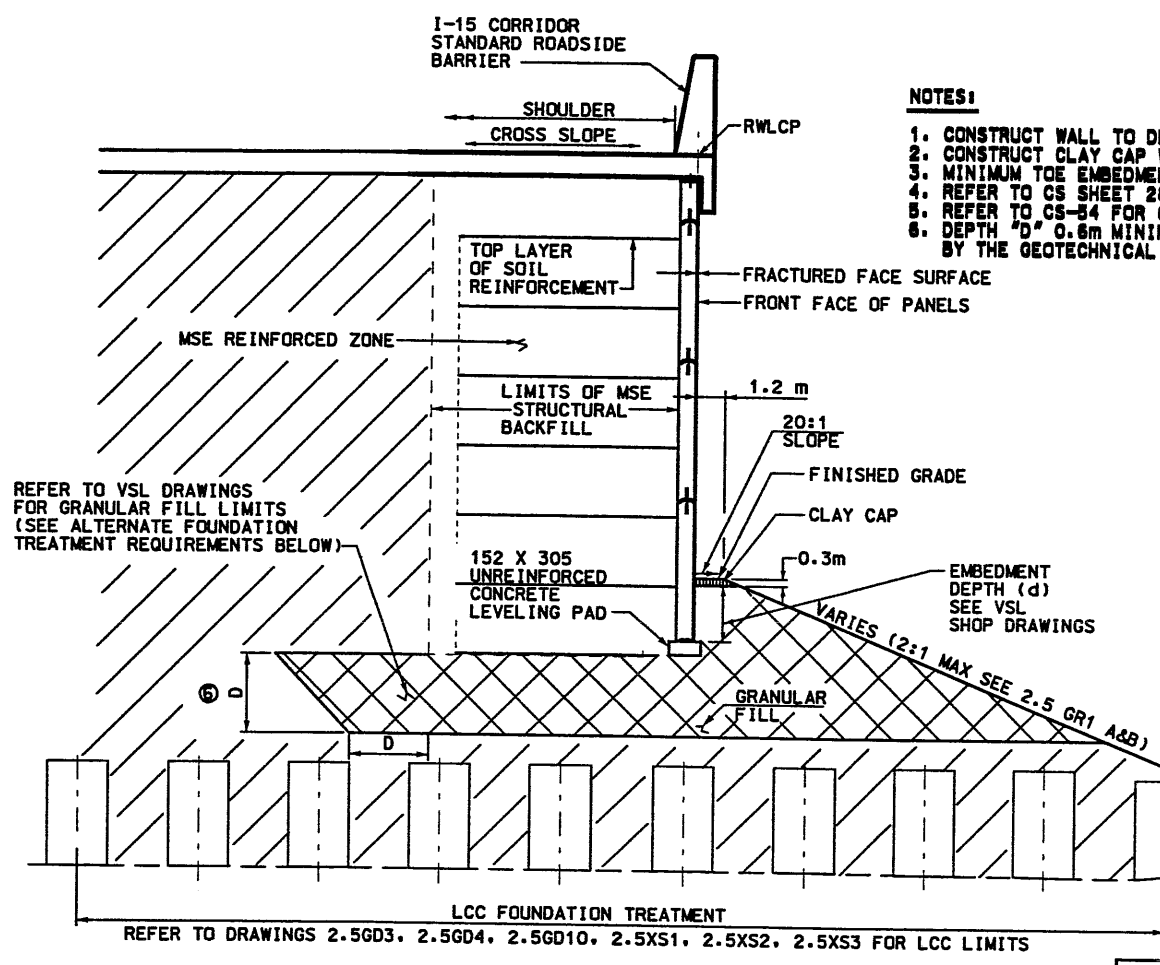


WASATCH CONSTRUCTORS  
 DEC 0 2 1998  
 RELEASED FOR CONSTRUCTION

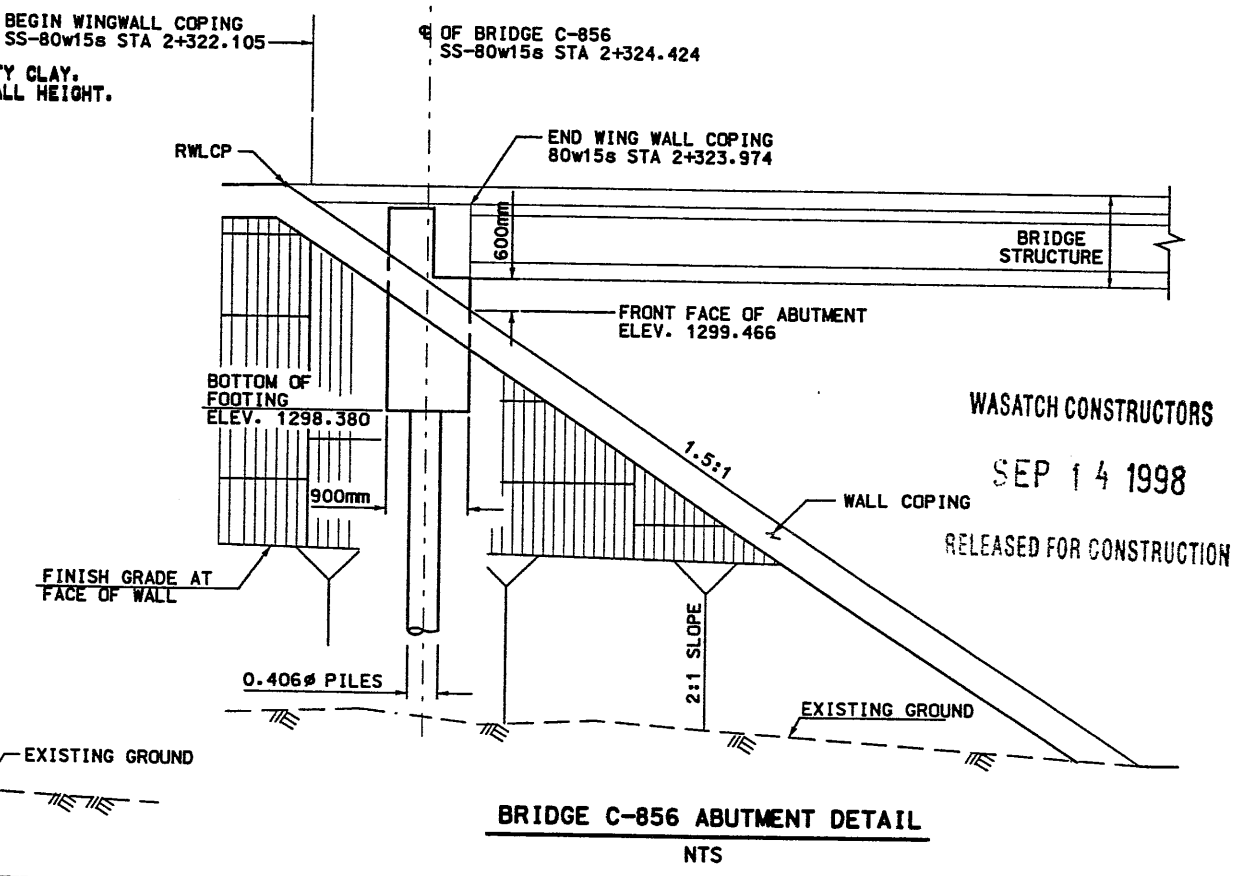
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	12/19/97	1	INITIAL RELEASE.
2	9/10/98	2	CHANGE MSE WALL FROM TWO STAGE TO ONE STAGE.
3	11/17/98	3	UPDATES PER FROM 2-0523
UTAH DEPARTMENT OF TRANSPORTATION			
SVERDRUP/DE LEUW		TRACKING NO. 2312220	
DESIGN	6/98	CHECK	MSC 6/98
PROJECT DESIGN	6/98	CHECK	MSC 6/98
DATE	6/15/98	DATE	6/15/98
DESIGNER	MARGARET SIMMONS-CROSS	QUANT.	
ENGINEER	JOHN TERRY	SECTION MANAGER	
DATE	6/15/98	DATE	
I-15 CORRIDOR RECONSTRUCTION			
SITUATION & LAYOUT R-348-01			
SECTION 2.5			
PROJECT NUMBER #SP-15-(135)296			
SALT LAKE COUNTY			
DWG. NO. 2.5-R-348-01.1			
SHT. 1 OF 13			

Date: 10-SEP-1998 Time: 09:23 User: name: rcaellm  
 File name: c:\dgn\15-cadd\dwg-97\sheet-files\wall\wall.dwg.dgn



**RW R-348-01 MSE SINGLE STAGE WITH MOMENT SLAB CAP**  
 RET WALL STA 2+155.302 TO 2+308.226 NTS

- NOTES:**
1. CONSTRUCT WALL TO DESIGN PAVEMENT ELEVATION.
  2. CONSTRUCT CLAY CAP WITH 0.3m OF LOW PLASTIC SILTY CLAY.
  3. MINIMUM TOE EMBEDMENT H/7 WHERE H EQUALS THE WALL HEIGHT.
  4. REFER TO CS SHEET 28 FOR MOMENT SLAB DETAILS.
  5. REFER TO CS-54 FOR COPING DETAILS AT BRIDGES.
  6. DEPTH "d" 0.6m MINIMUM OR AS TO BE DETERMINED BY THE GEOTECHNICAL FIELD ENGINEER



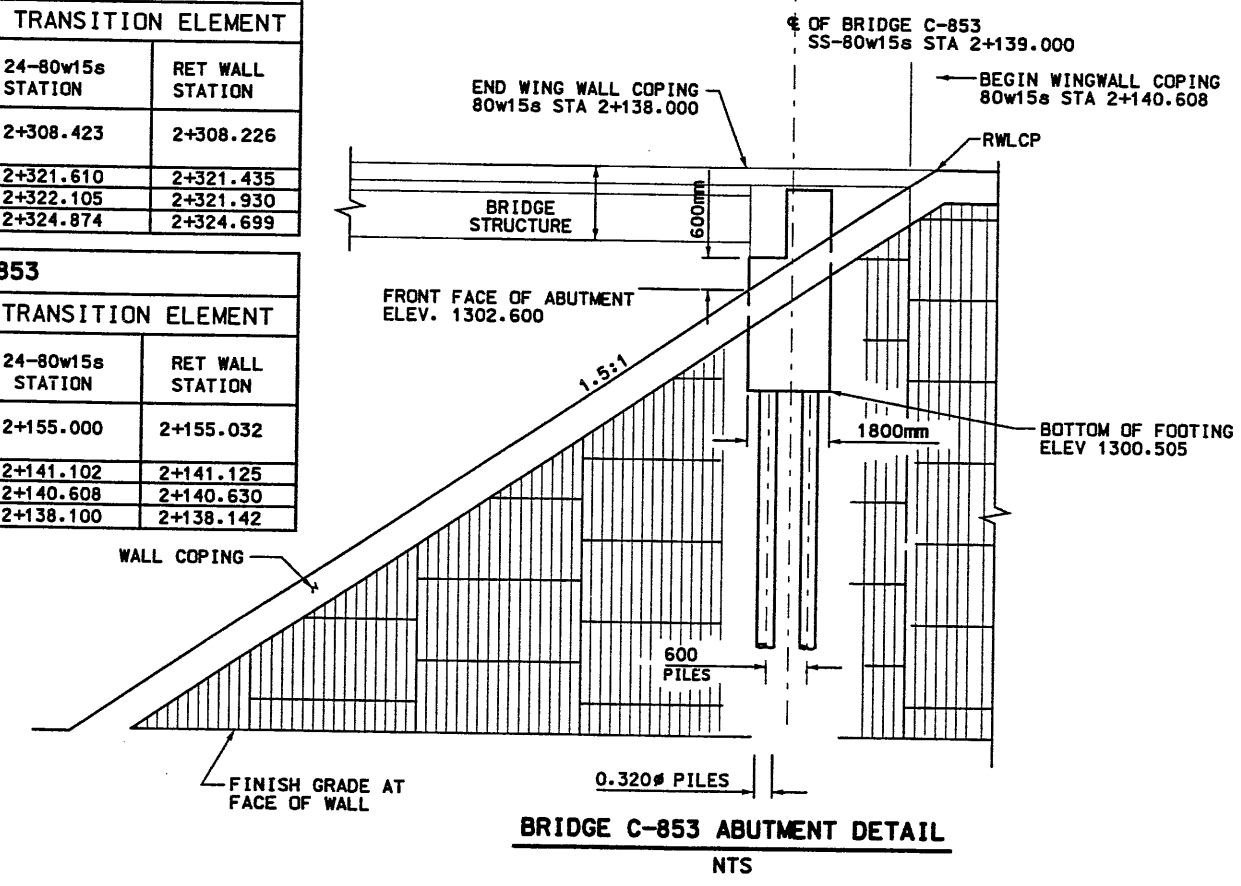
**BRIDGE C-856 ABUTMENT DETAIL**  
 NTS

**TABLE C-856**  
 NON-SPUI OVERPASS WITH TRANSITION ELEMENT

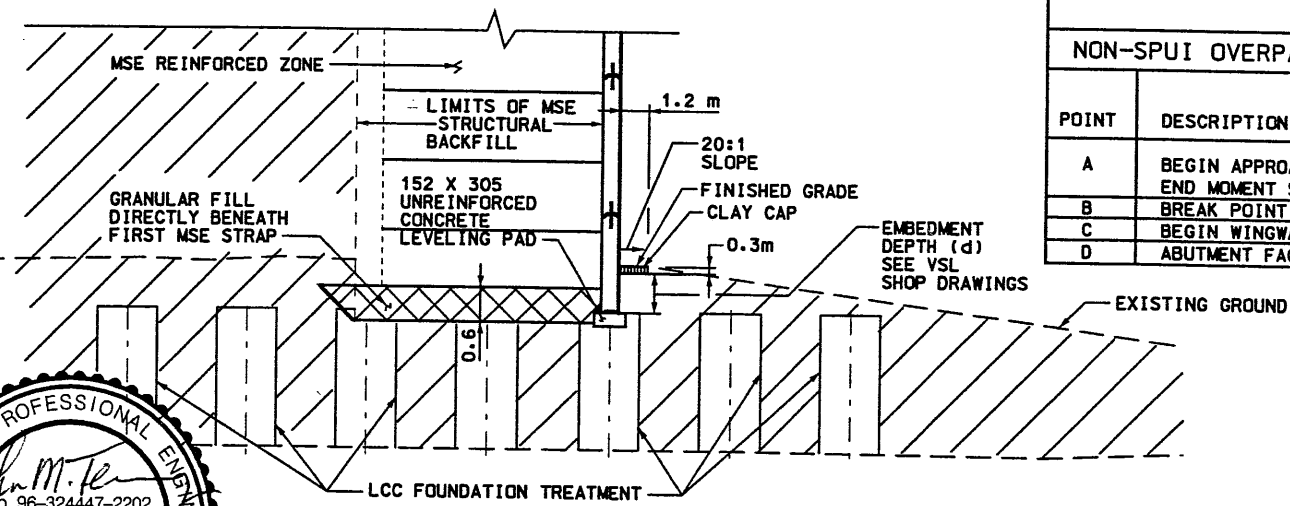
POINT	DESCRIPTION	24-80w15s STATION	RET WALL STATION
A	BEGIN APPROACH SLAB/ END MOMENT SLAB	2+308.423	2+308.226
B	BREAK POINT	2+321.610	2+321.435
C	BEGIN WINGWALL	2+322.105	2+321.930
D	ABUTMENT FACE	2+324.874	2+324.699

**TABLE C-853**  
 NON-SPUI OVERPASS WITH TRANSITION ELEMENT

POINT	DESCRIPTION	24-80w15s STATION	RET WALL STATION
A	BEGIN APPROACH SLAB/ END MOMENT SLAB	2+155.000	2+155.032
B	BREAK POINT	2+141.102	2+141.125
C	BEGIN WINGWALL	2+140.608	2+140.630
D	ABUTMENT FACE	2+138.100	2+138.142



**BRIDGE C-853 ABUTMENT DETAIL**  
 NTS



**RW FOUNDATION TREATMENT DETAILS IN LCC OVERLAP ZONE**  
 RET WALL STA 2+122.920 TO 2+193.746 NTS

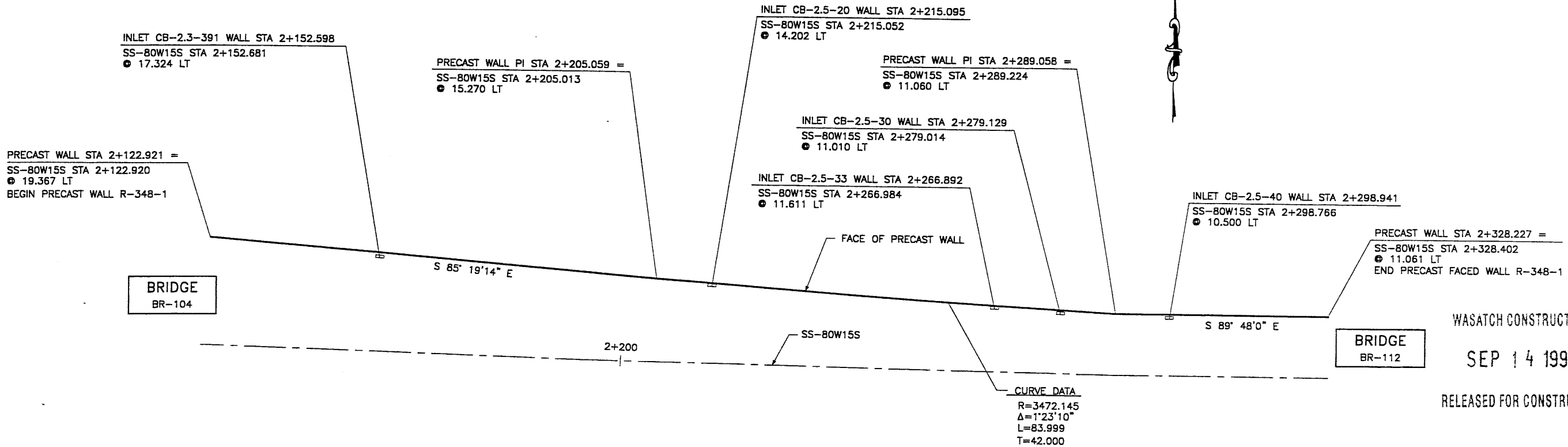


APPROVED FOR CONSTRUCTION  
 INITIAL RELEASE  
 CHANGE MSE WALL FROM TWO STAGE TO ONE STAGE  
 Total Sheet Revision: 5  
 DATE: 12/19/98  
 DATE: 9/10/98  
 TRACKING NO.: 231220  
 CHECK: MSC 8/98  
 CHECK: MSC 8/98  
 CHECK: CHECK  
 DESIGN: RUP 8/98  
 DRAWN: VLR 8/98  
 QUANT.:  
 PROJECT: SVERDRUP/DE LEUW  
 PROJECT: MARGARET STIMMS-CROSS  
 PROJECT DESIGN ENGINEER: JOHN TERRY  
 APPROVED: 8/98  
 DATE: 8/98  
 SECTION MANAGER:

UTAH DEPARTMENT OF TRANSPORTATION  
 I-15 CORRIDOR RECONSTRUCTION  
 WALL DETAIL R-348-01  
 SECTION 2.5  
 PROJECT NUMBER #SP-15-7(135)296  
 SALT LAKE COUNTY  
 DWG. NO. 2.5-R-348-01.2  
 SHT. 2 OF 3

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
▲	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
▲	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

CHANGED ENTIRE SHEET



**PLAN VIEW MSE WALL "R-348-1"**

SCALE: 1=400 (FULL SIZE)  
SCALE: 1=800 (HALF SIZE)

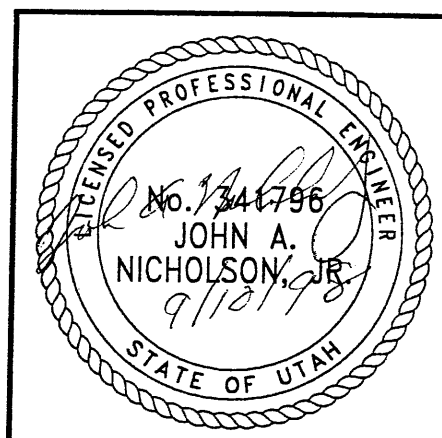
DESIGN PARAMETERS	
ANGLE OF INTERNAL FRICTION (SELECT)	= 34°
ANGLE OF INTERNAL FRICTION (BASE)	= 30°
ANGLE OF INTERNAL FRICTION (RANDOM)	= 34°
UNIT WEIGHT BACKFILL	= 135 PCF. (21.2 KN/M <sup>3</sup> )
TRAFFIC SURCHARGE	= 250 PSF
SEISMIC ACCELERATION COFF.	= 0.27g (TYP)
SEISMIC ACCELERATION COFF.	= 0.68g (AT BRIDGE ABUTMENTS)
DESIGN CRITERIA	
SAFETY FACTOR (OVERTURNING)	= 2.0
SAFETY FACTOR (SLIDING)	= 1.5
SAFETY FACTOR (PULLOUT)	= 1.5
DESIGN LIFE	= 75 YEARS

CURVE DATA  
R=3472.145  
Δ=1°23'10"  
L=83.999  
T=42.000

RETAINED EARTH INDEX	
RE-1	PLAN PRECAST WALL R-348-1, NOTES & DESIGN CRITERIA
RE-2	TYPICAL CROSS SECTION
RE-3	TYPICAL CROSS SECTION
RE-4	PRECAST WALL R-348-1
RE-5	PRECAST WALL R-348-1
RE-6	PRECAST WALL R-348-1
RE-7	PRECAST WALL R-348-1
RE-8	SPECIAL PANEL DETAILS
RE-9	SPECIAL PANEL DETAILS
RE-10	SPECIAL PANEL DETAILS
RE-11	Y & SPECIAL PANEL DETAILS

METRIC

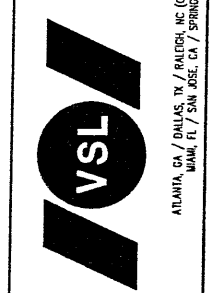
CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.



