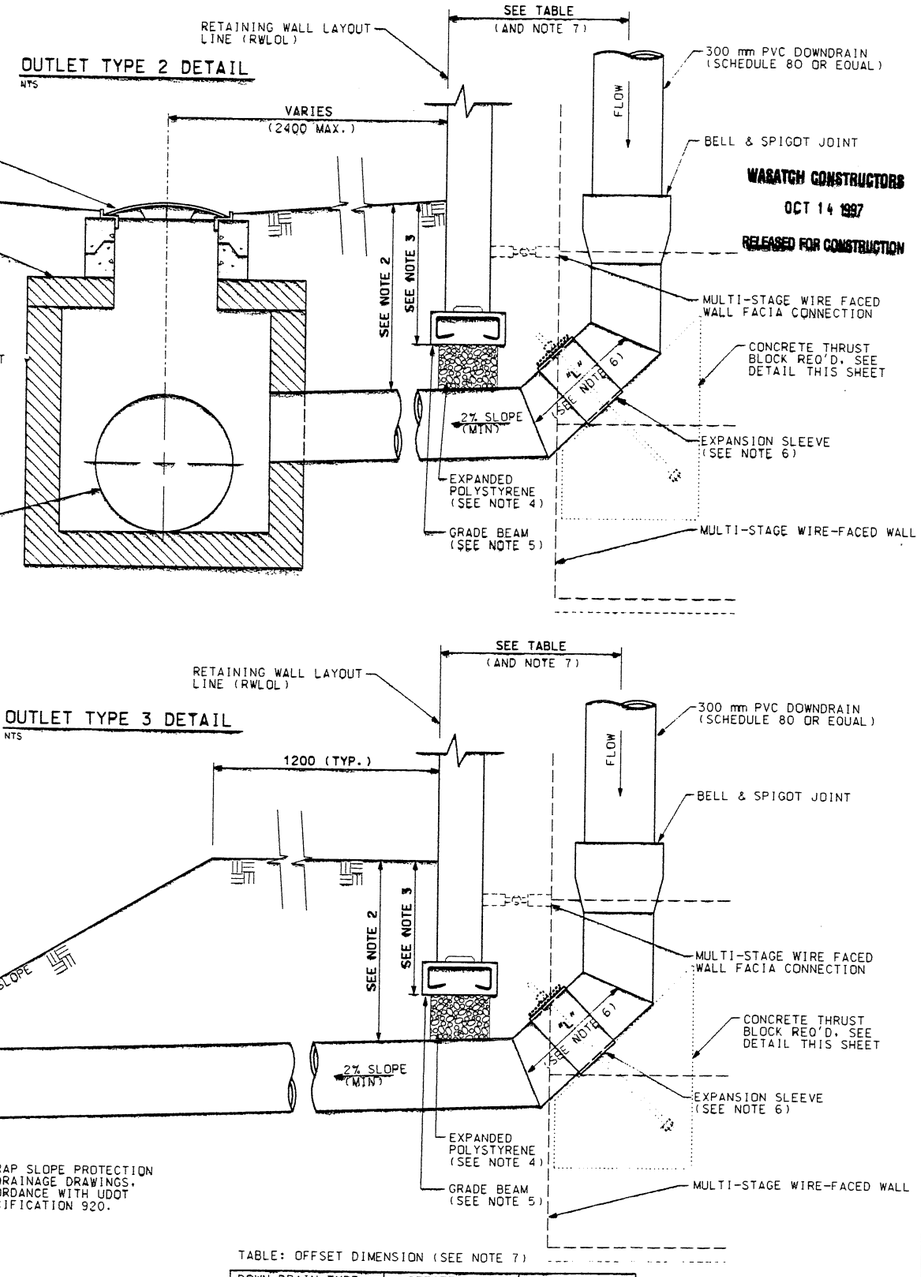
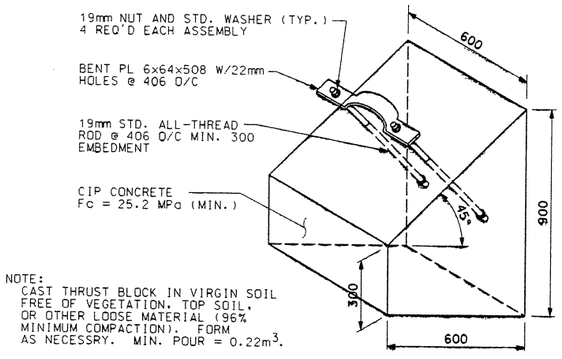




NOTE:
CAST THRUST BLOCK IN VIRGIN SOIL FREE OF VEGETATION, TOP SOIL, OR OTHER LOOSE MATERIAL (96% MINIMUM COMPACTION). FORM AS NECESSRY. MIN. POUR = 0.22m^3.

CONCRETE THRUST BLOCK DETAIL

NTS

OUTLET TYPE 3 DETAIL

NTS

NOTES:
1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. MINIMUM COVER TO TOP OF PIPE IS 750 mm FOR ASSUMED MINIMUM WALL EMBEDMENT REQUIREMENTS.
3. DEPTH TO BOTTOM OF GRADE BEAM IS 610 mm FOR THE DETAIL. IF CONSTRUCTION AS SHOWN HERE CANNOT BE ACHIEVED BY WALL MANUFACTURER, A SUITABLE ALTERNATE WALL PENETRATION DETAIL WILL BE PROVIDED BY SAME - SEE FABRICATION DRAWINGS FOR FINAL DETAILS OF CONSTRUCTION.
4. EXPANDED POLYSTYRENE FOAM SHALL BE PROVIDED BETWEEN GRADE BEAM AND PROPOSED DOWN DRAIN PIPE AS SHOWN (100 mm MINIMUM THICKNESS).
5. DETAIL OF GRADE BEAM REQUIRED AT PIPE CROSSING TO BE PROVIDED BY WALL MANUFACTURER - SEE FABRICATION DRAWINGS FOR DETAIL.
6. AN EXPANSION SLEEVE (PVC PIPE UNION) SHALL BE PROVIDED WHEN LENGTH BETWEEN 45-DEGREE BEND JOINTS EXCEEDS 1500 mm. WHEN BEND-TO-BEND LENGTH IS LESS THAN OR EQUAL TO 1500 mm, PROVIDE BEND-TO-BEND CONNECTION WITH BELL AND SPIGOT JOINTS OMITTING SLEEVE.
7. OFFSET DIMENSIONS ARE TABULATED FOR STANDARD CASES WHEN WALL IS IMMEDIATELY ADJACENT TO DOWN DRAIN PIPE. MODIFIED CASES EXIST - CONSULT WALL S&L DRAWINGS FOR ALTERNATIVE OFFSET DIMENSION.

TABLE: OFFSET DIMENSION (SEE NOTE 7)

DOWN DRAIN TYPE	OFFSET	REFERENCE
MSE SINGLE STAGE GUTTER INLET	642 (±25)	DWG CS-31
MSE MULTI STAGE GUTTER INLET	1302 (±25)	DWG CS-31
MSE SINGLE STAGE CATCH BASIN A2	942 (±50)	DWG CS-19
MSE MULTI STAGE CATCH BASIN B2	1270 (±50)	DWG CS-21
MSE MULTI STAGE CATCH BASIN B4	1448 (±50)	DWG CS-16

LICENSED PROFESSIONAL ENGINEER
No. 96-324447-2202
JOHN M. TERRY
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/10/97	RELEASE FOR WALL CONSTRUCTION

WASATCH CONSTRUCTORS
OCT 14 1997
RELEASED FOR CONSTRUCTION

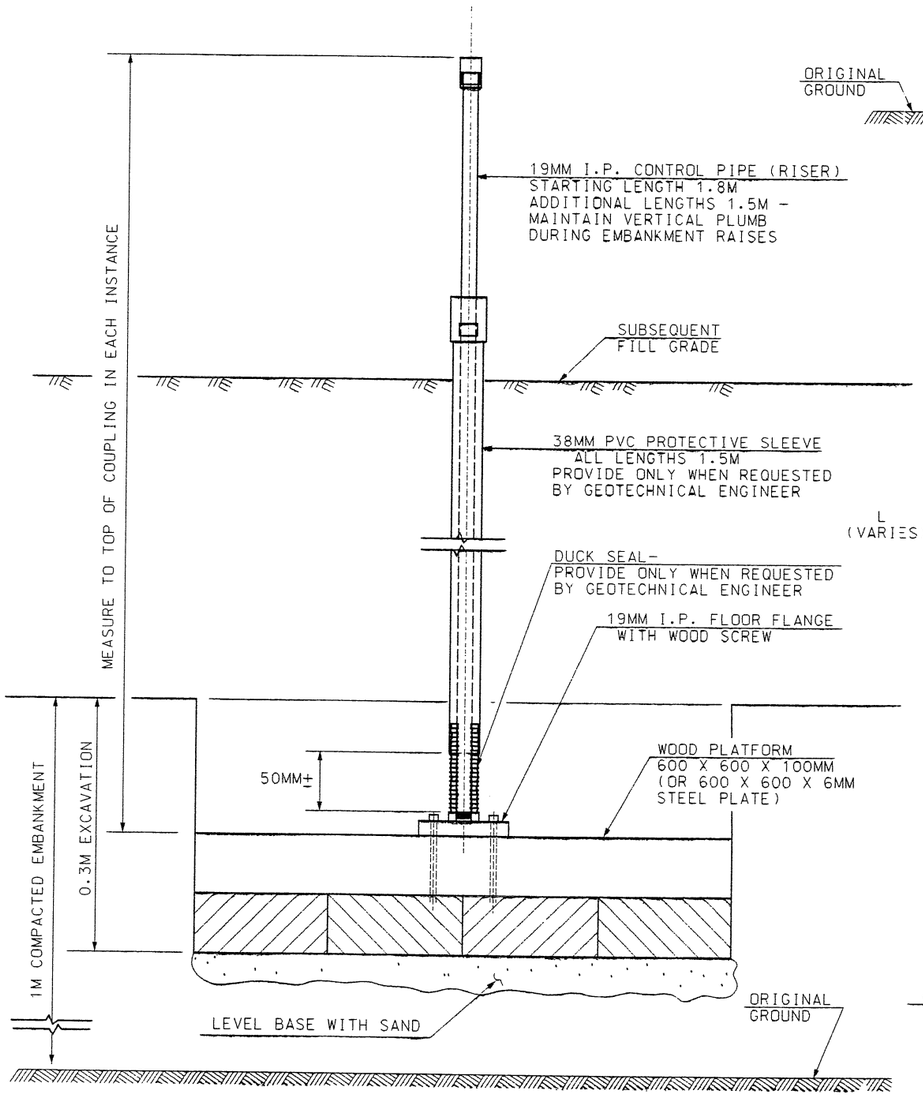
UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	MVG	10/97	CHECK GAS 10/97
DRAWN	JRJ	10/97	CHECK GAS 10/97
QUANT.			CHECK

APPROVAL RECOMM. 10/10/97 — MARK V. OOCA — PROJECT DESIGN ENGINEER — DATE
APPROVED 10/10/97 — JOHN TERRY — SECTION MANAGER — DATE

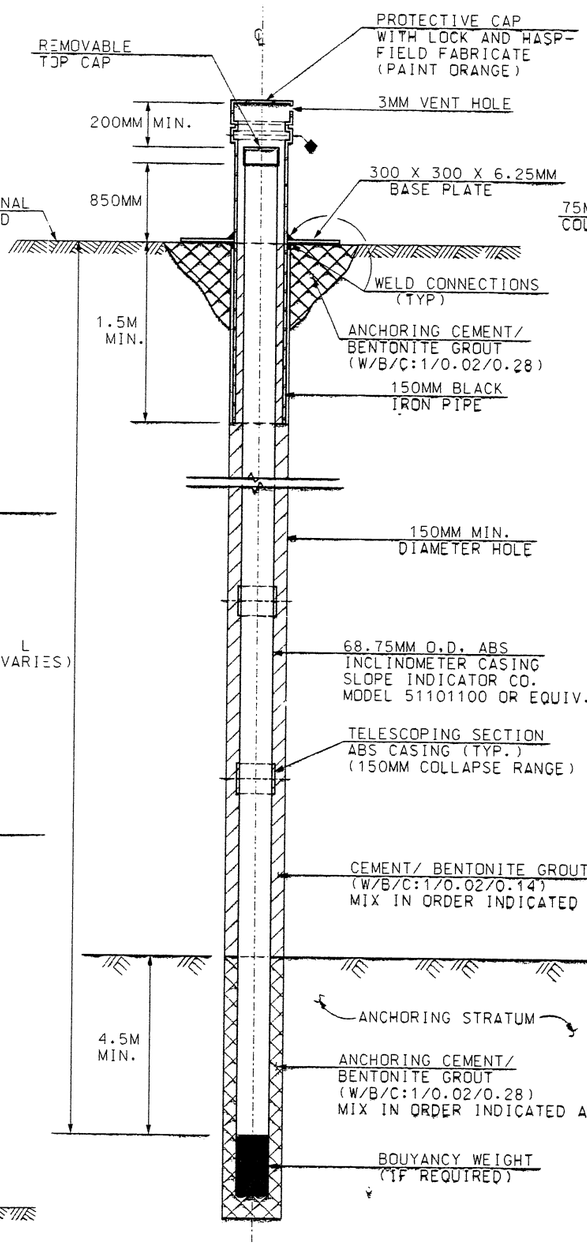
I-15 CORRIDOR RECONSTRUCTION
DOWNDRAIN OUTLET DETAILS
CORRIDOR STANDARD PLAN

TRACKING NO. 023350
PROJECT NUMBER *SP-15-7(135)296
SALT LAKE COUNTY
DWG. NO. CS-22
SHT. ____ OF ____



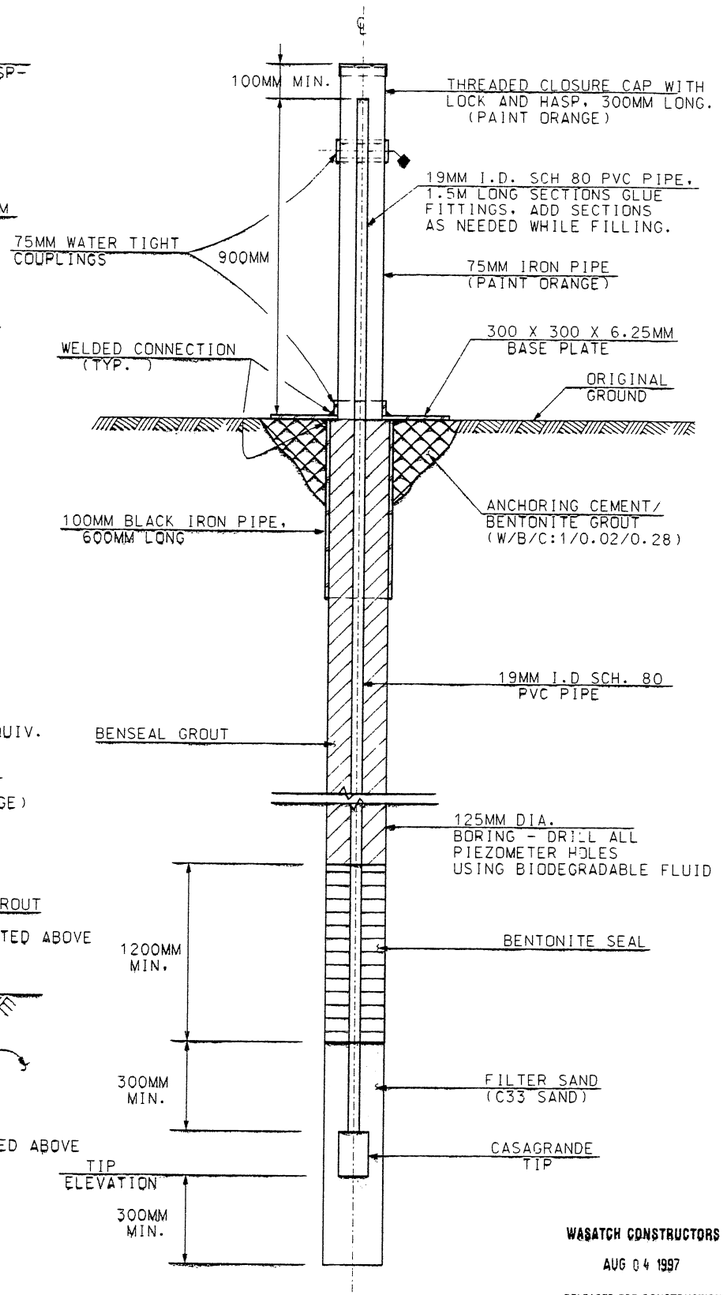
SETTLEMENT INDICATING DEVICE RISER PIPE TYPE

NOT TO SCALE



TYPICAL INCLINOMETER DETAIL

NOT TO SCALE



TYPICAL STANDPIPE PIEZOMETER

NOT TO SCALE

WASATCH CONSTRUCTORS

AUG 04 1997

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	8/19/97	INSTRUMENTATION RELEASED AS CORRIDOR STD.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	GJM	6/97	CHECK
DRAWN	VLR	6/97	CHECK
QUANT.	N/A		CHECK

PHIL C. GERHART — PROJECT DESIGN ENGINEER — APPROVAL RECOMM. 6/23/97 DATE

JOHN TERRY — SECTION MANAGER — APPROVED 6/23/97 DATE

I-15 CORRIDOR RECONSTRUCTION

INSTRUMENTATION DETAILS

CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-23

SHT. ____ OF ____

LICENSED PROFESSIONAL ENGINEER No. 3440 PHIL C GERHART STATE OF UTAH

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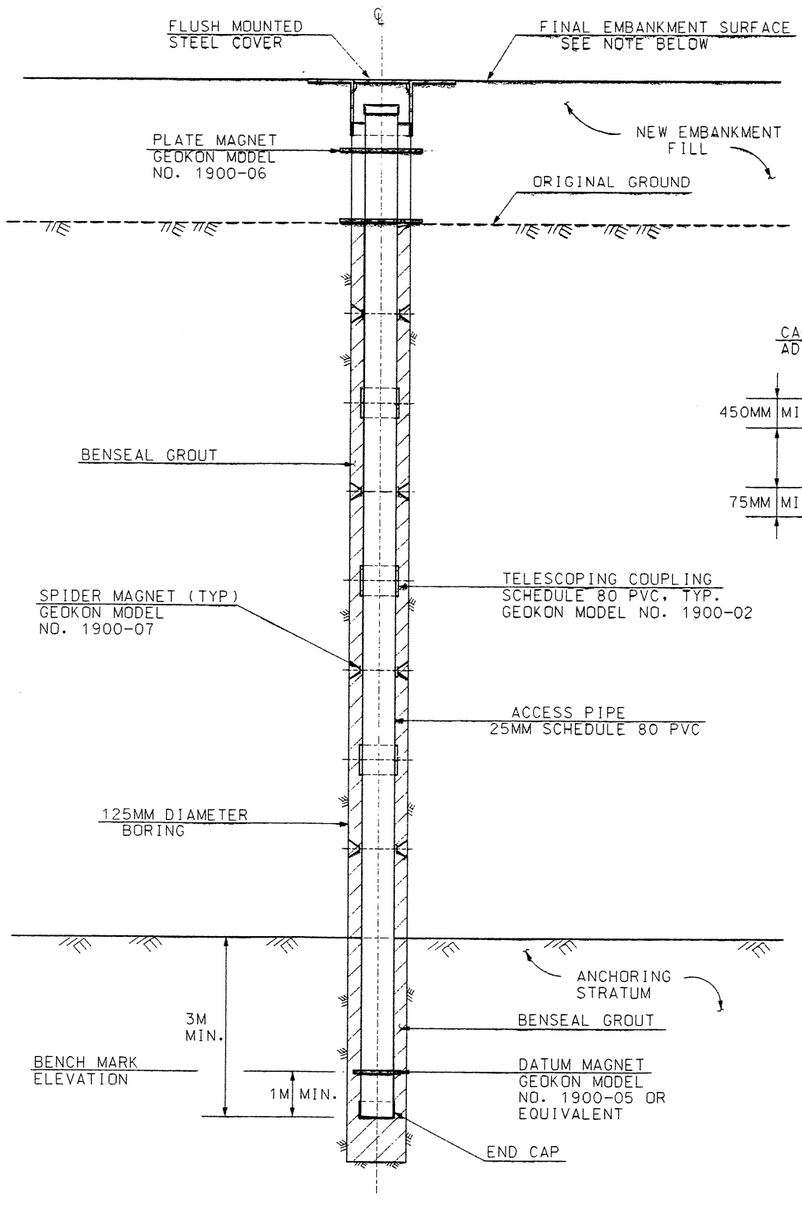
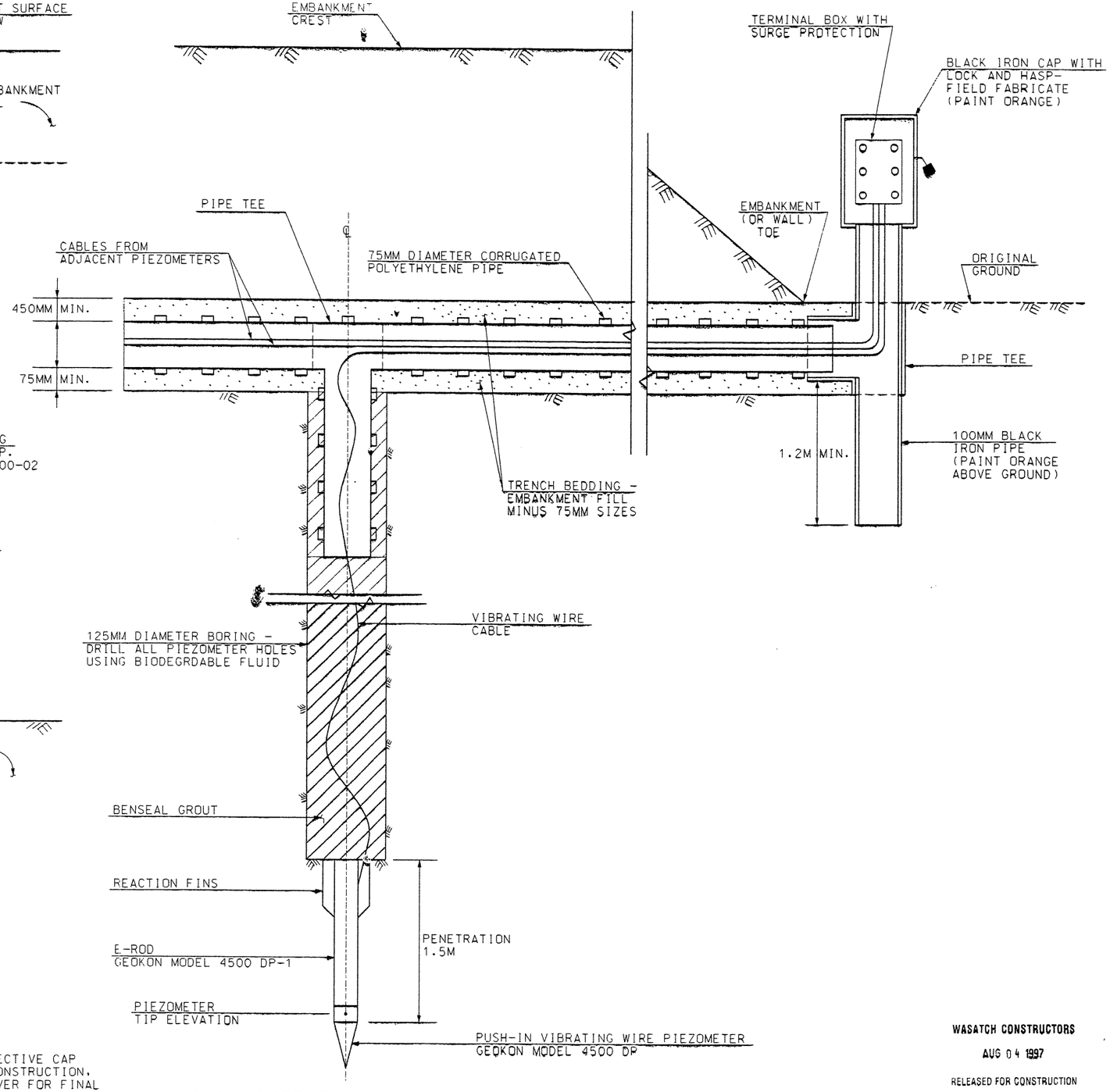


TYPICAL MAGNET/REED SWITCH GAGE DETAIL

NOT TO SCALE



TYPICAL VIBRATING WIRE PIEZOMETER DETAIL

NOT TO SCALE

NOTE:

USE TYPICAL INCLINOMETER PROTECTIVE CAP AND COVER DURING EMBANKMENT CONSTRUCTION. REPLACE WITH FLUSH-MOUNTED COVER FOR FINAL EMBANKMENT.

