

Appendix F:
CDOT US-24 Corridor Plans

Oversight / NHS

FHWA REGION VIII OVERSIGHT? NO YES
 NATIONAL HIGHWAY SYSTEM? NO YES

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

CONSTRUCTION BID PLANS OF PROPOSED PROJECT NO. NH 0242-056 US 24 - WALDO CANYON POST FIRE FLOOD MITIGATION EL PASO COUNTY CONSTRUCTION PROJECT CODE NO. 19358

Related Projects:
 P. E. UNDER PROJECT: XXXXXXXXX
 Project Number: XXXXX
 Project Code: XXXXX
R.O.W. Projects:
 R.O.W. Project Description: XXXXXXXXXXXXXXXXX

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6-8	SAQ-4 TO SAQ-6	SUMMARY OF APPROX. QUANTITIES
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13C	SRV-1C	(R-3) SURVEY CONTROL TABULATION
14C	CTC-1C	(R-3) CONSTRUCTION TRAFFIC CONTROL TABULATION
15	PT-1	TABULATION OF POTHOLES

POUR POINT A

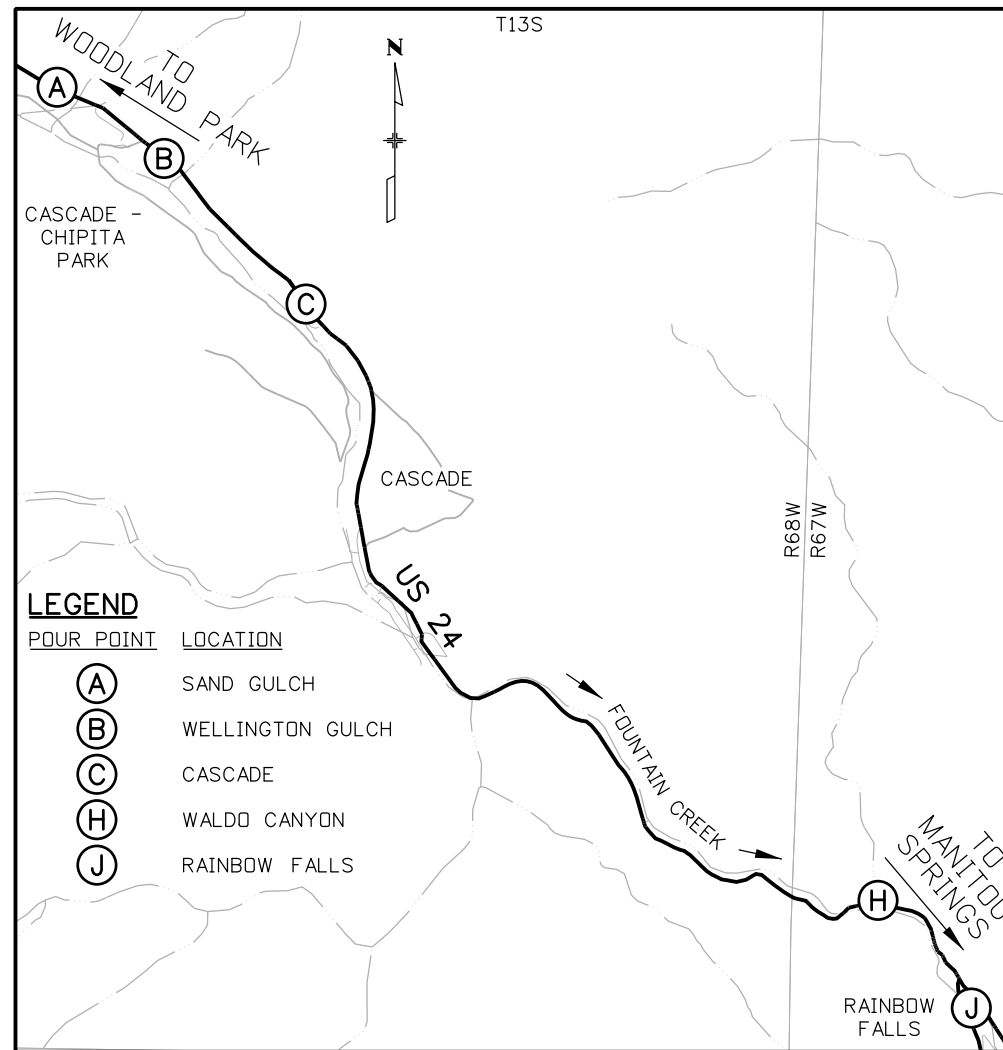
16	A-1	TABULATION OF QUANTITIES
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19-23	A-4 TO A-8	DRAINAGE DETAILS
24-25	A-9 TO A-10	GRADING/INITIAL EROSION CONTROL PLANS
26-27	A-11 TO A-12	GRADING/INTERIM EROSION CONTROL PLANS
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POUR POINT B

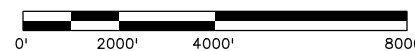
30	B-1	TABULATION OF QUANTITIES
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PROJECT LOCATION MAP



DWG NO.	SHEET NO.	INDEX OF SHEETS (CONT.)
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(R-1) 04-16-13	UPDATE SHEETS	CDT
(R-2) 04-19-13	UPDATE SHEET	CDT
(R-3) 04-22-13	REVISED SHEET NUMBER	CDT

Colorado Department of Transportation
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 Region 2 LM

As Constructed
 No Revisions:
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 Void:

Contract Information
 Contractor:
 Resident Engineer: DAVE WATT
 Project Engineer: LESLEY MACE
 PROJECT STARTED: / / ACCEPTED: / /
 Comments:

Project No./Code
 NH 0242-056
 19358
 Sheet Number **1C**

PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	NEW OR REVISED	M STANDARD TITLE	PAGE NUMBER	PLAN NUMBER	NEW OR REVISED	S STANDARD TITLE	PAGE NUMBER
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M-412-1	□	MAILBOX SUPPORTS (2 SHEETS)	31-32	M-614-2		SAND BARREL ARRAYS (2 SHEETS).....	139-140	S-614-11		MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS	176
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M-601-2		STRUCTURAL PLATE PIPE H-20 LOADING.....	39	M-616-1		INVERTED SIPHON.....	143	S-614-20		TYPICAL POLE MOUNT SIGN INSTALLATIONS.....	181
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COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST
 July 04, 2012
 Revised on March 5, 2013

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

NEW OR REVISED STANDARD PLAN SHEETS APPLICABLE TO THIS PROJECT, INDICATED BY A MARKED BOX ■, WILL BE ATTACHED TO THE PLANS.

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 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				Region 2				Sheet Subset: DRAINAGE	Subset Sheets: SPL-1 of 1		

SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			201-00001	CLEARING AND GRUBBING	LS	1		1		1		1		1				5	
			202-00010	REMOVAL OF TREE	EA	13		45		17						59		134	
			202-00027	REMOVAL OF RIPRAP	SY								86					86	
			202-00035	REMOVAL OF PIPE	LF			3				4						7	
			202-00220	REMOVAL OF ASPHALT MAT	SY					792						100		892	
			202-00495	REMOVAL OF PORTIONS OF PRESENT STRUCTURE	LS											1		1	
			202-01000	REMOVAL OF FENCE	LF	99		207		137								443	
			202-04002	CLEAN CULVERT	EA	1		1		7		1						10	
			202-05026	SAWING ASPHALT MATERIAL (6 INCH)	LF											200		200	
			203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	893		2973		3000				12916				19782	
			203-00060	EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CY									450				450	
			203-00598	ROCK SCALING	HR									60				60	
			203-01500	BLADING	HR											200		200	
			203-01510	BACKHOE	HR											200		200	
			203-01550	DOZING	HR											200		200	
			203-01590	FRONT END LOADER (RUBBER TIRE)	HR											200		200	
			203-01594	POTHOLING	HR											50		50	
			203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40		40		40		40		40				200	
			206-00000	STRUCTURE EXCAVATION	CY											450		450	
			206-00510	FILTER MATERIAL (CLASS A)	CY										200			200	

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Unit Information

Unit Leader Initials

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Colorado Department of Transportation



Region 2

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LM

As Constructed

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**US 24 WALDO CANYON
SUMMARY OF APPROXIMATE
QUANTITIES**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	SAQ-1 of 6
Sheet Subset:	TAB		

Project No./Code

NH 0242-056

19358

Sheet Number

3

SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			207-00205	TOPSOIL	CY	100		217		320				202				839	
			208-00002	EROSION LOG (12 INCH)	LF	208		293		1300				455				2256	
			208-00020	SILT FENCE	LF					241								241	
			208-00034	GRAVEL BAG	LF	40		60		486		150		490				1226	
			208-00041	ROCK CHECK DAM	EA									1				1	
			208-00045	CONCRETE WASHOUT STRUCTURE	EA	2		1		1		1		2				7	
			208-00070	VEHICLE TRACKING PAD	EA	2		1		1		1		2				7	
			208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80		80		80		80		80				400	
			208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40		40		40		40		40				200	
			208-00205	EROSION CONTROL SUPERVISOR	DAY	30		30		30		30		30				150	
			208-00301	TEMPORARY DIVERSION	LF									300				300	
			210-00475	RESET CLOSED CIRCUIT TELEVISION POLE	EA									1				1	
			210-00810	RESET GROUND SIGN	EA									1				1	
			210-01050	RESET CHAIN LINK FENCE	LF	12												12	
			210-01130	RESET GUARDRAIL TYPE 3	LF					43								43	
			210-02900	RELAY RIPRAP	CY							15						15	
			211-03005	DEWATERING	LS											1		1	
			212-00006	SEEDING (NATIVE)	AC	0.3		0.7		0.4				0.25				1.65	
			212-00032	SOIL CONDITIONING	AC	0.3		0.7		0.4				0.25				1.65	

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Region 2 **LM**

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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

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 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: SAQ-2 of 6

Project No./Code
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 19358
 Sheet Number **4**

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SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			213-00002	MULCHING (WEED FREE)	AC	0.3		0.7		0.4				0.25				1.65	
			214-00000	LANDSCAPE MAINTENANCE	LS											1		1	
			214-00215	DECIDUOUS TREE (1.5 INCH CALIPER)	EA			45										45	
			214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	13				17								30	
			216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	512		1165		2105				563				4345	
			217-00000	HERBICIDE TREATMENT	SY											2000		2000	
			250-00010	ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT	LS											1		1	
			304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	11		63		23				79		50		226	
			403-00721	HOT MIX ASPHALT (PATCHING)	TON											500		500	
			411-10255	EMULSIFIED ASPHALT (SLOW-SETTING)	GAL											10		10	
			420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	192		314		1171				540				2217	
			504-06315	GROUND NAIL (15 FOOT)	EA									60				60	
			506-00010	RIPRAP (SPECIAL)	CY									35				35	
			506-00030	GROUTED RIPRAP	CY	51				120								171	
			506-00036	GROUTED RIPRAP (36 INCH) (SPECIAL)	CY									275				275	
			506-00218	RIPRAP (18 INCH)	CY									275				275	
			506-00236	RIPRAP (36 INCH)	CY			90										90	
			506-00412	SOIL RIPRAP (12 INCH)	CY	94		118		423				81				716	
			506-01020	GEOGRID REINFORCEMENT	SY									856				856	
			507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	22				120								142	

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Colorado Department of Transportation



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Region 2 LM

As Constructed

No Revisions:

Revised:

Void:

**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: SAQ-3 of 6

Project No./Code

NH 0242-056

19358

Sheet Number **5**

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SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			601-01000	CONCRETE CLASS B	CY	43		22		103		15						183	
			601-03050	CONCRETE CLASS D (WALL)	CY							13						13	
			602-00000	REINFORCING STEEL	LB							750						750	
			603-01240	24 INCH REINFORCED CONCRETE PIPE (CIP)	LF					154								154	
			603-01420	42 INCH REINFORCED CONCRETE PIPE (CIP)	LF					108								108	
			603-05024	24 INCH REINFORCED CONCRETE END SECTION	EA					4								4	
			603-05042	42 INCH REINFORCED CONCRETE END SECTION	EA					2								2	
			604-50050	INLET GRATING AND FRAME SPECIAL	EA					1								1	
			607-01000	FENCE BARBED WIRE WITH METAL POSTS	LF	120												120	
			607-53172	FENCE CHAIN LINK (72 INCH)	LF								174		4000			4174	
			607-53173	FENCE CHAIN LINK (SPECIAL) (72 INCH)	LF			260										260	
			607-55100	WIRE MESH	SF								52330					52330	
			607-60212	12 FOOT GATE SINGLE (CHAIN LINK)	EA			2										2	
			607-60274	24 FOOT GATE DOUBLE (CHAIN LINK)	EA										1			1	
			608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	354		1598		491								2443	
			609-21020	CURB AND GUTTER TYPE 2 (SECTION II-B)	LF								390					390	
			615-00620	LOG DEFLECTOR	EA	1		1										2	
			620-00002	FIELD OFFICE (CLASS 2)	EA										1			1	
			620-00012	FIELD LABORATORY (CLASS 2)	EA										1			1	

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Colorado Department of Transportation



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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: SAQ-4 of 6

Project No./Code

NH 0242-056


19358

Sheet Number **6**

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SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			620-00020	SANITARY FACILITY	EA											2		2	
			625-00000	CONSTRUCTION SURVEYING	LS											1		1	
			626-00000	MOBILIZATION	LS											1		1	
			626-01000	PUBLIC INFORMATION SERVICES	LS											1		1	
			627-00001	PAVEMENT MARKING PAINT	GAL											5		5	
			630-00000	FLAGGING	HR											125		125	
			630-00007	TRAFFIC CONTROL INSPECTION	DAY											125		125	
			630-00012	TRAFFIC CONTROL MANAGEMENT	DAY											50		50	
			630-80001	FLASHING BEACON (PORTABLE)	EA											8		8	
			630-80335	BARRICADE (TYPE 3 M-A)(TEMPORARY)	EA											3		3	
			630-80341	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EA											28		28	
			630-80342	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EA											50		50	
			630-80344	CONSTRUCTION TRAFFIC SIGN (SPECIAL)	SF											64		64	
			630-80355	PORTABLE MESSAGE SIGN PANEL	EA											2		2	
			630-80357	ADVANCED WARNING OR SEQUENCING ARROW PANEL (A)	EA											2		2	
			630-80360	DRUM CHANNELIZING DEVICE	EA											250		250	
			630-80370	CONCRETE BARRIER (TEMPORARY)	LF											3000		3000	
			630-80380	TRAFFIC CONE	EA											250		250	
			630-85000	IMPACT ATTENUATOR (TEMPORARY)	EA											5		5	
			641-10000	SHOTCRETE	SY								139					139	

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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure
 Detailer: KLT Numbers
 Sheet Subset: TAB Subset Sheets: SAQ-5 of 6

Project No./Code
 NH 0242-056
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 Sheet Number **7**

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SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			700-70010	F/A MINOR CONTRACT REVISION	FA											1		1	
			700-70016	F/A FUEL COST ADJUSTMENT	FA											1		1	
			700-70019	F/A ASPHALT CEMENT COST ADJUSTMENT	FA											1		1	
			700-70034	F/A DOZING	FA											1		1	
			700-70380	F/A EROSION CONTROL	FA											1		1	
			700-70550	F/A BLADING SHOULDER	FA											1		1	
			700-73352	F/A MISCELLANEOUS UTILITY RELOCATIONS	FA											1		1	

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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure Numbers
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 Sheet Subset: TAB Subset Sheets: SAQ-6 of 6

Project No./Code
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GENERAL NOTES

SEE PROJECT CONTROL SHEET FOR HORIZONTAL CONTROL TO BE USED ON THIS PROJECT.

ALL CONSTRUCTION SHALL BE COMPLETED PER THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD PLANS AND SPECIFICATIONS, LATEST EDITION, OR AS SHOWN.

UTILITY LINES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTORS ATTENTION IS DIRECTED TO SUBSECTION 105.11 OF THE STANDARD SPECIFICATIONS CONCERNING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH ARTICLE 1.5 OF TITLE 9, CRS ("EXCAVATION REQUIREMENT") WHEN EXCAVATING OR GRADING IS PLANNED IN THE AREA OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST 2 BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR TO COMMENCING SUCH OPERATIONS. THE CONTRACTOR SHALL CONTACT UNCC AT 811 OR 1-800-922-1987 TO HAVE LOCATION OF UNCC REGISTERED LINES MARKED BY MEMBER COMPANIES. ALL OTHER UNDERGROUND FACILITIES SHALL BE LOCATED BY CONTACTING THE RESPECTIVE OWNER. UTILITY SERVICE LATERALS SHALL ALSO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTACTING AND COORDINATING WITH THE APPROPRIATE UTILITY REPRESENTATIVE TO BE ON-SITE DURING POTHOLING. THE CONTRACTOR SHALL REFER TO THE UTILITY SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

ANY CURB AND GUTTER OR ASPHALT OR CONCRETE PAVEMENT, WHICH IS TO REMAIN AND IS DAMAGED AS THE RESULT OF THE CONTRACTOR'S OPERATION, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

FOR PRELIMINARY PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

TACK COAT DILUTED EMULSIFIED ASPHALT..... 0.1 GALS. / SQ. YD. (DILUTED)
 HOT MIX ASPHALT..... 110 LBS. / SQ. YD. / INCH
 AGGREGATE BASE COURSE CLASS 6..... 133 LBS. / CU. FT.

A TACK COAT IS REQUIRED BETWEEN LAYERS OF BITUMINOUS PAVEMENT. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.

WHERE NEW PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE USING A CUTTING SAW OR OTHER METHOD AS APPROVED BY THE ENGINEER. SAW CUTTING ASPHALT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE A SUCCEEDING LAYER IS PLACED.

ASPHALT PATCHING SHALL BE TO THE DEPTH OF THE SURROUNDING EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER. THICKNESS OF SUBSEQUENT LIFTS MUST BE EQUAL OR GREATER THAN THE LIFT DIRECTLY ABOVE. THE MINIMUM LIFT THICKNESS SHALL BE 2 AND 3 INCHES RESPECTIVELY.

PRIOR TO PLACING BITUMINOUS PAVEMENT, THE PAVED SURFACE SHALL BE SWEEPED AND CLEANED. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HOT MIX ASPHALT PAVEMENT ITEM.

WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER FOR DUST PALLIATIVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

MOISTURE-DENSITY CONTROL WILL BE REQUIRED FOR THE FULL DEPTH OF THOSE EMBANKMENTS ON THIS PROJECT.

EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

TYPE OF COMPACTION FOR THIS PROJECT WILL BE AASHTO T-99 FOR COHESIVE SOILS AND T-180 FOR GRANULAR SOILS AS DESCRIBED IN SECTION 203.07 OF THE CDOT STANDARD SPECIFICATIONS.

THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 6 INCHES. TOPSOIL SHALL BE OBTAINED FROM A CONTRACTOR SOURCE APPROVED BY THE ENGINEER. IF THE TOPSOIL IS NOT GENERATED WITHIN THE PROJECT LIMITS, IT SHALL BE TREATED WITH AN HERBICIDE APPLICATION AFTER PLACEMENT AND BEFORE NATIVE SEEDING.

TO PROVIDE FOR ADEQUATE SULFATE RESISTANCE IN ALL CONCRETE SUPPLIED FOR THIS PROJECT, SEVERITY OF POTENTIAL EXPOSURE IS CLASS 0. THE CONTRACTOR MAY AT HIS OWN EXPENSE HAVE A CERTIFIED LABORATORY TEST THE SUBGRADE AS PER THE FIELD MATERIALS MANUAL. TESTING SHALL BE THE SAME SCHEDULE AND FREQUENCY AS REQUIRED FOR A PRELIMINARY SOILS SURVEY. THE CONTRACTOR MAY PROPOSE A DIFFERENT CLASS OF EXPOSURE FOR THE PROJECT BASED ON THOSE TEST RESULTS.

THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS. ANY MONUMENTS DISTURBED BY THE CONTRACTOR THAT ARE NOT DESIGNATED FOR RELOCATION, SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR AND ENGINEER SHALL NOTE THOSE MONUMENTS IN THE FIELD PRIOR TO CONSTRUCTION. SEE TABULATION OF SURVEY FOR ADDITIONAL INFORMATION.

THIS PROJECT IS COVERED BY A COLORADO DISCHARGE PERMIT SYSTEM - STORMWATER CONSTRUCTION PERMIT (CDPS-SCP). ALL PERMIT REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR. REFER TO STANDARD SPECIAL PROVISION REVISION OF SECTION 107 - TRANSFER OF STORMWATER PERMIT TO CONTRACTOR FOR ADDITIONAL INFORMATION.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE ACCEPTANCE AND CONTROL OF ALL SURFACE AND SUBSURFACE DRAINAGE AND GROUNDWATER ENTERING THE WORK AREA. THIS SHALL BE INCLUDED IN THE COST OF THE WORK.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT THEIR OWN EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

CONSTRUCTION VEHICLES SHALL ACCESS THE PROJECT FROM PUBLIC PROPERTY, NOT FROM ADJACENT PRIVATE PROPERTIES UNLESS DIRECTED BY THE ENGINEER.

THE FIELD OFFICE, LABORATORY AND ASSOCIATED PARKING (MINIMUM 8 SPACES) SHALL BE SECURELY FENCED WITH FENCE CHAIN LINK (72-INCH) AND A LOCKING GATE. FIVE SETS OF KEYS FOR LOCKING THE GATE SHALL BE PROVIDED TO THE ENGINEER. THE OFFICE AND LABORATORY SHALL BE LOCATED IN THE RAINBOW FALLS PARKING LOT OFF OF SERPENTINE DRIVE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE FIELD FACILITY AND PARKING AREA TO ITS INITIAL CONDITION AT THE CONCLUSION OF THE PROJECT.

THE CONTRACTOR SHALL POST SIGNS INDICATING THE RAINBOW FALLS PARKING AREA AND TRAIL ARE CLOSED TO CARS AND PEDESTRIANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURITY OF THE STAGING AREA.

Print Date: 3/18/2013		Sheet Revisions			 Colorado Department of Transportation 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2	As Constructed		US 24 WALDO CANYON GENERAL NOTES			Project No./Code	
File Name: 19358DES_GenlNote_2010_1.dgn		Date:	Comments	Init.		No Revisions:				NH 0242-056		
Horiz. Scale: 1:1 Vert. Scale: As Noted						Revised:	Designer: CDT	Structure Numbers			19358	
Unit Information Unit Leader Initials						Void:	Detailer: KLT	Subset Sheets:	GN-1 of 1	Sheet Number		9
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440												

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1. Site Description

Additional information for permitted projects. For information only to fulfill the CDPS-SCP (Colorado Discharge Permit - Stormwater Construction Permit)

- A. Project Site Description: Work includes US24 erosion control mitigation that is required due to results of the 2012 Waldo Canyon fire. Five principal areas adjacent to US24 have been identified by CDOT as requiring erosion and post-fire stormwater mitigation. They are:
 - a. Pour Point A- Sand Gulch- Work includes stabilizing the eroded area at the inlet and outlet ends of an existing box culvert under US24. Maintenance access, a debris rack, and a debris settling area will be constructed.
 - b. Pour Point B- Wellington Gulch- Work includes improving the entrance to an existing corrugated metal pipe. Maintenance access, a debris rack and a debris settling area will be constructed.
 - c. Pour Point C- Cascade- Work includes installing a concrete rundown at the north bank of US24. A debris settling area will also be constructed. A series of existing culverts under US24 will be cleaned and their entrances will be improved. One new US24 culvert will be added.
 - d. Pour Point H- Waldo Canyon- Work includes improving the entrance to an existing corrugated metal pipe. Re-grading and access will be improved.
 - e. Pour Point J- Rainbow Falls Access Road- Fountain Creek bank erosion has occurred due to increased flows since the 2012 fire. Work includes construction of boulder toe wall at the creek and a 450 feet length of adjacent access road. The access road will connect to the existing access located north of Serpentine Drive and end south of Manitou Street. The steep slope between the access and US 24 will be re-graded to a more stable 1 ½ to 1 slope with a wire mesh cover. A soil nail retaining wall will be constructed at the top of the slope (adjacent to US24). Riprap erosion protection will extend up from the access road to one foot above the 100-year flood elevation.
- B. Proposed Sequencing For Major Activities: Work will include initial stabilization of the site perimeters, diversion of drainages as needed, clearing and grubbing, embankment placement, excavation, boulder or concrete placement, wall construction, grading, slope treatment and final stabilization of the site. Erosion control will be required throughout the construction period. Erosion control devices will be added as listed under section 4C of this document, repaired, modified and maintained as required in order to limit erosion and sedimentation within the project site.
- C. Acres Of Disturbance:

Total area of construction site: 16.66 acres
 Total area of disturbance: 3.35 acres
 Acreage of seeding: 2.74 acres
- D. Existing Soil Data: Pendant-Rock outcrop complex, Sphinx, warm-Rock outcrop complex, very slow infiltration rate with high runoff potential when thoroughly wet. The soils consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface and soils that shallow over nearly impervious material. These soils have a very slow rate of water transmission.
- E. Existing Vegetation, Including Percent Cover: Existing vegetation consists of native grasses, weeds, sparse trees and shrubs. The estimated percent of ground cover averages about 50 percent cover over the project site. Date of survey: November 2012.
- F. Potential Pollutants Sources: See First Construction Activities under Potential Pollutant Sources. The ECS shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.
- G. Receiving Water:
 - 1. Outfall locations: The plan sheets show the outfall locations. The ultimate outfall is to Fountain Creek via existing tributary culverts, swales and sheet flows from the US 24 embankment adjacent to Fountain Creek.
 - 2. Names of receiving water(s) on site and the ultimate receiving water: Fountain Creek

- 3. Distance ultimate receiving water is from project: Varies between 0 and 1000 feet.
- 4. Does the receiving water have an approved TMDL: No

H. Allowable Non-Stormwater Discharges: It is anticipated that dewatering may be required due to shallow ground water in areas of the Fountain Creek Access Road. There are no other anticipated allowable sources of non-stormwater components of the discharge, such as uncontaminated springs, landscape irrigation return flow, dust suppression and fire fighting. Dewatering shall be included in the cost of the work and will not be paid for separately. If encountered, that contractor shall take the following measures:

- 1. Groundwater and stormwater dewatering: Discharge to the ground of water from construction dewatering activities may be authorized provided that:
 - a. The source is groundwater and/or groundwater combined with stormwater that does not contain pollutants.
 - b. The source and BMPs are identified in the SWMP.
 - c. Discharges do not leave the site as surface runoff or to surface waters.
- 2. If discharges do not meet the above criteria a separate permit from the Department of Health will be required. Contaminated groundwater requiring coverage under a separate permit may include groundwater contaminated with pollutants from a landfill, mining activities, industrial pollutant plumes, underground storage tank, etc.

I. Environmental Impacts:

- 1. Wetland Impacts: Yes
- 2. Stream Impacts: Yes
- 3. Threatened and Endangered Species: No

2. Site Map Components

Pre-construction

- A. Construction Site Boundaries: See Grading and Erosion Control Plans.
- B. All Areas Of Ground Surface Disturbance: See Grading and Erosion Control Plans.
- C. Areas Of Cut And Fill: See Grading and Erosion Control Plans.
- D. Location Of All Structural BMPs Identified In The SWMP: See Grading and Erosion Control Plans.
- E. Location of Non-Structural BMPs As Applicable In The SWMP: See Grading and Erosion Control Plans.
- F. Springs, Stream, Wetlands And Other Surface Water: See Grading and Erosion Control Plans.
- G. Protection of Trees, Shrubs, Cultural Resources And Mature Vegetation: See Grading and Erosion Control Plans.

3. SWMP Administrator For Design: Edward L. Lind, P.E., Water Resources Engineer for Felsburg Holt & Ullevig, is responsible for developing the SWMP sheets during the design.

4. Stormwater Management Controls First Construction Activities

The Contractor Shall Perform The Following:

- A. Designate A SWMP Administrator/Erosion Control Supervisor (To be filled out at time of construction; designate the individual(s) responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the administrator shall address all aspects of the projects SWMP.)
- B. Potential Pollutant Sources: Evaluate, identify and describe all potential sources of pollutants at the site in accordance with subsection 107.25 and place in the SWMP notebook. All BMPs related to potential pollutants shall be shown on the SWMP site map by the contractor's ECS.
- C. Best Management Practices (BMPs) For Stormwater Pollution Prevention
Phased BMP Implementation

During design: fields are marked when used in the SWMP. During construction: the ECS shall update the checked boxes to match site conditions. Clearly describe the relationship between the phases of construction and the implementation of BMP controls. Add a narrative to the table or to the site map describing why the BMPs are being used in specific locations.

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Structural BMP practices for erosion and sediment control; practices may include, but are not limited to:

BMP	TYPE OF CONTROL	BMP as Designed	In use on site	FIRST CONSTRUCTION ACTIVITIES	DURING CONSTRUCTION	INTERIM/FINAL STABILIZATION
Earth Berm/Diversion	erosion	x		x	x	
Check Dams	sediment					
Silt Fence	sediment	x		x	x	
Erosion Logs	sediment	x		x	x	x
Temporary Sediment Trap/Basin	sediment	x		x	x	
Permanent Sediment Trap/Basin	sediment					
Embankment Protector	erosion					
Inlet Protection	erosion					
Outlet Protection	erosion					
Concrete Washouts	construction	x		x	x	
Stabilized Construction Entrance	construction	x		x	x	
Dewatering	sediment	x			x	
Temporary Stream Crossing	erosion	x		x	x	
Other						

NON-STRUCTURAL BMP practices for erosion and sediment control; practices may include, but are not limited to:

BMP	Type Of Control	BMP As Designed	In Use On Site	First Construction Activities	During Construction	Interim/Final Stabilization
Surface Roughening/Grading Techniques	Erosion	x		x	x	x
Seeding Permanent	Erosion	x				x
Seeding Temporary	Erosion	x			x	
Mulch/Mulch Tackifier	Erosion	x			x	x
Soil Binder	Erosion	x			x	
Soil Retention Blanket	Erosion	x			x	x
Vegetative Buffer Strips	Erosion	x		x	x	x
Protection Of Trees	Erosion	x		x	x	
Preservation Of Mature Vegetation	Erosion	x		x	x	x
Other						

- Erosion control devices are used to limit the amount of erosion on site.
- Sediment control devices are designed to capture sediment on the project site,
- Construction control are BMPs related to construction access and staging.
- BMP locations are indicated on the erosion control plans.
- BMP installation details and general narratives are in the SWMP notebook.

D. Offsite Drainage (Run On Water)

- Describe and record BMPs on the SWMP site map that has been implemented to address run-on water in accordance with subsection 208.03.

E. Stabilized Construction Entrance/Vehicle Tracking Control

- BMPs shall be implemented in accordance with subsection 208.04.

F. Perimeter Control

- Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
- Perimeter control may consist of vegetation buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs as approved.
- Perimeter control shall be in accordance with subsection 208.04.

5. During Construction

Responsibilities of the SWMP administrator/erosion control supervisor during construction.

The SWMP should be considered a "living document" that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator/Erosion Control Supervisor (ECS) in accordance with section 208.

- A. Materials Handling and Spill Prevention
- B. Stockpile Management
- C. Grading and Slope Stabilization
- D. Surface Roughening
- E. Vehicle Tracking
- F. Temporary Stabilization
- G. Concrete Washout- Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
- H. Saw Cutting
- I. New Inlet/Culvert Protection
- J. Street Cleaning

6. Inspections

- A. Inspections shall be in accordance with subsection 208.03 (c).

7. BMP Maintenance

- A. Maintenance shall be in accordance with subsection 208.04 (e).

8. Record Keeping

- A. Records shall be in accordance with subsection 208.03 (c).

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As Constructed	US 24 WALDO CANYON STORMWATER MANAGEMENT PLAN		Project No./Code
No Revisions:			NH 0242-056
Revised:	Designer: CDT	Structure Numbers	19358
Void:	Detailer: KLT	Subset Sheets: SW-2 of 3	Sheet Number 11

9. Interim And Final Stabilization

A. Seeding Plan

Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free), and mulch tackifier will be required for the area of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Blue grama	<i>Bouteloua gracilis</i> 'Hachita'	0.5
Arizona fescue	<i>Festuca arizonica</i> 'Redondo'	1.0
Sheep fescue	<i>Festuca ovina</i>	0.6
Canada wildrye	<i>Elymus canadensis</i>	6.2
Sandberg bluegrass	<i>Poa sandbergii</i>	0.2
Western wheatgrass	<i>Pascopyrum smithii</i> 'Rosanna'	6.5
Mountain brome	<i>Bromus marginatus</i> 'Bromar'	4.0
Prairie junegrass	<i>Koeleria macrantha</i>	0.1
Slender wheatgrass	<i>Elymus trachycaulus ssp. trachycaulus</i> 'Pryor'	1.0
Oats	<i>Avena sativa</i>	3.0
TOTAL		23.1

A. Seeding Application: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25 inch to 0.5 inch into the soil. In areas as directed by Engineer, hydro-seed shall be applied at double the rate, in a single slurry which contains seed, mulch tackifier, humate and fertilizer. Slurry shall be applied from top of slope downward, in 50' vertical lifts unless otherwise approved by the Engineer.

B. Mulching Application: Apply a minimum of 1 ½ tons of certified weed free native hay per acre and in accordance with Section 212, and mechanically crimp it into the soil in combination with an organic mulch tackifier.

C. Soil Conditioning and Fertilizer Requirements: [Minimum requirements for all disturbances to receive seeding (native)].

Soil conditioner paid for as Item 212- Soil Conditioning (Acre)		
Biological nutrient organic based fertilizer (lbs/acre)*	Humate (lbs/acre)	
600	200	

*Biological nutrient shall not exceed 8-8-8 (N-P-K). Humate based material shall be in accordance to Section 212.

F. **Blanket Application:** On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of mulch and mulch tackifier. See SWMP for blanket locations.

G. Reseeding Operations/Corrective Stabilization:

Prior to Final Acceptance:

- Seeded areas shall be reviewed during the 14 day inspections by the Erosion Control Supervisor for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be regraded, seeded, mulched and have mulch tackifier (or blanket) applied as necessary.
- Areas where seed has not germinated after one season shall be evaluated by the Engineer and CDOT Landscape Architect. Areas that have not germinated shall have seed, mulch and mulch tackifier (or blanket) applied. Work shall be paid for by the appropriate bid item.
- The Contractor shall maintain seeding/mulch/tackifier, mow to control weeds or apply herbicide to control weeds in the seeded areas until final acceptance.

10. Prior To Final Acceptance

A. Final acceptance shall be in accordance with subsection 208.061.

Print Date: 3/18/2013		Sheet Revisions				Colorado Department of Transportation 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	As Constructed		US 24 WALDO CANYON STORMWATER MANAGEMENT PLAN		Project No./Code
File Name: 19358DES_SWMP03.dgn		Date:	Comments	Init.			No Revisions:			NH 0242-056	
Horiz. Scale: 1:1 Vert. Scale: As Noted							Revised:	Designer: CDT	Structure Numbers	19358	
Unit Information Unit Leader Initials				Void:	Detailer: KLT		Sheet Subset: EROSION Subset Sheets: SW-3 of 3		Sheet Number 12		
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	Region 2 LM										

TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

- Format *
- Horizontal Control _____
 - Vertical Control _____
 - Roadway Alignment _____
 - Original Terrain Data _____
 - Other: _____

* Specify the information format, i.e., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

- Landscaping
- Signalization
- Safety Improvement
- Asphalt Overlay
- Concrete Overlay
- Minor Widening
- Major Reconstruction
- New Roadway Construction
- Bridge Replacement
- Bridge Widening
- New Bridge
- Other: Drainage Mitigation

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

- Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
- Verification and Maintenance of Horizontal and Vertical Control
- Verify or Determine existing grades and alignments
- Verify or Determine existing topography
- Clearing and Grubbing Limits (Section 201)
- Removal Limits (Section 202)
- Reset Items (Section 210)
- Excavation and Embankment (Section 203)
 - Excavation
 - Unclassified
 - Stripping
 - Muck
 - Rock
 - Borrow
 - Other: _____
 - Potholing
 - Embankment
 - Site Grading
 - Erosion Control (Perm)
 - Other: _____
- As Staked Earthwork Quantities (See General Notes)

	Slope Staking (Y/N)	Grid (Y/N)	Grade Stakes	Special Interval
Excavation	-	-	-	-
Embankment	-	-	-	-

	Slope Staking (Y/N)	Grid (Y/N)	Grade Stakes	Special Interval
Excavation	-	-	-	-
Embankment	-	-	-	-

- Landscaping
 - Top Soil (Section 207)
 - Seeding (Section 212)
 - Mulching (Section 213)
 - Planting (Section 214)
 - Herbicide (Section 217)
 - Other: _____
- Erosion Control (Section 208)
 - Seeding (Temp)
 - Silt Fence
 - Erosion Bales
 - Erosion Logs
 - Riprap (Temp)
 - Other: Rock Check Dam, Temporary Diversion
- Roadway Bases
 - Untreated Subgrade
 - Treated Subgrade
 - Aggregate Base Course (Section 304)
 - Reconditioning
 - PMBB - Plant Mix Bituminous Base
 - Other: _____

	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
Roadway Bases	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

- Pavements
 - HMA - Hot Mix Asphalt (Section 403)
 - Concrete (Section 412)
 - Heating & Scarifying Treatment
 - Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
 - Seal Coat or Chip Seal (Section 409)
 - Other: _____

	Grid (Y/N)	Special Interval	Special Offset
Pavements	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

- Roadway Elements
 - Curb and Gutter (Section 609)
 - Drop inlets - alignment and grades (Section 604)
 - Retaining Walls
 - Guard Rail (Section 606)
 - Sidewalk (Section 608)
 - Overlay Stationing
 - Other: Cutoff Walls

	Tangent Interval	Curve Interval	Special Offset
Curb & Gutter	-	-	-

- Riprap (Perm) (Section 506)
- Slope and Ditch Paving (Section 507)

- Minor Structures
 - Structure Excavation limits (Section 206)
 - Culverts (Section 603)
 - Culverts w/ Headwalls and Wingwalls (Section 601)
 - Concrete Box Culverts w/ Headwalls and Wingwalls
 - Pipes (Section 603)
 - Sanitary Sewer
 - Storm Sewer
 - Water
 - Irrigation
 - Miscellaneous
 - Manholes (Section 604)
 - Inlets (Section 604)
 - Other: _____

	Left Interval	Center Interval	Right Interval
Stationing	-	-	-

- Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
 - Structure Excavation limits (Section 206)
 - Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)
 - Piling locations and cut off elevations (Section 502)
 - Caisson locations and elevations (Section 503)
 - Footing locations, alignment, and elevations
 - Abutment/Pier locations, alignment, and elevations
 - Wingwall skew angles/offsets
 - Structural concrete form locations required for Bridges (Subsection 601 .12) and Overhead signs (S-614-50)
 - Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
 - Deck grades at Girder 10th or "n" th point locations and elevations
 - Slope and Ditch Paving (Section 507)
 - Other: Ground Nailed Wall, Geogrid Reinforcement, Wire Mesh

- Fencing (Section 607)
 - Temporary
 - Permanent
 - Sound Barrier
 - Other: _____

- Delineators (Section 612)
 - Temporary
 - Permanent

- Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
 - Signal pole locations and elevations
 - Light pole locations and elevations
 - Sign locations
 - Field verify sign post locations, elevations, and lengths before fabrication.
 - Other: _____

- Pavement Marking (Section 627)
 - Striping (Temp)
 - Striping (Perm)
 - Symbols
 - Other: _____
- Temporary Lighting and Construction Traffic Control Devices (Section 630)
 - Signal pole locations and elevations (Temp)
 - Light pole locations and elevations (Temp)
 - Sign Locations (Temp)
 - Other: _____
- Easements (Temp Staking by P.L.S. Only)
- Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:


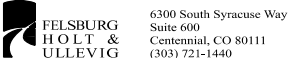
- Monumentation (Section 629)
 - Control
 - Right of Way
 - Land corners, Aliquot corners
 - Easements
 - Reference the specified existing monuments: ** _____
 - Replace the specified existing monuments: ** _____
 - Locate monuments. It is estimated _____ hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

- Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDDT Survey Manual.
- Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
- The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 7 days prior to the Presurvey Conference - Construction Survey.
- Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
- The Contractor shall furnish an As Staked earthwork quantity to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDDT Survey Manual. A printed copy of the As Staked earthwork data and a computer disk in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
- Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
- The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
- The Contractor shall coordinate construction staking on the project with any utility work.
- Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
- The Contractor's surveyor shall submit the following fieldbooks to the Engineer:
 - Horizontal Control (Primary & Secondary)
 - Vertical Control (i.e. Benchmarks)
 - Property Pin Ties
 - Horizontal Alignment
 - Grading
 - Slope Staking
 - Minor Structures
 - Major Structures
 - One fieldbook for each work category shown on this sheet
 - Other Fieldbook(s): _____

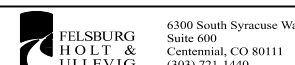
Print Date: 4/22/2013	Sheet Revisions	Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON SURVEY TABULATION SHEET	Project No./Code
File Name: 19358SURV_TabC.dgn	Date: 04-22-13		No Revisions:	Designer:	NH 0242-056
Horiz. Scale: 1:1 Vert. Scale: As Noted	Comments: REVISED SHEET NUMBER	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	Revised:	Detailer:	19358
Unit Information Unit Leader Initials	Init.: CDT	Region 2	Void:	Sheet Subset: SURVEY	Sheet Number 13C
		LM		Structure Numbers	Subset Sheets: SRV 1C of 1

SUMMARY OF CONSTRUCTION TRAFFIC CONTROL ITEMS

CONSTRUCTION TRAFFIC SIGNS (FOR INFORMATION ONLY)				
SIGN CODE	LEGEND	DIMENSIONS	OVERALL PROJECT	
			EACH	PANEL SIZE
G20-5P	WORK ZONE	36" X 24"	10	A
R2-1(45)	SPEED LIMIT	36" X 48"	8	A
R2-1(50)	SPEED LIMIT	36" X 48"	5	A
R2-6P	FINES DOUBLE	36" X 24"	5	B
R4-1	DO NOT PASS	36" X 48"	5	B
R4-2	PASS WITH CARE	36" X 48"	3	A
F52-6A	BEGIN FINES DOUBLE	36" x 48"	4	B
F52-6B	END FINES DOUBLE	36" x 48"	4	B
W4-2(R)	RIGHT LANE CLOSED SYMBOL	48" X 48"	3	B
W21-5(R)	RIGHT SHOULDER CLOSED	48" X 48"	5	B
W4-2(L)	LEFT LANE CLOSED SYMEOL	48" X 48"	3	B
W20-1	ROAD WORK/ (DISTANCE/AHEAD)	48" X 48"	2	B
W20-5(R)	RIGHT LANE CLOSED	48" X 48"	3	B
W20-5(L)	LEFT LANE CLOSED	48" X 48"	3	B
W20-7a	FLAGGER AHEAD (SYMBCL)	48" X 48"	4	B
W21-1	WORKER (SYMBOL)	48" X 48"	4	B
W16-2A	1500 FEET	24" X 36"	1	A
SPECIAL	PARKING LOT CLOSED	48" X 48"	2	B
SPECIAL	TRAIL CLOSED	48" X 48"	2	B
SIGN TOTALS			76	

GENERAL CONSTRUCTION TRAFFIC CONTROL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL REQUIRED ON THE PROJECT. ALL TRAFFIC CONTROL DEVICES, TEMPORARY CONSTRUCTION SIGNS, PAVEMENT MARKINGS AND CHANNELIZING DEVICES SHALL CONFORM WITH THE LATEST MUTCD AND THE CDDT M & S STANDARDS. THE PROJECT TRAFFIC CONTROL SUPERVISOR SHALL COORDINATE CONSTRUCTION ZONE TRAFFIC CONTROL ACTIVITIES WITH ALL APPROPRIATE AGENCIES AND ANY OTHER NEARBY CONSTRUCTION PROJECTS.
- THE CONTRACTOR SHALL MAINTAIN MINIMUM 11 FOOT LANES DURING CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- FLASHING BEACON (PORTABLE) SHALL BE INSTALLED ON "ROADWORK 1 MILE" , AND "LANE CLOSED 1/2 MILE" ADVANCE WARNING SIGNS.
- PORTABLE MESSAGE SIGN PANELS SHALL BE USED AS NECESSARY, AND ONLY AS APPROVED BY THE ENGINEER.
- VEHICLE ACCESS SHALL BE MAINTAINED FOR ALL STREETS, BUSINESSES AND PROPERTIES WITHIN THE PROJECT LIMITS.
- OPEN EXCAVATIONS SHALL NOT BE ALLOWED TO BE UNPROTECTED WHEN CONSTRUCTION WORK IS NOT IN PROGRESS (INCLUDING OVERNIGHT, WEEKENDS, AND HOLIDAYS). METHOD(S) OF PROTECTING PEDESTRIANS AND TRAFFIC FROM EXCAVATIONS, SUCH AS METAL PLATES OR CONCRETE BARRIER, SHALL BE APPROVED BY THE ENGINEER. THE COST FOR PROTECTING EXCAVATIONS WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE PROJECT.
- NO VERTICAL FACES GREATER THAN 3 INCHES SHALL BE LEFT WITHIN 6 FEET OF ANY TRAVEL LANE DURING NON-WORKING HOURS. ANY WORK AND MATERIAL NECESSARY TO PLACE A TEMPORARY FILL SLOPE FOR DROP-OFFS GREATER THAN 3 INCHES SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ANY TEMPORARY FILL SLOPES SHALL HAVE A SLOPE NO STEEPER THAN 3:1.
- ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY SIGNS SHALL BE MASKED OR REMOVED. THE COST FOR MAINTAINING, RELOCATING, OR MASKING EXISTING SIGNS DURING CONSTRUCTION IS INCLUDED IN THE PRICE OF WORK.
- FLAGGER SYMBOL SIGNS SHALL BE INSTALLED AND FLAGGERS SHALL BE UTILIZED ONLY AS DEEMED NECESSARY, AND ONLY AS APPROVED BY THE ENGINEER.
- CONSTRUCTION WORK ON THE PROJECT SHALL NOT BEGIN UNTIL ALL ADVANCE CONSTRUCTION SIGNS ARE IN PLACE AND APPROVED BY THE PROJECT ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNS AND PRIVATE BUSINESS SIGNS AS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION AND TRAFFIC MOVEMENTS AS APPROVED BY THE PROJECT ENGINEER. THIS SHALL BE DONE FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, PRIOR TO COMMENCING WORK, A METHOD OF HANDLING TRAFFIC PLAN.
- ALL TRAFFIC SHALL BE AS PER THE TRAFFIC CONTROL PLANS DEVELOPED BY THE CONTRACTOR, OR AS APPROVED BY THE PROJECT ENGINEER.
- SIGNS SHALL NOT BE MOUNTED, FASTENED, OR ATTACHED TO ANY CHANNELIZING DRUMS OR CONES.
- THIS PROJECT IS CLASSIFIED AS NON-SIGNIFICANT. THE CONTRACTOR SHALL FOLLOW 630 SPECIFICATIONS. THE TRANSPORTATION MANAGEMENT PLAN (TMP) PREPARED BY THE CONTRACTOR SHALL CONSIST OF A TRAFFIC CONTROL PLAN (TCP).
- CONSTRUCTION INFORMATION SIGNS SHALL BE PLACED AT BEGINNING AND END OF OVERALL PROJECT.
- STANDARD PLAN S-630-1 SHALL BE USED FOR CONSTRUCTION TRAFFIC CONTROL AS FOLLOWS:
 - POUR POINTS A AND B, USE CONTRACTORS MHT.
 - POUR POINT C, USE TRAFFIC CONTROL PLANS AND CONTRACTORS MHT.
 - POUR POINT H, USE TRAFFIC CONTROL PLANS.
 - POUR POINT J, USE TRAFFIC CONTROL PLANS.
- A VMS SIGN SHALL BE PLACED AT EACH END OF THE PROJECT GIVING PROJECT INFORMATION; MESSAGE SHALL BE AS DIRECTED BY THE ENGINEER.
- (R-2)** THE CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC DURING THE WEEKDAY FROM 7AM TO 9AM AND 4PM TO 6PM. NO LANE CLOSURES SHALL BE PERMITTED DURING MEMORIAL DAY WEEKEND, LABOR DAY WEEKEND, 4TH OF JULY OR ANY OTHER HOLIDAY TRAVEL.

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Horiz. Scale: 1:1 Vert. Scale: As Noted		04-19-13	REVISE NOTES	CDT	Revised:					19358	
Unit Information Unit Leader Initials		04-22-13	REVISED SHEET NUMBER	CDT	Void:		Sheet Subset: TRAFFIC Subset Sheets: CTC-1C OF 1		Sheet Number 14C		
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298			Region 2 LM						

TABULATION OF POTHOLES

PLAN SHEET	POTHOLE NUMBER	UTILITY USE	DIAMETER (INCHES)	DEPTH TO TOP (FT)	DEPTH TO BOTTOM (FT)	NORTHING (APPROXIMATE)	EASTING (APPROXIMATE)	GROUND ELEVATION	COMMENTS
A-3	PH1	TELEPHONE	0.5	2.8	2.9	397684.75	146000.36	7542.15	FOUND 1/2" DIRECT BURY TELE
B-2	PH3	TELEPHONE	2	2.8	3.0	396123.35	148056.41	7568.41	FOUND 2" GAS LINE
B-2	PH4	GAS	108	13.0	22.0	396132.79	148086.93	7566.33	TOP OF 108" CMP PLUNGING STEEPLY
B-2	TH1	-		4.0	6.0	396178.47	148115.98	7466.80	FIRST 4' SANDY GRAVEL, CRUMBLY ERODED ROCK TO 6', SOLID ROCK AT 6'
C-2	PH5	STORM			9.0	393945.78	150109.30	7526.00	NOTHING FOUND
C-2	PH6	GAS			9.0	393934.62	150098.67	7527.94	NOTHING FOUND
C-2	PH6A	WATER			9.0	393924.29	150087.22	7529.79	NOTHING FOUND
C-2	PH7	WATER		5.9	8.0	393658.44	150345.43	7505.74	NOTHING FOUND, PROBED TO 8'
C-2	PH7A	WATER			10.0	393655.40	150338.61	7508.83	NOTHING FOUND, PROBED TO 10'
C-3	PH8	WATER	0.5	5.0	5.1	393606.92	150426.73	7509.13	FOUND 1/2" TELE CONDUIT
C-3	PH9	TELEPHONE	2	5.0	5.3	393600.41	150417.65	7507.61	2" HDPE LINE
C-3	PH10	GAS			10.0	393585.66	150405.32	7504.67	NOTHING FOUND
C-3	PH11	WATER			11.0	393024.52	150963.04	7474.97	NOTHING FOUND
C-4	PH12	WATER		7.5	11.0	393427.65	150568.64	7485.36	NOTHING FOUND, PROBED TO 11'
C-4	PH13	WATER		8.0	10.0	392779.87	151201.75	7476.77	NOTHING FOUND, PROBED TO 10'
C-5	PH14	WATER			10.0	392551.13	151429.38	7482.42	NOTHING FOUND
C-5	PH15	WATER	4	5.3	5.6	392324.49	151649.41	7484.96	4" CONDUIT - PROBED TO 10'
C-6	PH16	WATER	8	7.5	8.2	391908.87	151929.95	7484.06	FOUND 8" WATER LINE

Print Date: 3/18/2013		Sheet Revisions			 Colorado Department of Transportation 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2	As Constructed No Revisions: Revised: Void:	US 24 WALDO CANYON POTHOLE TABULATION US24 ALL POUR POINTS			Project No./Code	
File Name: 19358DES_Pothole_Tab.dgn		Date:	Comments	Init.						NH 0242-056	
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Unit Information Unit Leader Initials							Designer: CDT Detailer: KLT Sheet Subset: MISC	Structure Numbers Subset Sheets: PT-1 of 1	Sheet Number 15		
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440											

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POUR POINT A TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	13
202-01000	REMOVAL OF FENCE	LF	99
202-04002	CLEAN CULVERT	EA	1
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	893
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	100
208-00002	EROSION LOG (12 INCH)	LF	208
208-00034	GRAVEL BAG	LF	40
208-00045	CONCRETE WASHOUT STRUCTURE	EA	2
208-00070	VEHICLE TRACKING PAD	EA	2
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-01050	RESET CHAIN LINK FENCE	LF	12
212-00006	SEEDING (NATIVE)	AC	0.3
212-00032	SOIL CONDITIONING	AC	0.3
213-00002	MULCHING (WEED FREE)	AC	0.3
214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	13
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	512
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	11
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	192
506-00030	GROUTED RIPRAP	CY	51
506-00412	SOIL RIPRAP (12 INCH)	CY	94
507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	22
601-01000	CONCRETE CLASS B	CY	43
607-01000	FENCE BARBED WIRE WITH METAL POSTS	LF	120
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	354
615-00620	LOG DEFLECTOR	EA	1

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET		CU. YDS.	
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			SAND GULCH	143	
			SUBTOTAL	143	
			TOTAL	143	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			SAND GULCH	893	
			OTHER EXCAVATION	0	
			SUBTOTAL	893	
			TOTAL FOR PAY QUANTITY	893	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	143	
			TOTAL	143	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (143 x 0.040 M. GAL./yd)	M. GAL.	
			TOTAL	6	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YDS.	
			EMBANKMENT (NET)	143	
			EMBANKMENT X FACTOR (1.15)	164	
			BALANCE TOTAL	164	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	893	
			BALANCE TOTAL	-729	
				164	

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Colorado Department of Transportation



1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

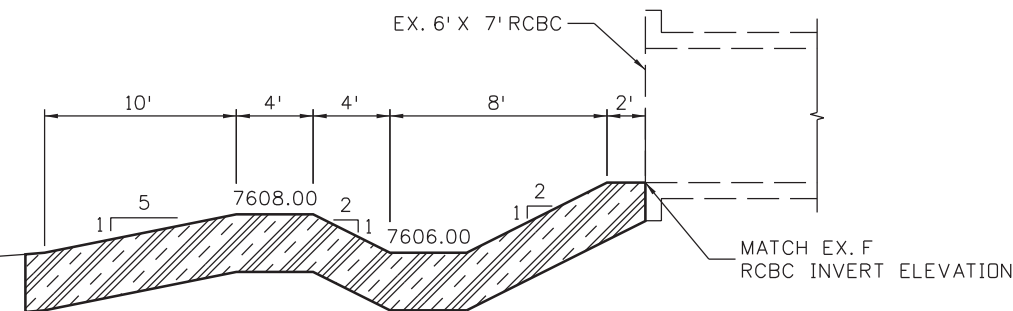
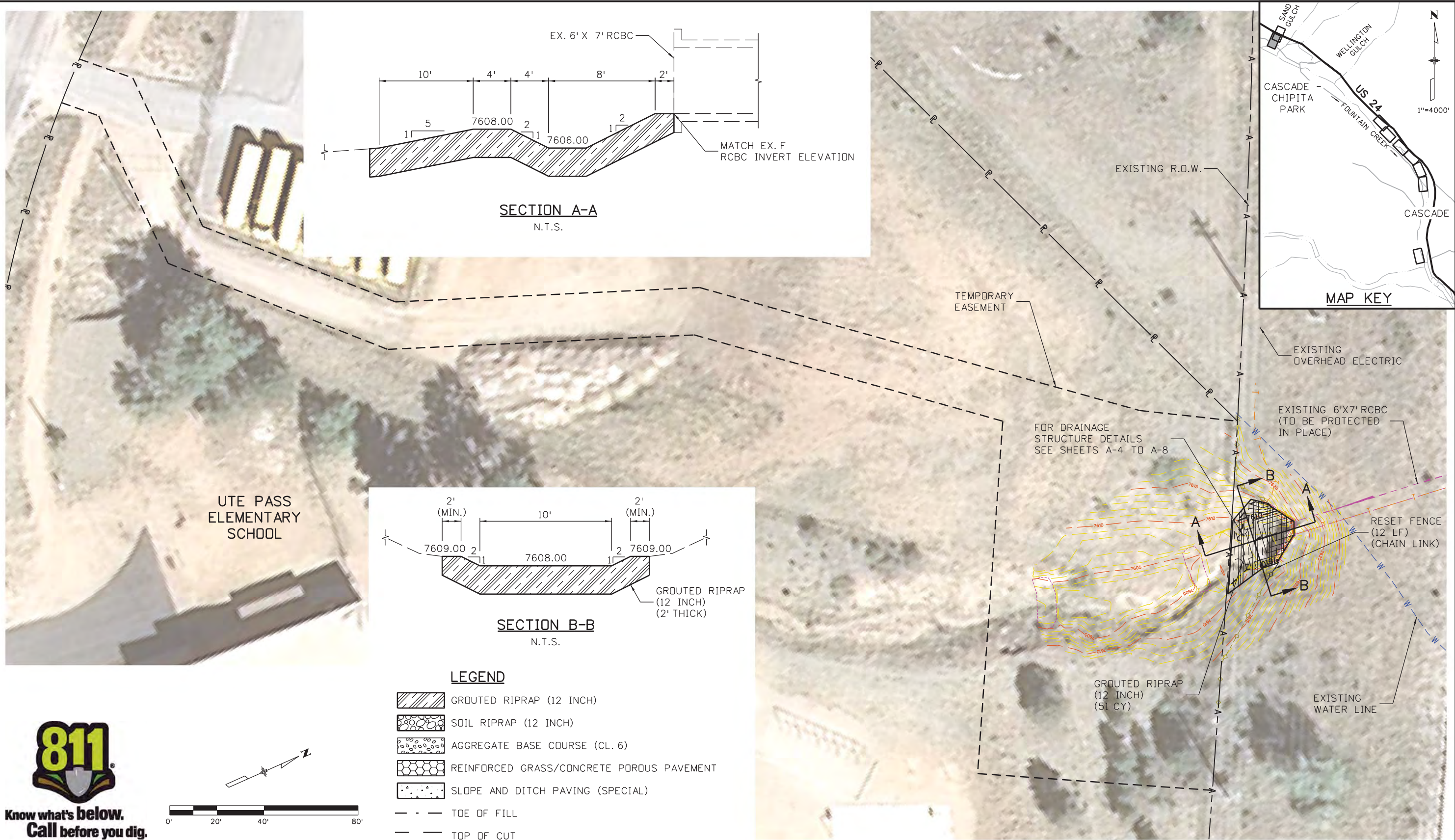
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Revised:
Void:

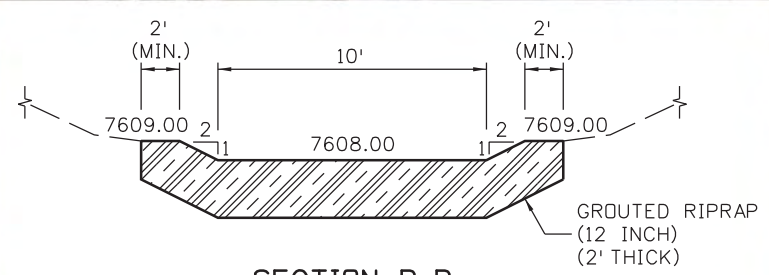
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Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	TAB	Subset Sheets:	A-1 OF 14

Project No./Code	NH 0242-056
	19358
Sheet Number	16

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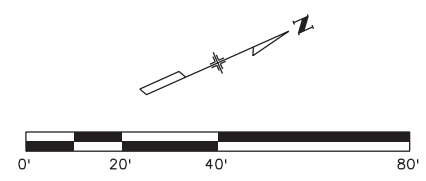
SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

LEGEND

- GRouted RIPRAP (12 INCH)
- SOIL RIPRAP (12 INCH)
- AGGREGATE BASE COURSE (CL. 6)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT



Print Date: 3/18/2013

File Name: 19358HYDR_Aerial_SandGulch_01.dgn

Horiz. Scale: 1:40 Vert. Scale: As Noted

Unit Information Unit Leader Initials

FELSBERG HOLT & ULLEVIG
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

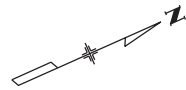
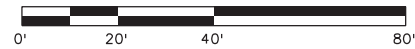
US 24 WALDO CANYON REMOVALS / RESETS POUR POINT A - SAND GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	A-2 OF 14
Sheet Subset:	DRAINAGE		

Project No./Code
NH 0242-056
19358
Sheet Number 17

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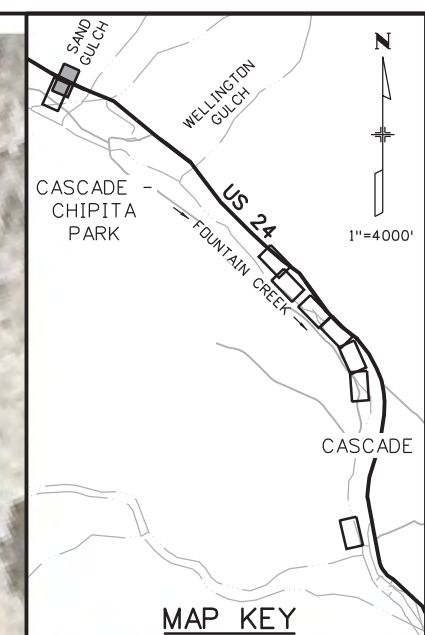
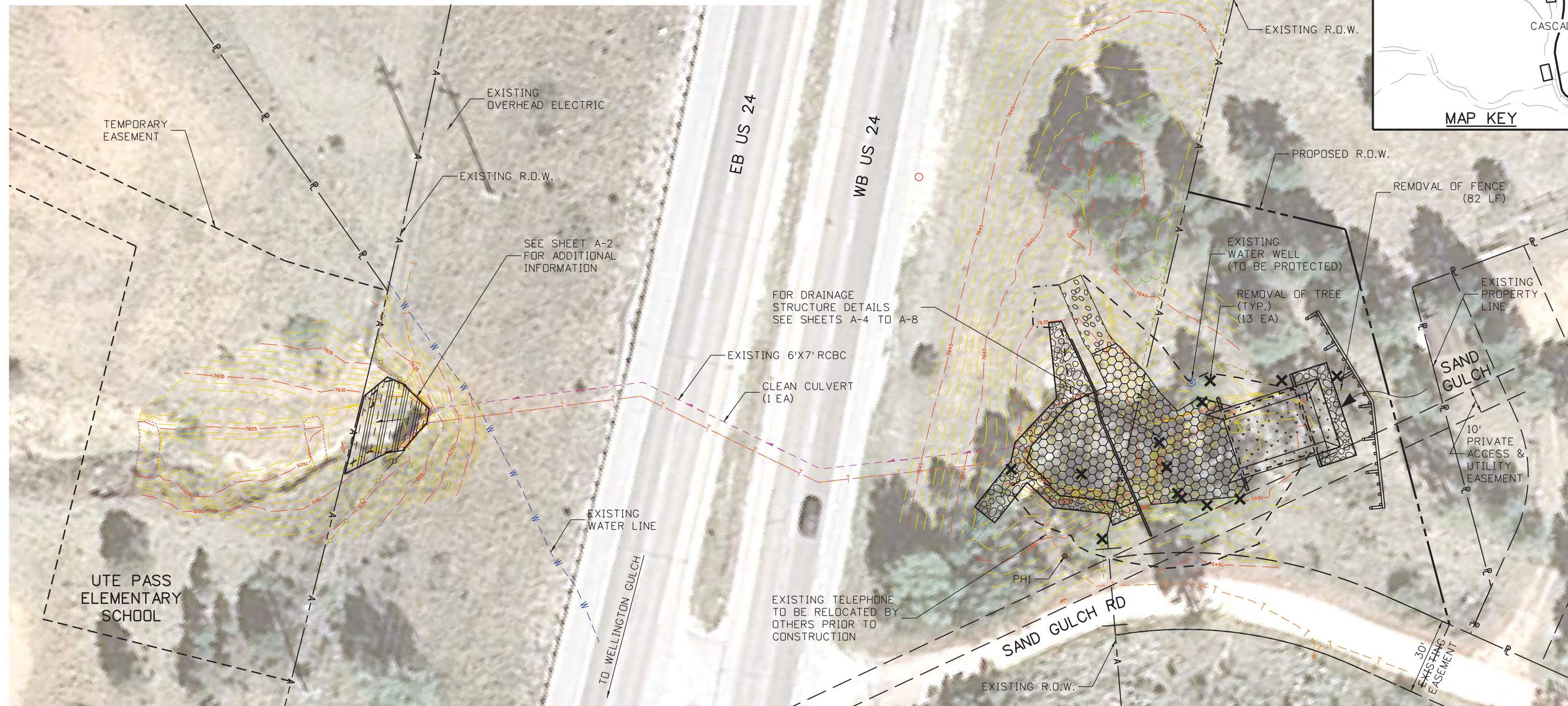


Know what's below.
Call before you dig.



LEGEND

- GROUTED RIPRAP (12 INCH)
- SOIL RIPRAP (12 INCH) (SEE SHEET J10 FOR DETAILS)
- AGGREGATE BASE COURSE (CL. 6)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT



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Print Date: 3/18/2013	
File Name: 19358HYDR_Aerial_SandGulch_02.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

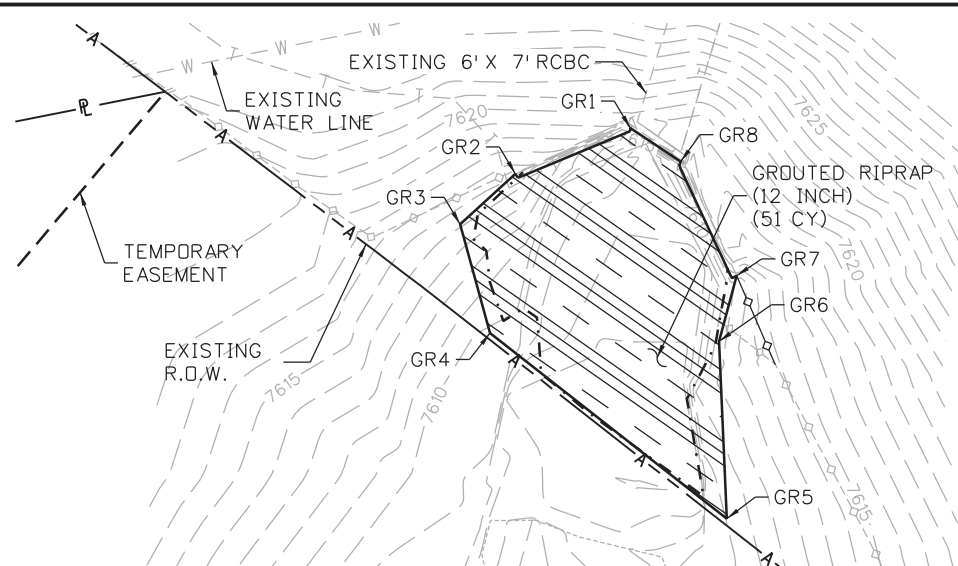
1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON REMOVALS / RESETS POUR POINT A - SAND GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	A-3 of 14
Sheet Subset:	ROADWAY		

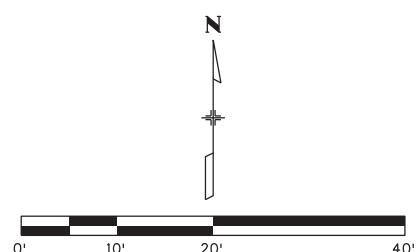
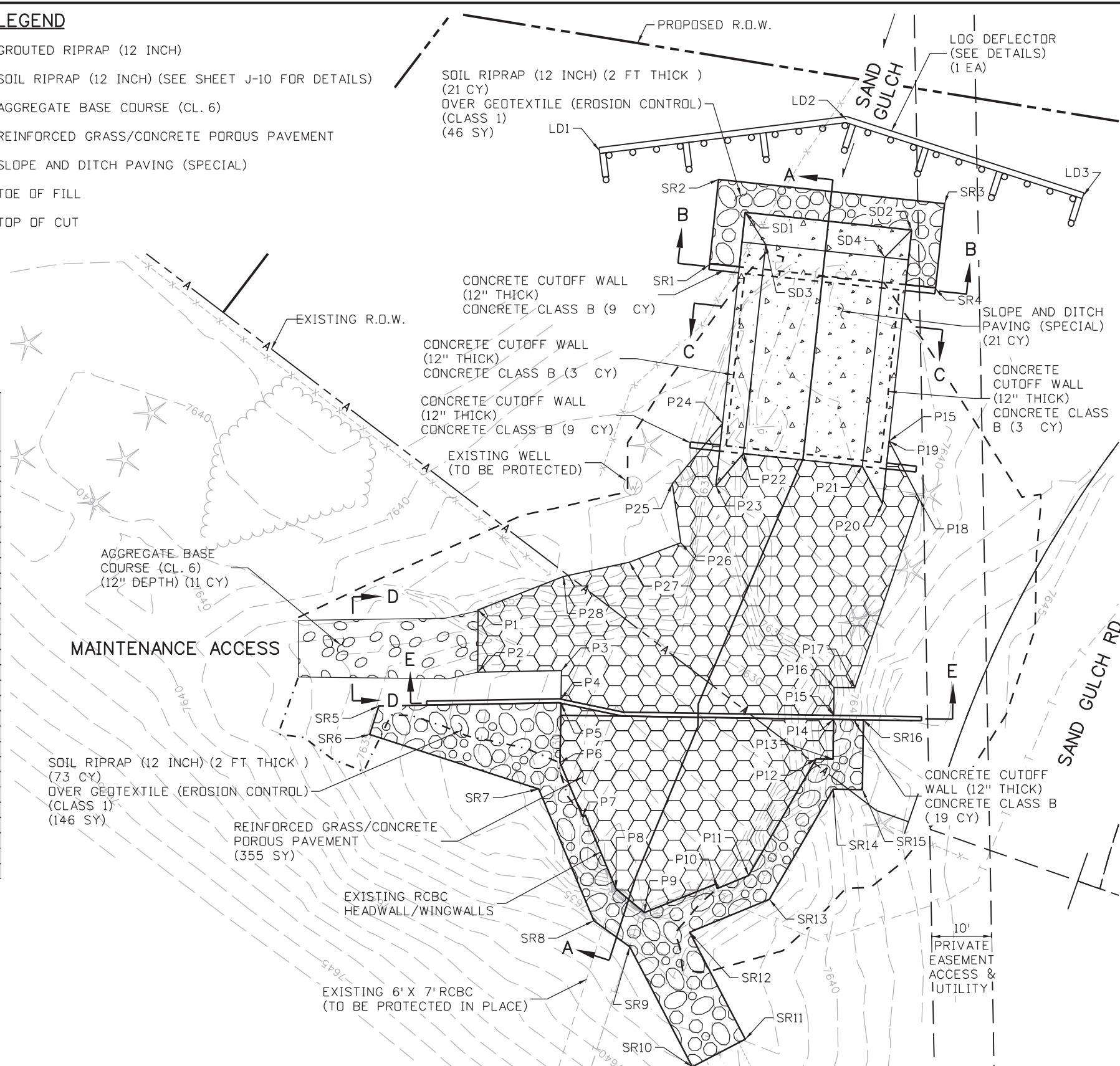
Project No./Code
NH 0242-056
19358
Sheet Number 18



- LEGEND**
- GROUTED RIPRAP (12 INCH)
 - SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
 - AGGREGATE BASE COURSE (CL. 6)
 - REINFORCED GRASS/CONCRETE POROUS PAVEMENT
 - SLOPE AND DITCH PAVING (SPECIAL)
 - TOE OF FILL
 - - - TOP OF CUT

POINT DATA TABLE - POUR POINT A - POROUS PAVEMENT

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	397736.84	145932.70	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	397726.41	145932.66	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	397726.70	145946.66	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	397721.90	145946.59	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	397721.22	145946.58	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	397711.30	145946.43	7630.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	397702.51	145950.64	7638.33	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	397690.19	145955.79	7626.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P9	397686.19	145960.53	7626.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P10	397690.99	145972.49	7630.33	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	397692.40	145977.95	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	397711.90	145989.24	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	397711.86	145992.07	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	397718.52	145992.17	7634.25	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	397719.19	145992.18	7634.25	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	397723.85	145992.26	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P17	397723.80	145995.73	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P18	397755.37	146006.51	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P19	397765.07	146001.45	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P20	397754.63	146000.33	7629.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P21	397761.02	145996.99	7629.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P22	397763.15	145977.10	7629.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P23	397757.61	145972.49	7629.08	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P24	397768.05	145973.60	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P25	397757.98	145965.21	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P26	397748.08	145966.62	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P27	397744.82	145958.02	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P28	397742.43	145947.00	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.



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Print Date: 3/18/2013	File Name: 19358HYDR_Detail_SandGulch_01.dgn
Horiz. Scale: 1:20	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
	6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

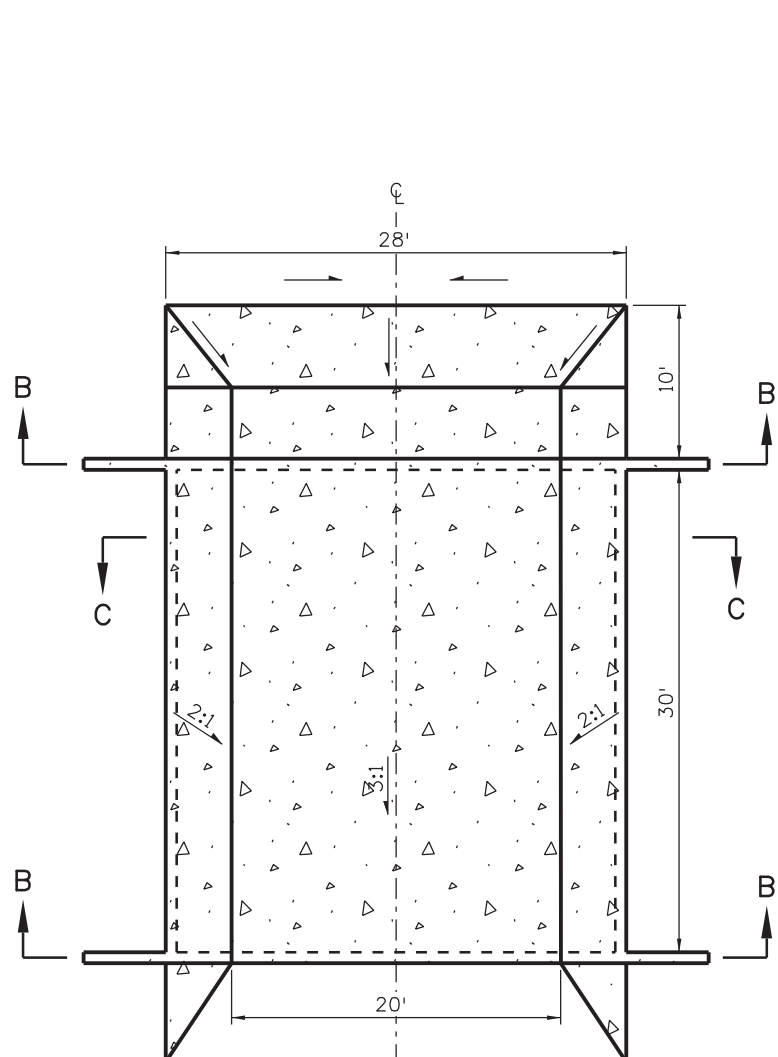
Region 2 LM

As Constructed	No Revisions:
Revised:	
Void:	

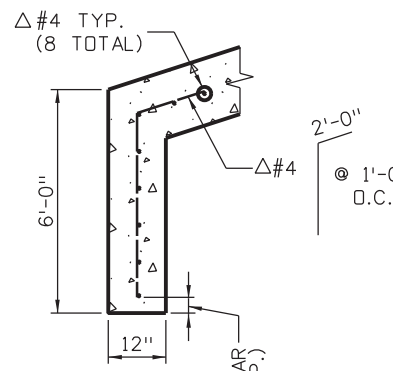
US 24 WALDO CANYON DETAIL POUR POINT A - SAND GULCH	
Designer: CDT	Structure Numbers
Detailer: KLT	
Sheet Subset: DRAINAGE	Subset Sheets: A-4 of 14

Project No./Code	NH 0242-056
	19358
Sheet Number	19

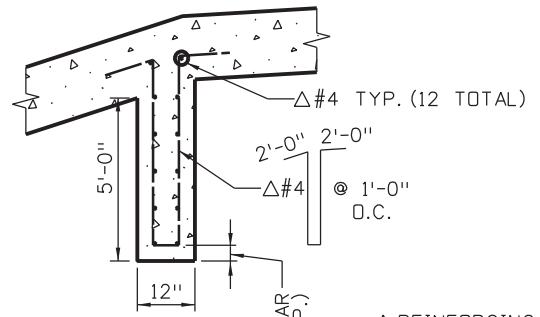
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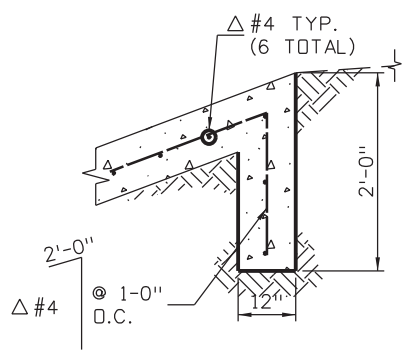
**PLAN VIEW
CONCRETE SLOPE AND DITCH PAVING (SPECIAL)
AT SAND GULCH**
N.T.S.



DETAIL 1
N.T.S.



DETAIL 2
N.T.S.

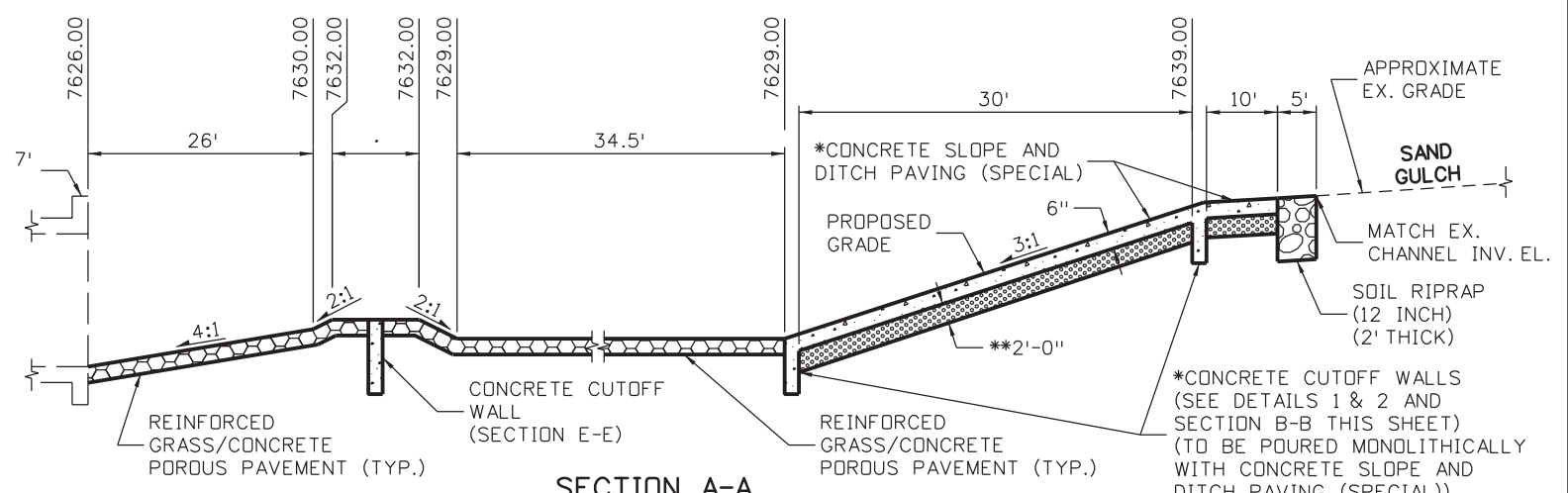


DETAIL 3
N.T.S.

Δ REINFORCING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT INCLUDED IN THE PAY ITEM CONCRETE CLASS B.

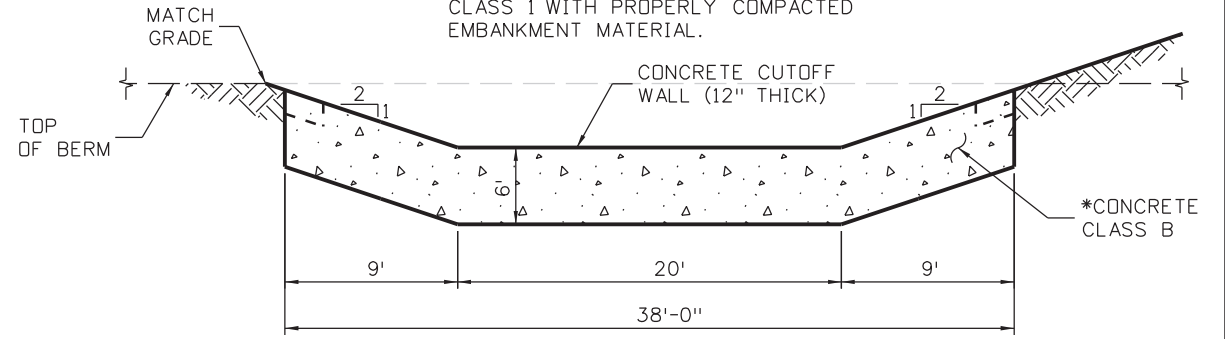
*2.5 LBS. OF AN APPROVED POLYPROPYLENE FIBER, PER CUBIC YARD OF CONCRETE, IN THE SLOPE PAVING AND CUTOFF WALLS. THE FIBER SHALL BE ADDED TO THE CONCRETE MIX IN SUCH A FASHION THAT THE FIBERS ARE UNIFORMLY DISPERSED IN THE CONCRETE WITHOUT VISIBLE BALLS OR CLUMPS IN EITHER THE FINISHED SLOPE/CUTOFF WALL OR IN THE PLASTIC CONCRETE DELIVERED FROM THE CONCRETE TRUCK.

SLOPE PAVING SHALL BE POURED IN 10 FT. TRANSVERSE SECTIONS WITH A TOOLED CONSTRUCTION JOINT AT EACH SECTION.

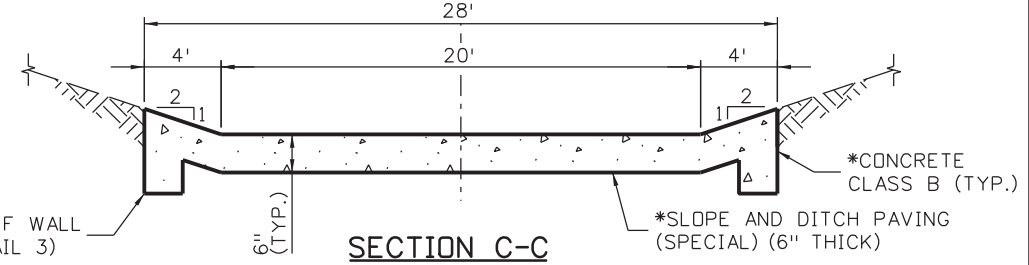


SECTION A-A
N.T.S.

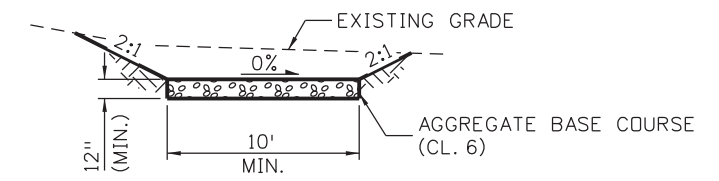
**STRUCTURE BACKFILL (CLASS 1) SLOPE PAVING SUB GRADE PREPARATION SHALL BE PER "DIVISION 200 EARTHWORK" OF CDOT STANDARD SPECIFICATIONS FOR PROOFROLLING, BENCHING AND MOISTURE DENSITY CONTROL. FILL VOIDS REMAINING BELOW 2' OF BACKFILL CLASS 1 WITH PROPERLY COMPACTED EMBANKMENT MATERIAL.



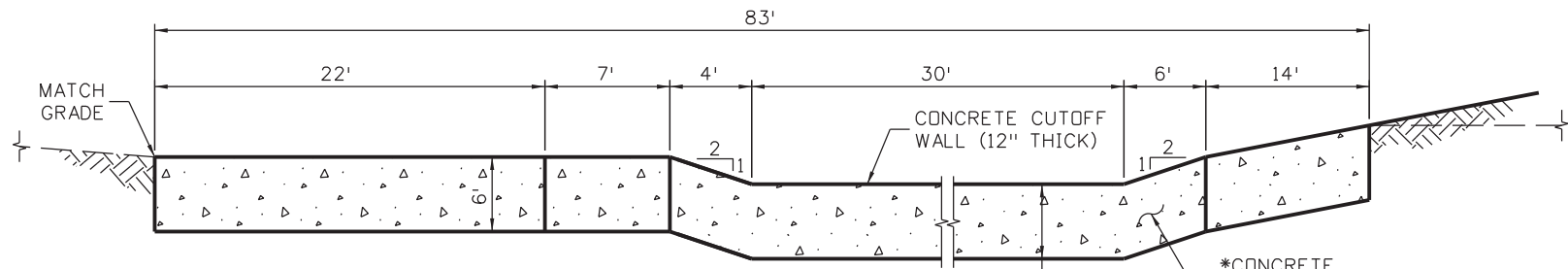
SECTION B-B
N.T.S.
(REINFORCING NOT SHOWN)



SECTION C-C
N.T.S.
(REINFORCING NOT SHOWN)



SECTION D-D
N.T.S.



SECTION E-E
N.T.S.
(REINFORCING NOT SHOWN)

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Detail_SandGulch_02.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON RUNDOWN DETAIL POUR POINT A - SAND GULCH		
Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset: DRAINAGE	Subset Sheets: A-5 of 14	

Project No./Code
NH 0242-056
19358
Sheet Number 20

Kelly 10:34:42 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_SandGulch_02.dgn

POINT DATA TABLE - POUR POINT A - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	397714.99	145904.51	7637.00	FINISHED GRADE	G75	397472.54	145831.20	7614.00	FINISHED GRADE
G2	397709.91	145913.38	7635.00	FINISHED GRADE	G76	397476.72	145835.51	7614.00	FINISHED GRADE
G3	397719.19	145921.74	7634.00	FINISHED GRADE	G77	397465.55	145832.28	7611.00	FINISHED GRADE
G4	397713.59	145941.38	7631.00	FINISHED GRADE	G78	397462.85	145835.63	7609.00	FINISHED GRADE
G5	397735.21	145912.69	7636.00	FINISHED GRADE	G79	397461.96	145838.47	7609.00	FINISHED GRADE
G6	397757.01	145972.42	7629.00	FINISHED GRADE	G80	397466.66	145836.84	7609.00	FINISHED GRADE
G7	397754.83	145954.55	7638.00	FINISHED GRADE	G81	397465.77	145839.67	7609.00	FINISHED GRADE
G8	397758.80	145953.99	7636.00	FINISHED GRADE	G82	397461.36	145840.38	7608.00	FINISHED GRADE
G9	397795.96	145980.61	7640.00	FINISHED GRADE	G83	397458.09	145837.43	7607.00	FINISHED GRADE
G10	397790.85	146000.18	7639.00	FINISHED GRADE	G84	397458.06	145840.87	7607.00	FINISHED GRADE
G11	397781.44	146006.98	7640.00	FINISHED GRADE	G85	397457.08	145840.64	7607.00	FINISHED GRADE
G12	397763.11	145977.50	7629.00	FINISHED GRADE	G86	397455.54	145838.13	7606.00	FINISHED GRADE
G13	397761.06	145996.59	7629.00	FINISHED GRADE	G87	397443.23	145854.23	7606.00	FINISHED GRADE
G14	397743.52	145974.34	7629.00	FINISHED GRADE	G88	397455.15	145846.82	7607.00	FINISHED GRADE
G15	397741.01	145967.72	7629.00	FINISHED GRADE	G89	397456.11	145847.12	7607.00	FINISHED GRADE
G16	397731.24	145967.68	7629.00	FINISHED GRADE	G90	397453.36	145852.54	7607.00	FINISHED GRADE
G17	397730.88	145990.75	7629.00	FINISHED GRADE	G91	397456.96	145854.43	7609.00	FINISHED GRADE
G18	397755.89	145999.29	7629.00	FINISHED GRADE	G92	397458.75	145855.42	7610.00	FINISHED GRADE
G19	397767.84	146015.96	7641.00	FINISHED GRADE	G93	397458.37	145849.92	7608.00	FINISHED GRADE
G20	397755.81	146026.74	7642.00	FINISHED GRADE	G94	397464.10	145851.72	7608.00	FINISHED GRADE
G21	397734.14	146025.68	7645.00	FINISHED GRADE	G95	397466.80	145856.75	7610.00	FINISHED GRADE
G22	397720.54	146021.03	7645.00	FINISHED GRADE	G96	397469.11	145849.09	7606.00	FINISHED GRADE
G23	397705.09	146011.88	7644.00	FINISHED GRADE	G97	397470.89	145843.41	7606.00	FINISHED GRADE
G24	397690.23	145996.34	7641.00	FINISHED GRADE	G98	397477.59	145851.75	7606.00	FINISHED GRADE
G25	397681.29	145984.23	7638.00	FINISHED GRADE	G99	397481.23	145846.64	7606.00	FINISHED GRADE
G26	397676.81	145967.36	7636.00	FINISHED GRADE	G100	397479.12	145841.79	7608.00	FINISHED GRADE
G27	397687.04	145969.53	7632.00	FINISHED GRADE					
G28	397723.21	145922.64	7634.00	FINISHED GRADE					
G29	397735.33	145922.69	7634.00	FINISHED GRADE					
G30	397739.51	145947.71	7631.00	FINISHED GRADE					
G31	397729.51	145947.67	7631.00	FINISHED GRADE					
G32	397727.41	145956.80	7631.00	FINISHED GRADE					
G33	397725.40	145957.00	7632.00	FINISHED GRADE					
G34	397723.69	145946.23	7634.00	FINISHED GRADE					
G35	397719.68	145945.81	7634.00	FINISHED GRADE					
G36	397722.14	145952.95	7634.00	FINISHED GRADE					
G37	397718.05	145952.89	7634.00	FINISHED GRADE					
G38	397713.40	145956.82	7632.00	FINISHED GRADE					
G39	397709.44	145954.62	7630.00	FINISHED GRADE					
G40	397693.36	145959.28	7626.00	FINISHED GRADE					
G41	397697.23	145968.03	7627.00	FINISHED GRADE					
G42	397690.44	145973.35	7631.00	FINISHED GRADE					
G43	397710.96	145985.23	7631.00	FINISHED GRADE					
G44	397712.95	145986.09	7632.00	FINISHED GRADE					
G45	397716.89	145990.15	7634.00	FINISHED GRADE					
G46	397720.77	145997.87	7634.00	FINISHED GRADE					
G47	397720.89	145990.21	7634.00	FINISHED GRADE					
G48	397724.95	145986.27	7632.00	FINISHED GRADE					
G49	397726.96	145985.22	7631.00	FINISHED GRADE					

POINT DATA TABLE - POUR POINT A - SOIL RIPRAP (12 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SR1	397794.60	145971.42	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR2	397808.85	145972.94	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR3	397804.81	146010.72	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR4	397790.56	146009.20	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR5	397720.76	145916.12	7634.92	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR6	397716.00	145914.58	7634.92	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR7	397706.88	145942.86	7631.08	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR8	397684.85	145952.07	7635.50	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR9	397680.48	145958.10	7636.08	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR10	397660.40	145968.53	7638.04	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR11	397665.01	145977.40	7637.92	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR12	397682.93	145968.09	7633.50	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR13	397688.42	145981.42	7635.00	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR14	397706.86	145992.10	7635.00	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR15	397706.78	145996.99	7637.04	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR16	397718.44	145997.17	7634.75	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT A - SLOPE AND DITCH PAVING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SD1	397803.35	145977.38	-	SLOPE AND DITCH PAVING MATCH EX. GRADE ELEVATION
SD2	397800.37	146005.22	-	SLOPE AND DITCH PAVING MATCH EX. GRADE ELEVATION
SD3	397797.95	145980.82	7640.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD4	397795.82	146000.71	7640.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION

POINT DATA TABLE - POUR POINT A - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	397725.60	145902.65	7638.33	ABC (CL. 6) FINISHED GRADE EL.
BC2	397735.08	145902.69	7639.04	ABC (CL. 6) FINISHED GRADE EL.
BC3	397725.31	145927.65	7633.00	ABC (CL. 6) FINISHED GRADE EL.
BC4	397735.46	145927.23	7633.25	ABC (CL. 6) FINISHED GRADE EL.
BC5	397726.41	145932.66	7632.50	ABC (CL. 6) FINISHED GRADE EL.
BC6	397736.66	145932.70	7632.50	ABC (CL. 6) FINISHED GRADE EL.


POINT DATA TABLE - POUR POINT A - LOG DEFLECTOR

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
LD1	397813.70	145953.01	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD2	397818.88	145994.29	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD3	397806.14	146033.90	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)

POINT DATA TABLE - POUR POINT A - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	397794.27	145971.38	-	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	397790.23	146009.16	-	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	397764.44	145968.19	7633.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	397760.40	146005.97	7633.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	397721.24	145924.11	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	397721.63	145946.26	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	397720.24	145952.92	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W8	397719.40	145956.91	7632.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W9	397718.95	145986.18	7632.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W10	397718.89	145990.18	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W11	397718.63	146006.89	7638.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

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 File Name: 19358HYDR_Detail_SandGulch_03.dgn
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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 Phone: 719-227-3201
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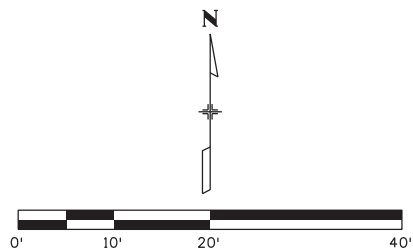
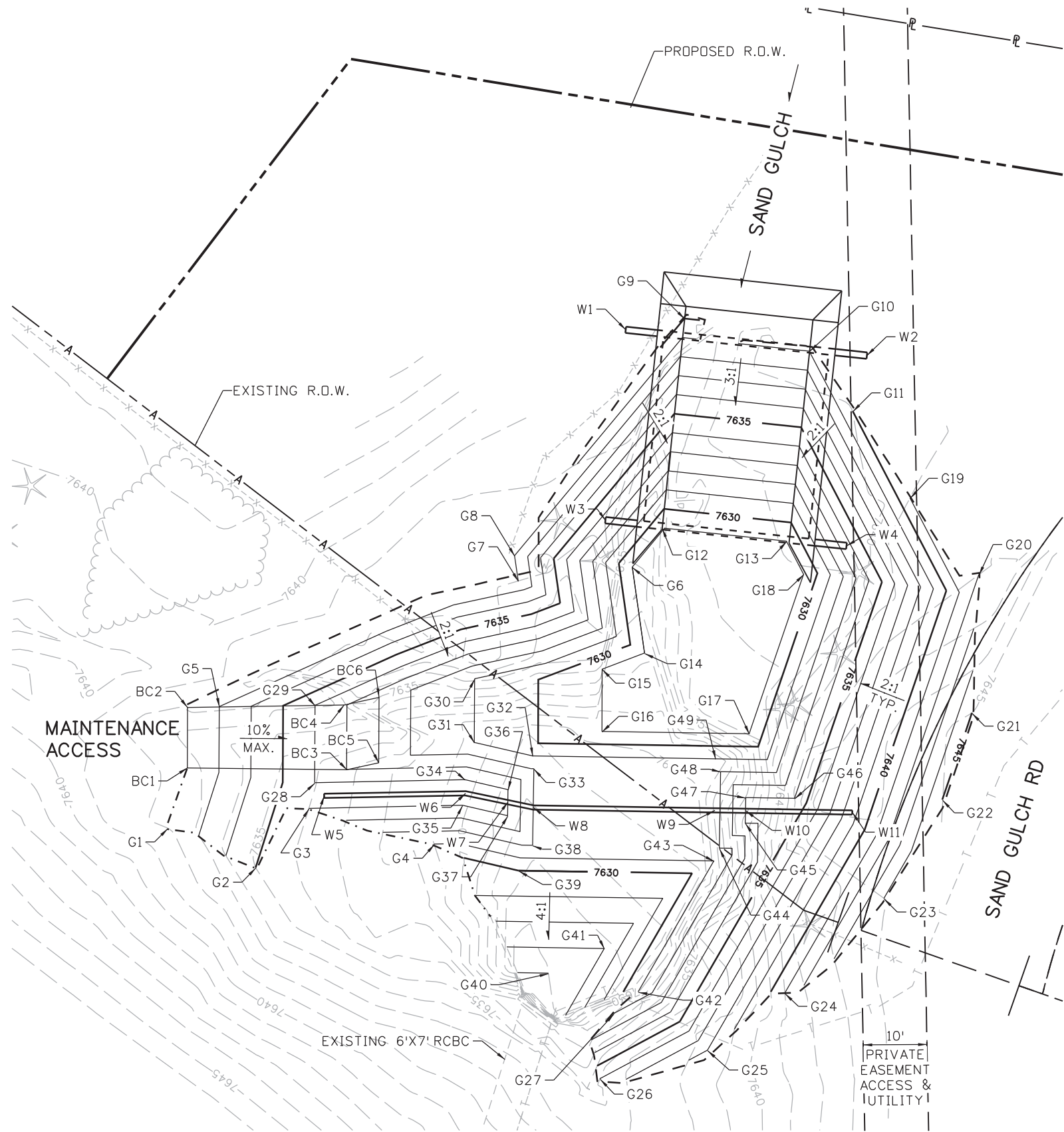
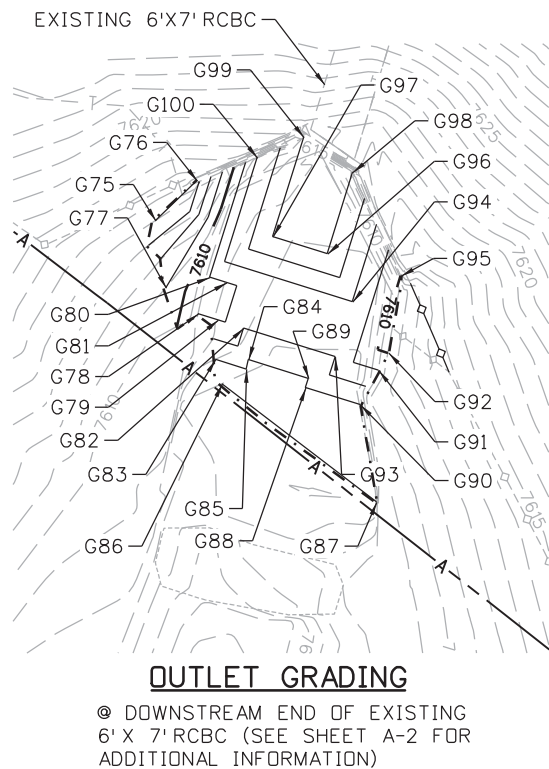
US 24 WALDO CANYON
 DETAIL
 POUR POINT A - SAND GULCH

Designer: CDT
 Detailer: KLT
 Sheet Subset: DRAINAGE Subset Sheets: A-6 of 14

Project No./Code
 NH 0242-056
 19358
 Sheet Number **21**

Kelly 10:34:43 AM K:\112266-06_19358_Hydraulics\Drawings\19358HYDR_Detail_SandGulch_03.dgn

Kelly 10:34:46 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_SandGulch_04.dgn



LEGEND
 - - - - - TOE OF FILL
 - - - - - TOP OF CUT

Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_SandGulch_04.dgn	
Horiz. Scale: 1:20 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

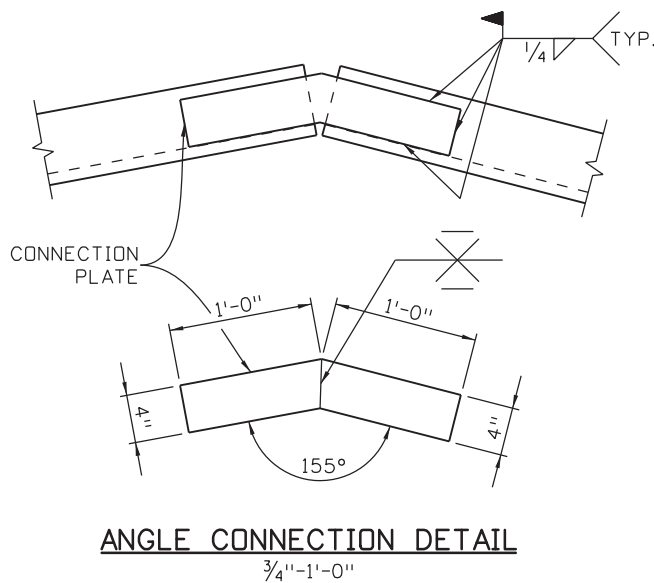
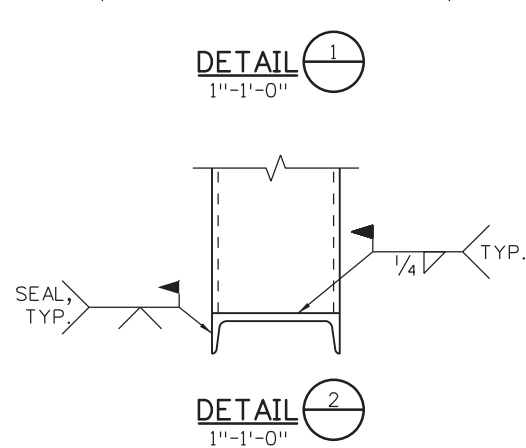
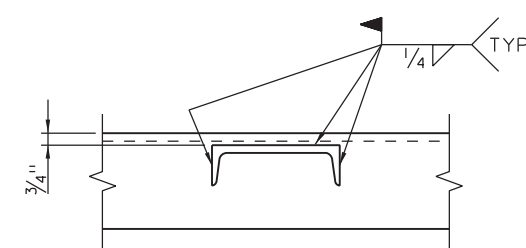
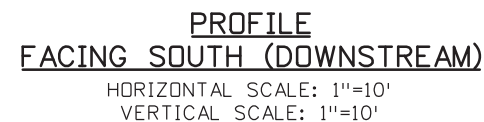
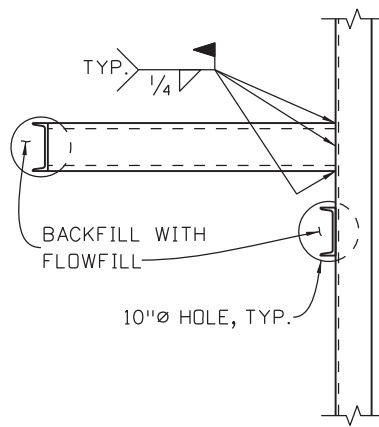
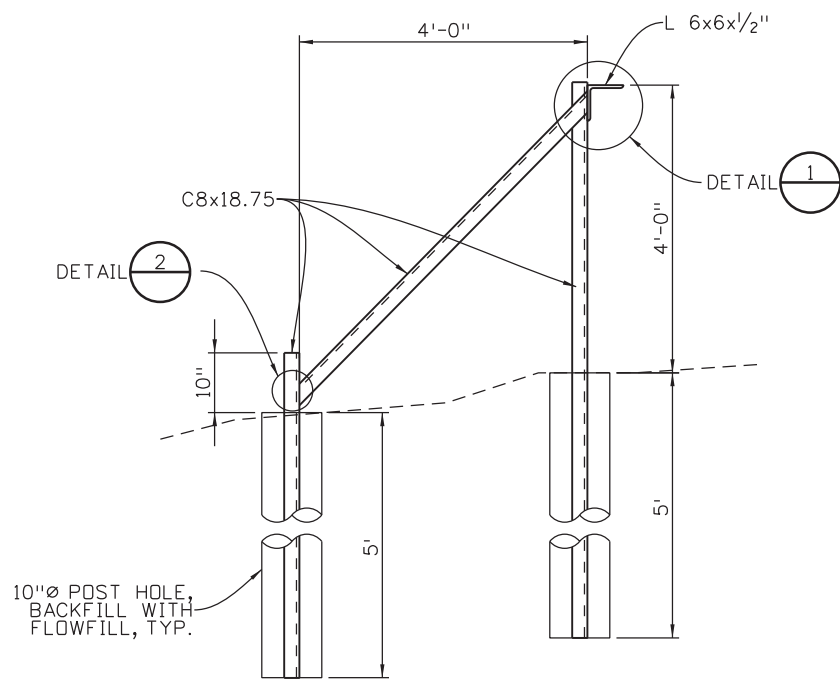
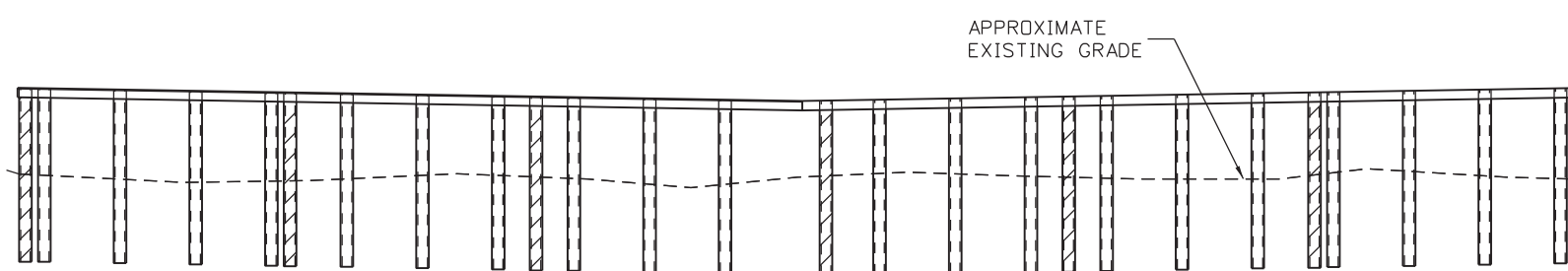
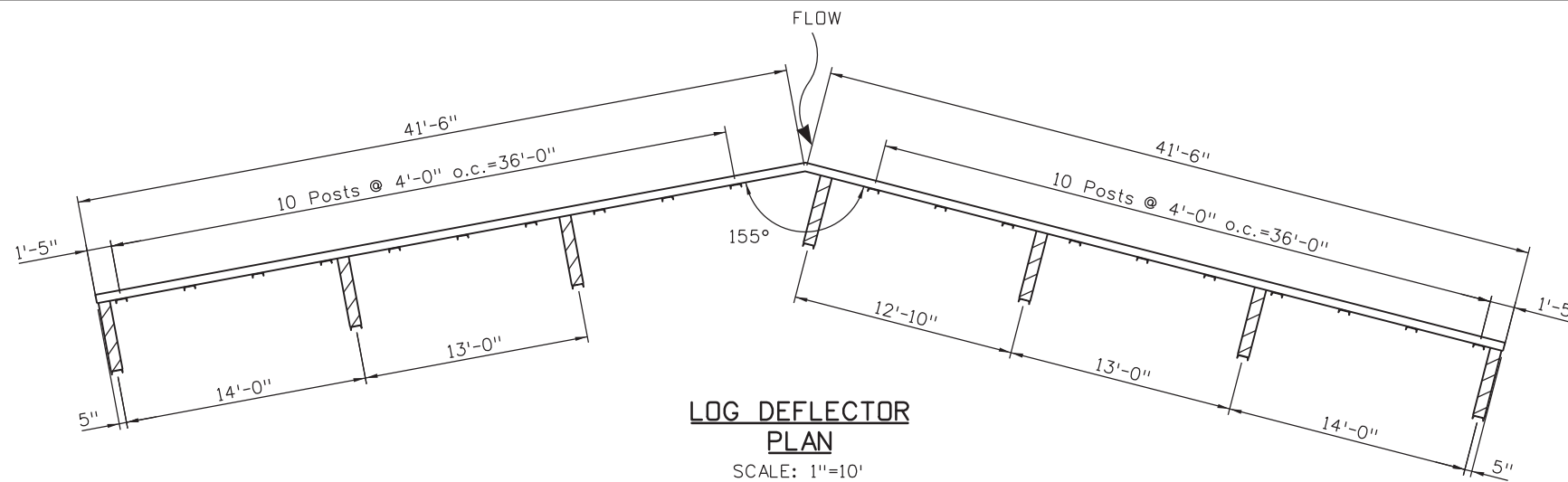
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Revised:
Void:

US 24 WALDO CANYON GRADING DETAIL			
POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	DRAINAGE	Subset Sheets:	A-7 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 22



NOTES:

ALL STEEL SHALL BE A588.