RETAINED EARTH™ WALLS  
PLAN VIEW MSE WALL "R-348-1"  
UTAH I-15 INTERCHANGE  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.3
JOB NO.	239-0007
SHT. NO.	RE-1

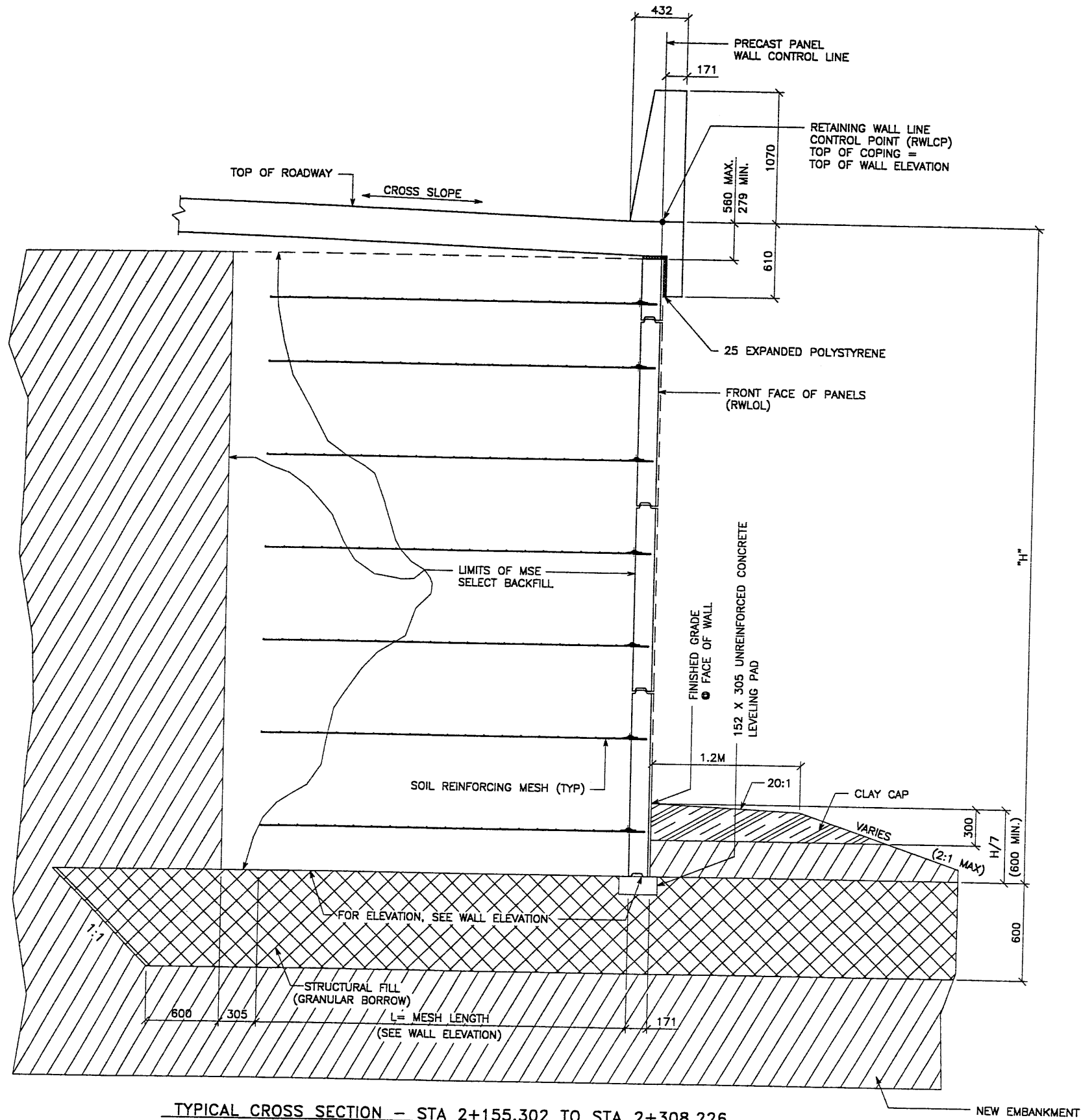
VSL CORPORATION  
2810 Pflug Road, Suite 200  
Bellevue, WA 98004  
Telephone: (206) 761-8777  
Fax: (206) 761-4869



ATLANTA, GA / DALLAS, TX / FALCON, NC (CORPORATE OFFICE)  
MILWAUKEE, WI / SAN JOSE, CA / SPRINGFIELD, VA

DES.	DRN.	CHK.	MM	DDL	MM	NO.	DATE	REVISION	CHK
			09-01-98						
			09-01-98						
			09-01-98						

WASATCH CONSTRUCTORS  
SEP 14 1998  
RELEASED FOR CONSTRUCTION



CHANGED ENTIRE SHEET

**TYPICAL CROSS SECTION - STA 2+155.302 TO STA 2+308.226**  
 (SEE DWG. NO. 2.5R-348-01.2 FOR ADDITIONAL INFORMATION ON FOUNDATION TREATMENT DETAILS STA 2+122.920 TO STA 2+193.746)  
 SCALE: 1:20 (FULL SIZE)  
 SCALE: 1:40 (HALF SIZE)

METRIC

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APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
▲	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
▲	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

DES.	DRN.	CHK.	NO.	DATE	REVISION	BY	CHK
09-01-98	MM						
09-01-98	DDL						
09-01-98	MM						

VSL CORPORATION  
 2840 Plaza Place, Suite 200  
 Raleigh, NC 27612  
 Telephone: (919) 781-6272  
 Fax: (919) 781-6869

**VSL**

ATLANTA, GA / DALLAS, TX / BALTIMORE, MD (CORPORATE OFFICE)  
 MIAMI, FL / SAN JOSE, CA / SPRINGFIELD, VA

WASATCH CONSTRUCTORS  
 SEP 14 1998  
 RELEASED FOR CONSTRUCTION

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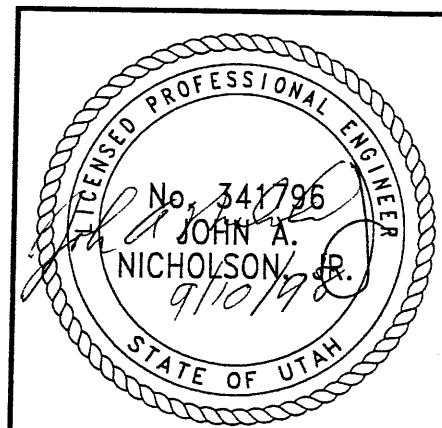
RETAINED EARTH™ WALLS  
 PRECAST WALL R-348-1  
 TYPICAL CROSS SECTION

UTAH I-15 RECONSTRUCTION  
 SALT LAKE COUNTY, UTAH  
 UTAH DEPARTMENT OF TRANSP.

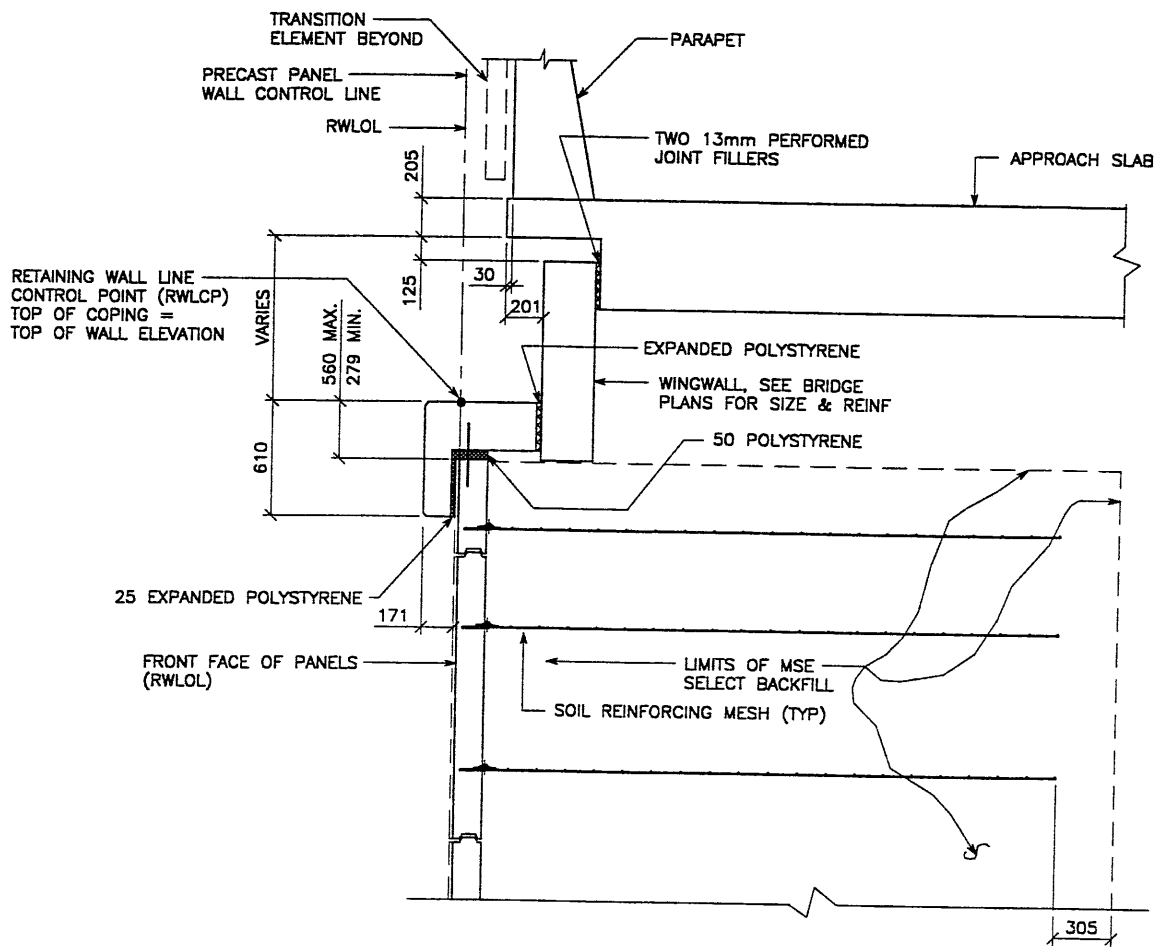
DWG. NO.  
 2.5R-348-01.4

JOB NO:  
 239-0007

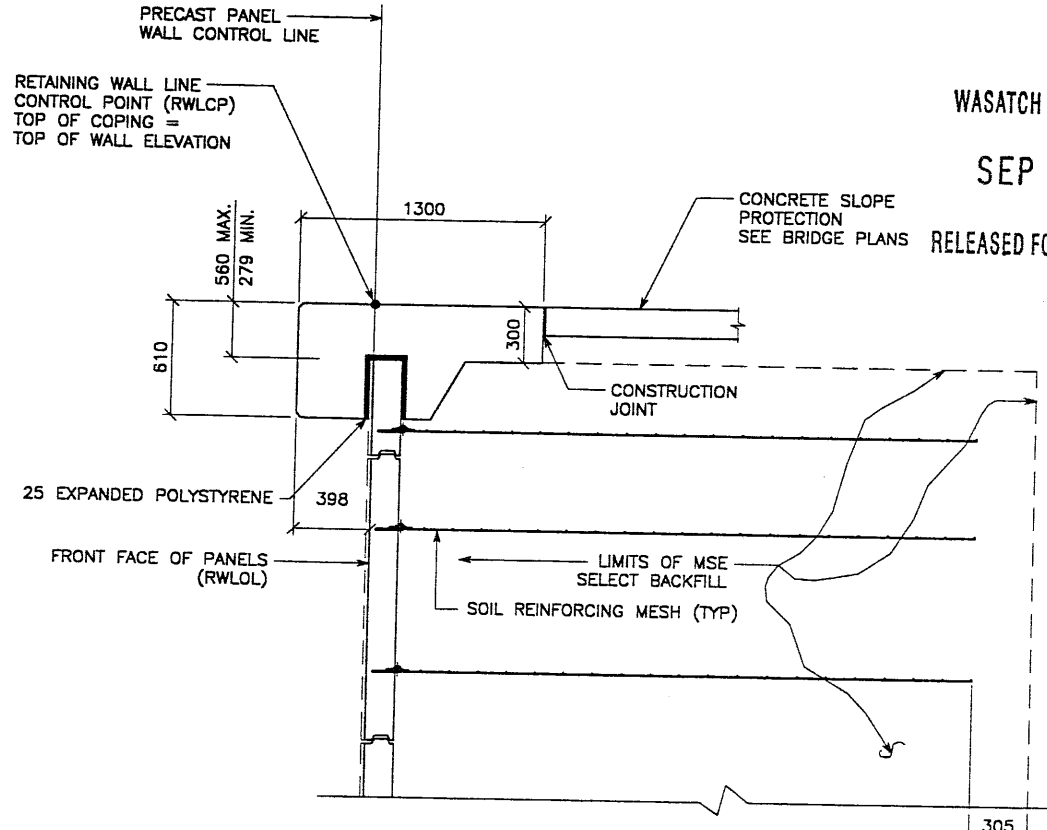
SHT. NO.  
 RE-2



H:\RE\_EARTH\PROJECT\239-0007\1998  
 T 09-01-98  
 FIN  
 S:\SS-01\SUBMIT-4\RE-3.DWG  
 NCE (X-UTAH.DWG)



**TYPICAL CROSS SECTION -**  
**STA 2+138.674 TO 2+140.608 (BRIDGE C-853)**  
**AND STA 2+321.429 TO 2+325.180 (BRIDGE C-850)**  
 (LOOKING DOWN STATION)  
 (SEE DWG. NO. 2.5R-348-01.2 FOR ADDITIONAL INFORMATION)  
 SCALE: 1:20 (FULL SIZE)  
 SCALE: 1:40 (HALF SIZE)



**TYPICAL CROSS SECTION C-C WITH ABUTMENT SLOPE (NON SPUI)**  
**SLOPE PAVING / COPING DETAILS**  
 (SEE DWG. NO. 2.5R-348-01.2 FOR ADDITIONAL INFORMATION)  
 SCALE: 1:20 (FULL SIZE)

CHANGED ENTIRE SHEET

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
01-26-98		RELEASED FOR 1ST STAGE CONST. ONLY
09-01-98		WALL CHANGED FROM 2-STAGE TO 1-STAGE

WASATCH CONSTRUCTORS  
 SEP 14 1998  
 RELEASED FOR CONSTRUCTION

NO.	DATE	REVISION	BY

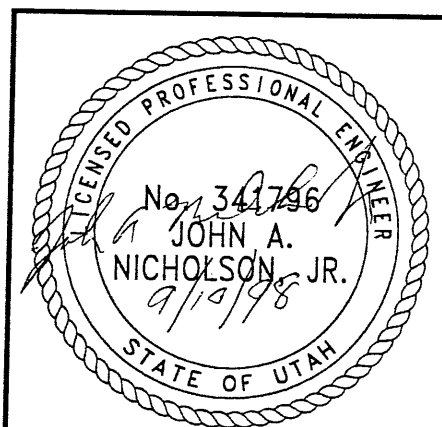
**VSL CORPORATION**  
 2840 Pacific Street, Suite 200  
 Redwood City, CA 94063  
 Telephone: (415) 781-6272  
 Fax: (415) 781-4869

ALUMINA, GA. / DALLAS, TX. / RALEIGH, NC. (CORPORATE OFFICE)  
 MIAMI, FL. / SAN JOSE, CA. / SPRINGFIELD, VA.

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RETAINED EARTH™ WALLS  
 PRECAST WALL "R-348-1"  
 TYPICAL CROSS SECTION  
 UTAH I-15 RECONSTRUCTION  
 SALT LAKE COUNTY, UTAH  
 UTAH DEPARTMENT OF TRANSP.

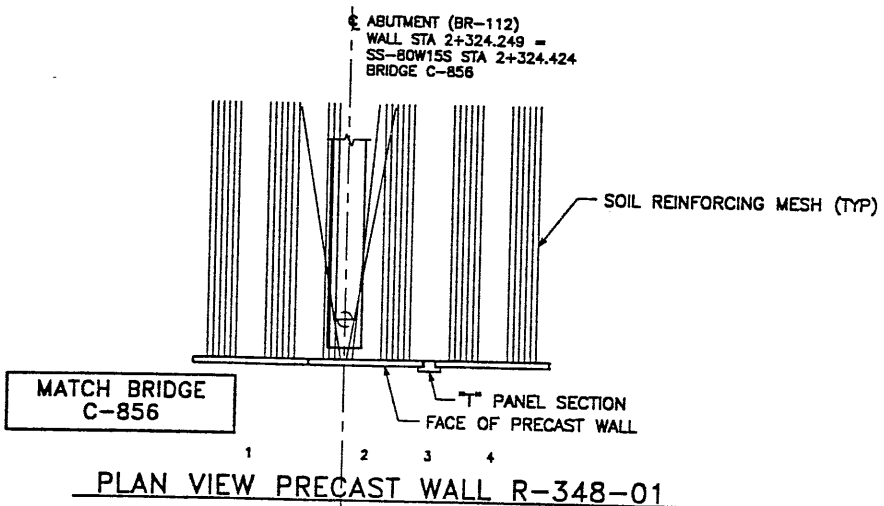
DWG. NO.	2.5R-348-01.5
JOB NO.	239-0007
SHT. NO.	RE-3



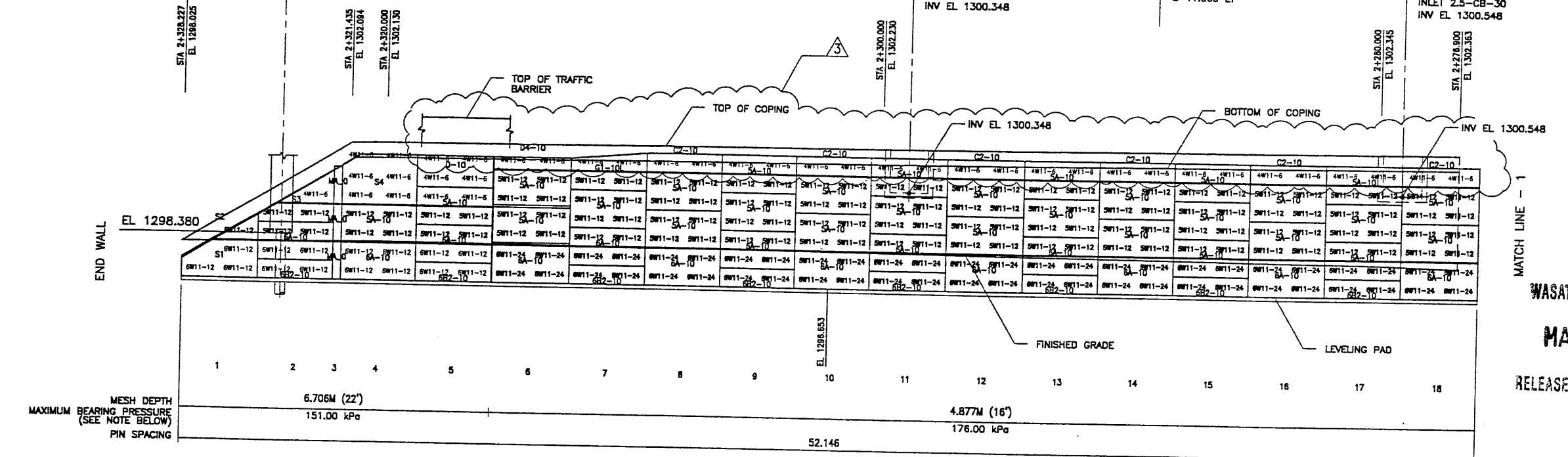
METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

FINAL PLOT 09-01-98 H:\RE\_EARTH\PROJECT\239-0007\1998\SS-WALLS\SS-01\SUBMIT-4\SS-01.DWG



END WALL R-348-01  
WALL STA 2+328.227 =  
SS-80W155 STA 2+328.402  
11.061 LT  
NOMINAL PANEL FACE (RWLDL)



**ELEVATION PRECAST WALL R-348-01**  
(FRONT FACE SHOWN)  
(TOTAL SURFACE AREA OF PANELS = 1644.76 SM)  
SCALE 1:100 (FULL SIZE)  
SCALE 1:200 (HALF SIZE)

MESH DEPTH 6.706M (22')  
MAXIMUM BEARING PRESSURE (SEE NOTE BELOW) 151.00 kPa  
PIN SPACING

FINISHED GRADE 4.877M (16')  
LEVELING PAD 176.00 kPa

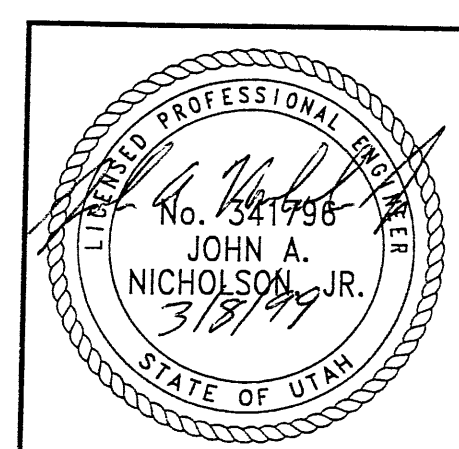
APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
▲	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
▲	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE
▲	02-15-99	TOP PANELS CHANGED DUE TO SETTLEMENT

DES.	MM	DSW	MM	NO.	DATE	REVISION	CHK
02-15-99							
02-15-99							
02-15-99							

**VSL CORPORATION**  
3840 Peachtree Plaza, Suite 200  
Atlanta, GA 30341  
Telephone: (404) 761-6772  
Facsimile: (404) 761-6669

**WASATCH CONSTRUCTORS**  
MAR 15 1999  
RELEASED FOR CONSTRUCTION

RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-01"  
UTAH 1-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.



NOTE:  
THE INDICATED MAXIMUM BEARING PRESSURE  
AT FINAL STAGE FOR STATIC LOAD CONDITION.

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY.  
EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE  
STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE  
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OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO  
THE MANUFACTURER'S SPECIFICATION.

METRIC

RFC After Final Approval

DWG. NO.	2.5R-348-01.6
JOB NO.	239-0007
SHT. NO.	RE-4



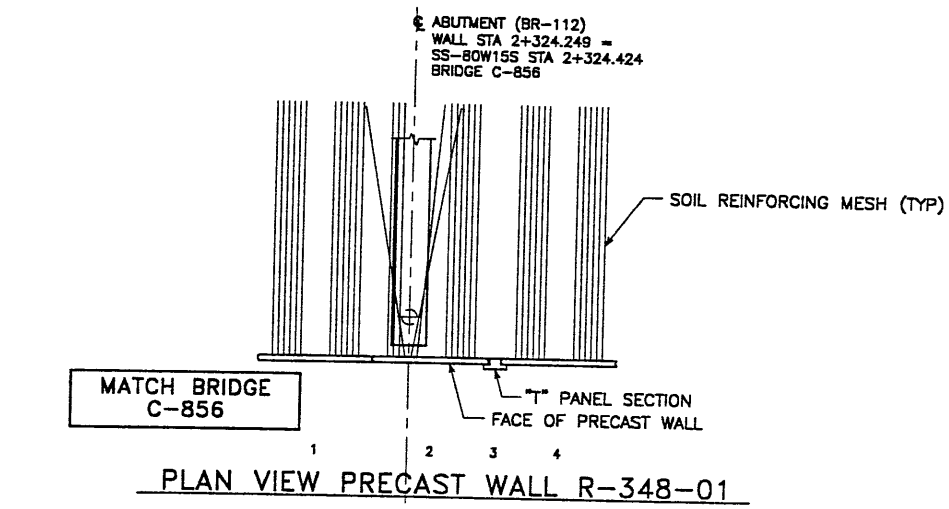
ENCE (X-UTAH.DWG)

\\SUBMITL-4\SS-01.DWG

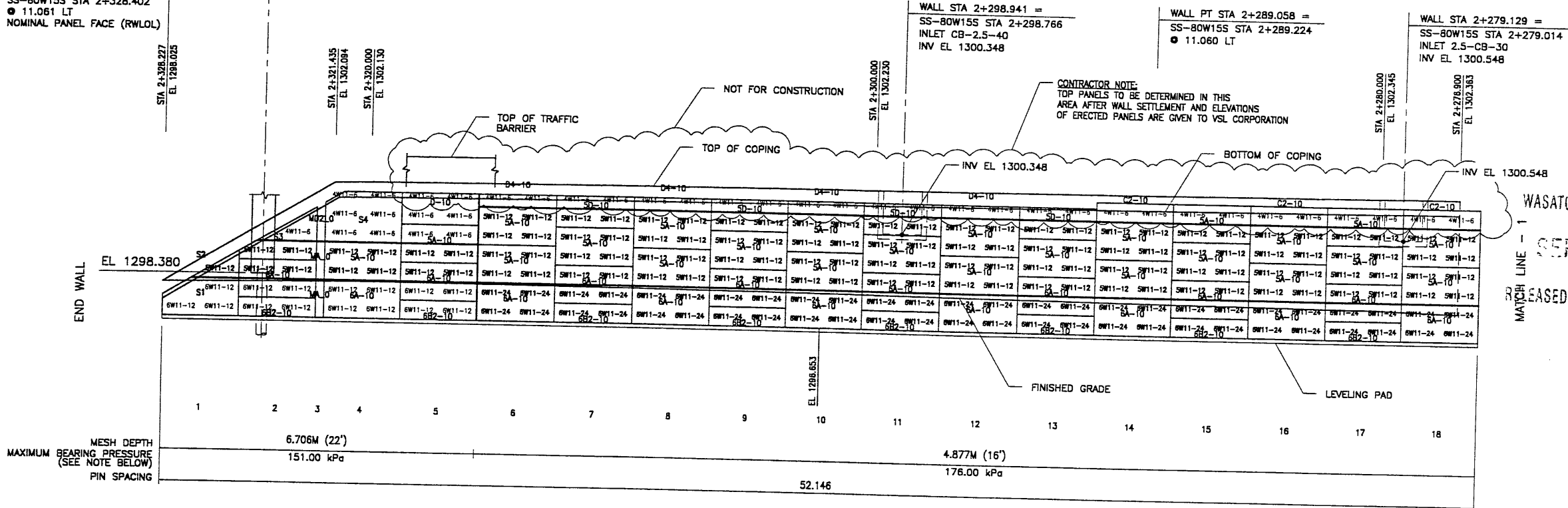
H:\RE\_EARTH\PROJECT\239-0007\1998\SS-1

T 09-01-98

FII



END WALL R-348-01  
WALL STA 2+328.227 =  
SS-BOW155 STA 2+328.402  
● 11.061 LT  
NOMINAL PANEL FACE (RWLOL)

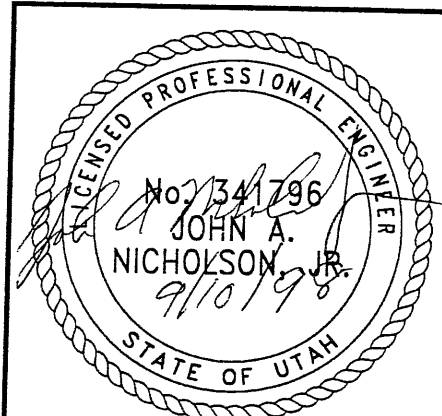


ELEVATION PRECAST WALL R-348-01  
(FRONT FACE SHOWN)  
(TOTAL SURFACE AREA OF PANELS = 1661.43 SM)  
SCALE 1:100 (FULL SIZE)  
SCALE 1:200 (HALF SIZE)

NOTE:  
THE INDICATED MAXIMUM BEARING PRESSURE  
AT FINAL STAGE FOR STATIC LOAD CONDITION.

METRIC

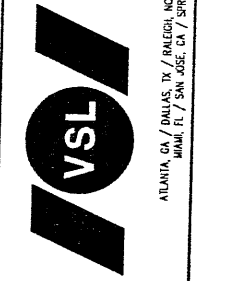
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THE MANUFACTURER'S SPECIFICATION.



APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
2	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

DES.	DRN.	CHK.	RETAINED EARTH™	NO.	DATE	REVISION	BY	CHK
09-01-98	09-01-98	09-01-98						

VSL CORPORATION  
2840 Plaza Place, Suite 200  
Raleigh, NC 27612  
Telephone: (919) 781-8272  
Fax: (919) 781-4889



WASATCH CONSTRUCTORS  
SEP 14 1998  
MATCH LINE  
RELEASED FOR CONSTRUCTION

VSL Corporation (VSL) hereby certifies that the information contained herein is true and correct to the best of its knowledge and belief. It is the responsibility of the user of this information to verify its accuracy and applicability to their specific project. VSL CORPORATION DISCLAIMS ANY LIABILITY THEREFOR.

RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-01"  
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.


DWG. NO.	2.5R-348-01.6
JOB NO.	239-0007
SHT. NO.	RE-4

FINAL PLOT 09-01-98  
 H:\RE\_EARTH\PROJECT\239-0007\1998\SS-WALLS\SS-01\SUBMITL-4\SS-01.DWG  
 X-REFERENCE (X-UTAH.DWG)

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
▲	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
▲	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE
▲	02-15-99	TOP PANELS CHANGED DUE TO SETTLEMENT

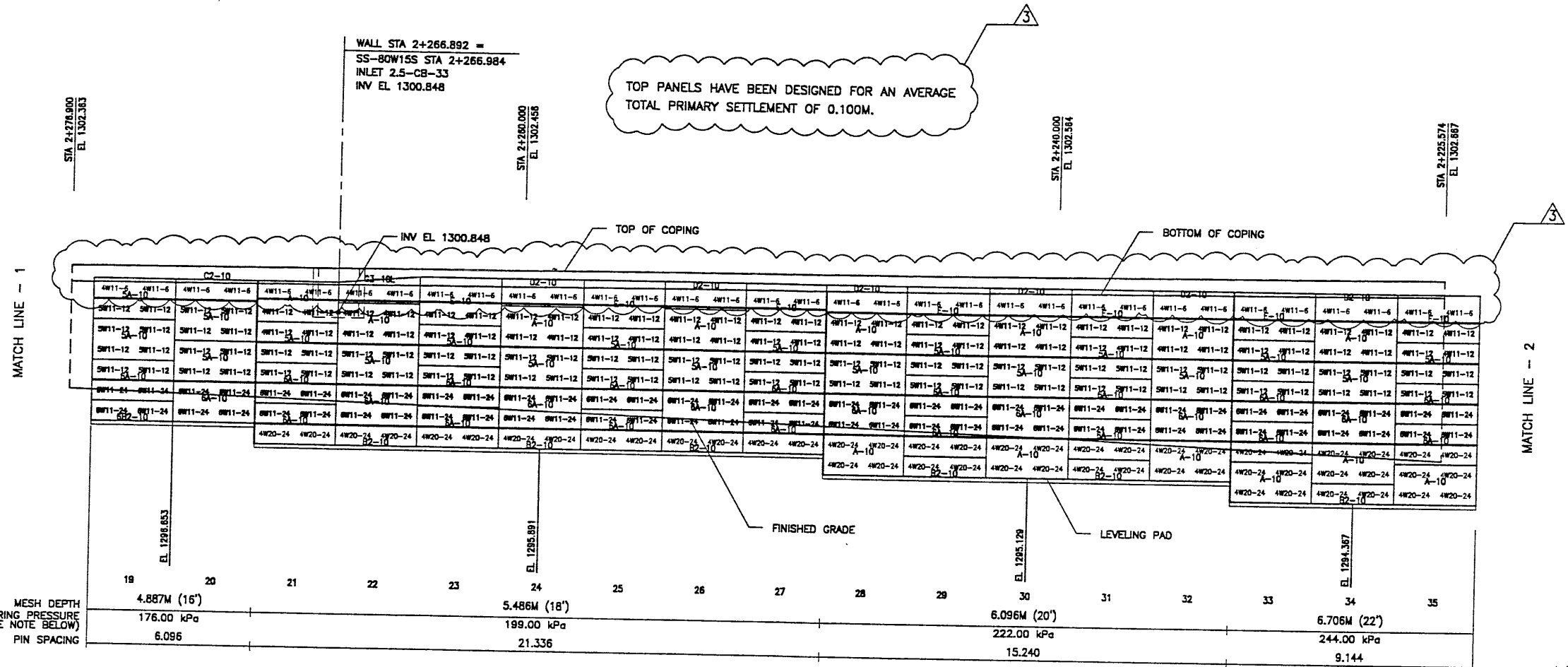
DES.	MM	DRN.	DSW	CHK.	MM	NO.	DATE	REVISION	BY

VSL CORPORATION  
 280 First Place, Suite 200  
 Bala Cynwyd, PA 19004  
 Tel: (610) 781-6272  
 Fax: (610) 781-6689



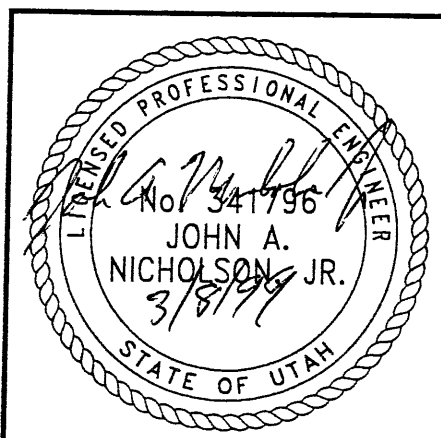
ALABAMA, GA / DALLAS, TX / RICHMOND, NC (CORPORATE OFFICE)  
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**ELEVATION PRECAST WALL R-348-01**  
 (FRONT FACE SHOWN) SCALE 1:100 (FULL SIZE)  
 (TOTAL SURFACE AREA OF PANELS = 1644.76 SM) SCALE 1:200 (HALF SIZE)

**WASATCH CONSTRUCTORS**  
**MAR 15 1999**  
 RELEASED FOR CONSTRUCTION



RETAINED EARTH™ WALLS PRECAST WALL "R-348-01" UTAH I-15 RECONSTRUCTION SALT LAKE COUNTY, UTAH UTAH DEPARTMENT OF TRANSP.
DWG. NO. 2.5R-348-01.7
JOB NO. 239-0007
SHT. NO. RE-5

APPROVER NOTE:  
 MAXIMUM FINAL UNFACTORED BEARING PRESSURES  
 ARE INDICATED BELOW "MESH DEPTH LINE"  
 REVIEWER TO VERIFY MAXIMUM BEARING  
 CAPACITY OF FOUNDATION.

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY.  
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 STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE  
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 OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO  
 THE MANUFACTURER'S SPECIFICATION.

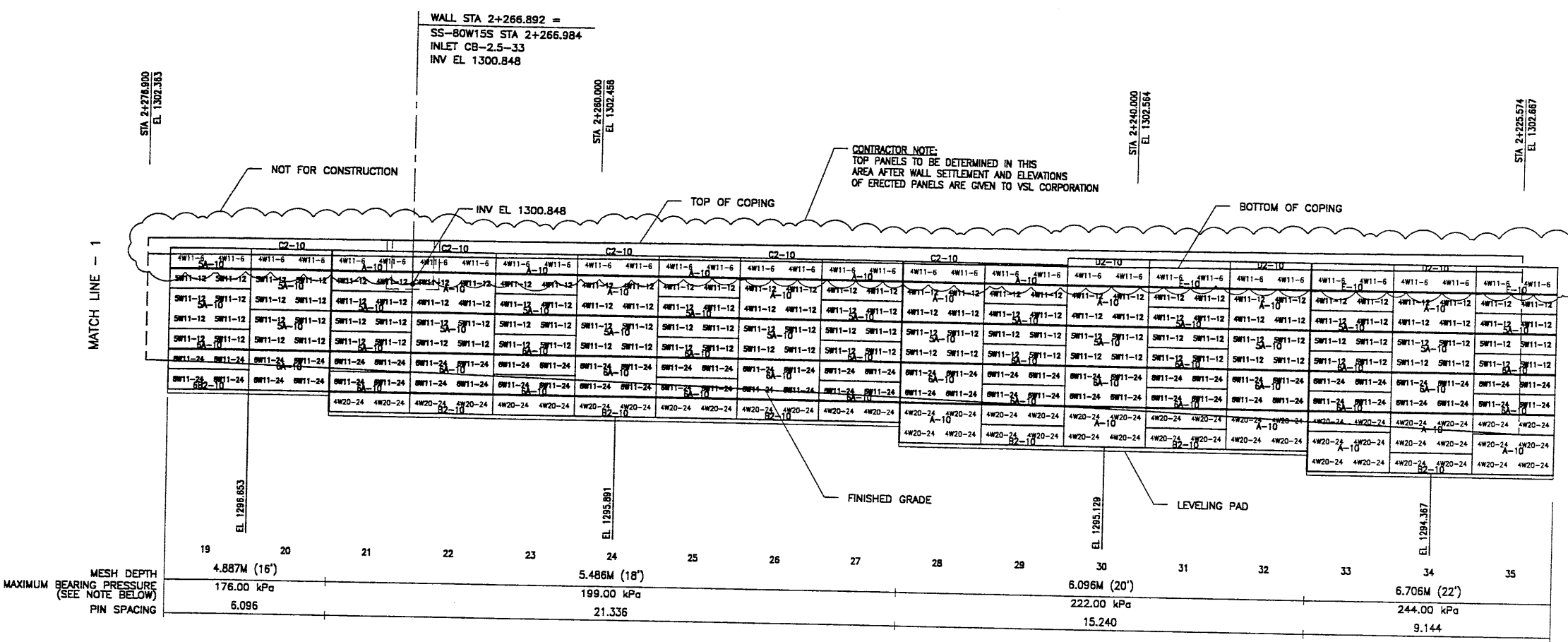
METRIC

RFC After Final Approval



APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
▲	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
▲	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

CHANGED ENTIRE SHEET

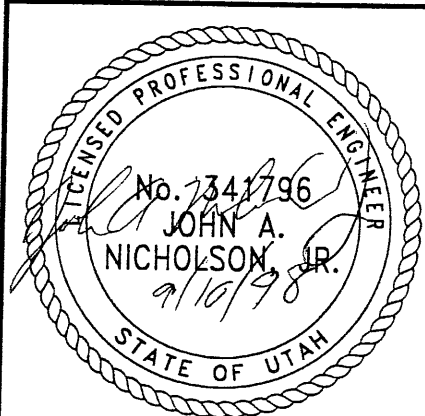


**ELEVATION PRECAST WALL R-348-01**  
 (FRONT FACE SHOWN) SCALE 1:100 (FULL SIZE)  
 (TOTAL SURFACE AREA OF PANELS = 1661.43 SM) SCALE 1:200 (HALF SIZE)

APPROVER NOTE:  
 MAXIMUM FINAL UNFACTORED BEARING PRESSURES  
 ARE INDICATED BELOW "MESH DEPTH LINE"  
 REVIEWER TO VERIFY MAXIMUM BEARING  
 CAPACITY OF FOUNDATION.

METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY.  
 EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE  
 STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE  
 ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS  
 OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO  
 THE MANUFACTURER'S SPECIFICATION.



WASATCH CONSTRUCTORS  
 SEP 14 1998  
 RELEASED FOR CONSTRUCTION

RETAINED EARTH™ WALLS  
 PRECAST WALL "R-348-01"  
 UTAH I-15 RECONSTRUCTION  
 SALT LAKE COUNTY, UTAH  
 UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.7
JOB NO.	239-0007
SHT. NO.	RE-5

VSL CORPORATION  
 2840 Plaza Place, Suite 200  
 Raleigh, NC 27612  
 Telephone: (919) 781-5272  
 Fax: (919) 781-4869



ALBANY, GA / DALLAS, TX / BALTIMORE, MD (CORPORATE OFFICE)  
 MIAMI, FL / SAN JOSE, CA / SPRINGFIELD, VA

VSL Corporation ("VSL")  
 certifies that the design and  
 construction of the structure  
 shown on this sheet, the use of  
 which is intended to be in  
 accordance with the design  
 shown on this sheet, is the  
 responsibility of the user.  
 Any other use is strictly  
 prohibited, and VSL, its  
 officers, directors, employees,  
 agents, and representatives  
 shall not be liable therefor.

DES.	MM
DES. 09-01-98	MM
DRN.	DDL
DRN. 09-01-98	DDL
CHK.	MM
CHK. 09-01-98	MM

REFERENCE (X-UTAH.DWG)


H:\RE\_EARTH\PROJECT\239-0007\1998\SS-WALLS\SS-01\SUBMITL-4\SS-01.DWG

FINAL PLOT 09-01-98

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
2	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE
3	02-15-99	TOP PANELS CHANGED DUE TO SETTLEMENT

DES.	DRN.	CHK.	RETAINED EARTH™
02-15-99	MM	02-15-99	DSW
02-15-99	MM	02-15-99	MM

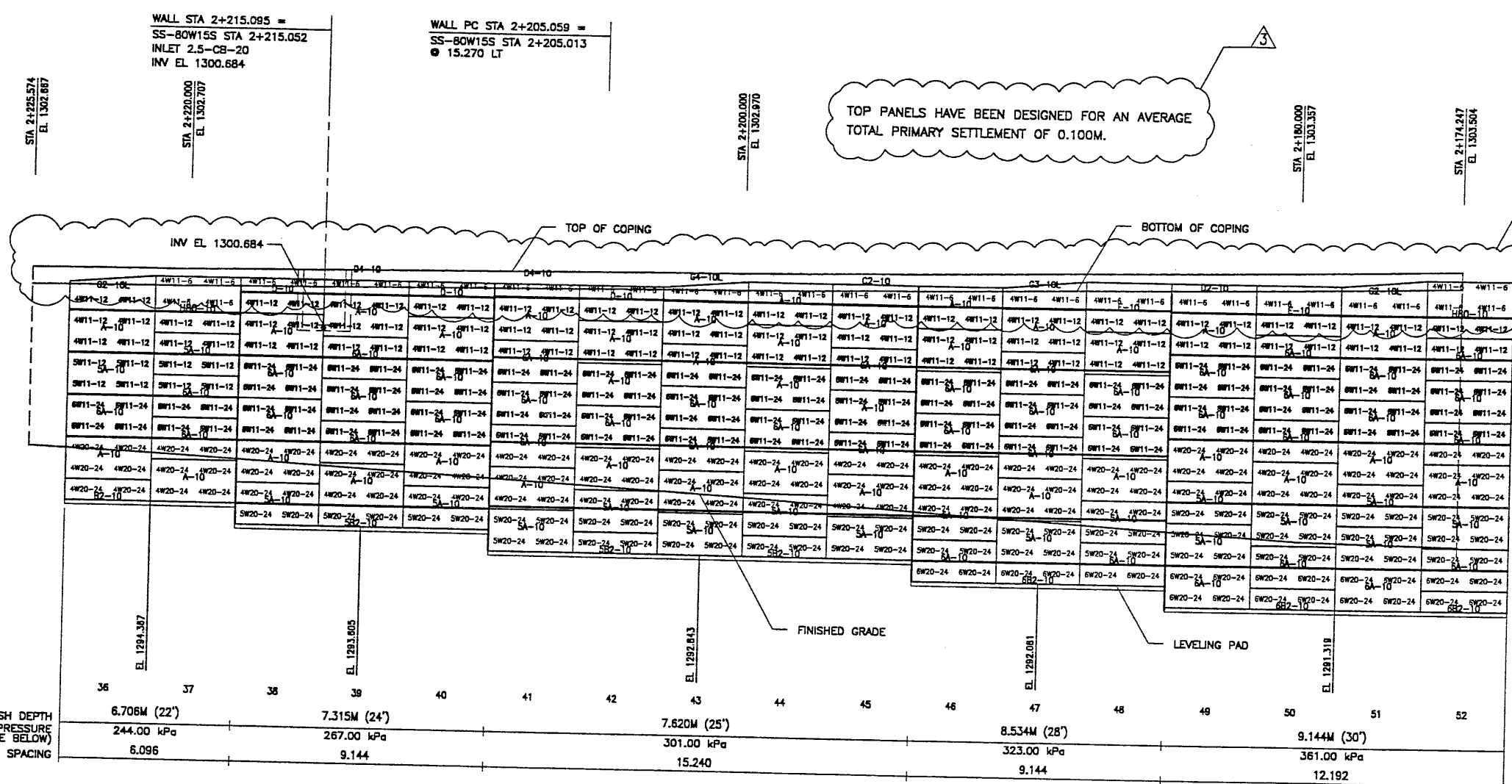
**VSL CORPORATION**  
 2810 Plaza Blvd., Suite 200  
 Raleigh, NC 27603  
 Telephone: (919) 781-8272  
 Facsimile: (919) 781-4869



ATLANTA, GA / DALLAS, TX / FALCON, NC (CORPORATE OFFICE)  
 MIAMI, FL / SAN JOSE, CA / SPRINGFIELD, VA

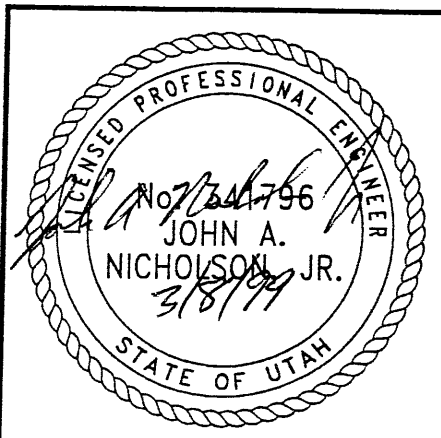
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RETAINED EARTH™ WALLS PRECAST WALL "R-348-01"
UTAH I-15 RECONSTRUCTION SALT LAKE COUNTY, UTAH UTAH DEPARTMENT OF TRANSP.
DWG. NO. 2.5R-348-01.8
JOB NO. 239-0007
SHT. NO. RE-6



**ELEVATION PRECAST WALL R-348-01**  
 (FRONT FACE SHOWN) SCALE 1:100 (FULL SIZE)  
 (TOTAL SURFACE AREA OF PANELS = 1644.76 SM) SCALE 1:200 (HALF SIZE)

**WASATCH CONSTRUCTORS**  
 MAR 15 1999  
 RELEASED FOR CONSTRUCTION



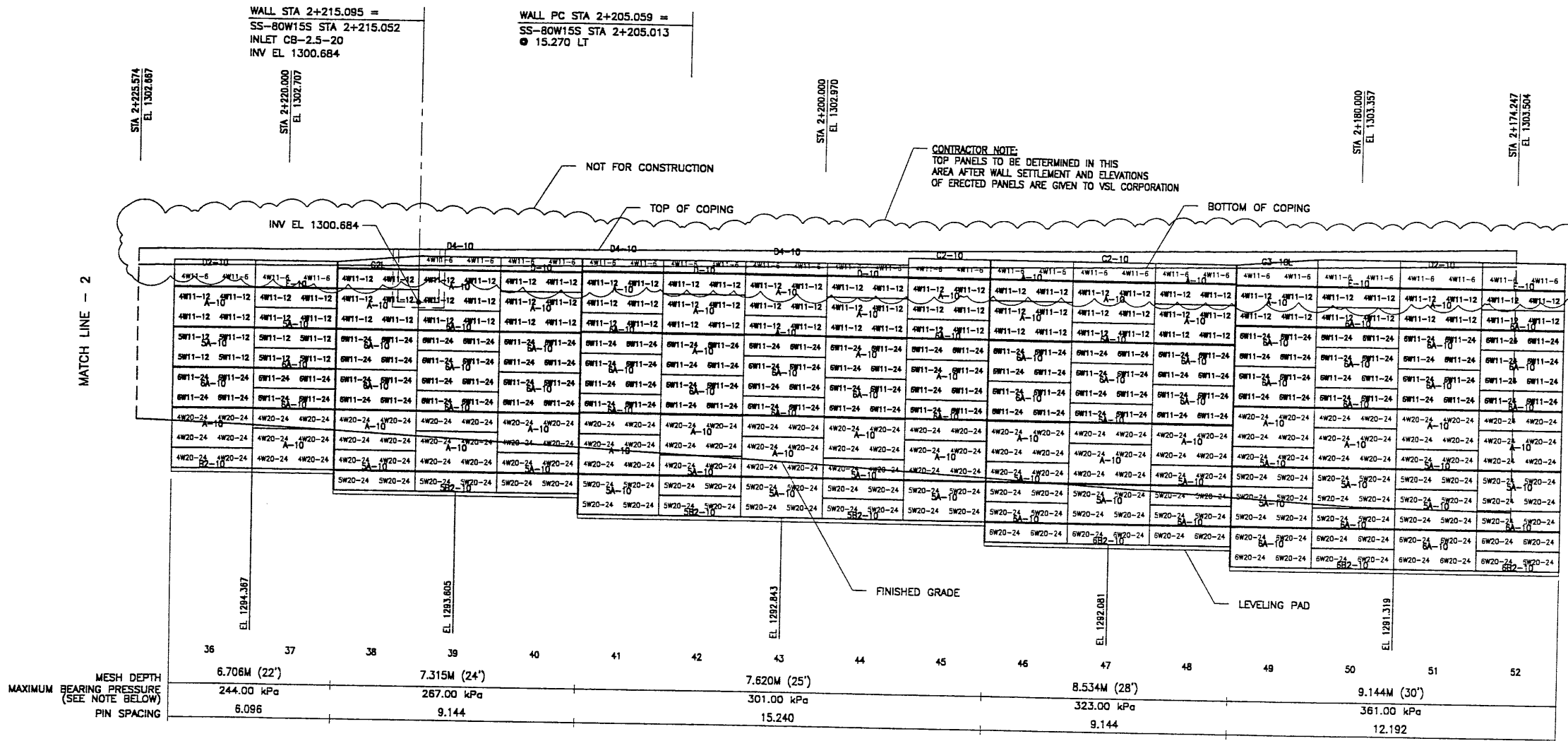
**METRIC**

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

**RFC After Final Approval**

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY
2	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

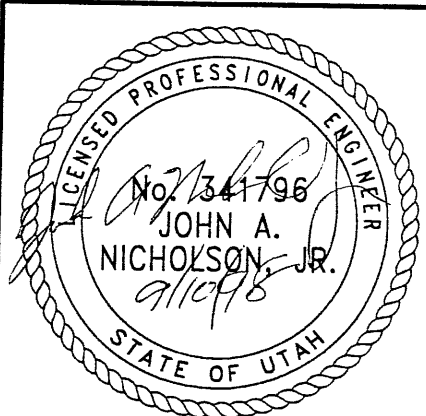
CHANGED ENTIRE SHEET



ELEVATION PRECAST WALL R-348-01  
(FRONT FACE SHOWN) SCALE 1:100 (FULL SIZE)  
(TOTAL SURFACE AREA OF PANELS = 1661.43 SM) SCALE 1:200 (HALF SIZE)

METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.



RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-01"  
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.B
JOB NO.	239-0007
SHT. NO.	RE-6

VSL CORPORATION  
2840 Plaza Place, Suite 200  
Raleigh, NC 27612  
Telephone: (919) 781 6272  
Fax: (919) 781 4969

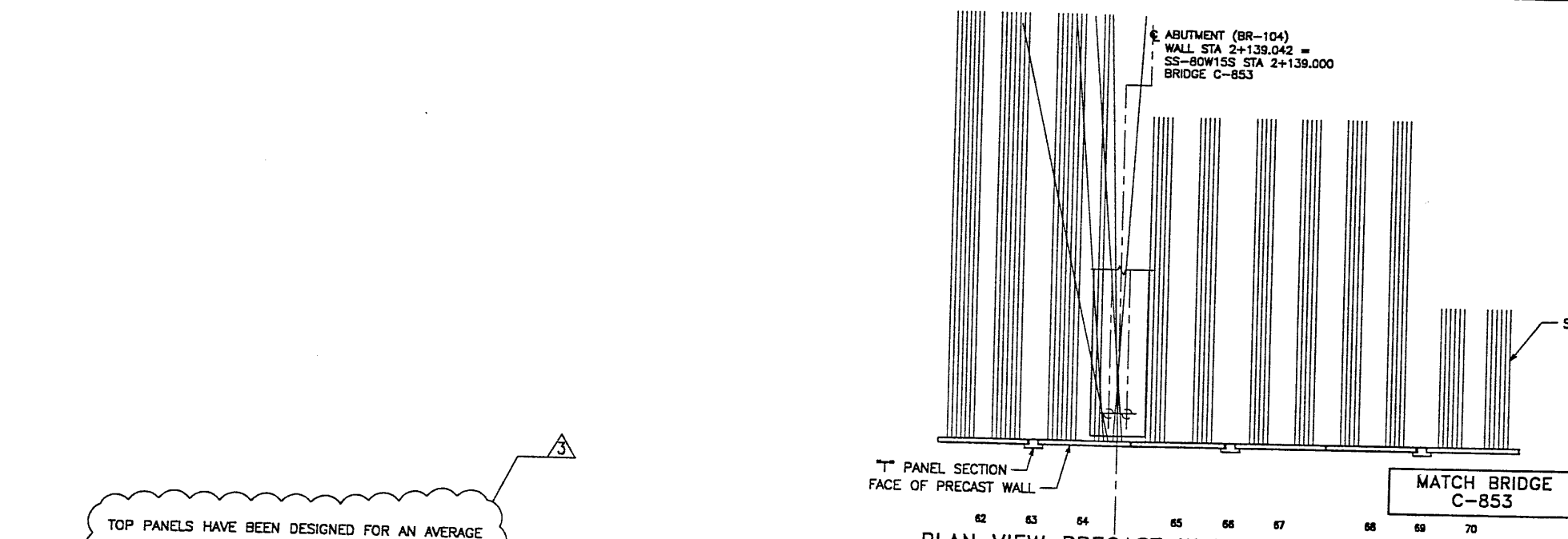
ALABAMA, GA / DALLAS, TX / HALOHI, HI (CORPORATE OFFICE)  
MINN. / SAN JOSE, CA / SPRINGFIELD, VA

WASATCH CONSTRUCTORS  
SEP 14 1998  
RELEASED FOR CONSTRUCTION

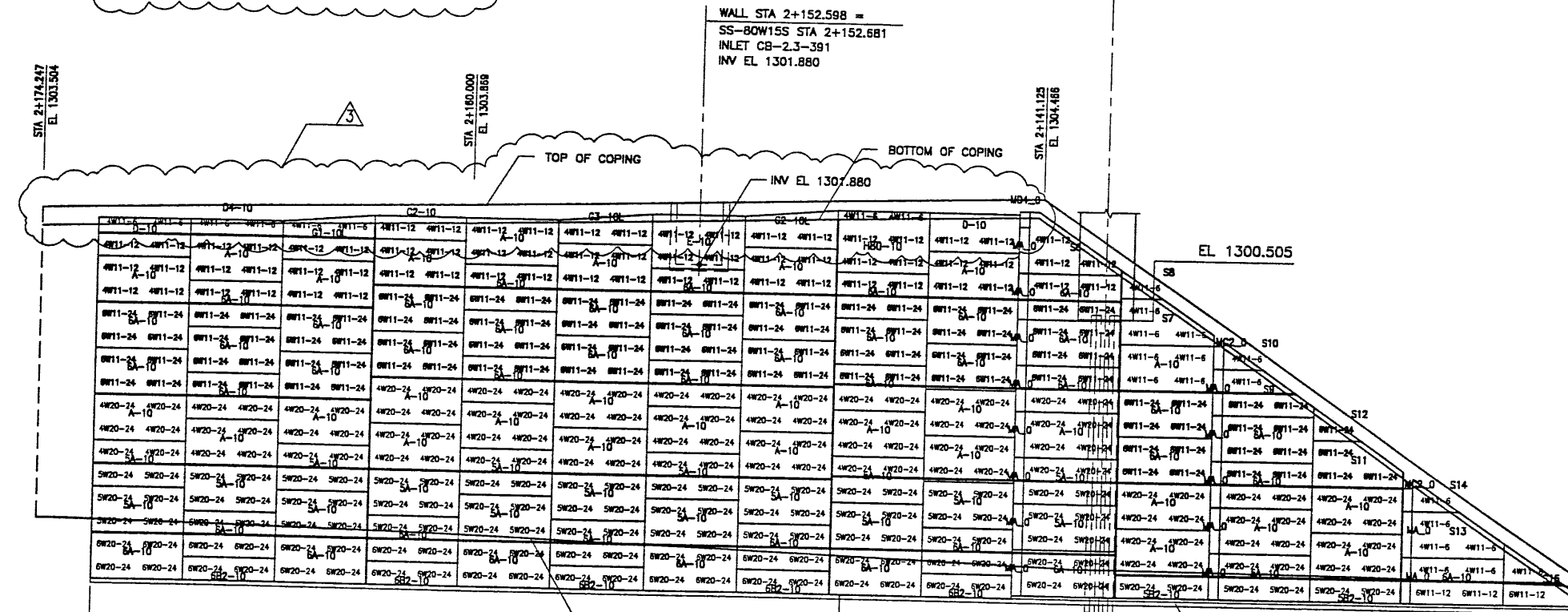
DES.	MM	DD	MM	MM	NO.	DATE	REVISION	BY	CHK
DES.	09-01-98	MM	09-01-98	DD					
DRN.	09-01-98	MM	09-01-98	DD					
CHK.	09-01-98	MM	09-01-98	DD					

FINAL PLOT 09-01-98 H:\RE\_EARTH\PROJECT\239-0007\1988\SS-WALL-01.SUBMITL-4\SS-01.DWG ENCE (X-UTAH.DWG)

APPROVED FOR CONSTRUCTION			
NO.	DATE	DESCRIPTION	CHK
△	01-26-98	RELEASE FOR 1ST STAGE CONST. ONLY	
△	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE	
△	02-15-99	TOP PANELS CHANGED DUE TO SETTLEMENT	



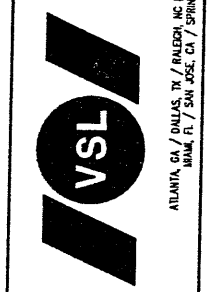
TOP PANELS HAVE BEEN DESIGNED FOR AN AVERAGE TOTAL PRIMARY SETTLEMENT OF 0.100M.



MESH DEPTH	9.144M (30')	10.363M (34')	14.021M (46')	10.668M (35')	4.572M (15')
MAXIMUM BEARING PRESSURE (SEE NOTE BELOW)	361.00 kPa	383.00 kPa	378.00 kPa	295.00 kPa	155.00 kPa
PIN SPACING			49.478		

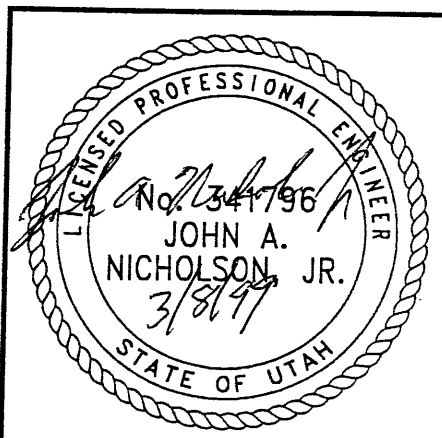
DES.	DRN.	CHK.	DATE	REVISION	BY
MM	DSW	MM			
02-15-99	02-15-99	02-15-99			

VSL CORPORATION  
2810 Plaza Place, Suite 200  
Folsom, CA 95630  
Tel: (916) 781-8272  
Fax: (916) 781-4889



ATLANTA, GA / DALLAS, TX / FLEISCH, NC (CORPORATE OFFICE)  
IRVING, TX / SAN JOSE, CA / SPRINGFIELD, VA

WASATCH CONSTRUCTORS  
MAR 15 1999  
RELEASED FOR CONSTRUCTION



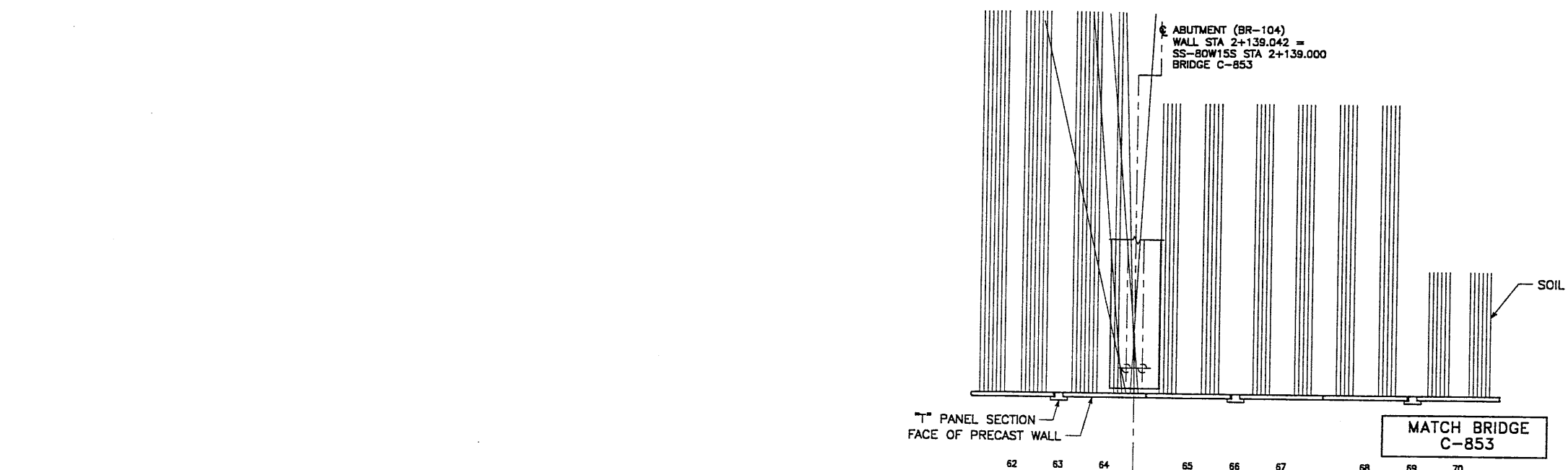
RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-01"  
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.9
JOB NO.	239-0007
SHT. NO.	RE-7

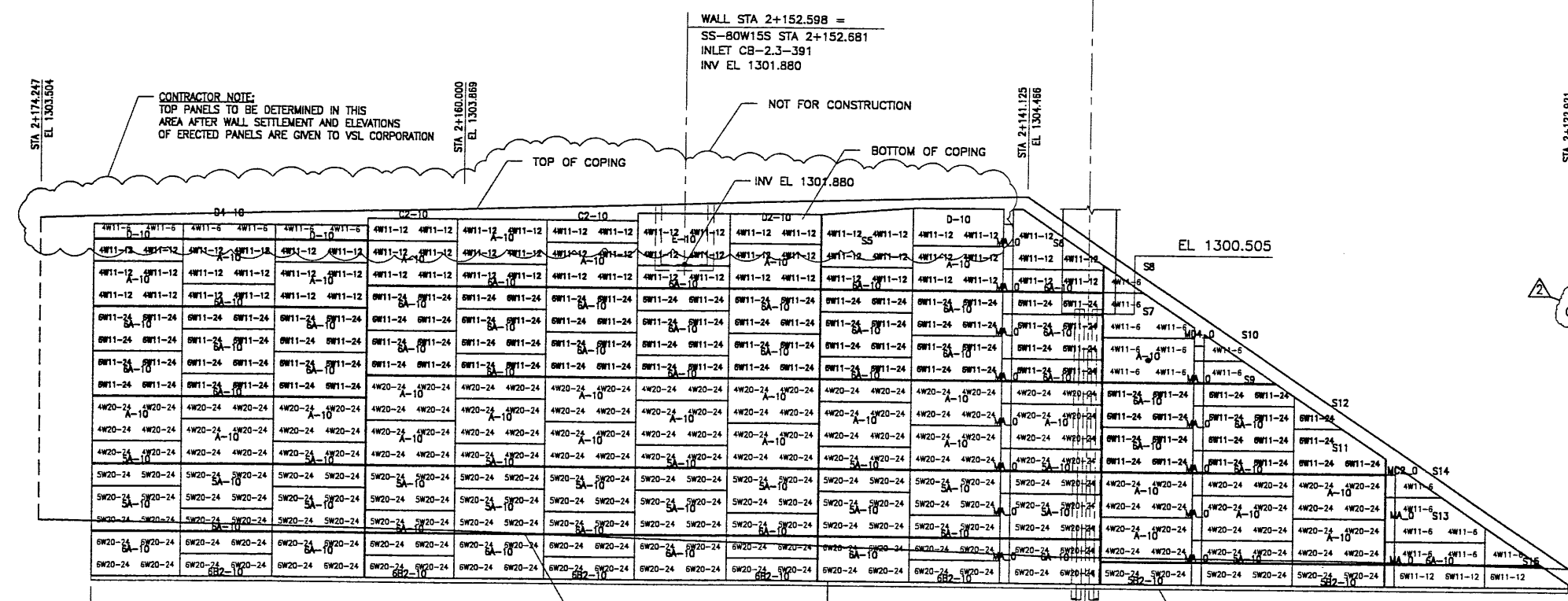
CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

RFC After Final Approval

FIN 09-01-98 1\SUBMITL-4\SS-01.DWG 1\SUBMITL-4\SS-01.DWG



PLAN VIEW PRECAST WALL R-348-01



ELEVATION PRECAST WALL R-348-01

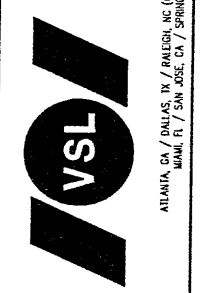
(FRONT FACE SHOWN)  
 (TOTAL SURFACE AREA OF PANELS = 1611.53 SM)  
 SCALE 1:100 (FULL SIZE)  
 SCALE 1:200 (HALF SIZE)

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	01-28-98	RELEASE FOR 1ST STAGE CONST. ONLY
2	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

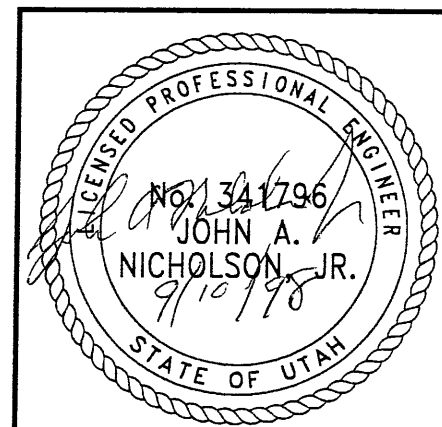
DES.	DRN.	CHK.	NO.	DATE	REVISION	BY	CHK.

VSL CORPORATION  
 2600 Plaza Place, Suite 200  
 Raleigh, NC 27612  
 Telephone: (919) 488-5772  
 Fax: (919) 488-9858



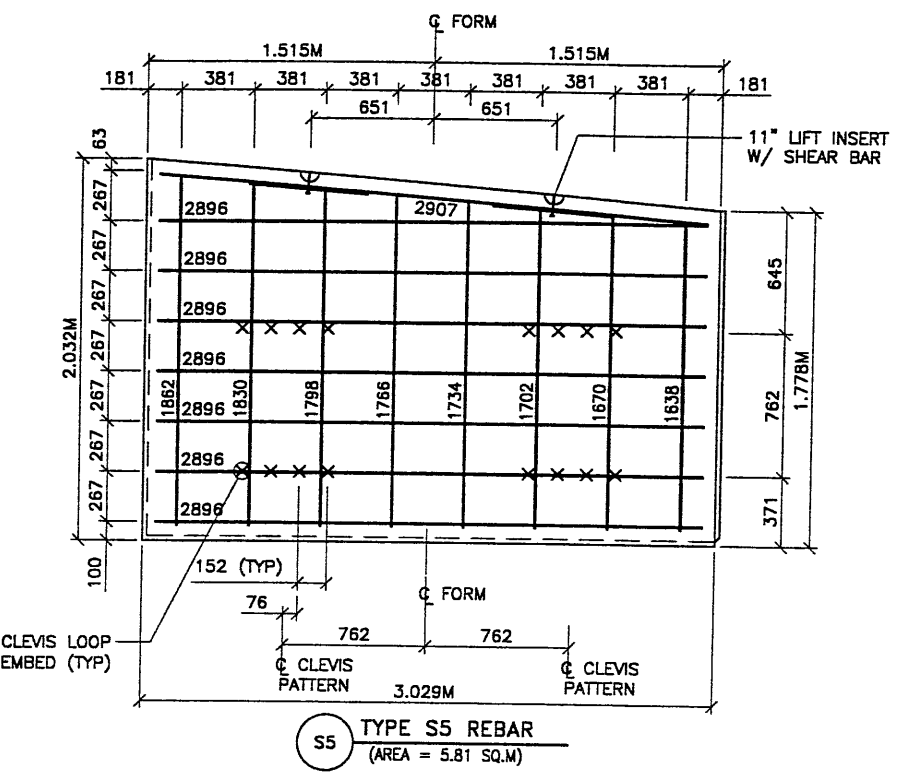
ATLANTA, GA / DALLAS, TX / RALEIGH, NC (CORPORATE OFFICE)  
 MIAMI, FL / SAN JOSE, CA / SPRINGFIELD, VA

WASATCH CONSTRUCTORS  
 SEP 14 1998  
 RELEASED FOR CONSTRUCTION

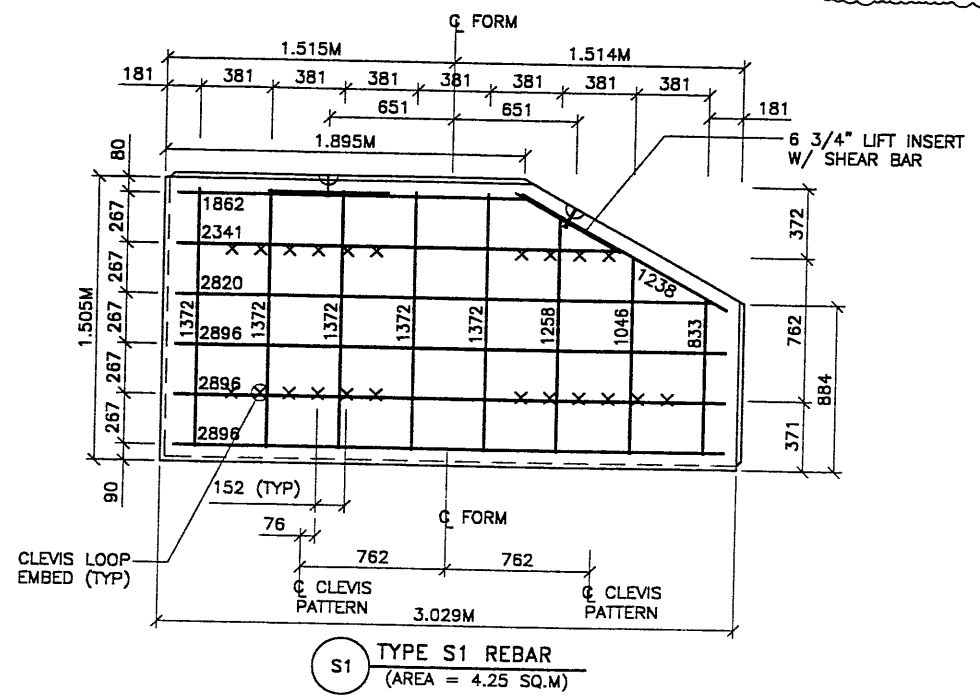


RETAINED EARTH™ WALLS  
 PRECAST WALL "R-348-01"  
 UTAH I-15 RECONSTRUCTION  
 SALT LAKE COUNTY, UTAH  
 UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.9
JOB NO.	239-0007
SHT. NO.	RE-7

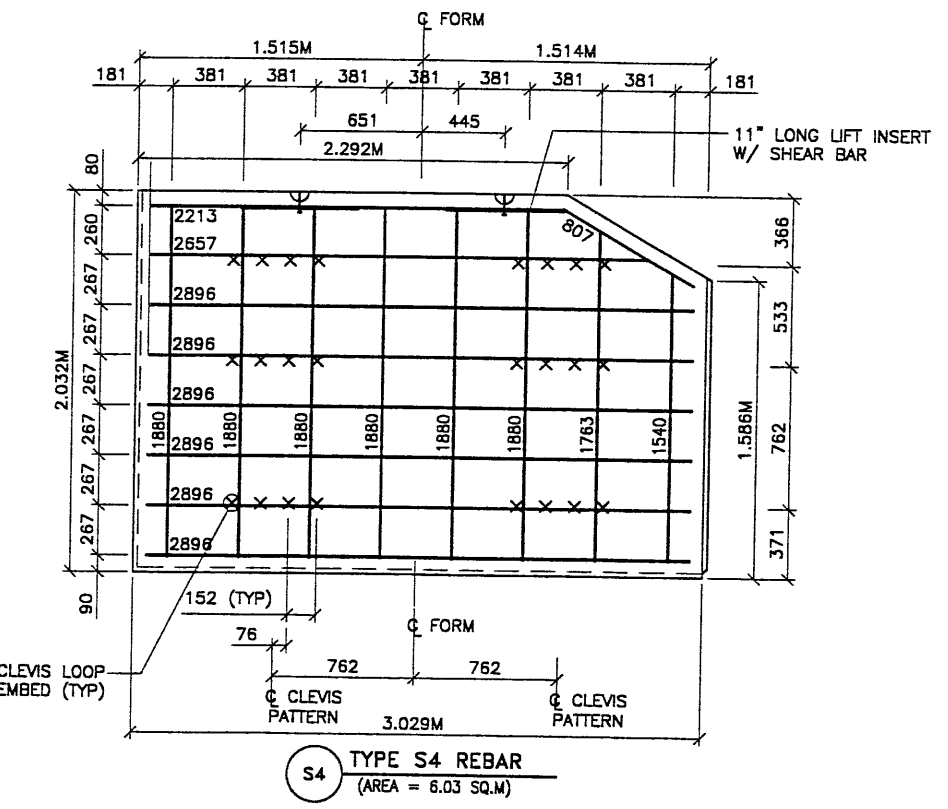


**S5 TYPE S5 REBAR**  
(AREA = 5.81 SQ.M)

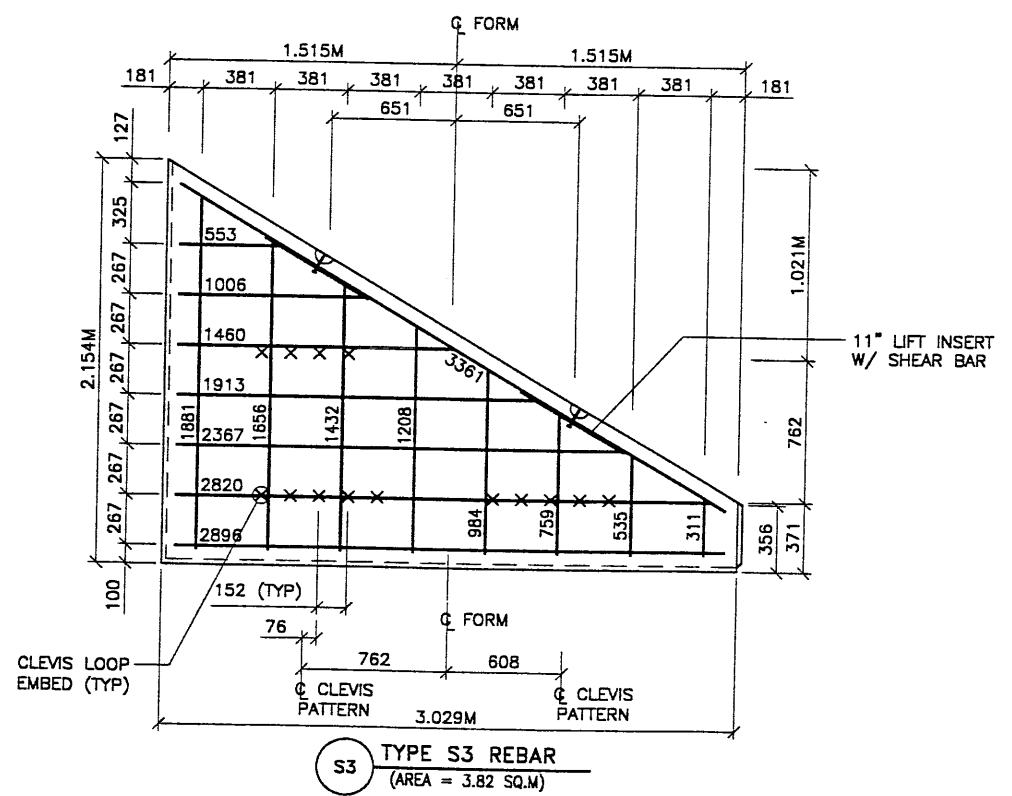


**S1 TYPE S1 REBAR**  
(AREA = 4.25 SQ.M)

CHANGED ENTIRE SHEET



**S4 TYPE S4 REBAR**  
(AREA = 6.03 SQ.M)

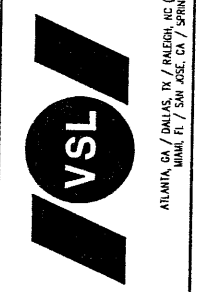


**S3 TYPE S3 REBAR**  
(AREA = 3.82 SQ.M)

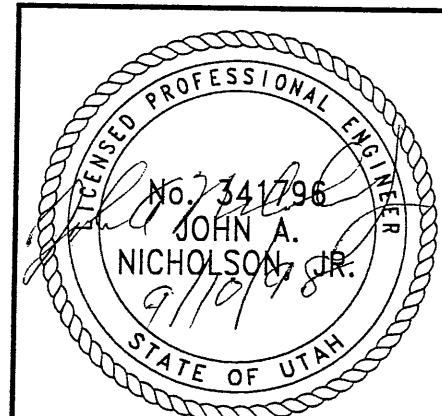
APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	09-01-98	RELEASE FOR CONSTRUCTION
2	09-01-98	WALL CHANGED FROM 2-STAGE TO 1-STAGE

- PANEL REINFORCEMENT NOTES:
1. PANELS ARE SHOWN BACK FACE.
  2. HORIZONTAL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE BACK FACE.
  3. ALL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE SIDES.
  4. ALL REINFORCING BARS ARE #13 METRIC. LABELS ON EACH BAR INDICATE LENGTH. EXAMPLE: 1345 IS A #13 BAR 1345 mm LONG.
  5. PANEL REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION A615, GRADE 60.
  6. ALL REINFORCING STEEL TO BE GALVANIZED IN ACCORDANCE WITH ASTM 767 CLASS I.
  7. CONCRETE PANELS TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 20,700 KPa.
  8. EQUIVALENT WELDED WIRE FABRIC MAY BE USED.
  9. ALL PANELS TO USE 9.5mmØ CLEVIS LOOPS.
  10. VSL RETAINED EARTH™ IS PROTECTED UNDER PATENT 4,725,170.
  11. LIFT INSERTS ARE 6 3/4" LONG IN ALL PANELS LESS THAN 1.524M TALL. PANELS TALLER THAN 1.524M SHALL HAVE 11" LONG LIFT ANCHORS.

