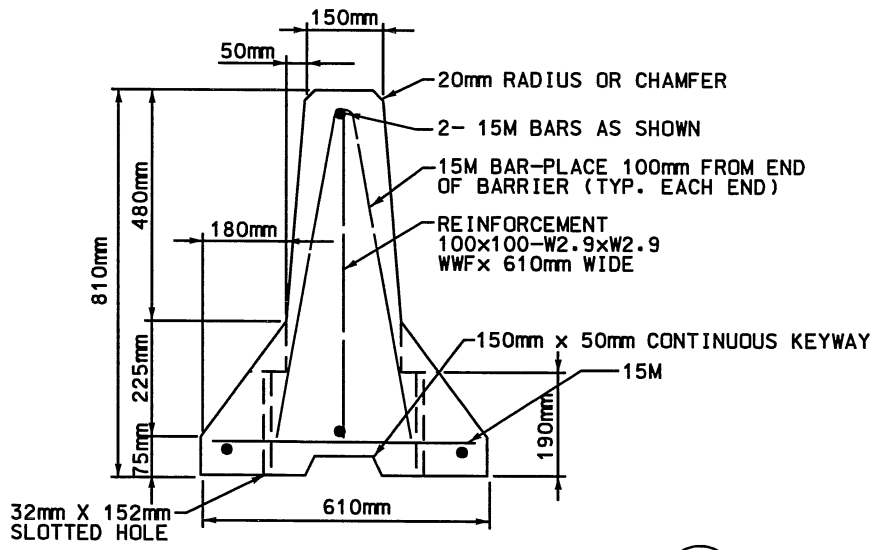
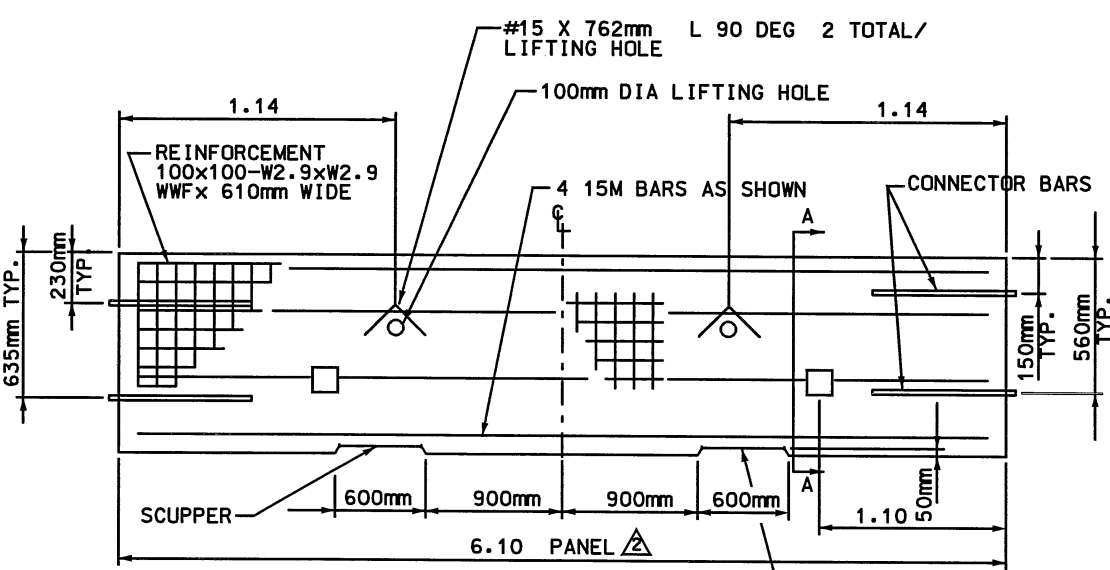


**PLAN**



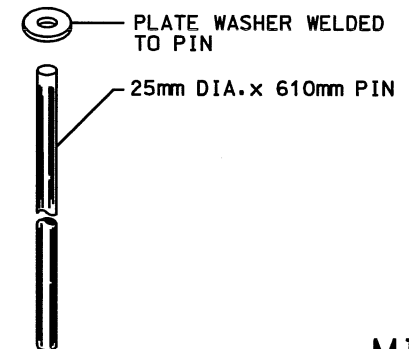
**SECTION**  
TYPE A AND TYPE B



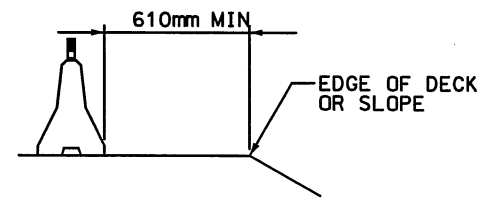
**ELEVATION**

**NOTES (CONT.)**

- 6. UDOT STANDARD RAIL MAY BE USED IN PLACE OF THE RAIL SHOWN ON THESE PLANS. EXCEPT FOR MEDIAN RAIL IN THE 2+2 OR 3+3 CONFIGURATION.
- 7. IN LOCATIONS WHERE SCUPPERED RAIL IS REQUIRED NON SCUPPERED RAIL MAY BE USED IF IT IS RAISED BY 19mm PLYWOOD @ BOTH ENDS.
- 8. BARRIER REFLECTORS TO BE SPACED @ 15m FOR RAIL THAT IS IN PLACE 3m OR LONGER OTHERWISE SPACE REFLECTORS @ 6m.



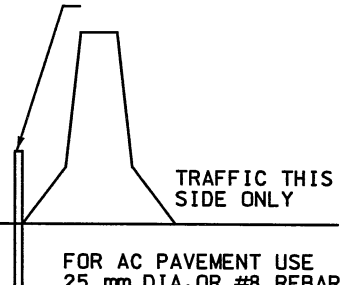
**CONNECTION PINS**  
BARRIER TO BARRIER



**MINIMUM DISTANCE**  
TO EDGE (UNPINNED ONLY)

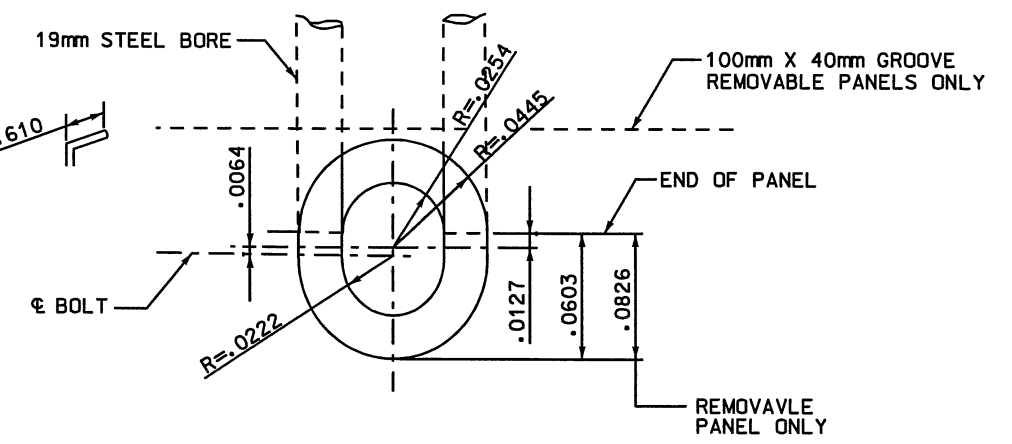
**SECTION**

FOR PCC PAVEMENT USE  
30x260mm DOWEL OR #8 REBAR.  
DRILL AND BOND IN HOLE  
130 mm DEEP. TWO PINS PER PANEL



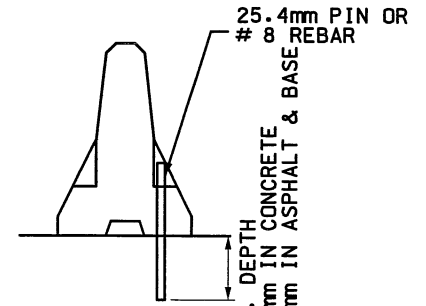
**UDOT STANDARD RAIL**  
**PINNED**

- RAIL TYPES**
- TYPE A - PINNED
  - TYPE A1 - PINNED WITH SCUPPERS
  - TYPE B - UNPINNED
  - TYPE B1 - UNPINNED WITH SCUPPERS



**CONNECTOR BAR**

1. COVER TO REINFORCING STEEL SHALL BE 40mm MIN. EXCEPT WHERE NOTED OTHERWISE.
2. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 20mm.
3. RAISED SCUPPER RAIL WILL BE USED AS SHOWN ON THE PLANS. 13mm PLYWOOD SHIMS 610mm x 610mm WILL BE PLACED UNDER ONE END OF EACH BARRIER TO IMPROVE WATERFLOW.
4. 3mm DRAFT REQUIRED ON ALL NOTCHES TO FACILITATE FORM REMOVAL.
5. TYPE A AND TYPE B RAIL WILL HAVE SCUPPER PLUGGED WITH SUITABLE MATERIAL TO RESTRICT WATER FLOW.

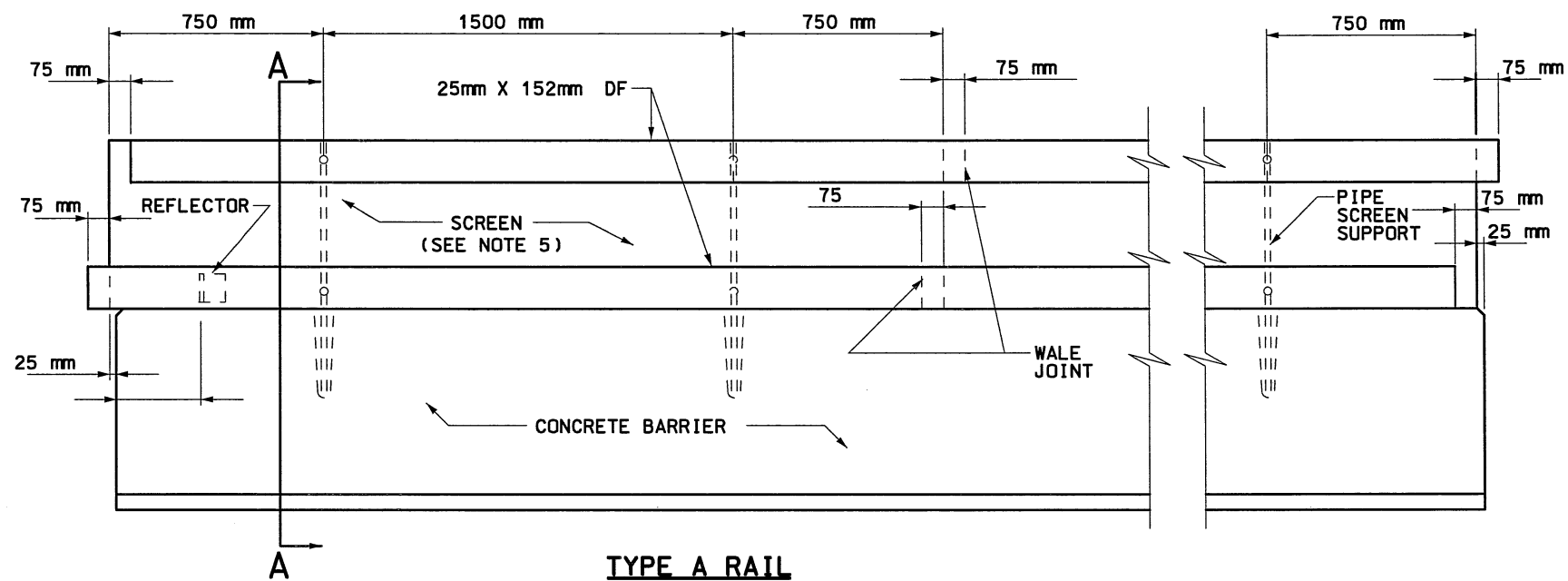


**SECTION A-A**

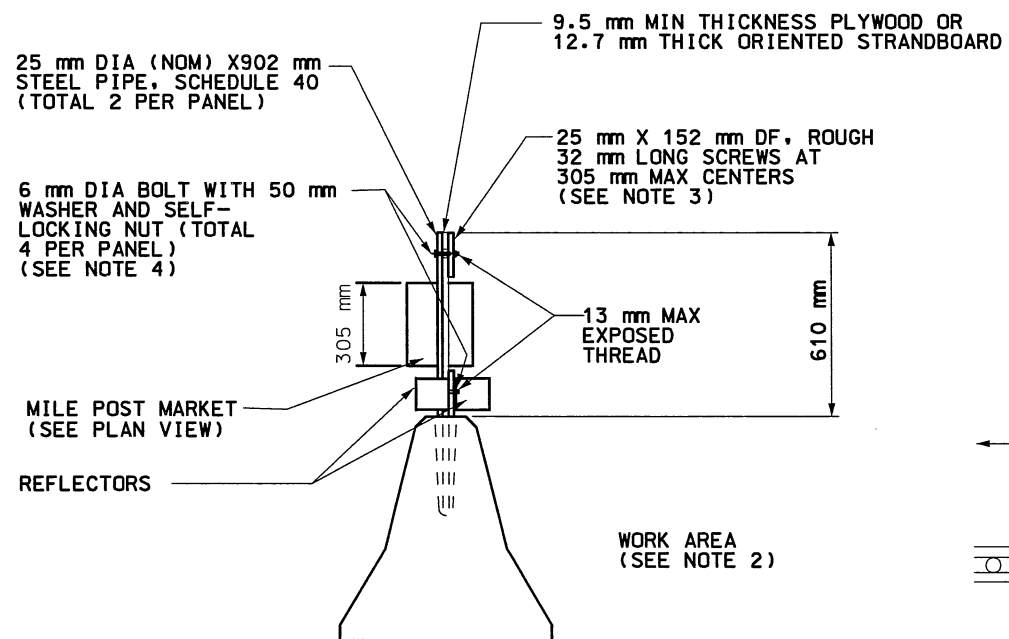


APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	5/19/97	RELEASE FOR M.G.T. PHASE I & II ONLY
▲	▲	6/30/97	RELEASE - ADDED UDOT PINNED RAIL
UTAH DEPARTMENT OF TRANSPORTATION		SVRDRUP / DE LEUW	
DESIGN	LIT	5/97	CHECK
JOHN TERRY	JOHN TERRY	5/97	5/97
PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER	5/97	5/97
APPROVAL	DATE	5/97	5/97
APPROVED	DATE	5/97	5/97
SECTION MANAGER		QUANT. N/A	
I-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN	
TEMP. PRECAST BARRIER DETAILS		PROJECT NUMBER	
SALT LAKE COUNTY		#SP-15-7(135)296	
DWG. NO.		CS-1	
SHT. _____ OF _____			

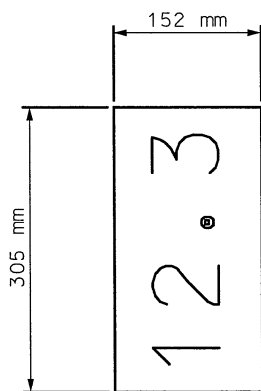
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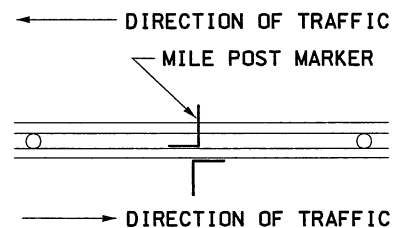
**TYPE A RAIL**



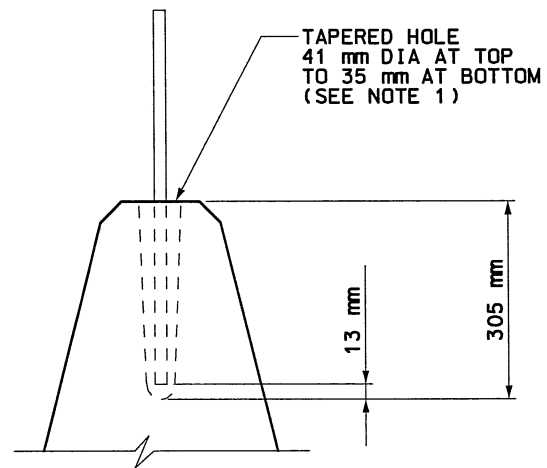
**SECTION A-A**



**MILEPOST MARKER**



**PLAN VIEW**



**SCREEN ANCHORAGE DETAIL**

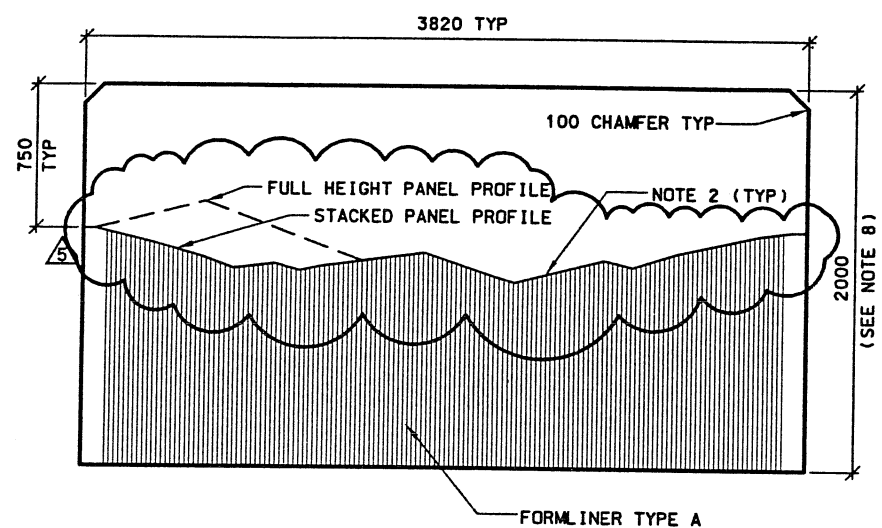
- NOTES:**
1. STRAIGHT HOLES 38 mm DIA OF THE DEPTH SHOWN MAY BE USED IN LIEU OF THE TAPERED HOLES.
  2. PLACE SCREEN ON WORK AREA SIDE OF THE TEMPORARY RAILING WHERE TRAFFIC WILL ONLY BE ON ONE SIDE OF THE TEMPORARY RAILING. WHERE TRAFFIC WILL BE ON BOTH SIDES OF THE TEMPORARY RAILING, THE SCREEN MAY BE PLACED ON EITHER SIDE OF THE PIPE SUPPORT.
  3. CLINCHED 8d BOX NAILS MAY BE SUBSTITUTED FOR SCREWS. THE NAILS SHALL BE CLINCHED ON THE WORK AREA SIDE OF THE SCREEN WHERE TRAFFIC WILL ONLY BE ON ONE SIDE OF THE TEMPORARY RAILING.
  4. U-BOLTS MAY BE SUBSTITUTED FOR 6 mm DIA BOLTS.
  5. REFLECTORS ON SCREEN TO BE PLACED @ 15 M. CENTERS. AT MAINLINE CROSSOVERS REFLECTORS TO BE PLACED AT 6 M. CENTERS.



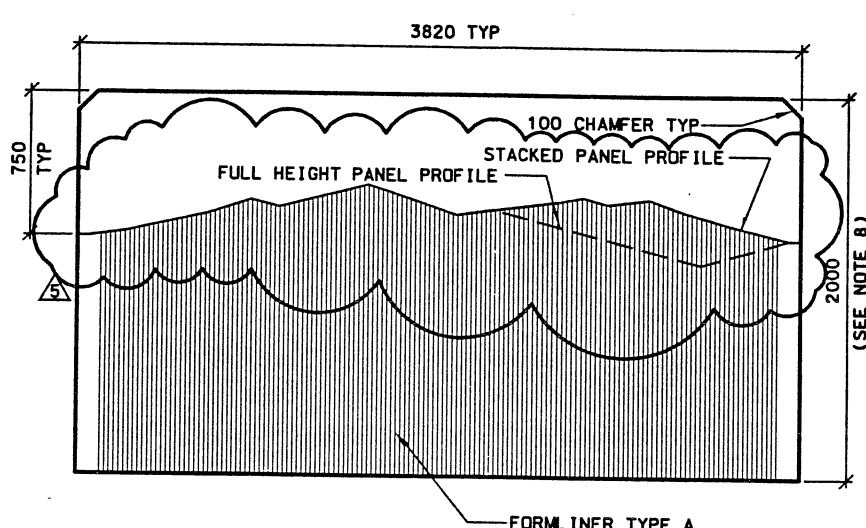
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	5/19/97	1	5/19/97
2	7/1/97	2	7/1/97
RELEASE FOR M.O.T. PHASE I & II ONLY		CHANGED NOTE 5.	
UTAH DEPARTMENT OF TRANSPORTATION			
SVDRUP / DE LEUW			
SVDRUP / DE LEUW			
DESIGN	LJT	5/97	5/97
CHECK	JMT	5/97	5/97
DESIGN	LJT	5/97	5/97
CHECK	LJT	5/97	5/97
DESIGN	RJY	5/97	5/97
CHECK	RJY	5/97	5/97
DESIGN	N/A	5/97	5/97
CHECK	N/A	5/97	5/97
I-15 CORRIDOR RECONSTRUCTION			
BARRIER DETAILS			
CORRIDOR STANDARD PLAN			
PROJECT NUMBER #SP-15-7(135)296			
SALT LAKE COUNTY			
DWG. NO. CS-2			
SHT. _____ OF _____			



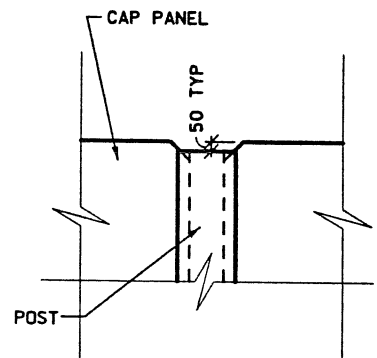




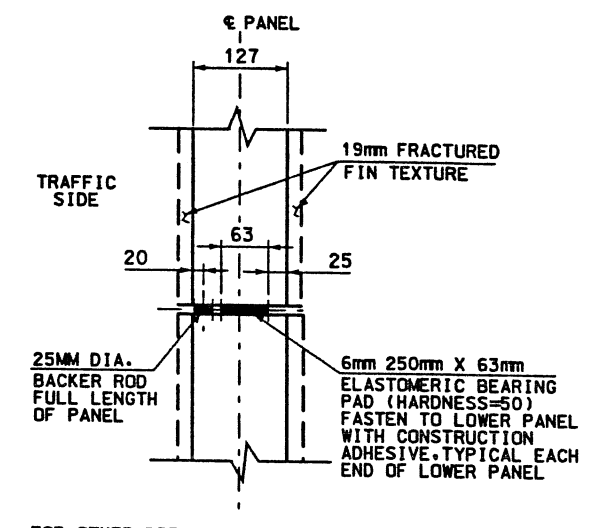
1 CAP PANEL FRONT (PROFILE 1)



2 CAP PANEL BACK (PROFILE 2)

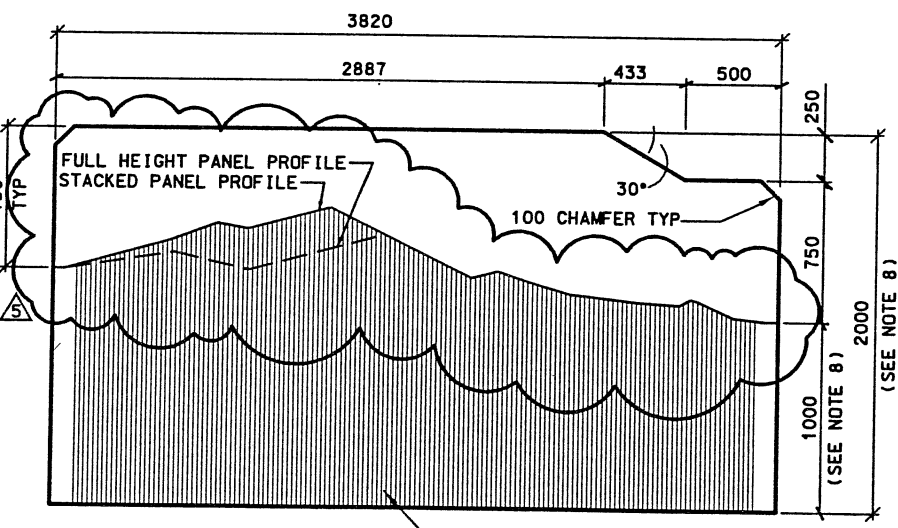


5 ASSEMBLY DETAIL

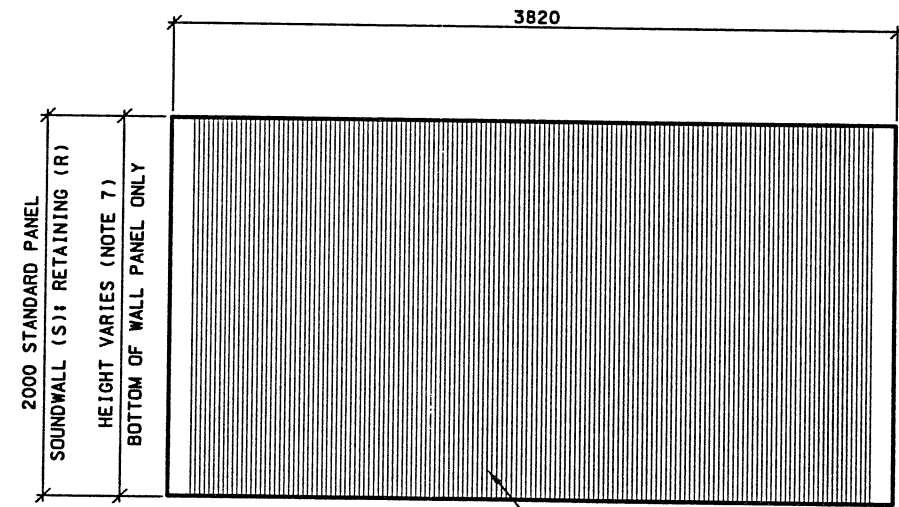


6 BEARING DETAIL NTS

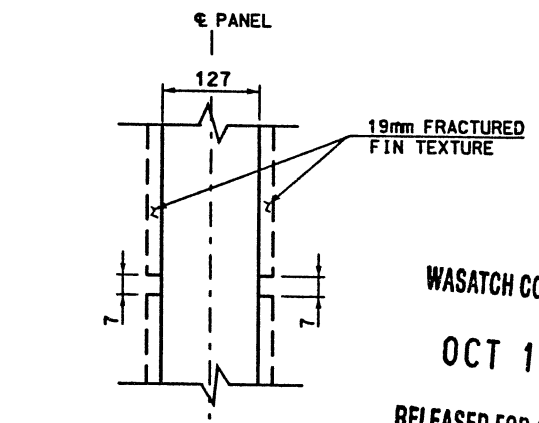
FOR OTHER DETAILS SEE UDOT STANDARD 545-1.



3 250MM STEP DOWN CAP PANEL



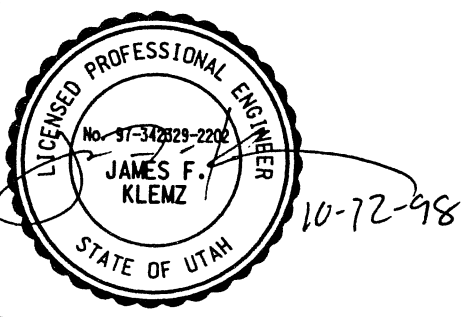
4 STANDARD SOUNDWALL PANEL



7 FULL HEIGHT PANEL SCORE LINE DETAIL NTS

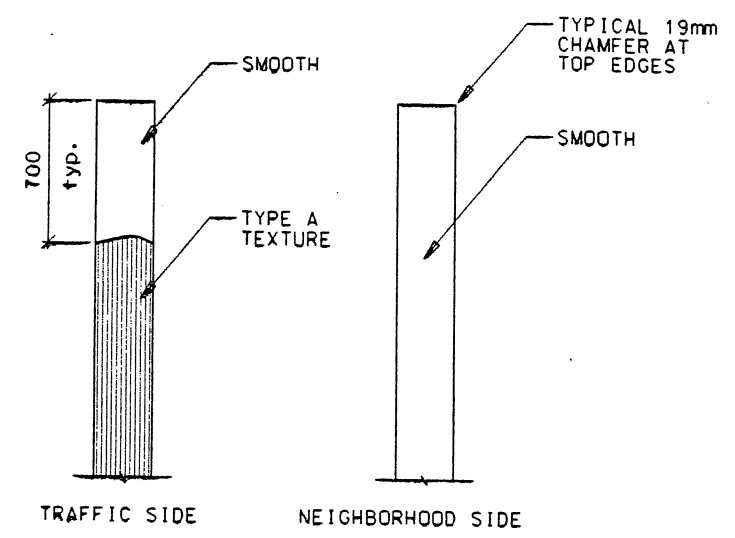
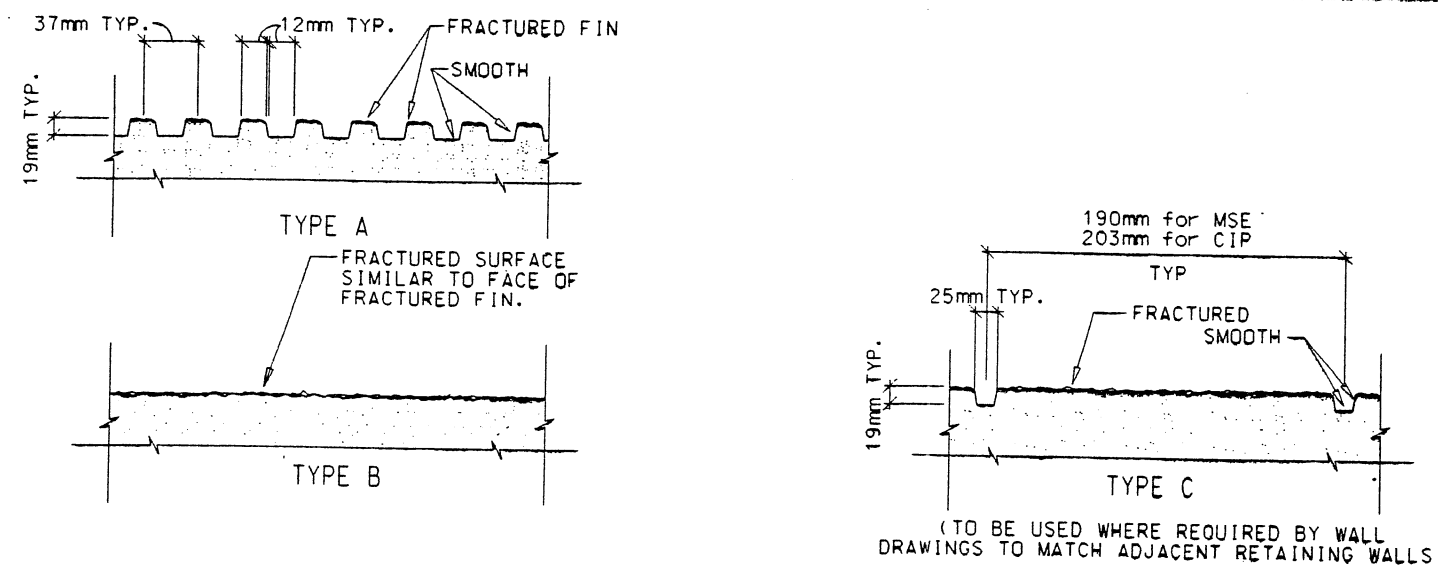
NOTES:

- 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.
- 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.
- ALL POSTS SHALL HAVE THE FORMLINER TREATMENT TO THE HIGHWAY SIDE OF THE WALL. POSTS SHALL BE PLAIN ON THE NEIGHBORHOOD SIDE.
- 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.
- 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.
- POSTS AND PANELS TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
- 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.
- 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 7 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.
- 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.
- 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.

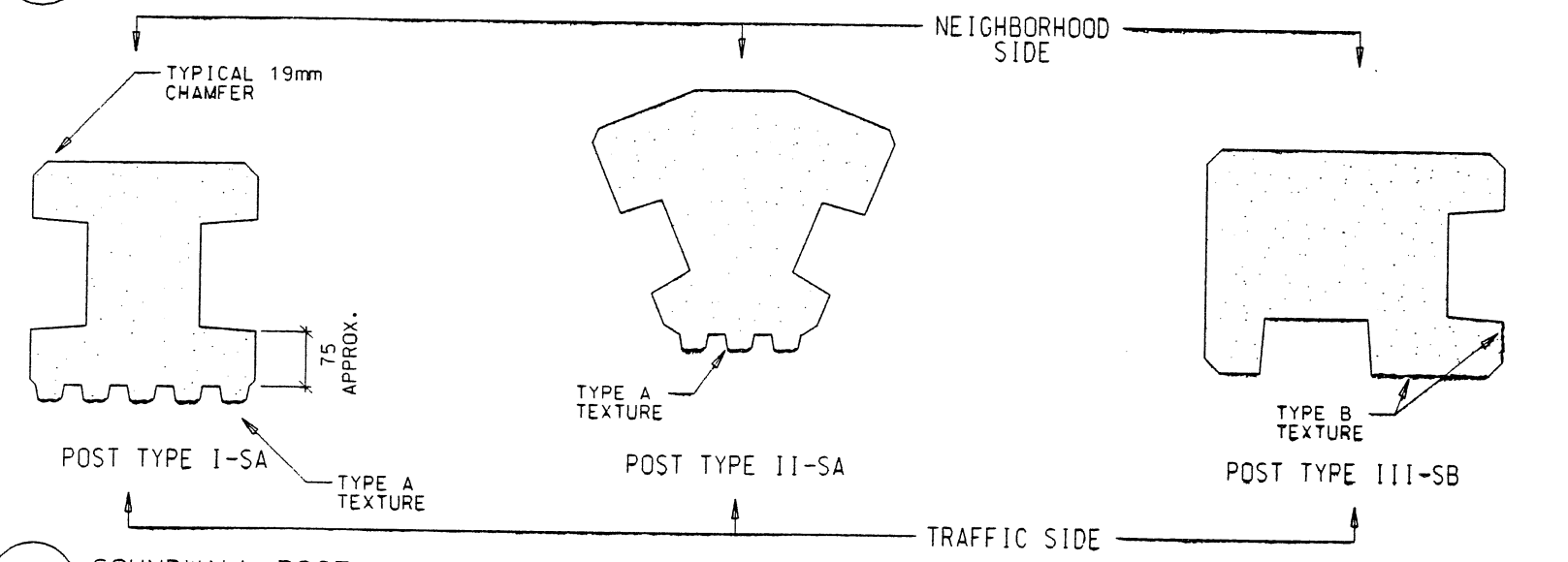


APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	10/29/97	1	10/29/97
2	1/21/98	2	1/21/98
3	07/24/98	3	07/24/98
4	9/29/98	4	9/29/98
5		5	
APPROVED FOR CONSTRUCTION DATE: 10/29/97 BY: [Signature] PROJECT DESIGN ENGINEER: [Signature] PROJECT DATE: 10/29/97 CHECKED: [Signature] DESIGNER: [Signature] DATE: 10/29/97 CHECKED: [Signature] SECTION MANAGER: [Signature] DATE: 10/29/97 CHECKED: [Signature]			
UTAH DEPARTMENT OF TRANSPORTATION		SVERRUP/DE LEUW	
1-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN	
STANDARD 4M P&P RETAINING/SOUNDWALL PANELS		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-5	
SHT. _____ OF _____			

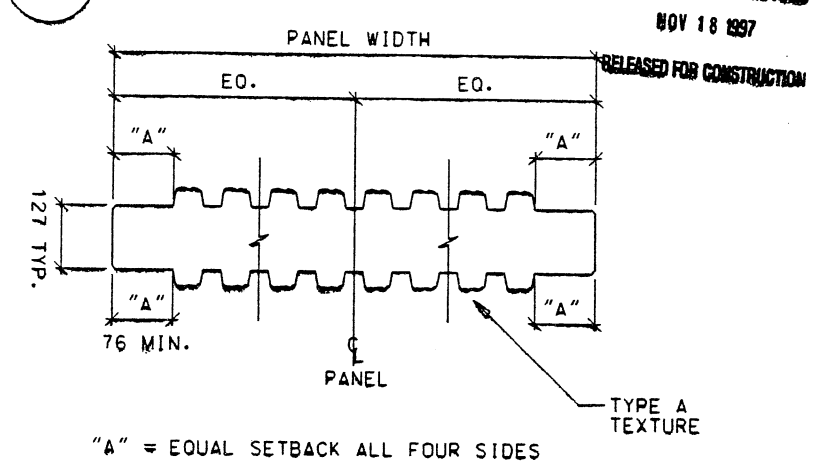
WASATCH CONSTRUCTORS  
OCT 13 1998  
RELEASED FOR CONSTRUCTION



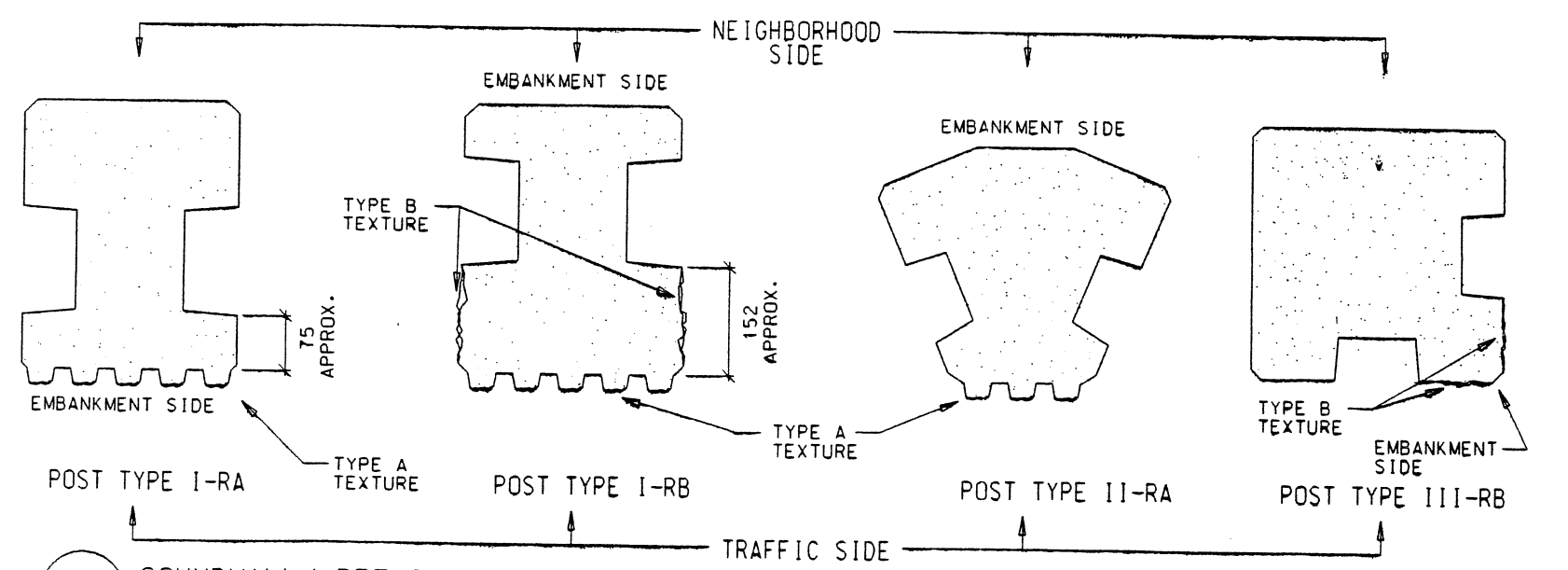
1 FORMLINER TYPE TEXTURES  
ALL DIMENSIONS APPROXIMATE



2 POST ELEVATIONS TYP.



3 SOUNDWALL POST



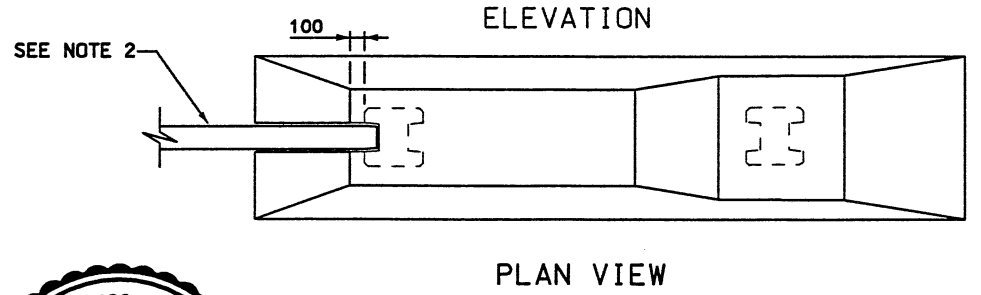
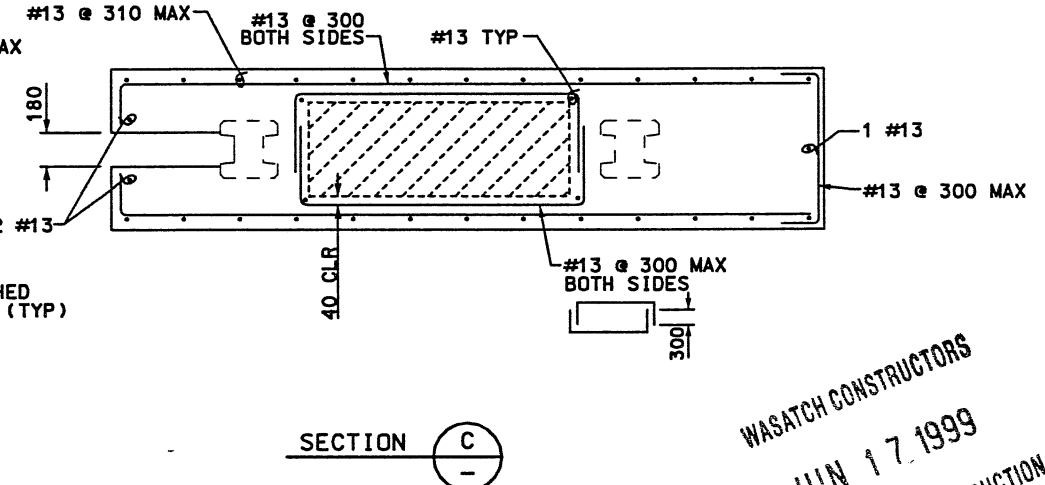
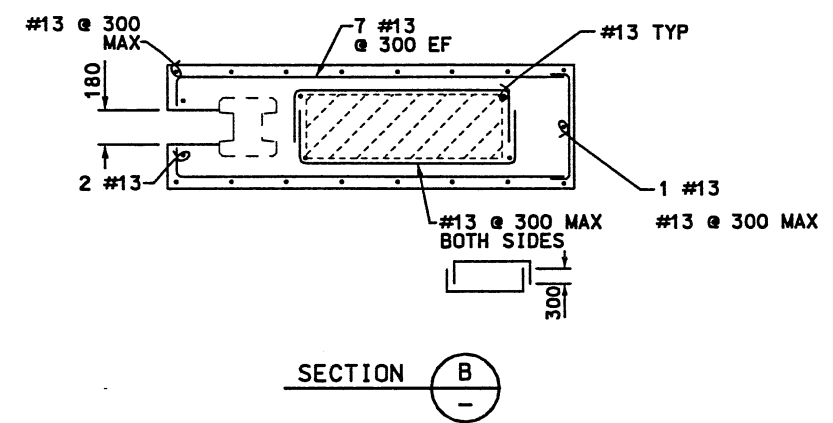
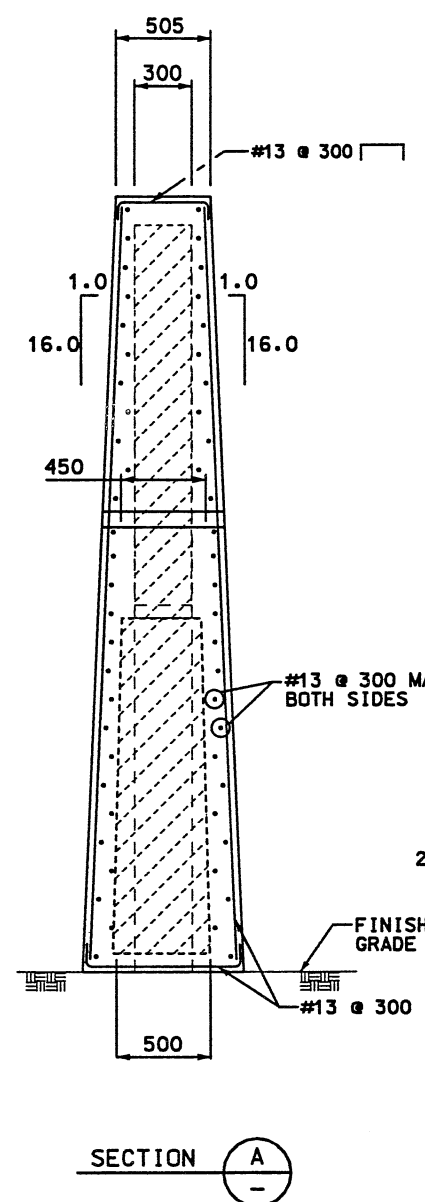
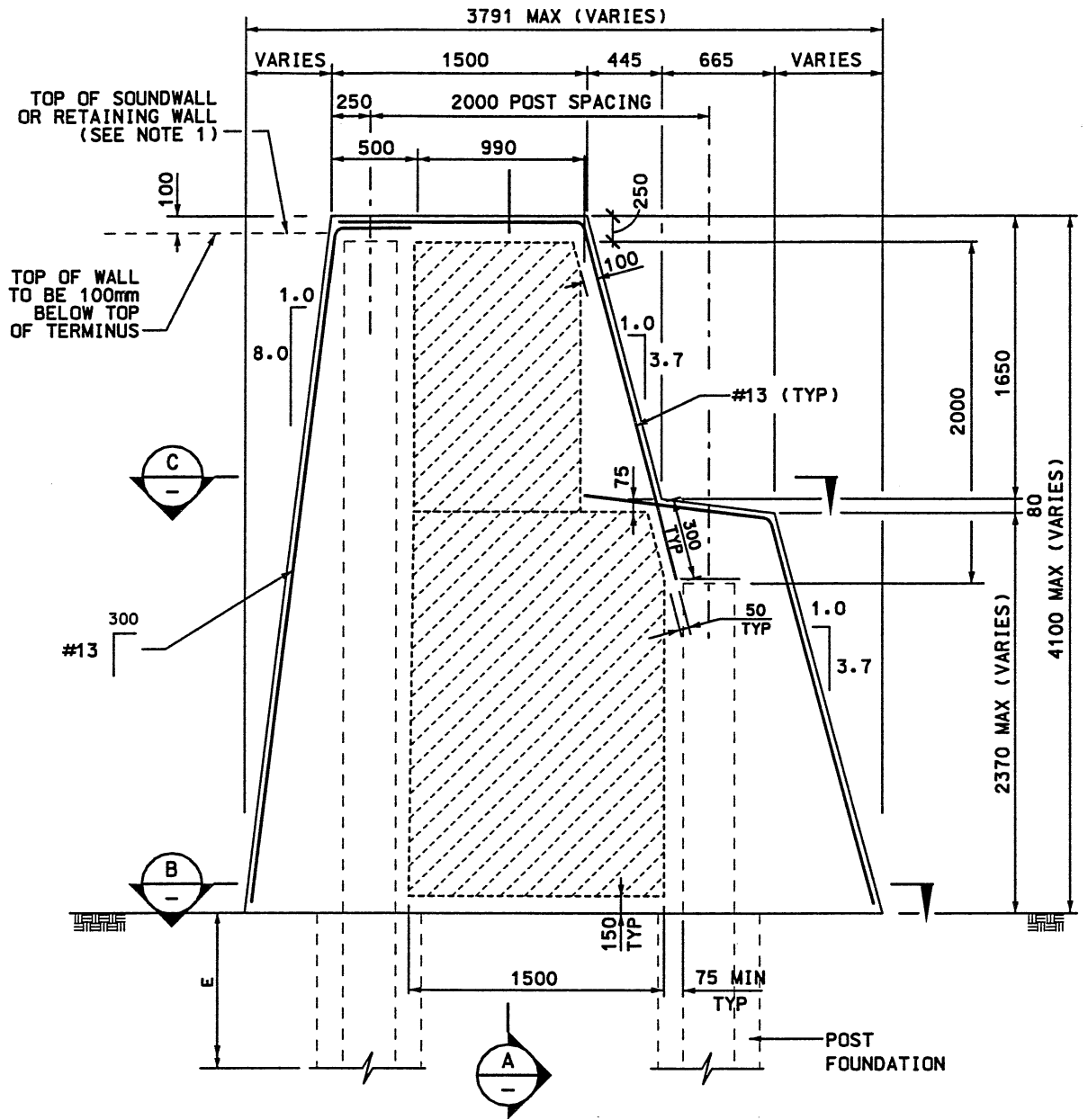
4 PANEL FORMLINER PLACEMENT

- NOTES:
- 1) CENTER THE FRACTURED FIN TEXTURE ON ALL PANELS, EITHER IN A GROOVE OR ON A FIN (BUT IDENTICALLY ON BOTH SIDES OF PANEL).
  - 2) THE INTENT OF THIS DETAIL IS TO INDICATE A CONSISTENT PLACEMENT OF THE FORMLINER IN THE FORM SO THAT ALL PANELS, ON BOTH SIDES, HAVE THE SAME GENERAL PLACEMENT OF RIDGES AND VALLEYS AND WILL ALIGN CLOSELY WHEN WALL PANELS ARE ASSEMBLED IN THE FIELD. THIS APPLIES TO BOTH THE MOUNTAIN PANELS AS WELL AS THE STANDARD PANELS.
  - 3) PLACE ANY SEAMS IN THE FORMLINER SO THAT THEY WILL NOT BE ON A RIDGE ON THE FINAL CONCRETE PANELS.



APPROVED FOR CONSTRUCTION		DATE	7-7-97
DESCRIPTION		NO.	1
ORIGINAL ISSUE (AS 1.1-WADET.2)		DATE	10-29-97
ENTIRE SHEET REVISED		NO.	2
DATE		7-7-97	
CHECK		DESIGN RJP	7-7-97
CHECK		DRAWN BJB	7-7-97
CHECK		QUANT.	
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
I-15 CORRIDOR RECONSTRUCTION		BRYAN BOWEN	
STANDARD 4M P&P RETAINING/SOUNDWALL POSTS AND TEXTURES		PROJECT DESIGN ENGINEER	
CORRIDOR STANDARD PLAN		DATE	
PROJECT NUMBER		DATE	
SALT LAKE COUNTY		SECTION MANAGER	
DWG. NO. CS-6		PROJECT NUMBER *SP-15-(1135)296	
SHT. OF			

Scale: 20,000/000  
 Plot: 10/10/00  
 Pen: 1/10/00  
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 Second Reference File Levels:  
 Third Reference Filename:  
 Third Reference File Levels:  
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 User name: bowenb  
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DESIGN "H" IN METERS	"E" IN METER (E = .9xH)
1.650	1.49
2.000	1.80
3.000	2.70
4.100	3.69

1 RETAINING/SOUNDWALL TERMINUS - 4m ELEMENT  
SCALE = 1:40

CONSTRUCTION SEQUENCE NOTES:

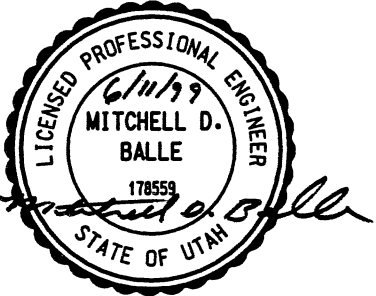
- 1) THE TERMINUS IS TO BE CAST-IN-PLACE AFTER THE POSTS ARE IN PLACE.

LEGEND



NOTES:

- 1) ALL DIMENSIONS ARE GIVEN IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 2) ADJACENT END WALL PANEL MAY BE STANDARD CAP PANEL OR STEP DOWN PANEL, AS REQUIRED BY WALL DRAWINGS FOR TERMINATION DETAIL.
- 3) ALL EXPOSED SURFACES TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
- 4) MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR PRECAST ALTERNATIVE.
- 5) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE SPECIFIED OTHERWISE.  $f'c = 28\text{MPA}$
- 6) CHAMFER ALL EXPOSED CONC CORNERS 20mm EXCEPT WHERE OTHERWISE NOTED.



