

CABLE STAY BRIDGE FINAL PLAN SET

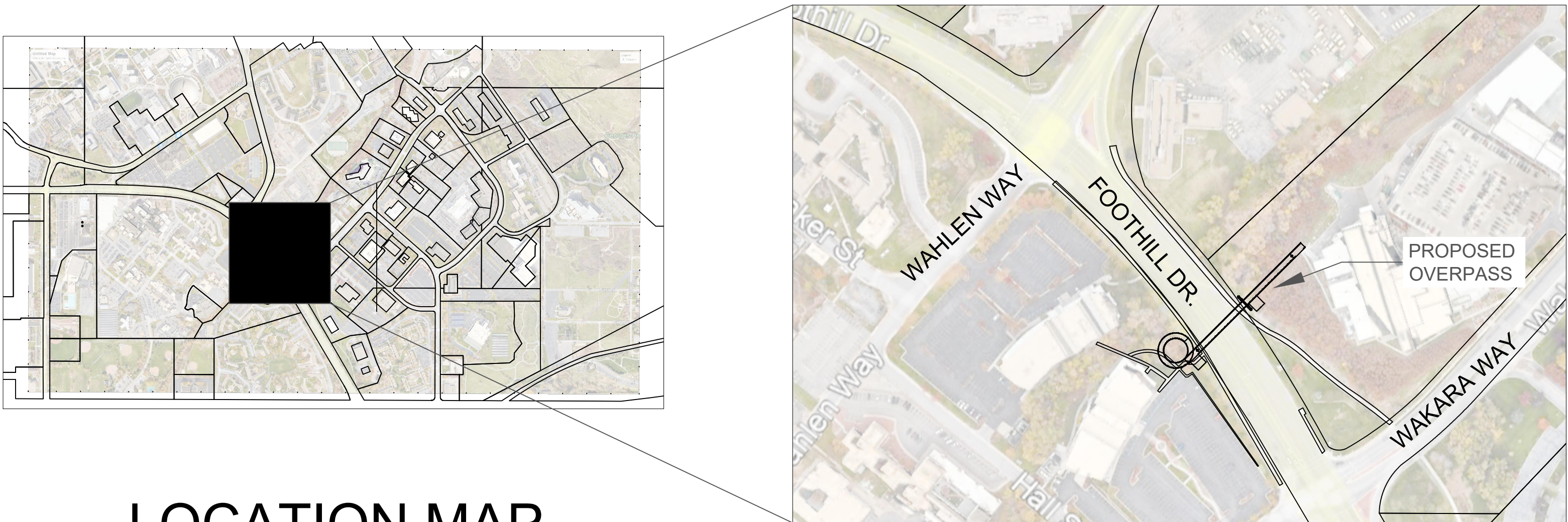
575 FOOTHILL BLVD,
SALT LAKE CITY, UT
PROJECT #: 4900.03.05



110 Central Campus Dr.,
Salt Lake City, UT 84112

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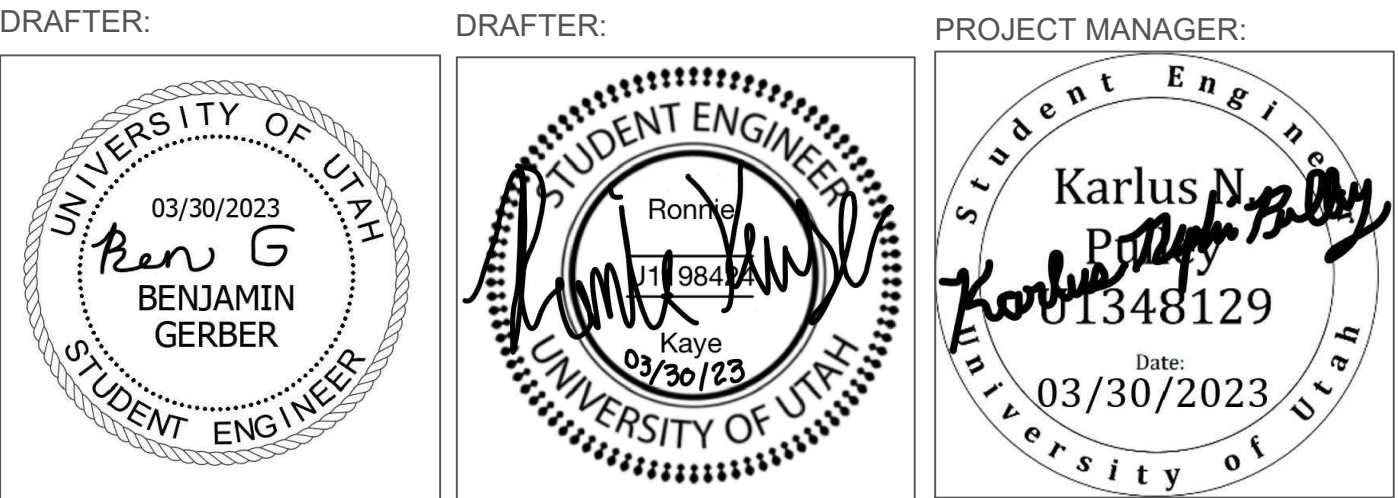
LOCATION MAP

SCALE: NTS

VICINITY MAP

SCALE: NTS

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PRINT DATE:

3/30/23

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COVER SHEET




Final Design

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KEY (REFER TO UT-1)

	STORM MAINS
	EXISTING POWER LINES
	SEWER MAIN
	EXISTING LIGHT POLES

KEY(REFER TO LS-1)

	PROPOSED FLOWER BEDS TO BE INSTALLED
	PROPOSED TREES TO BE INSTALLED
	EXISTING FOLIAGE TO BE REMOVED

SITE SAFETY:

- CONTRACTOR IS RESPONSIBLE FOR UPHOLDING ALL OSHA, SWPPP, LOCAL, STATE, AND GOVERNMENT SAFETY REQUIREMENTS THROUGH CONSTRUCTION. ANY INCIDENTS SHALL BE REPORTED WITHIN 12 HOURS. WORKER SAFETY IS THE NUMBER 1 SITE CONCERN AND SHALL BE UPHELD TO THE LETTER.

PERMITTING:

- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. THE SITE IS LOCATED ADJACENT TO AN EXISTING RIPARIAN CORRIDOR AND AS SUCH, WILL REQUIRE THE FOLLOWING PERMITS; SALT LAKE COUNTY FLOOD PLAIN PERMIT, SALT LAKE CITY RIPARIAN PERMIT, STATE STREAM ALTERATION PERMIT, AND A SALT LAKE COUNTY FLOOD CONTROL PERMIT.

ABBREVIATIONS:

TYP.	TYPICAL
MAX	MAXIMUM
EX.	EXISTING
NTS	NOT TO SCALE
PROP.	PROPOSED
OC	ON CENTER
TOT.	TOTAL

ZONING:

PARCEL ID:.	16-03 & 16-04
ZONE:	1103
ACREAGE(TOT.)	3
DISTRICT:	INDUSTRIAL AND RESIDENTIAL BUSINESS

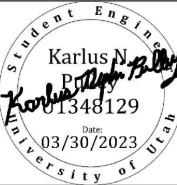
CONSTRUCTION NOTES:

- SITE SHOULD BE ACCESSED FROM FOOTHILL DRIVE AND WAKARA WAY. EQUIPMENT AND VEHICLES SHOULD PARK AT THE UNIVERSITY ORTHOPAEDIC CENTER AND AVOID ALL EXISTING FOLIAGE AND STRUCTURES.
- CONTRACTOR IS TO CHOOSE THE MOST FEASIBLE LOCATION FOR EQUIPMENT STORAGE AND STAGING. THE RECOMMENDED LOCATION IS EITHER THE V.A PARKING LOT OR ORTHOPAEDIC CENTER PARKING LOT.
- CONTRACTOR IS RESPONSIBLE FOR RESTORING SITE TO ORIGINAL CONDITION THROUGH EROSION CONTROL AND REGULAR CLEANING PRACTICE.
- NOISE SHOULD BE MITIGATED DURING NIGHT TIME CONSTRUCTION TO ALLEVIATE NEARBY NEIGHBORHOOD DISTURBANCE.
- CONTRACTOR IS REQUIRED TO KEEP ALL ACTIVITY WITHIN PROJECT LIMITS. THIS INCLUDES BUT IS NOT LIMITED TO EQUIPMENT, CONSTRUCTION, AND TRASH REMOVAL.
- CONTRACTOR WILL REMAIN AWARE OF EXISTING SITE HAZARDS. THESE HAZARDS INCLUDE 15' POWERLINES TO BE REMOVED. MACHINERY WILL WORK AROUND THE EXISTING POWERLINES AND REMAIN AWARE OF CREEK LOCATION THROUGHOUT CONSTRUCTION.
- CONTRACTOR WILL OBTAIN A PROFESSIONAL LAND SURVEYOR TO STAKE ALL THE NECESSARY STRUCTURAL, GRADING, AND CONSTRUCTION POINTS TO ENSURE ACCURATE INSTALLATION.