VSL CORPORATION  
2610 Plaza Place, Suite 200  
Raleigh, NC 27612  
Telephone: (919) 781-6272  
Fax: (919) 781-4989



WASATCH CONSTRUCTORS  
SEP 14 1998  
RELEASED FOR CONSTRUCTION

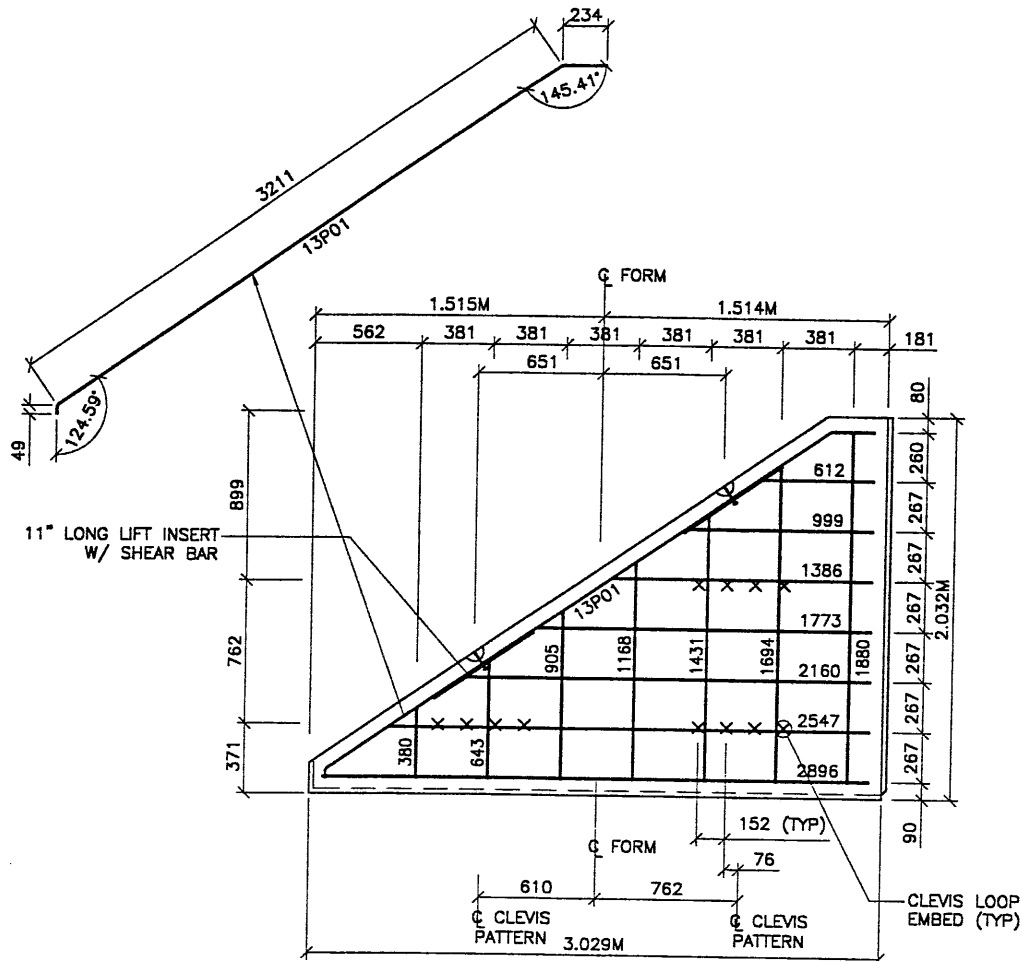


RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-1"  
SPECIAL PANEL DETAILS  
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

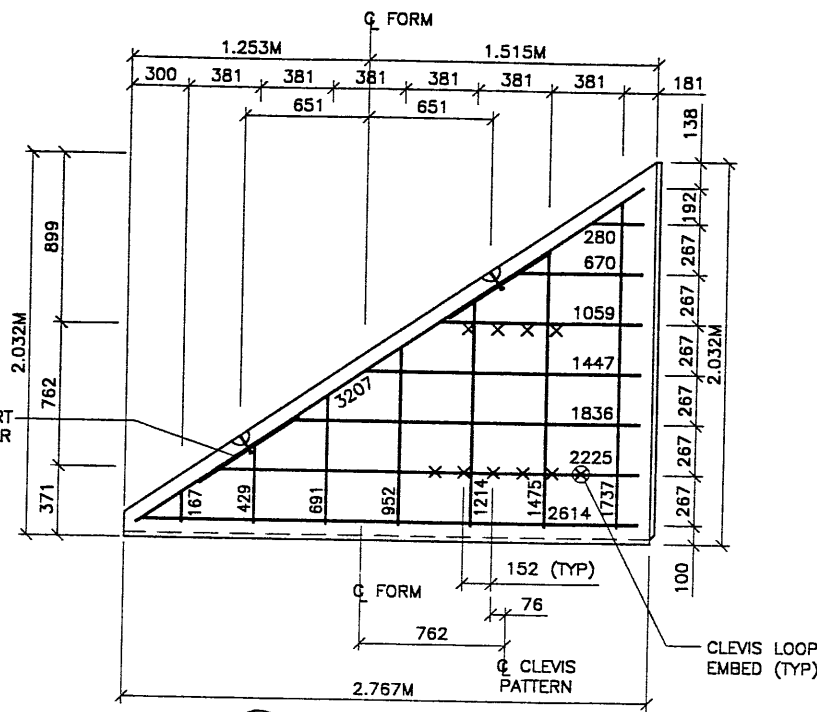
DWG. NO.	2.5R-348-01.10
JOB NO.	239-0007
SHT. NO.	RE-8

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

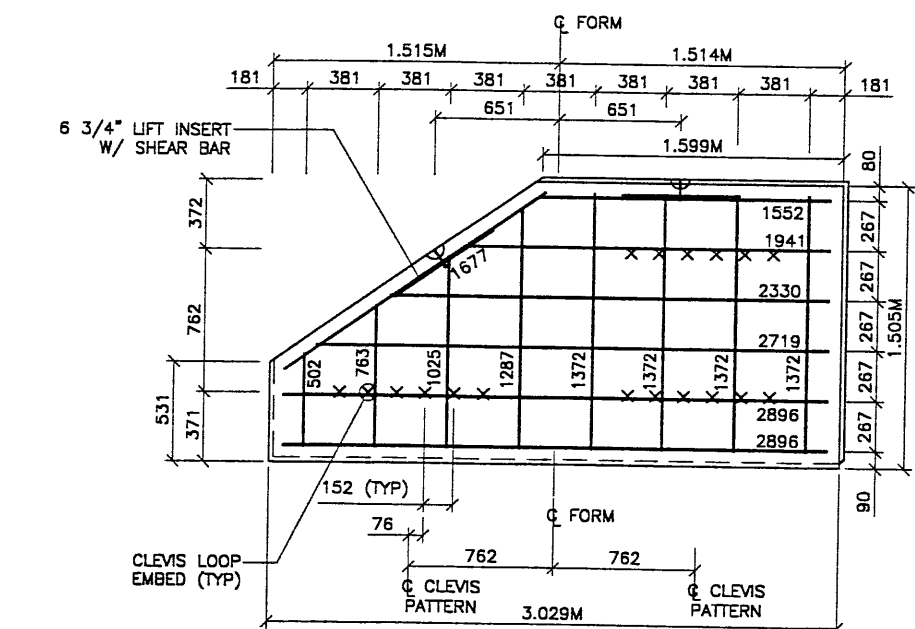




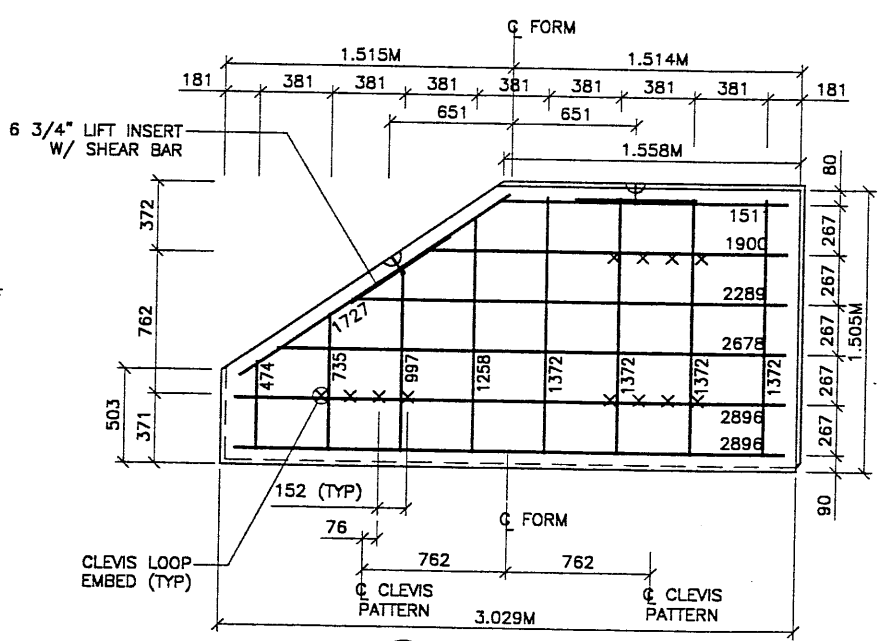
**S6 TYPE S6 REBAR**  
(AREA = 3.64 SQ.M)



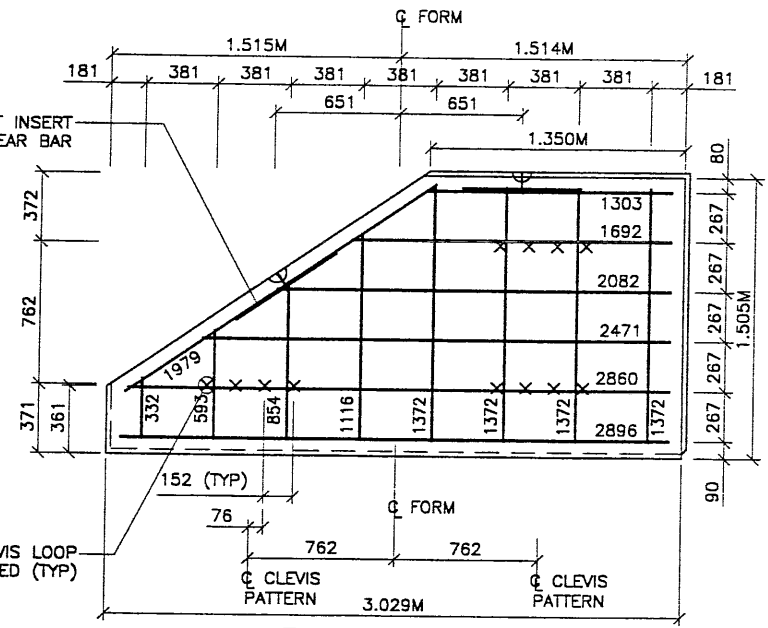
**S15 TYPE S15 REBAR**  
(AREA = 2.99 SQ.M)



**S11 TYPE S11 REBAR**  
(AREA = 3.93 SQ.M)



**S13 TYPE S13 REBAR**  
(AREA = 3.88 SQ.M)



**S7 TYPE S7 REBAR**  
(AREA = 3.66 SQ.M)

CHANGED ENTIRE SHEET

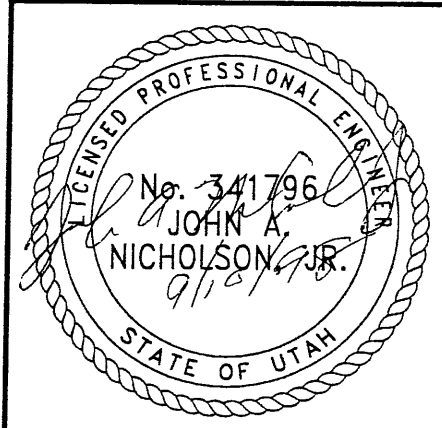
APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
01-28-98		RELEASE FOR 1ST STAGE CONST. ONLY
09-01-98		WALL CHANGED FROM 1-STAGE TO 2-STAGE

- PANEL REINFORCEMENT NOTES:**
- PANELS ARE SHOWN BACK FACE.
  - HORIZONTAL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE BACK FACE.
  - ALL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE SIDES.
  - ALL REINFORCING BARS ARE #13 METRIC. LABELS ON EACH BAR INDICATE LENGTH. EXAMPLE: 1345 IS A #13 BAR 1345 mm LONG.
  - PANEL REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION A615, GRADE 60.
  - ALL REINFORCING STEEL TO BE GALVANIZED IN ACCORDANCE WITH ASTM 767 CLASS 1.
  - CONCRETE PANELS TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 20,700 KPa.
  - EQUIVALENT WELDED WIRE FABRIC MAY BE USED.
  - ALL PANELS TO USE 9.5mmØ CLEVIS LOOPS.
  - VSL RETAINED EARTH™ IS PROTECTED UNDER PATENT 4,725,170.
  - LIFT INSERTS ARE 6 3/4" LONG IN ALL PANELS LESS THAN 1.524M TALL. PANELS TALLER THAN 1.524M SHALL HAVE 11" LONG LIFT ANCHORS.

WASATCH CONSTRUCTORS  
SEP 14 1998  
RELEASED FOR CONSTRUCTION

METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.



**VSL CORPORATION**  
2840 Plaza Place, Suite 200  
Raleigh, NC 27612  
Telephone: (919) 781-6272  
Fax: (919) 781-6969

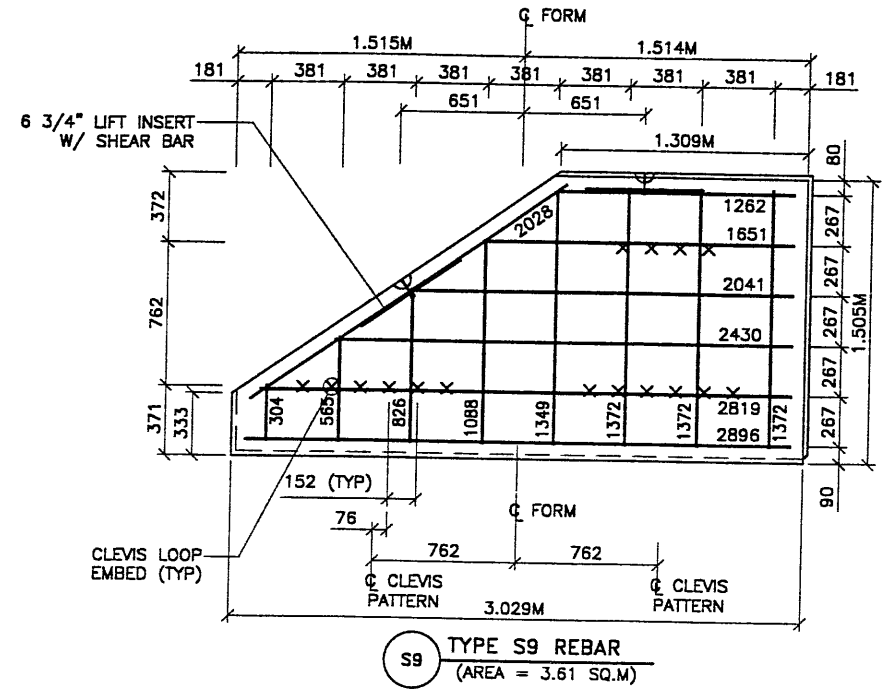
**VSL**  
ATLANTA, GA / DALLAS, TX / RALEIGH, NC (CORPORATE OFFICE)  
MIAMI, FL / SAN JOSE, CA / SPRINGFIELD, VA

RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-1"  
SPECIAL PANEL DETAILS

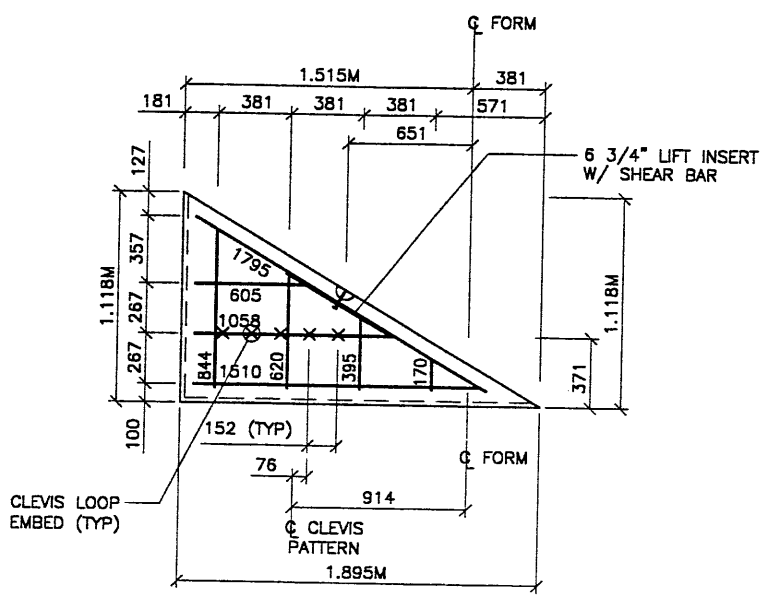
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

DWG. NO.	DATE	BY	CHK	REVISION
2.5R-348-01.11				
JOB NO:	239-0007			
SHT. NO.	RE-9			

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
1	09-01-98	RELEASE FOR CONSTRUCTION

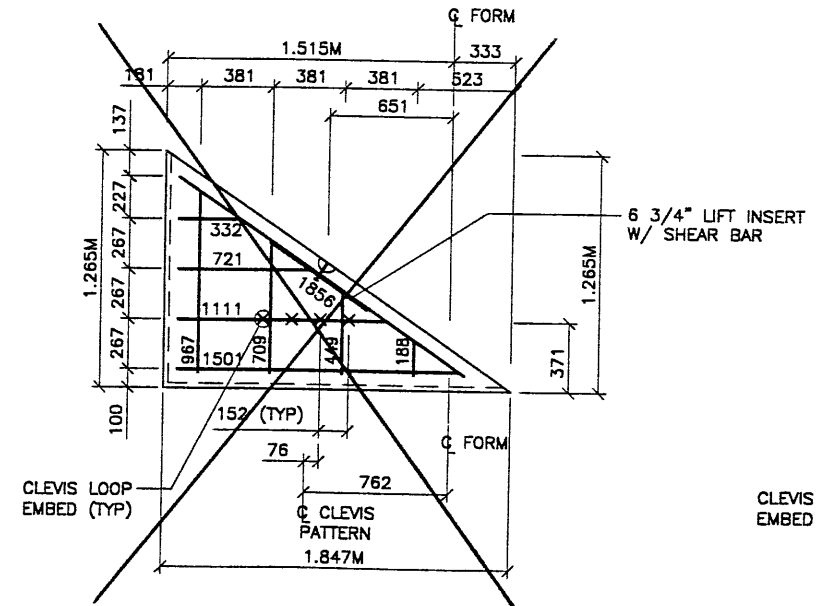


**S9 TYPE S9 REBAR**  
(AREA = 3.61 SQ.M)

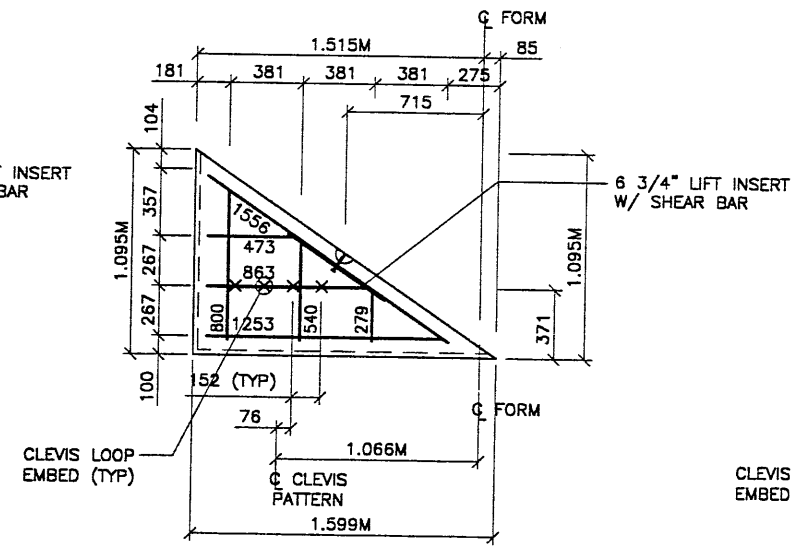


**S2 TYPE S2 REBAR**  
(AREA = 1.06 SQ.M)

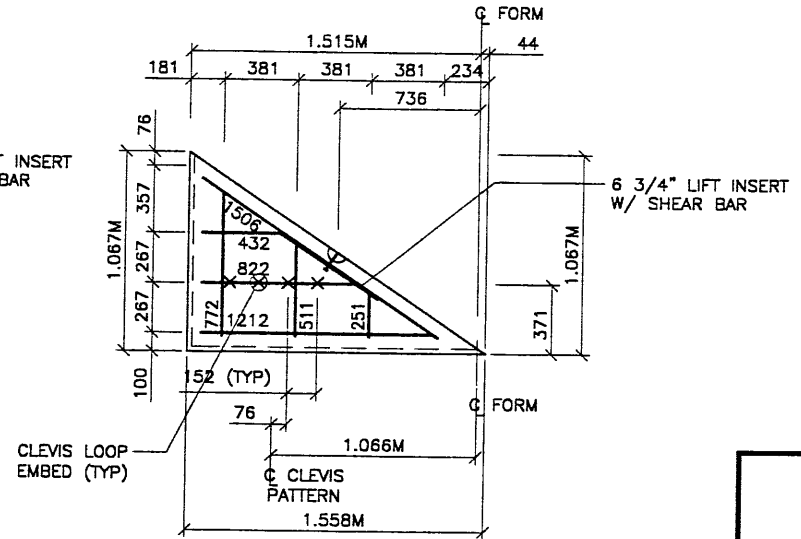
- PANEL REINFORCEMENT NOTES:**
- PANELS ARE SHOWN BACK FACE.
  - HORIZONTAL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE BACK FACE.
  - ALL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE SIDES.
  - ALL REINFORCING BARS ARE #13 METRIC. LABELS ON EACH BAR INDICATE LENGTH. EXAMPLE: 1345 IS A #13 BAR 1345 mm LONG.
  - PANEL REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION A615, GRADE 60.
  - ALL REINFORCING STEEL TO BE GALVANIZED IN ACCORDANCE WITH ASTM 767 CLASS 1.
  - CONCRETE PANELS TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 20,700 KPa.
  - EQUVALENT WELDED WIRE FABRIC MAY BE USED.
  - ALL PANELS TO USE 9.5mmØ CLEVIS LOOPS.
  - VSL RETAINED EARTH™ IS PROTECTED UNDER PATENT 4,725,170.
  - LIFT INSERTS ARE 6 3/4" LONG IN ALL PANELS LESS THAN 1.524M TALL. PANELS TALLER THAN 1.524M SHALL HAVE 11" LONG LIFT ANCHORS.



**S16 TYPE S16 REBAR**  
(AREA = 1.17 SQ.M)



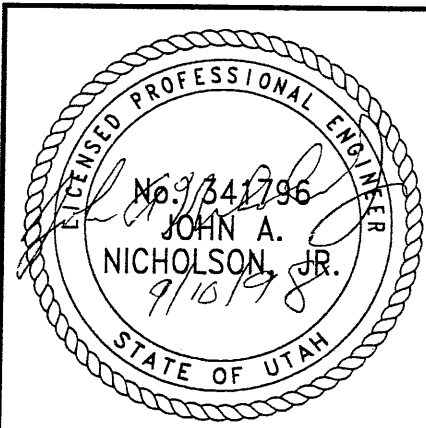
**S12 TYPE S12 REBAR**  
(AREA = 0.88 SQ.M)



**S14 TYPE S14 REBAR**  
(AREA = 0.83 SQ.M)

METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.