ALL LABOR, MATERIALS EXCAVATION AND INCIDENTAL ITEMS REQUIRED FOR CONSTRUCTION OF LOG DEFLECTOR SHALL BE INCLUDED IN THE COST OF LOG DEFLECTOR (1 EA).

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Detail_SandGulch_05-Steel.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
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US 24 WALDO CANYON DETAIL POUR POINT A - SAND GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	A-8 of 14
Sheet Subset:	DRAINAGE		

Project No./Code
NH 0242-056
19358
Sheet Number 23

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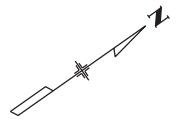
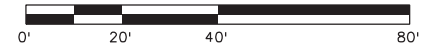
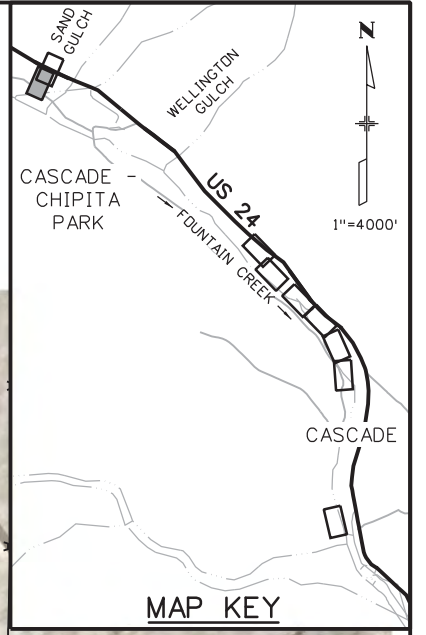


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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Print Date: 3/18/2013	
File Name: 19358Erosion_INI_SandGulch_01.dgn	
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Unit Information	Unit Leader Initials
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Sheet Revisions		
Date:	Comments	Init.

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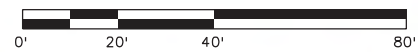
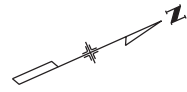
US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN			
POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	A-9 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 24

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Know what's below.
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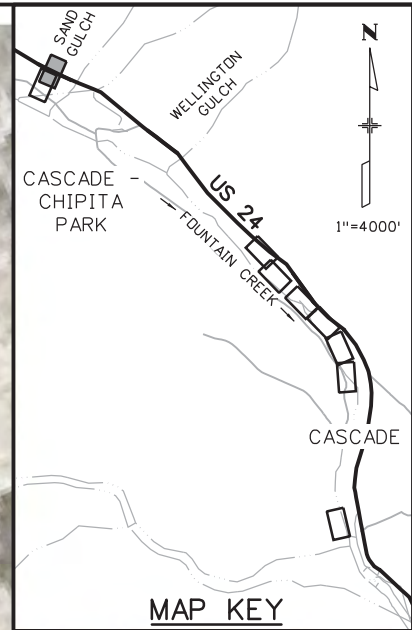


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT A - SAND GULCH

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	A-10 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 25

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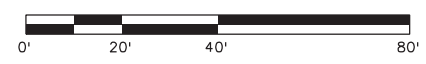
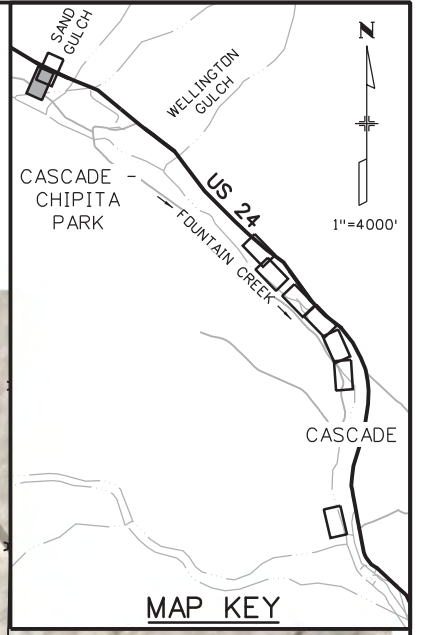


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

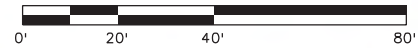
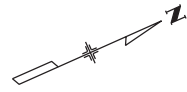


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Print Date: 3/18/2013		Sheet Revisions			Colorado Department of Transportation			As Constructed		US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN		Project No./Code	
File Name: 19358Erosion_INT_SandGulch_01.dgn		Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298			No Revisions:		POUR POINT A - SAND GULCH		NH 0242-056	
Horiz. Scale: 1:40 Vert. Scale: As Noted								Revised:		Designer: CDT		Structure Numbers	
Unit Information Unit Leader Initials					Region 2 LM			Void:		Detailer: KLT		19358	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440								Sheet Subset: EROSION		Subset Sheets: A-11 of 12		Sheet Number 26	



Know what's below.
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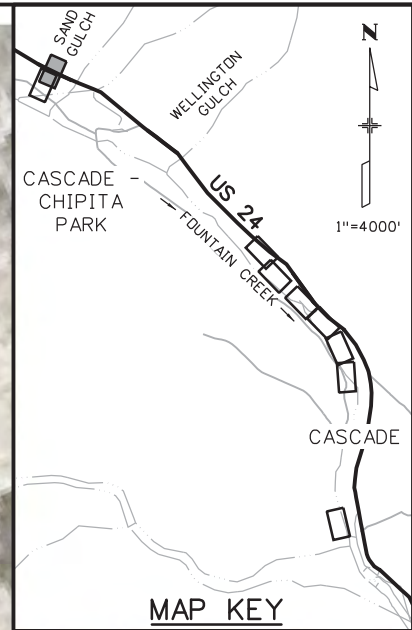
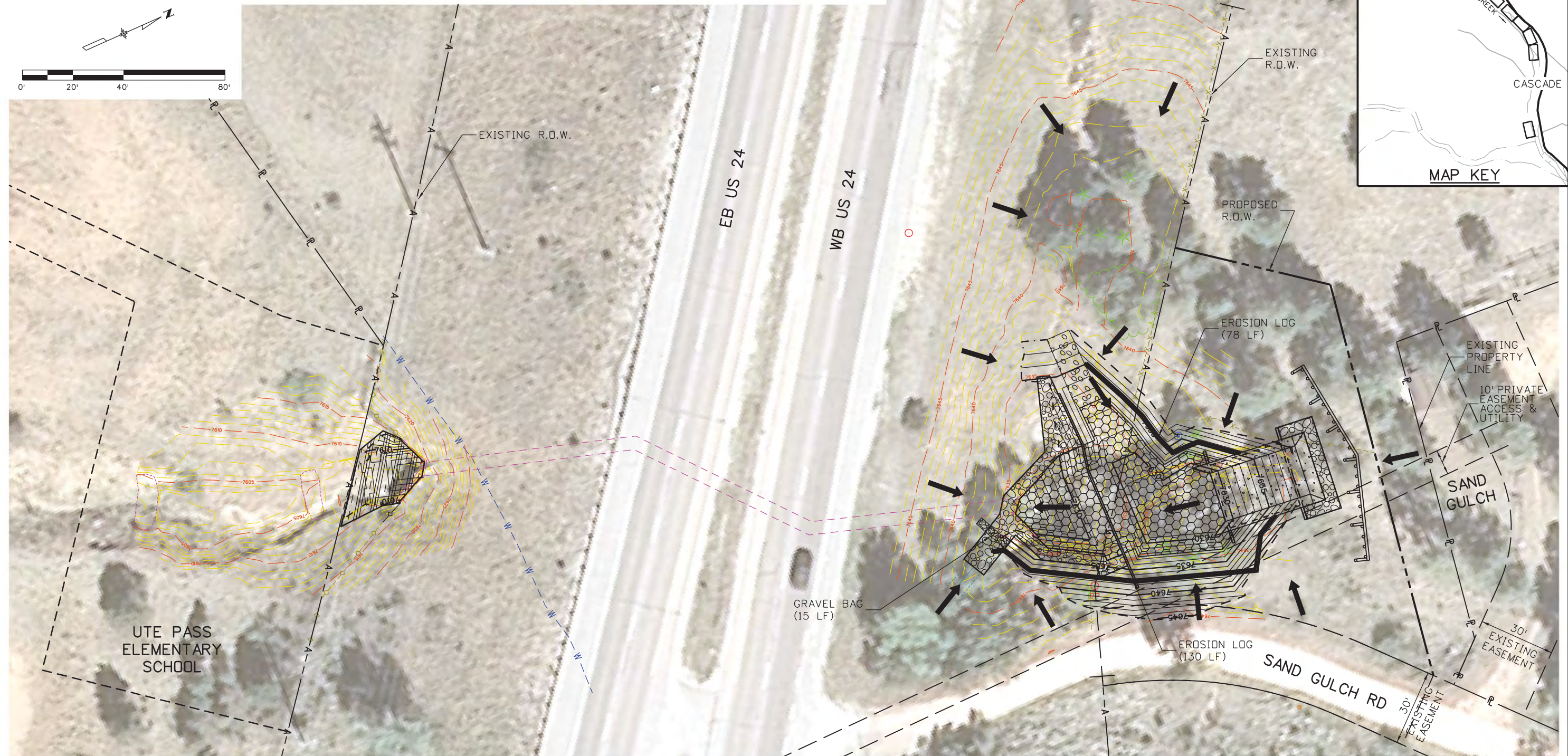


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
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Sheet Revisions		
Date:	Comments	Init.

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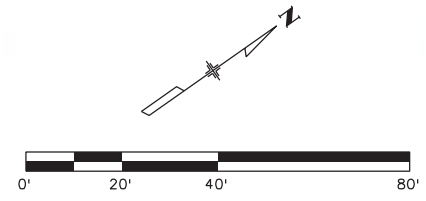
Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT A - SAND GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	A-12 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 27

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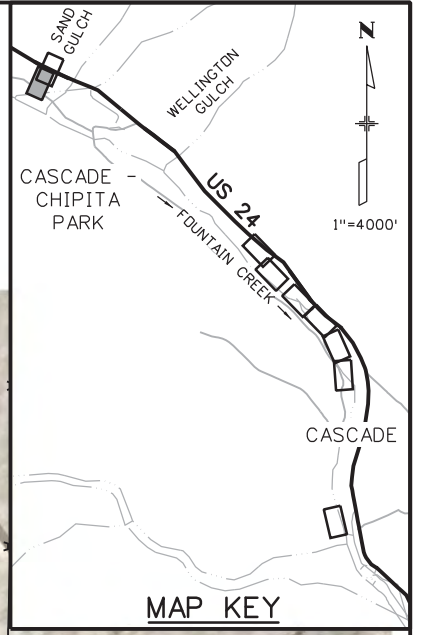
UTE PASS
ELEMENTARY
SCHOOL

LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	0000
File Name: 19358Erosion_FIN_SandGulch_01.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

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Date:	Comments	Init.

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Colorado Springs, CO 80806
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Region 2 LM

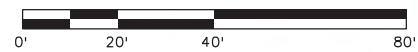
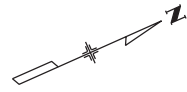
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Revised:
Void:

US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT A - SAND GULCH		
Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset:	EROSION	Subset Sheets: A-13 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 28



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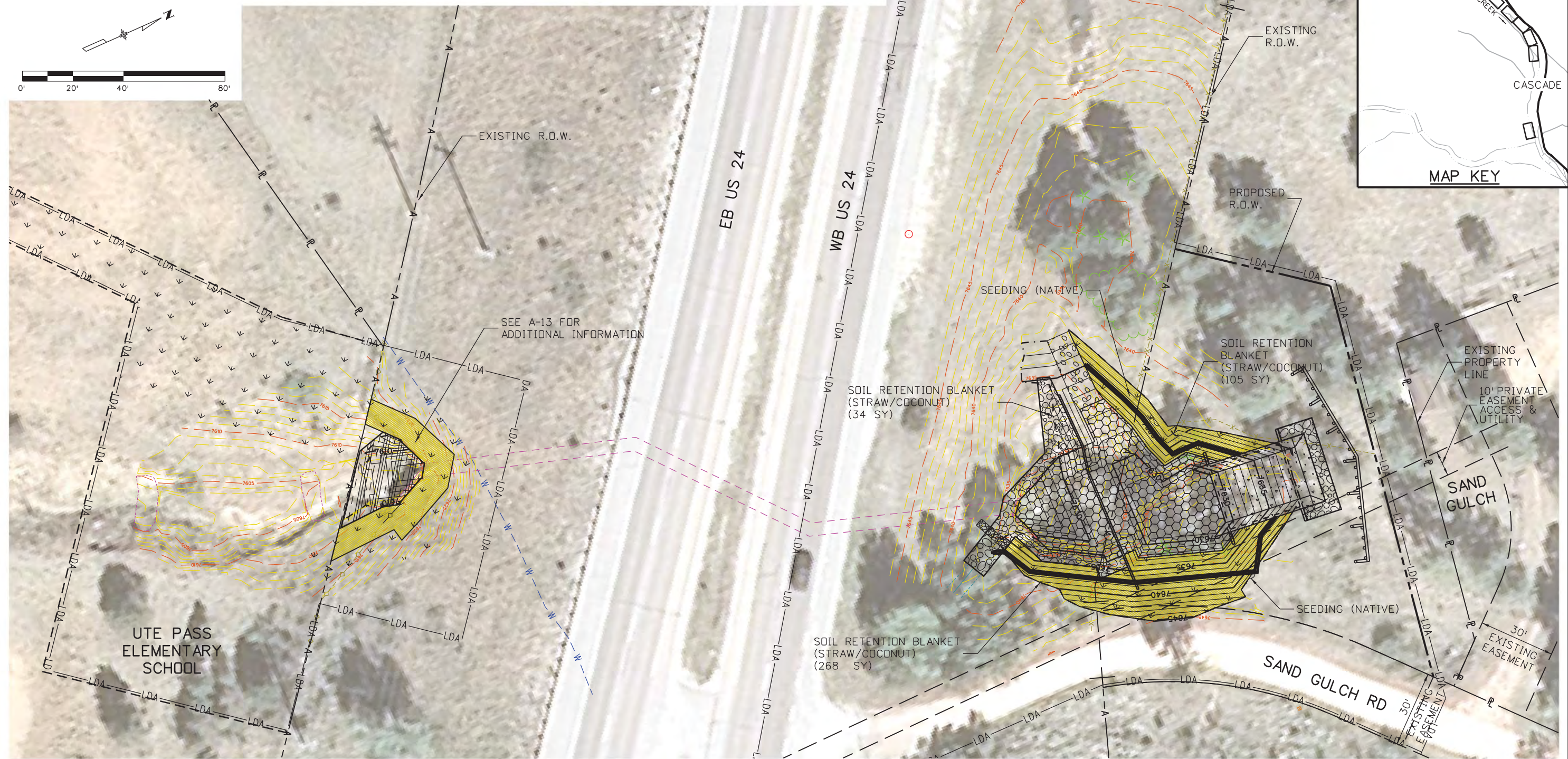
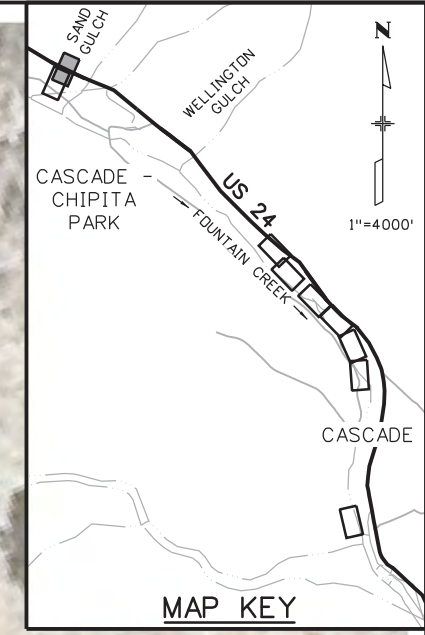


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013
File Name: 19358Erosion_FIN_SandGulch_02.dgn
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Date:	Comments	Init.

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Revised:
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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT A - SAND GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	A-14 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 29

Kelly 10:35:09 AM K:\112266-06\19358 Landscape_Environmental\Drawings_19358Erosion_FIN_SandGulch_02.dgn

POUR POINT B TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	45
202-00035	REMOVAL OF PIPE	LF	3
202-01000	REMOVAL OF FENCE	LF	207
202-04002	CLEAN CULVERT	EA	1
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	2973
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	217
208-00002	EROSION LOG (12 INCH)	LF	293
208-00034	GRAVEL BAG	LF	60
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
212-00006	SEEDING (NATIVE)	AC	0.7
212-00032	SOIL CONDITIONING	AC	0.7
213-00002	MULCHING (WEED FREE)	AC	0.7
214-00215	DECIDUOUS TREE (1.5 INCH CALIPER)	EA	45
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	1165
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	63
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	314
506-00236	RIPRAP (36 INCH)	CY	90
506-00412	SOIL RIPRAP (12 INCH)	CY	118
601-01000	CONCRETE CLASS B	CY	22
607-53173	FENCE CHAIN LINK (SPECIAL) (72 INCH)	LF	260
607-60212	12 FOOT GATE SINGLE (CHAIN LINK)	EA	2
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	1598
615-00620	LOG DEFLECTOR	EA	1

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET		CU. YDS.	
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			WELLINGTON GULCH	34	
			SUBTOTAL	34	
			TOTAL	34	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			WELLINGTON GULCH	2,973	
			OTHER EXCAVATION	0	
			SUBTOTAL	2,973	
			TOTAL FOR PAY QUANTITY	2,973	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	34	
			TOTAL	34	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (34 x 0.040 M. GAL./yd)	M. GAL.	
			TOTAL	1	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY) EMBANKMENT (NET)	CU. YDS.	
			EMBANKMENT X FACTOR (1.15)	39	
			BALANCE TOTAL	39	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	2,973	
			BALANCE TOTAL	-2,934	
				39	

Print Date: 3/18/2013	0000
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Horiz. Scale: 1:1 Vert. Scale: As Noted	
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As Constructed	US 24 WALDO CANYON TABULATION		
No Revisions:	POUR POINT B - WELLINGTON GULCH		
Revised:	Designer: CDT	Structure Numbers	
Void:	Detailer: KLT	Subset Sheets: B-1 of 10	

Project No./Code	NH 0242-056
	19358
Sheet Number	30

Kelly 10:35:12 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Tabs_Earthwork_Wellington.dgn



Know what's below.
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TO SAND GULCH

EB US 24

WB US 24

REMOVAL OF FENCE
(207 LF) (CHAIN LINK)

EXISTING GAS

REMOVAL OF PIPE
(3 LF)

*CLEAN CULVERT
(1 EA)

EXISTING
108" CMP

END OF 108"
CMP (AFTER PIPE
REMOVAL)

REMOVAL OF TREE
(TYP.)
(8 EA)

EXISTING
OVERHEAD ELECTRIC
(TO BE PROTECTED)

EXISTING R.O.W.

EXISTING 18" CMP
(TO REMAIN)

EXISTING
OVERHEAD
ELECTRIC

WELLINGTON ROAD

REMOVAL OF TREE
(TYP.)
(18 EA)

PROTECT EX. ELECTRIC
BOX IN PLACE

EXISTING WATER WELL (TO BE PROTECTED)
(CONTRACTOR TO VERIFY PRIOR TO
CONSTRUCTION)

VARIES
EXISTING
EASEMENT

PROPOSED R.O.W.

WELLINGTON GULCH

PROPOSED R.O.W.

PH3

PH4

REMOVAL OF TREE
(TYP.)
(19 EA)

FOR DRAINAGE
STRUCTURE DETAILS
SEE SHEETS B-3 TO B-7

EXISTING OVERHEAD
ELECTRIC
WITH GUY WIRE
(TO BE PROTECTED)

PROPOSED R.O.W.

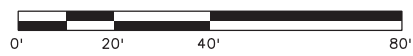
*EXISTING CULVERT TO BE CLEANED; SHALL BE CLEANED
FROM THE INLET SIDE ONLY (NORTH OF US24).

NOTE:

THE REMOVAL OF PIPE (3 LF) SHALL BE
CUT AND MITERED TO THE FINISHED GRADE
SLOPE AS SHOWN IN THE PLANS. SEE DETAILS
FOR FINISHED GRADE ELEVATIONS.

LEGEND

- RIPRAP (36 INCH)
- SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
- AGGREGATE BASE COURSE (CL. 6)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- TOE OF FILL
- TOP OF CUT



Print Date: 3/18/2013

File Name: 19358HYDR_Aerial_Wellington.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

FELSBURG
HOLT &
ULLEVIG
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

0000

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

Region 2

LM

As Constructed

No Revisions:

Revised:

Void:

**US 24 WALDO CANYON
REMOVALS / RESETS
POUR POINT B - WELLINGTON GULCH**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	B-2 of 10
Sheet Subset:	ROADWAY		

Project No./Code

NH 0242-056

19358

Sheet Number **31**

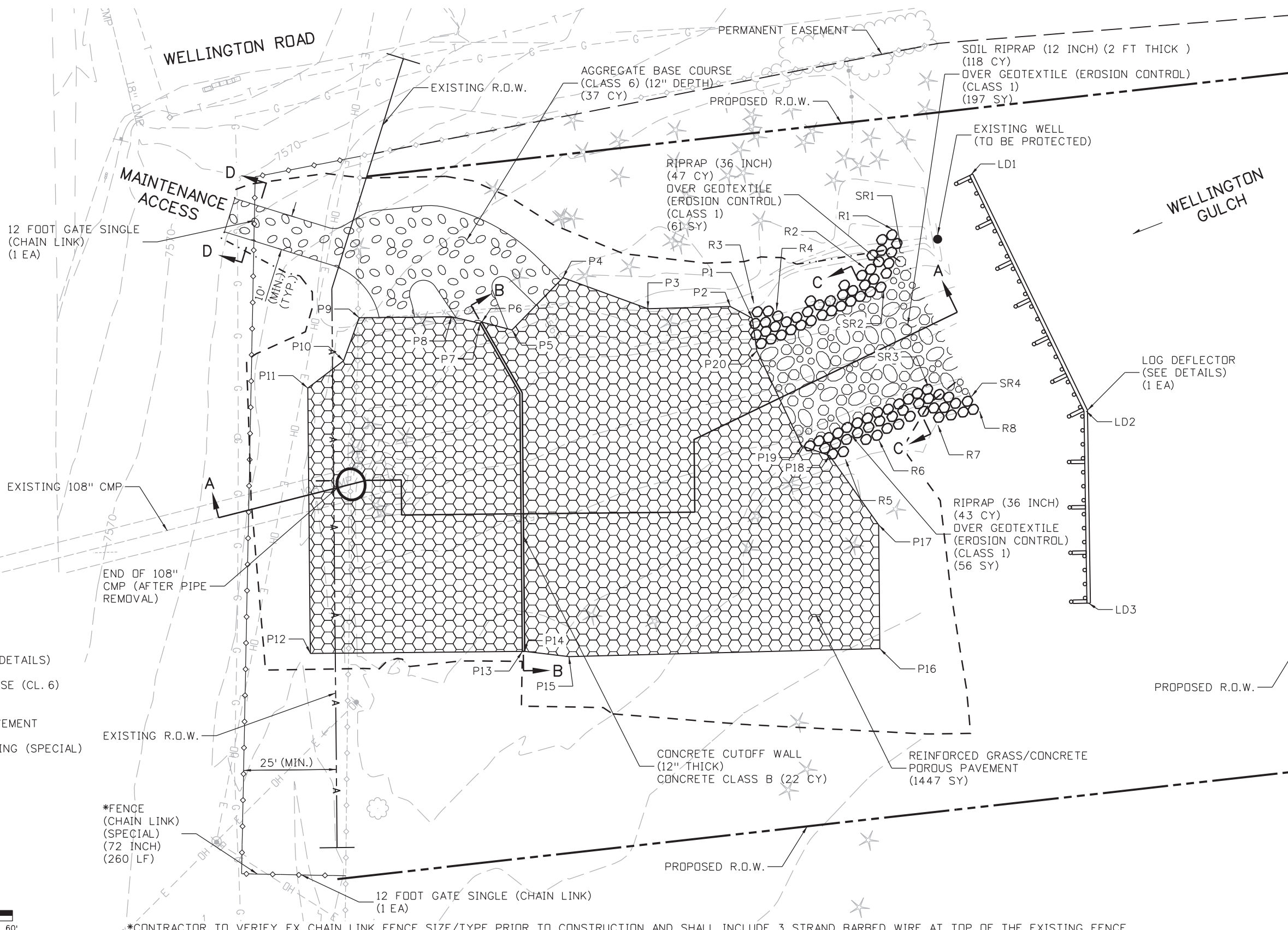
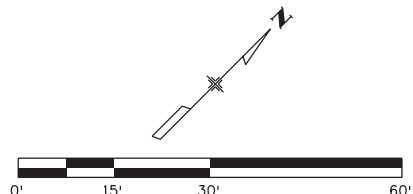


Know what's below.
Call before you dig.

EB US 24

WB US 24

- LEGEND**
- RIPRAP (36 INCH)
 - SOIL RIPRAP (12 INCH)
(SEE SHEET J-10 FOR DETAILS)
 - AGGREGATE BASE COURSE (CL. 6)
 - REINFORCED GRASS/
CONCRETE POROUS PAVEMENT
 - SLOPE AND DITCH PAVING (SPECIAL)
 - TOE OF FILL
 - TOP OF CUT



Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Wellington_01.dgn	
Horiz. Scale: 1:30	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

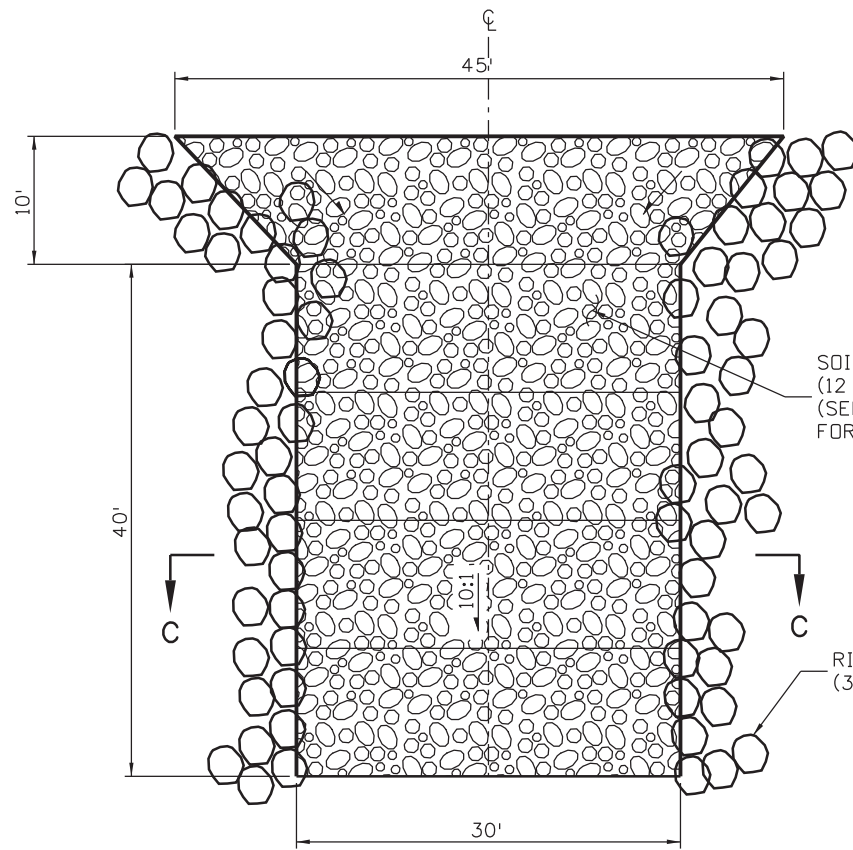
Region 2 LM

As Constructed	
No Revisions:	
Revised:	
Void:	

US 24 WALDO CANYON DETAIL			
POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset: DRAINAGE		Subset Sheets: B-3 of 10	

Project No./Code	NH 0242-056
	19358
Sheet Number	32

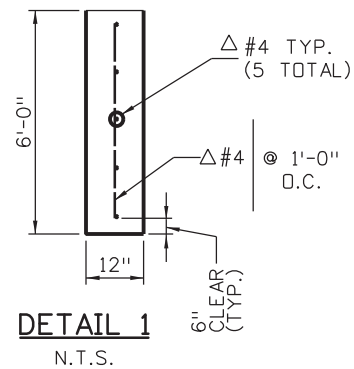
Kelly 10:35:31 AM K:\112266-06\19358HYDR\Drawings\19358HYDR_Detail_Wellington_01.dgn



**PLAN VIEW
SOIL RIPRAP RUNDOWN
AT WELLINGTON GULCH**
N.T.S.

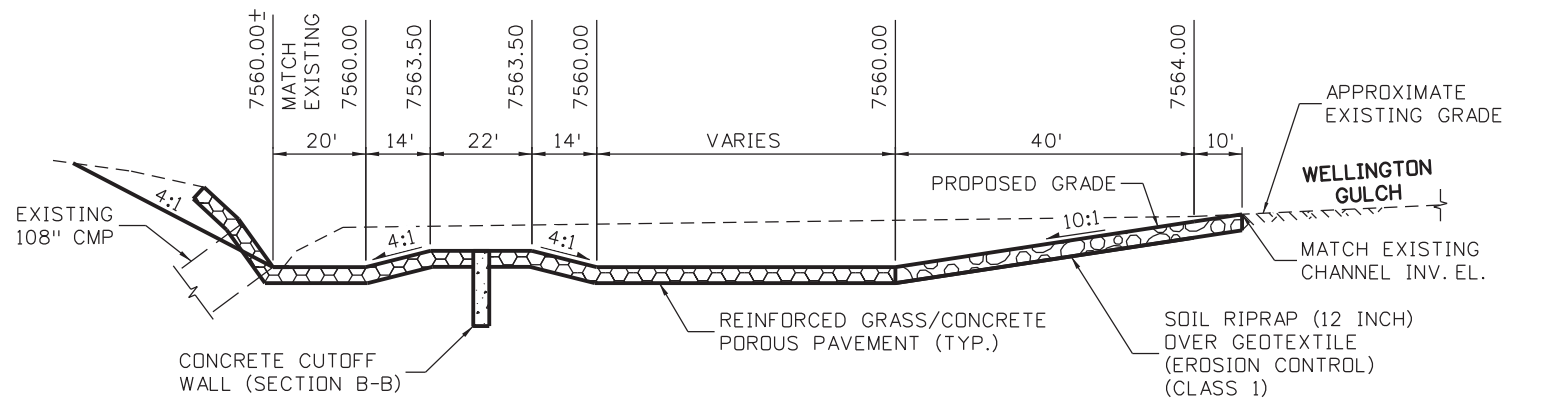
SOIL RIPRAP
(12 INCH)
(SEE SHEET J-10
FOR DETAILS)

RIPRAP
(36 INCH)

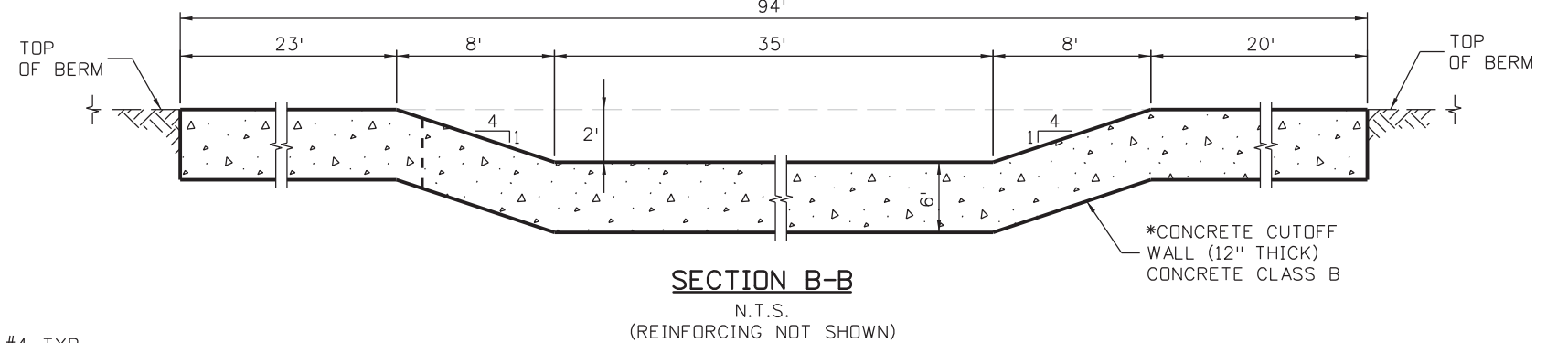


△ REINFORCING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT INCLUDED IN THE PAY ITEM CONCRETE CLASS B.

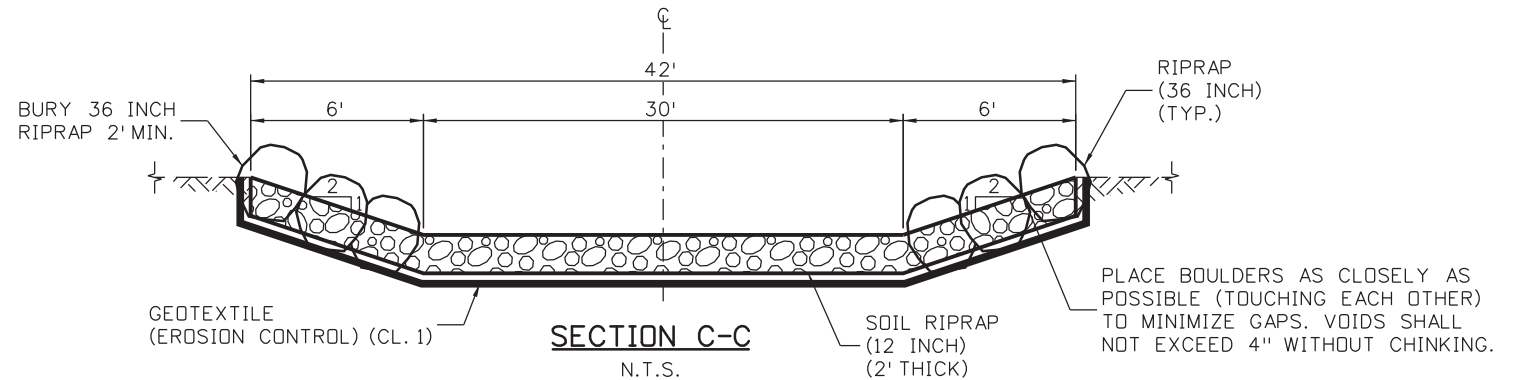
*2.5 LBS. OF AN APPROVED POLYPROPYLENE FIBER, PER CUBIC YARD OF CONCRETE, IN THE SLOPE PAVING AND CUTOFF WALLS. THE FIBER SHALL BE ADDED TO THE CONCRETE MIX IN SUCH A FASHION THAT THE FIBERS ARE UNIFORMLY DISPERSED IN THE CONCRETE WITHOUT VISIBLE BALLS OR CLUMPS IN EITHER THE FINISHED SLOPE/CUTOFF WALL OR IN THE PLASTIC CONCRETE DELIVERED FROM THE CONCRETE TRUCK.



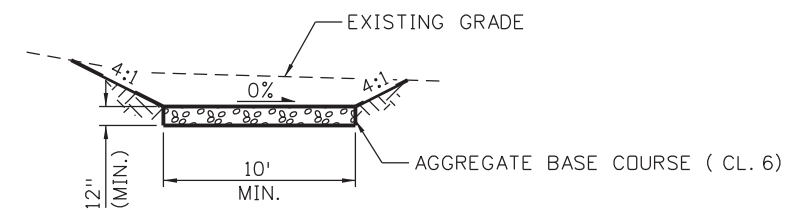
SECTION A-A
N.T.S.



SECTION B-B
N.T.S.
(REINFORCING NOT SHOWN)



SECTION C-C
N.T.S.



SECTION D-D
N.T.S.

Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Wellington_02.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

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No Revisions:
Revised:
Void:

US 24 WALDO CANYON RUNDOWN DETAIL		
POUR POINT B - WELLINGTON GULCH		
Designer: CDT	Structure Numbers	
Detailer: KLT		
Sheet Subset: DRAINAGE	Subset Sheets: B-4 of 10	

Project No./Code
NH 0242-056
19358
Sheet Number 33

POINT DATA TABLE - POUR POINT B - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	396162.89	148013.92	7559.00	FINISHED GRADE
G2	396174.65	148008.24	7559.00	FINISHED GRADE
G3	396195.33	148023.80	7559.00	FINISHED GRADE
G4	396216.23	148047.68	7558.00	FINISHED GRADE
G5	396142.14	148044.32	7558.00	FINISHED GRADE
G6	396158.61	148051.16	7557.00	FINISHED GRADE
G7	396169.04	148046.71	7557.00	FINISHED GRADE
G8	396178.48	148048.10	7555.00	FINISHED GRADE
G9	396190.34	148046.23	7555.00	FINISHED GRADE
G10	396175.40	148061.90	7553.00	FINISHED GRADE
G11	396183.73	148070.66	7553.00	FINISHED GRADE
G12	396226.13	148065.51	7555.00	FINISHED GRADE
G13	396208.56	148073.40	7555.00	FINISHED GRADE
G14	396219.73	148070.94	7555.00	FINISHED GRADE
G15	396236.17	148099.91	7555.00	FINISHED GRADE
G16	396237.15	148112.62	7555.00	FINISHED GRADE
G17	396207.38	148123.03	7550.00	FINISHED GRADE
G18	396219.61	148123.30	7590.00	FINISHED GRADE
G19	396237.10	148142.10	7550.00	FINISHED GRADE
G20	396242.77	148148.19	7550.00	FINISHED GRADE
G21	396263.09	148130.69	7557.00	FINISHED GRADE
G22	396264.85	148146.16	7557.00	FINISHED GRADE
G23	396281.75	148157.13	7557.00	FINISHED GRADE
G24	396289.08	148155.48	7557.00	FINISHED GRADE
G25	396289.09	148157.53	7556.00	FINISHED GRADE
G26	396281.01	148161.33	7555.00	FINISHED GRADE
G27	396279.94	148162.97	7554.00	FINISHED GRADE
G28	396268.86	148190.85	7554.00	FINISHED GRADE
G29	396272.25	148193.46	7555.00	FINISHED GRADE
G30	396264.44	148194.03	7556.00	FINISHED GRADE
G31	396248.79	148196.27	7557.00	FINISHED GRADE
G32	396231.69	148176.07	7550.00	FINISHED GRADE
G33	396227.61	148180.91	7550.00	FINISHED GRADE
G34	396219.58	148201.12	7550.00	FINISHED GRADE
G35	396244.82	148215.75	7557.00	FINISHED GRADE

POINT DATA TABLE - POUR POINT B - LOG DEFLECTOR

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
LD1	396321.53	148158.63	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD2	396294.47	148228.70	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD3	396254.75	148266.90	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)

POINT DATA TABLE - POUR POINT B - RIPRAP (36 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
R1	396317.07	148164.00	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R2	396299.17	148161.45	7558.00	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R3	396252.08	148139.48	7564.04	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R4	396258.02	148147.47	7565.50	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R5	396237.53	148187.46	7563.83	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R6	396271.87	148199.41	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R7	396286.58	148211.09	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R8	396296.98	148217.21	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.

POINT DATA TABLE - POUR POINT B - SOIL RIPRAP (12 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SR1	396320.62	148168.92	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR2	396307.82	148174.05	7566.83	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR3	396296.74	148201.93	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR4	396303.05	148213.12	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.

POINT DATA TABLE - POUR POINT B - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	396194.84	148084.90	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	396187.94	148107.02	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	396184.32	148110.46	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	396179.97	148114.60	7563.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	396154.60	148138.71	7563.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	396150.25	148142.84	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	396134.31	148158.00	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT B - POROUS PAVERS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	396248.74	148140.82	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	396246.89	148133.96	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	396230.37	148117.14	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	396220.28	148093.31	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	396199.36	148092.84	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	396195.16	148084.99	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	396194.52	148084.80	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	396190.31	148077.58	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P9	396172.12	148058.44	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P10	396160.08	148063.57	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	396147.36	148061.43	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	396092.28	148113.79	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	396134.08	148157.76	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	396134.54	148158.24	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	396142.09	148168.54	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	396204.46	148232.04	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P17	396230.14	148207.63	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P18	396235.05	148183.86	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P19	396231.69	148176.07	7560.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P20	396242.77	148148.19	7560.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT B - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	396163.79	148013.48	7569.00	ABC (CL. 6) FINISHED GRADE EL.
BC2	396172.79	148009.13	7569.00	ABC (CL. 6) FINISHED GRADE EL.
BC3	396185.06	148034.56	7566.25	ABC (CL. 6) FINISHED GRADE EL.
BC4	396177.73	148042.37	7565.67	ABC (CL. 6) FINISHED GRADE EL.
BC5	396176.06	148062.59	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC6	396183.04	148069.93	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC7	396190.99	148063.58	7564.50	ABC (CL. 6) FINISHED GRADE EL.
BC8	396193.48	148068.21	7565.00	ABC (CL. 6) FINISHED GRADE EL.
BC9	396198.77	148091.75	7565.00	ABC (CL. 6) FINISHED GRADE EL.
BC10	396212.07	148054.95	7565.75	ABC (CL. 6) FINISHED GRADE EL.
BC11	396217.77	148068.86	7565.25	ABC (CL. 6) FINISHED GRADE EL.
BC12	396207.16	148079.49	7564.75	ABC (CL. 6) FINISHED GRADE EL.
BC13	396209.28	148093.06	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC14	396219.28	148093.29	7563.00	ABC (CL. 6) FINISHED GRADE EL.

Print Date: 3/18/2013
 File Name: 19358HYDR_Detail_Wellington_03.dgn
 Horiz. Scale: 1:10 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 1480 Quail Lake Loop 80806
 Colorado Springs, CO Phone: 719-227-3201 FAX: 719-227-3298
 Region 2 LM

As Constructed
 No Revisions:
 Revised:
 Void:

US 24 WALDO CANYON
 DETAIL
 POUR POINT B - WELLINGTON GULCH

Designer: CDT
 Detailer: KLT
 Sheet Subset: DRAINAGE Subset Sheets: B-5 of 10

Project No./Code
 NH 0242-056
 19358
 Sheet Number **34**

Kelly 10:35:35 AM K:\112266-06\19358HYDR\Drawings\Hydraulics\19358HYDR_Detail_Wellington_03.dgn



Know what's below.
Call before you dig.

EB US 24

WB US 24

WELLINGTON ROAD

WELLINGTON GULCH

EXISTING 108" CMP

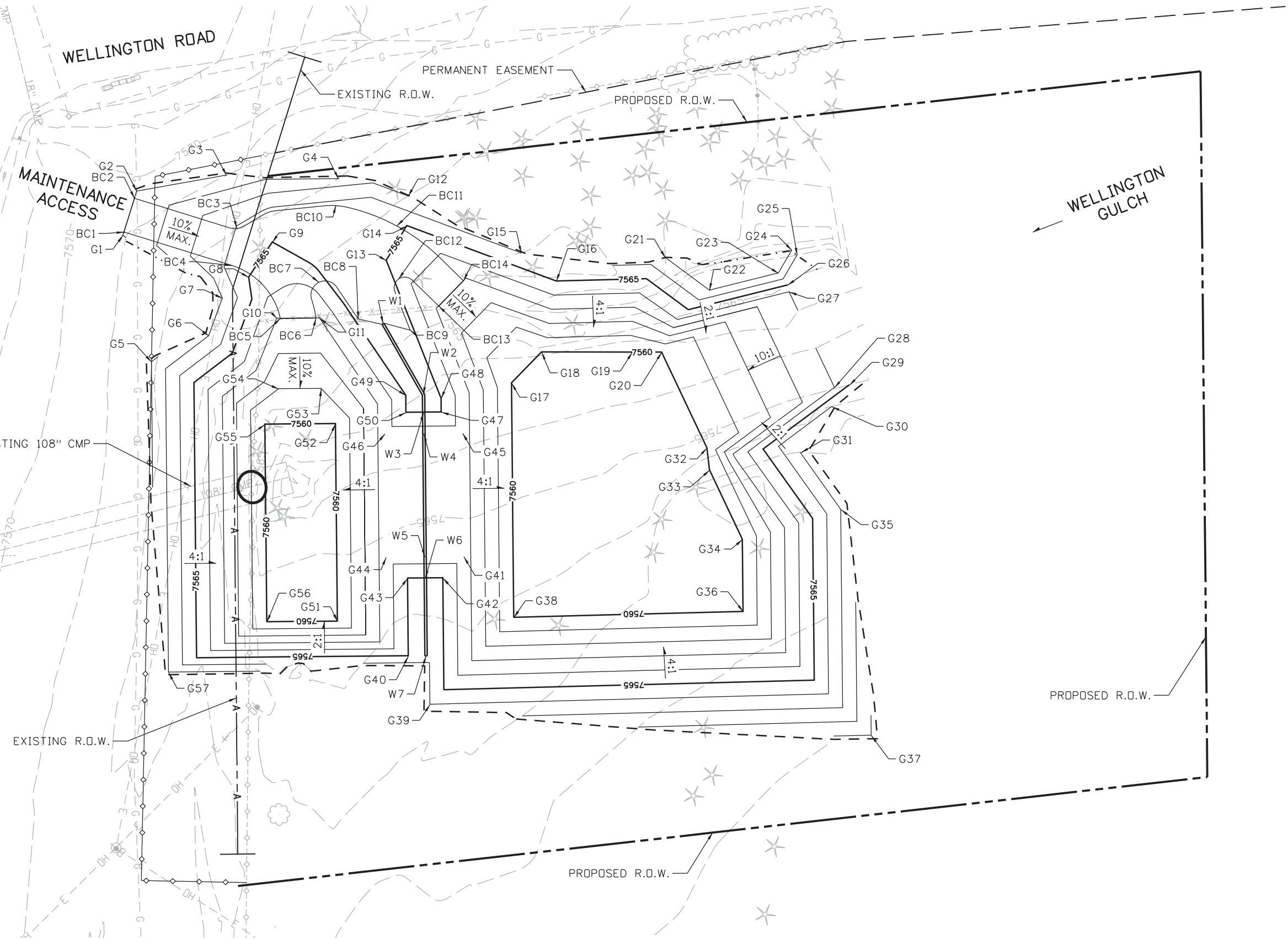
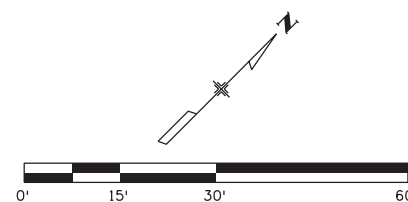
EXISTING R.O.W.

PROPOSED R.O.W.

PERMANENT EASEMENT
EXISTING R.O.W.
PROPOSED R.O.W.

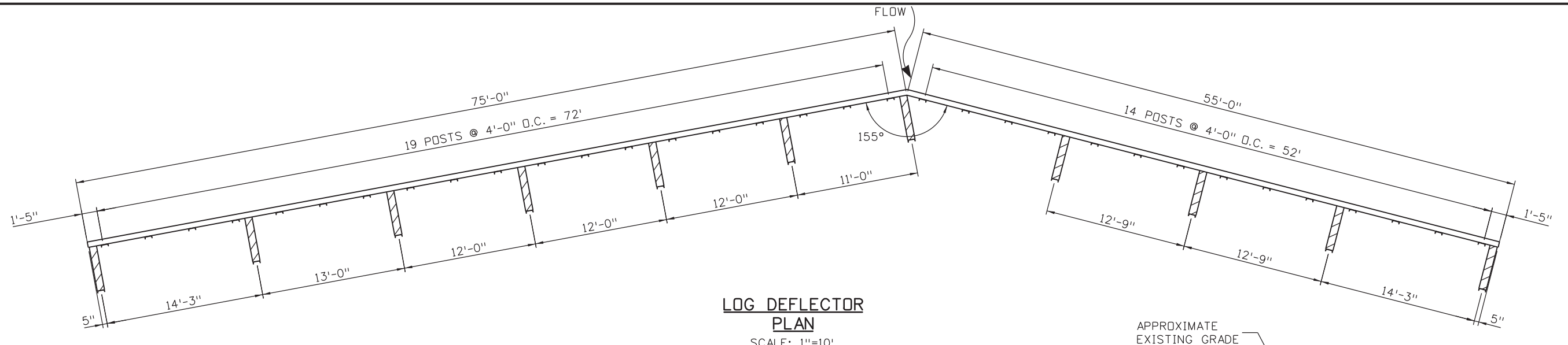
MAINTENANCE ACCESS

LEGEND
 - - - - - TOE OF FILL
 - - - - - TOP OF CUT

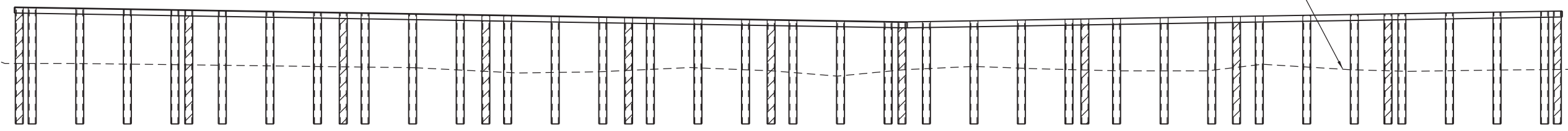


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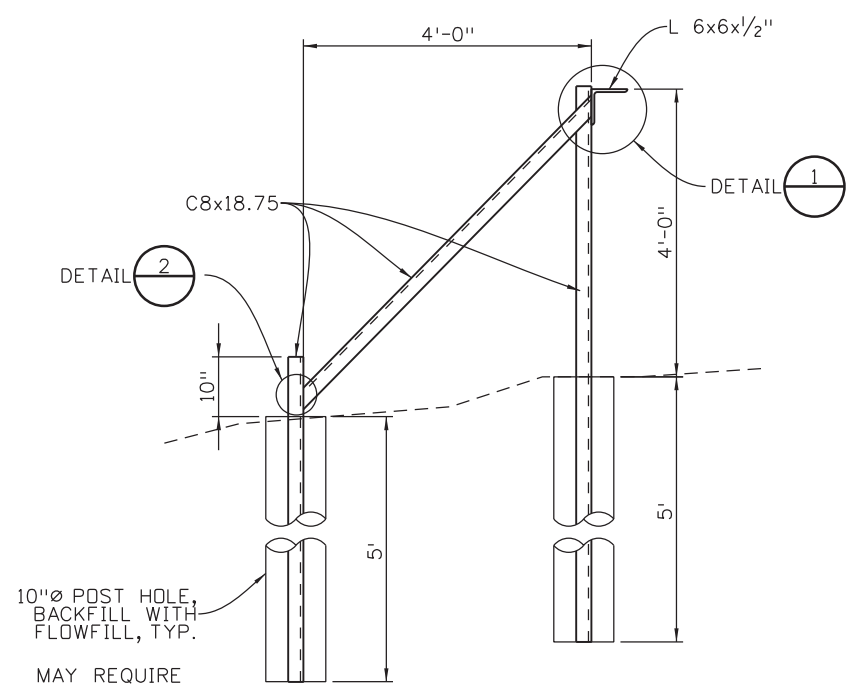
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File Name: 19358HYDR_Detail_Wellington_04.dgn		Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		POUR POINT B - WELLINGTON GULCH		NH 0242-056
Horiz. Scale: 1:30 Vert. Scale: As Noted							Revised:		Designer: CDT		Structure
Unit Information Unit Leader Initials							Void:		Detailer: KLT		Numbers
				Region 2		LM		Sheet Subset: DRAINAGE		Subset Sheets: B-6 of 10	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440										Sheet Number 35	



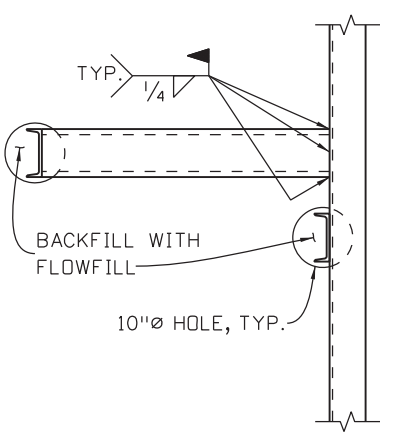
LOG DEFLECTOR PLAN
SCALE: 1"=10'



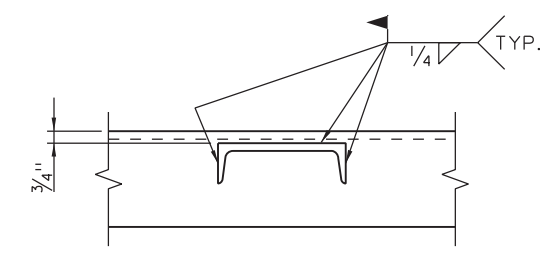
PROFILE FACING SOUTH (DOWNSTREAM)
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



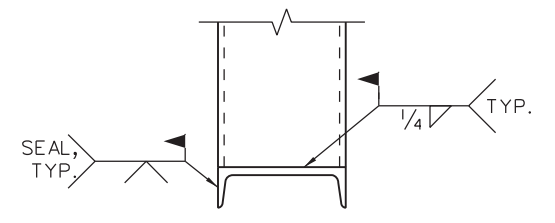
SECTION FACING WEST
SCALE: 3/8"=1'-0"



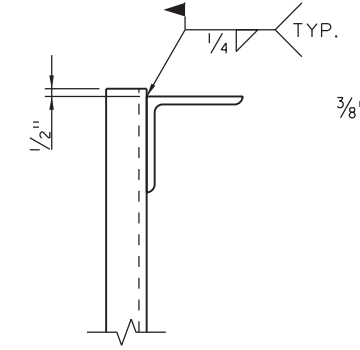
DIAGONAL PLAN
SCALE: 3/8"=1'-0"



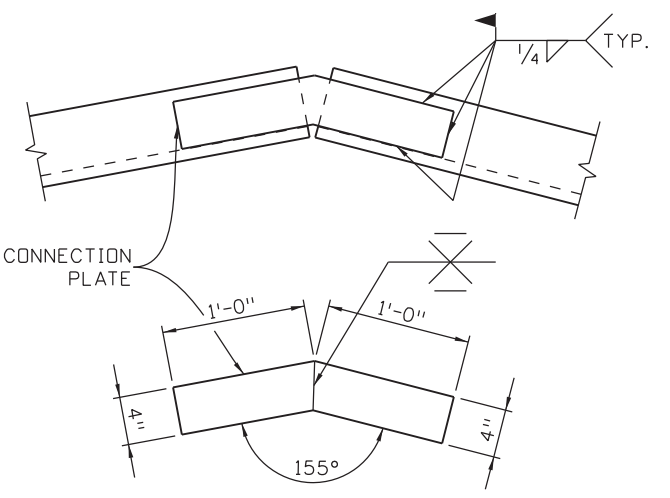
DETAIL 1
1"-1'-0"



DETAIL 2
1"-1'-0"



TOP DETAIL
1"-1'-0"



ANGLE CONNECTION DETAIL
3/4"-1'-0"

NOTES:
ALL STEEL SHALL BE A588.
ALL LABOR, MATERIALS EXCAVATION AND INCIDENTAL ITEMS REQUIRED FOR CONSTRUCTION OF LOG DEFLECTOR SHALL BE INCLUDED IN THE COST OF LOG DEFLECTOR (1 EA).

Kelly 10:35:40 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_Wellington_05-Steel.dgn

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Detail_Wellington_05-Steel.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

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Void:

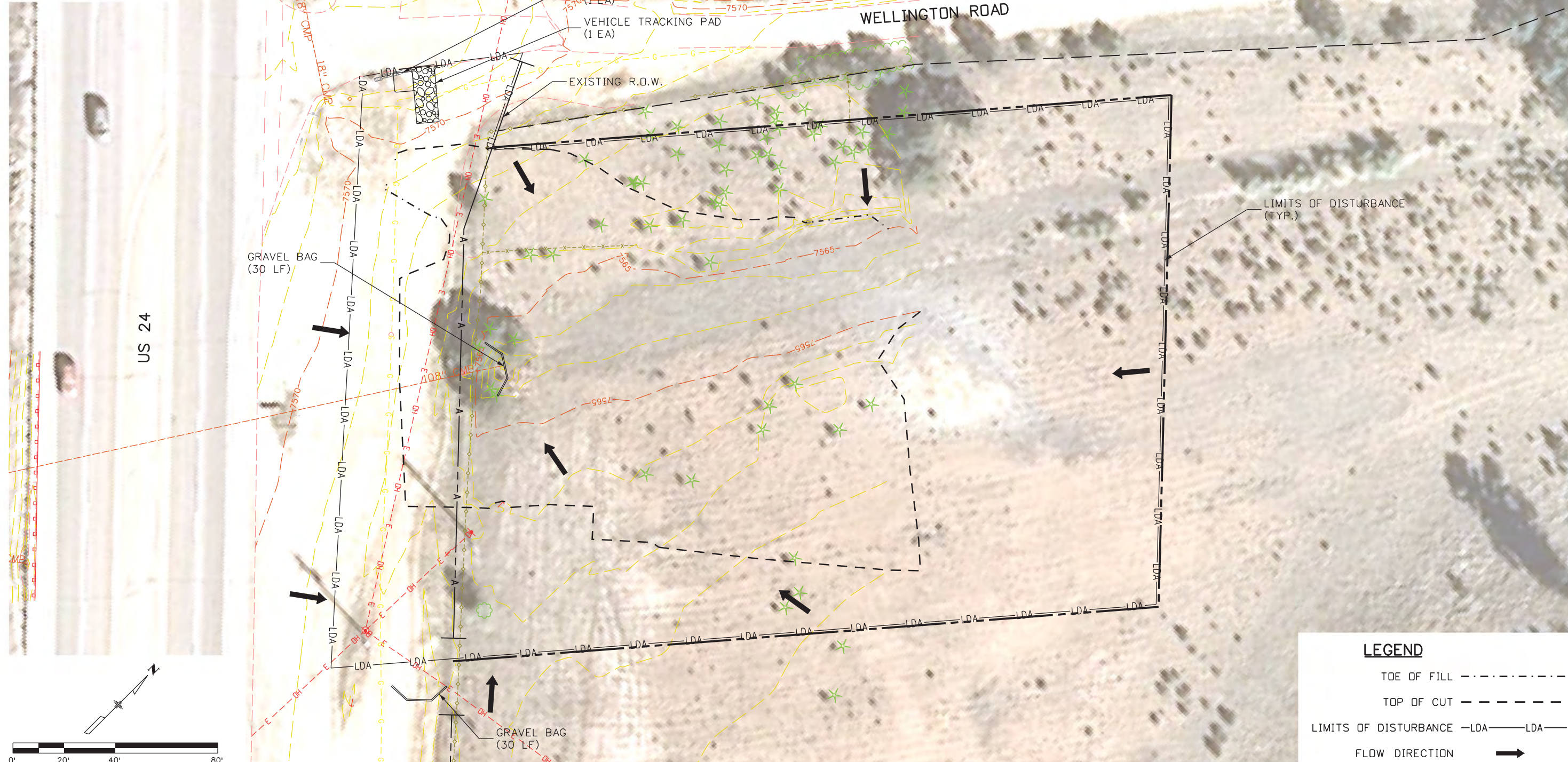
US 24 WALDO CANYON			
DETAIL			
POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset: DRAINAGE		Subset Sheets: B-7 of 10	

Project No./Code
NH 0242-056
19358
Sheet Number 36



Know what's below.
Call before you dig.

NOTES:
1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

Kelly 10:35:43 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_INI_Wellington.dgn

Print Date: 3/18/2013	
File Name: 19358Erosion_INI_Wellington.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
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Revised:
Void:

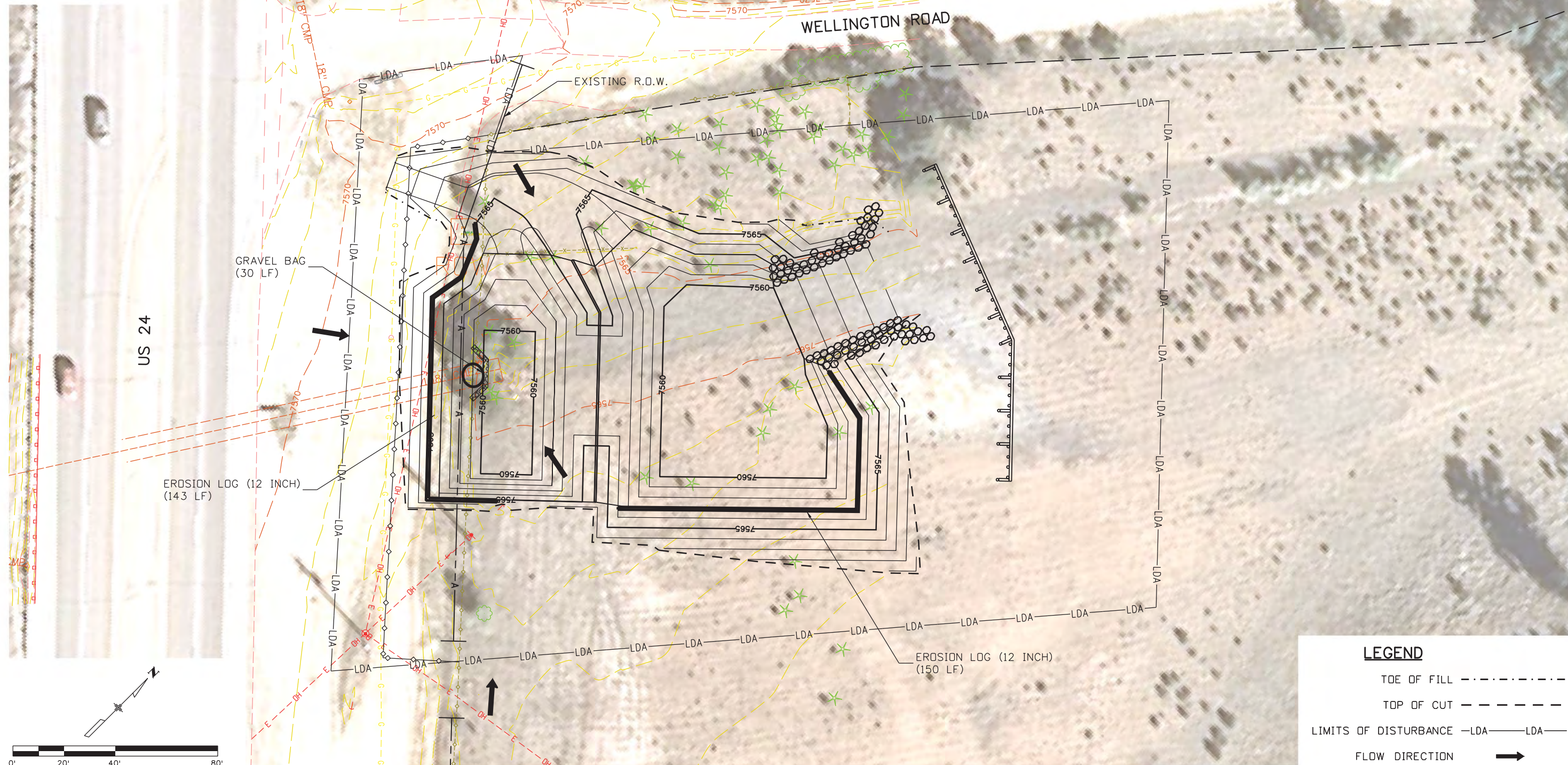
US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	B-8 of 10

Project No./Code	NH 0242-056
	19358
Sheet Number	37



Know what's below.
Call before you dig.

NOTES:
1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

Kelly 10:35:55 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_INT_Wellington.dgn

Print Date: 3/18/2013

File Name: 19358Erosion_INT_Wellington.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

**FELSBURG
HOLT &
ULLEVIG**
6300 South Syracuse Way
Suite 600
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(303) 721-1440

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Region 2

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**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT B - WELLINGTON GULCH**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	B-9 of 10
Sheet Subset:	EROSION		

Project No./Code

NH 0242-056

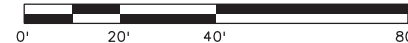
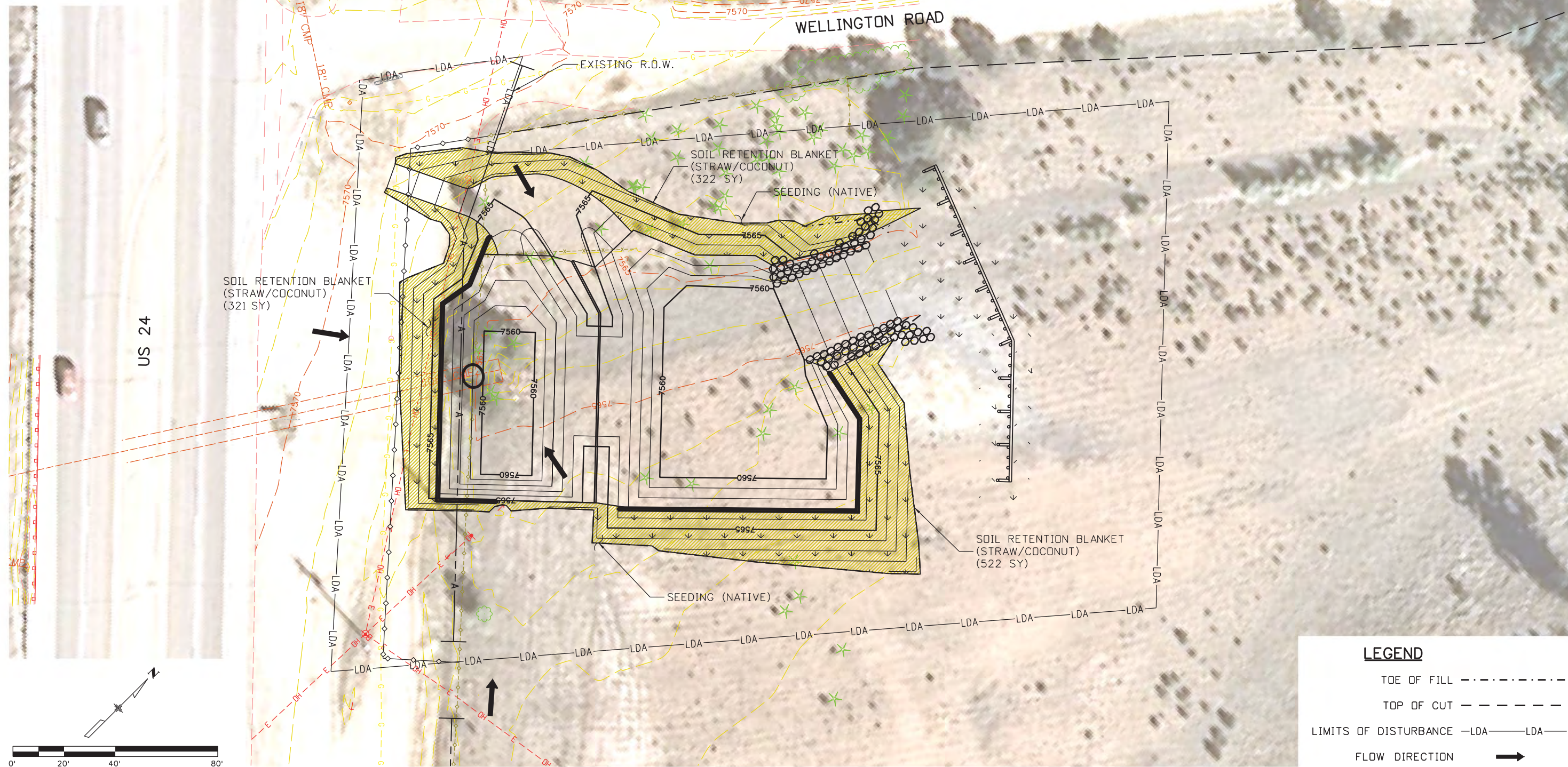
19358

Sheet Number **38**



Know what's below.
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NOTES:
1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	B-10 of 10

Project No./Code
NH 0242-056
19358
Sheet Number 39

POUR POINT C TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-0001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	17
202-00220	REMOVAL OF ASPHALT MAT	SY	792
202-01000	REMOVAL OF FENCE	LF	137
202-04002	CLEAN CULVERT	EA	7
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	3000
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	320
208-00002	EROSION LOG (12 INCH)	LF	1300
208-00020	SILT FENCE	LF	241
208-00034	GRAVEL BAG	LF	486
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-01130	RESET GUARDRAIL TYPE 3	LF	43
212-00006	SEEDING (NATIVE)	AC	0.4
212-00032	SOIL CONDITIONING	AC	0.4
213-00002	MULCHING (WEED FREE)	AC	0.4
214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	17
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	2105
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	23
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	1171
506-00030	GROUTED RIPRAP	CY	120
506-00412	SOIL RIPRAP (12 INCH)	CY	423
507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	120
601-01000	CONCRETE CLASS B	CY	103
603-01240	24 INCH REINFORCED CONCRETE PIPE (CIP)	LF	154
603-01420	42 INCH REINFORCED CONCRETE PIPE (CIP)	LF	108
603-05024	24 INCH REINFORCED CONCRETE END SECTION	EA	4
603-05042	42 INCH REINFORCED CONCRETE END SECTION	EA	2
604-50050	INLET GRATING AND FRAME SPECIAL	EA	1
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	491

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET			
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			CASCADE SLIDE AREA	881	
			SUBTOTAL	881	
			TOTAL	881	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			CASCADE SLIDE AREA	2,921	
			OTHER EXCAVATION	79	
			SUBTOTAL	3,000	
			TOTAL FOR PAY QUANTITY	3,000	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	881	
			TOTAL	881	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (881 x 0.040 M. GAL./yd)	M. GAL. 35	
			TOTAL	35	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YDS.	
			EMBANKMENT (NET)	881	
			EMBANKMENT X FACTOR (1.15)	1,013	
			BALANCE TOTAL	1,013	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	3,000 -1,987	
			BALANCE TOTAL	1,013	

Print Date: 3/18/2013

File Name: 19358HYDR_Tabs_Earthwork_Cascade.dgn

Horiz. Scale: 1:1

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

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**US 24 WALDO CANYON
TABULATION
POUR POINT C - CASCADE**

Designer: CDT
Detailer: KLT

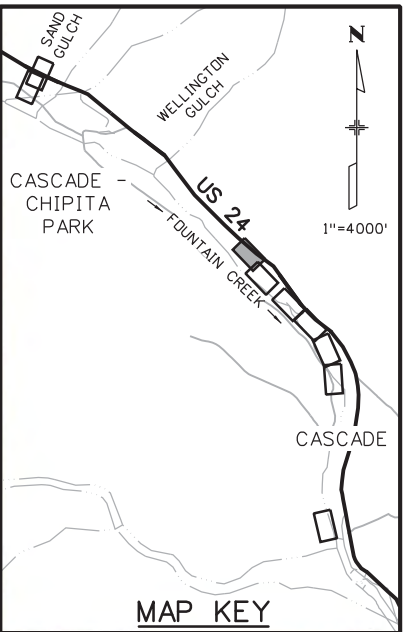
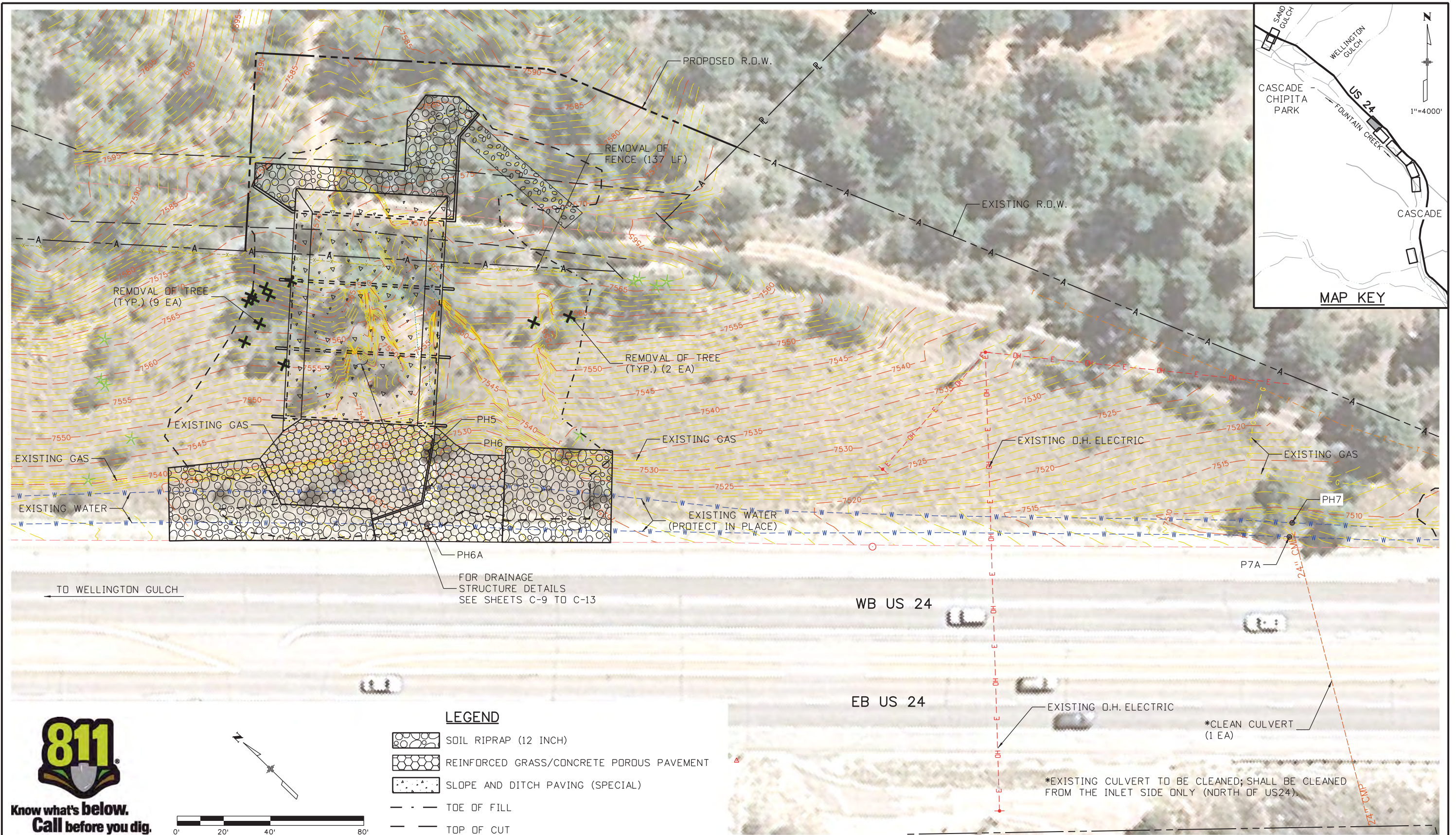
Structure Numbers
Sheet Subset: TAB Subset Sheets: C-1 of 30

Project No./Code

NH 0242-056

19358

Sheet Number **40**



LEGEND

	SOIL RIPRAP (12 INCH)
	REINFORCED GRASS/CONCRETE POROUS PAVEMENT
	SLOPE AND DITCH PAVING (SPECIAL)
	TOE OF FILL
	TOP OF CUT

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Aerial_Cascade_01.dgn	
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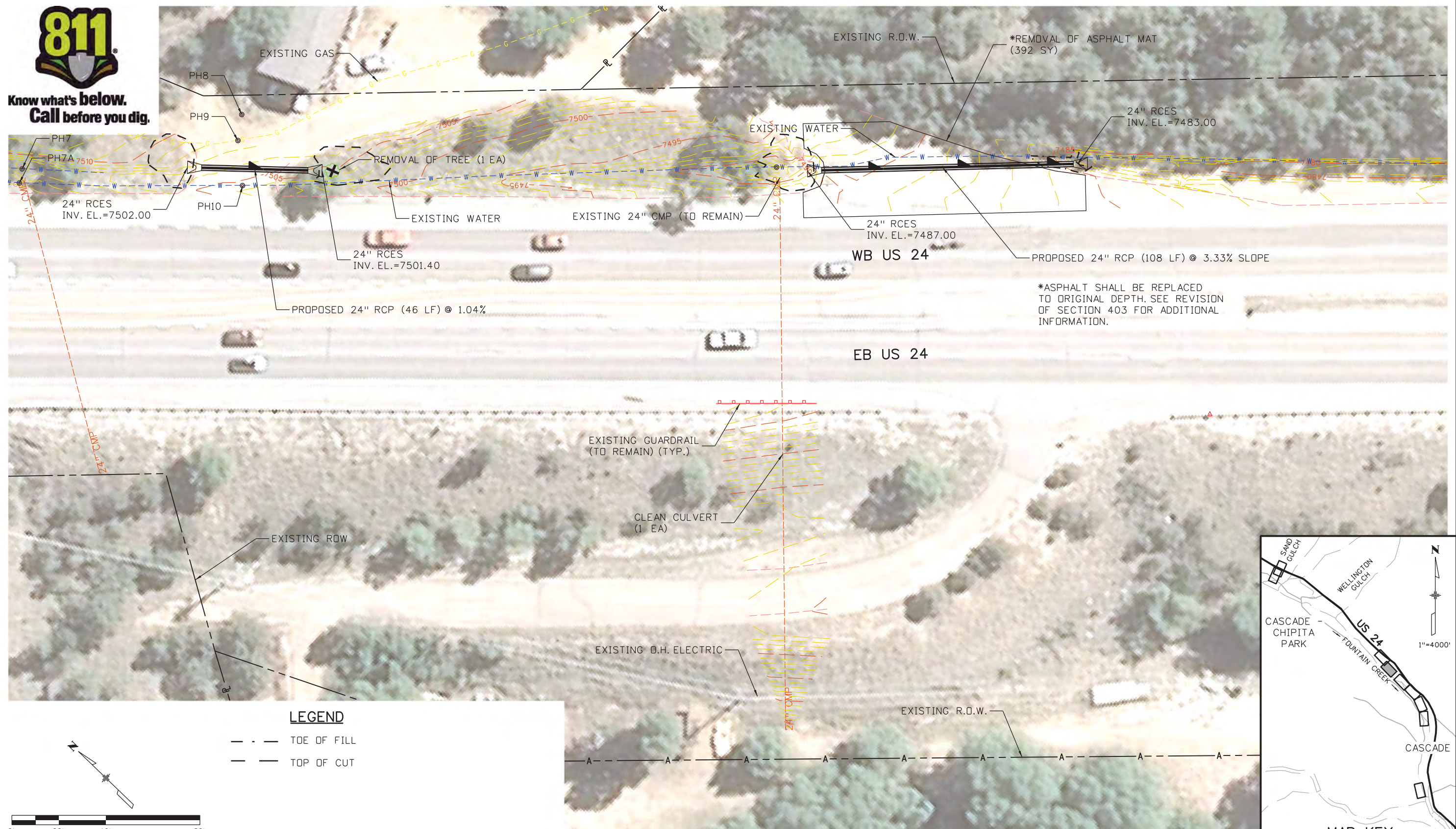
US 24 WALDO CANYON AERIAL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	C-2 of 30
Sheet Subset:	AERIAL		

Project No./Code
NH 0242-056
19358
Sheet Number 41

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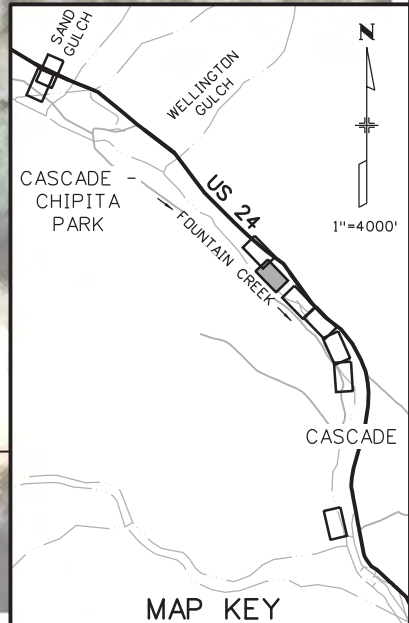
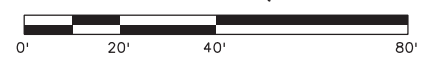
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*ASPHALT SHALL BE REPLACED TO ORIGINAL DEPTH. SEE REVISION OF SECTION 403 FOR ADDITIONAL INFORMATION.

LEGEND

- - - TOE OF FILL
- - - TOP OF CUT

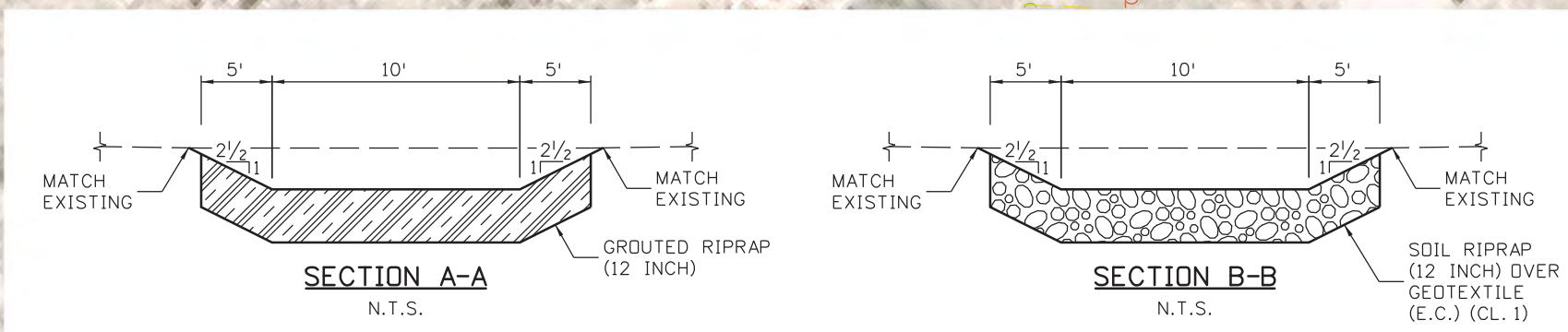
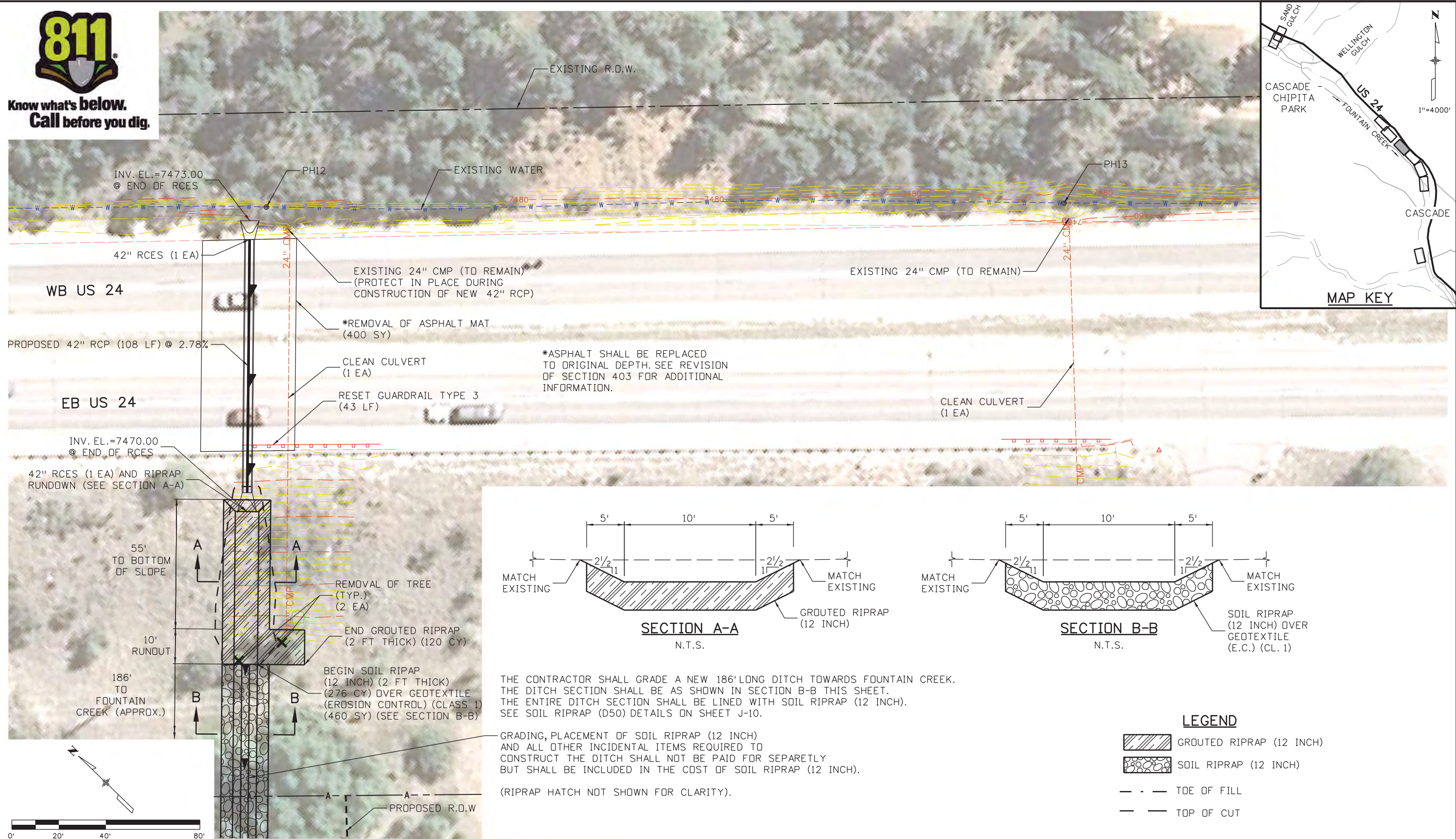


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Sheet Revisions																							
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File Name: 19358HYDR_Aerial_Cascade_02.dgn		0000		Revised:		Designer: CDT Detailer: KLT		NH 0242-056															
Horiz. Scale: 1:40		Unit Leader Initials		1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2		Void:		Sheet Subset: AERIAL Subset Sheets: C-3 of 30		19358													
Unit Information		6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		Region 2						Sheet Number 42													



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THE CONTRACTOR SHALL GRADE A NEW 186' LONG DITCH TOWARDS FOUNTAIN CREEK. THE DITCH SECTION SHALL BE AS SHOWN IN SECTION B-B THIS SHEET. THE ENTIRE DITCH SECTION SHALL BE LINED WITH SOIL RIPRAP (12 INCH). SEE SOIL RIPRAP (D50) DETAILS ON SHEET J-10.

GRADING, PLACEMENT OF SOIL RIPRAP (12 INCH) AND ALL OTHER INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE DITCH SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF SOIL RIPRAP (12 INCH). (RIPRAP HATCH NOT SHOWN FOR CLARITY).

LEGEND

	GRouted RIPRAP (12 INCH)
	SOIL RIPRAP (12 INCH)
- - -	TOE OF FILL
- - -	TOP OF CUT

Print Date: 3/18/2013

File Name: 19358HYDR_Aerial_Cascade_03.dgn

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US 24 WALDO CANYON
AERIAL PLAN
POUR POINT C - CASCADE

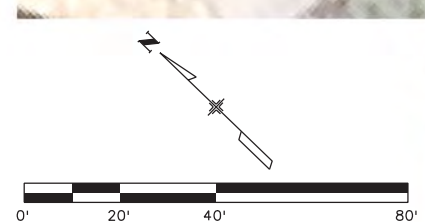
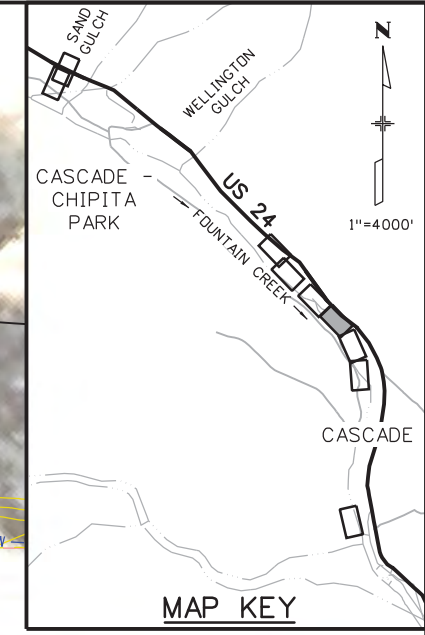
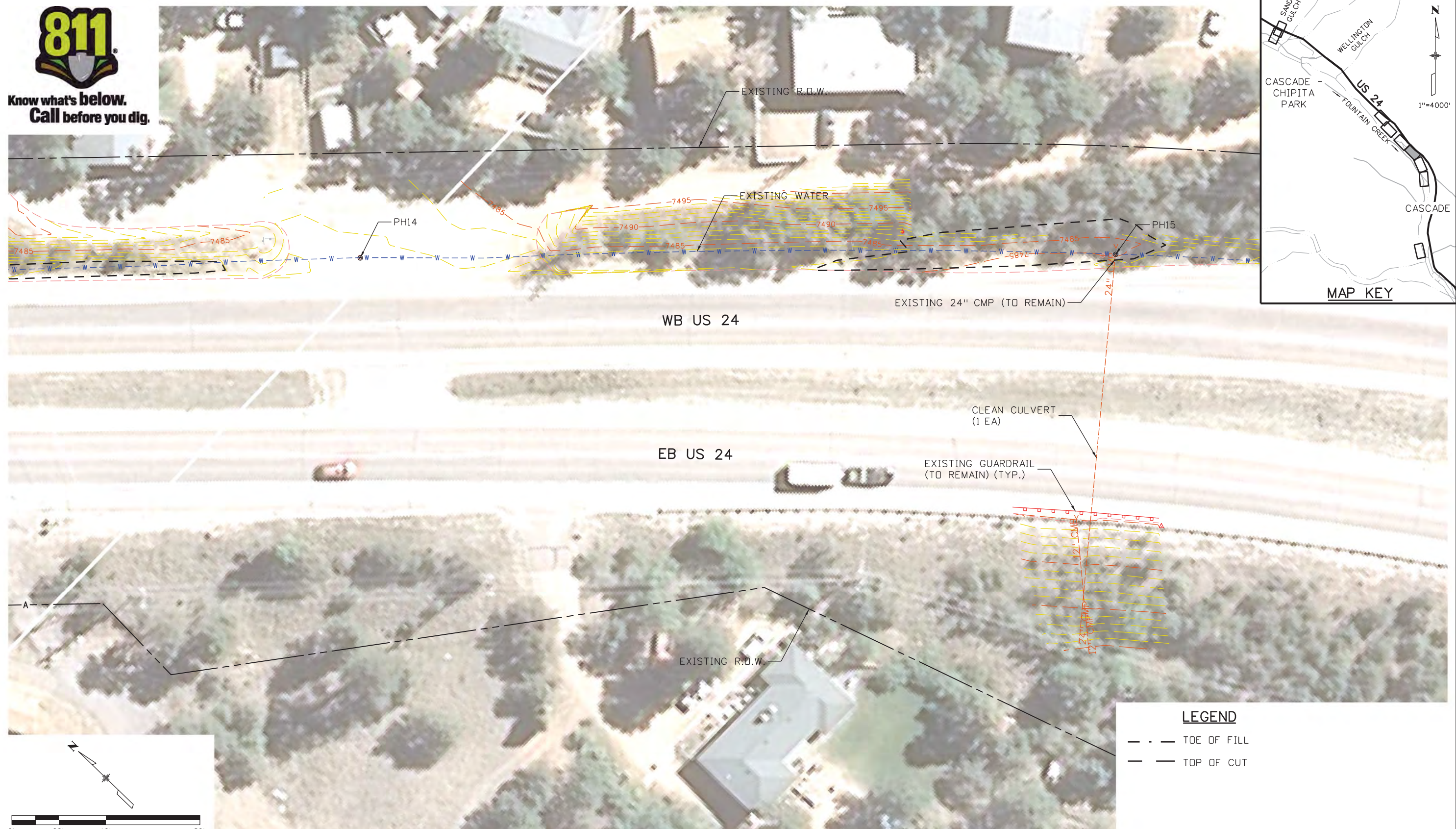
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	AERIAL	Subset Sheets:	C-4 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	43

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LEGEND

- - -	TOE OF FILL
- - -	TOP OF CUT

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Horiz. Scale: 1:40	Vert. Scale: As Noted
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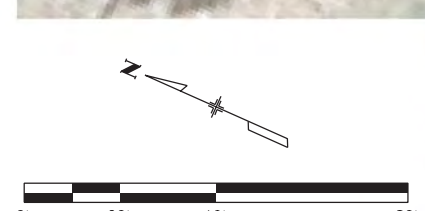
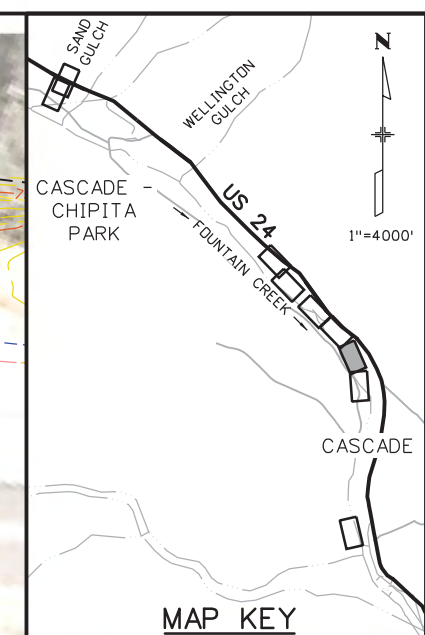
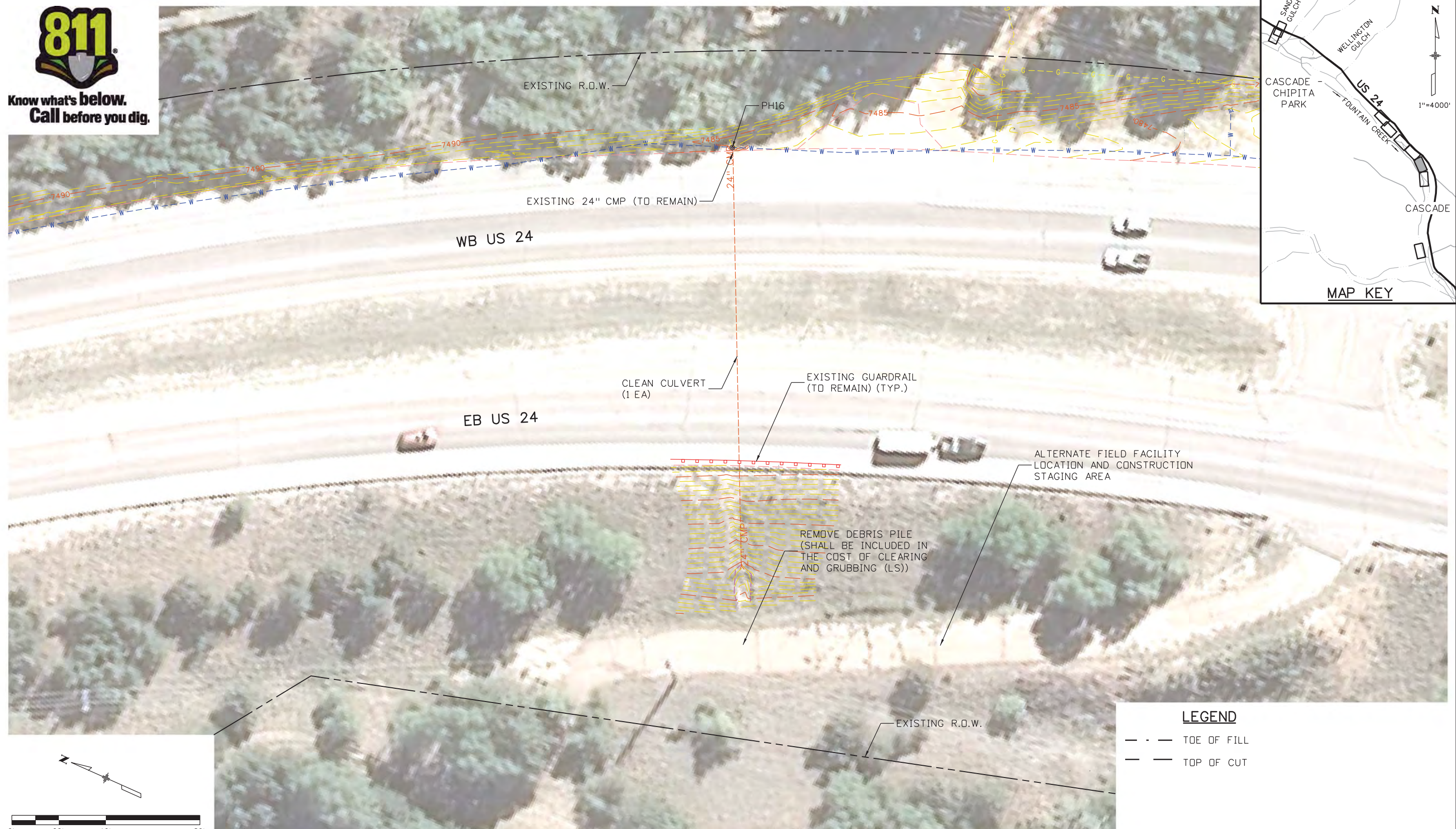
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	AERIAL	Subset Sheets:	C-5 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	44



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LEGEND

- - - TOE OF FILL
- - - TOP OF CUT

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File Name: 19358HYDR_Aerial_Cascade_05.dgn	
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Unit Information	Unit Leader Initials
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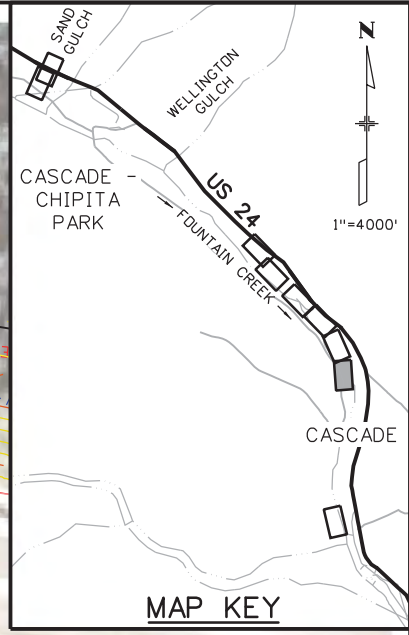
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	AERIAL	Subset Sheets:	C-6 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 45

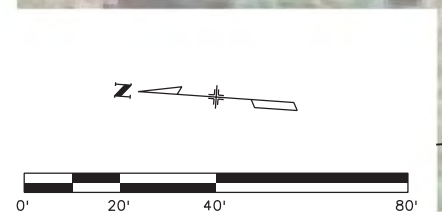


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LEGEND

- - - TOE OF FILL
- - - TOP OF CUT



Print Date: 3/18/2013	
File Name: 19358HYDR_Aerial_Cascade_06.dgn	
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Unit Information	Unit Leader Initials
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Sheet Revisions		
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	AERIAL	Subset Sheets:	C-7 of 30

Project No./Code	
NH 0242-056	
19358	
Sheet Number	46

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Print Date: 3/18/2013	
File Name: 19358HYDR_Aerial_Cascade_07_Inlet.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
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Date:	Comments	Init.