WASATCH CONSTRUCTORS  
JUN 17 1999  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	07/09/98	1	07/09/98
2	10/21/98	2	10/21/98
3	10/30/98	3	10/30/98
4	06/11/99	4	06/11/99
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
DESIGN	CHECK	DESIGN	CHECK
RJP	06/98	RJP	06/98
PROJECT DESIGN ENGINEER	DRAWN	DKC	06/98
S. POLASKI	SECTION MANAGER	J. KLEMZ	QUANT.
APPROVAL	DATE	APPROVAL	DATE
RECOMM.	06/98	RECOMM.	06/98
I-15 CORRIDOR RECONSTRUCTION		STANDARD P&P RETAINING	
SOUNDWALL TERMINUS ELEMENTS		CORRIDOR STANDARD PLAN	
PROJECT NUMBER #SP-15-7(135)296		SALT LAKE COUNTY	
DWG. NO. CS-7		SHT. OF	

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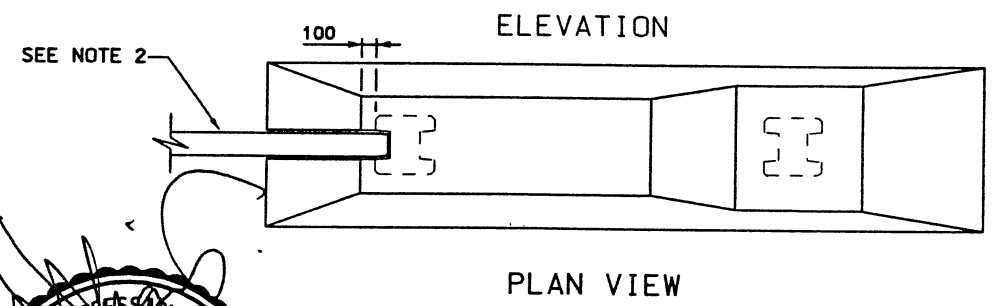
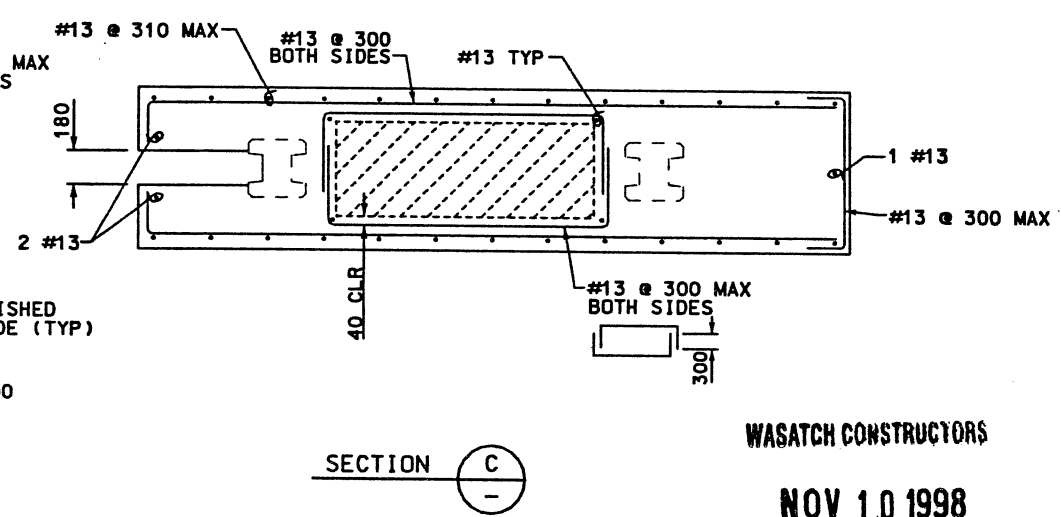
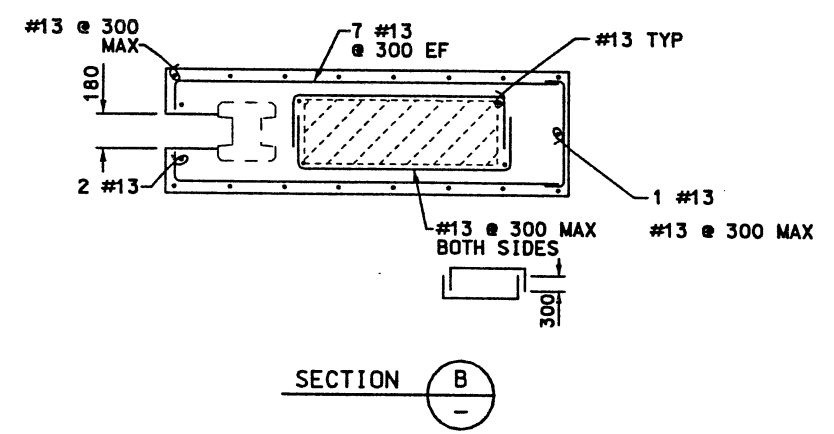
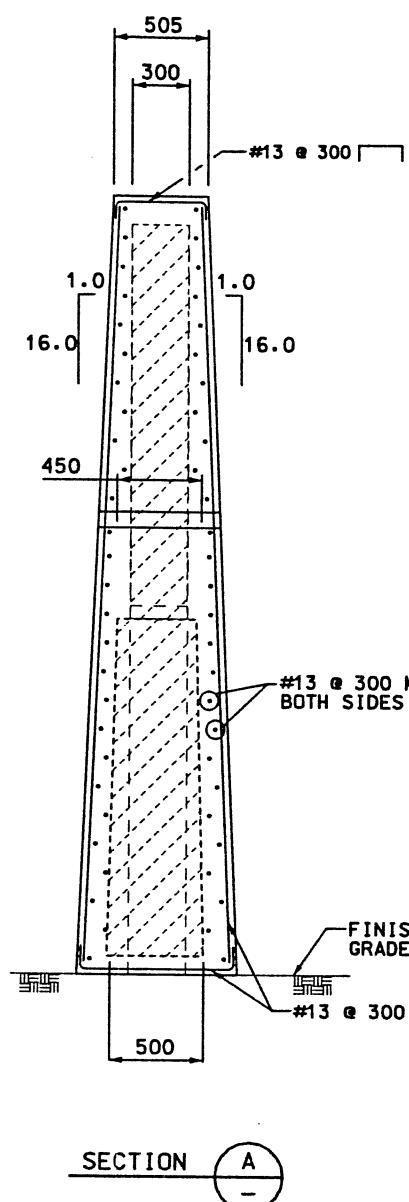
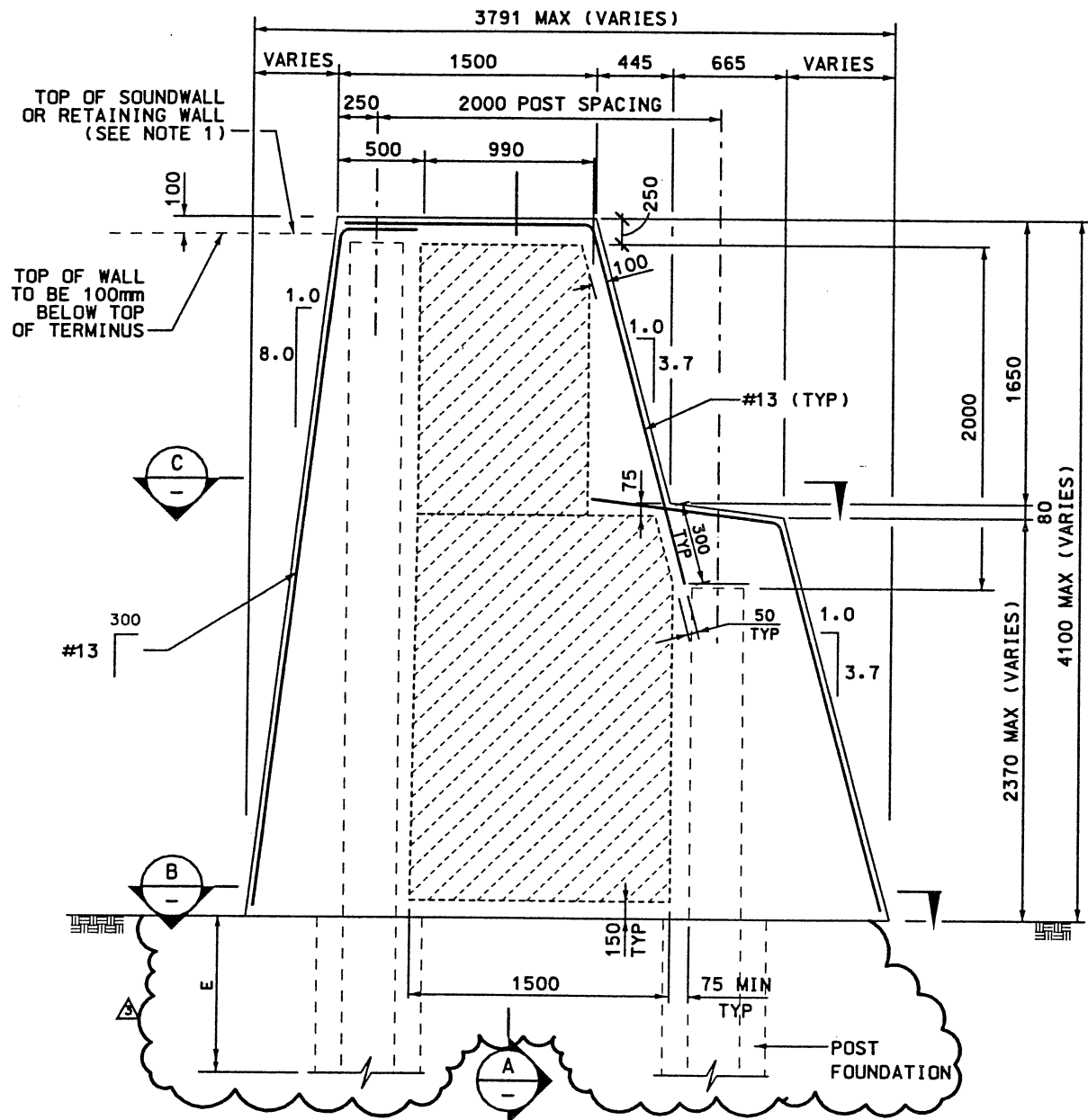


TABLE FOR NONSTANDARD EMBEDMENT OF PILE	
DESIGN "H" IN METERS	"E" IN METER (E = .9xH)
1.650	1.49
2.000	1.80
3.000	2.70
4.100	3.69

**CONSTRUCTION SEQUENCE NOTES:**

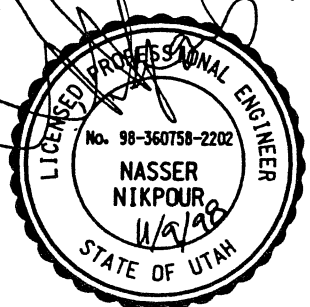
- 1) THE TERMINUS IS TO BE CAST-IN-PLACE AFTER THE POSTS ARE IN PLACE.

**LEGEND**

EXPANDED POLYSTYRENE OR VOID

**NOTES:**

- 1) ALL DIMENSIONS ARE GIVEN IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 2) ADJACENT END WALL PANEL MAY BE STANDARD CAP PANEL OR STEP DOWN PANEL, AS REQUIRED BY WALL DRAWINGS FOR TERMINATION DETAIL.
- 3) ALL EXPOSED SURFACES TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
- 4) MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR PRECAST ALTERNATIVE.
- 5) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE SPECIFIED OTHERWISE.  $f'_c = 28\text{MPa}$
- 6) CHAMFER ALL EXPOSED CONC CORNERS 20mm EXCEPT WHERE OTHERWISE NOTED.



**1** RETAINING/SOUNDWALL TERMINUS - 4m ELEMENT  
SCALE = 1:40

WASATCH CONSTRUCTORS  
 NOV 10 1998  
 RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE		
1	07/09/98	ORIGINAL ISSUE	
2	10/21/98	MINOR REVISIONS	
3	10/30/98	REVISED FOR NON STANDARD POST DEPTHS	

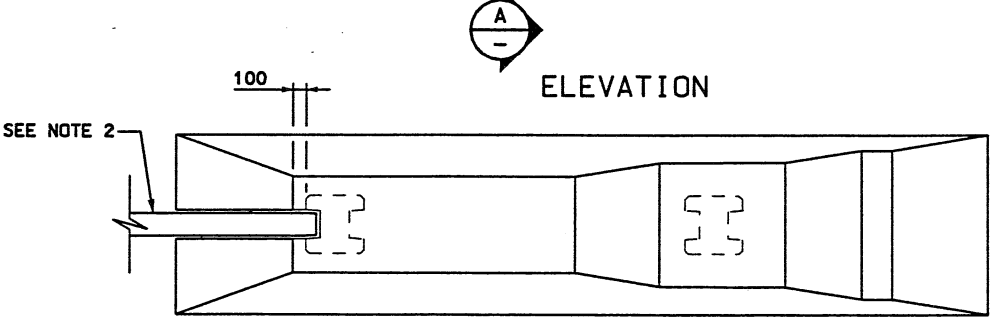
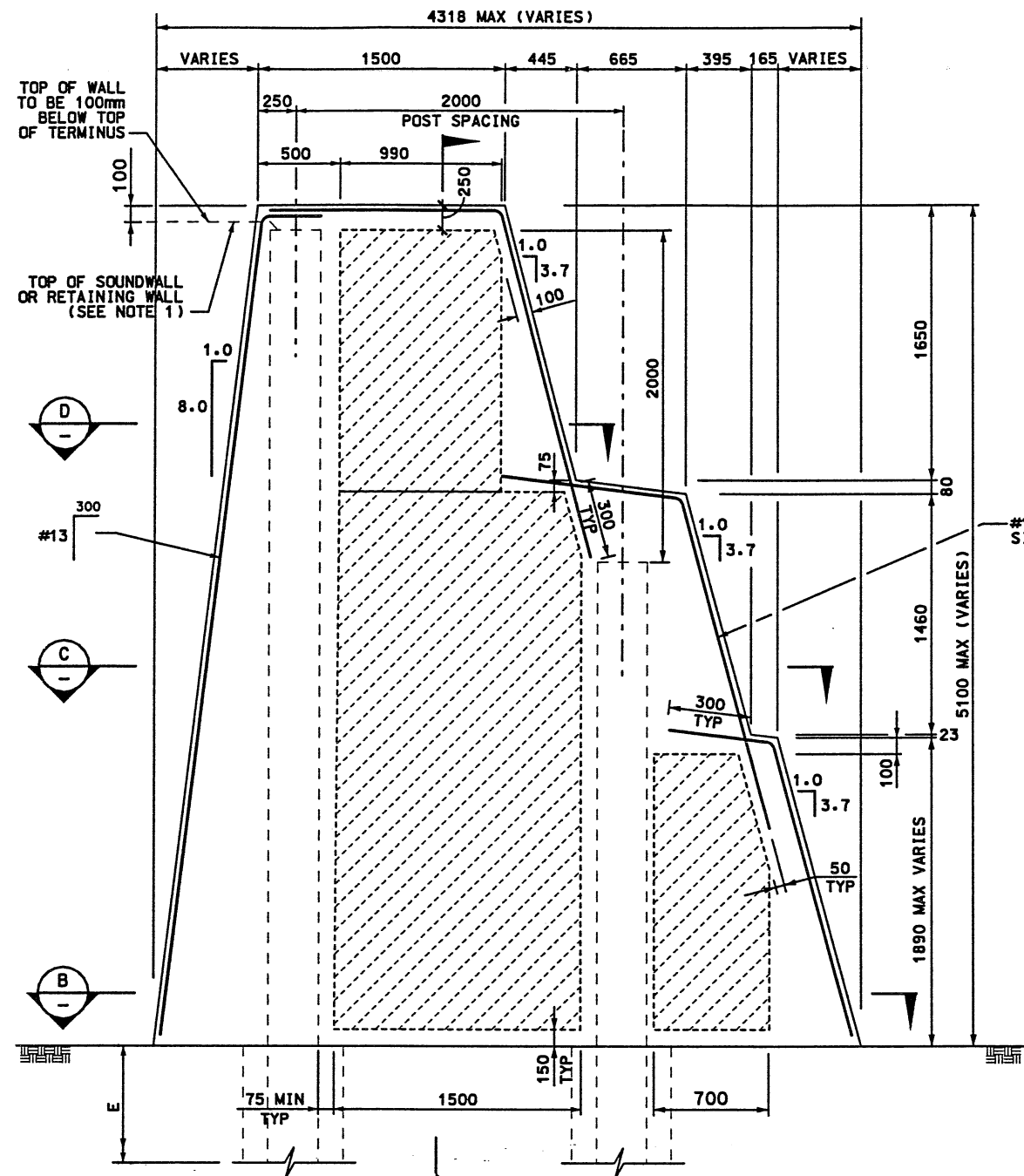
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
DESIGN	CHECK	DESIGN	CHECK
S. POLASIK		RJP	
PROJECT DESIGN ENGINEER		DKC	
J. KLEMZ		SECTION MANAGER	
PROJECT NUMBER		QUANT.	
#SP-15-7(135)296			

I-15 CORRIDOR RECONSTRUCTION	SALT LAKE COUNTY
STANDARD P&P RETAINING SOUNDWALL TERMINUS ELEMENTS	DWG. NO. CS-7
CORRIDOR STANDARD PLAN	SHT. OF

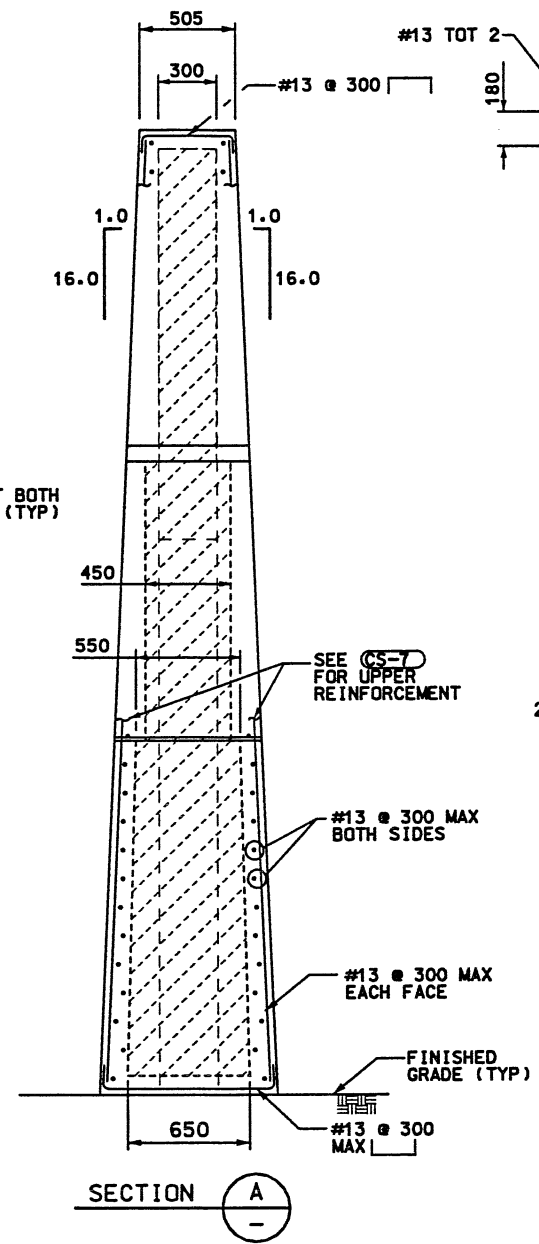


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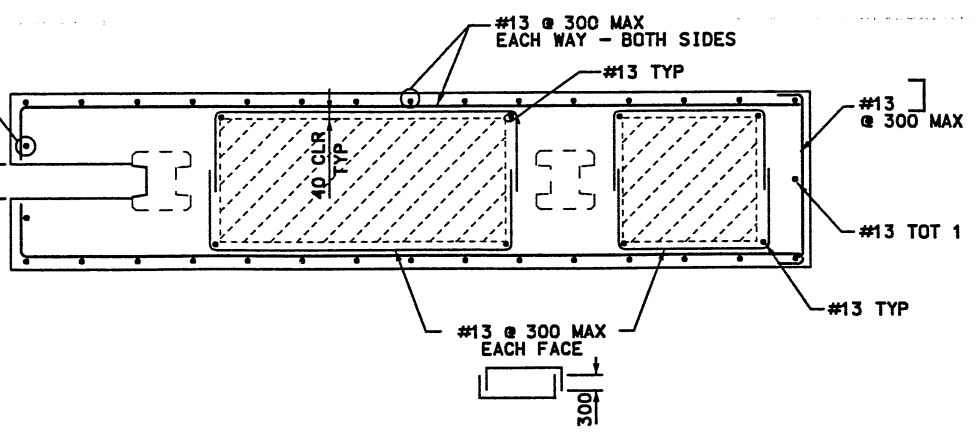


ELEVATION

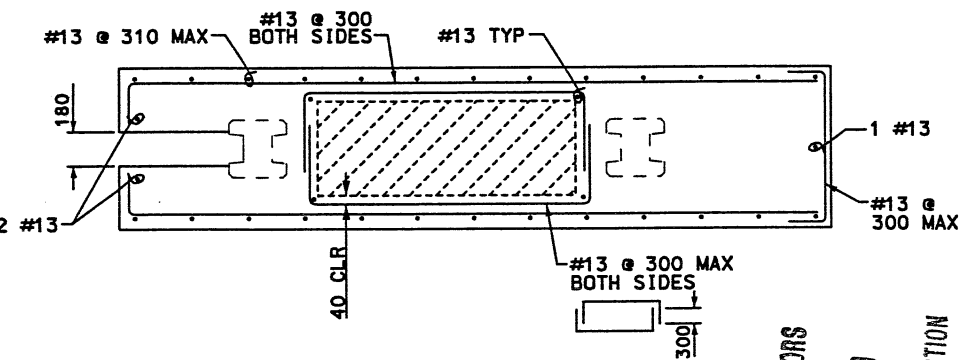
PLAN VIEW



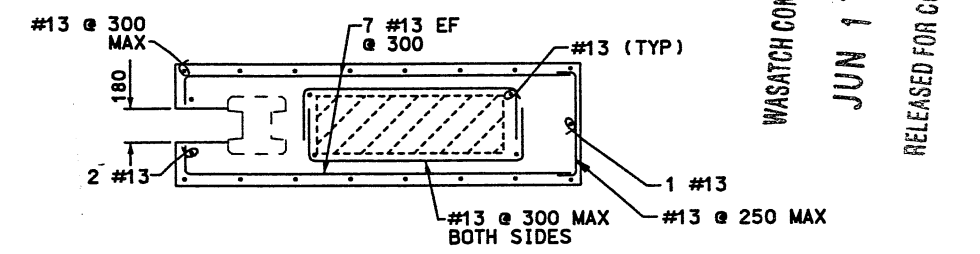
SECTION A



SECTION B



SECTION C



SECTION D

TABLE FOR NONSTANDARD EMBEDMENT OF PILE	
DESIGN "H" IN METERS	"E" IN METER (E = .9xH)
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4.5	4.05
5.0	4.50
5.1	4.59

LEGEND

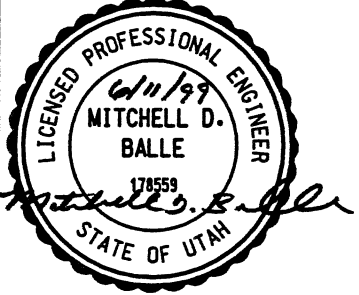


NOTES:

- 1) ALL DIMENSIONS ARE GIVEN IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 2) ADJACENT END WALL PANEL MAY BE STANDARD CAP PANEL OR STEP DOWN PANEL, AS REQUIRED BY WALL DRAWINGS FOR TERMINATION DETAIL.
- 3) ALL EXPOSED SURFACES TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
- 4) MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR PRECAST ALTERNATIVE.
- 5) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE SPECIFIED OTHERWISE.  $f'_c = 28\text{MPa}$
- 6) CHAMFER ALL EXPOSED CONC CORNERS 20mm EXCEPT WHERE OTHERWISE NOTED.

- CONSTRUCTION SEQUENCE NOTES:
- 1) THE TERMINUS IS TO BE CAST-IN-PLACE AFTER THE POSTS ARE IN PLACE.

1 RETAINING/SOUNDWALL TERMINUS - 5M ELEMENT  
SCALE = 1:40



WASATCH CONSTRUCTORS  
 JUN 17 1999  
 RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	DATE	DESCRIPTION
1	07/09/98		ORIGINAL ISSUE
2	10/21/98		MINOR REVISIONS
3	10/30/98		REVISED FOR NON STANDARD POST DEPTHS.
4	06/11/99		VOID OPTIONAL

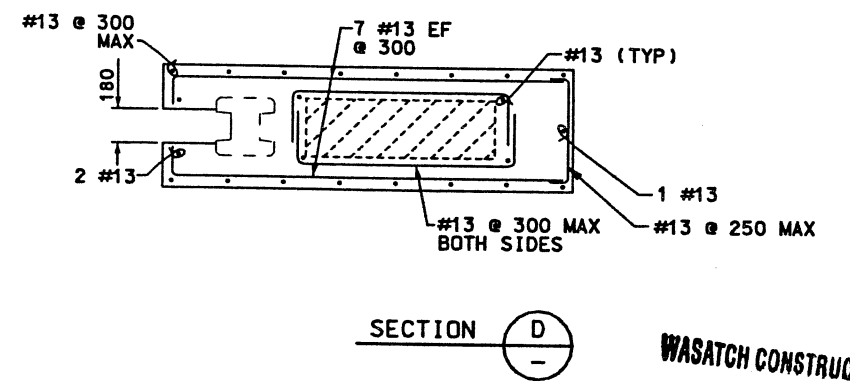
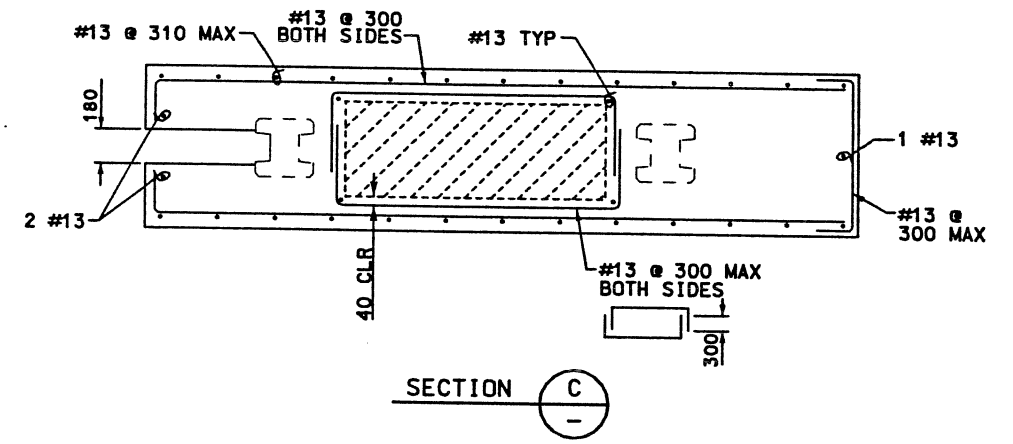
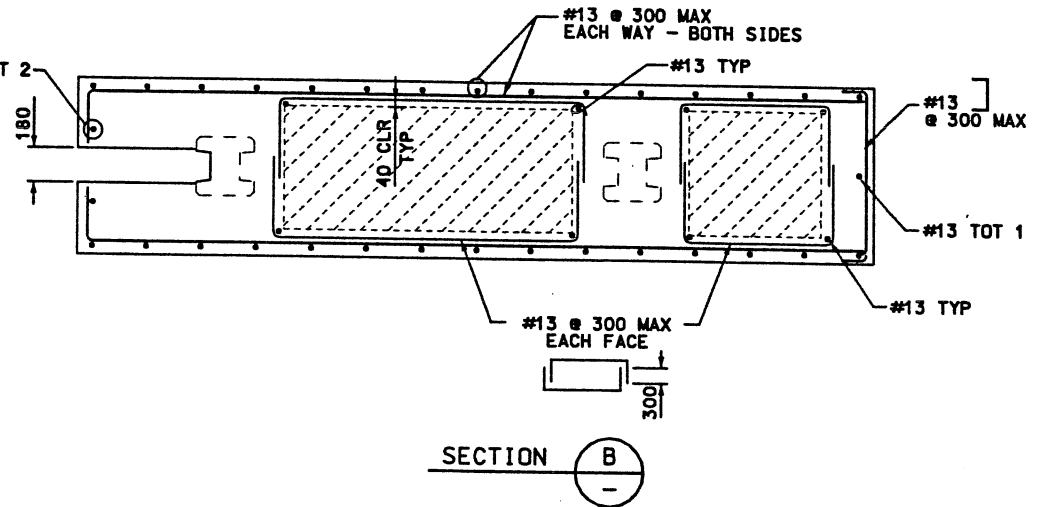
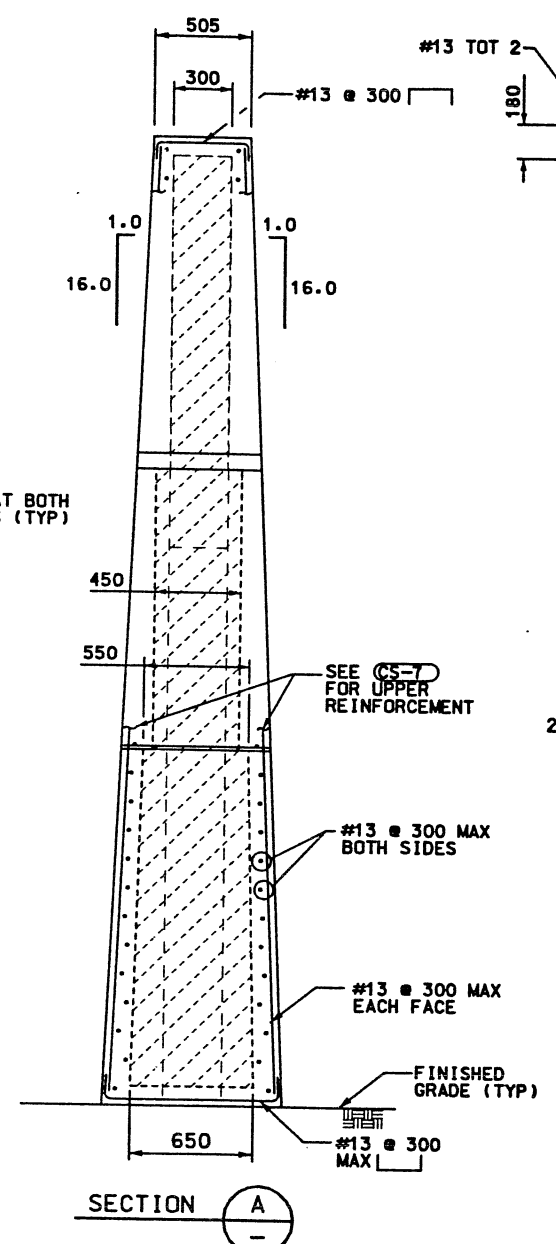
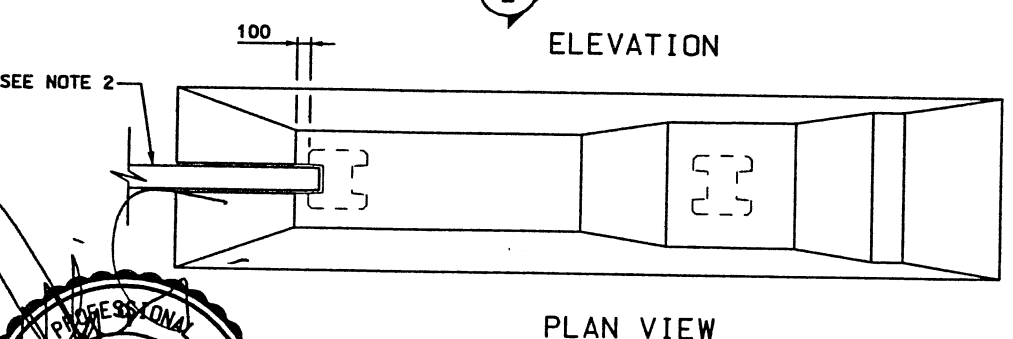
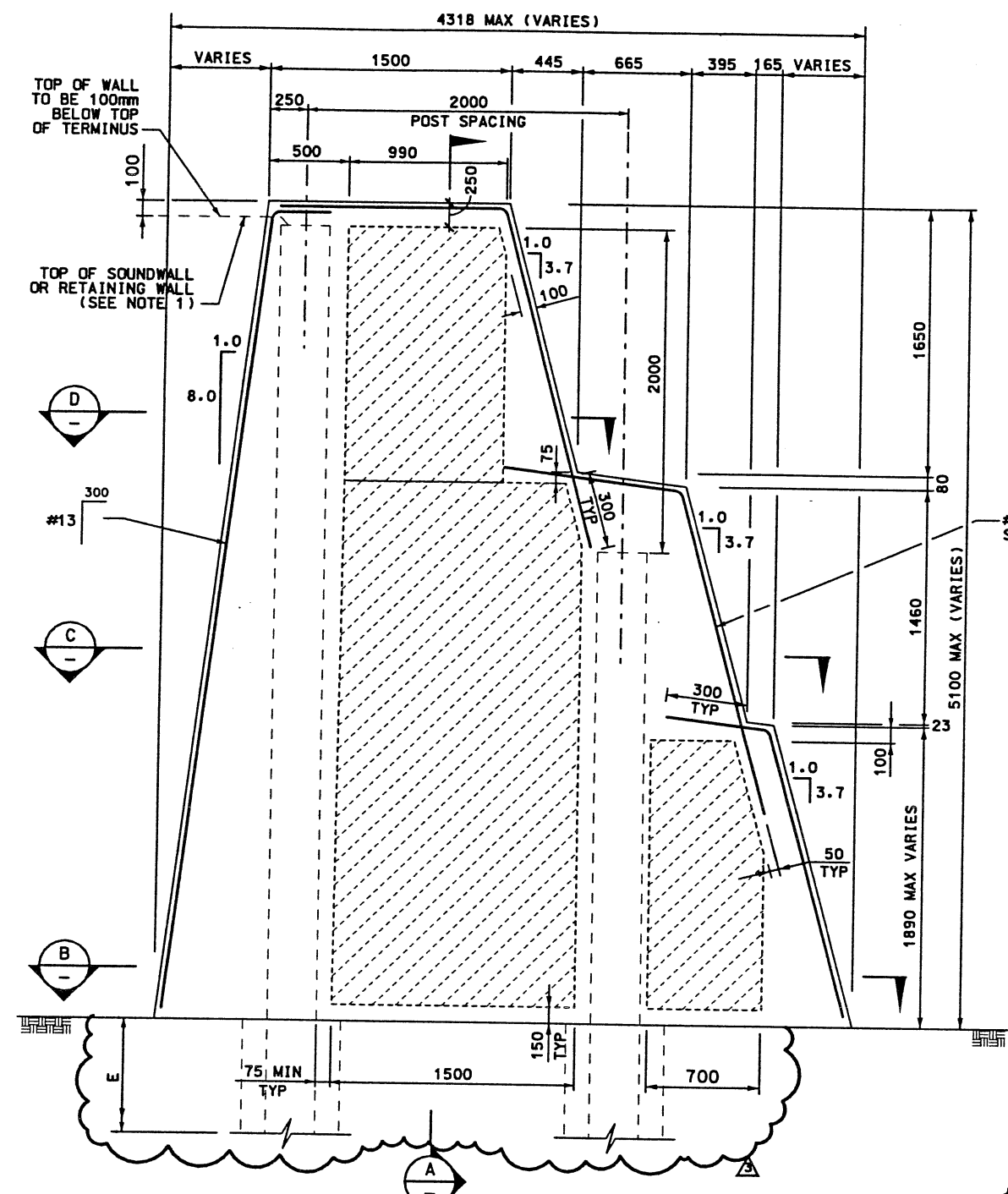
  

UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
APPROVAL	DATE	DESIGNER	CHECK
STAN POLASKI	6/98	6/98	CHECK
PROJECT DESIGN ENGINEER		DRAWN	CHECK
JAMES KLENZ	6/98	DWG	CHECK
SECTION MANAGER		QUANT.	CHECK

I-15 CORRIDOR RECONSTRUCTION		SALT LAKE COUNTY	
STANDARD P&P RETAINING/SOUNDWALL TERMINUS ELEMENTS	PROJECT NUMBER	DWG. NO.	DATE
CORRIDOR STANDARD PLAN	*SP-15-7(135)296	CS-8	

Date: 09-NOV-1998 Time: 15:07 Username: jostm  
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DESIGN "H" IN METERS	"E" IN METER (E = .9xH)
4.0	3.60
4.5	4.05
5.0	4.50
5.1	4.59

**LEGEND**

EXPANDED POLYSTYRENE OR VOID

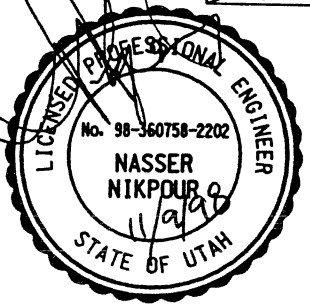
**NOTES:**

- 1) ALL DIMENSIONS ARE GIVEN IN MILLIMETER UNLESS OTHERWISE SPECIFIED.
- 2) ADJACENT END WALL PANEL MAY BE STANDARD CAP PANEL OR STEP DOWN PANEL, AS REQUIRED BY WALL DRAWINGS FOR TERMINATION DETAIL.
- 3) ALL EXPOSED SURFACES TO BE FINISHED WITH COATING OF CORRIDOR THEME COLOR.
- 4) MANUFACTURER TO PROVIDE SHOP DRAWINGS FOR PRECAST ALTERNATIVE.
- 5) ALL CAST-IN-PLACE CONCRETE SHALL BE CLASS AA (AE) EXCEPT WHERE SPECIFIED OTHERWISE.  $f'_c = 28\text{MPA}$
- 6) CHAMFER ALL EXPOSED CONC CORNERS 20mm EXCEPT WHERE OTHERWISE NOTED.

**CONSTRUCTION SEQUENCE NOTES:**

- 1) THE TERMINUS IS TO BE CAST-IN-PLACE AFTER THE POSTS ARE IN PLACE.

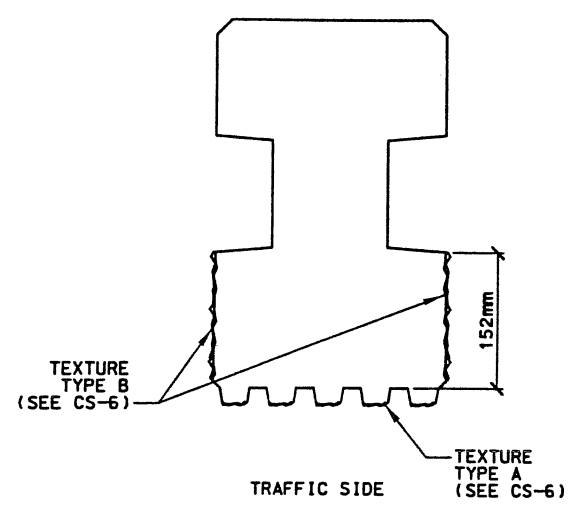
**1 RETAINING/SOUNDWALL TERMINUS - 5M ELEMENT**  
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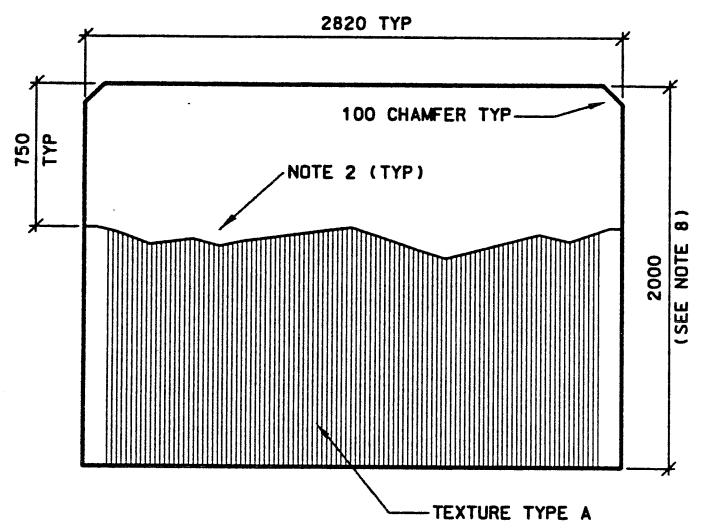
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NO.	DATE	DATE	DESCRIPTION
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2	10/21/98		MINOR REVISIONS
3	10/30/98		REVISED FOR NON STANDARD POST DEPTHS
UTAH DEPARTMENT OF TRANSPORTATION			
SVERRUP/DE LEUW		DESIGNER	CHECK
STAFF	DATE	PROJECT DESIGN ENGINEER	CHECK
JAMES KLEIDE	DATE	DRAWN BY	CHECK
	DATE	SECTION MANAGER	CHECK
I-15 CORRIDOR RECONSTRUCTION			
STANDARD P&P RETAINING#			
SOUNDWALL TERMINUS ELEMENTS			
CORRIDOR STANDARD PLAN			
PROJECT NUMBER	#SP-15-(1135)296		
SALT LAKE COUNTY			
DWG. NO. CS-8			
SHT. 8			

WASATCH CONSTRUCTORS  
 NOV 10 1998  
 RELEASED FOR CONSTRUCTION

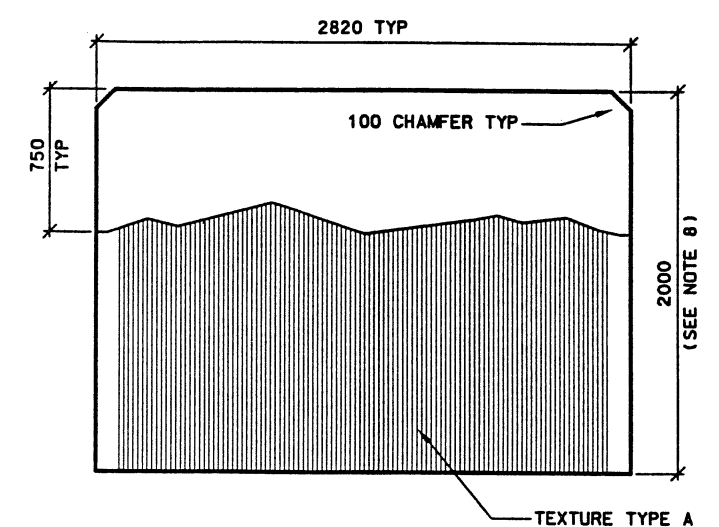
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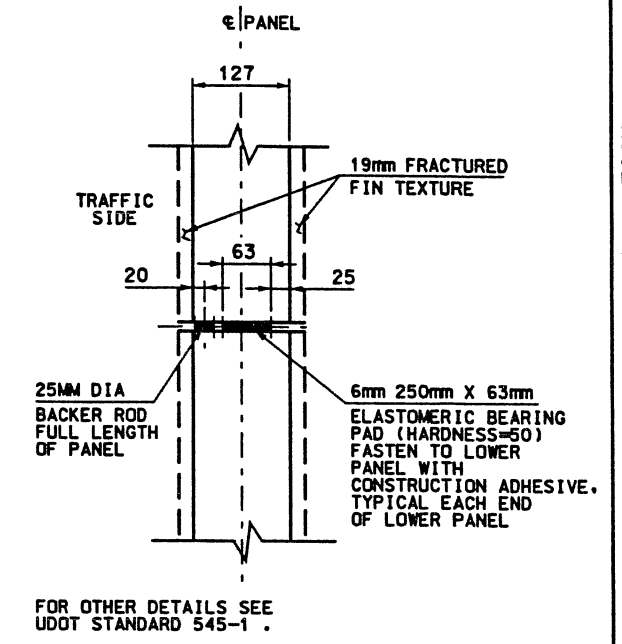
1 POST TYPE IV - MODIFIED FOR RETAINING



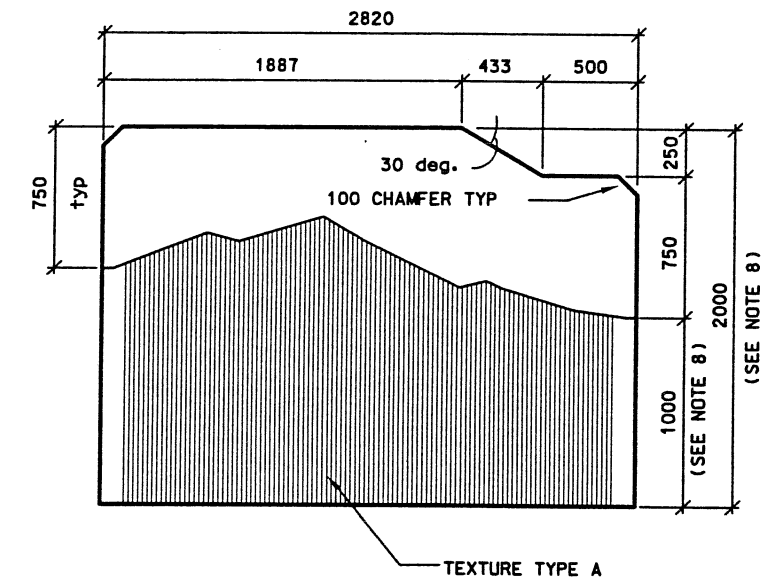
2 3m CAP PANEL FRONT (PROFILE 1)



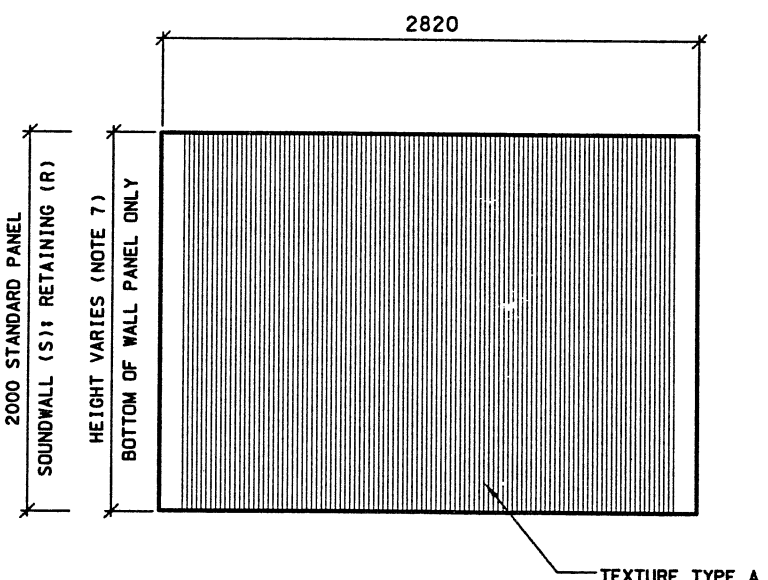
3 3m CAP PANEL BACK (PROFILE 2)



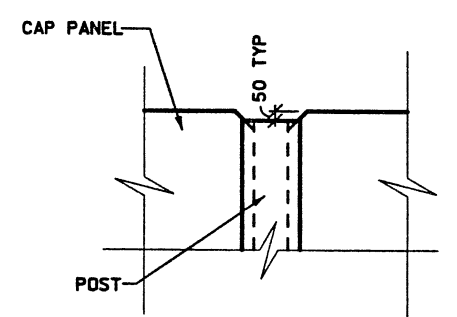
6 BEARING DETAIL  
NTS  
WASATCH CONSTRUCTORS



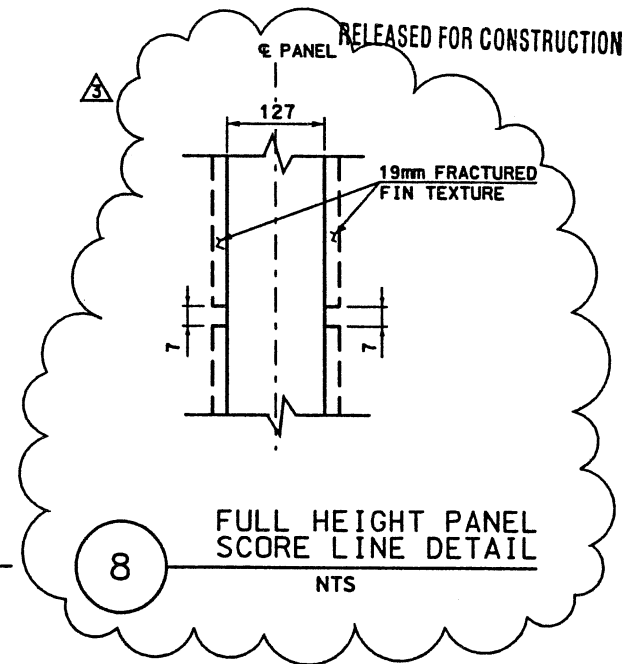
4 3m STEP DOWN CAP PANEL (SAME BOTH SIDES)



5 STANDARD MODIFIED WALL PANEL - 3m



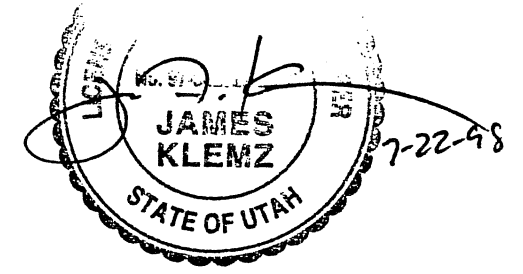
7 ASSEMBLY DETAIL



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.



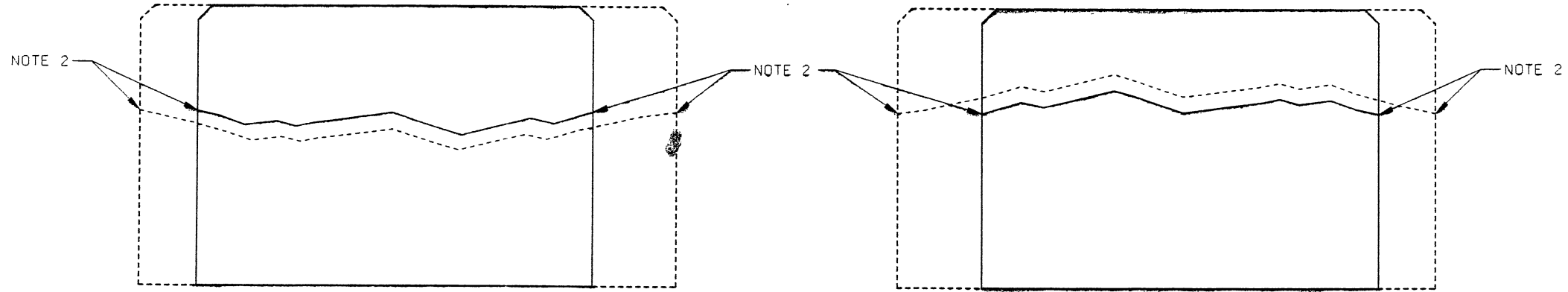
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NO.	DATE	NO.	DATE
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Δ	01/23/98	Δ	01/23/98
Δ	07/24/98	Δ	07/24/98
ORIGINAL ISSUE			
ADD NOTE 8 AND BEARING DETAIL.			
REVISED NOTES, ADD FULL HEIGHT PANEL			
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW			
DESIGN	DATE	CHECK	DATE
BRYAN BOWEN	7-7-97	✓	7-7-97
PROJECT DESIGN ENGINEER	DATE	DRAWN	DATE
ROBERT POIR	7-7-97	1/98	7-7-97
SECTION MANAGER	DATE	QUANT.	DATE
QUANT.	DATE	QUANT.	DATE
1-15 CORRIDOR RECONSTRUCTION	MODIFIED 3M P&P RETAINING/SOUNDWALL PANELS	CORRIDOR STANDARD PLAN	PROJECT NUMBER #SP-15-7(135)296
SALT LAKE COUNTY			
DWG. NO. CS-19			
SHT. OF			

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 Second Reference File Levels:  
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 Third Reference File Levels:

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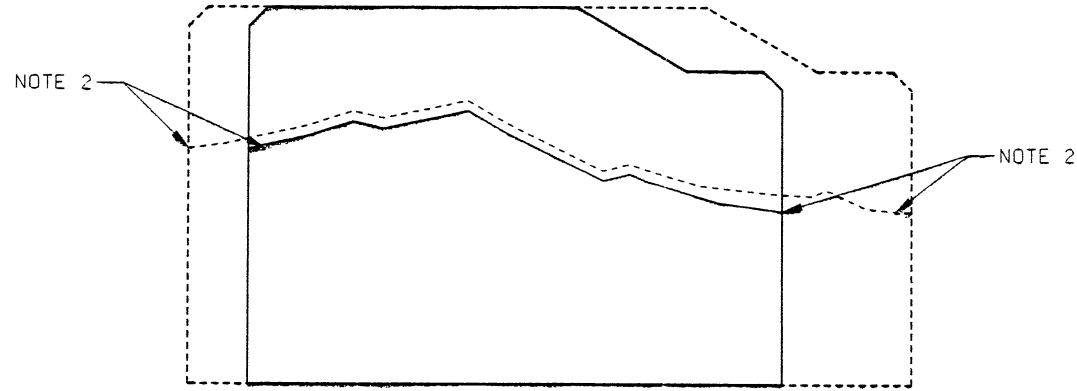
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Date: 19-NOV-1997 Time: 11:00 User: rainerbowenb1



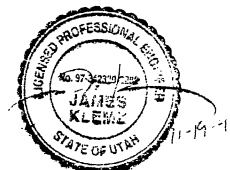
1 3m - 4m CAP PANEL FRONT COMPARISON

2 3m - 4m CAP PANEL BACK COMPARISON



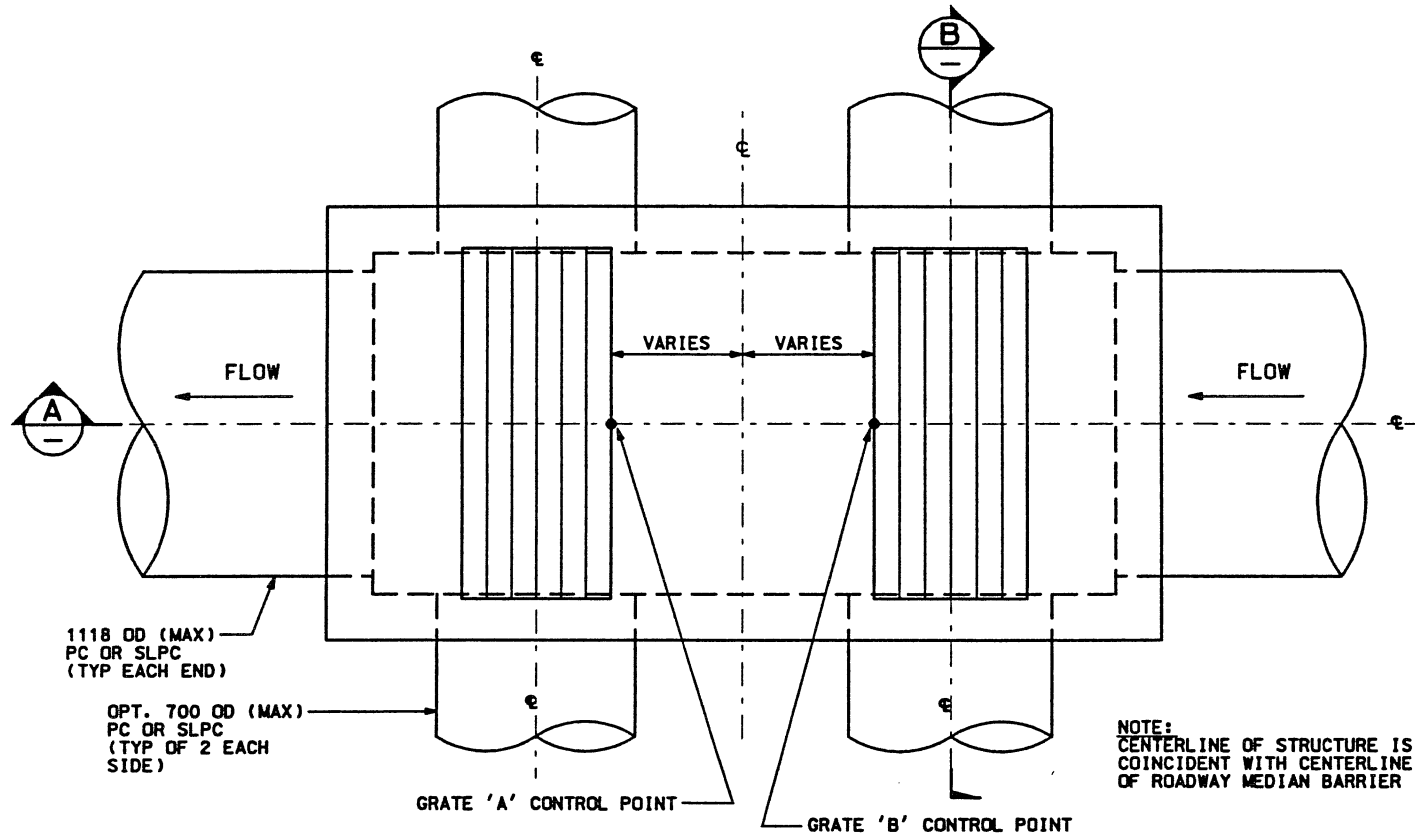
3 3m - 4m STEP DOWN CAP PANEL COMPARISON

**WASATCH CONSTRUCTORS**  
 NOV 18 1997  
 RELEASED FOR CONSTRUCTION

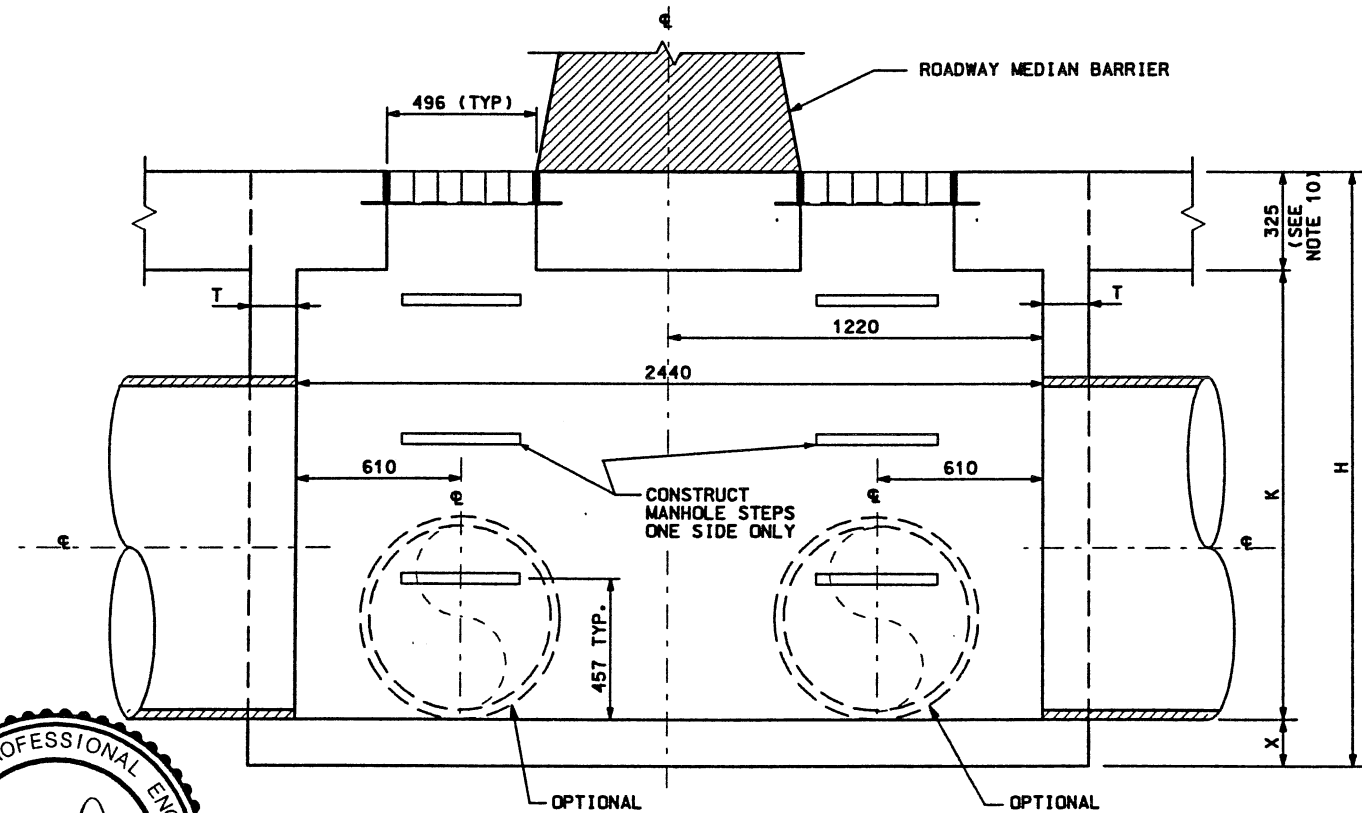


NOTE 1: THIS DRAWING IS FOR ILLUSTRATION ONLY OF COMPARISON OF VARIATION OF MOUNTAIN PROFILE LINE ON THE TYPICAL 3m VS 4m LENGTH PANELS TO ILLUSTRATE POSSIBLE USE OF FORM MATERIALS.  
 NOTE 2: IDENTICAL ELEVATION OR DIMENSION FROM TOP OF PANEL.