WASATCH CONSTRUCTORS  
SEP 14 1998  
RELEASED FOR CONSTRUCTION

VSL CORPORATION  
2840 Plaza Place, Suite 200  
Raleigh, NC 27612  
Telephone: (919) 781-6272  
Fax: (919) 781-4989

ALABAMA, GA / DALLAS, TX / HALDICH, NC (CORPORATE OFFICE)  
MINN. TX / SAN JOSE, CA / SPRINGFIELD, VA

RETAINED EARTH™ WALLS  
PRECAST WALL "R-348-1"  
SPECIAL PANEL DETAILS  
UTAH I-15 RECONSTRUCTION  
SALT LAKE COUNTY, UTAH  
UTAH DEPARTMENT OF TRANSP.

DWG. NO.  
2.5R-348-01.12  
JOB NO.  
239-0007  
SHT. NO.  
RE-10

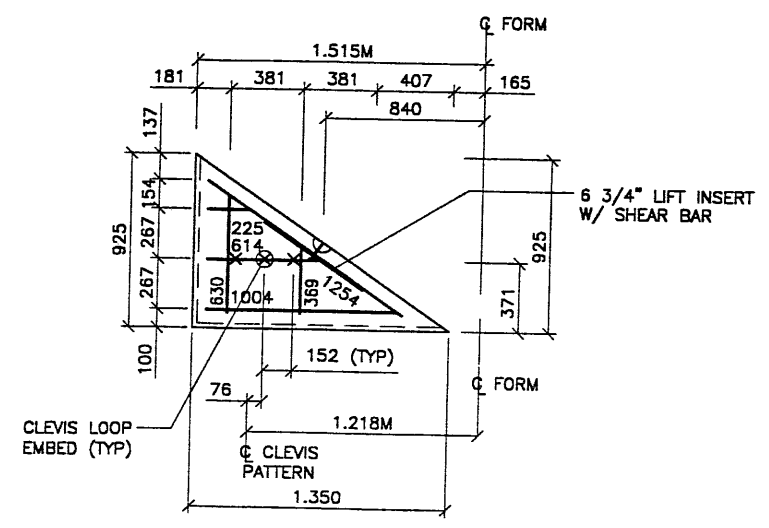
NO. 9341796  
JOHN A. NICHOLSON, JR.  
9/10/98

DATE

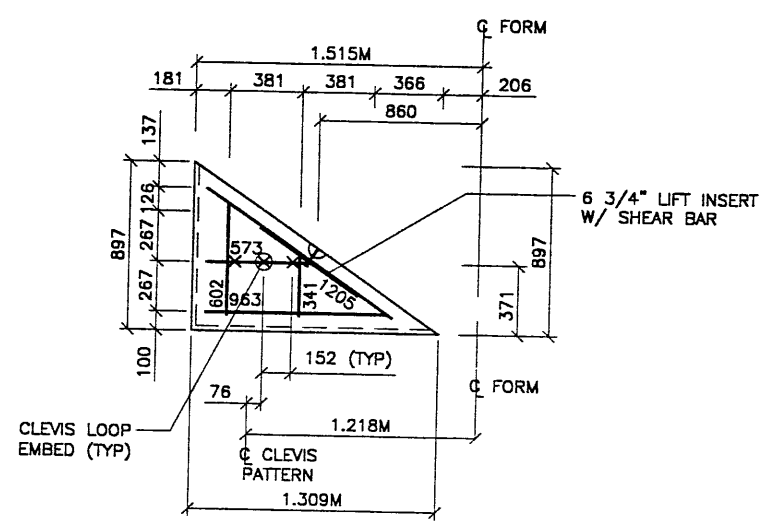
REVISION

BY

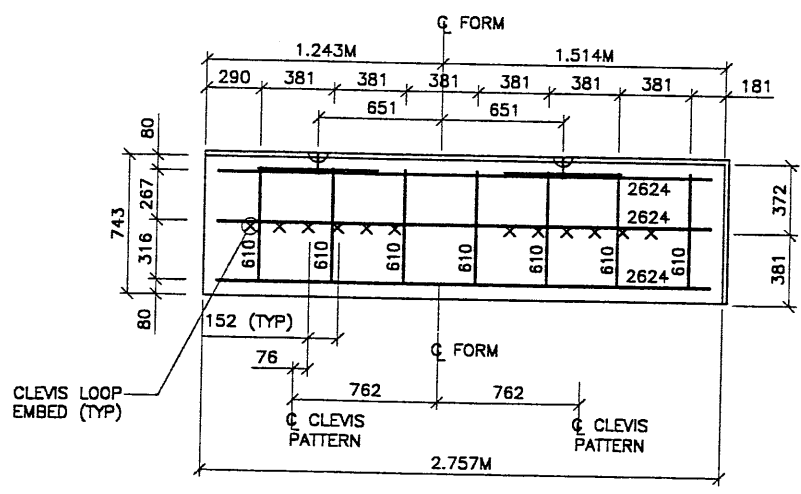
CHK



**S8** TYPE S8 REBAR  
(AREA = 0.62 SQ.M)



**S10** TYPE S10 REBAR  
(AREA = 0.59 SQ.M)



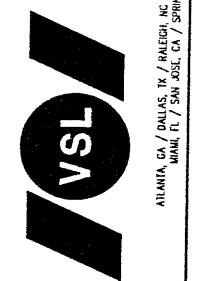
TYPE YB2-10R2.767

- PANEL REINFORCEMENT NOTES:
1. PANELS ARE SHOWN BACK FACE.
  2. HORIZONTAL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE BACK FACE.
  3. ALL REINFORCEMENT SHALL HAVE 50 mm MINIMUM COVER TO THE SIDES.
  4. ALL REINFORCING BARS ARE #13 METRIC. LABELS ON EACH BAR INDICATE LENGTH. EXAMPLE: 1345 IS A #13 BAR 1345 mm LONG.
  5. PANEL REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS FOR CONCRETE REINFORCEMENT CONFORMING TO THE SPECIFICATIONS OF ASTM DESIGNATION A615, GRADE 60.
  6. ALL REINFORCING STEEL TO BE GALVANIZED IN ACCORDANCE WITH ASTM 767 CLASS I.
  7. CONCRETE PANELS TO HAVE 28 DAY COMPRESSIVE STRENGTH OF 20,700 KPa.
  8. EQUIVALENT WELDED WIRE FABRIC MAY BE USED.
  9. ALL PANELS TO USE 9.5mm# CLEVIS LOOPS.
  10. VSL RETAINED EARTH™ IS PROTECTED UNDER PATENT 4,725,170.
  11. LIFT INSERTS ARE 6 3/4" LONG IN ALL PANELS LESS THAN 1.524M TALL. PANELS TALLER THAN 1.524M SHALL HAVE 11" LONG LIFT ANCHORS.

APPROVED FOR CONSTRUCTION		
NO.	DATE	DESCRIPTION
△	09-01-98	RELEASE FOR CONSTRUCTION

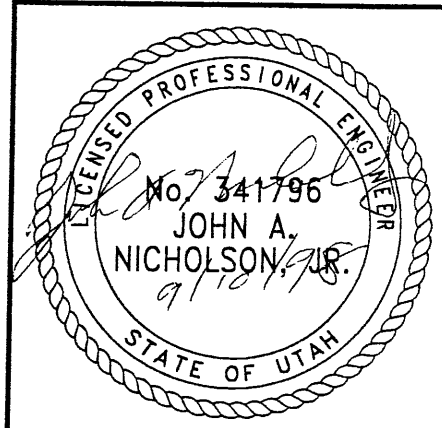
DES	MM
DRN	DDL
CHK	MM

VSL CORPORATION  
 7410 Foothill Place, Suite 200  
 San Diego, CA 92121  
 Telephone: (619) 461-6772  
 Fax: (619) 791-1688



VSL Corporation (VSL) is a wholly owned subsidiary of the VSL Group. VSL Corporation is not responsible for the design or construction of any structure which is not specifically designed for the use for which it was prepared and which is not prepared by VSL. VSL Corporation disclaims any liability for the design or construction of any structure which is not specifically designed for the use for which it was prepared and which is not prepared by VSL.

WASATCH CONSTRUCTORS  
 SEP 14 1998  
 RELEASED FOR CONSTRUCTION

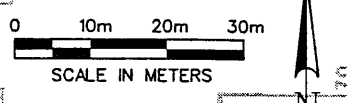
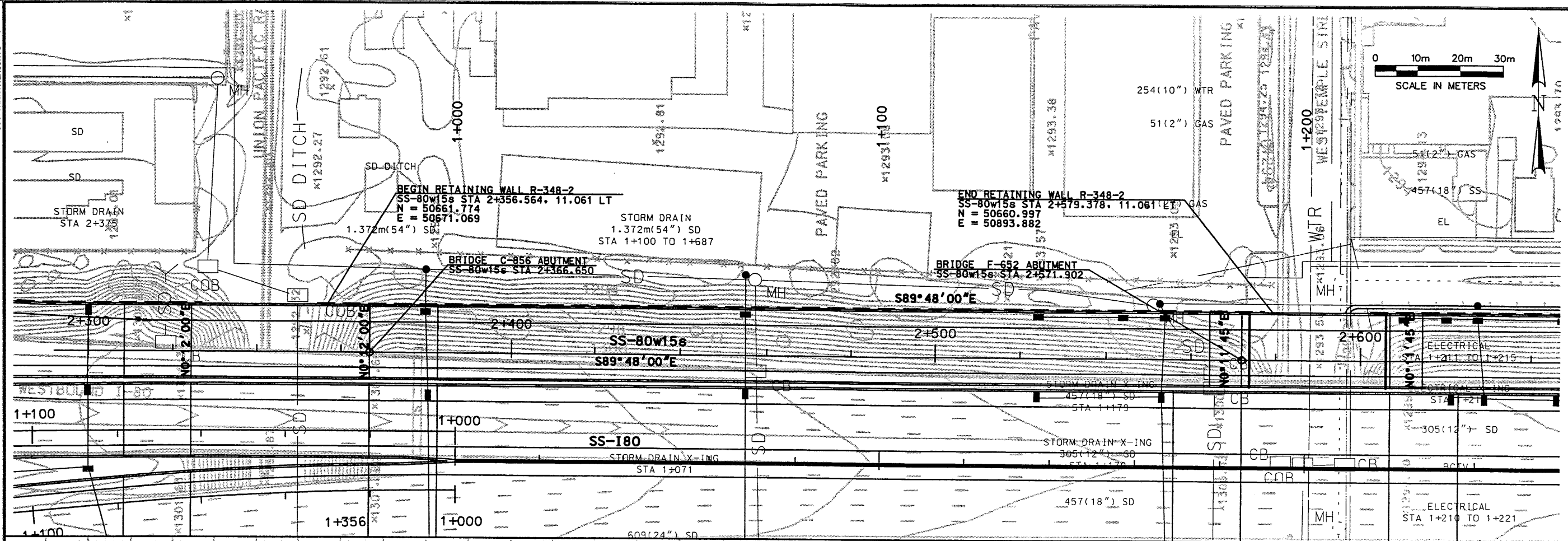


METRIC

CERTIFIED FOR INTERNAL STABILITY OF RETAINED EARTH™ STRUCTURES ONLY. EXTERNAL STABILITY, INCLUDING BUT NOT LIMITED TO FOUNDATION AND SLOPE STABILITY, IS THE RESPONSIBILITY OF THE OWNER. DESIGN IS BASED ON THE ASSUMPTION THAT THE MATERIAL WITHIN THE RETAINED EARTH™ MASS, METHODS OF CONSTRUCTION, AND QUALITY OF PREFABRICATED MATERIALS CONFORM TO THE MANUFACTURER'S SPECIFICATION.

RETAINED EARTH™ WALLS  
 PRECAST WALL "R-348-1"  
 Y & SPECIAL PANEL DETAILS  
 UTAH I-15 RECONSTRUCTION  
 SALT LAKE COUNTY, UTAH  
 UTAH DEPARTMENT OF TRANSP.

DWG. NO.	2.5R-348-01.13
JOB NO.	239-0007
SHT. NO.	RE-11



APPROVED FOR CONSTRUCTION	
NO.	DATE
1	10/24/97
2	5/18/98

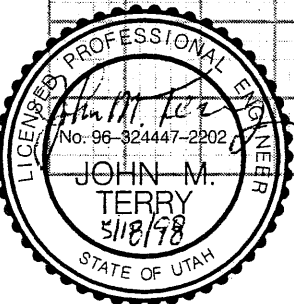
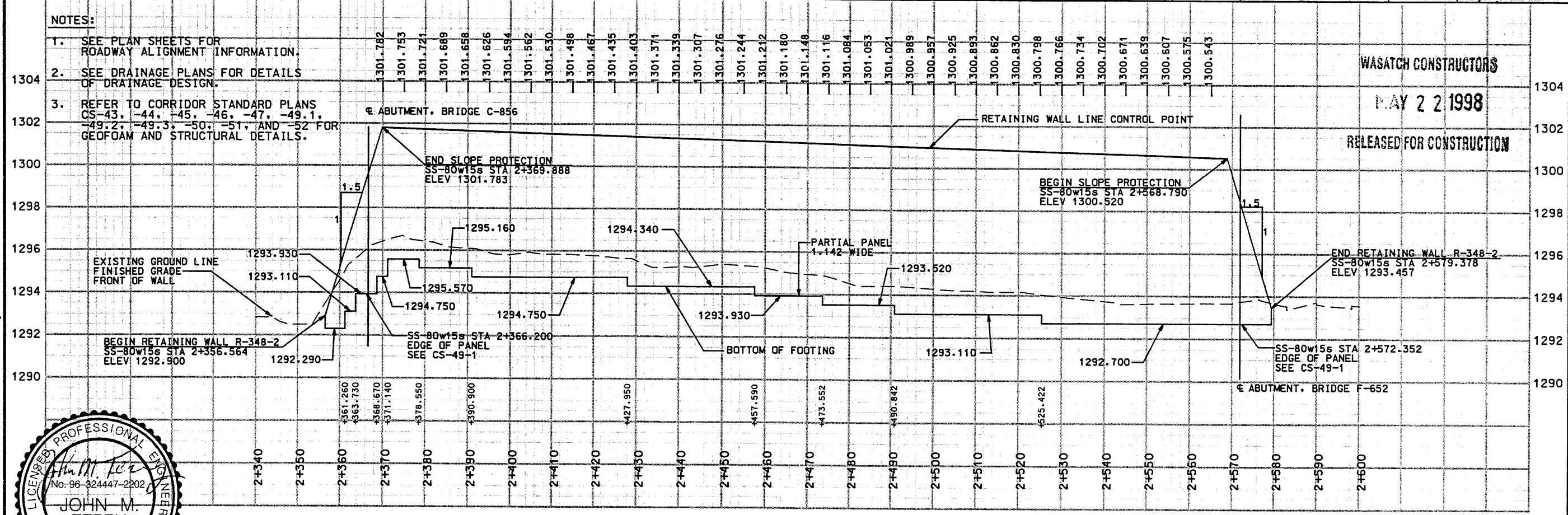
UTAH DEPARTMENT OF TRANSPORTATION	
TRACKING NO.	2512403

APPROVAL RECORD	DATE	DESIGNER	DATE	SECTION MANAGER
MARGARET SIMMONS-CROSS	5/18/98	JOHN TERRY	5/18/98	JOHN TERRY

I-15 CORRIDOR RECONSTRUCTION	
RETAINING WALL R-348-2	SECTION 2.5
PROJECT NUMBER	*SP-15-7(135)296

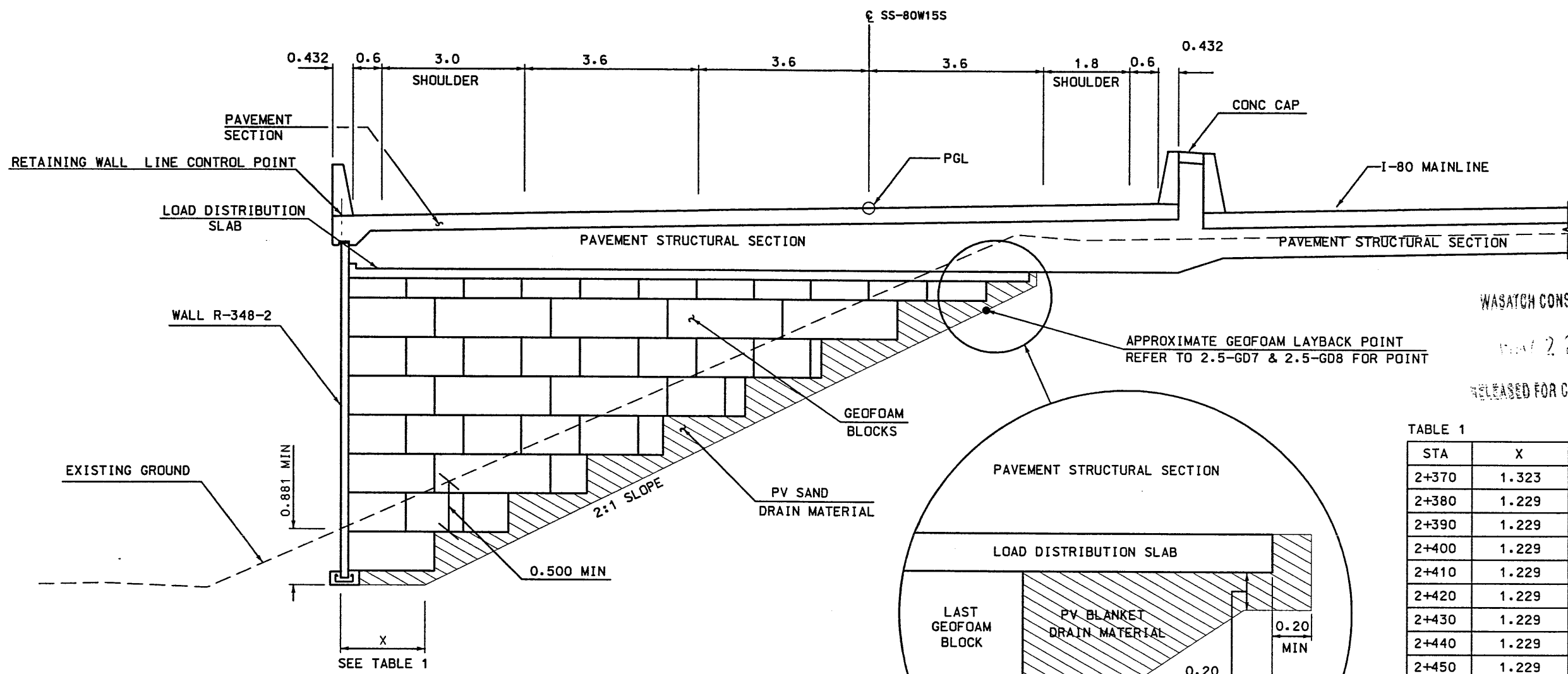
**NOTES:**

- SEE PLAN SHEETS FOR ROADWAY ALIGNMENT INFORMATION.
- SEE DRAINAGE PLANS FOR DETAILS OF DRAINAGE DESIGN.
- REFER TO CORRIDOR STANDARD PLANS CS-43, -44, -45, -46, -47, -49.1, -49.2, -49.3, -50, -51, AND -52 FOR GEOFOAM AND STRUCTURAL DETAILS.



WALL R-348-2

Filename: c:\p1\15\_cadd\ss\_37\sheet\_files\wall\_r-348-2.dwg Date: 18-MAY-1998 Time: 10:09 User: name: hns010te



WASATCH CONSTRUCTORS  
 MAY 22 1998  
 RELEASED FOR CONSTRUCTION

TABLE 1

STA	X
2+370	1.323
2+380	1.229
2+390	1.229
2+400	1.229
2+410	1.229
2+420	1.229
2+430	1.229
2+440	1.229
2+450	1.229
2+460	1.229
2+470	1.229
2+480	1.229
2+490	1.229
2+500	1.229
2+510	1.229
2+520	1.529
2+530	1.529
2+540	1.529
2+550	1.529
2+560	4.166
2+570	4.294

- NOTES:
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43,44,45,46,47,49,49-1,49-2,49-3,50,51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.

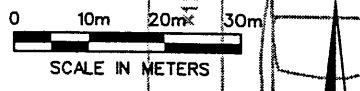
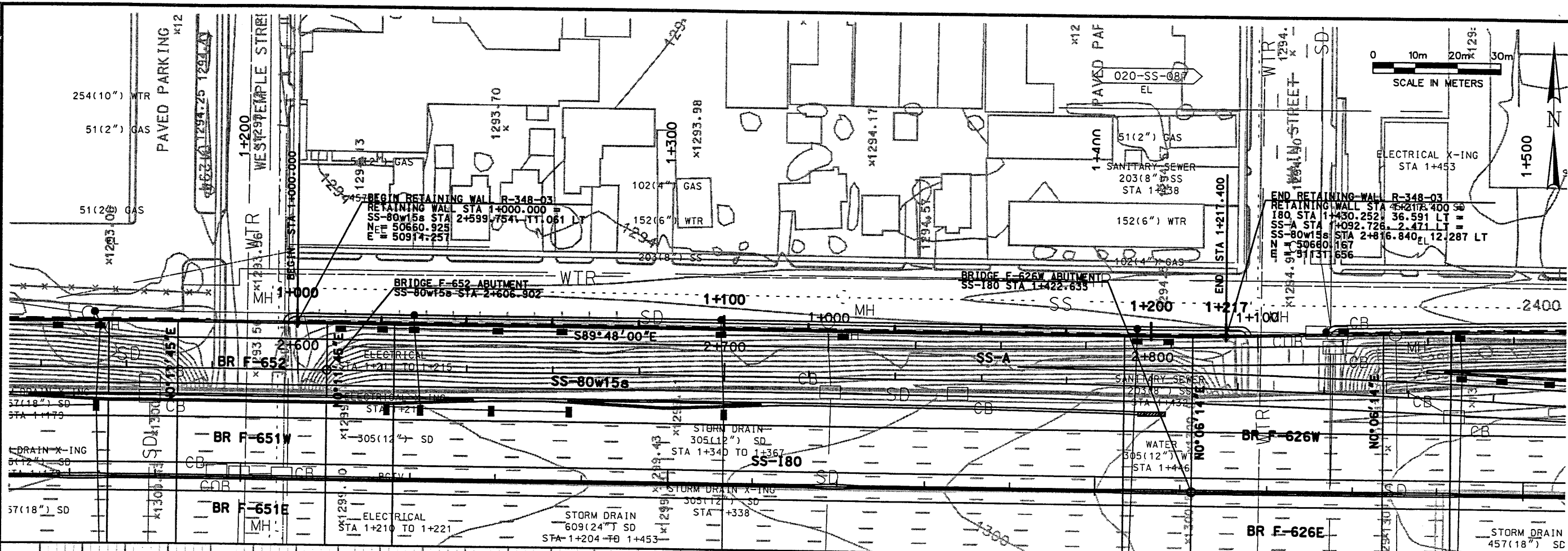
WALL R-348-2  
 SS-80w15s STA 2+356.564 TO STA 2+579.378



APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE		
1	10/24/97	RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
2	5/18/98	RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
I-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-2	
SECTION 2.5		PROJECT NUMBER *SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. 2.5-R-348-2.2	
SHT. 2		OF 2	

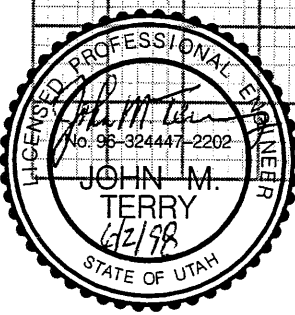
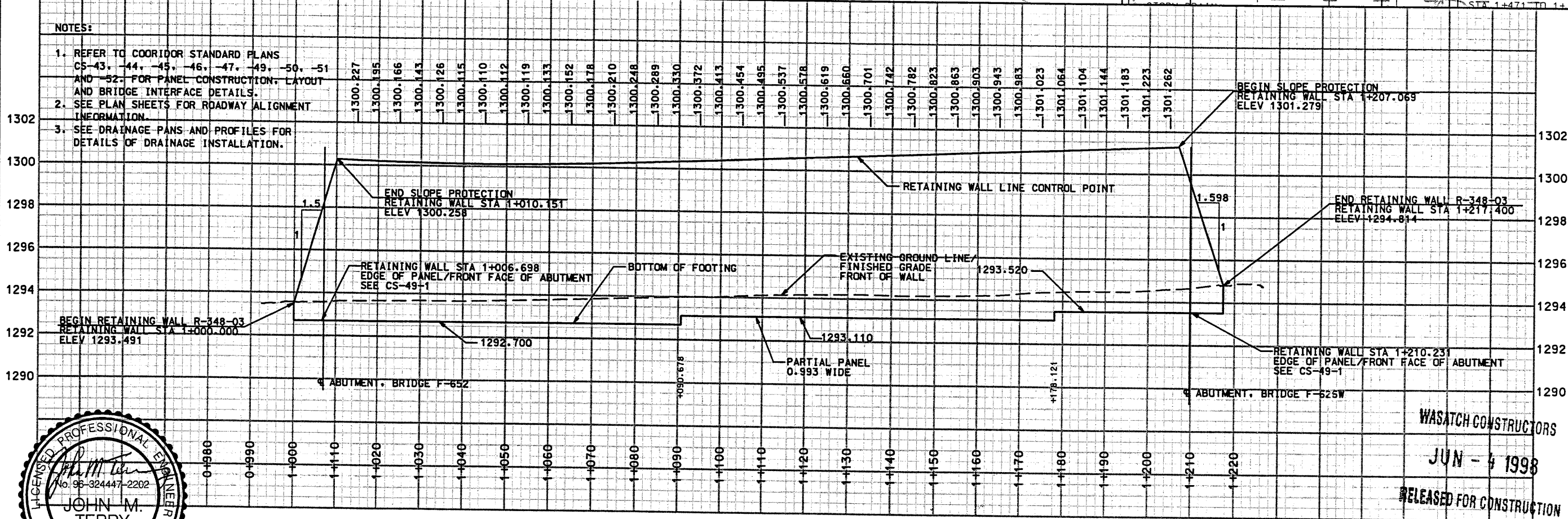


Date: 02-JUN-1998 Time: 08:43 User: rcm:fr:ampr:d



**NOTES:**

- REFER TO CORRIDOR STANDARD PLANS CS-43, -44, -45, -46, -47, -49, -50, -51 AND -52, FOR PANEL CONSTRUCTION, LAYOUT AND BRIDGE INTERFACE DETAILS.
- SEE PLAN SHEETS FOR ROADWAY ALIGNMENT INFORMATION.
- SEE DRAINAGE PANS AND PROFILES FOR DETAILS OF DRAINAGE INSTALLATION.



