

# UTAH

## THE LEDGES INTERCHANGE

### PLANS OF PROPOSED INTERCHANGE

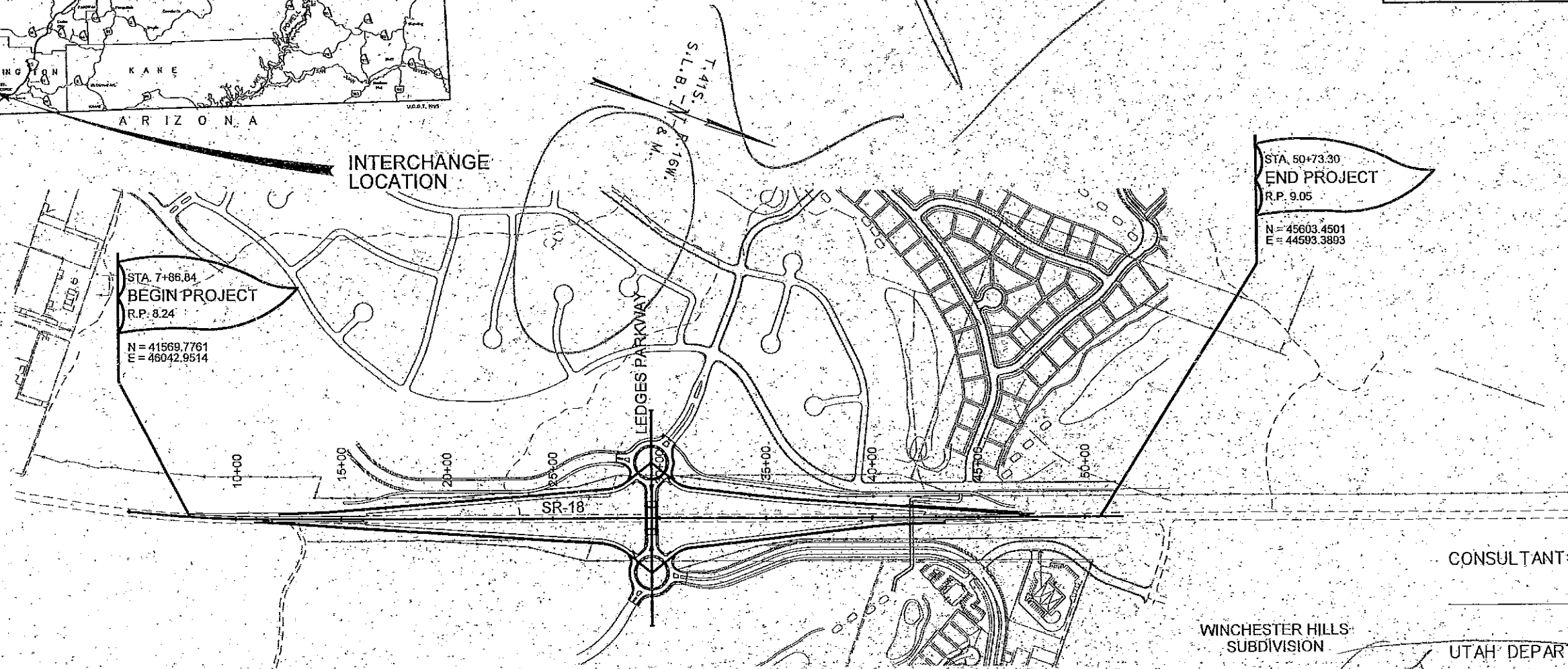
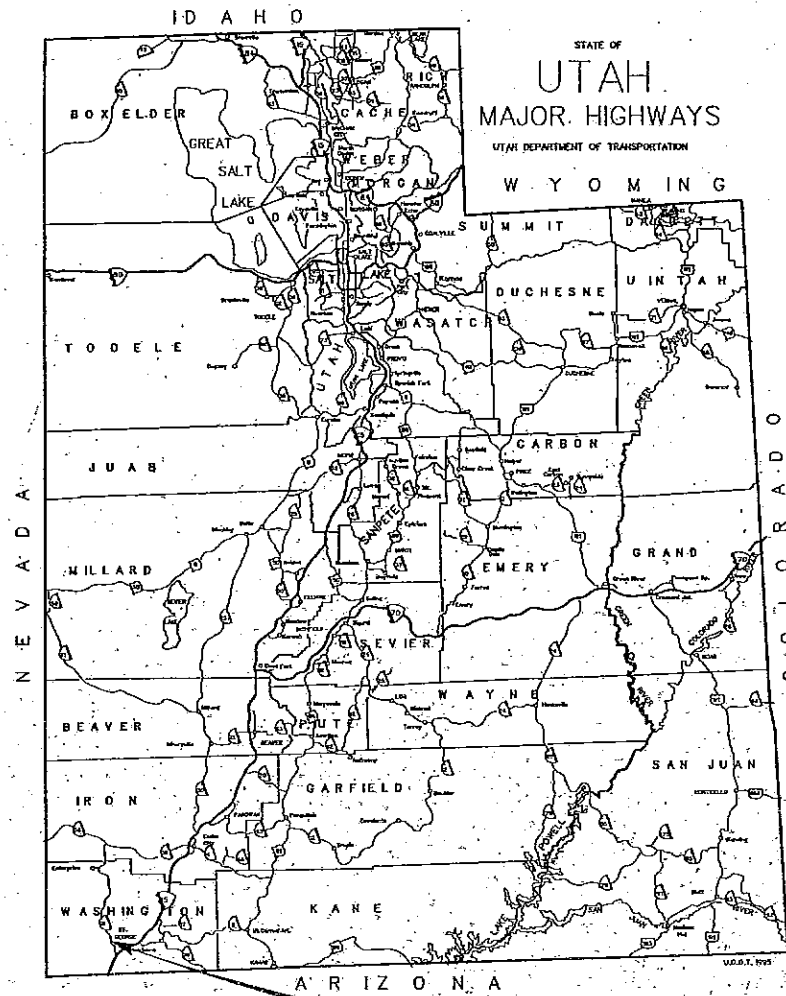
### LEDGES PARKWAY OVER SR-18