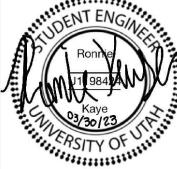
REVIEWER:



PROJECT MANAGER



DRAFTER:



UTAH DEPARTMENT
OF TRANSPORTATION

CVEEN 4910.03.05

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

EXISTING UTILITY PLAN

PIN

PROJECT
NUMBER 4910.03.05

COUNTY

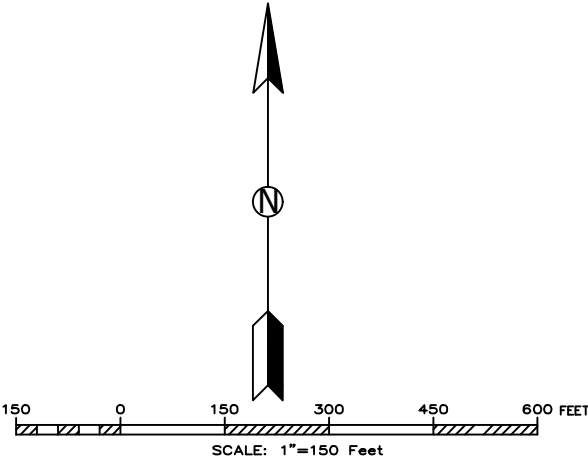
STRUCTURE NUMBER


GN-1


DRAWING NUMBER

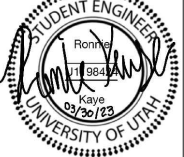
SHEET 2 OF 16

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REVIEWER:

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03/30/2023
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BENJAMIN
GERBER
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PROJECT MANAGER

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03/30/2023
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DRAFTER:

STUDENT ENGINEER
Ron...
03/30/23
University of Utah

UTAH DEPARTMENT
OF TRANSPORTATION
CVEEN 4910.03.05

PEDESTRIAN CROSSING AT FOOTHILL DRIVE	
CABLE STAYED OVERPASS	
PROPOSED SITE PLAN	
PROJECT NUMBER	PIN
4910.03.05	

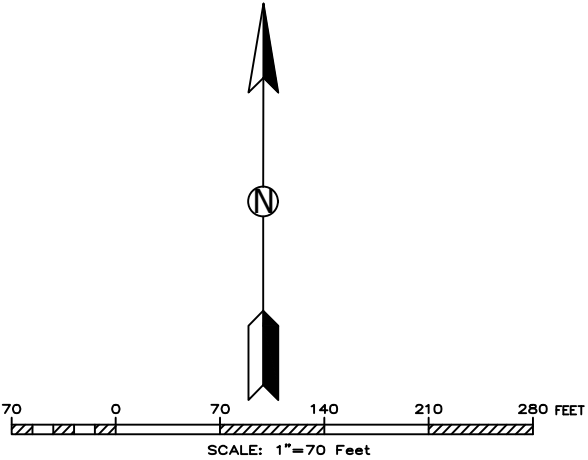
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STRUCTURE NUMBER
ST-1
DRAWING NUMBER
SHEET 3 OF 16

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KEY

- STORM MAINS
- EXISTING POWER LINES
- SEWER MAIN
- EXISTING LIGHT POLES



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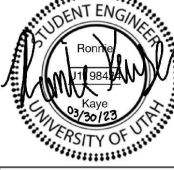
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PROJECT MANAGER:



DRAFTER:



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PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

EXISTING UTILITY PLAN

PROJECT
NUMBER 4910.03.05

PIN

COUNTY

STRUCTURE NUMBER

UT-1

DRAWING NUMBER

SHEET 4 OF 16

[illegible]

Project Number:	1220771
Project Name:	U of U Red Butte Crossing
Sample Location:	B-1
Sample Depth:	14.00 ft
Sample Length:	1.00 in
Sample Diameter:	1.93 in

Initial Density	
Volume:	0.001693 ft ³
Wet Weight & Ring:	324.23 g
Ring Weight:	241.69 g
Wet Weight:	82.54 g
Dry Density:	90.28 pcf
Bulk Density:	107.48 pcf

Final Density	
Length:	1.0000 in
Volume:	0.001693 ft ³
Wet Weight & Ring:	337.31 g
Ring Weight:	241.69 g
Wet Weight:	95.62 g
Dry Density:	101.49 pcf

Dial Readings

Dial Type:	Decreases with consolidation
------------	------------------------------

Load (ksf)	Dial Reading	Dial Change
0	0.5257	0.0000
1	0.5109	0.0148
W	0.4896	0.0361
2	0.4831	0.0426
4	0.4686	0.0571
8		
16		
4		
1		

Length Change: 0.0571 in
Collapse: 2.13 %

Sample Mold Condition? Liner

Pounded, Pressed or Natural?	Natural
Use Moisture Correction?	No
Actual Percent of Proctor	####%
Actual Moisture Content:	%
Proctor Target:	
OMC	

Initial Moisture	
Wet Weight:	82.54 g
Dry Weight:	69.33 g
Water Weight:	13.21 g
Moisture Content:	19.05 %

Final Moisture	
Dish & Wet Weight:	91.73 g
Dish & Dry Weight:	76.00 g
Dish Weight:	6.67 g
Water Weight:	15.73 g
Dry Soil Weight:	69.33 g
Moisture Content:	22.69 %

Applied Geotechnical Engineering Consultants, Inc.

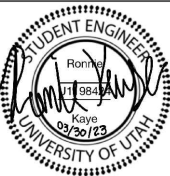
Project Number 1220771	GRADATION ANALYSIS	Sheet prepared by _____ Date _____
Project Name U of U Red Butte Crossin	WORKSHEET	Sheet calculated by _____ Sheet _____ of _____

Boring @ Depth	B-2	@	30'	@	@	@	@	@	@
Run By									
Test Type	-200 / Gradation			-200 / Gradation			-200 / Gradation		-200 / Gradation
Wet Soil & Dish	584.91			0.00			0.00		0.00
Dry Soil & Dish	543.57			0.00			0.00		0.00
Dish Weight	159.53			0.00			0.00		0.00
Dry Soil Wt.	384.04								
Sieve Size	5.56%	Cum. Wt	% Pass	Cum. Wt	% Pass	Cum. Wt	% Pass	Cum. Wt	% Pass
Date and Time of soak									
No. 4									
No. 200	301.92	301.9	78.62%						
Pan									
Gravel		%		%		%		%	
Sand		%		%		%		%	
Silt & Clay	79	%		%		%		%	

Boring @ Depth	@	@	@	@	@	@	@
Run By							
Test Type	-200 / Gradation	-200 / Gradation	-200 / Gradation	-200 / Gradation	-200 / Gradation	-200 / Gradation	-200 / Gradation
Wet Soil & Dish	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dry Soil & Dish	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dish Weight	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dry Soil Wt.							
Sieve Size	Cum. Wt. % Pass.	Cum. Wt. % Pass.	Cum. Wt. % Pass.	Cum. Wt. % Pass.	Cum. Wt. % Pass.	Cum. Wt. % Pass.	Cum. Wt. % Pass.
Date and Time of soak							
No. 4							
No. 200							
Pan							
Gravel	%	%	%	%	%	%	%
Sand	%	%	%	%	%	%	%
Silt & Clay	%	%	%	%	%	%	%

PLEASE NOTE that only the PERCENT Silt and Clay can be reported unless a #4 sieve is used!!

REVIEWER:



PROJECT MANAGER



RAFTER:

UTAH DEPARTMENT
OF

TRANSPORTATION
STRUCTURES DIVISION

CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

PIN 4910.03.05

COUNTY

VVVVVV

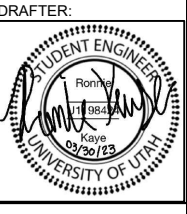
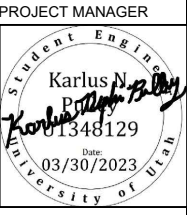
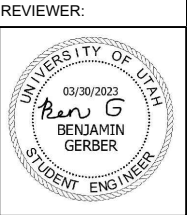
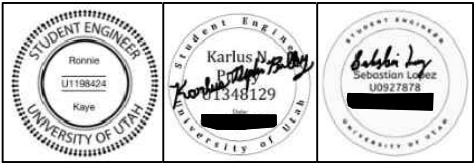
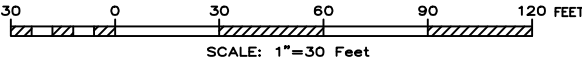
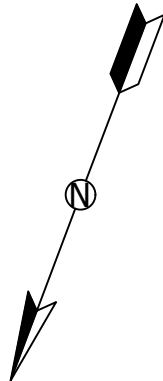
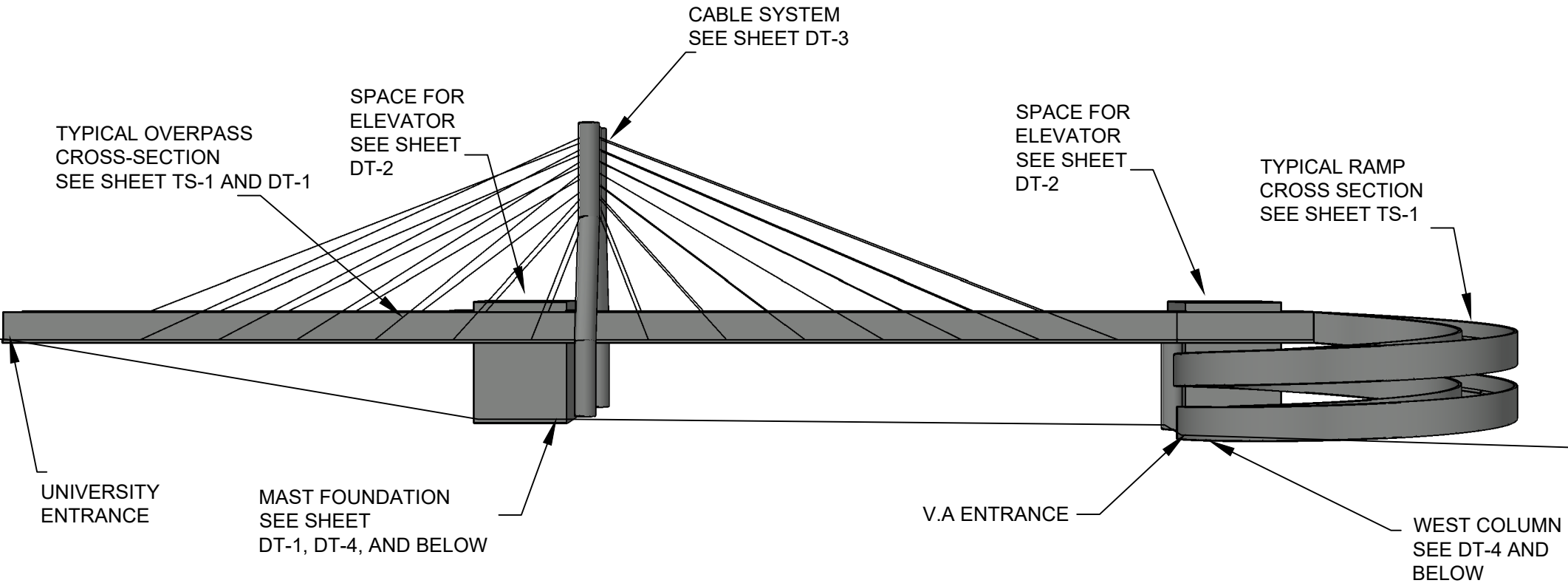
STRUCTURE NUMBER