APPROVED FOR CONSTRUCTION		DATE		DESCRIPTION	
NO.	1	10/10/97		ORIGINAL	ISSUE
UTAH DEPARTMENT OF TRANSPORTATION					
SVERDRUP/DE LEUW					
APPROVAL	7-7-97	BRYAN BOWEN	DESIGN	RJP	7-7-97
RECOMM.	DATE	PROJECT DESIGN ENGINEER	CHECK		CHECK
APPROVED	7-7-97	ROBERT POIR	DRAWN	BLB	7-7-97
	DATE	SECTION MANAGER	QUANT.		CHECK
I-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN			
3M VS 4M P&P RETAINING/SOUNDWALL PANEL COMPARISON		PROJECT NUMBER *SP-15-7(135)296			
SALT LAKE COUNTY					
DWG. NO. CS-10					
SHT. OF					

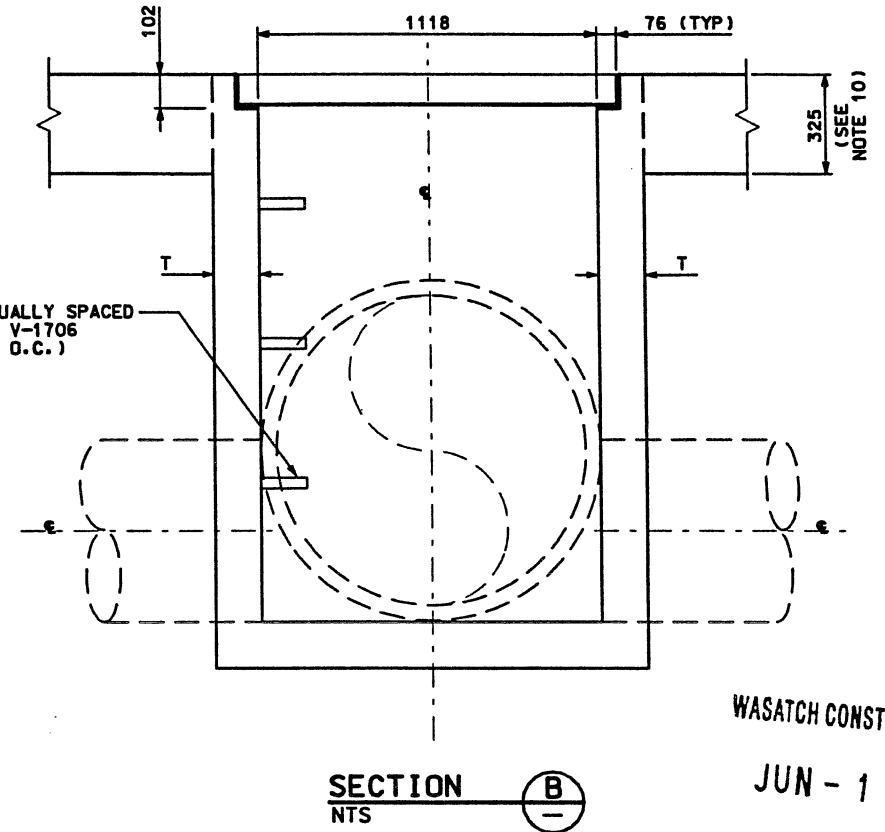


PLAN: OPTION A/B CONSTRUCTION  
NTS



SECTION A  
NTS

OPTION A  
CONSTRUCTION



SECTION AT SUPER ELEVATION TRANSITION  
SHOWN AS -2% LEFT SIDE AND -0.5% ON RIGHT SIDE NTS

GENERAL NOTES

- ALL REINFORCING STEEL SHALL BE EPOXY COATED, DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31, GRADE 420.
- TYPE II CEMENT (LOW ALKALI) SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- ALL CAST-IN-PLACE CONCRETE SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE SPECIFIED OTHERWISE.
- MINIMUM COVER TO REINFORCING STEEL SHALL BE 51mm EXCEPT WHERE NOTED OTHERWISE.
- STRUCTURAL STEEL GRATING SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO AASHTO DESIGNATION M-270N, GRADE 250 (ASTM A-709, GRADE 36).
- SEE UDOT STANDARD DRAWINGS V-1703, V-1705 FOR GRATING, FRAME AND SOLID COVER DETAILS.
- SEE ROADWAY AND 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.
- 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.
- ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
- DIMENSION IS FOR INTERGRAL CASTING IN PLACE WITH 325 mm THICK ROADWAY SURFACE SLAB. THE MINIMUM CONCRETE THICKNESS FOR THE INLET LID IS 305 mm. IF ANY DIMENSION OTHER THAN 325 IS USED - ADJUST 'K' DIMENSION ACCORDINGLY.
- GRATES AND FRAMES SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.

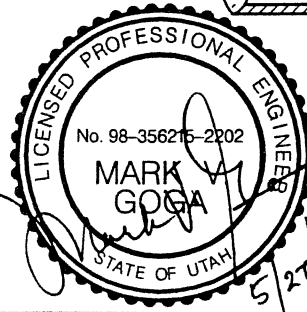
DESIGN DATA

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

CAST-IN-PLACE STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 REINFORCING STEEL:  $f_s = 420$  MPa  
 STRUCTURAL STEEL:  $f_s = 250$  MPa

INDEX OF SHEETS

- SITUATION AND LAYOUT- OPTION A CONSTRUCTION
- SECTION DETAILS- OPTION A
- SITUATION & LAYOUT OPTION B CONSTRUCTION
- ADDITIONAL DETAILS- OPTION B
- & 6. GRATE AND FRAME EMBEDMENT FOR OPTION B CONSTRUCTION.

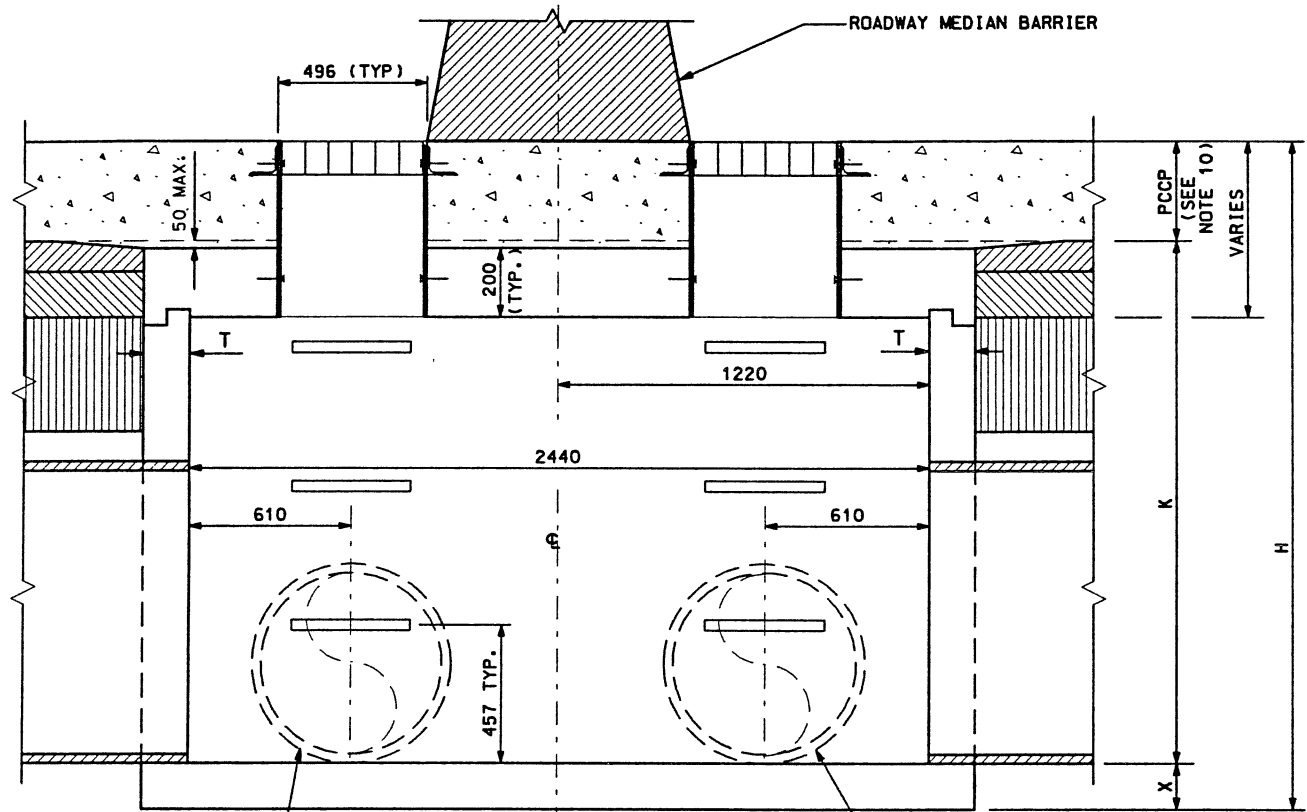


WASATCH CONSTRUCTORS  
 JUN - 1 1998  
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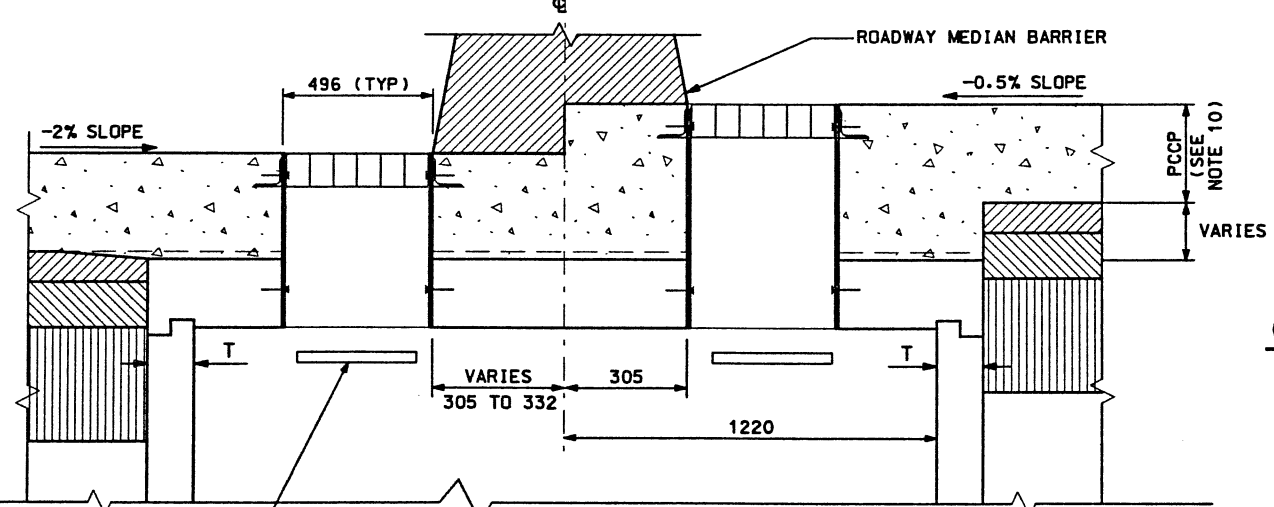
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SVERDRUP/DE LEUW		DESIGN	CHECK
APPROVAL	DATE	DATE	DATE
MARK V. GODA	5/27/98	JOHN TERRY	5/27/98
PROJECT DESIGN ENGINEER	SECTION MANAGER	QUANT.	N/A
1-15 CORRIDOR RECONSTRUCTION	DOUBLE GRATE INLET		
	CORRIDOR STANDARD PLAN		
	PROJECT NUMBER #SP-15-7(135)296		
SALT LAKE COUNTY		DWG. NO. CS-11-1	
SHT. 1 OF 1			



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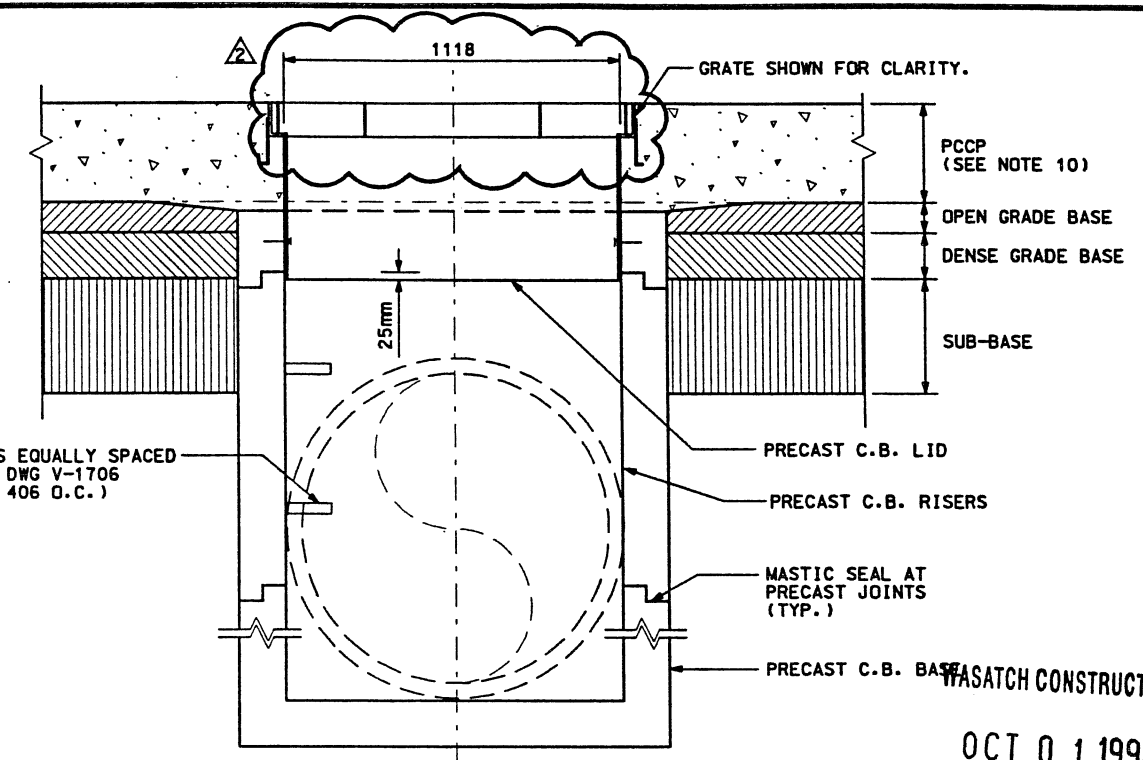


**SECTION A**  
NTS

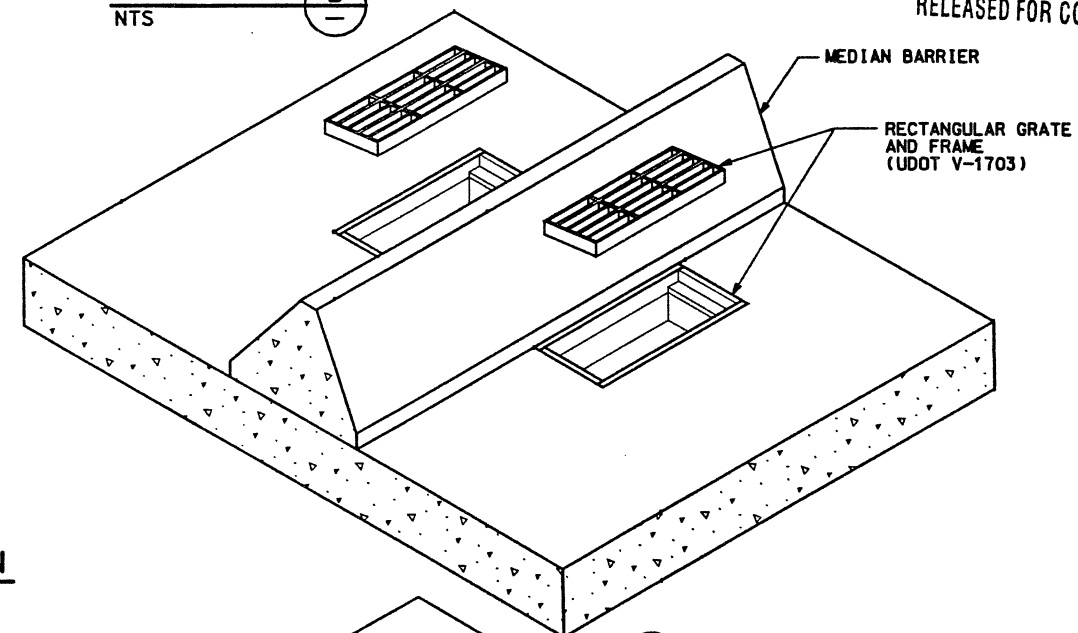


**SECTION AT SUPER ELEVATION TRANSITION**  
SHOWN AS -2% LEFT SIDE AND -0.5% ON RIGHT SIDE NTS

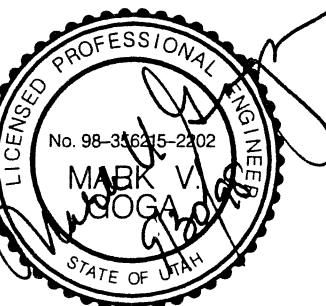
MANHOLE STEPS EQUALLY SPACED  
SEE UDOT STD DWG V-1706  
(MAX SPACING 406 O.C.)



**SECTION B**  
NTS



**OPTION B CONSTRUCTION**  
NTS



- NOTES**
- FOR GENERAL NOTES- SEE SHEET CS-11-1.
  - FOR PRECAST LID, ROUGHENED FINISH REQUIRED FOR CONSTRUCTION JOINING TO ROADWAY PCCP.
  - SEE DETAILS OF FRAME EMBEDMENT SHOWN ON SHEETS CS-11-5 AND CS-11-6 FOR OPTION B CONSTRUCTION.

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

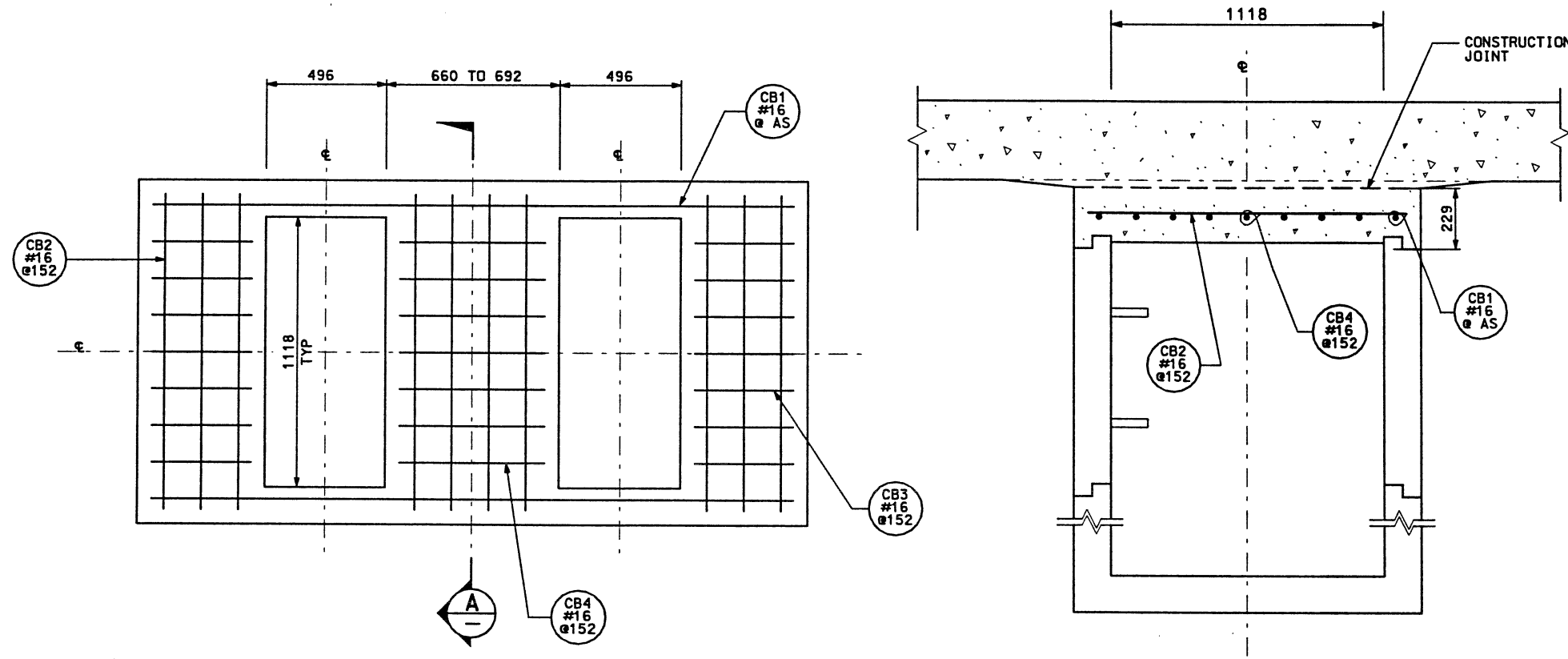
CAST-IN-PLACE STRUCTURAL CONCRETE:  $f_c = 21 \text{ MPa}$ ,  $n = 8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21 \text{ MPa}$ ,  $n = 8$   
 REINFORCING STEEL:  $f_s = 420 \text{ MPa}$   
 STRUCTURAL STEEL:  $f_s = 250 \text{ MPa}$

WASATCH CONSTRUCTORS

OCT 01 1998

RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	ORIGINAL RELEASE	CORRECTED FRAME DEFICTION (NOC #0258)
A	5/27/98		
A	9/29/98		
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	23350
SVERDRUP/DE LEUW		DESIGN	CHECK
DESIGN	5/98	MB	5/98
CHECK	5/98	MB	5/98
DRAWN	YLA	5/98	5/98
QUANT.	N/A		
REVISION	DATE	PROJECT DESIGN ENGINEER	SECTION MANAGER
APPROVAL	5/27/98	MARK V. GOGA	JOHN TERRY
APPROVED	5/27/98	DATE	DATE
I-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN	
DOUBLE GRATE INLET		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-11-3	
SHT.	OF		



PLAN VIEW OF LID  
NTS

SECTION A  
NTS

ADDITIONAL DETAILS- OPTION B

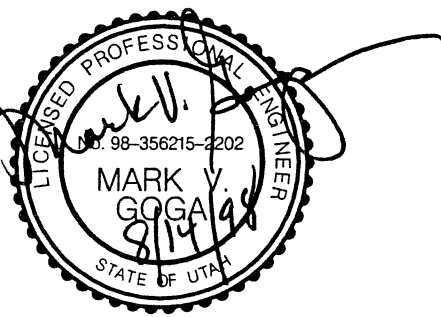
INLET REINF. STEEL SCHEDULE					
MARK	BAR SPACING	SIZE	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	2	VARIES	
CB2	152	16	10	VARIES	
CB3	152	16	14	VARIES	
CB4	152	16	7	VARIES	

WASATCH CONSTRUCTORS

AUG 21 1998

RELEASED FOR CONSTRUCTION

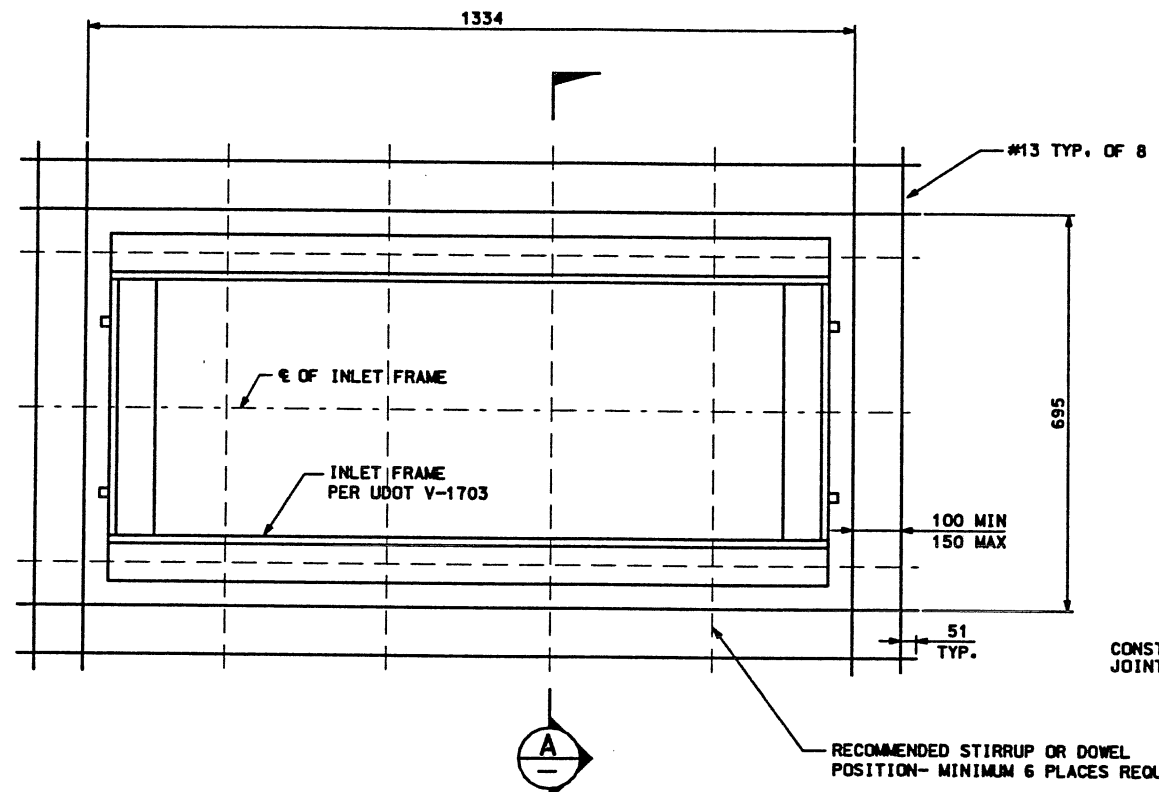
NOTE:  
FOR OTHER DETAILS NOT SHOWN, SEE  
OPTION A CONSTRUCTION CS-11-2.



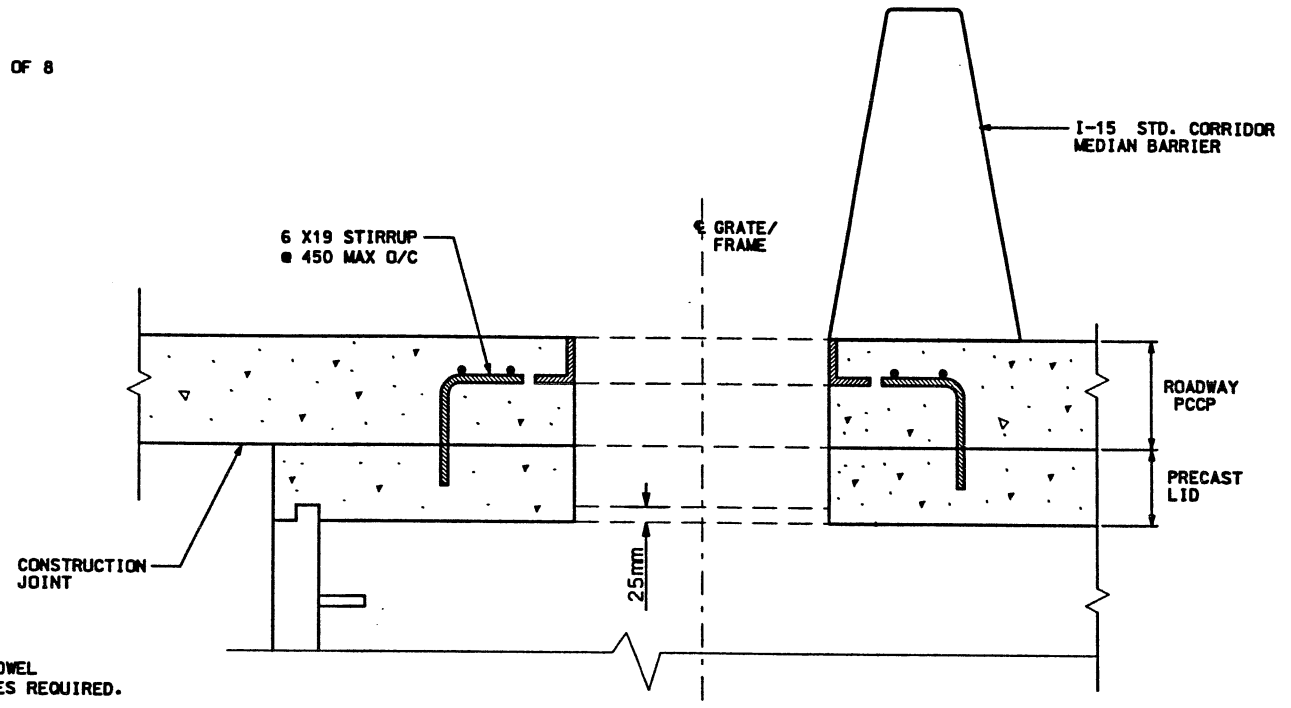
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
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		ORIGINAL RELEASE	
		TRUCKING NO.	
		23350	
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW			
DESIGN	BY	DATE	BY
MARK V. GOGA			
PROJECT	DESIGN	ENGINEER	
JOHN TERRY			
APPROVED	DATE	SECTION	MANAGER
I-15 CORRIDOR RECONSTRUCTION	DOUBLE GRATE INLET	CORRIDOR STANDARD PLAN	
		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY			
DWG. NO. CS-11-4			
SHT.	OF		



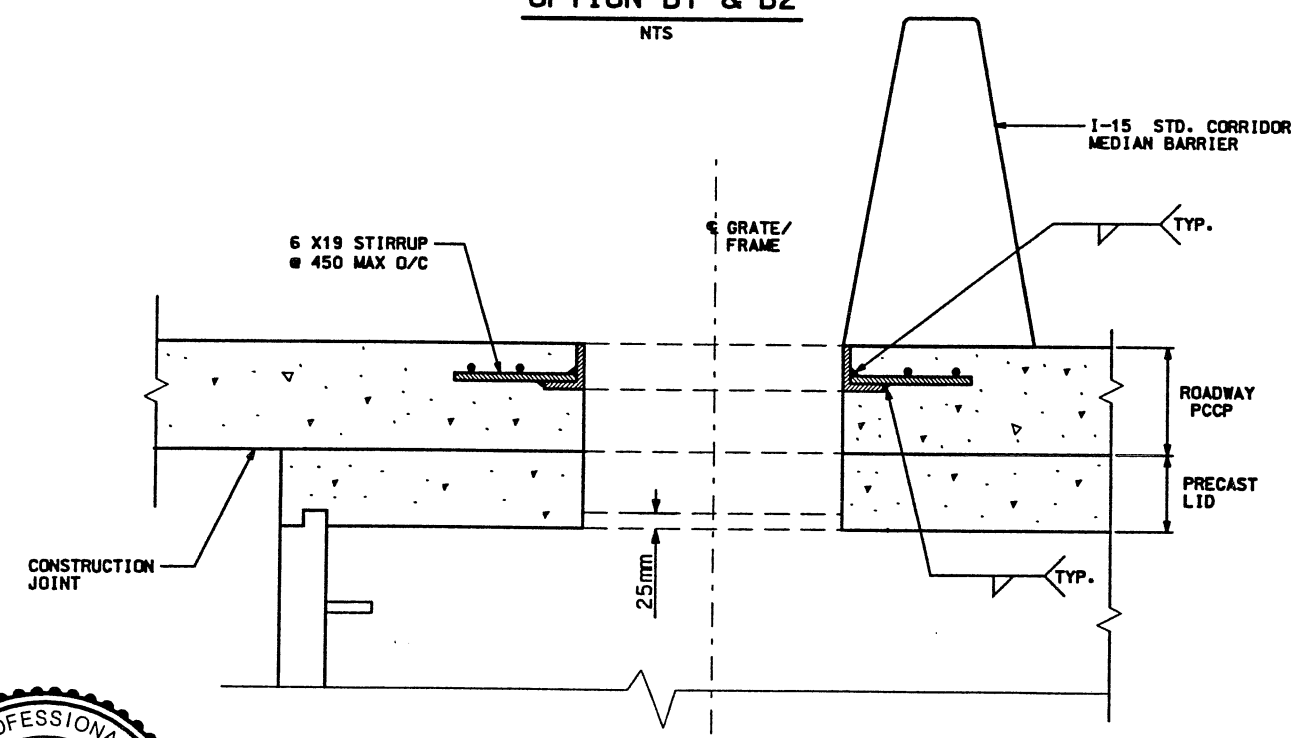
Date: 25-MAY-1998 Time: 13:20 User: name: rcoelliv  
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**PLAN**  
**GRATE EMBEDMENT FOR OPTION B CONSTRUCTION**  
**OPTION B1 & B2**  
 NTS



**SECTION A**  
 NTS  
**OPTION B2**



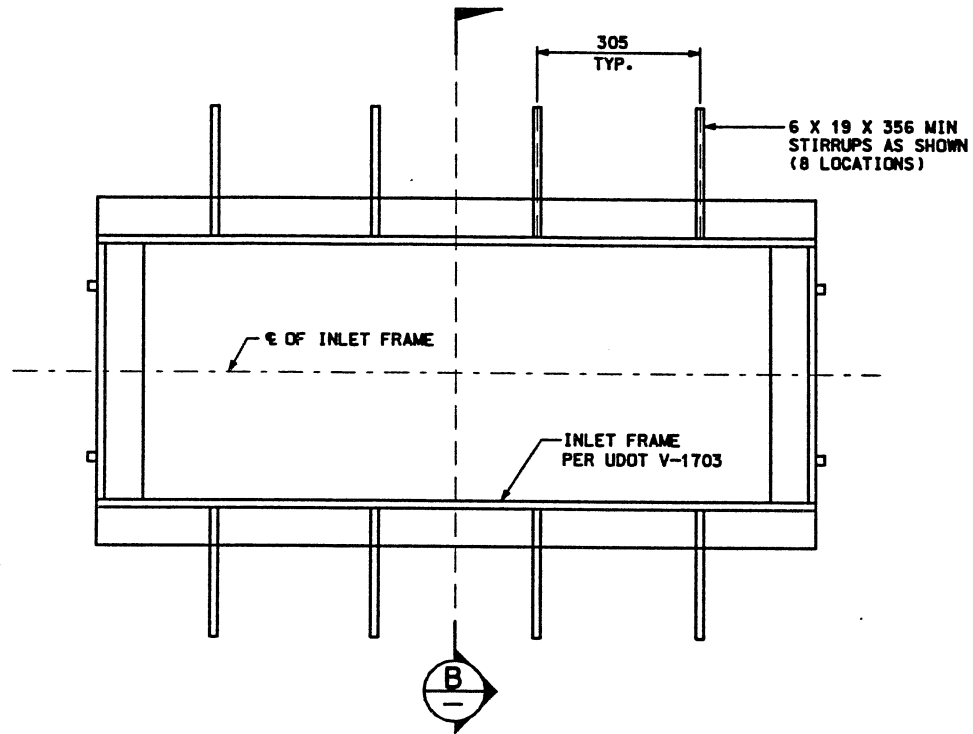
**SECTION A**  
 NTS  
**OPTION B1**

- NOTES:**
1. REINFORCING SHOWN SHALL CONFORM TO AASHTO M-31M GRADE 420 AND SHALL BE EPOXY COATED OR GALVANIZED.
  2. ROLLED STEEL SHALL CONFORM TO AASHTO M-270M GRADE 250 AND BE EITHER EPOXY COATED OR GALVANIZED.
  3. EXCEPT AS NOTED MINIMUM COVER IS 51mm.
  4. DRILL AND GROUT OR DRILL AND EPOXY EMBEDS.

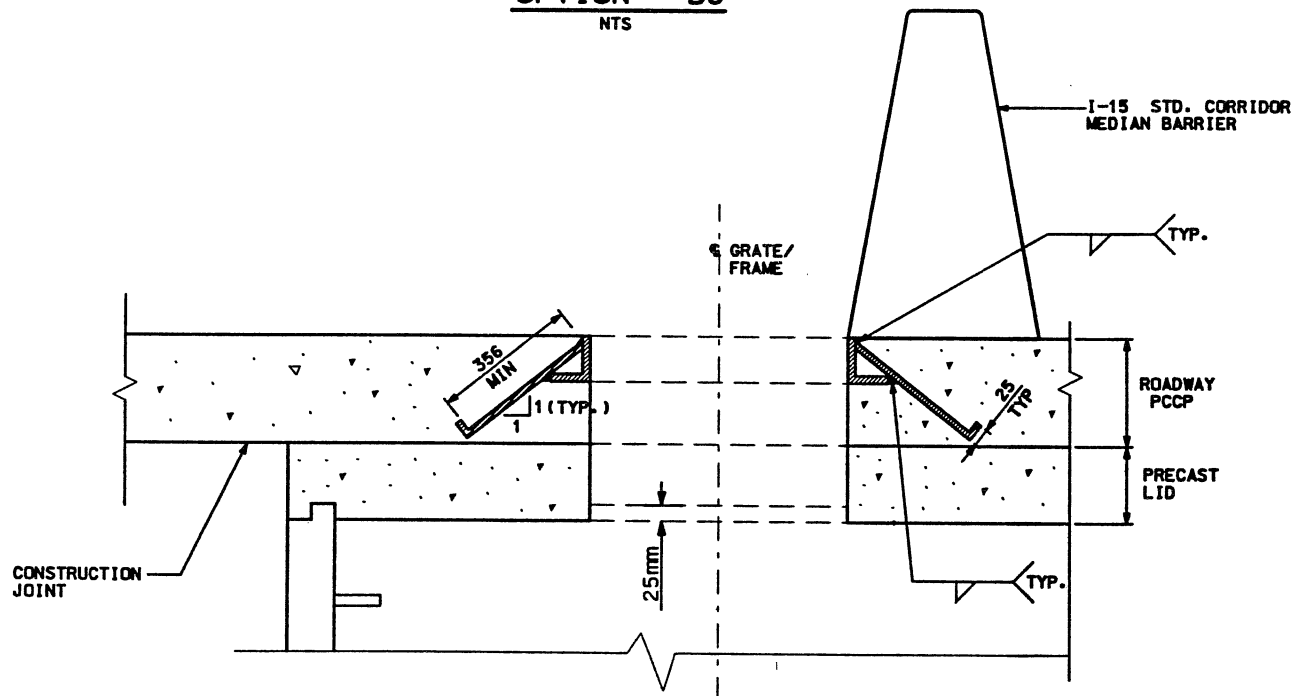


**WASATCH CONSTRUCTORS**  
**JUN - 1 1998**  
**RELEASED FOR CONSTRUCTION**

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	5/27/98		ORIGINAL RELEASE
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
DESIGN	BY	DATE	BY
CHECK	BY	DATE	BY
DRAIN	BY	DATE	BY
QUANT.	BY	DATE	BY
TRACKING NO.	23350		
PROJECT NUMBER	#SP-15-7(135)296		
COUNTY	SALT LAKE		
DWG. NO.	CS-11-5		
SHT.	OF		



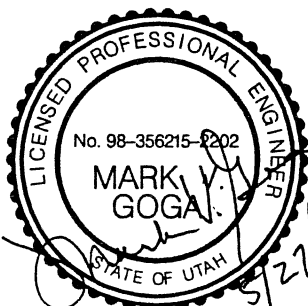
**PLAN**  
**GRATE EMBEDMENT FOR OPTION B INLET CONSTRUCTION**  
**OPTION - B3**  
 NTS



**SECTION B**  
 NTS

NOTE :  
 1. ROLLED STEEL SHALL CONFORM TO AASHTO M-270 M. GRADE 250 AND BE EITHER EPOXY COATED OR HOT DIPPED GALVANIZED.

WASATCH CONSTRUCTORS  
 JUN - 1 1998  
 RELEASED FOR CONSTRUCTION



APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	5/27/98	ORIGINAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

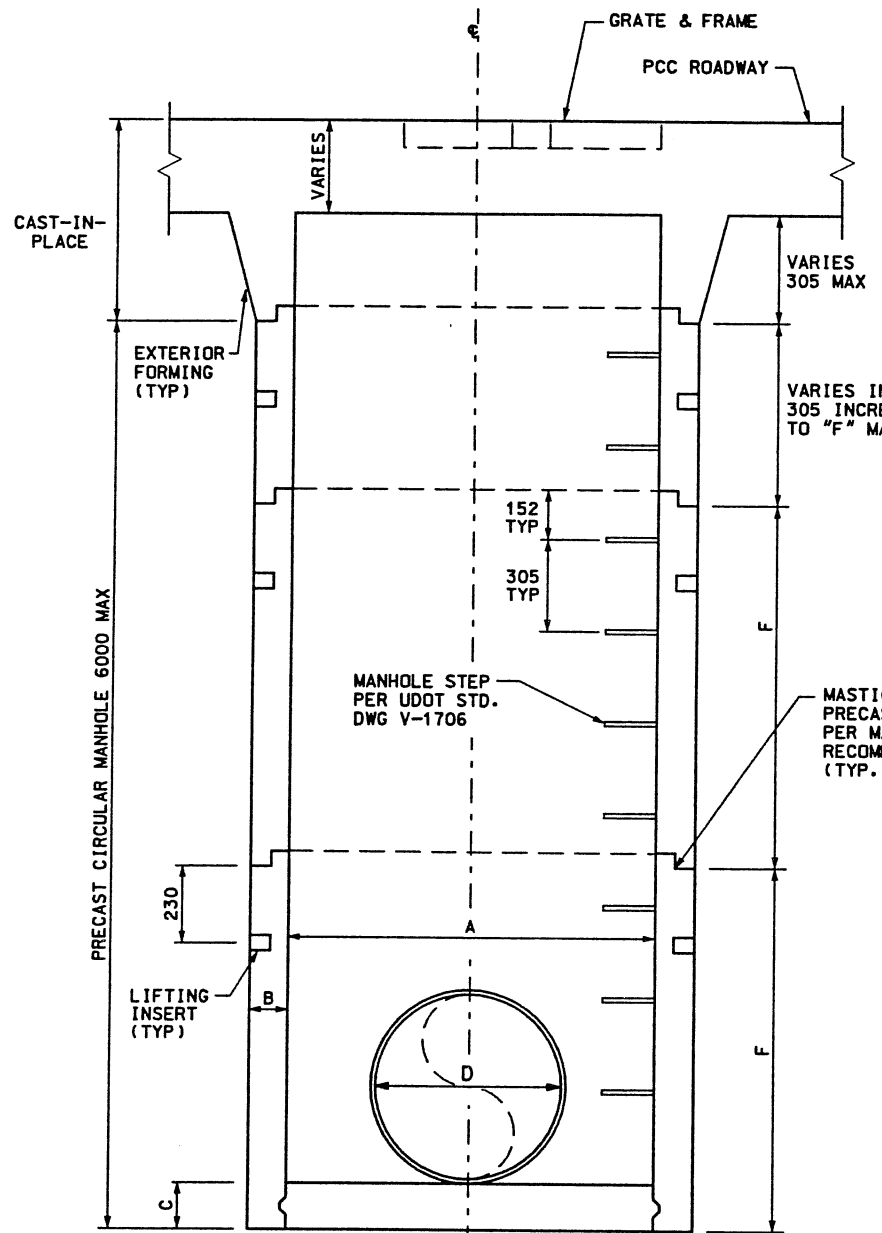
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GRATE EMBEDMENT - B3	DRAWN	VJR	5/98	CHECK	MB	5/98		
CORRIDOR STANDARD PLAN	QUANT.	N/A		CHECK				
PROJECT #SP-15-7(135)296	DATE							

SALT LAKE COUNTY  
 DWG. NO. CS-11-6

SHT. OF



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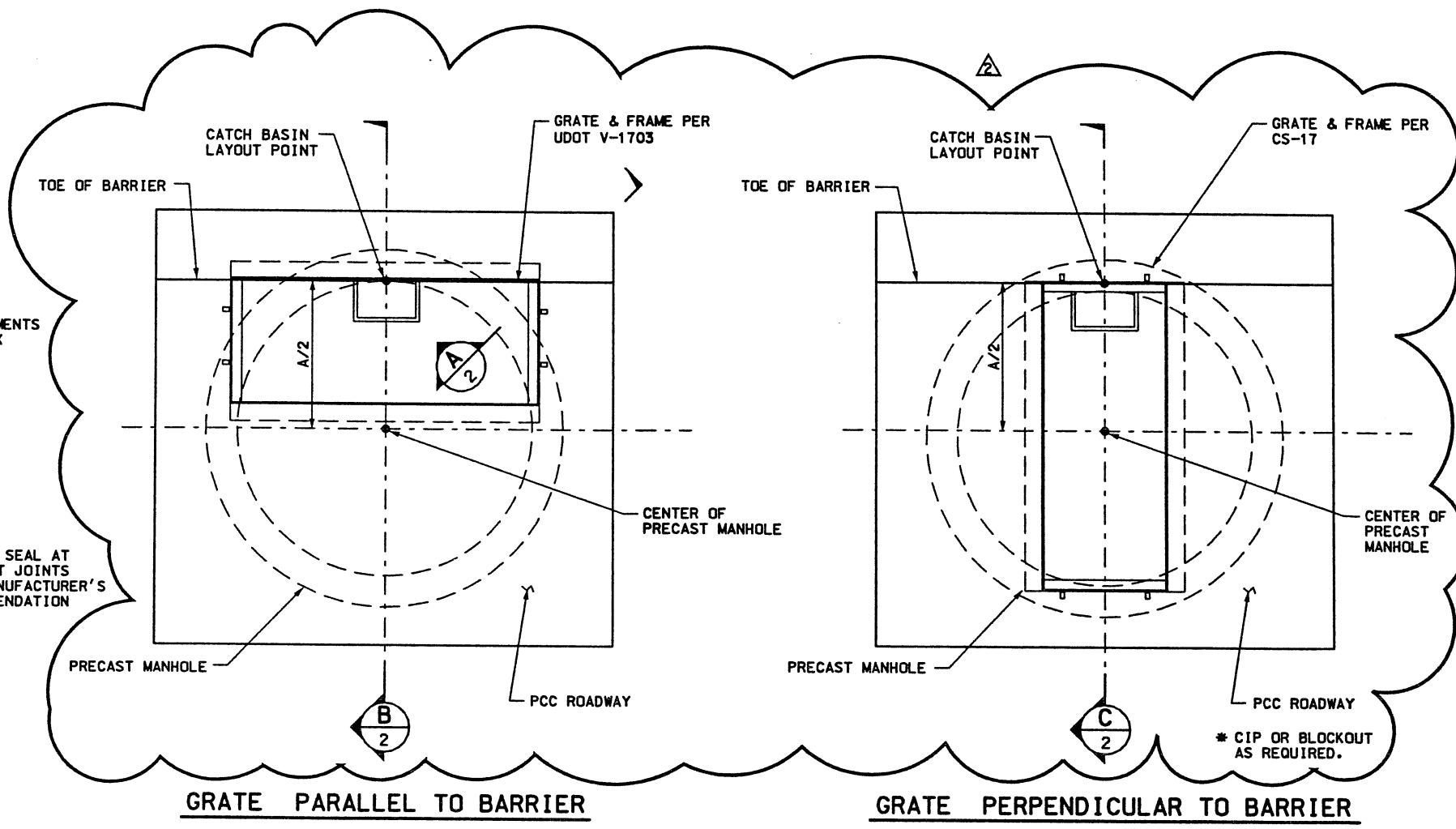


**PRECAST CATCH BASIN ELEVATION**  
**OPTION A CONSTRUCTION**  
 NTS

A = CATCH BASIN INSIDE DIAMETER  
 B = CATCH BASIN WALL THICKNESS  
 C = CATCH BASIN BOTTOM THICKNESS  
 D = STORM DRAIN INLET/OUTLET INSIDE DIAMETER  
 F = PRECAST SECTION HEIGHT TO ACCOMMODATE Dmax

PRECAST CATCH BASIN			
A	1200	1500	1800
B	127	152	178
C	152	203	254
Dmax	600	900	1200
F	1200	1200	1800

D	A			V-1710		V-1711	
	1200	1500	1800	COLUMN	LINE	COLUMN	LINE
450	4@90°	4@90°	4@90°	A			
600	3@120°	4@90°	4@90°	B			
750	-	3@120°	4@90°	B	1 THRU 37		
900	-	3@120°	4@90°	C		A	1 THRU 37
1050	-	-	3@120°	D			
1200	-	-	2@135°	E	1 THRU 32	B	1 THRU 37



**PRECAST CATCH BASIN PLAN**  
**OPTION A CONSTRUCTION**  
 NTS

**GENERAL NOTES:**

- ALL DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE NOTED.
- STEEL REINFORCING SHALL BE AASHTO M-31M GRADE 420
- REBAR SIZE SHOWN IS SOFT CONVERTED METRIC.
- CEMENT SHALL BE TYPE II.
- CONCRETE LID ABOVE PRECAST MANHOLE SHALL BE EITHER CAST-IN-PLACE OR PRECAST.
- BLOCKOUT 152mm OUTSIDE PCC REINFORCING OR CIP INTEGRAL WITH ROADWAY. BLOCKOUT SHALL BE ROUGHENED OR DOWEL-JOINED CONSTRUCTION JOINT.
- EXCEPT AS NOTED, MINIMUM COVER IS 51mm.