GRADING, DRAINAGE, STRUCTURE,  
SURFACING, SIGNING & LIGHTING

WASHINGTON COUNTY

LENGTH 0.81 MILES

FINAL PLANS



INTERCHANGE LOCATION

LEDGES PARKWAY

SR-18

STA. 50+73.30  
END PROJECT  
R.P. 9.05  
N = 45603.4501  
E = 44593.3893

STA. 7+86.84  
BEGIN PROJECT  
R.P. 8.24  
N = 41569.7761  
E = 46042.9514

CONSULTANT: DESIGNER

WINCHESTER HILLS  
SUBDIVISION

UTAH DEPARTMENT OF TRANSPORTATION

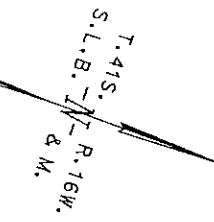
APPROVED FOR  
USE BY UDOT

2005

VICINITY MAP

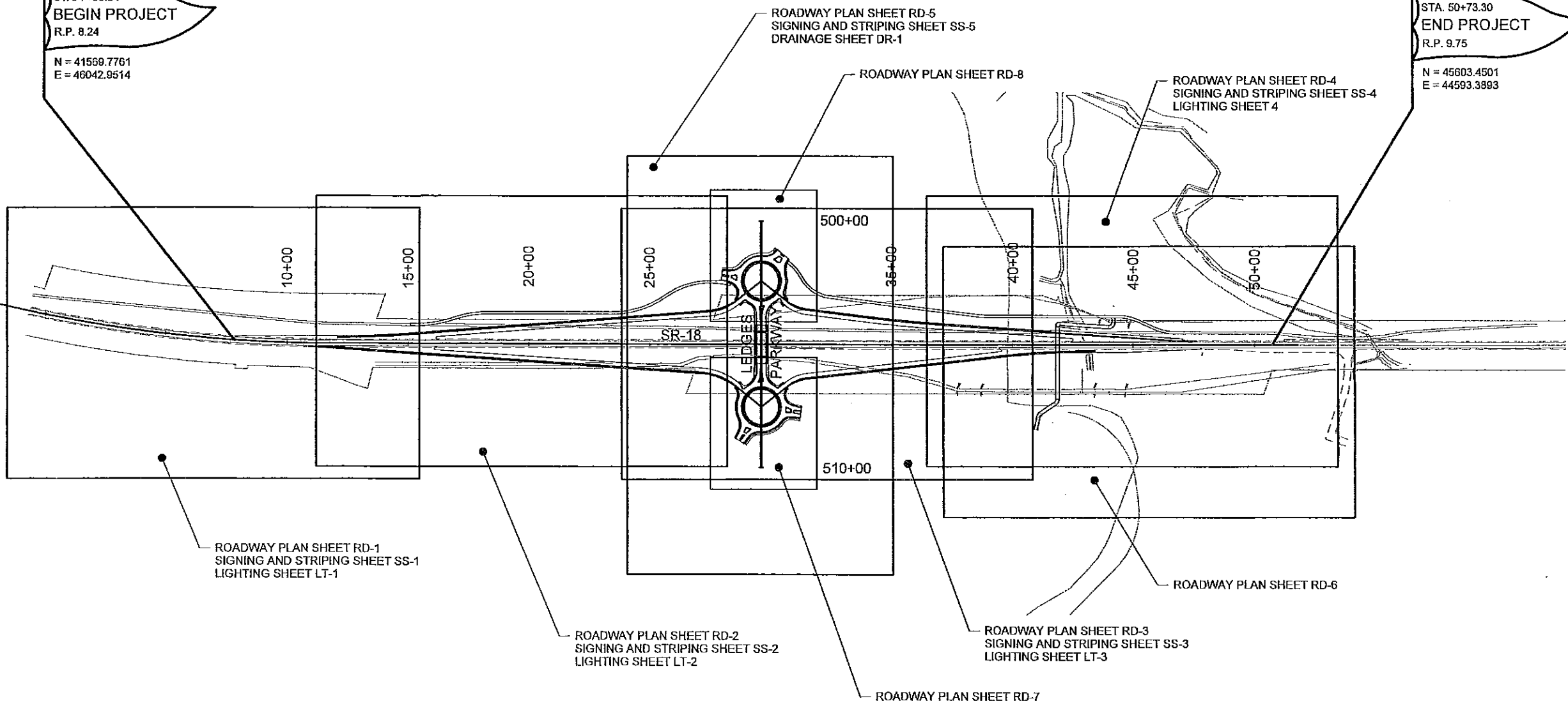
REGION FOUR DIRECTOR

# CROSS REFERENCE INDEX



STA. 7+86.84  
**BEGIN PROJECT**  
 R.P. 8.24  
 N = 41569.7761  
 E = 46042.9514

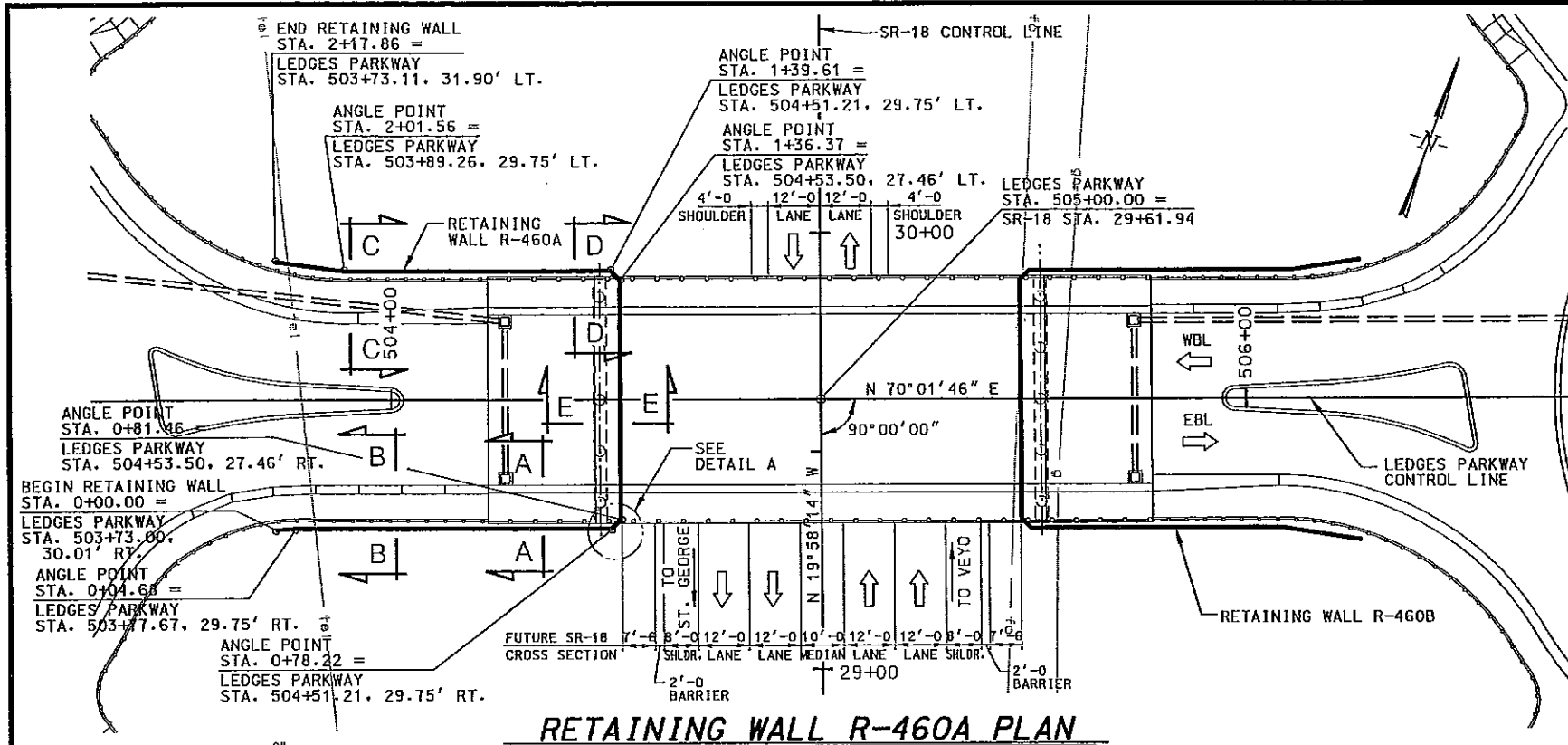
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 E = 44593.3893



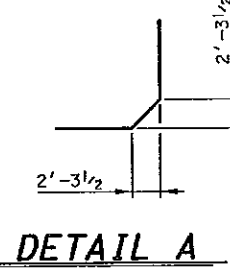
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UTAH DEPARTMENT OF TRANSPORTATION		REGION 4 - RICHFIELD, UTAH				ROADWAY DESIGN			
THE LEDGES INTERCHANGE LEDGES PARKWAY OVER SR-18		DESIGN	MJB	10/05	CHECK	BGA	10/05	REVIEW	
CROSS REFERENCE INDEX		DRAWN	JAH	10/05	CHECK	MJB	10/05	DATE	
PROJECT NUMBER	PERMITS PROJECT	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE
		APPROVAL	RECOMM.	PROJECT DESIGN ENGINEER	PRECONSTRUCTION ENGINEER	APPROVED	DATE	BY	DATE
		APPROVED	DATE	DATE	DATE	DATE	DATE	DATE	DATE
		NO.	DATE	DESIGN REVIEW	DATE	NO.	DATE	DESIGN REVIEW	DATE
		NO.	DATE	NO.	DATE	NO.	DATE	NO.	DATE
		REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS	REVISIONS

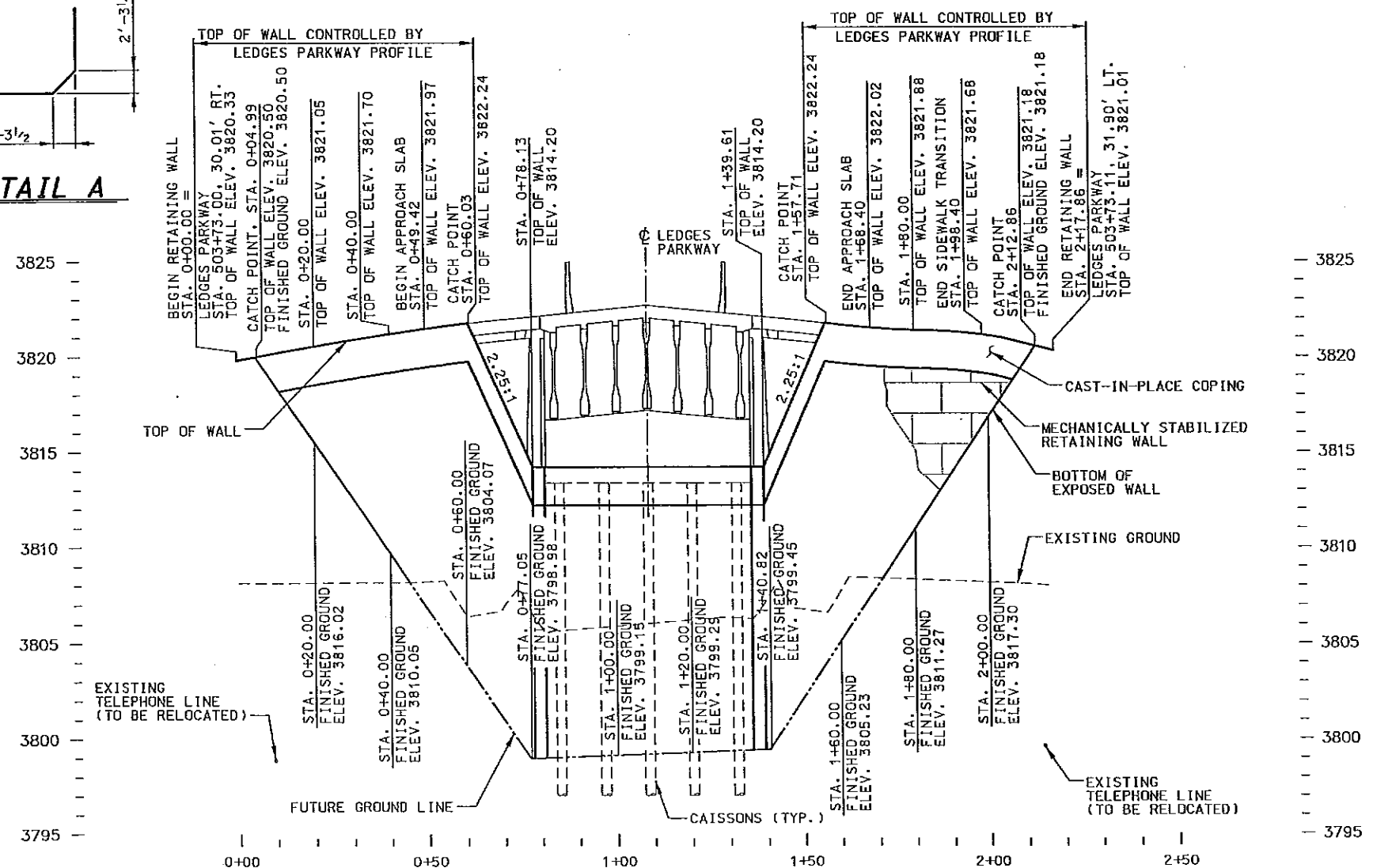
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**RETAINING WALL R-460A PLAN**

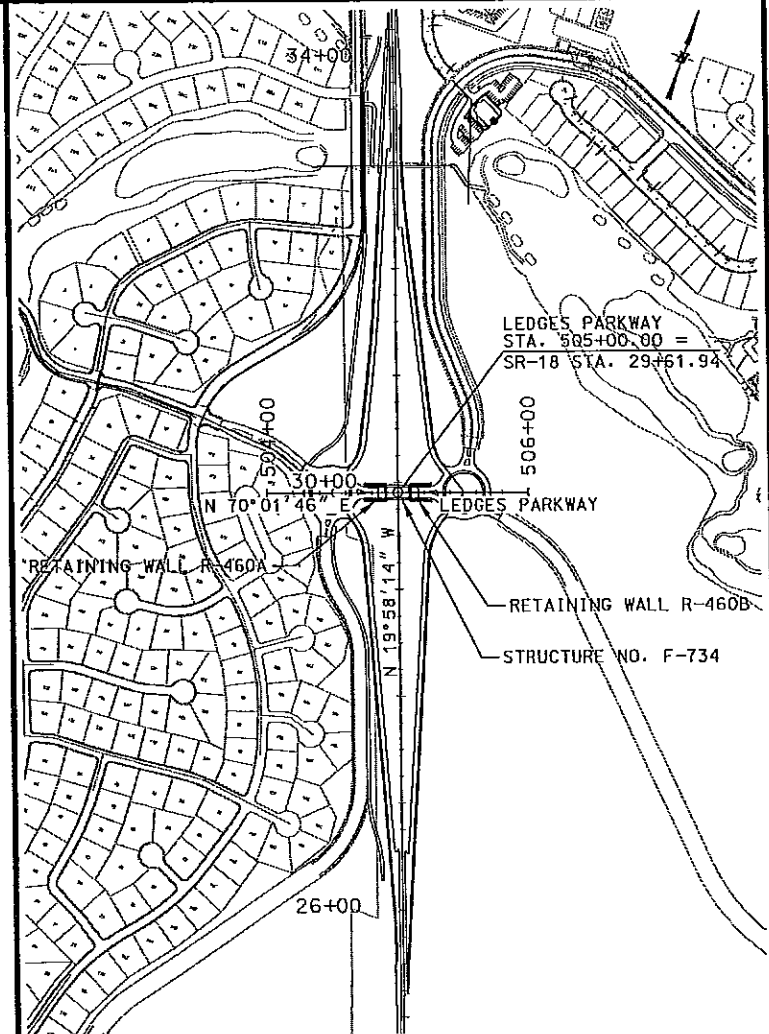


**DETAIL A**



**RETAINING WALL R-460A ELEVATION**  
(TAKEN ALONG LAYOUT LINE)

EXPOSED FACE AREA	
R-460A	2520 SQ FT



**LOCATION PLAN**

**INDEX OF SHEETS**

- SITUATION & LAYOUT R-460A
- SITUATION & LAYOUT R-460B
- SOIL DATA
- WALL DETAILS

**GENERAL NOTES**

- USE COATED DEFORMED BILLET-STEEL BARS CONFORMING TO AASHTO M284 OR M111 AND M31 GRADE 60 FOR ALL REINFORCING STEEL.
- CHAMFER ALL EXPOSED CONCRETE CORNERS 3/4" EXCEPT WHERE NOTED OTHERWISE.
- PROVIDE 2" CONCRETE COVER TO REINFORCING STEEL EXCEPT WHERE NOTED OTHERWISE.
- USE CLASS AA(AE) CAST-IN-PLACE CONCRETE EXCEPT WHERE NOTED OTHERWISE.