LICENSED PROFESSIONAL ENGINEER
No. 3440
PHIL C. GERHART
STATE OF UTAH

WASATCH CONSTRUCTORS

AUG 04 1997

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	8/1/97	INSTRUMENTATION RELEASED AS CORRIDOR STD

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	GJM	CHECK	GJM 6/97
DRAWN	VLR	CHECK	6/97
QUANT.	N/A	CHECK	

APPROVAL RECOMM	6/23/97 DATE	PHIL C. GERHART PROJECT DESIGN ENGINEER
APPROVED	6/23/97 DATE	JOHN TERRY SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION

INSTRUMENTATION DETAILS

CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-24

SHT. ____ OF ____

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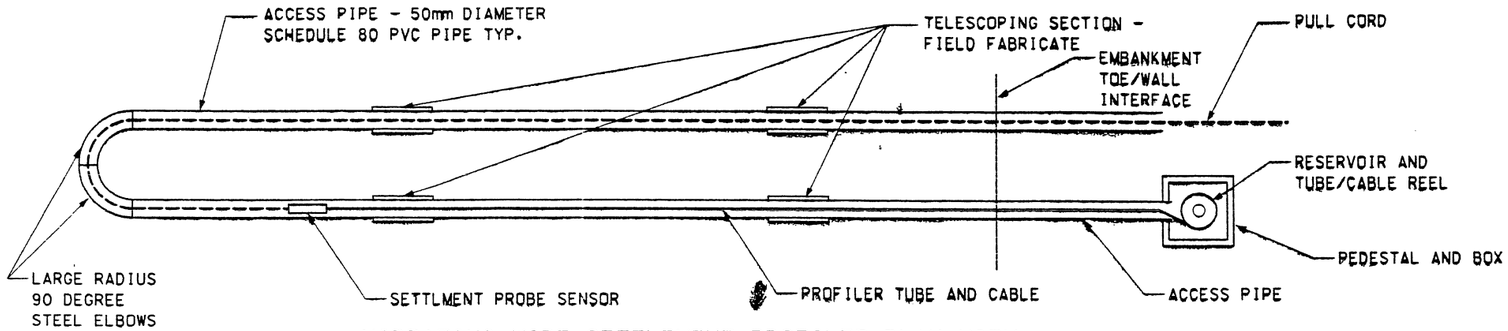
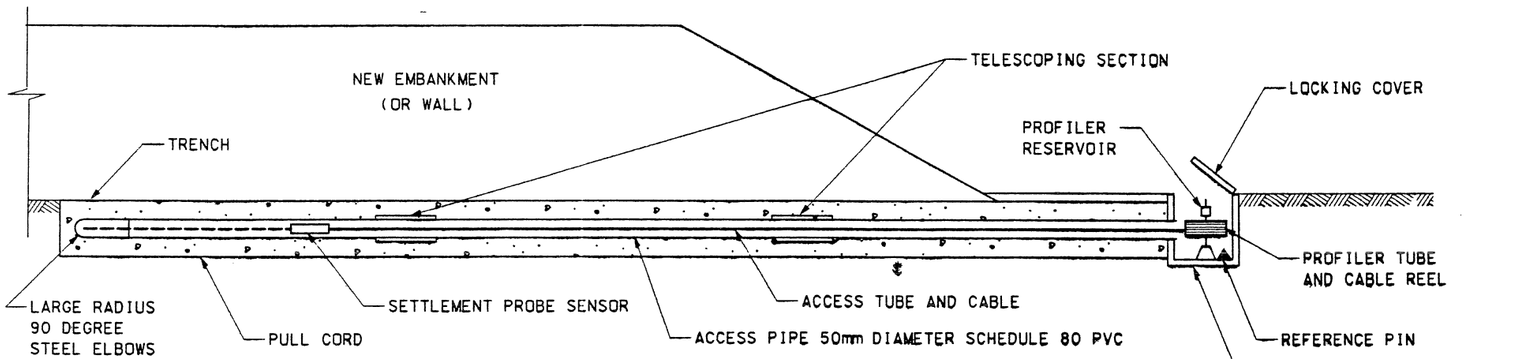
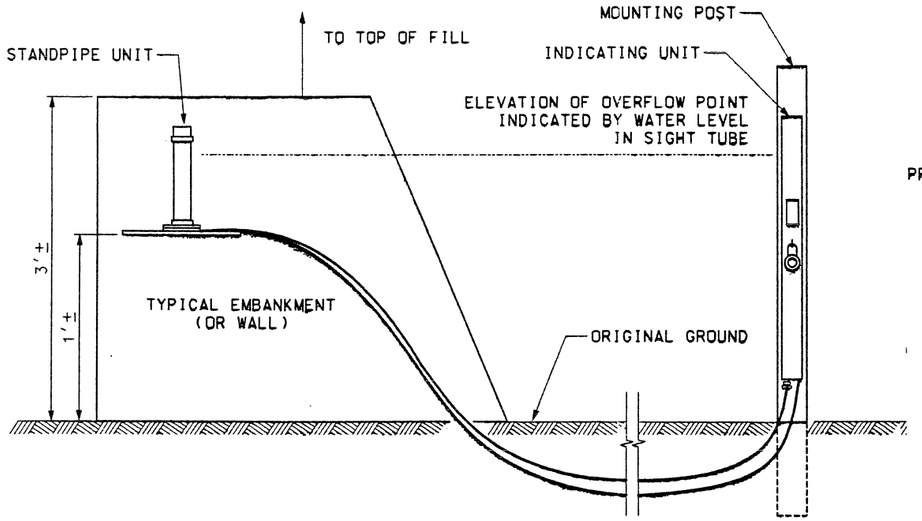


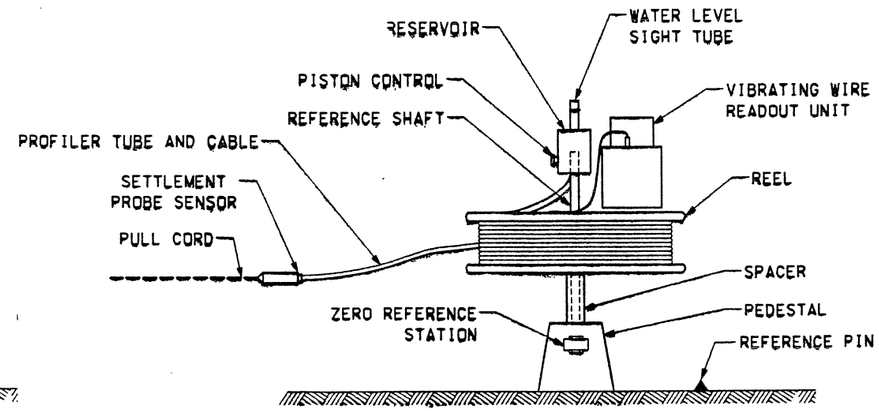
VIBRATING WIRE SETTLEMENT PROFILER PLAN VIEW



VIBRATING WIRE SETTLEMENT PROFILER SECTION



VENTED SETTLEMENT INDICATING DEVICE



VIBRATING WIRE SETTLEMENT PROFILER RESERVOIR AND TUBE/CABLE REEL

LICENSED PROFESSIONAL ENGINEER No. 3440 PHIL C. GERHART STATE OF UTAH

WASATCH CONSTRUCTORS

AUG 04 1997

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	8/1/97	INSTRUMENTATION RELEASED AS CORRIDOR STD.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	GJM	7/97	
DRAWN	LFK	7/97	
QUANT.	N/A		
CHECK	GJM	7/97	
CHECK			
CHECK			

APPROVAL RECOMM. 8/1/97 PHIL C. GERHART PROJECT DESIGN ENGINEER DATE

APPROVED 8/1/97 JOHN TERRY SECTION MANAGER DATE

I-15 CORRIDOR RECONSTRUCTION

INSTRUMENTATION DETAILS

CORRIDOR STANDARD PLAN

PROJECT NUMBER •SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-25

SHT. ____ OF ____

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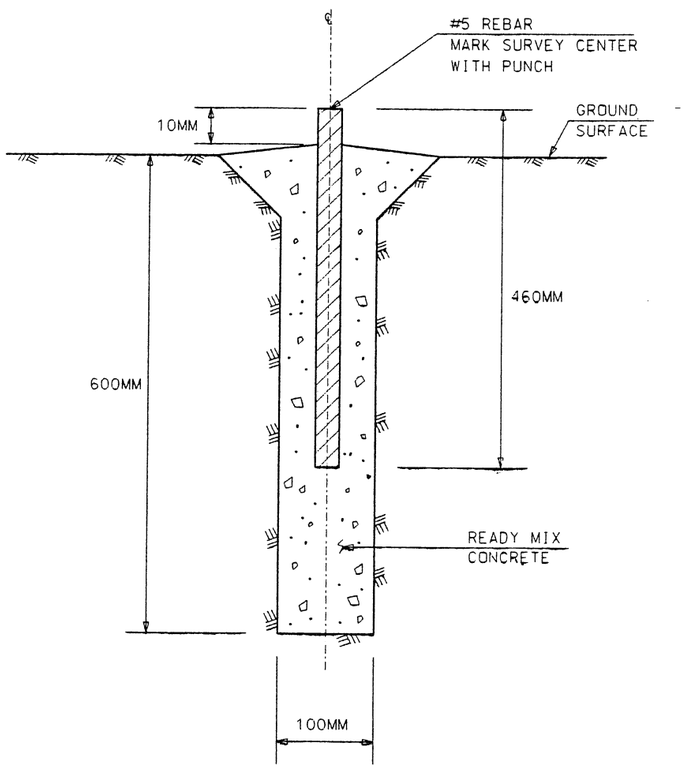
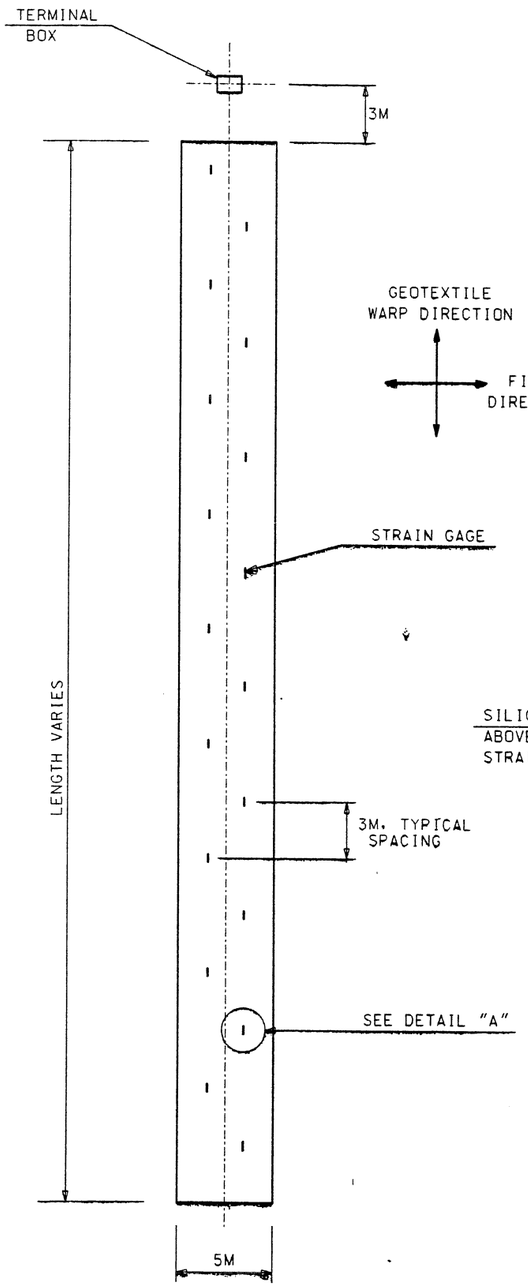


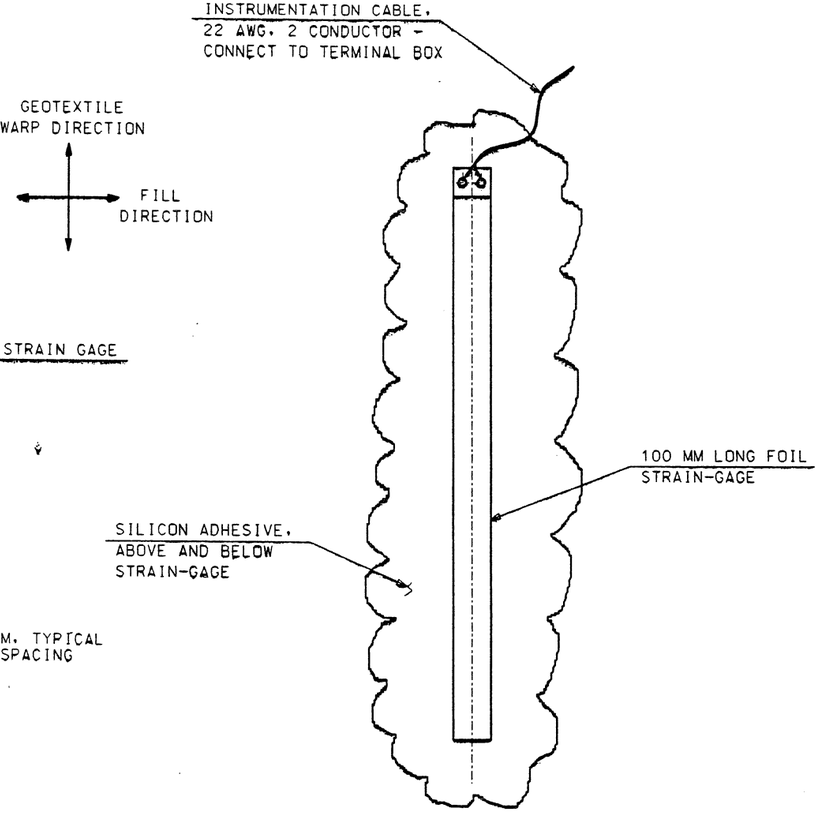
SURVEY POINT DETAIL

NOT TO SCALE



GEOTEXTILE STRAIN GAGE PLAN VIEW

NOT TO SCALE



GEOTEXTILE STRAIN GAGE DETAIL "A"

NOT TO SCALE

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	8/1/97	INSTRUMENTATION RELEASED AS CORRIDOR STD.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	G.M	7/97	
DRAWN	V.L.R	7/97	
QUANT.	N/A		

APPROVAL RECOMMENDED — PHIL C. CARHART, PROJECT DESIGN ENGINEER — 8/1/97 DATE

APPROVED — JOHN TERRY, SECTION MANAGER — 8/1/97 DATE

I-15 CORRIDOR RECONSTRUCTION

INSTRUMENTATION DETAILS

INSTRUMENTATION DETAILS

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-26

SHT. ____ OF ____

WASATCH CONSTRUCTORS

AUG 04 1997

RELEASED FOR CONSTRUCTION

LICENSED PROFESSIONAL ENGINEER
No. 3440
PHIL C. GERHART
STATE OF UTAH

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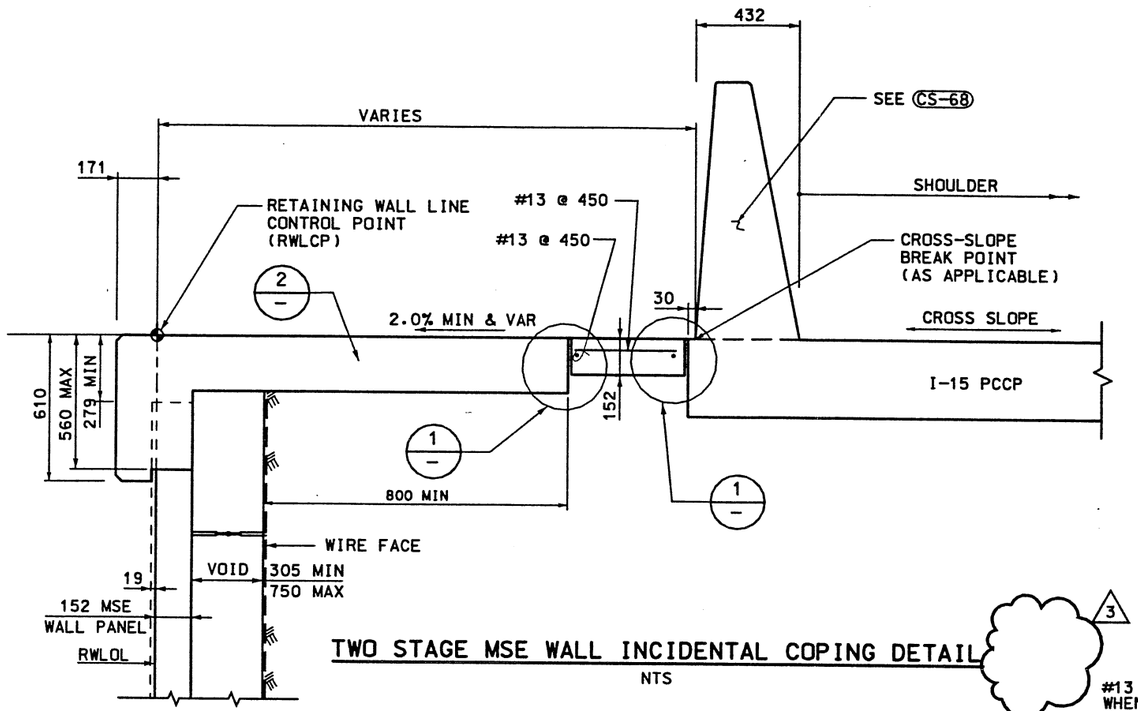
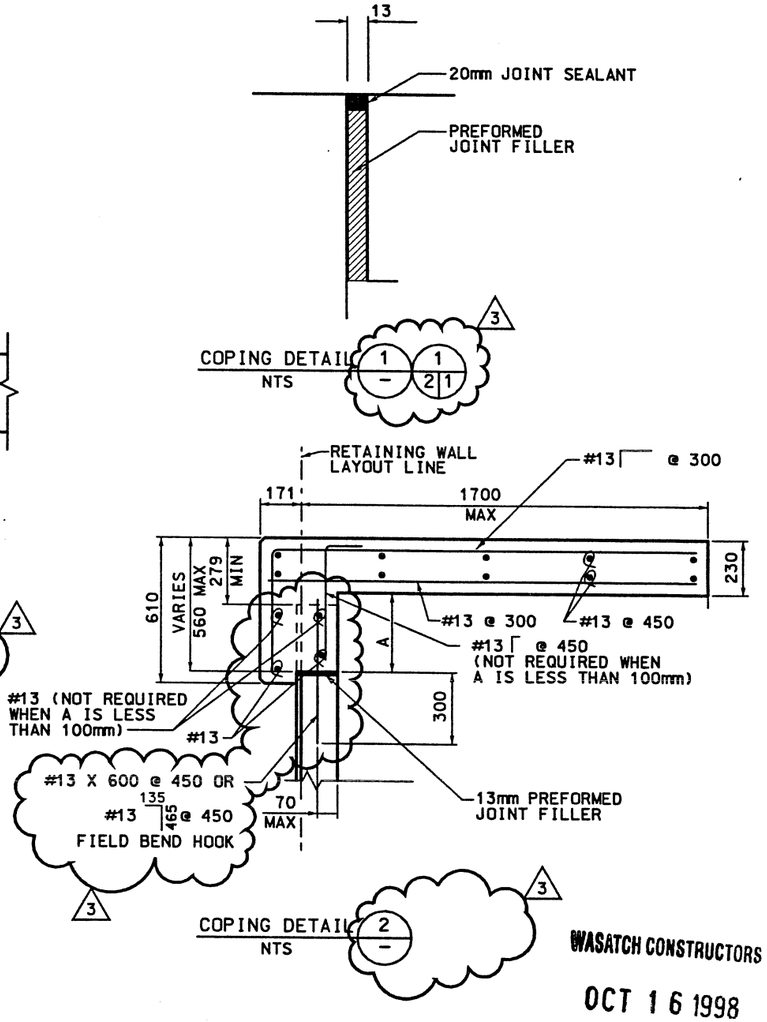
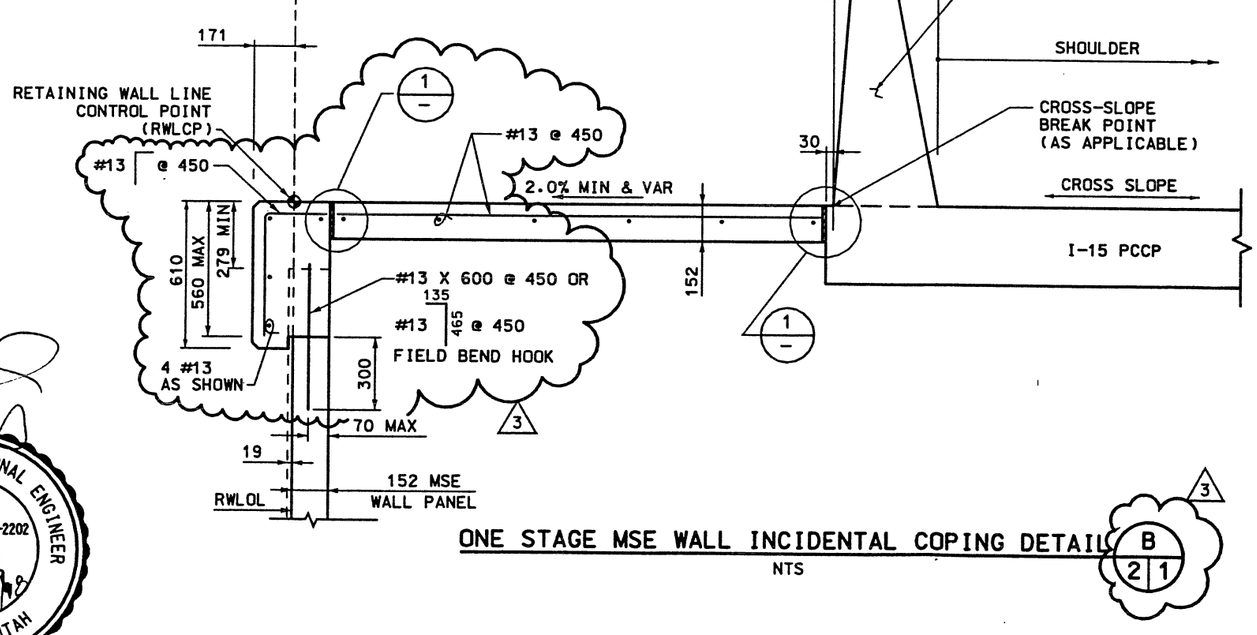


TWO STAGE MSE WALL INCIDENTAL COPING DETAIL

NTS





ONE STAGE MSE WALL INCIDENTAL COPING DETAIL

NTS

WASATCH CONSTRUCTORS

OCT 16 1998

RELEASED FOR CONSTRUCTION

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED, $f'c = 28$ MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm CONCRETE COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.

2) ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.

3) GRANULAR BORROW OR MSE BACKFILL IS ACCEPTABLE UNDER INCIDENTAL COPING SLAB.

4) DOWEL MAY BE CAST IN MSE WALL PANEL OR DRILL AND BONDED.

LICENSED PROFESSIONAL ENGINEER
No. 98-360758-2202
NASSER NIKPOUR
6/15/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	02/24/98	INITIAL RELEASE
2	08/18/98	TOTAL SHEET REPLACEMENT
3	10/16/98	DOWEL REVISION AND SECTION LOCATIONS

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN SDP 08/98 CHECK JJ
DRAWN SDP 08/98 CHECK LT
QUANT. CHECK MS

STANLEY POLASIK — PROJECT DESIGN ENGINEER
JAMES ELDER — SECTION MANAGER

APPROVAL RECOMMENDED 08/14/98 DATE
APPROVED 08/14/98 DATE

I-15 CORRIDOR RECONSTRUCTION

MISCELLANEOUS COPING DETAILS

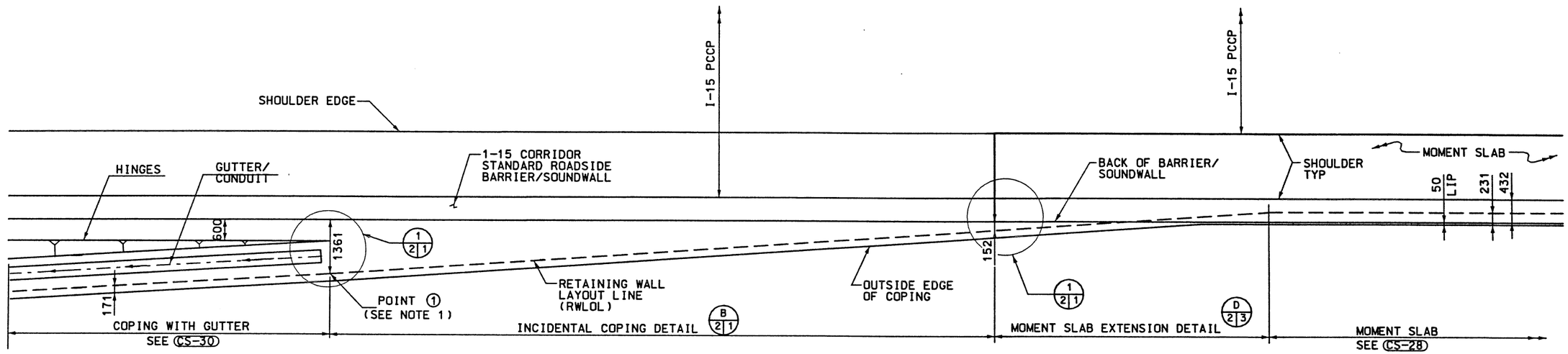
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(113)296

SALT LAKE COUNTY

DWG. NO. CS-27-1

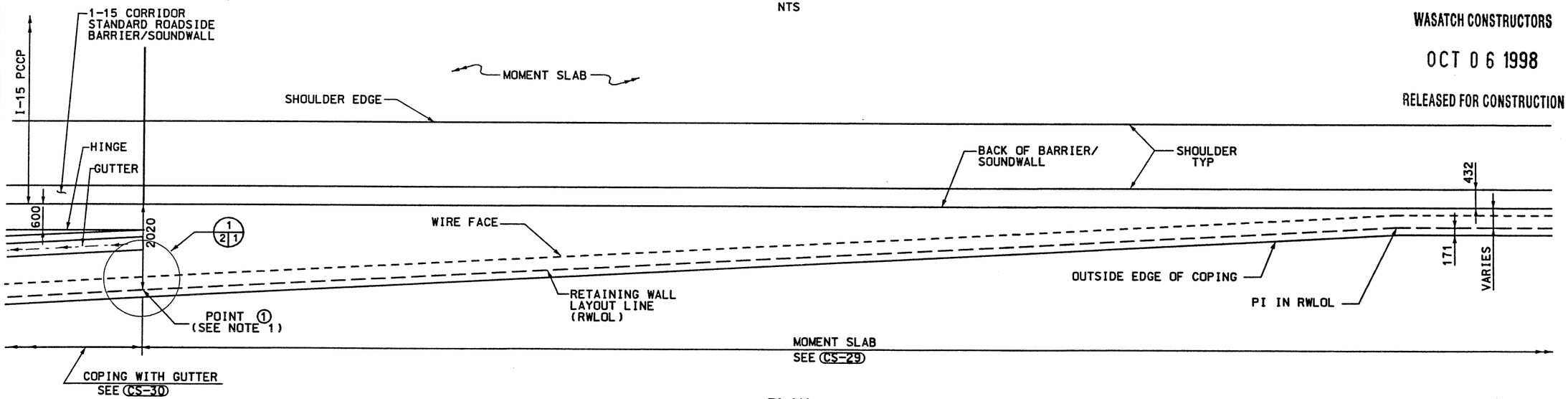
SHT. ____ OF ____



PLAN

ONE STAGE MSE WALL TRANSITION

NTS



PLAN

TWO STAGE MSE TRANSITION

NTS

NOTES:

1. PROFILE LINE ON S&L WILL SWITCH FROM GUTTER COPING CONTROL POINT TO TOP OF INCIDENTAL COPING CONTROL POINT AT POINT (1).