**DESIGN DATA:**

- MS-18 (HS20) OR ALTERNATE INTERSTATE MILITARY LOADING IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
- PRECAST CONCRETE,  $f_c = 27.6 \text{ MPa}$ ,  $n=8$  REINFORCING STEEL,  $f_s = 420 \text{ MPa}$

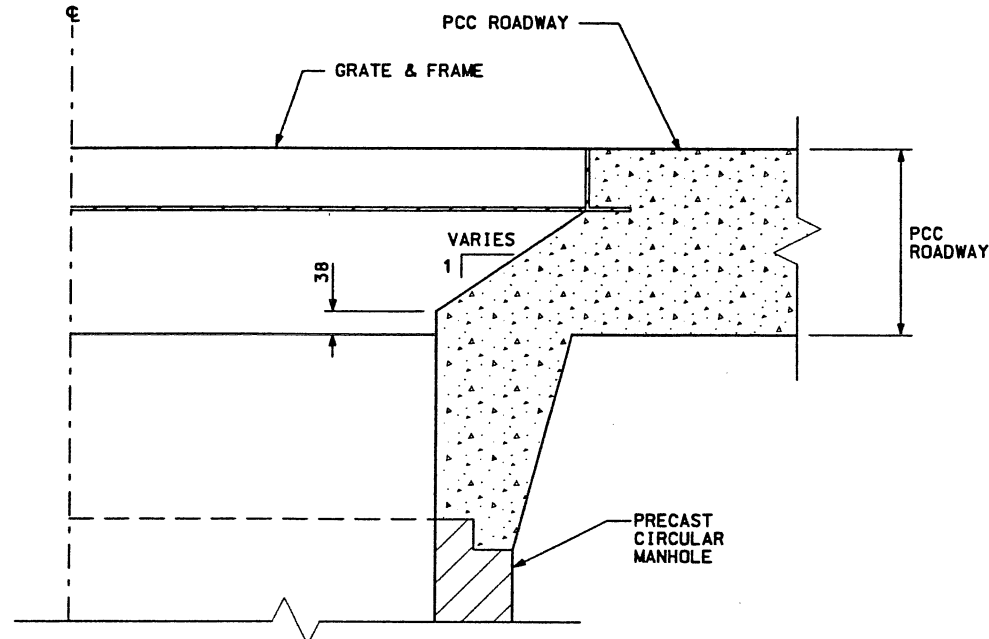
**INDEX OF SHEETS:**

- SITUATION & LAYOUT.
- FRAME EMBEDMENT A.
- FRAME EMBEDMENT B1 & B2.
- FRAME EMBEDMENT B3



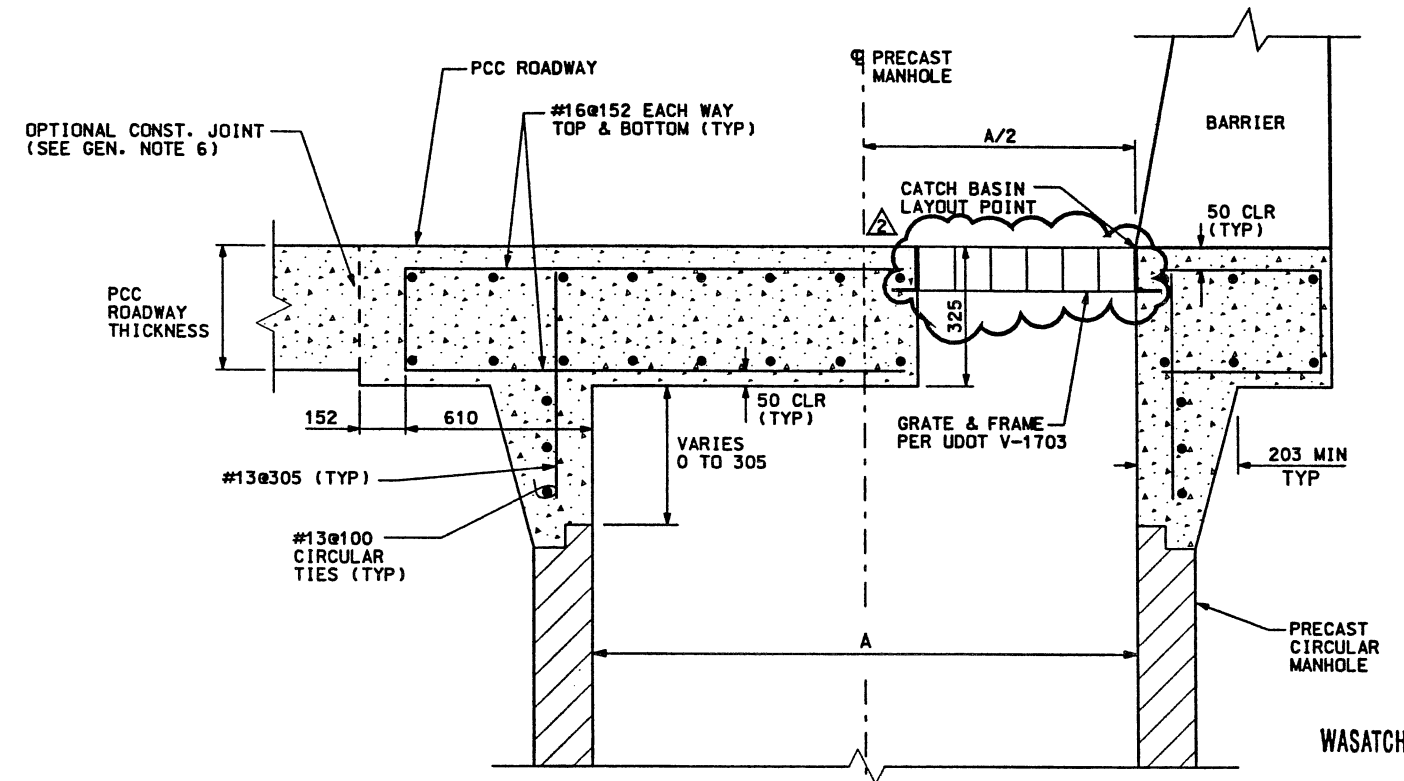
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NO.	DATE	NO.	DATE
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	ORIGINAL RELEASE		CORRECTED FRAME DEPICTION (NOC #0258)
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	23134
SYVERDRUP/DE LEUW		DESIGN	5/98
APPROVAL	MARK H. GOGA	CHECK	5/98
RECORD	DATE	PROJECT DESIGN ENGINEER	DATE
		JOHN TERRY	
APPROVED	5/22/98	SECTION MANAGER	DATE
I-15 CORRIDOR RECONSTRUCTION	V-1710/1711 ALTERNATE STRUCTURE	CORRIDOR STANDARD PLAN	PROJECT NUMBER #SP-15-(135)296
SALT LAKE COUNTY		DWG. NO. CS-13-1	
SHT.	OF		

Date: 30-SEP-1998 Time: 13:38 Username: jckaojl  
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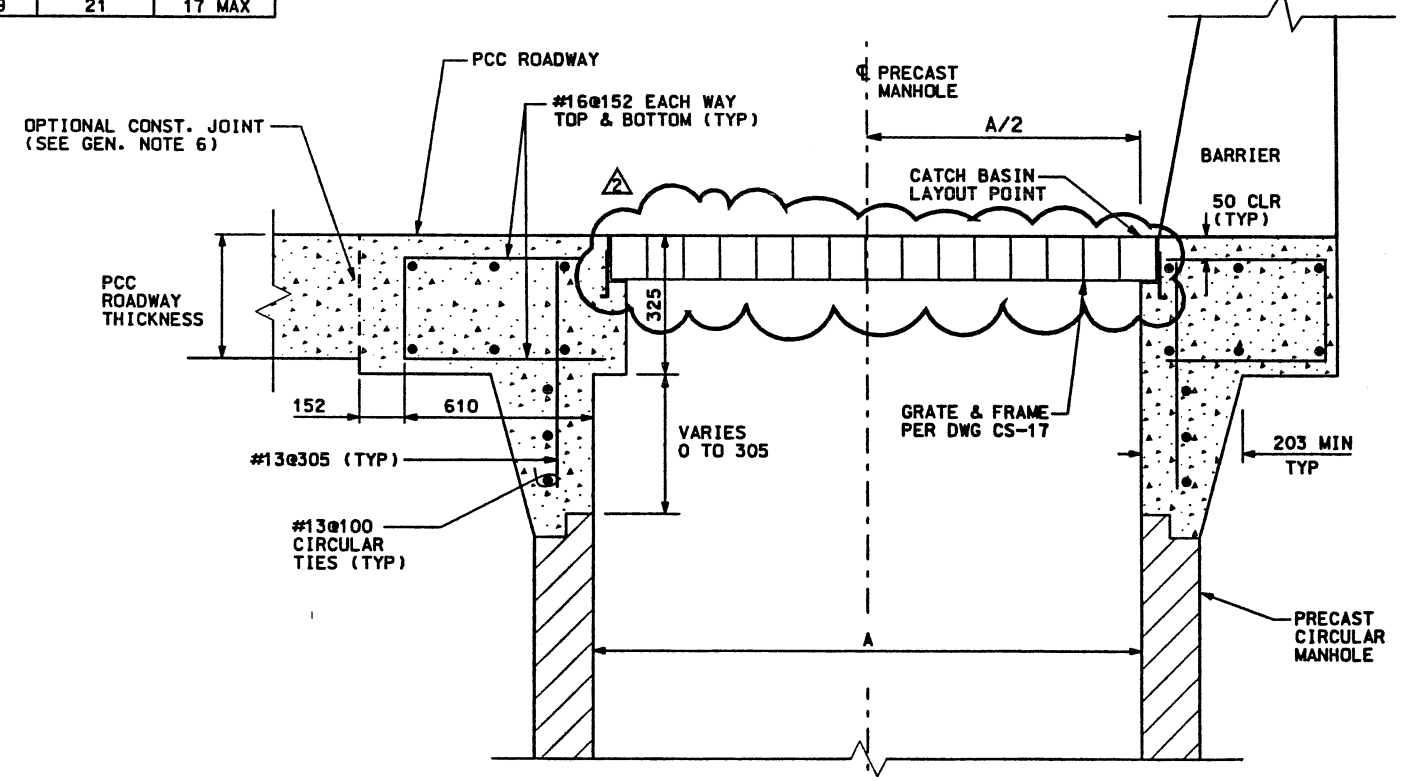
SECTION A  
NTS

GRATE/FRADE ON ROADWAY SURFACE  
OPTION A CONSTRUCTION



SECTION B  
NTS

PRECAST CATCH BASIN	NO. OF REINFORCING BARS		
	#16	#13 VERT	#13 TIES
1200	39	15	11 MAX
1500	45	18	14 MAX
1800	49	21	17 MAX

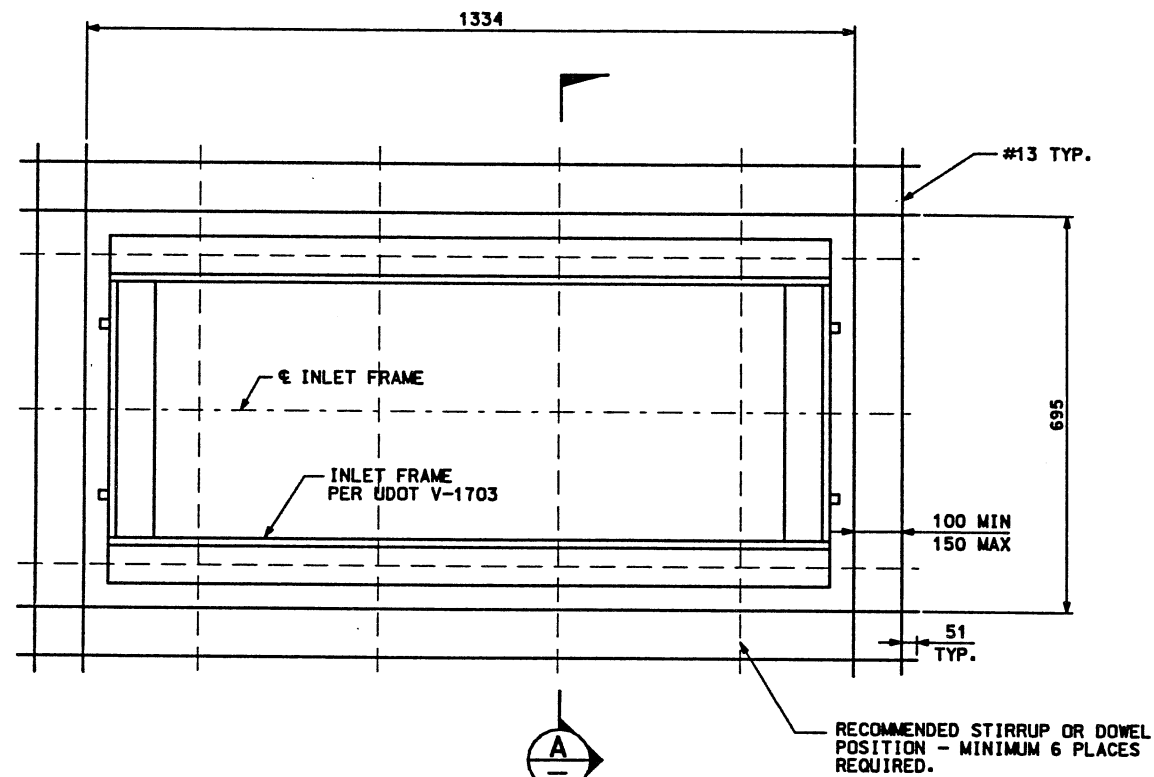


SECTION C  
NTS

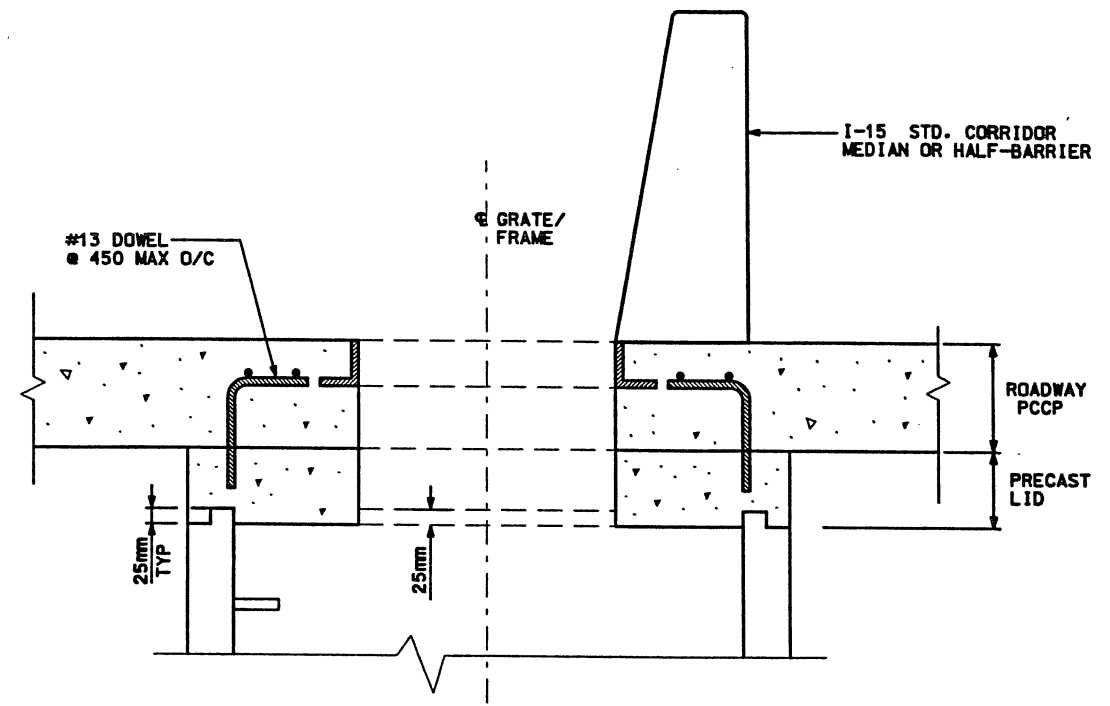


WASATCH CONSTRUCTORS  
 OCT 01 1998  
 RELEASED FOR CONSTRUCTION

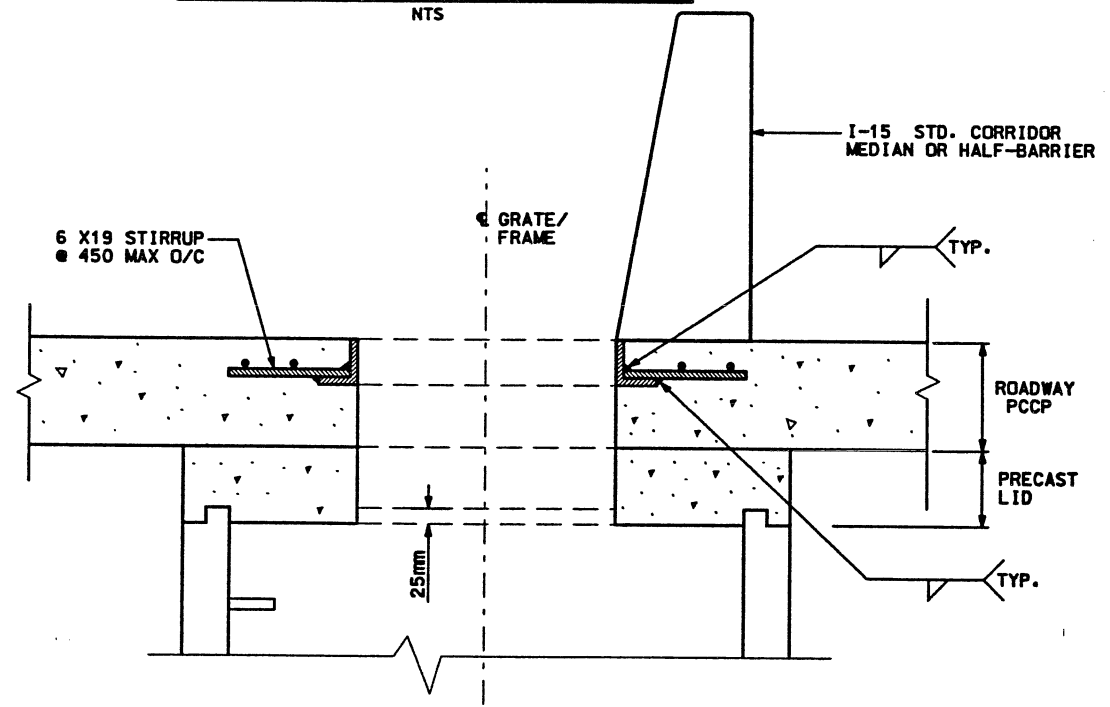
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
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ORIGINAL RELEASE		CORRECTED FRAME DEPICTION (NDC #0250) <i>St</i>	
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO. 23134	
SVERRUP/DE LEUW		CHECK	CHECK
DESIGN	5/28	CHECK	5/28
DRAWN	5/28	CHECK	5/28
QUANT.	N/A	CHECK	CHECK
APPROVAL RECORD	MARK W. GOGA	PROJECT DESIGN ENGINEER	
DATE	9/28/98	DATE	
APPROVED	5/22/98	DATE	
SECTION MANAGER			
I-15 CORRIDOR RECONSTRUCTION		PROJECT NUMBER #SP-15-7(135)296	
FRAME EMBEDMENT-A			
CORRIDOR STANDARD PLAN			
SALT LAKE COUNTY			
DWG. NO. CS-13-2			
SHT.	OF		



**PLAN**  
**GRATE/FRAME IN ROADWAY SURFACE**  
**OPTION B1 & B2 CONSTRUCTION**  
 NTS



**SECTION A**  
 NTS  
**OPTION B2**  
 (GRATE PARALLEL TO BARRIER SHOWN-  
 PERPENDICULAR CASE SIMILAR)



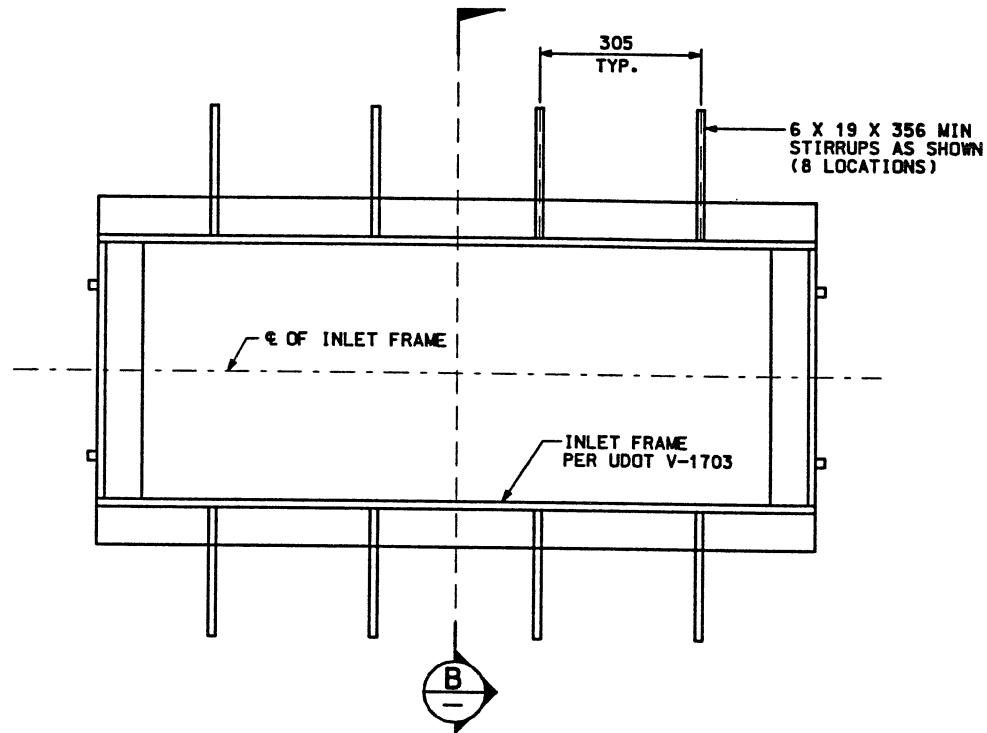
**SECTION A**  
 NTS  
**OPTION B1**  
 (GRATE PARALLEL TO BARRIER SHOWN-  
 PERPENDICULAR CASE SIMILAR)

- NOTES:**
1. REINFORCING SHOWN SHALL CONFORM TO AASHTO M-31M GRADE 420 AND SHALL BE EPOXY COATED OR GALVANIZED.
  2. ROLLED STEEL SHALL CONFORM TO AASHTO M-270M GRADE 250 AND BE EITHER EPOXY COATED OR GALVANIZED.
  3. CONSTRUCTION SHOWN THIS METHOD NECESSITATES GRATE/FRAME TO BE CENTERED ATOP PRECAST INLET RINGS. LOCATE INLET FOR PARALLEL GRATES PER ROTATED PERPENDICULAR GRATE LAYOUT SHOWN ON CS-13-1.
  4. DRILL AND GROUT OR DRILL AND EPOXY EMBEDS.
  5. CONSTRUCTION SHOWN NOT APPLICABLE FOR BASIN "D" < 1500mm.
  6. MIN. BLOCKOUT DIMENSION IN PRECAST LID FOR GRATE OPENING IS 1118 X 495.

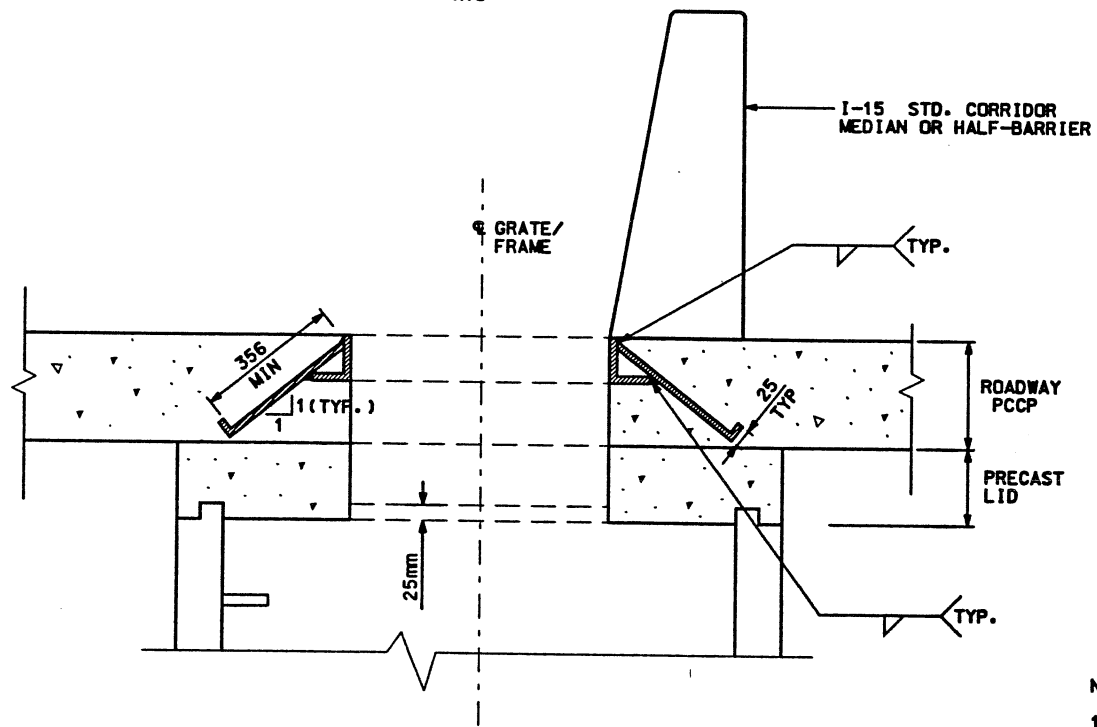
**WASATCH CONSTRUCTORS**  
**MAY 28 1998**



APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
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ORIGINAL RELEASE			
UTAH DEPARTMENT OF TRANSPORTATION		SVERRUP/DE LEUW	
DESIGN	CHECK	DESIGN	CHECK
MB	MB	MB	MB
5/98	5/98	5/98	5/98
DRAW	CHECK	DRAW	CHECK
NLR	NLR	NLR	NLR
5/98	5/98	5/98	5/98
QUANT.	QUANT.	QUANT.	QUANT.
M/A	M/A	M/A	M/A
PROJECT NUMBER		SECTION NUMBER	
#SP-15-7(135)296		23134	
I-15 CORRIDOR RECONSTRUCTION		FRAME EMBEDMENT B1 & B2	
CORRIDOR STANDARD PLAN			
SALT LAKE COUNTY		DWG. NO. CS-13-3	
RELEASED FOR CONSTRUCTION		SHT. OF	



**PLAN**  
**GRATE/FRAME IN ROADWAY SURFACE**  
**OPTION B3 CONSTRUCTION**  
 NTS



**SECTION B**  
 NTS  
**OPTION B3**  
**(GRATE PARALLEL TO BARRIER SHOWN-  
 PERPENDICULAR CASE SIMILAR)**

**NOTE :**

1. ROLLED STEEL SHALL CONFORM TO AASHTO M-270 M. GRADE 250 AND BE EITHER EPOXY COATED OR HOT DIPPED GALVANIZED.
2. CONSTRUCTION SHOWN NOT APPLICABLE FOR BASIN "D" < 1500mm.
3. CONSTRUCTION SHOWN THIS METHOD NECESSITATES GRATE/FRAME TO BE CENTERED ATOP PRECAST INLET RINGS. LOCATE INLET FOR PARALLEL GRATES PER ROTATED PERPENDICULAR GRATE LAYOUT SHOWN ON CS-13-1.
4. MIN. BLOCKOUT DIMENSION IN PRECAST LID FOR GRATE OPENING IS 1118 X 495.

WASATCH CONSTRUCTORS  
 MAY 28 1998  
 RELEASED FOR CONSTRUCTION

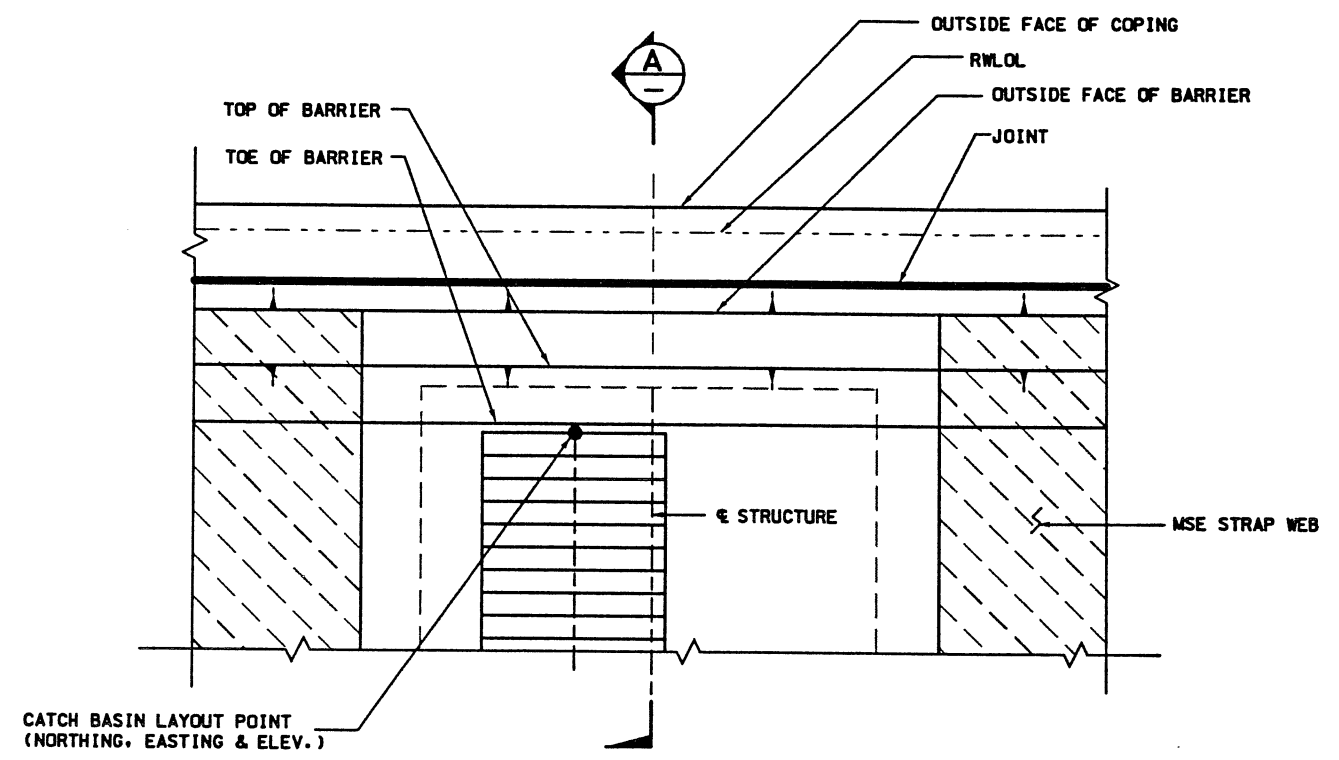


APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
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		ORIGINAL RELEASE	
UTAH DEPARTMENT OF TRANSPORTATION		SVDRUP/DE LEUW	
DESIGN	CHECK	DESIGN	CHECK
DATE	DATE	DATE	DATE
MARK W. GOGA	MARK W. GOGA	MARK W. GOGA	MARK W. GOGA
PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER
JOHN TERRY	JOHN TERRY	JOHN TERRY	JOHN TERRY
SECTION MANAGER	SECTION MANAGER	SECTION MANAGER	SECTION MANAGER
APPROVED	DATE	APPROVED	DATE
I-15 CORRIDOR RECONSTRUCTION		FRAME EMBEDMENT - B3	
CORRIDOR STANDARD PLAN		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-13-4	
SHT. _____ OF _____			

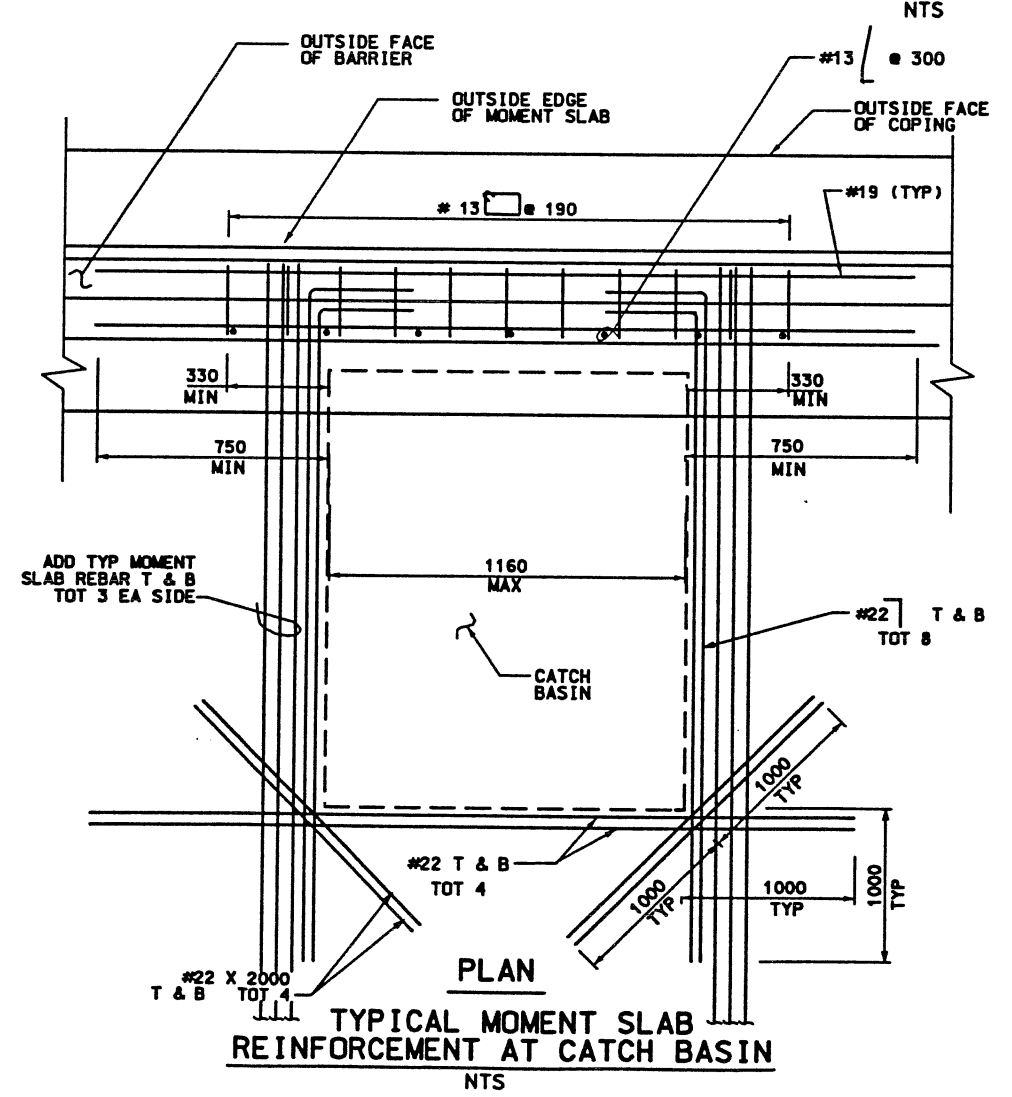




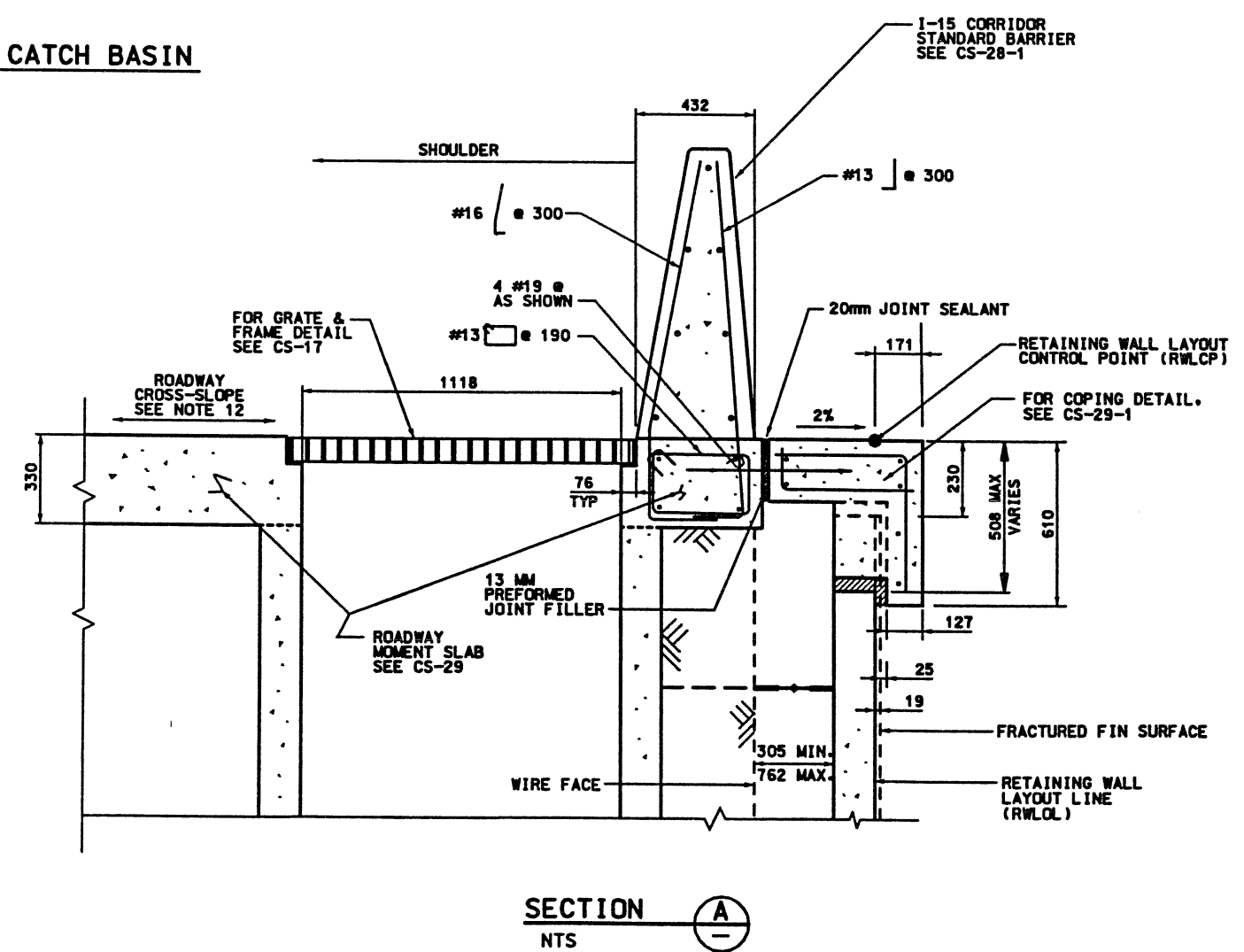
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**PLAN**  
ROADWAY BARRIER AT CATCH BASIN  
NTS



**PLAN**  
TYPICAL MOMENT SLAB  
REINFORCEMENT AT CATCH BASIN  
NTS

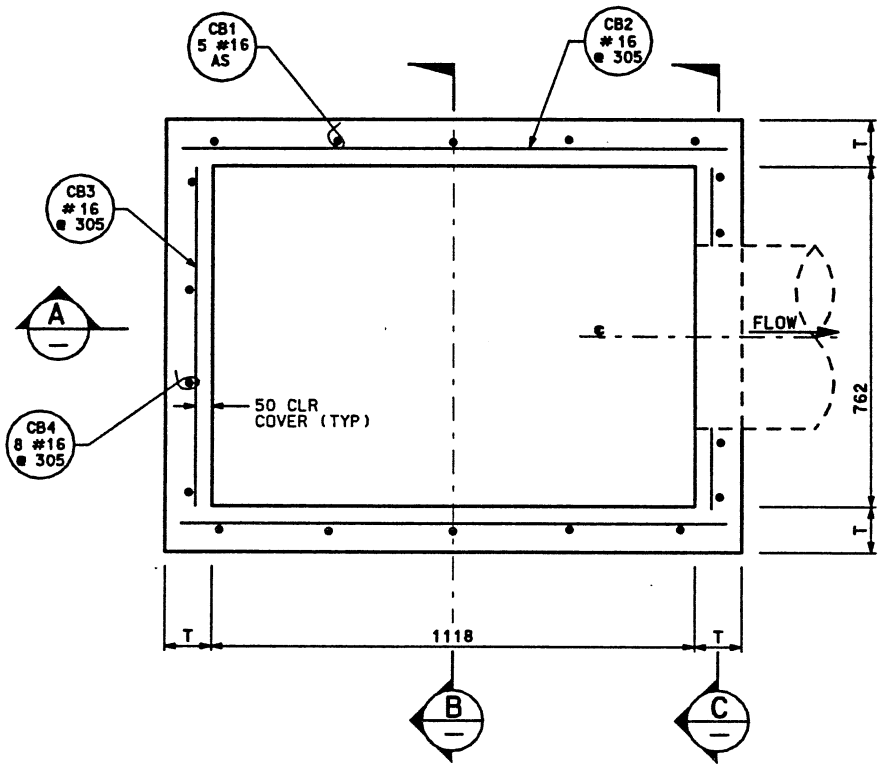


**SECTION A**  
NTS

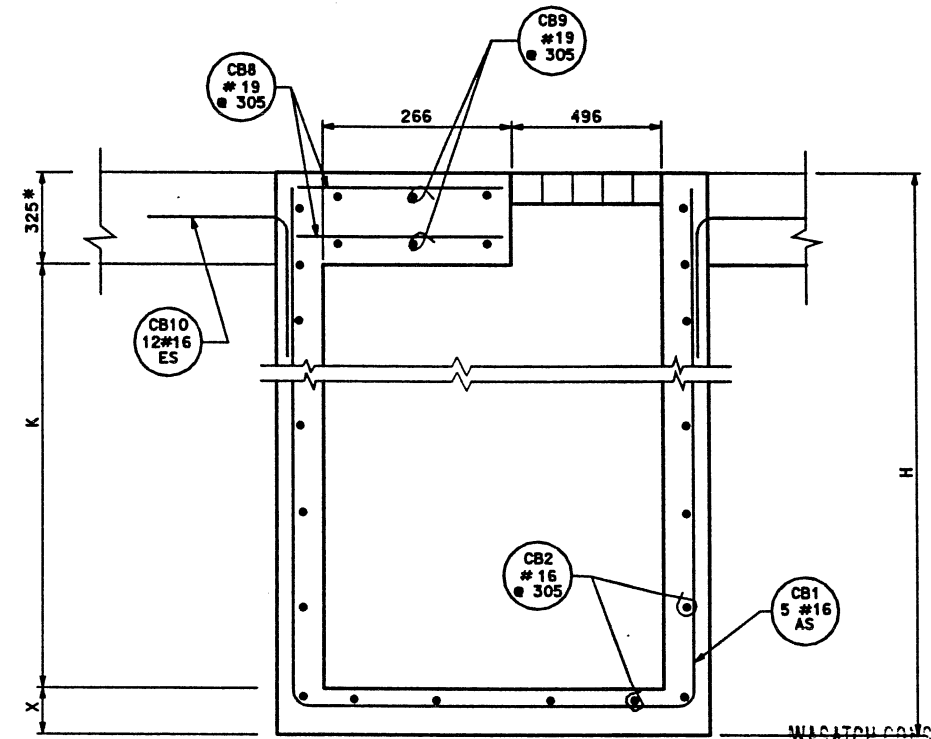
WASATCH CONSTRUCTORS  
 DEC 07 1998  
 RELEASED FOR CONSTRUCTION



APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
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2	7/10/98	2	7/10/98
3	11/20/98	3	11/20/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE AND DOWEL.	
MODIFIED COPING DETAIL		TOTAL SHEET REVISION	
23134		23134	
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW		DATE	
DESIGN	BY	3/7/98	CHECK
DRAWN	BY	3/7/98	CHECK
QUANT.	BY	3/7/98	CHECK
MARK V. EDNA		DATE	
PROJECT DESIGN ENGINEER		DATE	
JOHN TERRY		DATE	
SECTION MANAGER		DATE	
I-15 CORRIDOR RECONSTRUCTION			
MSE MULTI-STAGE CATCH BASIN B3			
CORRIDOR STANDARD PLAN			
PROJECT NUMBER #SP-15-7(135)296			
SALT LAKE COUNTY			
DWG. NO. CS-14-2			
SHT. OF			



PLAN VIEW AT PIPE CENTERLINE  
NTS



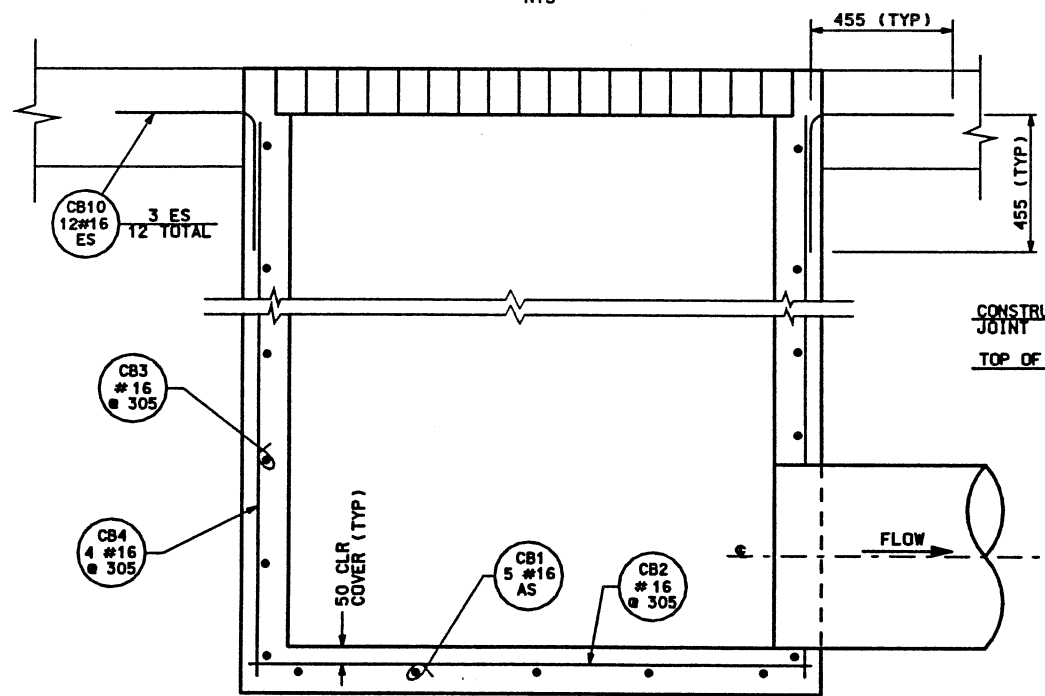
SECTION B  
NTS

WAGATCH CONSTRUCTORS  
APR 14 1998

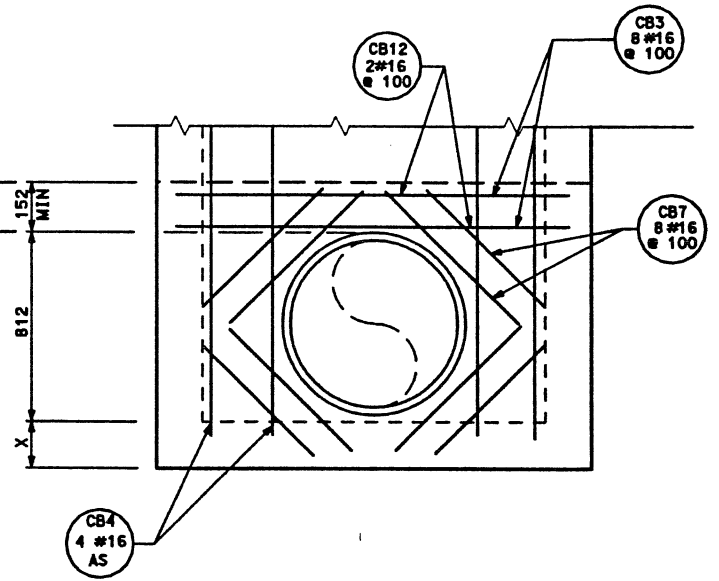
RELEASED FOR CONSTRUCTION

\* 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.

LINE	# OF STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	178
2	2	1346	843	152	178
3	3	1499	996	152	178
4	4	1651	1148	152	178
5	5	1803	1300	152	178
6	6	1956	1453	152	178
7	7	2108	1605	152	178
8	8	2266	1758	152	203
9	9	2438	1910	152	203
10	10	2590	2062	152	203
11	11	2743	2215	152	203
12	12	2895	2367	152	203
13	13	3048	2520	152	203
14	14	3200	2672	152	203
15	15	3352	2824	152	203
16	16	3505	2977	152	203
17	17	3657	3129	152	203
18	18	3810	3282	178	203
19	19	3962	3434	178	203
20	20	4114	3586	178	203
21	21	4267	3739	178	203
22	22	4419	3891	178	203
23	23	4572	4044	178	203
24	24	4724	4196	178	203
25	25	4876	4348	178	203
26	26	5029	4501	178	203
27	27	5181	4653	178	203
28	28	5334	4806	178	203
29	29	5486	4958	178	203
30	30	5638	5110	178	203
31	31	5791	5263	178	203
32	32	5943	5415	178	203
33	33	6095	5568	178	203
34	34	6247	5720	178	203
35	35	6426	5872	178	203
36	36	6579	6025	178	203
37	37	6731	6177	178	203
38	38	6884	6330	203	254
39	39	7036	6482	203	254
40	40	7188	6634	203	254
41	41	7341	6787	203	254
42	42	7493	6939	203	254
43	43	7646	7092	203	254
44	44	7798	7244	203	254
45	45	7950	7396	203	254
46	46	8103	7549	203	254
47	47	8280	7701	203	279
48	48	8433	7854	203	279
49	49	8585	8006	203	279
50	50	8737	8158	203	279
51	51	8890	8311	203	279
52	52	9042	8463	203	279
53	53	9220	8616	203	304
54	54	9372	8768	203	304



SECTION A  
NTS



SECTION C  
NTS

CATCH BASIN CONSTRUCTION OPTION 1

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	5	VARIES	
CB2	@ 305	16	-	VARIES	
CB3	@ 305	16	-	VARIES	
CB4	AS SHOWN	16	8	VARIES	
CB7	@ 100	16	8	VARIES	
CB8	@ 305	19	12	VARIES	
CB9	@ 305	19	6	VARIES	
CB10	AS SHOWN	16	12	910	
CB12	@ 100	16	2	VARIES	

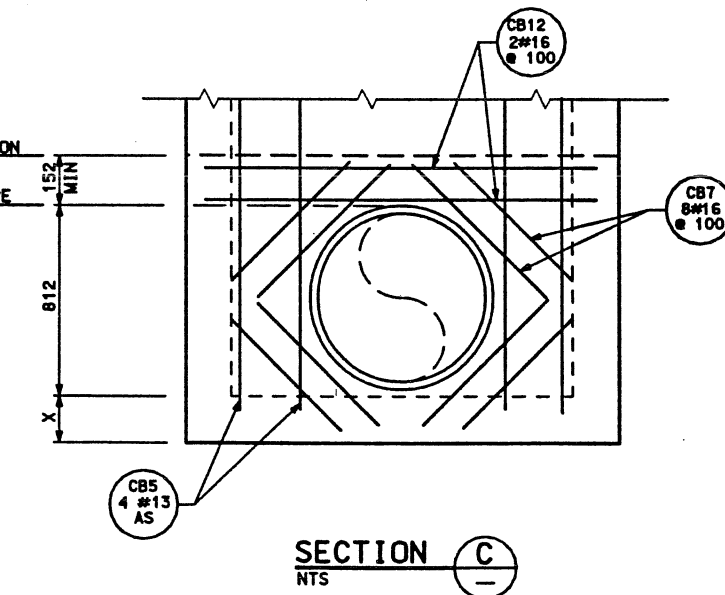
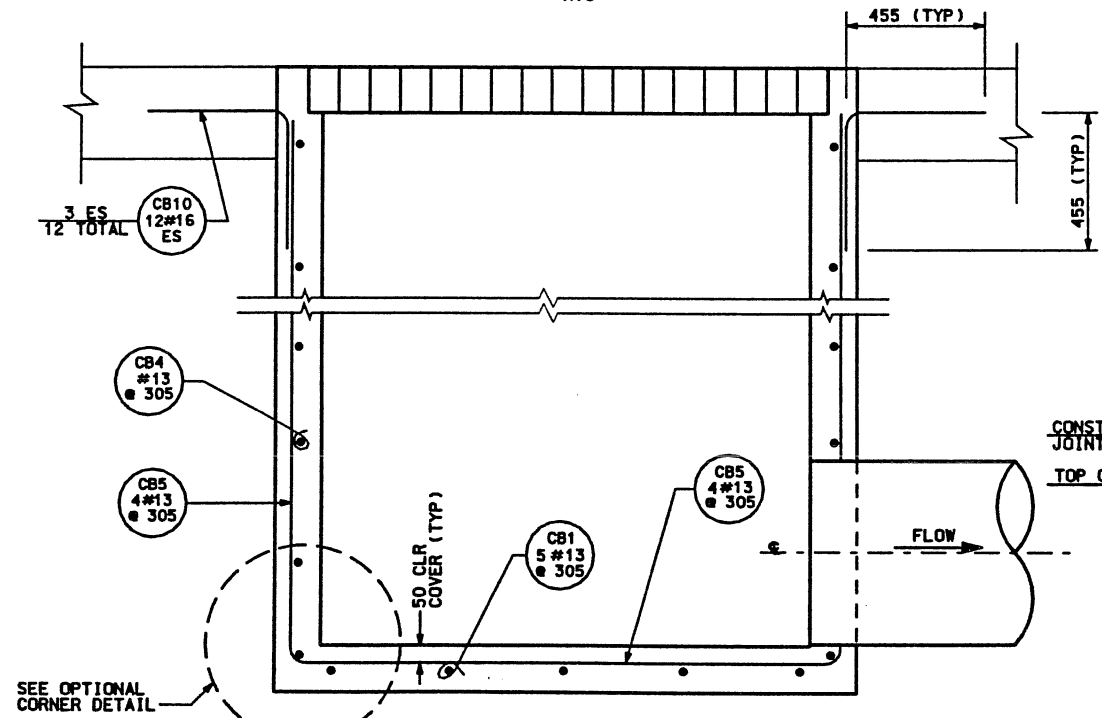
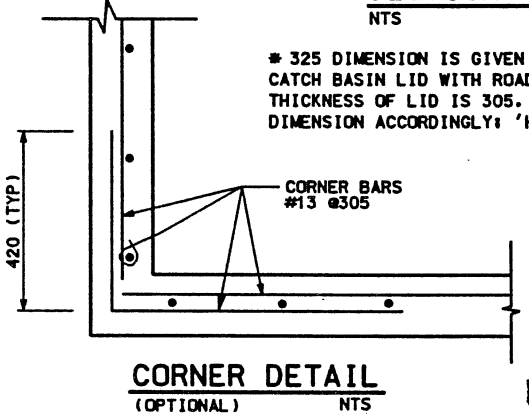
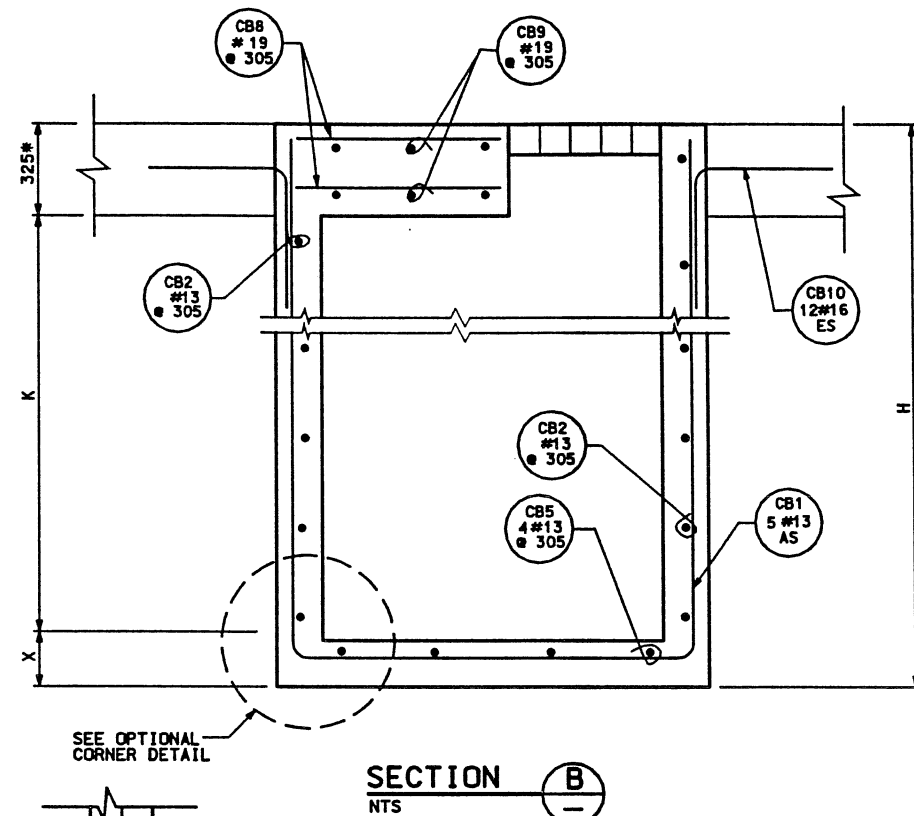
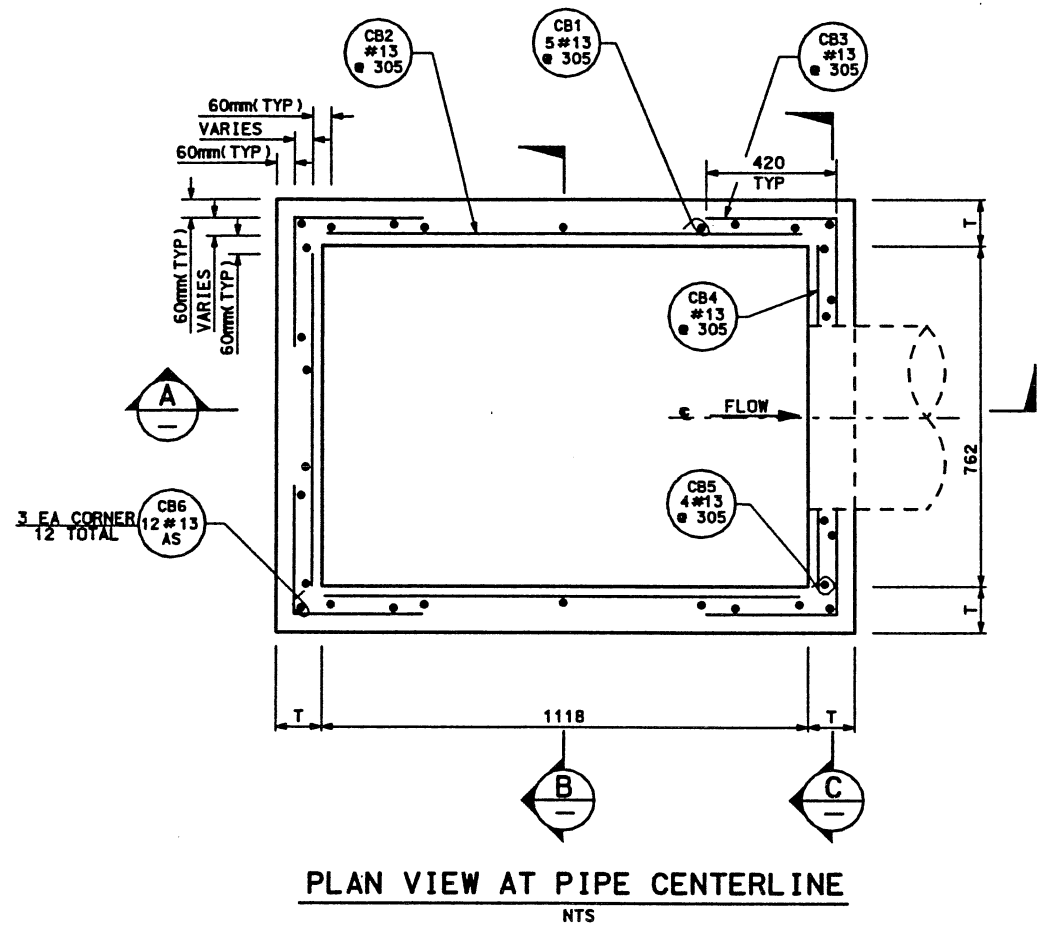