GT 1

DRAWING NUMBER

SHEET 5 OF 16

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CVEEN 4910.03.05

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

PROPOSED OVERPASS

PROJECT NUMBER 4910.03.05

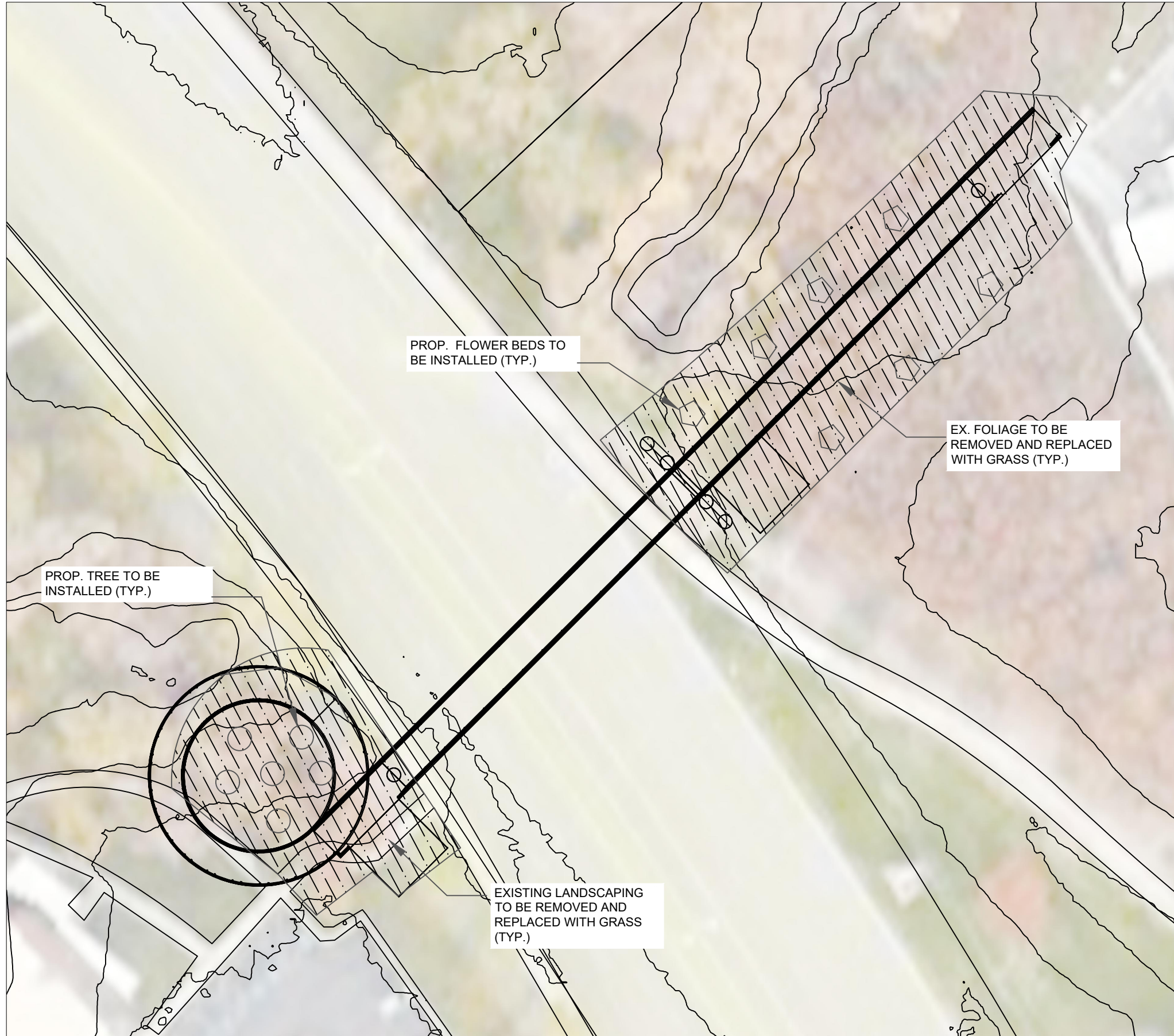
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COUNTY

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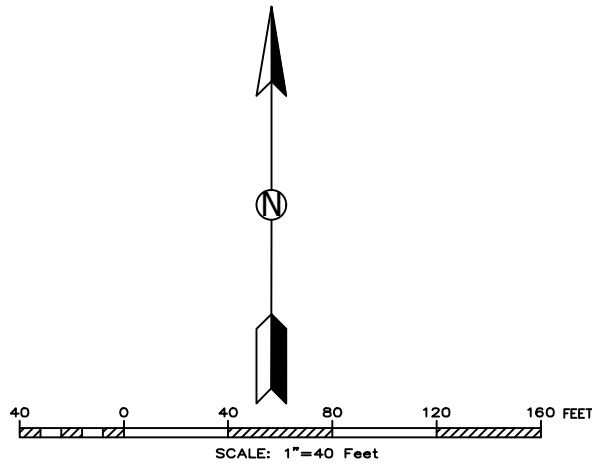


KEY:

- PROPOSED FLOWER BEDS TO BE INSTALLED
- PROPOSED TREES TO BE INSTALLED
- EXISTING FOLIAGE TO BE REMOVED

AREA TO BE CLEARED (S.F.)

UNIVERSITY SIDE: 11,600 S.F.
V.A SIDE: 6,000 S.F.



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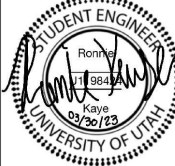
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OF TRANSPORTATION