LICENSED PROFESSIONAL ENGINEER
No. 97-342329-2202
JAMES F. KLEMZ
STATE OF UTAH
10-2-98

WASATCH CONSTRUCTORS

OCT 0 6 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/02/98	ORIGINAL ISSUE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN SSP 08/98	CHECK HH 08/98	
DRAWN VLR 08/98	CHECK	
QUANT.	CHECK	

STANLEY POLASIK — PROJECT DESIGN ENGINEER — APPROVAL RECOMM. 08/21/98 DATE

JAMES KLEMZ — SECTION MANAGER — APPROVED 08/21/98 DATE

I-15 CORRIDOR RECONSTRUCTION

MISCELLANEUOS COPING DETAILS

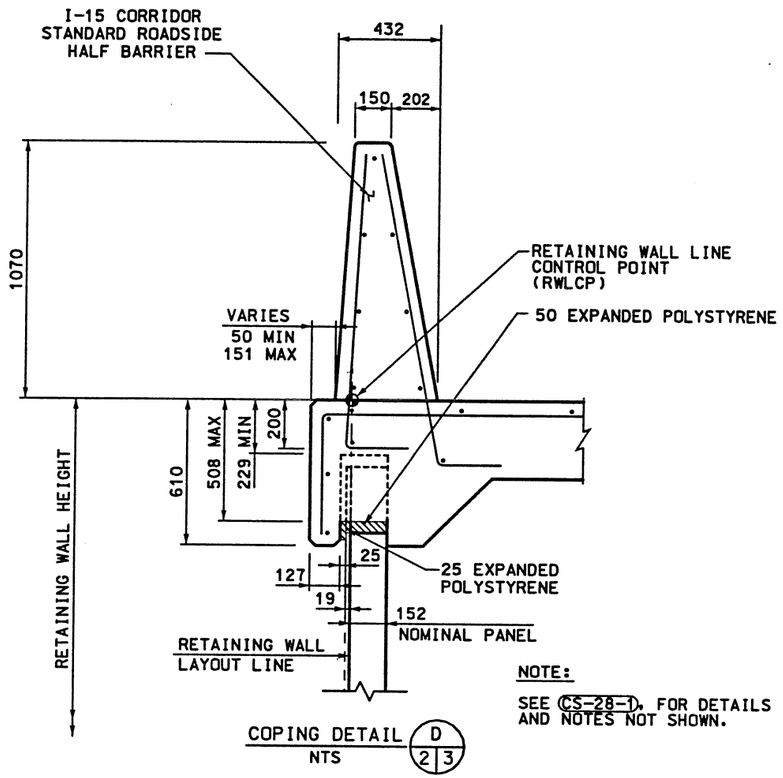
SECTION

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

DWG. NO. CS-27-2

SHT. ____ OF ____



NOTE:

SEE CS-28-1, FOR DETAILS AND NOTES NOT SHOWN.

COPING DETAIL (D) 2|3
NTS

WASATCH CONSTRUCTORS

OCT 0 6 1998

RELEASED FOR CONSTRUCTION

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'_c = 28 MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm CONCRETE COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.

2) ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.

LICENSED PROFESSIONAL ENGINEER
No. 98-360758-2202
NASSER NIKPOUR
6/1/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/02/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	SDP	CHECK	MDB 06/98
DRAWN	SDP	CHECK	
QUANT.		CHECK	

APPROVAL RECOMMENDED 08/10/98 DATE — STANLEY POLASIK PROJECT DESIGN ENGINEER

APPROVED 08/10/98 DATE — JAMES ELDRE SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION

MISCELLANEOUS COPING DETAILS

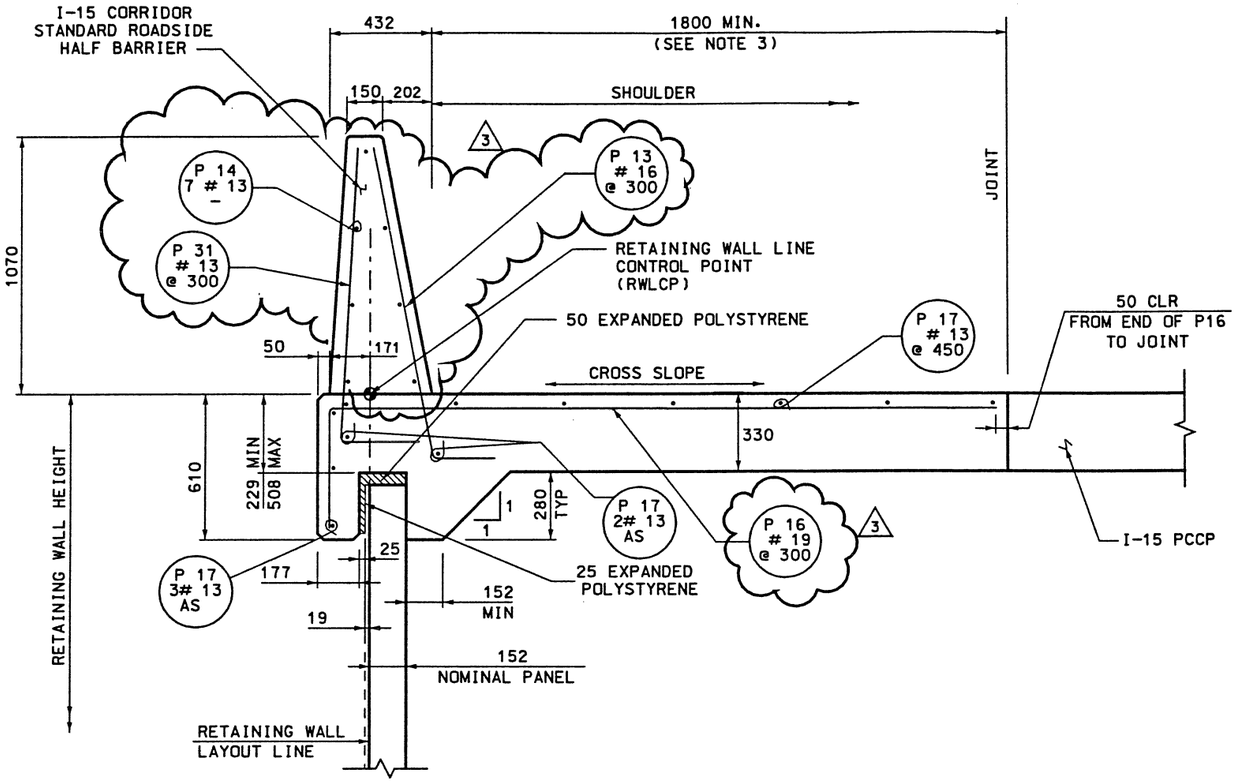
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

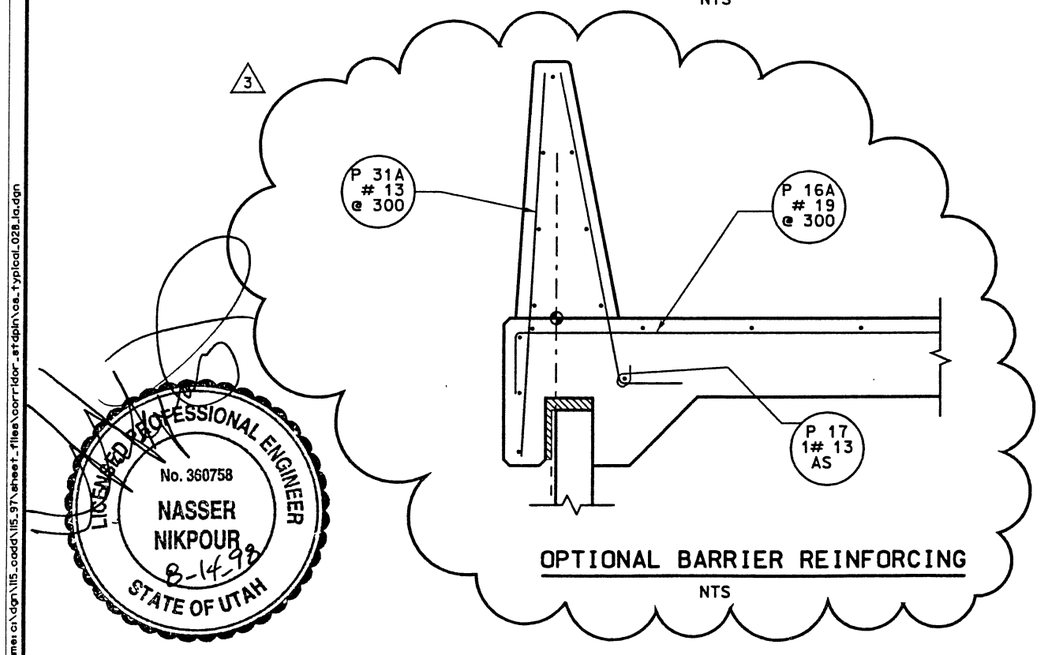
DWG. NO. CS-27-3

SHT. ____ OF ____



MSE SINGLE STAGE WITH BARRIER ON MOMENT SLAB

NTS



OPTIONAL BARRIER REINFORCING

NTS

BARRIER REINFORCING STEEL SCHEDULE				
MARK	LOCATION	SIZE NO.	LENGTH	SKETCH
P13	OUTSIDE BARRIER	16	1600	1325, 275
P14	OUTSIDE LONGITUDINAL	13	VARIES	VARIES
P16	MOMENT SLAB TRANSVERSE	19	2690*	2180*, 510
P17	MOMENT SLAB LONGITUDINAL	13	VARIES	VARIES
P31	OUTISDE BARRIER	13	1370	1190, 180
P16A	MOMENT SLAB TRANSVERSE	19	2430*	2180*
P31A	OUTISDE BARRIER	13	1580	1580

* FOR MOMENT SLABS LESS THAN 10 METERS LONG, THE HORIZONTAL BAR LENGTH IS 2780.

WASATCH CONSTRUCTORS

AUG 2 1 1998

RELEASED FOR CONSTRUCTION

NOTES:

1. 50mm MINIMUM COVER OVER REINFORCING.
2. ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED, f'c = 28MPa. CHAMFER ALL EXPOSED CORNERS 20mm OR 13mm RADIUS.
3. IF MOMENT SLAB IS LESS THAN 10 METERS LONG THEN THE MINIMUM MOMENT SLAB WIDTH IS 2400 MIN AND NOT 1800 MIN.
4. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
5. CROSS SLOPE OF THE MOMENT SLAB SHALL MATCH THE ROADWAY CROSS SLOPE.

LICENSED PROFESSIONAL ENGINEER
No. 360758
NASSER NIKPOUR
8-14-98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	04/03/98	INITIAL RELEASE
2	06/30/98	BARRIER SHAPE REVISIONS
3	08/14/98	OPTIONAL BARRIER REINFORCEMENT AND NOTE REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	MP	CHECK	JJ
DRAWN	YLR	CHECK	MC
QUANT.		CHECK	LT

APPROVED 04/03/98 DATE — STAN POLASIK, PROJECT DESIGN ENGINEER

APPROVED 04/03/98 DATE — JOSEPH JOHNSON, SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION

BARRIER ON MOMENT SLAB

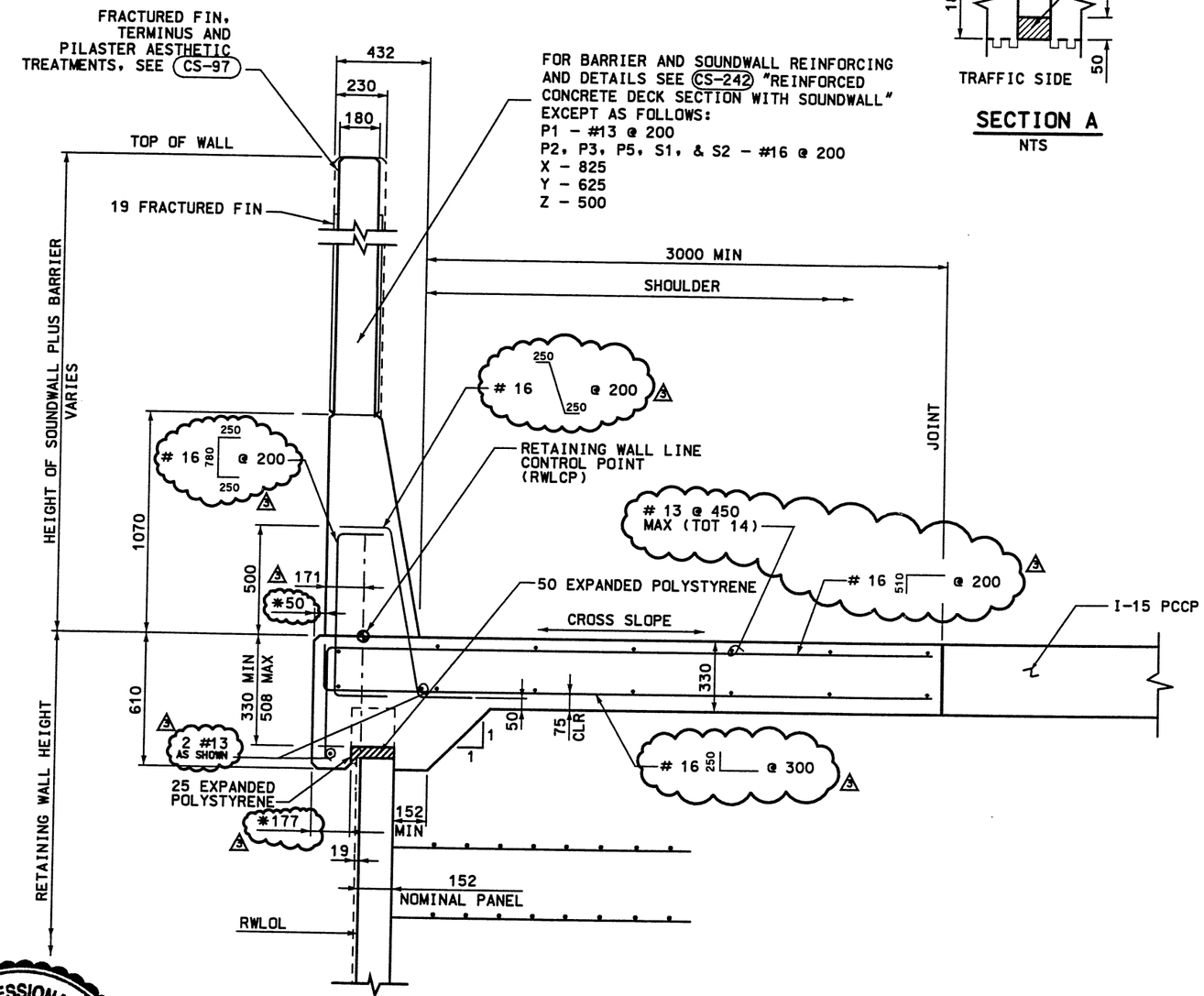
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(1351)296

SALT LAKE COUNTY

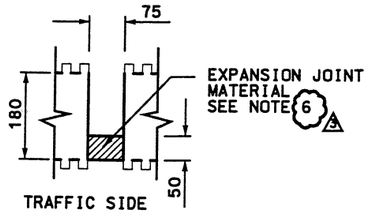
DWG. NO. CS-28-1

SHT. ____ OF ____



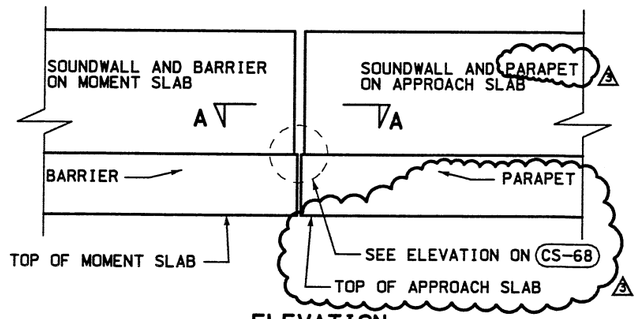
MSE SINGLE STAGE WITH SOUNDWALL AND BARRIER ON MOMENT SLAB

NTS



SECTION A

NTS



ELEVATION
MOMENT/APPROACH SLAB JOINT

NTS

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT OTHERWISE NOTED. f'c=28 Mpa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm or 13mm RADIUS. PROVIDE 50mm CONCRETE COVER TO REINFORCEMENT STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
2) ALL DIMENSION ARE IN mm UNLESS OTHERWISE NOTED.
3) MATCH ROADWAY CROSS SLOPES.
4) EXPANSION JOINTS THROUGH WALL AND BARRIER SHALL BE LOCATED AT A MAXIMUM SPACING OF 30 METERS USING DETAIL 2 ON CS-242.
5) FOR SPACING AND DETAIL OF CONTRACTION JOINTS, SEE SHEET CS-242.
6) EXPANSION JOINT MATERIAL SHALL BE GREY COLORED "POLYTIGHT N" OR APPROVED EQUAL AFFIXED TO SOUNDWALL WITH EPOXY AS SUPPLIED BY THE MANUFACTURER.

* 50mm LIP IS OPTIONAL TO EASE PLACEMENT OF FORMWORK. IF CONTRACTOR CHOOSES TO OMIT 50mm LIP, THEN 177mm COPING DIMENSION SHALL BE REVISED TO 127mm.

LICENSED PROFESSIONAL ENGINEER
2-8-00
No. 98-352945-2202
DOUGLAS J. LATTIN
STATE OF UTAH

WASATCH CONSTRUCTORS
MAR 0 8 2000
RELEASED FOR CONSTRUCTION

RFC After Final Approval

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	05/11/98	INITIAL RELEASE
2	06/09/98	WIDTH REVISIONS
3	12/10/98	REVISED NOTES, REBAR CALLOUTS AND COPING LIP FDC 1-0341
		CLARIFY JT DETAILS FDC 7-0105

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

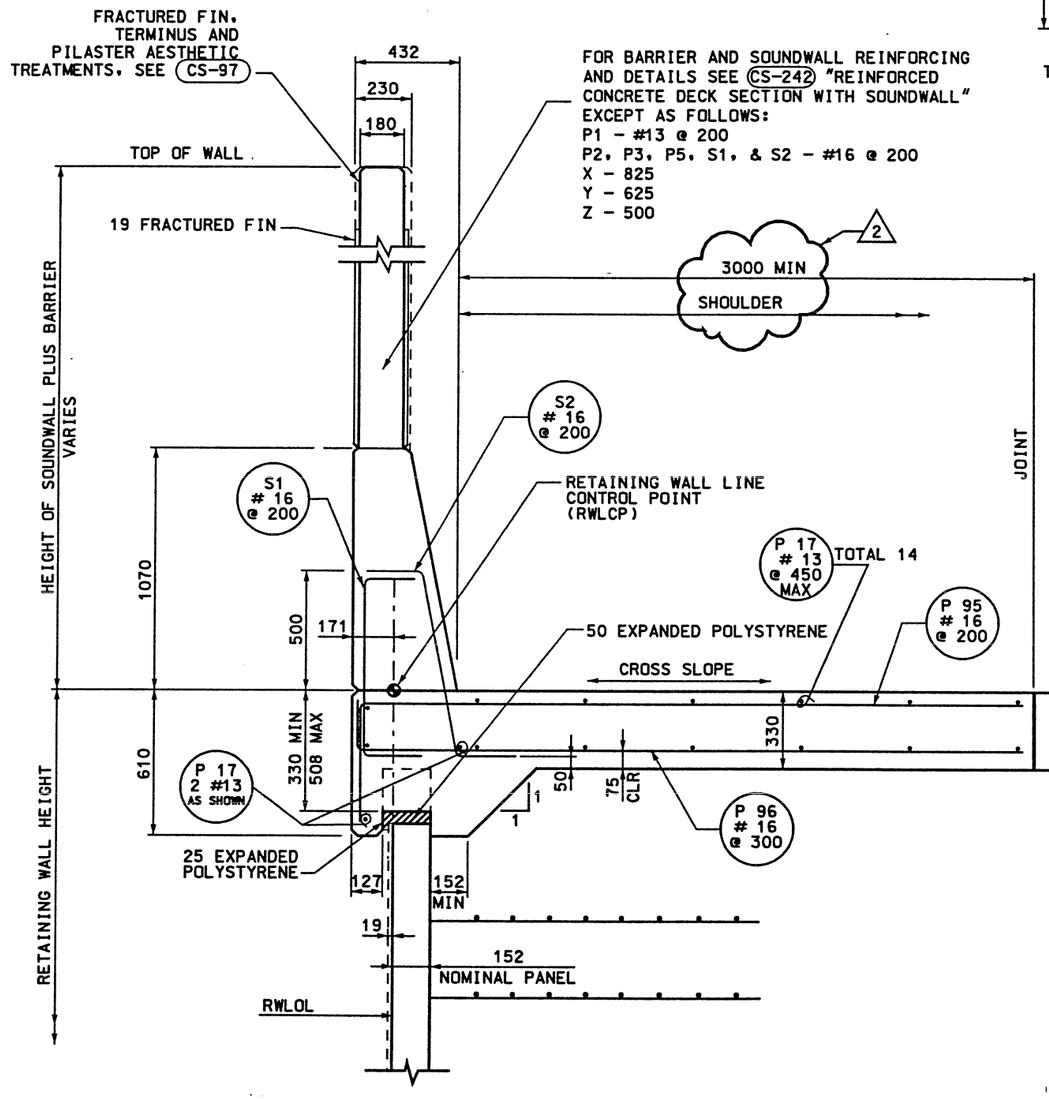
DESIGN	MC	01/98
DRAWN	VLR	01/98
QUANT.		
CHECK	HH	05/98
CHECK	MC	01/98
CHECK	LT	01/98

APPROVAL RECOMM. 05/11/98 DATE — STAN POLASIK PROJECT DESIGN ENGINEER
APPROVED 05/11/98 DATE — JAMES KLEMZ SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION
SOUNDWALL AND BARRIER
CORRIDOR STANDARD PLAN

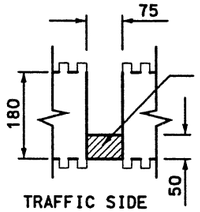
PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-28-2
SHT. ____ OF ____



MSE SINGLE STAGE WITH SOUNDWALL AND BARRIER ON MOMENT SLAB

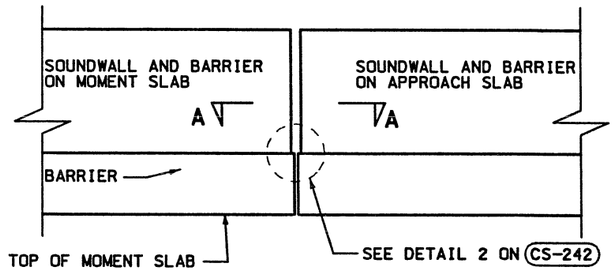
NTS



SECTION A

NTS

NOISE WALL/BARRIER REINFORCING STEEL SCHEDULE			
MARK	LENGTH	SIZE NO.	SKETCH
P95	3240	16	3330 MIN, 510, 2
P96	2980	16	250, 2, 3330 MIN
S1	1280	16	780, 250
S2	1295	16	780, 250, 250, 150



ELEVATION MOMENT/APPROACH SLAB JOINT

NTS

WASATCH CONSTRUCTORS

JUN 10 1998

RELEASED FOR CONSTRUCTION

LICENSED PROFESSIONAL ENGINEER
No. 353405
ROBERT B. ANDERSON
23 Jan 98
STATE OF UTAH

NOTES:

1. 50mm MINIMUM COVER OVER REINFORCING.
2. ALL CAST IN PLACE CONCRETE SHALL BE CLASS AA (AE) CONCRETE. f'c=28 Mpa.
3. ALL DIMENSION ARE IN mm UNLESS OTHERWISE NOTED.
4. LOCATE TRANSVERSE CONSTRUCTION JOINTS AT THE SAME LOCATION AS THE PAVEMENT JOINTS.
5. MATCH ROADWAY CROSS SLOPES.
6. EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING OF 30 METERS USING DETAIL 2 ON CS-242.
7. SEE CS-242 FOR SPACING AND DETAIL OF CONTRACTION JOINTS SEE SHEET CS-242.
8. EXPANSION JOINT MATERIAL SHALL BE GREY COLORED "POLYTIGHT N" OR APPROVED EQUAL AFFIXED TO SOUNDWALL WITH EPOXY AS SUPPLIED BY THE MANUFACTURER.