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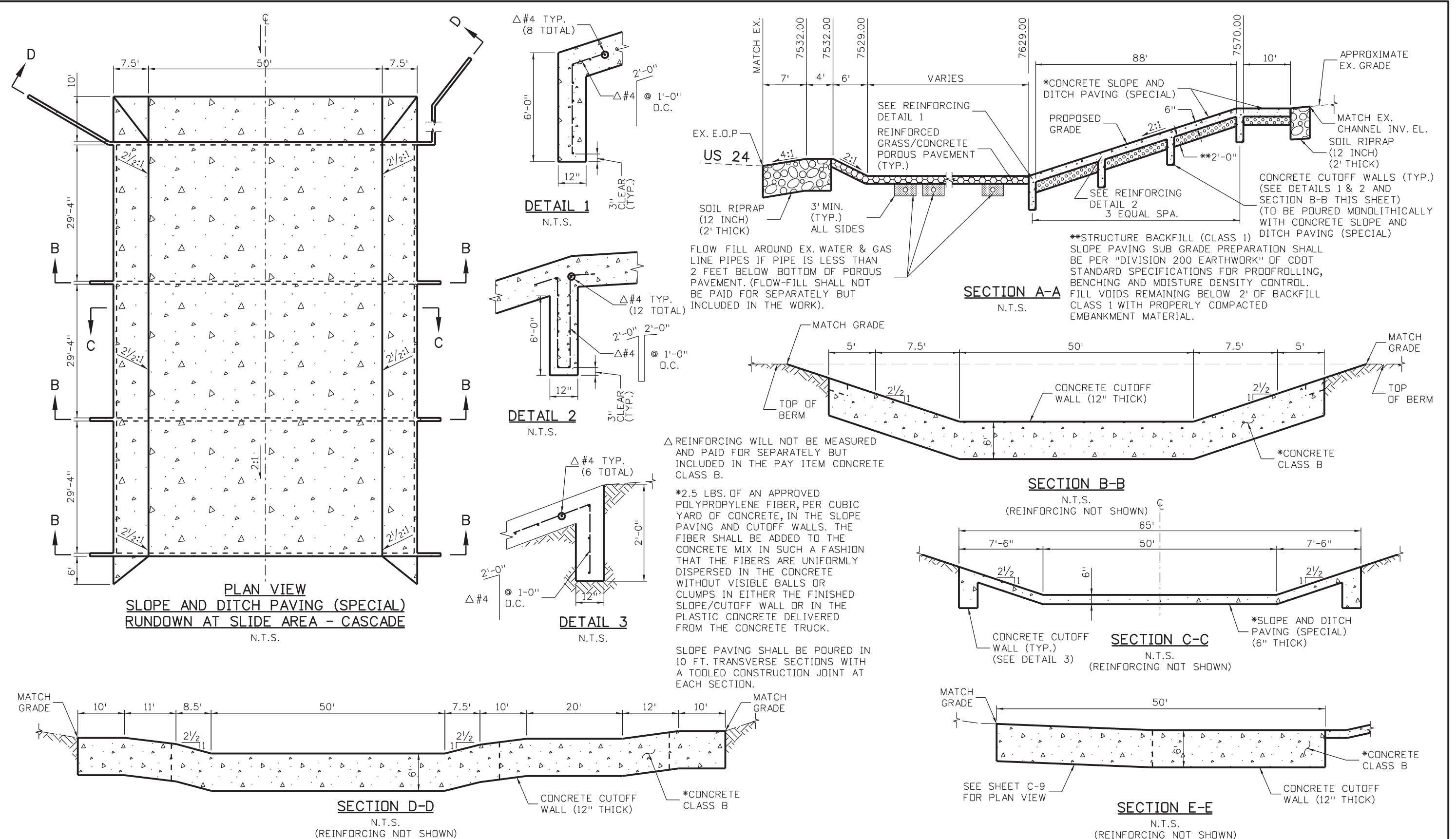
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	AERIAL	Subset Sheets:	C-8 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	47

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Δ REINFORCING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT INCLUDED IN THE PAY ITEM CONCRETE CLASS B.

*2.5 LBS. OF AN APPROVED POLYPROPYLENE FIBER, PER CUBIC YARD OF CONCRETE, IN THE SLOPE PAVING AND CUTOFF WALLS. THE FIBER SHALL BE ADDED TO THE CONCRETE MIX IN SUCH A FASHION THAT THE FIBERS ARE UNIFORMLY DISPERSED IN THE CONCRETE WITHOUT VISIBLE BALLS OR CLUMPS IN EITHER THE FINISHED SLOPE/CUTOFF WALL OR IN THE PLASTIC CONCRETE DELIVERED FROM THE CONCRETE TRUCK.

SLOPE PAVING SHALL BE POURED IN 10 FT. TRANSVERSE SECTIONS WITH A TOOLED CONSTRUCTION JOINT AT EACH SECTION.

Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Cascade_02.dgn	
Horiz. Scale: 1:10	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
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US 24 WALDO CANYON RUNDOWN DETAIL POUR POINT C - CASCADE		
Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset: DRAINAGE	Subset Sheets: C-10 of 30	

Project No./Code	NH 0242-056
	19358
Sheet Number	49

POINT DATA TABLE - POUR POINT C - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	393979.89	150030.24	7534.00	FINISHED GRADE
G2	393993.50	150029.05	7534.00	FINISHED GRADE
G3	393965.98	150042.28	7534.00	FINISHED GRADE
G4	393959.49	150044.49	7533.00	FINISHED GRADE
G5	393956.04	150056.19	7534.00	FINISHED GRADE
G6	393959.66	150058.32	7534.00	FINISHED GRADE
G7	393944.43	150058.82	7532.00	FINISHED GRADE
G8	393943.96	150069.61	7533.00	FINISHED GRADE
G9	393947.32	150071.64	7533.00	FINISHED GRADE
G10	393933.74	150072.82	7531.00	FINISHED GRADE
G11	393929.41	150092.20	7532.00	FINISHED GRADE
G12	393930.49	150093.83	7532.00	FINISHED GRADE
G13	393935.24	150090.66	7532.00	FINISHED GRADE
G14	393920.30	150092.96	7530.00	FINISHED GRADE
G15	393917.28	150102.85	7528.00	FINISHED GRADE
G16	393914.86	150113.64	7526.00	FINISHED GRADE
G17	393902.23	150111.91	7528.00	FINISHED GRADE
G18	393876.57	150136.72	7526.00	FINISHED GRADE
G19	393920.77	150122.49	7526.00	FINISHED GRADE
G20	393935.00	150114.99	7530.00	FINISHED GRADE
G21	393941.24	150117.13	7531.00	FINISHED GRADE
G22	393944.37	150088.20	7529.00	FINISHED GRADE
G23	393958.87	150109.92	7529.00	FINISHED GRADE
G24	393950.61	150079.37	7529.00	FINISHED GRADE
G25	393971.41	150061.38	7529.00	FINISHED GRADE
G26	393984.12	150066.24	7529.00	FINISHED GRADE
G27	393993.61	150077.22	7529.00	FINISHED GRADE
G28	393993.03	150080.36	7529.00	FINISHED GRADE
G29	393975.35	150050.04	7532.00	FINISHED GRADE
G30	393989.46	150059.72	7531.00	FINISHED GRADE
G31	393997.24	150054.13	7533.00	FINISHED GRADE
G32	393997.44	150044.05	7534.00	FINISHED GRADE
G33	394013.08	150034.09	7541.00	FINISHED GRADE
G34	394034.63	150055.11	7552.00	FINISHED GRADE
G35	394046.16	150104.36	7555.00	FINISHED GRADE

POINT DATA TABLE - POUR POINT C - SLOPE AND DITCH PAVING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SD1	394064.67	150151.72	7577.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD2	394052.68	150149.32	7574.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD3	394014.86	150182.03	7574.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD4	394015.52	150194.25	7577.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION

POINT DATA TABLE - POUR POINT C - POROUS PAVERS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	393994.66	150082.26	7530.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	393996.41	150072.81	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	393995.52	150057.76	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	393975.35	150050.04	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	393946.33	150075.15	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	393942.92	150072.46	7532.75	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	393942.33	150072.15	7532.75	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	393935.29	150066.90	-	REINFORCED GRASS/CONC. POROUS PAVEMENT MATCH EX. GRADE EL.
P9	393895.89	150104.12	-	REINFORCED GRASS/CONC. POROUS PAVEMENT MATCH EX. GRADE EL.
P10	393920.64	150131.75	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	393930.80	150122.65	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	393939.24	150120.33	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	393947.25	150115.34	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	393948.04	150115.31	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	393951.18	150119.87	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	393956.85	150114.97	7530.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT C - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	393969.91	150219.36	7569.00	ABC (CL. 6) MATCH EX. GRADE EL.
BC2	393969.11	150229.42	7569.00	ABC (CL. 6) MATCH EX. GRADE EL.
BC3	394029.46	150216.23	7581.00	ABC (CL. 6) FINISHED GRADE EL.
BC4	394030.13	150226.21	7581.00	ABC (CL. 6) FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT C - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	394078.52	150139.87	7580.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	394066.30	150142.14	7580.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	394058.86	150143.53	7577.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	394006.33	150188.98	7577.33	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	394007.78	150190.66	7578.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	394024.31	150209.77	7579.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	394029.94	150216.27	7581.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W8	394030.61	150229.08	7581.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W9	394034.32	150109.00	7578.04	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W10	393977.60	150158.06	7557.75	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W11	394004.34	150074.33	7535.25	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W12	393947.61	150123.40	753.5.25	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W13	393942.63	150072.31	7532.75	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W14	393932.28	150092.30	7532.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W15	393933.42	150094.01	7531.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W16	393947.64	150115.32	7531.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

Print Date: 3/18/2013
 File Name: 19358HYDR_Detail_Cascade_03.dgn
 Horiz. Scale: 1:10 Vert. Scale: As Noted
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US 24 WALDO CANYON
 DETAIL
POUR POINT C - CASCADE

Designer: CDT
 Detailer: KLT
 Sheet Subset: DRAINAGE Subset Sheets: C-11 of 30

Project No./Code
 NH 0242-056
 19358
 Sheet Number **50**

K:112266-06_19358_Hydraulics Drawings\19358HYDR_Detail_Cascade_03.dgn



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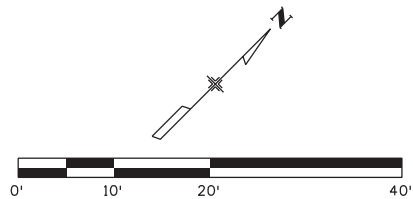


EB US 24

WB US 24

LEGEND

- - - - - TOE OF FILL
- - - - - TOP OF CUT



Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Cascade_04.dgn	
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Date:	Comments	Init.

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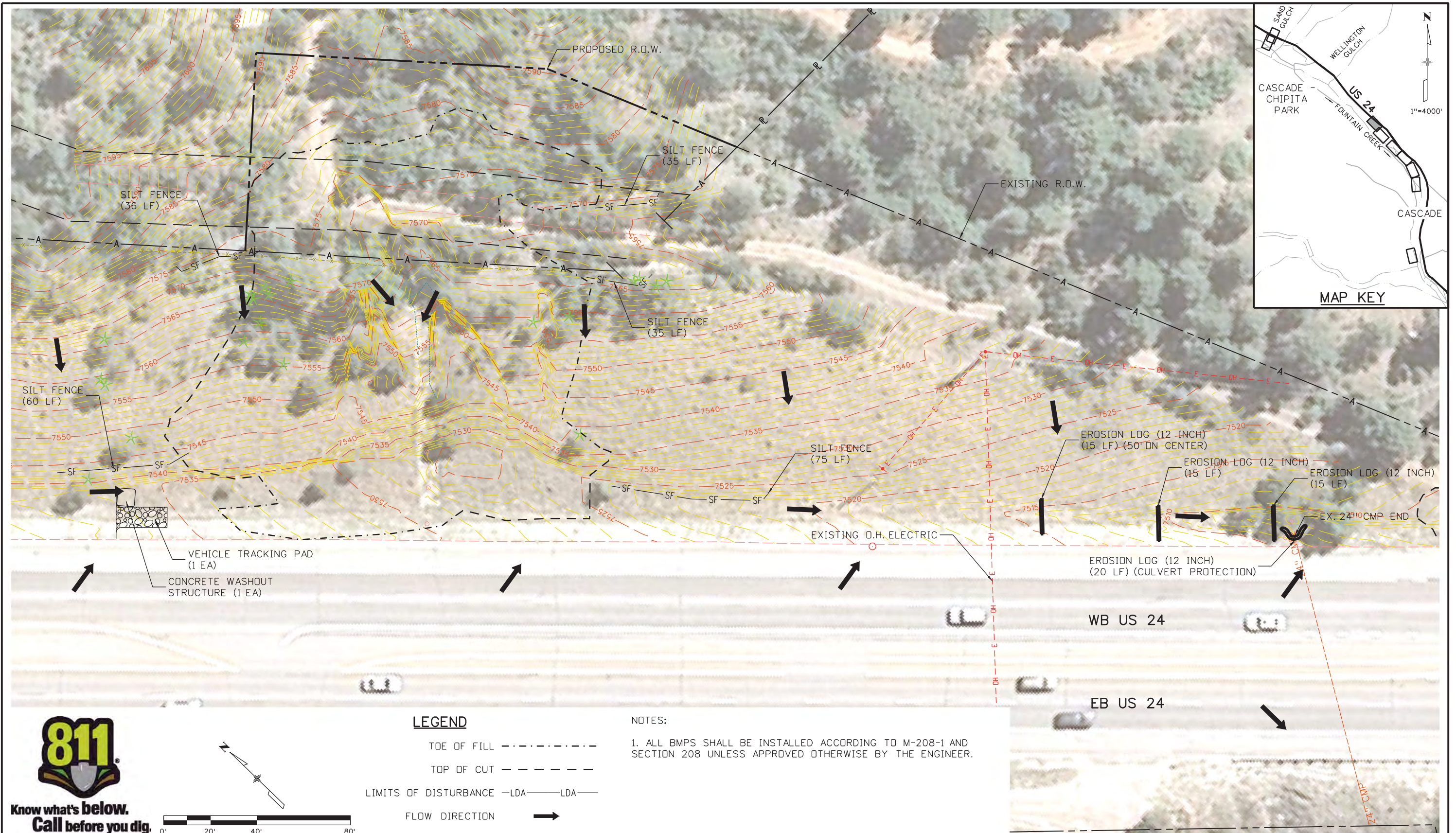
Region 2 LM

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Void:

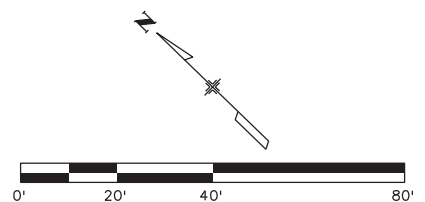
US 24 WALDO CANYON DETAIL POUR POINT C - CASCADE		
Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset: DRAINAGE		Subset Sheets: C-12 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 51

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Kelly 10:36:54 AM K:\112266-06.19358\Environment\Drawings\19358Erosion_INI_Cascade_01.dgn



LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013	
File Name: 19358Erosion_INI_Cascade_01.dgn	
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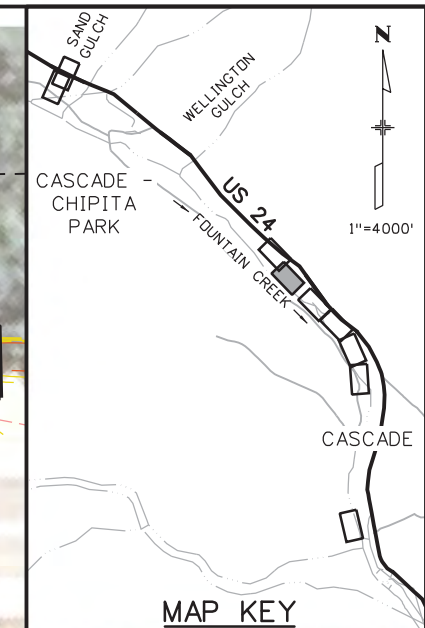
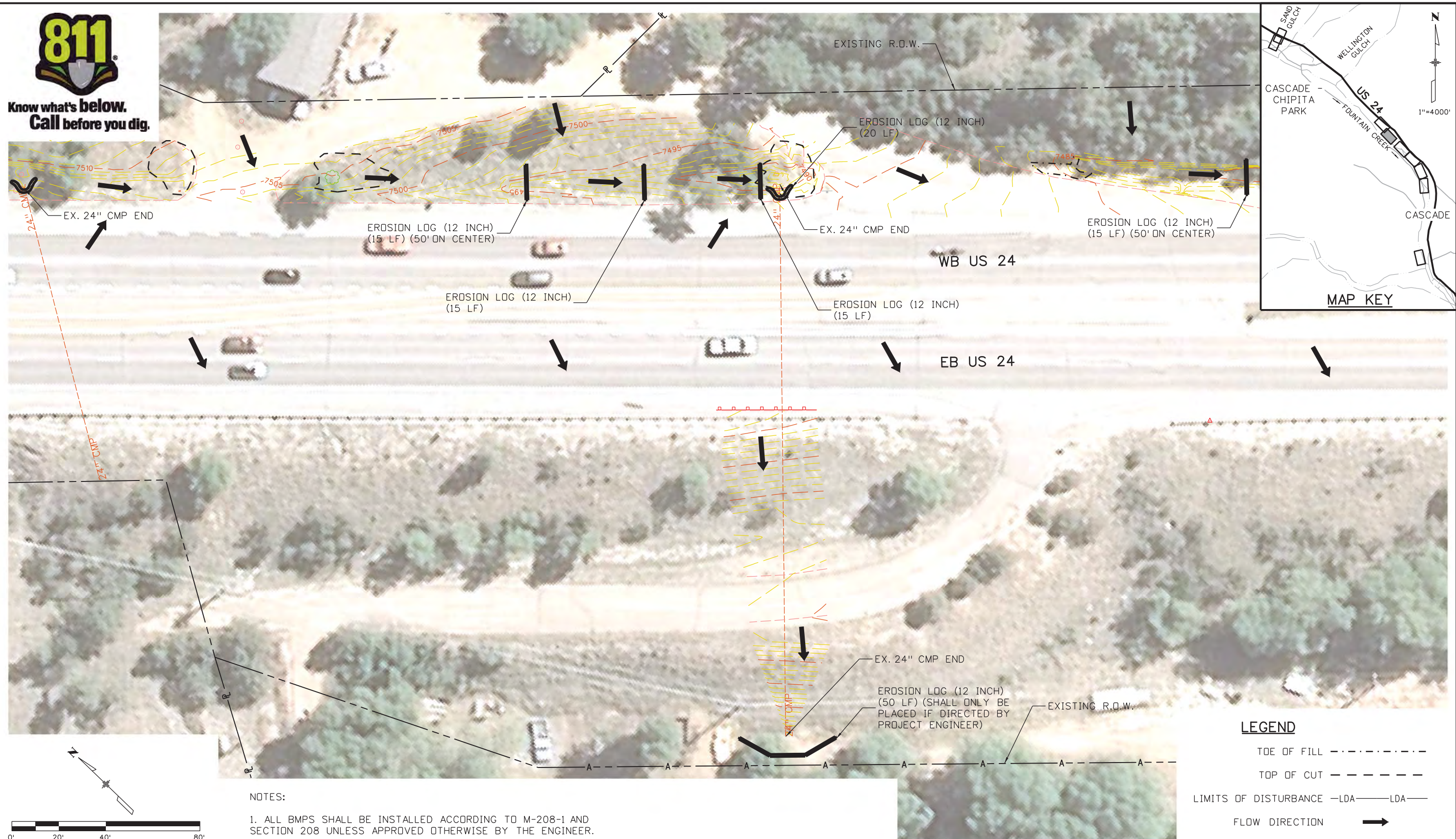
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US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
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Sheet Subset:	EROSION	Subset Sheets:	C-13 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 52



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LEGEND

TOE OF FILL	-----
TOP OF CUT	-----
LIMITS OF DISTURBANCE	-LDA-----LDA-
FLOW DIRECTION	→

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File Name: 19358Erosion_INI_Cascade_02.dgn
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 GRADING/INITIAL EROSION CONTROL PLAN
 POUR POINT C - CASCADE
 Designer: CDT Structure Numbers
 Detailer: KLT
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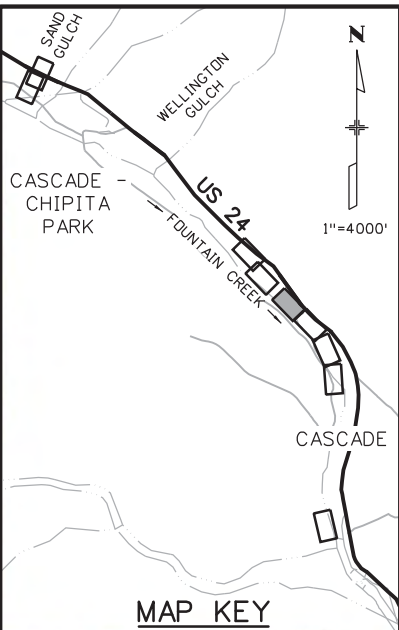
Project No./Code
 NH 0242-056
 19358
 Sheet Number **53**



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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

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File Name: 19358Erosion_INI_Cascade_03.dgn

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**US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-15 of 30

Project No./Code

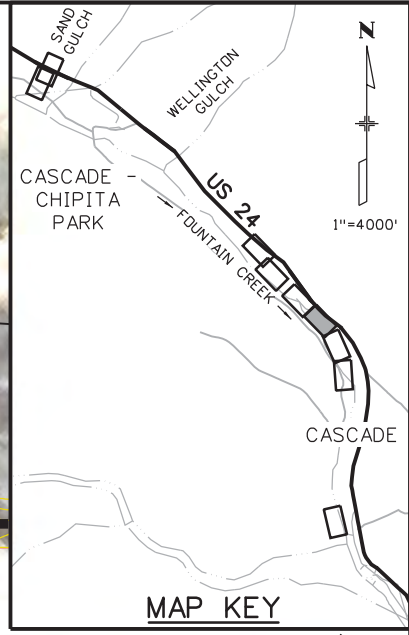
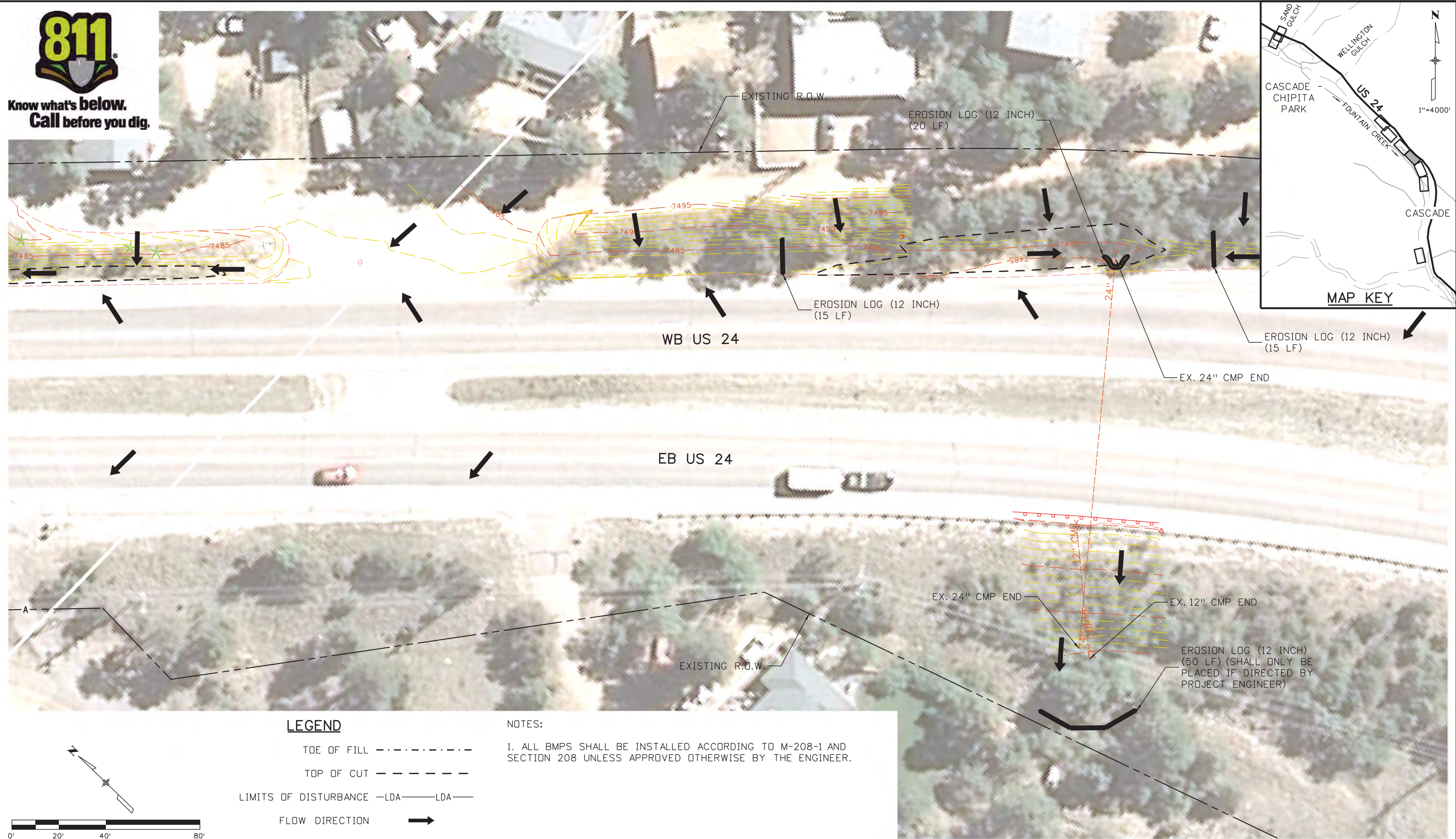
NH 0242-056

19358

Sheet Number **54**



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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_INI_Cascade_04.dgn

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Unit Information

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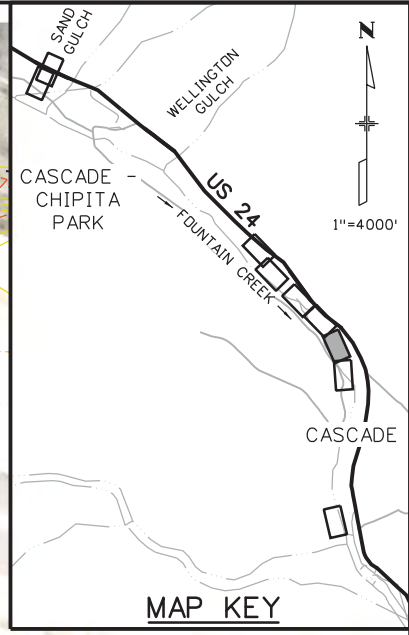
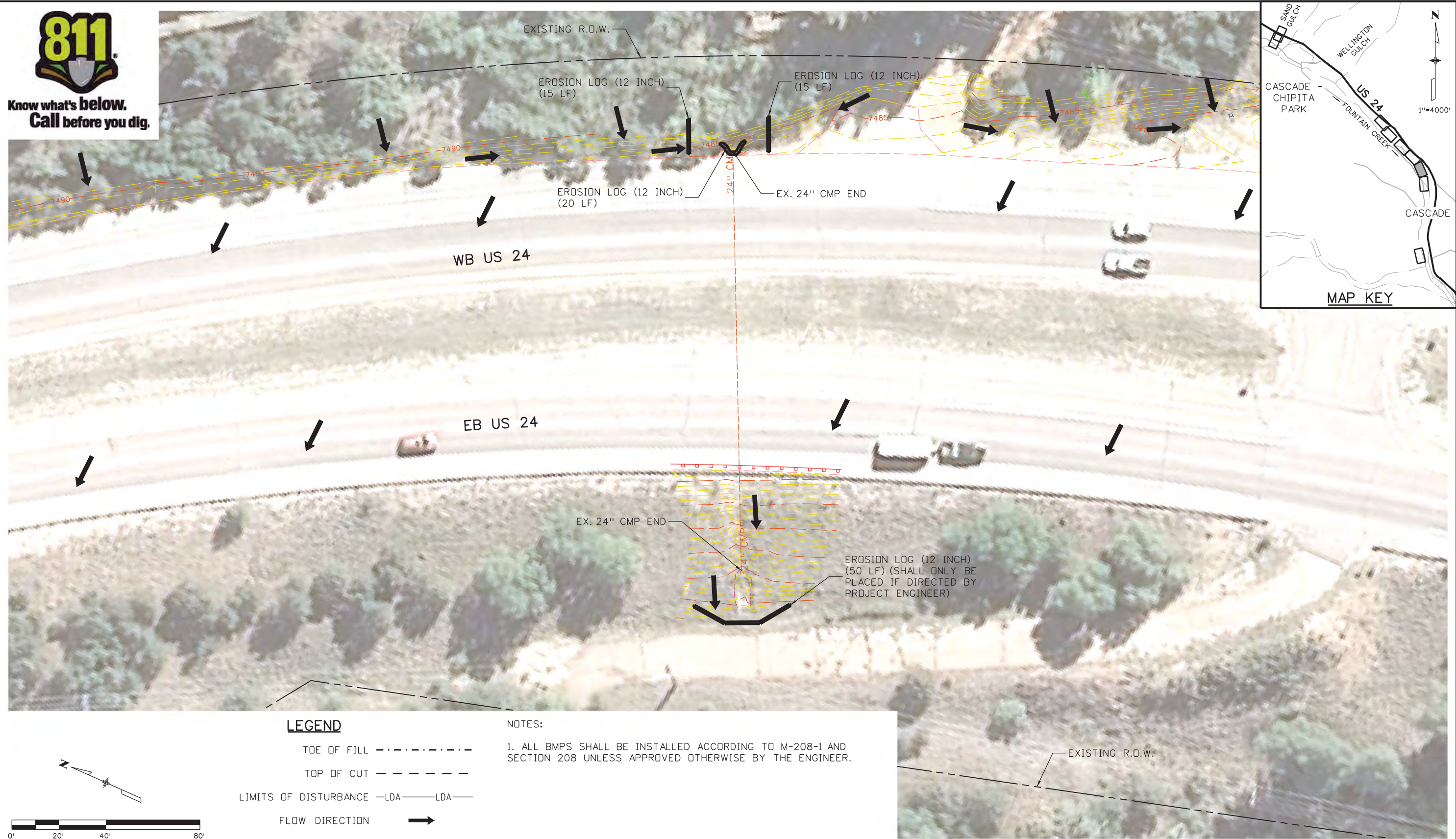
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Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	C-16 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 55

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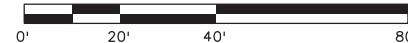


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
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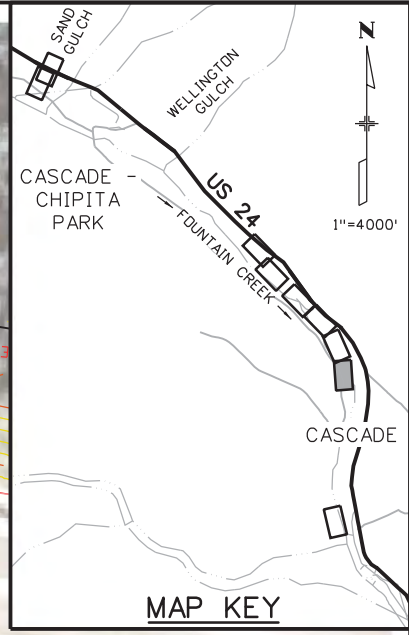
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POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
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Project No./Code
NH 0242-056
19358
Sheet Number 56

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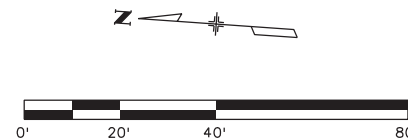


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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 File Name: 19358Erosion_INI_Cascade_06.dgn
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Date:	Comments	Init.

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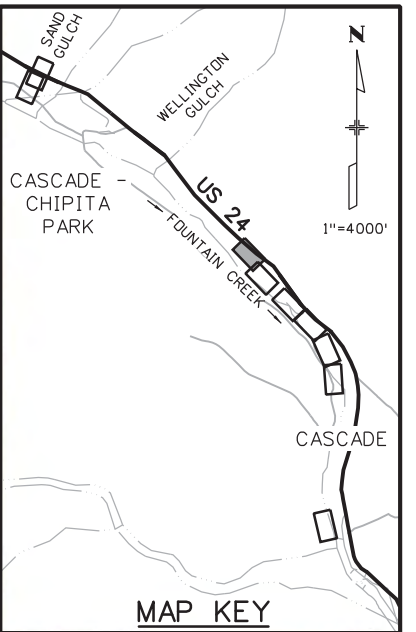
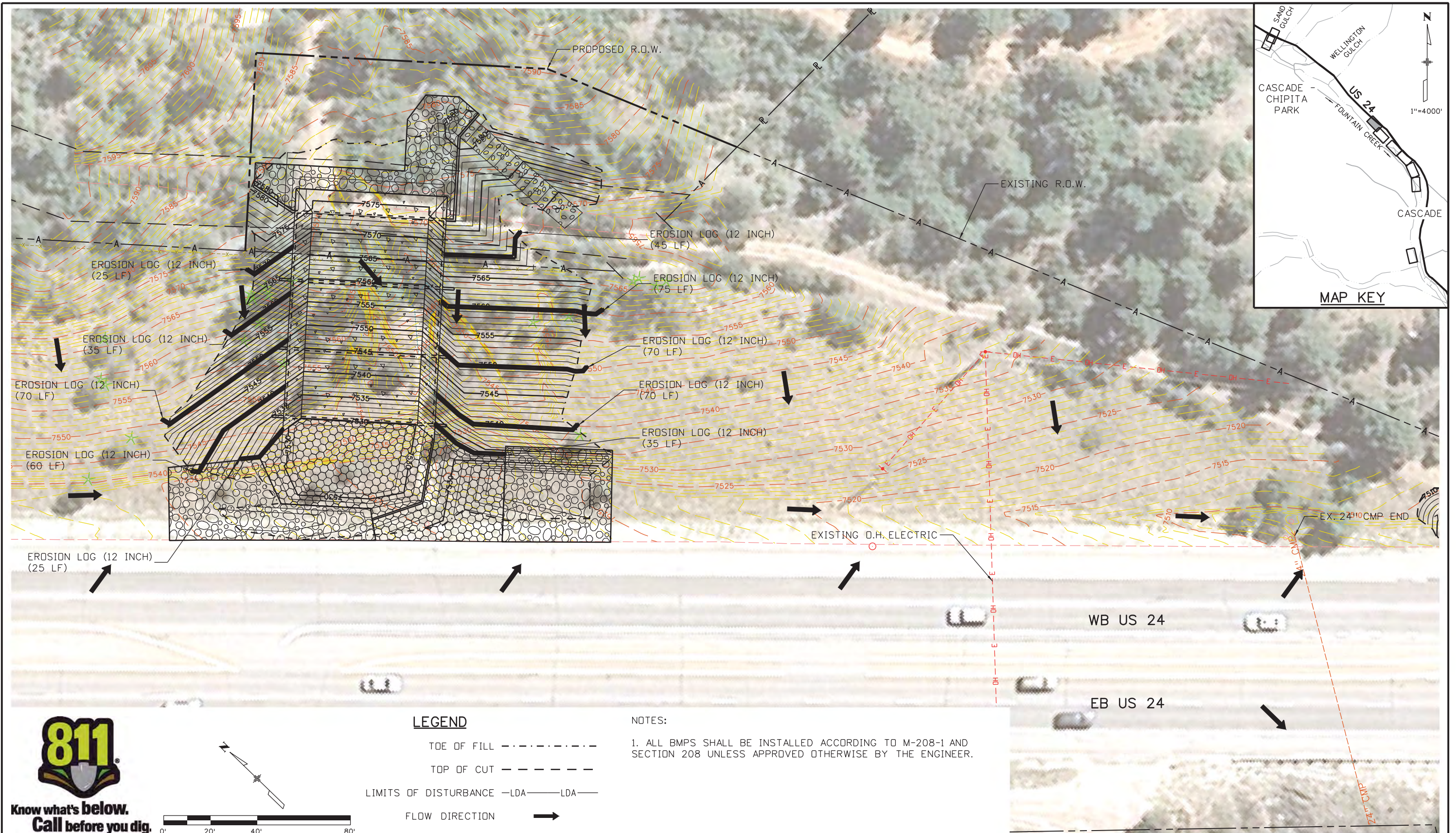
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US 24 WALDO CANYON
 GRADING/INITIAL EROSION CONTROL PLAN
 POUR POINT C - CASCADE

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: EROSION Subset Sheets: C-18 of 30

Project No./Code
 NH 0242-056
 19358
 Sheet Number **57**

Kelly 10:37:16 AM K:\112266-06\19358_Landscape_Environmental\Drawings\19358Erosion_INI_Cascade_06.dgn



0' 20' 40' 80'

LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

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US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT C - CASCADE

Designer: CDT Structure Numbers: Detailer: KLT

Sheet Subset: EROSION Subset Sheets: C-19 of 30

Project No./Code

NH 0242-056

19358

Sheet Number **58**

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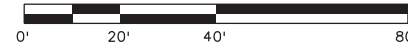
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LEGEND

TOE OF FILL	-----
TOP OF CUT	-----
LIMITS OF DISTURBANCE	-LDA-----LDA-
FLOW DIRECTION	→

NOTES:
1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
File Name: 19358Erosion_INT_Cascade_02.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
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Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-20 of 30

Project No./Code	
NH 0242-056	
19358	
Sheet Number	59

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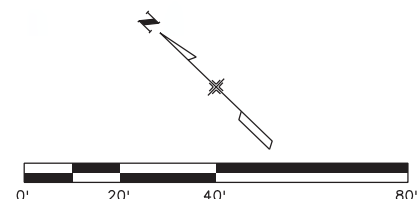


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013

File Name: 19358Erosion_INT_Cascade_03.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

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Region 2

LM

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No Revisions:

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Void:

US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT C - CASCADE

Designer: CDT
Detailer: KLT
Structure Numbers
Sheet Subset: EROSION
Subset Sheets: C-21 of 30

Project No./Code

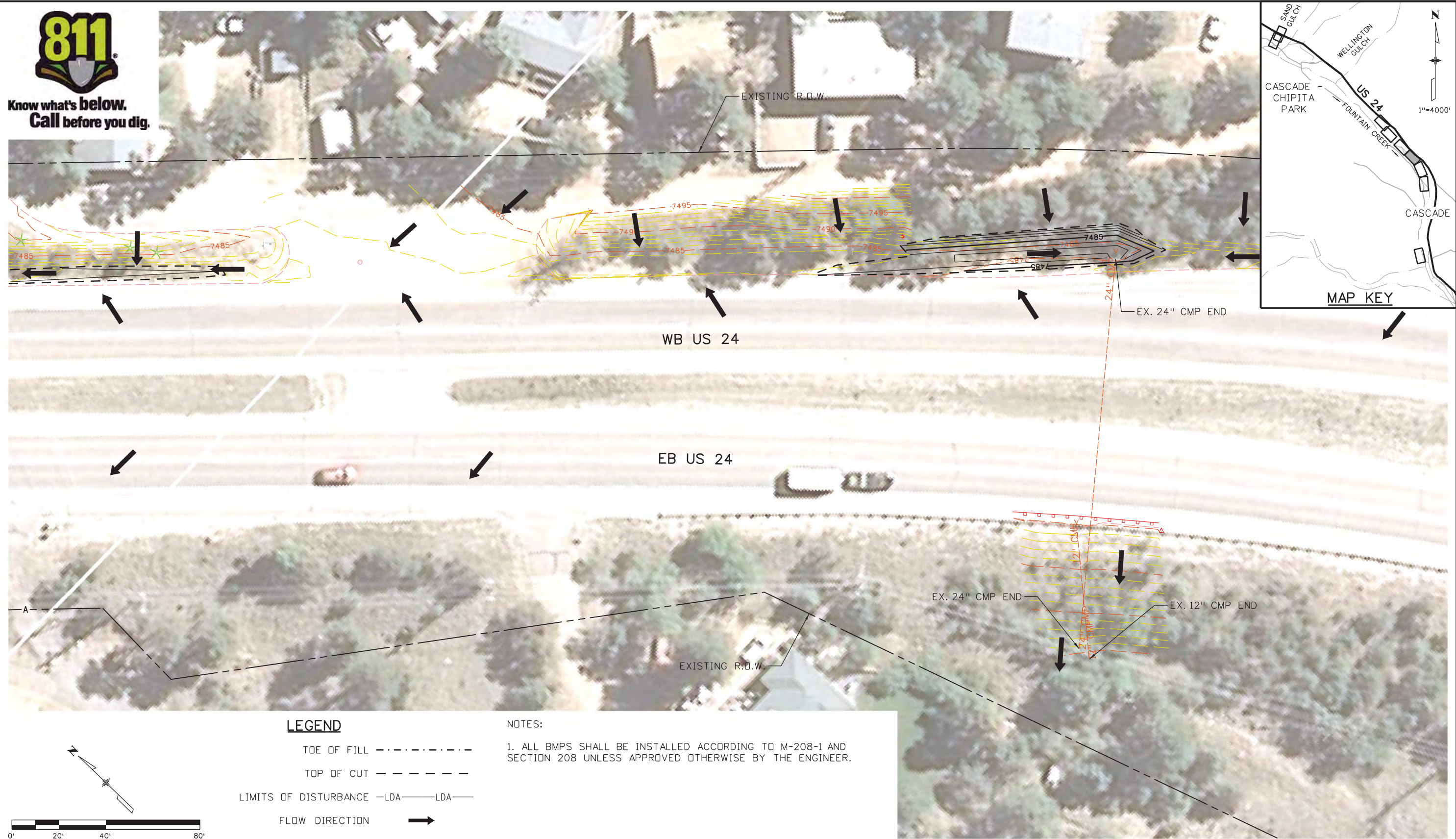
NH 0242-056

19358

Sheet Number **60**



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LEGEND

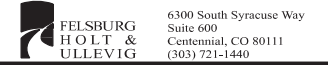
- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_INT_Cascade_04.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
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Revised:
Void:

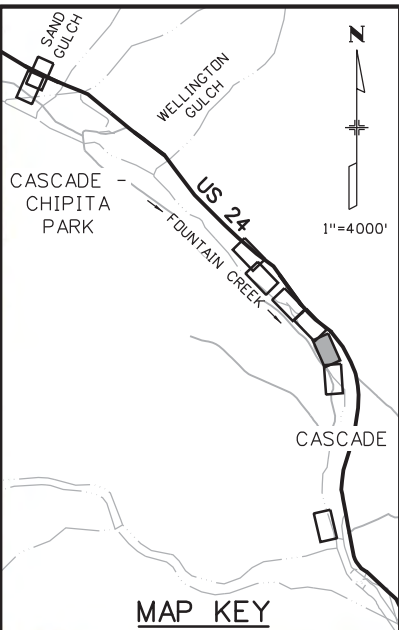
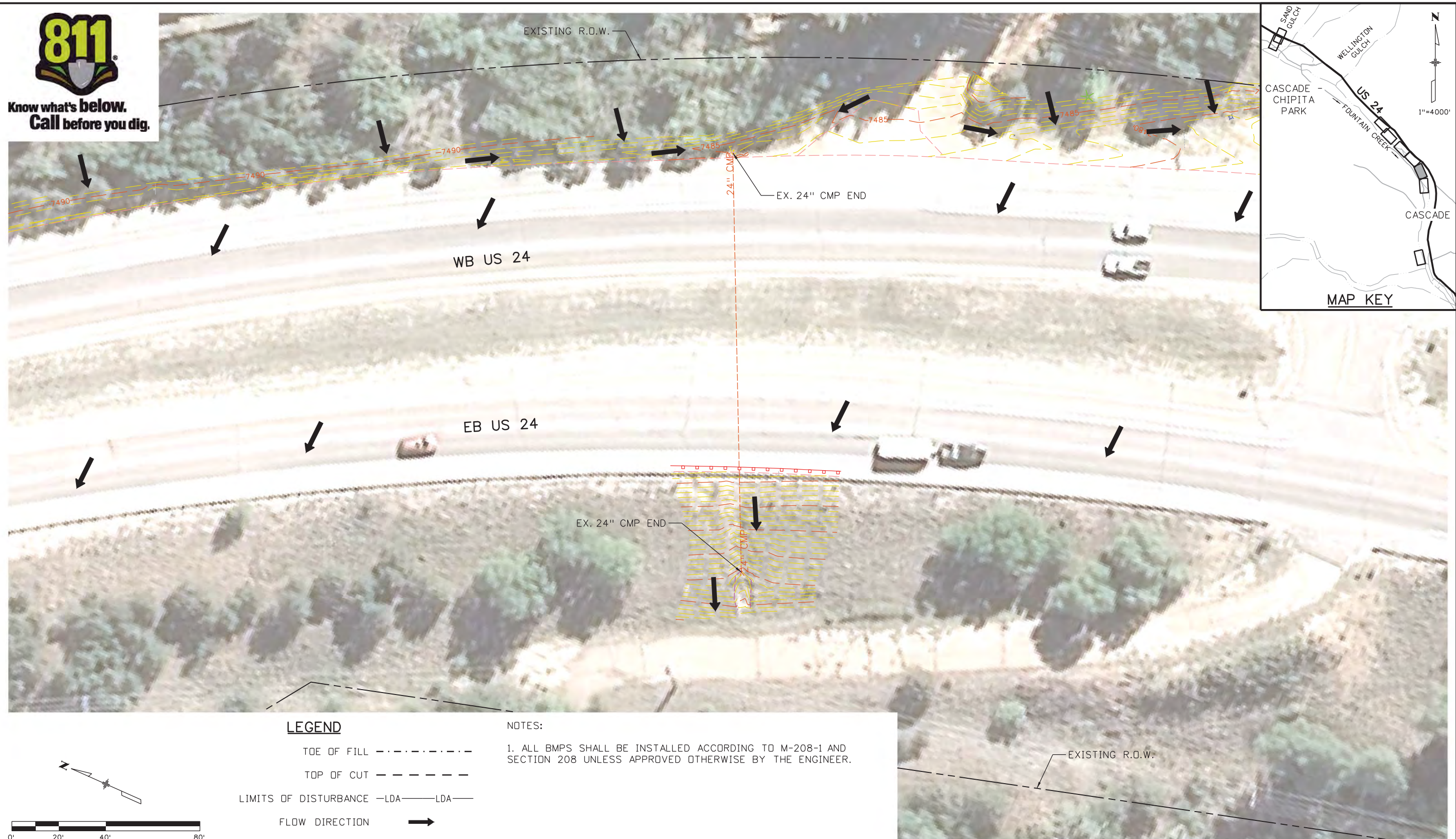
US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-22 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 61

Kelly 10:37:28 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_INT_Cascade_04.dgn



Know what's below.
Call before you dig.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_INT_Cascade_05.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

**FELSBURG
HOLT &
ULLEVIG**
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440



Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



Region 2

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

LM

As Constructed

No Revisions:

Revised:

Void:

**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	C-23 of 30
Sheet Subset:	EROSION		

Project No./Code

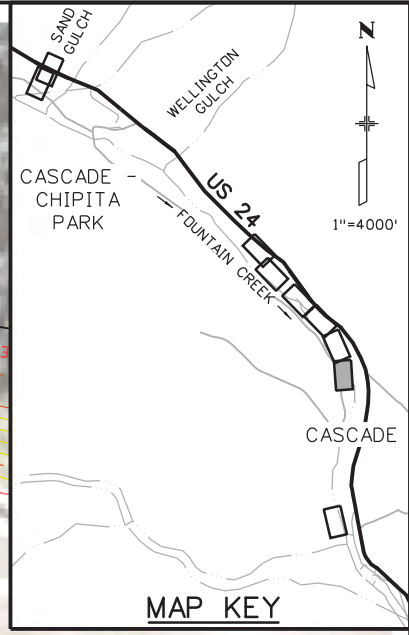
NH 0242-056

19358

Sheet Number **62**



Know what's below.
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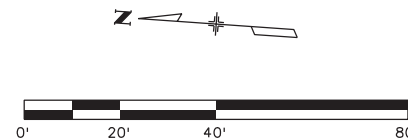


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013
File Name: 19358Erosion_INT_Cascade_06.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Colorado Springs, CO 80806
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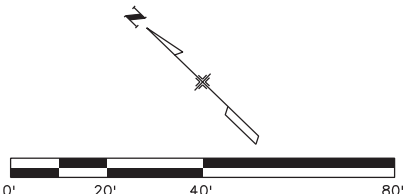
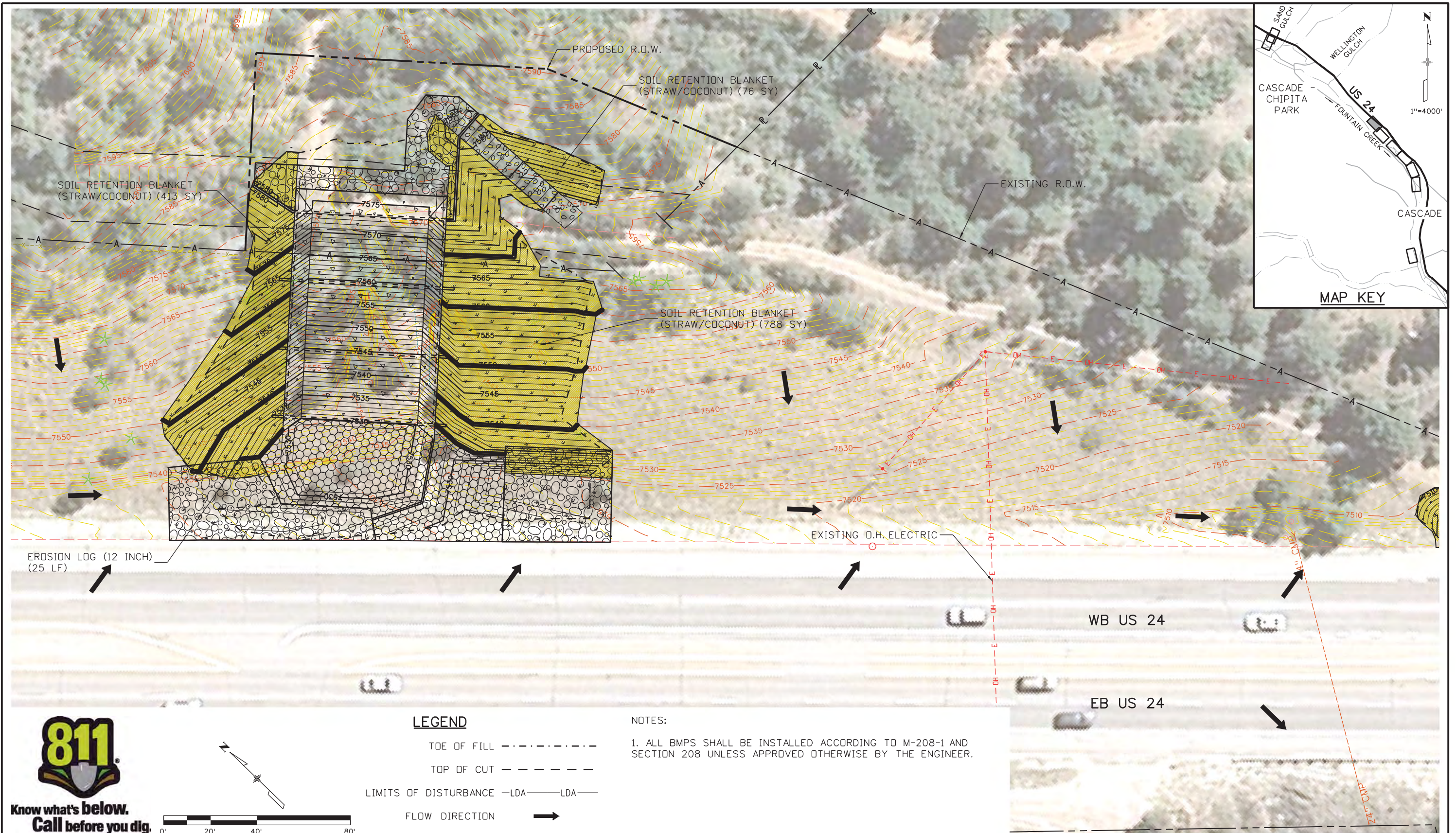
Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Structure Numbers	
Sheet Subset:	EROSION	Subset Sheets:	C-24 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 63

Kelly 10:37:34 AM K:\112266-06.19358\Environmental\Drawings\19358Erosion_INT_Cascade_06.dgn



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013	0000
File Name: 19358Erosion_FIN_Cascade_01.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
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Sheet Revisions		
Date:	Comments	Init.

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Region 2 LM

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No Revisions:
Revised:
Void:

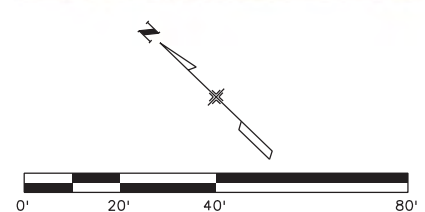
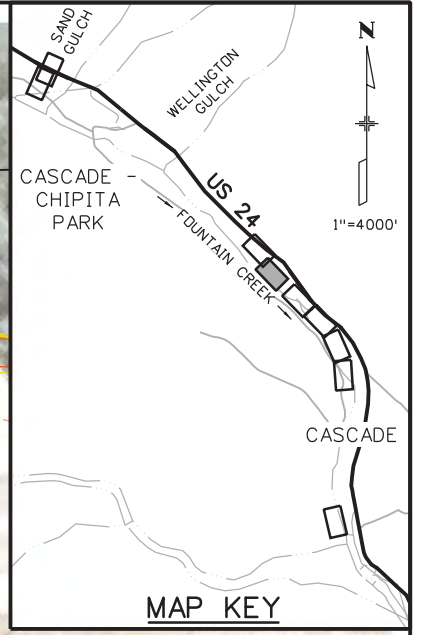
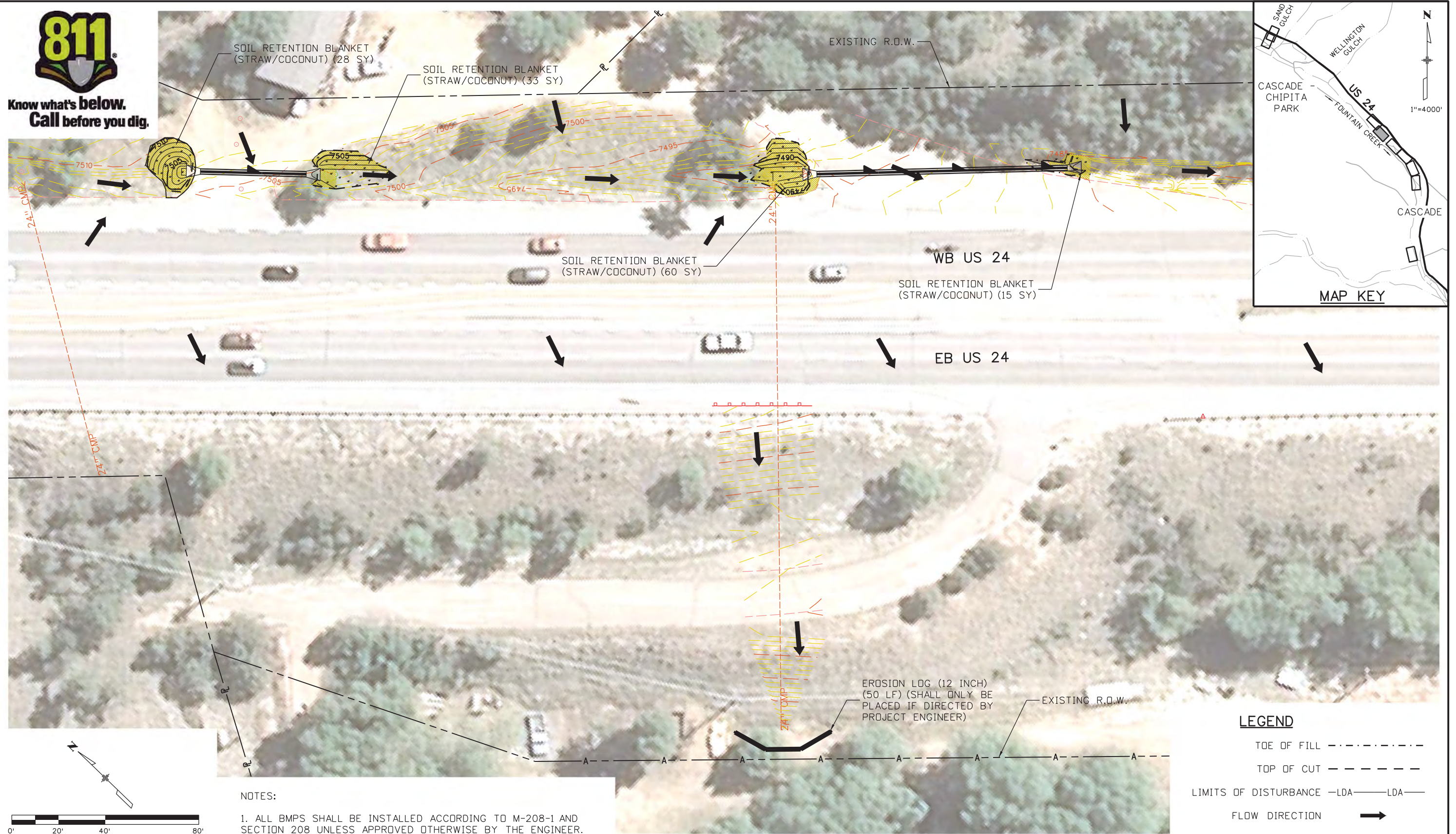
US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-25 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 64

Kelly 10:37:37 AM K:\112266-06\19358_Landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_01.dgn



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NOTES:
1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

LEGEND

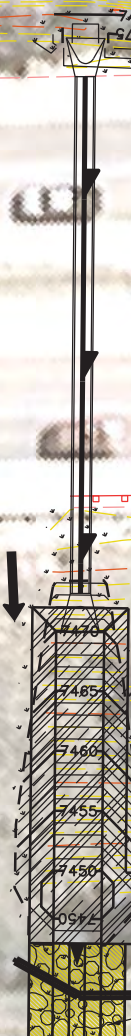
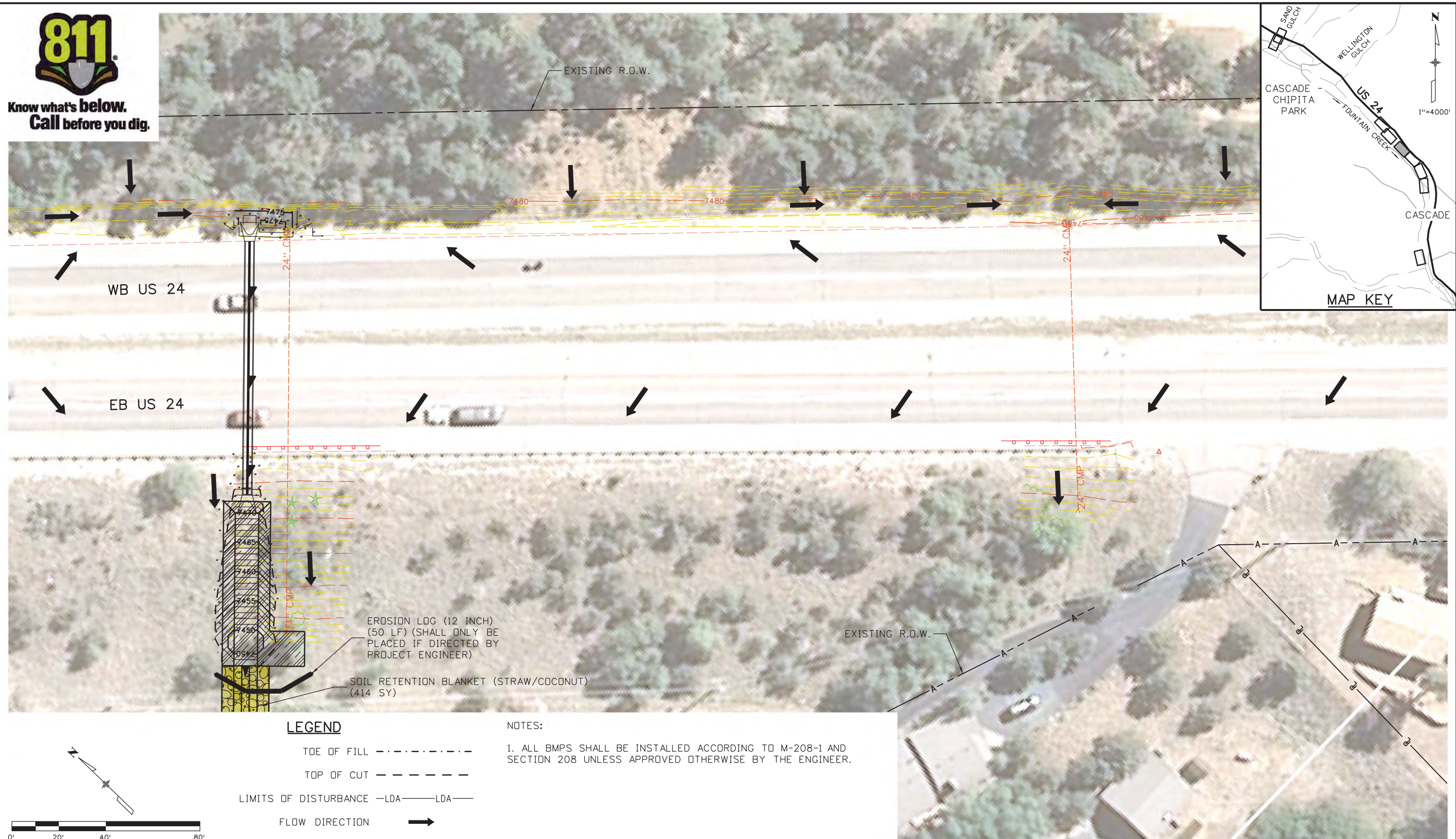
TOE OF FILL	-----
TOP OF CUT	- - - - -
LIMITS OF DISTURBANCE	-LDA-----LDA-
FLOW DIRECTION	→

Kelly 10:37:41 AM K:\112266-06\19358\landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_02.dgn

Print Date: 3/18/2013	Sheet Revisions			Colorado Department of Transportation			As Constructed		US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN		Project No./Code	
File Name: 19358Erosion_FIN_Cascade_02.dgn	Date:	Comments	Init.	 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2 LM			No Revisions:	GRADING/FINAL EROSION CONTROL PLAN		NH 0242-056		
Horiz. Scale: 1:40 Vert. Scale: As Noted							Revised:	Designer: CDT	Structure Numbers	19358		
Unit Information Unit Leader Initials							Void:	Detailer: KLT	Subset Sheets: C-26 of 30	Sheet Number 65		
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440												



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LEGEND

TOE OF FILL	-----
TOP OF CUT	-----
LIMITS OF DISTURBANCE -LDA-	-----LDA-----
FLOW DIRECTION	→

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013
 File Name: 19358Erosion_FIN_Cascade_03.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 1480 Quail Lake Loop
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 Region 2 LM

As Constructed
 No Revisions:
 Revised:
 Void:

**US 24 WALDO CANYON
 GRADING/FINAL EROSION CONTROL PLAN
 POUR POINT C - CASCADE**

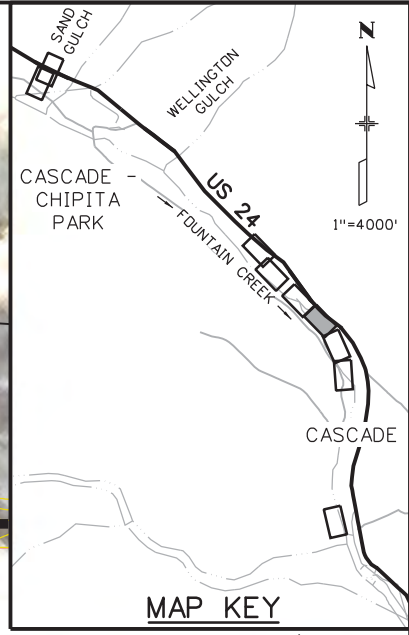
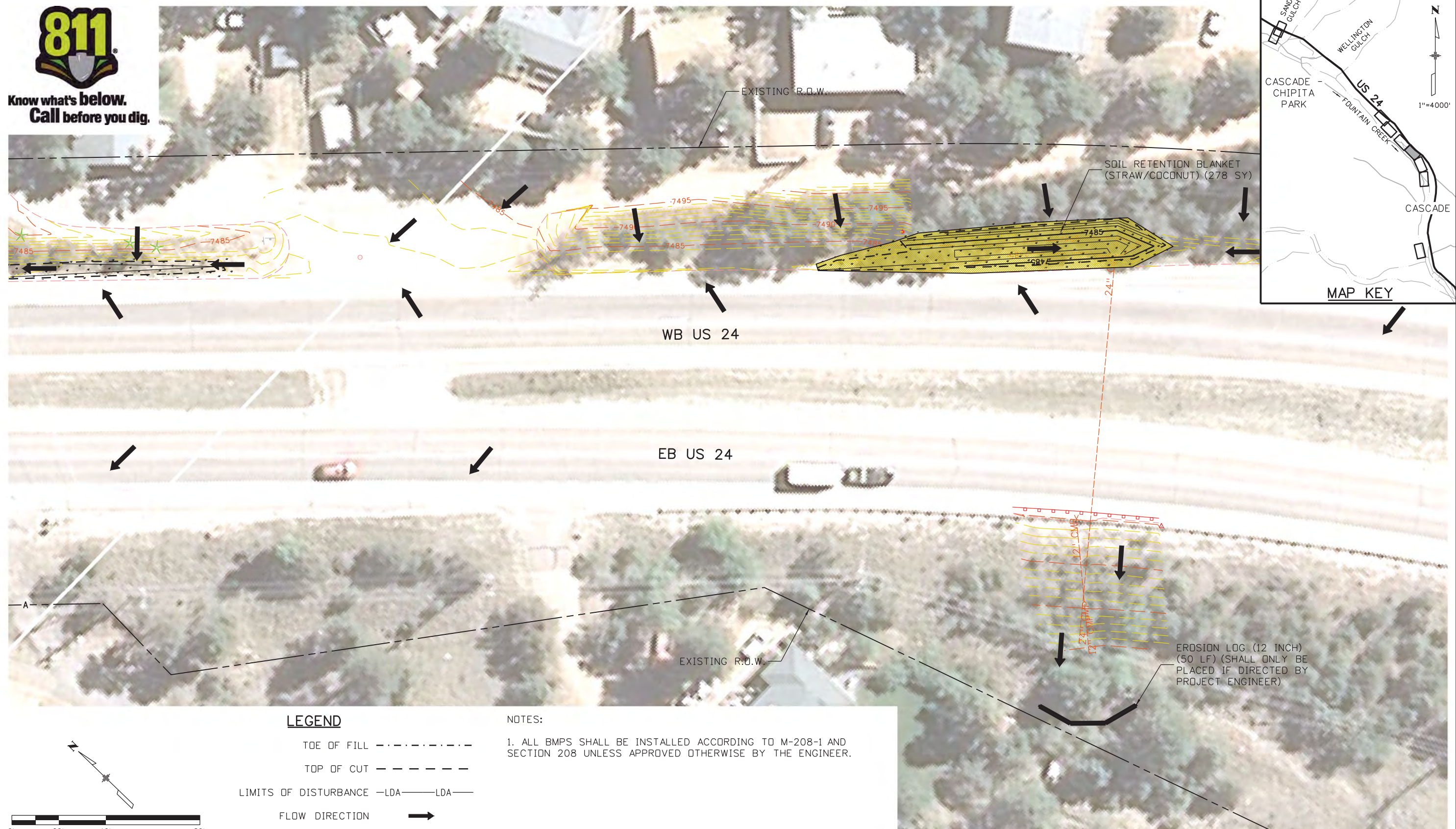
Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: EROSION Subset Sheets: C-27 of 30

Project No./Code
 NH 0242-056
 19358
 Sheet Number **66**

Kelly 10:37:44 AM K:\112266-06_19358_Landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_03.dgn



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MAP KEY

LEGEND

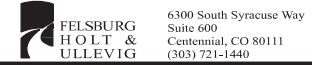
- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_FIN_Cascade_04.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials



Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



1480 Quail Lake Loop
 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

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No Revisions:
Revised:
Void:

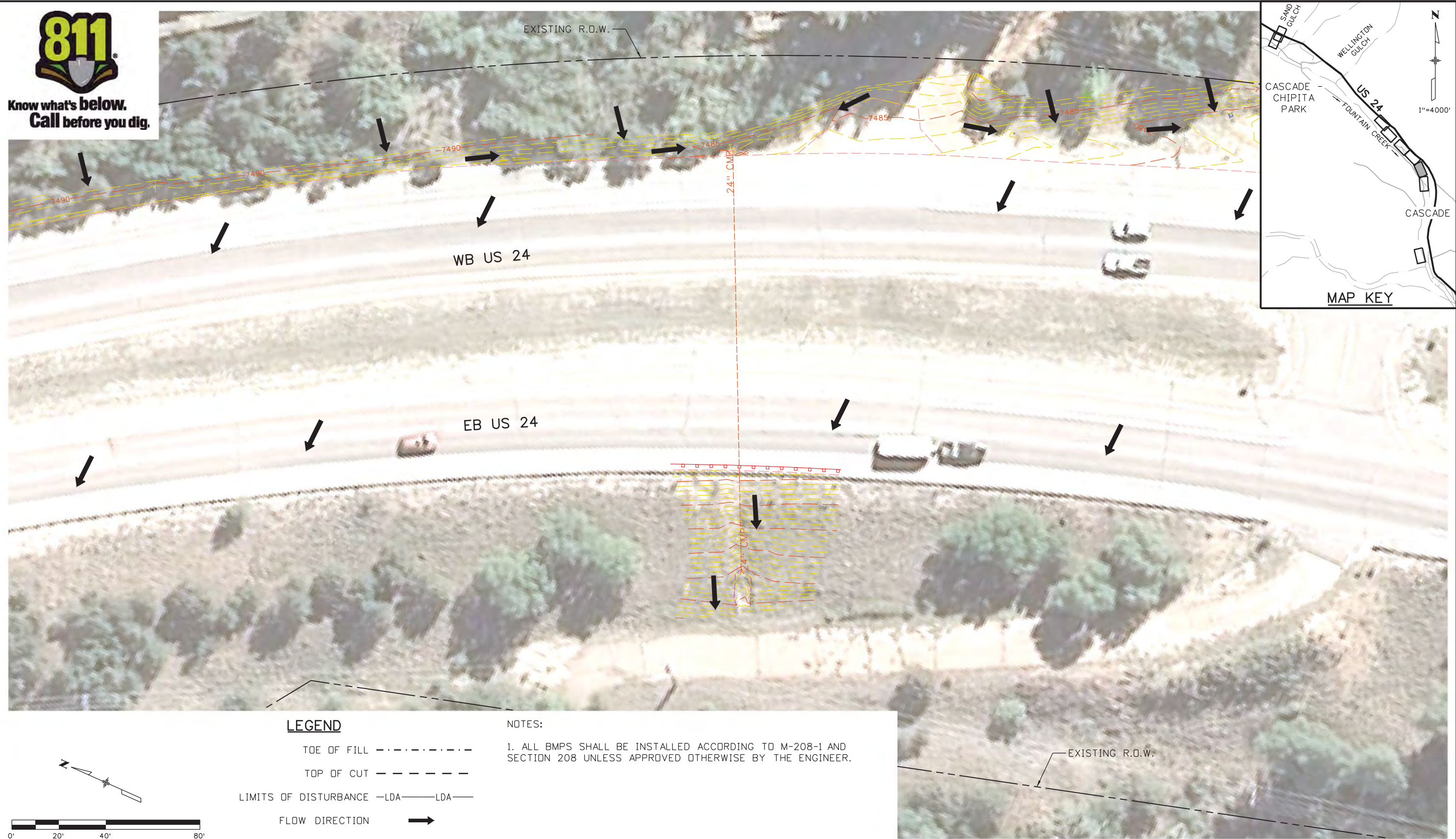
US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	C-28 of 30
Sheet Subset:	EROSION		

Project No./Code
NH 0242-056
19358
Sheet Number 67

Kelly 10:37:47 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_04.dgn



Know what's below.
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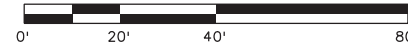


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
File Name: 19358Erosion_FIN_Cascade_05.dgn	
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Sheet Revisions		
Date:	Comments	Init.

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1480 Quail Lake Loop
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Region 2 LM

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No Revisions:
Revised:
Void:

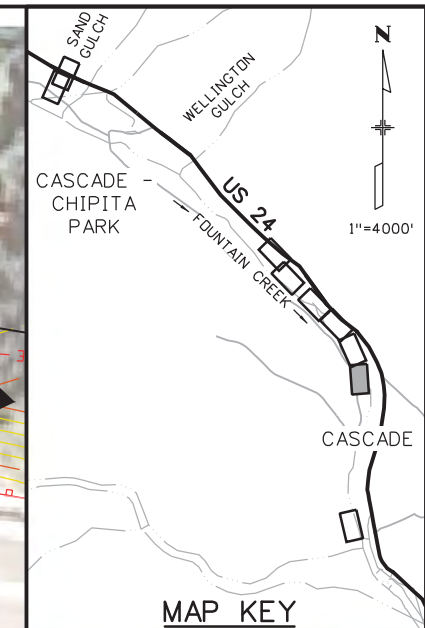
US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-29 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 68

Kelly 10:37:50 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_05.dgn



Know what's below.
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LEGEND

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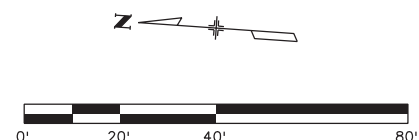
TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013
File Name: 19358Erosion_FIN_Cascade_06.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
Colorado Springs, CO 80806
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Region 2 LM

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No Revisions:
Revised:
Void:

US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Structure Numbers	
Sheet Subset:	EROSION	Subset Sheets:	C-30 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 69

Kelly 10:37:53 AM K:\112266-06\19358_Landscape_Environmental\Drawings\19358Erosion_FIN_Cascade_06.dgn

POUR POINT H TABULATION

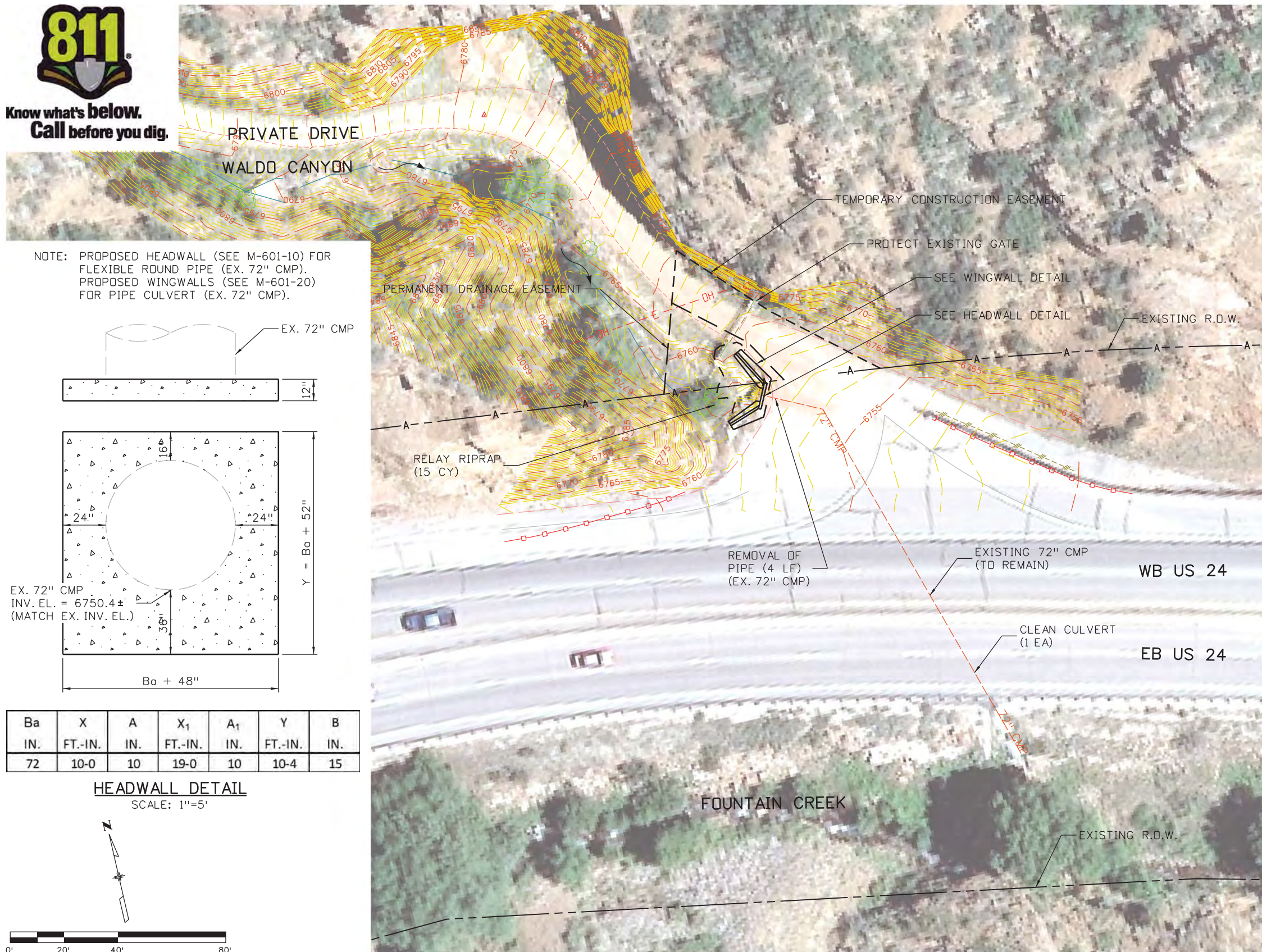
CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00035	REMOVAL OF PIPE	LF	4
202-04002	CLEAN CULVERT	EA	1
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
208-00034	GRAVEL BAG	LF	150
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-02900	RELAY RIPRAP	CY	15
601-01000	CONCRETE CLASS B	CY	15
601-03050	CONCRETE CLASS D (WALL)	CY	13
602-00000	REINFORCING STEEL	LB	750

Kelly 10:37:55 AM K:\112266-06\19358-Hydraulics\Drawings\19358HYDR_Tabs_Earthwork_WaldoCyn.dgn

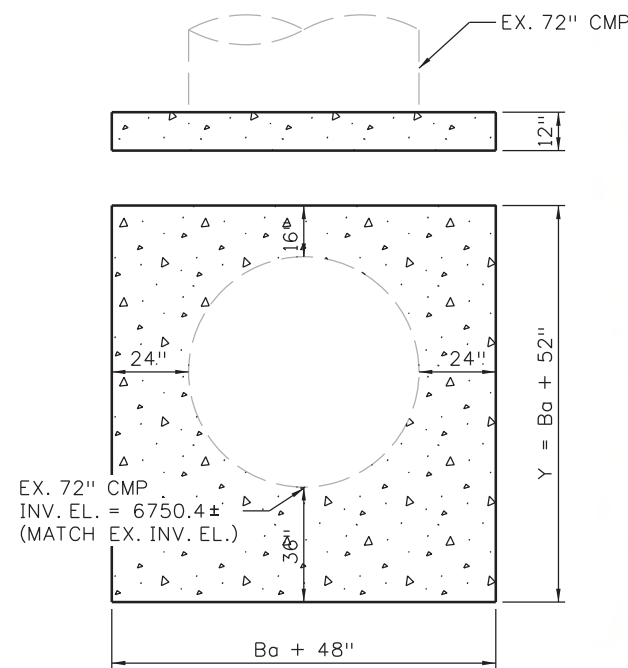
Print Date: 3/18/2013		Sheet Revisions			 Colorado Department of Transportation Region 2	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 LM	As Constructed		US 24 WALDO CANYON TABULATION		Project No./Code	
File Name: 19358HYDR_Tabs_Earthwork_WaldoCyn.dgn		Date:	Comments	Init.			No Revisions:	POUR POINT H - WALDO CANYON		NH 0242-056		
Horiz. Scale: 1:1 Vert. Scale: As Noted							Revised:	Designer: CDT	Structure Numbers	19358		
Unit Information Unit Leader Initials							Void:	Detailer: KLT	Subset Sheets: H-1 of 6	Sheet Number 70		
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440												



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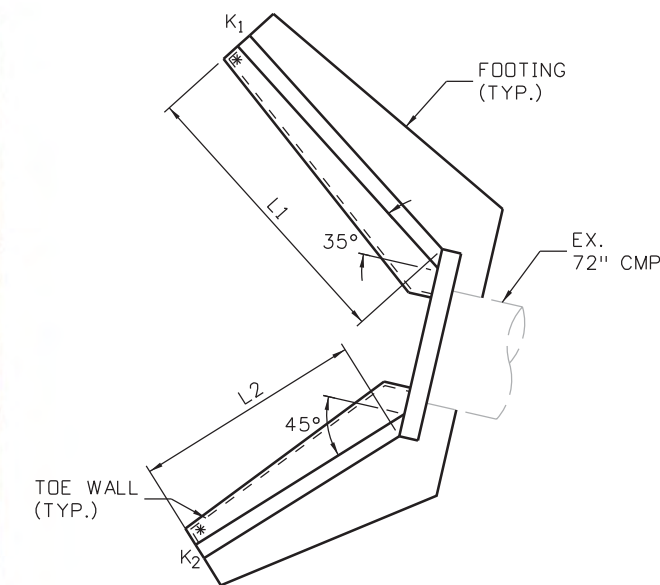
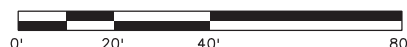


NOTE: PROPOSED HEADWALL (SEE M-601-10) FOR FLEXIBLE ROUND PIPE (EX. 72" CMP). PROPOSED WINGWALLS (SEE M-601-20) FOR PIPE CULVERT (EX. 72" CMP).



Ba	X	A	X ₁	A ₁	Y	B
IN.	FT.-IN.	IN.	FT.-IN.	IN.	FT.-IN.	IN.
72	10-0	10	19-0	10	10-4	15

HEADWALL DETAIL
SCALE: 1"=5'



K ₁	K ₂	L ₁	L ₂
FT.-IN.	FT.-IN.	FT.-IN.	FT.-IN.
2-0	2-0	15-0	12-0

*WINGWALLS REQUIRE TOE WALLS AS SHOWN ON M-601-20.

WINGWALL DETAIL
SCALE: 1"=10'

STRUCTURAL EXCAVATION AND BACKFILL FOR THE WINGWALLS AND HEADWALL SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE WORK.

LEGEND

- SOIL RIPRAP (12 INCH)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT

Print Date: 3/18/2013
 File Name: 19358HYDR_Aerial_WaldoCyn.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON
 AERIAL PLAN
 POUR POINT H - WALDO CANYON

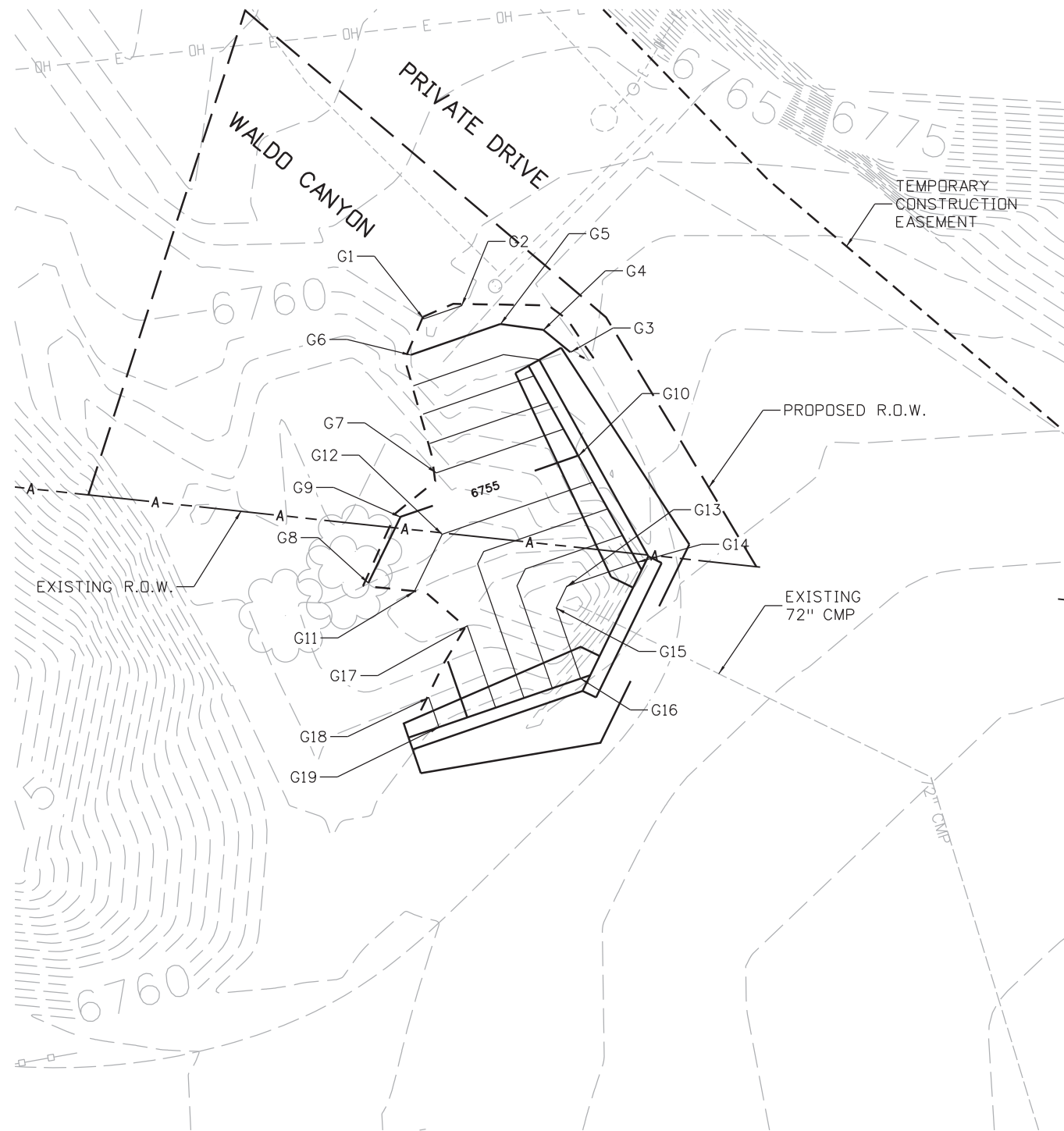
Designer: CDT Structure Numbers
 Detailer: KLT

Sheet Subset: AERIAL Subset Sheets: H-2 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 71

POINT DATA TABLE - POUR POINT H - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	381076.80	162767.89	6761.00	FINISHED GRADE
G2	381077.67	162770.42	6761.00	FINISHED GRADE
G3	381074.58	162777.68	6760.00	FINISHED GRADE
G4	381076.06	162775.87	6760.00	FINISHED GRADE
G5	381076.45	162773.00	6760.00	FINISHED GRADE
G6	381074.39	162767.04	6760.00	FINISHED GRADE
G7	381066.52	162768.74	6756.00	FINISHED GRADE
G8	381059.16	162764.20	6755.00	FINISHED GRADE
G9	381063.58	162766.35	6755.00	FINISHED GRADE
G10	381067.66	162778.20	6755.00	FINISHED GRADE
G11	381058.59	162767.26	6754.00	FINISHED GRADE
G12	381062.42	162769.12	6754.00	FINISHED GRADE
G13	381058.94	162777.44	6751.00	FINISHED GRADE
G14	381060.56	162782.13	6751.00	FINISHED GRADE
G15	381057.50	162776.74	6751.00	FINISHED GRADE
G16	381052.81	162778.36	6751.00	FINISHED GRADE
G17	381056.32	162770.80	6754.00	FINISHED GRADE
G18	381051.53	162768.22	6756.00	FINISHED GRADE
G19	381049.55	162768.90	6756.00	FINISHED GRADE



LEGEND

- TOE OF FILL
- TOP OF CUT

Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_WaldoCyn_01.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Region 2 LM

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No Revisions:
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Void:

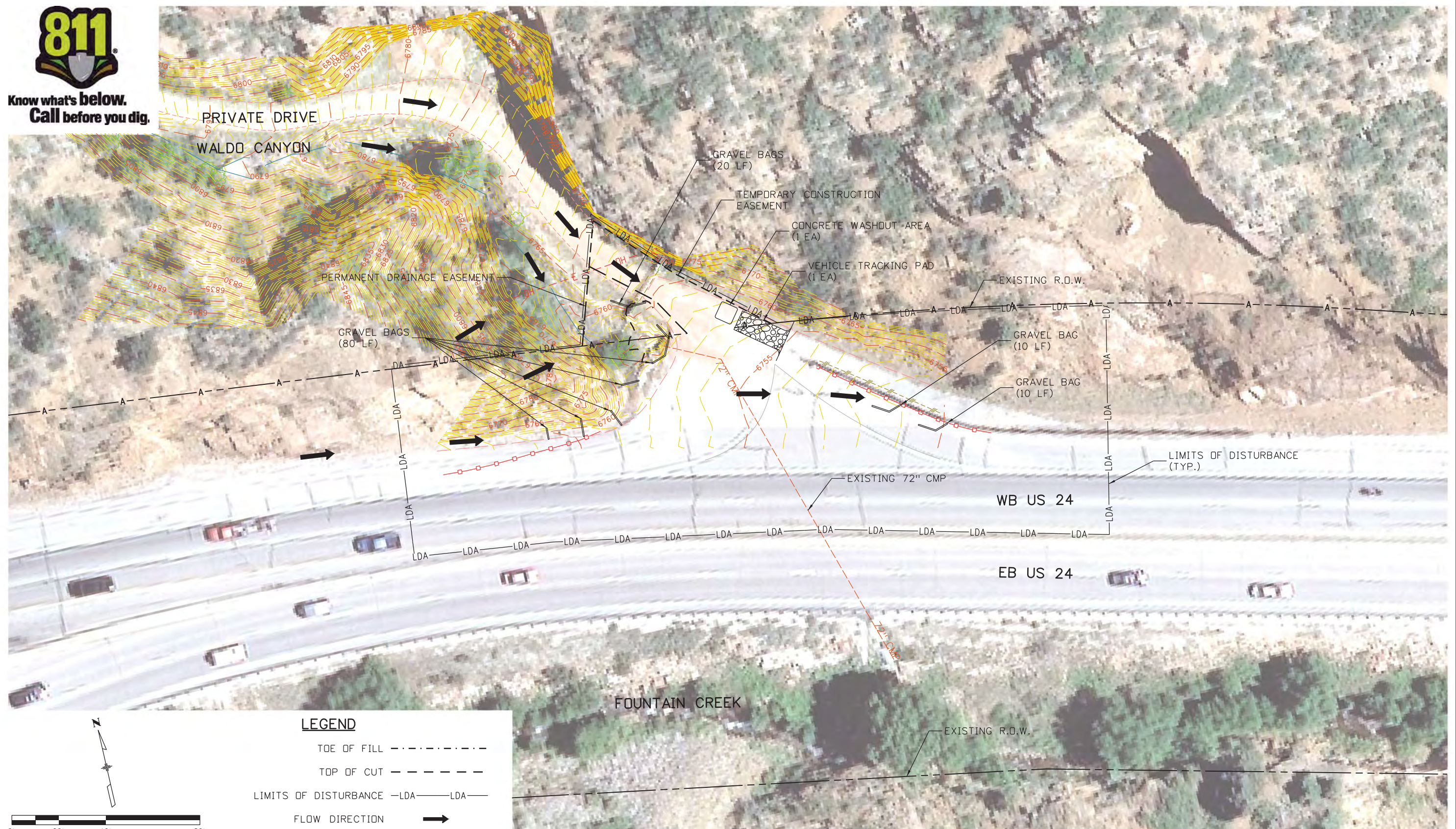
US 24 WALDO CANYON POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	H-3 of 6
Sheet Subset:	DRAINAGE		

Project No./Code	NH 0242-056
	19358
Sheet Number	72

Kelly 10:38:07 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_WaldoCyn_01.dgn

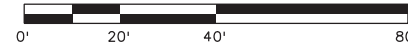


Know what's below.
Call before you dig.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →



Kelly 10:38:10 AM K:\112266-06\19358\Landscapes_Environmental\Drawings\19358Erosion_INI_WaldoCyn.dgn

Print Date: 3/18/2013	0000
File Name: 19358Erosion_INI_WaldoCyn.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

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Region 2 **LM**

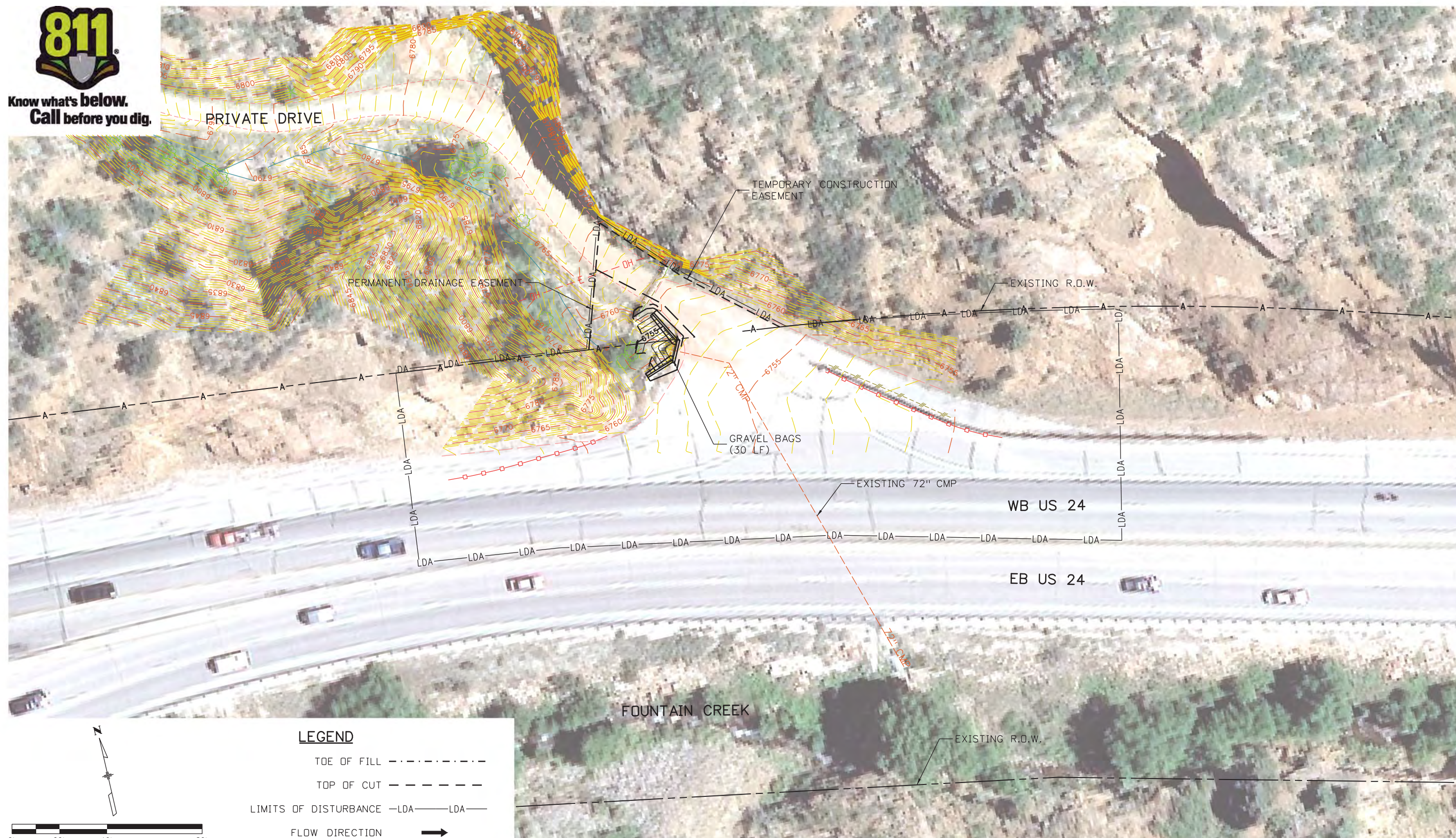
As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON			
GRADING/INITIAL EROSION CONTROL PLAN			
POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	H-4 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 73

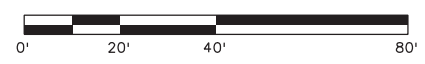


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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →



Print Date: 3/18/2013	0000
File Name: 19358Erosion_INT_WaldoCyn.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Region 2 **LM**

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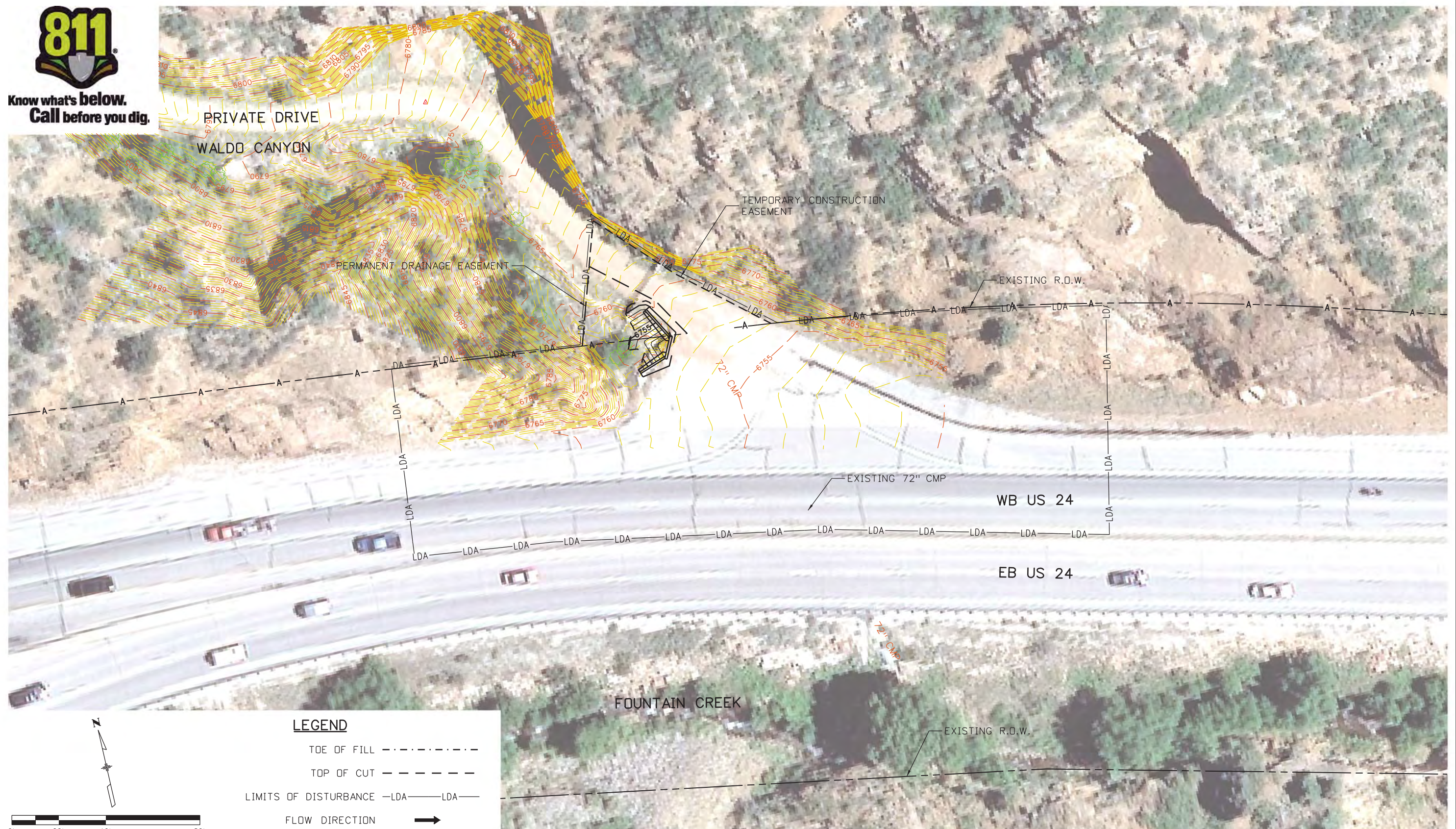
US 24 WALDO CANYON			
GRADING/INTERIM EROSION CONTROL PLAN			
POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	H-5 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 74

Kelly 10:38:17 AM K:\112266-06\19358\Landscap...Environmental\Drawings\19358Erosion_INT_WaldoCyn.dgn



Know what's below.
Call before you dig.



LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

Print Date: 3/18/2013	
File Name: 19358Erosion_FIN_WaldoCyn.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	H-6 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 75

Kelly 10:38:20 AM K:\112266-06\19358_Landscape_Environmental\Drawings_19358Erosion_FIN_WaldoCyn.dgn

POUR POINT J - TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00027	REMOVAL OF RIPRAP	SY	86
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	12916
203-00060	EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CY	450
203-00598	ROCK SCALING	HR	60
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
206-00000	STRUCTURE EXCAVATION	CY	450
206-00510	FILTER MATERIAL (CLASS A)	CY	200
207-00205	TOPSOIL	CY	202
208-00002	EROSION LOG (12 INCH)	LF	455
208-00034	GRAVEL BAG	LF	490
208-00041	ROCK CHECK DAM	EA	1
208-00045	CONCRETE WASHOUT STRUCTURE	EA	2
208-00070	VEHICLE TRACKING PAD	EA	2
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
208-00301	TEMPORARY DIVERSION	LF	300
210-00475	RESET CLOSED CIRCUIT TELEVISION POLE	EA	1
210-00810	RESET GROUND SIGN	EA	1
212-00006	SEEDING (NATIVE)	AC	0.25
212-00032	SOIL CONDITIONING	AC	0.25
213-00002	MULCHING (WEED FREE)	AC	0.25
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	563
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	79
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	540
504-06315	GROUND NAIL (15 FOOT)	EA	60
506-00010	RIPRAP (SPECIAL)	CY	35
506-00036	GROUTED RIPRAP (36 INCH) (SPECIAL)	CY	275
506-00218	RIPRAP (18 INCH)	CY	275
506-00412	SOIL RIPRAP (12 INCH)	CY	81
506-01020	GEOGRID REINFORCEMENT	SY	856
607-53172	FENCE CHAIN LINK (72 INCH)	LF	174
607-55100	WIRE MESH	SF	52330
609-21020	CURB AND GUTTER TYPE 2 (SECTION II-B)	LF	390
641-10000	SHOTCRETE	SY	139

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET		CU. YDS.	
			*EMBANKMENT MATERIAL (CIP) (FROM CROSS-SECTIONS) (FOR INFO ONLY) ACCESS ROAD STA. 0+00.00 TO STA. 04+46.03	226	
			SUBTOTAL	226	
			TOTAL	226	
			*UNCLASSIFIED EXCAVATION (FROM CROSS-SECTIONS) ACCESS ROAD STA. 0+00.00 TO STA. 04+46.03	162	
			SUBTOTAL	162	
			TOTAL FOR PAY QUANTITY	162	

			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	226	
			TOTAL	226	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (226 x 0.040 M. GAL./yd)	9	
			TOTAL	9	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)		
			EMBANKMENT (NET)	226	
			EMBANKMENT X FACTOR (1.15)	260	
			BALANCE TOTAL	260	
			UNCLASSIFIED EXCAVATION TO BE IMPORTED BY THE CONTRACTOR	162	
			BALANCE TOTAL	260	

Print Date: 3/18/2013
 File Name: 19358DES_Tabs_Earthwork_AccessRoad.dgn
 Horiz. Scale: 1:1 Vert. Scale: As Noted
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Date:	Comments	Init.

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US 24 WALDO CANYON
 TABULATION
 POUR POINT J - ACCESS ROAD

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	J-1 of 41
Sheet Subset:	TAB		

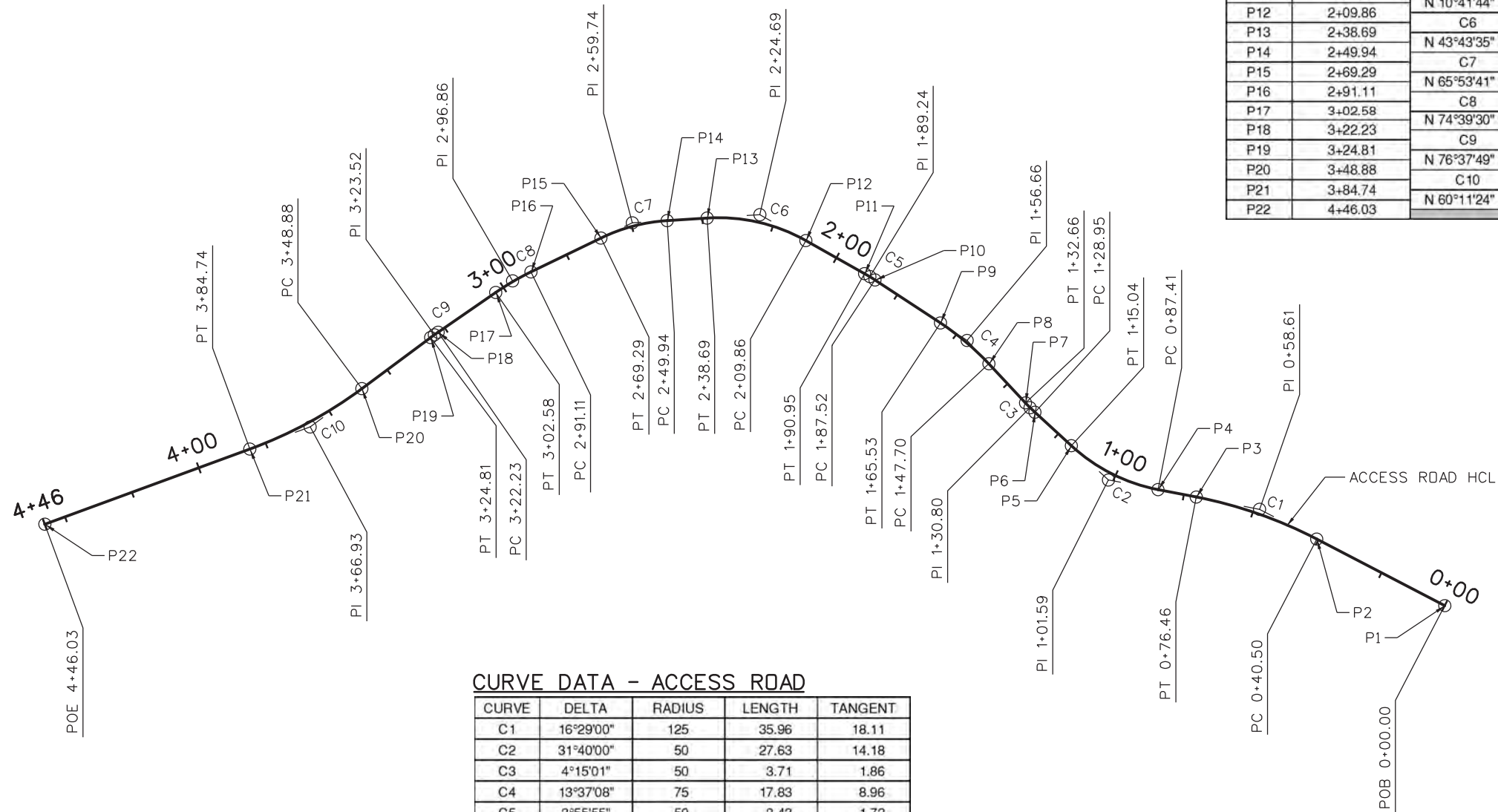
Project No./Code
 NH 0242-056
 19358
 Sheet Number **76**



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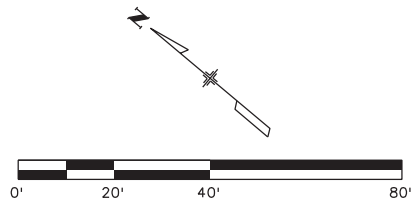
COORDINATE DATA - ACCESS ROAD

POINT	STATION	BEARING/CURVE	NORTHING	EASTING
P1	0+00.00		378238.1658	165043.3779
P2	0+40.50	N 12°34'42" W	378277.6935	165035.1582
P3	0+76.46	C1	378311.1905	165022.4205
P4	0+87.41	N 29°03'42" W	378320.7584	165017.1035
P5	1+15.04	C2	378347.3184	165010.3601
P6	1+28.95	N 2°36'18" E	378361.2104	165011.4921
P7	1+32.66	C3	378364.9059	165011.7979
P8	1+47.70	N 6°51'19" E	378379.8446	165013.5939
P9	1+65.53	C4	378397.6298	165013.3081
P10	1+87.52	N 6°45'49" W	378419.4666	165011.0183
P11	1+90.95	C5	378422.8574	165010.4976
P12	2+09.86	N 10°41'44" W	378441.4396	165006.3880
P13	2+38.69	C6	378466.7210	164993.3890
P14	2+49.94	N 43°43'35" W	378474.8555	164986.2083
P15	2+69.29	C7	378485.9345	164970.4967
P16	2+91.11	N 65°53'41" W	378494.8469	164950.5776
P17	3+02.58	C8	378498.7147	164939.7894
P18	3+22.23	N 74°39'30" W	378503.9131	164920.3411
P19	3+24.81	C9	378504.5500	164918.3406
P20	3+48.88	N 76°37'49" W	378510.1174	164894.3289
P21	3+84.74	C10	378523.2698	164861.3924
P22	4+46.03	N 60°11'24" W	378553.7373	164808.5145



CURVE DATA - ACCESS ROAD

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	16°29'00"	125	35.96	18.11
C2	31°40'00"	50	27.63	14.18
C3	4°15'01"	50	3.71	1.86
C4	13°37'08"	75	17.83	8.96
C5	3°55'55"	50	3.43	1.72
C6	33°01'52"	50	28.83	14.83
C7	22°10'05"	50	19.35	9.80
C8	8°45'50"	75	11.47	5.75
C9	1°58'19"	75	2.58	1.29
C10	16°26'25"	125	35.87	18.06



Print Date: 3/18/2013
 File Name: 19358DES_GeometryPlan_AccessRoad.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
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Date:	Comments	Init.

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US 24 WALDO CANYON
 GEOMETRIC PLAN
 POUR POINT J - ACCESS ROAD

Designer: CDT
 Detailer: KLT

Structure Numbers

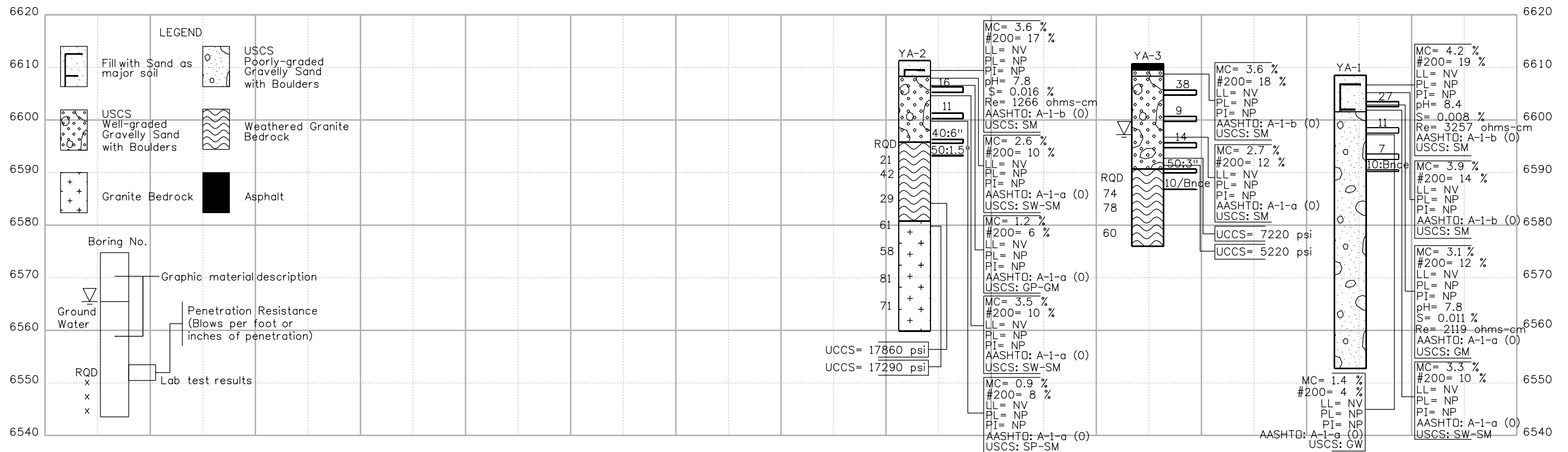
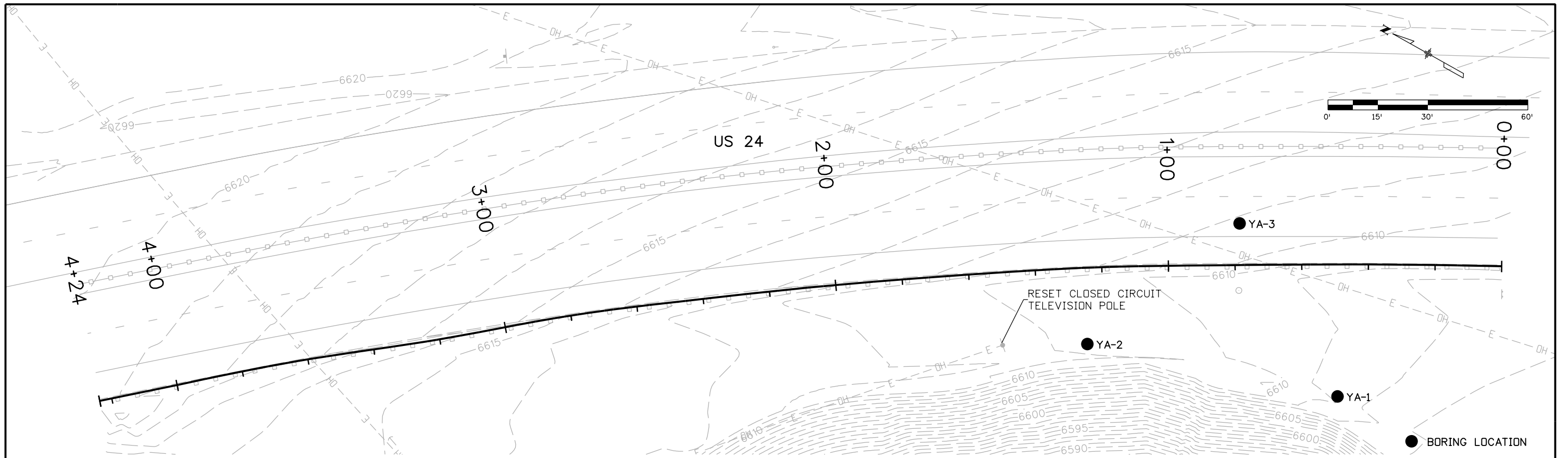
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Project No./Code

NH 0242-056

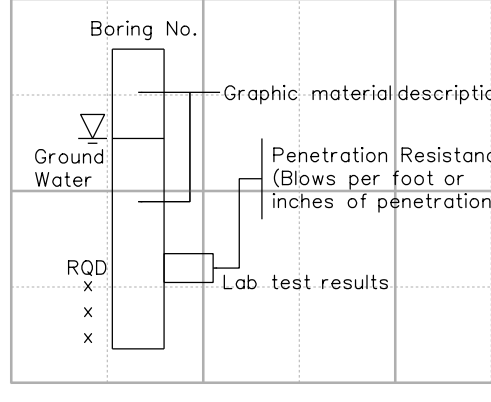
19358

Sheet Number **77**



LEGEND

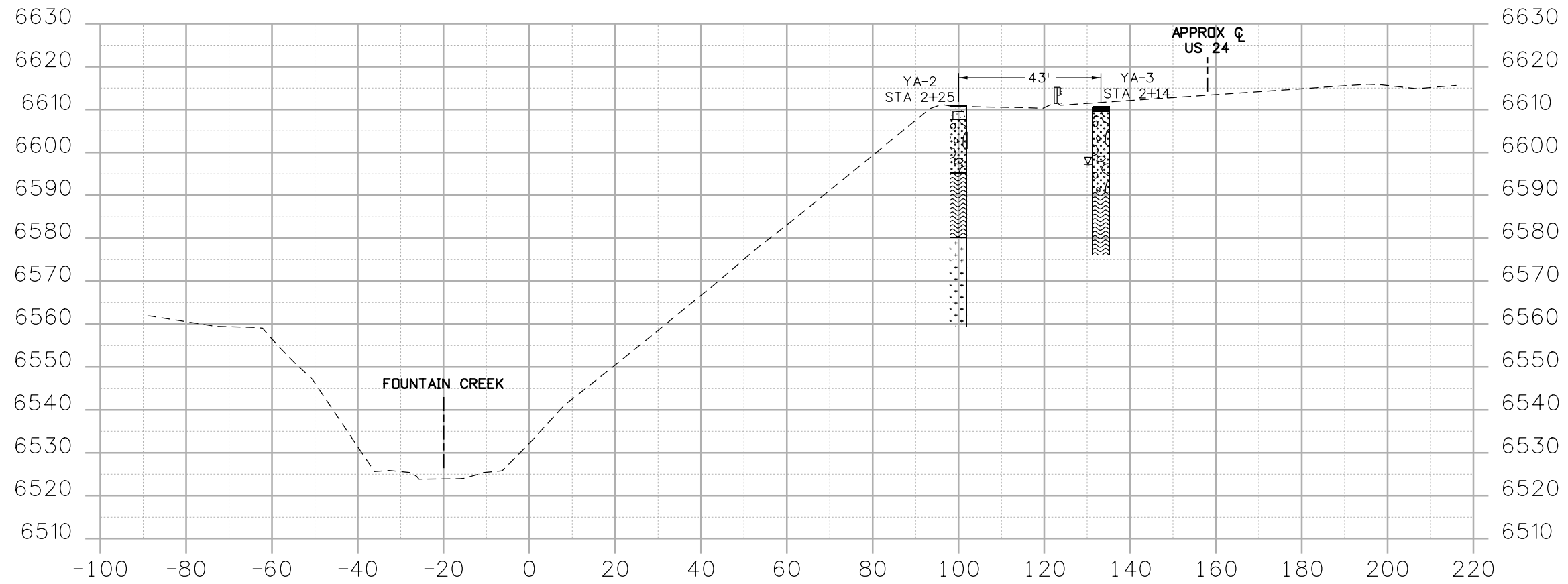
	USCS Poorly-graded Gravelly Sand with Boulders
	Weathered Granite Bedrock
	Asphalt




Print Date: 3/15/2013	Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON ENGINEERING GEOLOGY		Project No./Code	
File Name: 19358 Engineering Geology.dgn	Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		Designer: H. Liu Detailer: M. Walz		NH 0242-056	
Horiz. Scale: 1:30 Unit Information						Revised:				Structure Numbers	
Unit Leader Initials				Region 2		Void:		Sheet Subset:		Sheet Number 78	
Yeh and Associates, Inc. Consulting Engineers & Scientists			Region 2		LM		Subset Sheets:				

Mike Walz 1:57:01 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Engineering Geology.dgn

Mike Walz 1:54:48 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Typical Section-Exist Condition.dgn



Print Date: 3/15/2013	
File Name: 19358 Typical Section-Exist Condition.dgn	
Horiz. Scale: 1:30	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
 Yeh and Associates, Inc. Consulting Engineers & Scientists	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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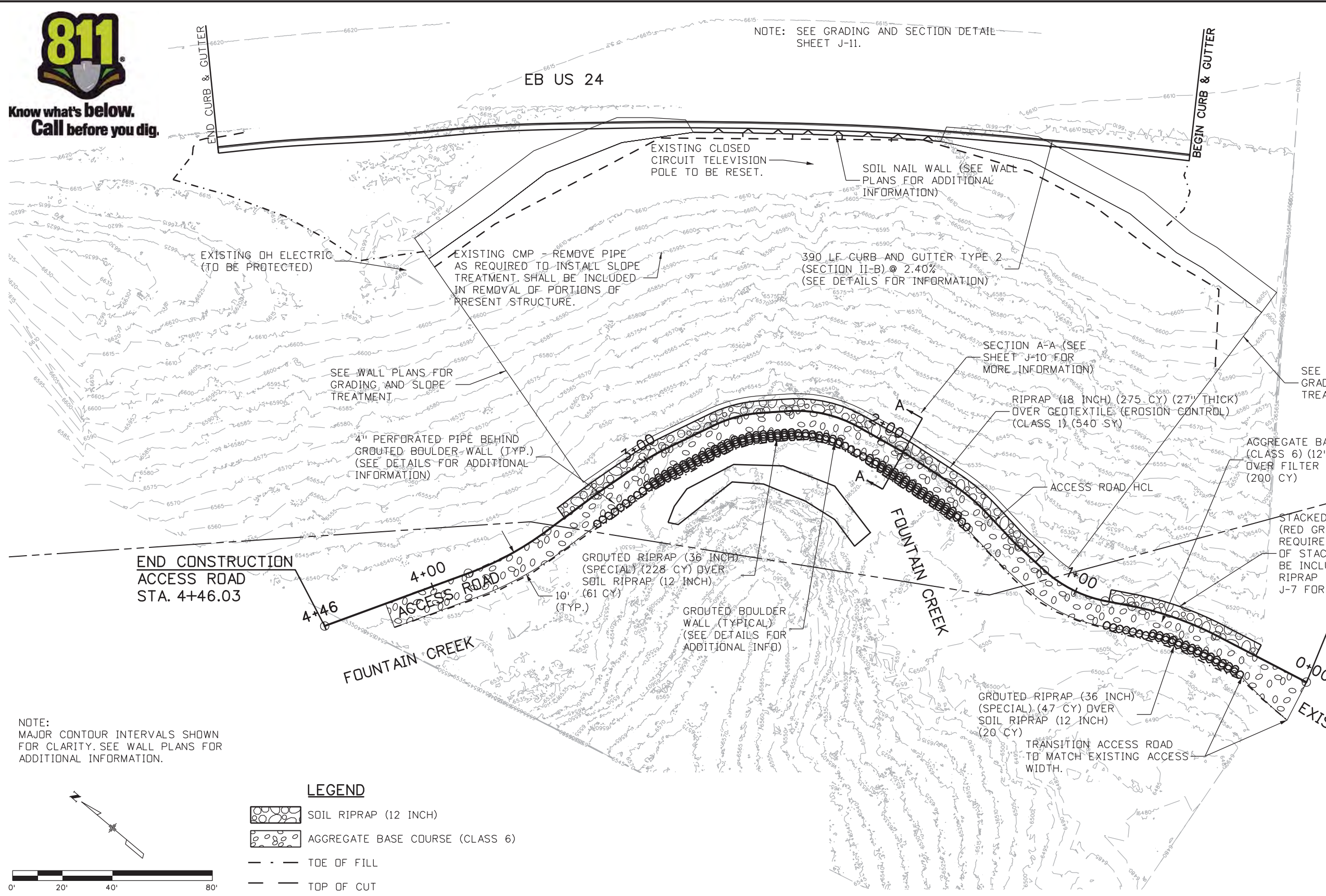
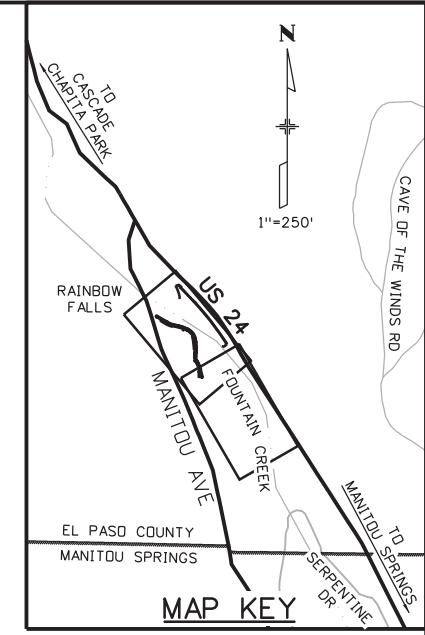
US 24 WALDO CANYON TYPICAL SECTION EXISTING CONDITIONS		
Designer:	B. Arndt	Structure Numbers
Detailer:	M. Walz	
Sheet Subset:		Subset Sheets:

Project No./Code
NH 0242-056
19358
Sheet Number 79



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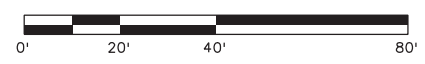
NOTE: SEE GRADING AND SECTION DETAIL SHEET J-11.



NOTE: MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.

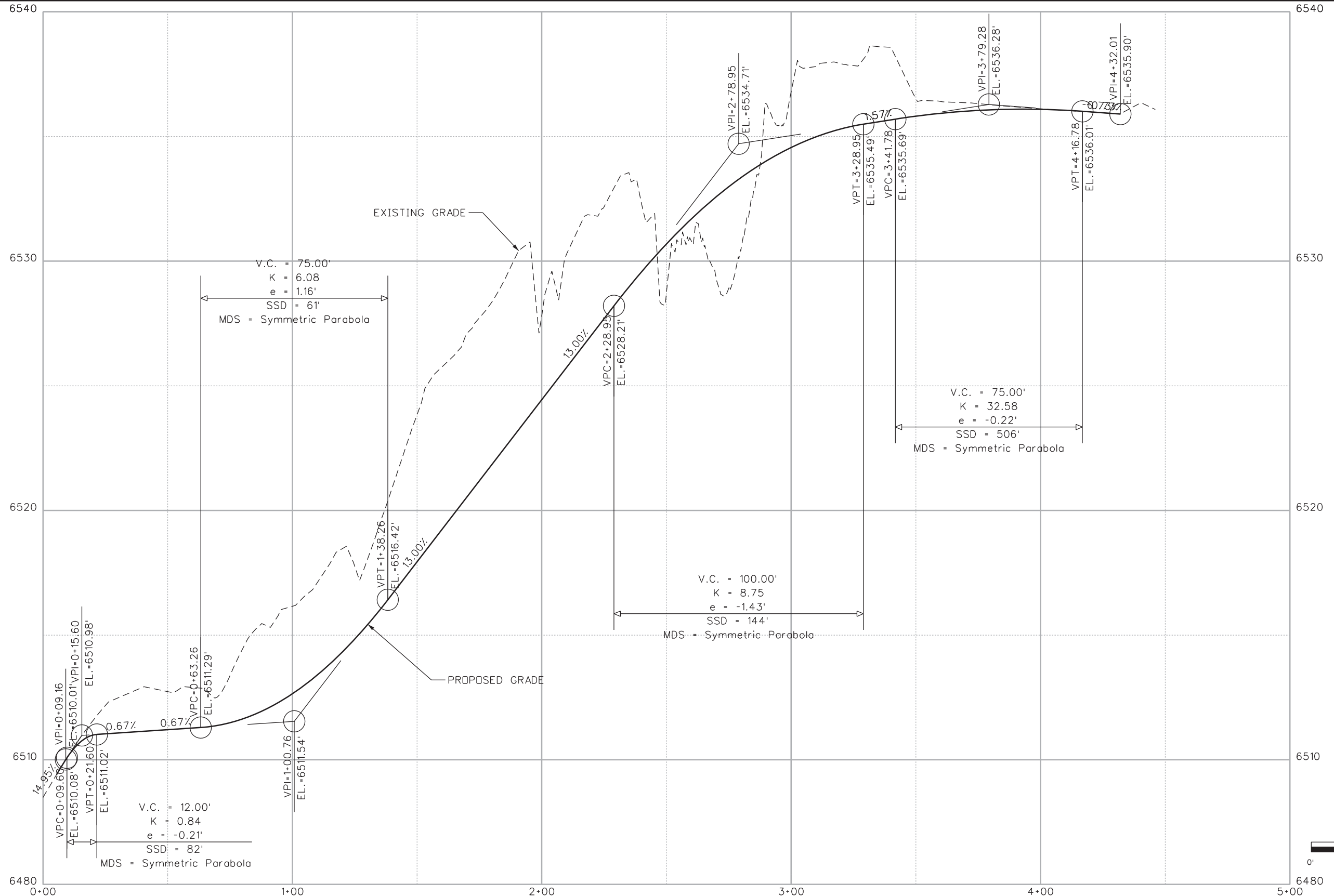
LEGEND

	SOIL RIPRAP (12 INCH)
	AGGREGATE BASE COURSE (CLASS 6)
	TOE OF FILL
	TOP OF CUT



Print Date: 3/18/2013	Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON PLAN		Project No./Code	
File Name: 19358DES_Plan_AccessRoad_01.dgn	Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		POUR POINT J - ACCESS ROAD		NH 0242-056	
Horiz. Scale: 1:40 Vert. Scale: As Noted						Revised:		Designer: CDT Structure:		19358	
Unit Information Unit Leader Initials				Region 2 LM		Detailer: KLT Numbers:		Sheet Subst: ROADWAY Subst Sheets: J-5 of 41		Sheet Number 80	

Kelly 10:38:32 AM K:\112266-06\19358\Design\Drawings\19358DES_Plan_AccessRoad_01.dgn



Print Date: 3/18/2013
 File Name: 19358DES_Prof_AccessRoad.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
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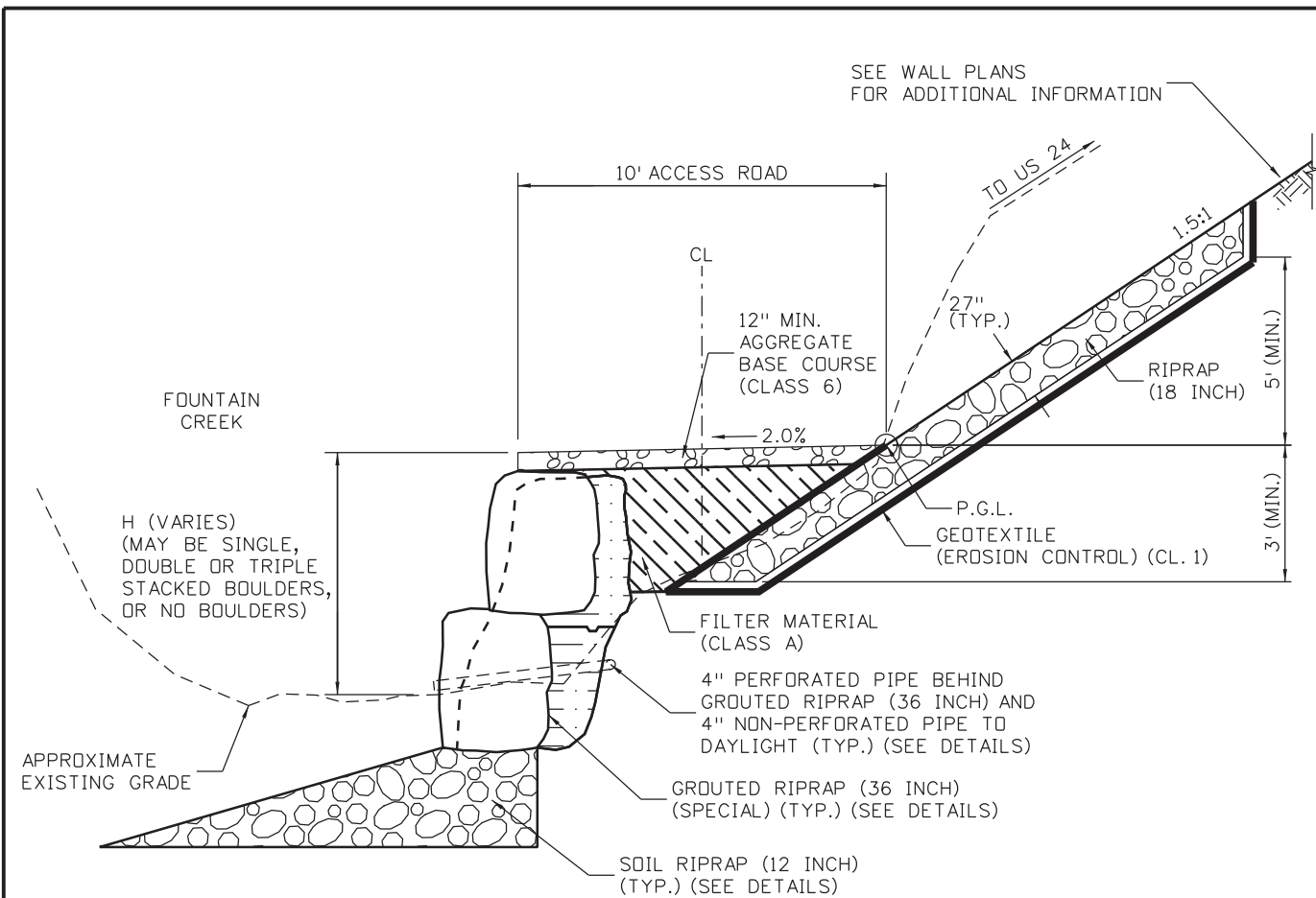
US 24 WALDO CANYON
 PROFILE SHEET
 POUR POINT J - ACCESS ROAD

Designer: CDT
 Detailer: KLT
 Sheet Subset: ROADWAY Subset Sheets: J-6 of 41

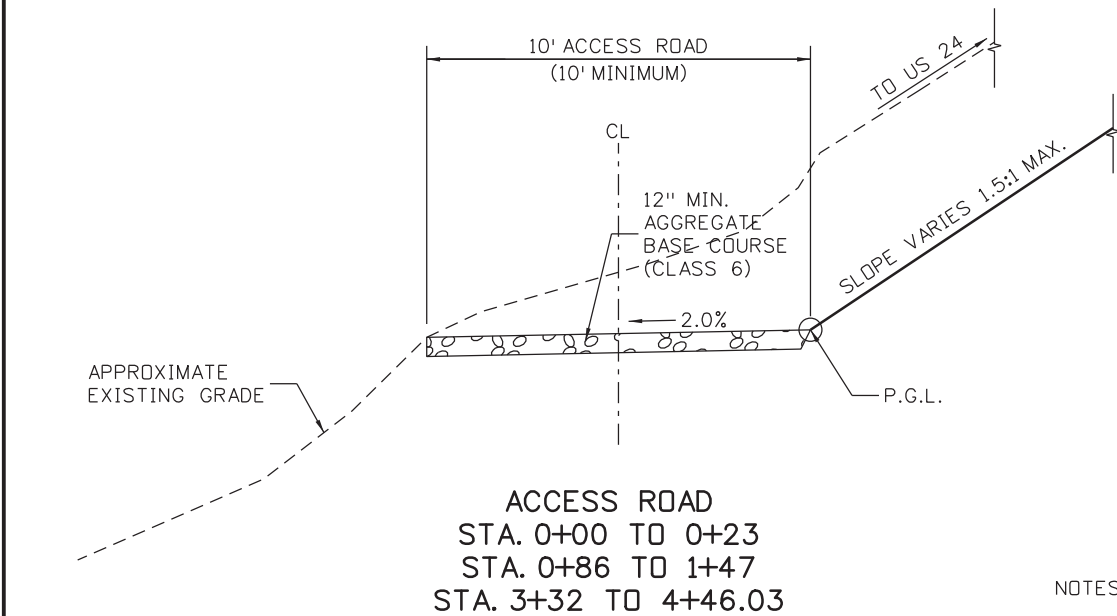
Project No./Code
 NH 0242-056
 19358
 Sheet Number **81**

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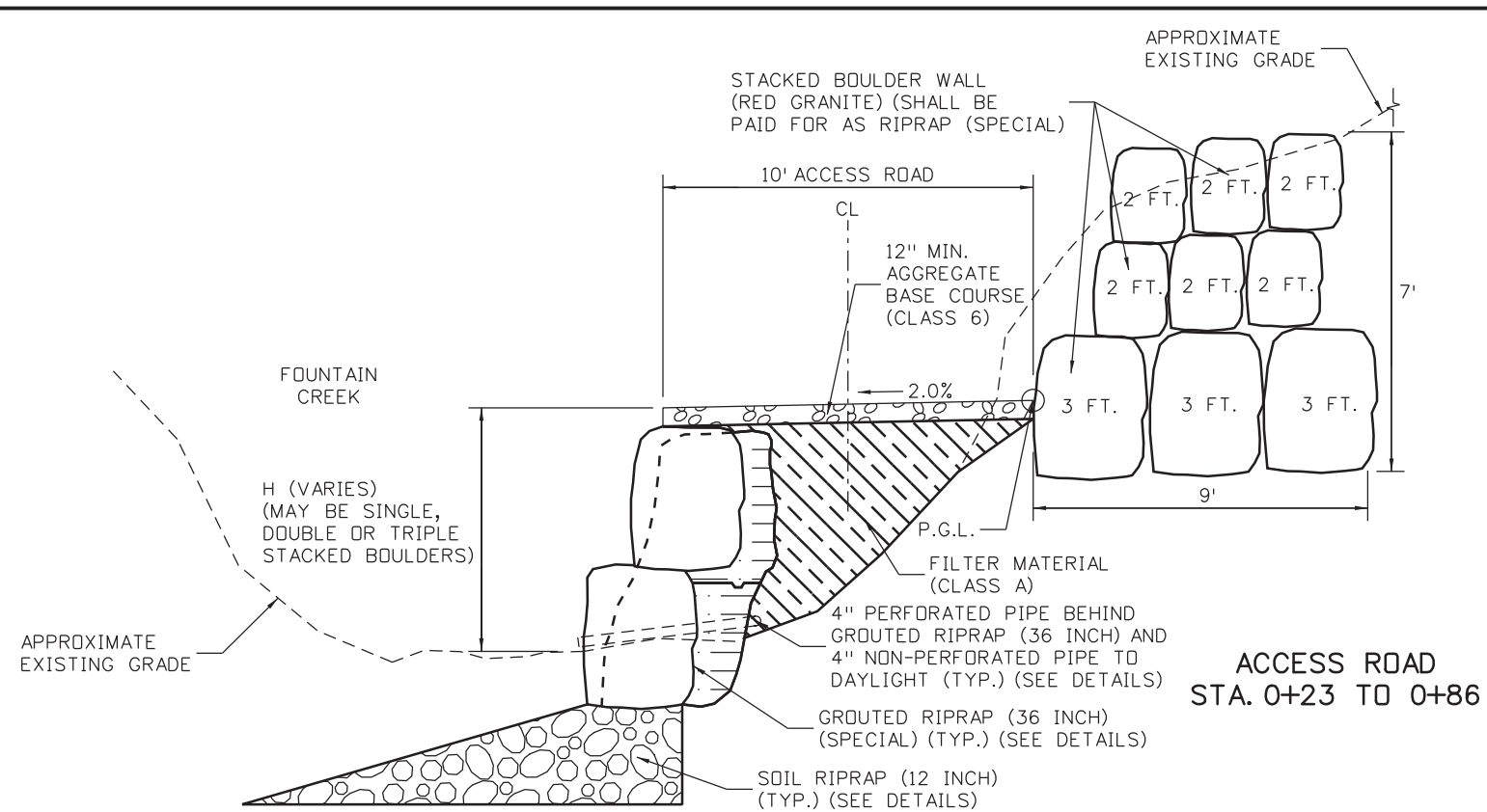
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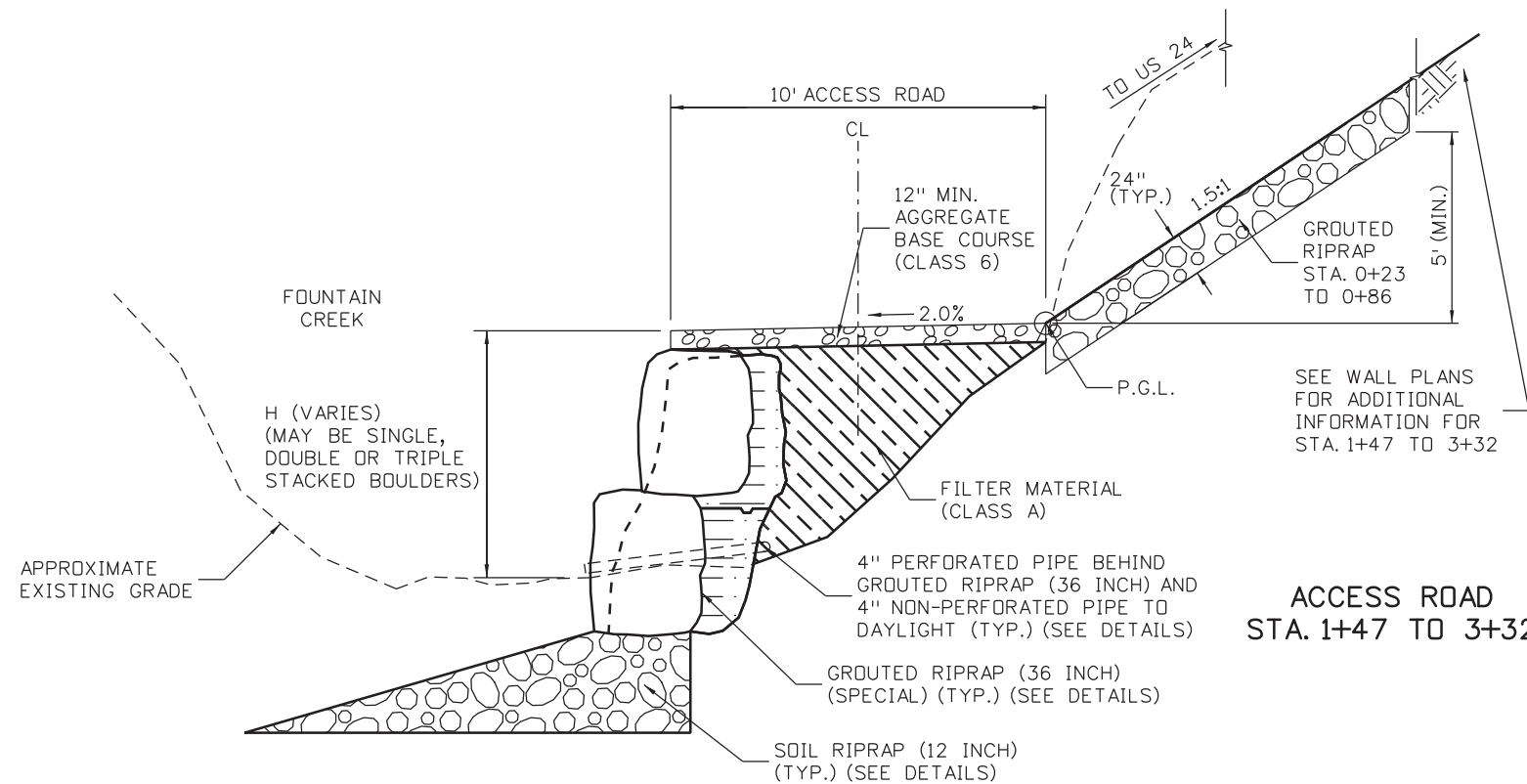
ACCESS ROAD
STA. 1+20 TO 3+40



ACCESS ROAD
STA. 0+00 TO 0+23
STA. 0+86 TO 1+47
STA. 3+32 TO 4+46.03



ACCESS ROAD
STA. 0+23 TO 0+86



ACCESS ROAD
STA. 1+47 TO 3+32

NOTES:

1. 36" GROUDED RIPRAP (36 INCH) HEIGHT VARIES, SEE DETAILS.

P.G.L. - PROFILE GRADE LINE

Print Date: 3/18/2013	
File Name: 19358DES_TypSectAccessRoad J.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
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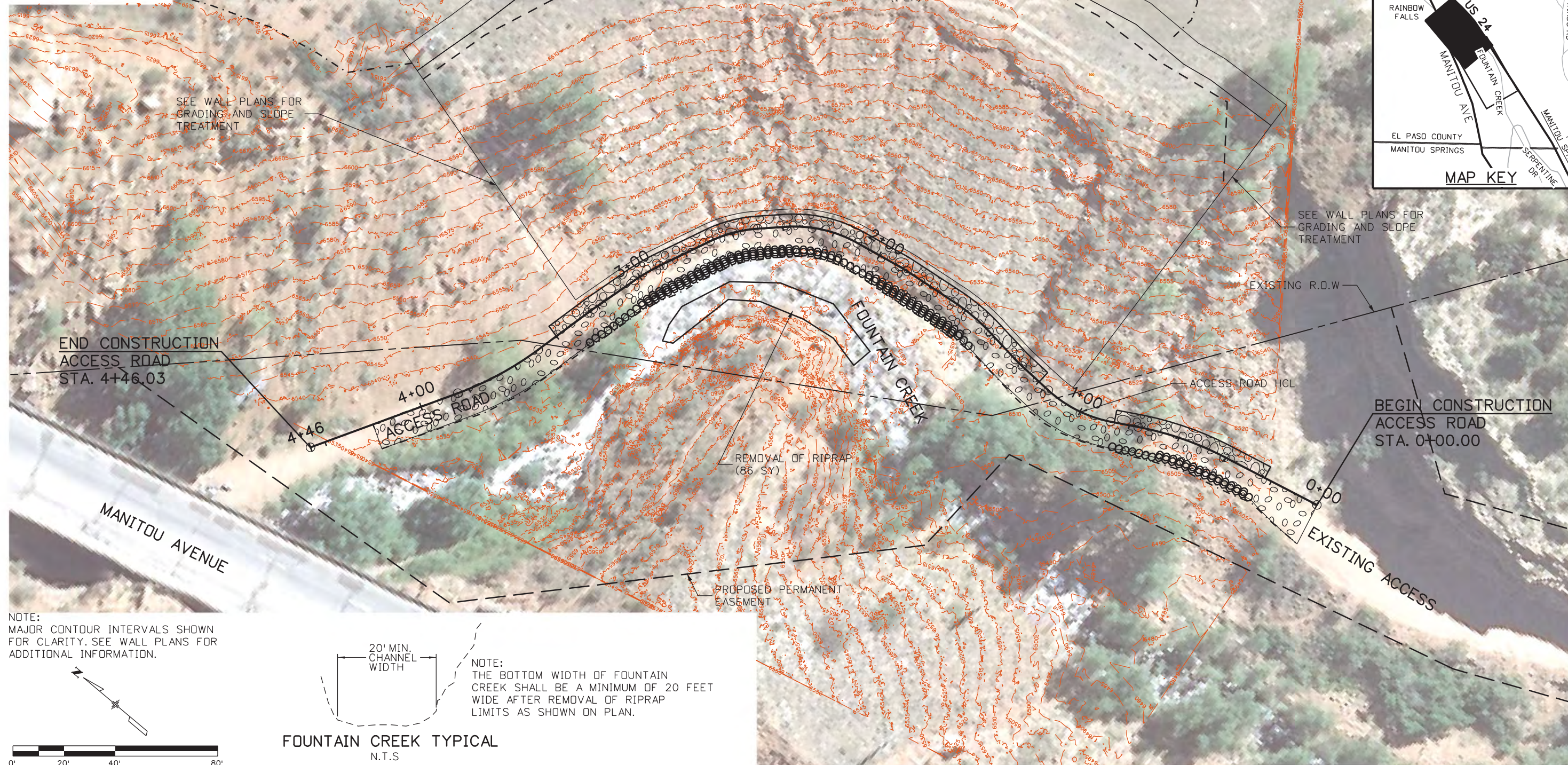
US 24 WALDO CANYON TYPICAL SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:		Subset Sheets:	J-7 of 41

Project No./Code
NH 0242-056
19358
Sheet Number 82

Kelly 10:38:37 AM K:\112266-06\19358\Design\Drawings\19358DES_TypSectAccessRoad J.dgn



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Print Date: 3/18/2013	
File Name: 19358DES_Aerial_AccessRoad_01.dgn	
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Unit Information Unit Leader Initials	
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Sheet Revisions		
Date:	Comments	Init.

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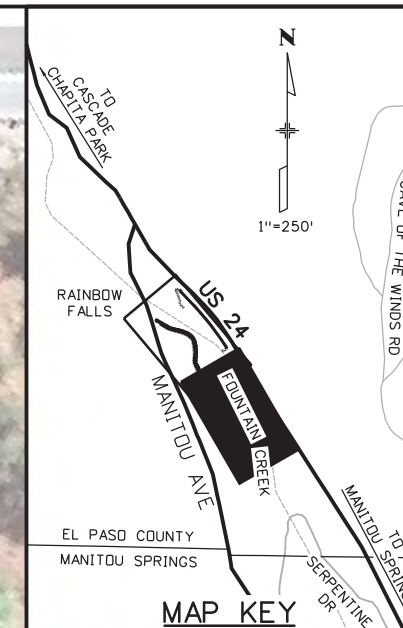
US 24 WALDO CANYON REMOVALS / RESETS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	J-8 of 41

Project No./Code
NH 0242-056
19358
Sheet Number 83

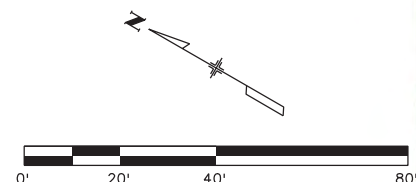


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NOTE:
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ADDITIONAL INFORMATION.



Print Date: 3/18/2013	
File Name: 19358DES_Aerial_AccessRoad_02.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

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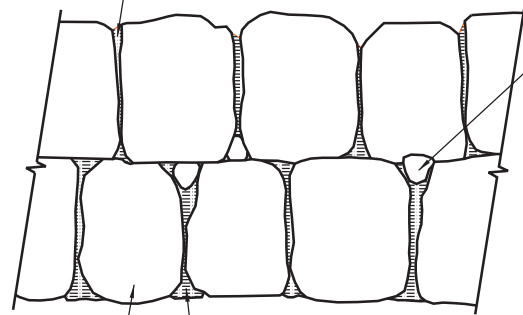
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US 24 WALDO CANYON REMOVALS / RESETS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	J-9 of 41

Project No./Code
NH 0242-056
19358
Sheet Number 84

Kelly 10:38:59 AM K:\112266-06\19358_Design\Drawings\19358DES_Aerial_AccessRoad_02.dgn

ALL EXPOSED GROUT SHALL BE TROWELED OUT AND FINISHED TO MINIMIZE VISIBILITY. WASH OFF ALL EXCESS GROUT SPILLAGE AND CLEAN ALL VISIBLE ROCK SURFACES (SEE SPECIFICATION)



LARGE MACHINE PLACED 36" BOULDERS

PLACE BOULDERS AS CLOSELY AS POSSIBLE (TOUCHING EACH OTHER) TO MINIMIZE GROUT. VOIDS SHALL NOT EXCEED 4" WITHOUT CHINKING.

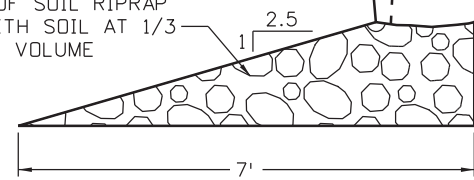
ELEVATION
NOT TO SCALE

CHINK ROCKS IN BOULDER GAPS THAT EXCEED 4"

FOUNTAIN CREEK

6" OR 1/4 D WHICHEVER IS GREATER
GROUT BETWEEN BOULDERS RECESS GROUT 1/3 OF DIA, ON SIDE FACING CHANNEL

CHANNEL INVERT
24" THICK LAYER OF SOIL RIPRAP (12 INCH) MIXED WITH SOIL AT 1/3 SOIL, 2/3 ROCK BY VOLUME



SECTION A-A
NOT TO SCALE

ACCESS ROAD
12" MIN. ABC

GROUT BEHIND BOULDERS

6" MIN. 12" MAX.

FILTER MATERIAL (CLASS A)

POUR GROUT ONE LIFT AT A TIME W/ 2"X2" CONST. KEYWAY

4" PERFORATED PIPE BEHIND GROUTED RIPRAP (36 INCH) AND 4" NON-PERFORATED PIPE TO DAYLIGHT (TYP.) (SEE DETAIL AND NOTES BELOW)

EROSION CONTROL BLANKET (STRAW/COCONUT) (SEE EROSION CONTROL PLANS FOR LOCATION AND QUANTITIES)

FINISHED GRADE

DESIGN RIPRAP GRADE

TOPSOIL 6" TYP.

DEPTH= 2' MIN.

SLOPE VARIES (SEE PLANS)

SOIL RIPRAP (d50) (SEE PLANS) (MIX SOIL AND RIPRAP)

SUBGRADE VARIES (SEE PLANS) PREPARE COMPACTED SUBGRADE PER SPECIFICATIONS OR PLACE ON UNDISTURBED SUBGRADE OR GEOTEXTILE (EROSION CONTROL)

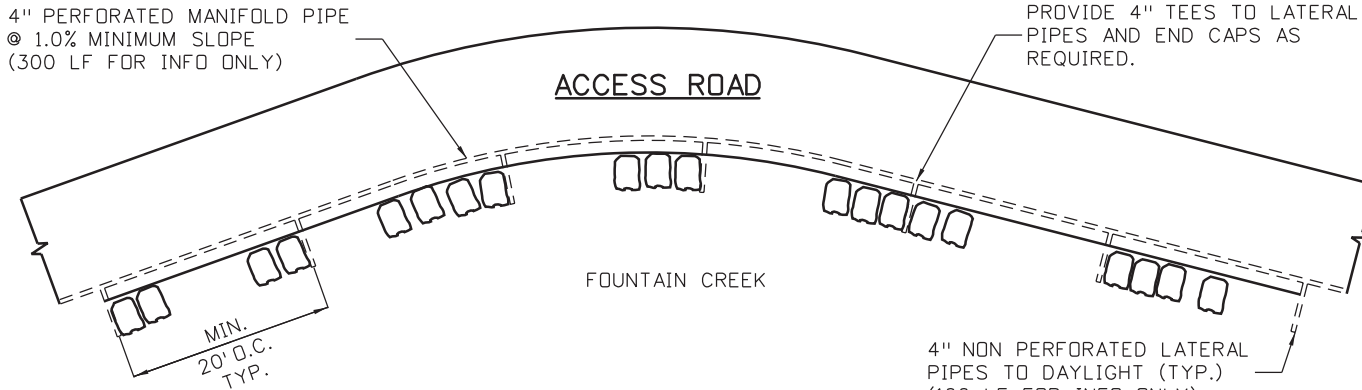
SOIL RIPRAP (d50) TYPICAL SECTION
NOT TO SCALE

GROUT PLACEMENT NOTES:

1. TRENCH BEHIND BOULDERS A MINIMUM OF 12" OR 1/2 d50, WHICHEVER IS LESS.
2. PLACE AND VIBRATORY COMPACT GROUT FOR BOTTOM ROW OF BOULDERS BEFORE PLACING AND GROUTING TOP ROW OF BOULDERS.
3. GROUT MAY BE MIXED ON SITE FROM ONE PART PORTLAND CEMENT AND SIX PARTS SAND, BY VOLUME (15% CEMENT).
4. EQUIPMENT FOR GROUTING OPERATIONS SHALL BE LOCATED SOUTH OF THE PROJECT NEAR THE CONSTRUCTION STAGING AREA ADJACENT TO SERPENTINE DR.

4" PERFORATED MANIFOLD PIPE @ 1.0% MINIMUM SLOPE (300 LF FOR INFO ONLY)

PROVIDE 4" TEES TO LATERAL PIPES AND END CAPS AS REQUIRED.



4" PERFORATED PIPE DETAIL
NOT TO SCALE

4" PERFORATED PIPE NOTES:

1. SEE M-605-1 FOR PIPE UNDERDRAIN TYPICAL SECTION.
2. ALL MATERIALS AND LABOR SHALL BE INCLUDED IN THE COST OF GROUTED RIPRAP (36 INCH) (SPECIAL).

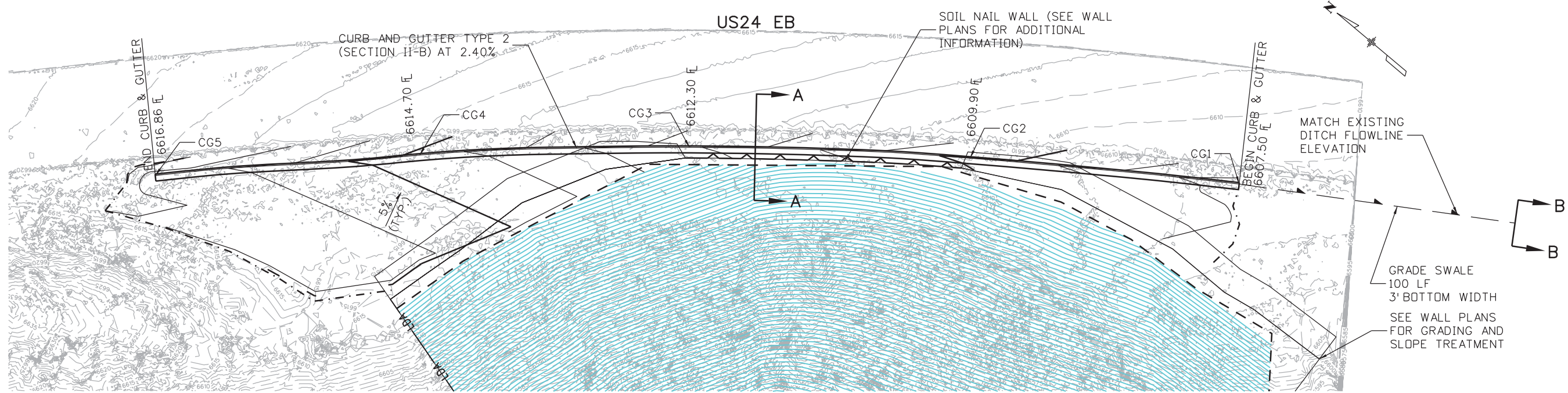
SOIL RIPRAP (12 INCH) NOTES:

1. SOIL RIPRAP DETAILS ARE APPLICABLE TO SLOPED AREAS. REFER TO THE PLAN FOR ACTUAL LOCATION AND LIMITS.
2. MIX UNIFORMLY 2/3 RIPRAP BY VOLUME WITH 1/3 OF APPROVED SOIL BY VOLUME FROM THE ENGINEER PRIOR TO PLACEMENT.
3. PLACE STONE-SOIL MIX TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS. GRADE COMPACT AND LEVEL TO ELIMINATE ALL VOIDS AND ROCKS PROJECTING ABOVE DESIGN RIPRAP TOP GRADE.
4. CRIMP MULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
5. TOPSOIL PAID FOR AS TOPSOIL (CY). SEE PLANS FOR ADDITIONAL INFORMATION.

SOIL RIPRAP (d50) DETAILS

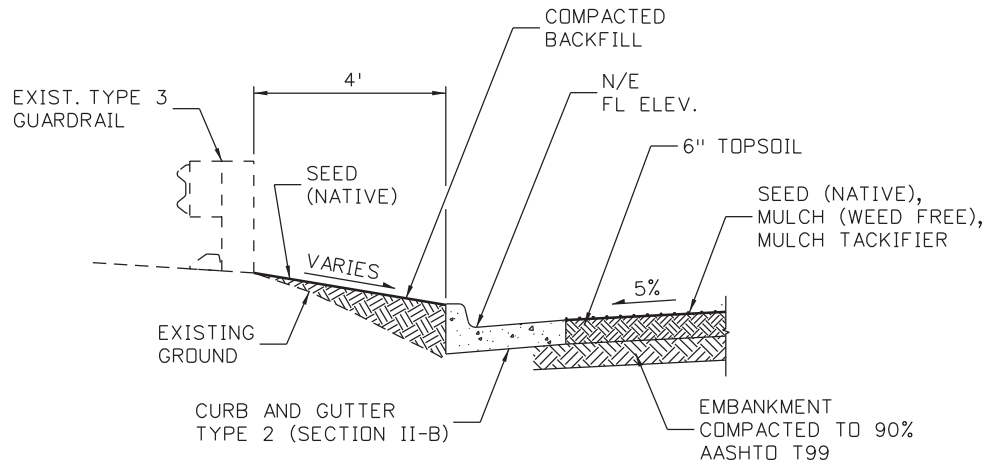
GROUTED RIPRAP (36 INCH) (SPECIAL) DETAILS

Print Date: 3/18/2013	Sheet Revisions			Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON BOULDER DETAILS			Project No./Code
File Name: 19358HYDR_Detail_AccessRoad_01.dgn	Date:	Comments	Init.			No Revisions:	POUR POINT J - ACCESS ROAD		
Horiz. Scale: 1:10				1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	Revised:	Designer: CDT	Structure	Numbers	19358
Unit Information					Void:	Detailer: KLT	Sheet Subst: ROADWAY		Subset Sheets: J-10 OF 41
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440					Region 2	LM			



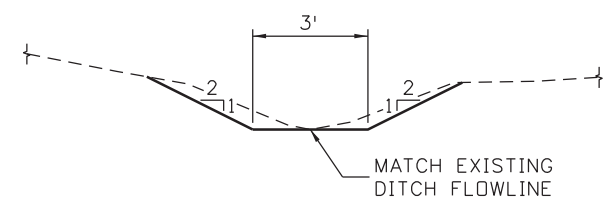
GRADING DETAIL

SCALE: 1"=40'



SECTION A-A

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



SECTION B-B

N.T.S.

POINT DATA FOR CURB AND GUTTER

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CG1	165175.58	378409.65	6607.50	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG2	165120.64	378489.65	6609.90	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG3	165058.85	378569.31	6612.30	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG4	164994.40	378641.67	6614.70	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG5	164927.83	378709.67	6616.86	FINISHED GRADE - C&G FLOWLINE ELEVATION

Print Date: 3/18/2013

File Name: 19358HYDR_Detail_AccessRoad_02.dgn

Horiz. Scale: 1:40 Vert. Scale: As Noted

Unit Information Unit Leader Initials

FELSBURG HOLT & ULLEVIG
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

Region 2

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

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No Revisions:
Revised:
Void:

US 24 WALDO CANYON GRADING DETAIL

POUR POINT J - ACCESS ROAD

Designer: CDT Structure Numbers

Detailer: KLT

Sheet Subset: ROADWAY Subset Sheets: J-11 OF 41

Project No./Code
NH 0242-056
19358
Sheet Number 86

Kelly 10:39:06 AM K:\112266-06\19358-Hydraulics\Drawings\19358HYDR_Detail_AccessRoad_02.dgn

GENERAL NOTES

- GROUND NAIL WALL IS INTENDED AS AN EMBANKMENT SLOPE STABILIZATION SYSTEM THAT WILL BE BACKFILLED IN FRONT OF THE FACING.
- ALL STEEL SHALL BE EPOXY-COATED OR GALVANIZED UNLESS OTHERWISE NOTED.
- Ⓝ DENOTES NON-COATED REINFORCING STEEL.

WIRE MESH

- WIRE MESH FOR FINAL SLOPE SHALL BE 8 X 10 DOUBLE TWIST HEXAGONAL NETTING, ZINC AND PVC COATED IN ACCORDANCE WITH ASTM A975-97 (2003). THE MINIMUM MESH WIRE DIAMETER SHALL BE 2.7 MM AND HAVE A TENSILE STRENGTH OF 75 KSI PER ASTM A 641 FOR SOFT TEMPER STEEL. CONTRACTOR SHALL SUBMIT SAMPLE COLOR FOR FINAL APPROVAL.
- LACING WIRE AND FASTENERS. LACING WIRES, FASTENERS, TIES, CLIPS, AND CONNECTING WIRE SHALL BE SUPPLIED IN SUFFICIENT QUANTITY FOR SECURELY FASTENING ALL EDGES OF THE SLOPE PROTECTION WIRE MESH AS SHOWN IN THE PLANS AND SHALL BE IN ACCORDANCE WITH ASTM A 975-97(2003) PER PVC COATED GABION CHARACTERISTICS.
- MESH WILL BE MEASURED AND PAID BY THE SQUARE FOOT COMPLETED IN PLACE EXCLUSIVE OF THE AREA OF WIRE MESH USED IN ANY OVERLAPS. CONTRACTOR TO VERIFY QUANTITIES WITH ENGINEER PRIOR TO ORDERING MATERIALS.

GROUND NAIL WALL

- GROUND NAILS-ASTM A 519, HOLLOW INJECTION BAR, MINIMUM 1-1/2 INCH (38mm) BAR WITH A MINIMUM YIELD STRENGTH OF 90 KIPS. BARS SHALL BE EPOXY COATED PER ASTM A-934 (PURPLE COATING).
- CONTRACTOR TO INSTALL 3 VERIFICATION TESTS AT LOCATIONS DESIGNATED IN PLANS OR AS APPROVED BY THE ENGINEER. VERIFICATION GROUND NAILS TO BE INSTALLED FULL DEPTH WITH UPPER 10 FEET HAVING ADEQUATE BOND BREAKER TO TRANSFER LOADING TO BOTTOM 5 FEET OF GROUND NAIL. TESTING SHALL BE CONDUCTED AND ACCEPTED BY THE ENGINEER PRIOR TO PRODUCTION NAIL CONSTRUCTION.
- GROUT - GROUT MAY BE NEAT-CEMENT OR WITH SAND, WITH TYPE II CEMENT IN ACCORDANCE WITH ASTM C150. WATER-CEMENT RATIO SHOULD BE BETWEEN 0.4 AND 0.6 AND GROUT SHOULD DEVELOP THE FOLLOWING STRENGTHS AT THE SPECIFIED CURE PERIODS:
f'c=3,000 PSI MINIMUM 7 DAY
- END HARDWARE - NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH GROUND NAIL MANUFACTURER'S RECOMMENDATIONS. BEARING PLATE SHALL BE IN ACCORDANCE WITH ASTM A36, GRADE 36. ALL NUTS, WASHERS AND BEARING PLATES SHALL BE EPOXY COATED IN ACCORDANCE WITH ASTM A934.
- SHOTCRETE - IN ACCORDANCE WITH CDDT REVISED SECTION 641.
- UNLESS OTHERWISE NOTED ON THE PLANS, MINIMUM COVER OF SHOTCRETE REINFORCEMENT AND NAIL END HARDWARE SHOULD BE AS FOLLOWS:
FACE EXPOSED TO WEATHER - 2"
FACE EXPOSED TO SOIL - 3"
- WELDED WIRE MESH SHALL BE IN ACCORDANCE WITH ASTM A185.
FY=65,000 PSI
- WALERS AND VERTICAL BEARING BARS SHALL BE IN ACCORDANCE WITH ASTM A615.
FY=60,000 PSI
- STRIP DRAINS CONSIST OF 12" WIDE DIMPLED CORES WRAPPED IN GEOTEXTILE IN ACCORDANCE WITH SPECIAL PROVISIONS.

GROUND NAIL WALL SPECIAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY ABOVE AND BELOW THE GROUND NAIL WALL DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL NEARBY UTILITIES. CONFLICTING UTILITIES MAY REQUIRE GROUND NAIL WALL REDESIGN, AT ENGINEER'S DISCRETION.
- THE BOND STRENGTHS (Qd) SHOWN ON THE PLANS ARE THE MINIMUM ASSUMED FOR DESIGN.
- GROUND NAIL LENGTHS SHOWN ON THE PLANS ARE THE MINIMUM LENGTHS REQUIRED.
- PRIOR TO BEGINNING EXCAVATION FOR THE GROUND NAIL WALL, THE CONTRACTOR SHALL:
 - SURVEY THE LAYOUT LINE AND TOP OF WALL LINE.
 - CONFIRM THE LINES, GRADES, AND EXCAVATION LIMITS SHOWN ON THE PLANS.
 - THE CONTRACTOR SHALL MODIFY THE PLAN WALL PROFILES USING THE FIELD SURVEY INFORMATION AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL.

GROUND NAIL WALL CONSTRUCTION SEQUENCE

- EXCAVATE ONE LIFT TO A MAXIMUM DEPTH OF FIVE (5) FEET. BOULDERS, COBBLES AND/OR BEDROCK MAY BE ENCOUNTERED AT ANY DEPTH OF THE EXCAVATION OR DURING DRILLING. IF SLOUGHING GROUND CONDITIONS ARE ENCOUNTERED, GROUND NAILS SHALL BE DRILLED AND INSTALLED THROUGH A TEMPORARY STABILIZING BERM OR PLACEMENT OF A SACRIFICIAL REINFORCED SHOTCRETE FLASH COAT SHALL BE USED TO TEMPORARILY STABILIZE EXCAVATION PRIOR TO DRILLING GROUND NAILS. CARE SHOULD BE TAKEN DURING EXCAVATION THAT NO GROUND IS LOST FROM BEHIND THE EXISTING SHOTCRETE.
- PROVIDE A PRODUCTION NAIL LOCATION PLAN TO THE ENGINEER FOR REVIEW. INSTALL GROUND NAILS AT THE SPACINGS AND TO THE LENGTHS SHOWN ON THE PLANS. INJECT GROUT CONTINUOUSLY AS GROUND NAIL IS DRILLED/INSERTED. THE TOP ROW OF GROUND NAILS SHALL BE WITHIN 2.5 FEET OF THE TOP OF THE WALL. THE BOTTOM ROW OF NAILS SHALL BE WITHIN 2 FEET OF THE BOTTOM OF THE WALL. THE TOLERANCE FOR GROUND NAIL LOCATIONS SHALL BE 6 INCHES.
- THE DRILL HOLE SHALL BE GROUTED CONTINUOUSLY DURING DRILLING. CONTINUOUS GROUT FLOW SHALL BE OBSERVED AT THE SURFACE. IF LOSS OF GROUT CIRCULATION OCCURS, DRILLING ADVANCEMENT SHOULD BE STOPPED AND GROUT PUMPING SHALL CONTINUE UNTIL GROUT RETURN IS RE-ESTABLISHED. IF GROUT RETURN DOES NOT RE-ESTABLISH, THE BAR SHALL BE REMOVED AND THE ENGINEER SHOULD BE NOTIFIED. THE COMPLETE GROUND NAIL INSTALLATION, INCLUDING DRILLING, NAIL PLACEMENT AND GROUTING SHALL OCCUR WITHIN THE SAME WORK SHIFT. DRILL HOLES SHALL NOT BE LEFT OPEN OVERNIGHT FOR COMPLETION DURING A SUBSEQUENT SHIFT.
- INSTALL STRIP DRAINS, WELDED WIRE MESH, WALERS AND VERTICAL BEARING BARS AS SHOWN ON THE DRAWINGS. USE PLASTIC CHAIRS TO HOLD THE WELDED WIRE MESH AWAY FROM THE SOIL AS NECESSARY.
- INSTALL SHOTCRETE TO THE MINIMUM THICKNESS SHOWN ON THE DRAWINGS AND TO ATTAIN THE MINIMUM COVERAGES SPECIFIED HEREIN. GIVE SPECIAL ATTENTION TO FILLING THE VOID IN THE BORE HOLE ABOVE THE GROUT LINE. COLD WEATHER PROTECTION MEASURES MAY BE NECESSARY.
- INSTALL THE GROUND NAIL END HARDWARE AFTER THE SHOTCRETE HAS BEEN INSTALLED. WHILE THE SHOTCRETE IS STILL WET, EMBED THE PLATE INTO THE SHOTCRETE SURFACE UNTIL THERE IS NO VOID BEHIND THE PLATE. HAND TIGHTEN THE NUT. APPLY ADDITIONAL SHOTCRETE TO ATTAIN MINIMUM COVERAGE FOR THE GROUND NAIL AND END HARDWARE.
- ONCE THE GROUT AND SHOTCRETE OF THE CURRENT LIFT HAVE ATTAINED 50% OF THEIR SPECIFIED STRENGTHS, REPEAT CONSTRUCTION SEQUENCE TO THE BOTTOM OF THE WALL.
- AT THE BOTTOM LIFT, CONSTRUCT GEOCOMPOSITE STRIP DRAINS AS SHOWN ON THE DRAWINGS.

GROUND NAIL WALL DESIGN PARAMETERS

- THE FOLLOWING VALUES HAVE BEEN USED FOR DESIGN PARAMETERS:

GRANULAR ON-SITE SOIL	ϕ 37	c 10	γ 115	Q_d 2261	ϕ ANGLE OF INTERNAL FRICTION c COHESION γ UNIT WEIGHT Q_d DESIGN SHEAR RESISTANCE BOND STRESS (ALLOWABLE)
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LIMITATIONS FOR ROCKFALL SYSTEM

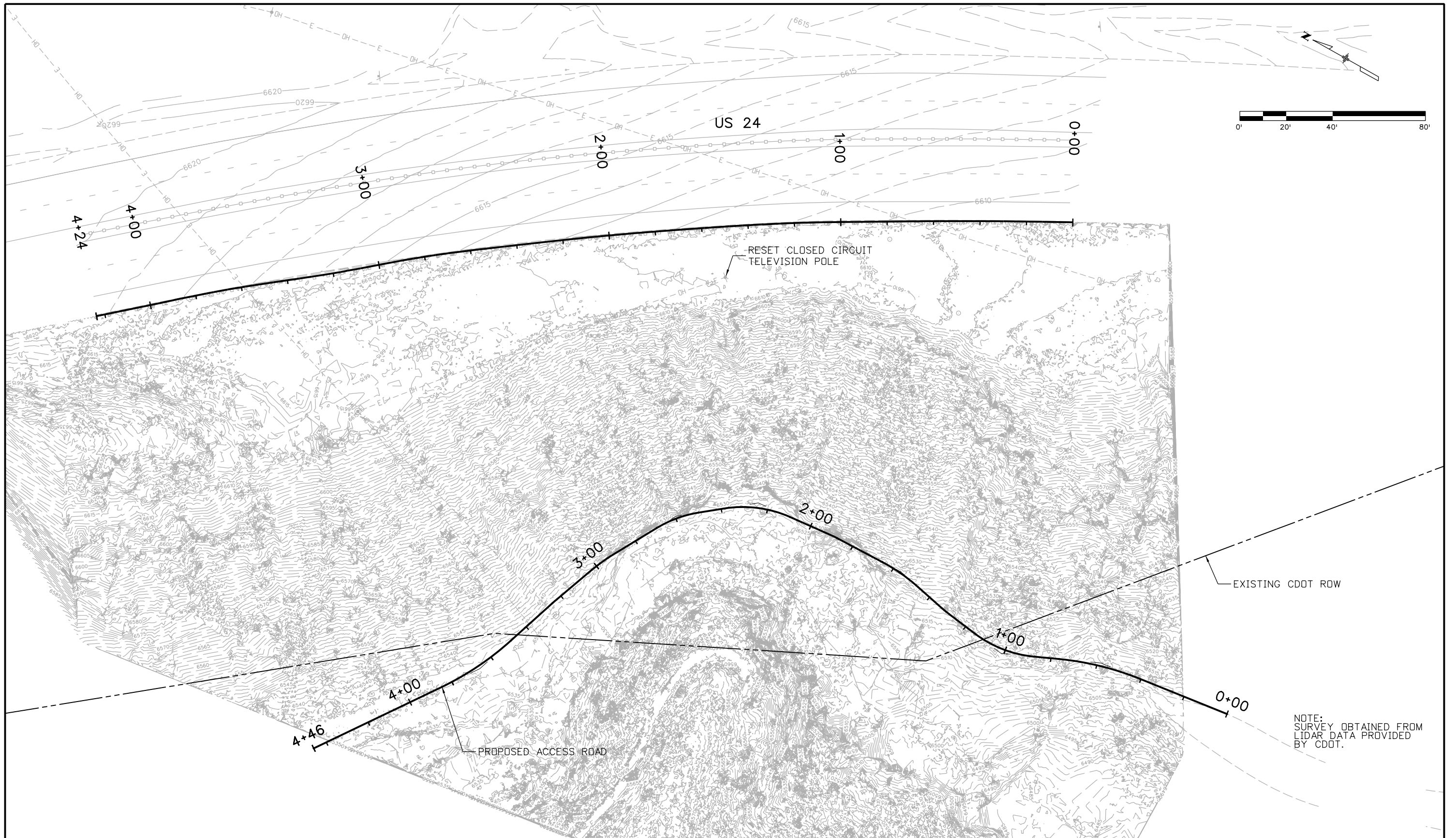
ROCKFALL AND ROCKFALL EVENTS ARE SPORADIC AND UNPREDICTABLE. CAUSES CAN INCLUDE, BUT ARE NOT LIMITED TO, FACTORS SUCH AS ANIMAL, HUMAN, CONSTRUCTION, ENVIRONMENTAL, WEATHER, AND/OR EARTHQUAKES. BECAUSE OF THE MULTIPLICITY OF FACTORS AFFECTING ROCKFALL DYNAMICS, ROCKFALL CANNOT BE PREDICTED AND IS NOT AN EXACT SCIENCE THAT GUARANTEES THE SAFETY OF INDIVIDUALS AND PROPERTY. HOWEVER, BY THE APPLICATION OF SOUND ENGINEERING PRINCIPLES TO A RANGE OF ROCKFALL DYNAMICS, THE RISK OF INJURY AND PROPERTY LOSS CAN BE REDUCED BY THE USE OF PROPERLY DESIGNED ROCKFALL MITIGATION FEATURES IN IDENTIFIED RISK AREAS. CONSEQUENTLY, NEITHER THE ROCKFALL HAZARD IN TERMS OF PROBABILITY OF A ROCKFALL AT ANY SPECIFIC LOCATION, NOR THE RISK TO PEOPLE OR FACILITIES FROM SUCH EVENTS, IS ASSESSED IN THE DESIGN.

PERIODIC INSPECTION AND MAINTENANCE OF ROCKFALL MITIGATION FEATURES IS NECESSARY TO ENSURE THE DESIRED PROTECTION LEVEL IS NOT DEGRADED BY IMPACT DAMAGE WHICH EXCEEDS THE DESIGN LIMITS OF THE MESH SYSTEM INCLUDING, BUT NOT LIMITED TO, EXTREMELY WET SNOW AVALANCHES OR LARGE DEBRIS FLOW EVENTS.


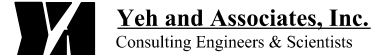
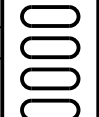
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BEFORE YOU DIG**
CALL 811
(or 1-800-922-1987)
UTILITY NOTIFICATION
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www.uncc.org

Print Date: 3/18/2013		Sheet Revisions	Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON GENERAL NOTES	Project No./Code
File Name: 19358 SNW GeneralNotes.dgn		Date: Comments Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	No Revisions:		NH 0242-056
Horiz. Scale: 1:1 Vert. Scale: As Noted			Region 2 LM	Revised:	Designer: B. Arndt Structure Numbers	19358
Unit Information Unit Leader Initials				Void:	Detailer: M. Walz Subset Sheets:	Sheet Number 87
Yeh and Associates, Inc. Consulting Engineers & Scientists						

Mike Walz 1:54:43 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Plan Sheet-Existing.dgn





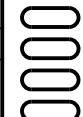
NOTE:
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LIDAR DATA PROVIDED
BY CDOT.

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Sheet Revisions																												
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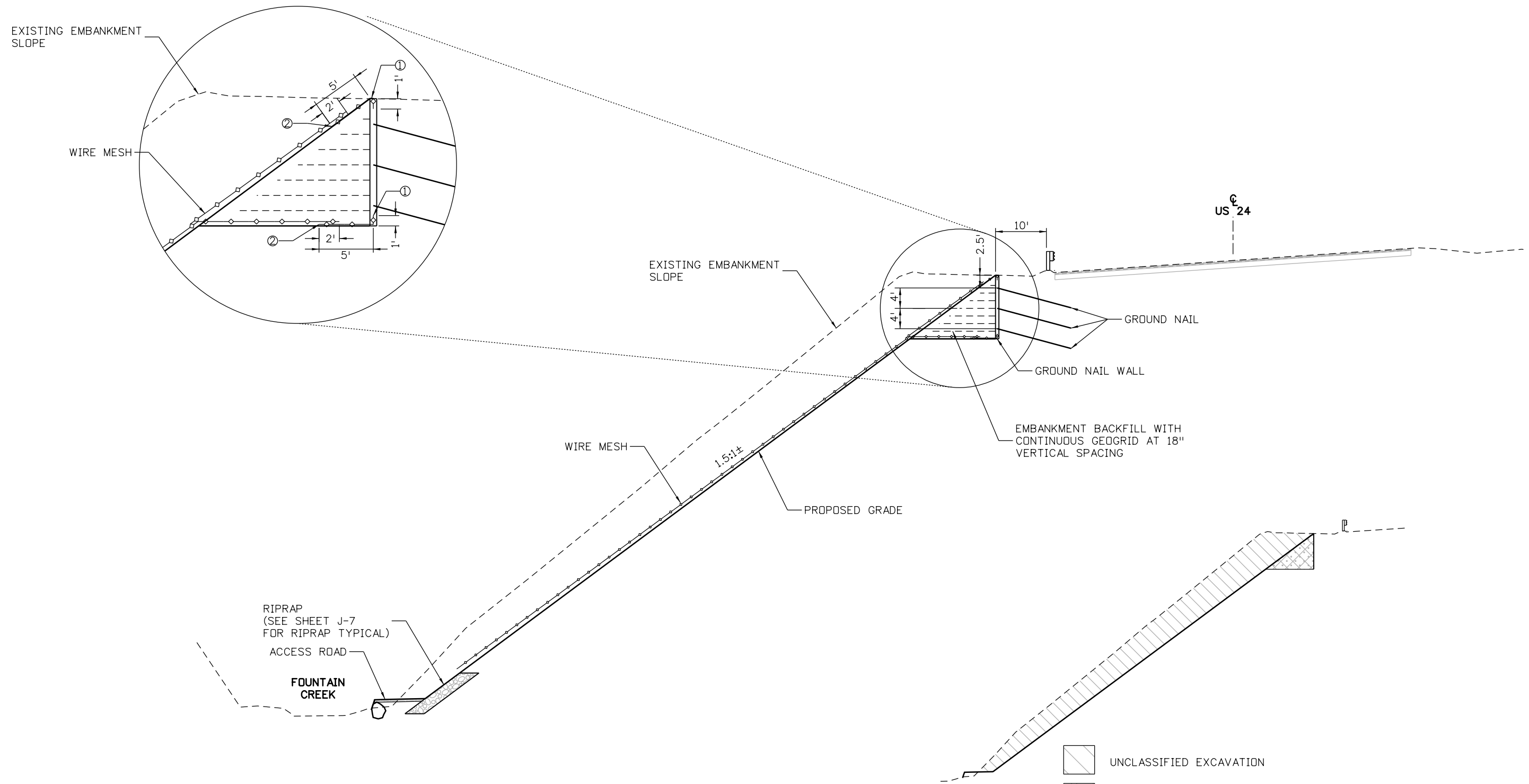
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NOTE:
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Print Date: 3/18/2013		Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON PLAN SHEET - REGRADED SLOPE AND GROUND NAIL WALL		Project No./Code			
File Name: 19358 Plan Sheet-Wall_Slope.dgn		Date:	Comments	Init.	 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		Designer: B. Arndt Detailer: M. Walz Sheet Subset:		NH 0242-056			
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 Yeh and Associates, Inc. Consulting Engineers & Scientists					Region 2		LM							

Mike Walz 1:54:58 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 TypicalSection-Wall.dgn



- NOTE:
- 1' MIN. LENGTH WIRE MESH COVERED CONTINUOUSLY WITH 2" MIN. SHOTCRETE FOR ATTACHMENT TO OTHER SECTIONS OF WIRE MESH.
 - OVERLAP WIRE MESH 2' MIN.

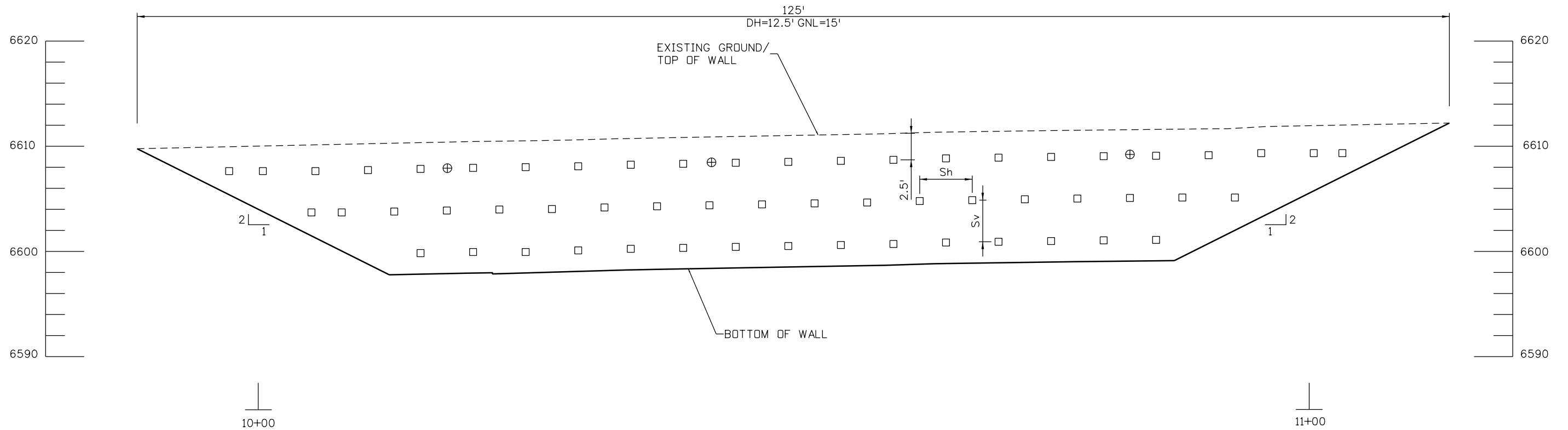
ACCESS ROAD STA 2+18 TO STA 2+56

BASIS OF EARTHWORK QUANTITIES

- UNCLASSIFIED EXCAVATION
- STRUCTURE EXCAVATION
- EMBANKMENT BACKFILL

Print Date: 3/15/2013		Sheet Revisions	Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON TYPICAL SECTION GROUND NAIL WALL	Project No./Code
File Name: 19358 TypicalSection-Wall.dgn		Date: Comments Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	No Revisions:	Designer: B. Arndt	NH 0242-056
Horiz. Scale: 1:20 Vert. Scale: As Noted			Region 2	Revised:	Detailer: M. Walz	19358
Unit Information Unit Leader Initials			LM	Void:	Sheet Subset:	Sheet Number 90
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					Subset Sheets:	

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Sv=4' MAXIMUM
 Sh=5' MAXIMUM
 DH= DESIGN HEIGHT
 GNL= GROUND NAIL LENGTH

- 15' GROUND NAIL
- ⊕ 15' SACRIFICIAL GROUND NAIL LOCATIONS
 (BOND BREAKER IN UPPER 10' OF BAR)

Print Date: 3/15/2013	
File Name: 19358 SN Elevation.dgn	
Horiz. Scale: 1:10	Vert. Scale: As Noted
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DEPARTMENT OF TRANSPORTATION
Region 2

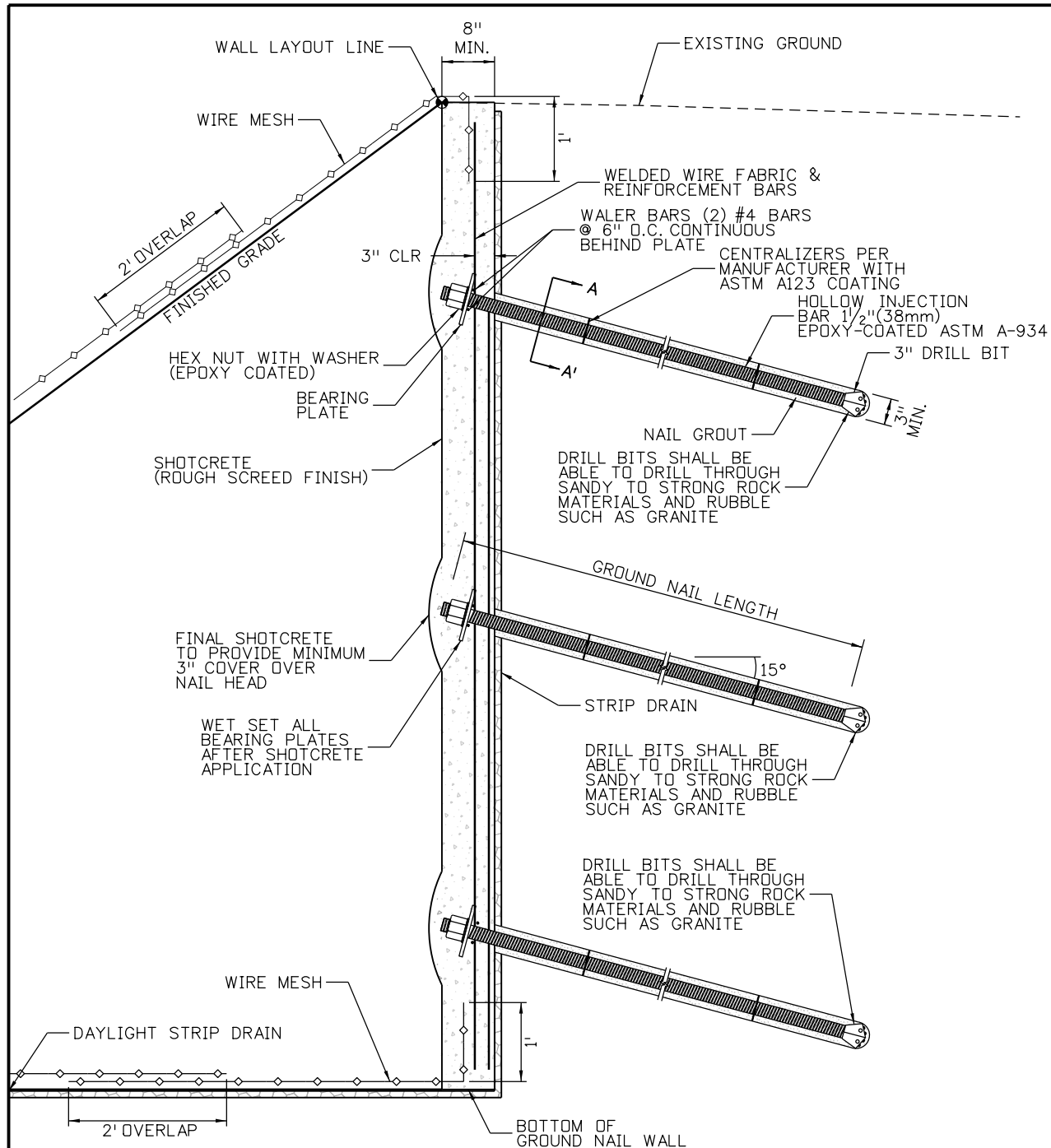
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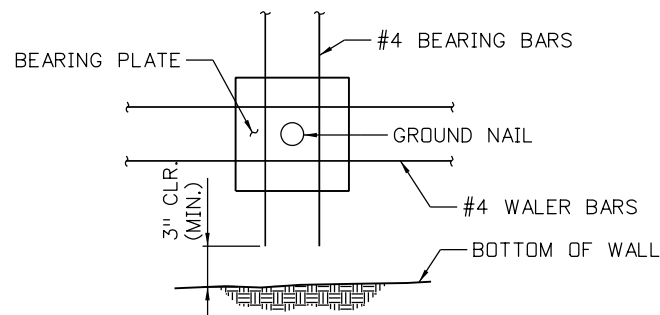
US 24 WALDO CANYON WALL ELEVATION			
Designer:	B. Arndt	Structure Numbers	
Detailer:	M. Walz		
Sheet Subset:		Subset Sheets:	

Project No./Code
NH 0242-056
19358
Sheet Number 91

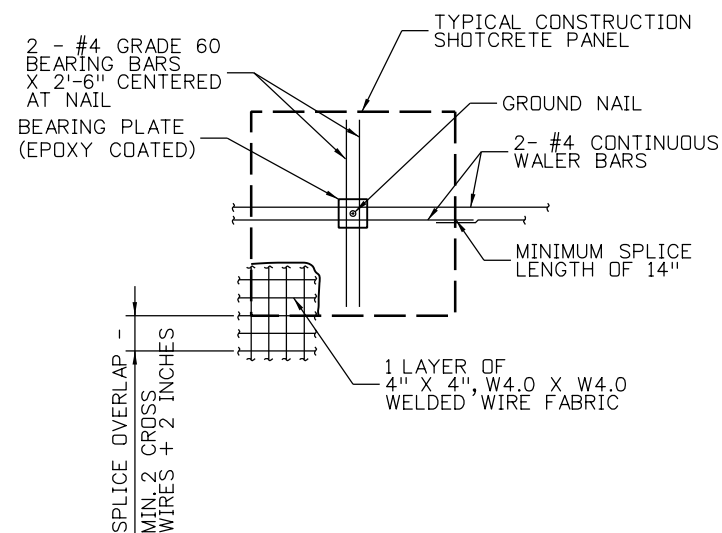


TYPICAL GROUND NAIL DETAIL

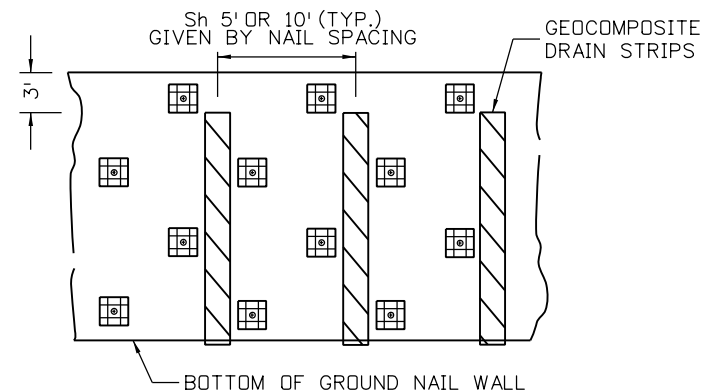
- NOTES:
1. REINFORCEMENT OF THE SHOTCRETE FACING SHALL BE INSTALLED THROUGHOUT THE ENTIRE SHOTCRETE FACING, INCLUDING THE FACING BEYOND THE GROUND NAILS.
 2. MAXIMUM EDGE DISTANCE OF 3 FT FOR EACH ROW OF GROUND NAILS AT END OF WALL.
 3. THE MINIMUM SHOTCRETE THICKNESS IS 8 IN. FOR WALL FACE.
 4. 3" MIN. COVER ON ALL REINFORCING EXPOSED TO GROUND.



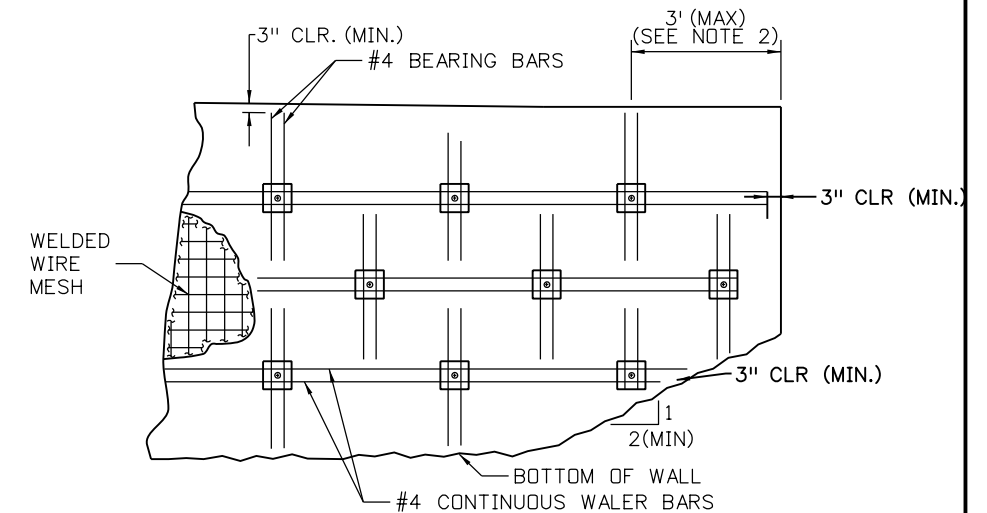
**TYPICAL REINFORCEMENT
BOTTOM ROW OF GROUND NAILS**



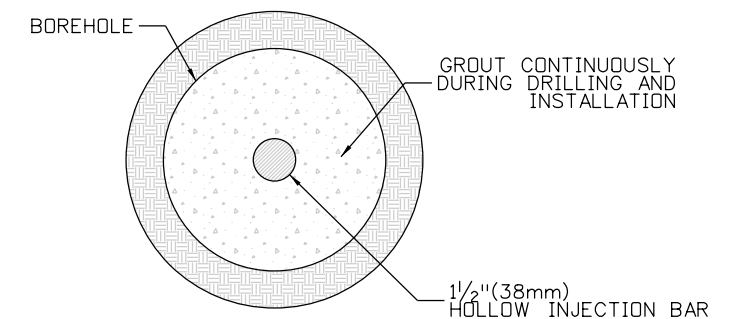
**TYPICAL SHOTCRETE
FACING PANEL REINFORCEMENT**



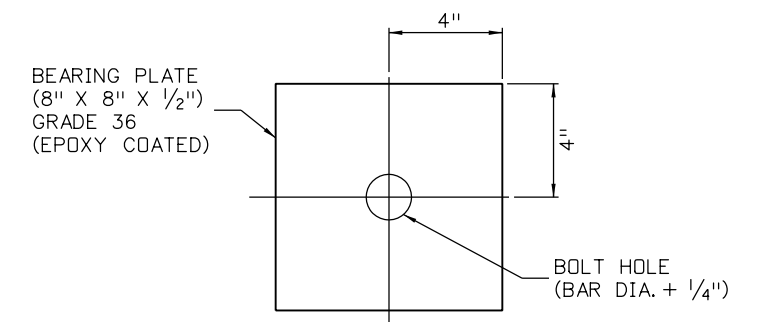
TYPICAL STRIP DRAIN DETAIL



**TYPICAL SHOTCRETE FACING
REINFORCEMENT - END OF WALL (NOTE 1)**





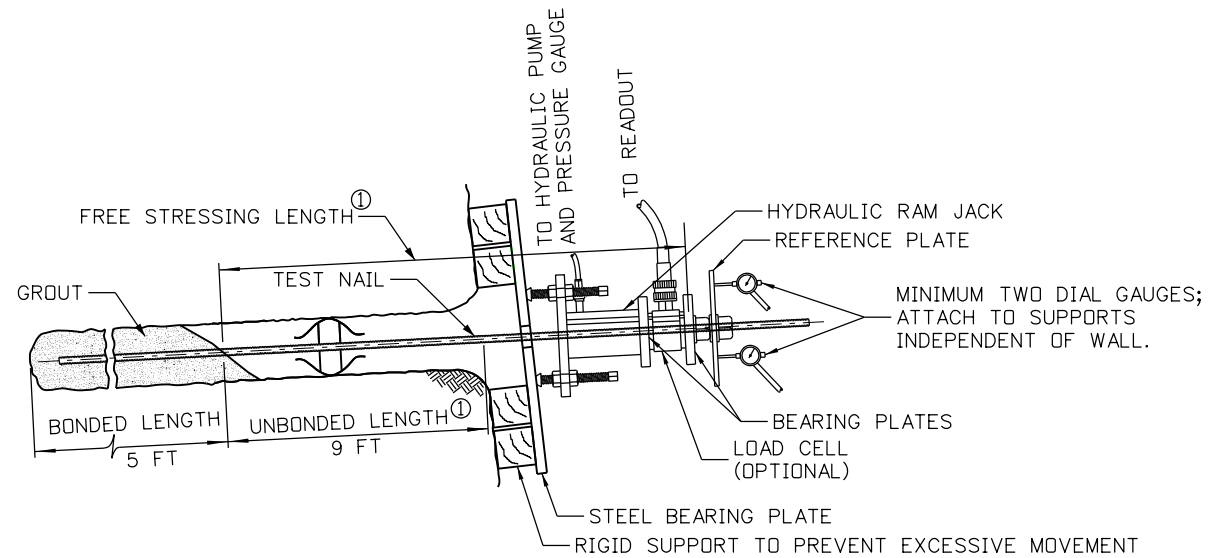
**GROUND NAIL CROSS
SECTION A-A'**



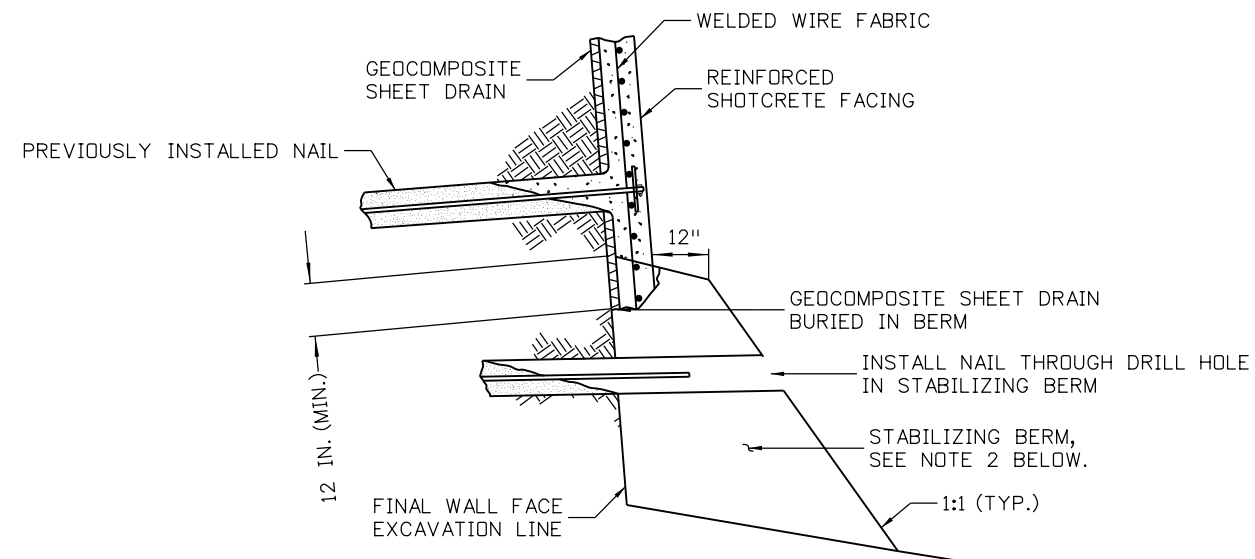
BEARING PLATE DETAIL

Mike Walz 2:33:21 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 SNW Details01.dgn

Print Date: 3/15/2013	Sheet Revisions			Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON GROUND NAIL DETAILS			Project No./Code
File Name: 19358 SNW Details01.dgn	Date:	Comments	Init.			No Revisions:			
Horiz. Scale: 1:1				 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	Revised:	Designer:	B. Arndt	Structure	19358
Shot for Bridge Branch - Unit 0221					Void:	Detailer:	M. Walz	Numbers	Sheet Number
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VERIFICATION GROUND NAIL TEST SETUP



NAIL INSTALLATION THROUGH TEMPORARY STABILIZING BERM
(USE IN CASE OF SLDUGHING GROUND)

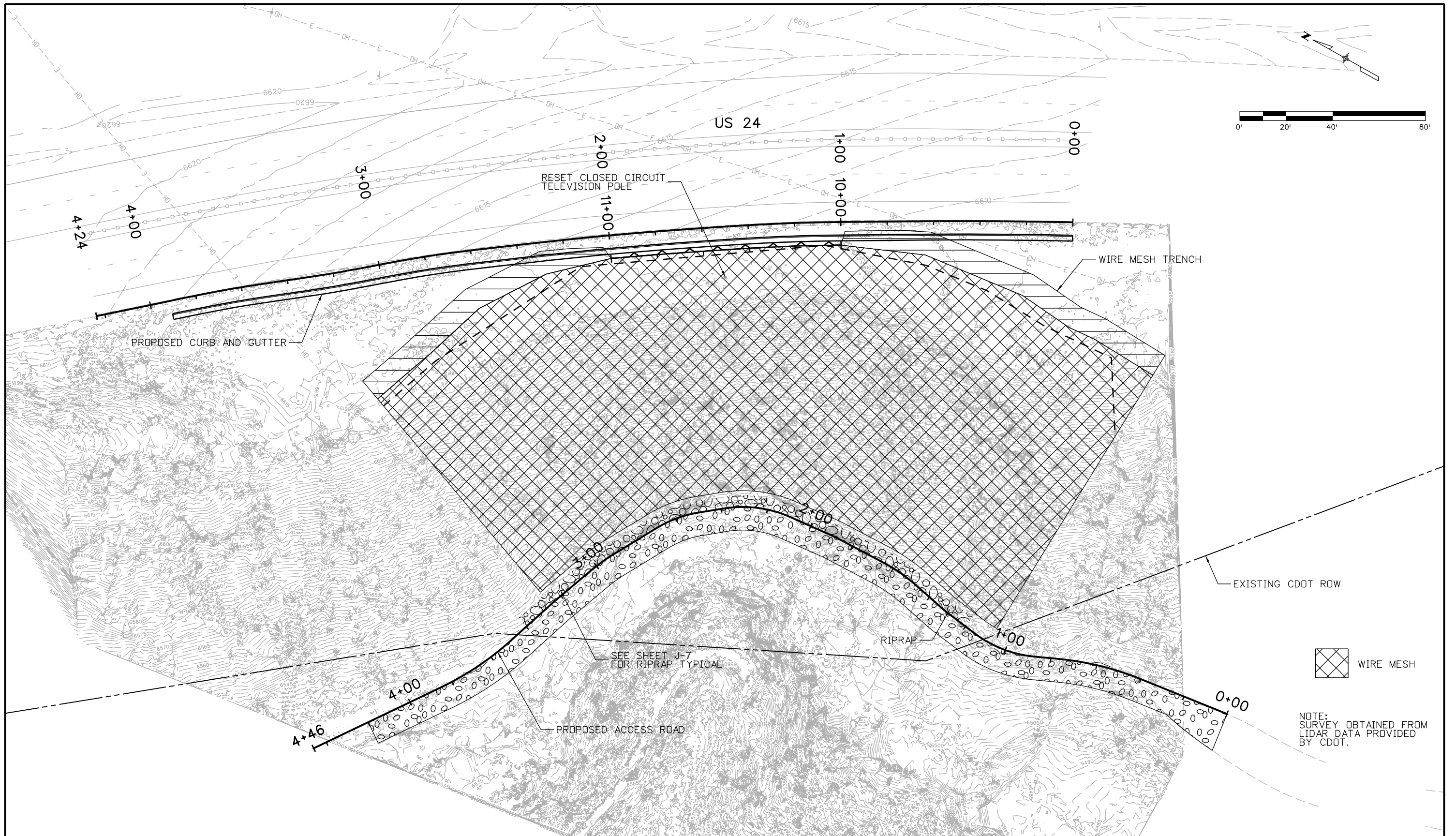
GROUND NAIL TESTING NOTES:

1. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
2. THE TEST SUPPORT SYSTEM (EG. CRIBBING, CHAIRS, BEARING PLATES, ETC.) SHALL BE SUFFICIENT TO COMPLETE THE TEST WITHOUT EXCESSIVE DEFLECTION OR BEARING FAILURE. IF TEST SETUP IS NOT ADEQUATE FOR TEST, CONTRACTOR SHALL PROPOSE SYSTEM TO ENGINEER.