APPROVED FOR CONSTRUCTION  
NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION  
SVERDRUP/DE LEUW  
CHECK BY 3/98 TRACKING 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-14-3



LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	229
2	2	1346	843	152	229
3	3	1499	996	152	229
4	4	1651	1148	152	229
5	5	1803	1300	152	229
6	6	1956	1453	152	229
7	7	2108	1605	152	229
8	8	2286	1758	152	229
9	9	2438	1910	152	229
10	10	2590	2062	152	229
11	11	2743	2215	152	229
12	12	2895	2367	152	229
13	13	3048	2520	152	229
14	14	3200	2672	152	229
15	15	3352	2824	152	229
16	16	3506	2977	152	229
17	17	3657	3129	152	229
18	18	3810	3282	152	229
19	19	3962	3434	152	229
20	20	4114	3586	152	229
21	21	4267	3739	152	229
22	22	4419	3891	152	229
23	23	4572	4044	152	229
24	24	4724	4196	152	229
25	25	4876	4348	152	229
26	26	5029	4501	152	229
27	27	5181	4653	152	229
28	28	5334	4806	152	229
29	29	5486	4958	152	229
30	30	5638	5110	152	229
31	31	5791	5263	152	229
32	32	5943	5415	152	229
33	33	6096	5568	152	229
34	34	6248	5720	152	229
35	35	6401	5873	152	229
36	36	6553	6025	152	229
37	37	6706	6178	152	229
38	38	6858	6330	152	229
39	39	7011	6483	152	229
40	40	7163	6635	152	229
41	41	7316	6788	152	229
42	42	7468	6940	152	229
43	43	7621	7093	152	229
44	44	7773	7245	152	229
45	45	7926	7398	152	229
46	46	8078	7550	152	229
47	47	8231	7703	152	229
48	48	8383	7855	152	229
49	49	8536	8008	152	229
50	50	8688	8160	152	229
51	51	8841	8313	152	229
52	52	8993	8465	152	229
53	53	9146	8618	152	229
54	54	9298	8770	152	229

MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	13	5	VARIES	VAR
CB2	@ 305	13	-	VARIES	VARIES
CB3	@ 305	13	-	840	420
CB4	@ 305	13	-	VARIES	VARIES
CB5	@ 100	13	4	VARIES	VAR
CB6	@ 100	13	12	VARIES	VARIES
CB7	@ 100	16	8	VARIES	VARIES
CB8	@ 305	19	12	VARIES	VARIES
CB9	@ 305	19	6	VARIES	VARIES
CB10	AS SHOWN	16	12	910	455
CB12	@ 100	16	2	VARIES	VARIES



SECTION A  
NTS

SECTION C  
NTS

CATCH BASIN CONSTRUCTION OPTION 2

WASATCH CONSTRUCTORS  
APR 14 1998  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

DATE: 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

DESIGNER: MARK V. GOGA  
PROJECT DESIGN ENGINEER: JONN TERRY  
SECTION MANAGER: [Signature]

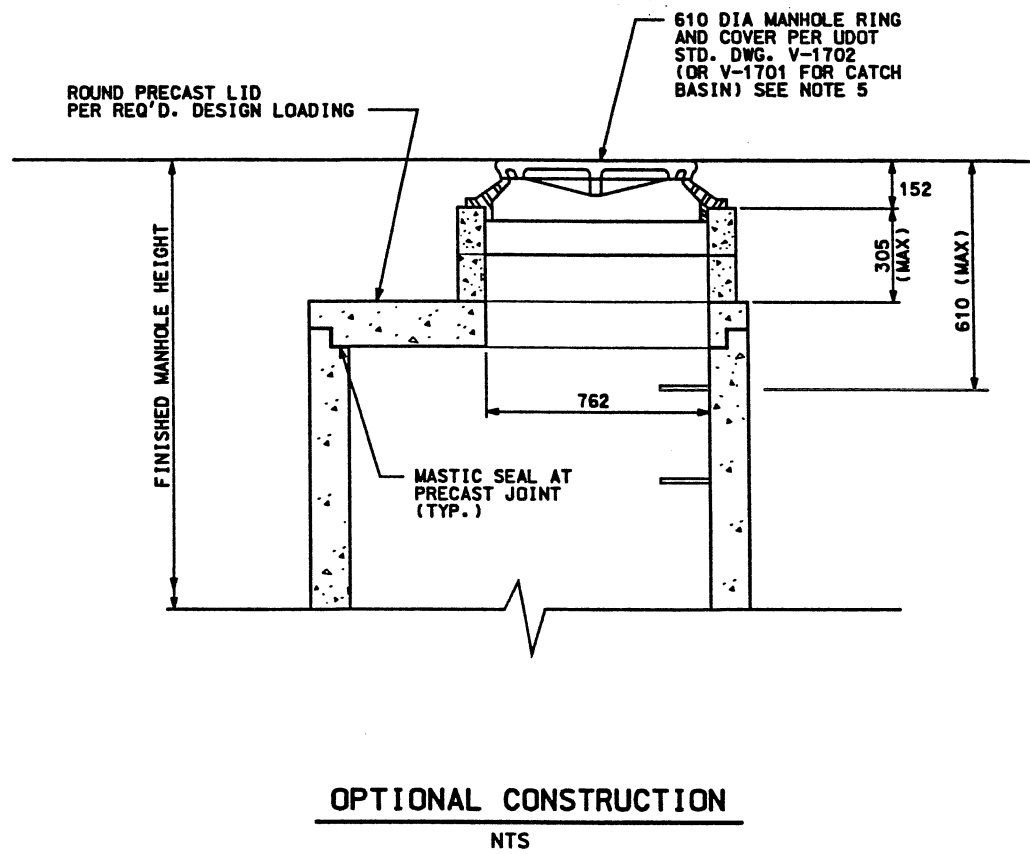
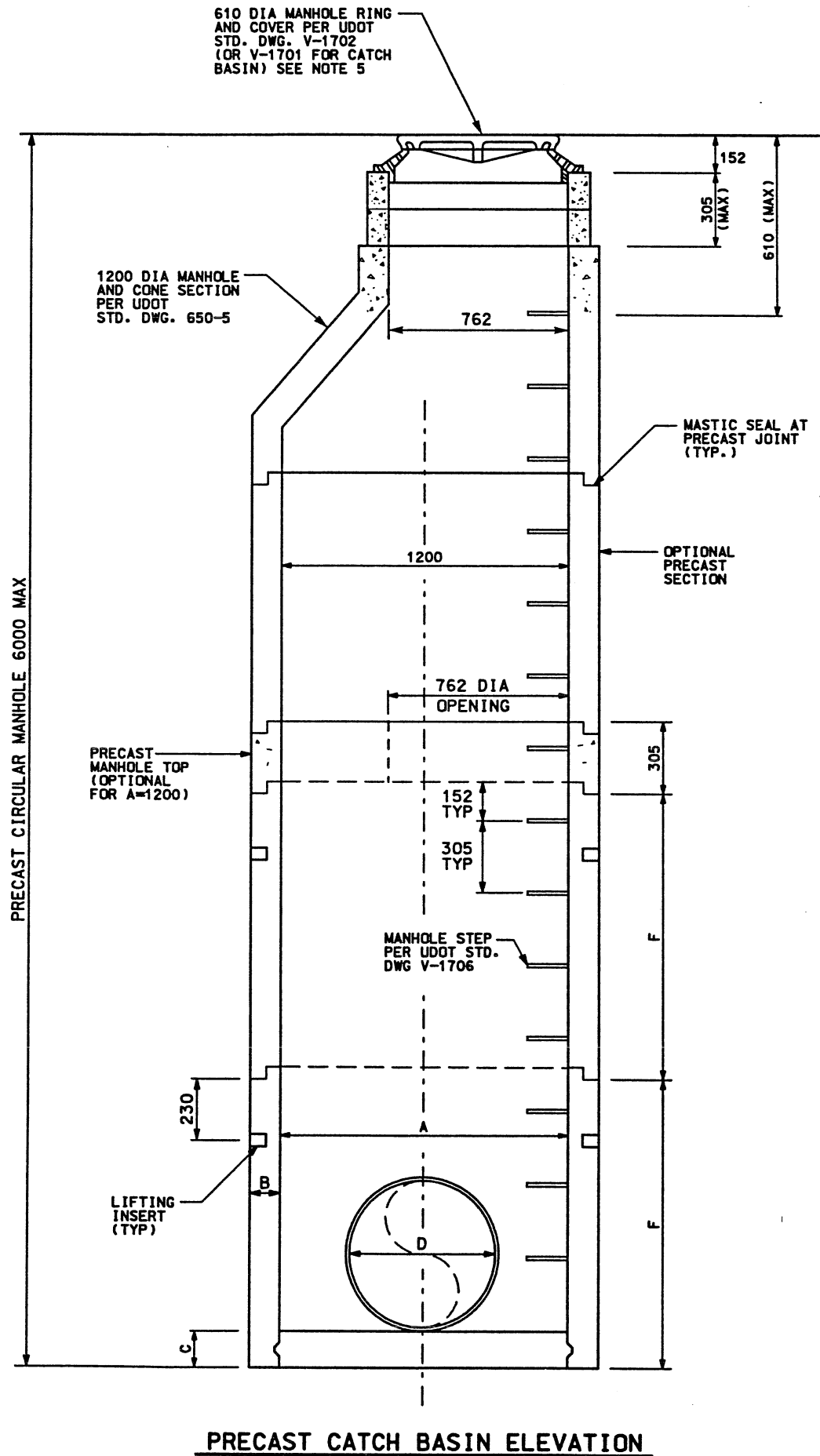
TRACKING NO.: 23134

I-15 CORRIDOR RECONSTRUCTION  
CATCH BASIN DETAIL - OPTION 2

CORRIDOR STANDARD PLAN  
PROJECT NUMBER: #SP-15-7(135)296

SALT LAKE COUNTY  
DWG. NO.: CS-14-4

SHT. OF



GENERAL NOTES:

1. ALL DIMENSIONS ARE MILLIMETERS UNLESS OTHERWISE NOTED.
2. STEEL REINFORCING SHALL BE AASHTO M-284M AND M31M GRADE 420
3. REBAR SIZE SHOWN IS SOFT CONVERTED METRIC.
4. CEMENT SHALL BE TYPE II
5. MATCH COVER ELEVATION TO FINAL GRADE FOR INSTALLATION IN PAVED SURFACES. COVER ELEVATION IN GRADED AREAS SHALL BE FLUSH WITH FINISHED GRADE WHEN UDOT V-1701 GRADE AND FRAME REQUIRED AND FLUSH WITH GRADE UP TO 152mm ABOVE FINISHED GRADE WHEN UDOT V-1702 SOLID COVER & FRAME REQUIRED.
6. EXCEPT AS NOTED MINIMUM COVER IS 51mm.

DESIGN DATA:

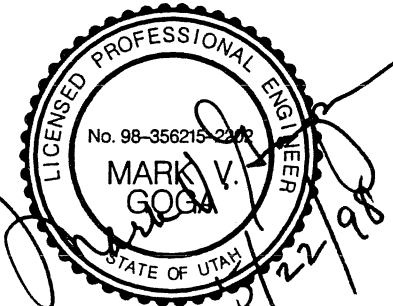
1. MS-18 (HS20) OR ALTERNATE INTERSTATE MILITARY LOADING IN ACCORDANCE WITH AASHTO SPECIFICATIONS.
2. PRECAST CONCRETE,  $f_c = 27.6 \text{ MPa}$ ,  $n=8$  REINFORCING STEEL,  $f_s = 420 \text{ MPa}$

- A = CATCH BASIN INSIDE DIAMETER
- B = CATCH BASIN WALL THICKNESS
- C = CATCH BASIN BOTTOM THICKNESS
- D = STORM DRAIN INLET/OUTLET INSIDE DIAMETER
- F = PRECAST SECTION HEIGHT TO ACCOMMODATE  $D_{max}$

PRECAST CATCH BASIN		
A	1200	1500 1800
B	127	152 178
C	152	203 254
$D_{max}$	600	900 1200
F	1200	1200 1800

PRECAST CATCH BASIN				V-1653
D	1200	1500	1800	LINE
450	4@90°	4@90°	4@90°	1 THRU 49
600	3@120°	4@90°	4@90°	
750	-	3@120°	4@90°	
900	-	3@120°	4@90°	
1050	-	-	3@120°	
1200	-	-	3@120°	
MAX. PIPES PERMISSIBLE				

WASATCH CONSTRUCTORS  
MAY 28 1998  
RELEASED FOR CONSTRUCTION



APPROVED FOR CONSTRUCTION

NO.	DATE	DESCRIPTION
1	5/22/98	ORIGINAL RELEASE

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN	MMB	S/P/S	CHECK	MMB	S/P/S
DRAWN	WLR	S/P/S	CHECK	MMB	S/P/S
QUANT.	N/A		CHECK		

TRACKING NO. 23134

I-15 CORRIDOR RECONSTRUCTION

V-1653 ALTERNATE STRUCTURE

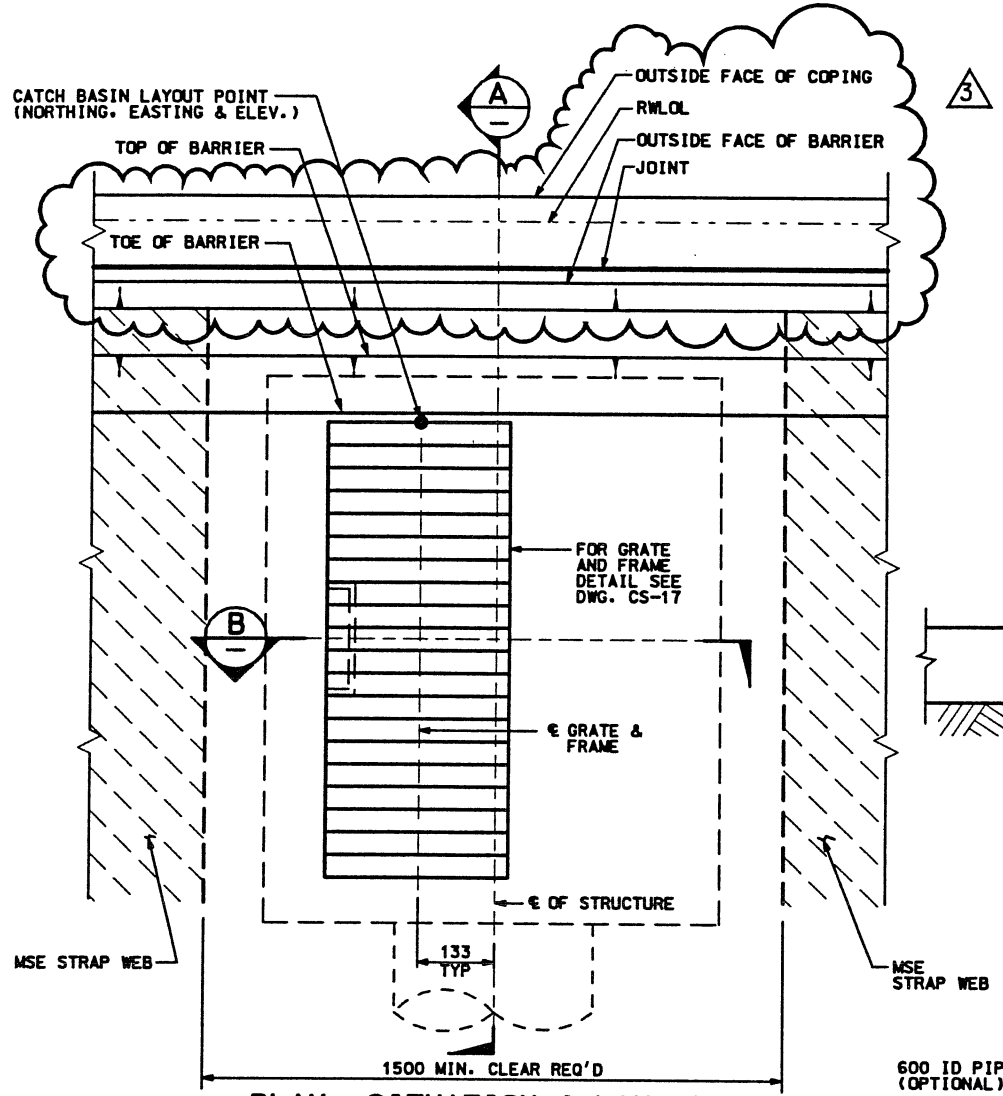
CORRIDOR STANDARD PLAN

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

SALT LAKE COUNTY

DWG. NO. CS-15

SHT. OF



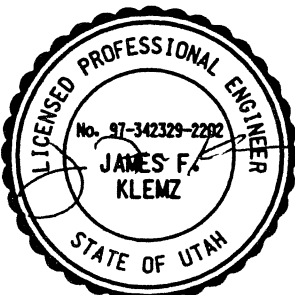
PLAN: SITUATION & LAYOUT

- GENERAL NOTES:**
- ALL REINFORCING STEEL SHALL BE EPOXY COATED, DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31M, GRADE 420.
  - IF NOTED IN ROADWAY DRAINAGE PLANS, CONSTRUCT FORMED INVERTED SHOWN, PROFILE.
  - CONTRACTOR MAY ELECT TO CONSTRUCT BOX AS DETAILED IN OPTION 1 OR OPTION 2; SEE SHEETS 3 & 4.
  - ALL CAST-IN-PLACE CONCRETE SHALL BE STRUCTURAL CONCRETE EXCEPT WHERE SPECIFIED OTHERWISE.
  - MINIMUM COVER TO REINFORCING STEEL SHALL BE 51mm EXCEPT WHERE NOTED OTHERWISE.
  - STRUCTURAL STEEL GRATING SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO AASHTO DESIGNATION M-270, GRADE 36 (ASTM A-709, GRADE 36).
  - SEE DRAWING CS-17 FOR GRATING AND FRAME DETAILS.
  - 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.
  - 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.
  - THICKNESS OF ROADWAY MOMENT SLAB, DESIGN OF CATCH BASIN ASSUMES 325mm THICKNESS. SEE CS-29 FOR EXACT DIMENSION, FOR ALL THICKNESS OTHER THAN 325mm ADJUST "K" DIMENSION ACCORDINGLY.
  - ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
  - GRATE SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.
  - DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS, ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).

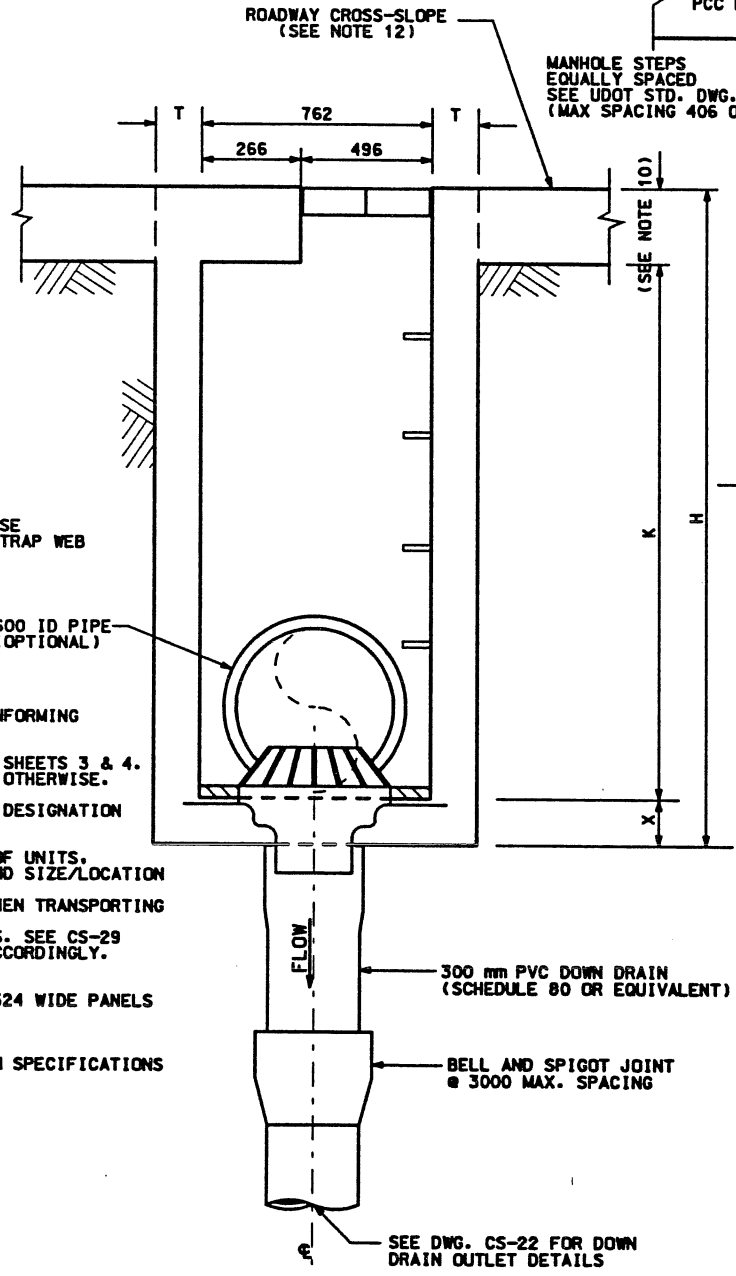
**DESIGN DATA:**  
MS-18 OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH CURRENT AASHTO AND INTERIM SPECIFICATIONS

CAST-IN-PLACE STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 REINFORCING STEEL:  $f_y = 420$  MPa  
 STRUCTURAL STEEL:  $f_y = 250$  MPa

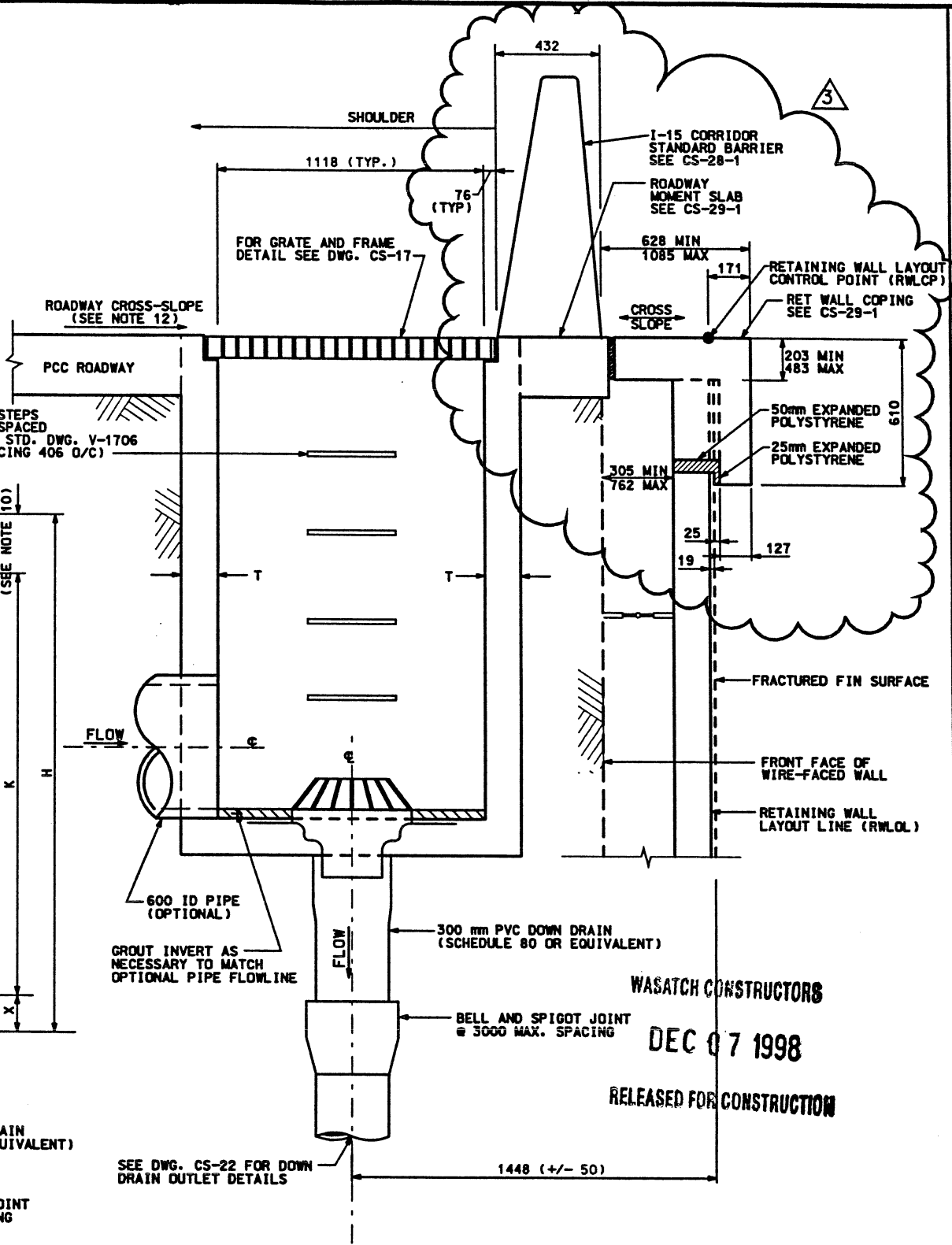
- INDEX OF SHEETS:**
- SITUATION AND LAYOUT
  - ROADWAY BARRIER AND WALL COPING REINFORCEMENT
  - CATCH BASIN DETAILS - OPTION 1
  - CATCH BASIN DETAILS - OPTION 2



11-25-98

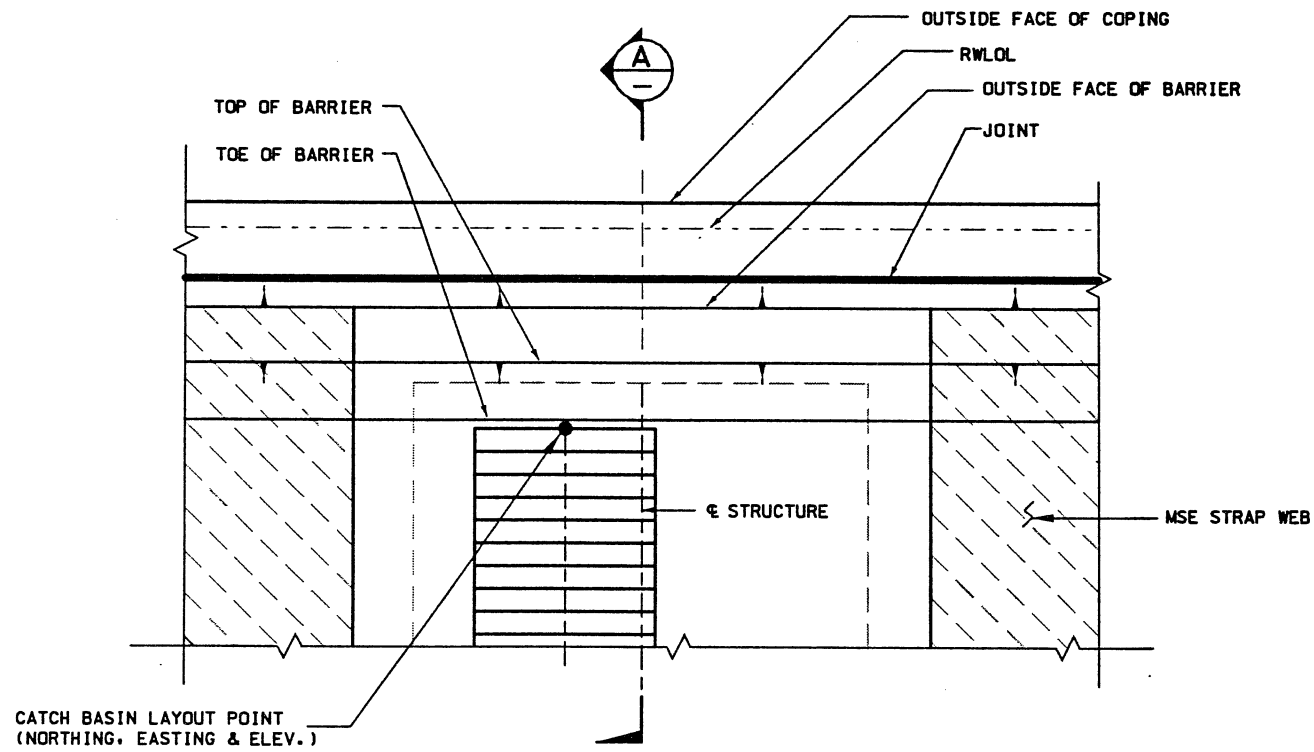


SECTION B  
NTS



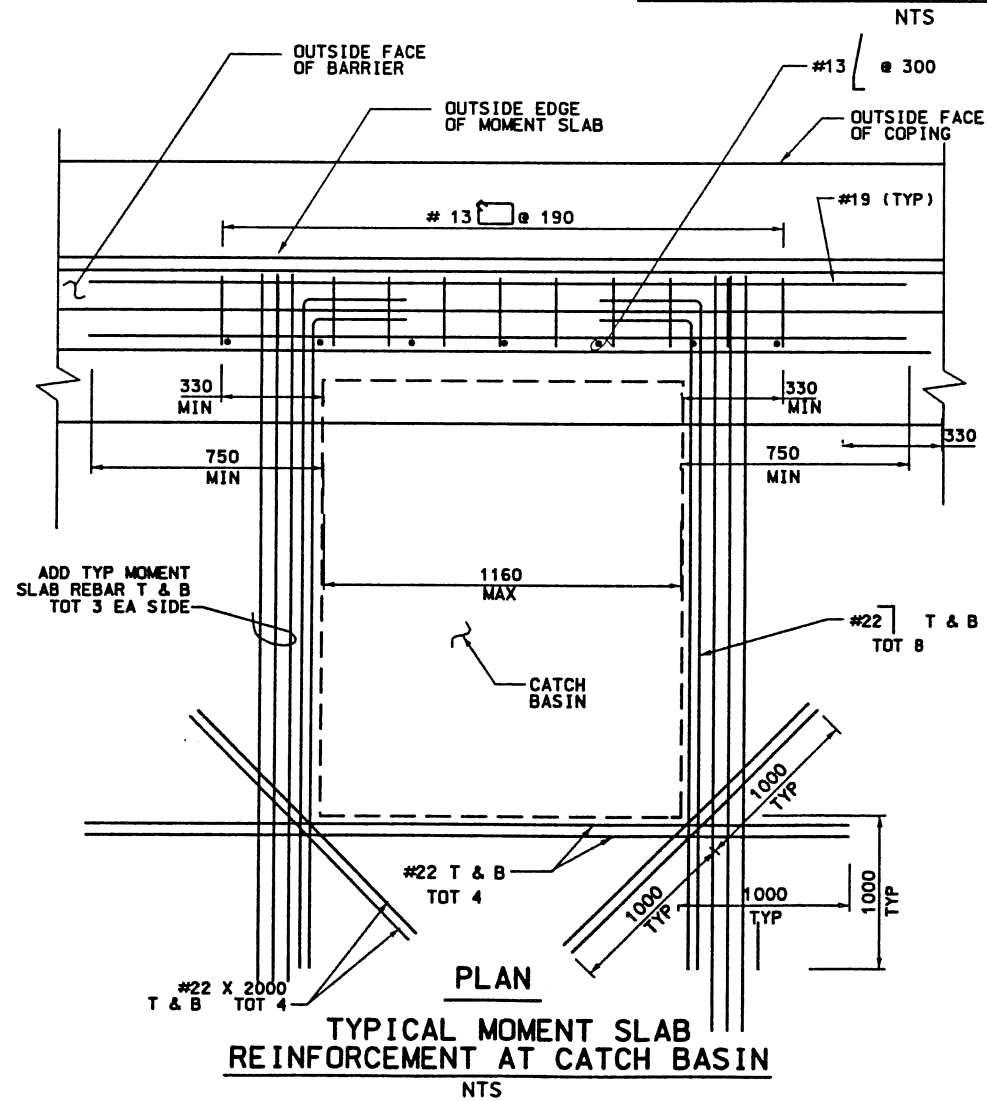
SECTION A  
NTS

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	3/30/98	1	3/30/98
2	7/10/98	2	7/10/98
3	11/24/98	3	11/24/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE AND DONEL.	
REVISED RET WALL COPING		REVISED RET WALL COPING	
TRACKING NO.		23134	
DESIGN BY		CHECK BY	
DRAWN BY		CHECK BY	
QUANT. BY		CHECK BY	
SECTION MANAGER		DATE	
SVERDRUP/DE LEUW		DATE	
MARK V. BOBA		DATE	
PROJECT DESIGN ENGINEER		DATE	
APPROVED		DATE	
PROJECT NO.		PROJECT NO.	
PROJECT NUMBER		PROJECT NUMBER	
I-15 CORRIDOR RECONSTRUCTION		I-15 CORRIDOR RECONSTRUCTION	
MSE MULTI-STAGE CATCH BASIN B4		MSE MULTI-STAGE CATCH BASIN B4	
CORRIDOR STANDARD PLAN		CORRIDOR STANDARD PLAN	
PROJECT NUMBER		PROJECT NUMBER	
#SP-15-7(135)296		#SP-15-7(135)296	
SALT LAKE COUNTY		SALT LAKE COUNTY	
DWG. NO.		DWG. NO.	
CS-16-1		CS-16-1	
SHT. OF		SHT. OF	

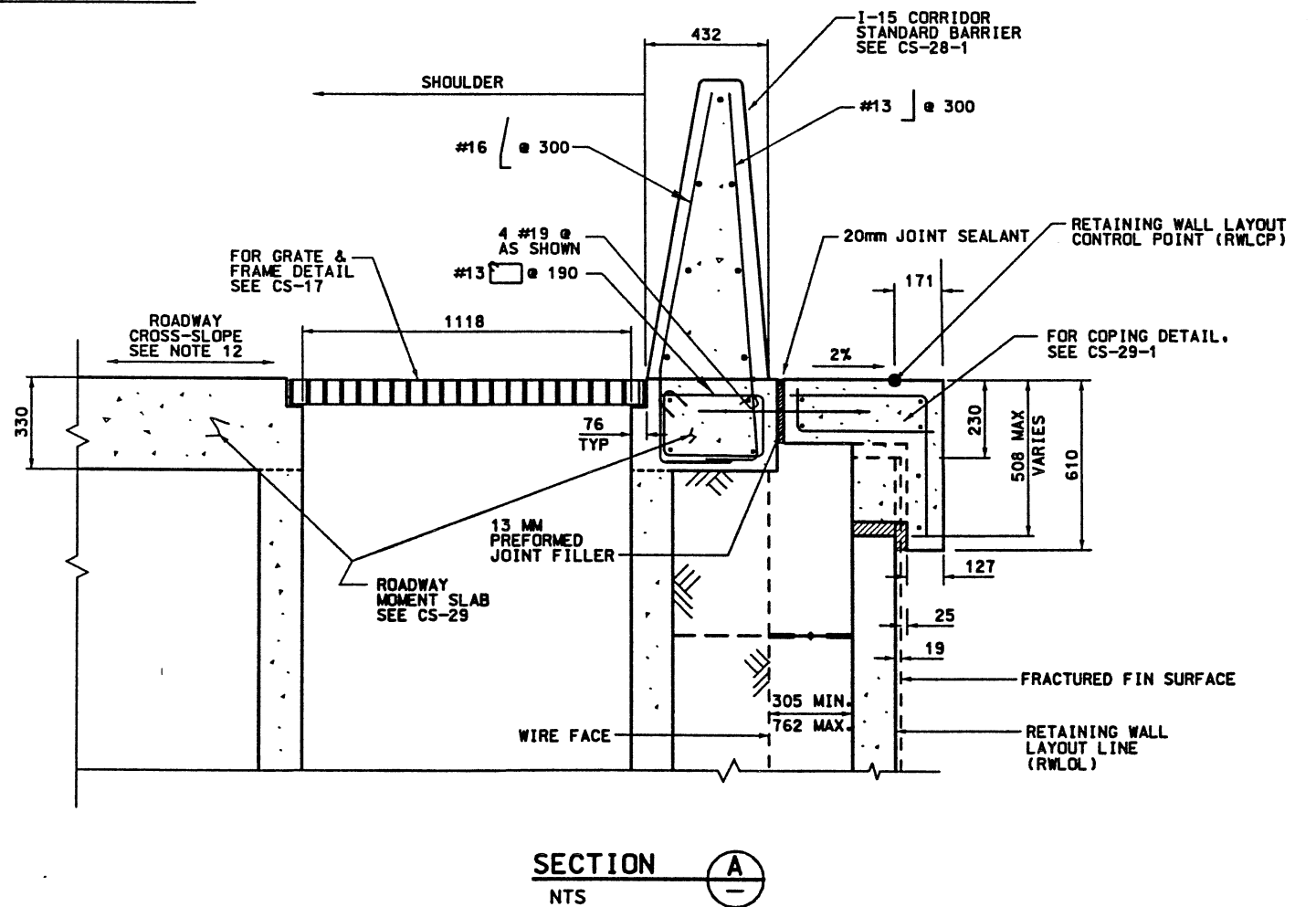


**PLAN**  
**ROADWAY BARRIER AT CATCH BASIN**

WASATCH CONSTRUCTORS  
DEC 07 1998  
RELEASED FOR CONSTRUCTION



**PLAN**  
**TYPICAL MOMENT SLAB REINFORCEMENT AT CATCH BASIN**



**SECTION A**  
**NTS**

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

I-15 CORRIDOR RECONSTRUCTION

MSE MULTI-STAGE CATCH BASIN B4

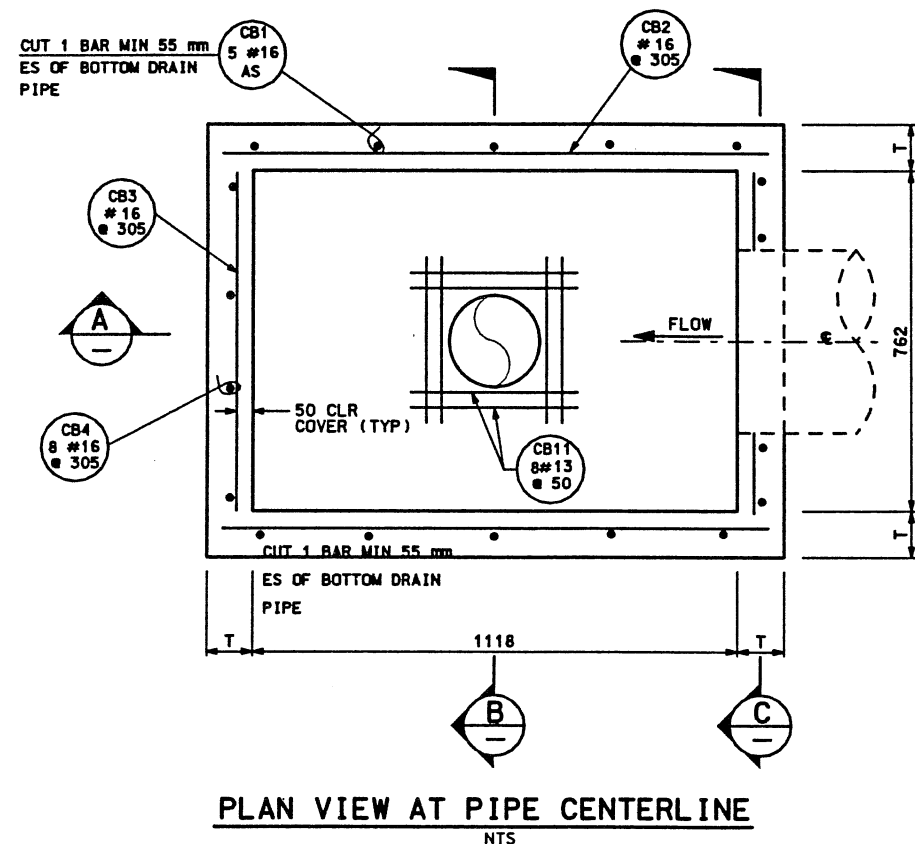
SALT LAKE COUNTY  
DWG. NO. CS-16-2

SHT. OF

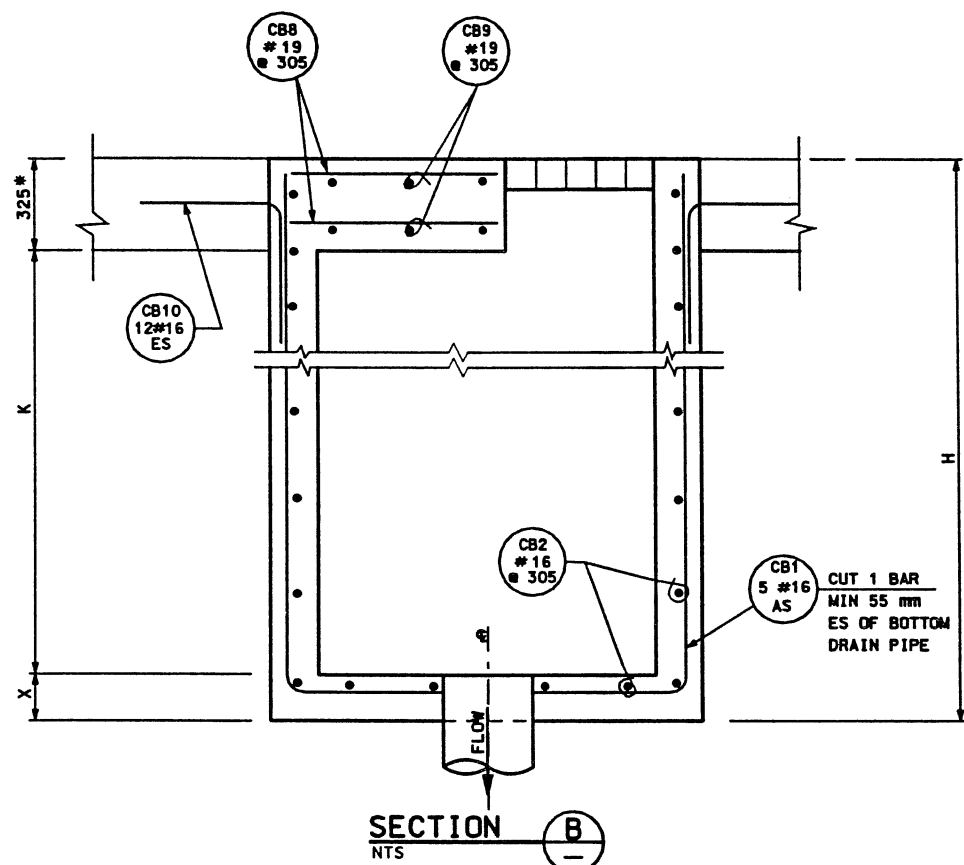
CORRIDOR STANDARD PLAN  
PROJECT NUMBER #SP-15-7(135)296

APPROVAL	DATE	DESIGN	CHECK	DATE	DESIGN	CHECK	DATE	QUANT.	SECTION
MARK V. BOBA	3/30/98	DESIGN ENGINEER	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98
JOHN TERRY	3/30/98	PROJECT DESIGN ENGINEER	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98	3/7/98
SECTION MANAGER									

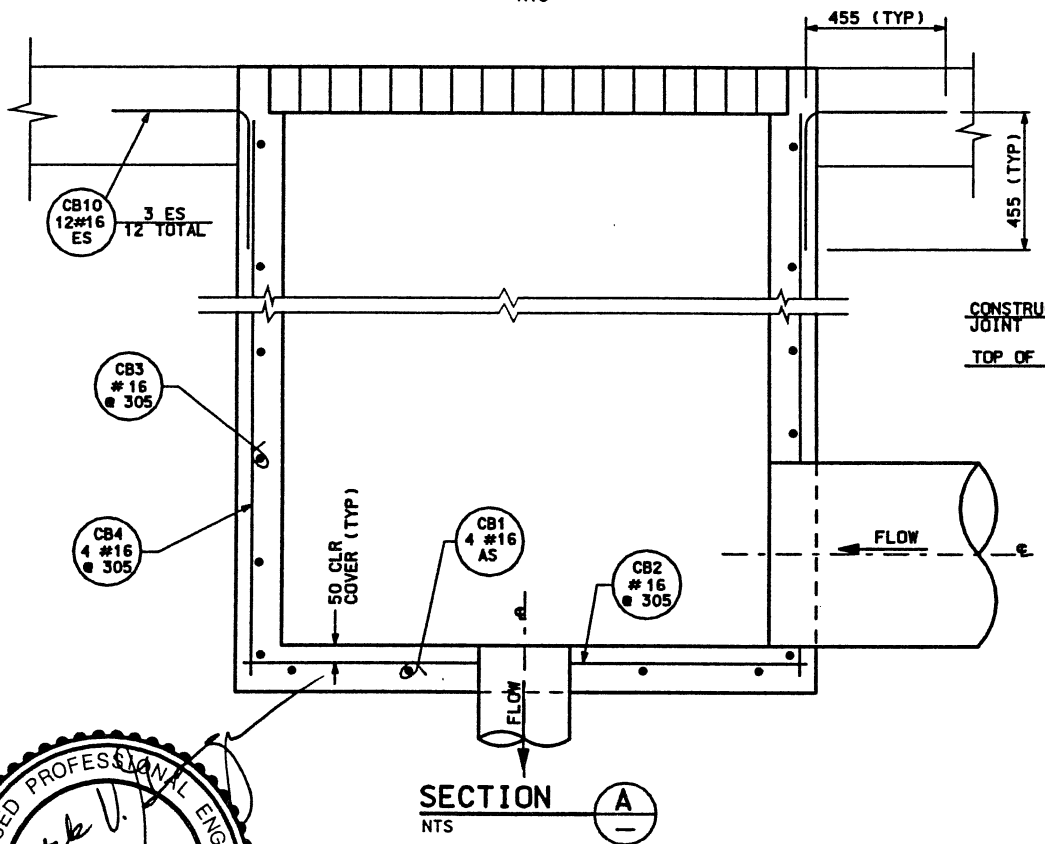
TRACKING NO. 23134



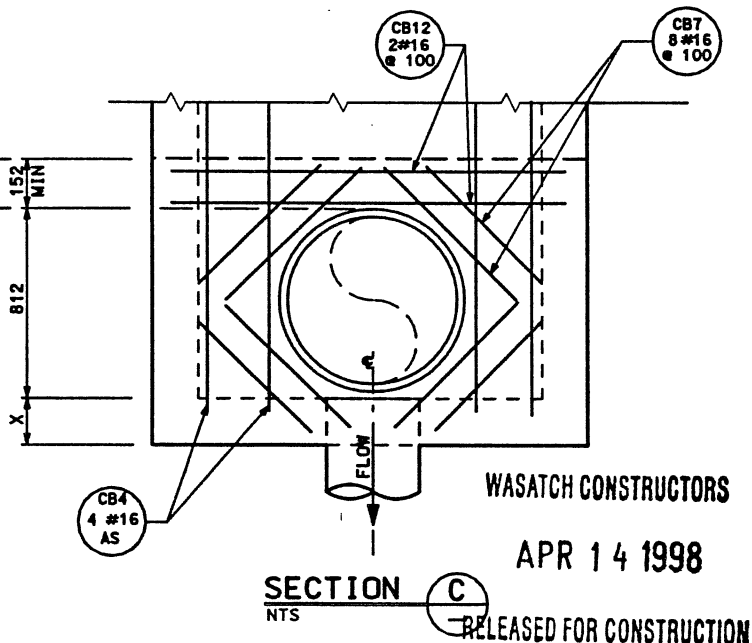
PLAN VIEW AT PIPE CENTERLINE  
NTS



SECTION B  
NTS



SECTION A  
NTS



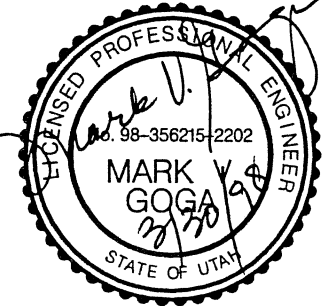
SECTION C  
NTS

\* 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.