WALL R-348-03

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
1	10/24/97	RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
2	6/1/98		
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	2512404
SVERDRUP/DE LEUW		CHECK USC	5/98
PROJECT DESIGN ENGINEER		CHECK USC	5/98
APPROVAL RECORD:		DESIGN TEN	10/97
DATE		DRAWN TEN	10/97
APPROVED 6/1/98		JOHN TERRY	SECTION MANAGER
DATE		QUANT.	
I-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-03	
SECTION 2.5		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. 2.5-R-348-3.1	
SHT. 1 OF 2			

WASATCH CONSTRUCTORS  
JUN - 4 1998  
RELEASED FOR CONSTRUCTION



Date: 02-JUN-1998 Time: 07:34 User: name: young, r

Filename: g:\dgn\15\_csd\4\25\_97\sheet\_files\wall.r-348-3.dgn

WASATCH CONSTRUCTORS  
 JUN - 4 1998  
 RELEASED FOR CONSTRUCTION

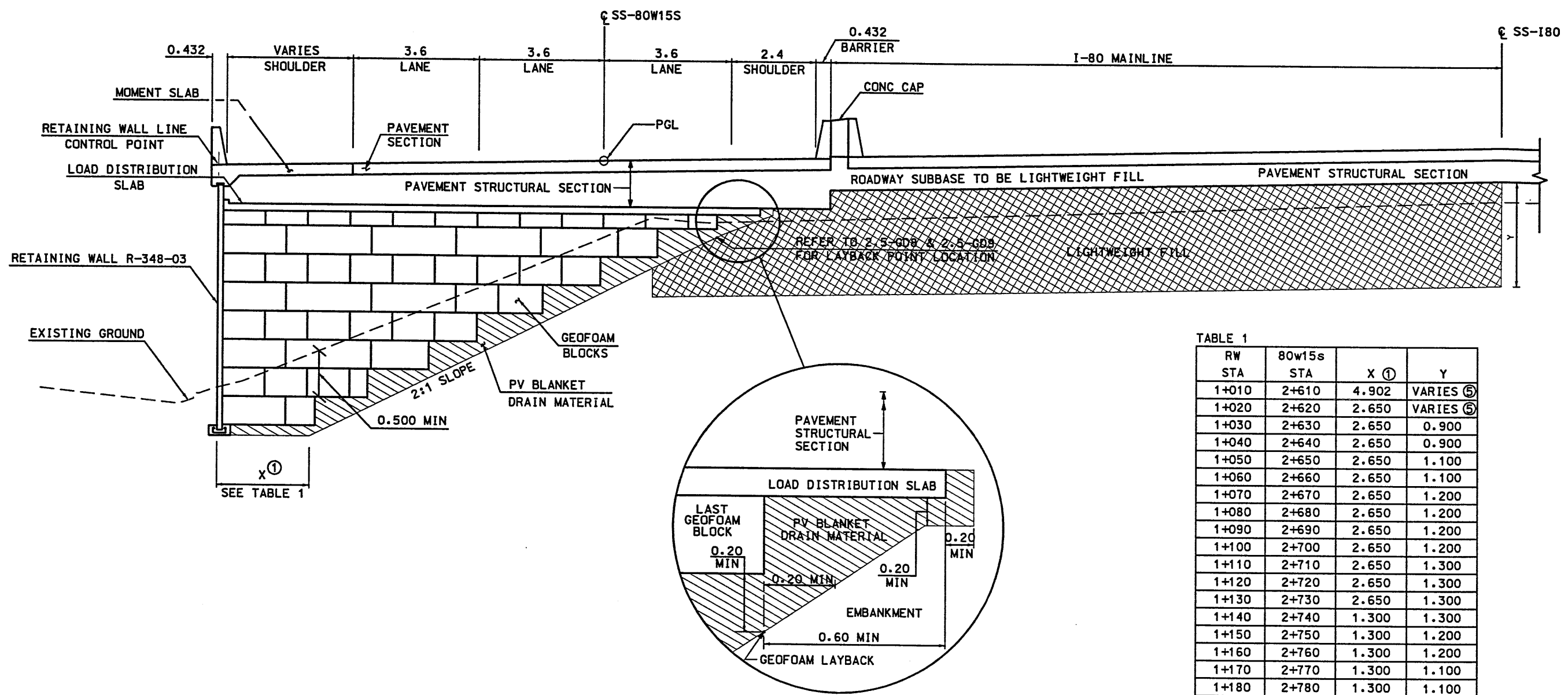


TABLE 1

RW STA	80w15s STA	X ①	Y
1+010	2+610	4.902	VARIES ⑤
1+020	2+620	2.650	VARIES ⑤
1+030	2+630	2.650	0.900
1+040	2+640	2.650	0.900
1+050	2+650	2.650	1.100
1+060	2+660	2.650	1.100
1+070	2+670	2.650	1.200
1+080	2+680	2.650	1.200
1+090	2+690	2.650	1.200
1+100	2+700	2.650	1.200
1+110	2+710	2.650	1.300
1+120	2+720	2.650	1.300
1+130	2+730	2.650	1.300
1+140	2+740	1.300	1.300
1+150	2+750	1.300	1.200
1+160	2+760	1.300	1.200
1+170	2+770	1.300	1.100
1+180	2+780	1.300	1.100
1+190	2+790	1.300	1.100
1+200	2+800	2.038	VARIES ⑤

WALL R-348-03  
 RETAINING WALL STA 1+000.000 TO STA 1+217.400

- NOTES:
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43.44 45.46.47.49.49-1.49-2.49-3.50.51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.
  - ROADWAY SUBBASE SHALL BE LIGHTWEIGHT FILL NEAR BRIDGES.
  - TOTAL DEPTH OF LIGHTWEIGHT FILL = [(FINISHED GRADE-EXISTING GRADE) x 1.15] + SUBBASE.



APPROVED FOR CONSTRUCTION

DESCRIPTION: RELEASE FOR GEOFOAM AND WALL CONSTRUCTION

DATE: 10/24/97

NO. 1

TRACKING NO. 2512404

UTAH DEPARTMENT OF TRANSPORTATION

SVERDRUP/DE LEUW

APPROVAL RECORD:

APPROVAL	DATE	DESIGN	REVISION	10/97	CHECK	DATE	10/97	CHECK	QUANT.
MARGARET SIMMONS-CROSS	8/1/98	DESIGN	REVISION	10/97	CHECK	8/98	10/97	CHECK	2512404
PROJECT DESIGN ENGINEER	DATE	DESIGN	REVISION	10/97	CHECK	8/98	10/97	CHECK	
APPROVED	8/1/98	DESIGN	REVISION	10/97	CHECK	8/98	10/97	CHECK	
SECTION MANAGER	DATE	DESIGN	REVISION	10/97	CHECK	8/98	10/97	CHECK	

I-15 CORRIDOR RECONSTRUCTION

RETAINING WALL R-348-3

SECTION 2.5

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

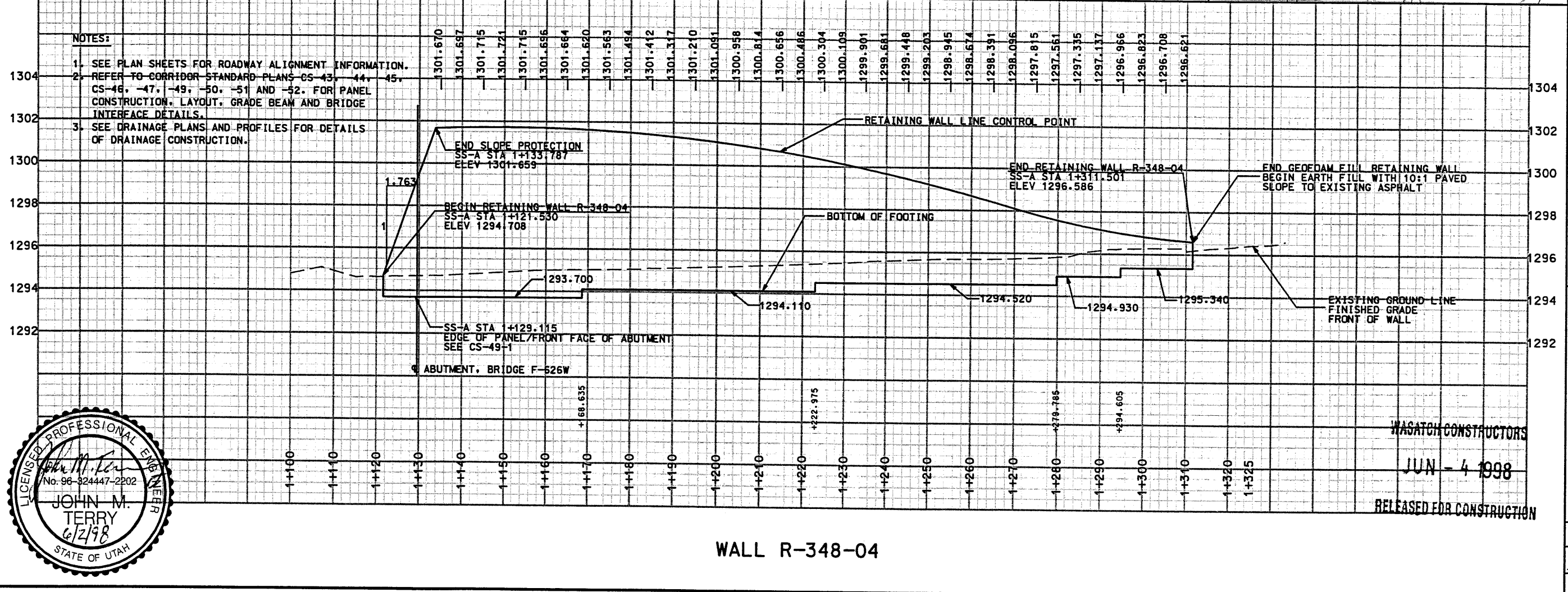
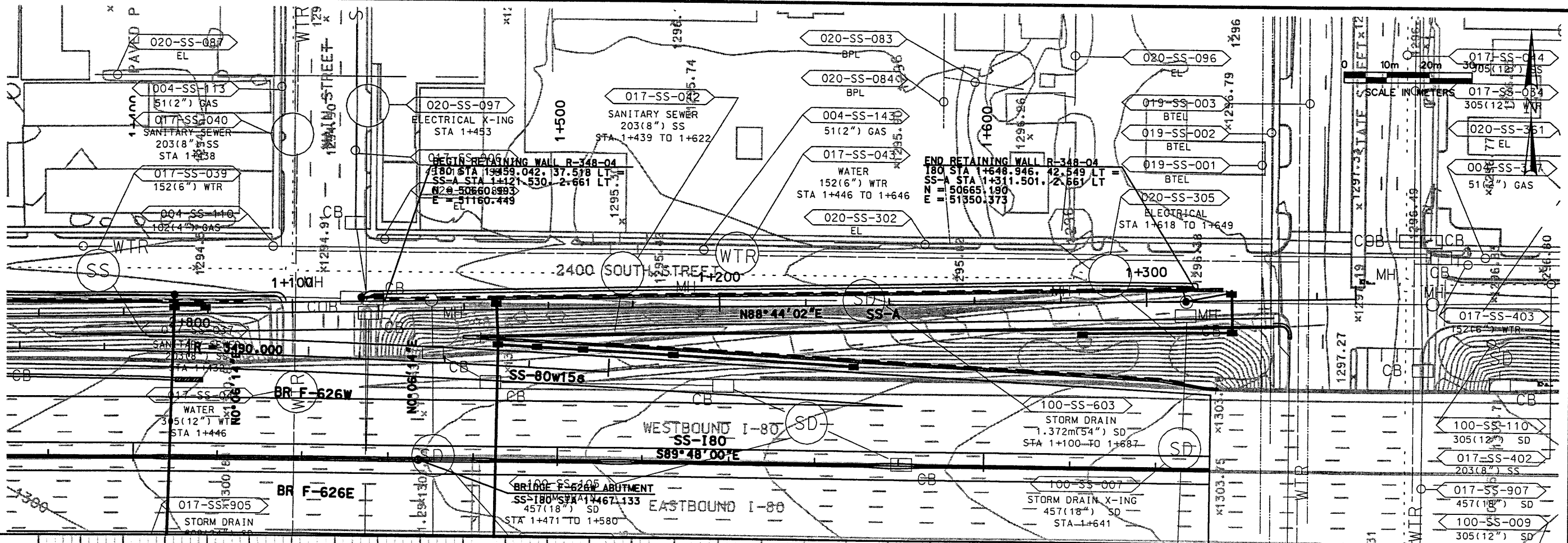
SALT LAKE COUNTY

DWG. NO. 2.5-R-348-3.2

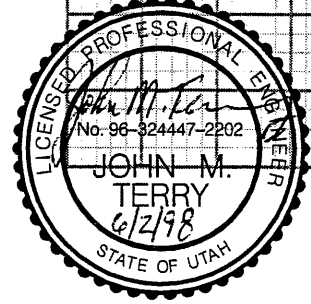
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- NOTES:**
1. SEE PLAN SHEETS FOR ROADWAY ALIGNMENT INFORMATION.
  2. REFER TO CORRIDOR STANDARD PLANS CS-43, 44, 45, CS-46, 47, 49, 50, 51 AND 52. FOR PANEL CONSTRUCTION, LAYOUT, GRADE BEAM AND BRIDGE INTERFACE DETAILS.
  3. SEE DRAINAGE PLANS AND PROFILES FOR DETAILS OF DRAINAGE CONSTRUCTION.



WASATCH CONSTRUCTORS  
 JUN - 4 1998  
 RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	RELEASE FOR GEFOAM AND WALL CONSTRUCTION	
1	10/24/97	RE-RELEASE FOR GEFOAM AND WALL CONSTRUCTION	
2	6/1/98		
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	
SVERDRUP/DE LEUW		2512404	
APPROVAL RECORD	DESIGN	CHECK	DATE
6/1/98	MARGARET SIMMONS-ORRIS	10/97	10/97
DATE	PROJECT DESIGN ENGINEER	DATE	QUANT.
6/1/98	JOHN TERRY	6/1/98	
DATE	SECTION MANAGER	DATE	
1-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-04	
SECTION 2.5		PROJECT NUMBER #SP-15-(135)296	
SALT LAKE COUNTY		DWG. NO. 2.5-R-348-4.1	
SHT. 1 OF 7			

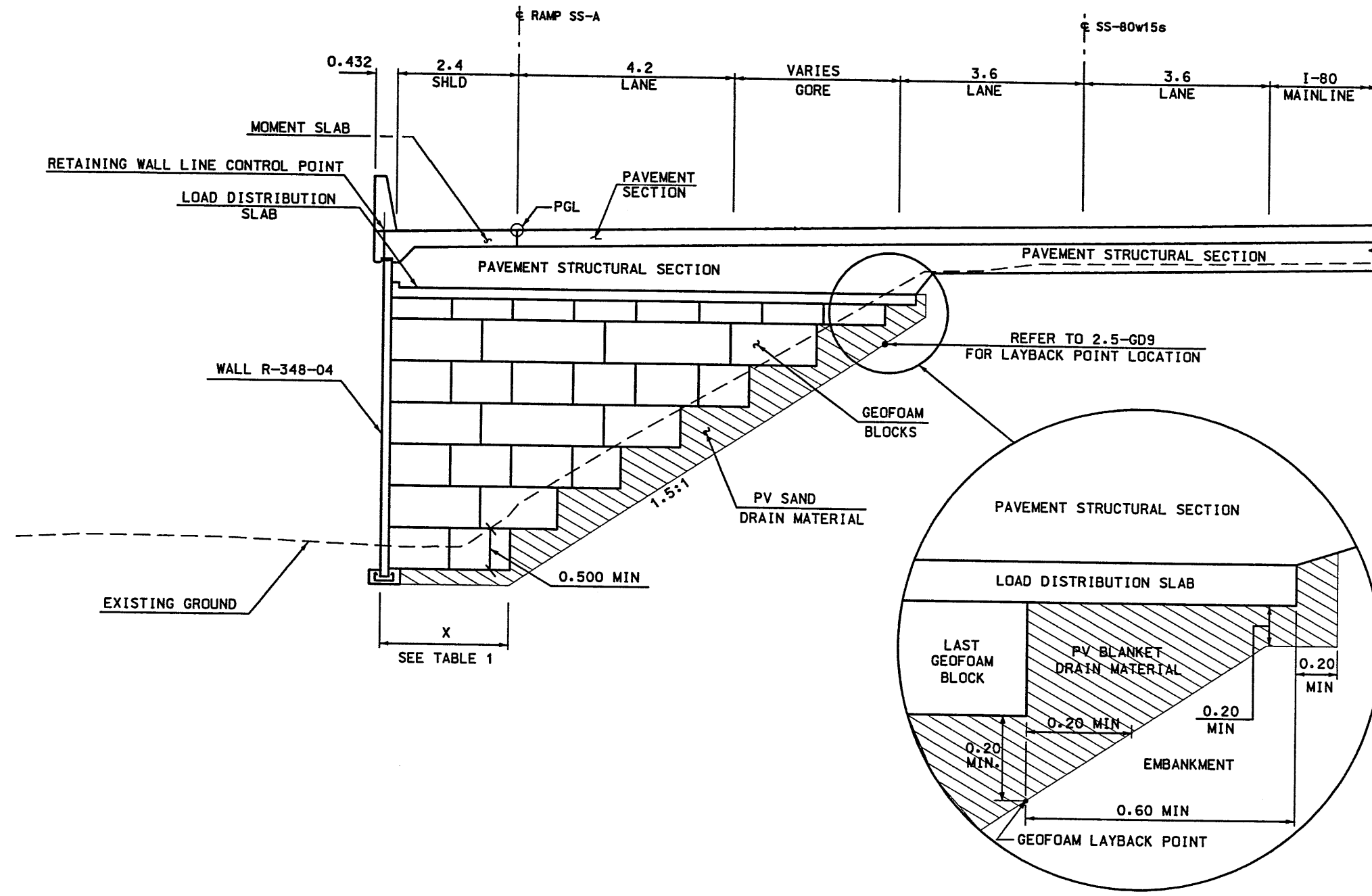


TABLE 1

STA	X ①
1+130	3.500
1+140	3.500

- NOTES:
1. GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  2. REFER TO CORRIDOR STANDARD DRAWINGS CS-43.44, 45, 46, 47, 49, 49-1, 49-2, 49-3, 50, 51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  3. LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.

**WALL R-348-04**  
**SS-A STA 1+121.530 TO STA 1+140.000**

WASATCH CONSTRUCTORS  
 JUN - 4 1998  
 RELEASED FOR CONSTRUCTION



APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
1	10/24/97	RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
2	6/1/98	RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	2512404
SVERDRUP/DE LEUW		CHECK	6/98
DESIGN		REG	10/97
PROJECT DESIGN ENGINEER		DRANK	REG
DATE		6/1/98	10/97
APPROVED		DATE	6/1/98
SECTION MANAGER		QUANT.	
I-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-04	
SECTION 2.5		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. 2.5-R-348-4.2	
SHT. 2 OF 7			

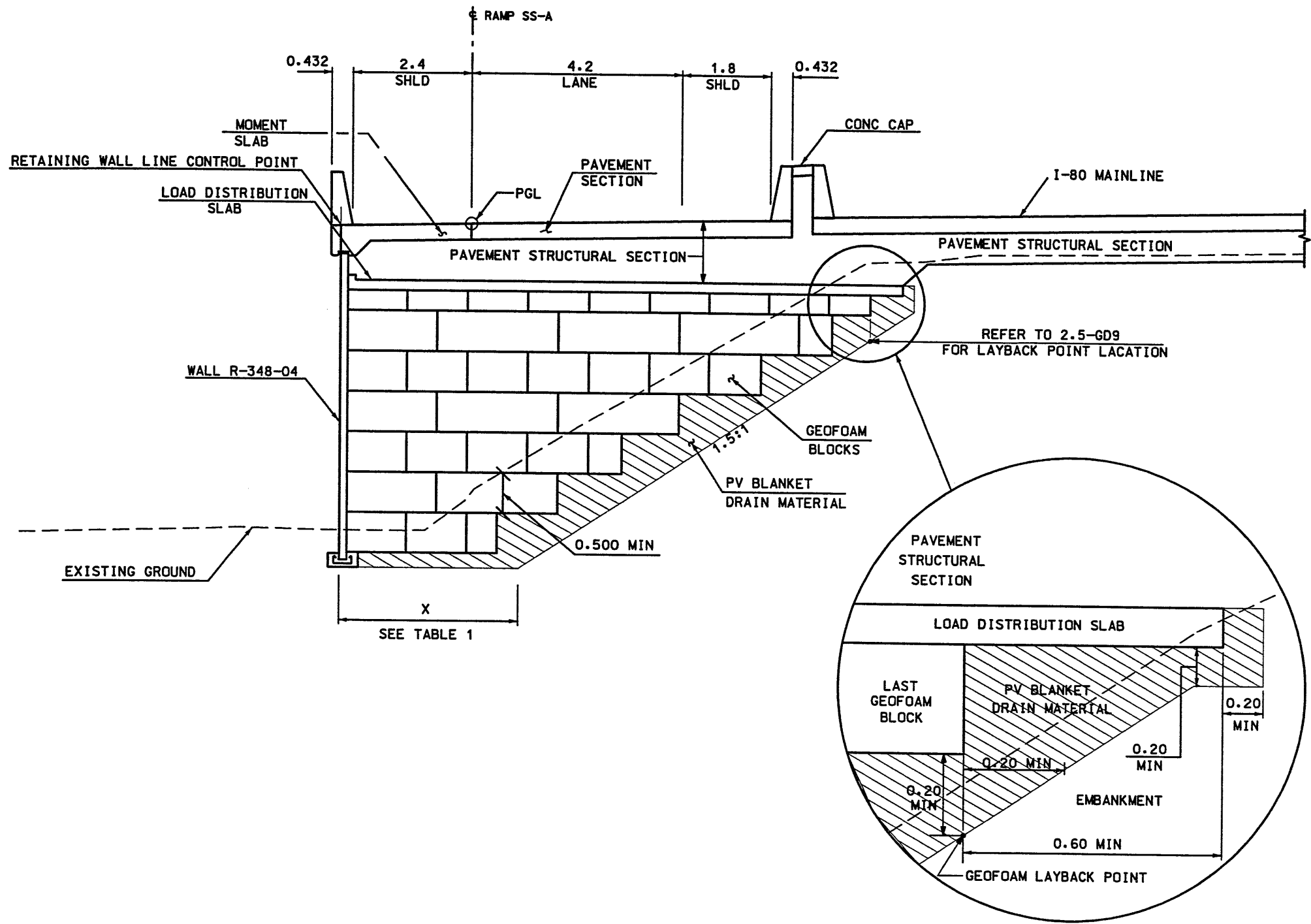


TABLE 1

STA	X (1)
1+140	3.500
1+150	3.500
1+160	3.500
1+170	3.500

WALL R-348-04  
SS-A STA 1+140.000 TO STA 1+172.000

- NOTES:
1. GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  2. REFER TO CORRIDOR STANDARD DRAWINGS CS-43, 44, 45, 46, 47, 49, 49-1, 49-2, 49-3, 50, 51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  3. LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.