**DESIGN DATA**

DESIGN IN ACCORDANCE WITH CURRENT AASHTO LRFD AND INTERIM SPECIFICATIONS.

CAST-IN-PLACE CONCRETE:  $f'_c = 5000$  psi;  
 $f_y$  (REINF.) = 60,000 psi;  $n = 8$

SEISMIC: AASHTO LRFD SEISMIC ZONE 3  
 $A_{50} = 0.10$  g (10% PE IN 50 YRS.) SOIL TYPE I  
 $A_{250} = 0.24$  g (10% PE IN 250 YRS.) SOIL TYPE I

**QUANTITIES**

ITEM	ESTIMATED	UNIT	AS CONST.
RETAINING WALL (R-460) (EST. QUANTITY: 5036 SQ FT)	1	LUMP	

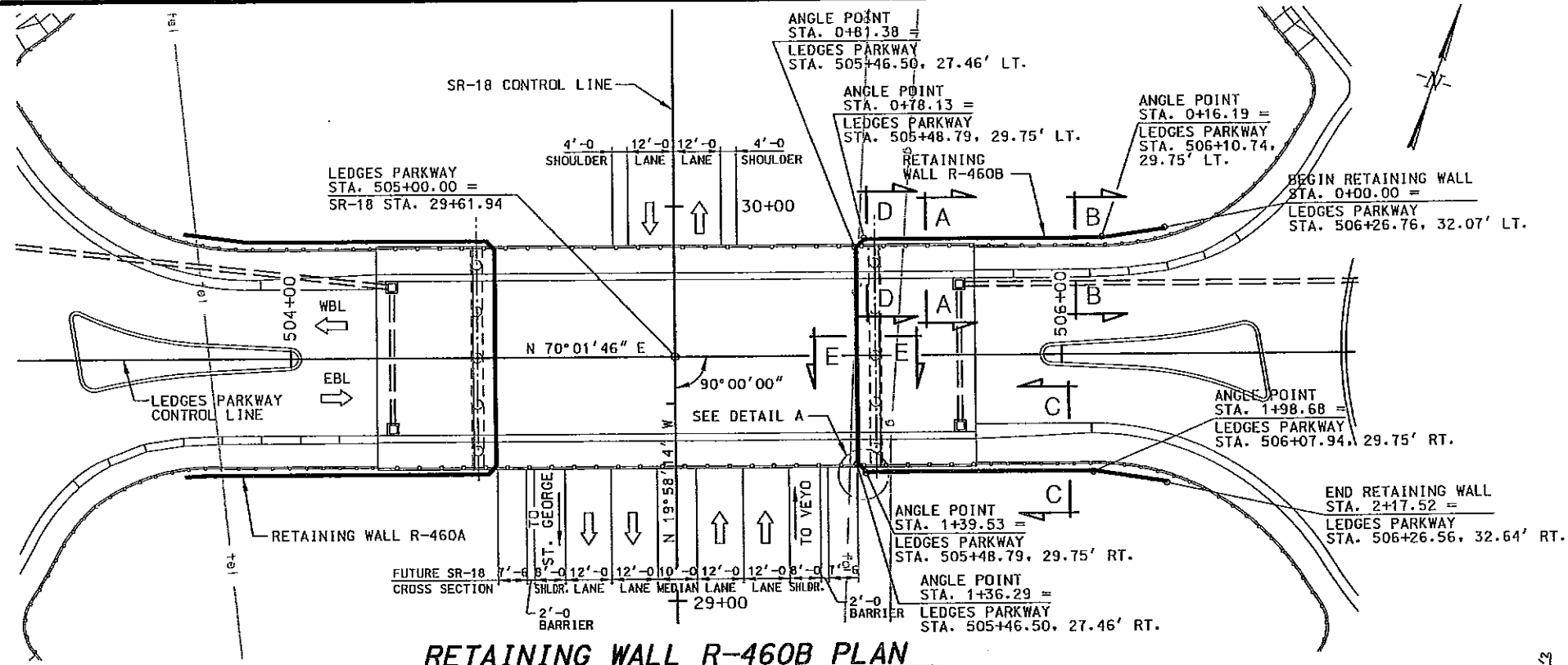
**UTAH DEPARTMENT OF TRANSPORTATION**  
SALT LAKE CITY, UTAH  
STRUCTURES DIVISION

**THE LEDGES INTERCHANGE**  
**RETAINING WALL R-460**  
**SITUATION AND LAYOUT R-460A**  
**PERMITS PROJECT**

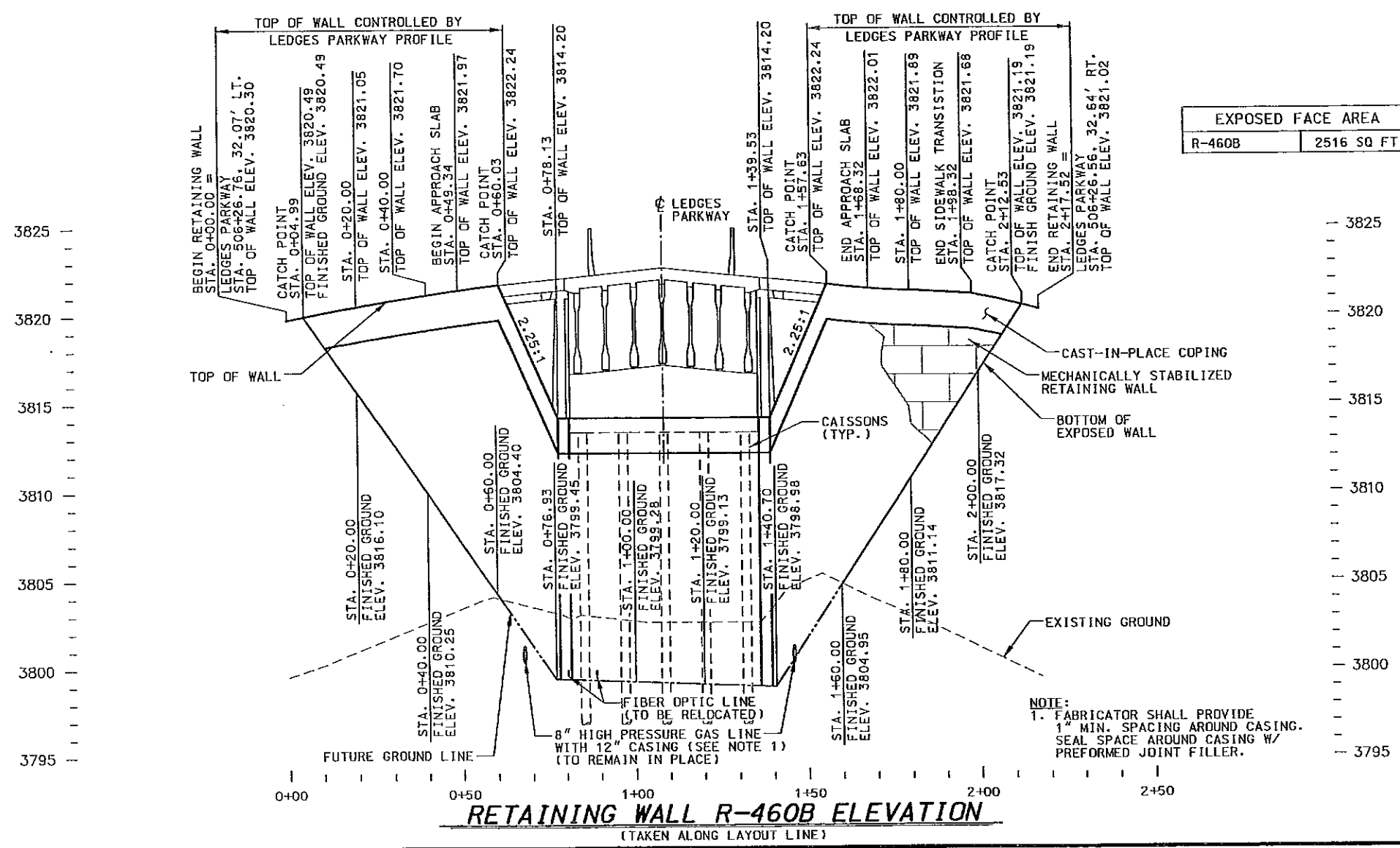
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DRAWN	HAA	B/OB	CHECK	MAD	B/OB
APPROVAL	RECOMM.	DATE	CONSULTANT DESIGN ENGR.	DATE	CONSULTANT PROJ. MANAGER
APPROVED	DATE	DATE	APPROVED	DATE	DATE

SHT. 1 of 4

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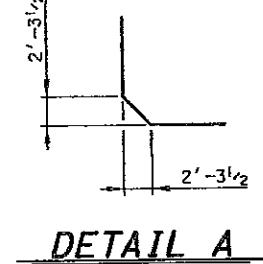