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	05/11/98	INITIAL RELEASE
2	06/09/98	WIDTH REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	MS	01/98	05/98
DRAWN	VLR	01/98	01/98
QUANT.			
CHECK	MK	05/98	
CHECK	MS	01/98	
CHECK	LT	01/98	

STAN POLASIK — PROJECT DESIGN ENGINEER — 05/11/98 DATE — APPROVAL RECOMM.

JAMES ELENZ — SECTION MANAGER — 05/11/98 DATE — APPROVED

I-15 CORRIDOR RECONSTRUCTION

SOUNDWALL AND BARRIER

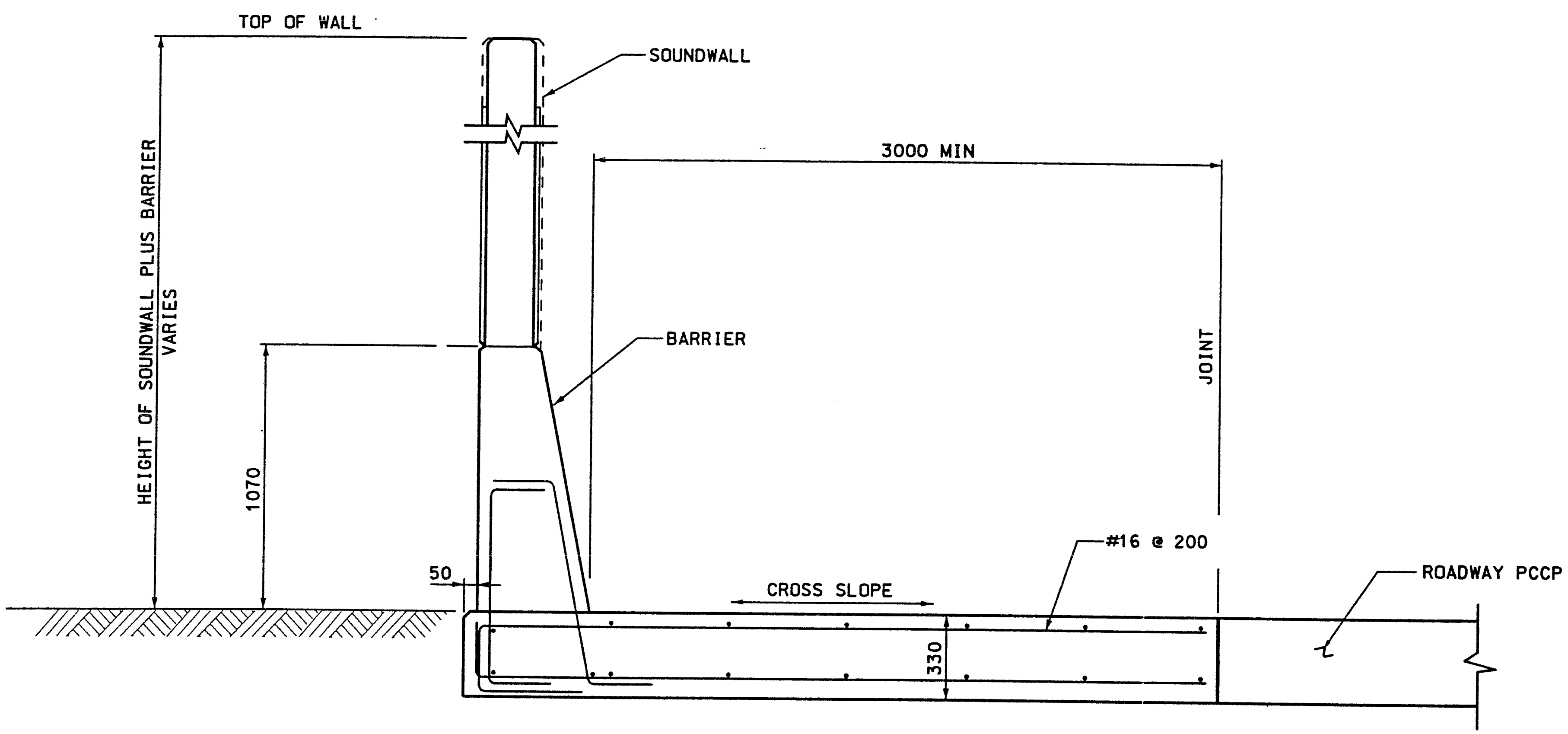
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(11351296

SALT LAKE COUNTY

DWG. NO. CS-28-2

SHT. ____ OF ____



SOUNDWALL AND BARRIER ON MOMENT SLAB

NTS

WASATCH CONSTRUCTORS

AUG 25 1998

RELEASED FOR CONSTRUCTION

NOTES:

FOR ADDITIONAL NOTES & REINFORCING SEE CS-28-2.

LICENSED PROFESSIONAL ENGINEER
No. 98-360758-2202
NASSER NIKPOUR
8/21/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	08/21/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

APPROVAL RECOM. ___ DATE ___ STAN POLASIK PROJECT DESIGN ENGINEER — DESIGN MC — CHECK
APPROVED ___ DATE ___ NASSER NIKPOUR SECTION MANAGER — DRAWN VLR — CHECK — QUANT. — CHECK

I-15 CORRIDOR RECONSTRUCTION

SOUNDWALL AND BARRIER

CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE
COUNTY

DWG. NO.
CS-28-4

SHT. ___ OF ___

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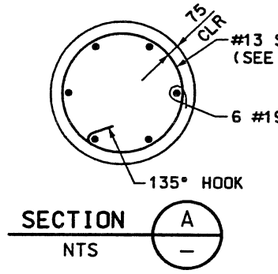
Date: 21-AUG-1998 Time: 09:42 Username: POLASISD

TABLE 1

MINIMUM SLAB WIDTH (S) ALTERNATIVES WITH AND WITHOUT CIDH CAISSON

X	MIN 'S' W/O CIDH CAISSON	MIN REQ'D LENGTH OF 400 DIA. CIDH CAISSON SPACED AT 3048 WITH:				X
		S=1800	S=2400	S=3000	S=3600	
-2000	S=2400	D=1800	D=1800	D=1800	D=1800	-2000
-1500						-1500
-1400						-1400
-1300						-1300
-1200						-1200
-1100	S=3000	D=2400				-1100
-1000						-1000
-900						-900
-800	S=3600	D=3600				-800
-700						-700
-600			D=2400			-600
-500	S=4000					-500
-400			D=3600			-400
-300	S=4400			D=2400		-300
-200						-200
-100	S=4800			D=3600		-100
0					D=3000	0
100	S=5200					100
150						150

X: MAXIMUM DISTANCE FROM THE WIRE FACE TO BACK OF BARRIER WITHIN ANY 3000mm LONGITUDINAL SECTION OF WALL (NEGATIVE X VALUES INDICATE DISTANCES BEHIND BARRIER SEE CONSTRUCTION OFFSET DETAIL.)

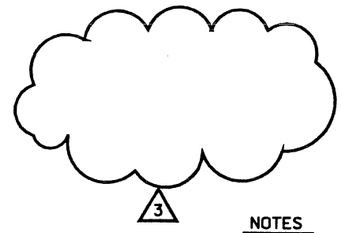


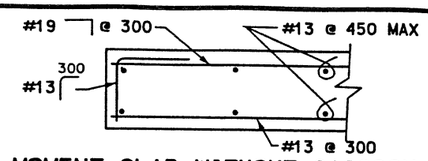
SECTION A — A
NTS

TABLE 2

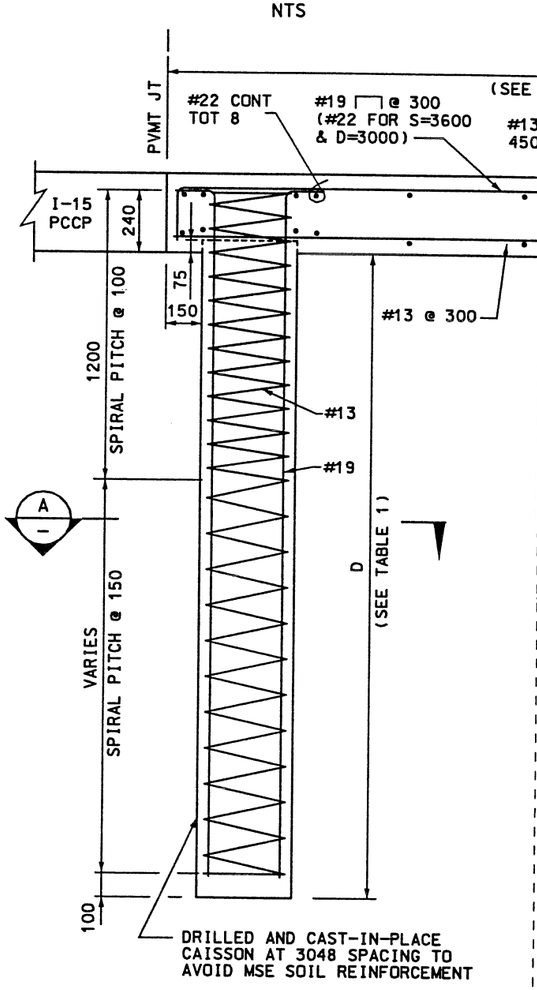
CONSTRUCTION OFFSET FROM WIRE FACE TO RWLOL

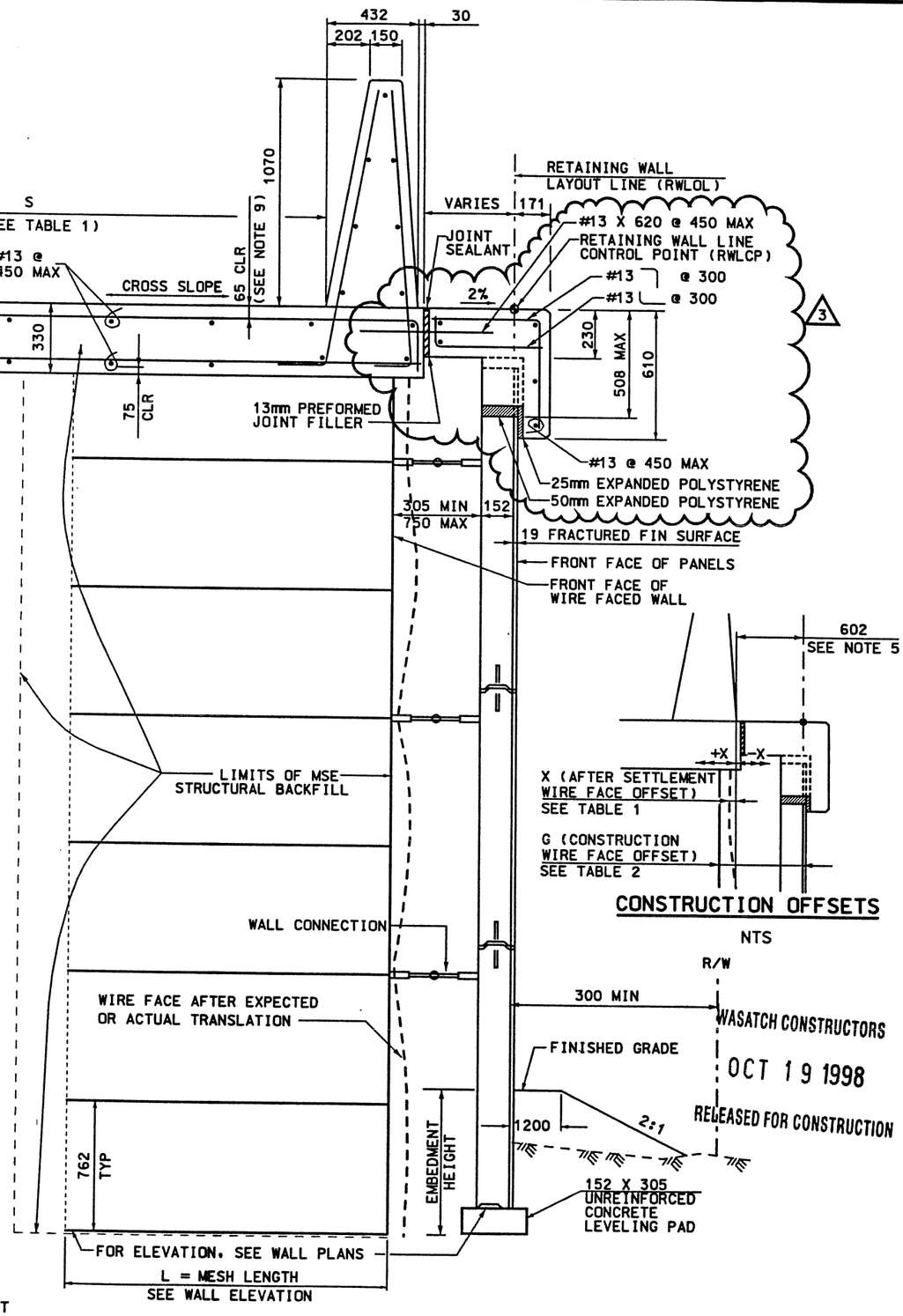
HEIGHT PLUS SURCHARGE (METERS)	G (mm)
0 - 5	600
5 - 10	700
10 - 15	800
15 - 20	900





MOMENT SLAB WITHOUT CAISSON
NTS





CONSTRUCTION OFFSETS
NTS

MSE TWO STAGE WITH BARRIER ON MOMENT SLAB WITH CAISSON
NTS

NOTES

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'c = 28 MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm CONCRETE COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
2) ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
3) CROSS SLOPE OF THE MOMENT SLAB SHALL MATCH THE ROADWAY CROSS SLOPE.
4) WHERE SPLICES ARE REQUIRED, SPIRAL REINFORCEMENT SHALL BE LAPPED 80 DIAMETERS MINIMUM. A 135° HOOK THAT IS HOOKED AROUND A LONGITUDINAL BAR SHALL BE USED TO TERMINATE THE ENDS OF THE SPIRAL REINFORCEMENT AT LAPPED SPLICES AND AT THE TOP AND BOTTOM OF THE PILE.
5) FIRST STAGE WIRE FACE TO BE LOCATED AT AN OFFSET (G) FROM THE RWLOL, SEE TABLE 2. THE WIRE FACE AFTER SETTLEMENT WILL VARY BETWEEN 305mm AND 750mm MEASURED AT THE PANEL CONNECTORS. INITIALLY, THE DISTANCE BETWEEN THE BACK OF BARRIER AND RWLOL WILL BE 602MM.
6) SECOND STAGE WALL PANEL LOCATIONS WILL BE REVIEWED AFTER SETTLEMENT HAS OCCURED. WALL PANEL LOCATIONS MAY BE ADJUSTED TO PROVIDE ADEQUATE WALL CONNECTOR GAP.
7) GRANULAR BORROW OR MSE BACKFILL MATERIAL IS ACCEPTABLE FOR FULL DEPTH OF PAVEMENT UNDER MOMENT SLAB.
8) EDGE OF MOMENT SLAB SHALL BE PLACED AT THE PAVEMENT JOINTS. SEE ROADWAY PLANS.
9) INCLUDES 15mm FOR WEAR AND GRINDING.

LICENSED PROFESSIONAL ENGINEER
No. 98-360758-2202
NASSER NIKPOUR
10/16/98
STATE OF UTAH

WASATCH CONSTRUCTORS
OCT 19 1998
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	04/03/98	INITIAL RELEASE
2	09/04/98	TOTAL SHEET REVISION
3	10/16/98	COPING REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	HN	CHECK	RN
DRAWN	DRC	CHECK	SDP
QUANT.	N/A	CHECK	

NASSER NIKPOUR, PROJECT DESIGN ENGINEER — APPROVAL RECOMM. 08/24/98 DATE
STAN POLASIK, SECTION MANAGER — APPROVED 08/24/98 DATE

I-15 CORRIDOR RECONSTRUCTION
BARRIER ON MOMENT SLAB
CORRIDOR STANDARD PLAN
PROJECT NUMBER *SP-15-7(135)296
SALT LAKE COUNTY
DWG. NO. CS-29-1
SHT. ____ OF ____

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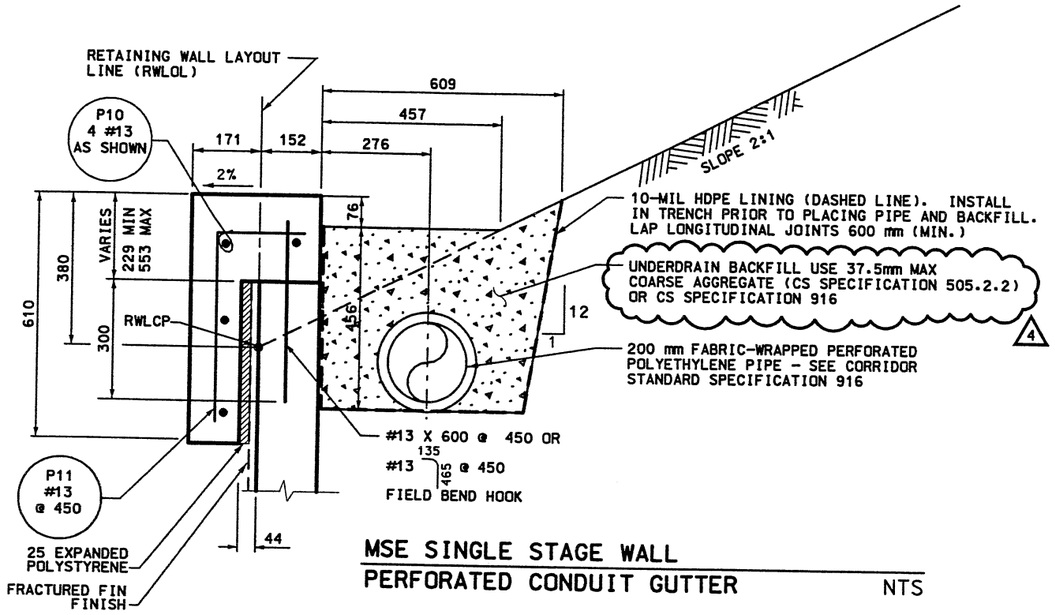
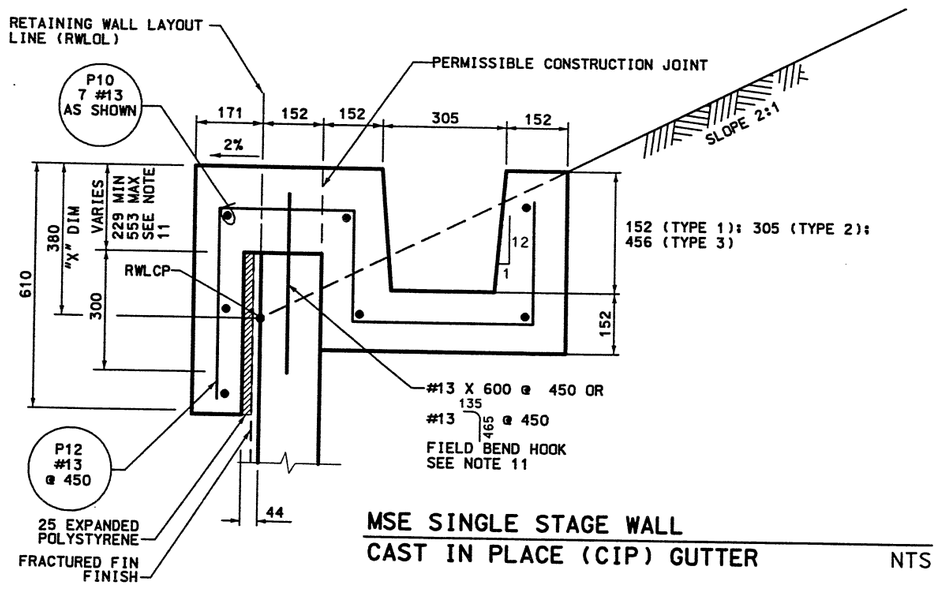


MSE SINGLE STAGE WALL
PERFORATED CONDUIT GUTTER NTS



MSE SINGLE STAGE WALL
CAST IN PLACE (CIP) GUTTER NTS

WALL COPING REINFORCING STEEL SCHEDULE						
MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P10	COPING	13				—
P11	GUTTER	13				510, 200
P12	GUTTER	13				510, 300, 450, VARIES

WASATCH CONSTRUCTORS
MAR 25 1999
RELEASED FOR CONSTRUCTION

GENERAL NOTES:

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED. DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31. GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION. SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILL AND BONDED PRIOR TO COPING CONSTRUCTION.
11. REINFORCING STEEL DOWEL NOT REQUIRED FOR GUTTER TYPES 2 AND 3 IF "X" DIMENSION DOES NOT EXCEED 300mm AND 450mm. RESPECTIVELY.

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: Fc = 11.03 MPa
REINFORCING STEEL: Fs = 165.5 MPa

INDEX OF SHEETS

LICENSED PROFESSIONAL ENGINEER
No. 96-324447-2202
JOHN M. TERRY
3/18/99
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	10/23/98	DOWEL REVISIONS
4	3/16/99	REVISIONS PER FDC 1-0691

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	MVO 3/98	CHECK BRB 3/98	TRACKING NO. 23134
DRAWN	JRJ 3/98	CHECK BRB 3/98	
QUANT.	NA	CHECK NA	

APPROVAL RECOM. 3/30/98 DATE — MARK V. GOOA, PROJECT DESIGN ENGINEER
APPROVED 3/30/98 DATE — JOHN TERRY, SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER DETAILS
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-30-1
SHT. ____ OF ____

RFC After Final Approval

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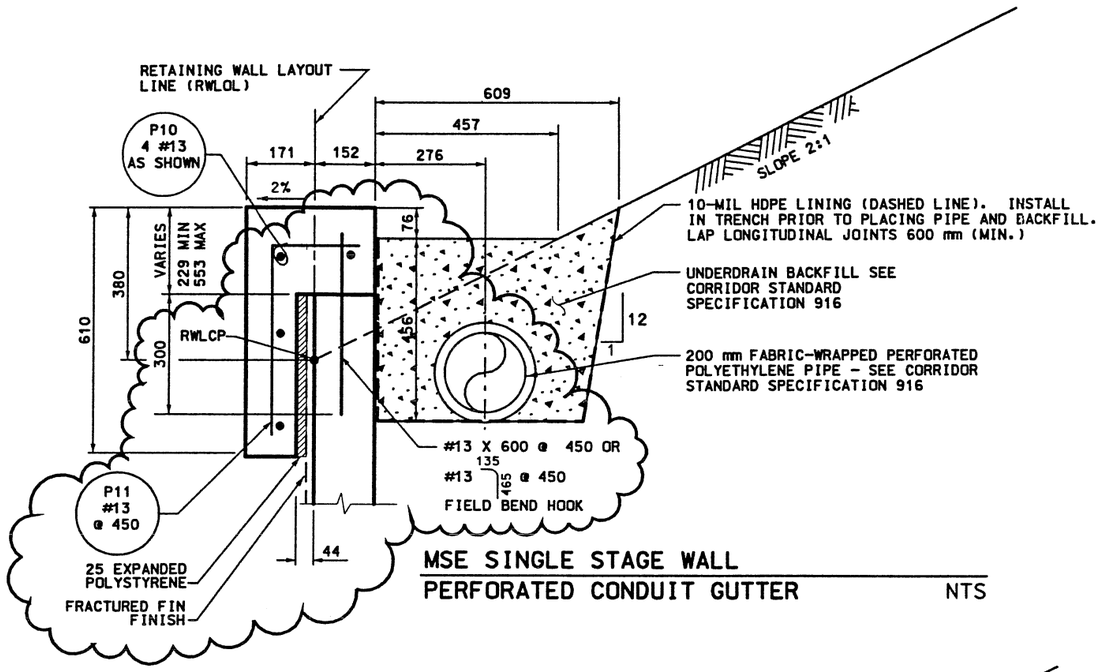
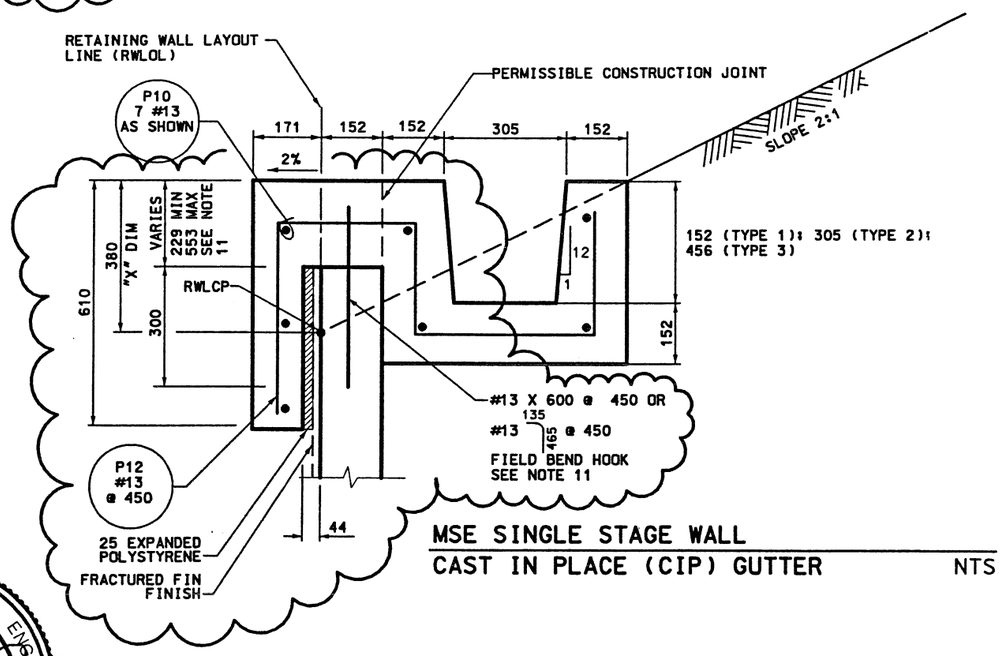


MSE SINGLE STAGE WALL
PERFORATED CONDUIT GUTTER NTS



MSE SINGLE STAGE WALL
CAST IN PLACE (CIP) GUTTER NTS

WALL COPING REINFORCING STEEL SCHEDULE						
MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P10	COPING	13				—
P11	GUTTER	13				510, 200
P12	GUTTER	13				510, 300, 450, VARIES

WASATCH CONSTRUCTORS

NOV 02 1998

RELEASED FOR CONSTRUCTION

GENERAL NOTES:

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED. DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31. GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION. SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILL AND BONDED PRIOR TO COPING CONSTRUCTION.
11. REINFORCING STEEL DOWEL NOT REQUIRED FOR GUTTER TYPES 2 AND 3 IF "X" DIMENSION DOES NOT EXCEED 300mm AND 450mm. RESPECTIVELY.