WASATCH CONSTRUCTORS  
JUN - 4 1998  
RELEASED FOR CONSTRUCTION

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	10/24/97	1	10/24/97
2	6/1/98	2	6/1/98
RELEASE FOR GEOFOAM AND WALL CONSTRUCTION		RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
TRACKING NO. 2512404		CHECK	
DESIGN	CHECK	DESIGN	CHECK
10/PT	6/98	10/PT	6/98
DRWN	QUANT.	DRWN	QUANT.
10/PT	6/98	10/PT	6/98
SECTION MANAGER		SECTION MANAGER	
DATE		DATE	
APPROVED		APPROVED	
DATE		DATE	
PROJECT NUMBER #SP-15-7(135)296		PROJECT NUMBER #SP-15-7(135)296	
SECTION 2.5		SECTION 2.5	
RETAINING WALL R-348-04		RETAINING WALL R-348-04	
I-15 CORRIDOR RECONSTRUCTION		I-15 CORRIDOR RECONSTRUCTION	
SALT LAKE COUNTY		SALT LAKE COUNTY	
DWG. NO. 2.5-R-348-4.3		DWG. NO. 2.5-R-348-4.3	
SHT. 3 OF 7		SHT. 3 OF 7	

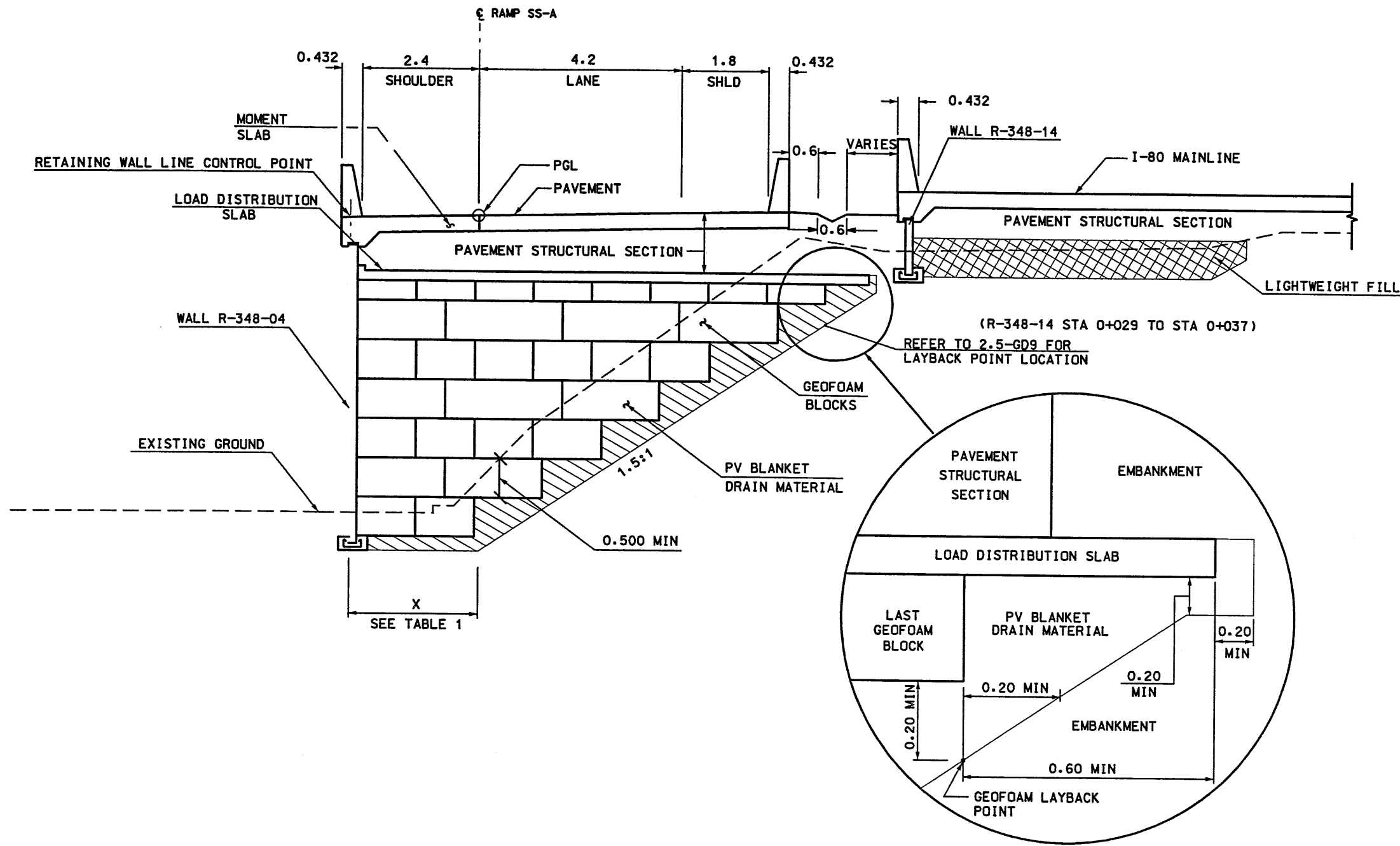
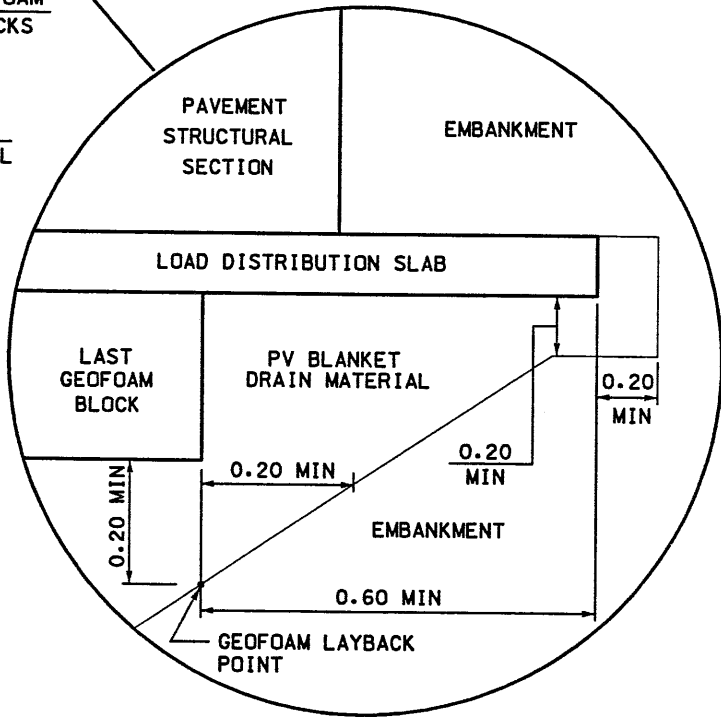


TABLE 1

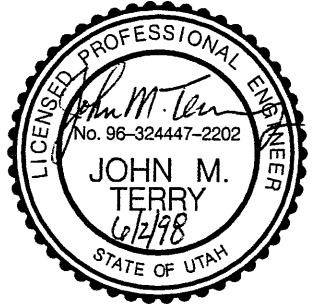
STA	X ①
1+180	3.500
1+190	3.500
1+200	3.500
1+210	3.500
1+220	3.500
1+230	3.500
1+240	3.500



WASATCH CONSTRUCTORS  
 JUN - 4 1998  
 RELEASED FOR CONSTRUCTION

- NOTES:
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43.44 45, 46, 47, 49, 49-1, 49-2, 49-3, 50, 51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.

**WALL R-348-04**  
**SS-A STA 1+172.000 TO STA 1+240.000**



APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
10/24/97	10/24/97	10/24/97	10/24/97
6/1/98	6/1/98	6/1/98	6/1/98
RELEASE FOR GEOFOAM AND WALL CONSTRUCTION		RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
SVERDRUP/DE LEUW		TRACKING NO.	
DESIGN	REVISION	CHECK	DATE
DESIGN	10/97	MSC	8/98
DRAWN	10/97	MSC	8/98
QUANT.		CHECK	
		QUANT.	2512404
I-15 CORRIDOR RECONSTRUCTION		PROJECT NUMBER	
RETAINING WALL R-348-04		#SP-15-7(135)296	
SECTION 2.5		COUNTY	
		SALT LAKE	
		DWG. NO.	
		2.5-R-348-4.4	
SHT. 4		OF 7	

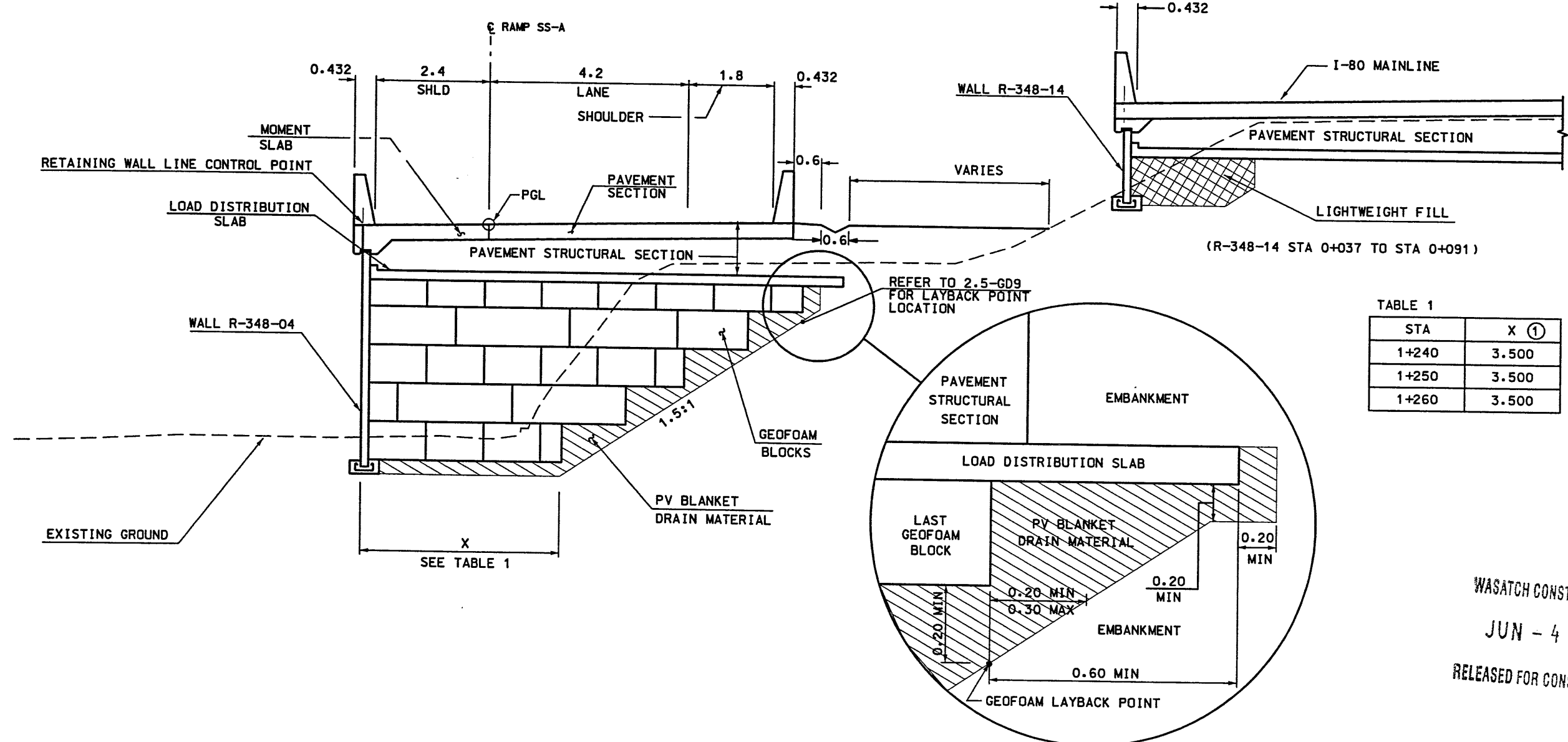


TABLE 1

STA	X (1)
1+240	3.500
1+250	3.500
1+260	3.500

**WALL R-348-04**  
 SS-A STA 1+240.000 TO STA 1+265.000

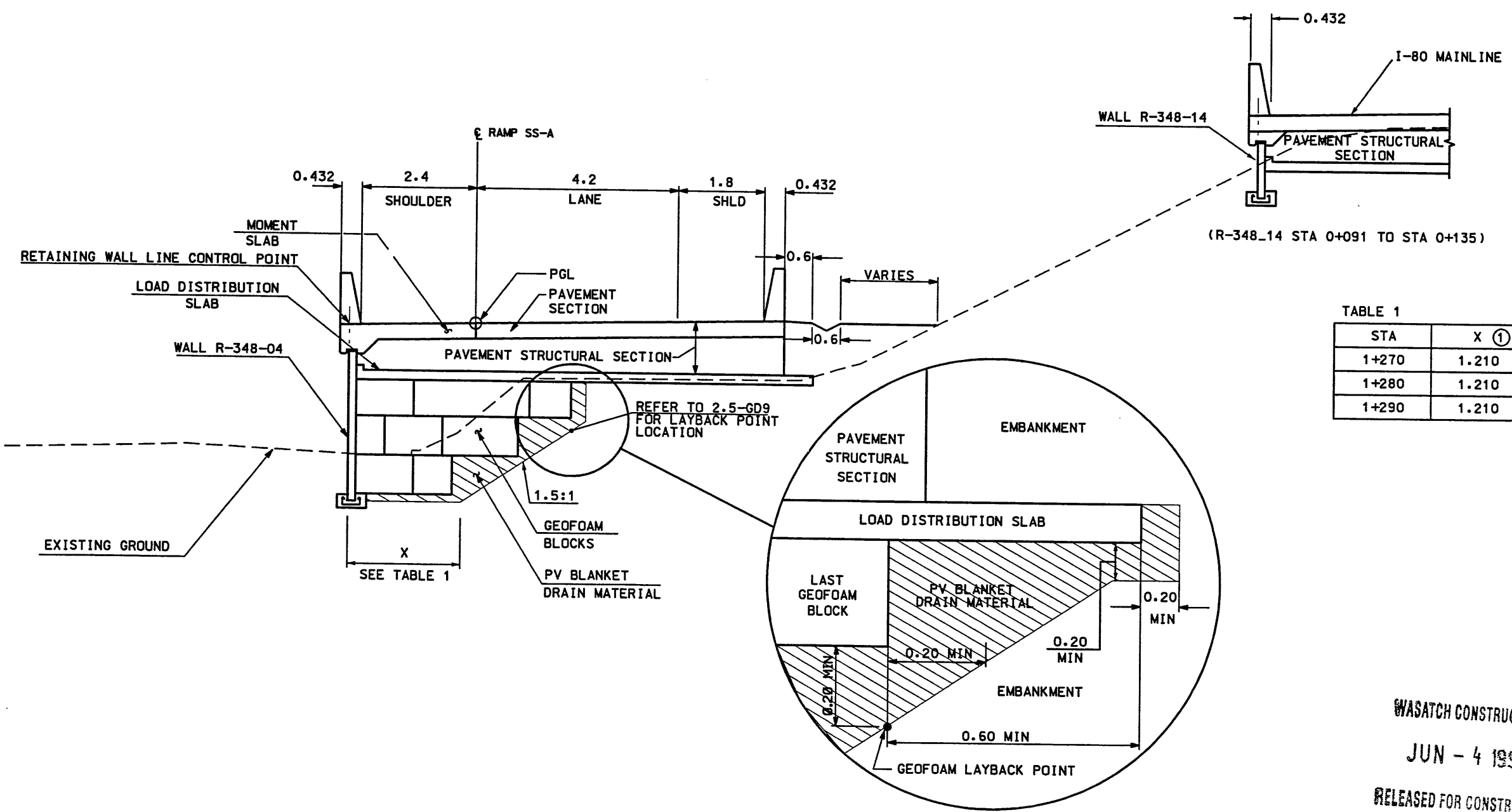


- NOTES:
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43, 44, 45, 46, 47, 49, 49-1, 49-2, 49-3, 50, 51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.

WASATCH CONSTRUCTORS  
 JUN - 4 1998  
 RELEASED FOR CONSTRUCTION

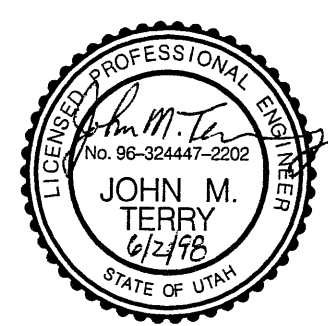
APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE	NO.	DATE
1	10/24/97	1	10/24/97
2	6/1/98	2	6/1/98
RELEASE FOR GEOFOAM AND WALL CONSTRUCTION		RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
UTAH DEPARTMENT OF TRANSPORTATION		TRACKING NO.	
SVERDRUP/DE LEUW		2512404	
APPROVAL	DESIGN	CHECK	CHECK
RECOMM.	REQ.	REQ.	REQ.
6/1/98	10/97	10/97	10/97
DATE	DATE	DATE	DATE
MARGARET STIMONS-CROSS	JOHN TERRY	JOHN TERRY	JOHN TERRY
PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER	PROJECT DESIGN ENGINEER
APPROVED	APPROVED	APPROVED	APPROVED
6/1/98	6/1/98	6/1/98	6/1/98
DATE	DATE	DATE	DATE
SECTION MANAGER		QUANT.	
I-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-04	
SECTION 2.5		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY			
DWG. NO. 2.5-R-348-04.5			
SHT. 5 OF 7			





**WALL R-348-04**  
**SS-A STA 1+265.000 TO STA 1+286.000**

- NOTES:**
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43, 44, 45, 46, 47, 49, 49-1, 49-2, 49-3, 50, 51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.



**WASATCH CONSTRUCTORS**  
**JUN - 4 1998**  
**RELEASED FOR CONSTRUCTION**

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE		
1	10/24/97	RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
2	6/1/98	RE-RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
		TRACKING NO.	2512404
UTAH DEPARTMENT OF TRANSPORTATION		DESIGN	RED 10/97
SVERDRUP/DE LEUW		CHECK	MSC 6/98
		DESIGN	RED 10/97
		CHECK	MSC 6/98
		DRAWN	RED 10/97
		CHECK	MSC 6/98
		QUANT.	CHECK
I-15 CORRIDOR RECONSTRUCTION		APPROVAL	6/1/98
RETAINING WALL R-348-04		RECOMM.	DATE
SECTION 2.5		MARGARET STIMMONS-CROSS	PROJECT DESIGN ENGINEER
PROJECT NUMBER #SP-15-7(135)296		JOHN TERRY	SECTION MANAGER
SALT LAKE COUNTY		DATE	
DWG. NO. 2.5-R-348-4.6			
SHT. 6 OF 7			

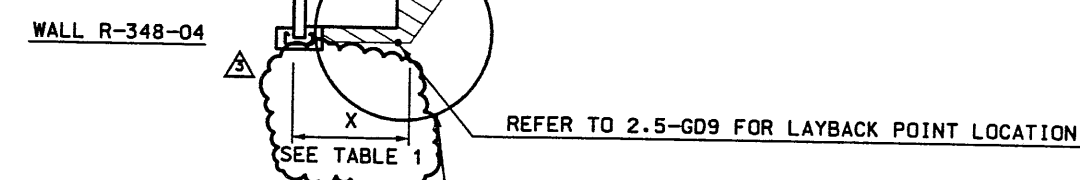
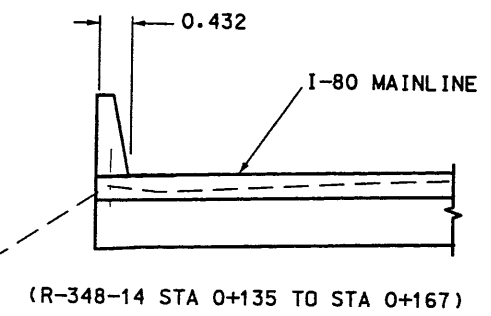
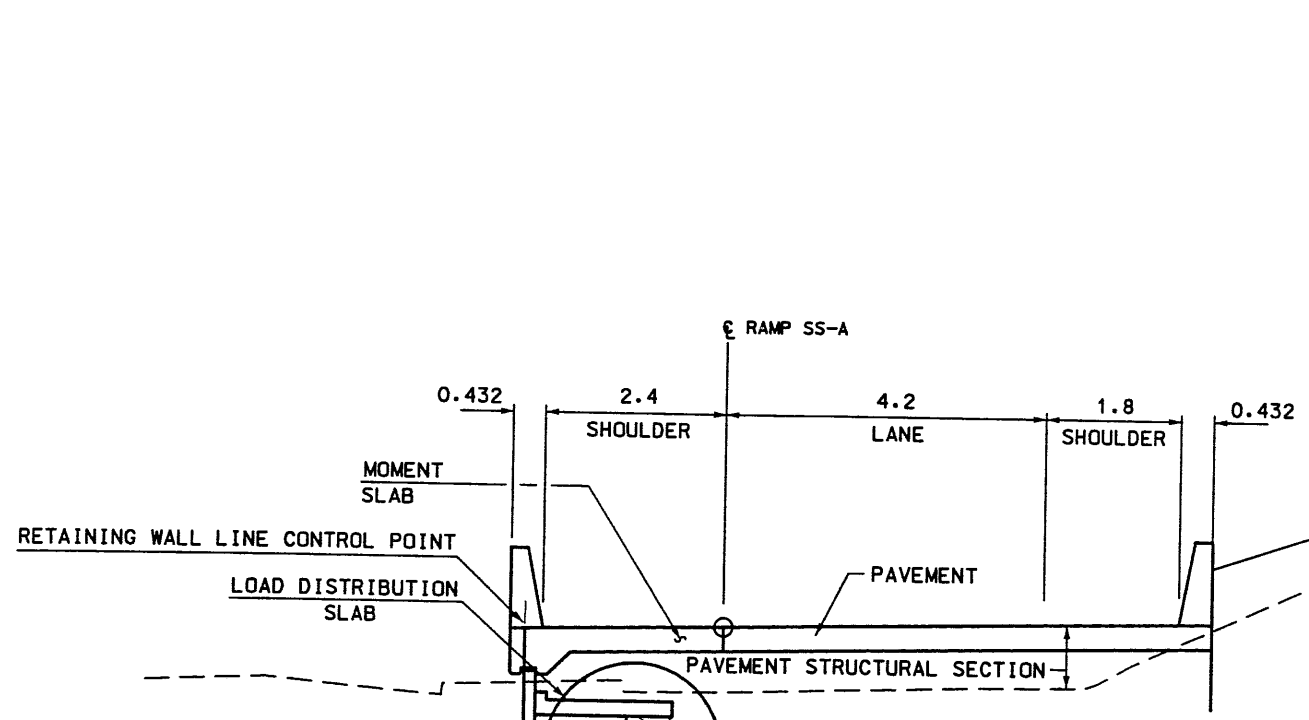
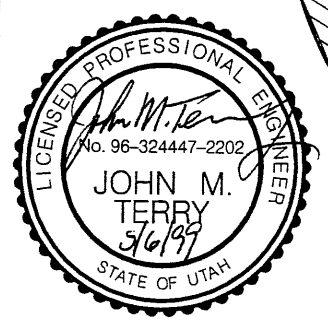


TABLE 1

STA	X ①
1+290	1.210

WASATCH CONSTRUCTORS  
 MAY 12 1999  
 RELEASED FOR CONSTRUCTION

- NOTES:
- GEOFOAM LAYOUT WILL VARY NEAR ABUTMENTS.
  - REFER TO CORRIDOR STANDARD DRAWINGS CS-43,44 45,46,47,49,49-1.49-2,49-3,50,51 AND 52 FOR GEOFOAM STRUCTURAL AND LAYOUT DETAILS.
  - LIGHTWEIGHT FILL SHALL CONFORM TO CORRIDOR STANDARD SPECIFICATION 226.



WALL R-348-04  
 SS-A STA 1+286.000 TO STA 1+311.501

APPROVED FOR CONSTRUCTION		DESCRIPTION	
NO.	DATE		
△	10/24/97	RELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
△	6/1/98	RERELEASE FOR GEOFOAM AND WALL CONSTRUCTION	
△	5/7/99	FINAL SUBMITTAL COMMENTS	
UTAH DEPARTMENT OF TRANSPORTATION		SVERDRUP/DE LEUW	
I-15 CORRIDOR RECONSTRUCTION		RETAINING WALL R-348-04	
SECTION 2.5		PROJECT NUMBER #SP-15-7(135)296	
SALT LAKE COUNTY		DWG. NO. 2.5-R-348-4.7	
SHT. _____ OF _____		TRACKING NO. 2512404	
APPROVAL RECORD:		CHECK MSC 6/98	
6/1/98 DATE		CHECK MSC 6/98	
MARGARET SIMMONS CHASE PROJECT DESIGN ENGINEER		CHECK	
6/1/98 DATE		CHECK	
JOHN TERRY PROJECT MANAGER		CHECK	
6/1/98 DATE		CHECK	