CVEEN 4910.03.05

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

PROPOSED LANDSCAPE PLAN

4910.03.05

PIN

PROJECT
NUMBER

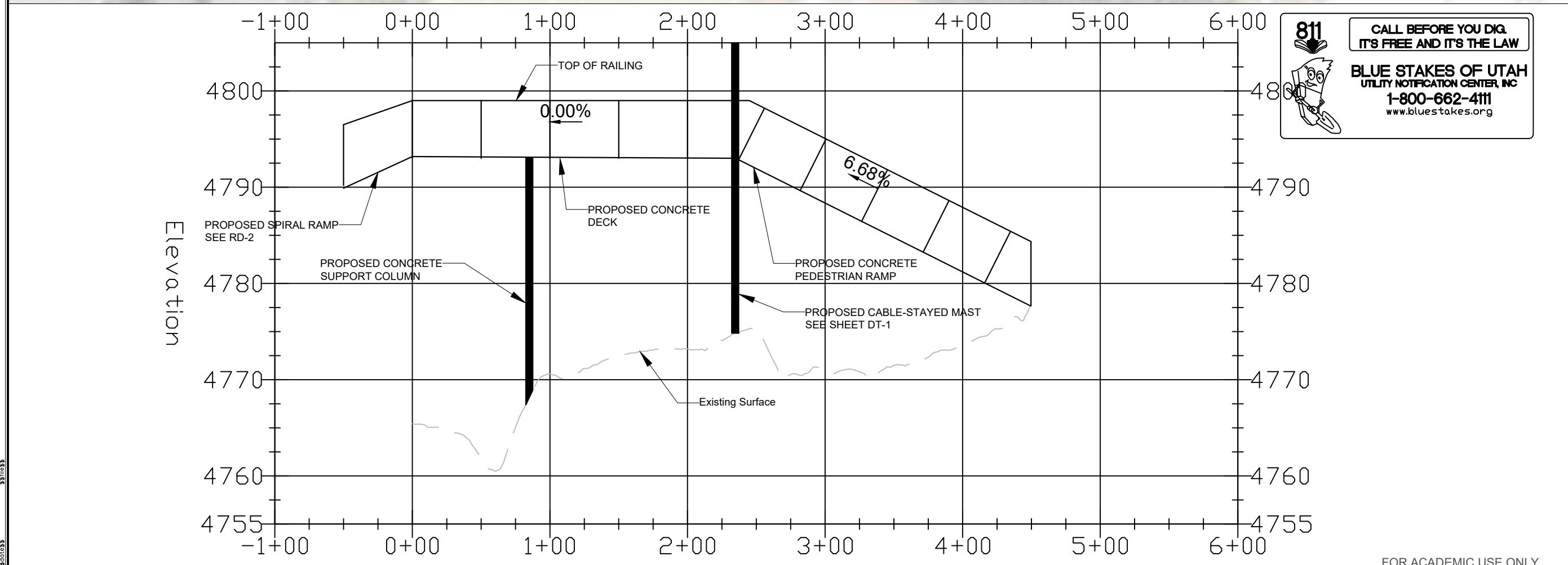
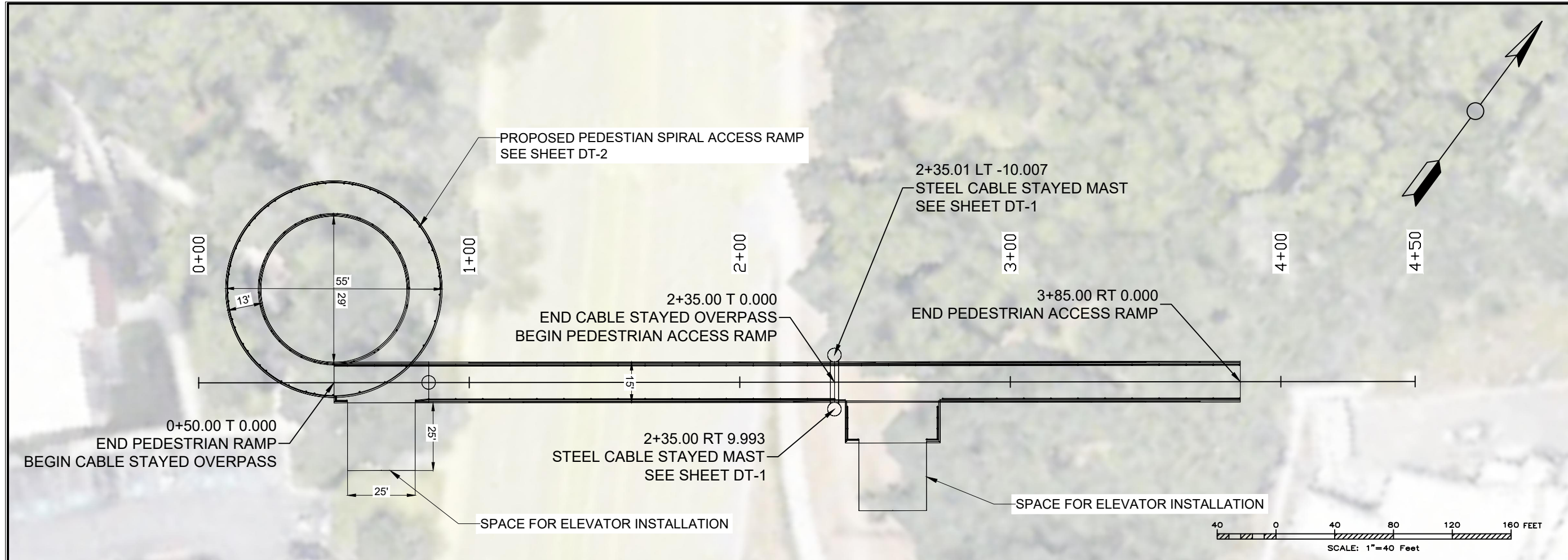
COUNTY

STRUCTURE NUMBER

LS-1

DRAWING NUMBER

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PROJECT MANAGER

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UTAH DEPARTMENT OF TRANSPORTATION

STRUCTURES DIVISION

CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

PLAN AND PROFILE

PIN

PROJECT NUMBER

4910.03.05

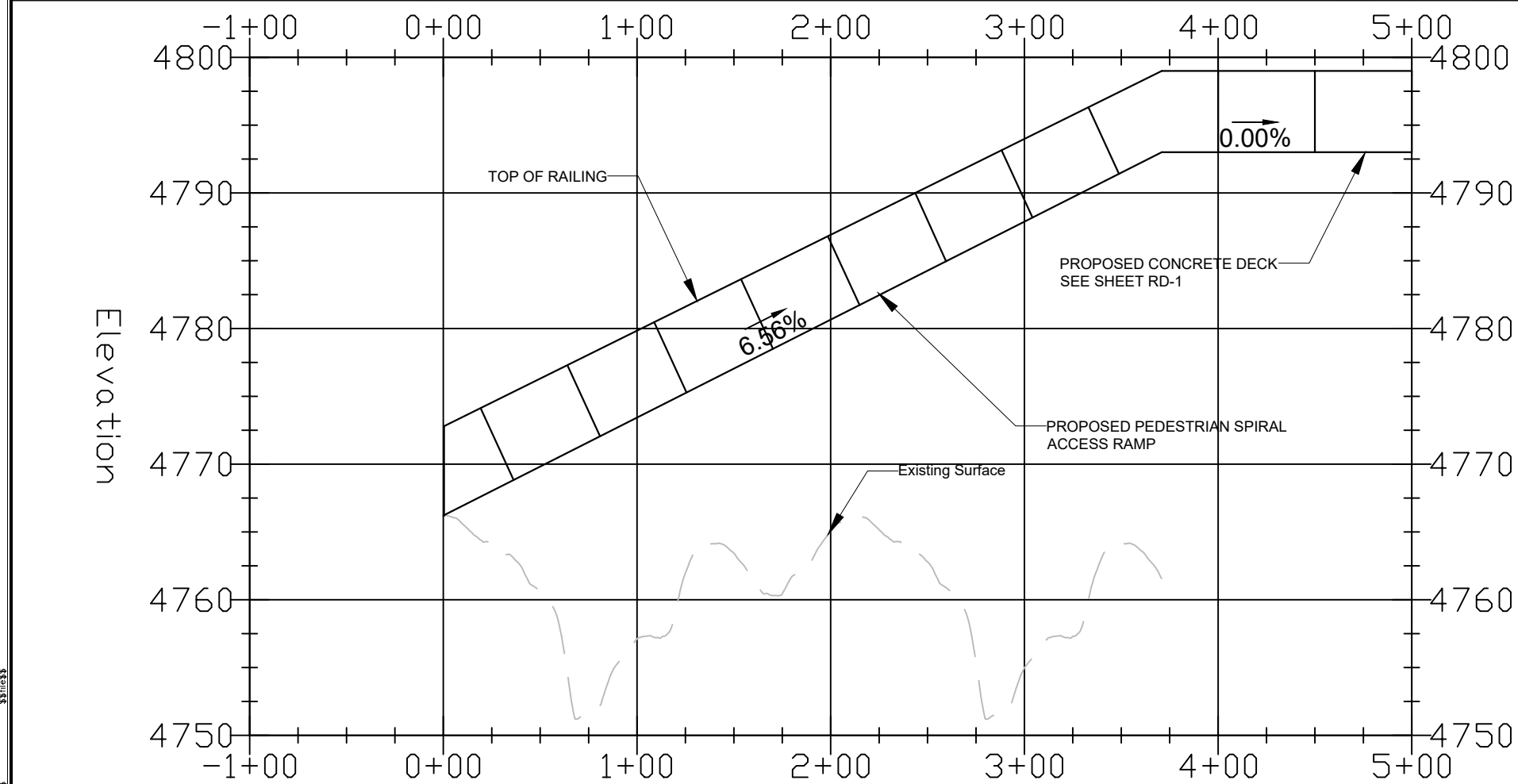
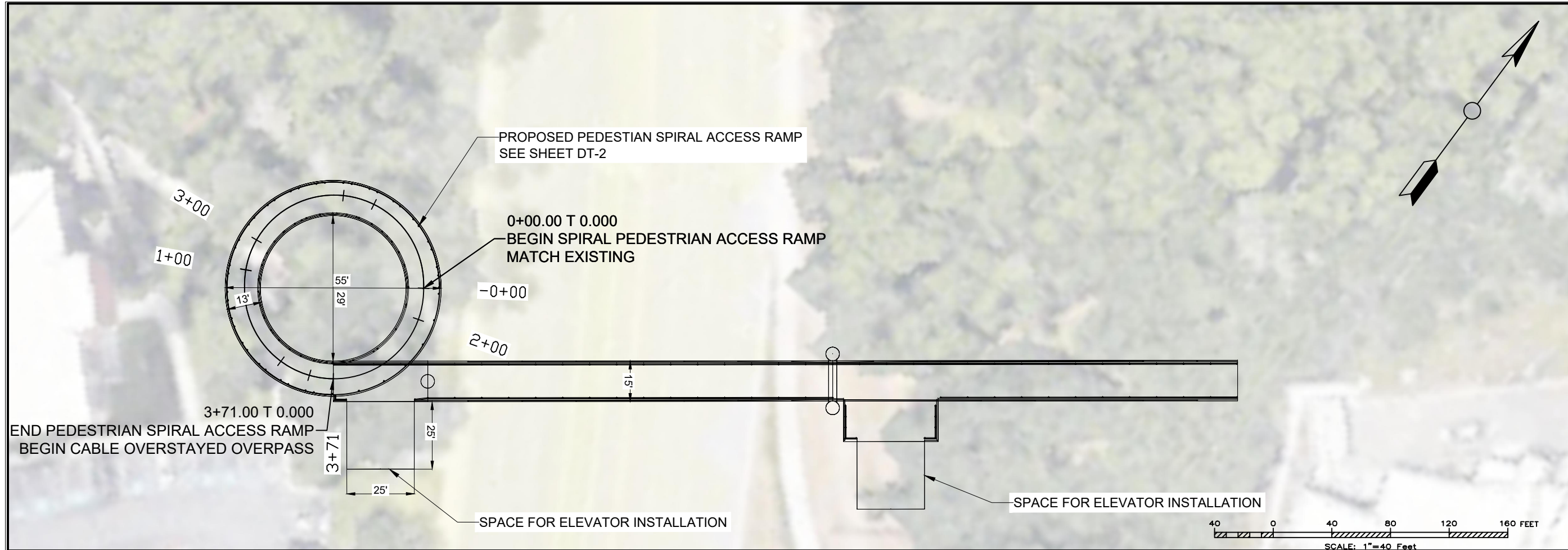
COUNTY