3

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: Fc = 11.03 MPa
REINFORCING STEEL: Fs = 165.5 MPa

INDEX OF SHEETS

LICENSED PROFESSIONAL ENGINEER
No. 96-324447-2202
JOHN M. TERRY
10/21/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	10/23/98	DOWEL REVISIONS

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	MVB	3/98
DRAWN	JRJ	3/98
QUANT.	NA	
CHECK	BRB	3/98
CHECK	BRB	3/98
CHECK	NA	

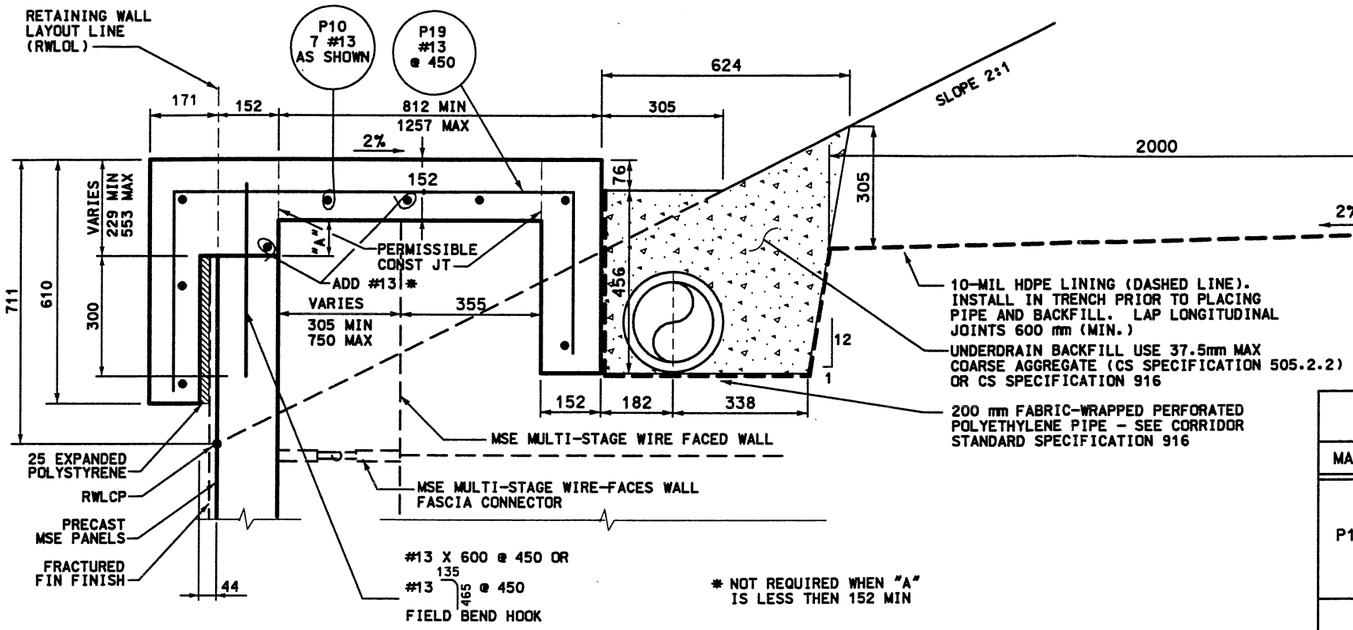
TRACKING NO. 23134

APPROVAL RECOMM. 3/30/98 DATE — PROJECT DESIGN ENGINEER MARK V. GORA
APPROVED 3/30/98 DATE — SECTION MANAGER JOHN TERRY

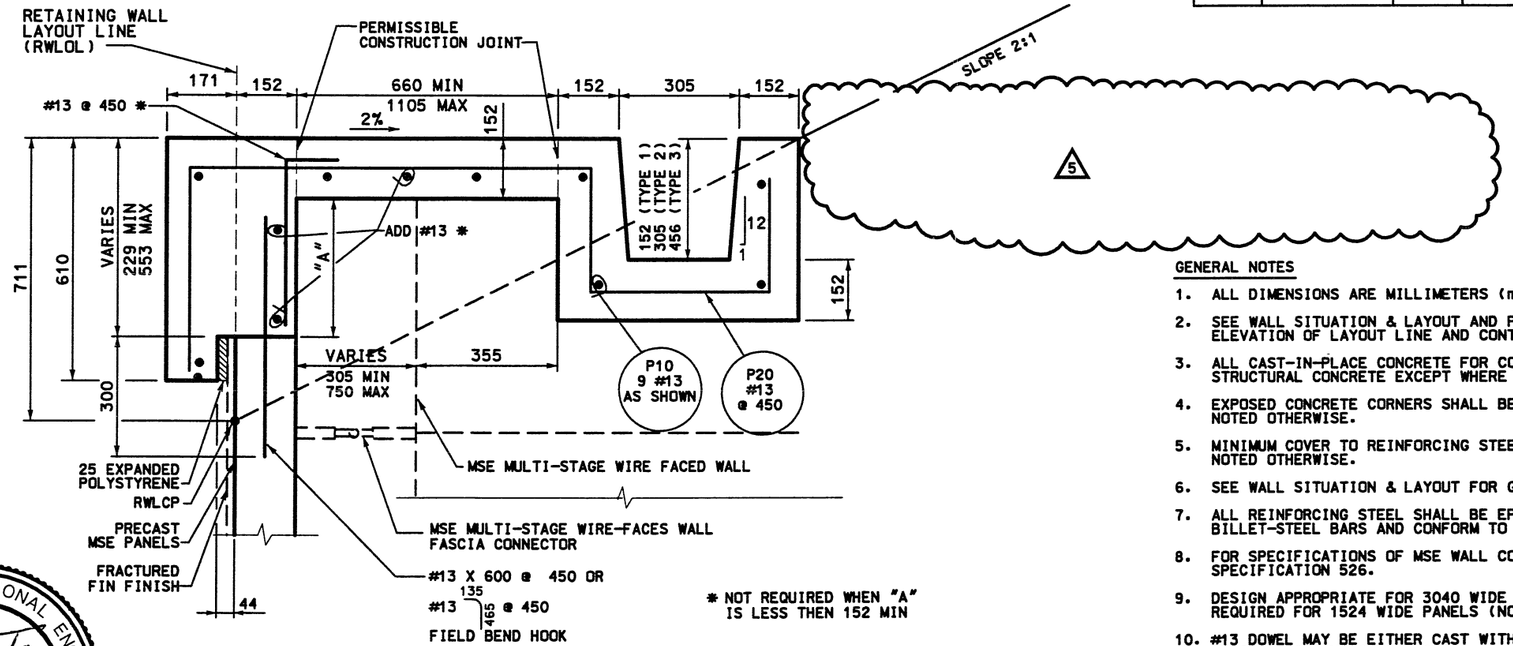
I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER DETAILS
CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-30-1
SHT. ____ OF ____



MSE MULTI STAGE WALL
PERFORATED CONDUIT GUTTER NTS



MSE MULTI STAGE WALL
CAST IN PLACE (CIP) GUTTER NTS

WALL COPING REINFORCING STEEL SCHEDULE

MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P19	GUTTER	13				VARIES 510; VARIES 1035; 432
P20	GUTTER	13				VARIES 510; VARIES 990; 500; VARIES

WASATCH CONSTRUCTORS

MAR 0 8 2000

RELEASED FOR CONSTRUCTION

GENERAL NOTES

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED, DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31, GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION, SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILL AND BONDED PRIOR TO COPING CONSTRUCTION.

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: Fc = 11.03 MPa
REINFORCING STEEL: Fs = 165.5 MPa

INDEX OF SHEETS

LICENSED PROFESSIONAL ENGINEER
No. 96-324447-2202
JOHN M. TERRY
2/20/00
STATE OF UTAH

RFC After Final Approval

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
4	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
4	10/23/98	DOWEL REVISION AND MODIFIED GAP WIDTH AND HDPE LINER
5	3/16/99	REVISIONS PER FDC 1-0691
6	2/25/00	DELETE NOTE/DIMENSION

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

APPROVAL RECOMM. 3/30/98 DATE — MARK V. GOOA, PROJECT DESIGN ENGINEER
APPROVED 3/30/98 DATE — JOHN TERRY, SECTION MANAGER

DESIGN MVG 3/98 CHECK BMB 3/98
DRAWN JLJ 3/98 CHECK BMB 3/98
QUANT. N/A CHECK

TRACKING NO. 23134

I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER DETAILS
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-30-2
SHT. ____ OF ____

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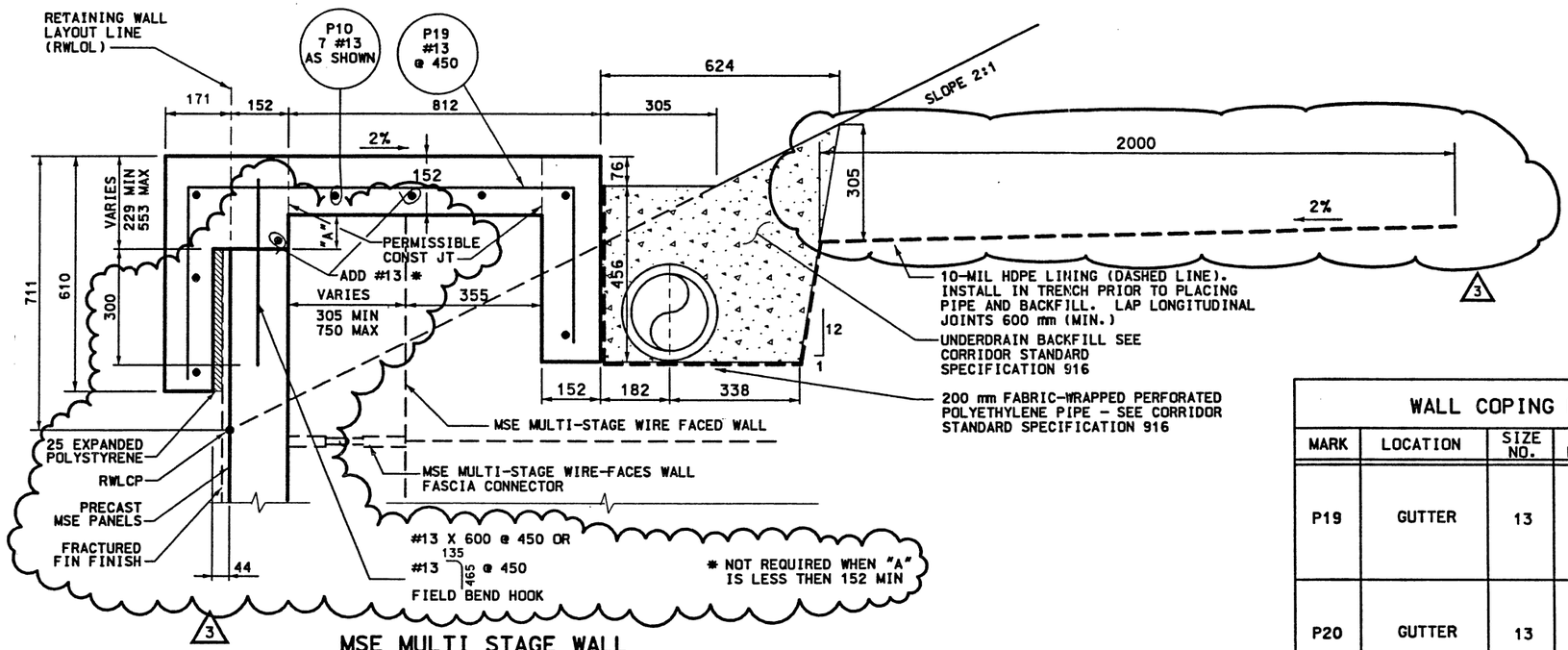
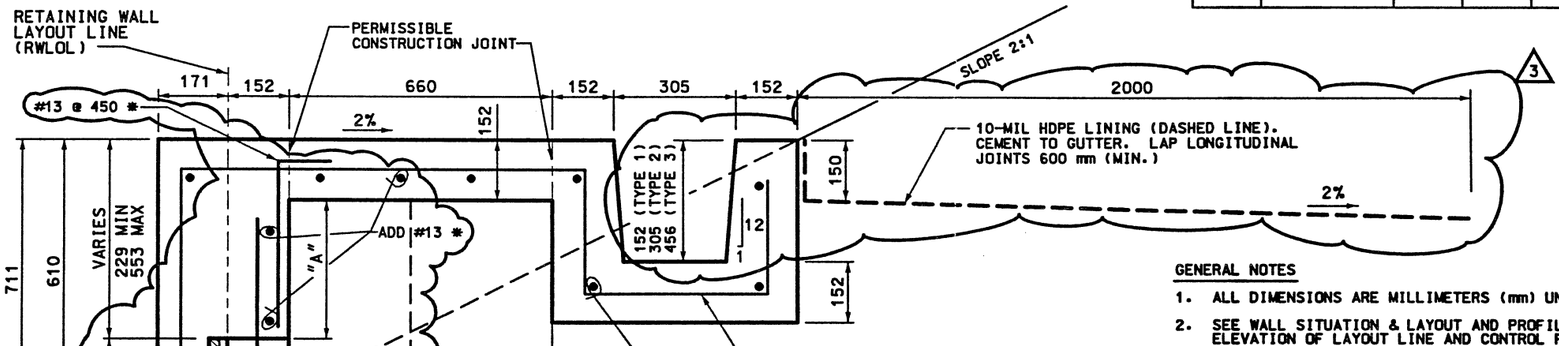


MSE MULTI STAGE WALL
PERFORATED CONDUIT GUTTER
NTS

WALL COPING REINFORCING STEEL SCHEDULE						
MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P19	GUTTER	13				510, 1035, 432
P20	GUTTER	13				510, 990, 500, VARIES

WASATCH CONSTRUCTORS
NOV 02 1998

RELEASED FOR CONSTRUCTION



MSE MULTI STAGE WALL
CAST IN PLACE (CIP) GUTTER
NTS

LICENSED PROFESSIONAL ENGINEER
No. 96-324447-2202
JOHN M. TERRY
10/21/98
STATE OF UTAH

GENERAL NOTES

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED, DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31, GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION, SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILL AND BONDED PRIOR TO COPING CONSTRUCTION.

3

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: Fc = 11.03 MPa
REINFORCING STEEL: Fs = 165.5 MPa

INDEX OF SHEETS

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	10/23/98	DOWEL REVISION AND MODIFIED OAP WIDTH AND HOPE LINER

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

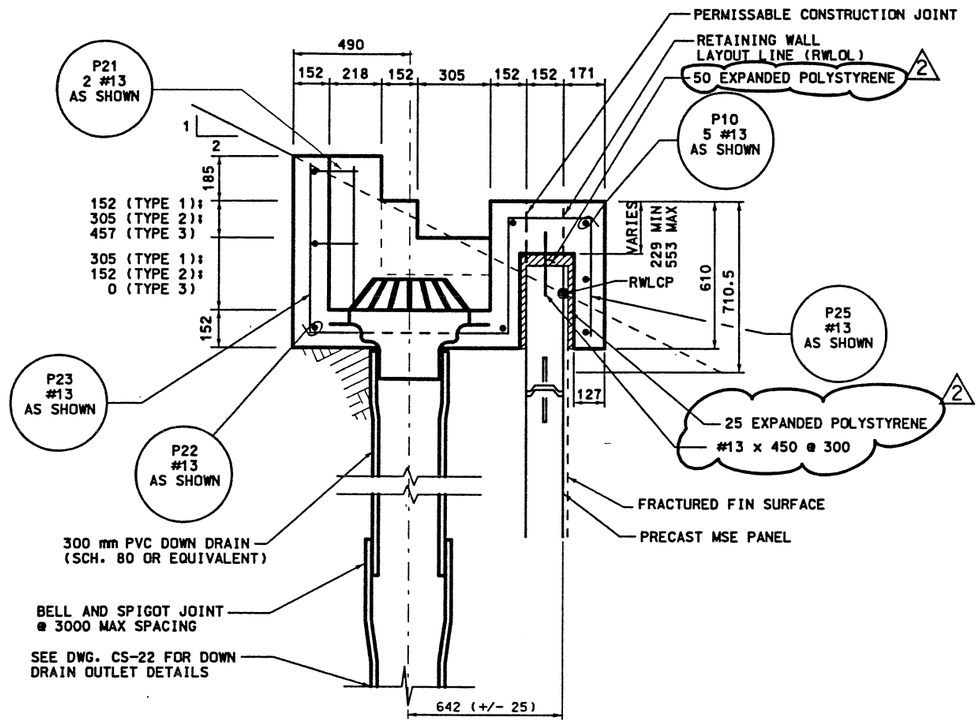
DESIGN	BWB	3/98	TRACING NO. 23134
DRAWN	JLJ	3/98	
CHECK	BWB	3/98	
QUANT.	N/A		
CHECK			

APPROVAL RECOMM. 3/30/98 — MARK V. GOBA, PROJECT DESIGN ENGINEER
APPROVED 3/30/98 — JOHN TERRY, SECTION MANAGER

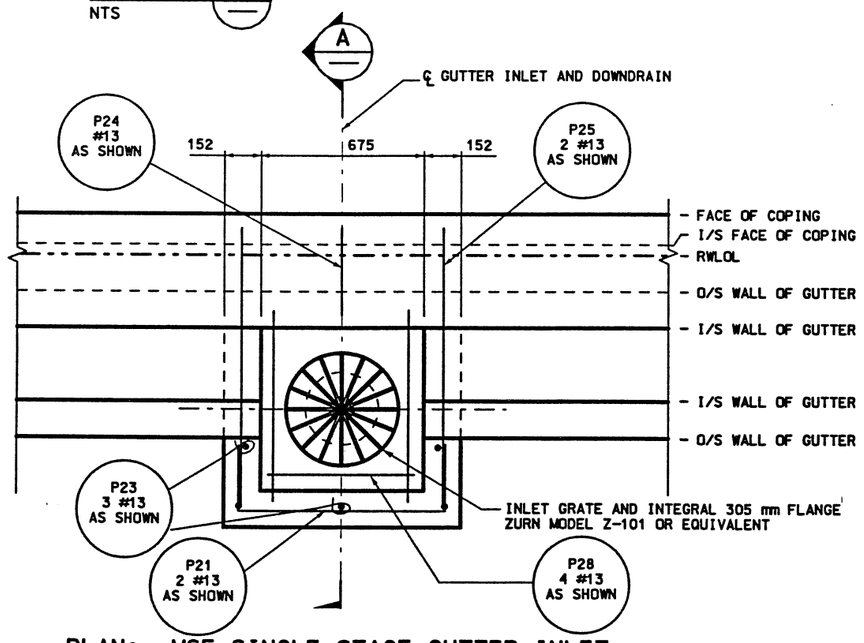
I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER DETAILS
CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-30-2
SHT. ____ OF ____



SECTION (A)
NTS



PLAN: MSE SINGLE-STAGE GUTTER INLET
NTS

LICENSED PROFESSIONAL ENGINEER
No. 9A-356215-2202
MARK V. GOGA
STATE OF UTAH

WALL COPING REINFORCING STEEL SCHEDULE

MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P21	At GUTTER DRAIN	13				270, 879
P22	At GUTTER DRAIN	13				879
P23	At GUTTER DRAIN	13				694
P24	At GUTTER DRAIN	13				373, 508
P25	At GUTTER DRAIN	13				827, 373, 694, 508
P10	MANY LOCATIONS	13				VARIES

GENERAL NOTES

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED. DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31, GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION, SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN). (2)
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILLED AND GROUTED OR EPOXY FILLED PRIOR TO COPING CONSTRUCTION.

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: fc = 11.03 MPa
REINFORCING STEEL: fs = 165.5 MPa

INDEX OF SHEETS

WASATCH CONSTRUCTORS

JUL 24 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.
2	7/10/98	MODIFIED EXPANDED POLYSTYENE AND DOWEL.

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN MVG 3/98 CHECK 3/98
DRAWN JLJ 3/98 CHECK 3/98
QUANT. N/A CHECK

APPROVAL RECOMMD. 3/30/98 DATE — MARK V. GOGA PROJECT DESIGN ENGINEER
APPROVED 3/30/98 DATE — JOHN TERRY SECTION MANAGER

TRACKING NO. 23134

I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER INLET
CORRIDOR STANDARD PLAN
PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-31-1
SHT. ____ OF ____

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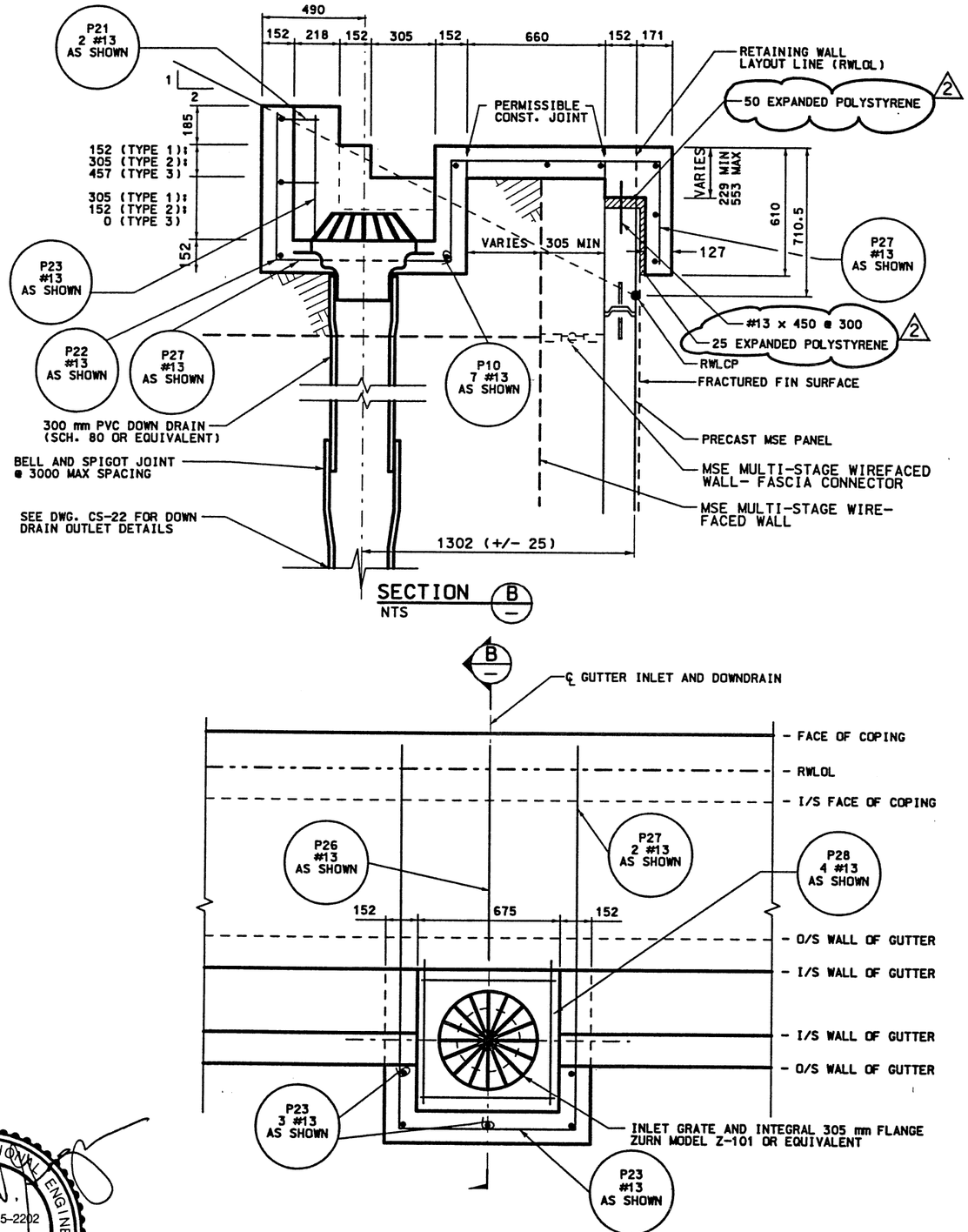
Date: 10-JUL-1998 Time: 14:27 Username: roelivl



SECTION B
NTS

PLAN: MSE MULTI-STAGE GUTTER INLET
NTS

LICENSED PROFESSIONAL ENGINEER
No. 9856215-2202
MARK V. GOGA
STATE OF UTAH

WALL COPING REINFORCING STEEL SCHEDULE

MARK	LOCATION	SIZE NO.	NO. BARS	LENGTH	TOTAL LENGTH	SKETCH
P26	At GUTTER DRAIN	13				1035, 508
P27	At GUTTER DRAIN	13				827, 1035, 694, 508
P28	At GUTTER DRAIN	13	4			830

GENERAL NOTES

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. SEE WALL SITUATION & LAYOUT AND PROFILE SHEETS FOR ALIGNMENT AND ELEVATION OF LAYOUT LINE AND CONTROL POINT RESPECTIVELY.
3. ALL CAST-IN-PLACE CONCRETE FOR COPING AND GUTTER SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE NOTED OTHERWISE.
4. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 19 mm EXCEPT WHERE NOTED OTHERWISE.
5. MINIMUM COVER TO REINFORCING STEEL SHALL BE 51 mm EXCEPT WHERE NOTED OTHERWISE.
6. SEE WALL SITUATION & LAYOUT FOR GUTTER TYPE AND LIMITS OF CONSTRUCTION.
7. ALL REINFORCING STEEL SHALL BE EPOXY COATED OR GALVANIZED. DEFORMED BILLET-STEEL BARS AND CONFORM TO AASHTO DESIGNATION M-31, GRADE 60.
8. FOR SPECIFICATIONS OF MSE WALL CONSTRUCTION, SEE CORRIDOR STANDARD SPECIFICATION 526.
9. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN). 2
10. #13 DOWEL MAY BE EITHER CAST WITH WALL PANEL OR DRILLED AND GROUTED OR EPOXY FILLED PRIOR TO COPING CONSTRUCTION.