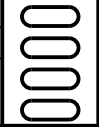
NOTES:

1. VERIFICATION NAILS WILL HAVE BONDED, UNBONDED AND FREE STRESSING LENGTHS. PRODUCTION NAILS WILL BE BONDED FOR THE FULL NAIL LENGTH.
2. EXCAVATE STABILIZING BERM TO FINAL WALL FACE EXCAVATION LINE FOR SHOTCRETE PLACEMENT. CONTRACTOR SHALL CAREFULLY EXCAVATE STABILIZING BERM TO AVOID HITTING GROUND NAILS BURIED IN THE BERM.

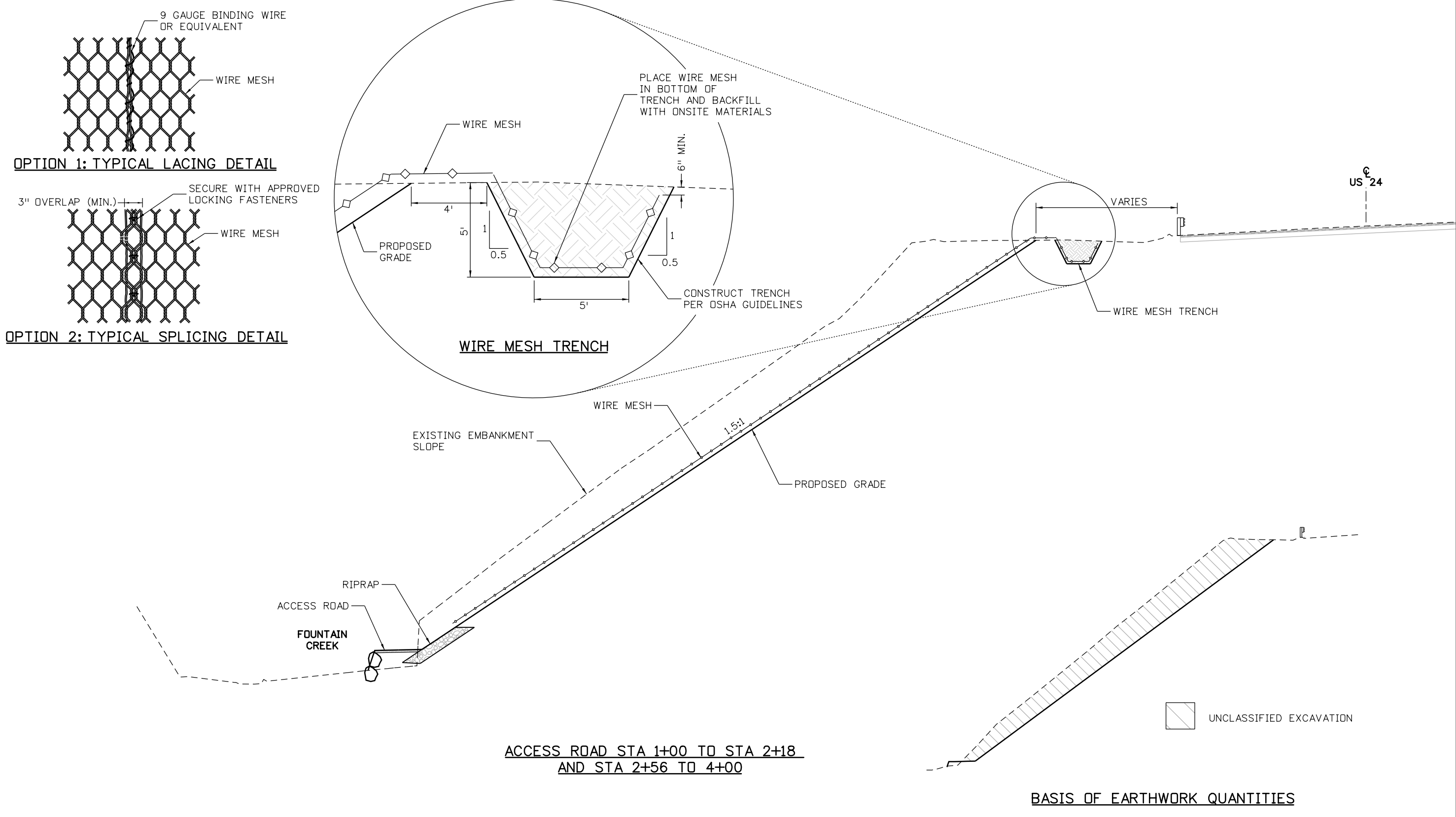
Print Date: 3/15/2013			1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	As Constructed No Revisions: Revised: Void:	US 24 WALDO CANYON GROUND NAIL DETAILS		Project No./Code	
File Name: 19358 SNW Testing and Const.dgn							NH 0242-056	
Horiz. Scale: 1:1 Vert. Scale: As Noted					Designer: B. Arndt Structure Numbers Detailer: M. Walz		19358	
Unit Information Unit Leader Initials					Sheet Subset: Subset Sheets:		Sheet Number 93	
Yeh and Associates, Inc. Consulting Engineers & Scientists	Region 2		LM					



Mike Walz 8:33:47 AM W:\2012 Projects\212-192 CDOT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Plan Sheet-Wire Mesh.dgn

Print Date: 3/18/2013		Sheet Revisions			Colorado Department of Transportation			As Constructed		US 24 WALDO CANYON PLAN SHEET WIRE MESH PLACEMENT			Project No./Code	
File Name: 19358 Plan Sheet-Wire Mesh.dgn		Date:	Comments	Init.	 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298			No Revisions:		Designer: B. Arndt		Structure	NH 0242-056	
Horiz. Scale: 1:40 Vert. Scale: As Noted								Revised:		Detailer: M. Walz		Numbers	19358	
Unit Information Unit Leader Initials								Void:		Sheet Subset:		Subset Sheets:	Sheet Number 94	
 Yeh and Associates, Inc. Consulting Engineers & Scientists					Region 2 LM									

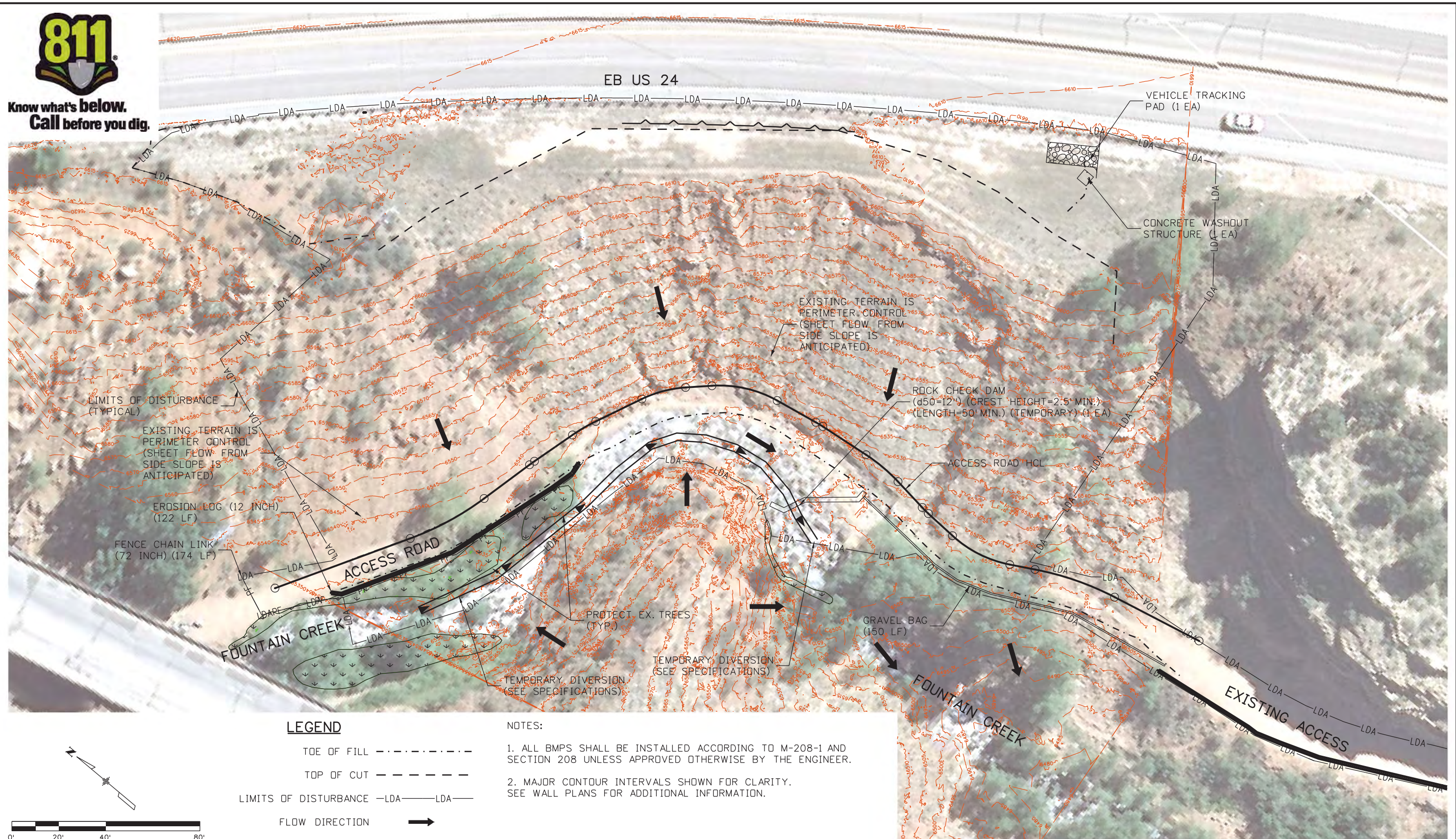
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Print Date: 3/15/2013		Sheet Revisions			Colorado Department of Transportation 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2	As Constructed		US 24 WALDO CANYON TYPICAL SECTION WIRE MESH		Project No./Code	
File Name: 19358 Typical Section-Ditch.dgn		Date:	Comments	Init.		No Revisions:	NH 0242-056				
Horiz. Scale: 1:20 Vert. Scale: As Noted						Revised:	Designer: B. Arndt	Structure Numbers	19358		
Unit Information Unit Leader Initials						Void:	Detailer: M. Walz	Subset Sheets:	Sheet Number 95		
 Yeh and Associates, Inc. Consulting Engineers & Scientists					LM						



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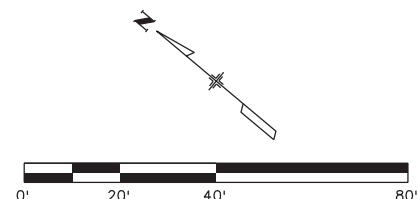


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



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Unit Information

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US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD

Designer: CDT
Detailer: KLT
Structure Numbers
Sheet Subset: EROSION
Subset Sheets: J-21 of 41

Project No./Code

NH 0242-056

19358

Sheet Number **96**



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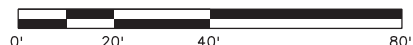
NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →



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File Name: 19358Erosion_INI_AccessRoad_02.dgn

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**US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	J-22 of 41
Sheet Subset:	EROSION		

Project No./Code

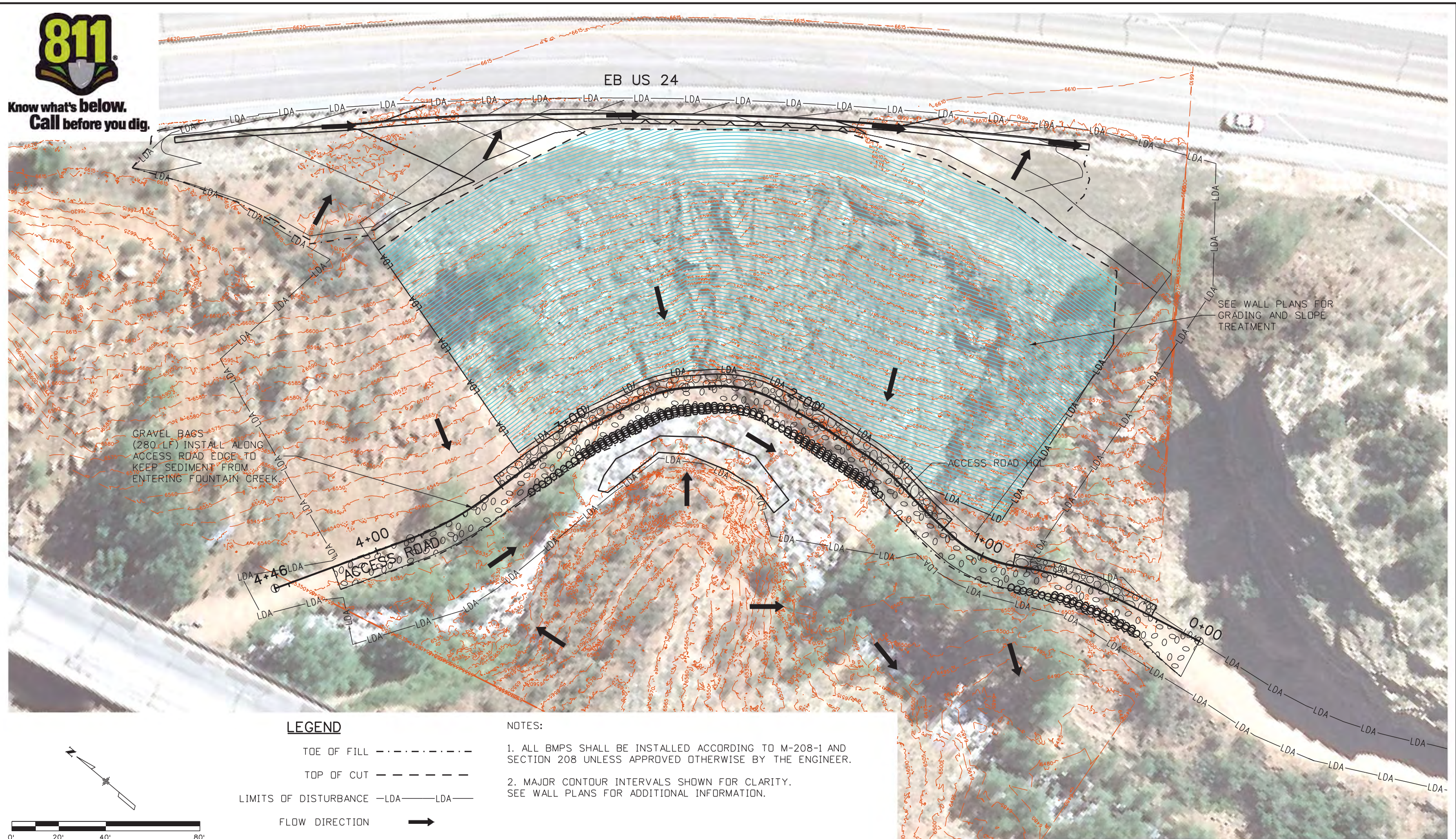
NH 0242-056

19358

Sheet Number **97**



Know what's below.
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GRAVEL BAGS
(280 LF) INSTALL ALONG
ACCESS ROAD EDGE TO
KEEP SEDIMENT FROM
ENTERING FOUNTAIN CREEK

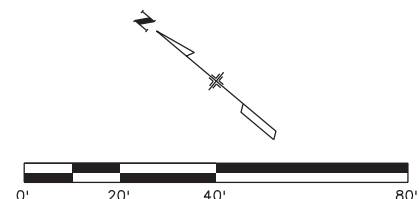
SEE WALL PLANS FOR
GRADING AND SLOPE
TREATMENT

LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



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**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	J-23 of 41

Project No./Code

NH 0242-056

19358

Sheet Number **98**



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1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



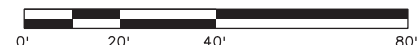
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TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →



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File Name: 19358Erosion_INT_AccessRoad_02.dgn

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GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	J-24 of 41
Sheet Subset:	EROSION		

Project No./Code

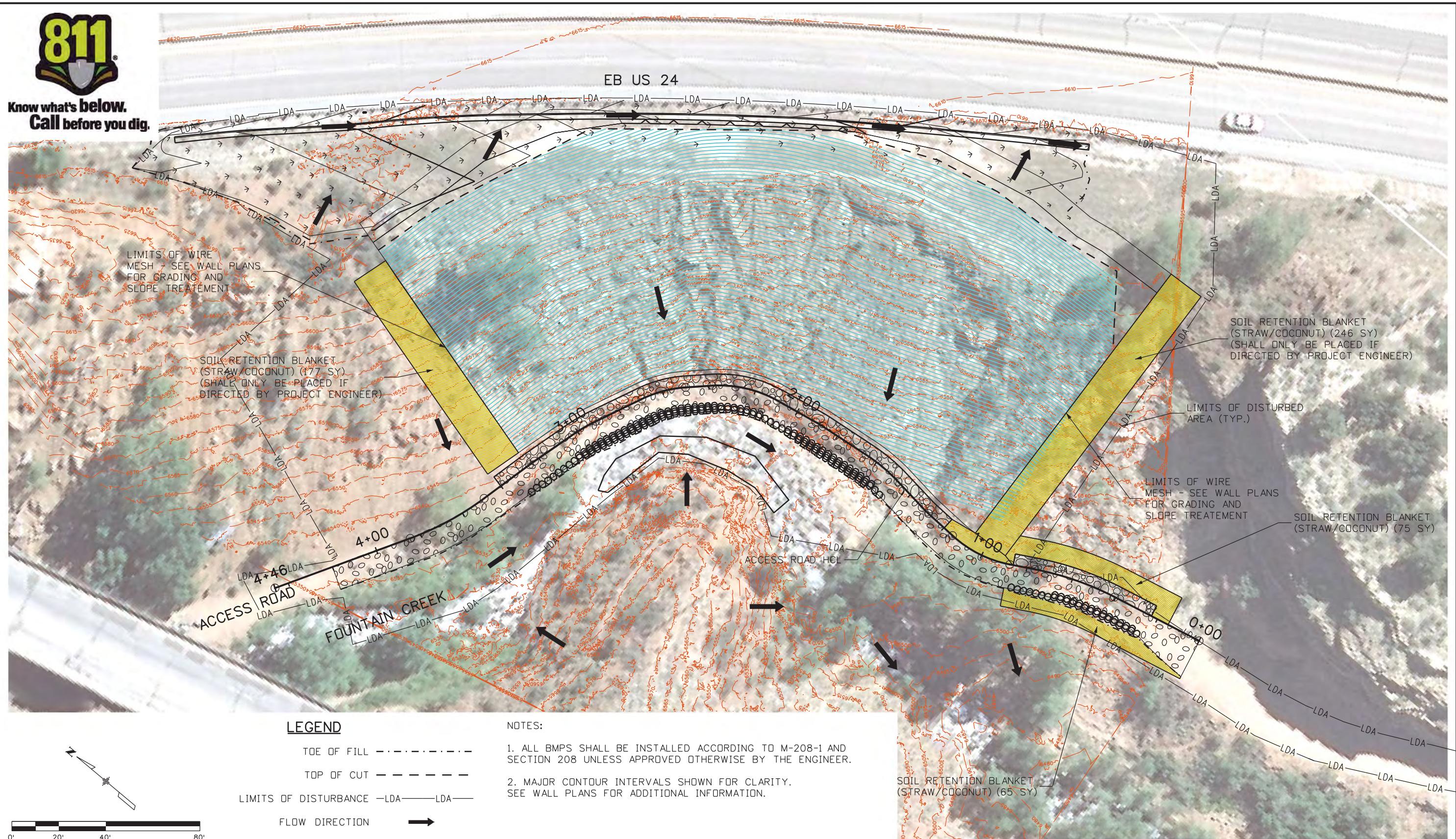
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Sheet Number **99**



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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
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POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	J-25 of 41

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NH 0242-056

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Sheet Number **100**



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1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



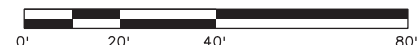
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LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →



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GRADING/FINAL EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure	
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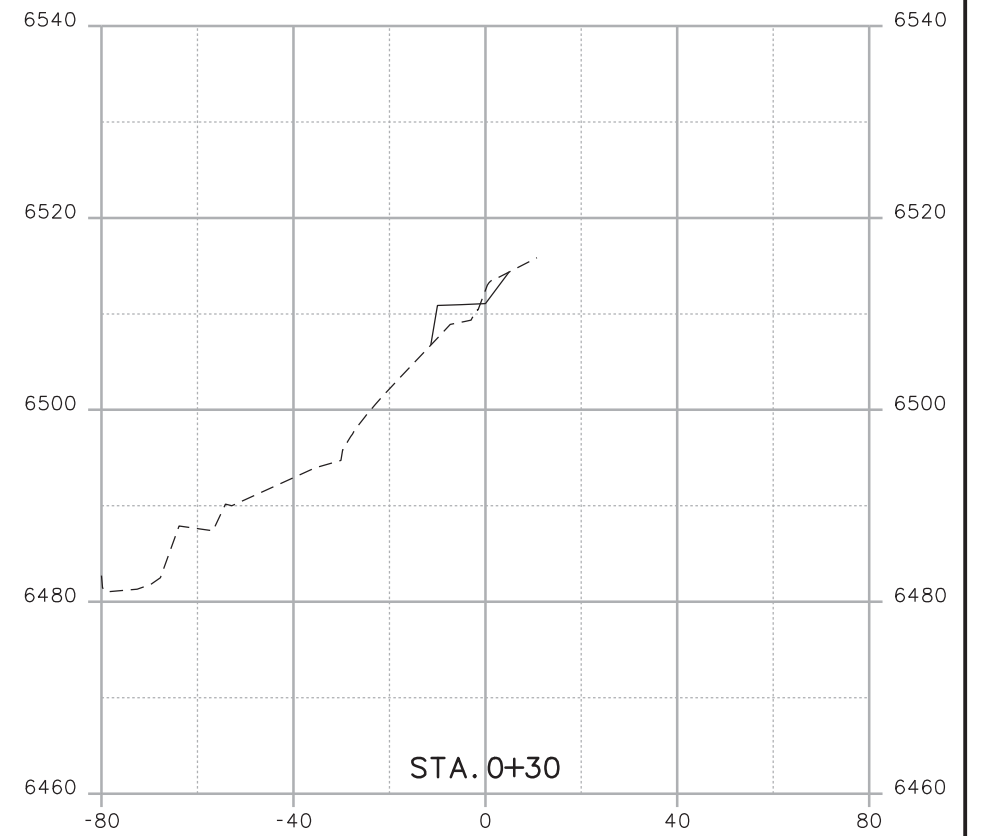
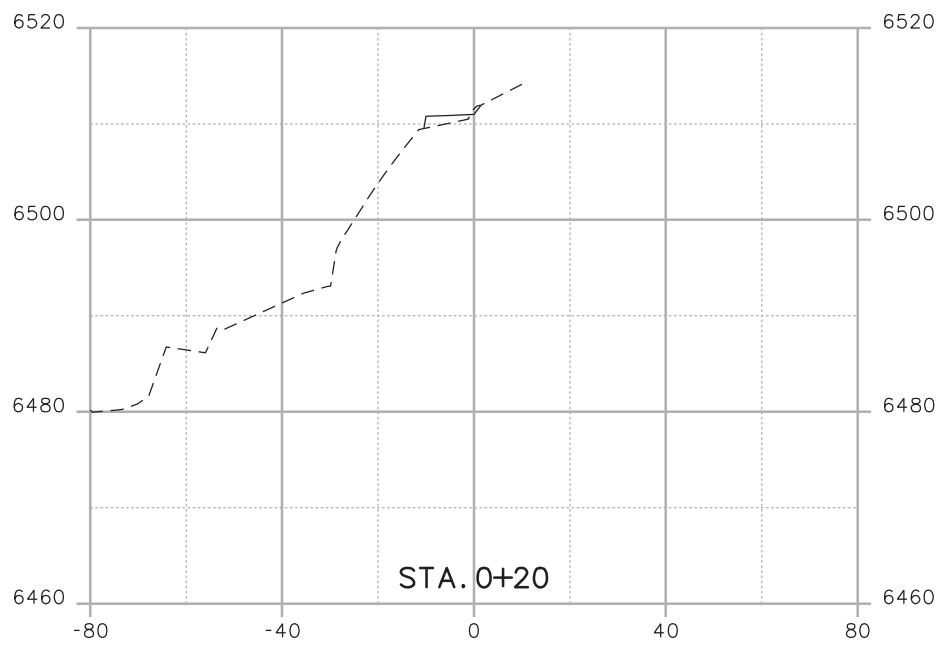
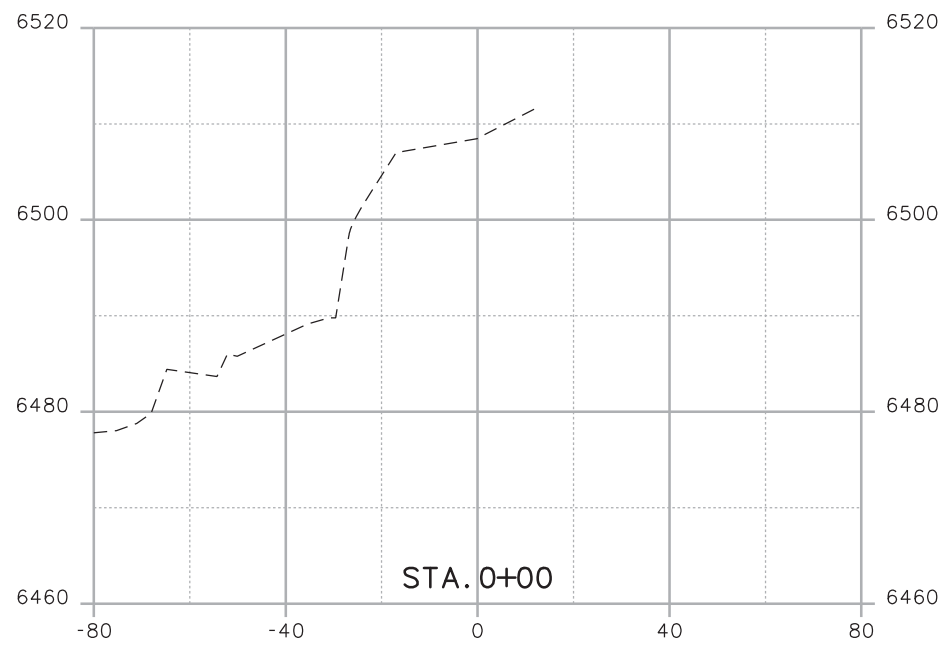
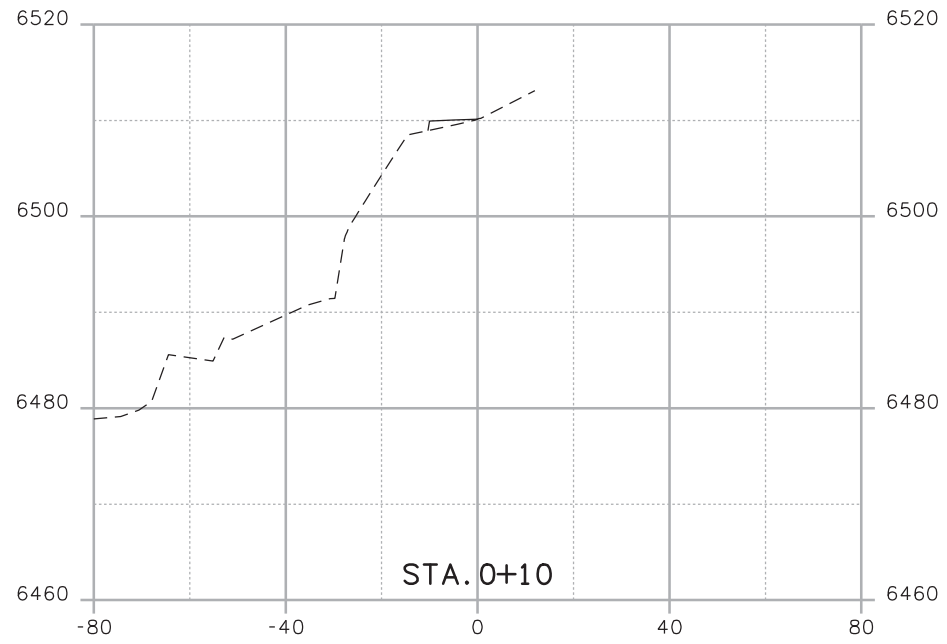
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19358

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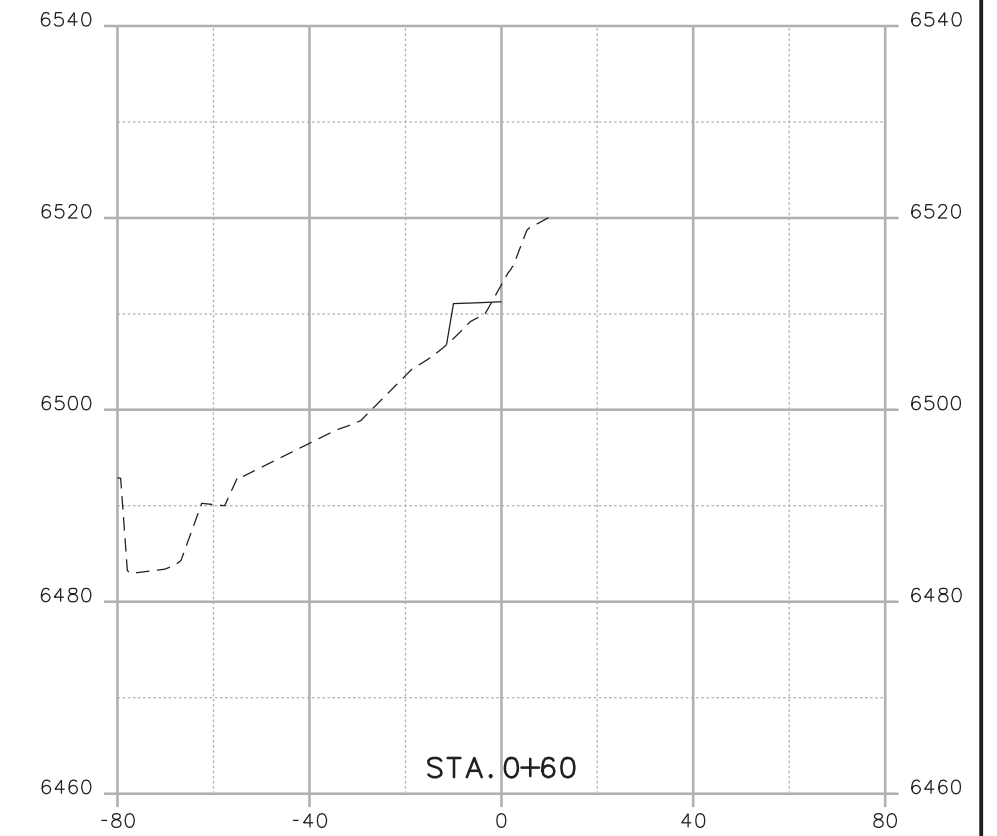
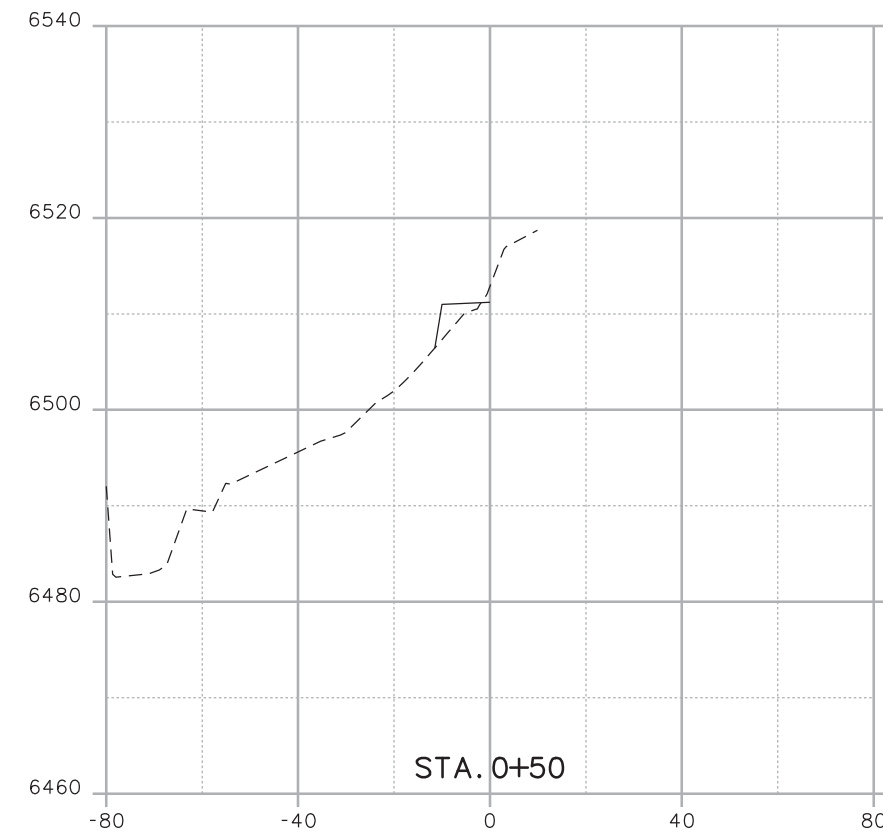
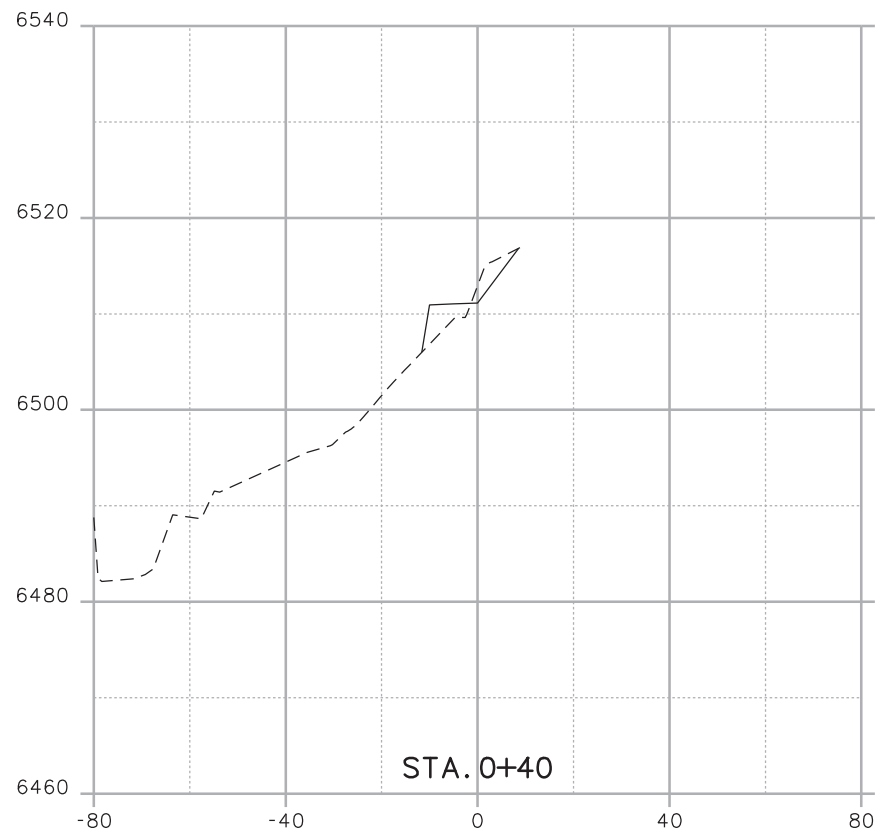
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Project No./Code
Project Number
Code
Sheet Number 102

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Unit Information	Unit Leader Initials

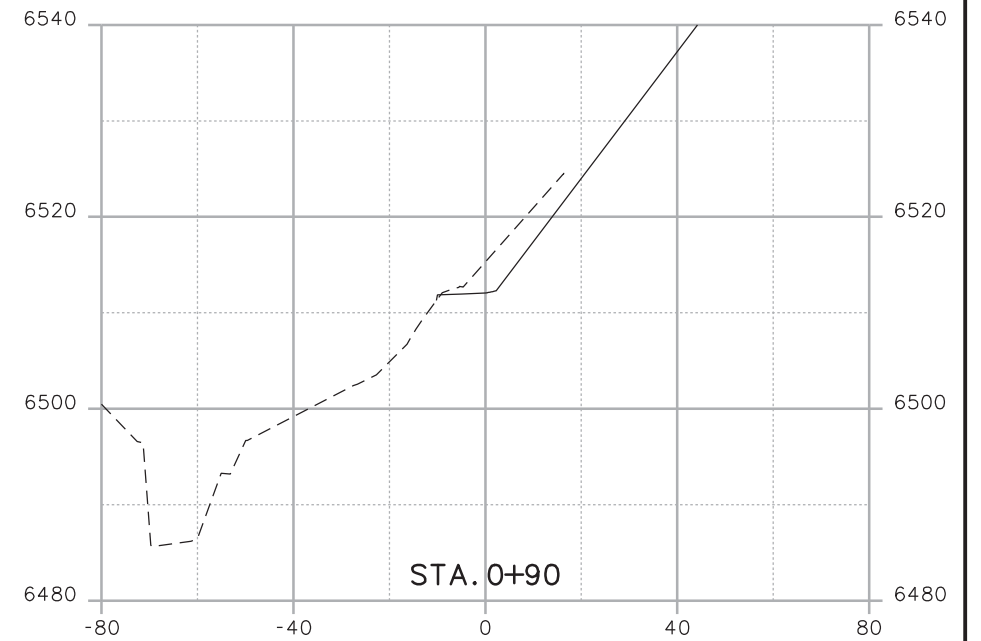
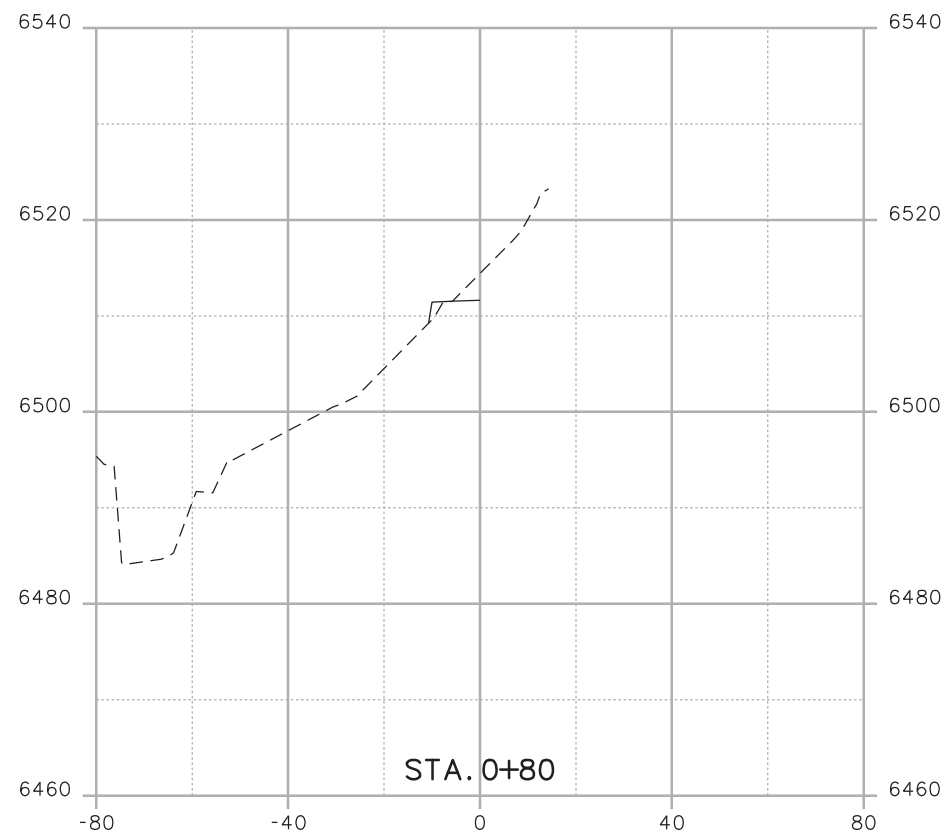
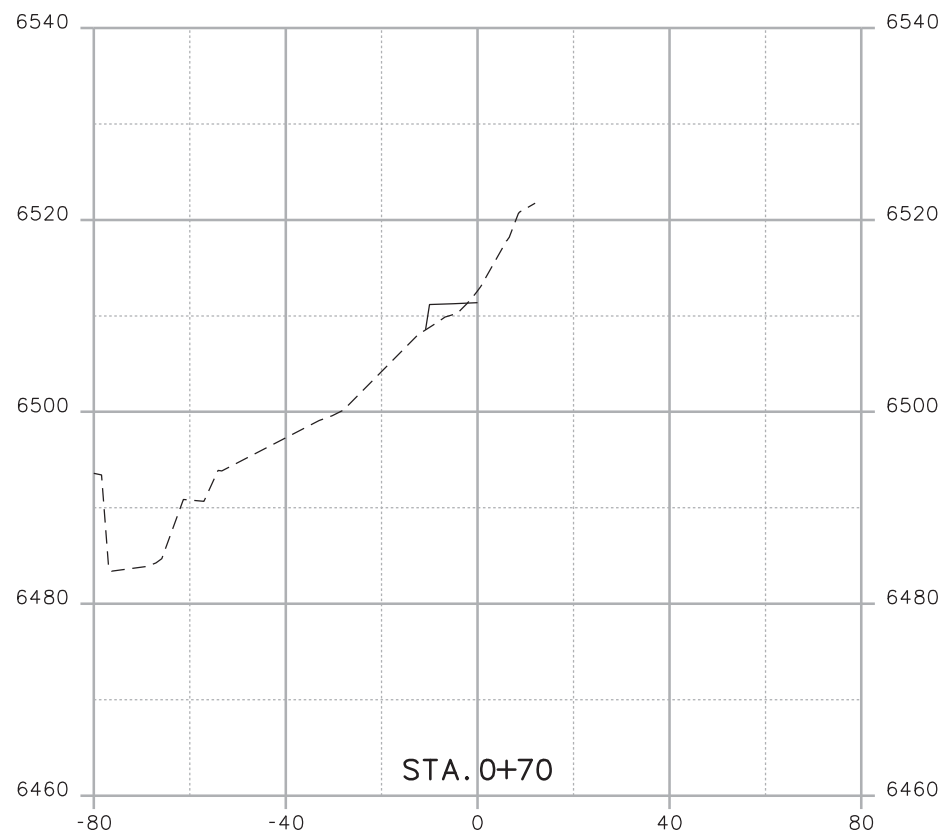
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Project No./Code	
Project Number	
Code	
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 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
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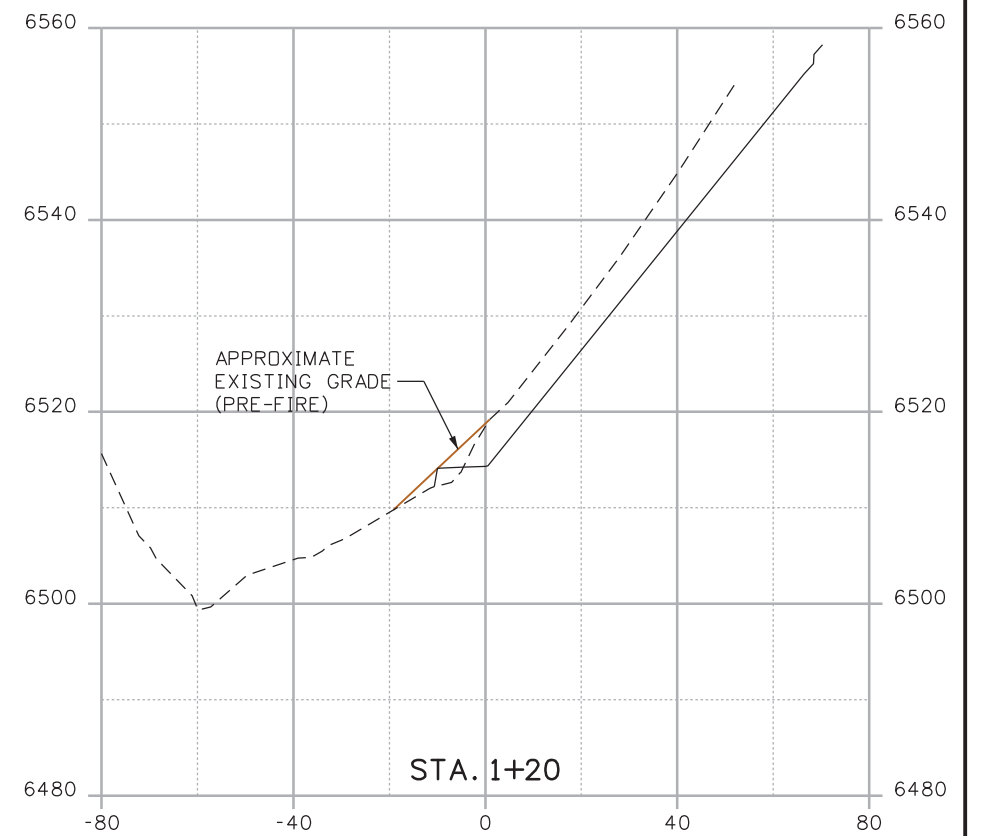
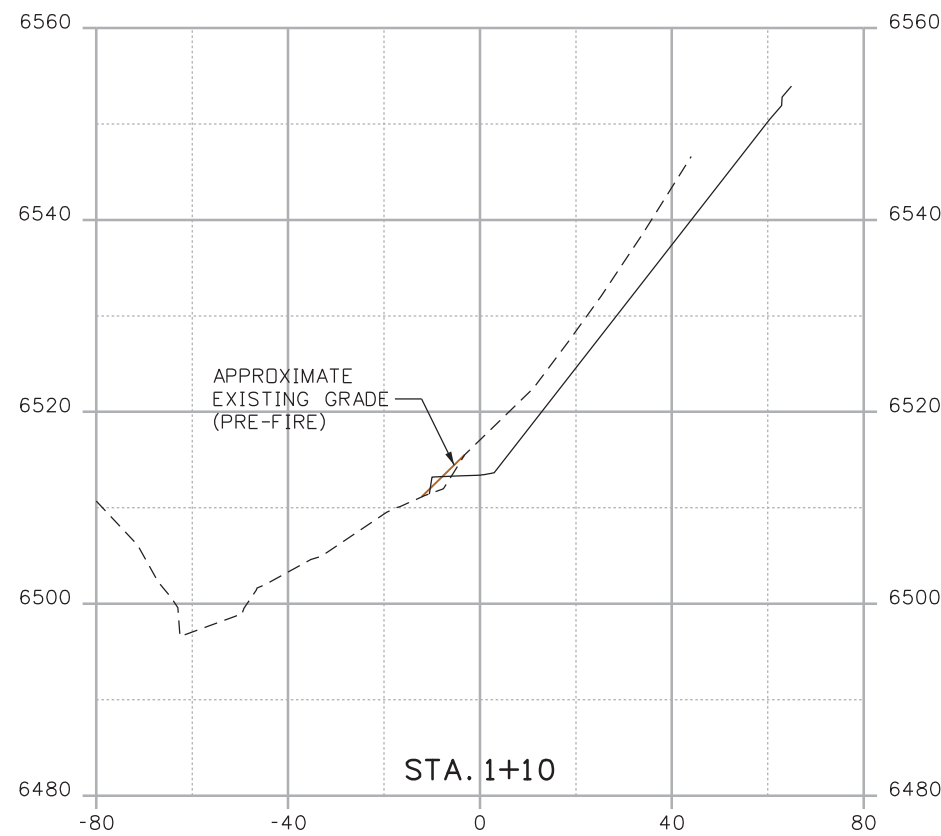
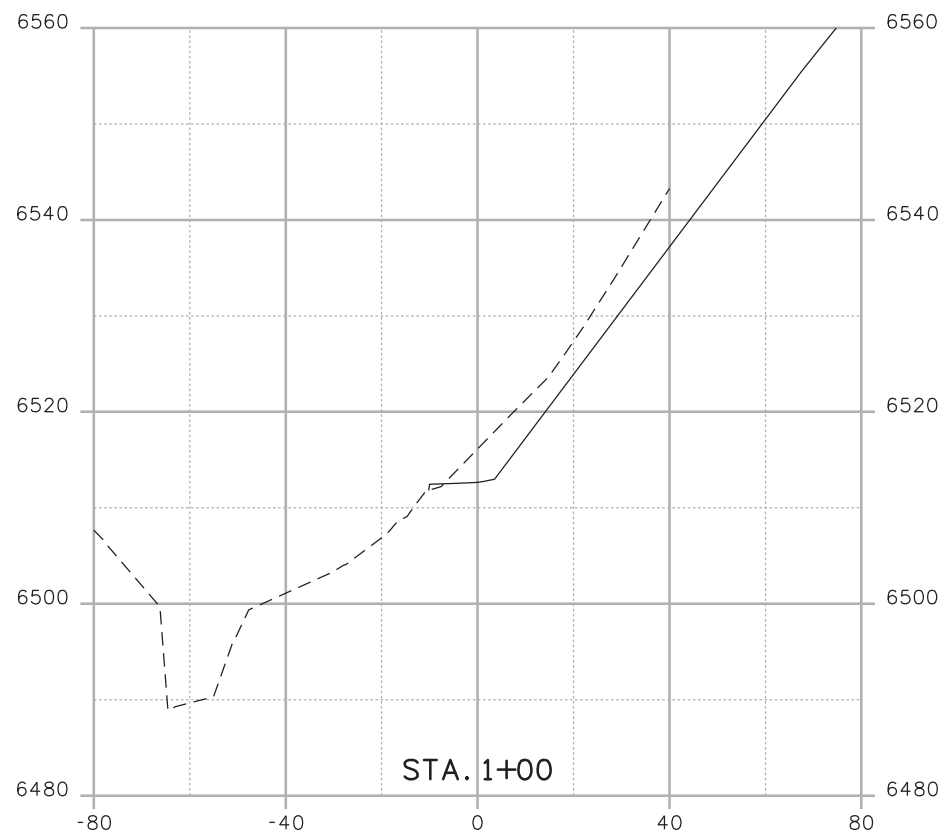
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Detailer:	KLT	Numbers	X-XX-XX
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Project No./Code
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 Code
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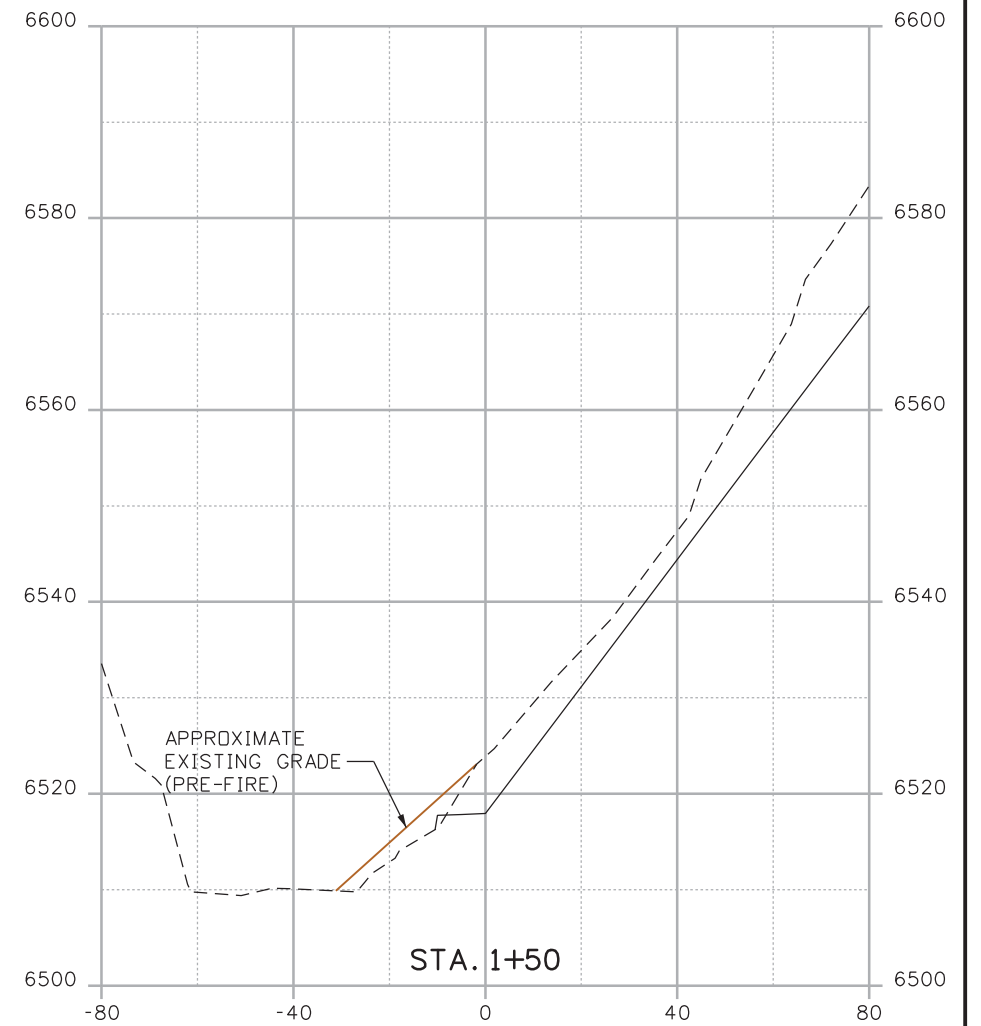
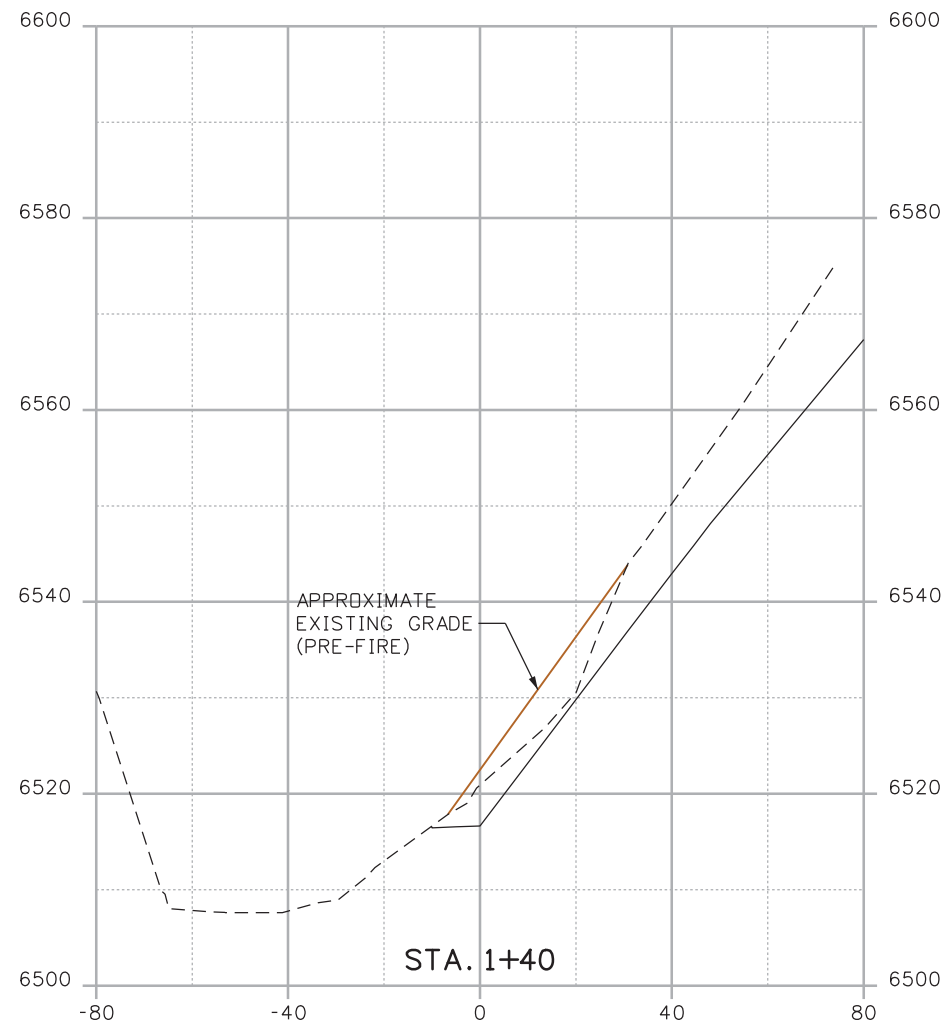
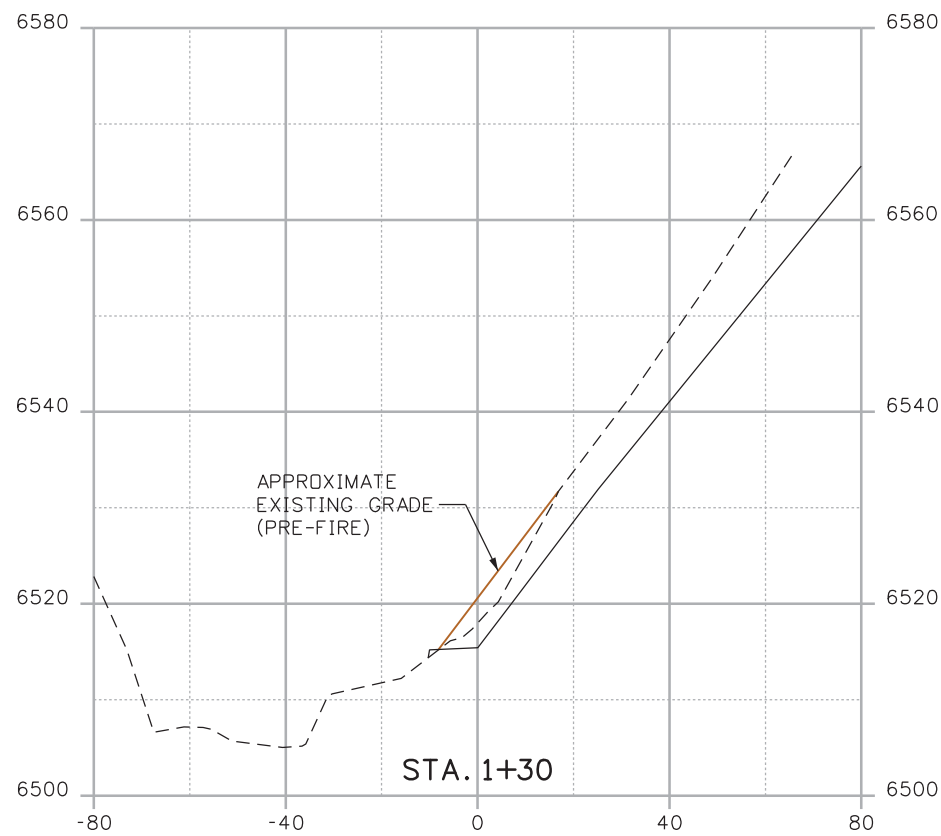
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Project No./Code
Project Number
Code
Sheet Number 105

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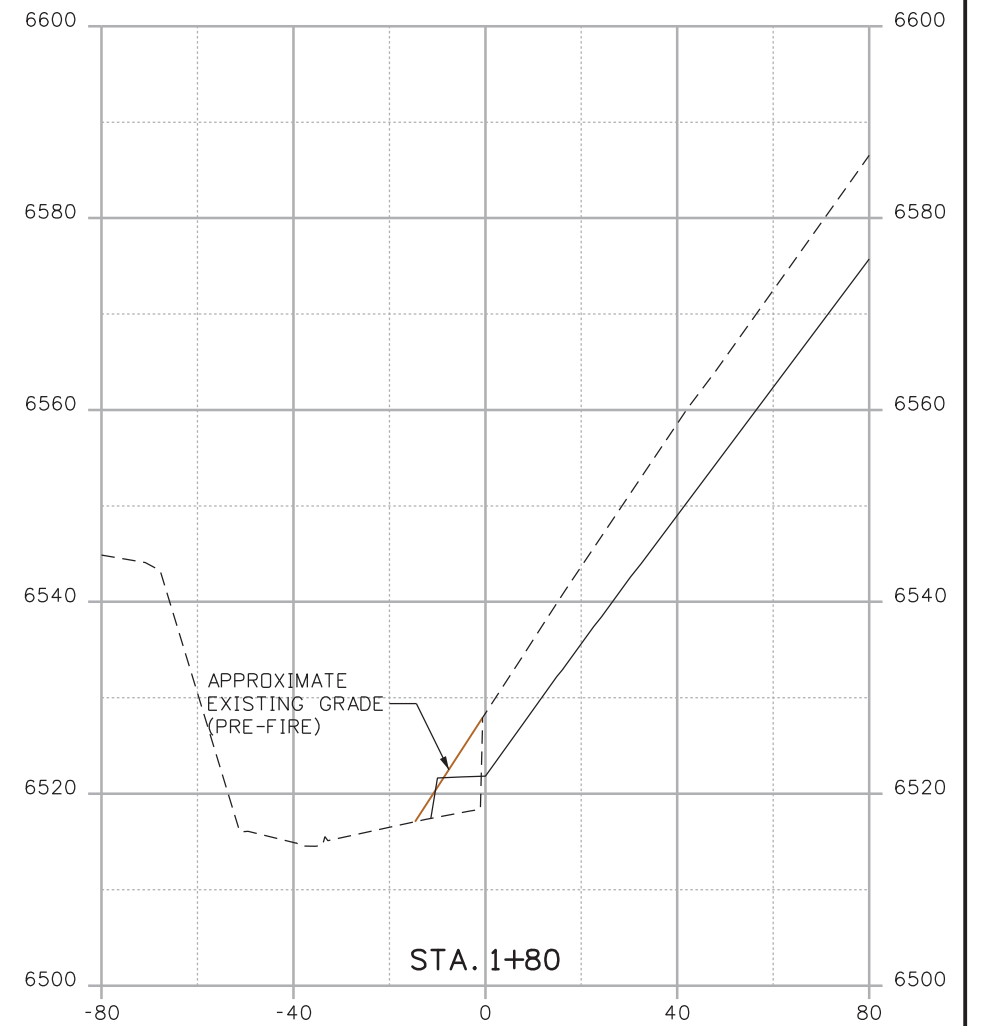
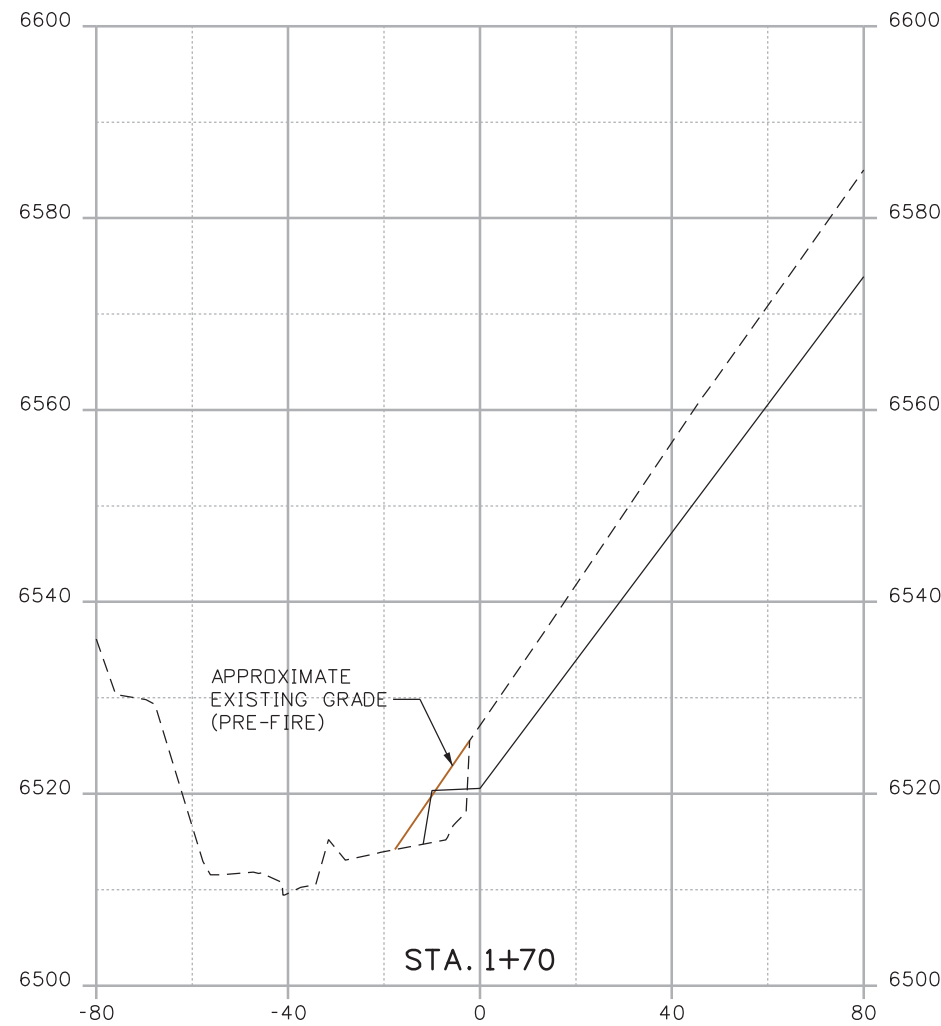
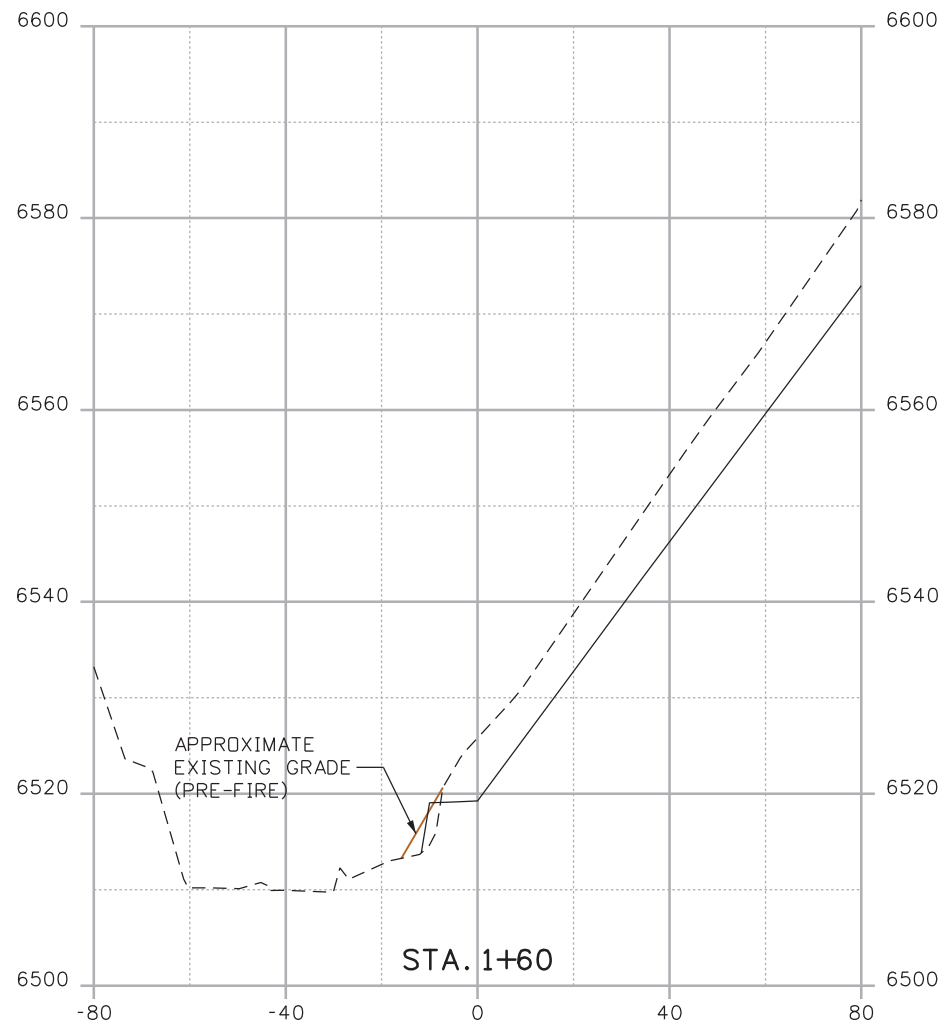
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Sheet Subset:	SECTIONS	Subset Sheets:	J-30 OF 41

Project No./Code
Project Number
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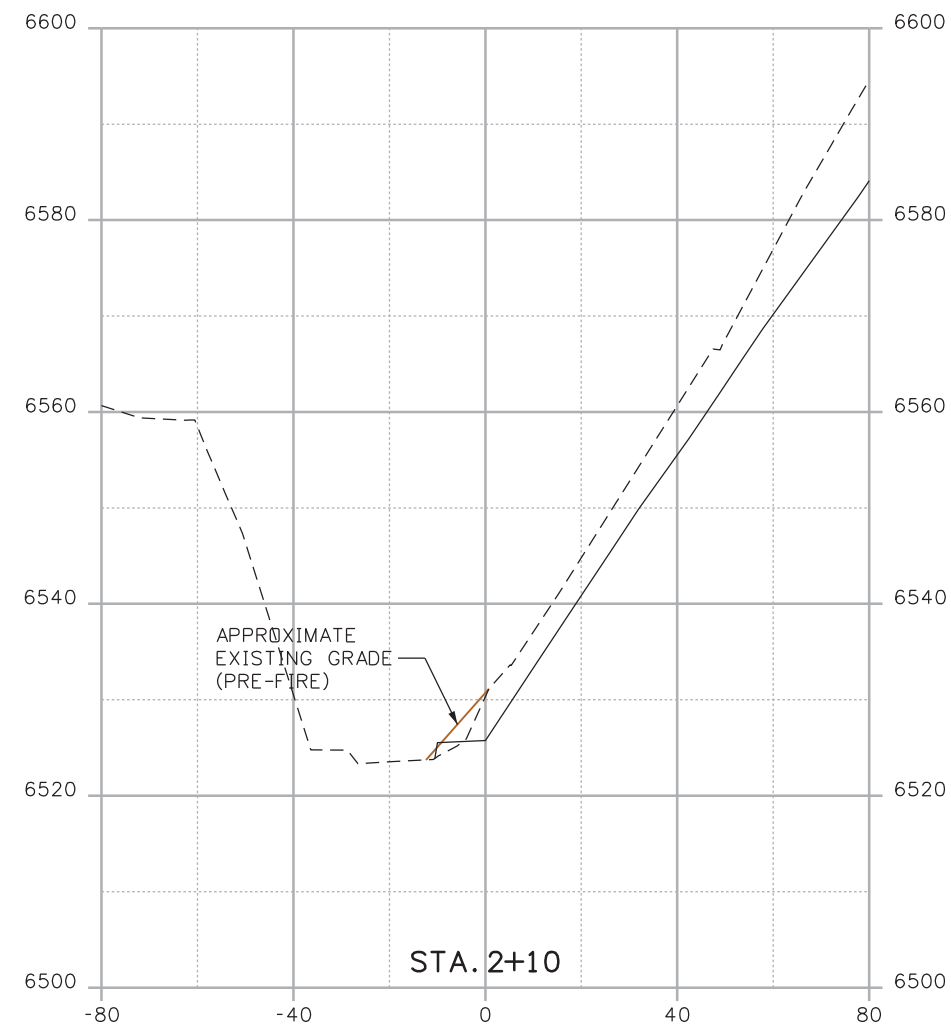
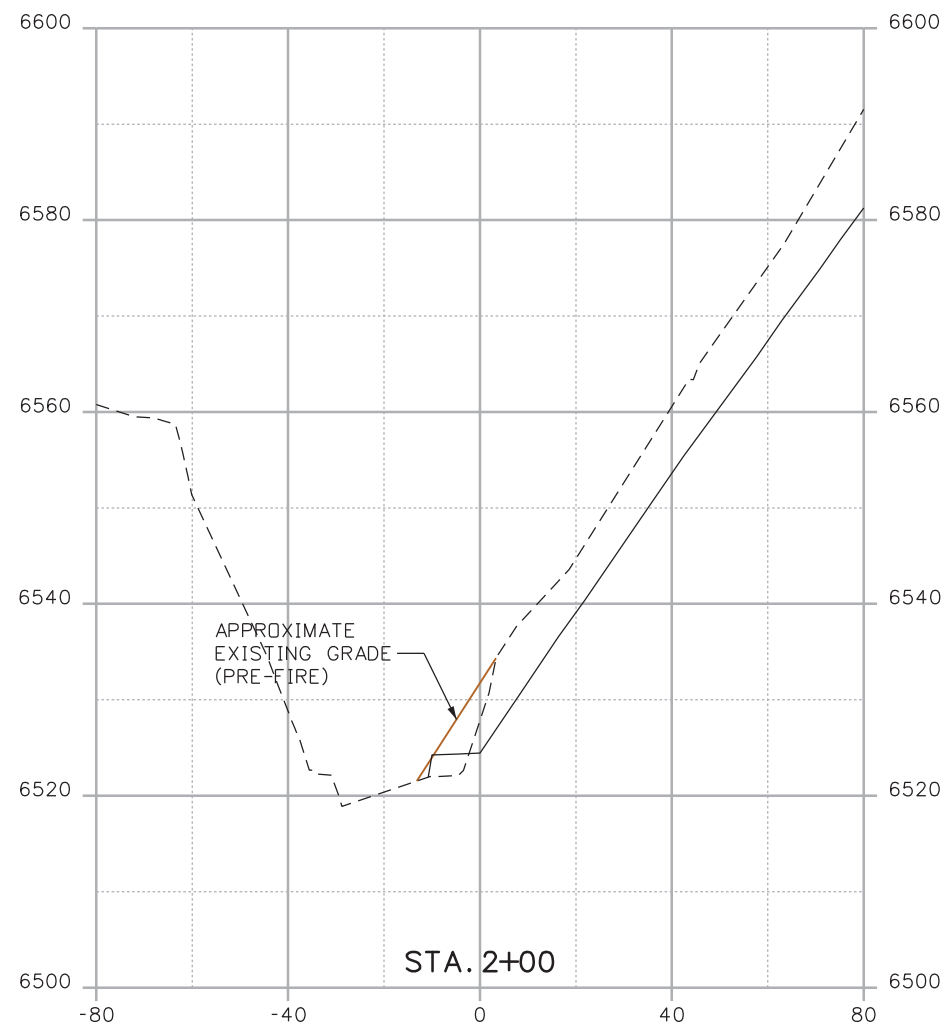
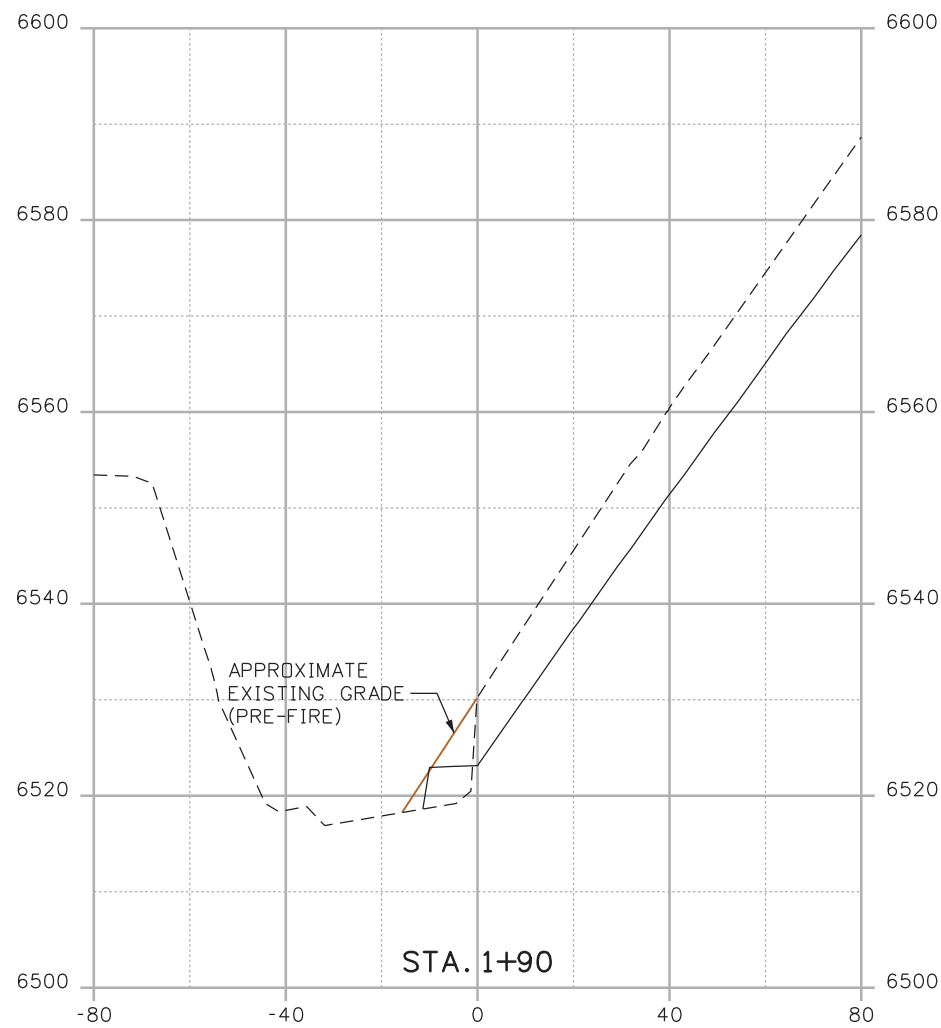
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Sheet Subset:	SECTIONS	Subset Sheets:	J-31 OF 41

Project No./Code
Project Number
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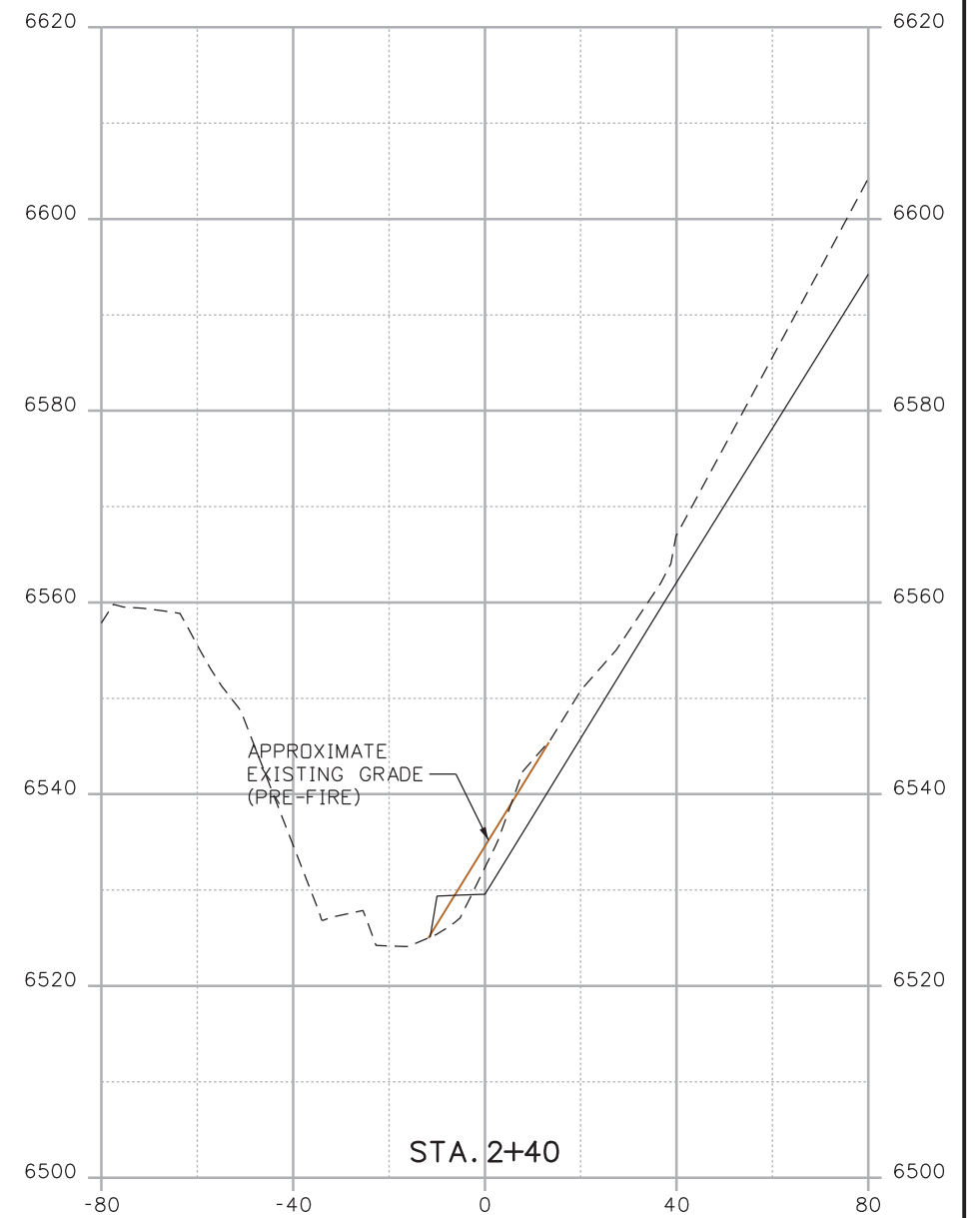
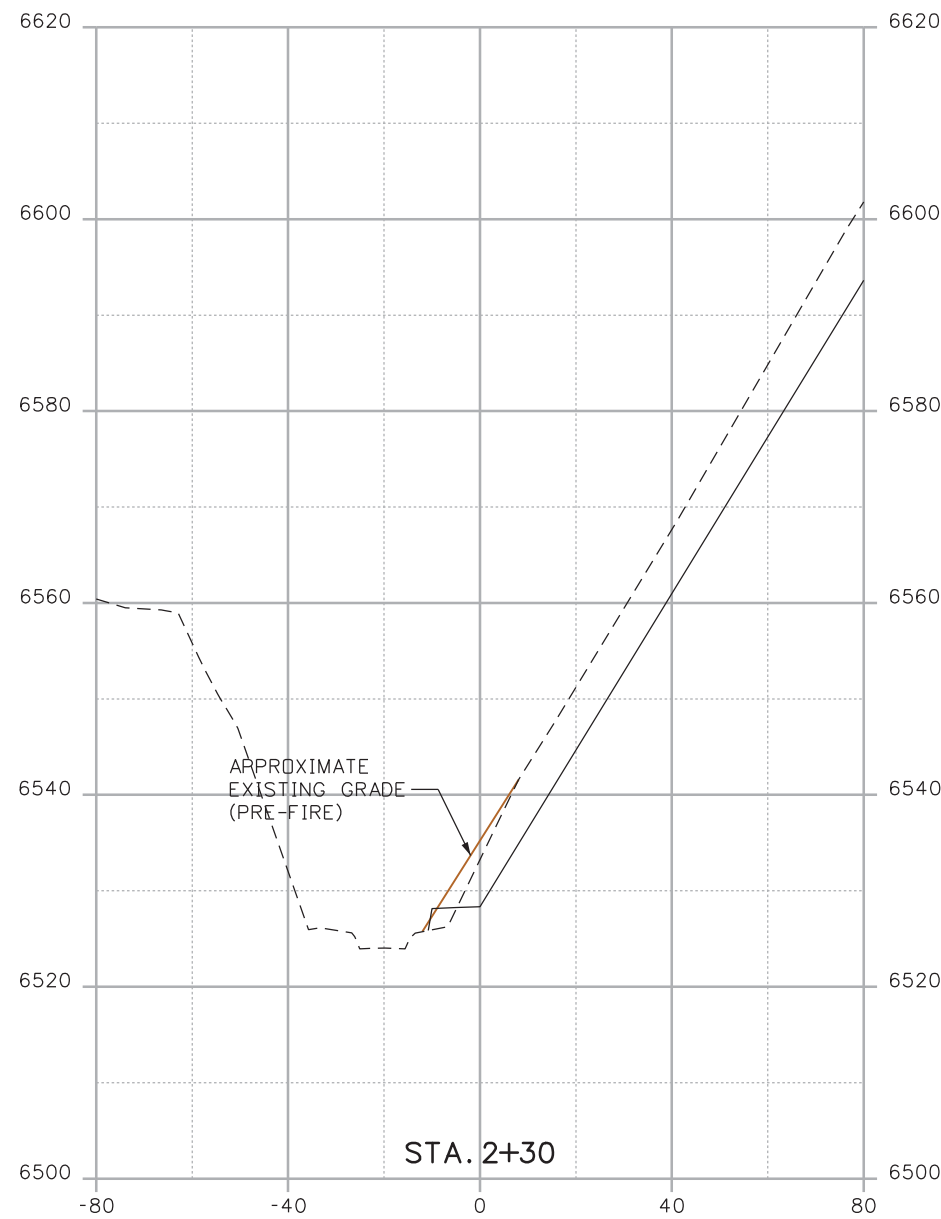
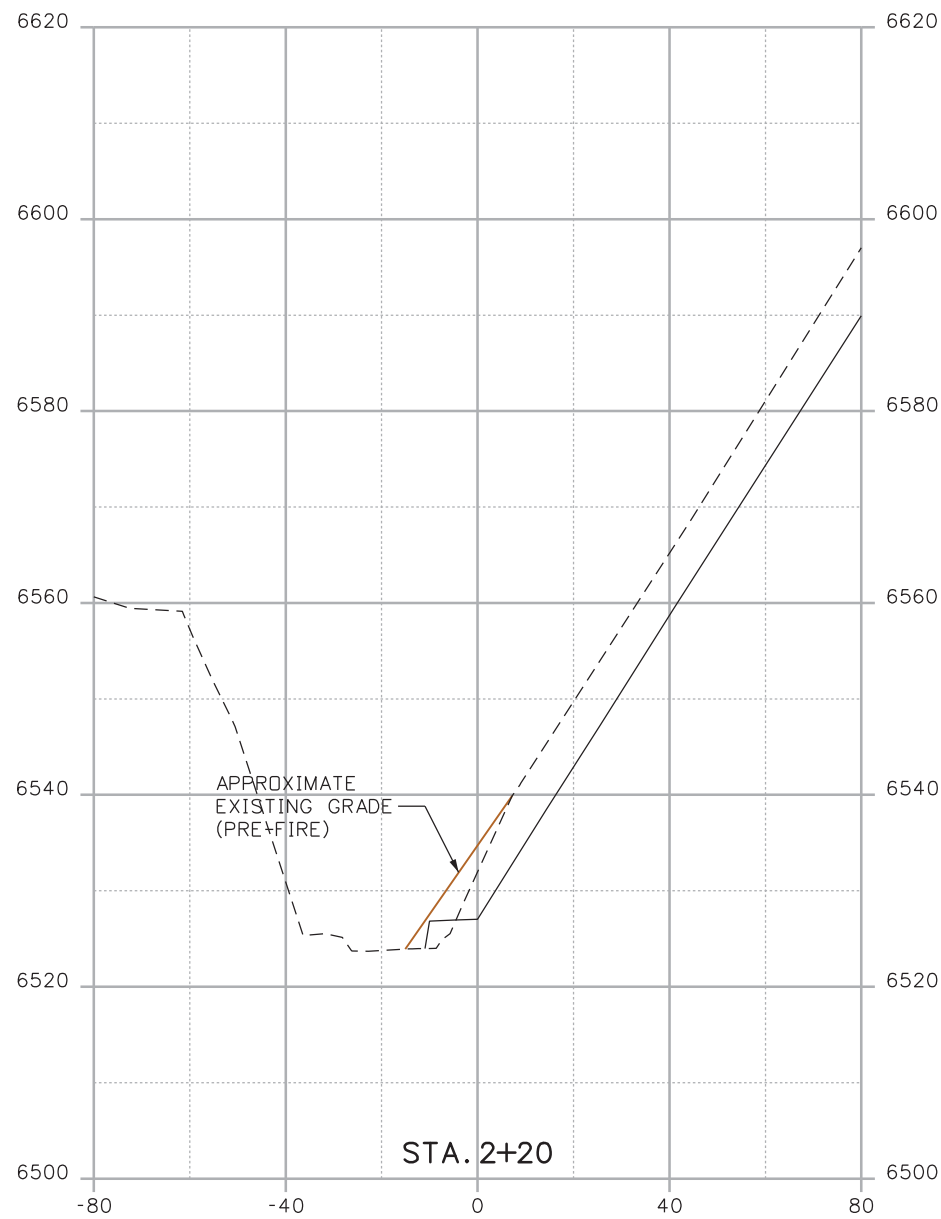
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Project No./Code
Project Number
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R-X
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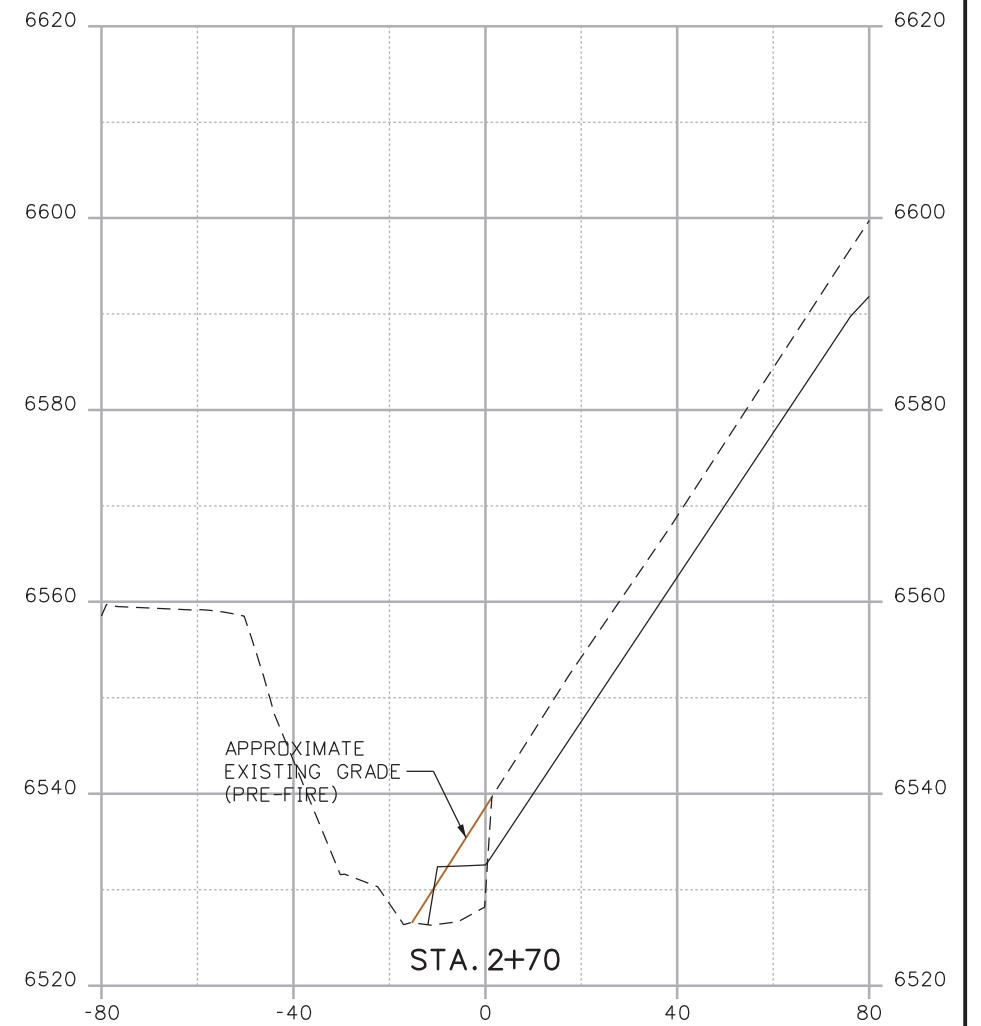
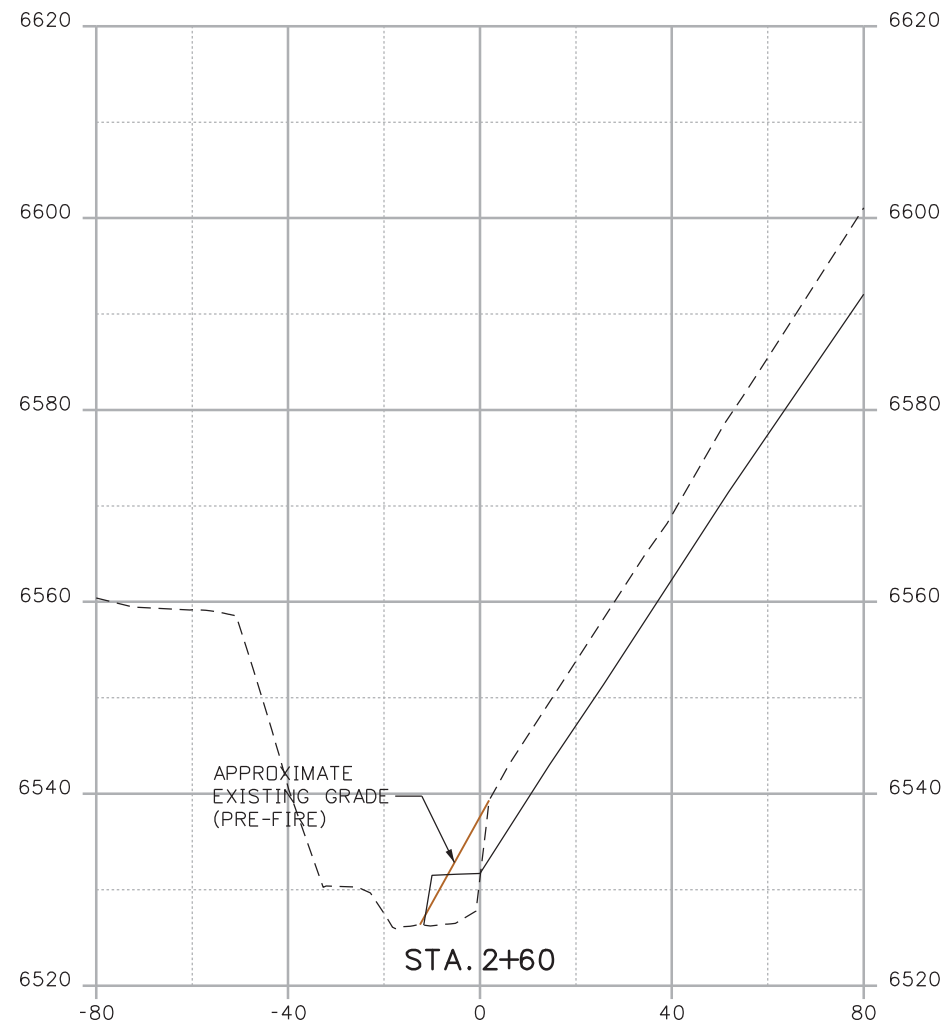
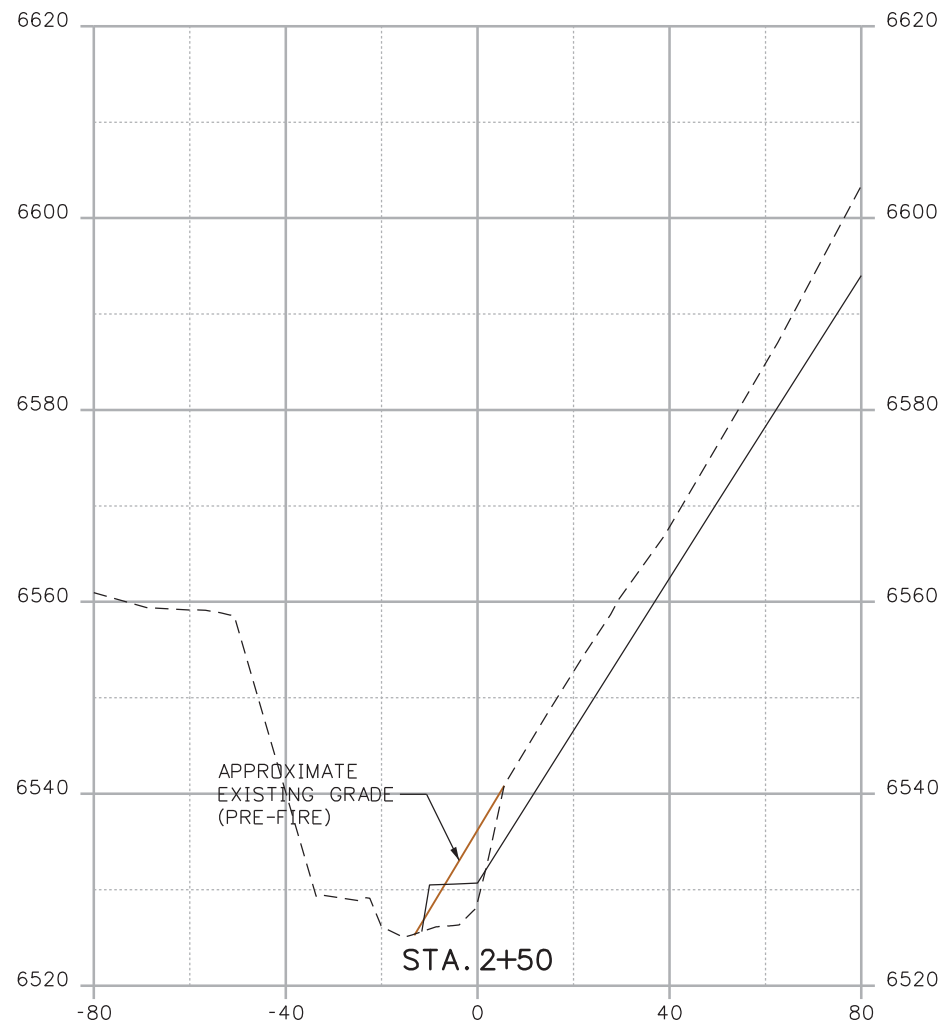
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Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-33 OF 41

Project No./Code
Project Number
Code
Sheet Number 109

Kelly 10:39:42 AM K:\112266-06\19358\Design\Drawings\Reference_Files\19358DES_Model_J_Sections.dgn



Print Date: 3/18/2013
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 Unit Information Unit Leader Initials

R-X
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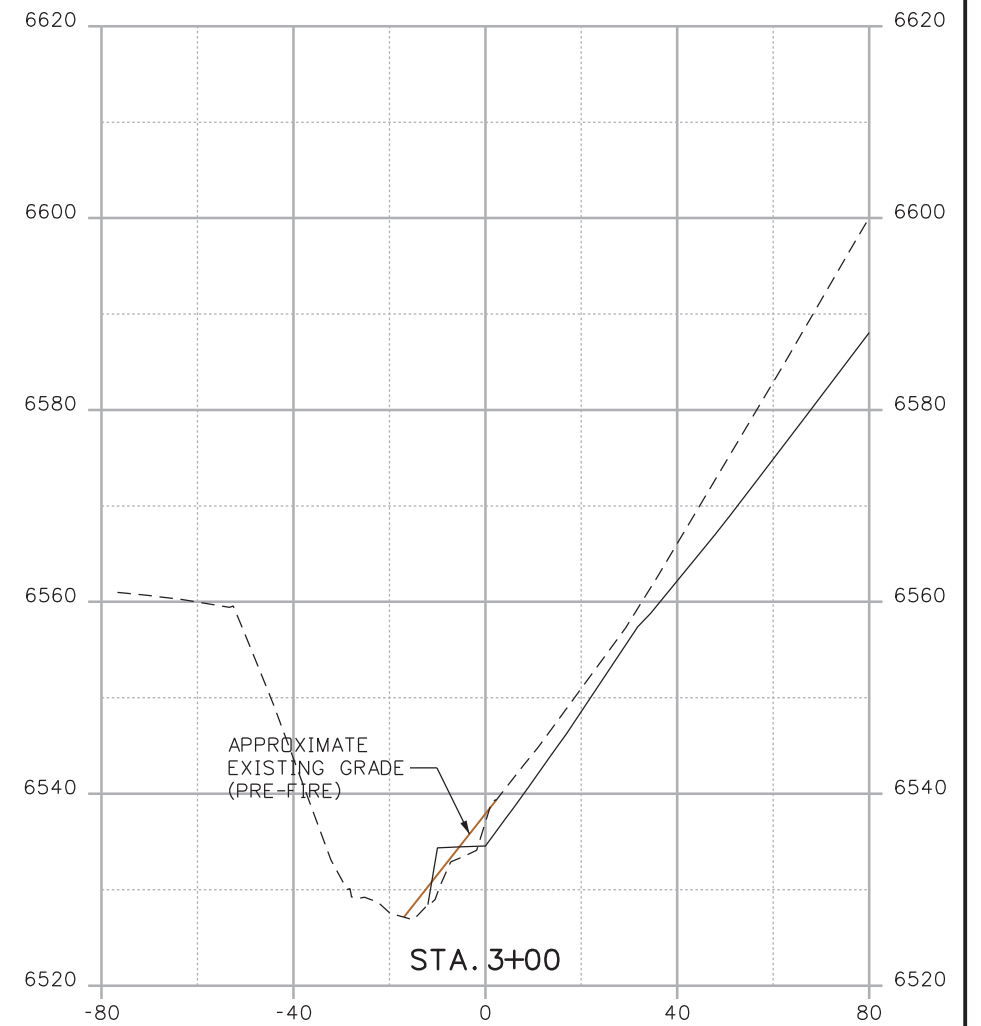
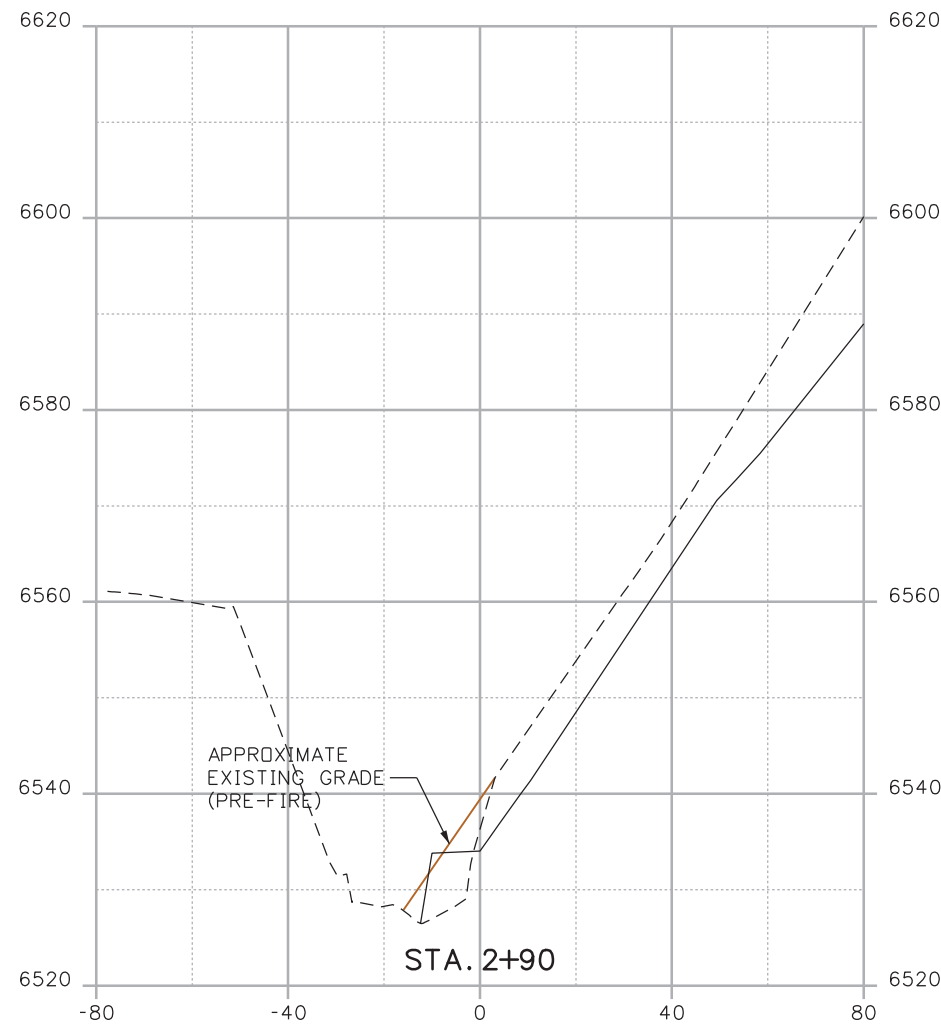
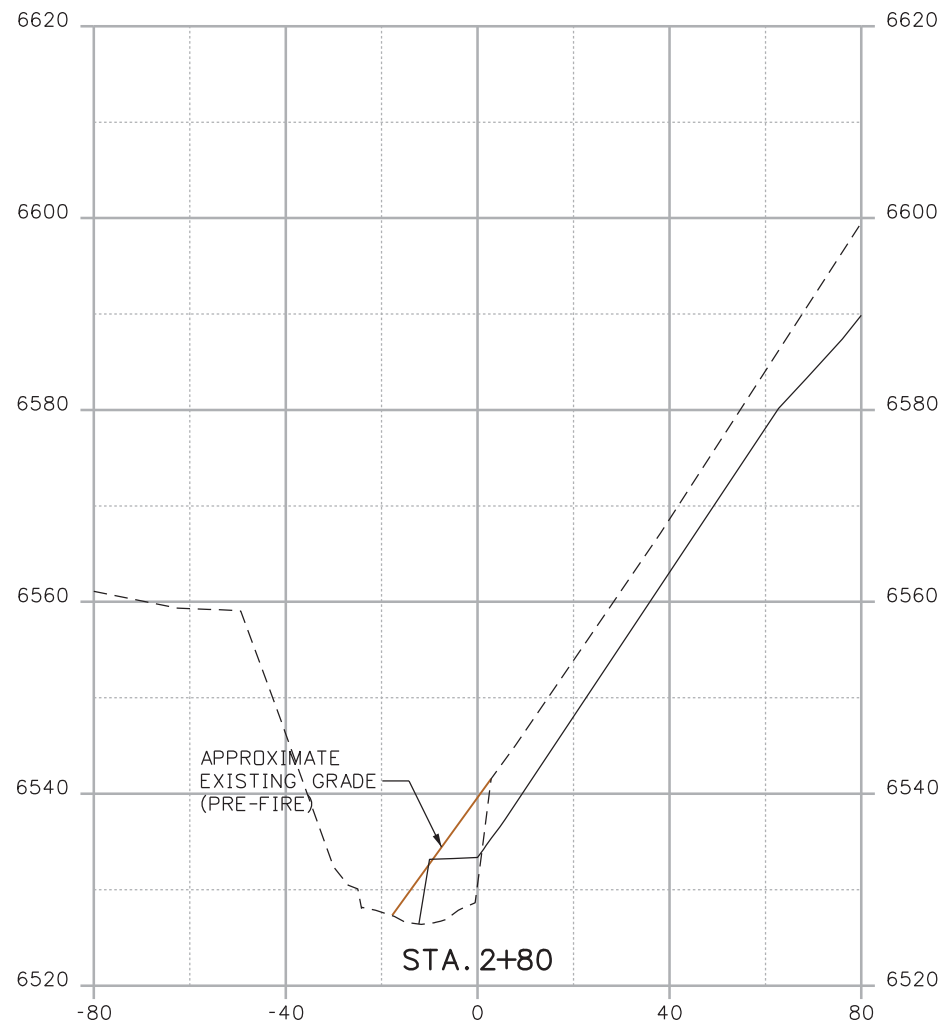
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Date:	Comments	Init.