CATCH BASIN CONSTRUCTION OPTION 1

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	178
2	2	1346	843	152	178
3	3	1499	996	152	178
4	4	1651	1148	152	178
5	5	1803	1300	152	178
6	6	1956	1453	152	178
7	7	2108	1605	152	178
8	8	2261	1758	152	203
9	9	2413	1910	152	203
10	10	2566	2062	152	203
11	11	2718	2215	152	203
12	12	2871	2367	152	203
13	13	3023	2520	152	203
14	14	3176	2672	152	203
15	15	3328	2824	152	203
16	16	3481	2977	152	203
17	17	3633	3129	152	203
18	18	3786	3282	178	203
19	19	3938	3434	178	203
20	20	4091	3586	178	203
21	21	4243	3739	178	229
22	22	4396	3891	178	229
23	23	4548	4044	178	229
24	24	4701	4196	178	229
25	25	4853	4348	178	229
26	26	5006	4501	178	229
27	27	5158	4653	178	229
28	28	5311	4806	178	229
29	29	5463	4958	178	229
30	30	5616	5110	178	229
31	31	5768	5263	178	229
32	32	5921	5415	178	229
33	33	6073	5568	178	229
34	34	6226	5720	178	254
35	35	6378	5872	178	254
36	36	6531	6025	178	254
37	37	6683	6177	178	254
38	38	6836	6330	203	254
39	39	6988	6482	203	254
40	40	7141	6634	203	254
41	41	7293	6787	203	254
42	42	7446	6939	203	254
43	43	7598	7092	203	254
44	44	7751	7244	203	254
45	45	7903	7396	203	254
46	46	8056	7549	203	254
47	47	8208	7701	203	279
48	48	8361	7854	203	279
49	49	8513	8006	203	279
50	50	8666	8158	203	279
51	51	8818	8311	203	279
52	52	8971	8463	203	279
53	53	9123	8616	203	304
54	54	9276	8768	203	304

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	5	VARIES	
CB2	@ 305	16	-	VARIES	
CB3	@ 305	16	-	VARIES	
CB4	AS SHOWN	16	8	VARIES	
CB7	@ 100	16	8	VARIES	
CB8	@ 305	19	12	VARIES	
CB9	@ 305	19	12	VARIES	
CB10	AS SHOWN	16	12	910	
CB11	@ 50	13	8	600	
CB12	@ 100	16	2	VARIES	



WASATCH CONSTRUCTORS  
APR 14 1998  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN: MARK V. BOGA  
PROJECT DESIGN ENGINEER  
DRAWN: JOHN TERRY  
SECTION MANAGER

APPROVAL RECORD: 3/30/98 DATE 3/30/98

APPROVED: 3/30/98 DATE 3/30/98

QUANT. N/A

TRACKING NO. 23134

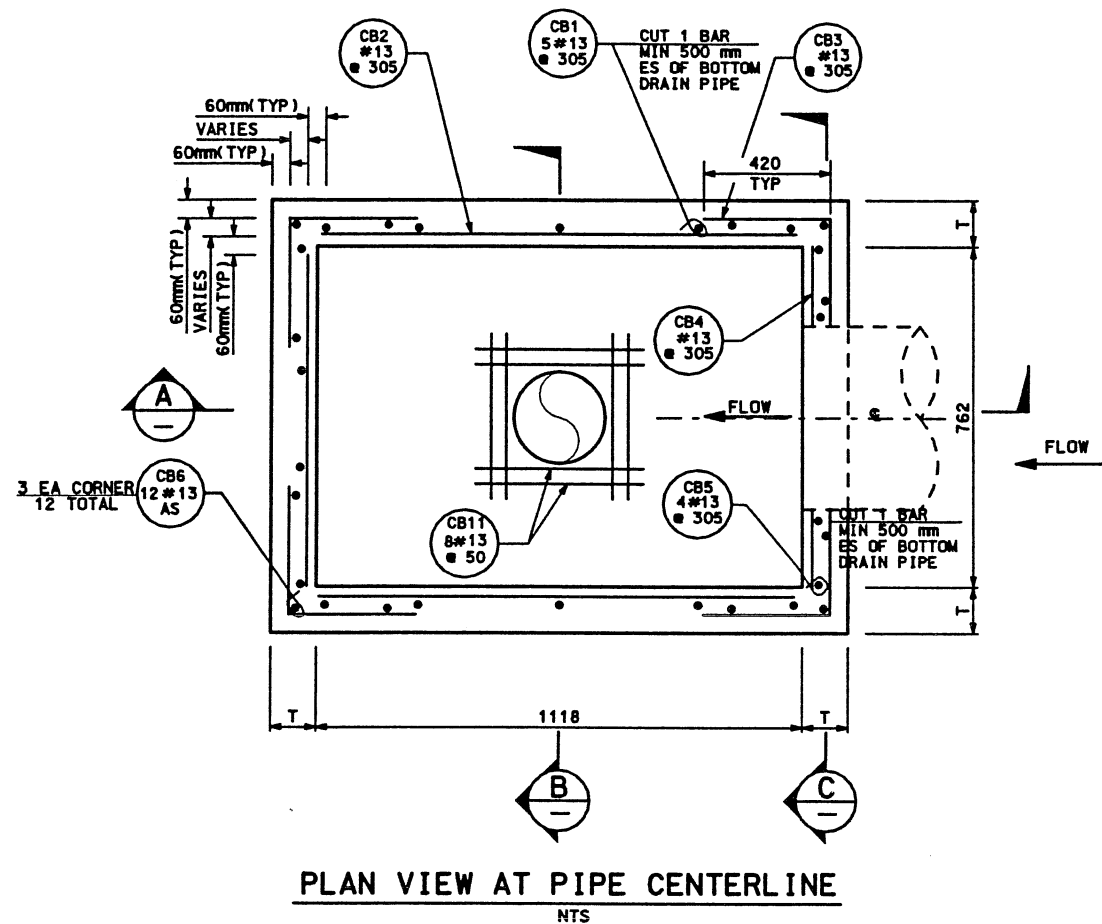
I-15 CORRIDOR RECONSTRUCTION  
CATCH BASIN DETAIL - OPTION 1

CORRIDOR STANDARD PLAN

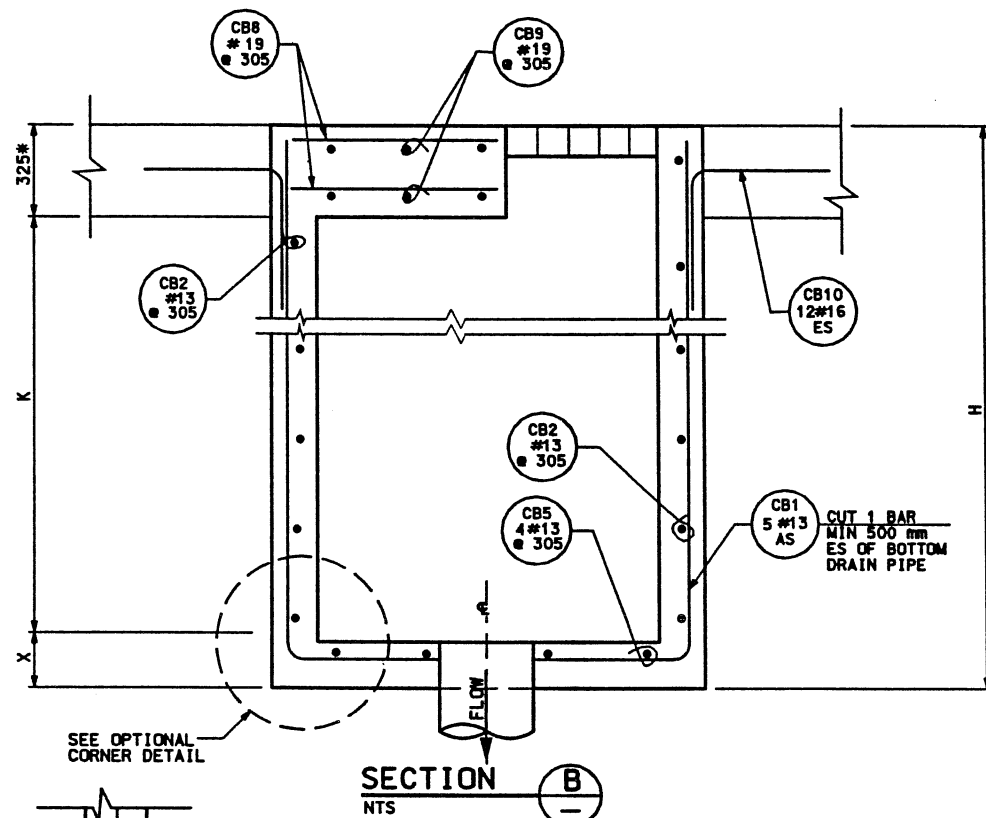
PROJECT NUMBER #SP-15-(135)296

SALT LAKE COUNTY  
DWG. NO. CS-16-3

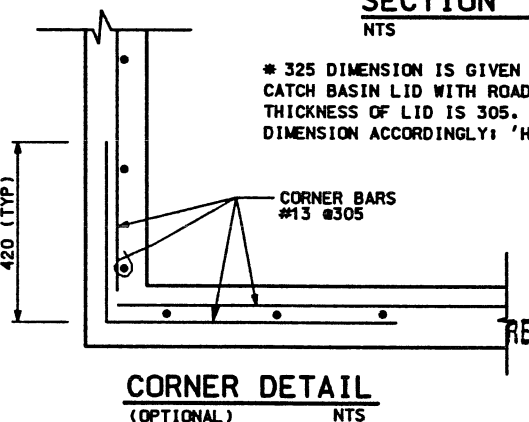
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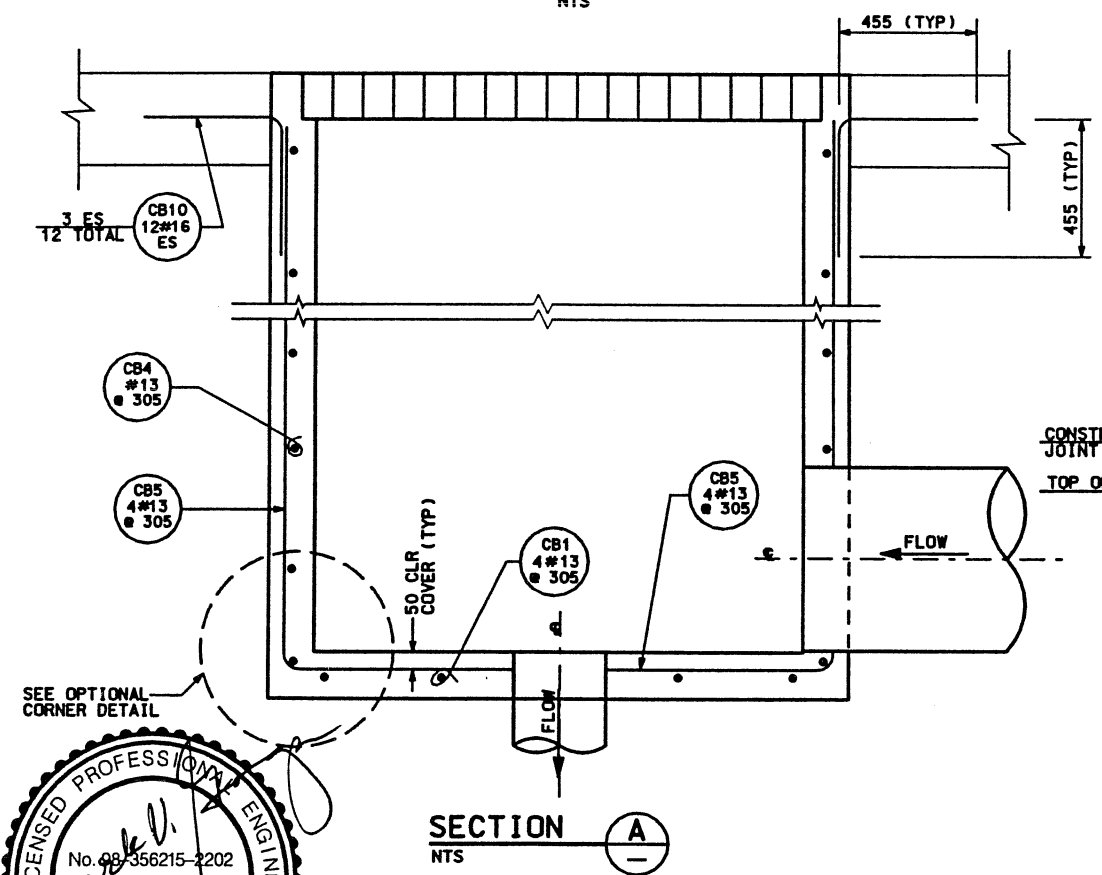
PLAN VIEW AT PIPE CENTERLINE  
NTS



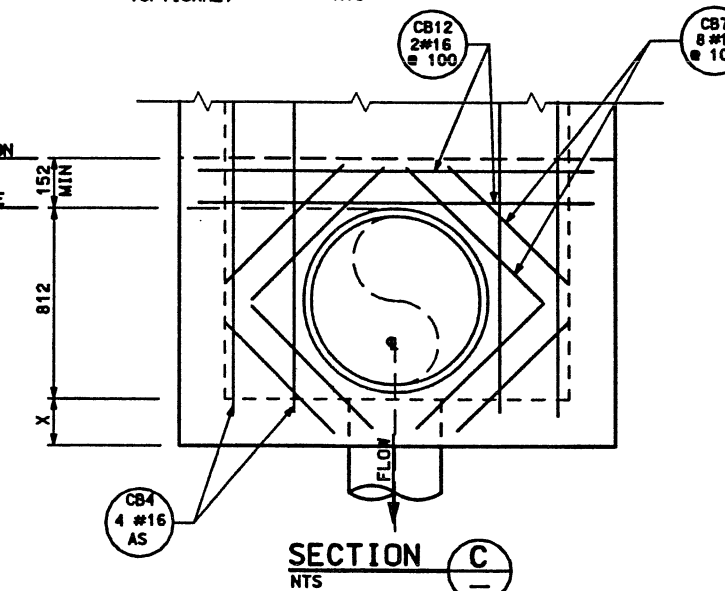
SECTION B  
NTS



CORNER DETAIL  
(OPTIONAL)  
NTS



SECTION A  
NTS

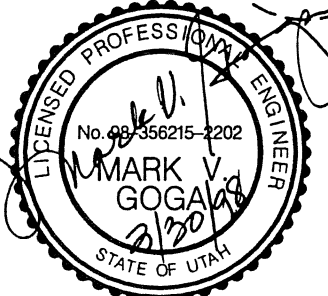


SECTION C  
NTS

CATCH BASIN CONSTRUCTION OPTION 2

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	-	1194	691	152	229
2	-	1346	843	152	229
3	2	1499	996	152	229
4	3	1651	1148	152	229
5	4	1803	1300	152	229
6	5	1956	1453	152	229
7	6	2108	1605	152	229
8	7	2286	1758	152	229
9	8	2438	1910	152	229
10	9	2590	2062	152	229
11	10	2743	2215	152	229
12	11	2895	2367	152	229
13	12	3048	2520	152	229
14	13	3200	2672	152	229
15	14	3352	2824	152	229
16	15	3505	2977	178	229
17	16	3657	3129	178	203
18	17	3810	3282	178	229
19	18	3962	3434	178	229
20	19	4114	3586	178	229
21	20	4267	3739	178	229
22	21	4419	3891	203	229
23	22	4572	4044	203	229
24	23	4724	4196	203	229
25	24	4876	4348	203	229
26	25	5029	4501	203	229
27	26	5181	4653	203	229
28	27	5334	4806	203	229
29	28	5486	4958	203	229
30	29	5638	5110	203	229
31	30	5791	5263	203	229
32	31	5943	5415	203	229
33	32	6096	5568	203	229
34	33	6248	5720	203	229
35	34	6401	5872	203	229
36	35	6553	6025	203	229
37	36	6706	6177	203	229
38	37	6858	6330	203	229
39	38	7011	6482	203	229
40	39	7163	6634	203	229
41	40	7316	6787	203	229
42	41	7468	6939	203	229
43	42	7621	7092	203	229
44	43	7773	7244	203	229
45	44	7926	7396	203	229
46	45	8078	7549	203	229
47	46	8231	7701	203	229
48	47	8383	7854	203	229
49	48	8536	8006	203	229
50	49	8688	8158	203	229
51	50	8841	8311	203	229
52	51	8993	8463	203	229
53	52	9146	8616	203	304
54	53	9298	8768	203	304

MARK	BAR SPACING	SIZE	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	13	5	VARIES	
CB2	@ 305	13	-	VARIES	
CB3	@ 305	13	-	840	
CB4	@ 305	13	-	VARIES	
CB5	@ 100	13	4	VARIES	
CB6	@ 100	13	12	VARIES	
CB7	@ 100	16	8	VARIES	
CB8	@ 305	19	12	VARIES	
CB9	@ 305	19	6	VARIES	
CB10	AS SHOWN	16	12	910	
CB11	@ 50	13	8	600	
CB12	@ 100	16	2	VARIES	



WASATCH CONSTRUCTORS  
APR 14 1998  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN: MVB 3/98  
CHECK: BMB 3/98  
DRAWN: JLL 3/98  
QUANT.: M/A

MARK V. GOGAL 3/30/98  
PROJECT DESIGN ENGINEER  
JERRY TERRY 3/30/98  
SECTION MANAGER

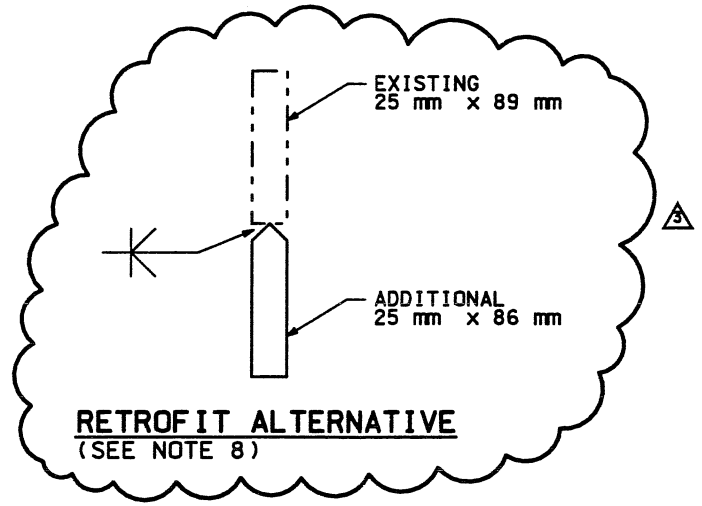
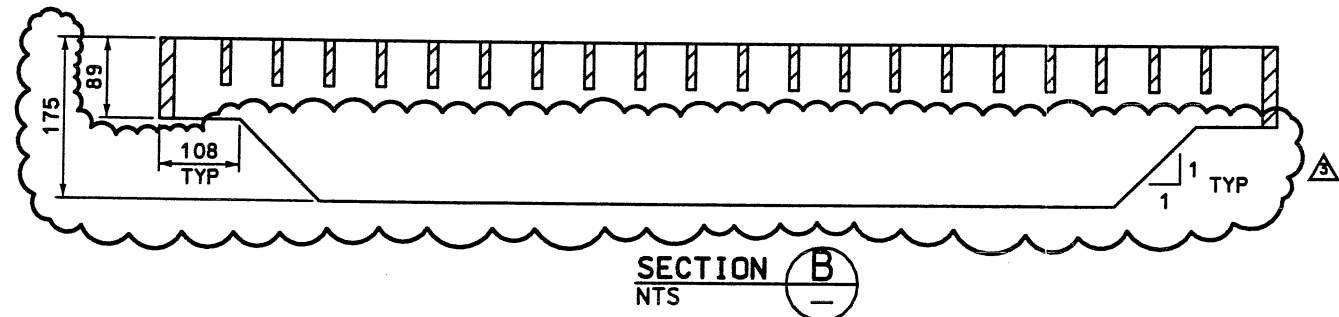
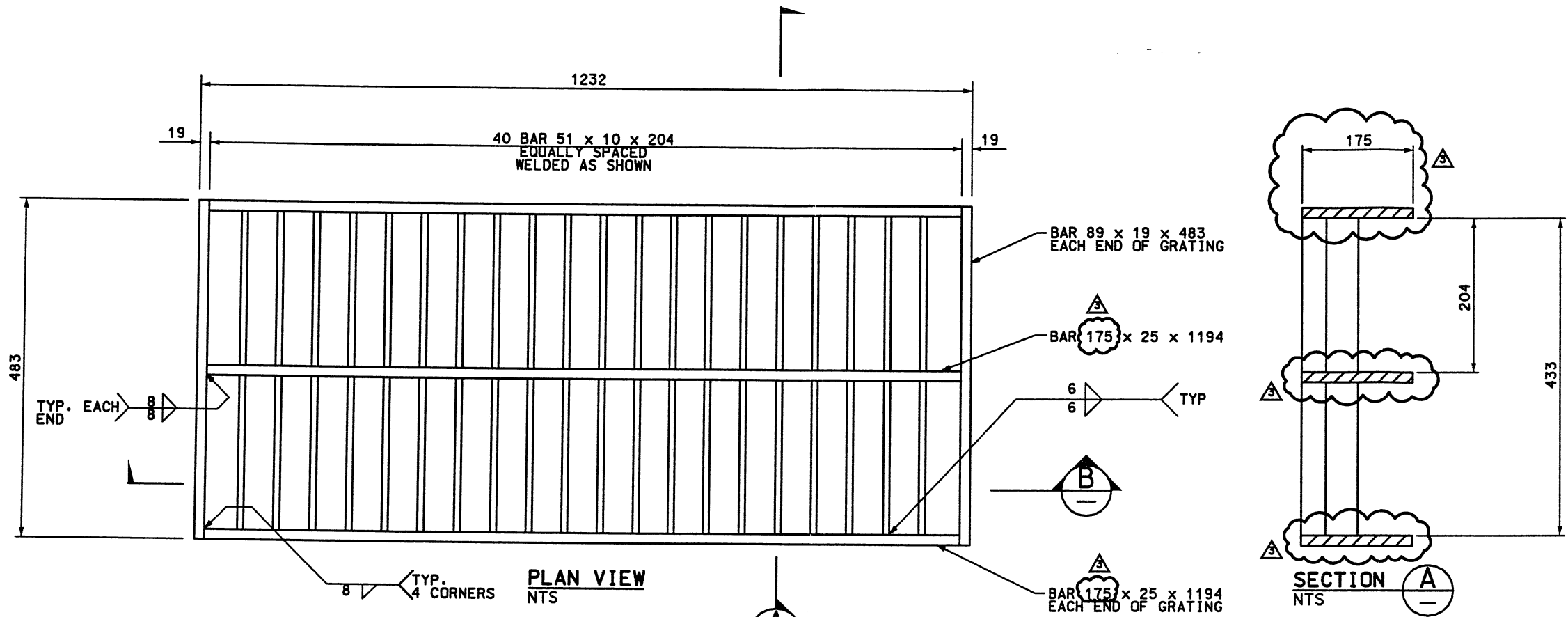
I-15 CORRIDOR RECONSTRUCTION - OPTION 2  
CATCH BASIN DETAIL - OPTION 2  
CORRIDOR STANDARD PLAN  
PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY  
DWG. NO. CS-16-4

SHT. OF



File name: \\dgn\15\_cood\15\_97\_wheel\_files\corridor\_std\plan\407.dwg User: rameshramprd Date: 07-MAR-2000 Time: 17:24



**SPECIAL GRATE: 483 mm x 1232 mm**  
GRATE WEIGHT: 155.8 kg

**GENERAL NOTES:**

1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
2. GRATING AND FRAME SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO DESIGNATION M-111 (ASTM A-123).
3. STRUCTURAL STEEL GRATING SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO AASHTO DESIGNATION M-270, GRADE 36 (ASTM A-709 GRADE 36).
4. SEE ROADWAY DRAINAGE PLANS FOR TYPE OF GRATE REQUIRED.
5. ALL JOINTS REQUIRE 6 mm CONTINUOUS FILLET WELD UNLESS NOTED OTHERWISE.
6. USE UDOT V-1703 STANDARD FRAME.
7. SEE APPLICABLE CATCH BASIN DETAIL FOR FRAME INSTALLATION.
8. IF RETROFIT ALTERNATIVE IS SELECTED, THE FAYING SURFACES SHALL BE TOUCHED UP WITH A ZINC OXIDE RICH PAINT PER CORRIDOR SPECIFICATIONS.

**DESIGN DATA:**

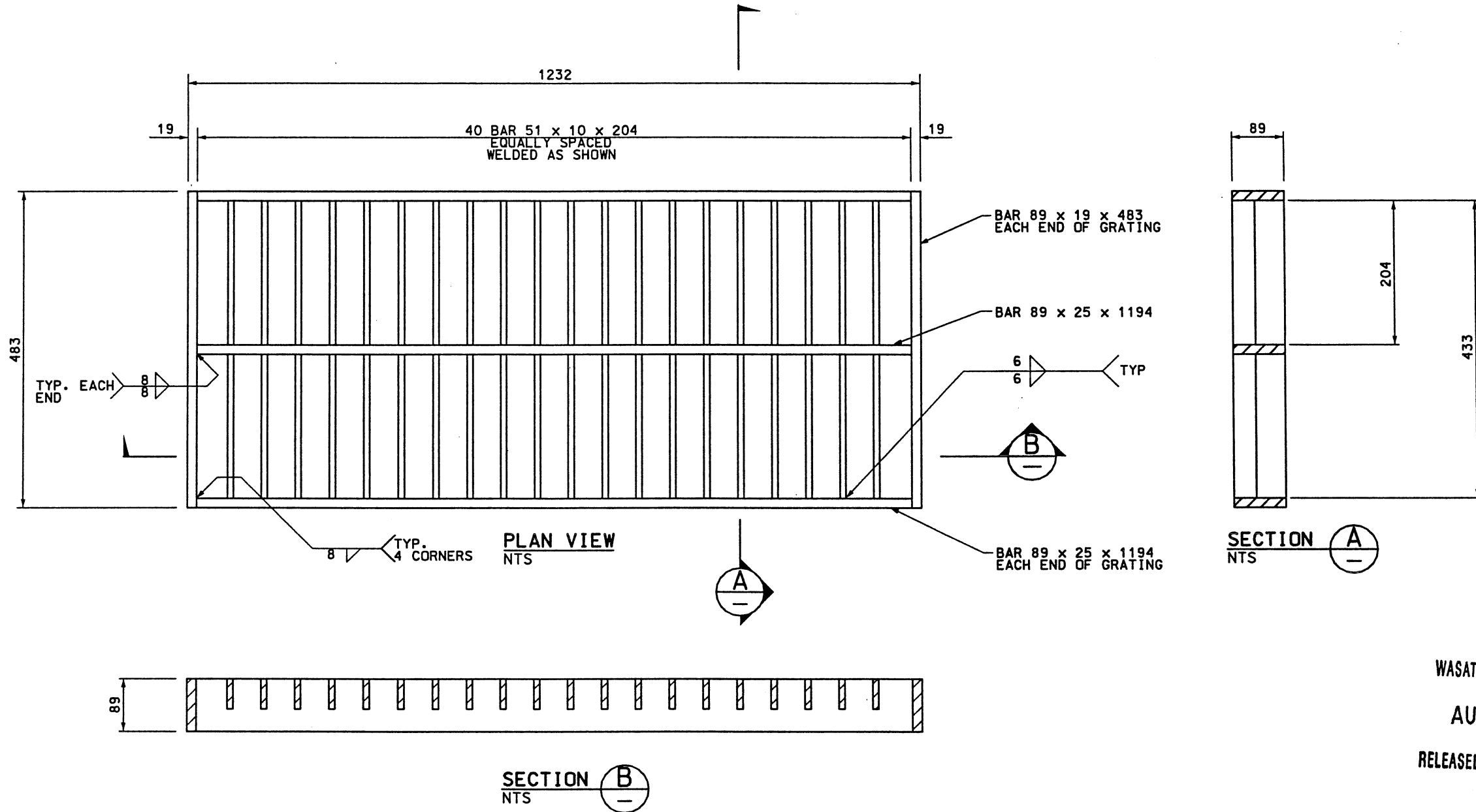
MS 18 OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH CURRENT MATCH CONSTRUCTORS AASHTO AND INTERIM SPECIFICATIONS.  
STRUCTURAL STEEL:  $f_s = 137.9$  N/mm



MAR 23 2000

RFC After Final Approval RELEASED FOR CONSTRUCTION

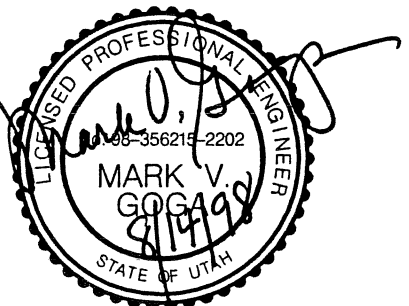
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	ORIGINAL RELEASE	REVISED TITLE
1	3/30/98		
2	06/14/98		
3	03/07/00		
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	23134
SVERDRUP/DE LEUW		CHECK DATE	3/7/98
DESIGN	MMB	2/98	
CHECK	MMB	3/7/98	
DATE	3/13/98	DESIGN	MMB
DATE	3/13/98	DRAWN	JLJ
DATE	3/13/98	QUANT.	N/A
DATE	3/13/98	SECTION MANAGER	JOHN TERRY
DATE	3/13/98	SECTION MANAGER	JOHN TERRY
1-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN	
483x1232 SPECIAL GRATE & FRAME		PROJECT NUMBER: *SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-17	
SHT. _____ OF _____			



**SPECIAL GRATE: 483 mm x 1232 mm**  
 GRATE WEIGHT: 108.7 kg

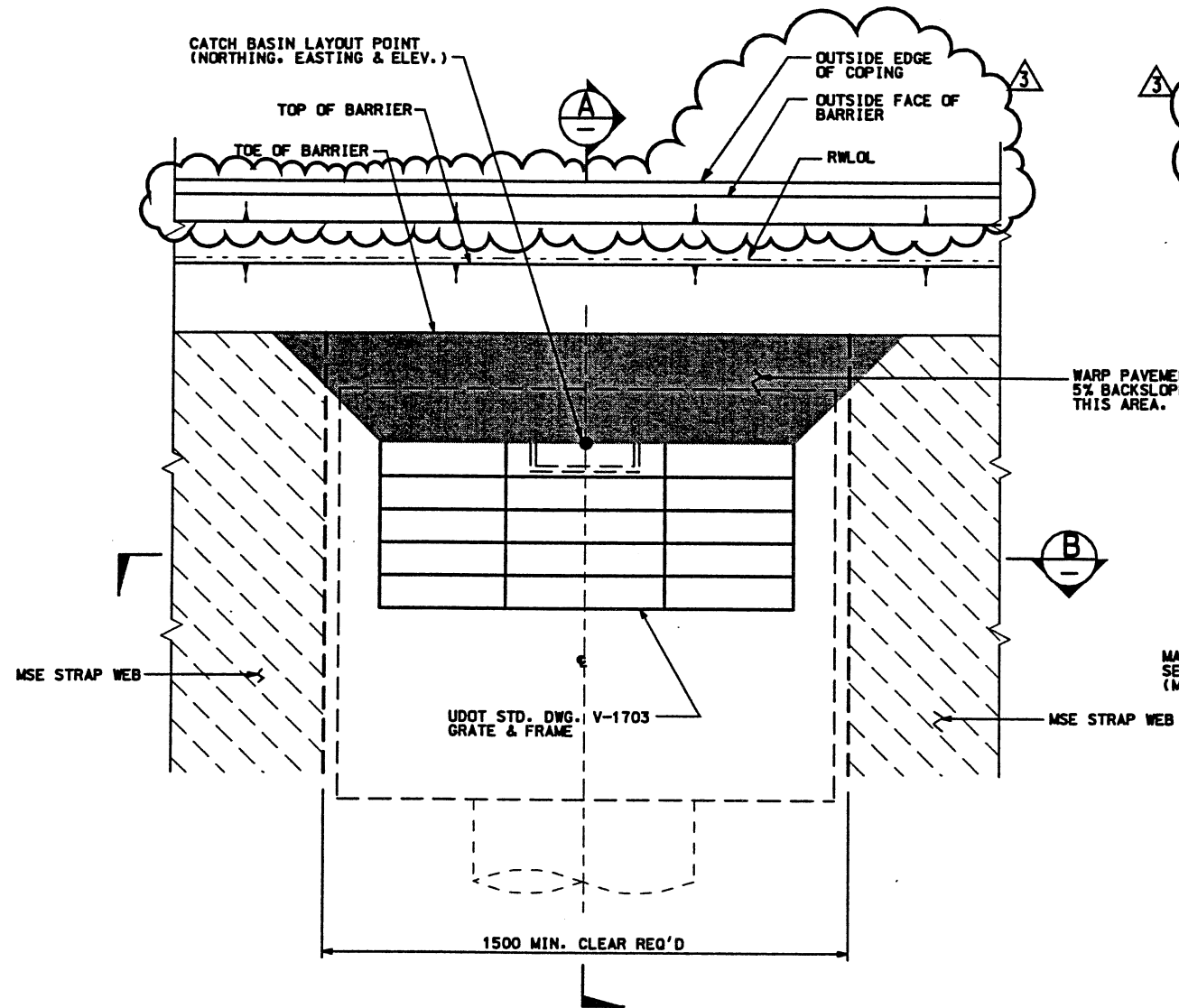
- GENERAL NOTES:**
1. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
  2. GRATING AND FRAME SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO DESIGNATION M-111 (ASTM A-123).
  3. STRUCTURAL STEEL GRATING SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO AASHTO DESIGNATION M-270, GRADE 36 (ASTM A-709 GRADE 36).
  4. SEE ROADWAY DRAINAGE PLANS FOR TYPE OF GRATE REQUIRED.
  5. ALL JOINTS REQUIRE 6 mm CONTINUOUS FILLET WELD UNLESS NOTED OTHERWISE.
  6. USE UDOT V-1703 STANDARD FRAME.
  7. SEE APPLICABLE CATCH BASIN DETAIL FOR FRAME INSTALLATION.

**DESIGN DATA:**  
 MS 18 OR INTERSTATE ALTERNATE LOADING IN ACCORDANCE WITH CURRENT AASHTO AND INTERIM SPECIFICATIONS.  
 STRUCTURAL STEEL:  $f_s = 137.9$  N/mm

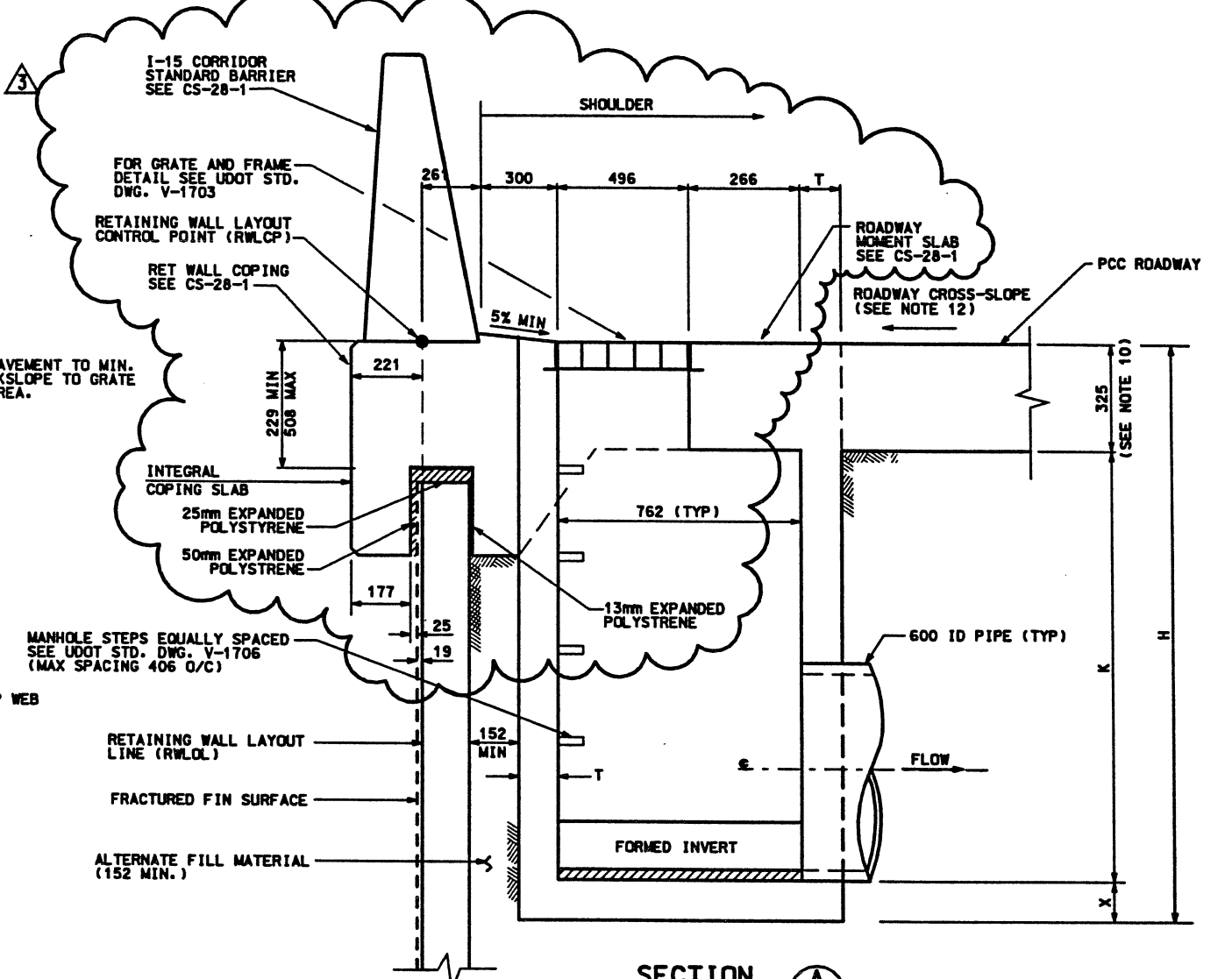


WASATCH CONSTRUCTORS  
 AUG 21 1998  
 RELEASED FOR CONSTRUCTION

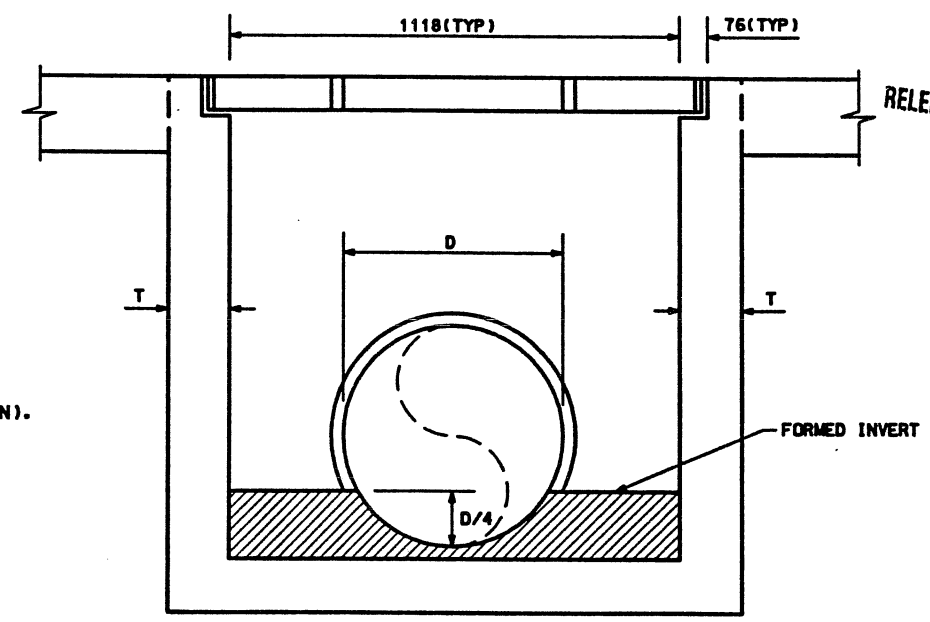
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	ORIGINAL RELEASE	REVISED TITLE
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2	08/14/98		
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	23134
SVERDRUP/DE LEUW		CHECK NO.	3/98
MARK V. GOGGIN	DATE	CHECK NO.	3/98
PROJECT DESIGN ENGINEER	DATE	CHECK NO.	3/98
JOHN TERRY	DATE	CHECK NO.	3/98
SECTOR MANAGER	DATE	CHECK NO.	3/98
I-15 CORRIDOR RECONSTRUCTION		CORRIDOR STANDARD PLAN	
483x1232 SPECIAL GRATE & FRAME		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-17	
SHT.	OF		



**PLAN: SITUATION & LAYOUT**  
NTS



**SECTION A**  
NTS



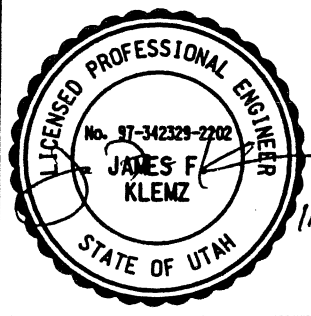
**SECTION B**  
NTS

- GENERAL NOTES:**
1. ALL REINFORCING STEEL SHALL BE EPOXY COATED, DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31M, GRADE 420.
  2. IF NOTED ON ROADWAY DRAINAGE PLANS, CONSTRUCT FORMED INVERT AS SHOWN.
  3. CONTRACTOR MAY ELECT TO CONSTRUCT BOX AS DETAILED IN OPTION 1 OR OPTION 2. SEE SHEETS 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. DIMENSION IS FOR INTEGRAL CASTING IN PLACE WITH 325 mm THICK ROADWAY SURFACE SLAB. THE MINIMUM CATCH BASIN CONCRETE THICKNESS OF THE LID ADJACENT TO THE GRATE REQUIRED IS 305 mm. IF MINIMUM DIMENSION IS USED, ADJUST "K" DIMENSION ACCORDINGLY.
  11. ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
  12. GRATE SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.
  13. 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:  $f_c = 21$  MPa,  $n=8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$ ,  
 REINFORCING STEEL:  $f_y = 420$  MPa  
 STRUCTURAL STEEL:  $f_y = 250$  MPa

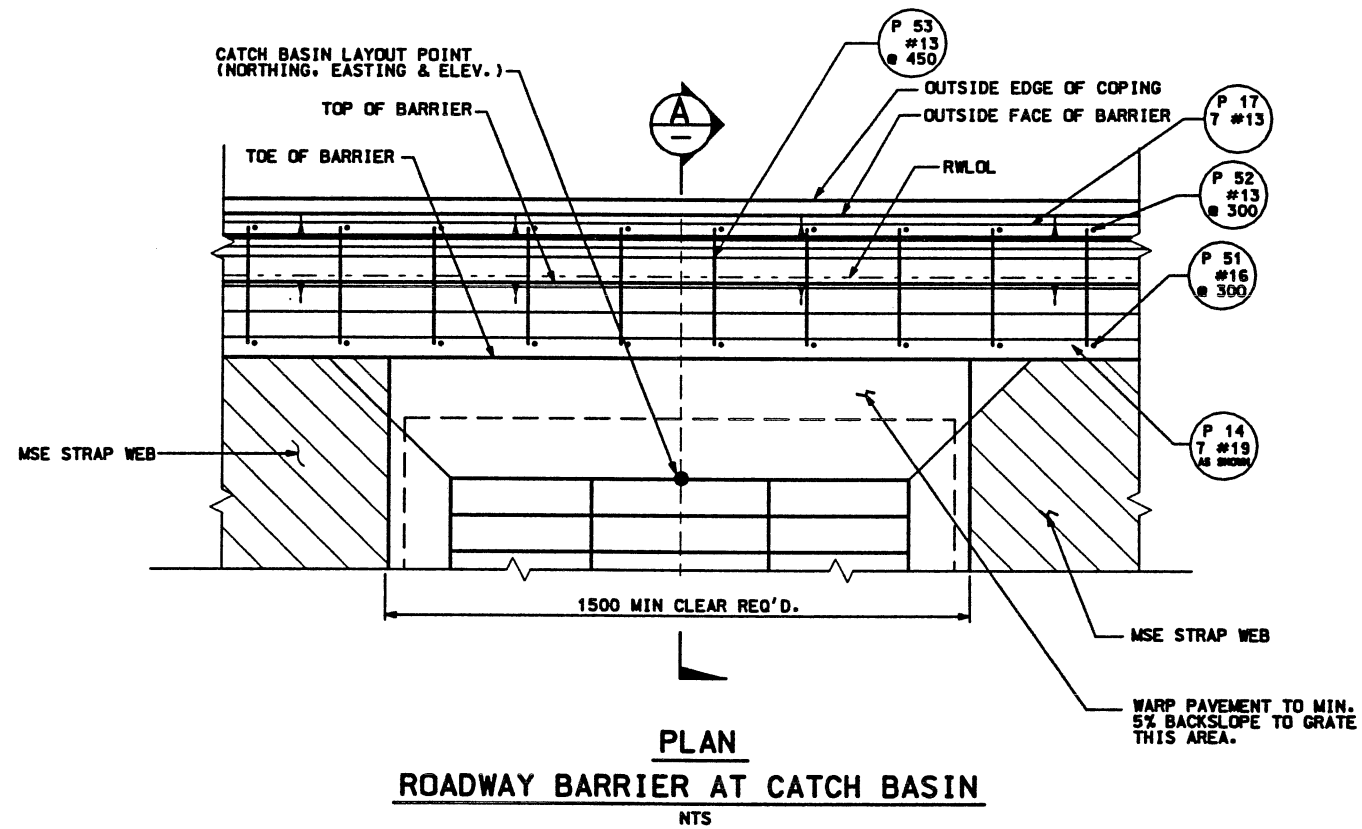
- INDEX OF SHEETS:**
- 1- SITUATION AND LAYOUT
  - 2- ROADWAY BARRIER AND WALL COPING REINFORCEMENT
  - 3- CATCH BASIN DETAILS - OPTION 1
  - 4- CATCH BASIN DETAILS - OPTION 2



11-25-98

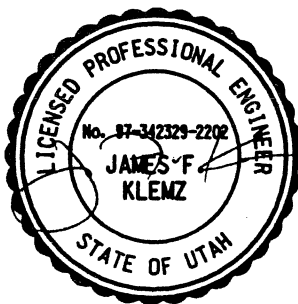
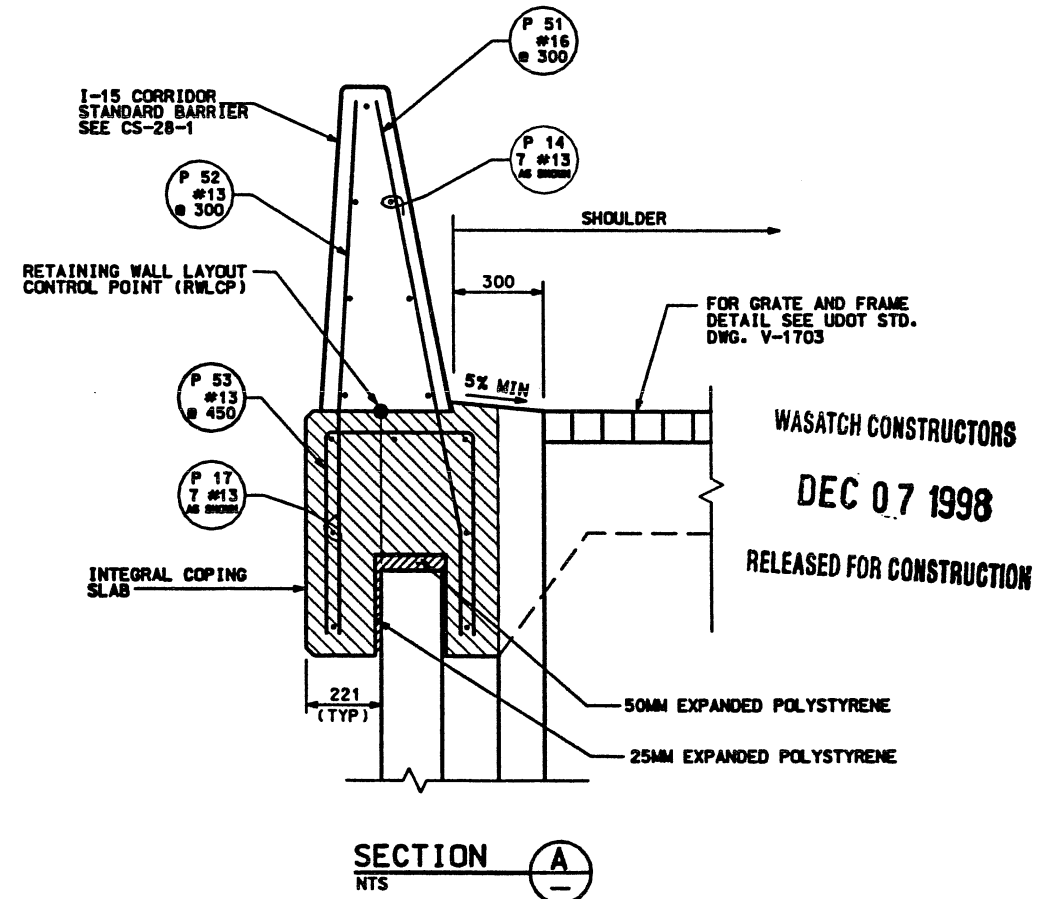
WASATCH CONSTRUCTORS  
 DEC 07 1998  
 RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
A	3/30/98	A	7/10/98
		A	11/24/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE.	
		REVISED RETAINING WALL COPING	
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW		TRACKING NO.	23134
DESIGN	CHECK	DATE	
3/98	3/98	3/98	
DRAMA	BJJ	3/98	
QUANT.	N/A	CHECK	N/A
		CHECK	N/A
MARK V. BOHA	PROJECT DESIGN ENGINEER	JOHN TERRY	SECTION MANAGER
3/20/98	DATE	3/20/98	DATE
APPROVAL RECORD		APPROVED	
I-15 CORRIDOR RECONSTRUCTION			
MSE ONE STAGE CATCH BASIN A1			
CORRIDOR STANDARD PLAN			
PROJECT NUMBER #SP-15-7(135)296			
SALT LAKE COUNTY			
DWG. NO. CS-18-1			
SHT. OF			

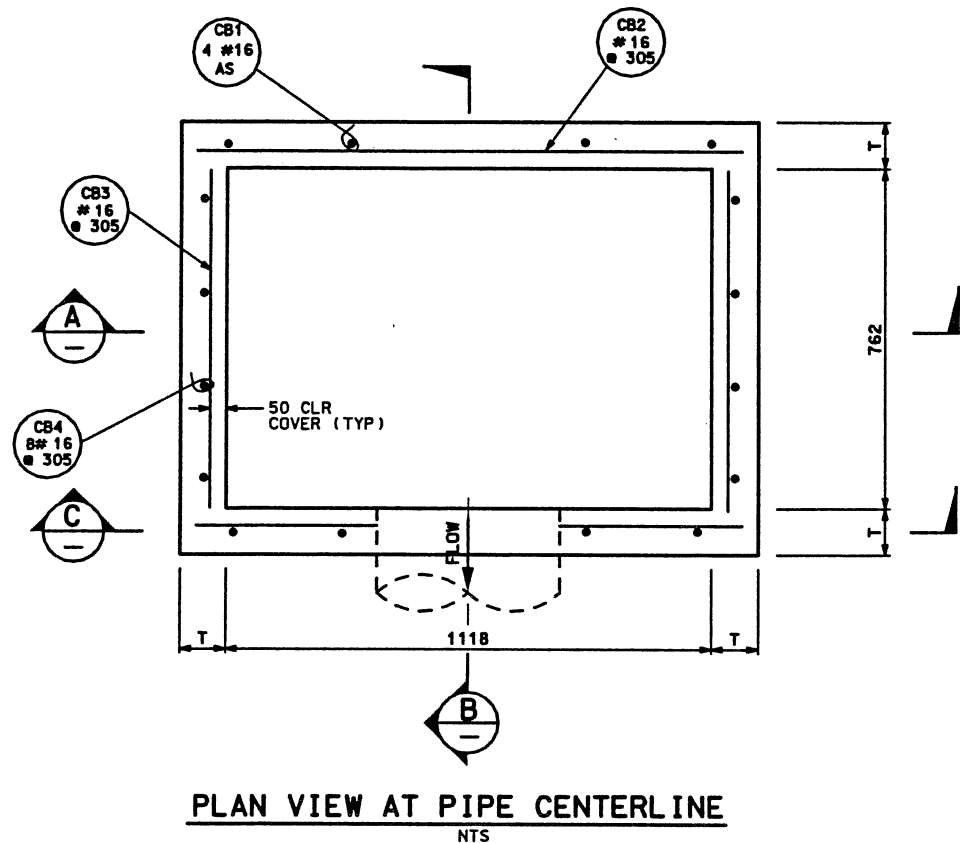


BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
P51	@ 300	16	-	1580	
P52	@ 300	13	-	1580	
P53	@ 450	13	-	1420	
P17	AS SHOWN	13	7	VARIES	
P14	AS SHOWN	13	7	VARIES	

\* BASED UPON 628 MINIMUM: DIMENSION SHOULD INCREASE FOR LARGER DIMENSION.

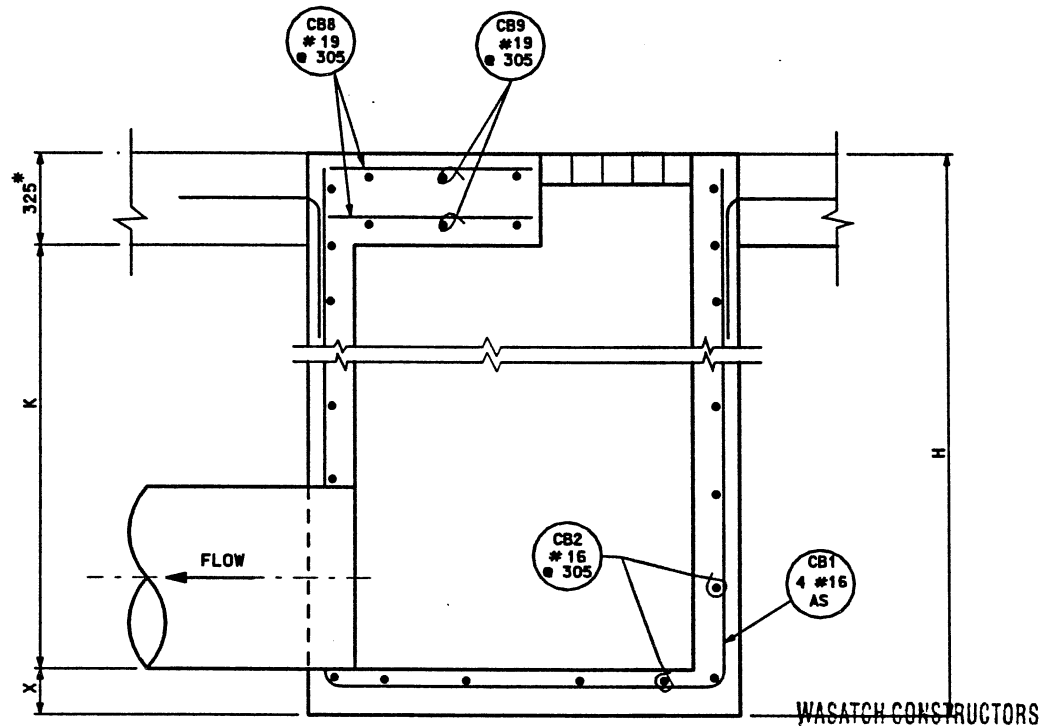


APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	3/30/98	1	3/30/98
2	7/10/98	2	7/10/98
3	11/20/98	3	11/20/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE.	
MODIFIED REINFORCING AND BARRIER SHAPE - TOTAL SHEET REVISION		MODIFIED REINFORCING AND BARRIER SHAPE - TOTAL SHEET REVISION	
TRACKING NO.		23134	
SYVERDRUP/DE LEUW		CHECK DATE	
DESIGN	3/98	CHECK	3/98
DRAMA	3/98	CHECK	3/98
QUART.	N/A	CHECK	N/A
MARK V. BOGA	DATE	JOHN TERRY	DATE
PROJECT DESIGN ENGINEER		SECTION MANAGER	
APPROVAL	DATE	APPROVED	DATE
3/20/98		3/20/98	
I-15 CORRIDOR RECONSTRUCTION		MSE ONE STAGE CATCH BASIN AT	
CORRIDOR STANDARD PLAN		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. CS-18-2	
SHT. 1 OF 2			



PLAN VIEW AT PIPE CENTERLINE

NTS



SECTION B

NTS

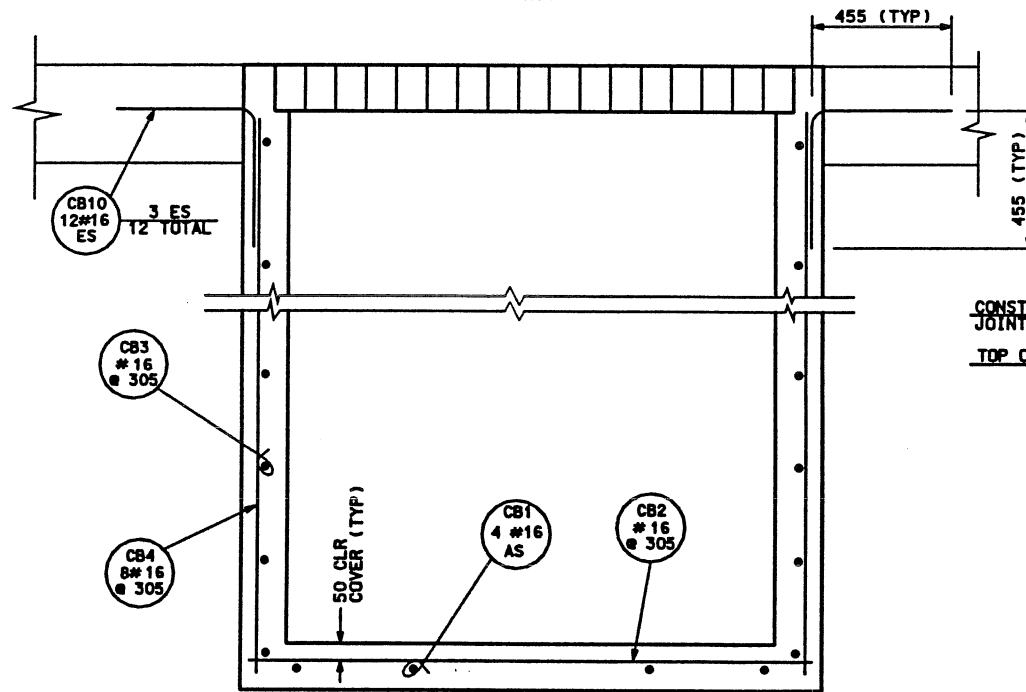
WASATCH CONSTRUCTORS

APR 14 1998

RELEASED FOR CONSTRUCTION

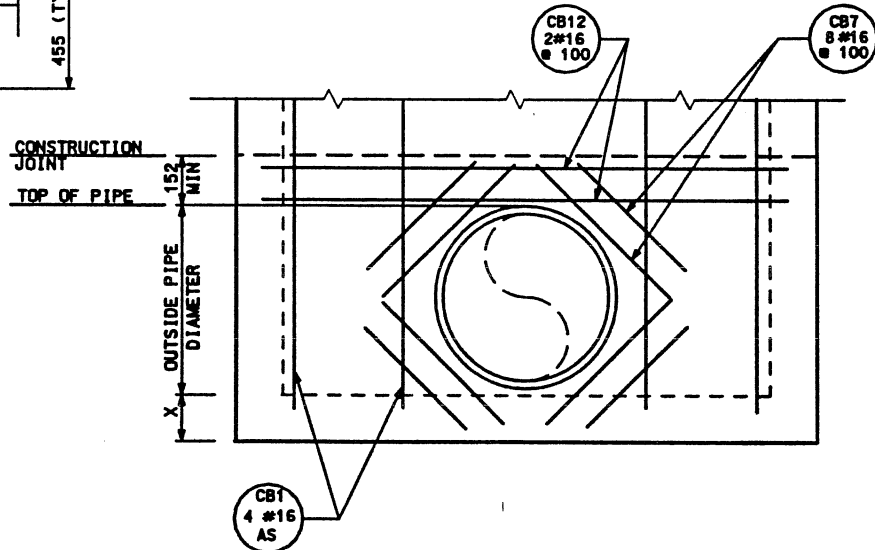
\* 325 DIMENSION IS GIVEN FOR INTEGRAL CONSTRUCTION OF CATCH BASIN LID WITH ROADWAY PCCP. MINIMUM REQUIRED THICKNESS OF LID IS 305. IF MINIMUM IS USED, ADJUST 'K' DIMENSION ACCORDINGLY; 'H' REMAINS THE SAME.