**RETAINING WALL R-460B PLAN**



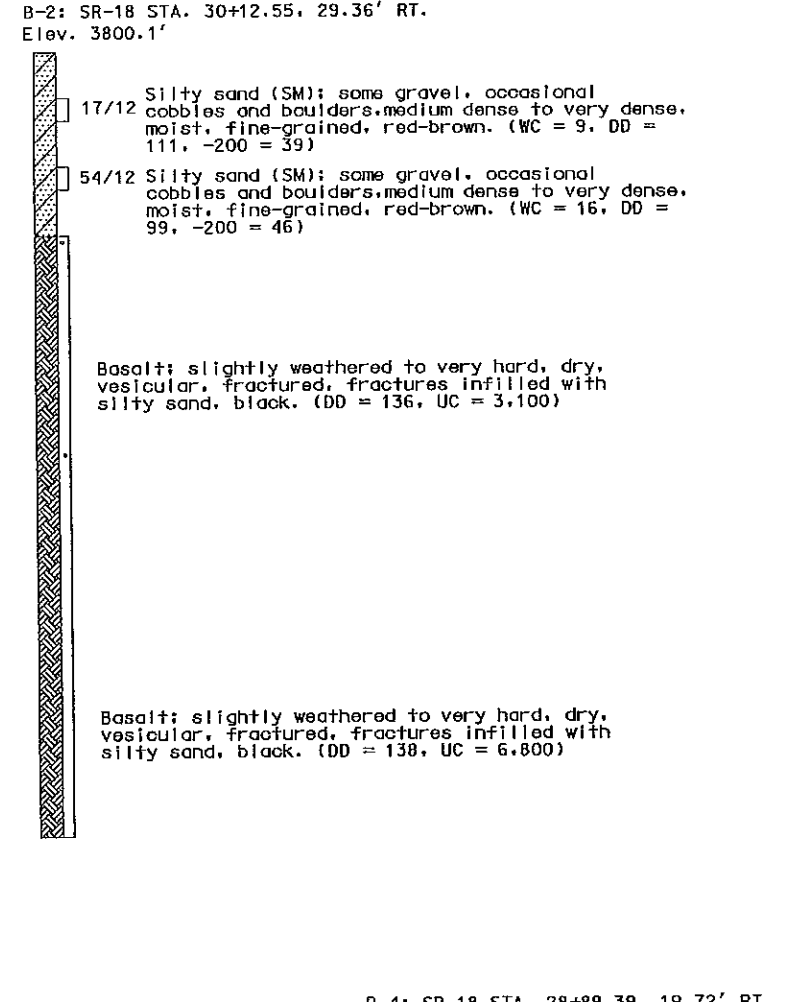
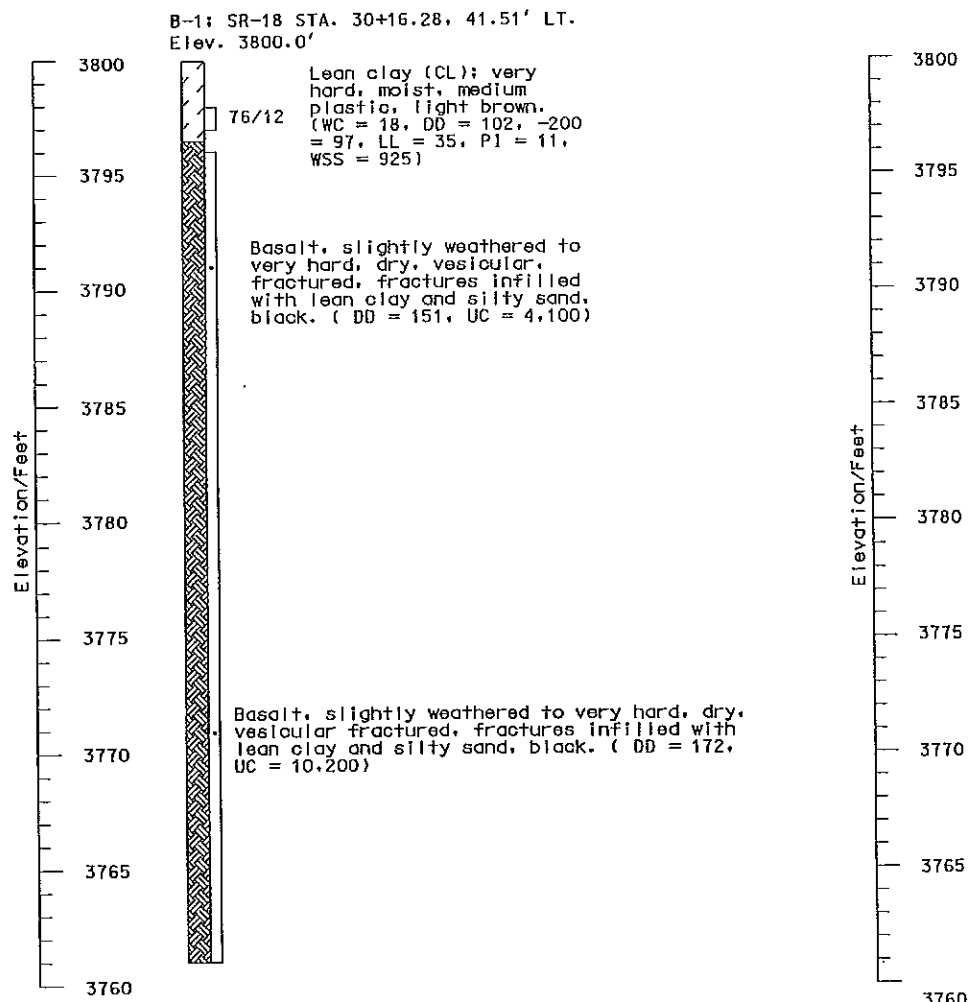
**RETAINING WALL R-460B ELEVATION**  
(TAKEN ALONG LAYOUT LINE)

EXPOSED FACE AREA	
R-460B	2516 SQ FT



UTAH DEPARTMENT OF TRANSPORTATION SALT LAKE CITY, UTAH STRUCTURES DIVISION		DESIGN: MJB 8/05	CHECK: BGA 8/05
THE LEDGES INTERCHANGE RETAINING WALL R-460 SITUATION AND LAYOUT R-460B		DATE: CONSULTANT DESIGN ENGR.	CHECK: MAD 8/05
PROJECT NUMBER: PERMITS PROJECT		DATE: CONSULTANT PROJ. MANAGER	CHECK: BGA 8/05
WASHINGTON COUNTY		APPROVED: _____	REVISIONS:
R-460 DWG. NO.		NO. _____	BY _____
SHT. 2 OF 4		DATE _____	REVISIONS _____
		1 9/22/05 MAD ORIGINAL RFC	

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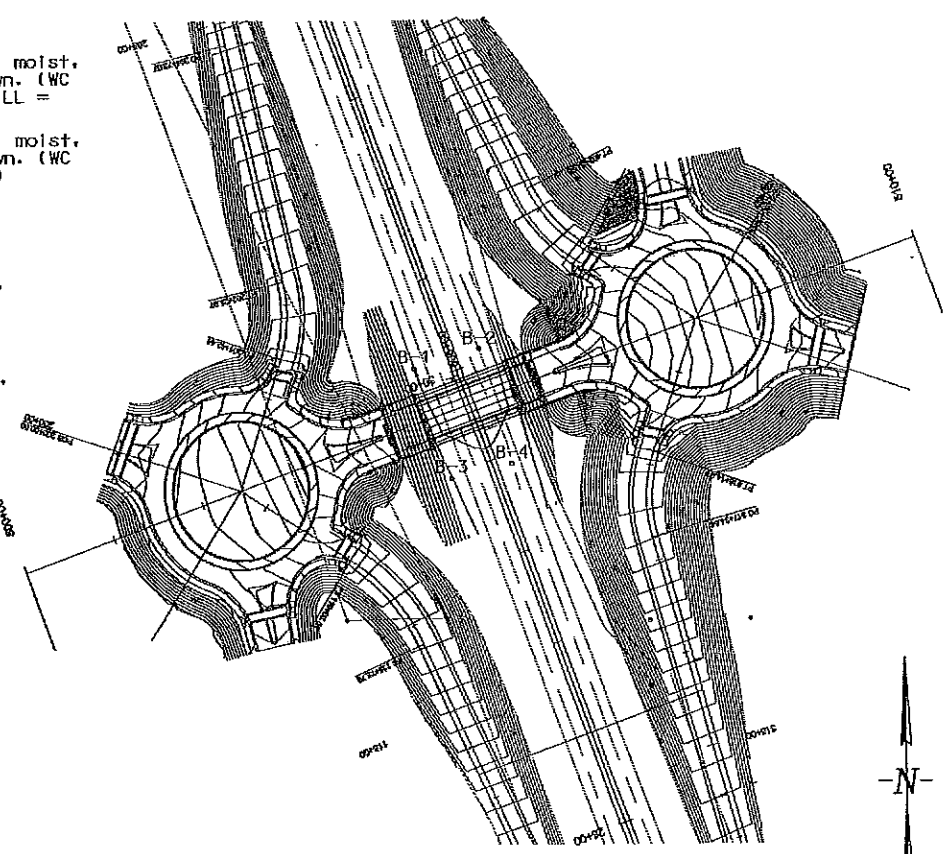
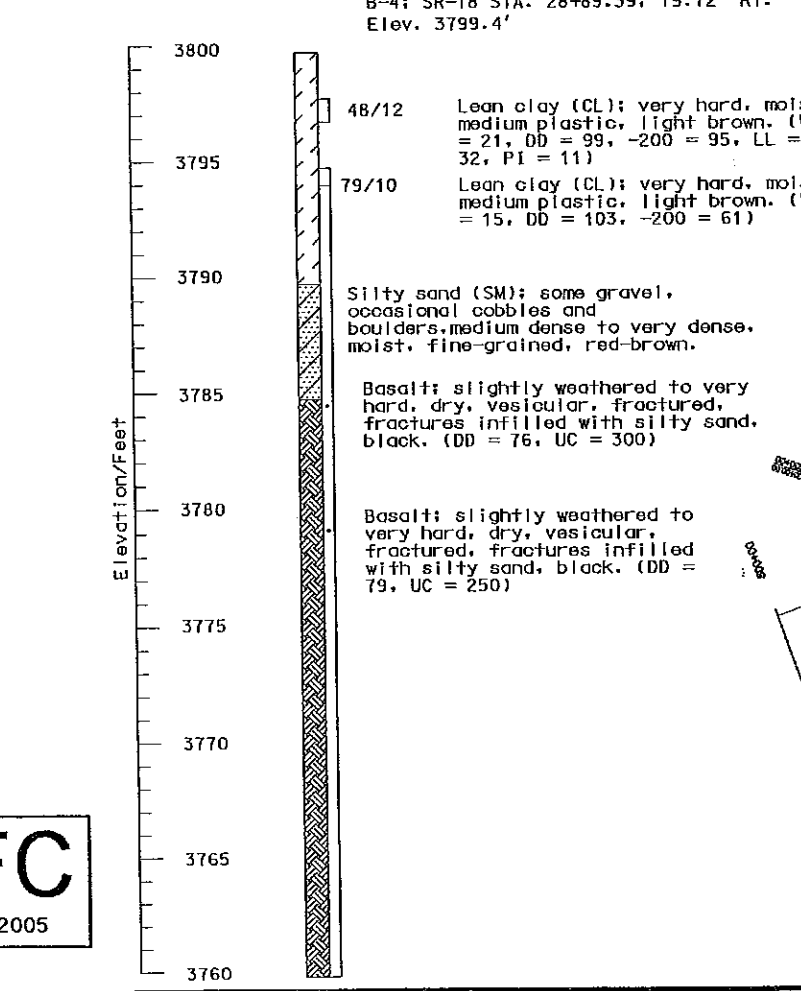
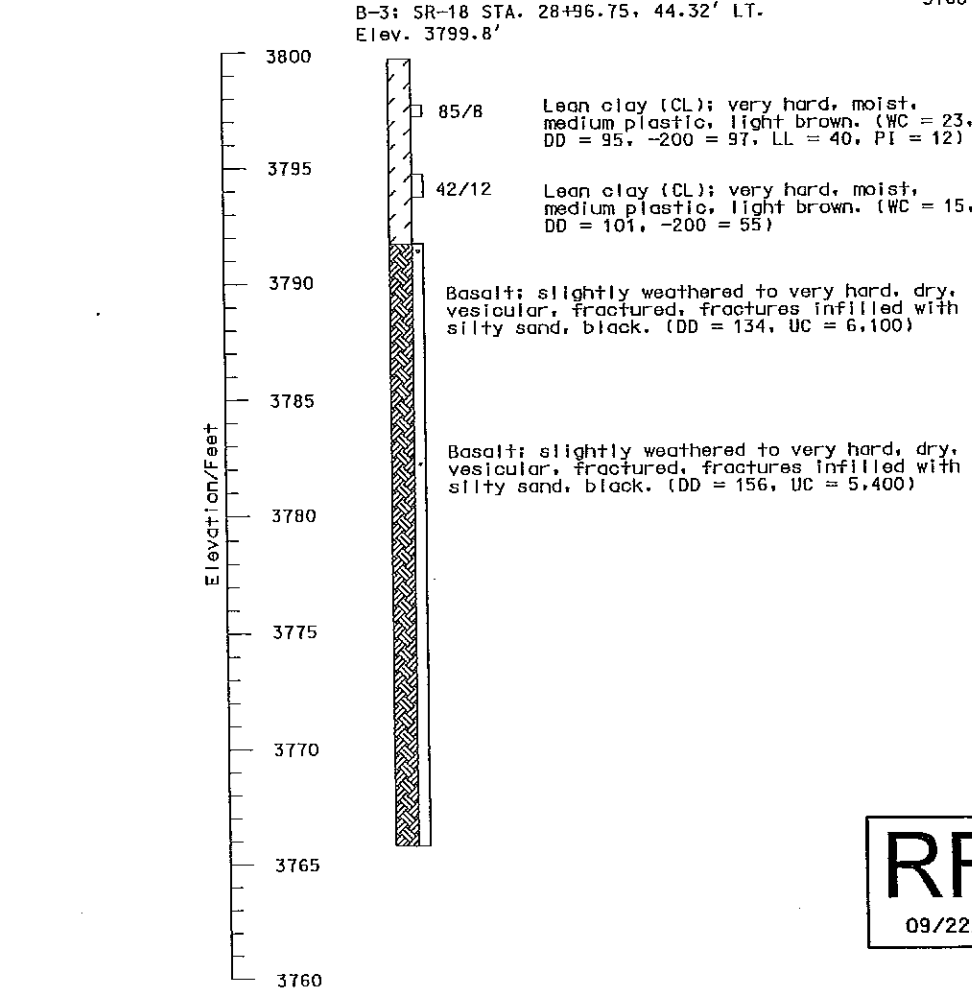


**LEGEND:**

- 10/12 California drive sample taken. The symbol 10/12 indicates that 10 blows from a 140 pound pin weight falling 30 inches were required to drive the sampler 12 inches.
- Indicates core sample taken.