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Detailer:	KLT	Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-34 OF 41

Project No./Code
Project Number
Code
Sheet Number 110

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 Unit Information Unit Leader Initials

R-X
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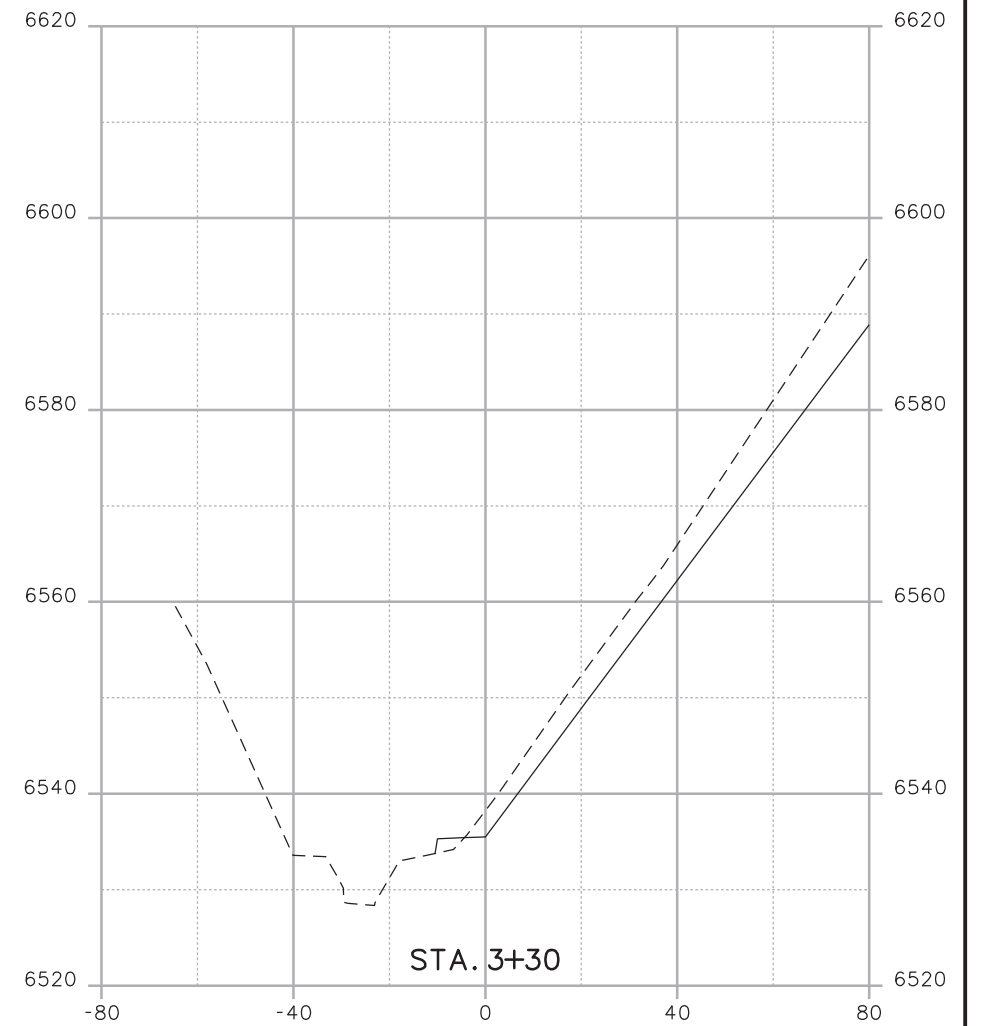
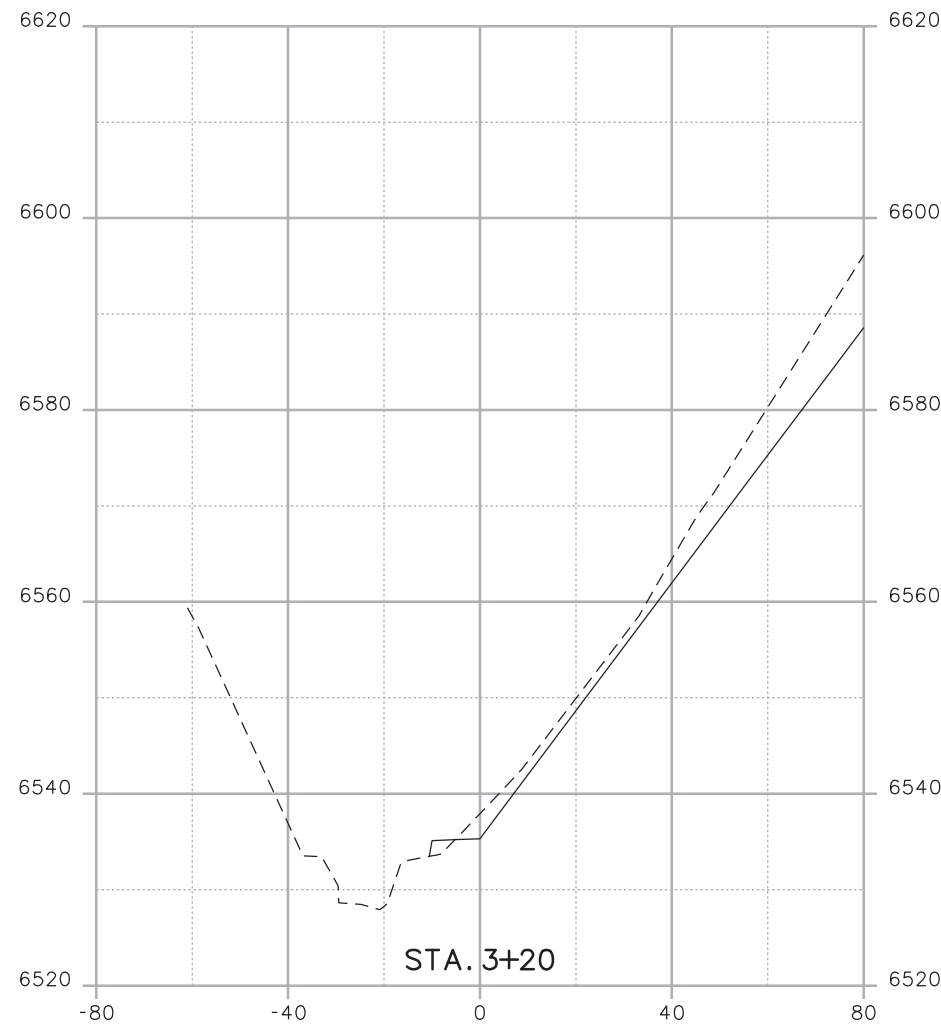
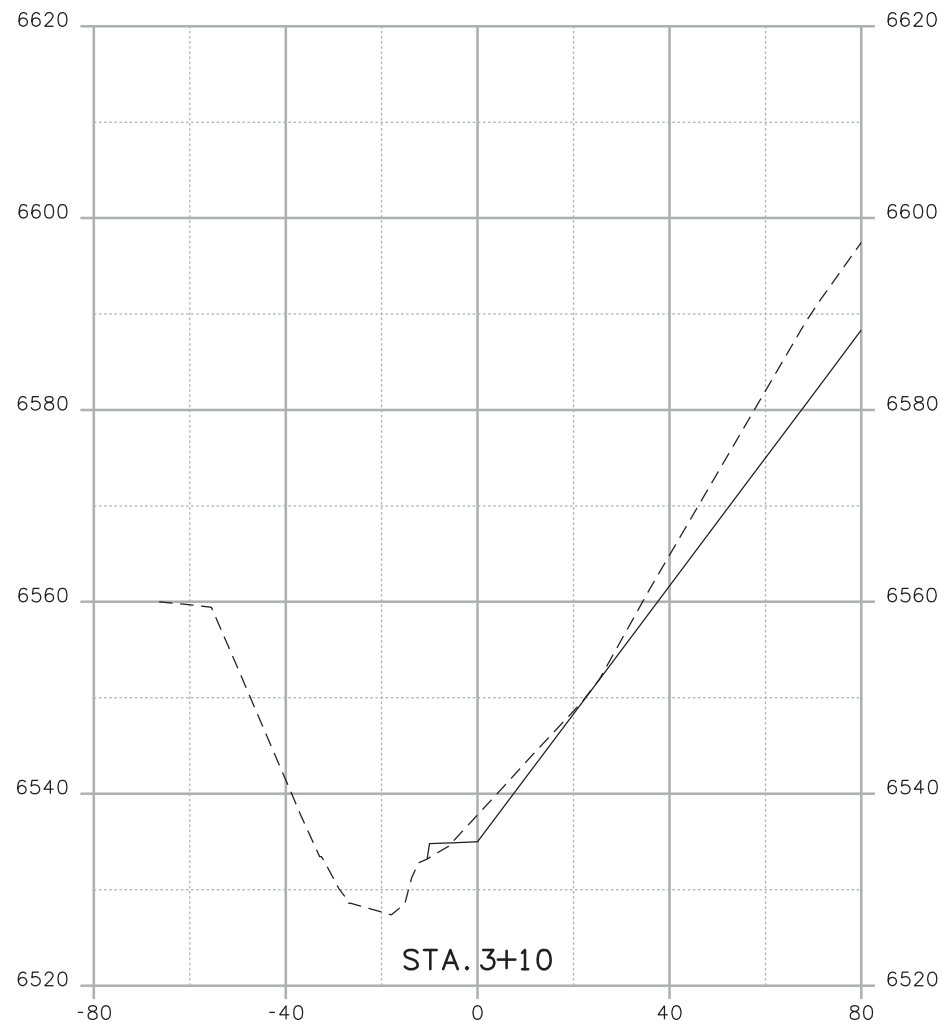
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Date:	Comments	Init.

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Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-35 OF 41

Project No./Code
Project Number
Code
Sheet Number 111

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 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
Date:	Comments	Init.

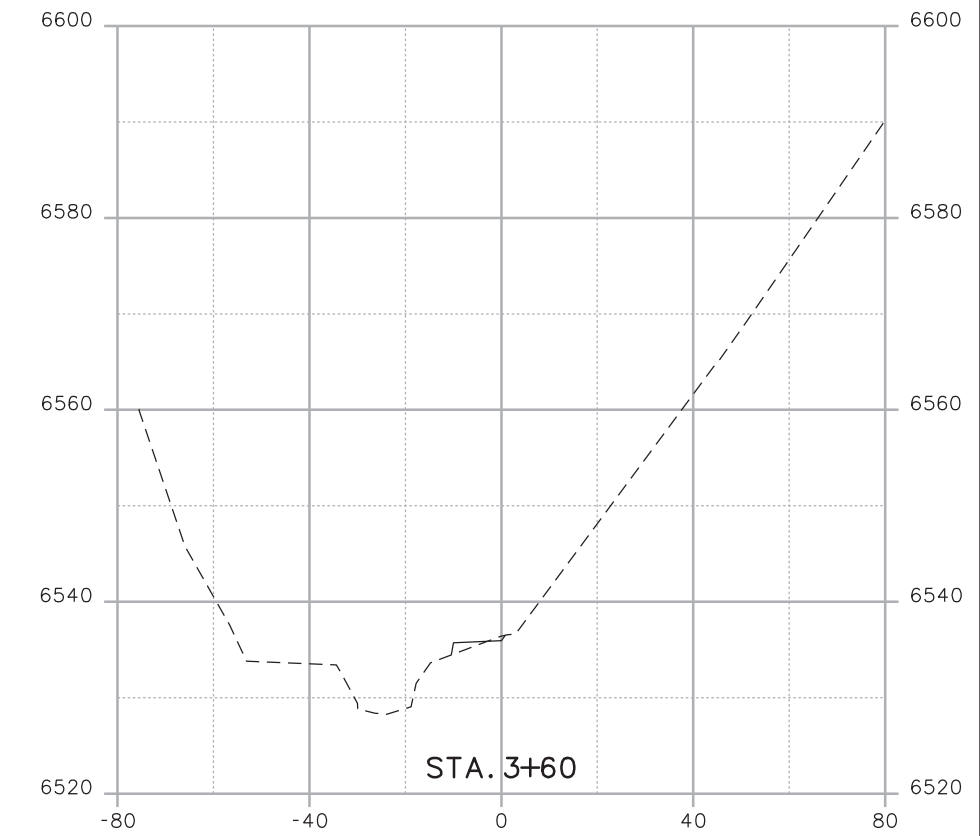
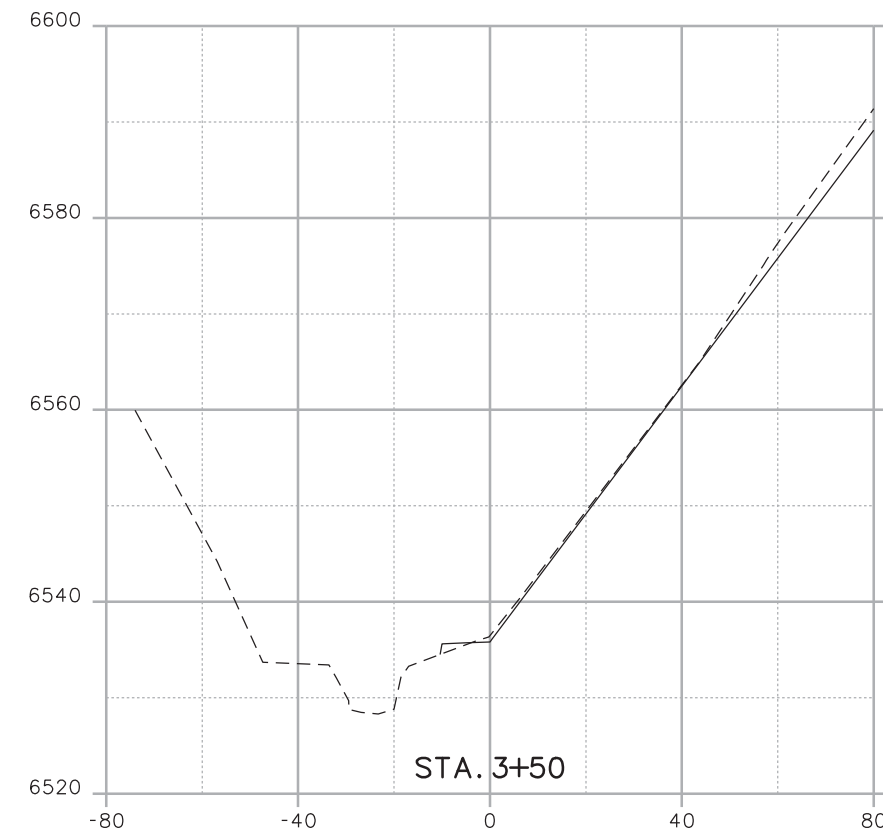
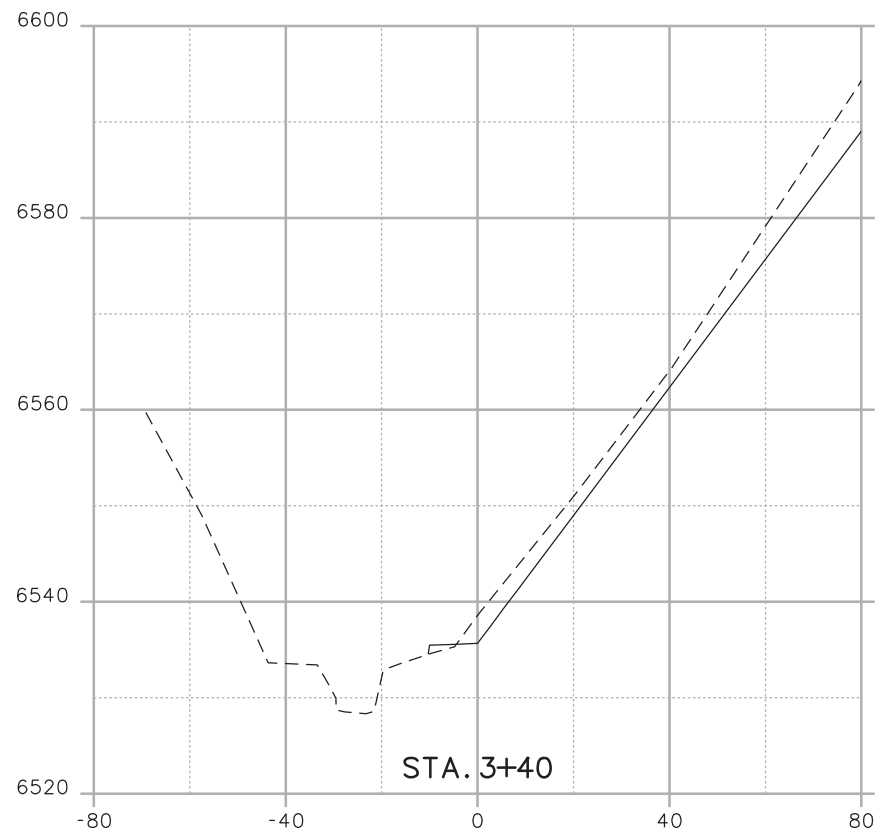
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 Revised:
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**CROSS SECTIONS
 POUR POINT J - ACCESS ROAD**

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Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-36 OF 41

Project No./Code
 Project Number
 Code
 Sheet Number **112**

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File Name: 19358DES_Model_J_Sections.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials



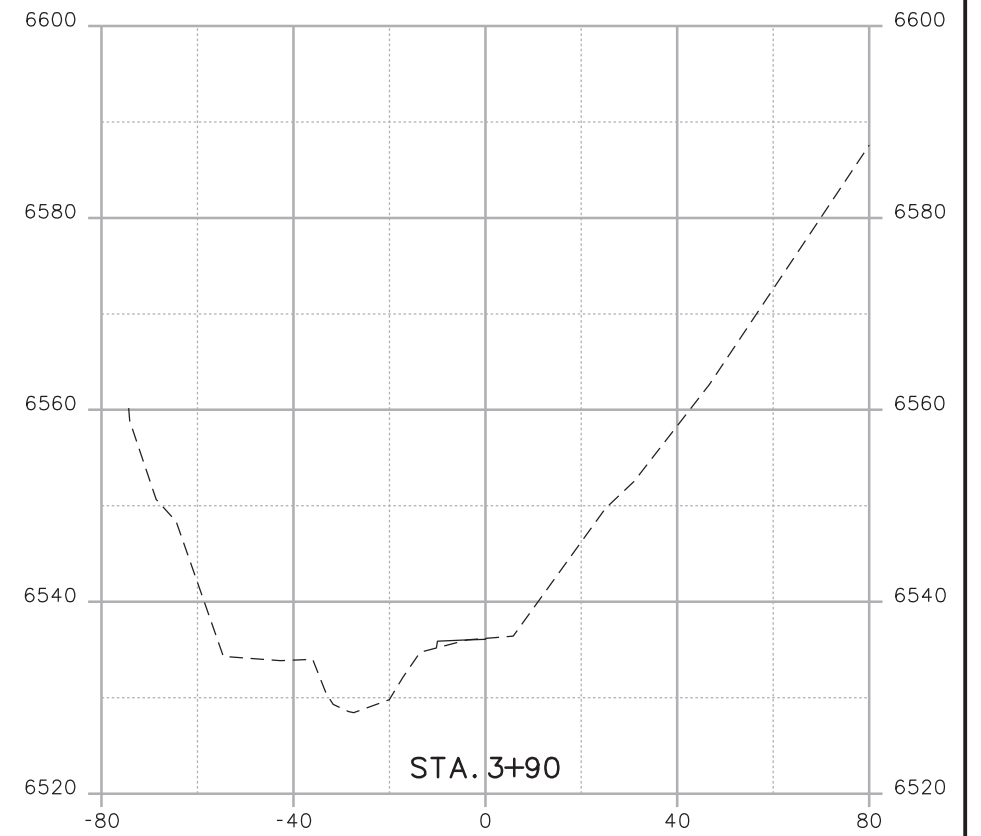
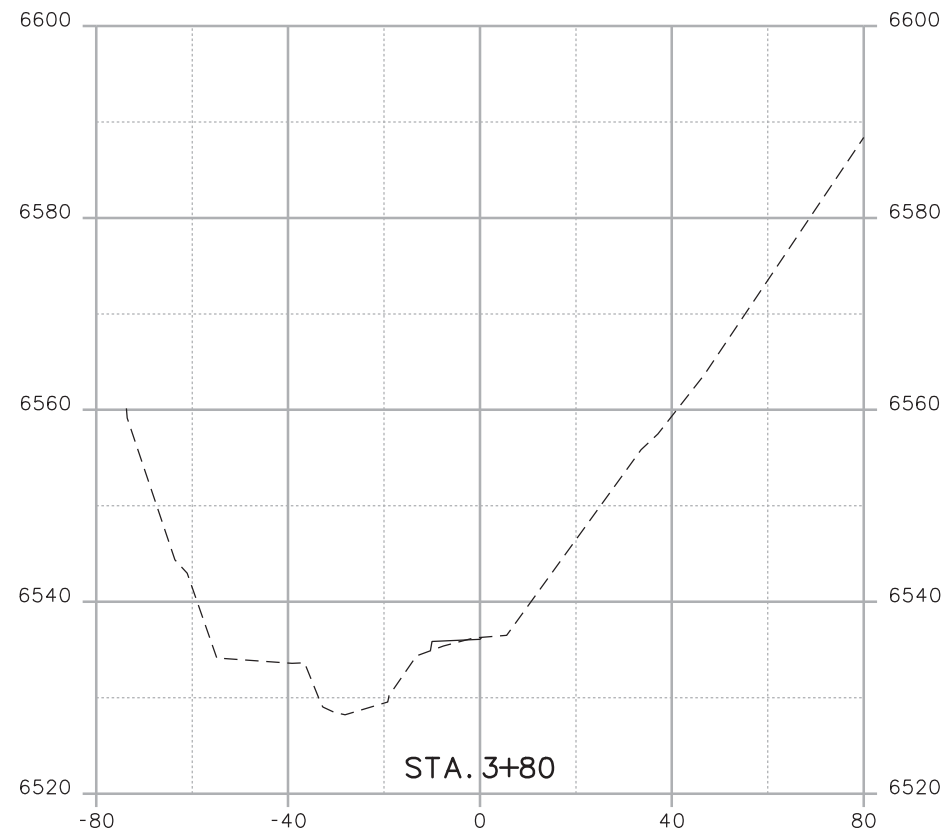
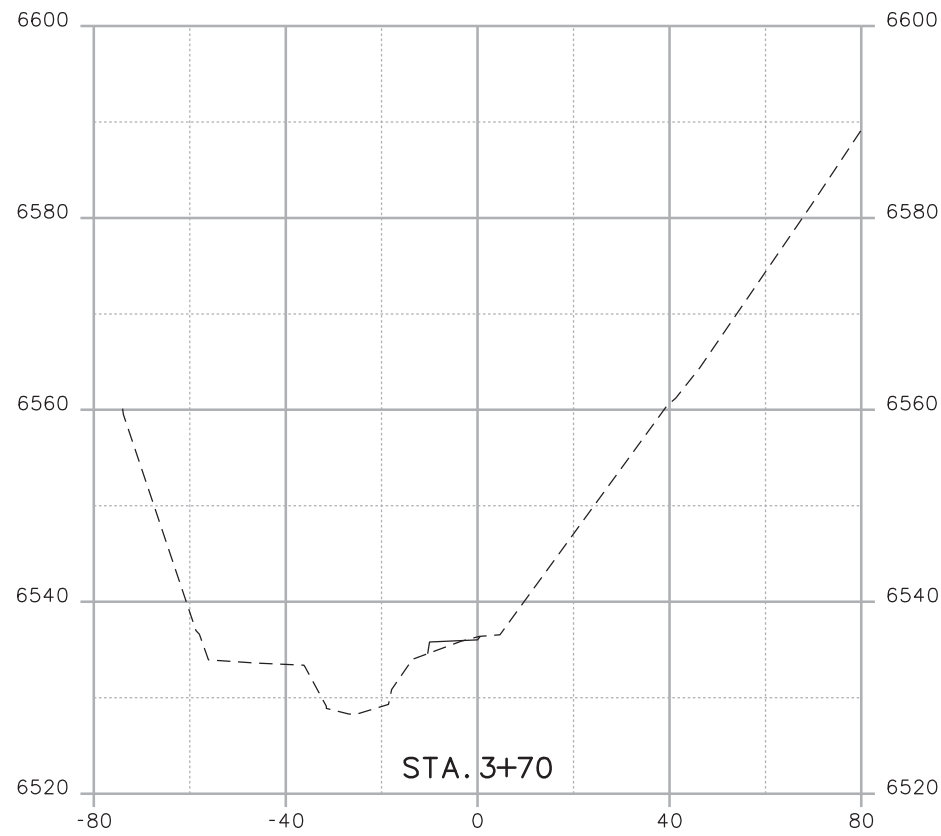
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Date:	Comments	Init.

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No Revisions:
Revised:
Void:

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Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-37 OF 41

Project No./Code
Project Number
Code
Sheet Number 113

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 Unit Information Unit Leader Initials

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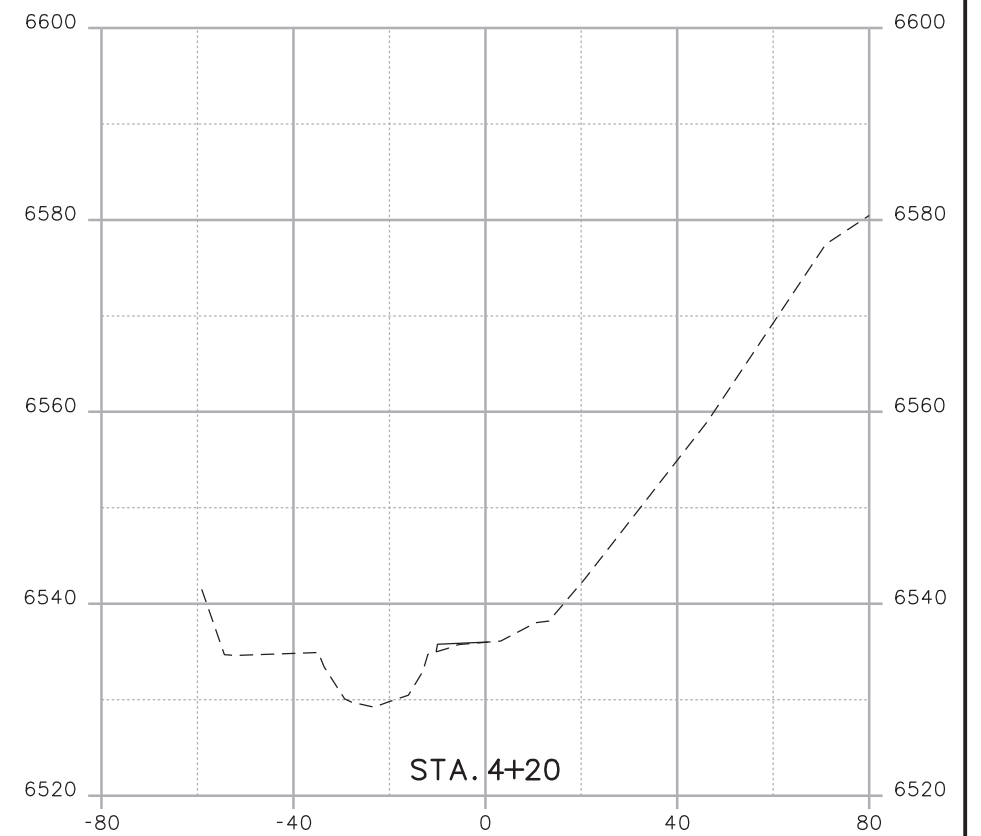
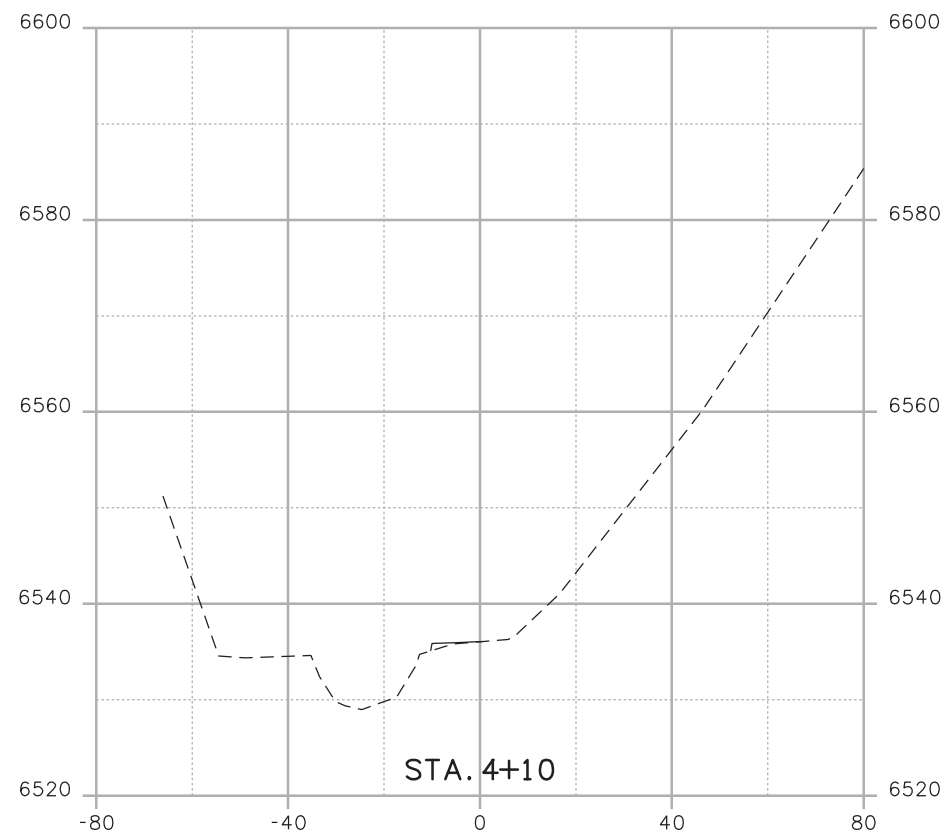
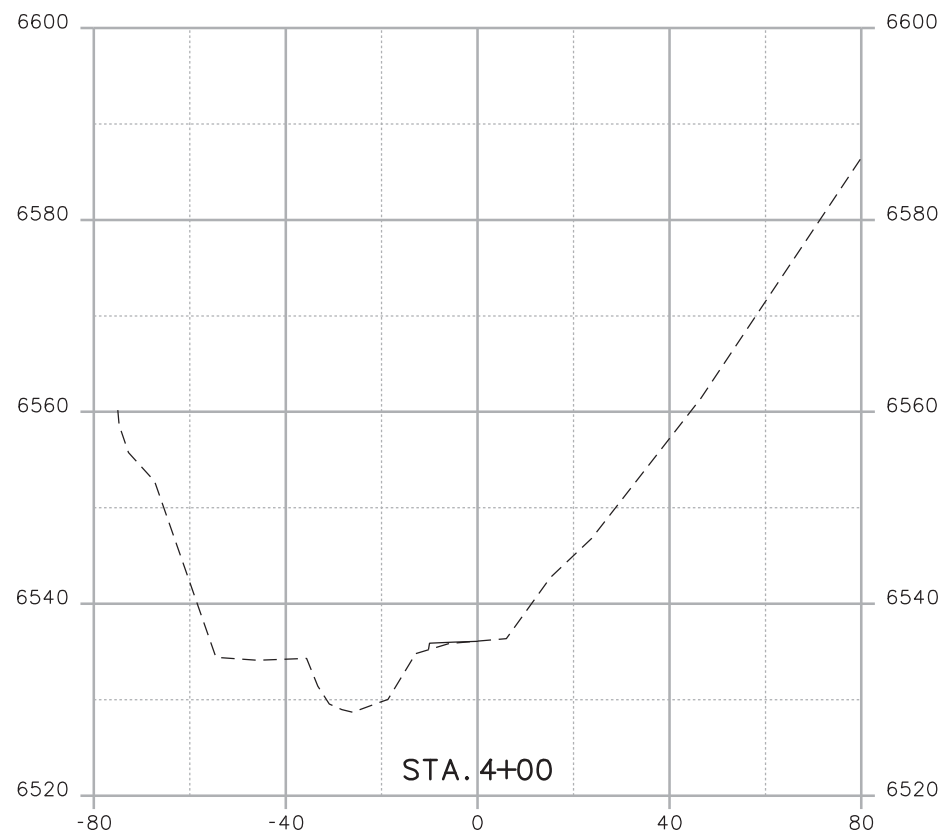
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Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-38 OF 41

Project No./Code
Project Number
Code
Sheet Number 114

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Print Date: 3/18/2013
 File Name: 19358DES_Model_J_Sections.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
Date:	Comments	Init.

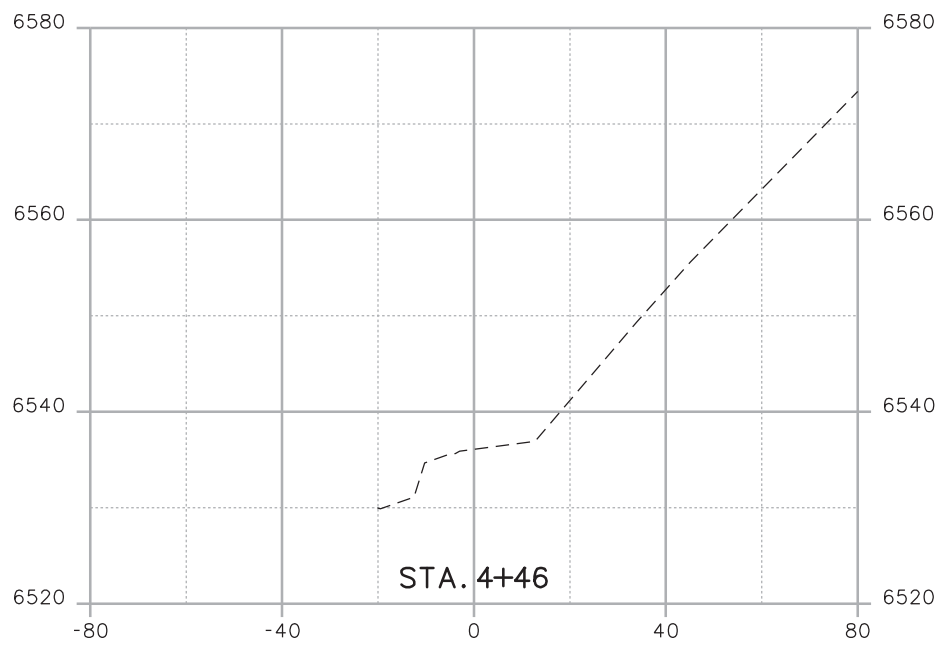
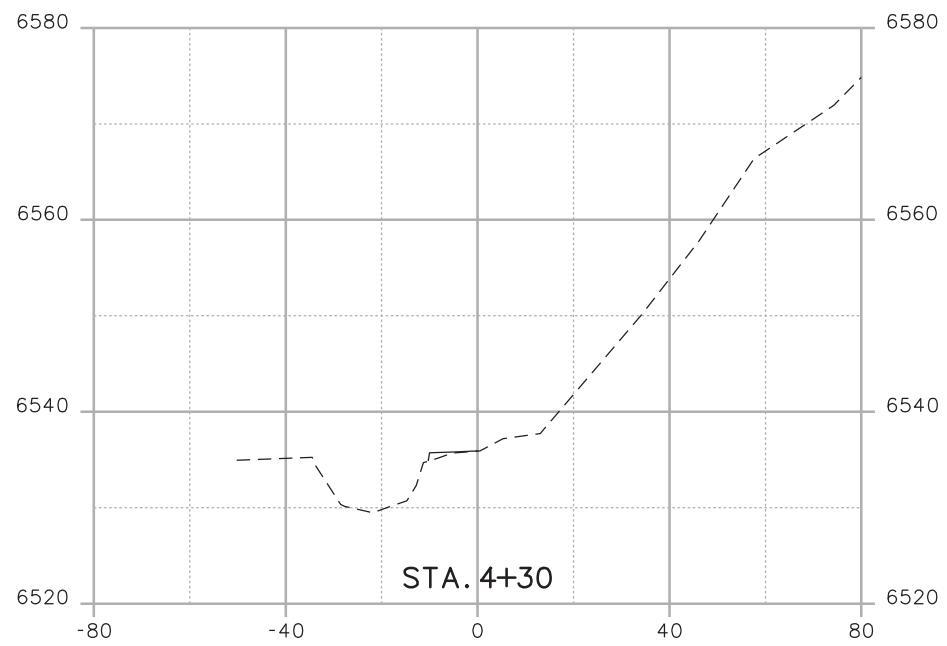
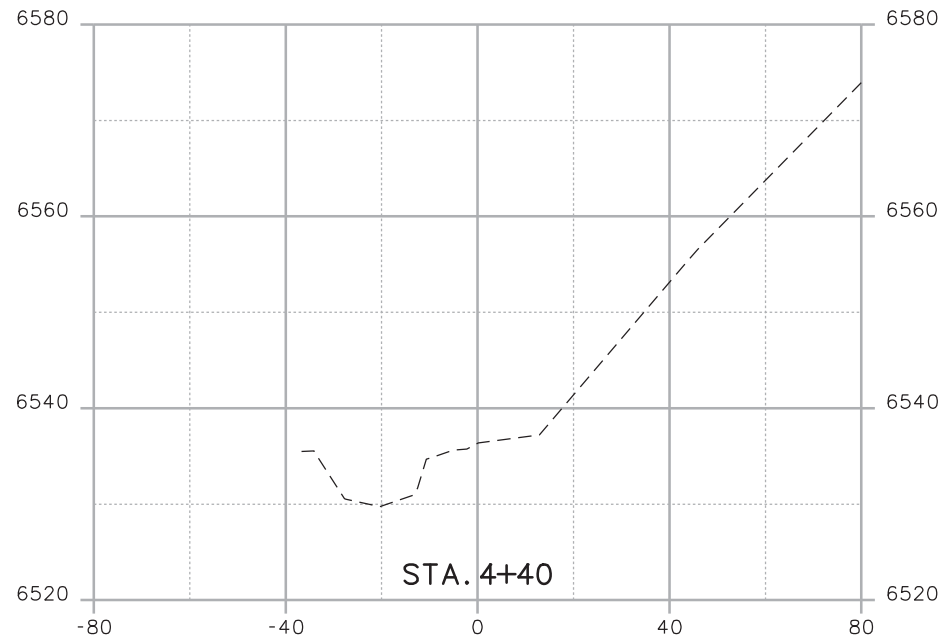
As Constructed
 No Revisions:
 Revised:
 Void:

**CROSS SECTIONS
 POUR POINT J - ACCESS ROAD**

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Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset: SECTIONS		Subset Sheets: J-39 OF 41	

Project No./Code
 Project Number
 Code
 Sheet Number **115**

Kelly 10:39:52 AM K:\112266-06\19358_Design\Drawings\Reference_Files\19358DES_Model_J_Sections.dgn



Print Date: 3/18/2013	
File Name: 19358DES_Model_J_Sections.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

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As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-41 OF 41

Project No./Code
Project Number
Code
Sheet Number 116



Region 2
Address: 905 S. Erie Ave.
Pueblo, CO 81001
Phone: (719) 546-5496 FAX: (719) 546-5414

Right of Way Plans Unit: 2152

Sheet Revisions		Sheet Revisions		Sheet Revisions	
mm/yy		mm/yy		mm/yy	

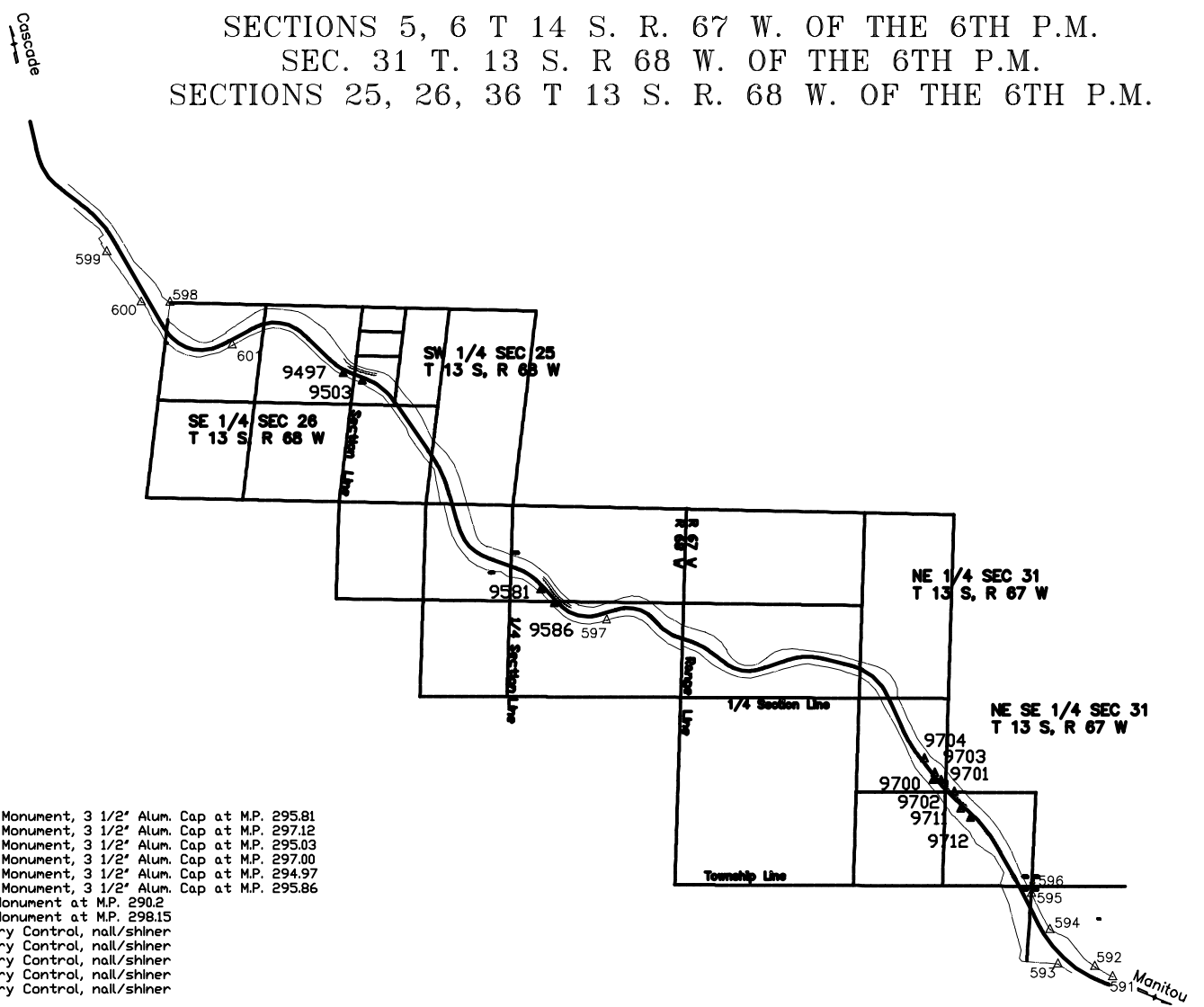
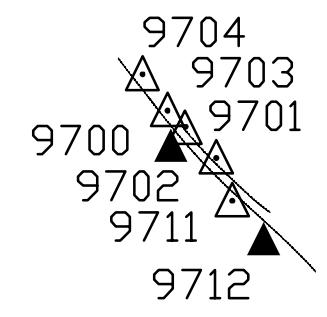
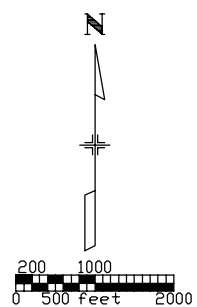
Control Diagram Sheet

Project Number: 14173				
Project Location: U.S. Hwy. 24				
Project Location: Manitou to Cascade				
Project Code	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14173	00-00-00	1 of 1	1	1

CONYERS ▲

U.S. HIGHWAY 24
IN EL PASO COUNTY

SECTIONS 5, 6 T 14 S. R. 67 W. OF THE 6TH P.M.
SEC. 31 T. 13 S. R 68 W. OF THE 6TH P.M.
SECTIONS 25, 26, 36 T 13 S. R. 68 W. OF THE 6TH P.M.



GENERAL NOTES

- 1.) This Control Survey Diagram is for the use of the Colorado Department of Transportation. This survey is NOT a complete Land or Right of Way survey, nor is the Control Diagram Sheet a Land or Right of Way Survey Plat.
 - 2.) The Control Survey represented by this Control Survey Diagram meets Colorado Department of Transportation minimum horizontal control tolerances for a Type B Survey (+/- 0.25' at a 95% level of certainty).
 - 3.) All coordinates listed are based on G.P.S. observations taken in October of 2002.
 - 4.) No guarantee as to the accuracy of the information contained hereon is implied or expressed unless this copy bears an original signature and seal of the Professional Land Surveyor certifying this Survey Control Diagram.
- NOTICE: According to Colorado Law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

BASIS OF BEARING

The basis of bearing for project reference is a line from CDOT Control Monument 9581 to CDOT Control Monument 9586 having a bearing of S 43° 16' 22" E at a distance of 273.63 feet.

PROJECT COORDINATES

NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
9581	381949.066	158856.89	6992.634	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.81
9712	378731.759	164906.292	6618.344	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 297.12
9503	384884.427	156340.484	7146.085	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.03
9700	379262.309	164380.867	6625.027	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 297.00
9497	384994.933	156072.267	7157.701	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 294.97
9586	381749.838	159044.454	6984.54	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.86
CONYERS	401915.887	141761.702	7924.853	NGS Control Monument at M.P. 290.2
QUILLEN	374992.798	168814.069	6438.849	NGS Control Monument at M.P. 298.15
9711	378855.569	164769.391	6622.303	CDOT Secondary Control, nail/shiner
9701	379261.637	164499.1	6620.89	CDOT Secondary Control, nail/shiner
9702	379096.042	164679.488	6606.506	CDOT Secondary Control, nail/shiner
9703	379362.75	164403.557	6626.13	CDOT Secondary Control, nail/shiner
9704	379565.604	164262.933	6635.457	CDOT Secondary Control, nail/shiner

[Project Coordinates (ft) + (northing (1,000,000) or easting (3,000,000) reduction)] x (combined scale factor (0.9996090023) = State Plane Coordinates (ft) (Central Zone - 0502 NAD83)].

SURVEY SYMBOL TABLE

- ▲ Control Monument / Project
- △ Secondary Monument / Project

GEODETIC COORDINATES

NAME	LATITUDE NAD-83	LONGITUDE NAD-83	ELLIPSOID HEIGHT (M)	CONVERGANCE	SCALE FACTOR	NORTHING CO SPC (FT)	EASTING CO SPC (FT)	ORTHO HEIGHT (FT)	NAME	DESCRIPTION
QUILLEN	38° 51' 36.05163" N	104° 54' 41.39062" W	1946.554	0° 22' 16.18481"	0.999944710	1374992.798	3168814.069	6438.849	QUILLEN	NGS CONTROL MONUMENT
9712	38° 52' 13.24263" N	104° 55' 30.47601" W	2001.412	0° 21' 45.22716"	0.999943972	1378731.759	3164906.292	6618.343	9712	CDOT TYPE 2 CONTROL MONUMENT
9700	38° 52' 18.51767" N	104° 55' 37.07471" W	2003.467	0° 21' 41.06543"	0.999943870	1379262.309	3164380.868	6625.026	9700	CDOT TYPE 2 CONTROL MONUMENT
9586	38° 52' 43.42352" N	104° 56' 44.33287" W	2113.228	0° 20' 58.64642"	0.999943397	1381749.838	3159044.455	6984.540	9586	CDOT TYPE 2 CONTROL MONUMENT
9581	38° 52' 45.40335" N	104° 56' 46.68849" W	2115.701	0° 20' 57.16075"	0.999943360	1381949.066	3158856.890	6992.634	9581	CDOT TYPE 2 CONTROL MONUMENT
9503	38° 53' 14.55730" N	104° 57' 18.27559" W	2162.559	0° 20' 37.23910"	0.999942826	1384884.427	3156340.484	7146.085	9503	CDOT TYPE 2 CONTROL MONUMENT
9497	38° 53' 15.66506" N	104° 57' 21.65813" W	2166.109	0° 20' 35.10576"	0.999942806	1384994.933	3156072.267	7157.702	9497	CDOT TYPE 2 CONTROL MONUMENT
CONYERS	38° 56' 03.66464" N	105° 00' 21.41541" W	2400.355	0° 18' 41.73472"	0.999940120	1401915.887	3141761.702	7924.900	CONYERS	NGS CONTROL MONUMENT

SURVEYOR CERTIFICATE

I hereby state that this survey was performed under my supervision and checking, for and on the behalf of the Colorado Department of Transportation, and to the best of my knowledge, the information presented hereon is true and correct.

DATE

Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design Reference	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY			
Title Sheet			
Project Number: NH 0242-056			
Project Location: U.S. 24 Fire Mitigation - Cascade			
EL PASO COUNTY, COLORADO			
Project Code:	Last Mod. Date	Subset	Sheet No. / Sheet Total
19358	03-06-13	1.00 of 1.00	1.00 / 13

DEPARTMENT OF TRANSPORTATION

STATE OF COLORADO

RIGHT OF WAY PLANS OF PROPOSED PROJECT NO. NH 0242-56 STATE HIGHWAY NO. 24 EL PASO COUNTY

SHEET NO.	INDEX OF SHEETS
1.00	(1) Title Sheet
1.01-1.02	(2) Exhibit EA-PE-1 & EA-PE-1A
2.01-2.02	(2) Exhibit EA-TE-2
3.01-3.02	(2) Exhibit EA-3
4.01-4.02	(2) Exhibit EA-4
5.01-5.02	(2) Exhibit EA-5
6.01-6.02	(2) Exhibit EA-PE-6 & EA-TE-6
(13) Total Sheets	

Scales of Original 11x17 Drawings
 Plan Sheets 1"=100'
 Ownership Map 1"=1000'

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CDNYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6" concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

- This Right-of-Way Plan is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- For title information, The Colorado Department of Transportation relied on Title Commitments prepared by H. C. Peck & Associates.
- This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDDT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

COLORADO DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY PROJECT

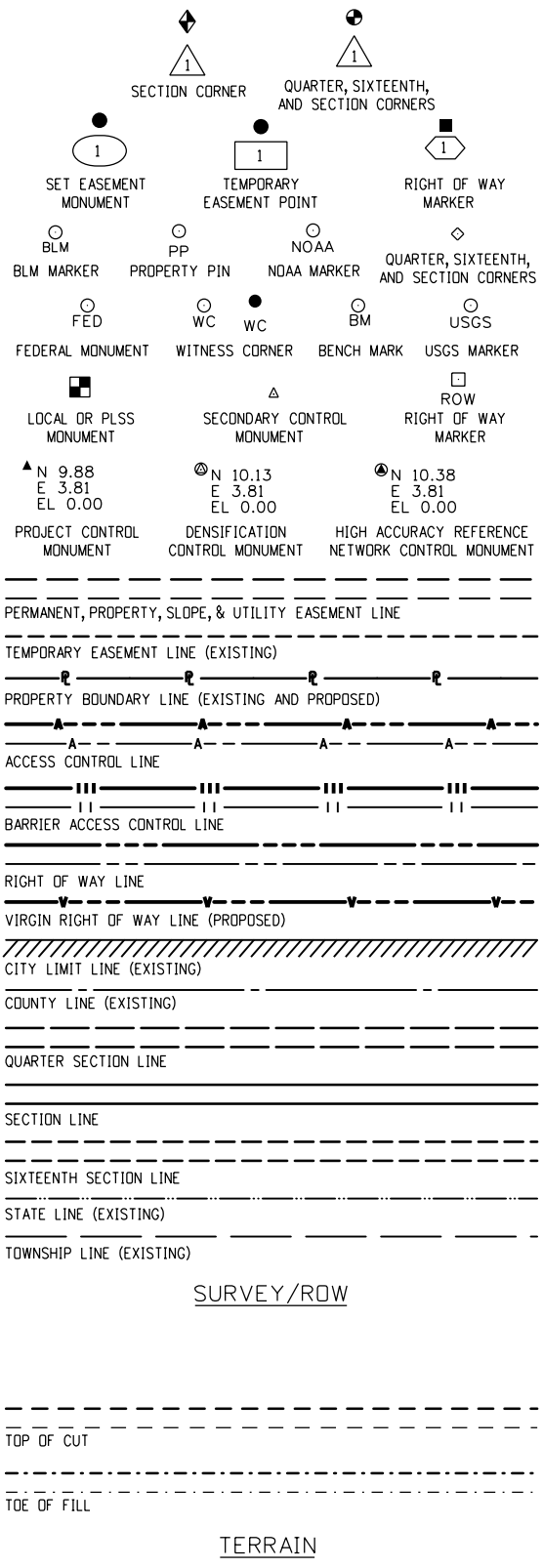
ROW PLANS AUTHORIZED: _____ DATE _____

_____ CDDT RIGHT OF WAY MANAGER

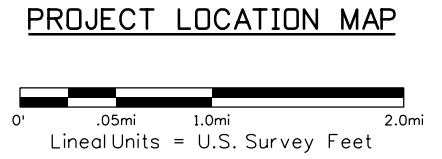
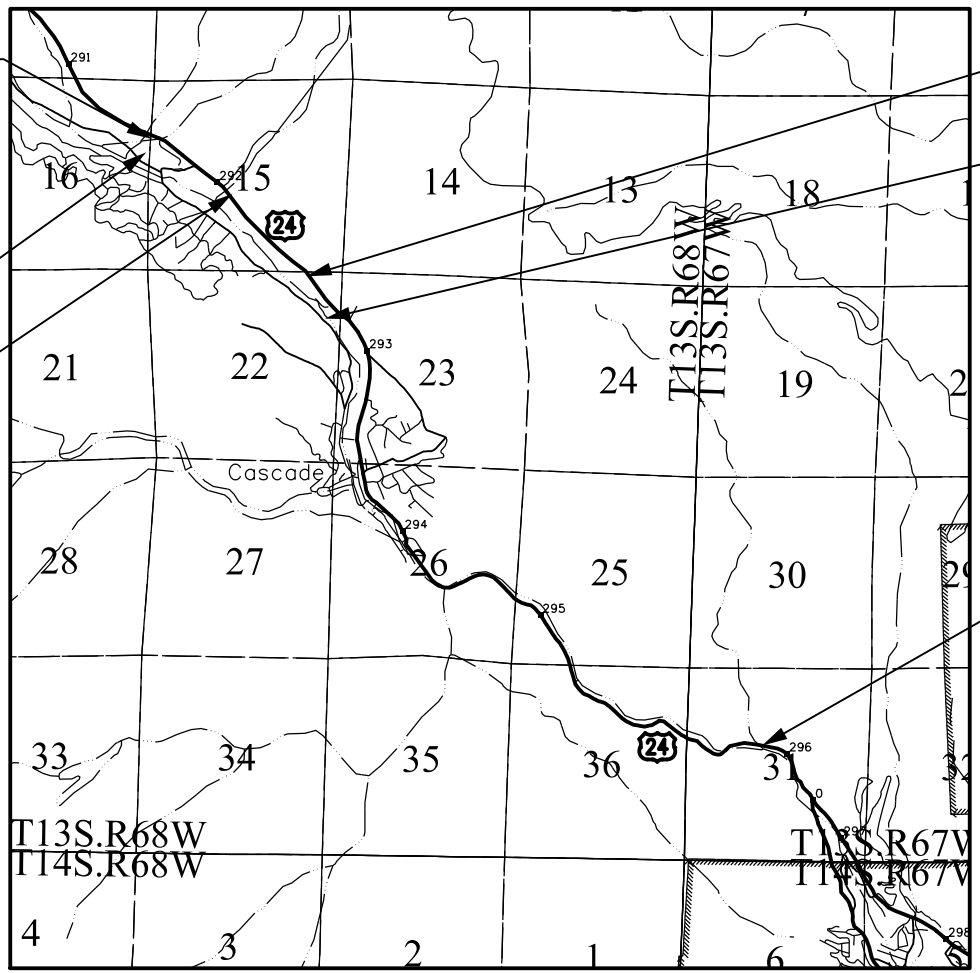
SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2006. Existing features are shown as screened weight (gray scale), except as noted with the word (existing). Proposed or new features are shown as full weight without screening, except as noted with the word (proposed).



FILING CERTIFICATION: _____ DAY OF _____, 20____, AT _____ M.,
 DEPOSITED THIS _____ OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
 SURVEYS AT PAGE _____, RECEPTION NUMBER _____
 SIGNED _____ DEPT. _____
 3/6/2013 sparker 12:17:49 PM P:\2012\0121426-US24 Waido Canyon\19358\ROW_Survey\Drawings\19358ROW_TitleSht.dgn

Sheet Revisions		
Date	Description	Initials

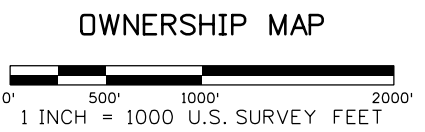
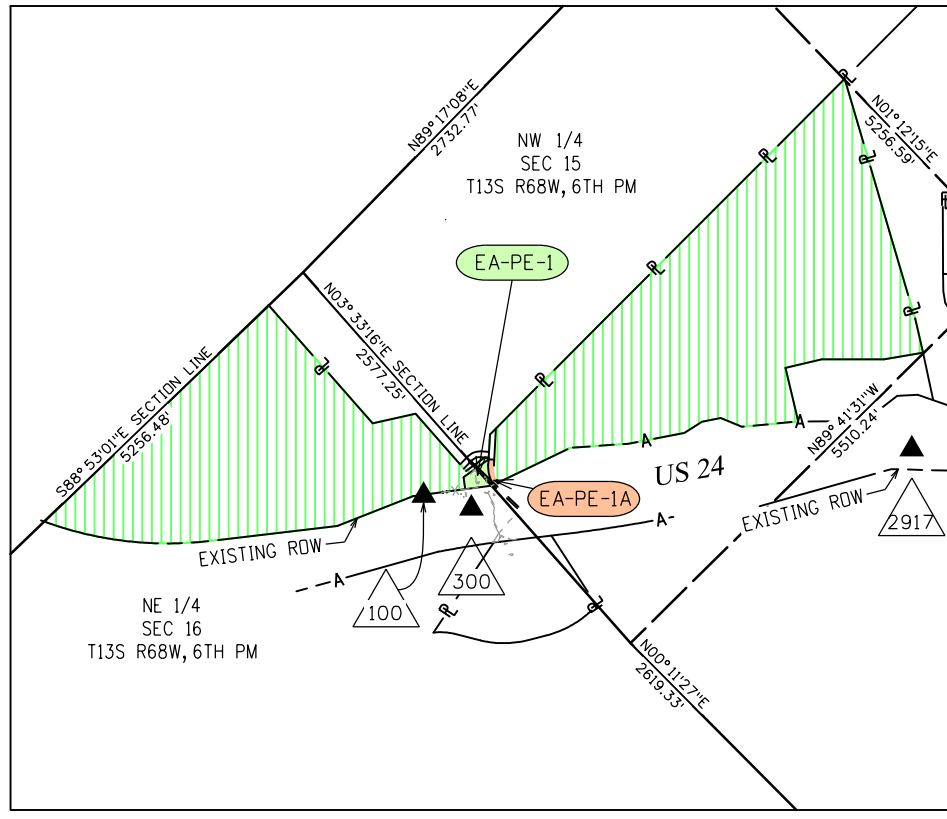
Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-1 & EA-PE-1A				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	1.01 of 1.02	1.01	13

**SECTIONS 15 & 16
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO**



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
100	397916.25	145713.32	7654.78	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
300	397692.95	145841.94	7650.50	MAG. NAIL IN ASPHALT SHOULDER OF HWY 24
2917	147683.17	396289.12	7477.22	C.D.O.H. C.M. M.P. 291.7
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT ControlDiagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments prepared by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT ControlDiagram Sheet, Project No. 141173, dated Feb 19, 2003.



R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-PE-1	TWN ROCKS INVESTMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY		SECTIONS 15 & 16	13,552 SQ FT (0.311 AC)				337,324 SQ FT (77.439 AC)		05490A2013	for the purpose of construction and maintenance of drainage structures
EA-PE-1A	6225 WELLINGTON GULCH CASCADE, CO 80809		SECTION 15	3,910 SQFT (0.090 AC)				346,966 SQ FT (77.660 AC)			for ingress and egress

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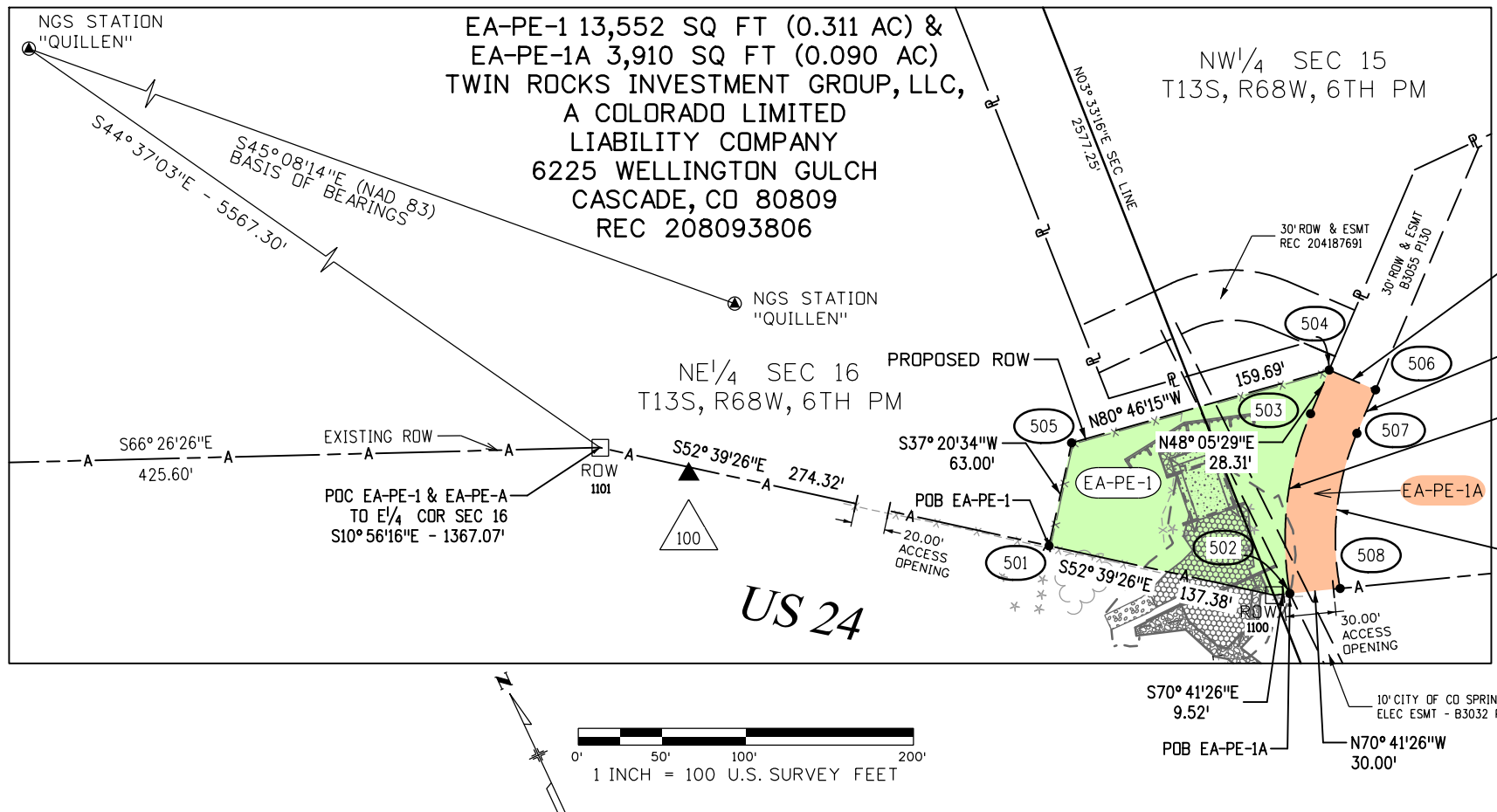
Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 ENGINEERS ARCHITECTS SURVEYORS
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-1 & AE-PE-1A				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	1.02 of 1.02	1.02	13



Notes:
 1. The following easement covers existing facilities without a defined width or size and cannot be depicted:
 The Colorado Telephone Co. right-of-way, in Book 852 at Page 264

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
1100	397703.28	145999.32	1.5" AL CAP - LS 12043
1101	397952.90	145672.15	1.5" AL CAP - LS 12043

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
501	397786.62	145890.09	CDOT TYPE VI MONUMENT
502	397700.14	146008.30	CDOT TYPE VI MONUMENT
503	397792.18	146064.87	CDOT TYPE VI MONUMENT
504	397811.09	146085.93	CDOT TYPE VI MONUMENT
505	397836.70	145928.31	CDOT TYPE VI MONUMENT
506	397788.77	146105.97	CDOT TYPE VI MONUMENT
507	397769.86	146084.90	CDOT TYPE VI MONUMENT
508	397690.18	146036.70	CDOT TYPE VI MONUMENT

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drill hole in sandstone near mile post 298.15. Said line bears S45° 08'14"E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

SURVEYOR STATEMENT (R.O.W. MONUMENTS)
 I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.
 PLS No. 37948



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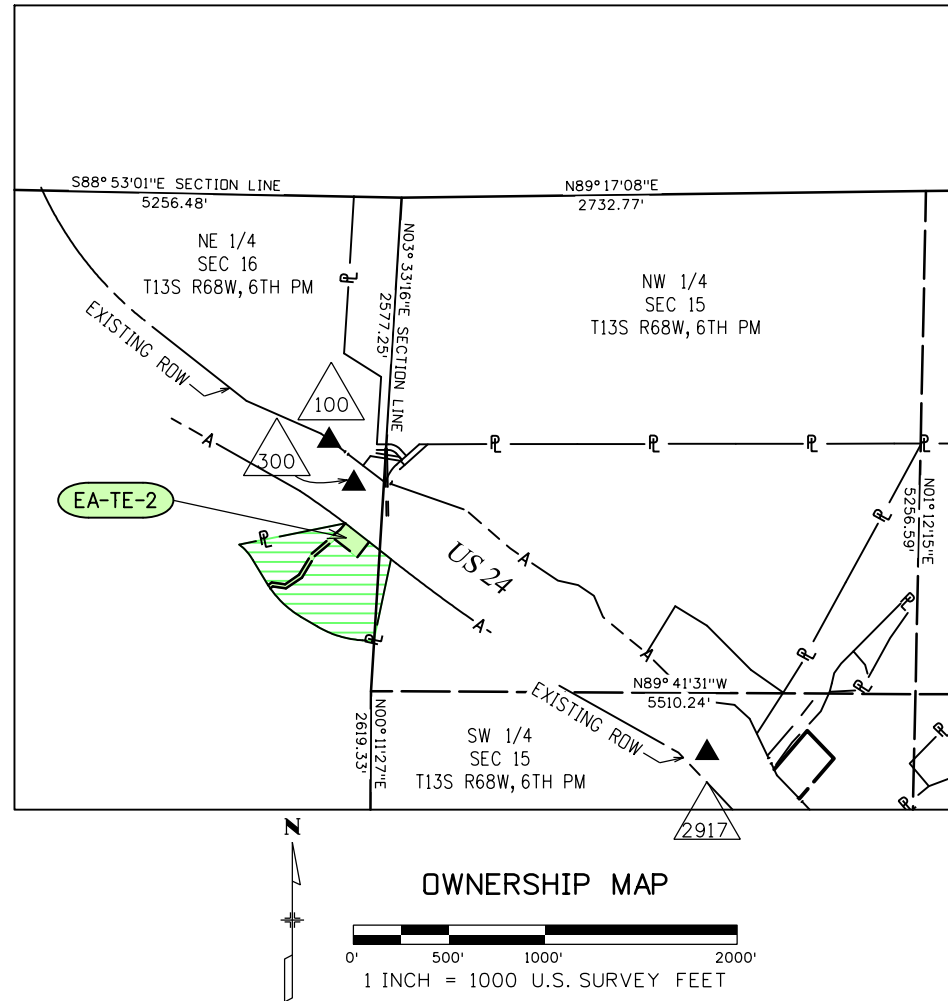
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-TE-2				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	2.01 of 2.02	2.01	13

SECTION 16
T13S, R68W, 6TH PM
EL PASO COUNTY, CO



General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For owner information Farnsworth Group, Inc. relied on documents provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
100	397916.25	145713.32	7654.78	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
300	397692.95	145841.94	7650.50	MAG. NAIL IN ASPHALT SHOULDER OF HWY 24
2917	147683.17	396289.12	7477.22	C.D.O.H. C.M. M.P. 291.7
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/OR Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
AE-TE-2	SCHOOL DISTRICT NO 14 405 EL MONTE PL MANITOU SPRINGS, CO 80829-2502	9230 CHIPITA PARK RD	SECTION 16	25,163 SQ FT (05.578 AC)							FOR CONSTRUCTION OF OUTLET PROTECTION FOR EXISTING BOX CULVERT



P.O. Box 536
905 Erie Avenue
Pueblo, CO 81002
Phone: 719-546-5438 FAX: 719-546-5702

Region 2

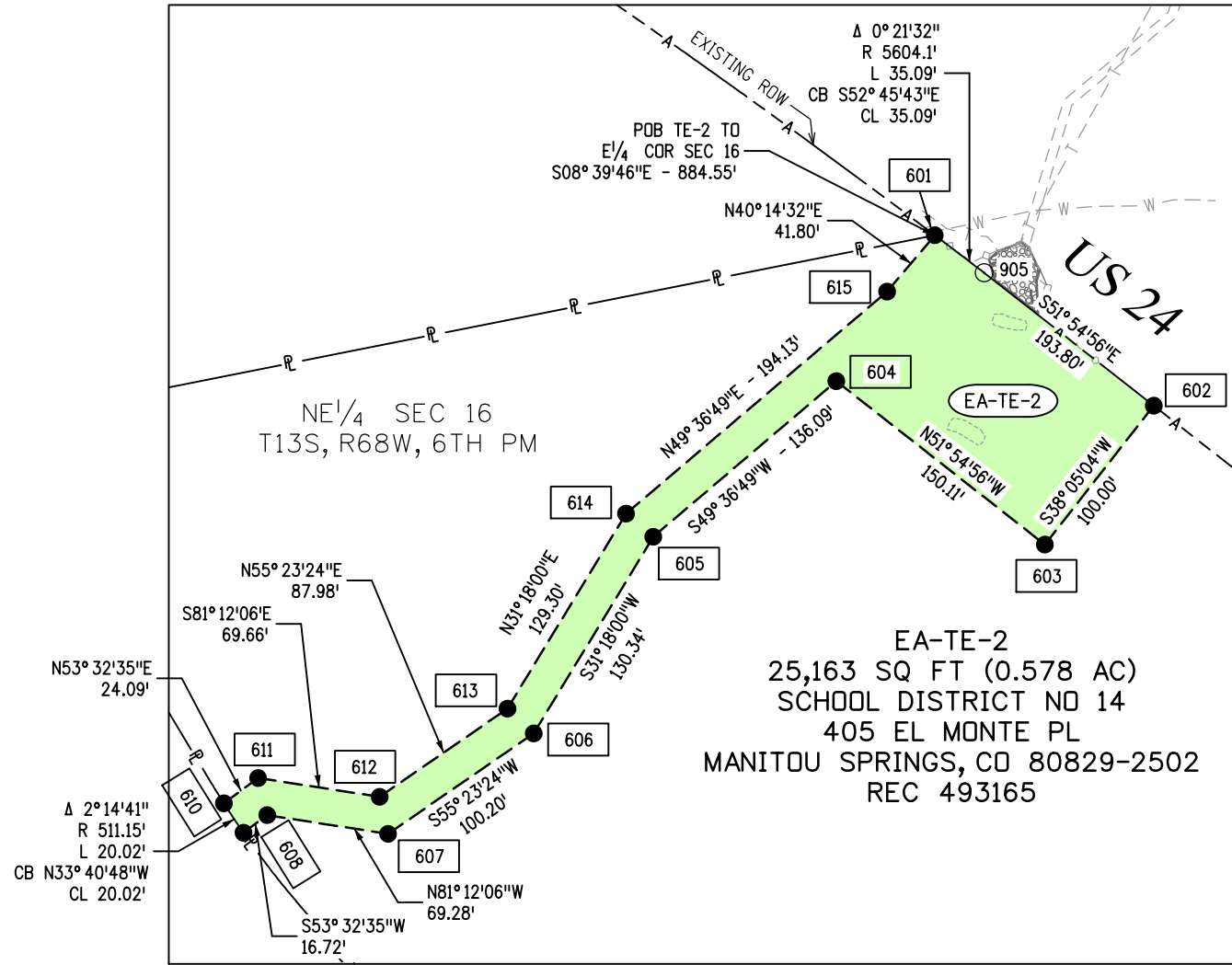
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Date	Description	Initials
03-06-13	Revised Design Reference	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
4755 FORGE ROAD, SUITE 150
COLORADO SPRINGS, COLORADO 80907
(719) 590-9194 / (719) 590-9111 Fax
www.fw.com

RIGHT OF WAY				
EXHIBIT EA-TE-2				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	2.02 of 2.02	2.02	13



●
XXX

TABULATION OF TEMPORARY EASEMENTS POINTS TO BE STAKED			
Point No.	Northing(ft)	Easting(ft)	Description
601	397485.24	145798.17	
602	397388.69	145922.20	
603	397309.98	145860.52	
604	397402.57	145742.37	
605	397314.40	145638.71	
606	397203.03	145571.00	
607	397146.11	145488.53	
608	397156.71	145420.06	
609	397146.77	145406.61	
610	397163.43	145395.50	
611	397177.75	145414.88	
612	397167.09	145483.72	
613	397217.06	145556.13	
614	397327.54	145623.30	
615	397453.33	145771.17	

○
XXX

TABULATION OF Calculated Points			
Point No.	Northing(ft)	Easting(ft)	Description
905	397464.00	145826.11	

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drill hole in sandstone near mile post 298.15. Said line bears S45° 08'14" E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



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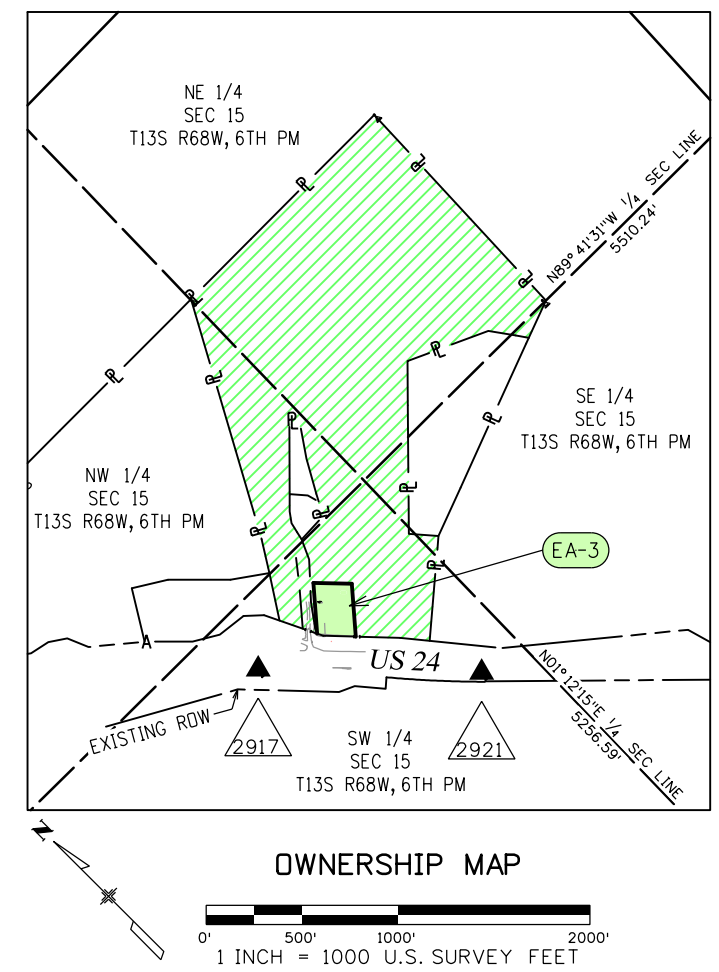
Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-3				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	02-22-13	3.01 of 3.02	3.01	13

SECTION 15
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO



General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments prepared by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2917	396289.12	147683.17	7477.22	C.D.O.H. C.M. M.P. 291.7
2921	395454.64	148495.48	7468.19	C.D.O.H. C.M. M.P. 292.1
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)				Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left			
EA-3	KAHLM, LLC, A COLORADO LIMITED LIABILITY COMPANY 5975 WELLINGTON RD CASCADE, CO 80809-1025		SECTION 15	54,839 SQ FT (1.259 AC)				2,525,483 SQ FT (57.977 AC)		05489A2013

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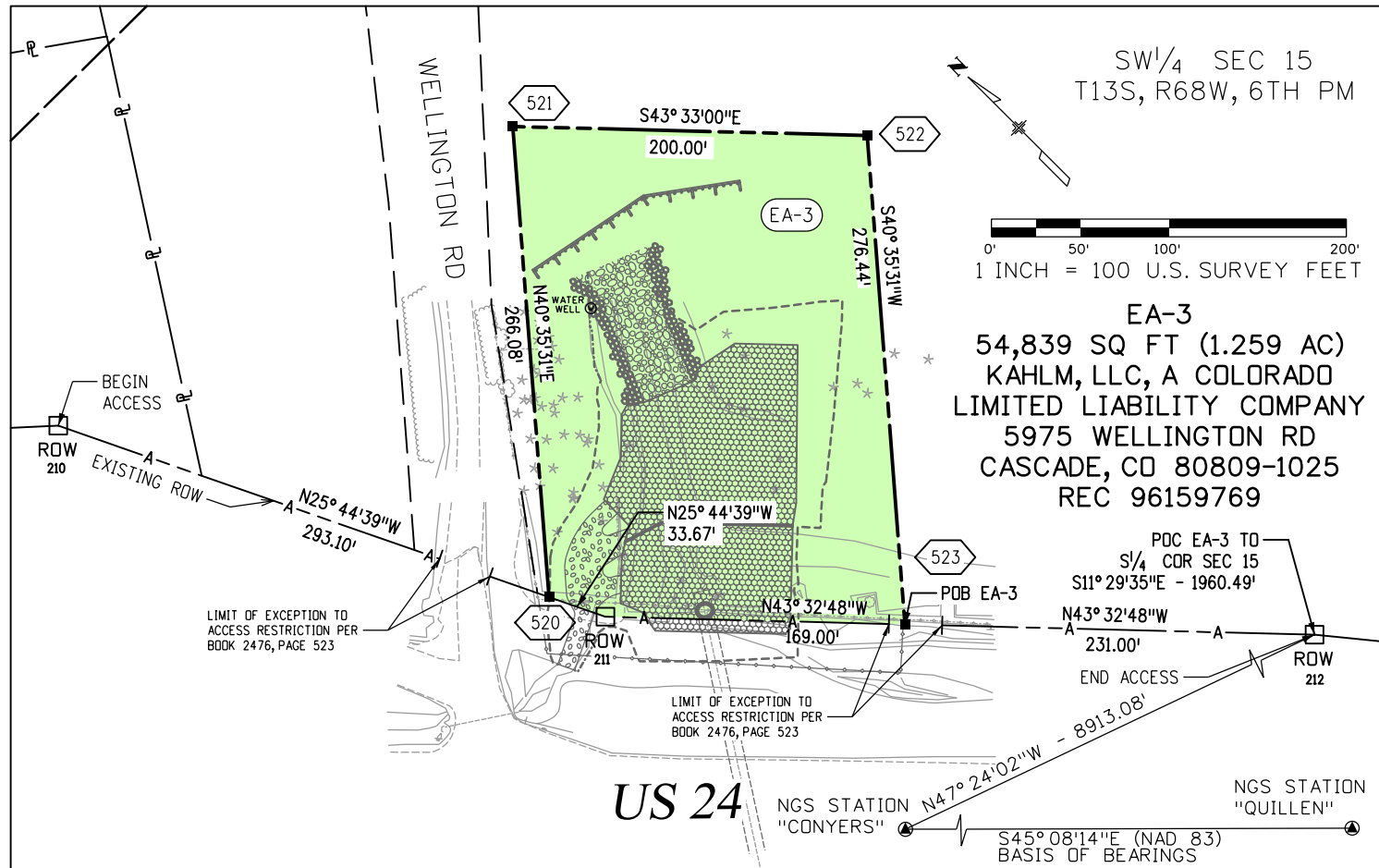
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03-06-13	Revised Design References	SDP
03-06-13	Added Water Well Location	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 COLORADO SPRINGS, COLORADO 80907
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RIGHT OF WAY				
EXHIBIT EA-3				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	3.02 of 3.02	3.02	13



Notes:

1. The exact location and type of right-of-way of Wellington Road is unknown at this time. Vesting deeds reference Book 601, Page 457 which is illegible in many areas and Book 123, Page 65 which does not exist according to the Title Commitment. The approximate right-of-way line based on fences and utilities is shown.
2. Easement for waterline in Book 3534, Page 225 adjacent to Wellington Road cannot be depicted as no width has been designated.
3. Easement for Plateau Natural Gas Company in Book 1994, Page 289 along the northerly side of Highway 24 cannot be depicted as no width has been designated.
4. Easement for Colorado Telephone Co. in Book 358, Page 577 cannot be depicted as no specific location has been noted.

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173.
 See www.ngs.noaa.gov for data sheets containing detailed location information.

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
210	147905.17	396467.07	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP
211	148047.07	396172.82	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP
212	148322.66	395882.87	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP

TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
520	396203.15	148032.44	CDOT TYPE I MONUMENT
521	396405.20	148205.57	CDOT TYPE I MONUMENT
522	396260.25	148343.37	CDOT TYPE I MONUMENT
523	396050.32	148163.50	CDOT TYPE I MONUMENT

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948

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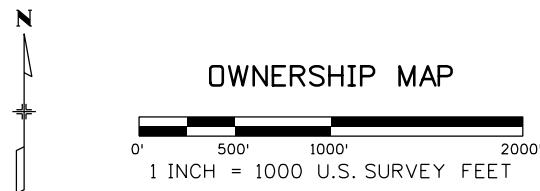
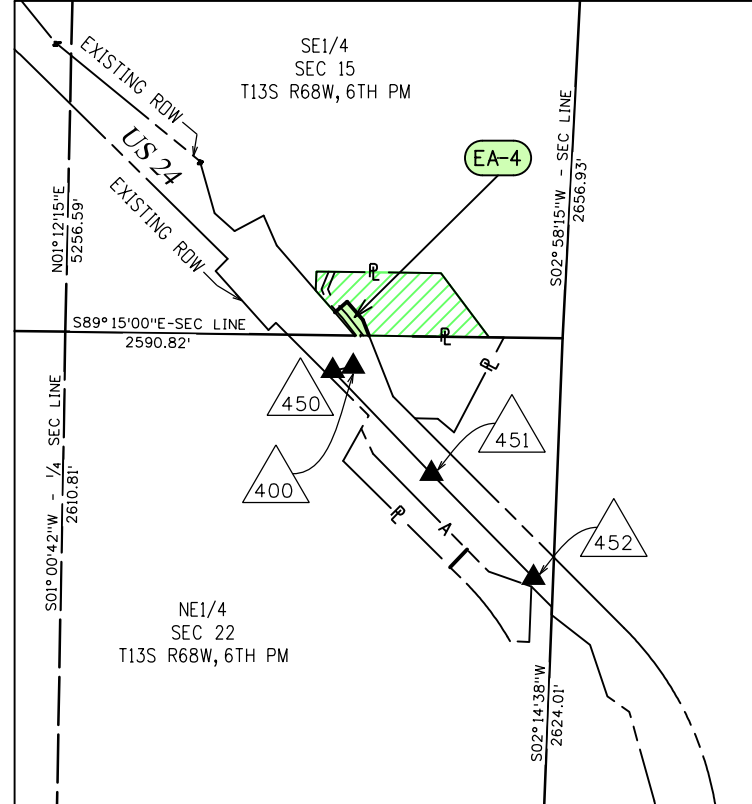
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Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
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RIGHT OF WAY EXHIBIT EA-4				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code: 19358	Last Mod. Date: 02-22-13	Subset: 4.01 of 4.02	Sheet No.: 4.01	Sheet Total: 13

SECTION 15
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO



General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDDT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDDT ControlDiagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.
 Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDDT ControlDiagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
400	393870.32	150213.02	7519.56	MAG NAIL
450	393758.48	150106.52	7523.40	MAG NAIL IN ASPHALT SHOULDER OF HWY 24
451	393221.94	150621.04	7482.85	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
452	392679.37	151152.33	7479.74	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24											
Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-4	ANTONI POGERZELSKI & LIDIA POGERZELSKI 8989 W BUSINESS 83 HARLINGEN, TX 78552-2283		SE1/4 SEC 15	15,086 SQ FT (0.346 AC)				218,553 SQ FT (5.017 AC)		05491A2013	

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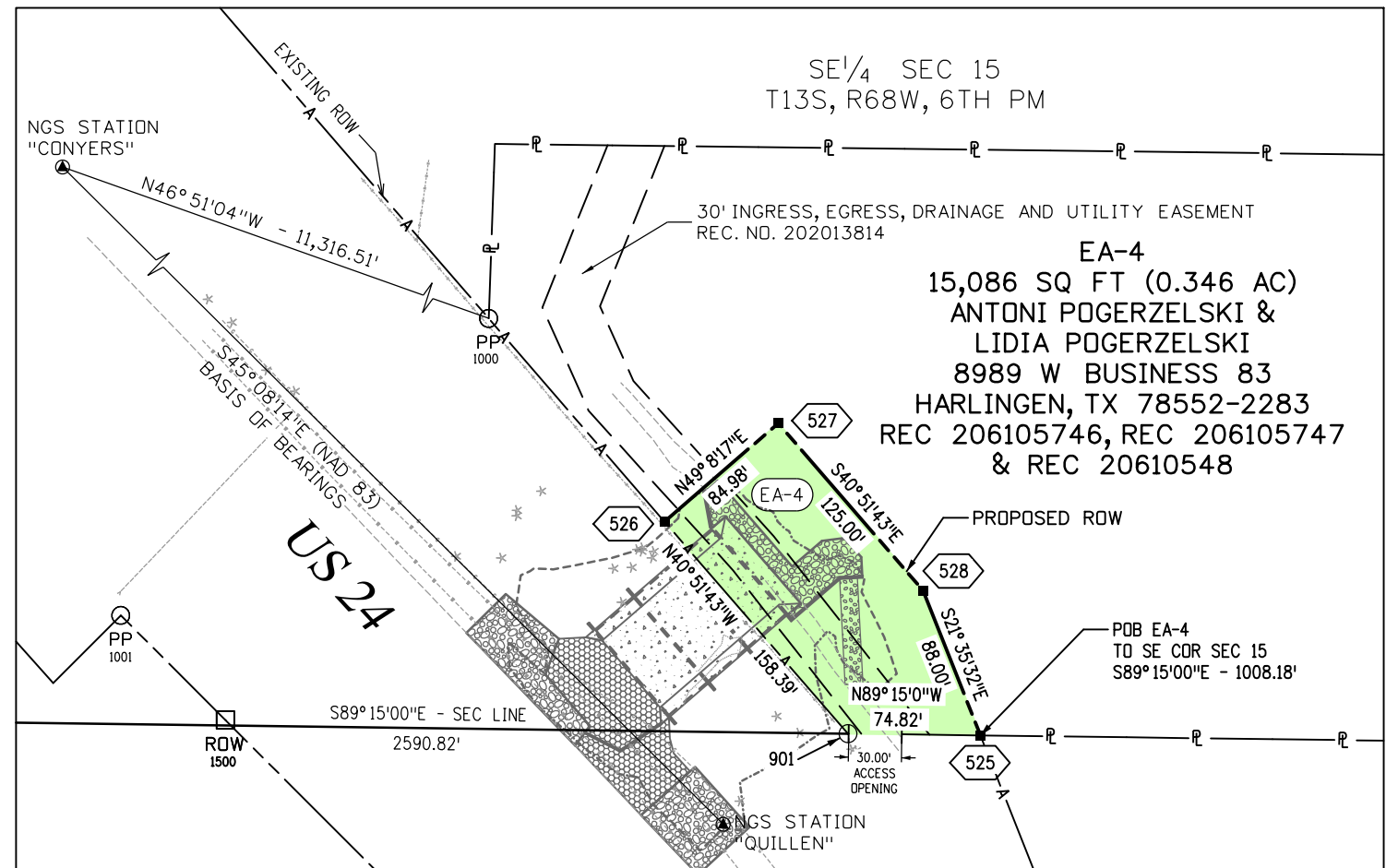
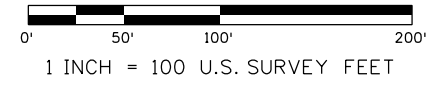
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Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-4				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	4.02 of 4.02	4.02	13



Notes:

- The following easements are either generally described or cover existing facilities without a defined width or size and cannot be depicted:
 Plateau Natural Gas Company, in Book 1994 at Page 289
 The Mountain States Telephone and Telegraph Co., in Book 852 at Page 264
 Ute Pass Improvement Co., in Book 358 at Page 577

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.



TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
525	393941.00	150295.77	CDOT TYPE I MONUMENT
526	394061.76	150117.34	CDOT TYPE I MONUMENT
527	394117.36	150181.60	CDOT TYPE I MONUMENT
528	394022.82	150263.38	CDOT TYPE I MONUMENT

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
1000	394176.58	150018.01	1.5" AL CAP - LS 12043
1001	394008.78	149810.29	1.5" AL CAP - LS 15672
1500	393949.65	149869.42	3.25" BRASS CAP IN CONC

TABULATION OF Calculated Points			
Point No.	Northing(ft)	Easting(ft)	Description
901	393941.98	150220.96	

SURVEYOR STATEMENT (R.O.W. MONUMENTS)
 I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.
 PLS No. 37948



Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 ENGINEERS ARCHITECTS SURVEYORS
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-5				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	5.01 of 5.02	5.01	13

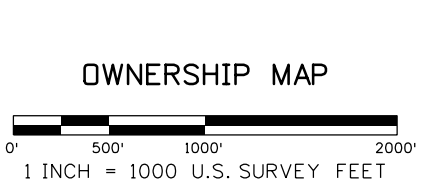
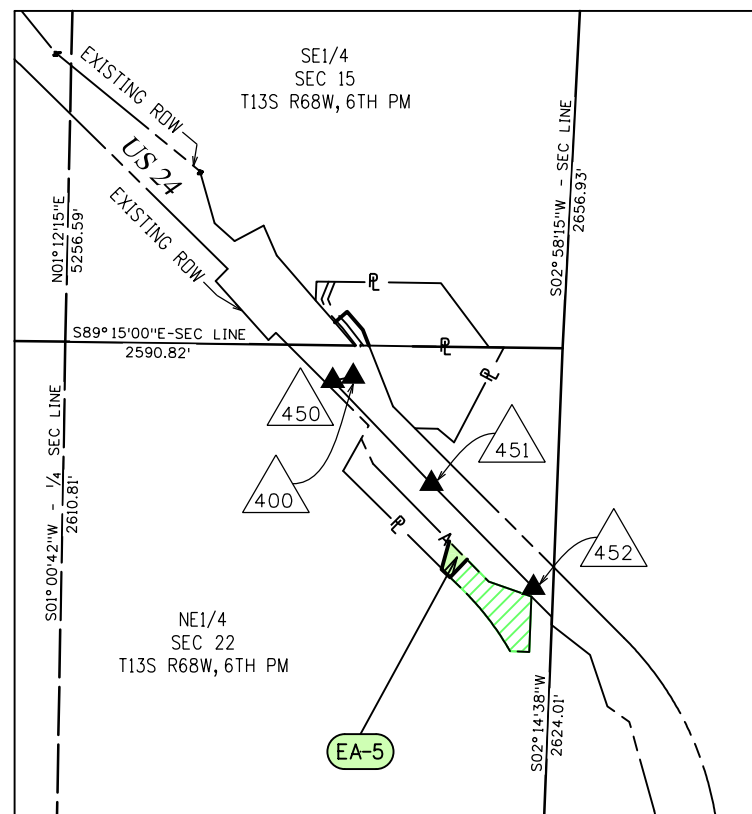
SECTION 22
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO

General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDDT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDDT ControlDiagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.
 Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDDT ControlDiagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
400	393870.32	150213.02	7519.56	MAG NAIL
450	393758.48	150106.52	7523.40	MAG NAIL IN ASPHALT SHOULDER OF HWY 24
451	393221.94	150621.04	7482.85	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
452	392679.37	151152.33	7479.74	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/OR Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-5	PATRICIA G ROBBINS PO BOX 6 MANITOU SPRINGS, CO 80829-0006		NE1/4 SEC 22	12,462 SQ FT (0.286 AC)			92,953 SQ FT (2.134 AC)			05493A2013	

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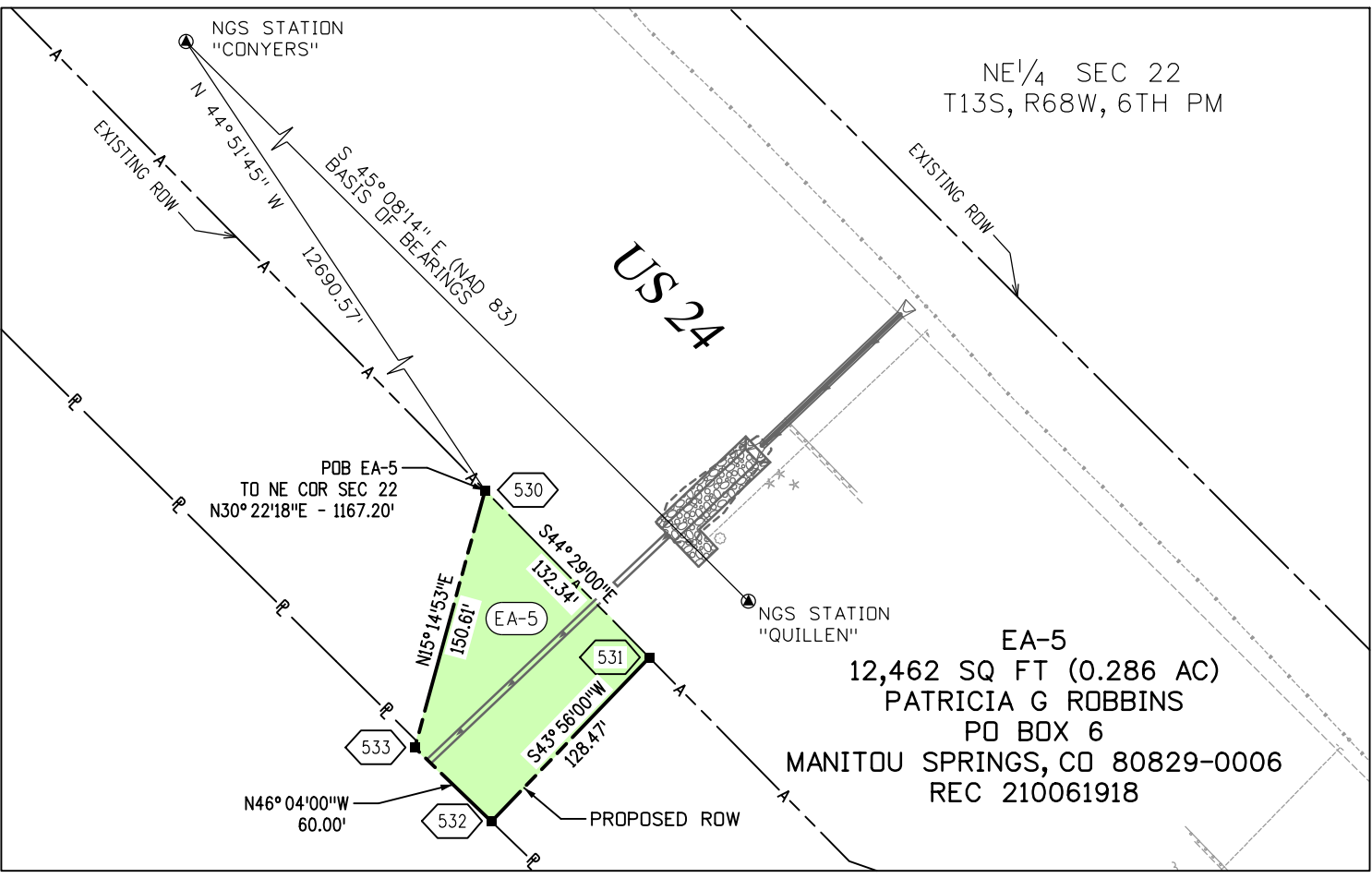
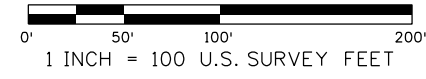
Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-5				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	5.02 of 5.02	5.02	13



Notes:

- The following easement covers existing facilities without a defined width or size and cannot be depicted:

The Mountain States Telephone and Telegraph Co., in Book 852 at Page 264

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173.
 See www.ngs.noaa.gov for data sheets containing detailed location information.



TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
530	392920.78	150713.72	CDOT TYPE I MONUMENT
531	392826.36	150806.45	CDOT TYPE I MONUMENT
532	392733.84	150717.32	CDOT TYPE I MONUMENT
533	392775.47	150674.11	CDOT TYPE I MONUMENT

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



Sheet Revisions		
Date	Description	Initials

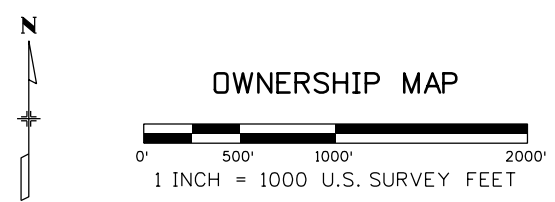
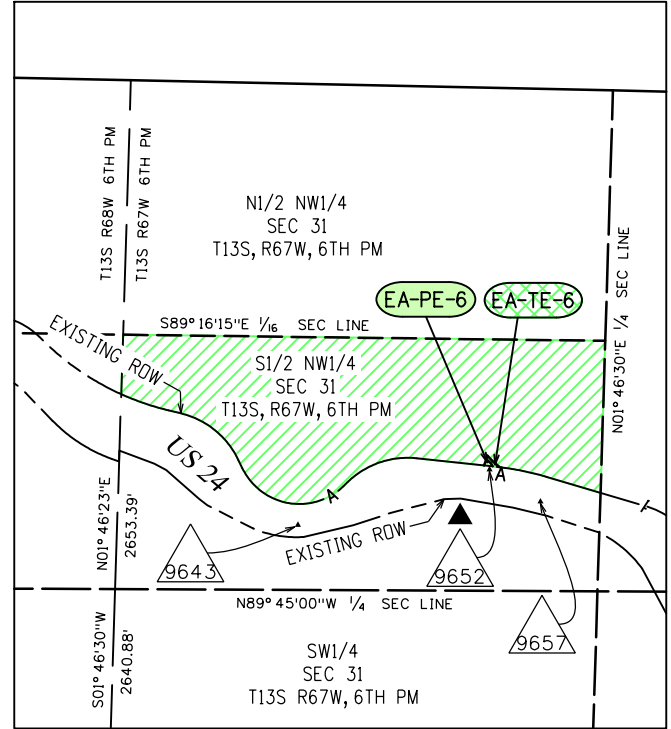
Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 4756 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-6 & EA-TE-6				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	6.01 of 6.02	6.01	13

SECTION 31
T13S, R67W, 6TH PM
EL PASO COUNTY, CO



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
9643	380755.29	161775.03	6825.52	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.43
9652	381044.37	162773.78	6758.02	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.52
9657	380876.75	163038.92	6738.45	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.57
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F017-1(2) Right-of-Way calculations and control monuments, provided by CDOT. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-67-W, 6TH PM	Area In Square Feet (Acres)				Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left			
EA-PE-6	AMERICAN CHRISTIAN COLLEGE, INC., AN OKLAHOMA CORPORATION, DBA SUMMIT YOUTH MINISTRIES, INC.		S1/2 NW1/4 SEC 31	844 SQ FT (0.019 AC)				1,567,332 SQ FT (35.981 AC)	05526A2013	
EA-TE-6	PO BOX 207 MANITOU SPRINGS, CO 80829-0207		SAME	1179 SQ FT (0.027 AC)						For construction and maintenance of headwalls and wingwalls for existing culvert

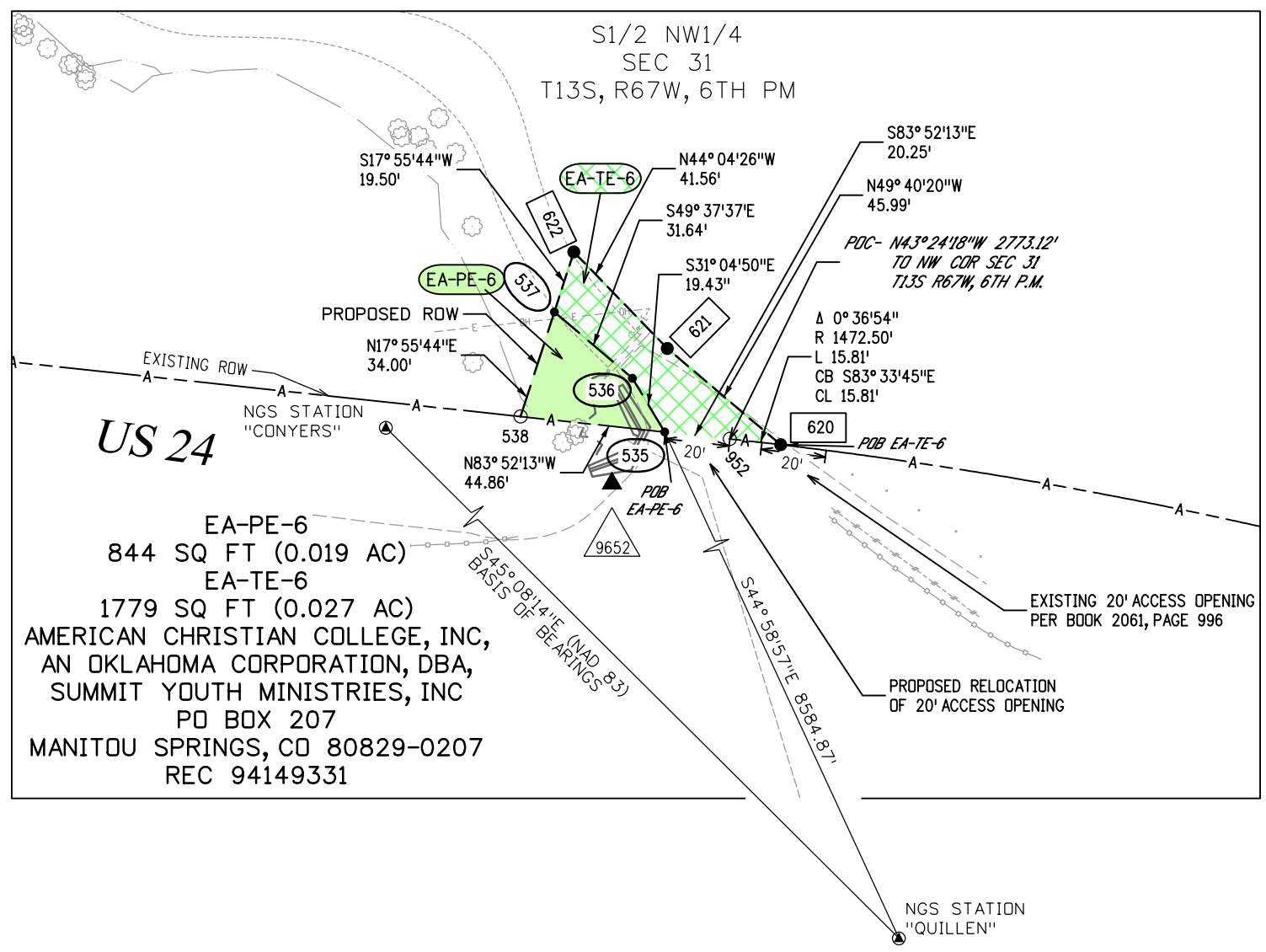
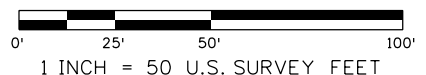
Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth
 GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-6 & EA-TE-6				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	03-06-13	6.02 of 6.02	6.02	13



Notes:

- Right-of-way for Waldo Canyon Creek is an exception to title; however, exact location and size of this right-of-way is unknown at this time, and can not be depicted.

TABULATION OF TEMPORARY EASEMENT POINTS TO BE STAKED				
Point No.	Northing(ft)	Easting(ft)	Description	
620	381056.34	162825.94		
621	381086.1	162790.88		
622	381115.96	162761.97		

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE SET				
Point No.	Northing(ft)	Easting(ft)	Description	
535	381060.27	162790.10	CDOT TYPE VI MONUMENT	
536	381076.92	162780.07	CDOT TYPE VI MONUMENT	
537	381097.41	162755.96	CDOT TYPE VI MONUMENT	
538	381065.06	162745.50	CDOT TYPE VI MONUMENT	

TABULATION OF CALCULATED POINTS				
Point No.	Northing(ft)	Easting(ft)	Description	
952	381058.11	162810.23		

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45° 08' 14" E per CDOT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

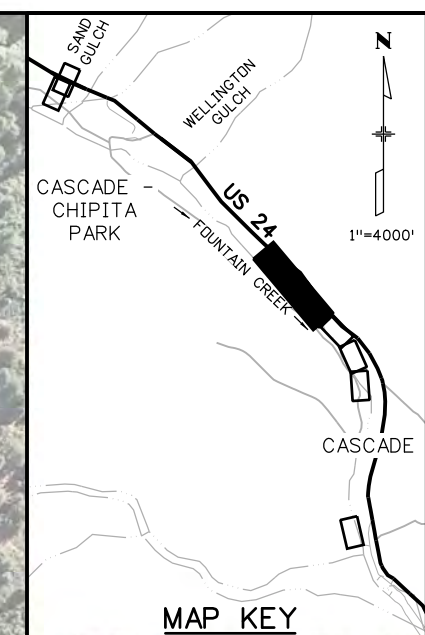
SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948

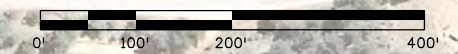
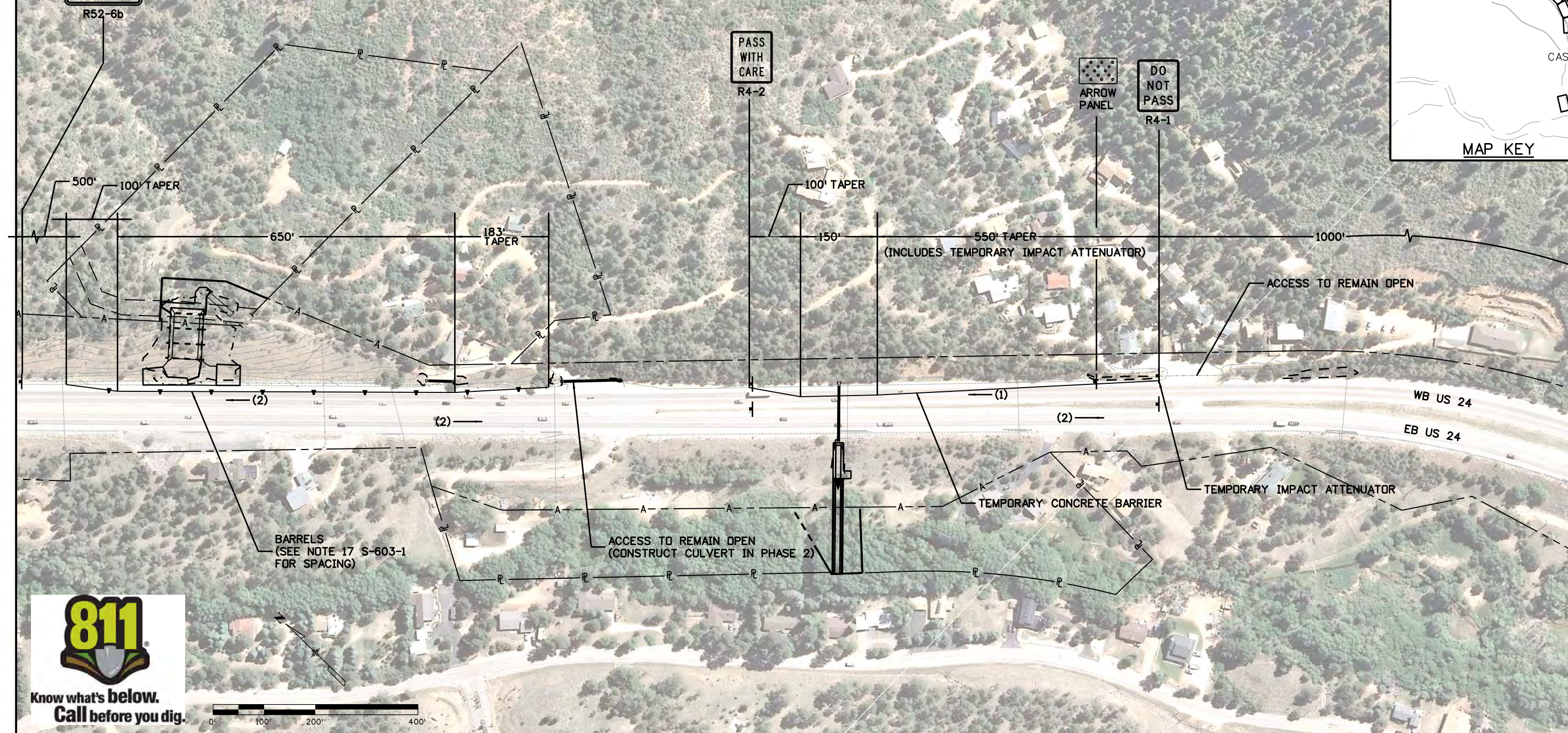


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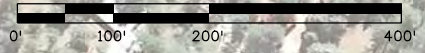
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DOUBLE
IN WORK
ZONE

LEGEND
 — (#) DIRECTION OF TRAFFIC (# LANES)
 — CONSTRUCTION SIGNS



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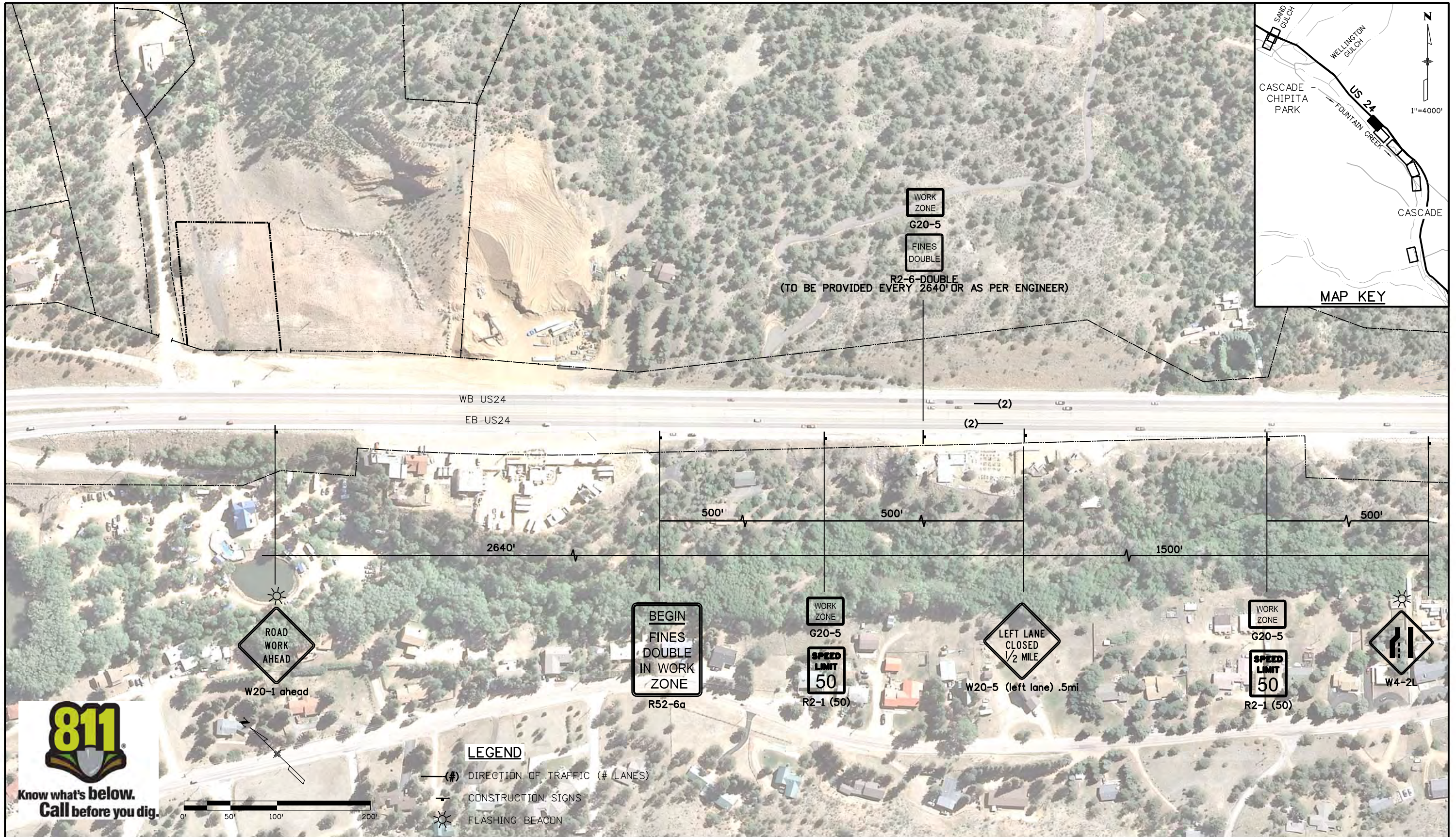


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- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- FLASHING BEACON

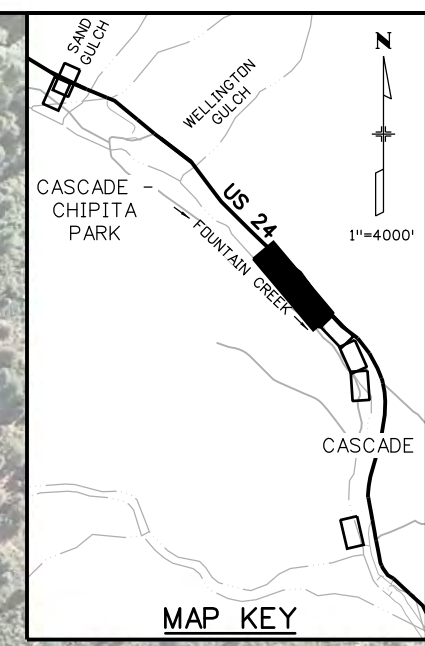
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Unit Information Unit Leader Initials					Region 2 LM		Void:		Sheet Number 133		
 811 Know what's below. Call before you dig.				 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				Designer: JSC Structure Numbers Detailer: - Sheet Subset: TRAFFIC Subset Sheets: CTC-03 of 10			

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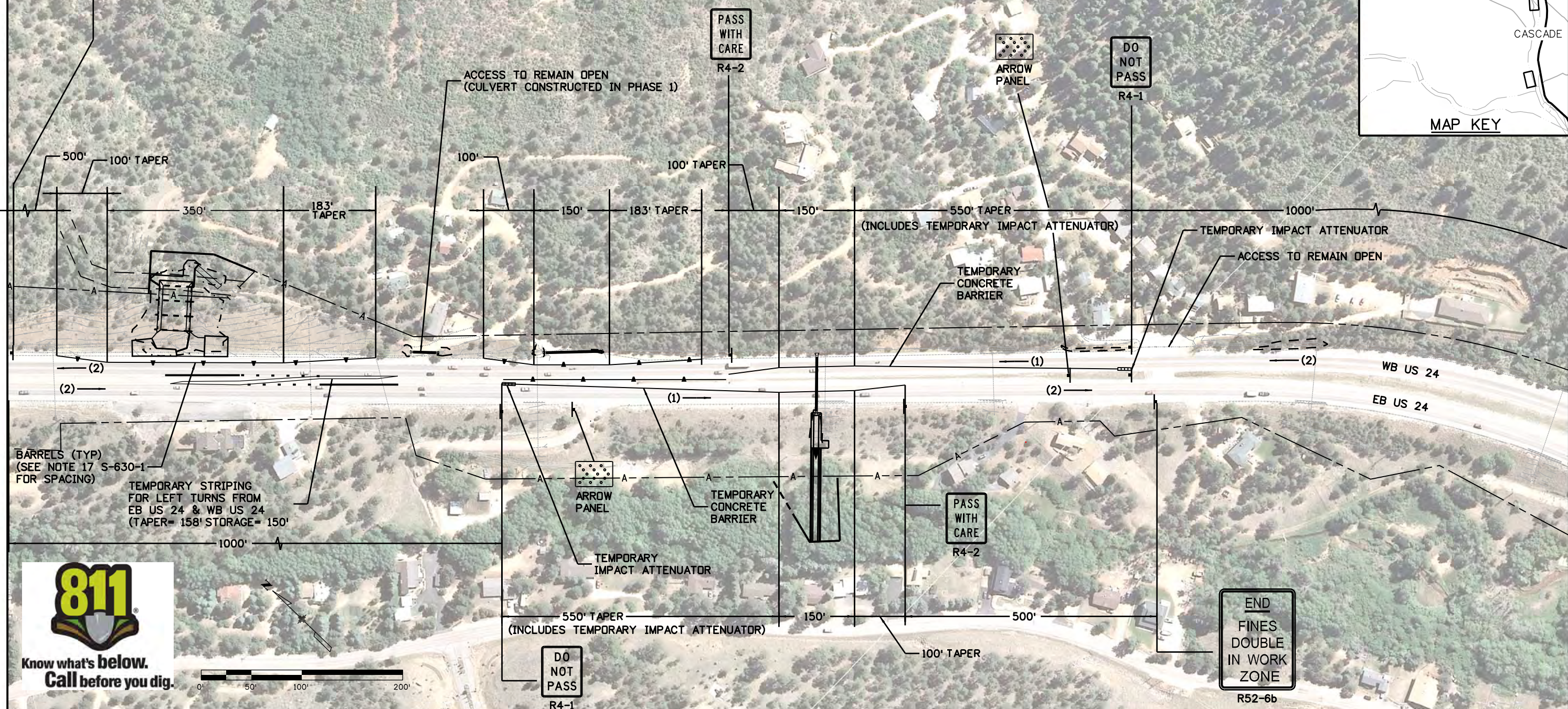
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(#) DIRECTION OF TRAFFIC (# LANES)

CONSTRUCTION SIGNS

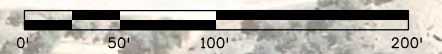
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IN WORK
ZONE**

R52-6b



BARRELS (TYP)
(SEE NOTE 17 S-630-1
FOR SPACING)

TEMPORARY STRIPING
FOR LEFT TURNS FROM
EB US 24 & WB US 24
(TAPER= 158' STORAGE= 150')

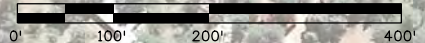
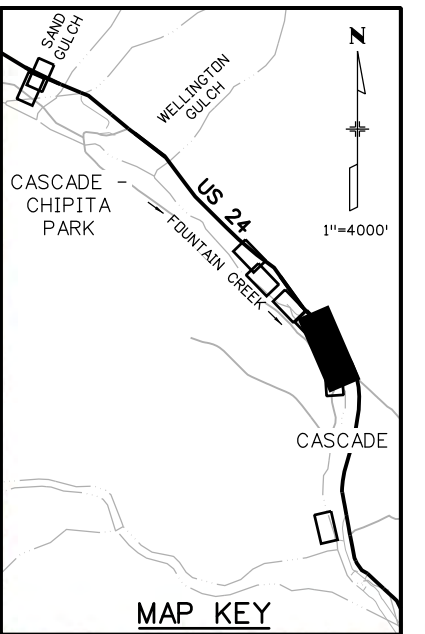


**END
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IN WORK
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R52-6b



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Unit Information				LM		Void:		Structure Numbers		Sheet Number		
FELSBURG HOLT & ULLEVIG								Sheet Subset: TRAFFIC		Subset Sheets: CTC-04 of 10		
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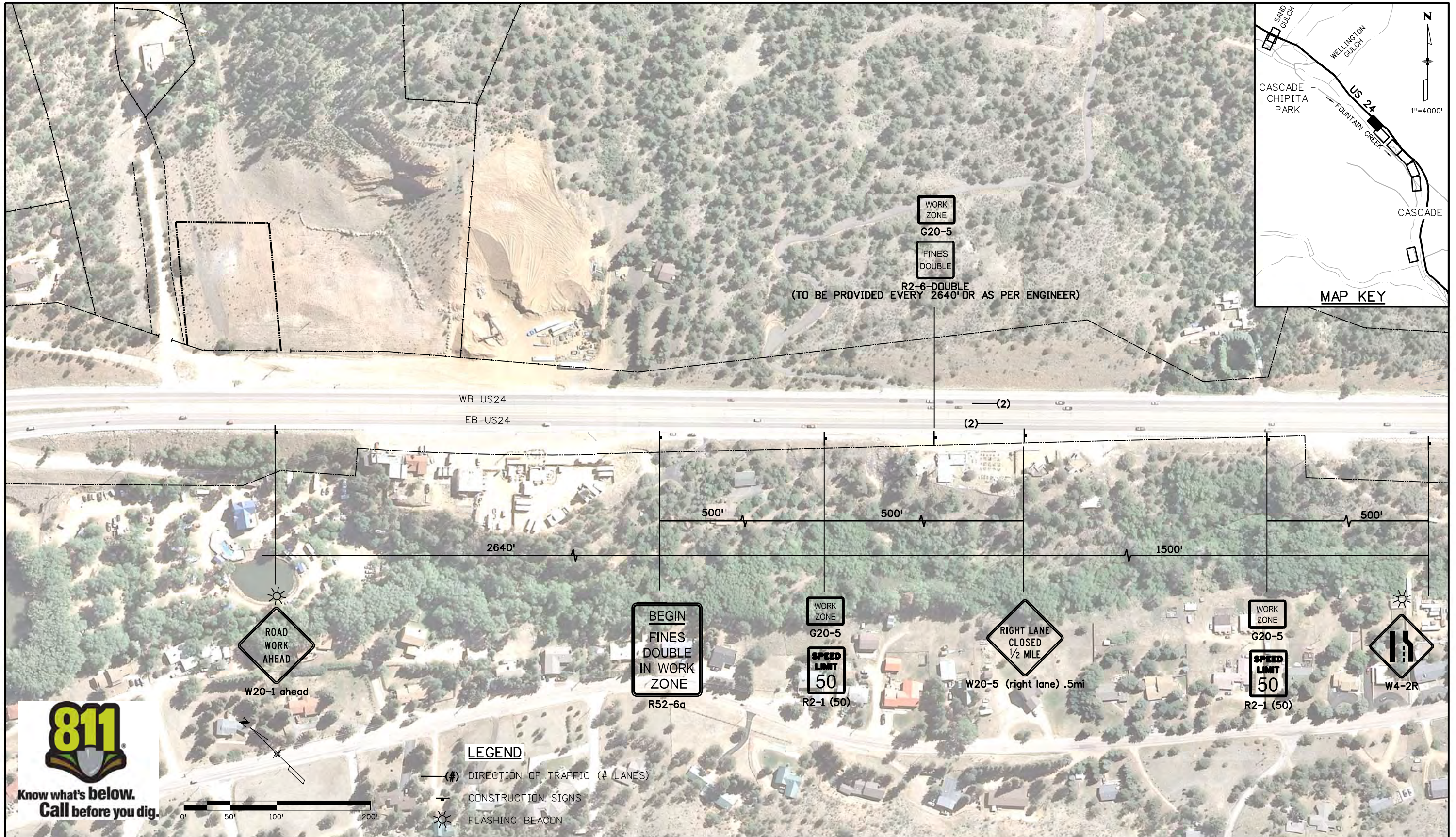


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- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- FLASHING BEACON

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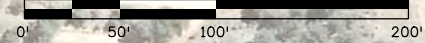
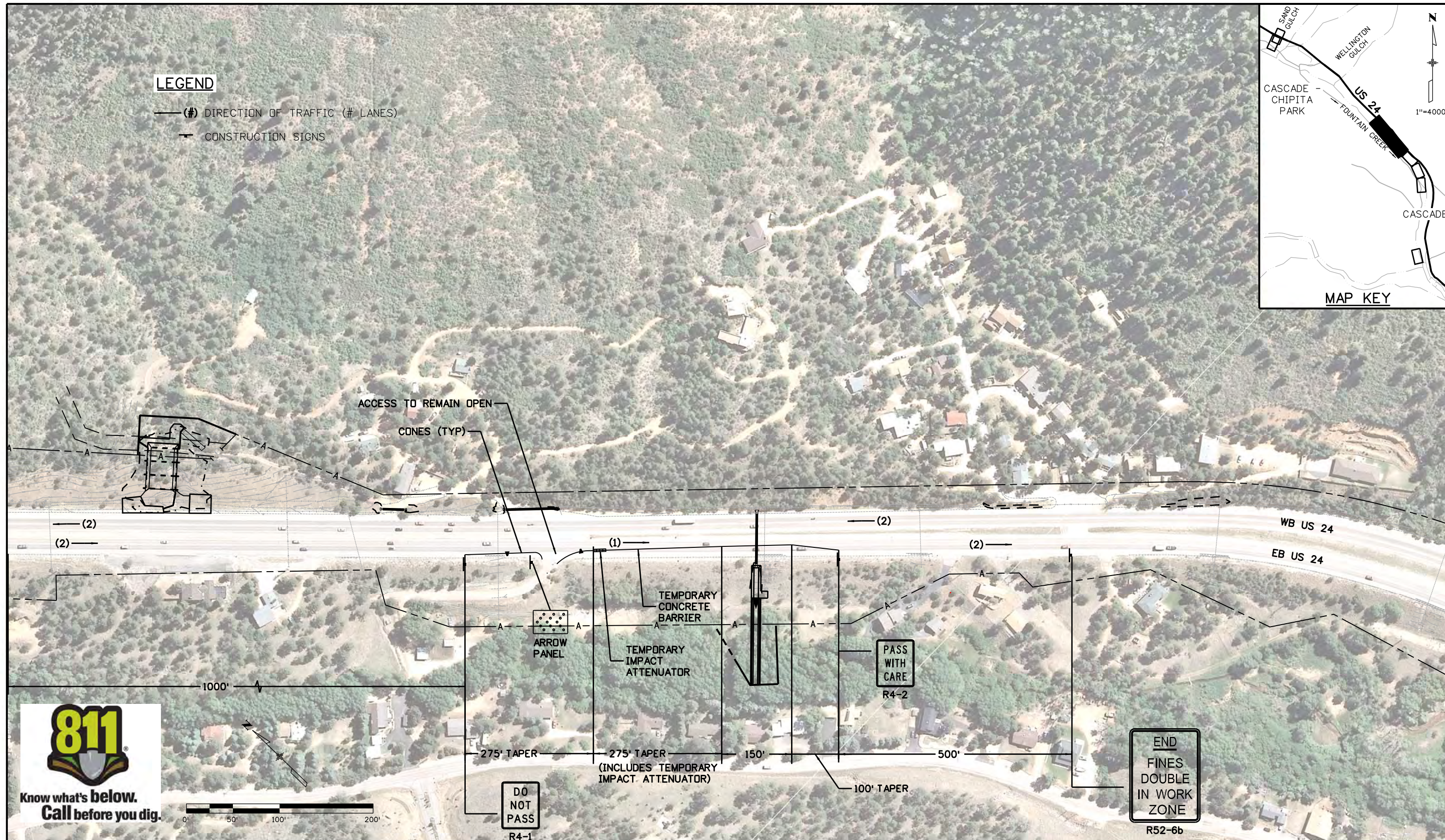




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LEGEND

- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS



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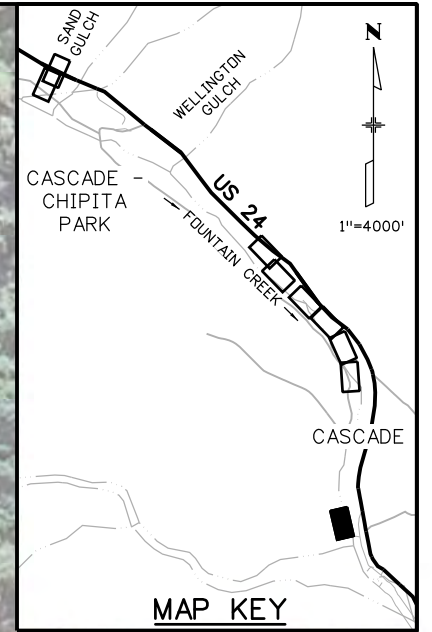
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Colorado Department of Transportation

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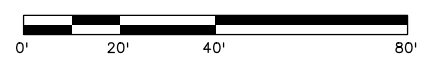
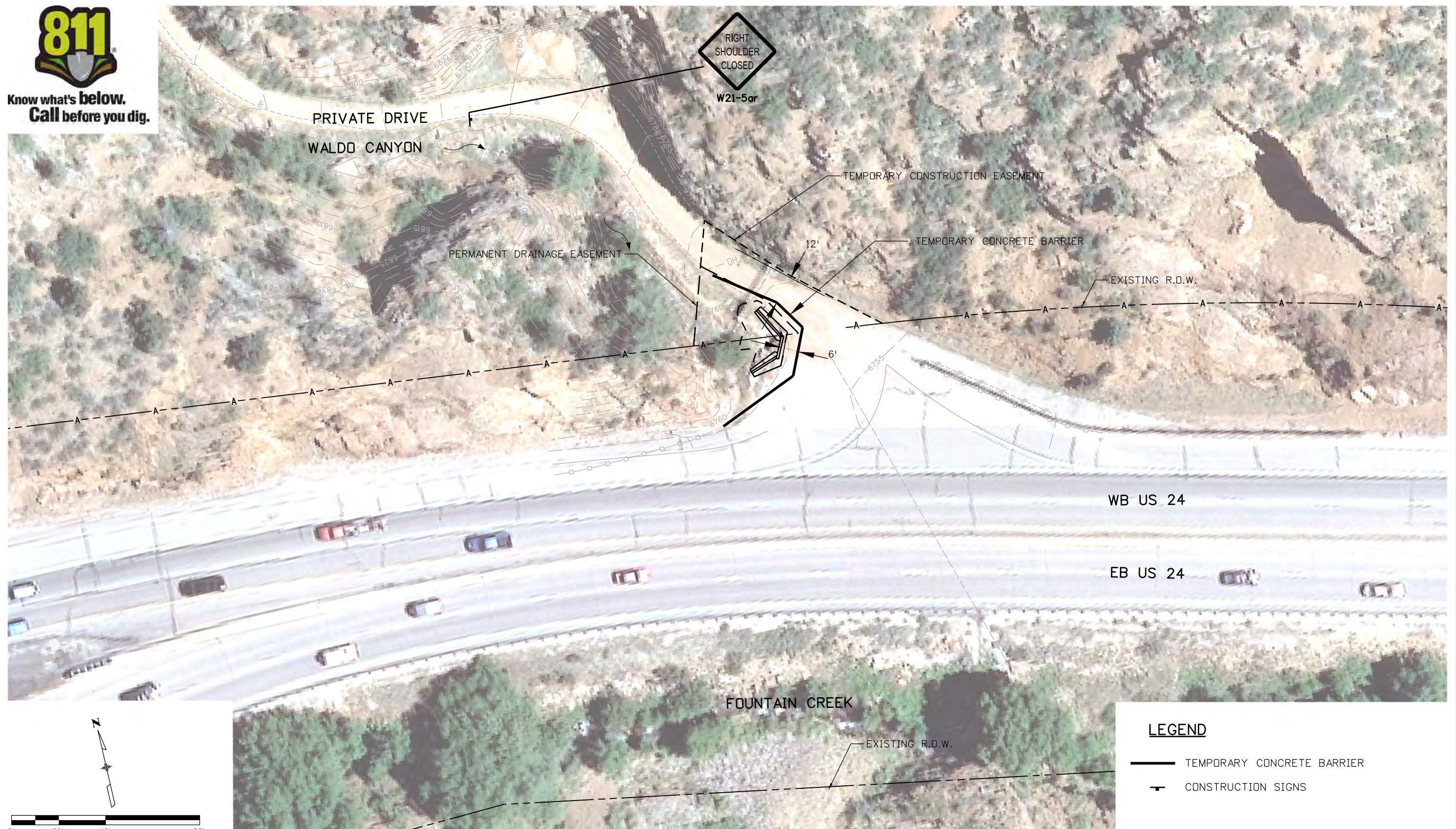
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Project No./Code
NH 0242-056
19358
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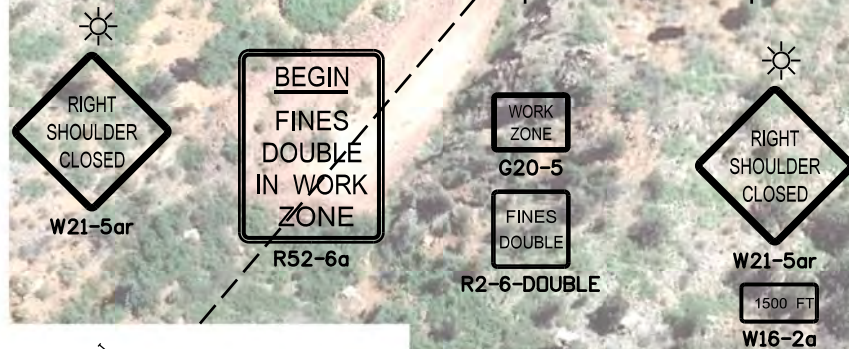
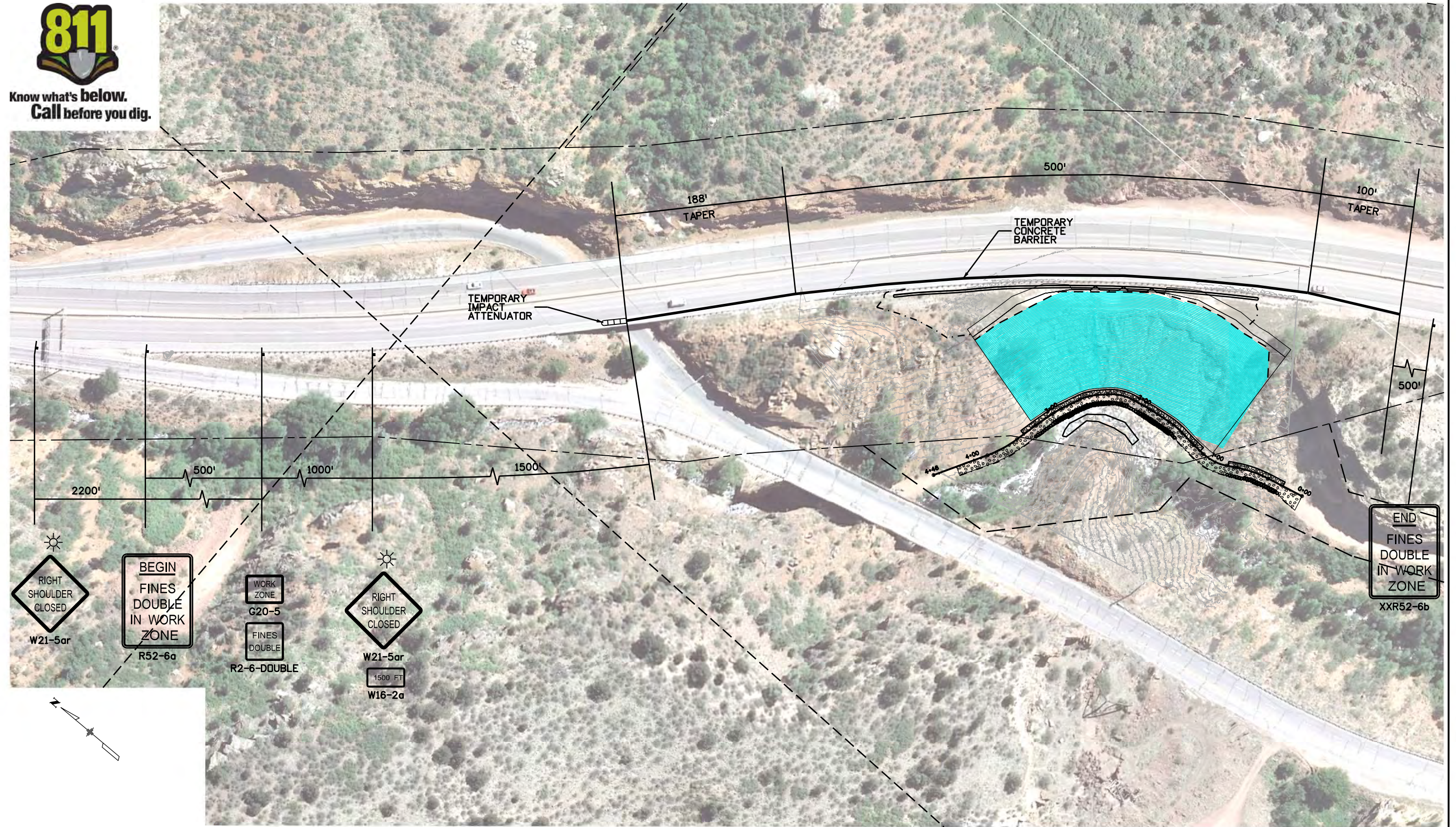
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Unit Information Unit Leader Initials								Void:					Subset Sheets: CTC-09 of 10		Sheet Number 139	
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Oversight / NHS

FHWA REGION VIII OVERSIGHT? NO YES
 NATIONAL HIGHWAY SYSTEM? NO YES

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

CONSTRUCTION BID PLANS OF PROPOSED PROJECT NO. NH 0242-056 US 24 - WALDO CANYON POST FIRE FLOOD MITIGATION EL PASO COUNTY CONSTRUCTION PROJECT CODE NO. 19358

Related Projects:
 P. E. UNDER PROJECT: XXXXXXXXX
 Project Number: XXXXX
 Project Code: XXXXX

R.O.W. Projects:
 R.O.W. Project Description: XXXXXXXXXXXXXXXXX

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14C	CTC-1C	(R-1) CONSTRUCTION TRAFFIC CONTROL TABULATION
15	PT-1	TABULATION OF POTHOLES

POUR POINT A

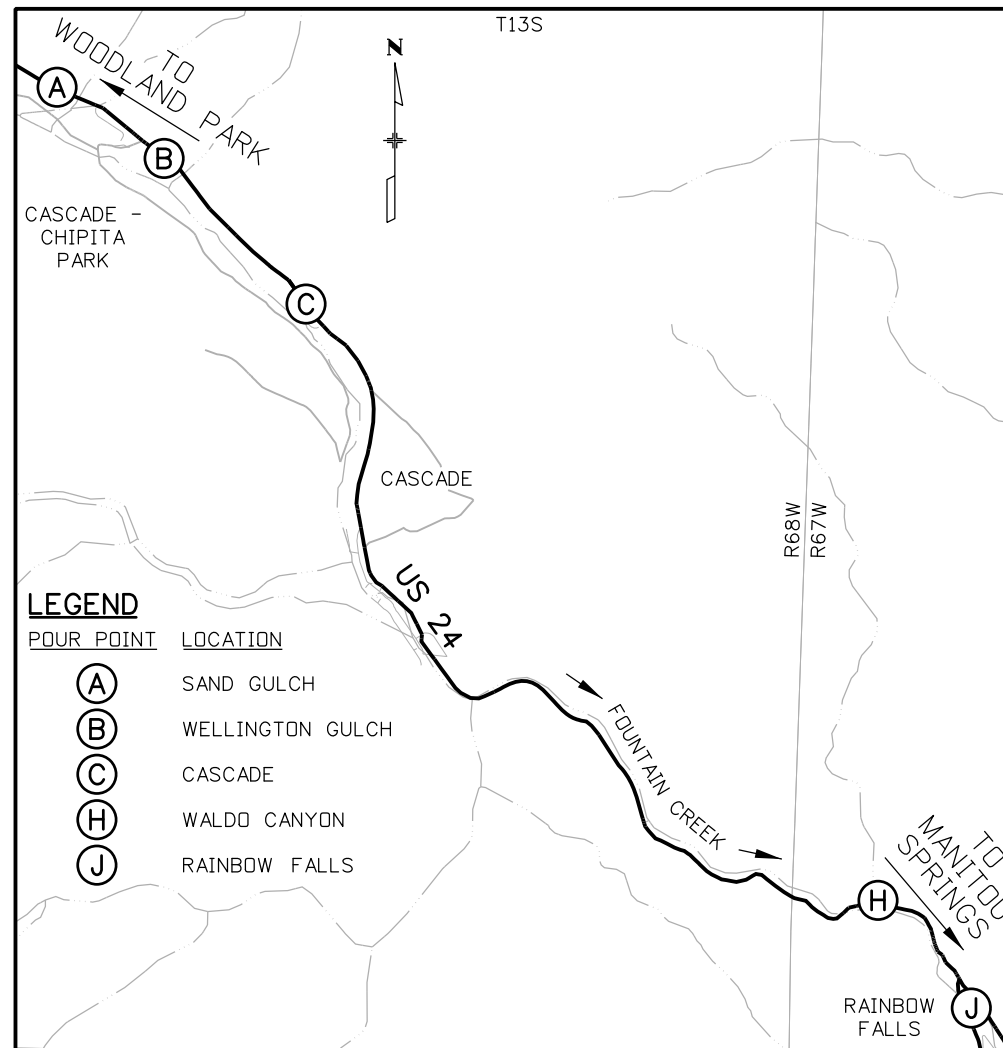
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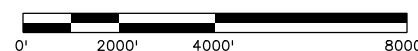
POUR POINT C

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PROJECT LOCATION MAP



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(R-2) 04-19-13	UPDATE SHEET	CDT	
(R-3) 04-22-13	REVISED SHEET NUMBER	CDT	

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Region 2

LM

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Contract Information

Contractor:

Resident Engineer: DAVE WATT

Project Engineer: LESLEY MACE

PROJECT STARTED: / / ACCEPTED: / /

Comments:

Project No./Code

NH 0242-056

19358



Sheet Number **1C**

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COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST
 July 04, 2012
 Revised on March 5, 2013

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

NEW OR REVISED STANDARD PLAN SHEETS APPLICABLE TO THIS PROJECT, INDICATED BY A MARKED BOX ■, WILL BE ATTACHED TO THE PLANS.

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Unit Information Unit Leader Initials							Void:		Detailer: KLT	Numbers	19358		
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SUMMARY OF APPROXIMATE QUANTITIES

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			201-00001	CLEARING AND GRUBBING	LS	1		1		1		1		1				5	
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			202-05026	SAWING ASPHALT MATERIAL (6 INCH)	LF											200		200	
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			203-00598	ROCK SCALING	HR									60				60	
			203-01500	BLADING	HR											200		200	
			203-01510	BACKHOE	HR											200		200	
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			203-01590	FRONT END LOADER (RUBBER TIRE)	HR											200		200	
			203-01594	POTHOLING	HR											50		50	
			203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40		40		40		40		40				200	
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			206-00510	FILTER MATERIAL (CLASS A)	CY										200			200	

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**US 24 WALDO CANYON
SUMMARY OF APPROXIMATE
QUANTITIES**

Designer:	CDT	Structure Numbers	
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Sheet Subset:	TAB		

Project No./Code

NH 0242-056

19358

Sheet Number

3

SUMMARY OF APPROXIMATE QUANTITIES

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			207-00205	TOPSOIL	CY	100		217		320					202				839	
			208-00002	EROSION LOG (12 INCH)	LF	208		293		1300					455				2256	
			208-00020	SILT FENCE	LF					241									241	
			208-00034	GRAVEL BAG	LF	40		60		486		150			490				1226	
			208-00041	ROCK CHECK DAM	EA										1				1	
			208-00045	CONCRETE WASHOUT STRUCTURE	EA	2		1		1		1			2				7	
			208-00070	VEHICLE TRACKING PAD	EA	2		1		1		1			2				7	
			208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80		80		80		80			80				400	
			208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40		40		40		40			40				200	
			208-00205	EROSION CONTROL SUPERVISOR	DAY	30		30		30		30			30				150	
			208-00301	TEMPORARY DIVERSION	LF										300				300	
			210-00475	RESET CLOSED CIRCUIT TELEVISION POLE	EA										1				1	
			210-00810	RESET GROUND SIGN	EA										1				1	
			210-01050	RESET CHAIN LINK FENCE	LF	12													12	
			210-01130	RESET GUARDRAIL TYPE 3	LF					43									43	
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			212-00006	SEEDING (NATIVE)	AC	0.3		0.7		0.4					0.25				1.65	
			212-00032	SOIL CONDITIONING	AC	0.3		0.7		0.4					0.25				1.65	

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Colorado Department of Transportation

 1480 Quail Lake Loop 80806
 Colorado Springs, CO FAX: 719-227-3298
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Region 2 **LM**

As Constructed
 No Revisions:
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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: SAQ-2 of 6

Project No./Code
 NH 0242-056
 19358
 Sheet Number **4**

SUMMARY OF APPROXIMATE QUANTITIES

Index			Contract Item No.	Contract Item	Unit	Pour Point A Sand Gulch		Pour Point B Wellington Gulch		Pour Point C Cascade		Pour Point H Waldo Canyon		Pour Point J Rainbow Falls		Overall Project		Project Totals	
Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			213-00002	MULCHING (WEED FREE)	AC	0.3		0.7		0.4				0.25				1.65	
			214-00000	LANDSCAPE MAINTENANCE	LS											1		1	
			214-00215	DECIDUOUS TREE (1.5 INCH CALIPER)	EA			45										45	
			214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	13				17								30	
			216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	512		1165		2105				563				4345	
			217-00000	HERBICIDE TREATMENT	SY											2000		2000	
			250-00010	ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT	LS											1		1	
			304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	11		63		23				79		50		226	
			403-00721	HOT MIX ASPHALT (PATCHING)	TON											500		500	
			411-10255	EMULSIFIED ASPHALT (SLOW-SETTING)	GAL											10		10	
			420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	192		314		1171				540				2217	
			504-06315	GROUND NAIL (15 FOOT)	EA									60				60	
			506-00010	RIPRAP (SPECIAL)	CY									35				35	
			506-00030	GROUTED RIPRAP	CY	51				120								171	
			506-00036	GROUTED RIPRAP (36 INCH) (SPECIAL)	CY									275				275	
			506-00218	RIPRAP (18 INCH)	CY									275				275	
			506-00236	RIPRAP (36 INCH)	CY			90										90	
			506-00412	SOIL RIPRAP (12 INCH)	CY	94		118		423				81				716	
			506-01020	GEOGRID REINFORCEMENT	SY									856				856	
			507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	22				120								142	

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Colorado Department of Transportation



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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: SAQ-3 of 6

Project No./Code

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SUMMARY OF APPROXIMATE QUANTITIES

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Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			601-01000	CONCRETE CLASS B	CY	43		22		103		15						183	
			601-03050	CONCRETE CLASS D (WALL)	CY							13						13	
			602-00000	REINFORCING STEEL	LB							750						750	
			603-01240	24 INCH REINFORCED CONCRETE PIPE (CIP)	LF					154								154	
			603-01420	42 INCH REINFORCED CONCRETE PIPE (CIP)	LF					108								108	
			603-05024	24 INCH REINFORCED CONCRETE END SECTION	EA					4								4	
			603-05042	42 INCH REINFORCED CONCRETE END SECTION	EA					2								2	
			604-50050	INLET GRATING AND FRAME SPECIAL	EA					1								1	
			607-01000	FENCE BARBED WIRE WITH METAL POSTS	LF	120												120	
			607-53172	FENCE CHAIN LINK (72 INCH)	LF								174		4000			4174	
			607-53173	FENCE CHAIN LINK (SPECIAL) (72 INCH)	LF			260										260	
			607-55100	WIRE MESH	SF								52330					52330	
			607-60212	12 FOOT GATE SINGLE (CHAIN LINK)	EA			2										2	
			607-60274	24 FOOT GATE DOUBLE (CHAIN LINK)	EA											1		1	
			608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	354		1598		491								2443	
			609-21020	CURB AND GUTTER TYPE 2 (SECTION II-B)	LF								390					390	
			615-00620	LOG DEFLECTOR	EA	1		1										2	
			620-00002	FIELD OFFICE (CLASS 2)	EA											1		1	
			620-00012	FIELD LABORATORY (CLASS 2)	EA											1		1	

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**US 24 WALDO CANYON
 SUMMARY OF APPROXIMATE
 QUANTITIES**

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Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			620-00020	SANITARY FACILITY	EA											2		2	
			625-00000	CONSTRUCTION SURVEYING	LS											1		1	
			626-00000	MOBILIZATION	LS											1		1	
			626-01000	PUBLIC INFORMATION SERVICES	LS											1		1	
			627-00001	PAVEMENT MARKING PAINT	GAL											5		5	
			630-00000	FLAGGING	HR											125		125	
			630-00007	TRAFFIC CONTROL INSPECTION	DAY											125		125	
			630-00012	TRAFFIC CONTROL MANAGEMENT	DAY											50		50	
			630-80001	FLASHING BEACON (PORTABLE)	EA											8		8	
			630-80335	BARRICADE (TYPE 3 M-A)(TEMPORARY)	EA											3		3	
			630-80341	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EA											28		28	
			630-80342	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EA											50		50	
			630-80344	CONSTRUCTION TRAFFIC SIGN (SPECIAL)	SF											64		64	
			630-80355	PORTABLE MESSAGE SIGN PANEL	EA											2		2	
			630-80357	ADVANCED WARNING OR SEQUENCING ARROW PANEL (A)	EA											2		2	
			630-80360	DRUM CHANNELIZING DEVICE	EA											250		250	
			630-80370	CONCRETE BARRIER (TEMPORARY)	LF											3000		3000	
			630-80380	TRAFFIC CONE	EA											250		250	
			630-85000	IMPACT ATTENUATOR (TEMPORARY)	EA											5		5	
			641-10000	SHOTCRETE	SY								139					139	

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**US 24 WALDO CANYON
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Book	Page	Sheet				Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.	Plan	As Const.
			700-70010	F/A MINOR CONTRACT REVISION	FA											1		1	
			700-70016	F/A FUEL COST ADJUSTMENT	FA											1		1	
			700-70019	F/A ASPHALT CEMENT COST ADJUSTMENT	FA											1		1	
			700-70034	F/A DOZING	FA											1		1	
			700-70380	F/A EROSION CONTROL	FA											1		1	
			700-70550	F/A BLADING SHOULDER	FA											1		1	
			700-73352	F/A MISCELLANEOUS UTILITY RELOCATIONS	FA											1		1	

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 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440					Sheet Subset: TAB								

GENERAL NOTES

SEE PROJECT CONTROL SHEET FOR HORIZONTAL CONTROL TO BE USED ON THIS PROJECT.

ALL CONSTRUCTION SHALL BE COMPLETED PER THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD PLANS AND SPECIFICATIONS, LATEST EDITION, OR AS SHOWN.

UTILITY LINES AS SHOWN ON THE PLAN SHEETS ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. THE CONTRACTORS ATTENTION IS DIRECTED TO SUBSECTION 105.11 OF THE STANDARD SPECIFICATIONS CONCERNING UTILITIES. THE CONTRACTOR SHALL COMPLY WITH ARTICLE 1.5 OF TITLE 9, CRS ("EXCAVATION REQUIREMENT") WHEN EXCAVATING OR GRADING IS PLANNED IN THE AREA OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED UTILITIES AT LEAST 2 BUSINESS DAYS, NOT INCLUDING THE ACTUAL DAY OF NOTICE, PRIOR TO COMMENCING SUCH OPERATIONS. THE CONTRACTOR SHALL CONTACT UNCC AT 811 OR 1-800-922-1987 TO HAVE LOCATION OF UNCC REGISTERED LINES MARKED BY MEMBER COMPANIES. ALL OTHER UNDERGROUND FACILITIES SHALL BE LOCATED BY CONTACTING THE RESPECTIVE OWNER. UTILITY SERVICE LATERALS SHALL ALSO BE LOCATED PRIOR TO BEGINNING EXCAVATION OR GRADING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTACTING AND COORDINATING WITH THE APPROPRIATE UTILITY REPRESENTATIVE TO BE ON-SITE DURING POTHOLING. THE CONTRACTOR SHALL REFER TO THE UTILITY SPECIFICATION FOR ADDITIONAL REQUIREMENTS.

ANY CURB AND GUTTER OR ASPHALT OR CONCRETE PAVEMENT, WHICH IS TO REMAIN AND IS DAMAGED AS THE RESULT OF THE CONTRACTOR'S OPERATION, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

FOR PRELIMINARY PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

TACK COAT DILUTED EMULSIFIED ASPHALT..... 0.1 GALS. / SQ. YD. (DILUTED)
 HOT MIX ASPHALT..... 110 LBS. / SQ. YD. / INCH
 AGGREGATE BASE COURSE CLASS 6..... 133 LBS. / CU. FT.

A TACK COAT IS REQUIRED BETWEEN LAYERS OF BITUMINOUS PAVEMENT. DILUTED EMULSIFIED ASPHALT FOR TACK COAT SHALL CONSIST OF 1 PART EMULSIFIED ASPHALT AND 1 PART WATER.

WHERE NEW PAVEMENT IS TO ABUT EXISTING PAVEMENT, THE EXISTING PAVEMENT SHALL BE REMOVED TO A NEAT VERTICAL LINE USING A CUTTING SAW OR OTHER METHOD AS APPROVED BY THE ENGINEER. SAW CUTTING ASPHALT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE A SUCCEEDING LAYER IS PLACED.

ASPHALT PATCHING SHALL BE TO THE DEPTH OF THE SURROUNDING EXISTING PAVEMENT AS DIRECTED BY THE ENGINEER. THICKNESS OF SUBSEQUENT LIFTS MUST BE EQUAL OR GREATER THAN THE LIFT DIRECTLY ABOVE. THE MINIMUM LIFT THICKNESS SHALL BE 2 AND 3 INCHES RESPECTIVELY.

PRIOR TO PLACING BITUMINOUS PAVEMENT, THE PAVED SURFACE SHALL BE SWEEPED AND CLEANED. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HOT MIX ASPHALT PAVEMENT ITEM.

WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER FOR DUST PALLIATIVE WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

MOISTURE-DENSITY CONTROL WILL BE REQUIRED FOR THE FULL DEPTH OF THOSE EMBANKMENTS ON THIS PROJECT.

EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

TYPE OF COMPACTION FOR THIS PROJECT WILL BE AASHTO T-99 FOR COHESIVE SOILS AND T-180 FOR GRANULAR SOILS AS DESCRIBED IN SECTION 203.07 OF THE CDOT STANDARD SPECIFICATIONS.

THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 6 INCHES. TOPSOIL SHALL BE OBTAINED FROM A CONTRACTOR SOURCE APPROVED BY THE ENGINEER. IF THE TOPSOIL IS NOT GENERATED WITHIN THE PROJECT LIMITS, IT SHALL BE TREATED WITH AN HERBICIDE APPLICATION AFTER PLACEMENT AND BEFORE NATIVE SEEDING.

TO PROVIDE FOR ADEQUATE SULFATE RESISTANCE IN ALL CONCRETE SUPPLIED FOR THIS PROJECT, SEVERITY OF POTENTIAL EXPOSURE IS CLASS 0. THE CONTRACTOR MAY AT HIS OWN EXPENSE HAVE A CERTIFIED LABORATORY TEST THE SUBGRADE AS PER THE FIELD MATERIALS MANUAL. TESTING SHALL BE THE SAME SCHEDULE AND FREQUENCY AS REQUIRED FOR A PRELIMINARY SOILS SURVEY. THE CONTRACTOR MAY PROPOSE A DIFFERENT CLASS OF EXPOSURE FOR THE PROJECT BASED ON THOSE TEST RESULTS.

THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS. ANY MONUMENTS DISTURBED BY THE CONTRACTOR THAT ARE NOT DESIGNATED FOR RELOCATION, SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR AND ENGINEER SHALL NOTE THOSE MONUMENTS IN THE FIELD PRIOR TO CONSTRUCTION. SEE TABULATION OF SURVEY FOR ADDITIONAL INFORMATION.

THIS PROJECT IS COVERED BY A COLORADO DISCHARGE PERMIT SYSTEM - STORMWATER CONSTRUCTION PERMIT (CDPS-SCP). ALL PERMIT REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR. REFER TO STANDARD SPECIAL PROVISION REVISION OF SECTION 107 - TRANSFER OF STORMWATER PERMIT TO CONTRACTOR FOR ADDITIONAL INFORMATION.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE ACCEPTANCE AND CONTROL OF ALL SURFACE AND SUBSURFACE DRAINAGE AND GROUNDWATER ENTERING THE WORK AREA. THIS SHALL BE INCLUDED IN THE COST OF THE WORK.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND/OR TOES OF SLOPE AS SHOWN ON THE PLANS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT THEIR OWN EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER AND ANY OTHER ACTION WHICH WOULD ALTER EXISTING CONDITIONS.

CONSTRUCTION VEHICLES SHALL ACCESS THE PROJECT FROM PUBLIC PROPERTY, NOT FROM ADJACENT PRIVATE PROPERTIES UNLESS DIRECTED BY THE ENGINEER.

THE FIELD OFFICE, LABORATORY AND ASSOCIATED PARKING (MINIMUM 8 SPACES) SHALL BE SECURELY FENCED WITH FENCE CHAIN LINK (72-INCH) AND A LOCKING GATE. FIVE SETS OF KEYS FOR LOCKING THE GATE SHALL BE PROVIDED TO THE ENGINEER. THE OFFICE AND LABORATORY SHALL BE LOCATED IN THE RAINBOW FALLS PARKING LOT OFF OF SERPENTINE DRIVE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE FIELD FACILITY AND PARKING AREA TO ITS INITIAL CONDITION AT THE CONCLUSION OF THE PROJECT.

THE CONTRACTOR SHALL POST SIGNS INDICATING THE RAINBOW FALLS PARKING AREA AND TRAIL ARE CLOSED TO CARS AND PEDESTRIANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURITY OF THE STAGING AREA.

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File Name: 19358DES_GenlNote_2010_1.dgn		Date:	Comments	Init.		No Revisions:				NH 0242-056		
Horiz. Scale: 1:1 Vert. Scale: As Noted						Revised:	Designer: CDT	Structure Numbers			19358	
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1. Site Description

Additional information for permitted projects. For information only to fulfill the CDPS-SCP (Colorado Discharge Permit - Stormwater Construction Permit)

- A. Project Site Description: Work includes US24 erosion control mitigation that is required due to results of the 2012 Waldo Canyon fire. Five principal areas adjacent to US24 have been identified by CDOT as requiring erosion and post-fire stormwater mitigation. They are:
 - a. Pour Point A- Sand Gulch- Work includes stabilizing the eroded area at the inlet and outlet ends of an existing box culvert under US24. Maintenance access, a debris rack, and a debris settling area will be constructed.
 - b. Pour Point B- Wellington Gulch- Work includes improving the entrance to an existing corrugated metal pipe. Maintenance access, a debris rack and a debris settling area will be constructed.
 - c. Pour Point C- Cascade- Work includes installing a concrete rundown at the north bank of US24. A debris settling area will also be constructed. A series of existing culverts under US24 will be cleaned and their entrances will be improved. One new US24 culvert will be added.
 - d. Pour Point H- Waldo Canyon- Work includes improving the entrance to an existing corrugated metal pipe. Re-grading and access will be improved.
 - e. Pour Point J- Rainbow Falls Access Road- Fountain Creek bank erosion has occurred due to increased flows since the 2012 fire. Work includes construction of boulder toe wall at the creek and a 450 feet length of adjacent access road. The access road will connect to the existing access located north of Serpentine Drive and end south of Manitou Street. The steep slope between the access and US 24 will be re-graded to a more stable 1 ½ to 1 slope with a wire mesh cover. A soil nail retaining wall will be constructed at the top of the slope (adjacent to US24). Riprap erosion protection will extend up from the access road to one foot above the 100-year flood elevation.
- B. Proposed Sequencing For Major Activities: Work will include initial stabilization of the site perimeters, diversion of drainages as needed, clearing and grubbing, embankment placement, excavation, boulder or concrete placement, wall construction, grading, slope treatment and final stabilization of the site. Erosion control will be required throughout the construction period. Erosion control devices will be added as listed under section 4C of this document, repaired, modified and maintained as required in order to limit erosion and sedimentation within the project site.
- C. Acres Of Disturbance:

Total area of construction site: 16.66 acres
 Total area of disturbance: 3.35 acres
 Acreage of seeding: 2.74 acres
- D. Existing Soil Data: Pendant-Rock outcrop complex, Sphinx, warm-Rock outcrop complex, very slow infiltration rate with high runoff potential when thoroughly wet. The soils consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface and soils that shallow over nearly impervious material. These soils have a very slow rate of water transmission.
- E. Existing Vegetation, Including Percent Cover: Existing vegetation consists of native grasses, weeds, sparse trees and shrubs. The estimated percent of ground cover averages about 50 percent cover over the project site. Date of survey: November 2012.
- F. Potential Pollutants Sources: See First Construction Activities under Potential Pollutant Sources. The ECS shall prepare a list of all potential pollutants and their locations in accordance with subsection 107.25.
- G. Receiving Water:
 1. Outfall locations: The plan sheets show the outfall locations. The ultimate outfall is to Fountain Creek via existing tributary culverts, swales and sheet flows from the US 24 embankment adjacent to Fountain Creek.
 2. Names of receiving water(s) on site and the ultimate receiving water: Fountain Creek

3. Distance ultimate receiving water is from project: Varies between 0 and 1000 feet.
4. Does the receiving water have an approved TMDL: No

H. Allowable Non-Stormwater Discharges: It is anticipated that dewatering may be required due to shallow ground water in areas of the Fountain Creek Access Road. There are no other anticipated allowable sources of non-stormwater components of the discharge, such as uncontaminated springs, landscape irrigation return flow, dust suppression and fire fighting. Dewatering shall be included in the cost of the work and will not be paid for separately. If encountered, that contractor shall take the following measures:

1. Groundwater and stormwater dewatering: Discharge to the ground of water from construction dewatering activities may be authorized provided that:
 - a. The source is groundwater and/or groundwater combined with stormwater that does not contain pollutants.
 - b. The source and BMPs are identified in the SWMP.
 - c. Discharges do not leave the site as surface runoff or to surface waters.
2. If discharges do not meet the above criteria a separate permit from the Department of Health will be required. Contaminated groundwater requiring coverage under a separate permit may include groundwater contaminated with pollutants from a landfill, mining activities, industrial pollutant plumes, underground storage tank, etc.

I. Environmental Impacts:

1. Wetland Impacts: Yes
2. Stream Impacts: Yes
3. Threatened and Endangered Species: No

2. Site Map Components

Pre-construction

- A. Construction Site Boundaries: See Grading and Erosion Control Plans.
- B. All Areas Of Ground Surface Disturbance: See Grading and Erosion Control Plans.
- C. Areas Of Cut And Fill: See Grading and Erosion Control Plans.
- D. Location Of All Structural BMPs Identified In The SWMP: See Grading and Erosion Control Plans.
- E. Location of Non-Structural BMPs As Applicable In The SWMP: See Grading and Erosion Control Plans.
- F. Springs, Stream, Wetlands And Other Surface Water: See Grading and Erosion Control Plans.
- G. Protection of Trees, Shrubs, Cultural Resources And Mature Vegetation: See Grading and Erosion Control Plans.

3. SWMP Administrator For Design: Edward L. Lind, P.E., Water Resources Engineer for Felsburg Holt & Ullevig, is responsible for developing the SWMP sheets during the design.

4. Stormwater Management Controls First Construction Activities

The Contractor Shall Perform The Following:

- A. Designate A SWMP Administrator/Erosion Control Supervisor (To be filled out at time of construction; designate the individual(s) responsible for implementing, maintaining and revising SWMP, including the title and contact information. The activities and responsibilities of the administrator shall address all aspects of the projects SWMP.)
- B. Potential Pollutant Sources: Evaluate, identify and describe all potential sources of pollutants at the site in accordance with subsection 107.25 and place in the SWMP notebook. All BMPs related to potential pollutants shall be shown on the SWMP site map by the contractor's ECS.
- C. Best Management Practices (BMPs) For Stormwater Pollution Prevention
Phased BMP Implementation

During design: fields are marked when used in the SWMP. During construction: the ECS shall update the checked boxes to match site conditions. Clearly describe the relationship between the phases of construction and the implementation of BMP controls. Add a narrative to the table or to the site map describing why the BMPs are being used in specific locations.

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 FELSBURG HOLT & ULLEVIG 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298							

Structural BMP practices for erosion and sediment control; practices may include, but are not limited to:

BMP	TYPE OF CONTROL	BMP as Designed	In use on site	FIRST CONSTRUCTION ACTIVITIES	DURING CONSTRUCTION	INTERIM/FINAL STABILIZATION
Earth Berm/Diversion	erosion	x		x	x	
Check Dams	sediment					
Silt Fence	sediment	x		x	x	
Erosion Logs	sediment	x		x	x	x
Temporary Sediment Trap/Basin	sediment	x		x	x	
Permanent Sediment Trap/Basin	sediment					
Embankment Protector	erosion					
Inlet Protection	erosion					
Outlet Protection	erosion					
Concrete Washouts	construction	x		x	x	
Stabilized Construction Entrance	construction	x		x	x	
Dewatering	sediment	x			x	
Temporary Stream Crossing	erosion	x		x	x	
Other						

NON-STRUCTURAL BMP practices for erosion and sediment control; practices may include, but are not limited to:

BMP	Type Of Control	BMP As Designed	In Use On Site	First Construction Activities	During Construction	Interim/Final Stabilization
Surface Roughening/Grading Techniques	Erosion	x		x	x	x
Seeding Permanent	Erosion	x				x
Seeding Temporary	Erosion	x			x	
Mulch/Mulch Tackifier	Erosion	x			x	x
Soil Binder	Erosion	x			x	
Soil Retention Blanket	Erosion	x			x	x
Vegetative Buffer Strips	Erosion	x		x	x	x
Protection Of Trees	Erosion	x		x	x	
Preservation Of Mature Vegetation	Erosion	x		x	x	x
Other						

- Erosion control devices are used to limit the amount of erosion on site.
- Sediment control devices are designed to capture sediment on the project site,
- Construction control are BMPs related to construction access and staging.
- BMP locations are indicated on the erosion control plans.
- BMP installation details and general narratives are in the SWMP notebook.

D. Offsite Drainage (Run On Water)

- Describe and record BMPs on the SWMP site map that has been implemented to address run-on water in accordance with subsection 208.03.

E. Stabilized Construction Entrance/Vehicle Tracking Control

- BMPs shall be implemented in accordance with subsection 208.04.

F. Perimeter Control

- Perimeter control shall be established as the first item on the SWMP to prevent the potential for pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters.
- Perimeter control may consist of vegetation buffers, berms, silt fence, erosion logs, existing landforms, or other BMPs as approved.
- Perimeter control shall be in accordance with subsection 208.04.

5. During Construction

Responsibilities of the SWMP administrator/erosion control supervisor during construction.

The SWMP should be considered a "living document" that is continuously reviewed and modified. During construction, the following items shall be added, updated, or amended as needed by the SWMP Administrator/Erosion Control Supervisor (ECS) in accordance with section 208.

- A. Materials Handling and Spill Prevention
- B. Stockpile Management
- C. Grading and Slope Stabilization
- D. Surface Roughening
- E. Vehicle Tracking
- F. Temporary Stabilization
- G. Concrete Washout- Concrete washout water or waste from field laboratories and paving equipment shall be contained in accordance with subsection 208.05.
- H. Saw Cutting
- I. New Inlet/Culvert Protection
- J. Street Cleaning

6. Inspections

- A. Inspections shall be in accordance with subsection 208.03 (c).

7. BMP Maintenance

- A. Maintenance shall be in accordance with subsection 208.04 (e).

8. Record Keeping

- A. Records shall be in accordance with subsection 208.03 (c).

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 Unit Information Unit Leader Initials

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Date:	Comments	Init.

Colorado Department of Transportation



1480 Quail Lake Loop
 Colorado Springs, CO 80906
 Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed		US 24 WALDO CANYON STORMWATER MANAGEMENT PLAN		Project No./Code
No Revisions:				NH 0242-056
Revised:		Designer: CDT	Structure Numbers	19358
Void:		Detailer: KLT		
		Sheet Subset: EROSION	Subset Sheets: SW-2 of 3	Sheet Number 11

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9. Interim And Final Stabilization

A. Seeding Plan

Soil preparation, soil conditioning or topsoil, seeding (native), mulching (weed free), and mulch tackifier will be required for the area of disturbed area within the right-of-way limits which are not surfaced. The following types and rates shall be used:

COMMON NAME	BOTANICAL NAME	LBS. PLS PER ACRE
Blue grama	<i>Bouteloua gracilis</i> 'Hachita'	0.5
Arizona fescue	<i>Festuca arizonica</i> 'Redondo'	1.0
Sheep fescue	<i>Festuca ovina</i>	0.6
Canada wildrye	<i>Elymus canadensis</i>	6.2
Sandberg bluegrass	<i>Poa sandbergii</i>	0.2
Western wheatgrass	<i>Pascopyrum smithii</i> 'Rosanna'	6.5
Mountain brome	<i>Bromus marginatus</i> 'Bromar'	4.0
Prairie junegrass	<i>Koeleria macrantha</i>	0.1
Slender wheatgrass	<i>Elymus trachycaulus ssp. trachycaulus</i> 'Pryor'	1.0
Oats	<i>Avena sativa</i>	3.0
TOTAL		23.1

A. Seeding Application: Drill seed 0.25 inch to 0.5 inch into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25 inch to 0.5 inch into the soil. In areas as directed by Engineer, hydro-seed shall be applied at double the rate, in a single slurry which contains seed, mulch tackifier, humate and fertilizer. Slurry shall be applied from top of slope downward, in 50' vertical lifts unless otherwise approved by the Engineer.

B. Mulching Application: Apply a minimum of 1 ½ tons of certified weed free native hay per acre and in accordance with Section 212, and mechanically crimp it into the soil in combination with an organic mulch tackifier.

C. Soil Conditioning and Fertilizer Requirements: [Minimum requirements for all disturbances to receive seeding (native)].

Soil conditioner paid for as Item 212- Soil Conditioning (Acre)		
Biological nutrient organic based fertilizer (lbs/acre)*	Humate (lbs/acre)	
600	200	

*Biological nutrient shall not exceed 8-8-8 (N-P-K). Humate based material shall be in accordance to Section 212.

F. **Blanket Application:** On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of mulch and mulch tackifier. See SWMP for blanket locations.

G. Reseeding Operations/Corrective Stabilization:

Prior to Final Acceptance:

- Seeded areas shall be reviewed during the 14 day inspections by the Erosion Control Supervisor for bare soils caused by surface or wind erosion. Bare areas caused by surface or gully erosion, blown away mulch, etc. shall be regraded, seeded, mulched and have mulch tackifier (or blanket) applied as necessary.
- Areas where seed has not germinated after one season shall be evaluated by the Engineer and CDOT Landscape Architect. Areas that have not germinated shall have seed, mulch and mulch tackifier (or blanket) applied. Work shall be paid for by the appropriate bid item.
- The Contractor shall maintain seeding/mulch/tackifier, mow to control weeds or apply herbicide to control weeds in the seeded areas until final acceptance.

10. Prior To Final Acceptance

A. Final acceptance shall be in accordance with subsection 208.061.

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Unit Information Unit Leader Initials						Void:	Detailer: KLT		Sheet Number 12	
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440					Sheet Subset: EROSION	Subset Sheets: SW-3 of 3				

TO ESTABLISH GEOMETRIC CONTROL FOR THE CONSTRUCTION OF THIS PROJECT, THE DEPARTMENT HAS PROVIDED THE FOLLOWING INFORMATION:

Format * _____
 Horizontal Control _____
 Vertical Control _____
 Roadway Alignment _____
 Original Terrain Data _____
 Other: _____

* Specify the information format, i.e., plan sheet, computer disk, computer printout, or other. The information marked is either contained on the plans or is available from the Engineer.

TYPE OF PROJECT

Landscaping
 Signalization
 Safety Improvement
 Asphalt Overlay
 Concrete Overlay
 Minor Widening
 Major Reconstruction
 New Roadway Construction
 Bridge Replacement
 Bridge Widening
 New Bridge
 Other: Drainage Mitigation

SURVEY WORK TO BE PERFORMED BY OTHERS: _____

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 625:

Establish and Maintain Project Centerline or Engineer Approved Offset Line(s)
 Verification and Maintenance of Horizontal and Vertical Control
 Verify or Determine existing grades and alignments
 Verify or Determine existing topography
 Clearing and Grubbing Limits (Section 201)
 Removal Limits (Section 202)
 Reset Items (Section 210)
 Excavation and Embankment (Section 203)
 Excavation
 Unclassified
 Stripping
 Muck
 Rock
 Borrow
 Other: _____
 Potholing
 Embankment
 Site Grading
 Erosion Control (Perm)
 Other: _____
 As Staked Earthwork Quantities (See General Notes)

	Slope Staking (Y/N)	Grid (Y/N)	Grade Stakes	Special Interval
Excavation	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

	Slope Staking (Y/N)	Grid (Y/N)	Grade Stakes	Special Interval
Embankment	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Landscaping
 Top Soil (Section 207)
 Seeding (Section 212)
 Mulching (Section 213)
 Planting (Section 214)
 Herbicide (Section 217)
 Other: _____
 Erosion Control (Section 208)
 Seeding (Temp)
 Silt Fence
 Erosion Bales
 Erosion Logs
 Riprap (Temp)
 Other: Rock Check Dam, Temporary Diversion

Roadway Bases
 Untreated Subgrade
 Treated Subgrade
 Aggregate Base Course (Section 304)
 Reconditioning
 PMBB - Plant Mix Bituminous Base
 Other: _____

	Grid (Y/N)	Grade (Y/N)	Special Interval	Special Offset
Roadway Bases	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-

Pavements
 HMA - Hot Mix Asphalt (Section 403)
 Concrete (Section 412)
 Heating & Scarifying Treatment
 Prime Coat, Tack Coat & Rejuvenating Agent (Section 407)
 Seal Coat or Chip Seal (Section 409)
 Other: _____

	Grid (Y/N)	Special Interval	Special Offset
Pavements	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

Roadway Elements
 Curb and Gutter (Section 609)
 Drop inlets - alignment and grades (Section 604)
 Retaining Walls
 Guard Rail (Section 606)
 Sidewalk (Section 608)
 Overlay Stationing
 Other: Cutoff Walls

	Tangent Interval	Curve Interval	Special Offset
Curb & Gutter	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

Riprap (Perm) (Section 506)
 Slope and Ditch Paving (Section 507)

Minor Structures
 Structure Excavation limits (Section 206)
 Culverts (Section 603)
 Culverts w/ Headwalls and Wingwalls (Section 601)
 Concrete Box Culverts w/ Headwalls and Wingwalls
 Pipes (Section 603)
 Sanitary Sewer
 Storm Sewer
 Water
 Irrigation
 Miscellaneous
 Manholes (Section 604)
 Inlets (Section 604)
 Other: _____

	Left Interval	Center Interval	Right Interval
Stationing	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

Major Structures - Overhead Signs (Section 614), Concrete Box Culverts, Bridges - and all other structures assigned a structure number
 Structure Excavation limits (Section 206)
 Concrete Box Culverts (Section 603) w/ Headwalls and Wingwalls (Section 601)
 Piling locations and cut off elevations (Section 502)
 Caisson locations and elevations (Section 503)
 Footing locations, alignment, and elevations
 Abutment/Pier locations, alignment, and elevations
 Wingwall skew angles/offsets
 Structural concrete form locations
 Substructure As-constructed survey required for Bridges (Subsection 601 .12) and Overhead signs (S-614-50)
 Bridge expansion joint(s) alignment and grade (longitudinal and transverse)
 Deck grades at Girder 10th or "n" th point locations and elevations
 Slope and Ditch Paving (Section 507)
 Other: Ground Nailed Wall, Geogrid Reinforcement, Wire Mesh

Fencing (Section 607)
 Temporary
 Permanent
 Sound Barrier
 Other: _____

Delineators (Section 612)
 Temporary
 Permanent

Lighting (Section 613) and Traffic Control Devices (Permanent) (Section 614)
 Signal pole locations and elevations
 Light pole locations and elevations
 Sign locations
 Field verify sign post locations, elevations, and lengths before fabrication.
 Other: _____

Pavement Marking (Section 627)
 Stripping (Temp)
 Stripping (Perm)
 Symbols
 Other: _____
 Temporary Lighting and Construction Traffic Control Devices (Section 630)
 Signal pole locations and elevations (Temp)
 Light pole locations and elevations (Temp)
 Sign Locations (Temp)
 Other: _____
 Easements (Temp Staking by P.L.S. Only)
 Right of Way (Temp Staking by P.L.S. Only)

WORK PERFORMED BY THE CONTRACTOR'S SURVEYOR UNDER SECTION 629:


Monumentation (Section 629)
 Control
 Right of Way
 Land corners, Aliquot corners
 Easements
 Reference the specified existing monuments: ** _____
 Replace the specified existing monuments: ** _____
 Locate monuments. It is estimated _____ hours are required.

NOTE: All 629 items shall include adequate research, calculations, and evaluations of evidence for monuments to be set.

** A Tabulation of Survey Monuments may be provided on the plans.

GENERAL NOTES:

- Unless indicated otherwise on this Survey Tabulation Sheet, all survey work and staking intervals shall be done in accordance with the latest edition of the CDDT Survey Manual.
- Adequate information for establishing lines, grades, and locations for all work items have been specified on the plans. Any additional information required to stake the item or element shall be generated by the Contractor's surveyor.
- The Contractor's surveyor shall provide an estimate of the man-hours necessary to complete the work items indicated on this sheet. A copy of this sheet, with the estimated man-hours written on the blank line to the left of the specified items, shall be submitted with the Survey Schedule to the Engineer 7 days prior to the Presurvey Conference - Construction Survey.
- Stakes and Monuments which are damaged or destroyed by the progress of construction shall be replaced by the Contractor at no additional cost to the Department.
- The Contractor shall furnish an As Staked earthwork quantity to the Engineer prior to completion of twenty percent (20%) of the planned earthwork in any phase as per the CDDT Survey Manual. A printed copy of the As Staked earthwork data and a computer disk in the specified format shall be submitted to the Engineer. The Contractor shall field verify original ground cross sections at a maximum 500 feet intervals.
- Prior to beginning work on any subsequent operation, such as placing base course or paving, the Contractor shall certify in writing to the Engineer that the final grade is within specified tolerance.
- The Contractor's surveyor shall perform all field surveying and calculations necessary to tie plan grades into field grades.
- The Contractor shall coordinate construction staking on the project with any utility work.
- Fieldbooks shall contain daily records of points set and or measurements observed. The information recorded shall contain: date, crew members' names, point no., description, staking information, and sketches. If the survey information is collected electronically, information recorded shall be provided to the Project Engineer in a hard copy format that is intuitive, clear and related to the supplemental information recorded in the field books. All linear surveys, such as slope stakes and blue tops, shall have the station and offset information related to the measured information. Non-linear surveys such as structures staking shall have sketches relating electronic information, such as point numbers, to the sketch.
- The Contractor's surveyor shall submit the following fieldbooks to the Engineer:
 - Horizontal Control (Primary & Secondary)
 - Vertical Control (i.e. Benchmarks)
 - Property Pin Ties
 - Horizontal Alignment
 - Grading
 - Slope Staking
 - Minor Structures
 - Major Structures
 - One fieldbook for each work category shown on this sheet
 - Other Fieldbook(s): _____

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		LM		Structure Numbers	Subset Sheets: SRV 1C of 1
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				Sheet Subset: SURVEY	

SUMMARY OF CONSTRUCTION TRAFFIC CONTROL ITEMS

CONSTRUCTION TRAFFIC SIGNS (FOR INFORMATION ONLY)				
SIGN CODE	LEGEND	DIMENSIONS	OVERALL PROJECT	
			EACH	PANEL SIZE
G20-5P	WORK ZONE	36" X 24"	10	A
R2-1(45)	SPEED LIMIT	36" X 48"	8	A
R2-1(50)	SPEED LIMIT	36" X 48"	5	A
R2-6P	FINES DOUBLE	36" X 24"	5	B
R4-1	DO NOT PASS	36" X 48"	5	B
R4-2	PASS WITH CARE	36" X 48"	3	A
F52-6A	BEGIN FINES DOUBLE	36" x 48"	4	B
F52-6B	END FINES DOUBLE	36" x 48"	4	B
W4-2(R)	RIGHT LANE CLOSED SYMBOL	48" X 48"	3	B
W21-5(R)	RIGHT SHOULDER CLOSED	48" X 48"	5	B
W4-2(L)	LEFT LANE CLOSED SYMEOL	48" X 48"	3	B
W20-1	ROAD WORK/ (DISTANCE/AHEAD)	48" X 48"	2	B
W20-5(R)	RIGHT LANE CLOSED	48" X 48"	3	B
W20-5(L)	LEFT LANE CLOSED	48" X 48"	3	B
W20-7a	FLAGGER AHEAD (SYMBCL)	48" X 48"	4	B
W21-1	WORKER (SYMBOL)	48" X 48"	4	B
W16-2A	1500 FEET	24" X 36"	1	A
SPECIAL	PARKING LOT CLOSED	48" X 48"	2	B
SPECIAL	TRAIL CLOSED	48" X 48"	2	B
SIGN TOTALS			76	

GENERAL CONSTRUCTION TRAFFIC CONTROL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL REQUIRED ON THE PROJECT. ALL TRAFFIC CONTROL DEVICES, TEMPORARY CONSTRUCTION SIGNS, PAVEMENT MARKINGS AND CHANNELIZING DEVICES SHALL CONFORM WITH THE LATEST MUTCD AND THE CDDT M & S STANDARDS. THE PROJECT TRAFFIC CONTROL SUPERVISOR SHALL COORDINATE CONSTRUCTION ZONE TRAFFIC CONTROL ACTIVITIES WITH ALL APPROPRIATE AGENCIES AND ANY OTHER NEARBY CONSTRUCTION PROJECTS.
- THE CONTRACTOR SHALL MAINTAIN MINIMUM 11 FOOT LANES DURING CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- FLASHING BEACON (PORTABLE) SHALL BE INSTALLED ON "ROADWORK 1 MILE" , AND "LANE CLOSED 1/2 MILE" ADVANCE WARNING SIGNS.
- PORTABLE MESSAGE SIGN PANELS SHALL BE USED AS NECESSARY, AND ONLY AS APPROVED BY THE ENGINEER.
- VEHICLE ACCESS SHALL BE MAINTAINED FOR ALL STREETS, BUSINESSES AND PROPERTIES WITHIN THE PROJECT LIMITS.
- OPEN EXCAVATIONS SHALL NOT BE ALLOWED TO BE UNPROTECTED WHEN CONSTRUCTION WORK IS NOT IN PROGRESS (INCLUDING OVERNIGHT, WEEKENDS, AND HOLIDAYS). METHOD(S) OF PROTECTING PEDESTRIANS AND TRAFFIC FROM EXCAVATIONS, SUCH AS METAL PLATES OR CONCRETE BARRIER, SHALL BE APPROVED BY THE ENGINEER. THE COST FOR PROTECTING EXCAVATIONS WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE PROJECT.
- NO VERTICAL FACES GREATER THAN 3 INCHES SHALL BE LEFT WITHIN 6 FEET OF ANY TRAVEL LANE DURING NON-WORKING HOURS. ANY WORK AND MATERIAL NECESSARY TO PLACE A TEMPORARY FILL SLOPE FOR DROP-OFFS GREATER THAN 3 INCHES SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ANY TEMPORARY FILL SLOPES SHALL HAVE A SLOPE NO STEEPER THAN 3:1.
- ANY EXISTING SIGNS THAT CONFLICT WITH TEMPORARY SIGNS SHALL BE MASKED OR REMOVED. THE COST FOR MAINTAINING, RELOCATING, OR MASKING EXISTING SIGNS DURING CONSTRUCTION IS INCLUDED IN THE PRICE OF WORK.
- FLAGGER SYMBOL SIGNS SHALL BE INSTALLED AND FLAGGERS SHALL BE UTILIZED ONLY AS DEEMED NECESSARY, AND ONLY AS APPROVED BY THE ENGINEER.
- CONSTRUCTION WORK ON THE PROJECT SHALL NOT BEGIN UNTIL ALL ADVANCE CONSTRUCTION SIGNS ARE IN PLACE AND APPROVED BY THE PROJECT ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNS AND PRIVATE BUSINESS SIGNS AS NECESSARY TO ACCOMMODATE NEW CONSTRUCTION AND TRAFFIC MOVEMENTS AS APPROVED BY THE PROJECT ENGINEER. THIS SHALL BE DONE FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL, PRIOR TO COMMENCING WORK, A METHOD OF HANDLING TRAFFIC PLAN.
- ALL TRAFFIC SHALL BE AS PER THE TRAFFIC CONTROL PLANS DEVELOPED BY THE CONTRACTOR, OR AS APPROVED BY THE PROJECT ENGINEER.
- SIGNS SHALL NOT BE MOUNTED, FASTENED, OR ATTACHED TO ANY CHANNELIZING DRUMS OR CONES.
- THIS PROJECT IS CLASSIFIED AS NON-SIGNIFICANT. THE CONTRACTOR SHALL FOLLOW 630 SPECIFICATIONS. THE TRANSPORTATION MANAGEMENT PLAN (TMP) PREPARED BY THE CONTRACTOR SHALL CONSIST OF A TRAFFIC CONTROL PLAN (TCP).
- CONSTRUCTION INFORMATION SIGNS SHALL BE PLACED AT BEGINNING AND END OF OVERALL PROJECT.
- STANDARD PLAN S-630-1 SHALL BE USED FOR CONSTRUCTION TRAFFIC CONTROL AS FOLLOWS:
 - POUR POINTS A AND B, USE CONTRACTORS MHT.
 - POUR POINT C, USE TRAFFIC CONTROL PLANS AND CONTRACTORS MHT.
 - POUR POINT H, USE TRAFFIC CONTROL PLANS.
 - POUR POINT J, USE TRAFFIC CONTROL PLANS.
- A VMS SIGN SHALL BE PLACED AT EACH END OF THE PROJECT GIVING PROJECT INFORMATION; MESSAGE SHALL BE AS DIRECTED BY THE ENGINEER.
- (R-2)** THE CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC DURING THE WEEKDAY FROM 7AM TO 9AM AND 4PM TO 6PM. NO LANE CLOSURES SHALL BE PERMITTED DURING MEMORIAL DAY WEEKEND, LABOR DAY WEEKEND, 4TH OF JULY OR ANY OTHER HOLIDAY TRAVEL.

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 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		 Region 2			1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 LM						

TABULATION OF POTHOLE

PLAN SHEET	POTHOLE NUMBER	UTILITY USE	DIAMETER (INCHES)	DEPTH TO TOP (FT)	DEPTH TO BOTTOM (FT)	NORTHING (APPROXIMATE)	EASTING (APPROXIMATE)	GROUND ELEVATION	COMMENTS
A-3	PH1	TELEPHONE	0.5	2.8	2.9	397684.75	146000.36	7542.15	FOUND 1/2" DIRECT BURY TELE
B-2	PH3	TELEPHONE	2	2.8	3.0	396123.35	148056.41	7568.41	FOUND 2" GAS LINE
B-2	PH4	GAS	108	13.0	22.0	396132.79	148086.93	7566.33	TOP OF 108" CMP PLUNGING STEEPLY
B-2	TH1	-		4.0	6.0	396178.47	148115.98	7466.80	FIRST 4' SANDY GRAVEL, CRUMBLY ERODED ROCK TO 6', SOLID ROCK AT 6'
C-2	PH5	STORM			9.0	393945.78	150109.30	7526.00	NOTHING FOUND
C-2	PH6	GAS			9.0	393934.62	150098.67	7527.94	NOTHING FOUND
C-2	PH6A	WATER			9.0	393924.29	150087.22	7529.79	NOTHING FOUND
C-2	PH7	WATER		5.9	8.0	393658.44	150345.43	7505.74	NOTHING FOUND, PROBES TO 8'
C-2	PH7A	WATER			10.0	393655.40	150338.61	7508.83	NOTHING FOUND, PROBES TO 10'
C-3	PH8	WATER	0.5	5.0	5.1	393606.92	150426.73	7509.13	FOUND 1/2" TELE CONDUIT
C-3	PH9	TELEPHONE	2	5.0	5.3	393600.41	150417.65	7507.61	2" HDPE LINE
C-3	PH10	GAS			10.0	393585.66	150405.32	7504.67	NOTHING FOUND
C-3	PH11	WATER			11.0	393024.52	150963.04	7474.97	NOTHING FOUND
C-4	PH12	WATER		7.5	11.0	393427.65	150568.64	7485.36	NOTHING FOUND, PROBES TO 11'
C-4	PH13	WATER		8.0	10.0	392779.87	151201.75	7476.77	NOTHING FOUND, PROBES TO 10'
C-5	PH14	WATER			10.0	392551.13	151429.38	7482.42	NOTHING FOUND
C-5	PH15	WATER	4	5.3	5.6	392324.49	151649.41	7484.96	4" CONDUIT - PROBES TO 10'
C-6	PH16	WATER	8	7.5	8.2	391908.87	151929.95	7484.06	FOUND 8" WATER LINE

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Horiz. Scale: 1:1 Vert. Scale: As Noted						Revised:	Designer: CDT	Structure Numbers	19358		
Unit Information Unit Leader Initials						Void:	Detailer: KLT	Subset Sheets: PT-1 of 1	Sheet Number 15		
<p>FELSBURG HOLT & ULLEVIG 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440</p>											

POUR POINT A TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	13
202-01000	REMOVAL OF FENCE	LF	99
202-04002	CLEAN CULVERT	EA	1
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	893
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	100
208-00002	EROSION LOG (12 INCH)	LF	208
208-00034	GRAVEL BAG	LF	40
208-00045	CONCRETE WASHOUT STRUCTURE	EA	2
208-00070	VEHICLE TRACKING PAD	EA	2
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-01050	RESET CHAIN LINK FENCE	LF	12
212-00006	SEEDING (NATIVE)	AC	0.3
212-00032	SOIL CONDITIONING	AC	0.3
213-00002	MULCHING (WEED FREE)	AC	0.3
214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	13
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	512
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	11
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	192
506-00030	GROUTED RIPRAP	CY	51
506-00412	SOIL RIPRAP (12 INCH)	CY	94
507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	22
601-01000	CONCRETE CLASS B	CY	43
607-01000	FENCE BARBED WIRE WITH METAL POSTS	LF	120
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	354
615-00620	LOG DEFLECTOR	EA	1

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET		CU. YDS.	
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			SAND GULCH	143	
			SUBTOTAL	143	
			TOTAL	143	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			SAND GULCH	893	
			OTHER EXCAVATION	0	
			SUBTOTAL	893	
			TOTAL FOR PAY QUANTITY	893	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	143	
			TOTAL	143	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (143 x 0.040 M. GAL./yd)	M. GAL.	
			TOTAL	6	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YDS.	
			EMBANKMENT (NET)	143	
			EMBANKMENT X FACTOR (1.15)	164	
			BALANCE TOTAL	164	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	893	
			BALANCE TOTAL	-729	
				164	

Print Date: 3/18/2013

File Name: 19358HYDR_Tabs_Earthwork_SandGulch.dgn

Horiz. Scale: 1:1

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

**FELSBURG
HOLT &
ULLEVIG**
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

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Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



Region 2

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

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**US 24 WALDO CANYON
EARTHWORK QUANTITIES
POUR POINT A - SAND GULCH**

Designer: CDT
Detailer: KLT

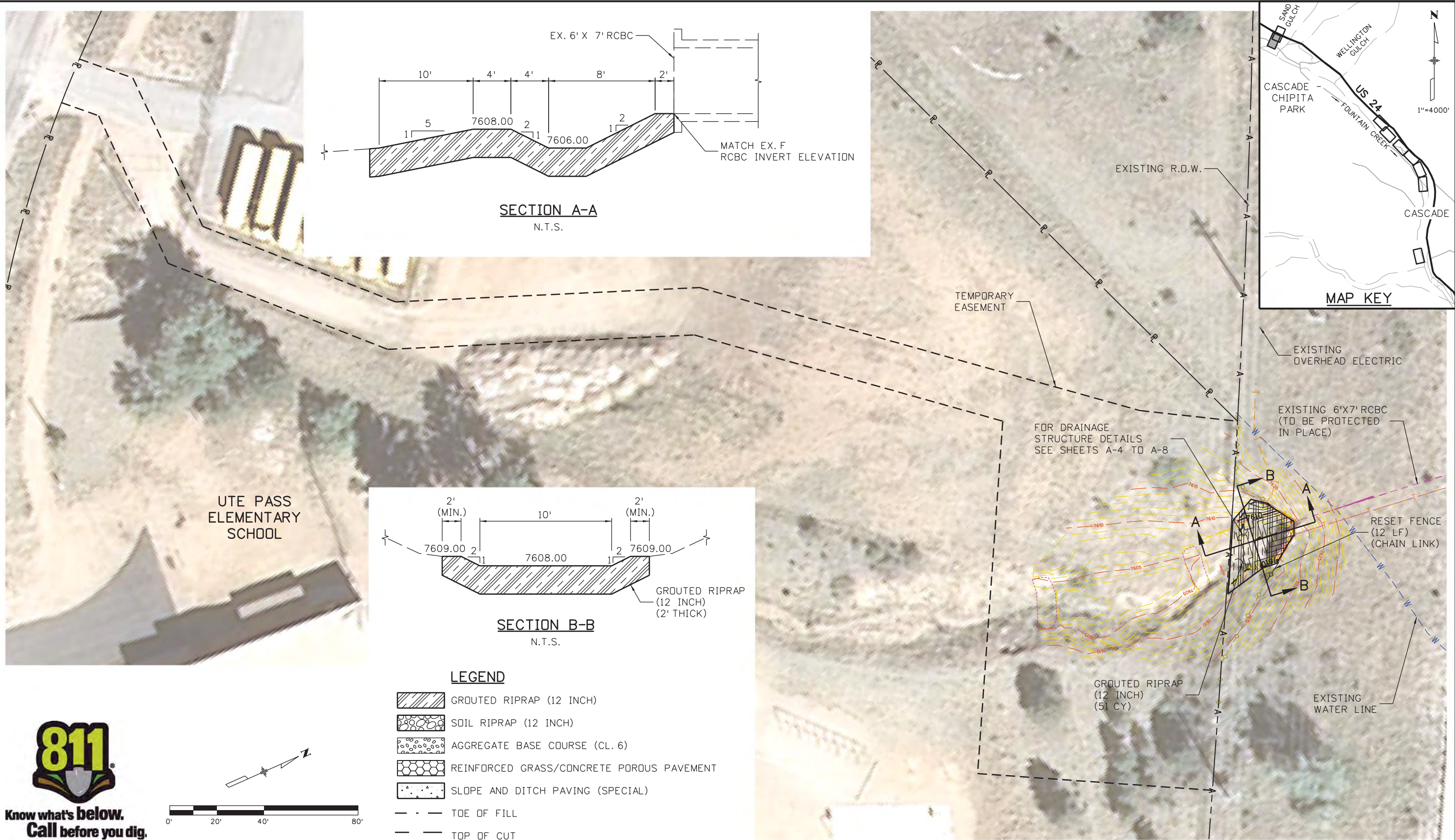
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Subset Sheets: A-1 OF 14

Project No./Code

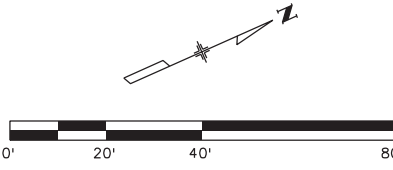
NH 0242-056

19358

Sheet Number **16**



Kelly 10:34:27 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Aerial_SandGulch_01.dgn



LEGEND

	GRouted RIPRAP (12 INCH)
	SOIL RIPRAP (12 INCH)
	AGGREGATE BASE COURSE (CL. 6)
	REINFORCED GRASS/CONCRETE POROUS PAVEMENT
	SLOPE AND DITCH PAVING (SPECIAL)
	TOE OF FILL
	TOP OF CUT

Print Date: 3/18/2013
File Name: 19358HYDR_Aerial_SandGulch_01.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials
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Region 2 LM

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No Revisions:
Revised:
Void:

US 24 WALDO CANYON REMOVALS / RESETS POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	DRAINAGE	Subset Sheets:	A-2 OF 14

Project No./Code
NH 0242-056
19358
Sheet Number 17

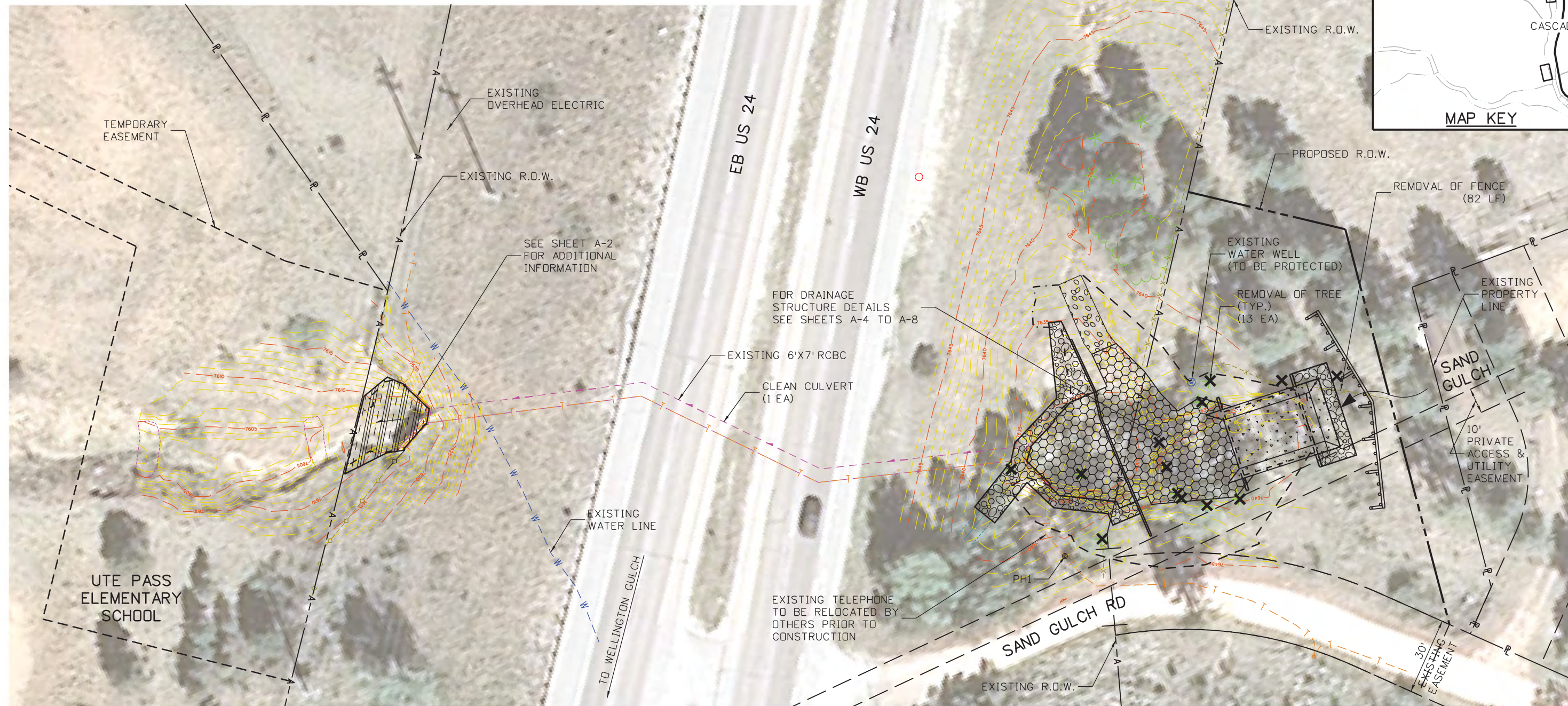


Know what's below.
Call before you dig.