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	178
2	1	1346	843	152	178
3	1	1499	996	152	178
4	1	1651	1148	152	178
5	1	1803	1300	152	178
6	1	1956	1453	152	178
7	1	2108	1605	152	178
8	1	2261	1758	152	203
9	1	2413	1910	152	203
10	1	2566	2063	152	203
11	1	2718	2215	152	203
12	1	2871	2368	152	203
13	1	3023	2520	152	203
14	1	3176	2673	152	203
15	1	3328	2825	152	203
16	1	3481	2978	152	203
17	1	3633	3130	152	203
18	1	3786	3283	152	203
19	1	3938	3435	152	203
20	1	4091	3588	152	203
21	1	4243	3740	152	203
22	1	4396	3893	152	203
23	1	4548	4045	152	203
24	1	4701	4198	152	203
25	1	4853	4350	152	203
26	1	5006	4503	152	203
27	1	5158	4655	152	203
28	1	5311	4808	152	203
29	1	5463	4960	152	203
30	1	5616	5113	152	203
31	1	5768	5265	152	203
32	1	5921	5418	152	203
33	1	6073	5570	152	203
34	1	6226	5723	152	203
35	1	6378	5875	152	203
36	1	6531	6028	152	203
37	1	6683	6180	152	203
38	1	6836	6333	152	203
39	1	6988	6485	152	203
40	1	7141	6638	152	203
41	1	7293	6790	152	203
42	1	7446	6943	152	203
43	1	7598	7095	152	203
44	1	7751	7248	152	203
45	1	7903	7400	152	203
46	1	8056	7553	152	203
47	1	8208	7705	152	203
48	1	8361	7858	152	203
49	1	8513	8010	152	203
50	1	8666	8163	152	203
51	1	8818	8315	152	203
52	1	8971	8468	152	203
53	1	9123	8620	152	203
54	1	9276	8773	152	203



SECTION A

NTS

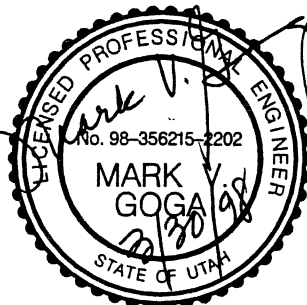


SECTION C

NTS

CATCH BASIN CONSTRUCTION OPTION 1

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	4	VARIES	
CB2	@ 305	16	-	VARIES	
CB3	@ 305	16	-	VARIES	
CB4	AS SHOWN	16	8	VARIES	
CB7	@ 100	16	8	VARIES	
CB8	@ 305	19	-	VARIES	
CB9	@ 305	19	-	VARIES	
CB10	AS SHOWN	16	12	910	
CB12	@ 100	16	2	VARIES	



APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN NO. 3/98 TRACKING NO. 23134

DESIGNER: MARK V. GOGA

PROJECT DESIGN ENGINEER: JOHN TERRY

SECTION MANAGER: [ ]

I-15 CORRIDOR RECONSTRUCTION

CATCH BASIN DETAIL - OPTION 1

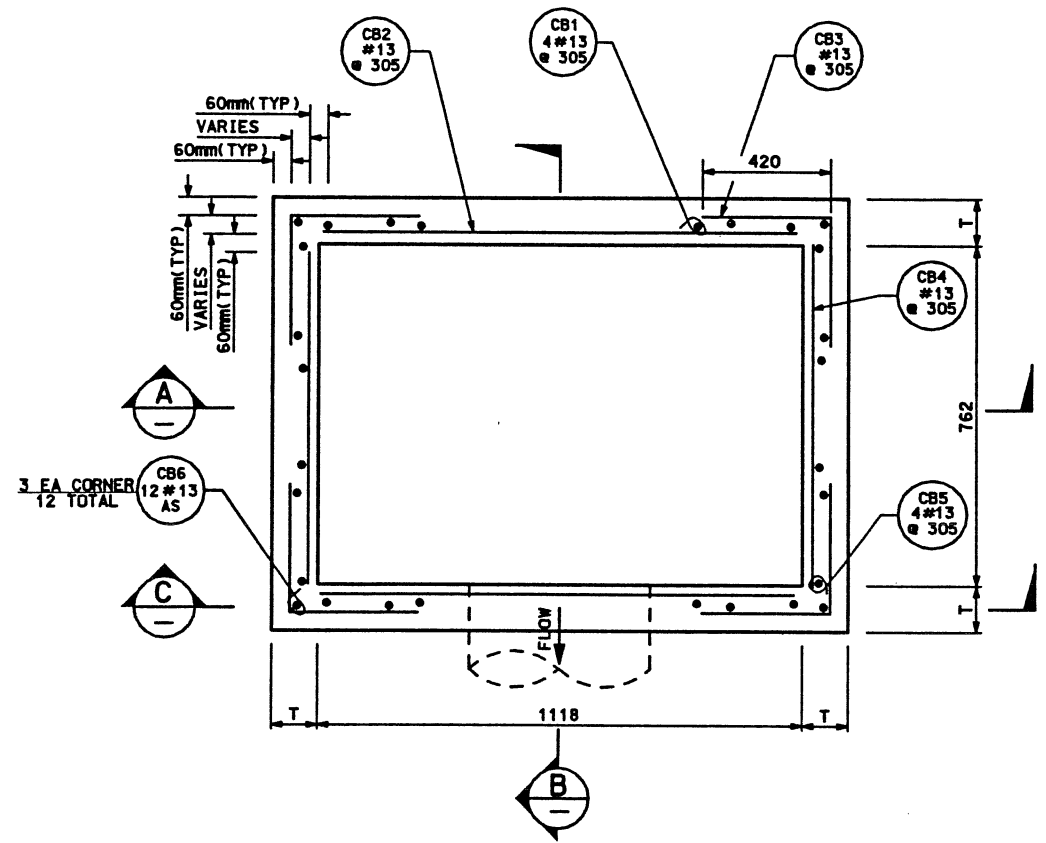
CORRIDOR STANDARD PLAN

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

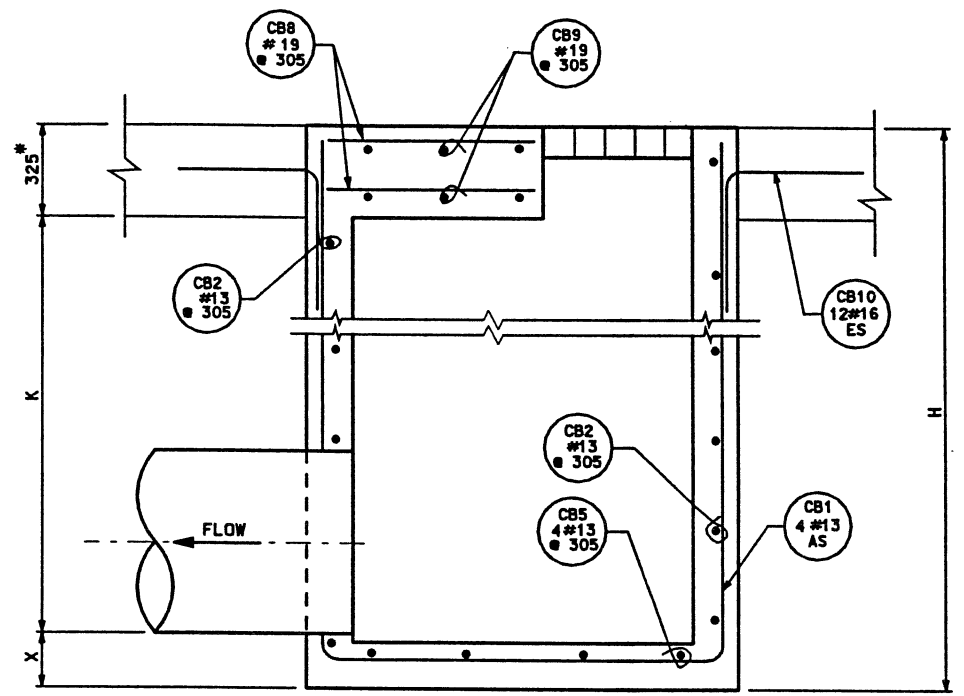
SALT LAKE COUNTY

DWG. NO. CS-18-3

SHT. OF

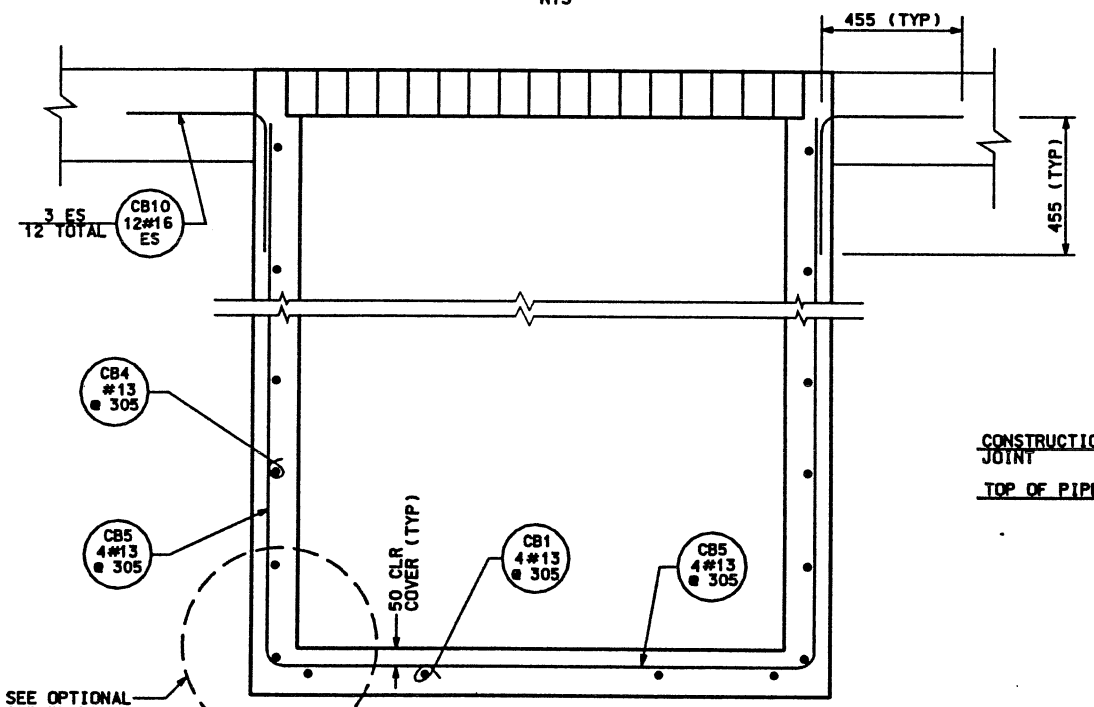


PLAN VIEW AT PIPE CENTERLINE  
NTS

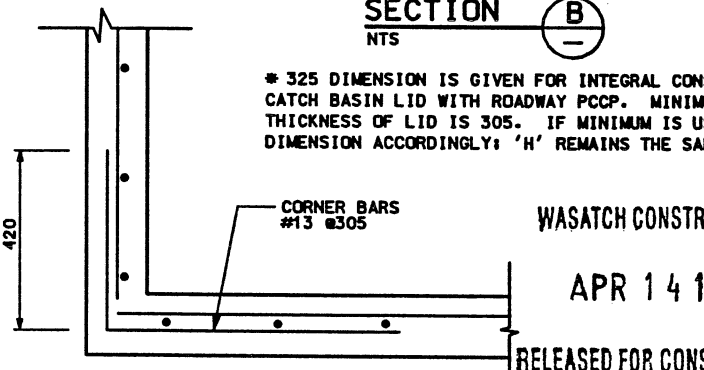


SECTION B  
NTS

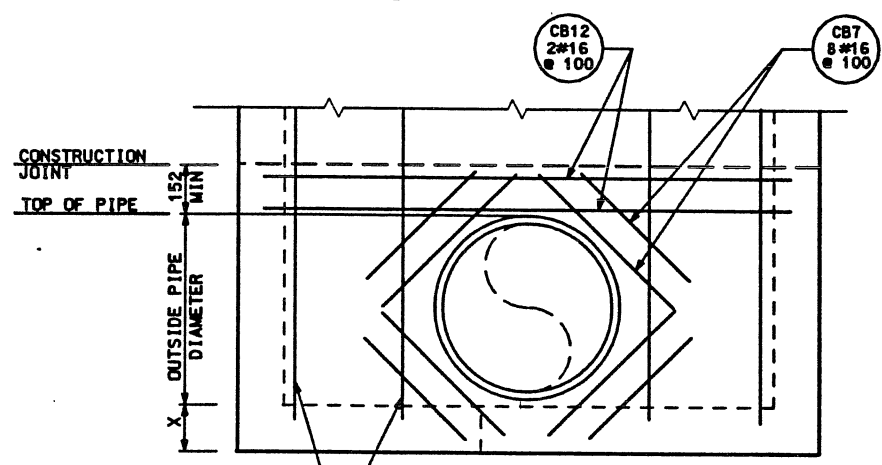
\* 325 DIMENSION IS GIVEN FOR INTEGRAL CONSTRUCTION OF CATCH BASIN LID WITH ROADWAY PCCP. MINIMUM REQUIRED THICKNESS OF LID IS 305. IF MINIMUM IS USED, ADJUST 'K' DIMENSION ACCORDINGLY; 'H' REMAINS THE SAME.



SECTION A  
NTS



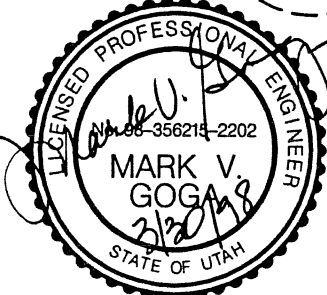
CORNER DETAIL (OPTIONAL)  
NTS



SECTION C  
NTS

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	222
2	1	1346	843	152	222
3	1	1499	996	152	222
4	1	1651	1148	152	222
5	1	1805	1300	152	222
6	1	1956	1453	152	222
7	1	2108	1605	152	222
8	1	2266	1758	152	222
9	1	2438	1910	152	222
10	1	2590	2062	152	222
11	1	2745	2215	152	222
12	1	2895	2367	152	222
13	1	3048	2520	152	222
14	1	3200	2672	152	222
15	1	3352	2824	152	222
16	1	3505	2977	152	222
17	1	3657	3129	152	222
18	1	3810	3282	152	222
19	1	3962	3434	152	222
20	1	4114	3586	152	222
21	1	4267	3739	152	222
22	1	4419	3891	152	222
23	1	4572	4044	152	222
24	1	4724	4196	152	222
25	1	4876	4348	152	222
26	1	5029	4501	152	222
27	1	5181	4653	152	222
28	1	5334	4806	152	222
29	1	5486	4958	152	222
30	1	5638	5110	152	222
31	1	5791	5263	152	222
32	1	5943	5415	152	222
33	1	6096	5568	152	222
34	1	6248	5720	152	222
35	1	6401	5872	152	222
36	1	6553	6025	152	222
37	1	6706	6177	152	222
38	1	6858	6330	152	222
39	1	7011	6482	152	222
40	1	7163	6634	152	222
41	1	7316	6787	152	222
42	1	7468	6939	152	222
43	1	7621	7092	152	222
44	1	7773	7244	152	222
45	1	7926	7396	152	222
46	1	8078	7549	152	222
47	1	8231	7701	152	222
48	1	8383	7854	152	222
49	1	8536	8006	152	222
50	1	8688	8158	152	222
51	1	8841	8311	152	222
52	1	8993	8463	152	222
53	1	9146	8616	152	222
54	1	9298	8768	152	222

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	13	4	VARIES	VAR
CB2	@ 305	13	-	VARIES	VARIES
CB3	@ 305	13	-	840	420
CB4	@ 305	13	-	VARIES	VARIES
CB5	@ 100	13	4	VARIES	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
CB12	@ 100	16	2	VARIES	VARIES



CATCH BASIN CONSTRUCTION OPTION 2

APPROVED FOR CONSTRUCTION

UTAH DEPARTMENT OF TRANSPORTATION

I-15 CORRIDOR RECONSTRUCTION

SALT LAKE COUNTY  
DWG. NO. CS-18-4

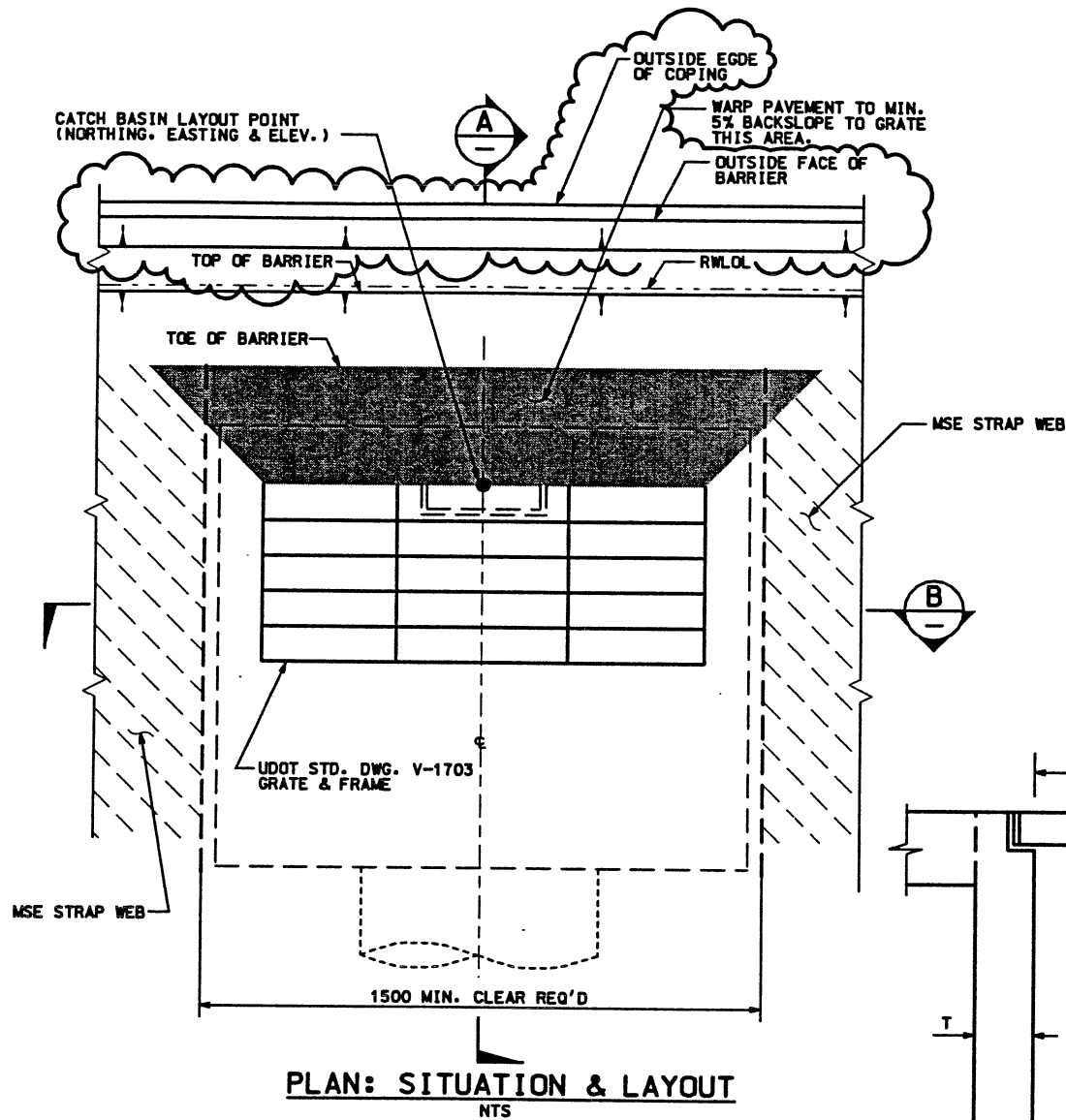
SHT. OF

NO. DATE DESCRIPTION  
3.30/98 ORIGINAL RELEASE.

TRACKING NO. 23134

DESIGNER: MARK V. GOGGIN  
CHECKER: J.L.J.  
DATE: 3/30/98

PROJECT: CORRIDOR STANDARD PLAN  
PROJECT NUMBER: #SP-15-7(135)296  
SECTION MANAGER: JOHN TERRY



PLAN: SITUATION & LAYOUT  
NTS

**GENERAL NOTES:**

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED, DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31M, GRADE 420.
2. GRATE SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.
3. CONTRACTOR MAY ELECT TO CONSTRUCT BOX AS DETAILED IN OPTION 1 OR OPTION 2. SEE SHEETS 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. UNITS 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. DIMENSION IS FOR INTEGRAL CASTING IN PLACE WITH 325 mm THICK ROADWAY SURFACE SLAB. THE MINIMUM CATCH BASIN CONCRETE THICKNESS OF THE LID ADJACENT TO THE GRATE REQUIRED IS 305 mm. IF MINIMUM DIMENSION IS USED, 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).

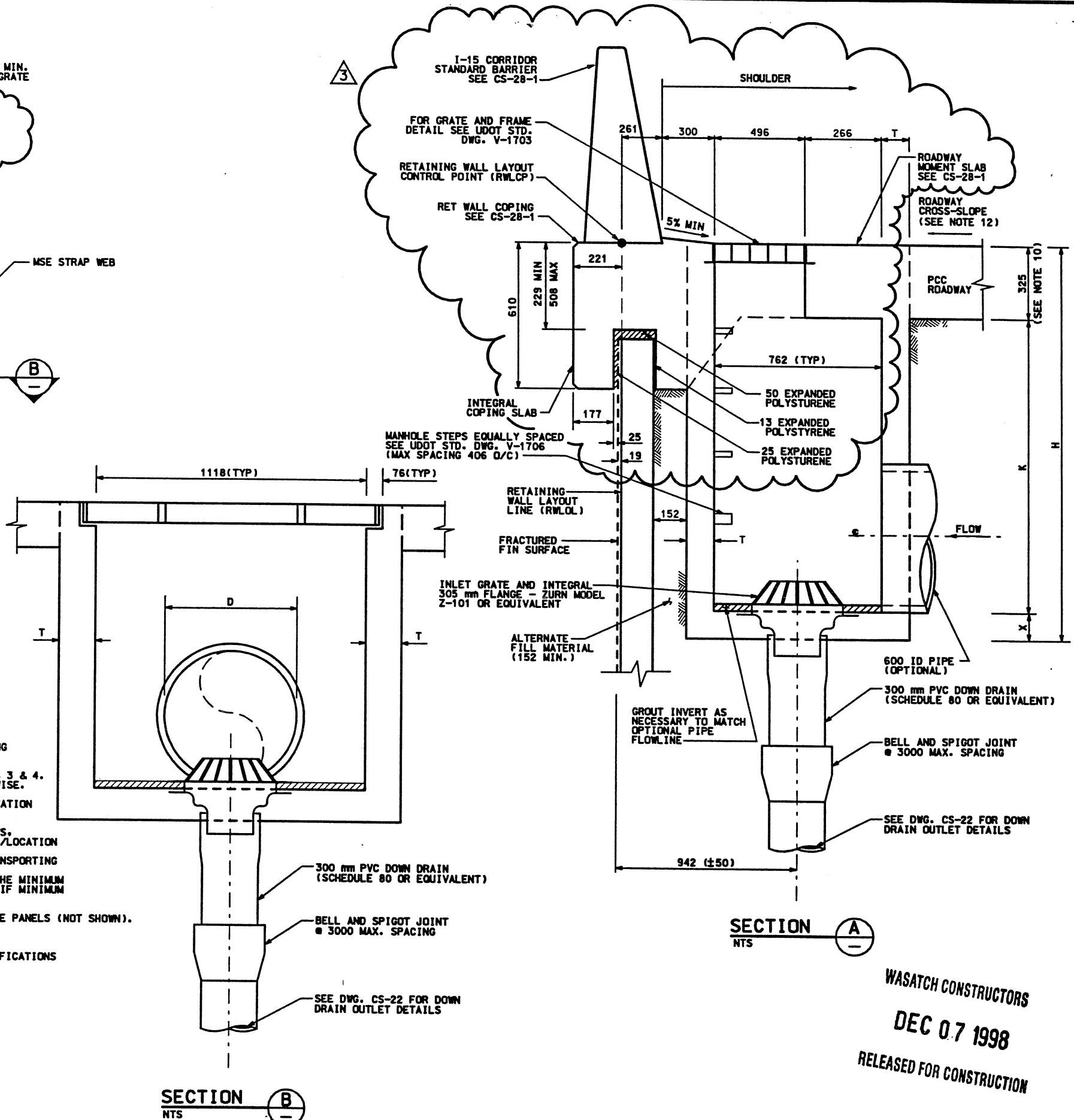
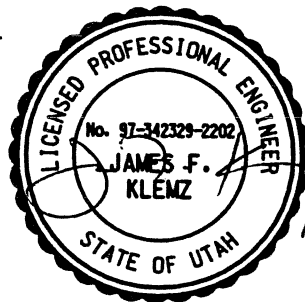
**DESIGN DATA:**

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

CAST-IN-PLACE STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 REINFORCING STEEL:  $f_y = 420$  MPa  
 STRUCTURAL STEEL:  $f_y = 250$  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

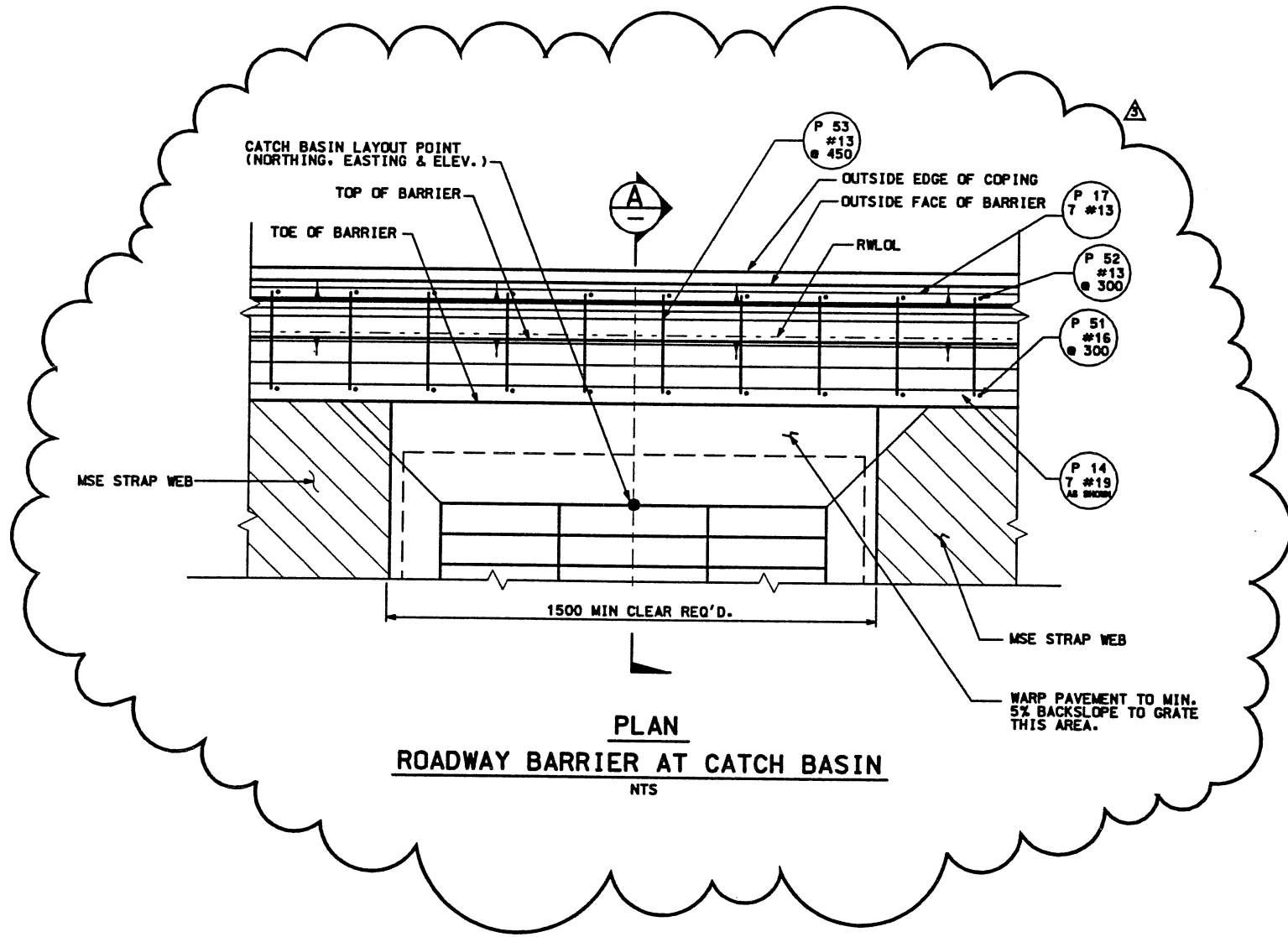


SECTION A  
NTS

SECTION B  
NTS

WASATCH CONSTRUCTORS  
 DEC 07 1998  
 RELEASED FOR CONSTRUCTION

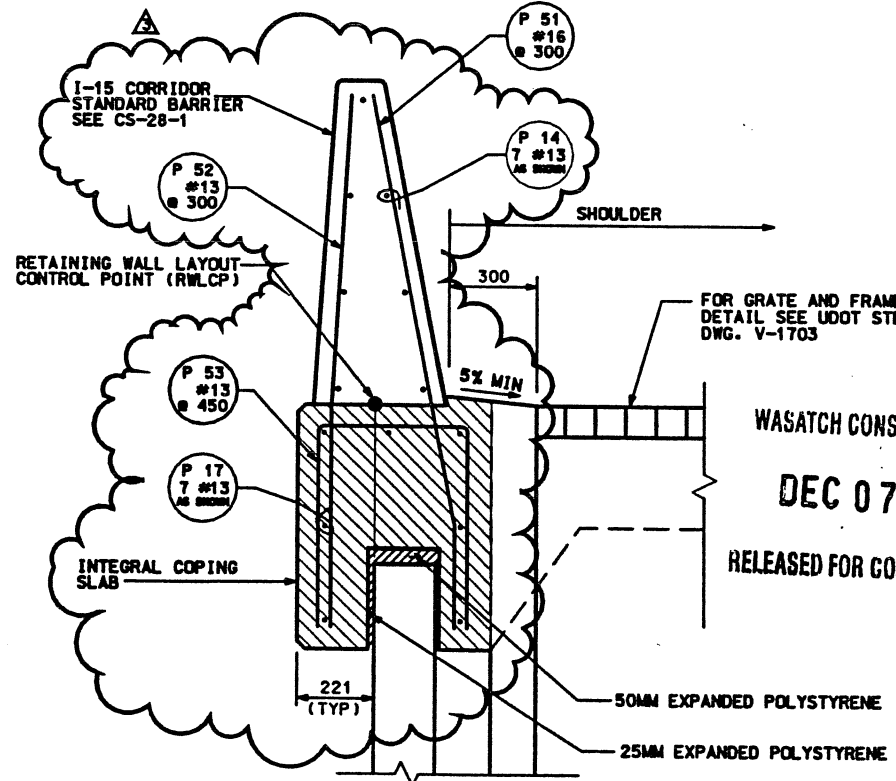
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NO.	DATE	NO.	DATE
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2	7/10/98	2	7/10/98
3	11/24/98	3	11/24/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE.	
REVISED RET WALL COPING AND BARRIER		23134	
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW		TRACKING NO.	
DESIGN	3/98	CHECK	3/98
DRAWN	JLJ	CHECK	3/98
QUANT.	M/A	CHECK	M/A
PROJECT #SP-15-7(135)296			
SALT LAKE COUNTY			
DWG. NO. CS-19-1			
SHT. OF			



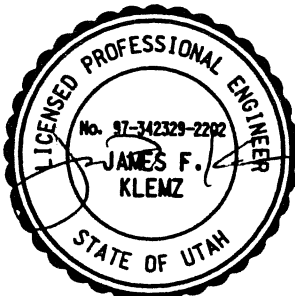
**PLAN**  
**ROADWAY BARRIER AT CATCH BASIN**  
NTS

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
P51	△ @ 300	16	-	1580	
P52	@ 300	13	-	1580	
P53	@ 450	13	-	1420	
P17	AS SHOWN	13	7	VARIES	
P14	AS SHOWN	13	7	VARIES	

\* BASED UPON 628 MINIMUM; DIMENSION SHOULD INCREASE FOR LARGER DIMENSION.



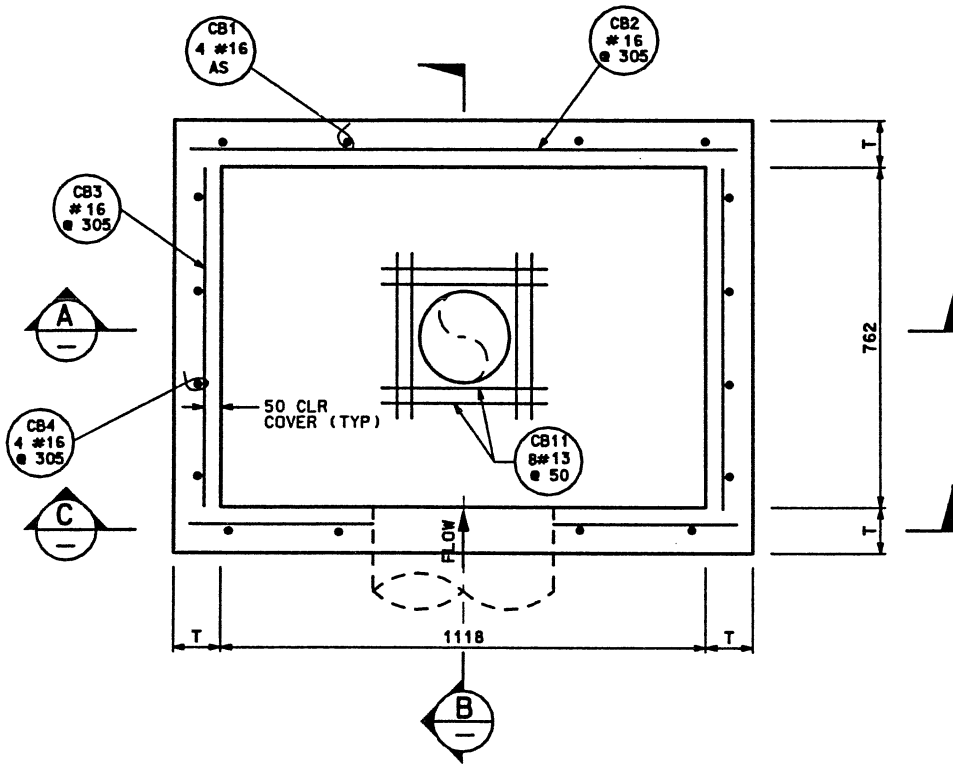
**SECTION**  
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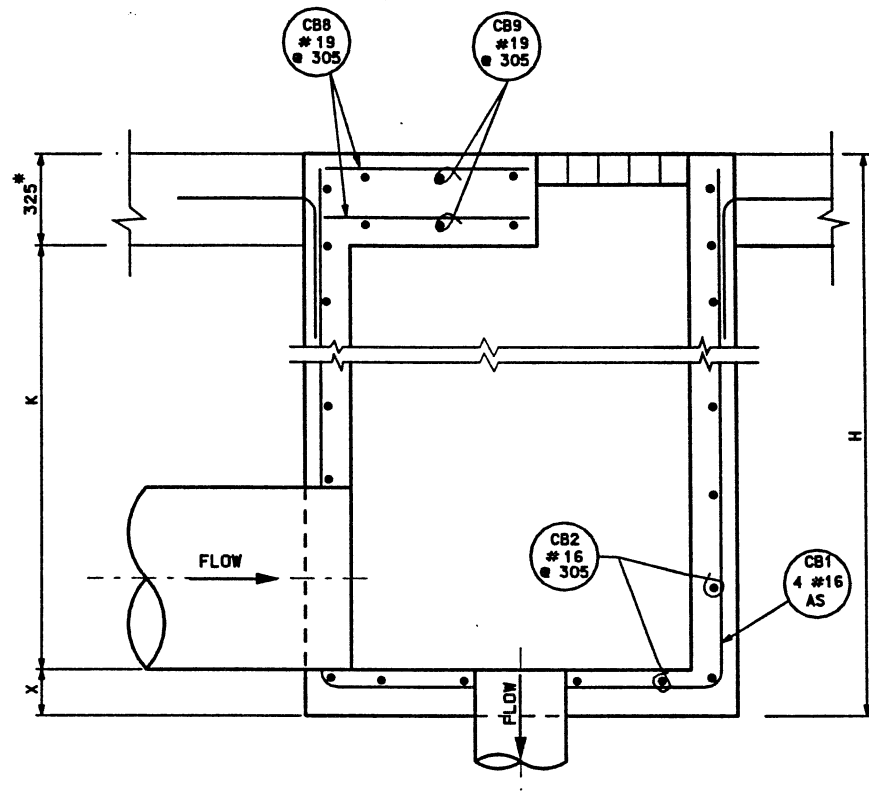
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	DATE	DESCRIPTION
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△	7/10/98	△	MODIFIED EXPANDED POLYSTYRENE.
△	11/19/98	△	MODIFIED BARRIER SHAPE
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	23134
SVERDRUP/DE LEUW		CHECK BY	3/98
MARK V. BOGA		DESIGN BY	3/98
PROJECT DESIGN ENGINEER		DRAWN BY	JLJ 3/98
DATE		QUANT. M/A	
APPROVED 3/28/98		DATE	
SECTION MANAGER		DATE	
I-15 CORRIDOR RECONSTRUCTION	MSE ONE STAGE CATCH BASIN A2	CORRIDOR STANDARD PLAN	
PROJECT NUMBER #SP-15-7(135)296		SALT LAKE COUNTY	
DWC. NO. CS-19-2		SHT. OF	

WASATCH CONSTRUCTORS  
**DEC 07 1998**  
RELEASED FOR CONSTRUCTION

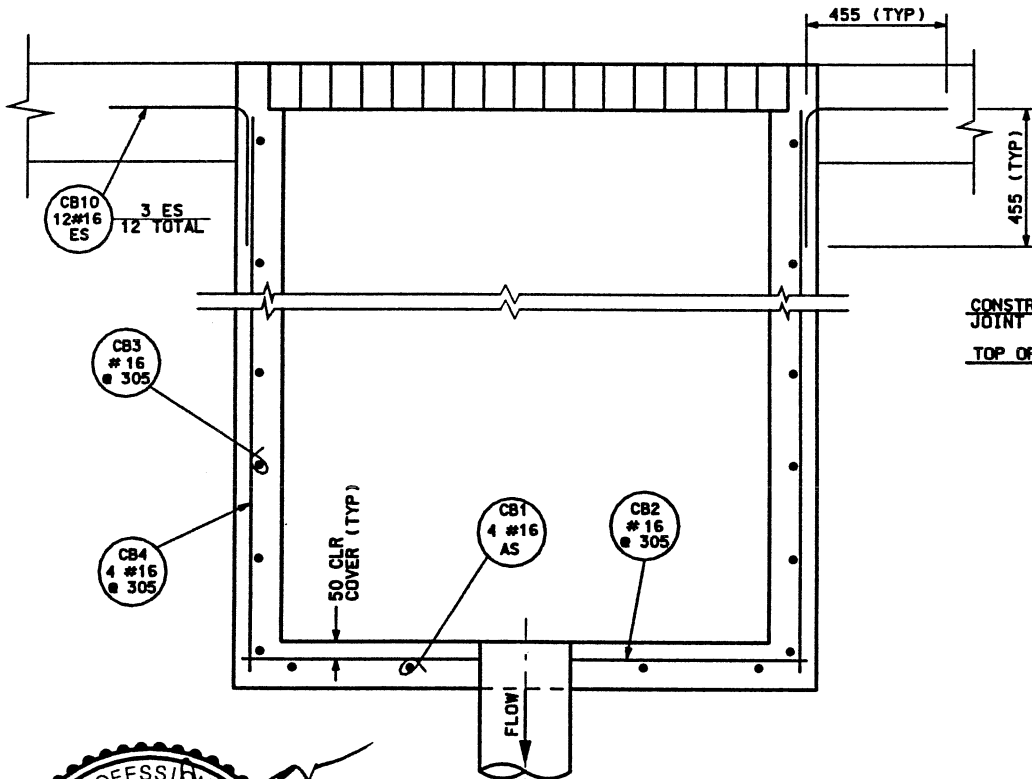




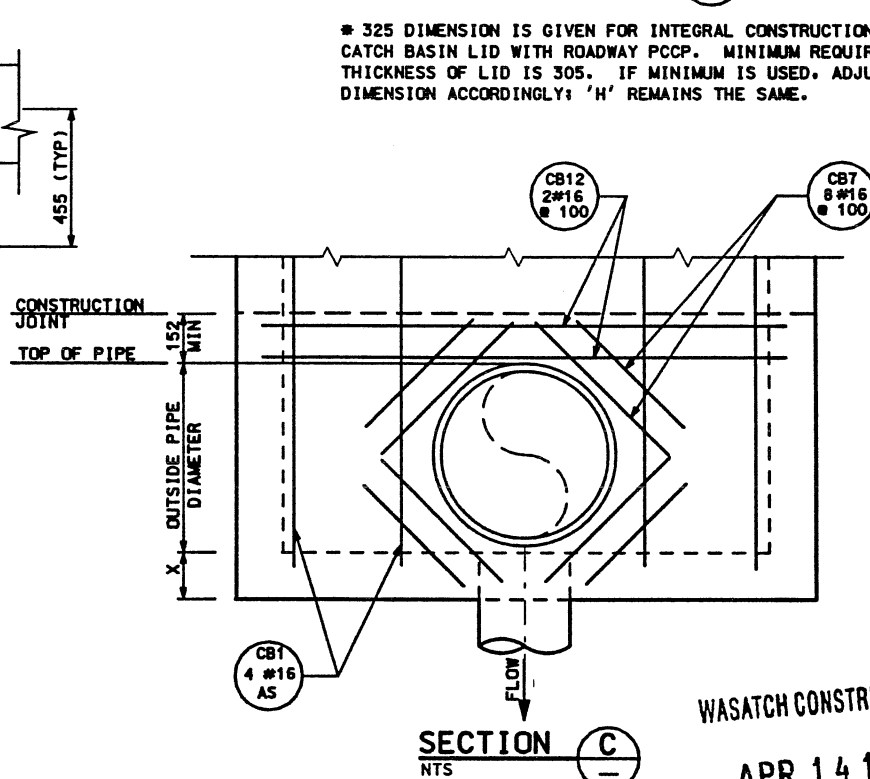
PLAN VIEW AT PIPE CENTERLINE  
NTS



SECTION B  
NTS



SECTION A  
NTS



SECTION C  
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.

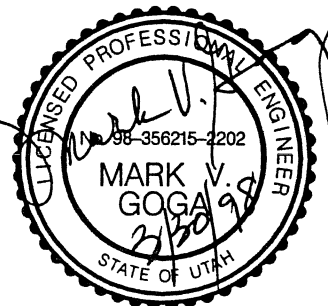
CATCH BASIN CONSTRUCTION OPTION 1

CONSTRUCTION TABLE - COLUMN 'A'

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	1152	1152
2	1	1446	843	1404	1404
3	1	1498	895	1456	1456
4	1	1651	1048	1608	1608
5	1	1803	1200	1760	1760
6	1	1956	1353	1912	1912
7	1	2108	1505	2064	2064
8	1	2261	1658	2216	2216
9	1	2413	1810	2368	2368
10	1	2566	1963	2520	2520
11	1	2718	2115	2672	2672
12	1	2871	2268	2824	2824
13	1	3023	2420	2976	2976
14	1	3176	2573	3128	3128
15	1	3328	2725	3280	3280
16	1	3481	2878	3432	3432
17	1	3633	3030	3584	3584
18	1	3786	3183	3736	3736
19	1	3938	3335	3888	3888
20	1	4091	3488	4040	4040
21	1	4243	3640	4192	4192
22	1	4396	3793	4344	4344
23	1	4548	3945	4496	4496
24	1	4701	4098	4648	4648
25	1	4853	4250	4800	4800
26	1	5006	4403	4952	4952
27	1	5158	4555	5104	5104
28	1	5311	4708	5256	5256
29	1	5463	4860	5408	5408
30	1	5616	5013	5560	5560
31	1	5768	5165	5712	5712
32	1	5921	5318	5864	5864
33	1	6073	5470	6016	6016
34	1	6226	5623	6168	6168
35	1	6378	5775	6320	6320
36	1	6531	5928	6472	6472
37	1	6683	6080	6624	6624
38	1	6836	6233	6776	6776
39	1	6988	6385	6928	6928
40	1	7141	6538	7080	7080
41	1	7293	6690	7232	7232
42	1	7446	6843	7384	7384
43	1	7598	6995	7536	7536
44	1	7751	7148	7688	7688
45	1	7903	7300	7840	7840
46	1	8056	7453	7992	7992
47	1	8208	7605	8144	8144
48	1	8361	7758	8296	8296
49	1	8513	7910	8448	8448
50	1	8666	8063	8600	8600
51	1	8818	8215	8752	8752
52	1	8971	8368	8904	8904
53	1	9123	8520	9056	9056
54	1	9276	8673	9208	9208
55	1	9428	8825	9360	9360
56	1	9581	8978	9512	9512
57	1	9733	9130	9664	9664
58	1	9886	9283	9816	9816
59	1	10038	9435	9968	9968
60	1	10191	9588	10120	10120
61	1	10343	9740	10272	10272
62	1	10496	9893	10424	10424
63	1	10648	10045	10576	10576
64	1	10801	10198	10728	10728
65	1	10953	10350	10880	10880
66	1	11106	10503	11032	11032
67	1	11258	10655	11184	11184
68	1	11411	10808	11336	11336
69	1	11563	10960	11488	11488
70	1	11716	11113	11640	11640
71	1	11868	11265	11792	11792
72	1	12021	11418	11944	11944
73	1	12173	11570	12096	12096
74	1	12326	11723	12248	12248
75	1	12478	11875	12400	12400
76	1	12631	12028	12552	12552
77	1	12783	12180	12704	12704
78	1	12936	12333	12856	12856
79	1	13088	12485	13008	13008
80	1	13241	12638	13160	13160
81	1	13393	12790	13312	13312
82	1	13546	12943	13464	13464
83	1	13698	13095	13616	13616
84	1	13851	13248	13768	13768
85	1	14003	13400	13920	13920
86	1	14156	13553	14072	14072
87	1	14308	13705	14224	14224
88	1	14461	13858	14376	14376
89	1	14613	14010	14528	14528
90	1	14766	14163	14680	14680
91	1	14918	14315	14832	14832
92	1	15071	14468	14984	14984
93	1	15223	14620	15136	15136
94	1	15376	14773	15288	15288
95	1	15528	14925	15440	15440
96	1	15681	15078	15592	15592
97	1	15833	15230	15744	15744
98	1	15986	15383	15896	15896
99	1	16138	15535	16048	16048
100	1	16291	15688	16200	16200

BARRIER REINFORCING STEEL SCHEDULE

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



WASATCH CONSTRUCTORS  
APR 14 1998  
RELEASED FOR CONSTRUCTION

UTAH DEPARTMENT OF TRANSPORTATION

APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

TRACKING NO. 23134

DESIGN: MARK V. GOGA, DATE: 3/30/98, CHECK: SVERDRUP/DE LEUW

DRAWN: JOHN TERRY, DATE: 3/30/98, CHECK: SVERDRUP/DE LEUW

SECTION MANAGER: [NAME], DATE: [DATE], CHECK: N/A

I-15 CORRIDOR RECONSTRUCTION  
CATCH BASIN DETAIL - OPTION 1

CORRIDOR STANDARD PLAN

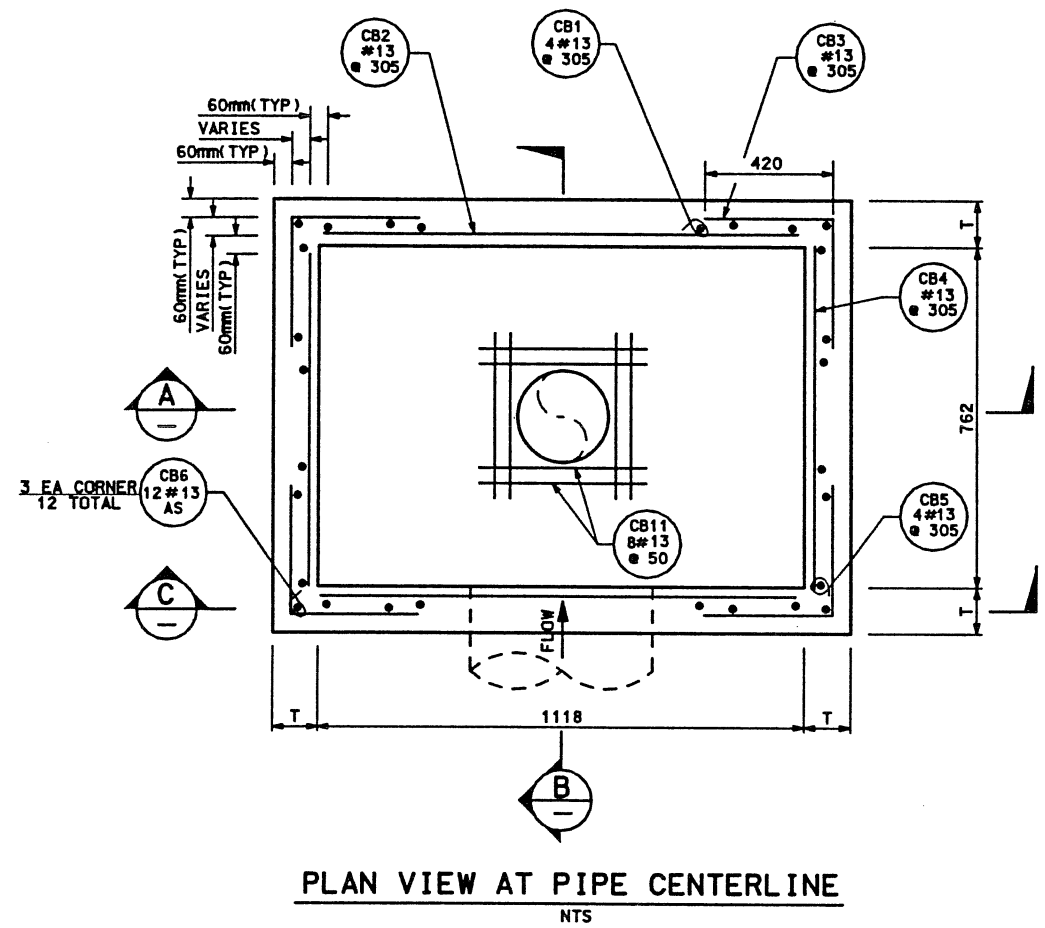
PROJECT NUMBER: #SP-15-7(135)296

SALT LAKE COUNTY  
DWG. NO. CS-19-3

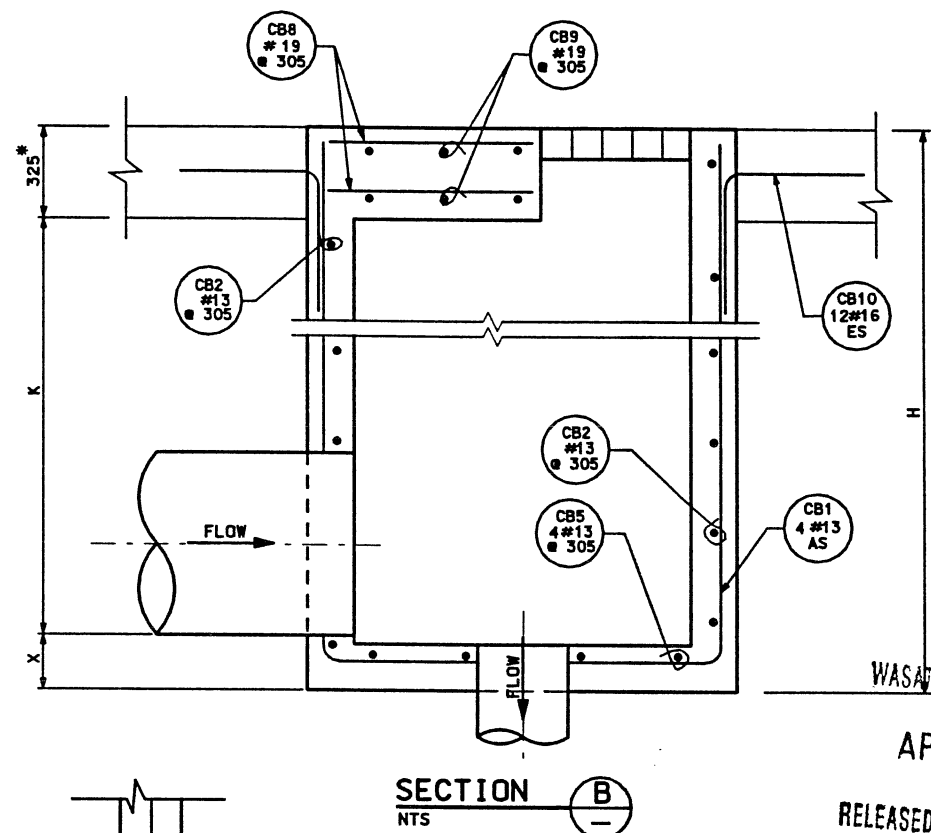
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Date: 31-MAR-1998 Time: 09:39 User: mcr.coe@ut

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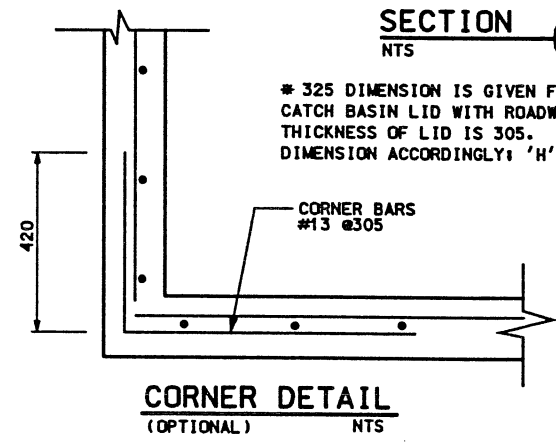


PLAN VIEW AT PIPE CENTERLINE  
NTS

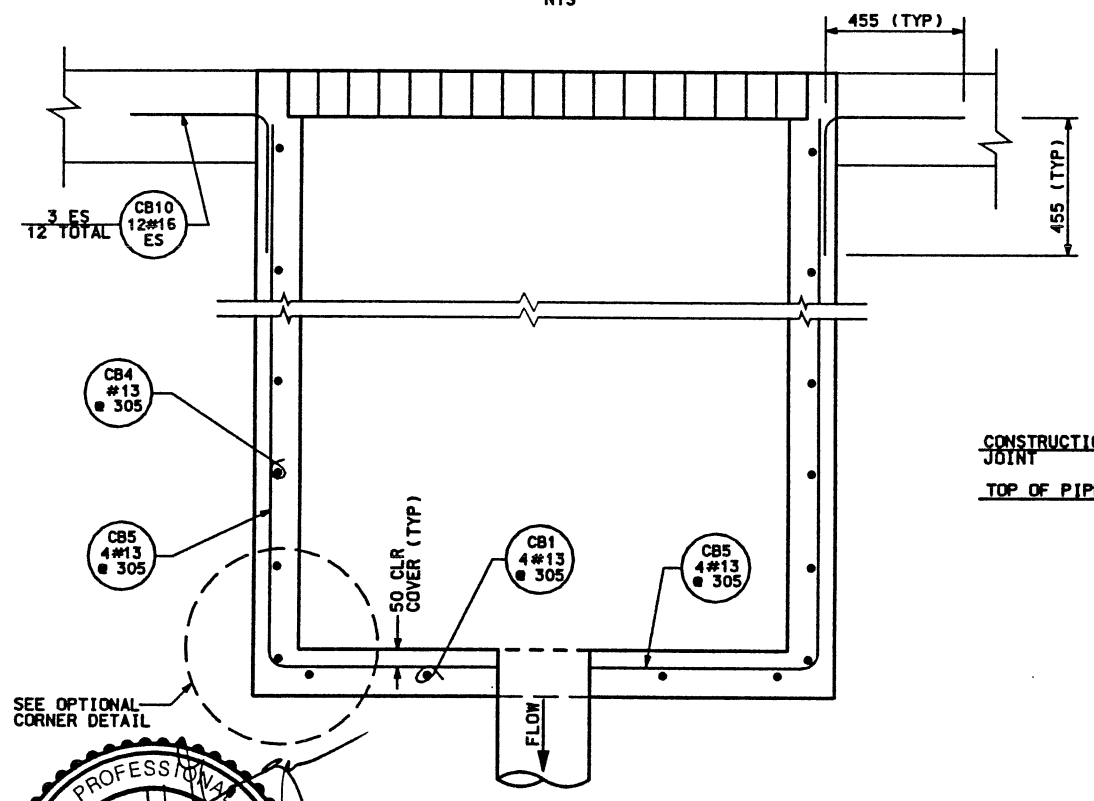


SECTION B  
NTS

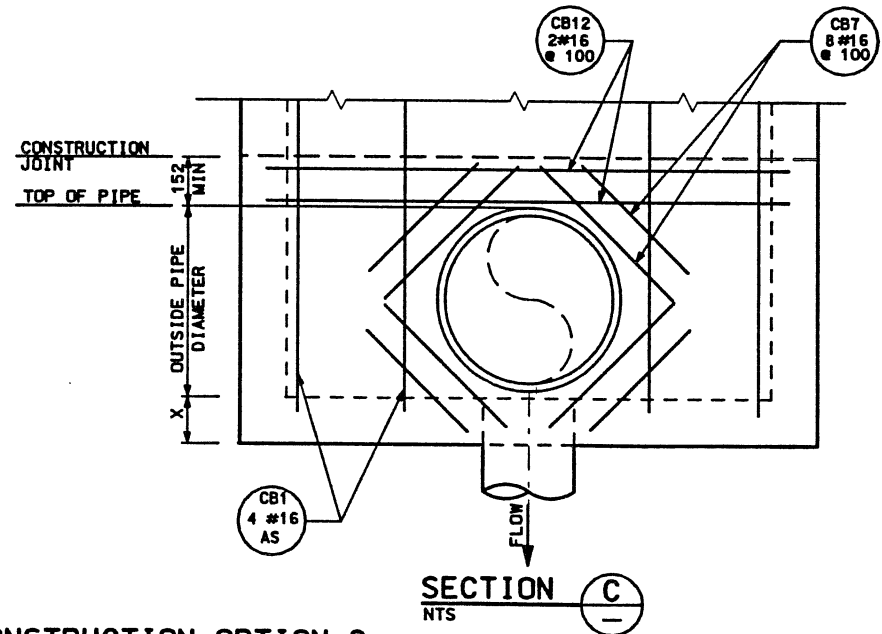
\* 325 DIMENSION IS GIVEN FOR INTEGRAL CONSTRUCTION OF CATCH BASIN LID WITH ROADWAY PCCP. MINIMUM REQUIRED THICKNESS OF LID IS 305. IF MINIMUM IS USED, ADJUST 'K' DIMENSION ACCORDINGLY; 'H' REMAINS THE SAME.