STRUCTURE NUMBER

RD-1

DRAWING NUMBER

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NOTE

PROFILE SHOWS PEDESTRIAN SPIRAL ACCESS RAMP AS A STRAIGHT ITEM. FOR FURTHER DETAIL, SEE SHEET DT-1B

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DRAFTER:

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STRUCTURES DIVISION

CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

PLAN AND PROFILE

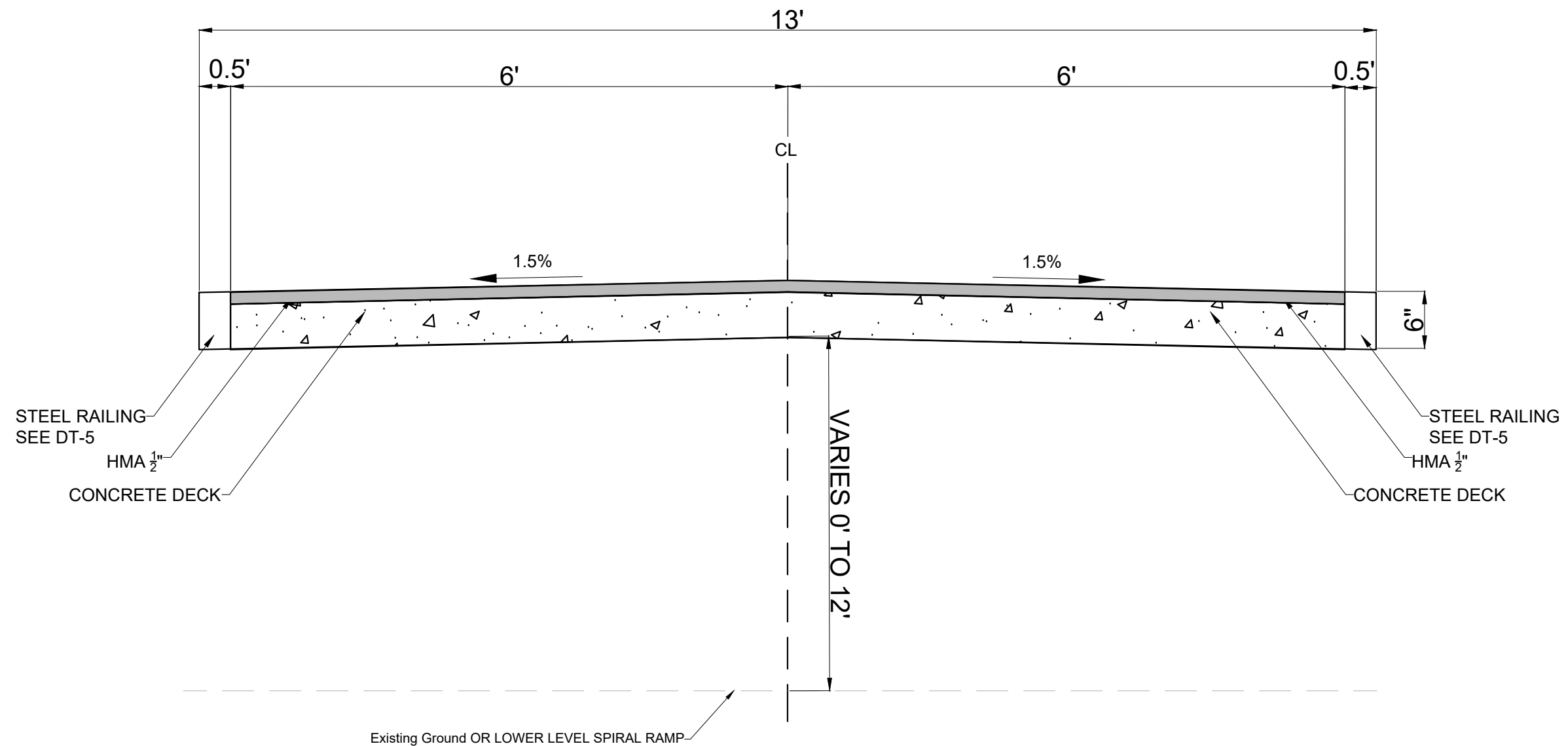
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COUNTY

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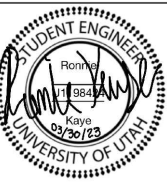
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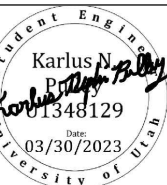


**TYPICAL SECTION: SPIRAL
PEDESTRIAN ACCESS RAMP**

REVIEWER:



PROJECT MANAGER



DRAFTER:



**UTAH DEPARTMENT
OF
TRANSPORTATION**
STRUCTURES DIVISION
CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

TYPICAL SECTION

PIN

PROJECT
NUMBER
4910.03.05

COUNTY

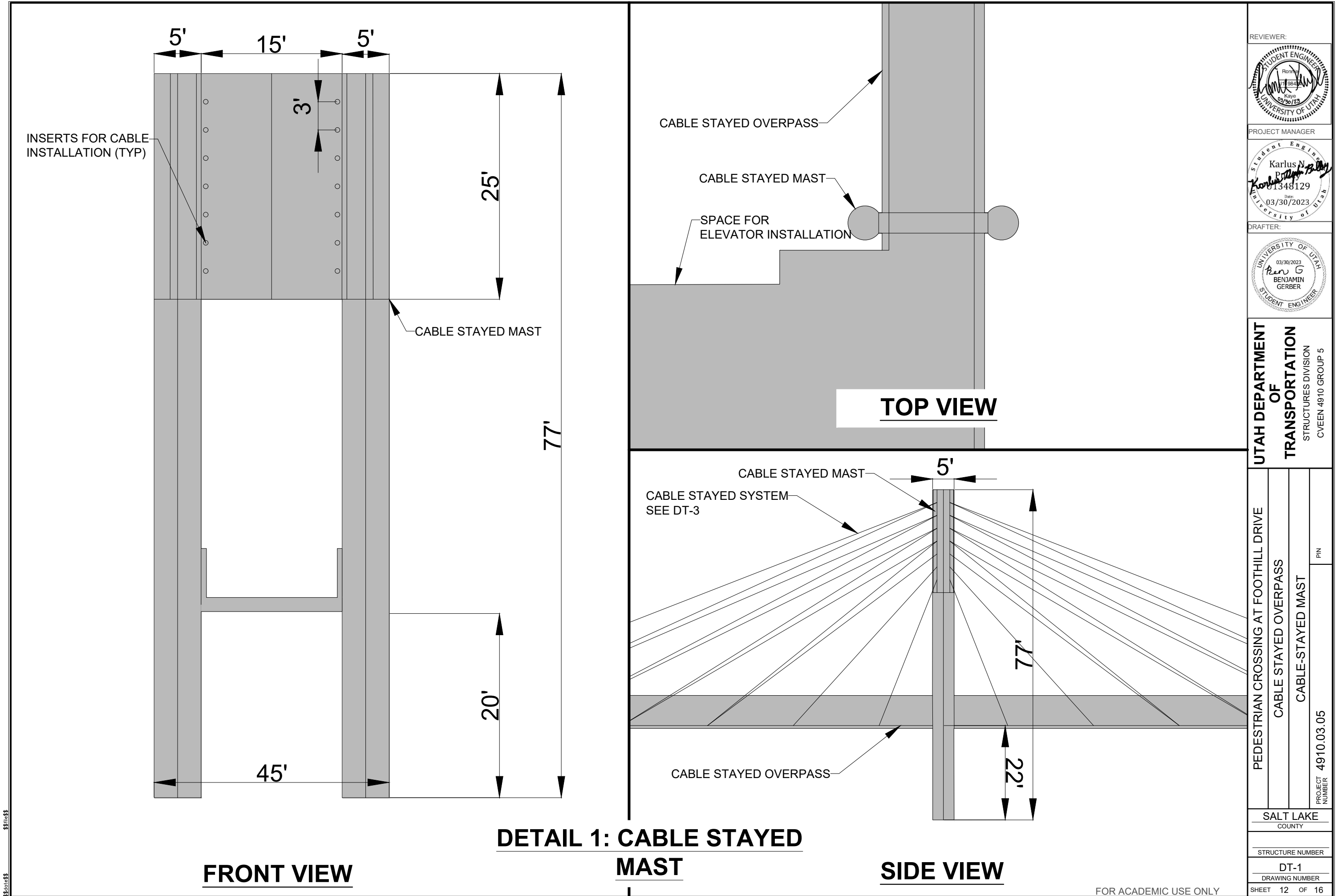
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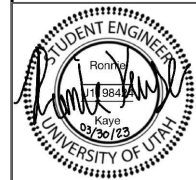
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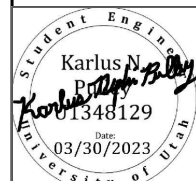
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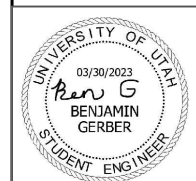
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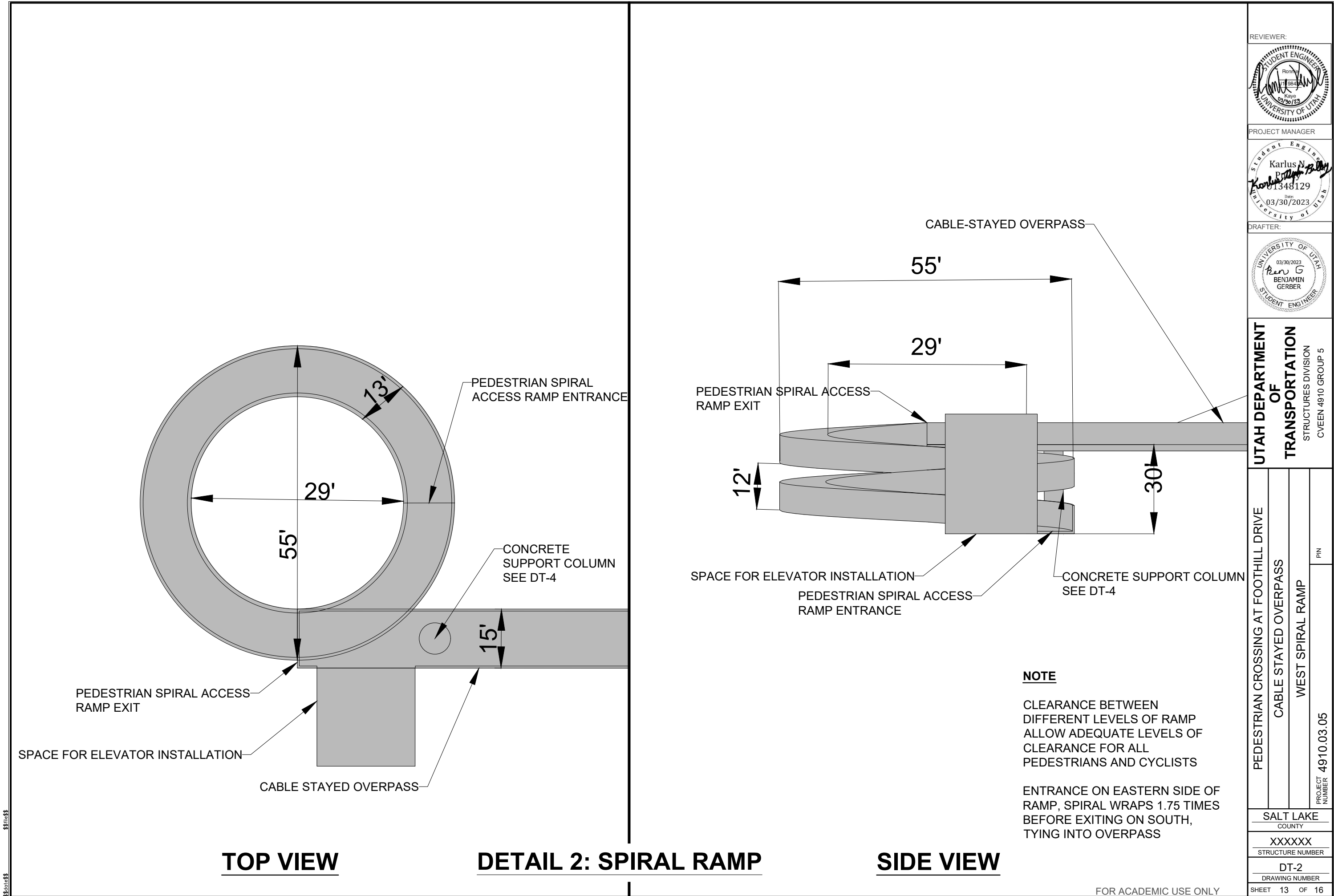


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CVEEN 4910 GROUP 5

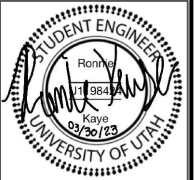
PEDESTRIAN CROSSING AT FOOTHILL DRIVE
CABLE STAYED OVERPASS
CABLE-STAYED MAST
PROJECT NUMBER
4910.03.05
PIN

SALT LAKE
COUNTY
STRUCTURE NUMBER
DT-1
DRAWING NUMBER
SHEET 12 OF 16

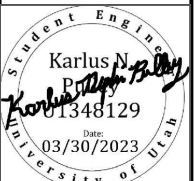
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CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

WEST SPIRAL RAMP

PIN

PROJECT
NUMBER

4910.03.05

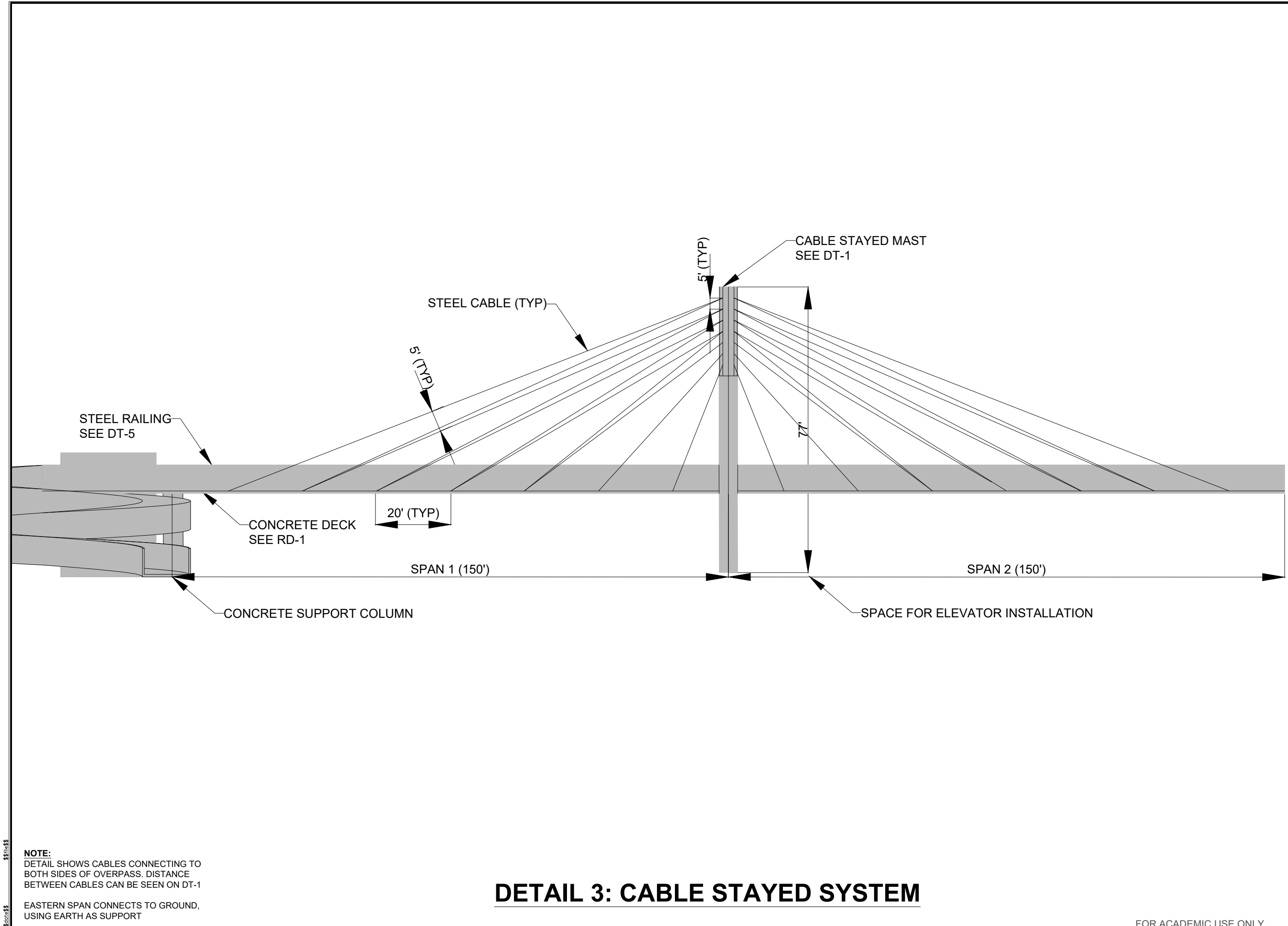
SALT LAKE
COUNTY

XXXXXX
STRUCTURE NUMBER

DT-2
DRAWING NUMBER

SHEET 13 OF 16

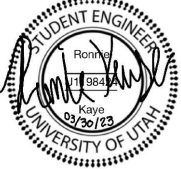


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NOTE:
DETAIL SHOWS CABLES CONNECTING TO
BOTH SIDES OF OVERPASS. DISTANCE
BETWEEN CABLES CAN BE SEEN ON DT-1