**NOTES:**

1. The borings were drilled on June 9, 10, 14, and 15, 2005 with 7-inch diameter hollow-stem augers and a 2-inch NX core barrel using air.
2. The locations of the borings were surveyed by PEPG Engineering.
3. The elevations of the borings were surveyed by PEPG Engineering.
4. The boring locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between the materials shown on the boring logs represent the approximate boundaries between material types and the transitions may be gradual.
6. No free water was encountered in the borings at the time of drilling.
7. WC = Water content (%);  
DD = Dry Density (pcf);  
-200 = Percent Passing No. 200 Sieve;  
LL = Liquid Limit (%);  
PI = Plasticity Index (%);  
UC = Unconfined Compressive Strength (psi);  
WSS = Water Soluble Sulfates (ppm).

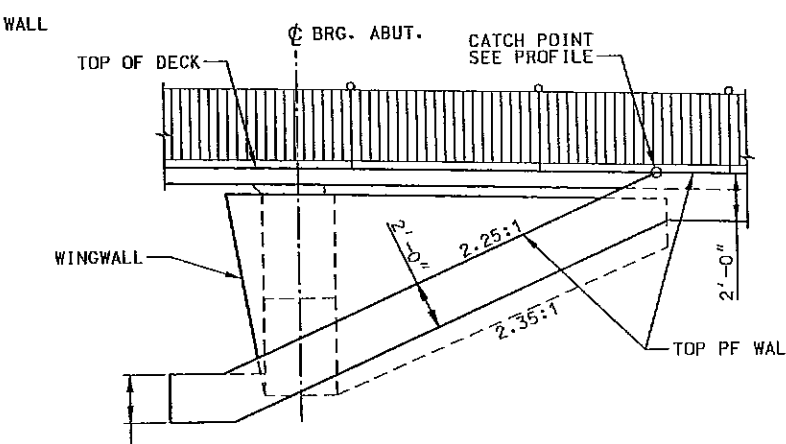
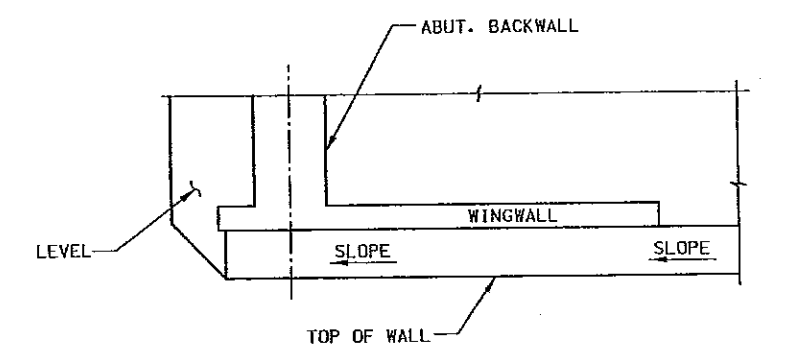
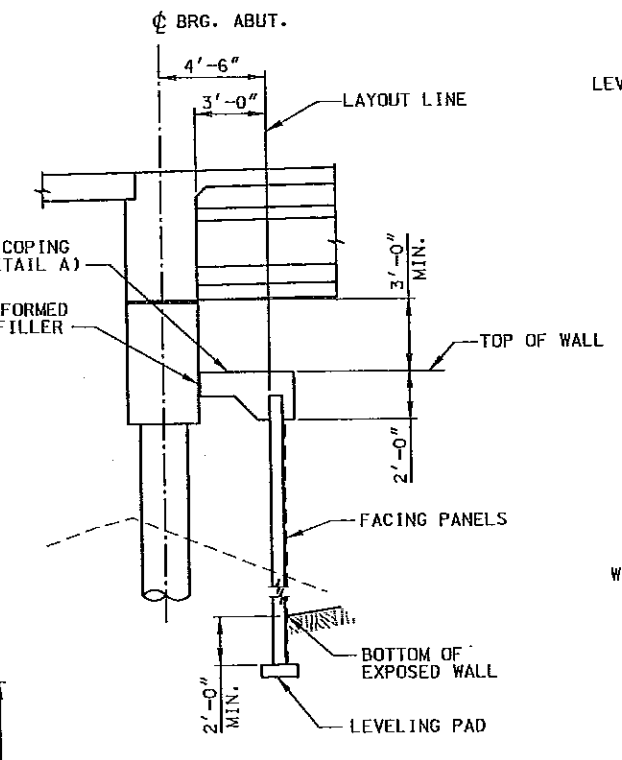
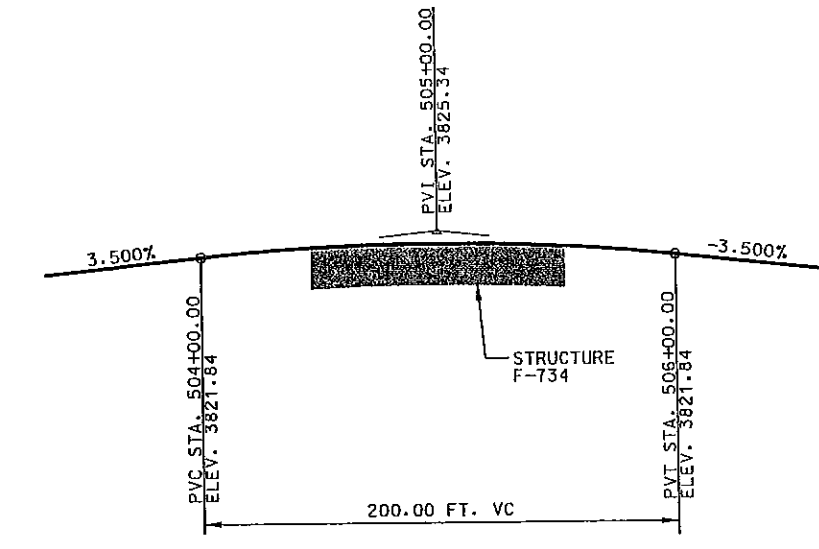
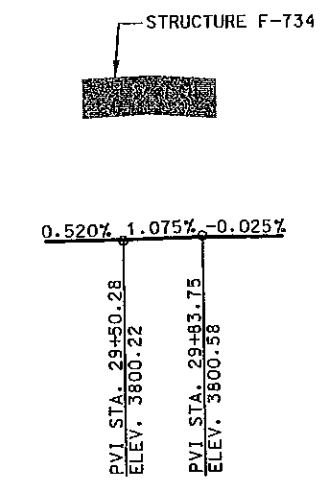
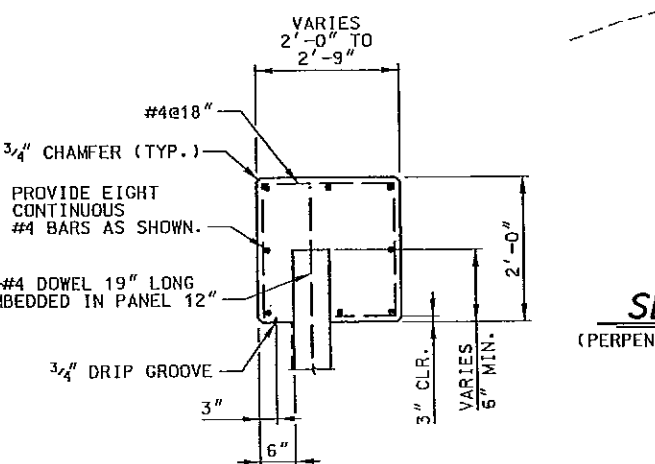
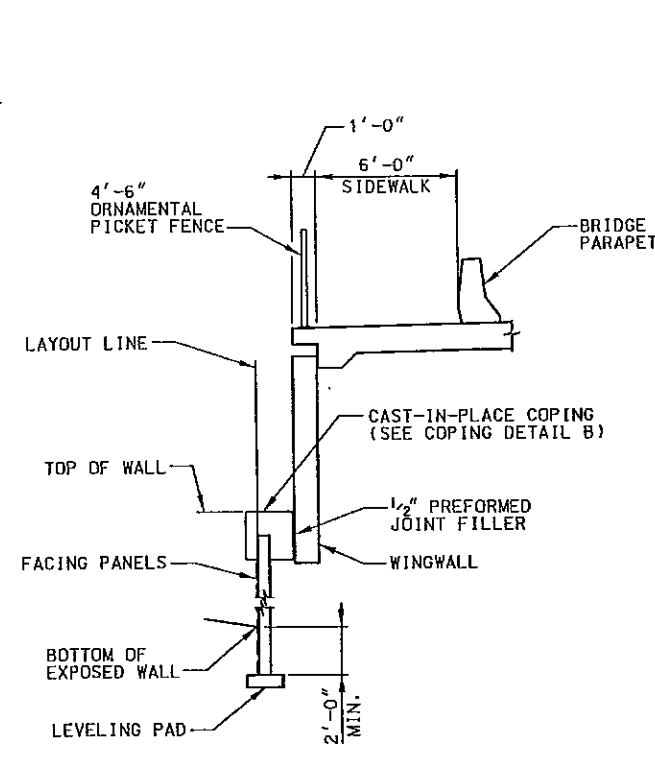
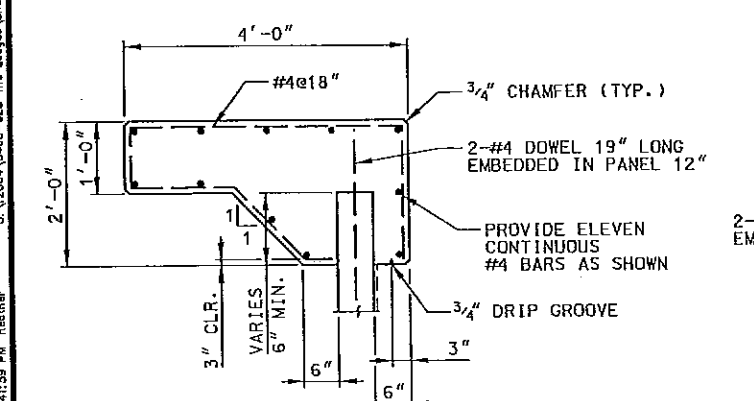
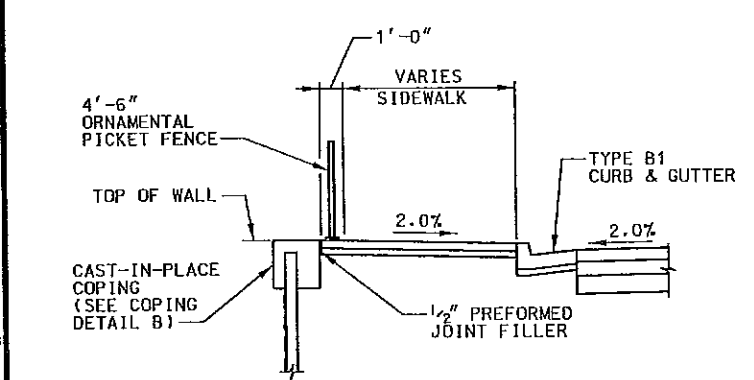
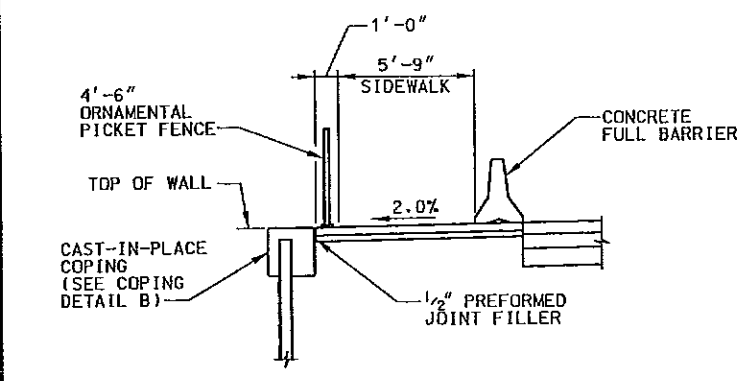
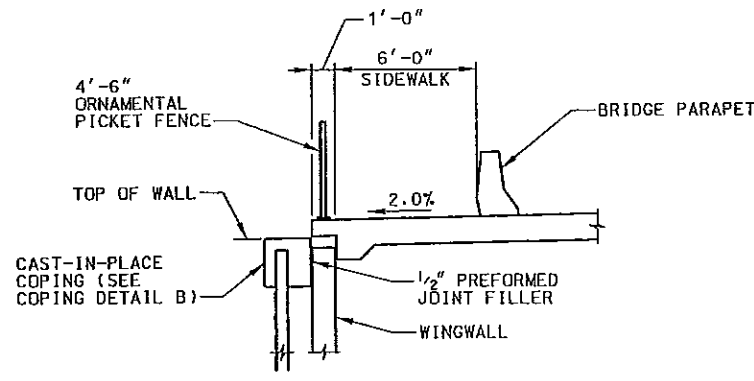