CORNER DETAIL  
(OPTIONAL) NTS

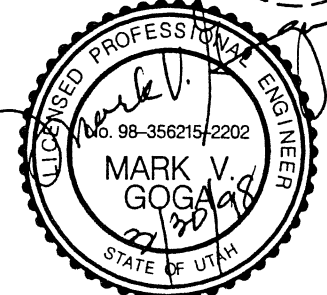


SECTION A  
NTS



SECTION C  
NTS

CATCH BASIN CONSTRUCTION OPTION 2



WASATCH CONSTRUCTION  
APR 14 1998  
RELEASED FOR CONSTRUCTION

LINE	# OF MANHOLE STEPS	DIMENSIONS			
		H	K	T	X
1	1	1194	691	152	229
2	1	1346	843	152	229
3	1	1499	996	152	229
4	1	1651	1148	152	229
5	1	1803	1300	152	229
6	1	1956	1453	152	229
7	1	2108	1605	152	229
8	1	2261	1758	152	229
9	1	2413	1910	152	229
10	1	2566	2062	152	229
11	1	2718	2215	152	229
12	1	2871	2367	152	229
13	1	3023	2520	152	229
14	1	3176	2672	152	229
15	1	3328	2824	152	229
16	1	3481	2977	178	203
17	1	3633	3129	178	203
18	1	3786	3282	178	203
19	1	3938	3434	178	203
20	1	4091	3586	178	203
21	1	4243	3739	178	203
22	1	4396	3891	203	229
23	1	4548	4044	203	229
24	1	4701	4196	203	229
25	1	4853	4348	203	229
26	1	5006	4501	203	229
27	1	5158	4653	203	229
28	1	5311	4806	203	229
29	1	5463	4958	203	229
30	1	5616	5110	203	229
31	1	5768	5263	203	229
32	1	5921	5415	203	229
33	1	6073	5568	203	229
34	1	6226	5720	203	229
35	1	6378	5872	203	229
36	1	6531	6025	203	229
37	1	6683	6177	203	229
38	1	6836	6330	203	229
39	1	6988	6482	203	229
40	1	7141	6634	203	229
41	1	7293	6787	203	229
42	1	7446	6939	203	229
43	1	7598	7092	203	229
44	1	7751	7244	203	229
45	1	7903	7396	203	229
46	1	8056	7549	203	229
47	1	8208	7701	203	229
48	1	8361	7854	203	229
49	1	8513	8006	203	229
50	1	8666	8158	203	229
51	1	8818	8311	203	229
52	1	8971	8463	203	229
53	1	9123	8616	203	304
54	1	9276	8768	203	307

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

APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN: MVB 3/78 CHECK: MVB 3/78 TRACKING NO. 23134

MARK V. GOGA PROJECT DESIGN ENGINEER

JOHN TERRY QUANT. M/A

APPROVAL: 3/30/98 DATE 3/30/98

APPROVED: 3/30/98 DATE

I-15 CORRIDOR RECONSTRUCTION

CATCH BASIN DETAIL - OPTION 2

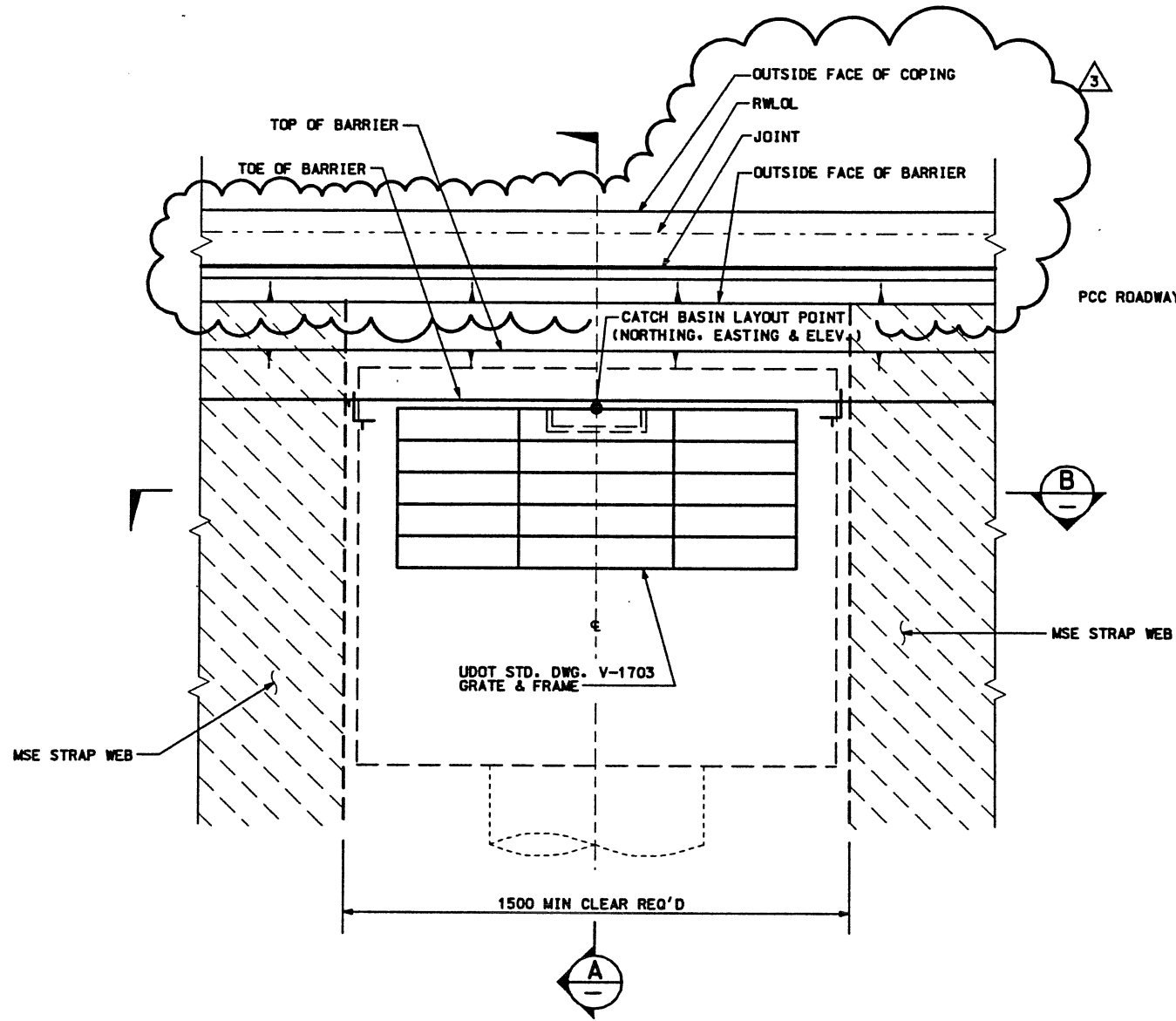
CORRIDOR STANDARD PLAN

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

SALT LAKE COUNTY

DWG. NO. CS-19-4

SHT. OF



PLAN: SITUATION & LAYOUT  
NTS

GENERAL NOTES:

1. ALL REINFORCING STEEL SHALL BE EPOXY COATED, DEFORMED BILLET-STEEL BARS AND CONFORMING TO AASHTO DESIGNATION M-31M, GRADE 420.
2. IF NOTED ON ROADWAY DRAINAGE PLANS, CONSTRUCT FORMED INVERT AS SHOWN.
3. CONTRACTOR MAY ELECT TO CONSTRUCT BOX AS DETAILED IN OPTION 1 OR OPTION 2. SEE SHEETS 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 ASSUMES 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. GRATE SHALL BE CONSTRUCTED TO MATCH ROADWAY CROSS-SLOPE AND PROFILE.
13. DESIGN APPROPRIATE FOR 3040 WIDE WALL PANELS. ADDITIONAL DETAIL REQUIRED FOR 1524 WIDE PANELS (NOT SHOWN).

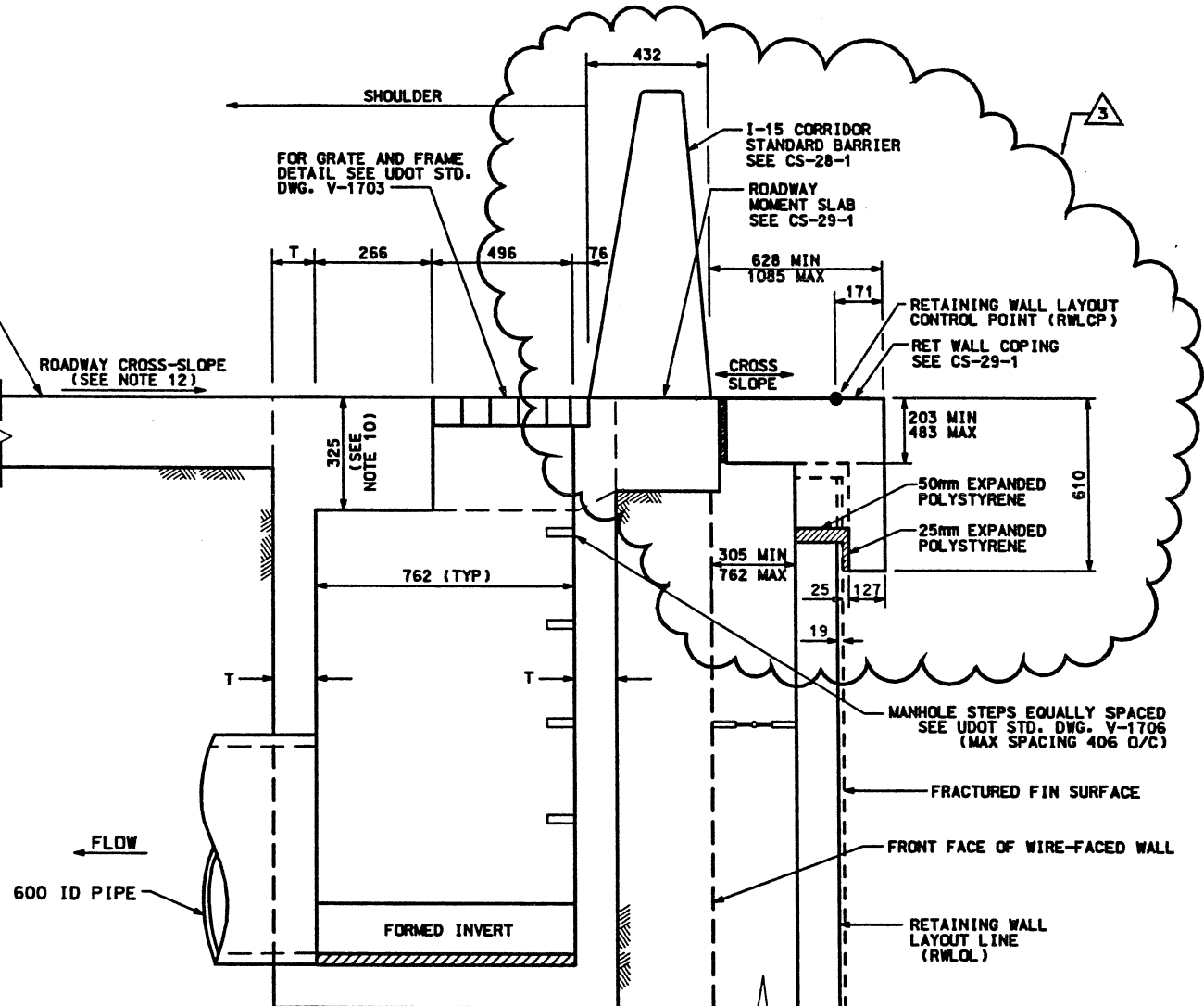
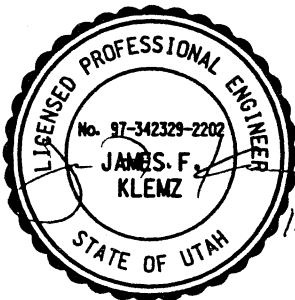
DESIGN DATA

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

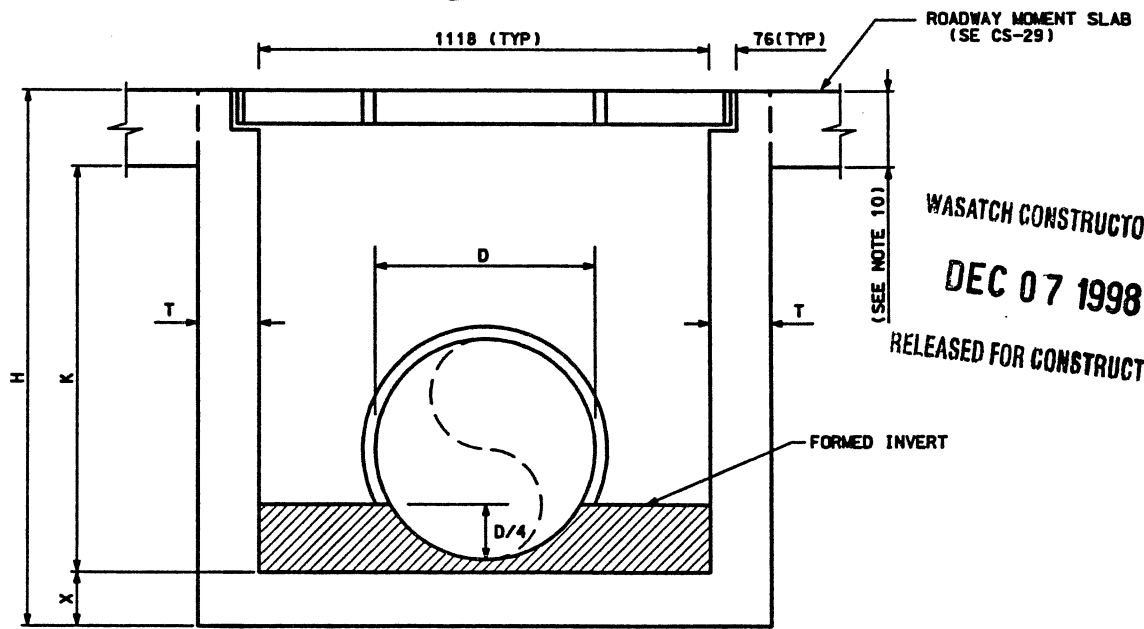
CAST-IN-PLACE STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$   
 PRE-CAST STRUCTURAL CONCRETE:  $f_c = 21$  MPa,  $n=8$ .  
 REINFORCING STEEL:  $f_y = 420$  MPa  
 STRUCTURAL STEEL:  $f_y = 250$  MPa

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- 1- SITUATION AND LAYOUT
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- 3- CATCH BASIN DETAILS - OPTION 1
- 4- CATCH BASIN DETAILS - OPTION 2



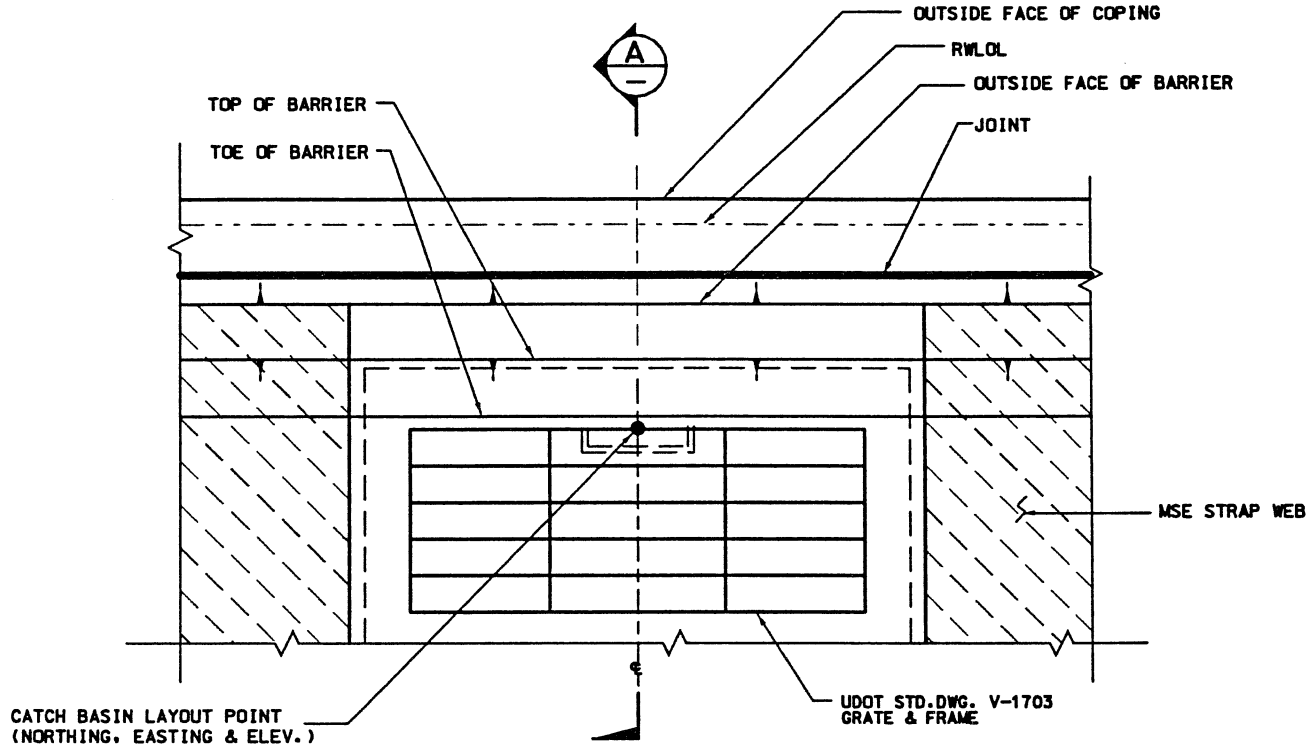
SECTION A  
NTS



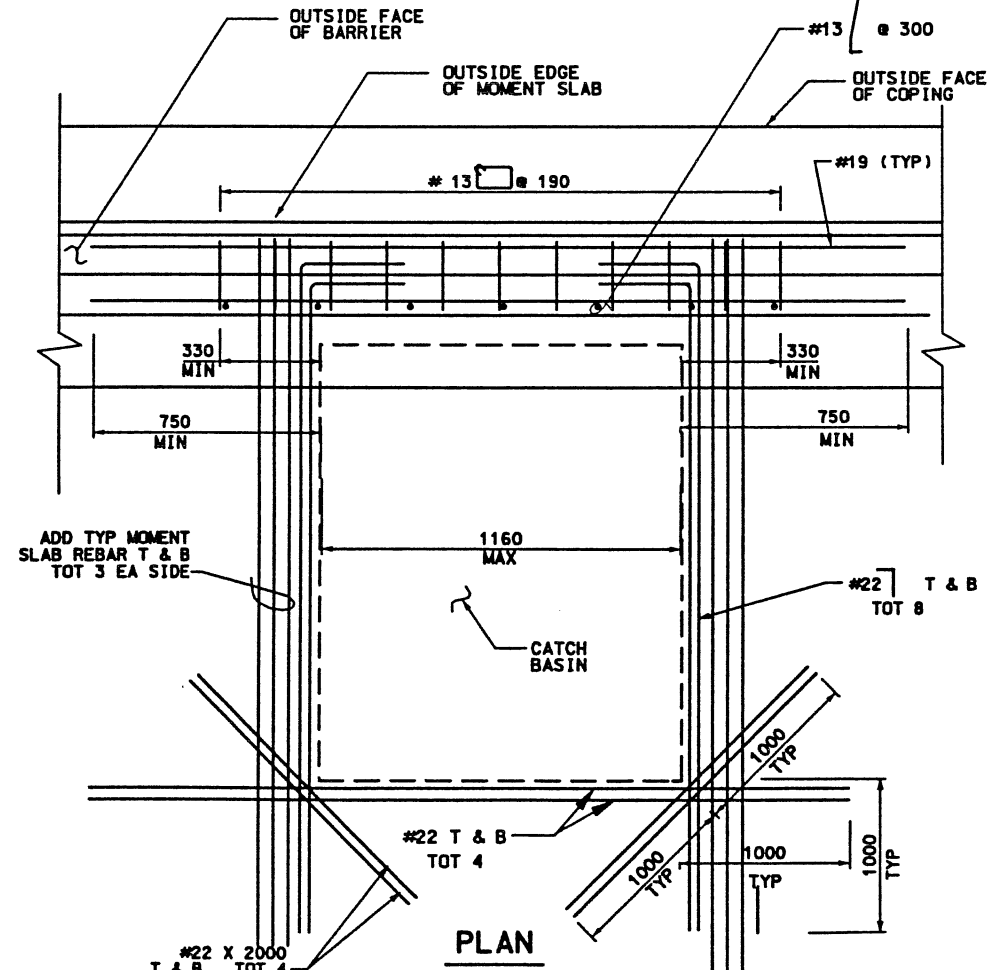
SECTION B  
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WASATCH CONSTRUCTORS  
 DEC 07 1998  
 RELEASED FOR CONSTRUCTION

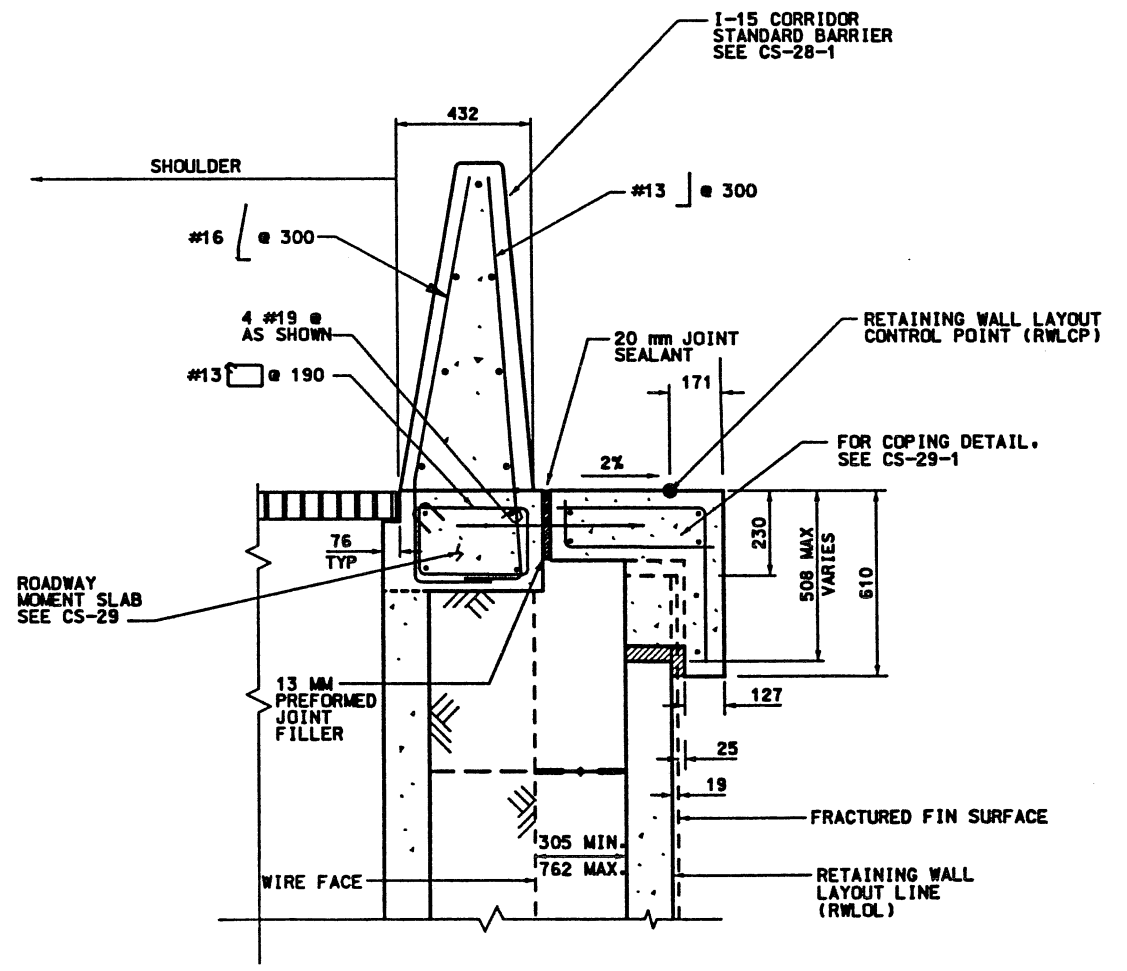
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	3/30/98	1	3/30/98
2	7/10/98	2	7/10/98
3	11/24/98	3	11/24/98
ORIGINAL RELEASE.		MODIFIED EXPANDED POLYSTYRENE AND DOWEL.	
REVISED RET. WALL COPING		REVISED RET. WALL COPING	
TRACKING NO.		23134	
DESIGN BY		CHECK BY	
DRAWN BY		CHECK BY	
QUANT. BY		CHECK BY	
SVERDRUP/DE LEUW		SVERDRUP/DE LEUW	
MARK Y. BOAL		MARK Y. BOAL	
PROJECT DESIGN ENGINEER		PROJECT DESIGN ENGINEER	
JOHN TORRY		JOHN TORRY	
SECTION MANAGER		SECTION MANAGER	
DATE		DATE	
I-15 CORRIDOR RECONSTRUCTION		I-15 CORRIDOR RECONSTRUCTION	
MSE MULTI-STAGE CATCH BASIN B1		MSE MULTI-STAGE CATCH BASIN B1	
CORRIDOR STANDARD PLAN		CORRIDOR STANDARD PLAN	
PROJECT NUMBER #SP-15-7(135)296		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		SALT LAKE COUNTY	
DWG. NO. CS-20-1		DWG. NO. CS-20-1	
SHT. OF		SHT. OF	



PLAN  
ROADWAY BARRIER AT CATCH BASIN  
NTS



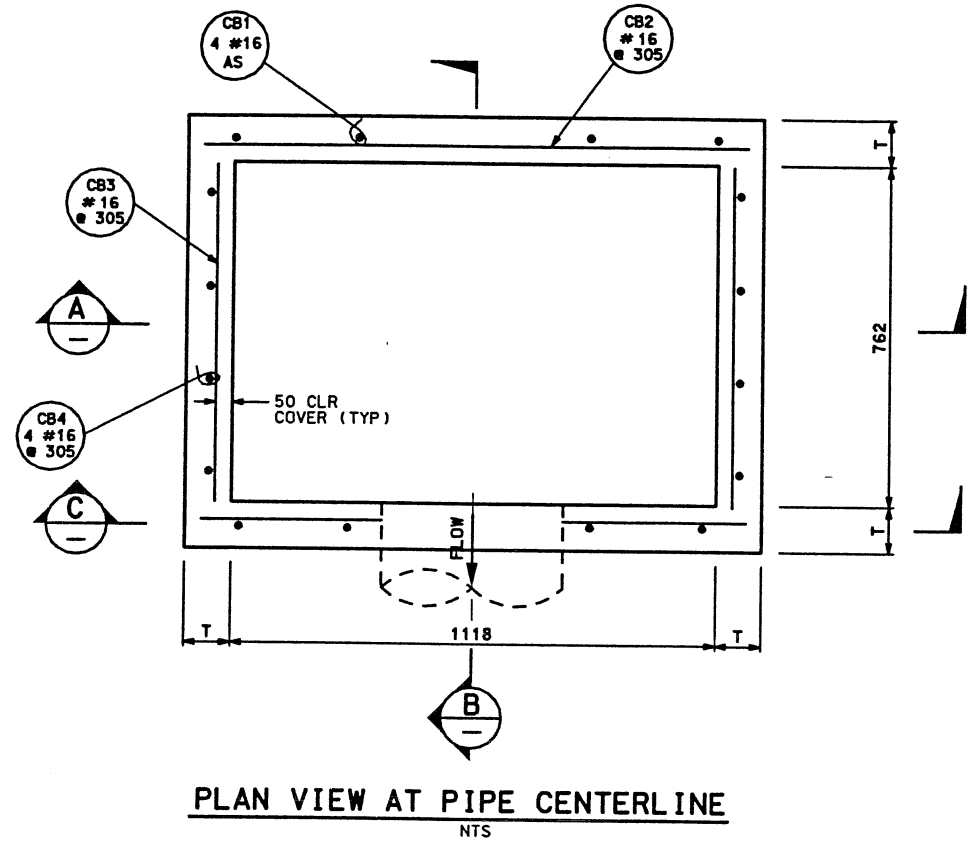
PLAN  
TYPICAL MOMENT SLAB  
REINFORCEMENT AT CATCH BASIN



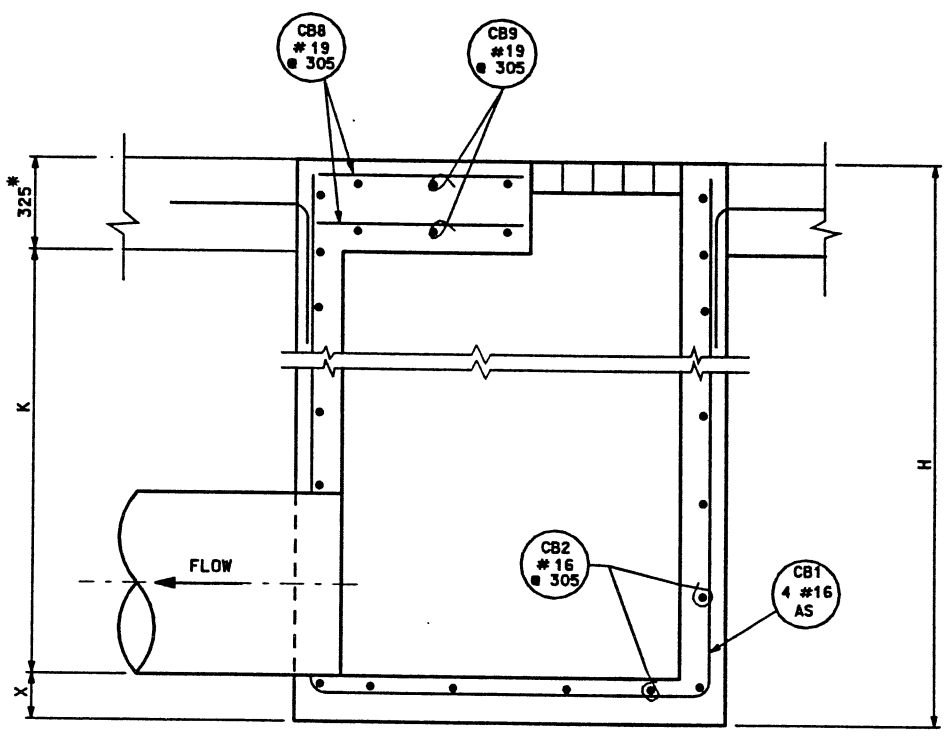
SECTION  
A  
NTS

WASATCH CONSTRUCTORS  
DEC 07 1998  
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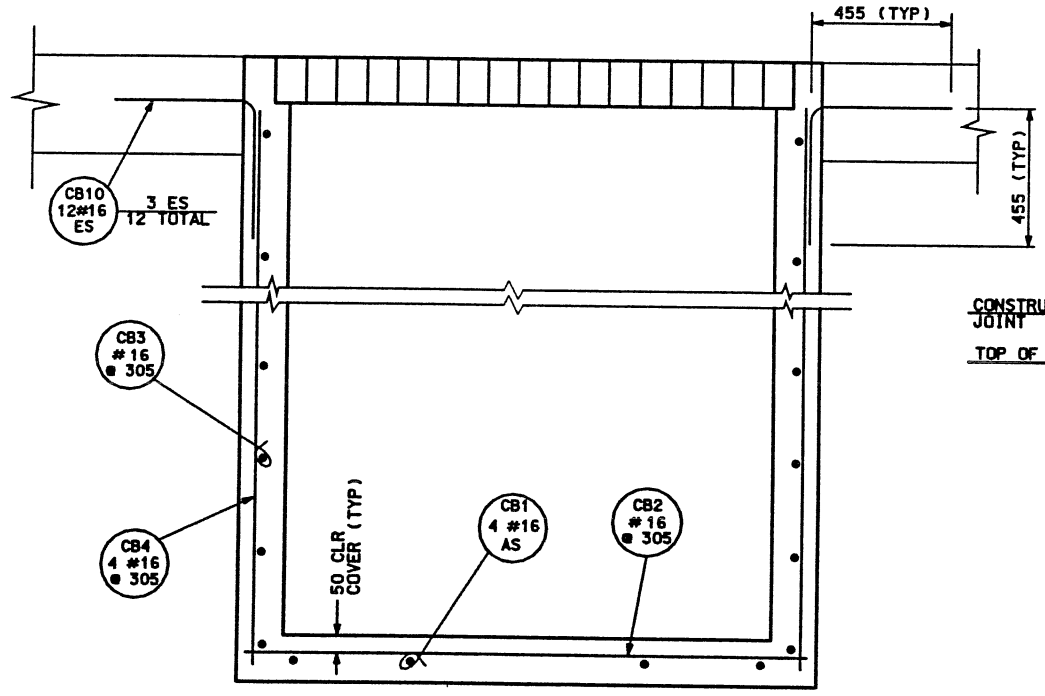
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NO.	DATE	DATE	DESCRIPTION
1	3/30/98		ORIGINAL RELEASE.
2	7/10/98		MODIFIED EXPANDED POLYSTYRENE AND DOWEL.
3	11/20/98		MODIFIED COPING DETAIL - TOTAL SHEET REVISION
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW		DESIGN	3/98
		CHECK	3/98
		DRAWN	J.J.
		CHECK	3/98
		QUANT.	N/A
		CHECK	N/A
		TRACKING NO.	23134
I-15 CORRIDOR RECONSTRUCTION		APPROVAL RECORD	DATE
MSE MULTI-STAGE CATCH BASIN BI		DATE	3/30/98
CORRIDOR STANDARD PLAN		PROJECT DESIGN ENGINEER	JOHN TERRY
PROJECT NUMBER #SP-15-7(135)296		APPROVED	3/30/98
		DATE	
		SECTION MANAGER	
SALT LAKE COUNTY		DWG. NO.	CS-20-2
SHT. _____ OF _____			



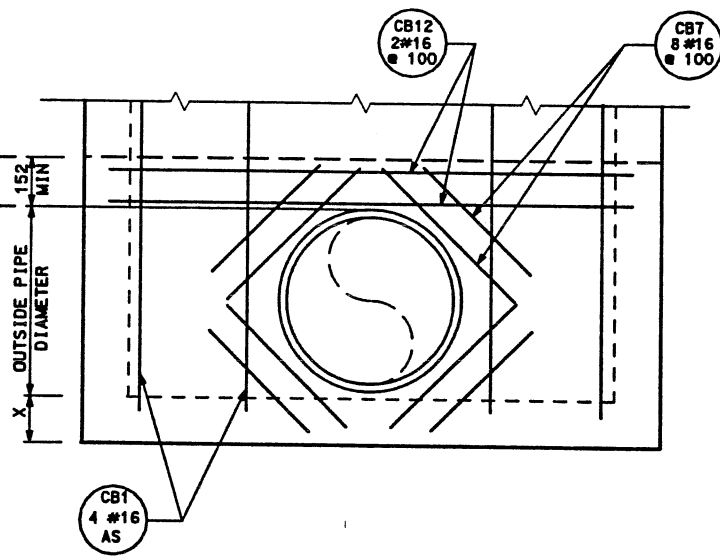
PLAN VIEW AT PIPE CENTERLINE  
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SECTION B  
NTS



SECTION A  
NTS

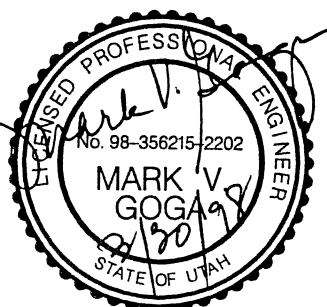


SECTION C  
NTS

\* 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	1	1194	691	152	178
2	2	1346	843	152	178
3	3	1499	996	152	178
4	4	1651	1148	152	178
5	5	1803	1300	152	178
6	6	1956	1453	152	178
7	7	2108	1605	152	178
8	8	2286	1758	152	203
9	9	2438	1910	152	203
10	10	2590	2062	152	203
11	11	2743	2215	152	203
12	12	2895	2367	152	203
13	13	3048	2520	152	203
14	14	3200	2672	152	203
15	15	3352	2824	152	203
16	16	3505	2977	152	203
17	17	3657	3129	152	203
18	18	3810	3282	178	203
19	19	3962	3434	178	203
20	20	4114	3586	178	203
21	21	4267	3739	178	203
22	22	4419	3891	178	203
23	23	4572	4044	178	203
24	24	4724	4196	178	203
25	25	4876	4348	178	203
26	26	5029	4501	178	203
27	27	5181	4653	178	203
28	28	5334	4806	178	203
29	29	5486	4958	178	203
30	30	5638	5110	178	203
31	31	5791	5263	178	203
32	32	5943	5415	178	203
33	33	6096	5568	178	203
34	34	6248	5720	178	203
35	35	6401	5872	178	203
36	36	6553	6025	178	203
37	37	6706	6177	178	203
38	38	6858	6330	203	203
39	39	7011	6482	203	203
40	40	7163	6634	203	203
41	41	7316	6787	203	203
42	42	7468	6939	203	203
43	43	7621	7092	203	203
44	44	7773	7244	203	203
45	45	7926	7396	203	203
46	46	8078	7549	203	203
47	47	8231	7701	203	203
48	48	8383	7854	203	203
49	49	8536	8006	203	203
50	50	8688	8158	203	203
51	51	8841	8311	203	203
52	52	8993	8463	203	203
53	53	9146	8616	203	304
54	54	9298	8768	203	307

BARRIER REINFORCING STEEL SCHEDULE					
MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	16	4	VARIES	
CB2	@ 305	16	-	VARIES	
CB3	@ 305	16	-	VARIES	
CB4	AS SHOWN	16	8	VARIES	
CB7	@ 100	16	8	VARIES	
CB8	@ 305	19	-	VARIES	
CB9	@ 305	19	-	VARIES	
CB10	AS SHOWN	16	12	910	
CB12	@ 100	16	2	VARIES	



CATCH BASIN CONSTRUCTION OPTION 1

WASATCH CONSTRUCTORS  
APR 14 1998  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION

UTAH DEPARTMENT OF TRANSPORTATION

SVERRUP/DE LEUW

DESIGN BY: MARK V. GOGGIN  
PROJECT DESIGN ENGINEER  
DATE: 3/30/98

DRAWN BY: JOHN TERRY  
SECTION MANAGER  
DATE: 3/30/98

QUANT. N/A

TRACKING NO. 23134

NO. 1

DATE 3/30/98 ORIGINAL RELEASE.

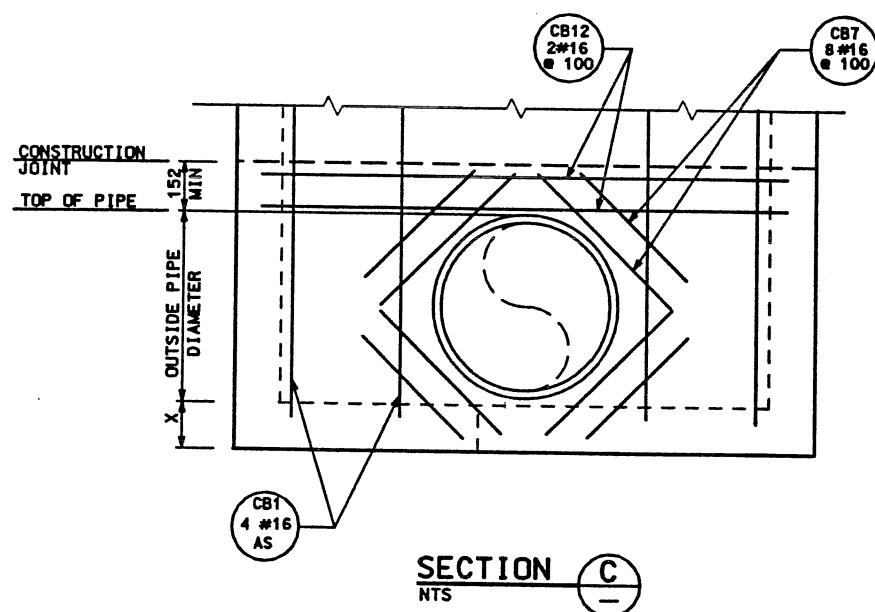
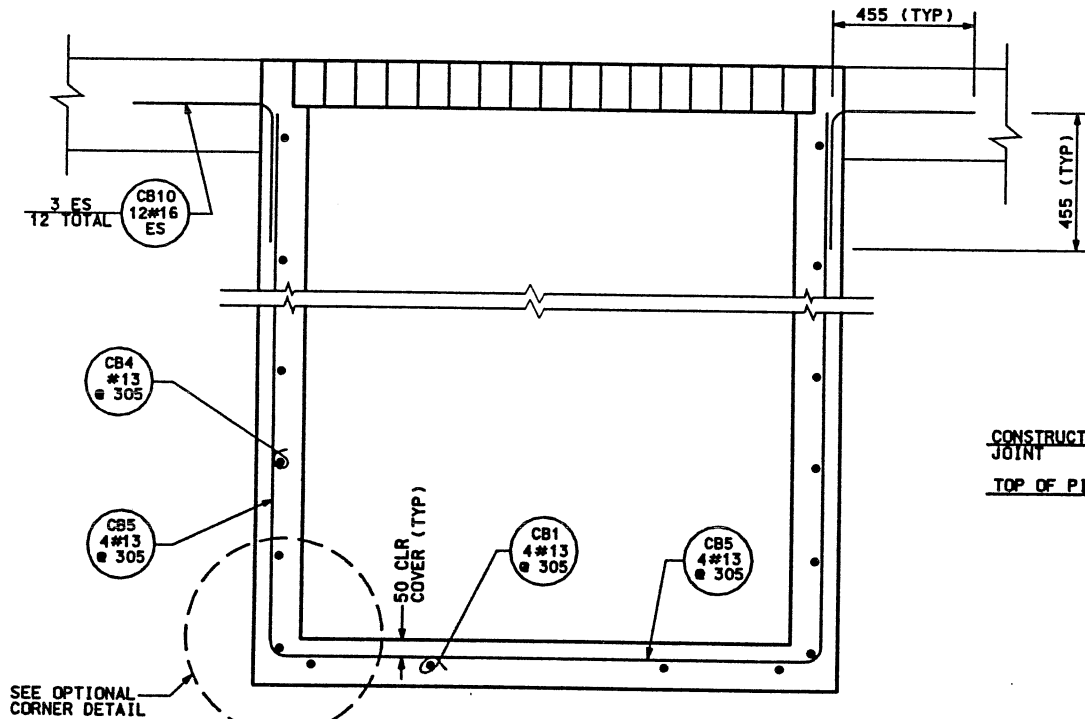
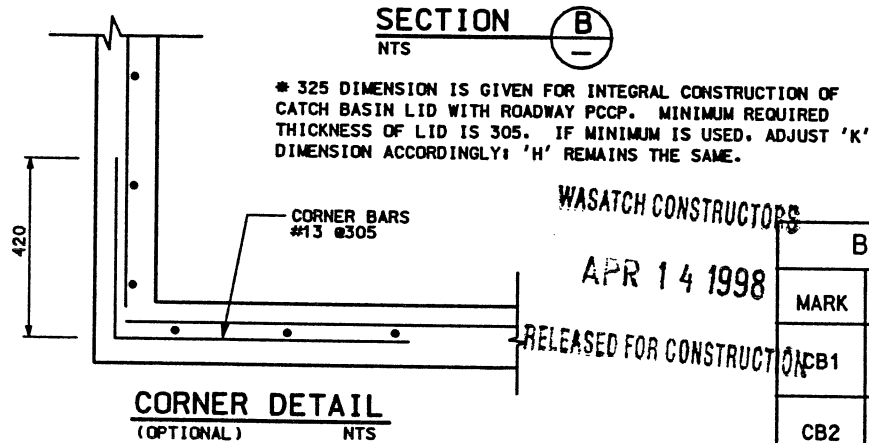
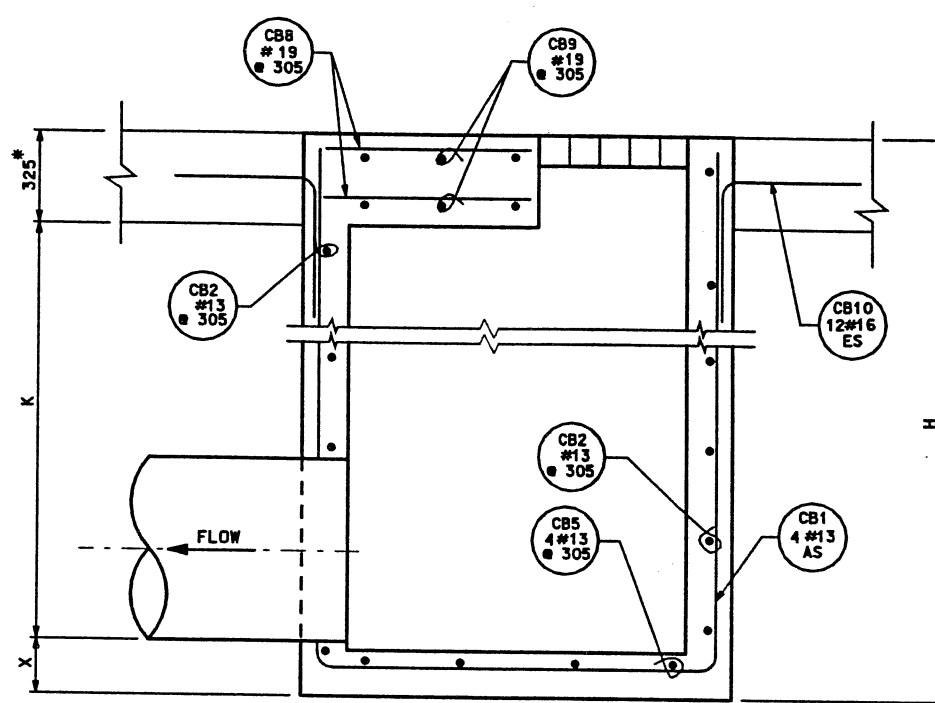
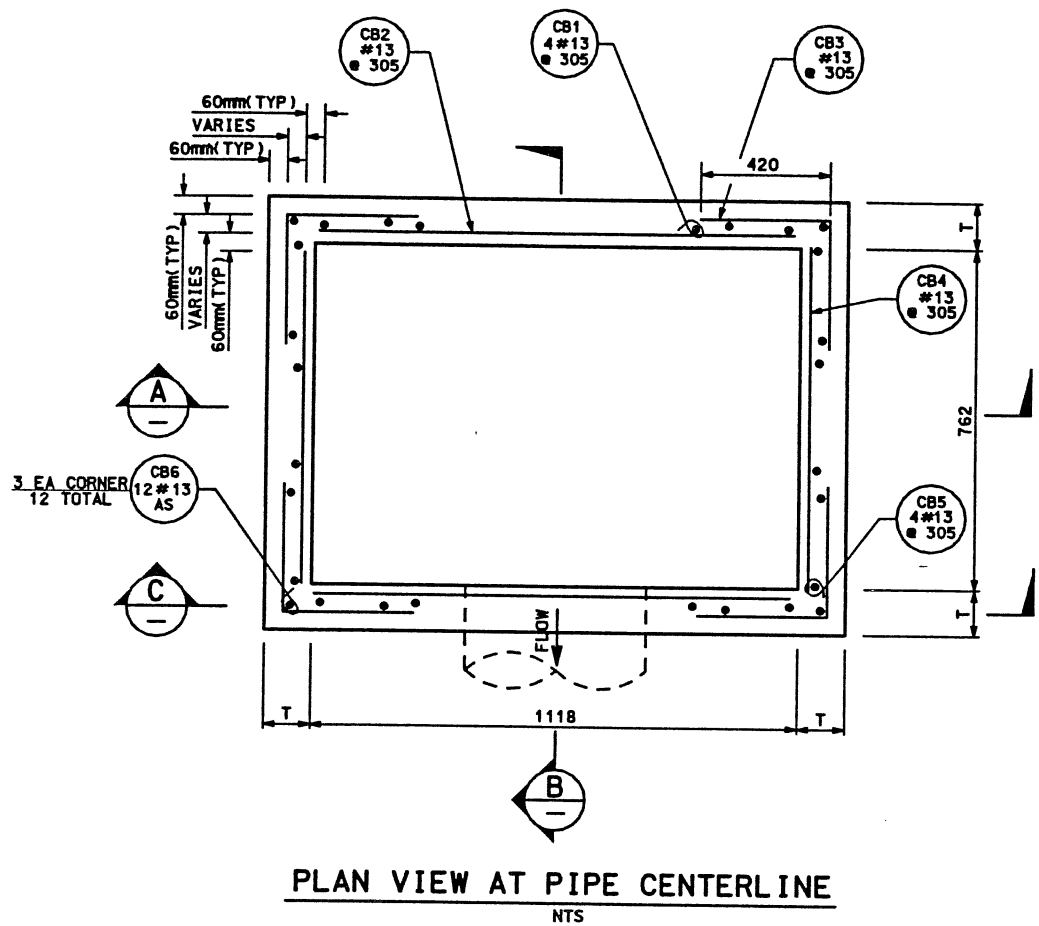
I-15 CORRIDOR RECONSTRUCTION  
CATCH BASIN DETAIL - OPTION 1  
CORRIDOR STANDARD PLAN  
PROJECT NUMBER #SP-15-7(135)296

SALT LAKE COUNTY  
DWG. NO. CS-20-3

SHT. OF

Date: 30-MAR-1998 Time: 2:47 User: namer-faculty

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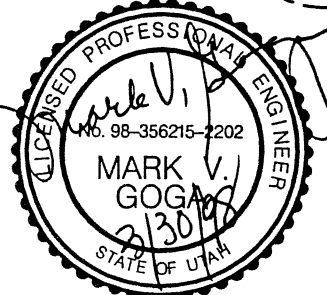
CATCH BASIN CONSTRUCTION OPTION 2

CONSTRUCTION TABLE - COLUMN 'A'

LINE	# OF MANHOLE STEPS	H	K	T	X
1	1	1194	691	152	229
2	2	1346	843	152	229
3	3	1499	995	152	229
4	4	1651	1148	152	229
5	5	1803	1300	152	229
6	6	1956	1453	152	229
7	7	2108	1605	152	229
8	8	2261	1758	152	229
9	9	2413	1910	152	229
10	10	2566	2062	152	229
11	11	2718	2215	152	229
12	12	2871	2367	152	229
13	13	3023	2520	152	229
14	14	3176	2672	152	229
15	15	3328	2824	152	229
16	16	3481	2977	152	229
17	17	3633	3129	152	229
18	18	3786	3282	152	229
19	19	3938	3434	152	229
20	20	4091	3586	152	229
21	21	4243	3739	152	229
22	22	4396	3891	152	229
23	23	4548	4044	152	229
24	24	4701	4196	152	229
25	25	4853	4348	152	229
26	26	5006	4501	152	229
27	27	5158	4653	152	229
28	28	5311	4806	152	229
29	29	5463	4958	152	229
30	30	5616	5110	152	229
31	31	5768	5263	152	229
32	32	5921	5415	152	229
33	33	6073	5568	152	229
34	34	6226	5720	152	229
35	35	6378	5873	152	229
36	36	6531	6025	152	229
37	37	6683	6177	152	229
38	38	6836	6330	152	229
39	39	6988	6482	152	229
40	40	7141	6634	152	229
41	41	7293	6787	152	229
42	42	7446	6939	152	229
43	43	7598	7092	152	229
44	44	7751	7244	152	229
45	45	7903	7396	152	229
46	46	8056	7549	152	229
47	47	8208	7701	152	229
48	48	8361	7854	152	229
49	49	8513	8006	152	229
50	50	8666	8158	152	229
51	51	8818	8311	152	229
52	52	8971	8463	152	229
53	53	9123	8616	152	229
54	54	9276	8768	152	229

BARRIER REINFORCING STEEL SCHEDULE

MARK	BAR SPACING	SIZE NO.	NO. BARS	LENGTH	SKETCH
CB1	AS SHOWN	13	4	VARIES	VAR
CB2	@ 305	13	-	VARIES	VARIES
CB3	@ 305	13	-	840	420
CB4	@ 305	13	-	VARIES	VARIES
CB5	@ 100	13	4	VARIES	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
CB12	@ 100	16	2	VARIES	VARIES



APPROVED FOR CONSTRUCTION

NO. DATE 3/30/98 ORIGINAL RELEASE.

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

DESIGN: MW 3/78, CHECK: MB 3/20/

DRAWN: JLJ 3/78, CHECK: MB 3/78

QUANT.: N/A, CHECK: N/A

TRACKING NO. 23134

APPROVAL RECORD: 3/30/98, MARK V. GOGA, PROJECT DESIGN ENGINEER

DATE: 3/30/98, JOHN TERRY, SECTION MANAGER

I-15 CORRIDOR RECONSTRUCTION - OPTION 2

CATCH BASIN DETAIL - OPTION 2

CORRIDOR STANDARD PLAN

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

SALT LAKE COUNTY

DWG. NO. CS-20-4

SHT. OF