DESIGN DATA

CAST-IN-PLACE STRUCTURAL CONCRETE: f_c = 11.03 MPa
REINFORCING STEEL: f_s = 165.5 MPa

INDEX OF SHEETS

WASATCH CONSTRUCTORS

JUL 24 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	3/30/98	ORIGINAL RELEASE.
2	7/10/98	MODIFIED EXPANDED POLYSTYRENE AND DOWEL

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

APPROVAL RECOMMENDED: MARK V. GOGA, PROJECT DESIGN ENGINEER, DATE 3/30/98
APPROVED: JOHN TERRY, SECTION MANAGER, DATE 3/30/98

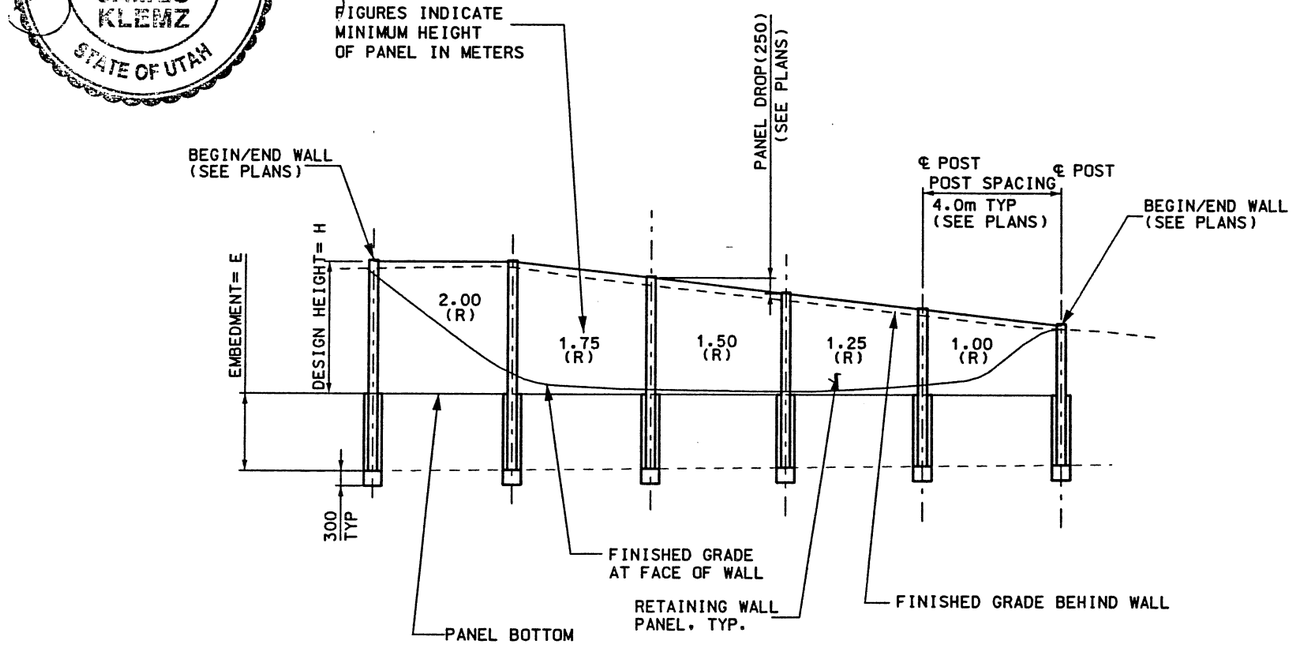
DESIGN	MVG	3/98	CHECK
DRAWN	JLJ	3/98	CHECK
QUANT.	NA		CHECK

I-15 CORRIDOR RECONSTRUCTION
RETAINING WALL GUTTER INLET
CORRIDOR STANDARD PLAN
PROJECT NUMBER #SP-15-7(135)296
TRACKING NO. 23134

SALT LAKE COUNTY
DWG. NO. CS-31-2
SHT. ____ OF ____

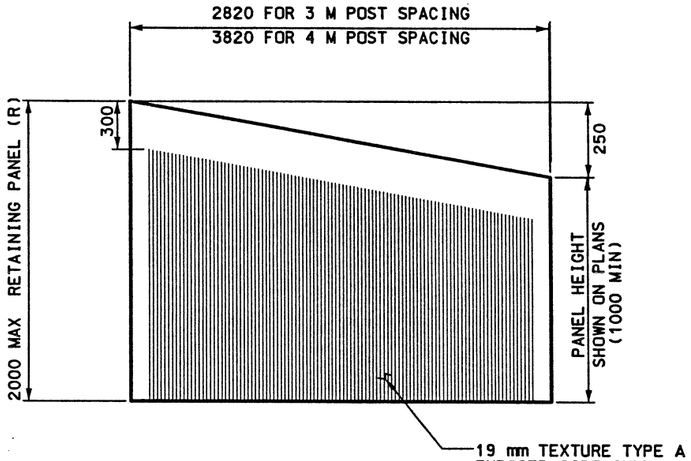
LEGEND:

(R) = RETAINING WALL PANEL
(DETAIL A, UDOT STD 546-1)



TYPICAL ELEVATION OF POST AND PANEL RETAINING WALL

NTS



DROP RETAINING PANEL

NTS

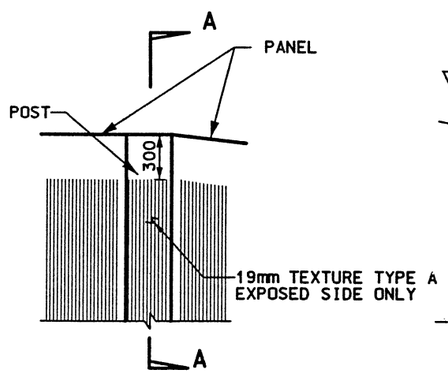
WASATCH CONSTRUCTORS

APR 2 1 1998

RELEASED FOR CONSTRUCTION

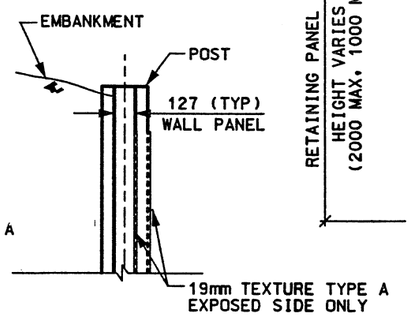
NOTES:

1. FOR POST SECTIONS, POST AND PANEL REINFORCING AND DETAILS NOT SHOWN, SEE UDOT STANDARD DRAWING 546-1 AND 546-2.
2. FOR POST EMBEDMENT AND VERTICAL BAR SIZE SEE UDOT STANDARD DRAWING 546-2.
3. FOR POST SPACING, SEE S&L PLANS.
4. FOR AESTHETIC DETAILS, SEE CS-6 AND SPECIFICATION 519.



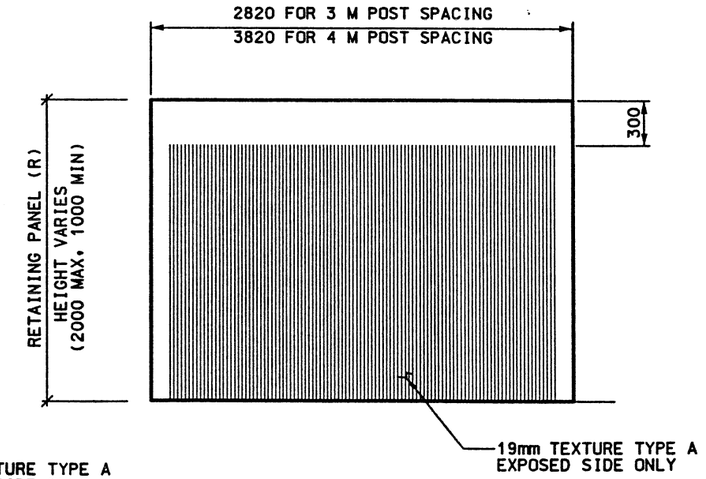
ELEVATION

NTS



SECTION A-A

NTS



STANDARD RETAINING PANEL

NTS

STANDARD POST SURFACE TREATMENT

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	04/15/98	ORIGINAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

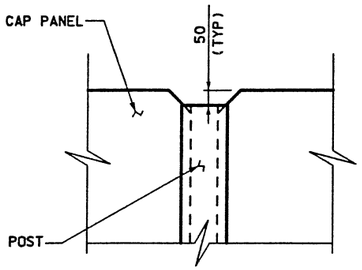
DESIGN SP 03/98 CHECK PGW 03/98
DRAWN SDP 03/98 CHECK MSC 04/98
QUANT. CHECK

APPROVAL RECOMM. 04/15/98 DATE — STANLEY POLASIK, PROJECT DESIGN ENGINEER
APPROVED 04/15/98 DATE — JAMES KLEMZ, SECTION MANAGER

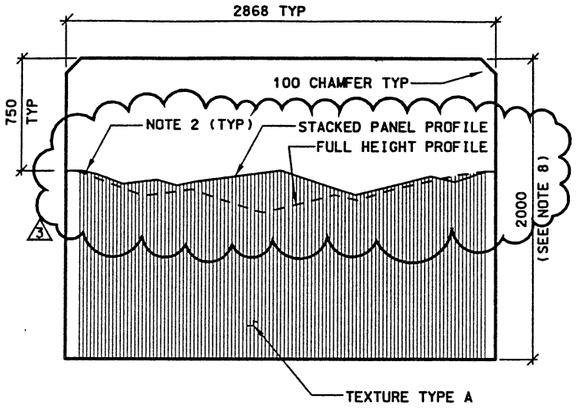
I-15 CORRIDOR RECONSTRUCTION
2.0 M HIGH P & P RETAINING WALL
CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

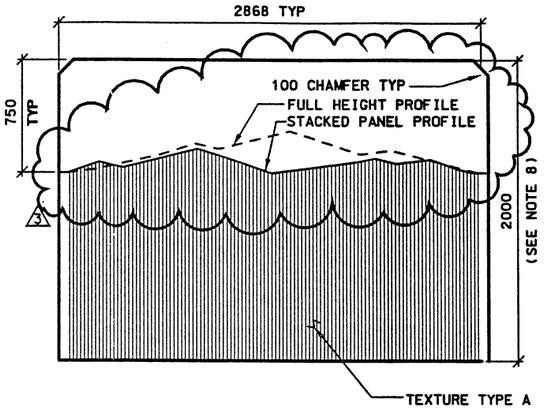
SALT LAKE COUNTY
DWG. NO. CS-36
SHT. ____ OF ____



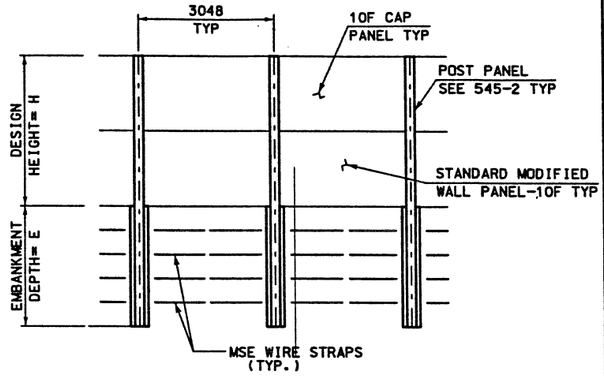
1 ASSEMBLY DETAIL
NTS



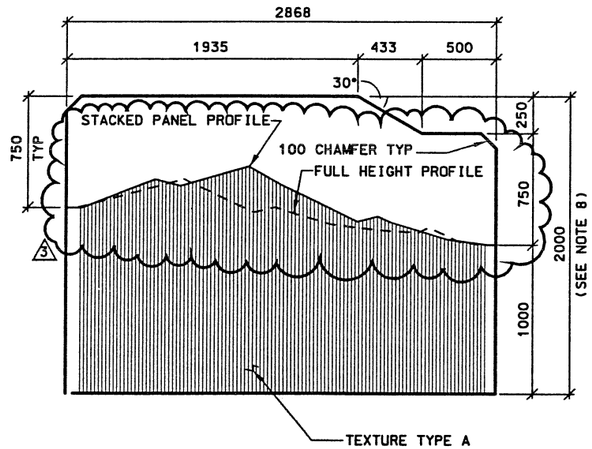
2 10F CAP PANEL FRONT (PROFILE 1)
NTS



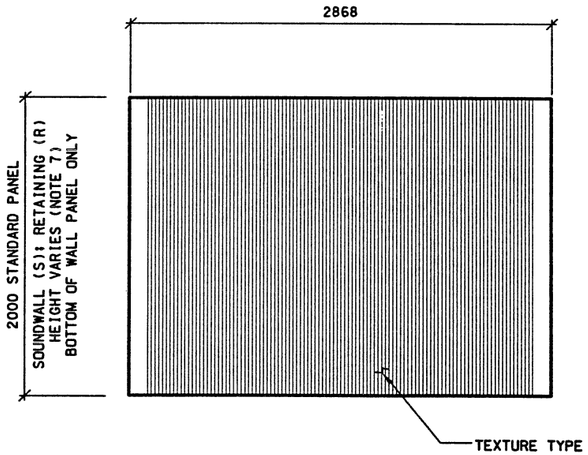
3 10F CAP PANEL BACK (PROFILE 2)
NTS



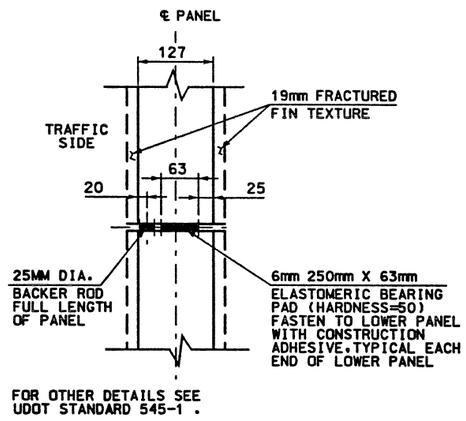
6 ELEVATION OF PRECAST SOUNDWALL AT MSE WALL LOCATION
NTS



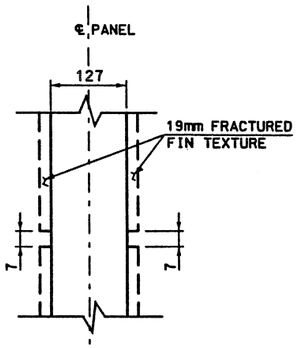
4 10F STEP DOWN CAP PANEL (SAME BOTH SIDES)
NTS



5 STANDARD MODIFIED WALL PANEL-10F
NTS



7 BEARING DETAIL
NTS



8 FULL HEIGHT PANEL SCORE LINE DETAIL
NTS

NOTES:

1. THE STANDARD SOUNDWALL PANEL SHALL HAVE FRACTURED FIN TEXTURE "TYPE A" APPLIED TO BOTH SIDES OF THE PANEL FOR THE FULL HEIGHT OF THE PANEL. THE TEXTURE CAN BE FORM LINED OR STAMPED ON EITHER SIDE. HOWEVER, EACH WALL SHALL HAVE A CONSISTENTLY APPLIED TREATMENT FOR EACH WALL SIDE.
2. MOUNTAIN PROFILE PATTERNS ON THE PLANS ARE FOR INFORMATION ONLY. FULL SCALE PROFILE PLOTS SHALL BE ISSUED FOR A PATTERN FOR USE IN PREPARING FORMLINERS.
3. ALL POSTS SHALL HAVE THE FORMLINER TREATMENT TO THE HIGHWAY SIDE OF THE WALL. POSTS SHALL BE PLAIN ON THE NEIGHBORHOOD SIDE.
4. PROFILE 1 AND 2 (FRONT AND BACK SIDES) SHALL BE PLACED RANDOMLY BY DESIGN ENGINEER. DESIGNER SHOULD STRIVE TO LIMIT THE PLACEMENT OF PANELS TO A MAXIMUM OF 5 OF ONE TYPE OF PROFILE IN A ROW. ALTERNATING PANELS FOR MORE THAN 6 PANELS CONSECUTIVELY IS NOT ACCEPTABLE.
5. ALL PANEL, ASSEMBLY AND BEARING DETAILS SHOWN ON THIS SHEET SUPERSEDE SIMILAR DETAILS SHOWN ON UDOT STD DWGS 545-01, 545-02, 546-01, 546-02. ALL OTHER DETAILS SHOWN ON THE UDOT STANDARD DRAWINGS ARE APPLICABLE.
6. POSTS AND PANELS TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
7. PANELS WILL BE ERECTED IN 2m INCREMENTS FROM TOP OF WALL TOWARD BOTTOM OF WALL. WITH ONLY BOTTOM PANEL TO BE OF VARIABLE HEIGHT (1.0m-2.75m). SEE CS-38.
8. IT IS THE CONTRACTORS OPTION TO CONSTRUCT AND INSTALL FULL HEIGHT PANELS. FULL HEIGHT PANELS SHALL HAVE HORIZONTAL SCORE LINES ON BOTH SIDES OF PANEL THAT DIVIDE THE PANEL INTO SURFACES 2M HIGH FROM TOP OF PANEL TO BOTTOM OF PANEL. WITH ONLY THE BOTTOM SURFACE TO BE OF VARIABLE HEIGHT (1.0M-2.75M). SEE DETAIL 8 THIS PAGE. HORIZONTAL SCORE LINES ARE TO MATCH LOCATION OF HORIZONTAL SEAMS OF STACKED PANEL SYSTEM SHOWN ON CS-38. THE CONTRACTOR SHALL SUBMIT FABRICATION, TRANSPORT AND ERECTION HANDLING PLAN WITH SUPPORTING CALCULATIONS FOR APPROVAL BY THE ENGINEER.
9. FOR DESIGN HEIGHTS LESS THAN 3.0 M. CAP PANEL MAY VARY BETWEEN 2000mm AND 2750mm IN 250mm INCREMENTS TO ELIMINATE BOTTOM PANEL HEIGHTS LESS THAN 1000mm.
10. STANDARD PANELS AND FULL HEIGHT PANELS SHALL NOT BE INTERMIXED WITHIN A LENGTH OF WALL. CONTIGUOUS SECTIONS OF WALL SHALL BE ONE TYPE OF PANEL ONLY.

LICENSED PROFESSIONAL ENGINEER
No. 87-342329-2202
JAMES F. KLEMZ
STATE OF UTAH
10-12-98

WASATCH CONSTRUCTORS

OCT 13 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	1/23/98	ORIGINAL RELEASE
2	07/24/98	REVISED NOTES, ADD FULL HEIGHT PANEL
3	09/29/98	ADD FULL HEIGHT PANEL PROFILE

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	SP	1/98
DRAWN	NLR	1/98
CHECK	JJ	1/98
QUANT.		
CHECK		

APPROVAL RECOMM. 01/22/98 DATE — STANLEY POLASIK — PROJECT DESIGN ENGINEER
APPROVED 01/22/98 DATE — JOSEPH JOHNSON — SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION
MODIFIED 10F P&P RETAINING/ SOUNDWALL (OVER MSE WALLS)
CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-37
SHT. ____ OF ____

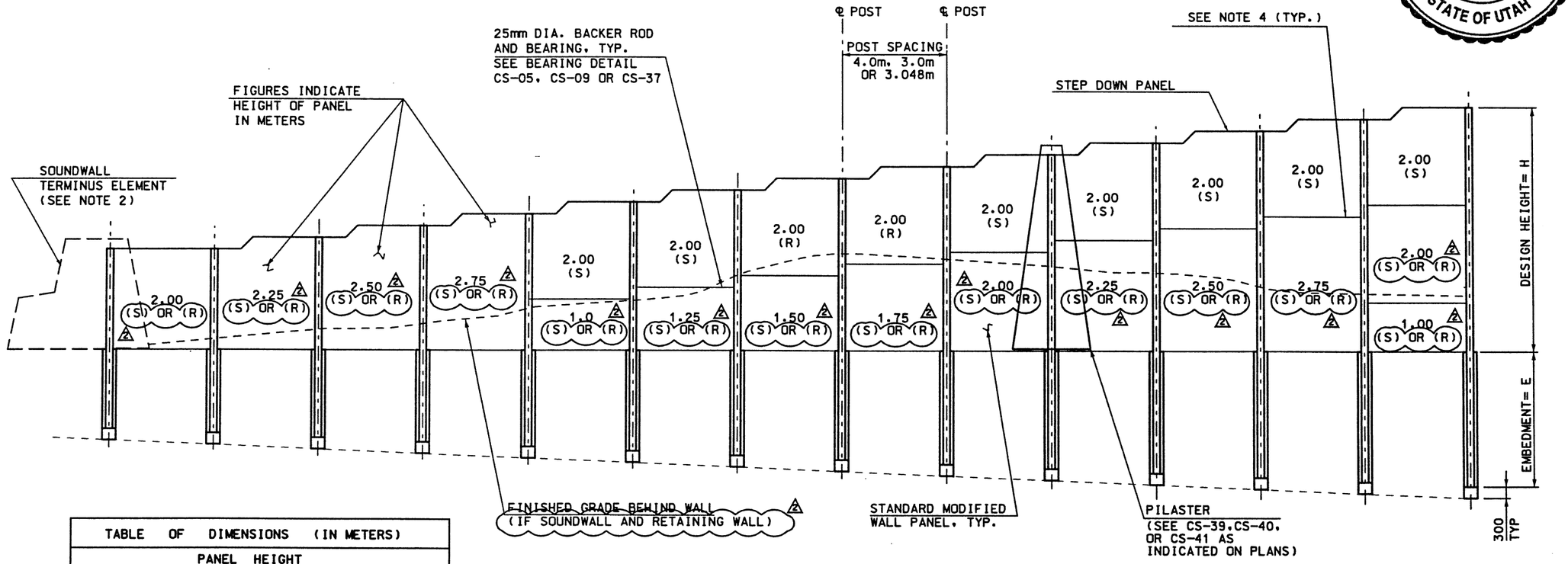


TABLE OF DIMENSIONS (IN METERS)			
PANEL HEIGHT			
DESIGN HEIGHT= H	TOP PANEL	CENTER PANEL	BOTTOM PANEL
2.00	2.00	—	—
2.25	2.25	—	—
2.50	2.50	—	—
2.75	2.75	—	—
3.00	2.00	—	1.00
3.25	2.00	—	1.25
3.50	2.00	—	1.50
3.75	2.00	—	1.75
4.00	2.00	—	2.00
4.25	2.00	—	2.25
4.50	2.00	—	2.50
4.75	2.00	—	2.75
5.00	2.00	2.00	1.00

TYPICAL ELEVATION OF POST AND PANEL SOUNDWALL OR POST AND PANEL SOUNDWALL / RETAINING WALL

NTS

LEGEND:

(S) = SOUNDWALL PANEL
(UDOT STD 545-1)

(R) = RETAINING WALL PANEL
(DETAIL A, UDOT STD 546-1)

NOTES:

1. FOR POST SECTIONS, POST SPACING AND DETAILS NOT SHOWN, ~~SEE UDOT STANDARD DRAWING 545-1, 545-2, 546-1 AND 546-2.~~ THE PANEL ELEVATION ARRANGEMENTS SHOWN ON THIS DRAWING SUPERSEDE SIMILAR ELEVATIONS ON THE UDOT STANDARD DRAWINGS.
2. FOR SOUNDWALL TERMINUS ELEMENT DETAILS, SEE CS-07 OR CS-08.
3. FOR POST EMBEDMENT AND VERTICAL BAR SIZE SEE UDOT STANDARD DRAWING 545-2 and 546-2.
4. PANELS TO BE SET TO ALIGN VERTICAL GROOVES OF FRACTURED FIN TEXTURE BETWEEN PANELS PRIOR TO SHIMMING.
5. IT IS THE CONTRACTORS OPTION TO CONSTRUCT AND INSTALL FULL HEIGHT PANELS. SEE CS-5, 9 AND 37.