**RFC**  
09/22/2005

Scale 1" = 200'

<b>UTAH DEPARTMENT OF TRANSPORTATION</b>		SALT LAKE CITY, UTAH	STRUCTURES DIVISION
THE LEDGES INTERCHANGE	RETAINING WALL R-460	SOIL DATA	PERMITS PROJECT
WASHINGTON COUNTY	R-460	DWG. NO.	PROJECT NUMBER
1	9/22/05	MAD	ORIGINAL REC
1	9/22/05	MAD	ORIGINAL REC
NO.	DATE	BY	REVISIONS
DESIGN ST	8/05	CHECK EN	8/05
DRAWN SD	8/05	CHECK ST	8/05
DATE	CONSULTANT DESIGN ENGR.	DATE	CONSULTANT PROJ. MANAGER
APPROVAL	DATE	APPROVED	DATE
WASHINGTON COUNTY		R-460	
DWG. NO.		PROJECT NUMBER	
SHT. 3		OF 4	

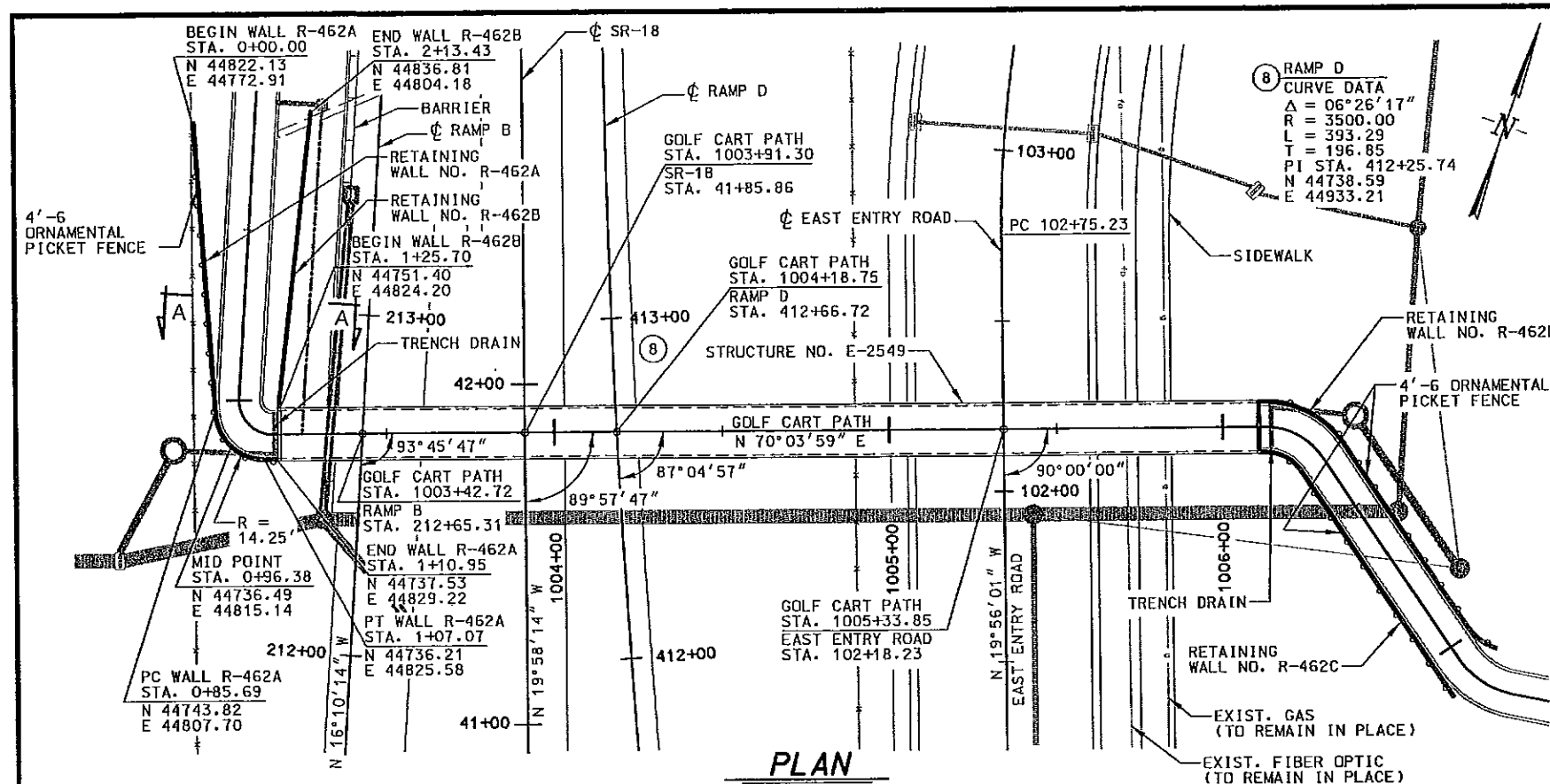
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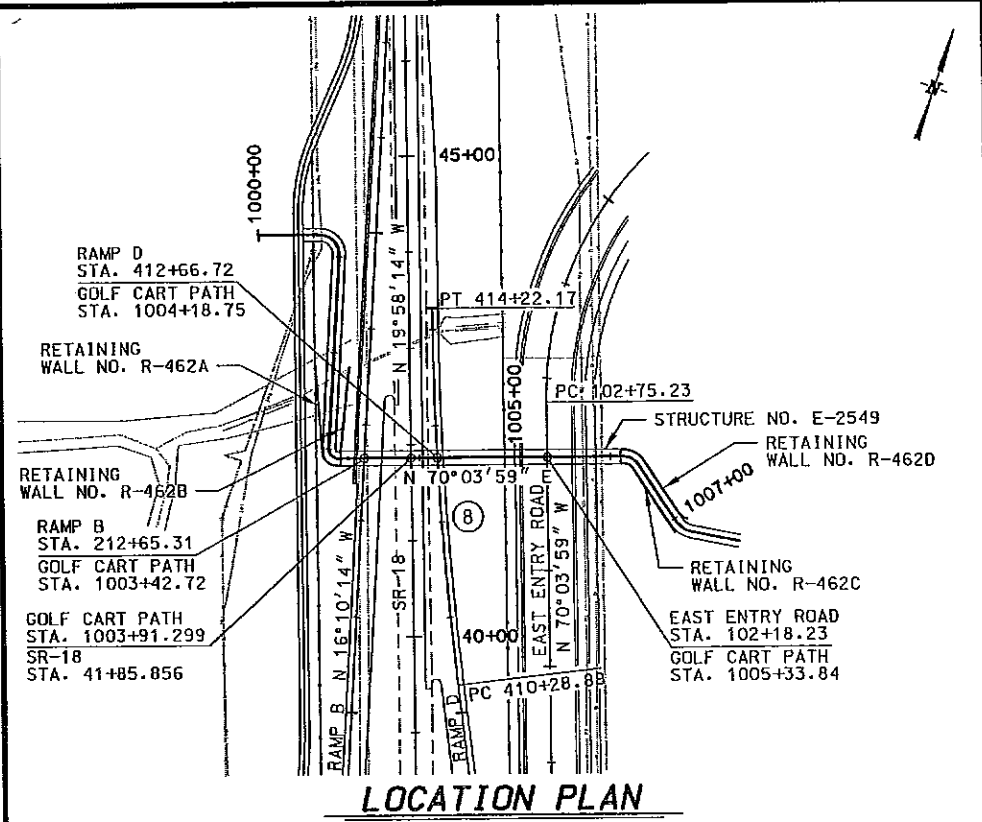
COPING TRANSITION

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APPROVAL RECORD:	DATE	CONSULTANT DESIGN ENGR.	DATE
APPROVED:	DATE	CONSULTANT PROJ. MANAGER	DATE
PROJECT NUMBER	PERMITS PROJECT	QUANT. MJB 8/05	CHECK: BGA 8/05
THE LEDGES INTERCHANGE	RETAINING WALL R-460	DRAWN: JAH 8/05	CHECK: MAD 8/05
WALL DETAILS		DATE	REVISIONS
WASHINGTON COUNTY	R-460	NO.	BY
DWG. NO.		DATE	
SHT. 4 OF 4			