EASTERN SPAN CONNECTS TO GROUND,
USING EARTH AS SUPPORT

DETAIL 3: CABLE STAYED SYSTEM

REVIEWER:

PROJECT MANAGER

DRAFTER:


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OF
TRANSPORTATION
STRUCTURES DIVISION
CVEEN 4910 GROUP 5

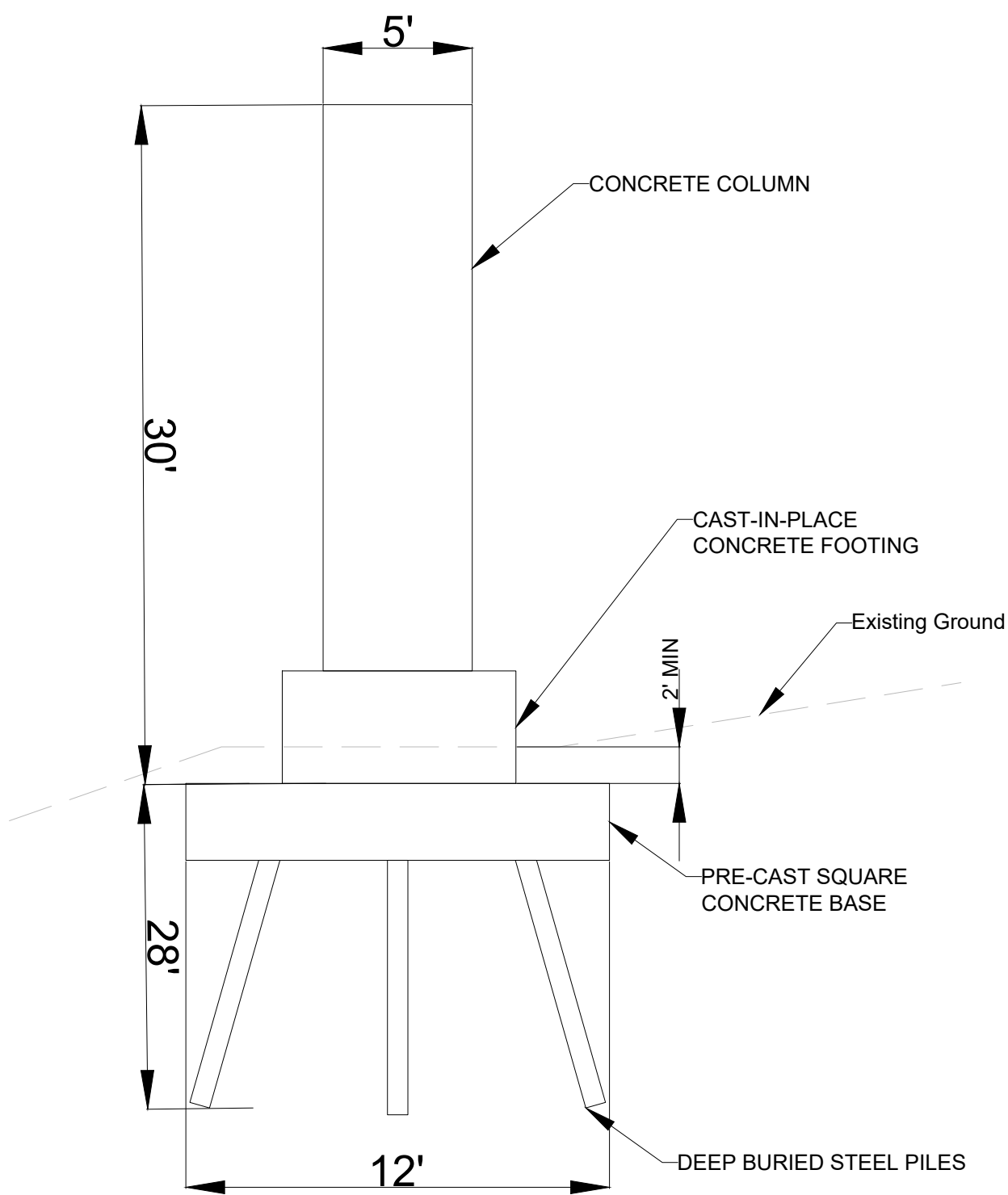
PEDESTRIAN CROSSING AT FOOTHILL DRIVE	CABLE STAYED OVERPASS	CABLE SYSTEM	PIN
PROJECT NUMBER	4910.03.05		

SALT LAKE
COUNTY

STRUCTURE NUMBER

DT-3
DRAWING NUMBER

SHEET 14 OF 16



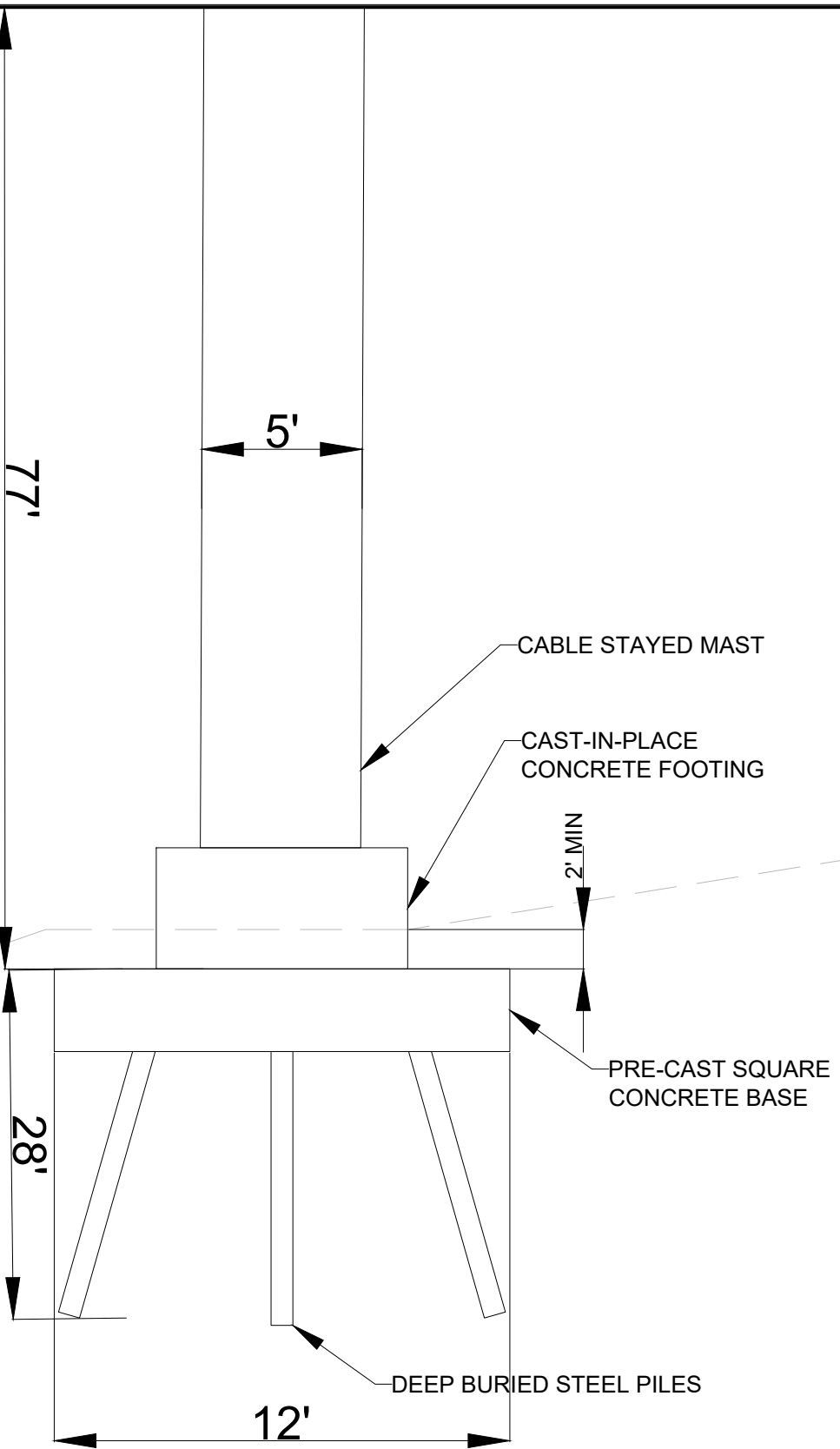
WEST COLUMN

NOTE:
MINIMUM AREA OF REQUIRED LOAD BEARING
IS 4' 4" SQUARE AND 1' HEIGHT

TOTAL FOUNDATION SERVICE LOAD: 46.5 KIPS

NUMBER OF STEEL PILES WILL VARY BASED
ON SOIL QUALITY, SEE GEOTECH REPORT FOR
FURTHER INFORMATION ON SOIL QUALITY

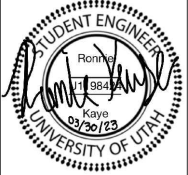
Existing Ground



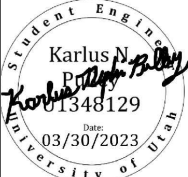
MAST FOUNDATION

DETAIL 4: FOUNDATIONS

REVIEWER:



PROJECT MANAGER



DRAFTER:



UTAH DEPARTMENT
OF
TRANSPORTATION
STRUCTURES DIVISION
CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

FOUNDATIONS

PROJECT
NUMBER
4910.03.05

PIN

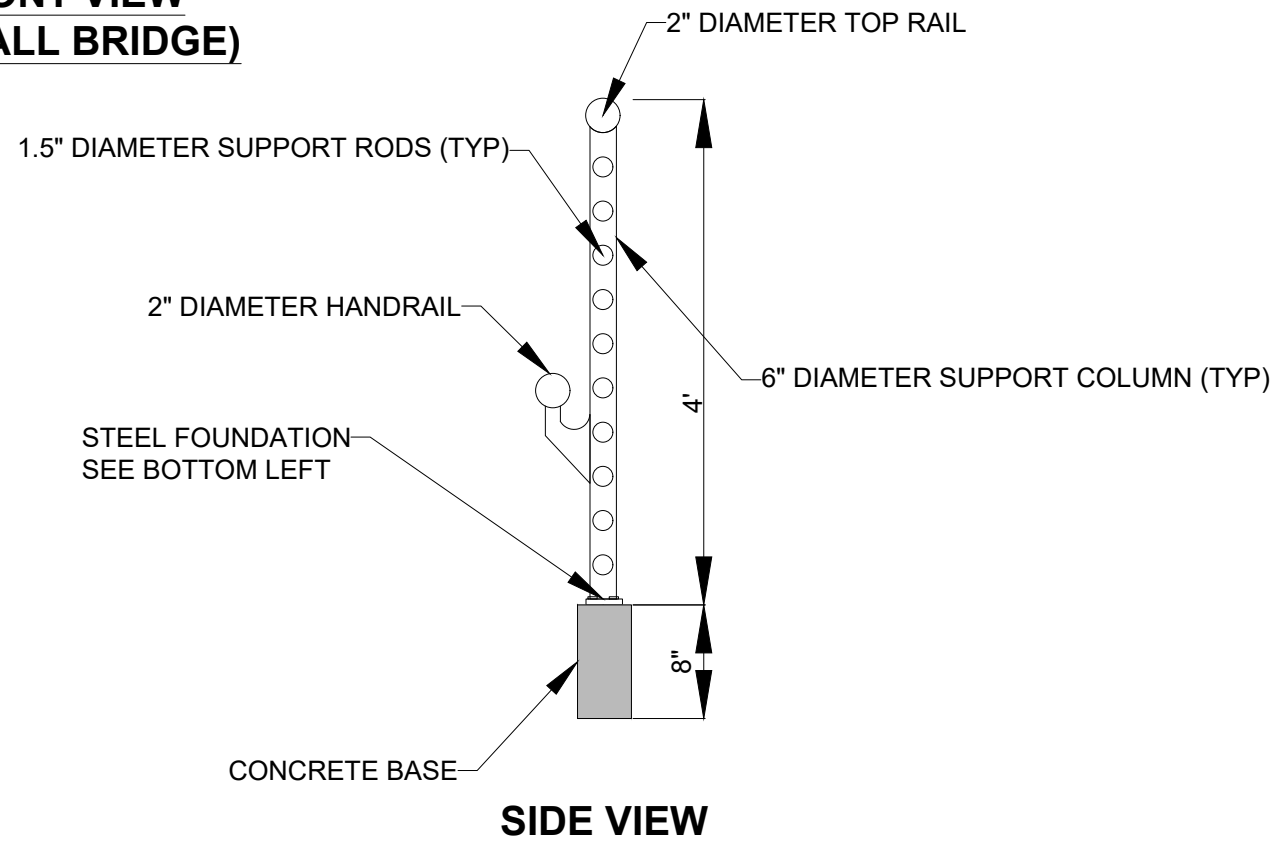
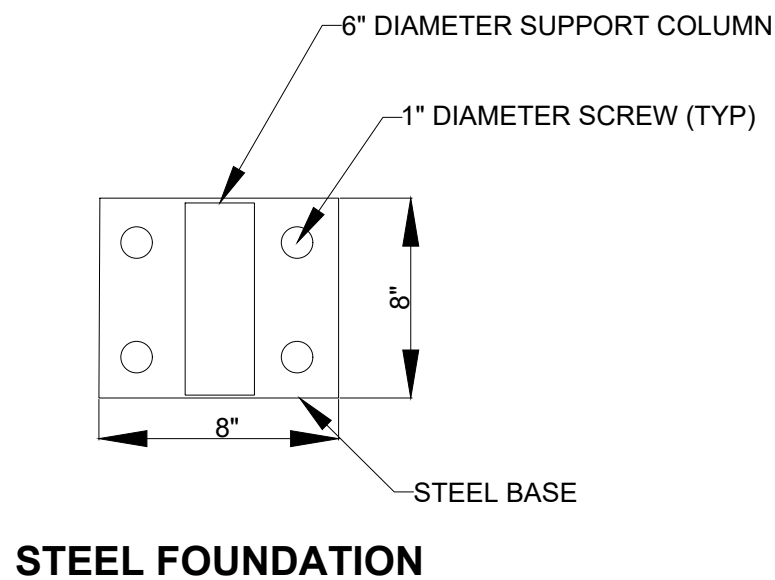
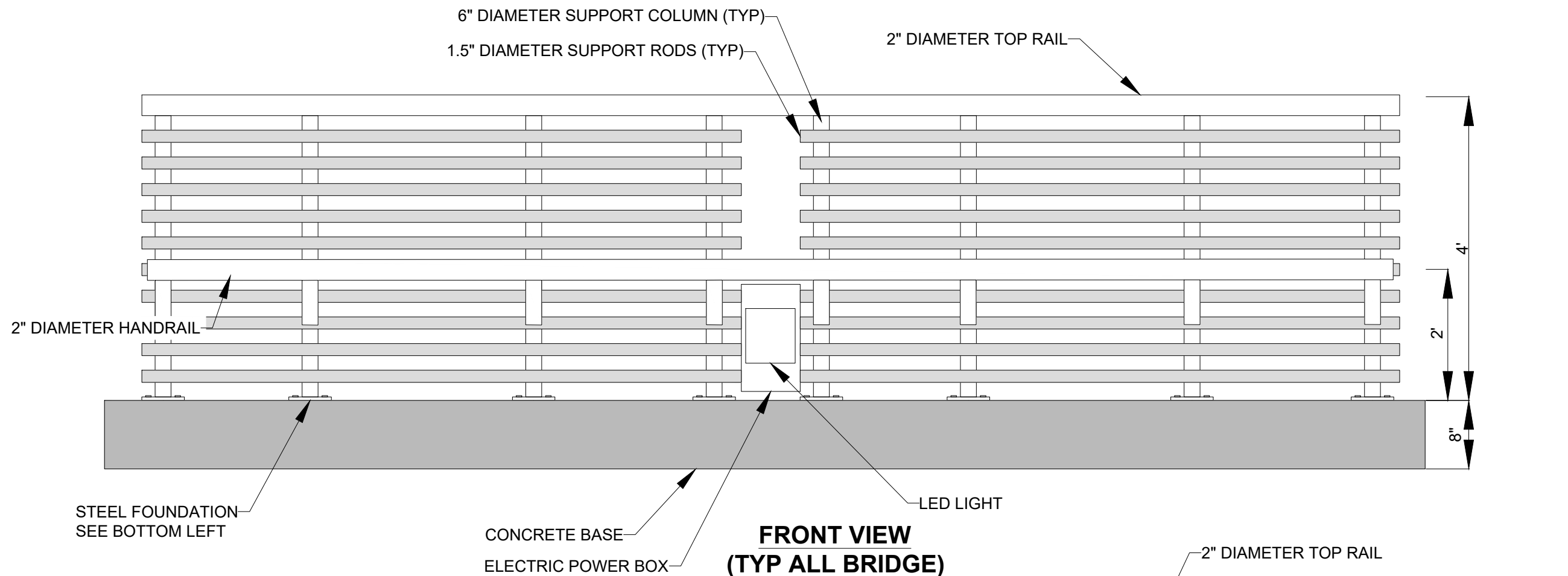
SALT LAKE
COUNTY

STRUCTURE NUMBER

DT-4
DRAWING NUMBER

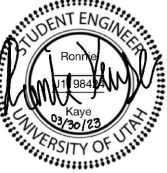
SHEET 15 OF 16

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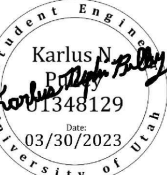


DETAIL 5: STEEL RAILING

REVIEWER:



PROJECT MANAGER



DRAFTER:



UTAH DEPARTMENT
OF
TRANSPORTATION
STRUCTURES DIVISION
CVEEN 4910 GROUP 5

PEDESTRIAN CROSSING AT FOOTHILL DRIVE

CABLE STAYED OVERPASS

STEEL RAILING

PIN

PROJECT
NUMBER

4910.03.05

SALT LAKE
COUNTY

STRUCTURE NUMBER

DT-5
DRAWING NUMBER

SHEET 16 OF 16

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