LICENSED PROFESSIONAL ENGINEER
No. 97-342329-2202
JAMES KLEMZ
STATE OF UTAH
7-22-98

WASATCH CONSTRUCTORS

JUL 29 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	01/23/98	ORIGINAL RELEASE
2	07/24/98	REVISED NOTES, ADD FULL HEIGHT PANEL

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN SP 01/98 | CHECK PW 01/98
DRAWN VLR 01/98 | CHECK SP 01/98
QUANT. | CHECK

STANLEY POLASIK, PROJECT DESIGN ENGINEER, APPROVAL RECOMMENDED 01/12/98 DATE
JOSEPH JOHNSON, SECTION MANAGER, APPROVED 01/12/98 DATE

I-15 CORRIDOR RECONSTRUCTION

P & P SOUNDWALL/RET. WALL DETAIL

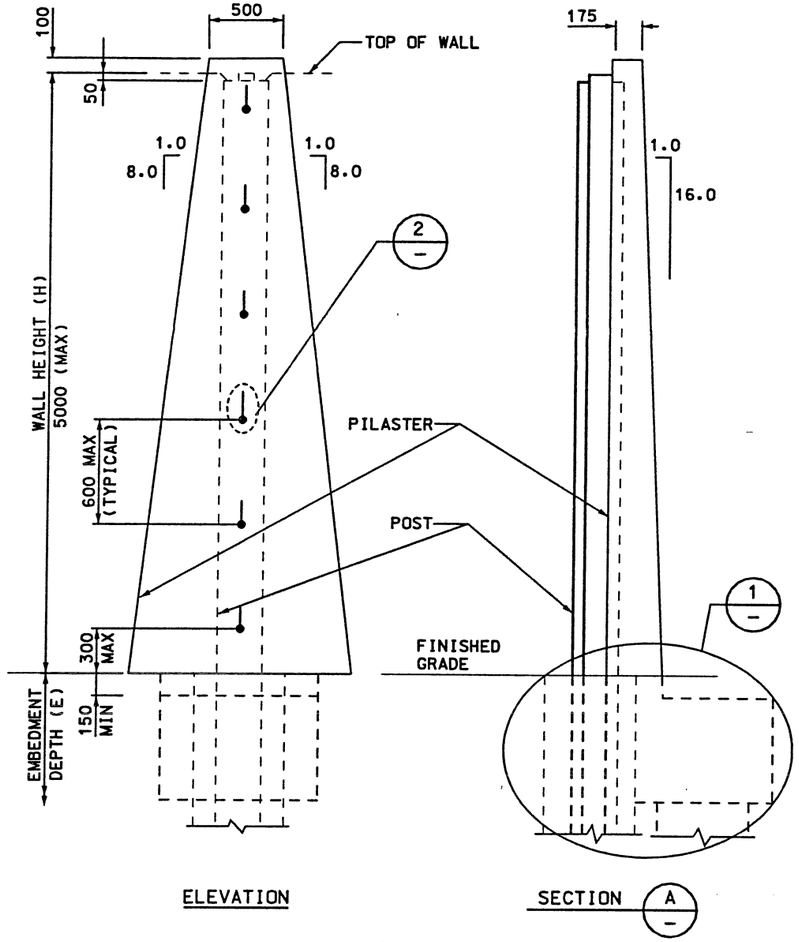
CORRIDOR STANDARD PLAN

PROJECT NUMBER *SP-15-7(135)296

SALT LAKE COUNTY

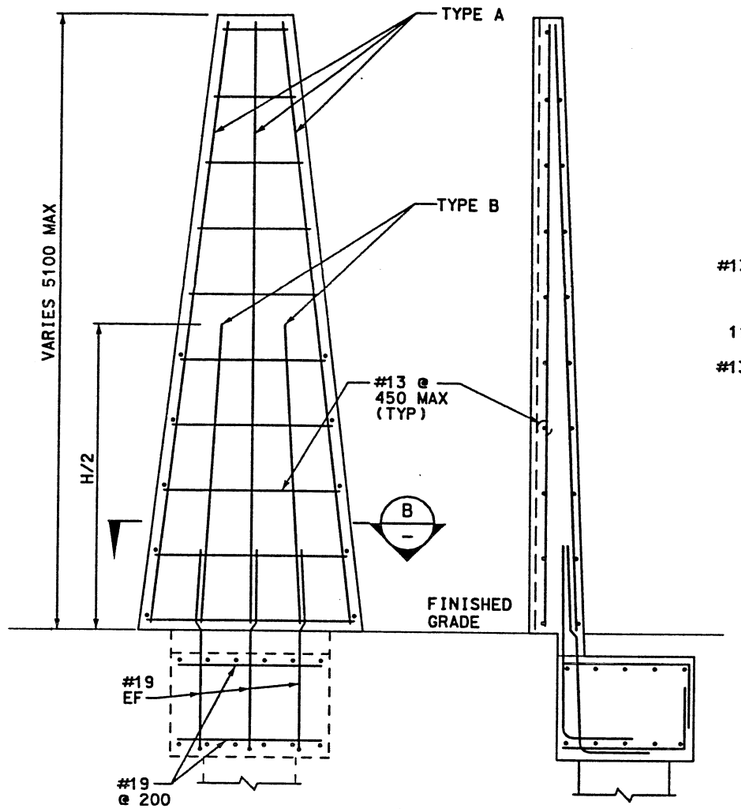
DWG. NO. CS-38

SHT. ____ OF ____



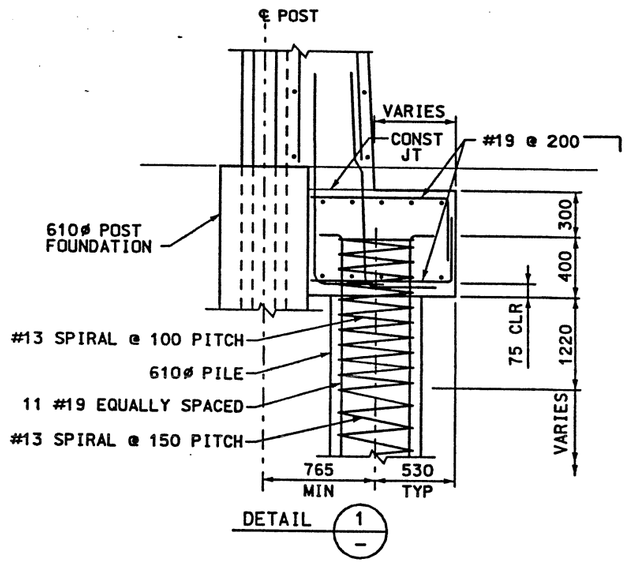
ELEVATION

SECTION A



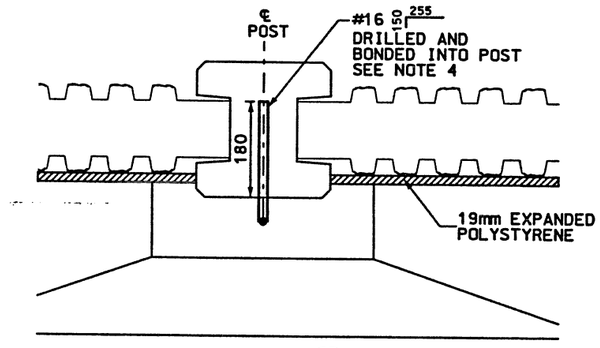
ELEVATION

SECTION A



DETAIL 1

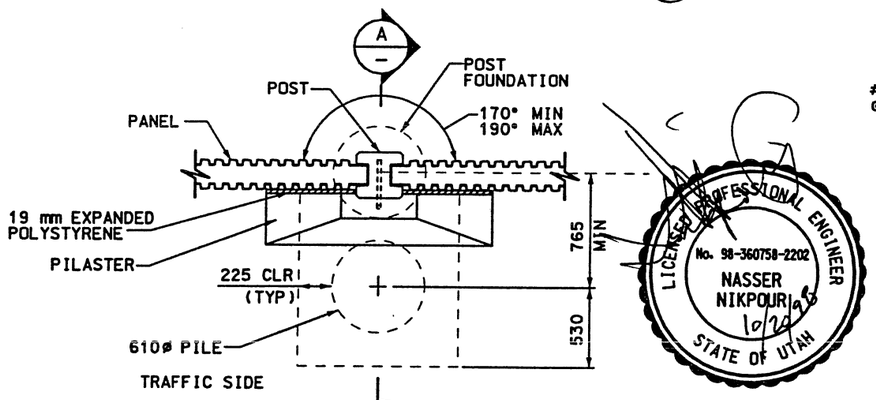
PILE LOCATION FOR 2M TO 5M PILASTER



DETAIL 2

TYPICAL DRILLED & BONDED DETAIL

NTS

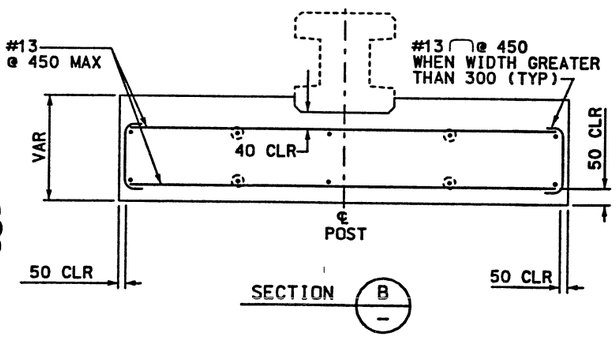


PLAN

RETAINING/SOUNDWALL PILASTER FOR TYPE I POST

TABLE FOR EMBEDMENT OF PILE

TABLE 1	
DESIGN "H" IN METERS (MAX)	"E" IN METERS (E=0.90 X H)
2.75	3.00
3.50	3.25
4.25	4.00
5.00	4.50



TYPICAL PILASTER REINFORCEMENT

NTS

LEGEND:

- TYPE A: #13 FULL HEIGHT REINFORCEMENT @ 300 MAX
- TYPE B: #13 HALF HEIGHT REINFORCEMENT @ 300 MAX

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'c=28MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
2) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
3) FOR POST FOUNDATION BACKFILL, SEE UDOT STD. 546-1 & 546-2.
4) FOR ADDITIONAL INFORMATION ON DRILLING AND BONDING, REFER TO STANDARD SPECIFICATION (550).

WASATCH CONSTRUCTORS

OCT 2 2 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/16/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN BH 09-98 CHECK DH 09-98
DRAWN JM 09-98 CHECK DH 09-98
QUANT. CHECK

NASSER NIKPOUR — PROJECT DESIGN ENGINEER — 09-98 — APPROVAL RECOMM.
JIM KLEBZ — SECTION MANAGER — 09-98 — APPROVED

I-15 CORRIDOR RECONSTRUCTION

TYPE I PILASTER - PILE SUPPORT

CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

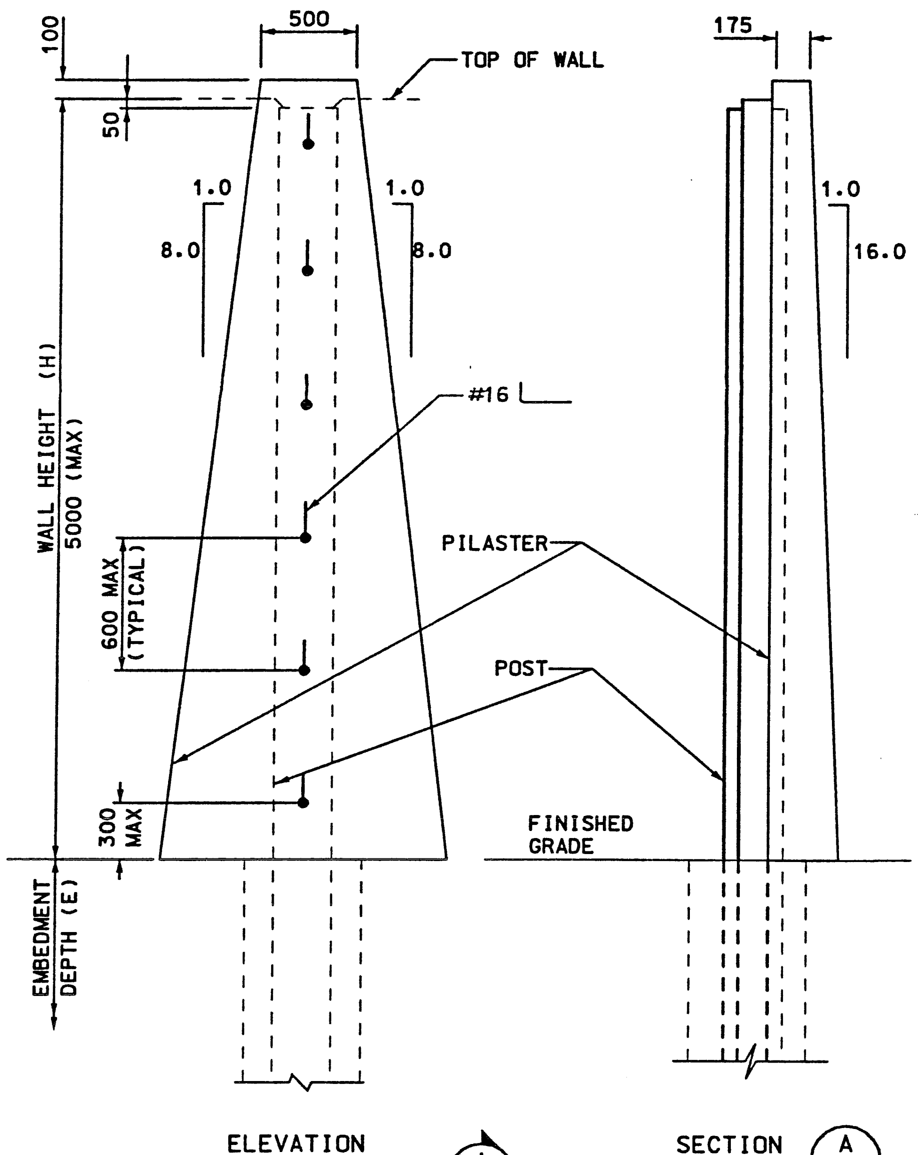
SALT LAKE COUNTY

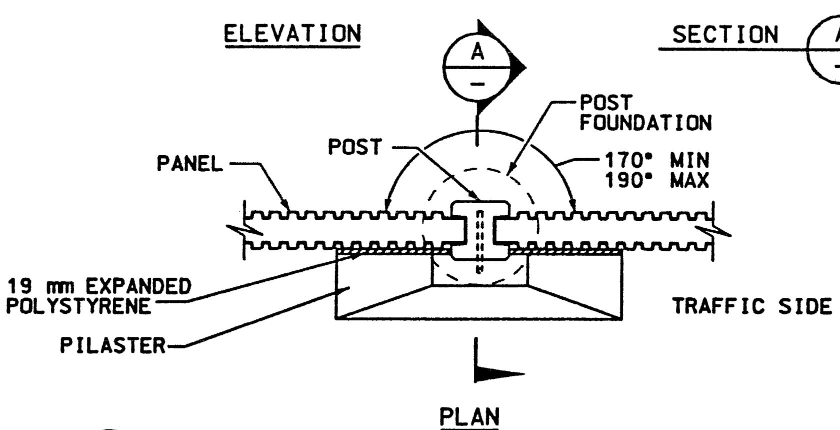
DWG. NO. CS-39-1

SHT. ____ OF ____

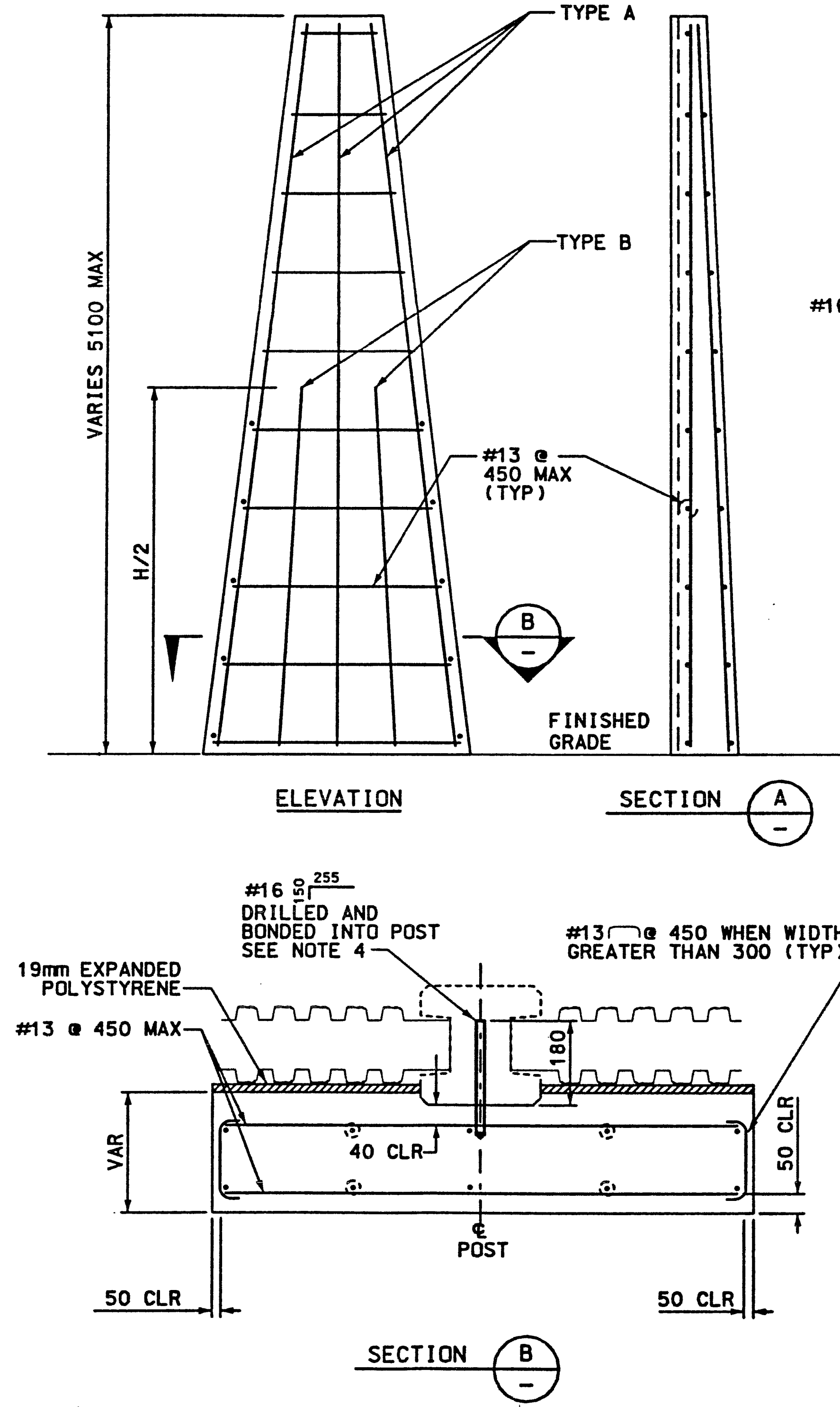
Filenames on \dgn\I15_coded\I15_97\sheet_files\corridor_std\bin\cs_typical_039.dgn

Date: 20-OCT-1998 Time: 10:01 User name: sweetejr





RETAINING/SOUNDWALL PILASTER FOR TYPE I POST

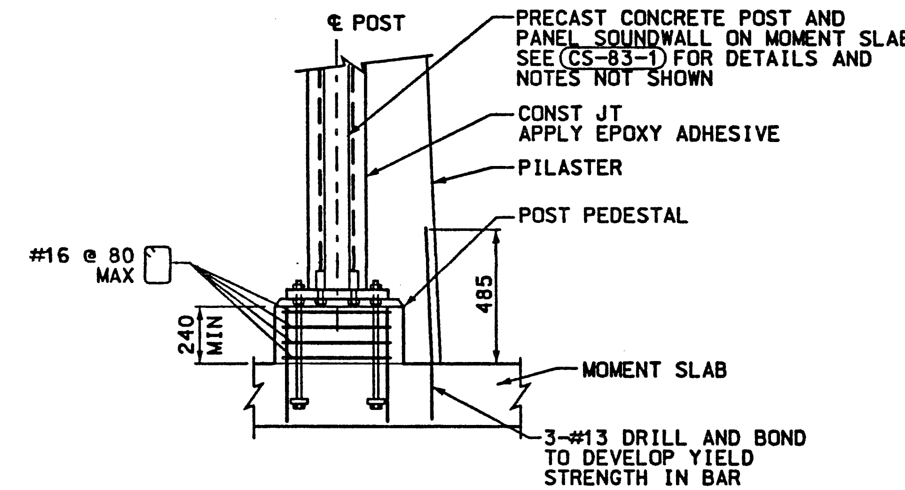


TYPICAL PILASTER REINFORCEMENT SECTION

NTS

LEGEND:

- TYPE A: #13 FULL HEIGHT REINFORCEMENT @ 300 MAX
- TYPE B: #13 HALF HEIGHT REINFORCEMENT @ 300 MAX



TYPICAL SECTION @ MOMENT SLAB

NTS

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'c=28MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.

2) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

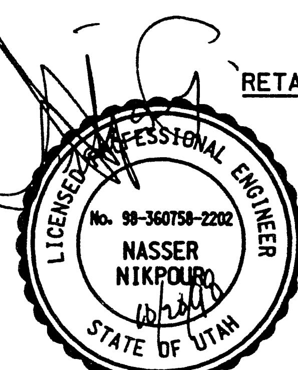
3) FOR POST FOUNDATION BACKFILL, SEE UDOT STD. 546-1 & 546-2.

4) FOR ADDITIONAL INFORMATION ON DRILLING AND BONDING, REFER TO STANDARD SPECIFICATION (550).