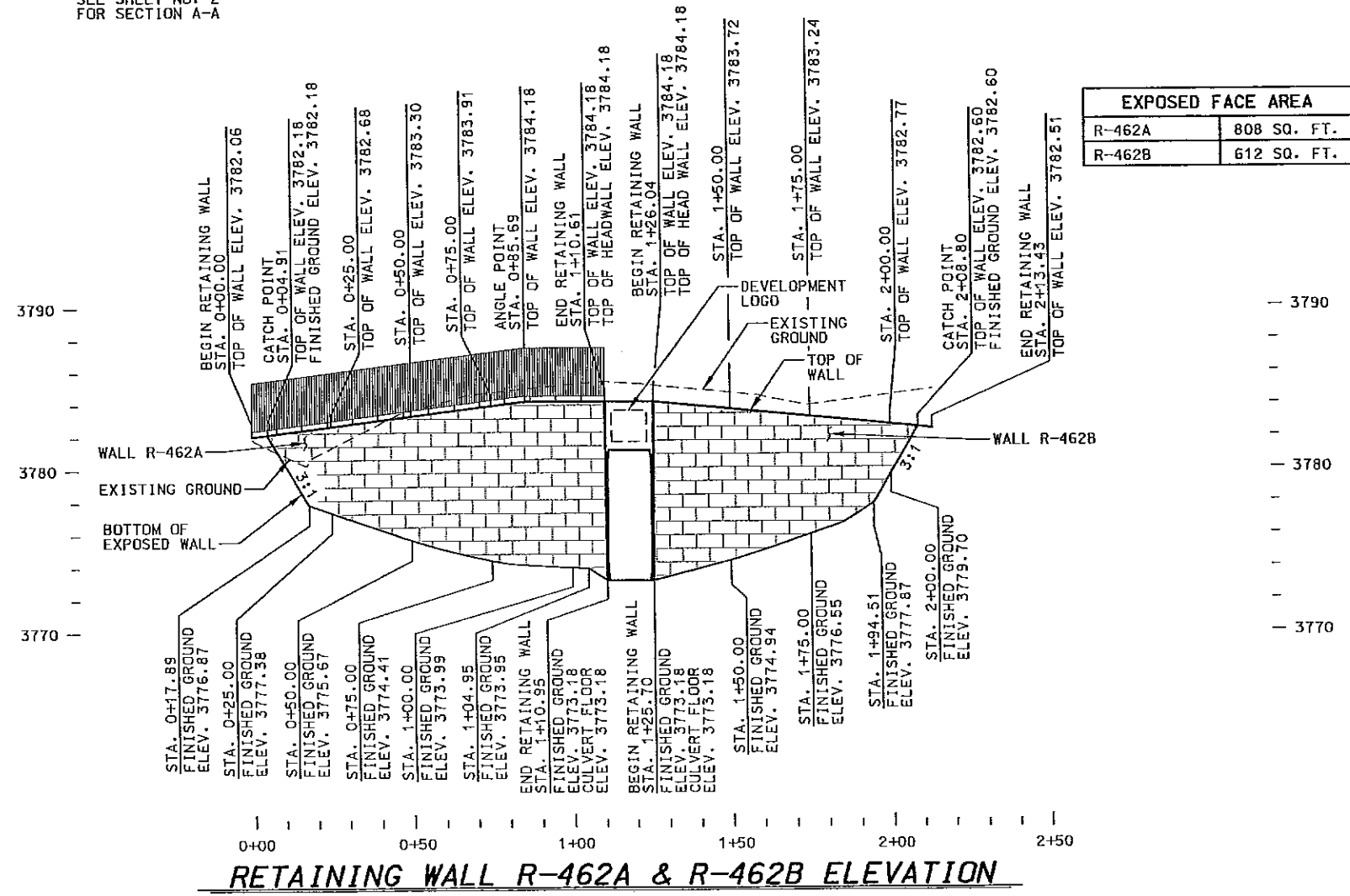
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NOTE:  
SEE SHEET NO. 2  
FOR SECTION A-A



**LOCATION PLAN**



EXPOSED FACE AREA	
R-462A	808 SQ. FT.
R-462B	612 SQ. FT.

**INDEX OF SHEETS**

- SITUATION AND LAYOUT R-462A & R-462B
- SITUATION AND LAYOUT R-462C & R-462D; WALL DETAILS
- ORNAMENTAL FENCE DETAILS

**GENERAL NOTES**

- SEE DRAINAGE SHEET DR-3 FOR DRAINAGE DETAILS.
- SEE LIGHTING SHEET LT-5 FOR CULVERT LIGHTING.

**DESIGN DATA**

DESIGN IN ACCORDANCE WITH CURRENT AASHTO LRFD AND INTERIM SPECIFICATIONS.

SEISMIC: AASHTO LRFD SEISMIC ZONE 3  
A<sub>50</sub> = 0.10g (10% PE IN 50 YRS.) SOIL TYPE 1

**QUANTITIES**

ITEM	ESTIMATED	UNIT	AS CONST.
RETAINING WALL (R-462) (EST. QUANTITY: 2669 SQ. FT.)	1	LUMP	
4'-6\"/>			

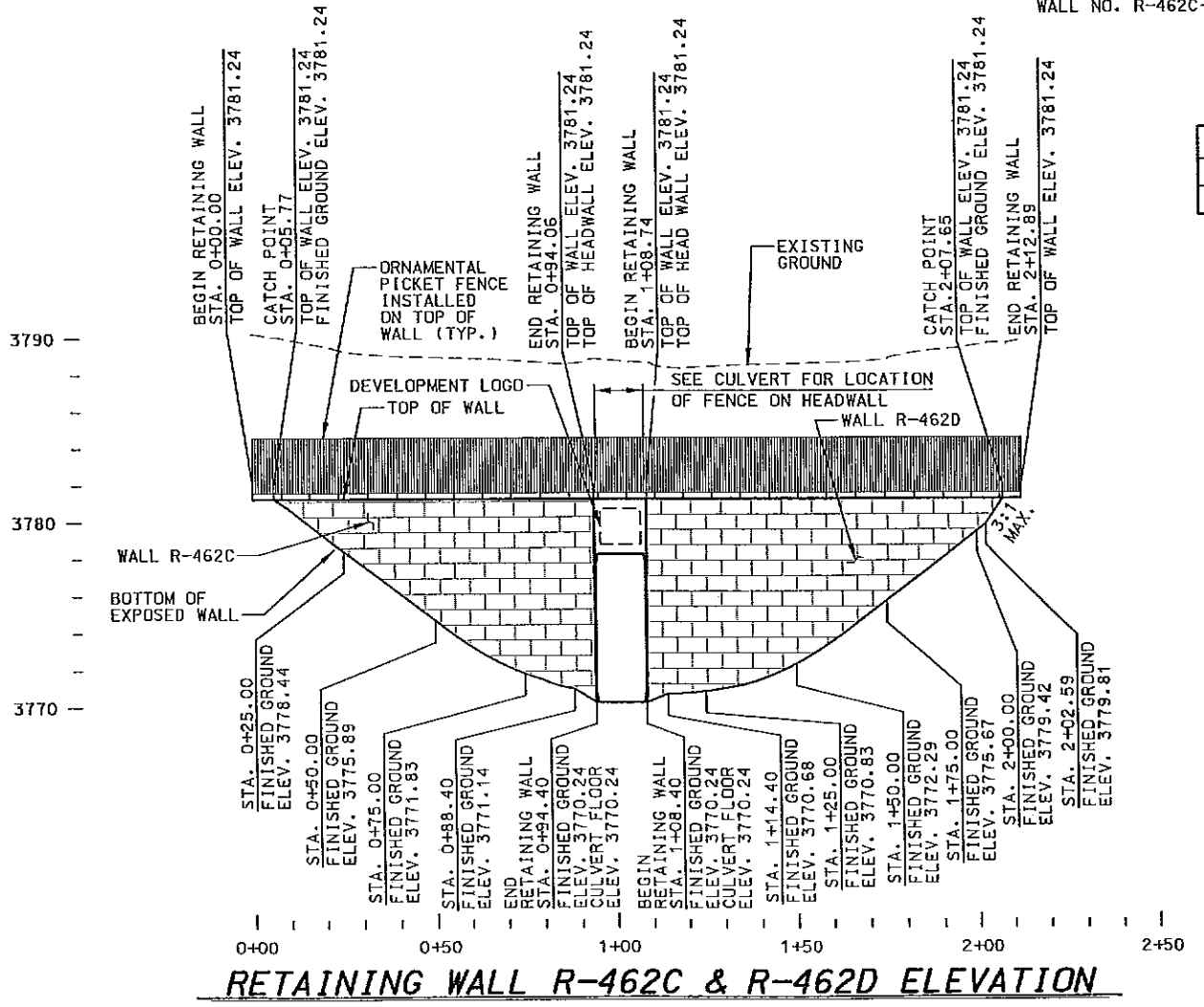
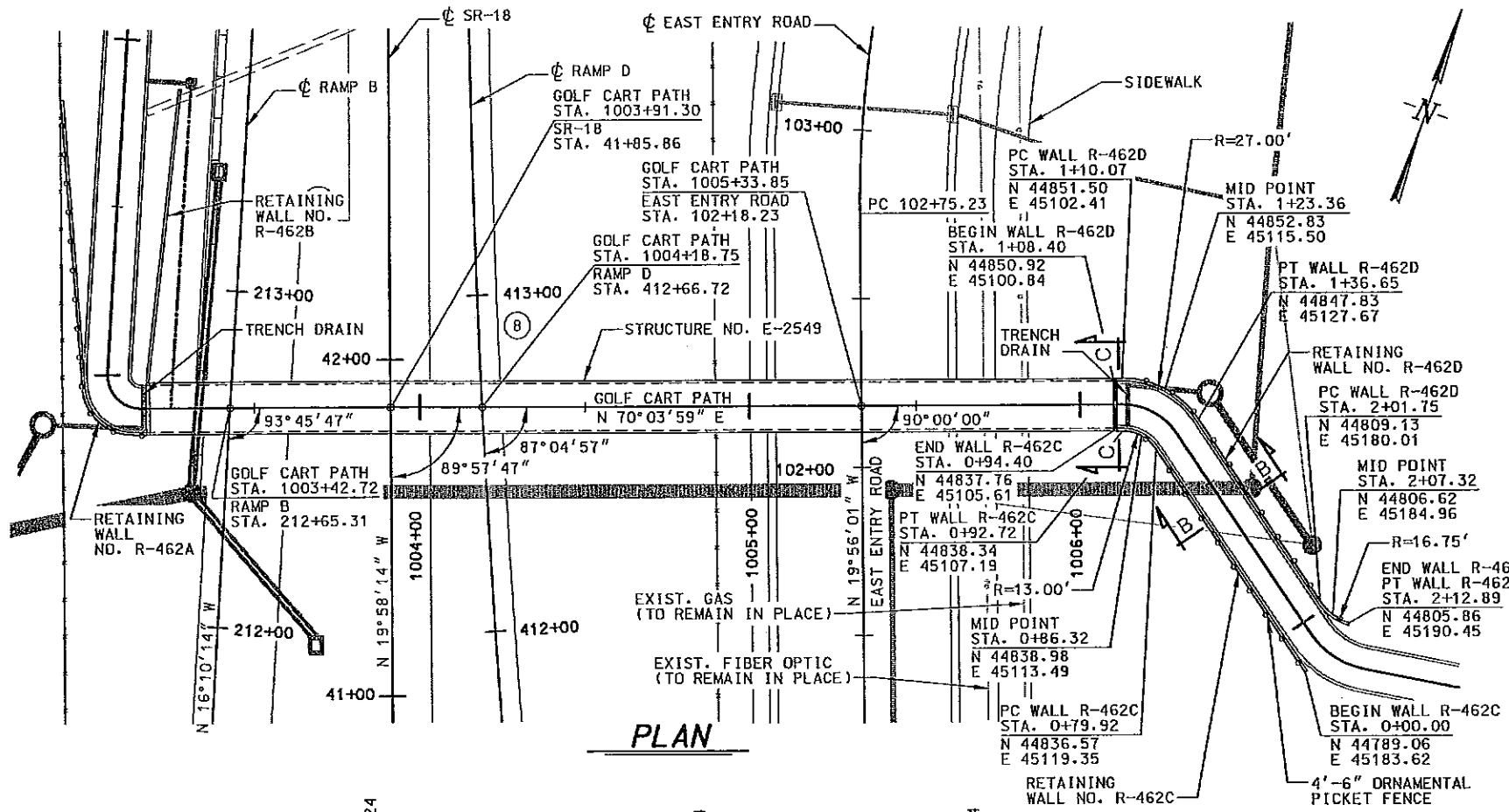
**UTAH DEPARTMENT OF TRANSPORTATION**  
SALT LAKE CITY, UTAH  
STRUCTURES DIVISION

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DATE			APPROVAL		
QUANT.	MJB	9/05	APPROVED		
DATE			DATE		

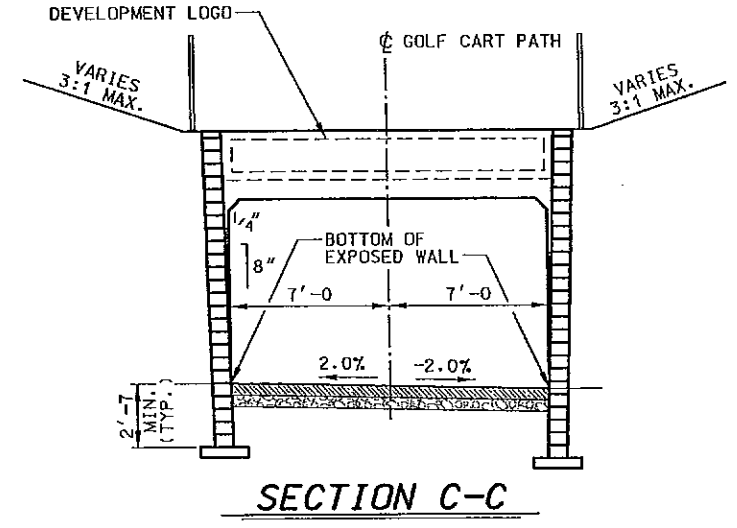
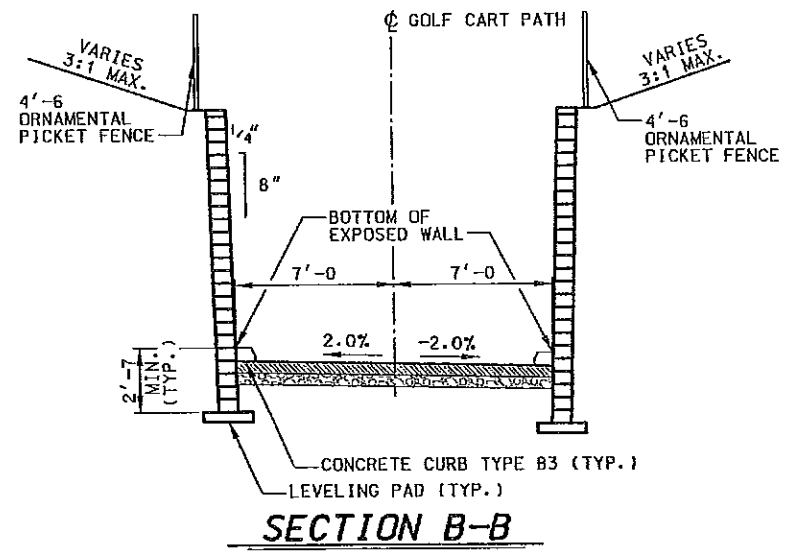
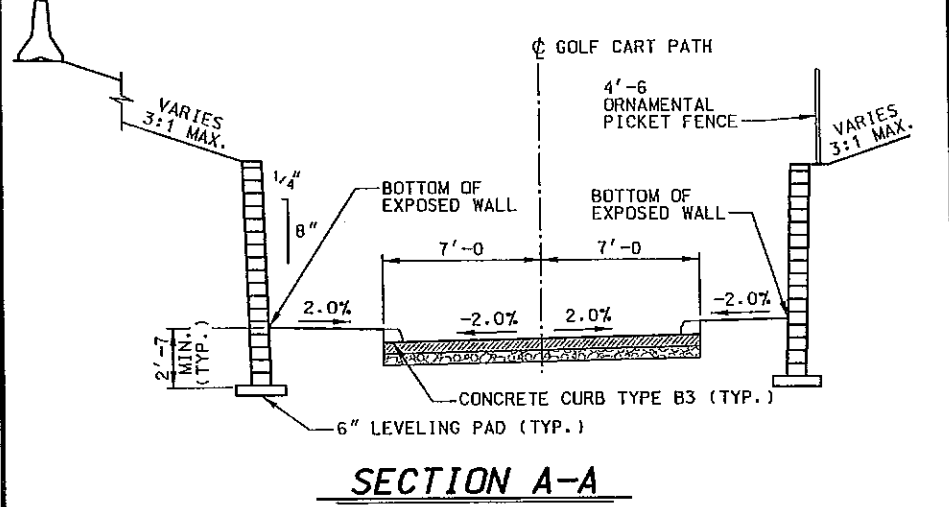
**PERMITS PROJECT**

WASHINGTON COUNTY
R-462
DWG. NO.
SHT. 1 OF 3

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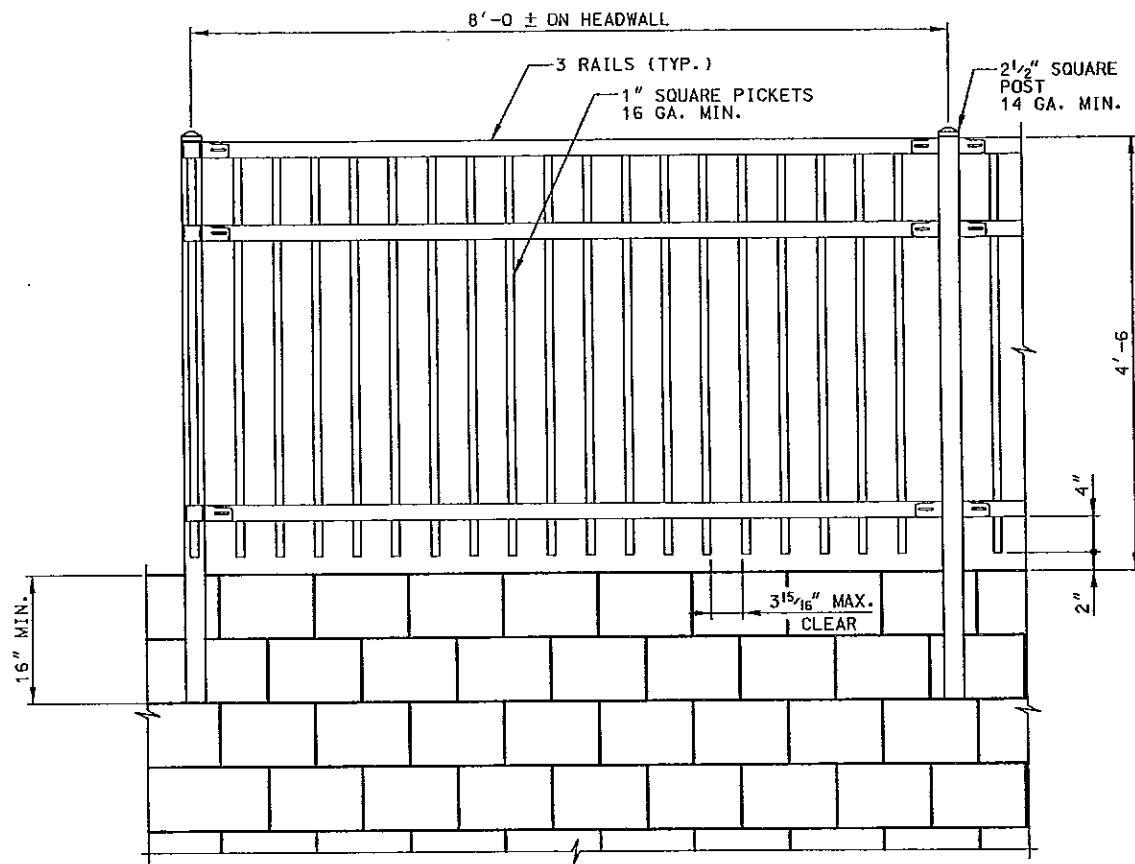
EXPOSED FACE AREA	
R-462C	544 SQ. FT.
R-462D	705 SQ. FT.



<b>UTAH DEPARTMENT OF TRANSPORTATION</b> SALT LAKE CITY, UTAH STRUCTURES DIVISION		CHECK BSA	10/25
		CHECK BSA	10/25
<b>THE LEDGES INTERCHANGE</b> GOLF CART PATH RETAINING WALLS SITUATION AND LAYOUT R-462C & R-462D WALL DETAILS	DESIGN MJB	8/25	
	DRAWN HAN	8/25	
<b>PERMITS PROJECT</b>	DATE	CONSULTANT DESIGN ENGR.	
	DATE	CONSULTANT PROJ. MANAGER	
APPROVAL RECOMM.	DATE	APPROVED	DATE
PROJECT NUMBER	WASHINGTON COUNTY R-462 DWG. NO.		
SHT. 2 OF 3	REVISIONS NO. DATE BY REMARKS		

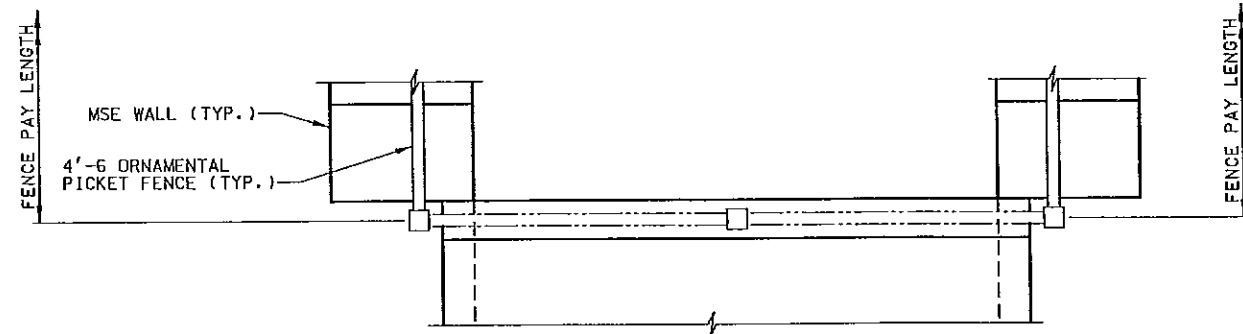


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**FENCE SECTION DETAIL**

NOTE:  
COORDINATE BETWEEN FENCE FABRICATOR AND  
MSE WALL MANUFACTURER TO ENSURE ORNAMENTAL  
PICKET FENCE POSTS ARE EMBEDDED INTO WALL.



**CULVERT/MSE WALL FENCE INTERFACE DETAIL**

QUANTITIES	
4'-6 ORNAMENTAL PICKET FENCE	313'-0

UTAH DEPARTMENT OF TRANSPORTATION SALT LAKE CITY, UTAH STRUCTURES DIVISION		DESIGN RSH 8/05	CHECK MAD 10/05
APPROVAL RECORD:	DATE CONSULTANT DESIGN ENGR	DRAWN HAH 8/05	CHECK MAD 10/05
PROJECT NUMBER	DATE CONSULTANT PROJ. MANAGER	QUANT. RSH 10/05	CHECK MAD 10/05
THE LEDGES INTERCHANGE	GOLF CART PATH RETAINING WALLS	APPROVED	REVISIONS
ORNAMENTAL FENCE DETAILS	PERMITS PROJECT	NO.	DATE
WASHINGTON COUNTY	R-462 DWG. NO.	BY	
	SHT. 3 OF 3		