TABLE FOR EMBEDMENT OF FOUNDATION

TABLE 1

DESIGN "H" IN METERS (MAX)	"E" IN METERS (E=0.90 X H)
2.75	3.00
3.50	3.25
4.25	4.00
5.00	4.50



WASATCH CONSTRUCTORS

OCT 22 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/16/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

I-15 CORRIDOR RECONSTRUCTION

TYPE I PILASTER

CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

NASSER NIKPOUR, PROJECT DESIGN ENGINEER

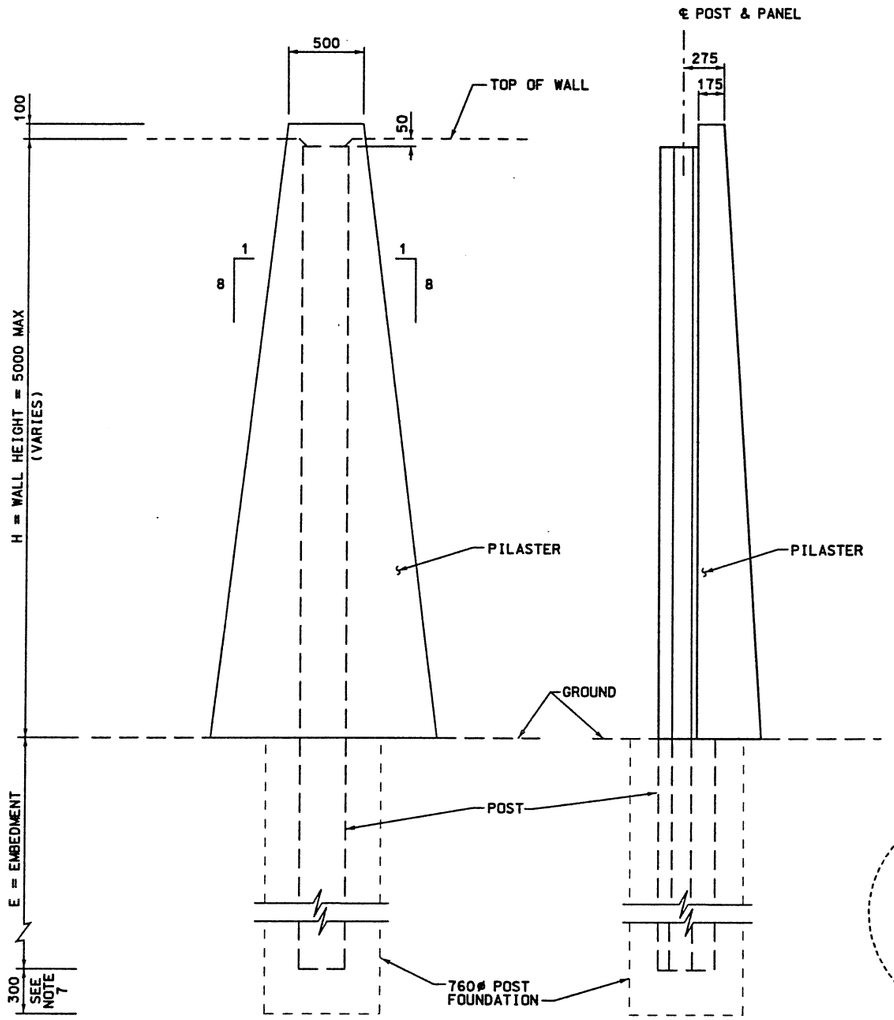
JIM KLEKE, SECTION MANAGER

SALT LAKE COUNTY

DWG. NO. CS-39-2

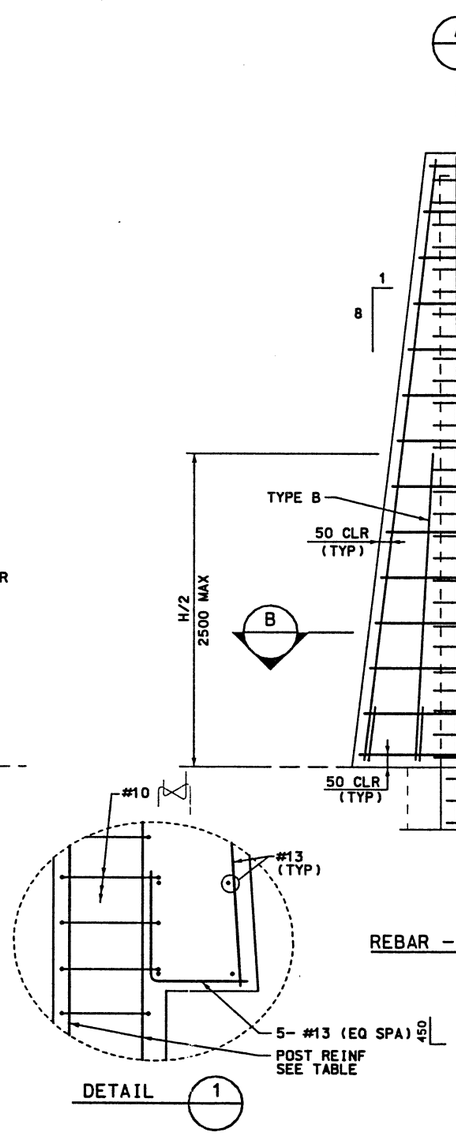
SHT. ___ OF ___

Date: 20-OCT-1998 Time: 10:02 Username: sweetejr



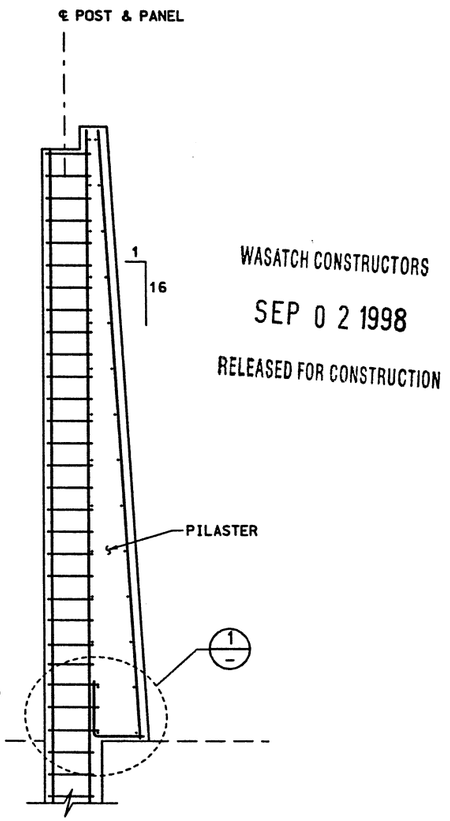
ELEVATION

SIDE

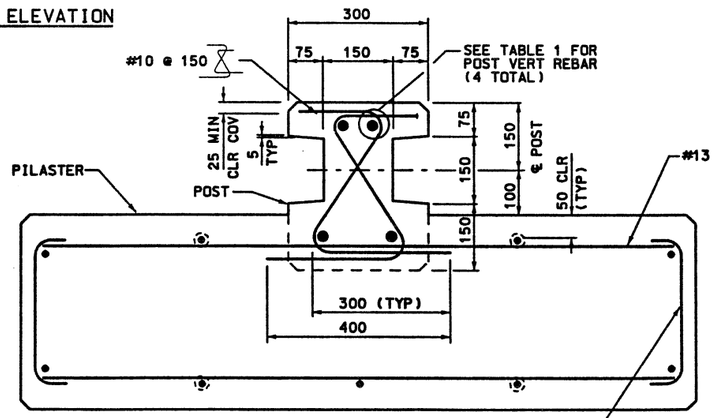


DETAIL 1

REBAR - ELEVATION

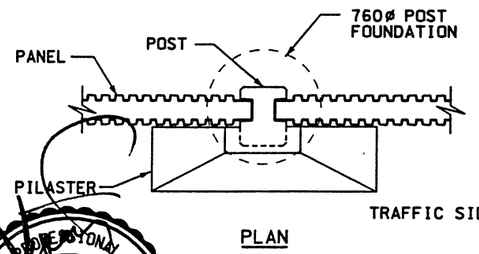


SECTION A



TRAFFIC SIDE

SECTION B



PLAN

NOTES:

1) FABRICATOR FOR PRECAST UNITS SHALL SIZE AND LOCATE ANY LIFTING DEVICES FOR APPLIED LIFTING LOADS.
2) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
3) CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm EXCEPT WHERE NOTED OTHERWISE.
4) PROVIDE 50mm CONCRETE COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
5) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE SPECIFIED OTHERWISE. f'c=28 MPa.
6) ALL EXPOSED SURFACES TO HAVE AN ORDINARY SURFACE FINISH WITH COATING OF CORRIDOR THEME COLOR.
7) FOR POST FOUNDATION BACKFILL, SEE UDOT STD. 546-01 & 546-02.

INTEGRAL PRECAST POST AND PILASTER

TABLE 1		
DESIGN "H" IN METERS (MAX)	VERTICAL BAR SIZE	"E" IN METERS (E=0.90 X H)
2.75	#16	2.475
3.50	#22	3.15
4.25	#25	3.825
5.00	#32	4.50

LEGEND:

- TYPE A: #13 FULL HEIGHT REINFORCEMENT @ 300 MAX
- TYPE B: #13 HALF HEIGHT REINFORCEMENT @ 300 MAX

WASATCH CONSTRUCTORS
SEP 0 2 1998
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	08/31/98	INITIAL RELEASE

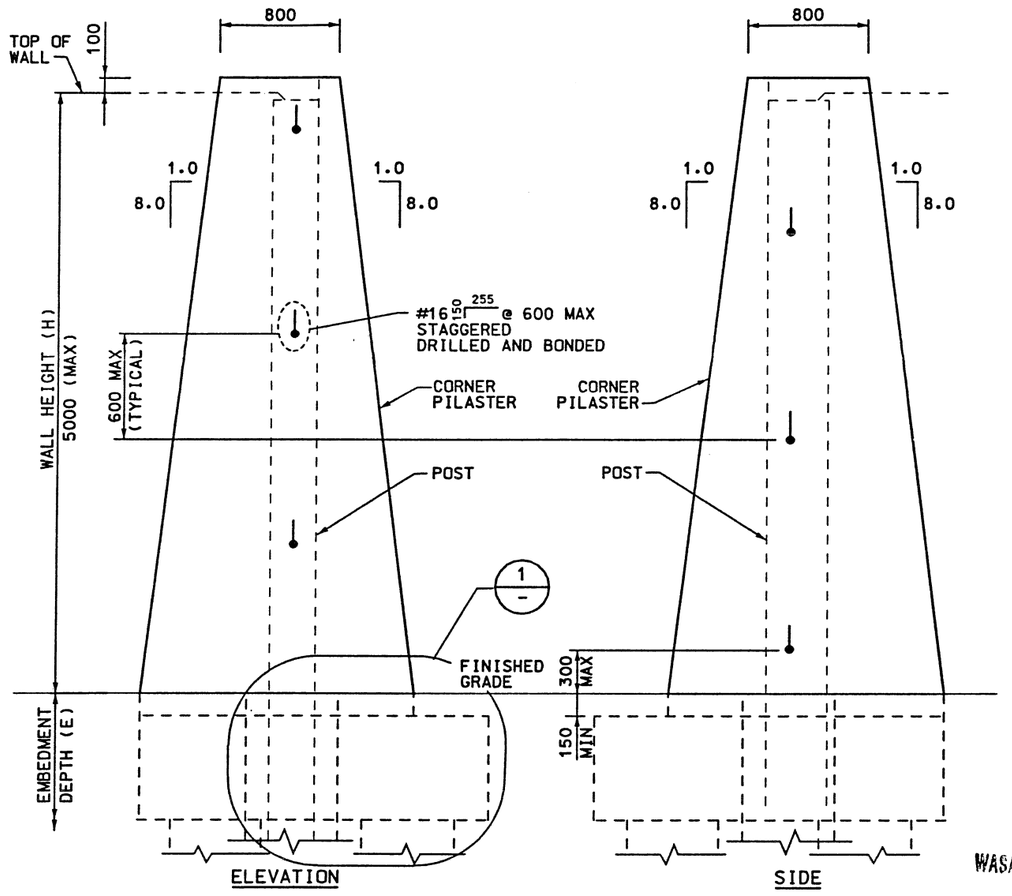
UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN SDP 8/98	CHECK	
DRAWN DKC 8/98	CHECK	
QUANT.	CHECK	

STANLEY POLASIK — PROJECT DESIGN ENGINEER — DATE — APPROVAL RECOMM.
JIM KLEMZ — SECTION MANAGER — DATE — APPROVED

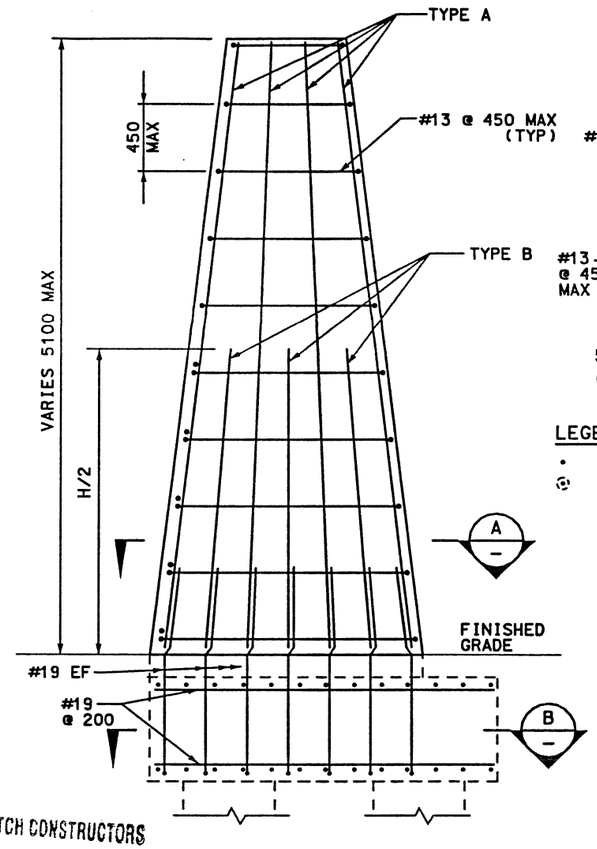
I-15 CORRIDOR RECONSTRUCTION
PRECAST POST AND PILASTER
CORRIDOR STANDARD PLAN
PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-39-3
SHT. ____ OF ____

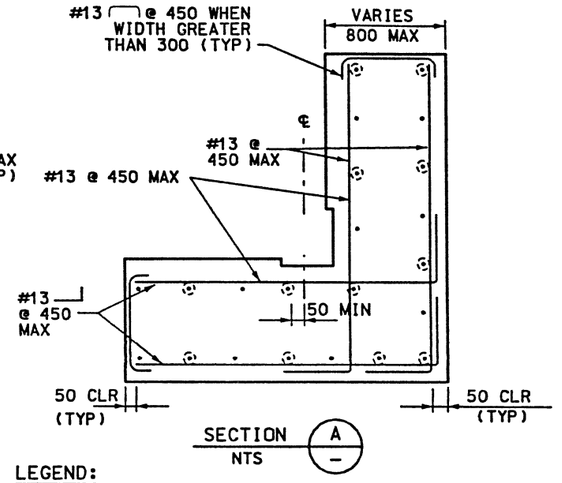


ELEVATION

SIDE



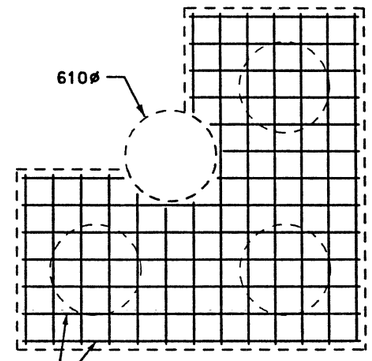
ELEVATION



SECTION A
NTS

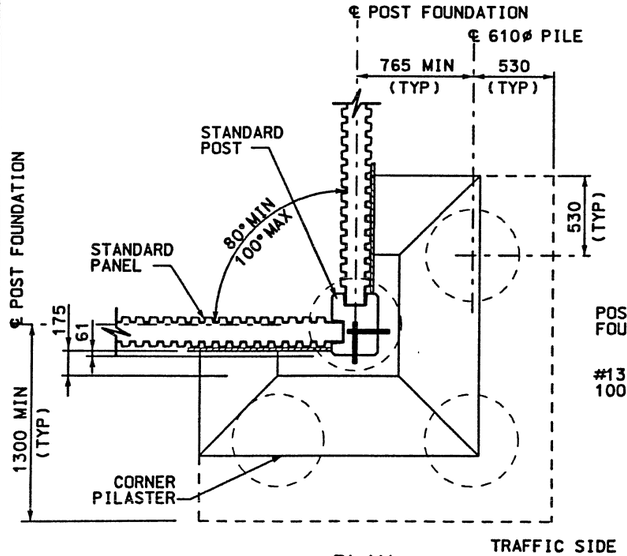
LEGEND:

- TYPE A: #13 FULL HEIGHT REINFORCEMENT @ 300 MAX
- TYPE B: #13 HALF HEIGHT REINFORCEMENT @ 300 MAX



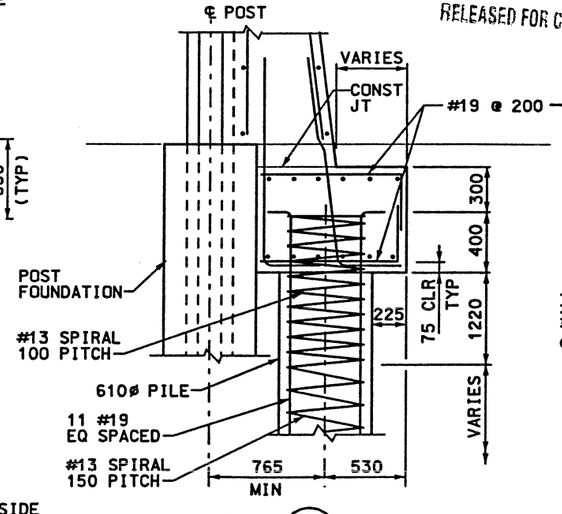
SECTION B

NOTE: VERT REINF NOT SHOWN FOR CLARITY



PLAN

RETAINING/SOUNDWALL CORNER PILASTER FOR TYPE III POST



DETAIL 1

PILE LOCATION FOR 2M TO 5M PILASTER

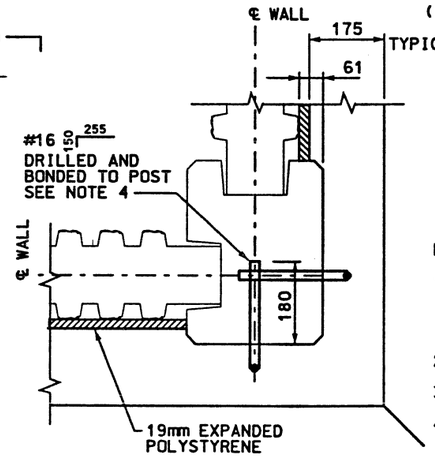
WASATCH CONSTRUCTORS

OCT 22 1998

RELEASED FOR CONSTRUCTION

TYPICAL PILASTER REINFORCEMENT

(FOR EACH LEG)



TYPICAL ANCHOR DETAIL

NTS

TABLE FOR EMBEDMENT OF PILE

TABLE 1	
DESIGN "H" IN METERS (MAX)	"E" IN METERS (E=0.90 X H)
2.75	3.00
3.50	3.25
4.25	4.00
5.00	4.50

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'c=28MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
2) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
3) FOR POST FOUNDATION BACKFILL, SEE UDOT STD. 546-1 & 546-2.
4) FOR ADDITIONAL INFORMATION ON DRILLING AND BONDING, REFER TO STANDARD SPECIFICATION (550).

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/16/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

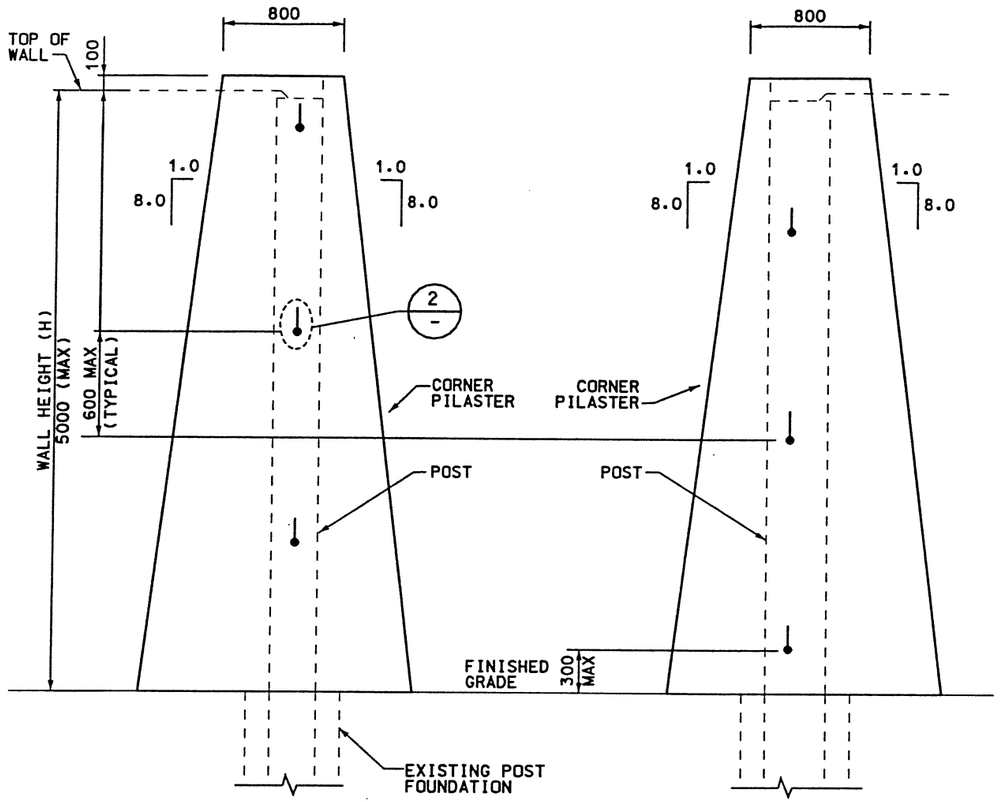
DESIGN RN 09-98 | CHECK DN 09-98 | CHECK
DRAWN JM 09-98 | CHECK
QUANT.

APPROVAL RECOMMEND. 09-98 DATE — NASSER NIKPOUR PROJECT DESIGN ENGINEER
APPROVED 09-98 DATE — JIM KLOSE SECTION MANAGER

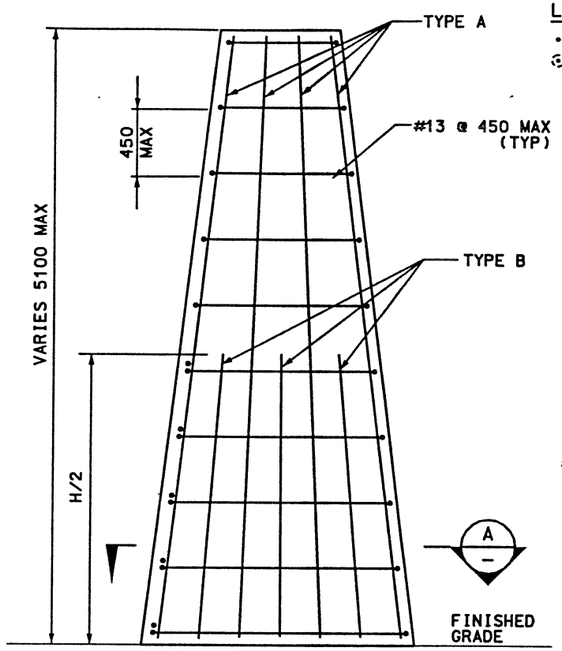
I-15 CORRIDOR RECONSTRUCTION
TYPE III PILASTER - PILE SUPPORT
CORRIDOR STANDARD PLAN

PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-40-1
SHT. ____ OF ____



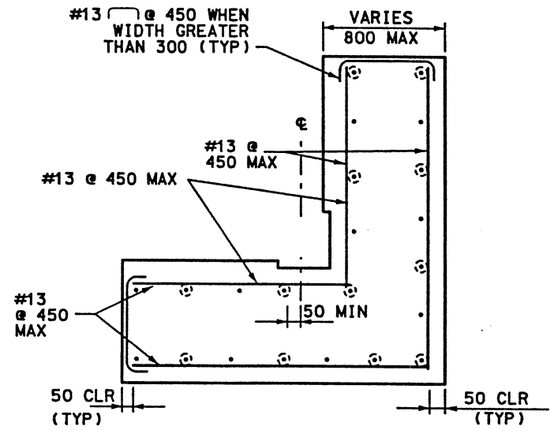
ELEVATION



ELEVATION

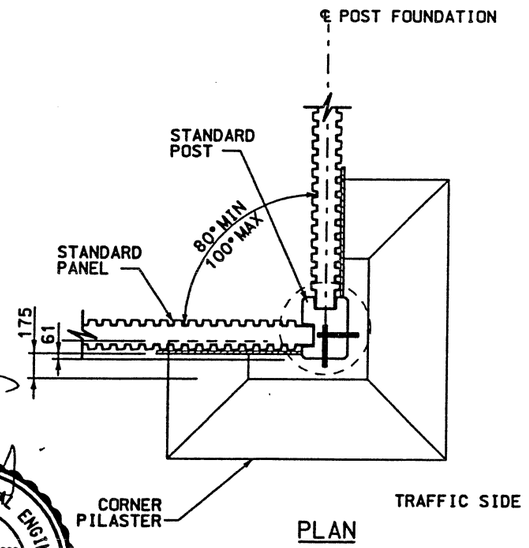
LEGEND:

- TYPE A: #13 FULL HEIGHT REINFORCEMENT @ 300 MAX
- TYPE B: #13 HALF HEIGHT REINFORCEMENT @ 300 MAX



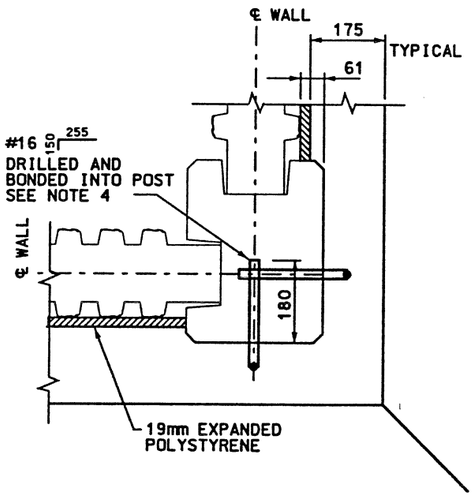
SECTION A / NTS

TYPICAL PILASTER REINFORCEMENT
(FOR EACH LEG)



PLAN

RETAINING/SOUNDWALL CORNER PILASTER
FOR TYPE III POST



DETAIL 2

TYPICAL ANCHOR DETAIL
NTS

WASATCH CONSTRUCTORS

OCT 2 2 1998

RELEASED FOR CONSTRUCTION

NOTES:

1) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE OTHERWISE NOTED. f'c=28MPa. CHAMFER ALL EXPOSED CONCRETE CORNERS 20mm OR 13mm RADIUS. PROVIDE 50mm COVER TO REINFORCING STEEL EXCEPT WHERE SPECIFIED OTHERWISE.
2) ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
3) FOR POST FOUNDATION BACKFILL. SEE UDOT STD. 546-1 & 546-2.
4) FOR ADDITIONAL INFORMATION ON DRILLING AND BONDING. REFER TO STANDARD SPECIFICATION (550).

LICENSED PROFESSIONAL ENGINEER
No. 98-360758-2202
NASSER NIKPOUR
10/9/98
STATE OF UTAH

APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	10/16/98	INITIAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION
SVERDRUP/DE LEUW

DESIGN	RH	09/98	CHECK SZ 09/98
DRAWN	MJS	09/98	CHECK DH 09/98
QUANT.			CHECK

APPROVAL RECOMM. 09/98 DATE — NASSER NIKPOUR PROJECT DESIGN ENGINEER
APPROVED 09/98 DATE — JIM KLEMZ SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION
TYPE III PILASTER
CORRIDOR STANDARD PLAN
PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY
DWG. NO. CS-40-2
SHT. ____ OF ____

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