LEGEND

- GROUTED RIPRAP (12 INCH)
- SOIL RIPRAP (12 INCH) (SEE SHEET J10 FOR DETAILS)
- AGGREGATE BASE COURSE (CL. 6)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT



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Print Date: 3/18/2013	
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Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

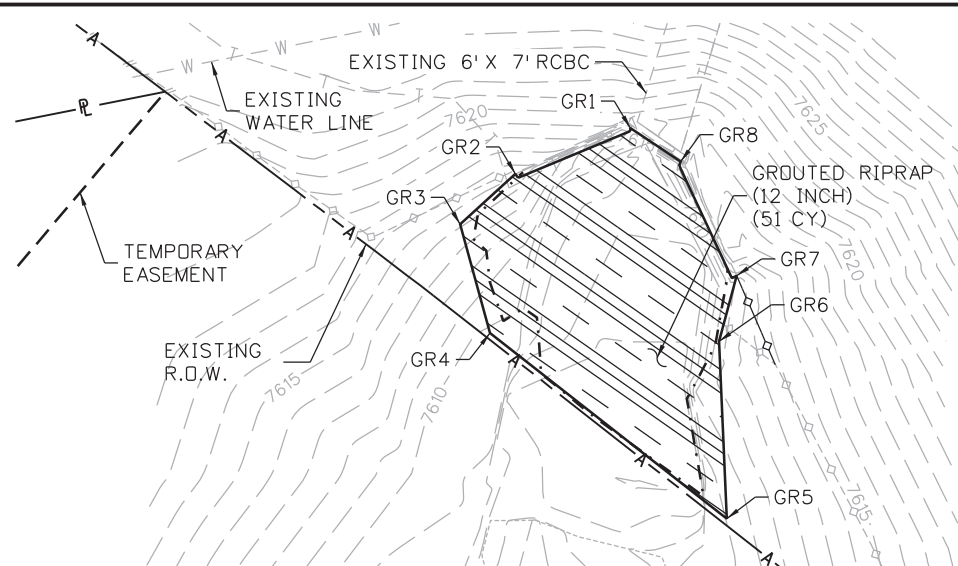
1480 Quail Lake Loop
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Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON REMOVALS / RESETS POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	A-3 of 14

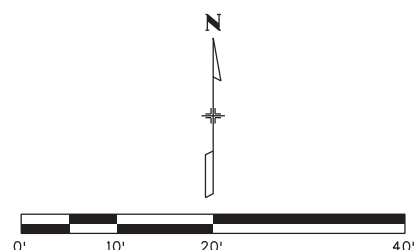
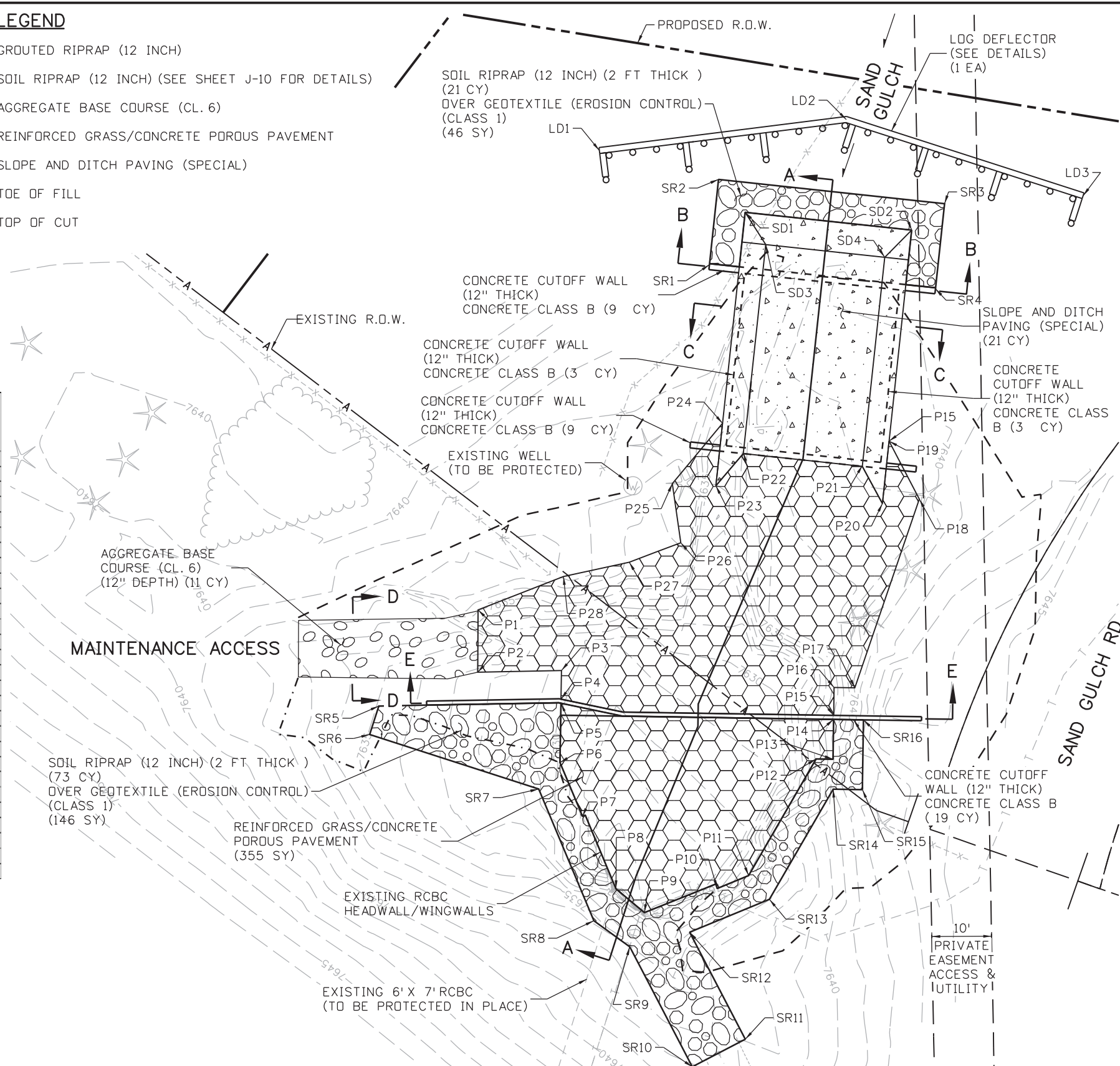
Project No./Code	NH 0242-056
	19358
Sheet Number	18



- LEGEND**
- GROUTED RIPRAP (12 INCH)
 - SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
 - AGGREGATE BASE COURSE (CL. 6)
 - REINFORCED GRASS/CONCRETE POROUS PAVEMENT
 - SLOPE AND DITCH PAVING (SPECIAL)
 - TOE OF FILL
 - - - TOP OF CUT

POINT DATA TABLE - POUR POINT A - POROUS PAVEMENT

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	397736.84	145932.70	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	397726.41	145932.66	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	397726.70	145946.66	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	397721.90	145946.59	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	397721.22	145946.58	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	397711.30	145946.43	7630.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	397702.51	145950.64	7638.33	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	397690.19	145955.79	7626.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P9	397686.19	145960.53	7626.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P10	397690.99	145972.49	7630.33	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	397692.40	145977.95	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	397711.90	145989.24	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	397711.86	145992.07	7634.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	397718.52	145992.17	7634.25	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	397719.19	145992.18	7634.25	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	397723.85	145992.26	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P17	397723.80	145995.73	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P18	397755.37	146006.51	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P19	397765.07	146001.45	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P20	397754.63	146000.33	7629.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P21	397761.02	145996.99	7629.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P22	397763.15	145977.10	7629.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P23	397757.61	145972.49	7629.08	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P24	397768.05	145973.60	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P25	397757.98	145965.21	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P26	397748.08	145966.62	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P27	397744.82	145958.02	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P28	397742.43	145947.00	7632.50	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.



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Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_SandGulch_01.dgn	
Horiz. Scale: 1:20 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

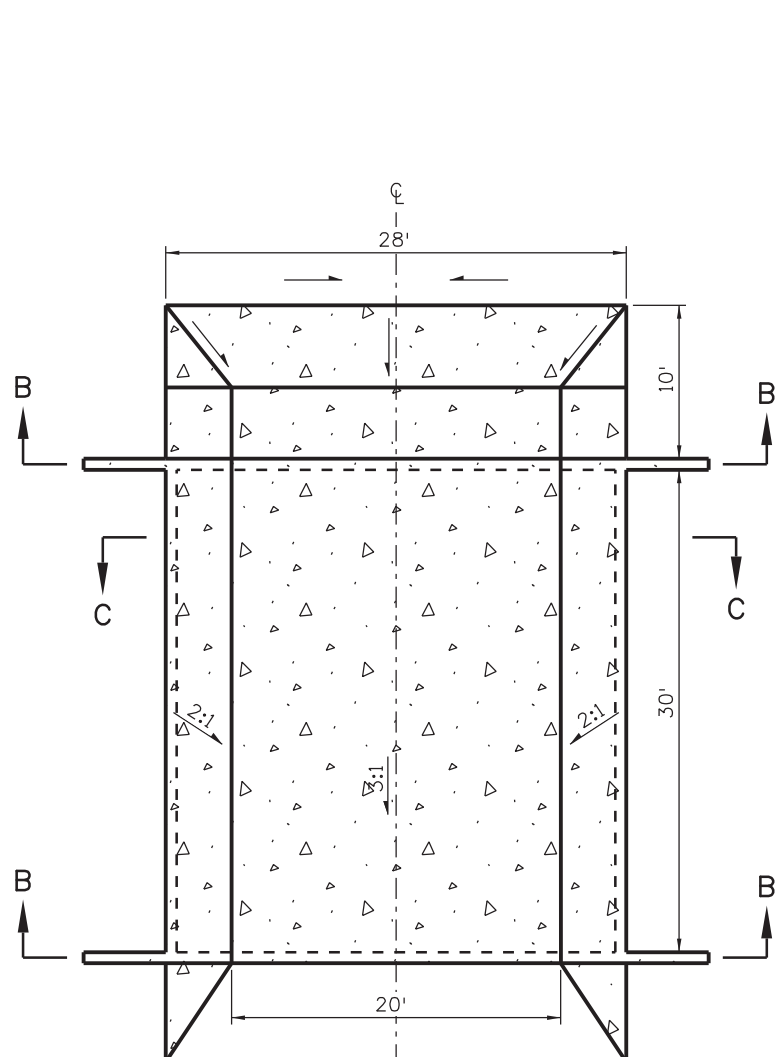
1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

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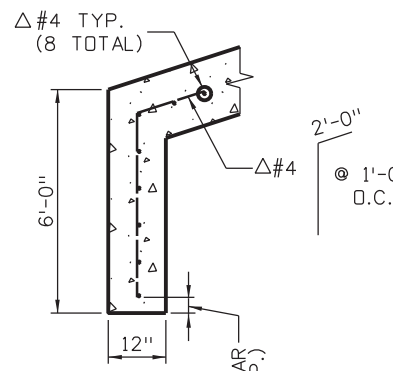
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US 24 WALDO CANYON DETAIL POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset: DRAINAGE	Subset Sheets: A-4 of 14		

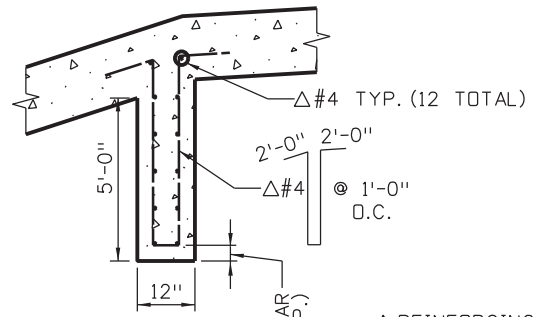
Project No./Code
NH 0242-056
19358
Sheet Number 19



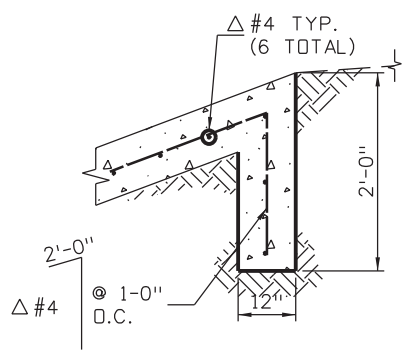
**PLAN VIEW
CONCRETE SLOPE AND DITCH PAVING (SPECIAL)
AT SAND GULCH**
N.T.S.



DETAIL 1
N.T.S.



DETAIL 2
N.T.S.

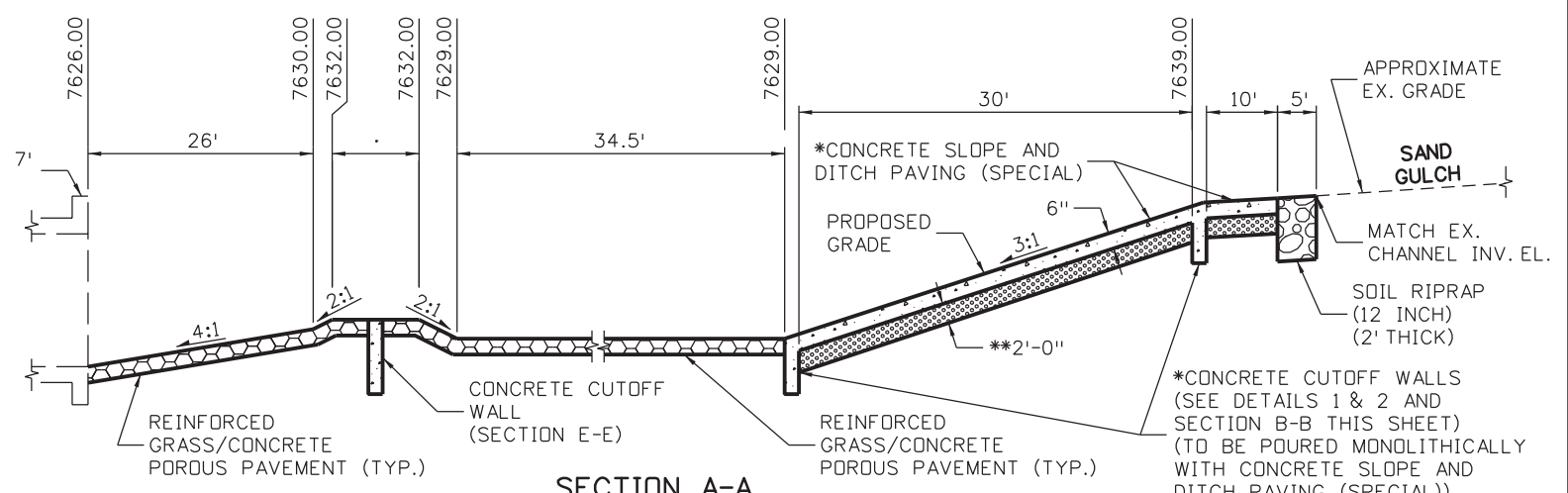


DETAIL 3
N.T.S.

Δ REINFORCING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT INCLUDED IN THE PAY ITEM CONCRETE CLASS B.

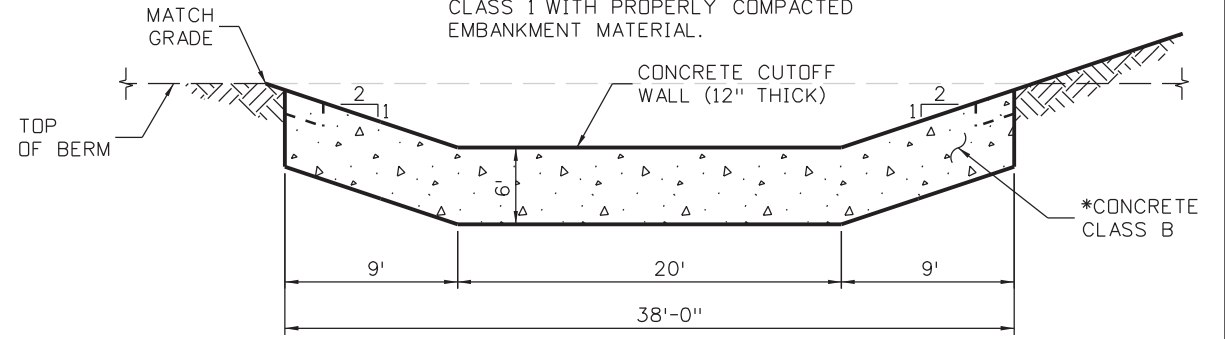
*2.5 LBS. OF AN APPROVED POLYPROPYLENE FIBER, PER CUBIC YARD OF CONCRETE, IN THE SLOPE PAVING AND CUTOFF WALLS. THE FIBER SHALL BE ADDED TO THE CONCRETE MIX IN SUCH A FASHION THAT THE FIBERS ARE UNIFORMLY DISPERSED IN THE CONCRETE WITHOUT VISIBLE BALLS OR CLUMPS IN EITHER THE FINISHED SLOPE/CUTOFF WALL OR IN THE PLASTIC CONCRETE DELIVERED FROM THE CONCRETE TRUCK.

SLOPE PAVING SHALL BE POURED IN 10 FT. TRANSVERSE SECTIONS WITH A TOOLED CONSTRUCTION JOINT AT EACH SECTION.

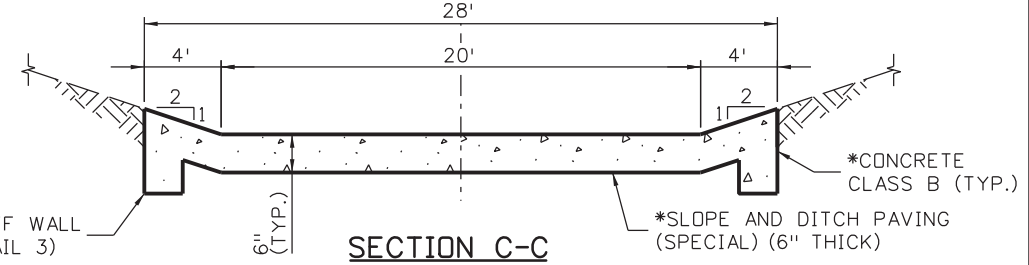


SECTION A-A
N.T.S.

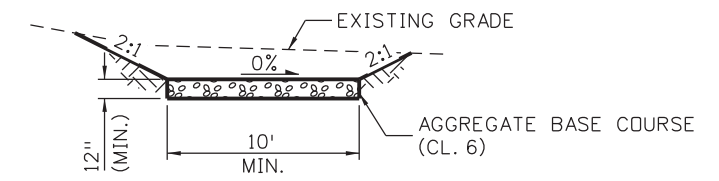
**STRUCTURE BACKFILL (CLASS 1) SLOPE PAVING SUB GRADE PREPARATION SHALL BE PER "DIVISION 200 EARTHWORK" OF CDOT STANDARD SPECIFICATIONS FOR PROOFROLLING, BENCHING AND MOISTURE DENSITY CONTROL. FILL VOIDS REMAINING BELOW 2' OF BACKFILL CLASS 1 WITH PROPERLY COMPACTED EMBANKMENT MATERIAL.



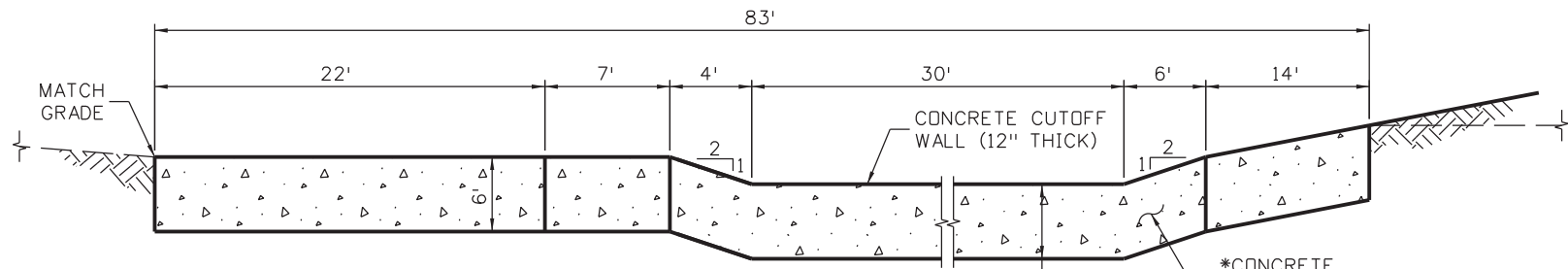
SECTION B-B
N.T.S.
(REINFORCING NOT SHOWN)



SECTION C-C
N.T.S.
(REINFORCING NOT SHOWN)



SECTION D-D
N.T.S.



SECTION E-E
N.T.S.
(REINFORCING NOT SHOWN)

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Detail_SandGulch_02.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

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Revised:
Void:

US 24 WALDO CANYON RUNDOWN DETAIL POUR POINT A - SAND GULCH		
Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset: DRAINAGE	Subset Sheets: A-5 of 14	

Project No./Code
NH 0242-056
19358
Sheet Number 20

Kelly 10:34:42 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_SandGulch_02.dgn

POINT DATA TABLE - POUR POINT A - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	397714.99	145904.51	7637.00	FINISHED GRADE	G75	397472.54	145831.20	7614.00	FINISHED GRADE
G2	397709.91	145913.38	7635.00	FINISHED GRADE	G76	397476.72	145835.51	7614.00	FINISHED GRADE
G3	397719.19	145921.74	7634.00	FINISHED GRADE	G77	397465.55	145832.28	7611.00	FINISHED GRADE
G4	397713.59	145941.38	7631.00	FINISHED GRADE	G78	397462.85	145835.63	7609.00	FINISHED GRADE
G5	397735.21	145912.69	7636.00	FINISHED GRADE	G79	397461.96	145838.47	7609.00	FINISHED GRADE
G6	397757.01	145972.42	7629.00	FINISHED GRADE	G80	397466.66	145836.84	7609.00	FINISHED GRADE
G7	397754.83	145954.55	7638.00	FINISHED GRADE	G81	397465.77	145839.67	7609.00	FINISHED GRADE
G8	397758.80	145953.99	7636.00	FINISHED GRADE	G82	397461.36	145840.38	7608.00	FINISHED GRADE
G9	397795.96	145980.61	7640.00	FINISHED GRADE	G83	397458.09	145837.43	7607.00	FINISHED GRADE
G10	397790.85	146000.18	7639.00	FINISHED GRADE	G84	397458.06	145840.87	7607.00	FINISHED GRADE
G11	397781.44	146006.98	7640.00	FINISHED GRADE	G85	397457.08	145840.64	7607.00	FINISHED GRADE
G12	397763.11	145977.50	7629.00	FINISHED GRADE	G86	397455.54	145838.13	7606.00	FINISHED GRADE
G13	397761.06	145996.59	7629.00	FINISHED GRADE	G87	397443.23	145854.23	7606.00	FINISHED GRADE
G14	397743.52	145974.34	7629.00	FINISHED GRADE	G88	397455.15	145846.82	7607.00	FINISHED GRADE
G15	397741.01	145967.72	7629.00	FINISHED GRADE	G89	397456.11	145847.12	7607.00	FINISHED GRADE
G16	397731.24	145967.68	7629.00	FINISHED GRADE	G90	397453.36	145852.54	7607.00	FINISHED GRADE
G17	397730.88	145990.75	7629.00	FINISHED GRADE	G91	397456.96	145854.43	7609.00	FINISHED GRADE
G18	397755.89	145999.29	7629.00	FINISHED GRADE	G92	397458.75	145855.42	7610.00	FINISHED GRADE
G19	397767.84	146015.96	7641.00	FINISHED GRADE	G93	397458.37	145849.92	7608.00	FINISHED GRADE
G20	397755.81	146026.74	7642.00	FINISHED GRADE	G94	397464.10	145851.72	7608.00	FINISHED GRADE
G21	397734.14	146025.68	7645.00	FINISHED GRADE	G95	397466.80	145856.75	7610.00	FINISHED GRADE
G22	397720.54	146021.03	7645.00	FINISHED GRADE	G96	397469.11	145849.09	7606.00	FINISHED GRADE
G23	397705.09	146011.88	7644.00	FINISHED GRADE	G97	397470.89	145843.41	7606.00	FINISHED GRADE
G24	397690.23	145996.34	7641.00	FINISHED GRADE	G98	397477.59	145851.75	7606.00	FINISHED GRADE
G25	397681.29	145984.23	7638.00	FINISHED GRADE	G99	397481.23	145846.64	7606.00	FINISHED GRADE
G26	397676.81	145967.36	7636.00	FINISHED GRADE	G100	397479.12	145841.79	7608.00	FINISHED GRADE
G27	397687.04	145969.53	7632.00	FINISHED GRADE					
G28	397723.21	145922.64	7634.00	FINISHED GRADE					
G29	397735.33	145922.69	7634.00	FINISHED GRADE					
G30	397739.51	145947.71	7631.00	FINISHED GRADE					
G31	397729.51	145947.67	7631.00	FINISHED GRADE					
G32	397727.41	145956.80	7631.00	FINISHED GRADE					
G33	397725.40	145957.00	7632.00	FINISHED GRADE					
G34	397723.69	145946.23	7634.00	FINISHED GRADE					
G35	397719.68	145945.81	7634.00	FINISHED GRADE					
G36	397722.14	145952.95	7634.00	FINISHED GRADE					
G37	397718.05	145952.89	7634.00	FINISHED GRADE					
G38	397713.40	145956.82	7632.00	FINISHED GRADE					
G39	397709.44	145954.62	7630.00	FINISHED GRADE					
G40	397693.36	145959.28	7626.00	FINISHED GRADE					
G41	397697.23	145968.03	7627.00	FINISHED GRADE					
G42	397690.44	145973.35	7631.00	FINISHED GRADE					
G43	397710.96	145985.23	7631.00	FINISHED GRADE					
G44	397712.95	145986.09	7632.00	FINISHED GRADE					
G45	397716.89	145990.15	7634.00	FINISHED GRADE					
G46	397720.77	145997.87	7634.00	FINISHED GRADE					
G47	397720.89	145990.21	7634.00	FINISHED GRADE					
G48	397724.95	145986.27	7632.00	FINISHED GRADE					
G49	397726.96	145985.22	7631.00	FINISHED GRADE					

POINT DATA TABLE - POUR POINT A - SOIL RIPRAP (12 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SR1	397794.60	145971.42	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR2	397808.85	145972.94	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR3	397804.81	146010.72	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR4	397790.56	146009.20	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR5	397720.76	145916.12	7634.92	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR6	397716.00	145914.58	7634.92	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR7	397706.88	145942.86	7631.08	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR8	397684.85	145952.07	7635.50	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR9	397680.48	145958.10	7636.08	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR10	397660.40	145968.53	7638.04	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR11	397665.01	145977.40	7637.92	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR12	397682.93	145968.09	7633.50	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR13	397688.42	145981.42	7635.00	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR14	397706.86	145992.10	7635.00	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR15	397706.78	145996.99	7637.04	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR16	397718.44	145997.17	7634.75	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT A - SLOPE AND DITCH PAVING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SD1	397803.35	145977.38	-	SLOPE AND DITCH PAVING MATCH EX. GRADE ELEVATION
SD2	397800.37	146005.22	-	SLOPE AND DITCH PAVING MATCH EX. GRADE ELEVATION
SD3	397797.95	145980.82	7640.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD4	397795.82	146000.71	7640.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION

POINT DATA TABLE - POUR POINT A - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	397725.60	145902.65	7638.33	ABC (CL. 6) FINISHED GRADE EL.
BC2	397735.08	145902.69	7639.04	ABC (CL. 6) FINISHED GRADE EL.
BC3	397725.31	145927.65	7633.00	ABC (CL. 6) FINISHED GRADE EL.
BC4	397735.46	145927.23	7633.25	ABC (CL. 6) FINISHED GRADE EL.
BC5	397726.41	145932.66	7632.50	ABC (CL. 6) FINISHED GRADE EL.
BC6	397736.66	145932.70	7632.50	ABC (CL. 6) FINISHED GRADE EL.

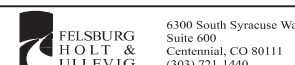
POINT DATA TABLE - POUR POINT A - LOG DEFLECTOR

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
LD1	397813.70	145953.01	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD2	397818.88	145994.29	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD3	397806.14	146033.90	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)

POINT DATA TABLE - POUR POINT A - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	397794.27	145971.38	-	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	397790.23	146009.16	-	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	397764.44	145968.19	7633.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	397760.40	146005.97	7633.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	397721.24	145924.11	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	397721.63	145946.26	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	397720.24	145952.92	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W8	397719.40	145956.91	7632.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W9	397718.95	145986.18	7632.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W10	397718.89	145990.18	7634.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W11	397718.63	146006.89	7638.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

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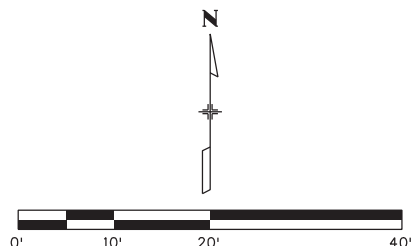
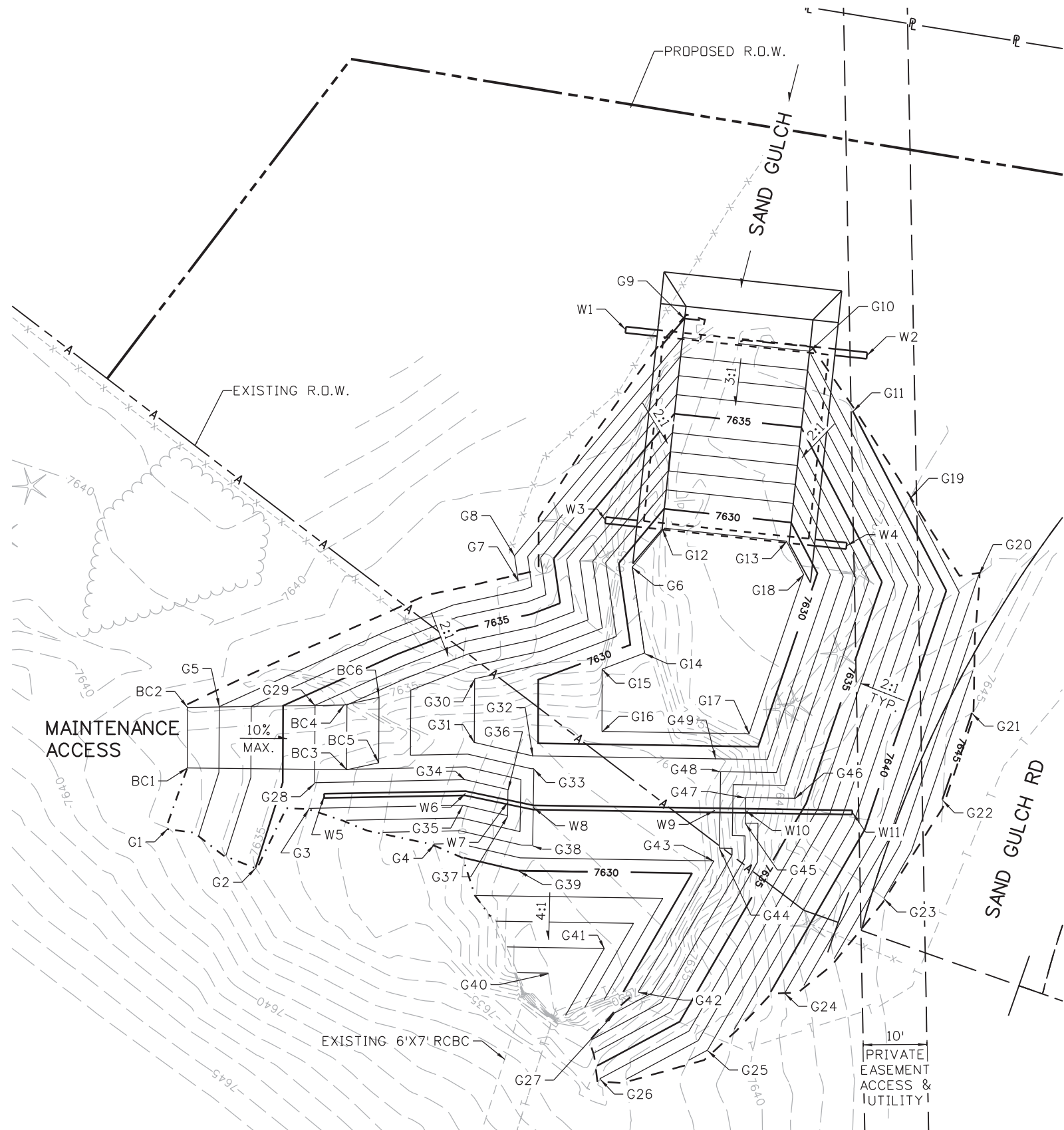
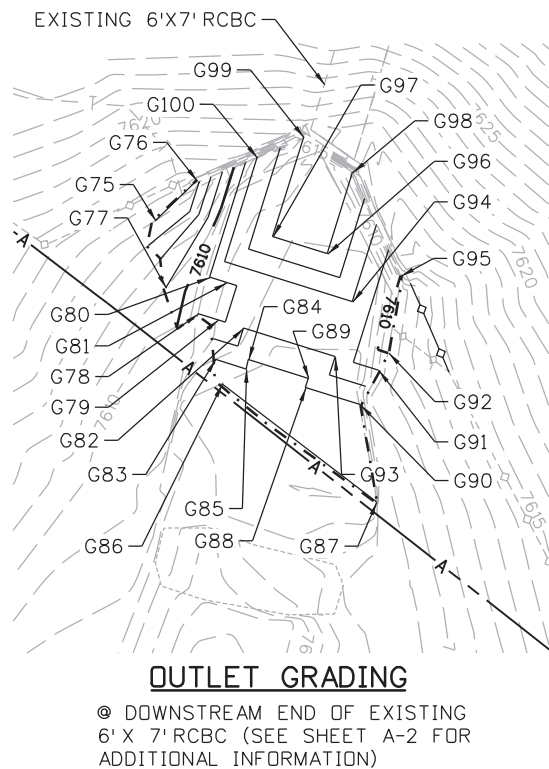
US 24 WALDO CANYON
 DETAIL
POUR POINT A - SAND GULCH

Designer: CDT
 Detailer: KLT
 Sheet Subset: DRAINAGE Subset Sheets: A-6 of 14

Project No./Code
 NH 0242-056
 19358
 Sheet Number **21**

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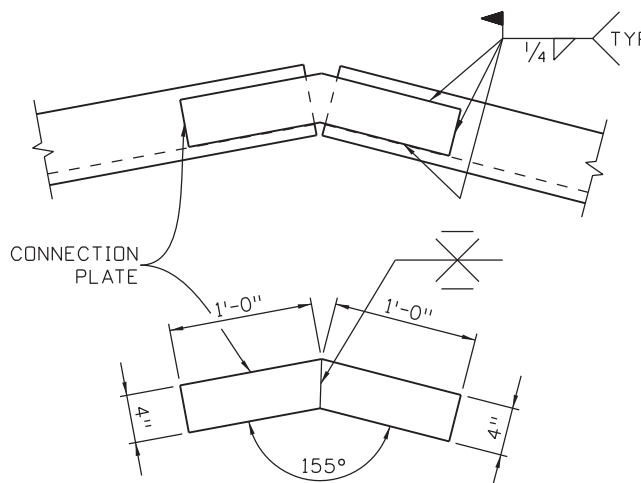
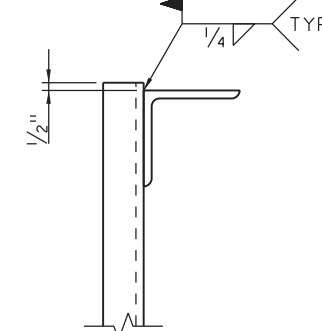
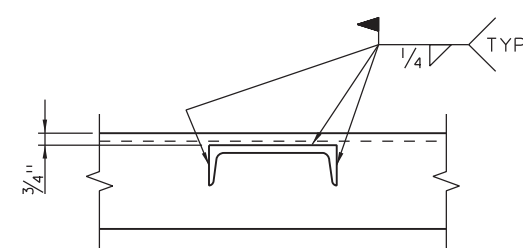
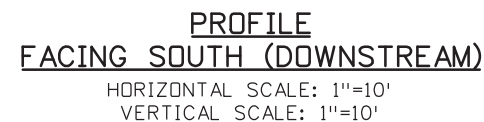
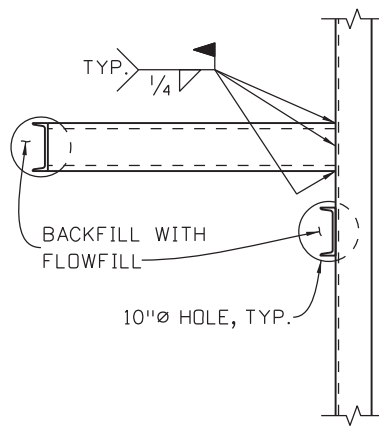
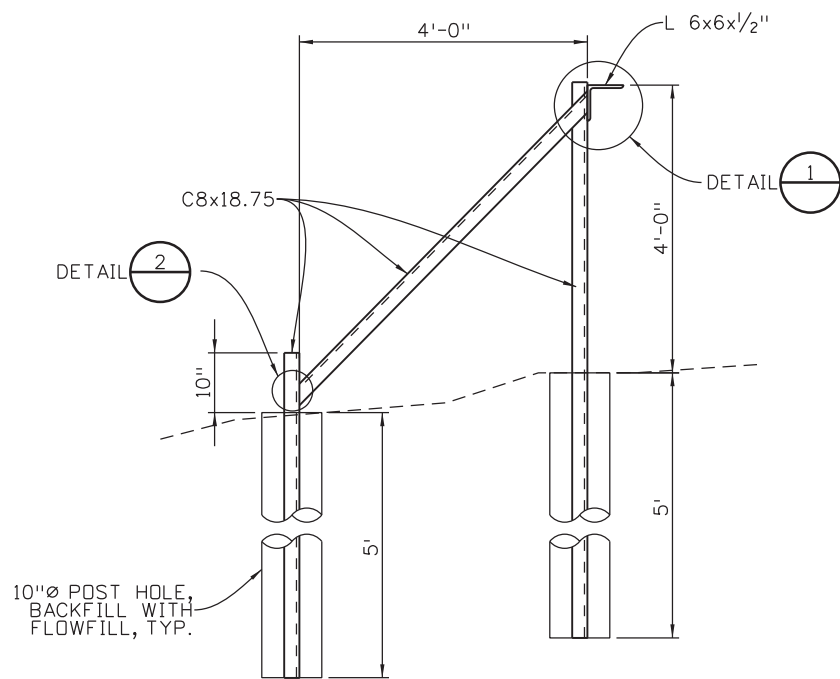
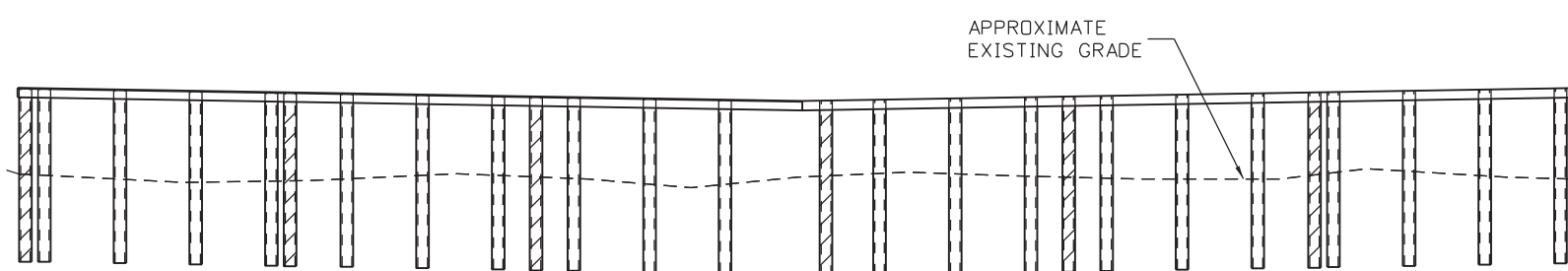
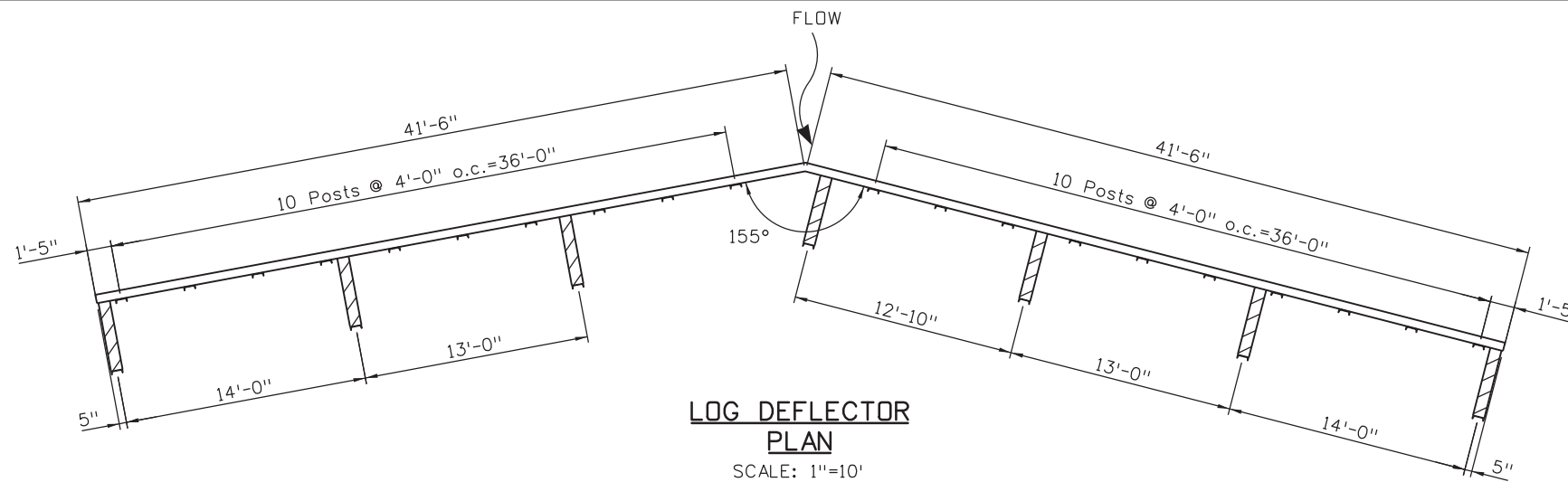
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US 24 WALDO CANYON GRADING DETAIL			
POUR POINT A - SAND GULCH			
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Detailer:	KLT	Numbers	
Sheet Subset:	DRAINAGE	Subset Sheets:	A-7 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 22



NOTES:
ALL STEEL SHALL BE A588.
ALL LABOR, MATERIALS EXCAVATION AND INCIDENTAL ITEMS REQUIRED FOR CONSTRUCTION OF LOG DEFLECTOR SHALL BE INCLUDED IN THE COST OF LOG DEFLECTOR (1 EA).

Print Date: 3/18/2013	0000
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US 24 WALDO CANYON			
DETAIL			
POUR POINT A - SAND GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset: DRAINAGE	Subset Sheets: A-8 of 14		

Project No./Code
NH 0242-056
19358
Sheet Number 23

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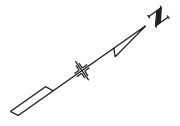
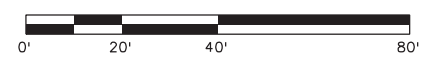
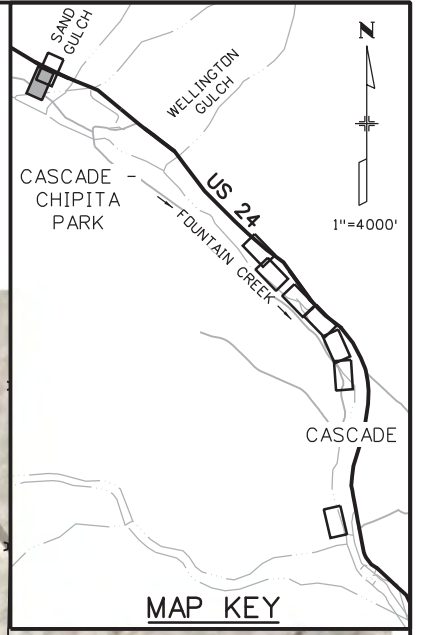


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- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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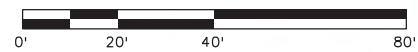
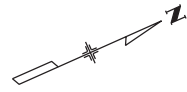
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POUR POINT A - SAND GULCH			
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Project No./Code
NH 0242-056
19358
Sheet Number 24

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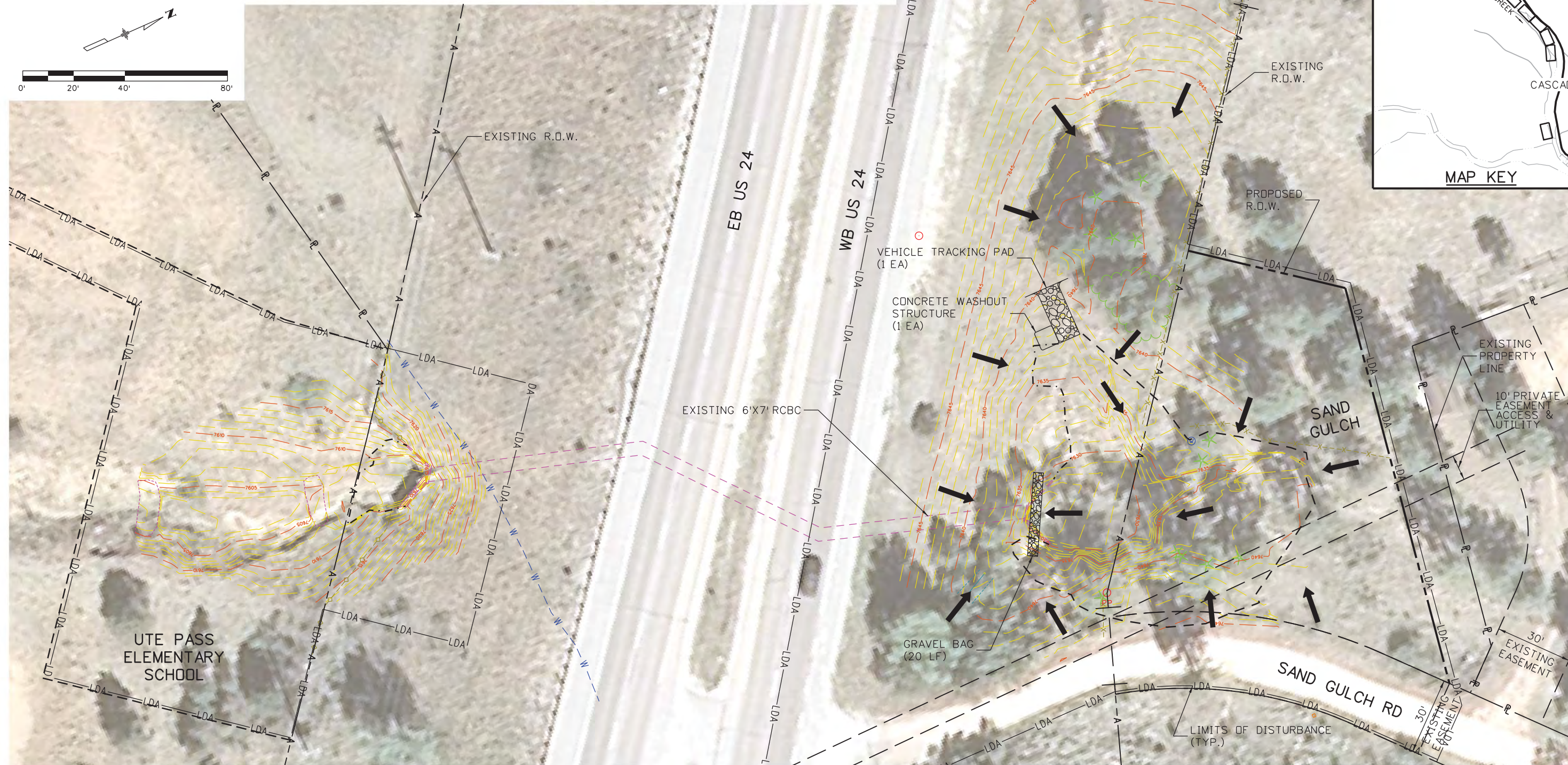


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- LIMITS OF DISTURBANCE -LDA-LDA-
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NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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**US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT A - SAND GULCH**

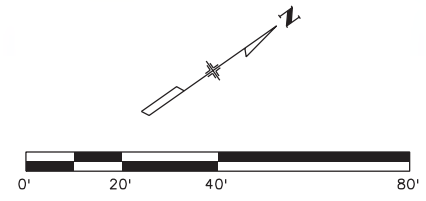
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Project No./Code
NH 0242-056
19358
Sheet Number 25

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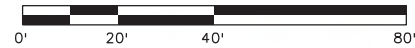
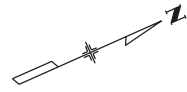
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US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT A - SAND GULCH			
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Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	A-11 of 12

Project No./Code
NH 0242-056
19358
Sheet Number 26



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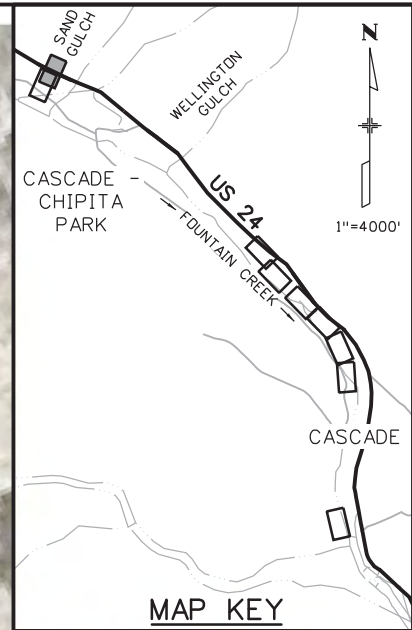
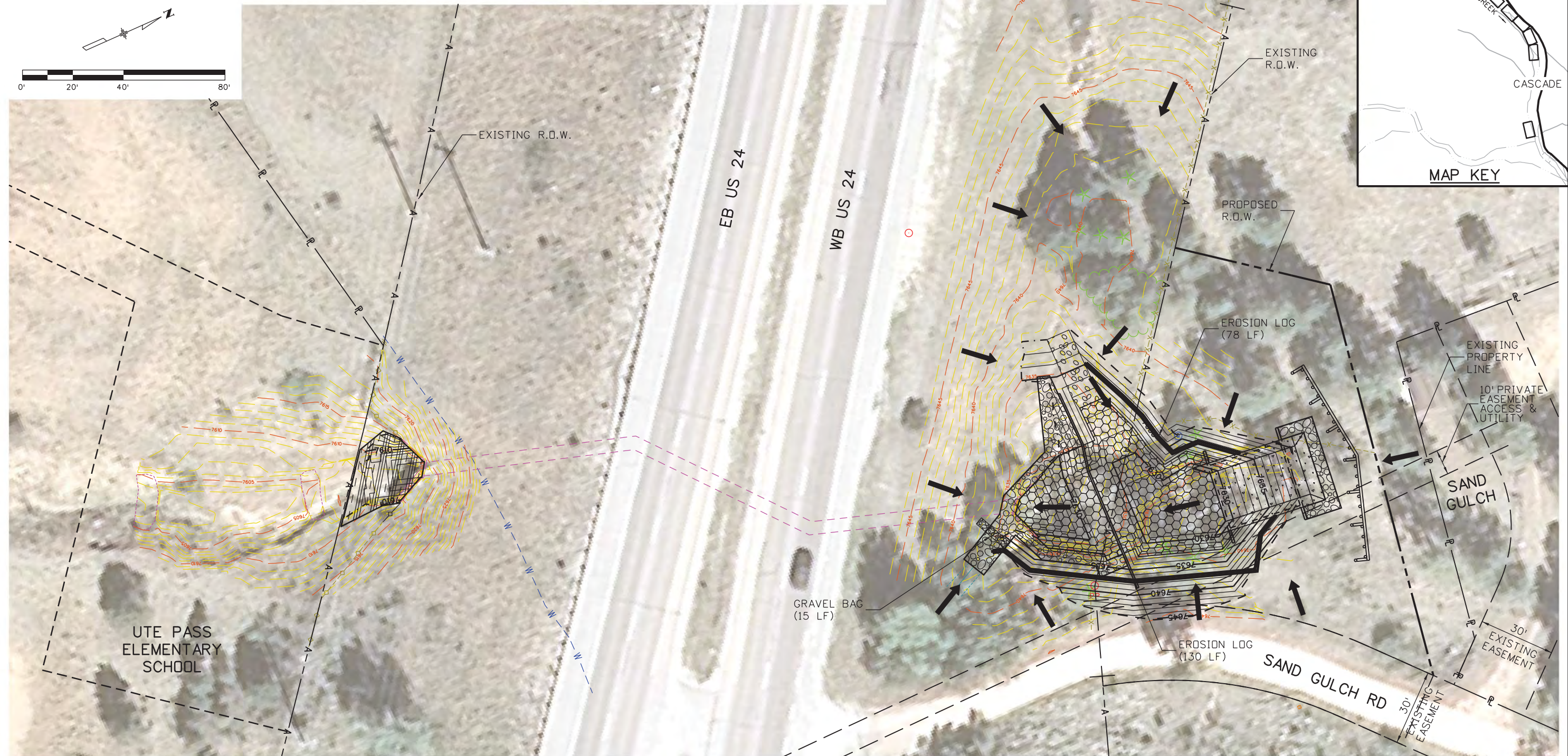


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- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
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NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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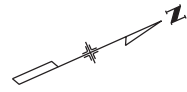
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Detailer:	KLT	
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NH 0242-056
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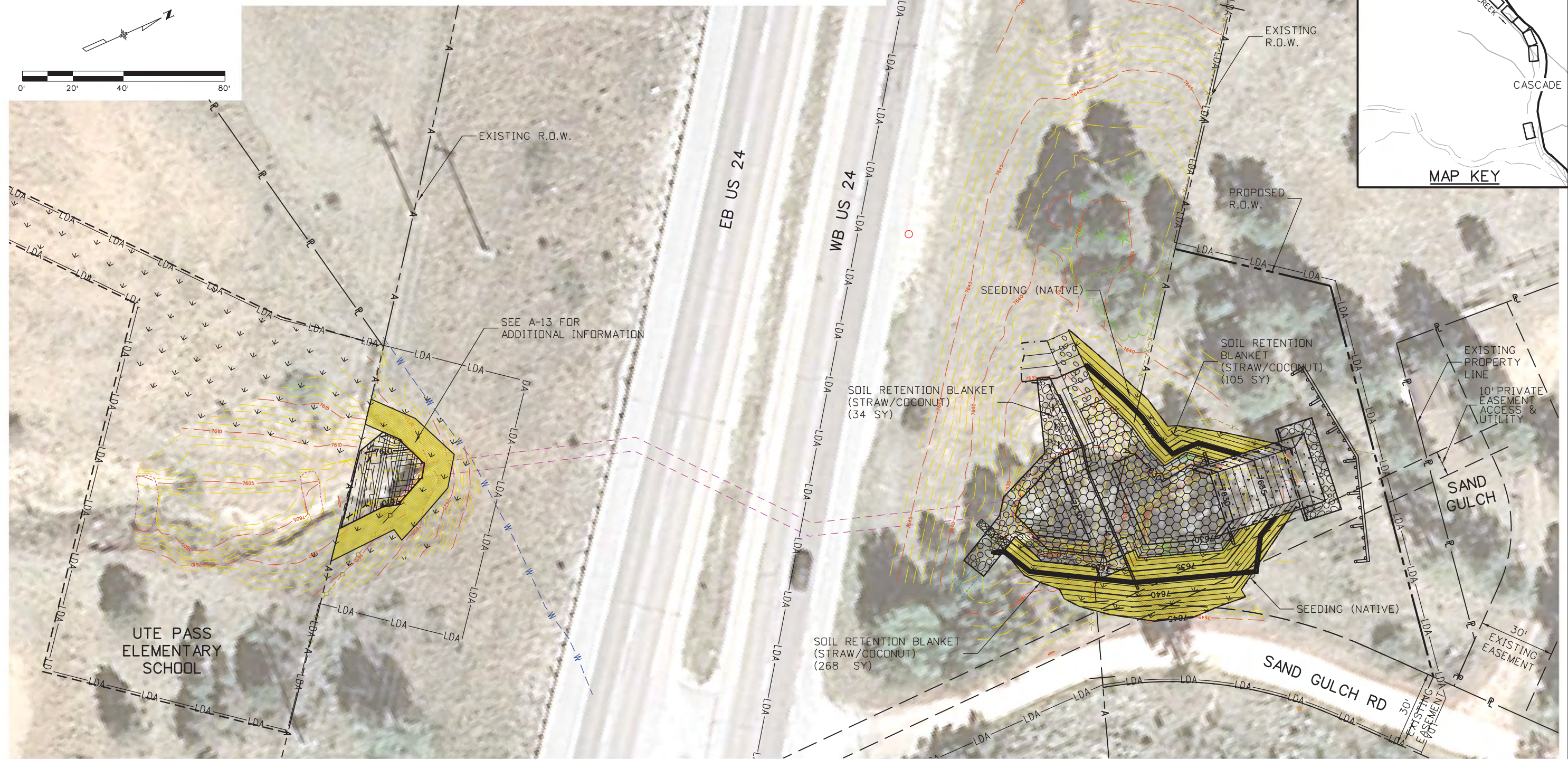
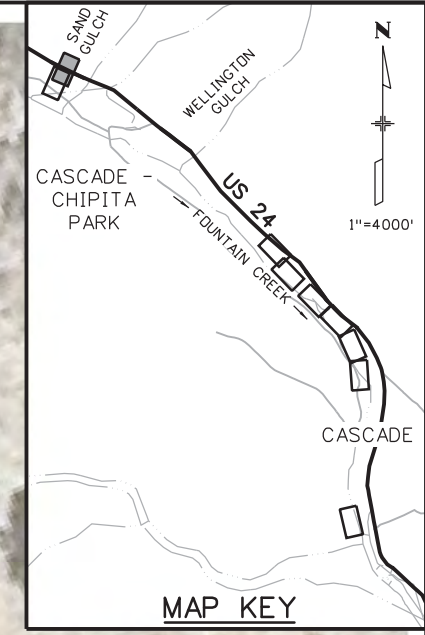


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- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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POUR POINT A - SAND GULCH

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Detailer:	KLT	
Sheet Subset:	EROSION	Subset Sheets: A-14 of 14

Project No./Code
NH 0242-056
19358
Sheet Number 29

POUR POINT B TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	45
202-00035	REMOVAL OF PIPE	LF	3
202-01000	REMOVAL OF FENCE	LF	207
202-04002	CLEAN CULVERT	EA	1
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	2973
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	217
208-00002	EROSION LOG (12 INCH)	LF	293
208-00034	GRAVEL BAG	LF	60
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
212-00006	SEEDING (NATIVE)	AC	0.7
212-00032	SOIL CONDITIONING	AC	0.7
213-00002	MULCHING (WEED FREE)	AC	0.7
214-00215	DECIDUOUS TREE (1.5 INCH CALIPER)	EA	45
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	1165
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	63
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	314
506-00236	RIPRAP (36 INCH)	CY	90
506-00412	SOIL RIPRAP (12 INCH)	CY	118
601-01000	CONCRETE CLASS B	CY	22
607-53173	FENCE CHAIN LINK (SPECIAL) (72 INCH)	LF	260
607-60212	12 FOOT GATE SINGLE (CHAIN LINK)	EA	2
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	1598
615-00620	LOG DEFLECTOR	EA	1

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET		CU. YDS.	
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			WELLINGTON GULCH	34	
			SUBTOTAL	34	
			TOTAL	34	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			WELLINGTON GULCH	2,973	
			OTHER EXCAVATION	0	
			SUBTOTAL	2,973	
			TOTAL FOR PAY QUANTITY	2,973	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	34	
			TOTAL	34	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (34 x 0.040 M. GAL./yd)	M. GAL.	
			TOTAL	1	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY) EMBANKMENT (NET)	CU. YDS.	
			EMBANKMENT X FACTOR (1.15)	39	
			BALANCE TOTAL	39	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	2,973 -2,934	
			BALANCE TOTAL	39	

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Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed	US 24 WALDO CANYON TABULATION		
No Revisions:	POUR POINT B - WELLINGTON GULCH		
Revised:	Designer: CDT	Structure Numbers	
Void:	Detailer: KLT	Sheet Subset: TAB	Subset Sheets: B-1 of 10

Project No./Code	NH 0242-056
	19358
Sheet Number	30

Kelly 10:35:12 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Tabs_Earthwork_Wellington.dgn



Know what's below.
Call before you dig.

TO SAND GULCH

EB US 24

WB US 24

REMOVAL OF FENCE
(207 LF) (CHAIN LINK)

EXISTING GAS

REMOVAL OF PIPE
(3 LF)

*CLEAN CULVERT
(1 EA)

EXISTING
108" CMP

END OF 108"
CMP (AFTER PIPE
REMOVAL)

REMOVAL OF TREE
(TYP.)
(8 EA)

EXISTING
OVERHEAD ELECTRIC
(TO BE PROTECTED)

EXISTING R.O.W.

EXISTING 18" CMP
(TO REMAIN)

EXISTING
OVERHEAD
ELECTRIC

WELLINGTON ROAD

REMOVAL OF TREE
(TYP.)
(18 EA)

PROTECT EX. ELECTRIC
BOX IN PLACE

EXISTING WATER WELL (TO BE PROTECTED)
(CONTRACTOR TO VERIFY PRIOR TO
CONSTRUCTION)

VARIES
EXISTING
EASEMENT

PROPOSED R.O.W.

WELLINGTON GULCH

PROPOSED R.O.W.

PH3

PH4

REMOVAL OF TREE
(TYP.)
(19 EA)

FOR DRAINAGE
STRUCTURE DETAILS
SEE SHEETS B-3 TO B-7

EXISTING OVERHEAD
ELECTRIC
WITH GUY WIRE
(TO BE PROTECTED)

PROPOSED R.O.W.

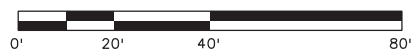
*EXISTING CULVERT TO BE CLEANED; SHALL BE CLEANED
FROM THE INLET SIDE ONLY (NORTH OF US24).

NOTE:

THE REMOVAL OF PIPE (3 LF) SHALL BE
CUT AND MITERED TO THE FINISHED GRADE
SLOPE AS SHOWN IN THE PLANS. SEE DETAILS
FOR FINISHED GRADE ELEVATIONS.

LEGEND

- RIPRAP (36 INCH)
- SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
- AGGREGATE BASE COURSE (CL. 6)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- TOE OF FILL
- TOP OF CUT



Print Date: 3/18/2013

File Name: 19358HYDR_Aerial_Wellington.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

FELSBURG
HOLT &
ULLEVIG
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

0000

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

Region 2

LM

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**US 24 WALDO CANYON
REMOVALS / RESETS
POUR POINT B - WELLINGTON GULCH**

Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	B-2 of 10
Sheet Subset:	ROADWAY		

Project No./Code

NH 0242-056

19358

Sheet Number **31**

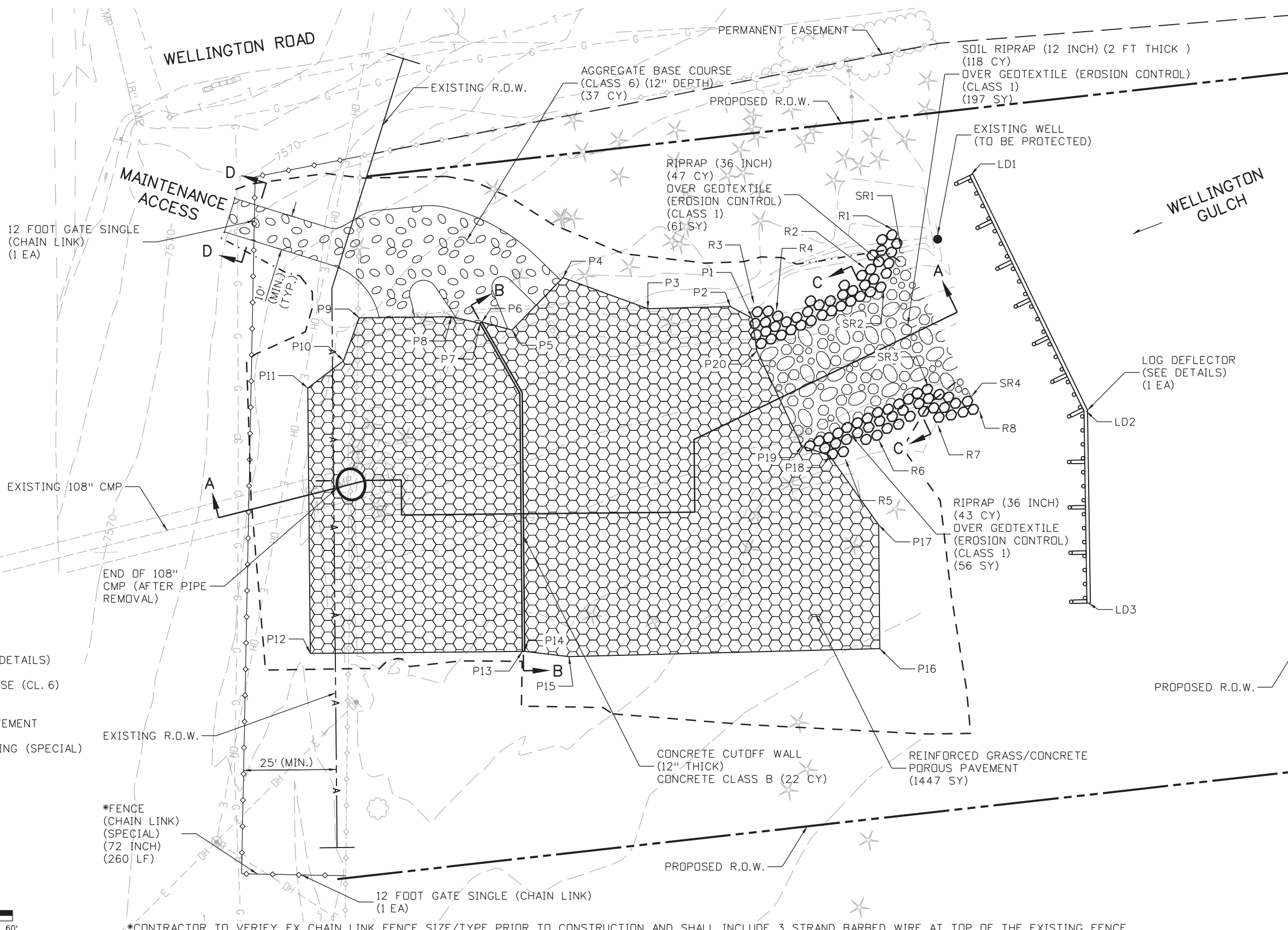
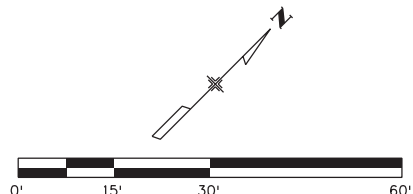


Know what's below.
Call before you dig.

EB US 24

WB US 24

- LEGEND**
- RIPRAP (36 INCH)
 - SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
 - AGGREGATE BASE COURSE (CL. 6)
 - REINFORCED GRASS/ CONCRETE POROUS PAVEMENT
 - SLOPE AND DITCH PAVING (SPECIAL)
 - TOE OF FILL
 - TOP OF CUT



*CONTRACTOR TO VERIFY EX. CHAIN LINK FENCE SIZE/TYPE PRIOR TO CONSTRUCTION AND SHALL INCLUDE 3 STRAND BARBED WIRE AT TOP OF THE EXISTING FENCE.

Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Wellington_01.dgn	
Horiz. Scale: 1:30 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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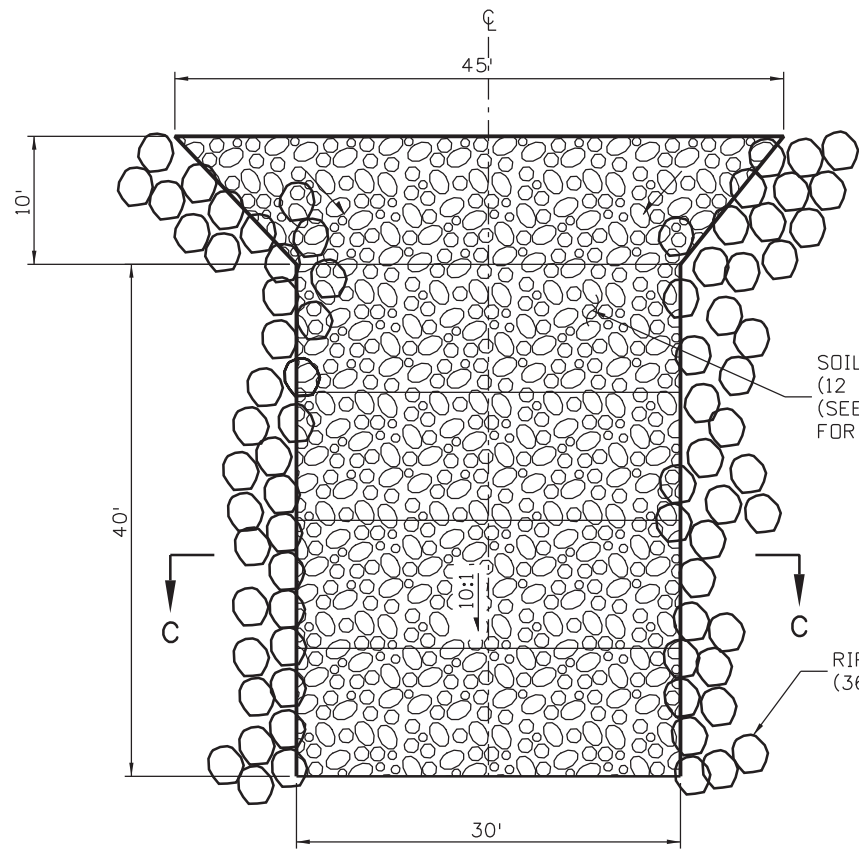
Region 2 LM

As Constructed
No Revisions:
Revised:
Void:

US 24 WALDO CANYON DETAIL POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	B-3 of 10
Sheet Subset:	DRAINAGE		

Project No./Code
NH 0242-056
19358
Sheet Number 32

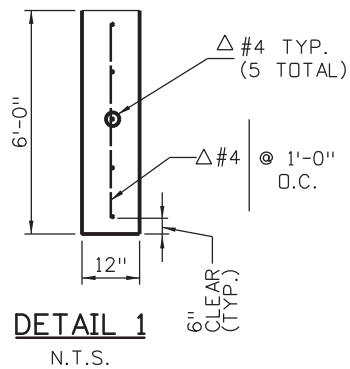
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**PLAN VIEW
SOIL RIPRAP RUNDOWN
AT WELLINGTON GULCH**
N.T.S.

SOIL RIPRAP
(12 INCH)
(SEE SHEET J-10
FOR DETAILS)

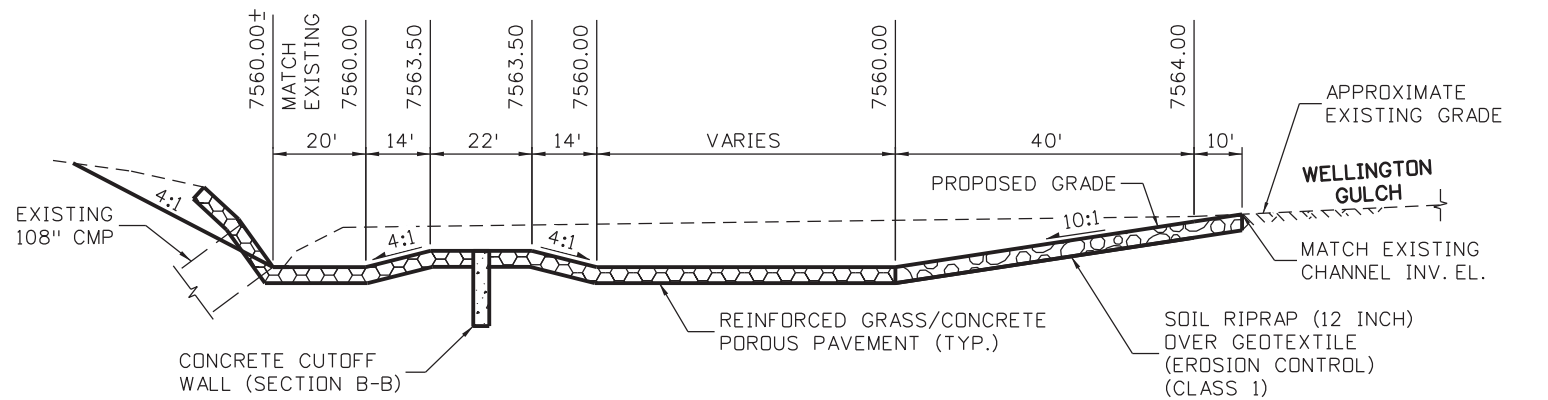
RIPRAP
(36 INCH)



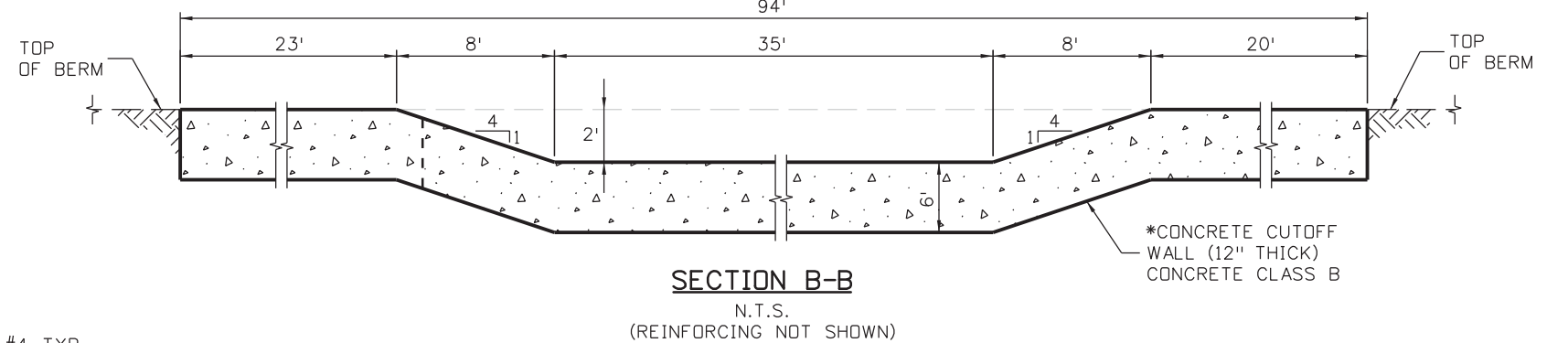
DETAIL 1
N.T.S.

△ REINFORCING WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT INCLUDED IN THE PAY ITEM CONCRETE CLASS B.

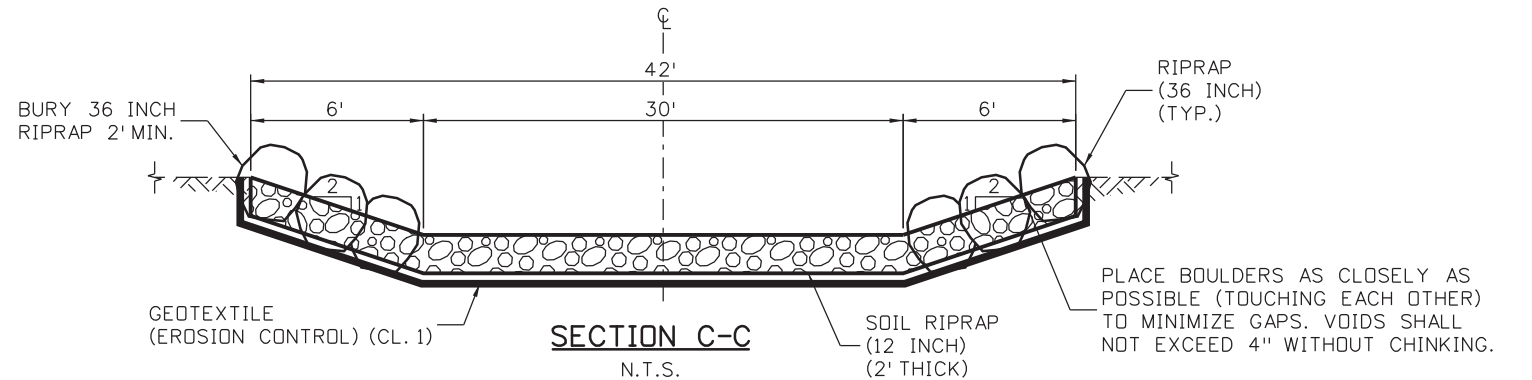
*2.5 LBS. OF AN APPROVED POLYPROPYLENE FIBER, PER CUBIC YARD OF CONCRETE, IN THE SLOPE PAVING AND CUTOFF WALLS. THE FIBER SHALL BE ADDED TO THE CONCRETE MIX IN SUCH A FASHION THAT THE FIBERS ARE UNIFORMLY DISPERSED IN THE CONCRETE WITHOUT VISIBLE BALLS OR CLUMPS IN EITHER THE FINISHED SLOPE/CUTOFF WALL OR IN THE PLASTIC CONCRETE DELIVERED FROM THE CONCRETE TRUCK.



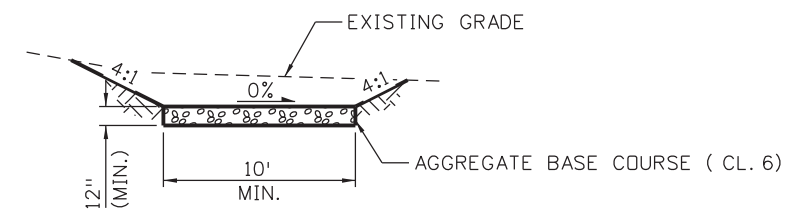
SECTION A-A
N.T.S.



SECTION B-B
N.T.S.
(REINFORCING NOT SHOWN)



SECTION C-C
N.T.S.



SECTION D-D
N.T.S.

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File Name: 19358HYDR_Detail_Wellington_02.dgn	
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Date:	Comments	Init.

Colorado Department of Transportation

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Region 2 LM

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Revised:
Void:

US 24 WALDO CANYON RUNDOWN DETAIL		
POUR POINT B - WELLINGTON GULCH		
Designer: CDT	Structure Numbers	
Detailer: KLT		
Sheet Subset: DRAINAGE	Subset Sheets: B-4 of 10	

Project No./Code
NH 0242-056
19358
Sheet Number 33

POINT DATA TABLE - POUR POINT B - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	396162.89	148013.92	7559.00	FINISHED GRADE
G2	396174.65	148008.24	7559.00	FINISHED GRADE
G3	396195.33	148023.80	7559.00	FINISHED GRADE
G4	396216.23	148047.68	7558.00	FINISHED GRADE
G5	396142.14	148044.32	7558.00	FINISHED GRADE
G6	396158.61	148051.16	7557.00	FINISHED GRADE
G7	396169.04	148046.71	7557.00	FINISHED GRADE
G8	396178.48	148048.10	7555.00	FINISHED GRADE
G9	396190.34	148046.23	7555.00	FINISHED GRADE
G10	396175.40	148061.90	7553.00	FINISHED GRADE
G11	396183.73	148070.66	7553.00	FINISHED GRADE
G12	396226.13	148065.51	7555.00	FINISHED GRADE
G13	396208.56	148073.40	7555.00	FINISHED GRADE
G14	396219.73	148070.94	7555.00	FINISHED GRADE
G15	396236.17	148099.91	7555.00	FINISHED GRADE
G16	396237.15	148112.62	7555.00	FINISHED GRADE
G17	396207.38	148123.03	7550.00	FINISHED GRADE
G18	396219.61	148123.30	7590.00	FINISHED GRADE
G19	396237.10	148142.10	7550.00	FINISHED GRADE
G20	396242.77	148148.19	7550.00	FINISHED GRADE
G21	396263.09	148130.69	7557.00	FINISHED GRADE
G22	396264.85	148146.16	7557.00	FINISHED GRADE
G23	396281.75	148157.13	7557.00	FINISHED GRADE
G24	396289.08	148155.48	7557.00	FINISHED GRADE
G25	396289.09	148157.53	7556.00	FINISHED GRADE
G26	396281.01	148161.33	7555.00	FINISHED GRADE
G27	396279.94	148162.97	7554.00	FINISHED GRADE
G28	396268.86	148190.85	7554.00	FINISHED GRADE
G29	396272.25	148193.46	7555.00	FINISHED GRADE
G30	396264.44	148194.03	7556.00	FINISHED GRADE
G31	396248.79	148196.27	7557.00	FINISHED GRADE
G32	396231.69	148176.07	7550.00	FINISHED GRADE
G33	396227.61	148180.91	7550.00	FINISHED GRADE
G34	396219.58	148201.12	7550.00	FINISHED GRADE
G35	396244.82	148215.75	7557.00	FINISHED GRADE

POINT DATA TABLE - POUR POINT B - LOG DEFLECTOR

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
LD1	396321.53	148158.63	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD2	396294.47	148228.70	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)
LD3	396254.75	148266.90	-	LIMITS OF LOG DEFLECTOR (SEE DETAILS FOR VERTICAL INFORMATION)

POINT DATA TABLE - POUR POINT B - RIPRAP (36 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
R1	396317.07	148164.00	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R2	396299.17	148161.45	7558.00	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R3	396252.08	148139.48	7564.04	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R4	396258.02	148147.47	7565.50	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R5	396237.53	148187.46	7563.83	LIMITS OF SOIL RIPRAP (36 INCH) - FINISHED GRADE EL.
R6	396271.87	148199.41	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R7	396286.58	148211.09	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.
R8	396296.98	148217.21	-	LIMITS OF RIPRAP (36 INCH) - MATCH EX. GRADE EL.

POINT DATA TABLE - POUR POINT B - SOIL RIPRAP (12 INCH)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SR1	396320.62	148168.92	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR2	396307.82	148174.05	7566.83	LIMITS OF SOIL RIPRAP (12 INCH) - FINISHED GRADE EL.
SR3	396296.74	148201.93	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.
SR4	396303.05	148213.12	-	LIMITS OF SOIL RIPRAP (12 INCH) - MATCH EX. GRADE EL.

POINT DATA TABLE - POUR POINT B - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	396194.84	148084.90	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	396187.94	148107.02	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	396184.32	148110.46	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	396179.97	148114.60	7563.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	396154.60	148138.71	7563.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	396150.25	148142.84	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	396134.31	148158.00	7565.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

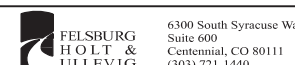
POINT DATA TABLE - POUR POINT B - POROUS PAVERS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	396248.74	148140.82	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	396246.89	148133.96	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	396230.37	148117.14	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	396220.28	148093.31	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	396199.36	148092.84	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	396195.16	148084.99	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	396194.52	148084.80	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	396190.31	148077.58	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P9	396172.12	148058.44	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P10	396160.08	148063.57	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	396147.36	148061.43	7564.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	396092.28	148113.79	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	396134.08	148157.76	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	396134.54	148158.24	7565.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	396142.09	148168.54	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	396204.46	148232.04	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P17	396230.14	148207.63	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P18	396235.05	148183.86	7563.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P19	396231.69	148176.07	7560.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P20	396242.77	148148.19	7560.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT B - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	396163.79	148013.48	7569.00	ABC (CL. 6) FINISHED GRADE EL.
BC2	396172.79	148009.13	7569.00	ABC (CL. 6) FINISHED GRADE EL.
BC3	396185.06	148034.56	7566.25	ABC (CL. 6) FINISHED GRADE EL.
BC4	396177.73	148042.37	7565.67	ABC (CL. 6) FINISHED GRADE EL.
BC5	396176.06	148062.59	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC6	396183.04	148069.93	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC7	396190.99	148063.58	7564.50	ABC (CL. 6) FINISHED GRADE EL.
BC8	396193.48	148068.21	7565.00	ABC (CL. 6) FINISHED GRADE EL.
BC9	396198.77	148091.75	7565.00	ABC (CL. 6) FINISHED GRADE EL.
BC10	396212.07	148054.95	7565.75	ABC (CL. 6) FINISHED GRADE EL.
BC11	396217.77	148068.86	7565.25	ABC (CL. 6) FINISHED GRADE EL.
BC12	396207.16	148079.49	7564.75	ABC (CL. 6) FINISHED GRADE EL.
BC13	396209.28	148093.06	7563.00	ABC (CL. 6) FINISHED GRADE EL.
BC14	396219.28	148093.29	7563.00	ABC (CL. 6) FINISHED GRADE EL.

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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 1480 Quail Lake Loop 80806
 Colorado Springs, CO Phone: 719-227-3201 FAX: 719-227-3298
 Region 2 LM

As Constructed
 No Revisions:
 Revised:
 Void:

US 24 WALDO CANYON
 DETAIL
 POUR POINT B - WELLINGTON GULCH

Designer: CDT
 Detailer: KLT
 Sheet Subset: DRAINAGE Subset Sheets: B-5 of 10

Project No./Code
 NH 0242-056
 19358
 Sheet Number **34**

Kelly 10:35:35 AM K:\112266-06\19358HYDR\Drawings\19358HYDR_Detail_Wellington_03.dgn



Know what's below.
Call before you dig.

EB US 24

WB US 24

WELLINGTON ROAD

PERMANENT EASEMENT
EXISTING R.O.W.
PROPOSED R.O.W.

WELLINGTON GULCH

MAINTENANCE ACCESS

EXISTING 108" CMP

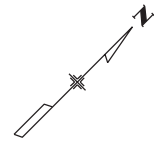
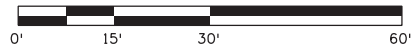
EXISTING R.O.W.

PROPOSED R.O.W.

PROPOSED R.O.W.

LEGEND

- - - - - TOE OF FILL
- - - - - TOP OF CUT



Print Date: 3/18/2013	
File Name: 19358HYDR_Detail_Wellington_04.dgn	
Horiz. Scale: 1:30	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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 Colorado Springs, CO 80806
 Phone: 719-227-3201 FAX: 719-227-3298

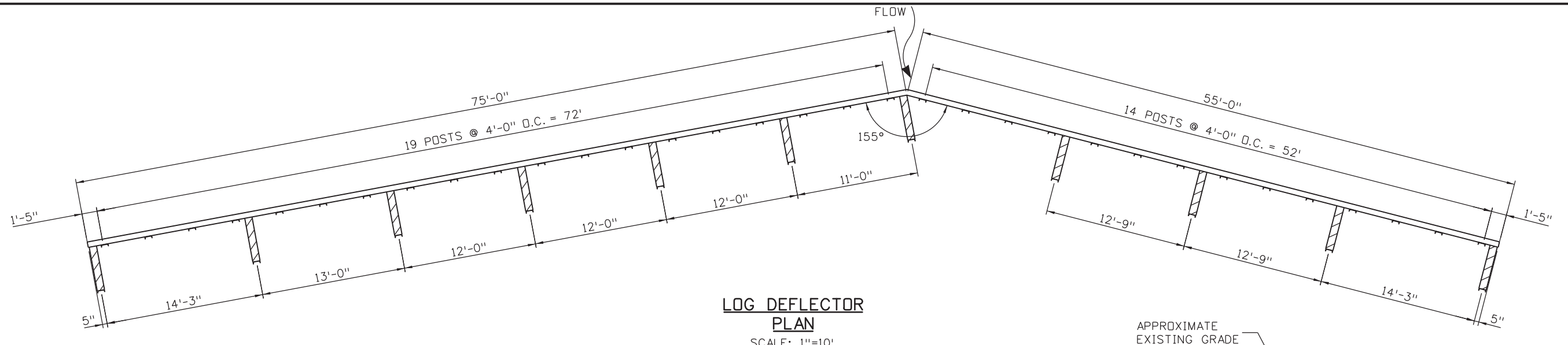
Region 2 LM

As Constructed
No Revisions:
Revised:
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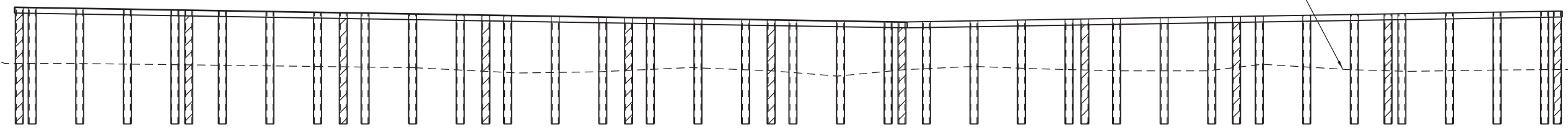
US 24 WALDO CANYON GRADING DETAIL			
POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	B-6 of 10
Sheet Subset:	DRAINAGE		

Project No./Code
NH 0242-056
19358
Sheet Number 35

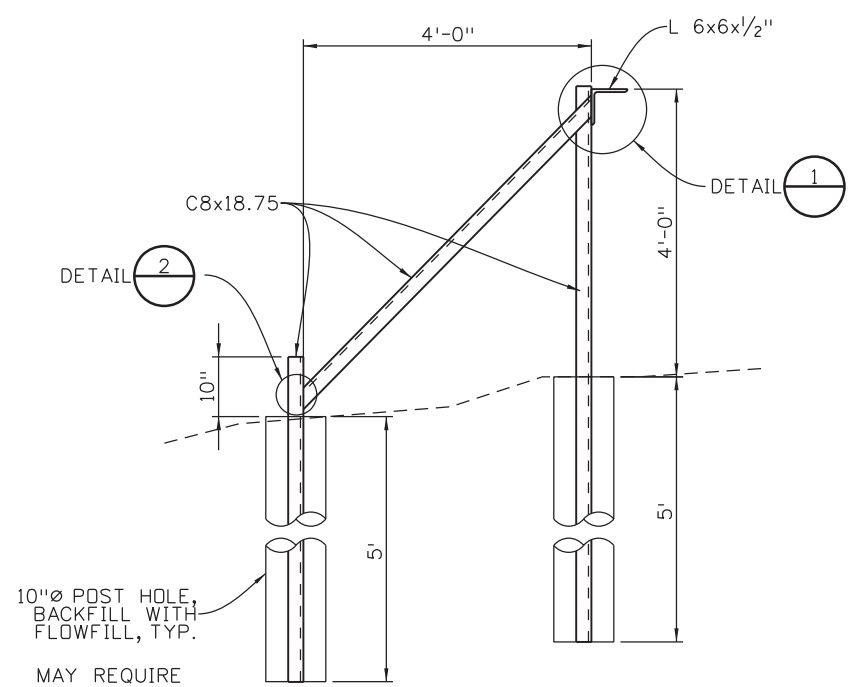
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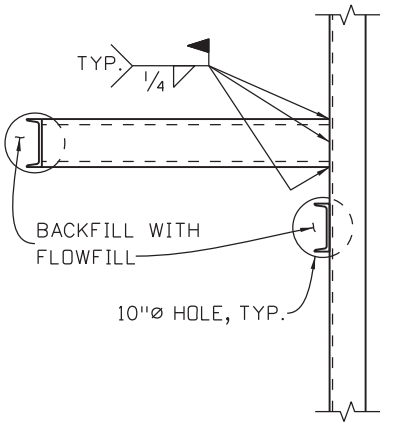
LOG DEFLECTOR PLAN
SCALE: 1"=10'



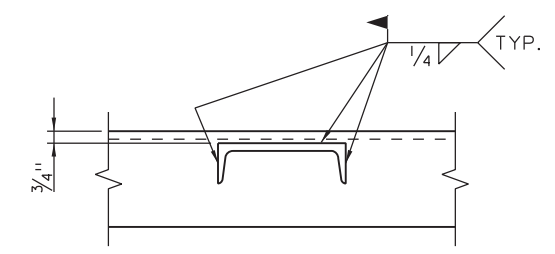
PROFILE FACING SOUTH (DOWNSTREAM)
HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



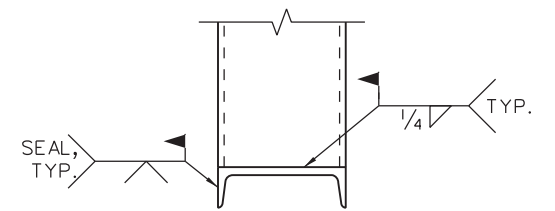
SECTION FACING WEST
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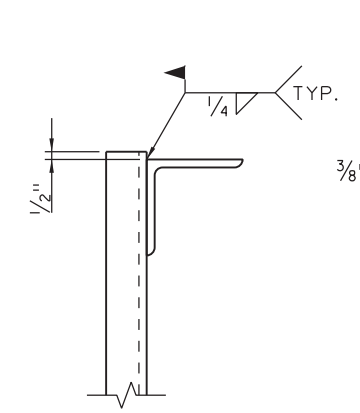
DIAGONAL PLAN
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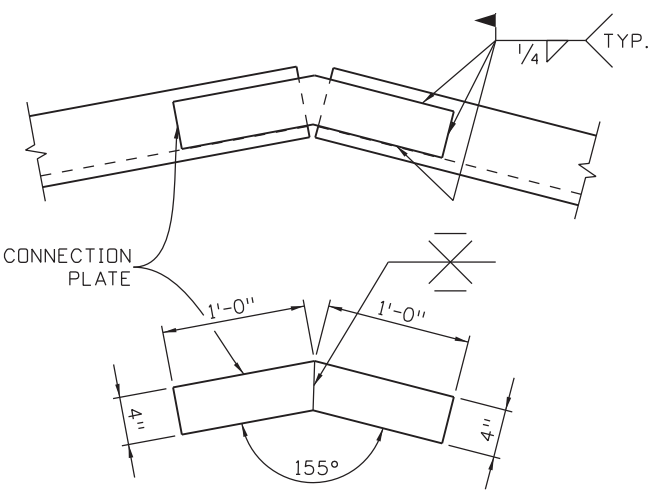
DETAIL 1
1"=1'-0"



DETAIL 2
1"=1'-0"



TOP DETAIL
1"=1'-0"



ANGLE CONNECTION DETAIL
3/4"=1'-0"

NOTES:
ALL STEEL SHALL BE A588.
ALL LABOR, MATERIALS EXCAVATION AND INCIDENTAL ITEMS REQUIRED FOR CONSTRUCTION OF LOG DEFLECTOR SHALL BE INCLUDED IN THE COST OF LOG DEFLECTOR (1 EA).

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Print Date: 3/18/2013	0000
File Name: 19358HYDR_Detail_Wellington_05-Steel.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
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Sheet Revisions		
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Colorado Department of Transportation

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US 24 WALDO CANYON			
DETAIL			
POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset: DRAINAGE		Subset Sheets: B-7 of 10	

Project No./Code
NH 0242-056
19358
Sheet Number 36



Know what's below.
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NOTES:
1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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File Name: 19358Erosion_INI_Wellington.dgn
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US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	B-8 of 10

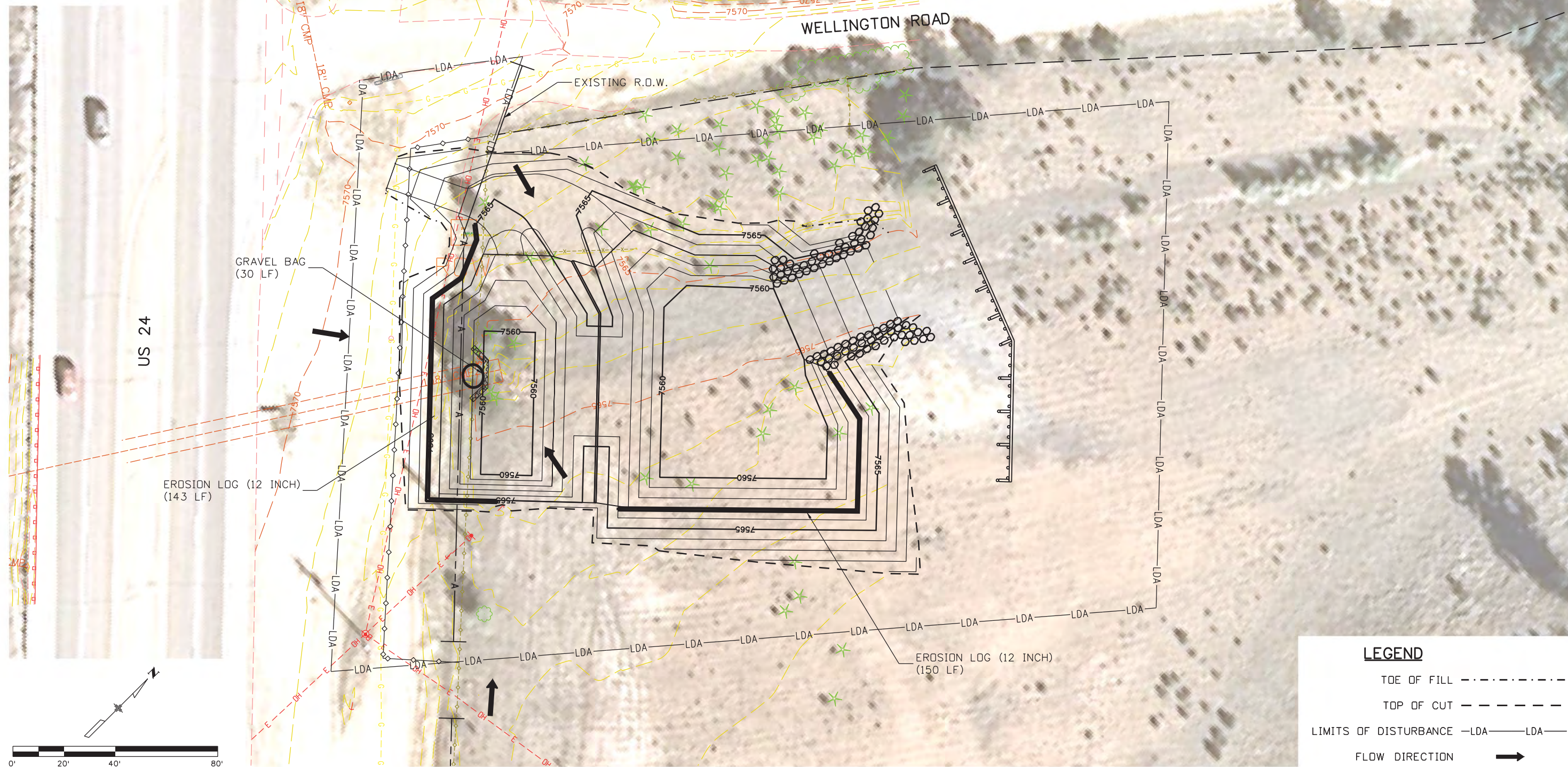
Project No./Code
NH 0242-056
19358
Sheet Number 37

Kelly 10:35:43 AM K:\112266-06\19358\Environment\Drawings\19358Erosion_INI_Wellington.dgn



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NOTES:
1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

Print Date: 3/18/2013

File Name: 19358Erosion_INT_Wellington.dgn
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US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT B - WELLINGTON GULCH			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	B-9 of 10

Project No./Code

NH 0242-056

19358

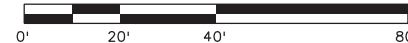
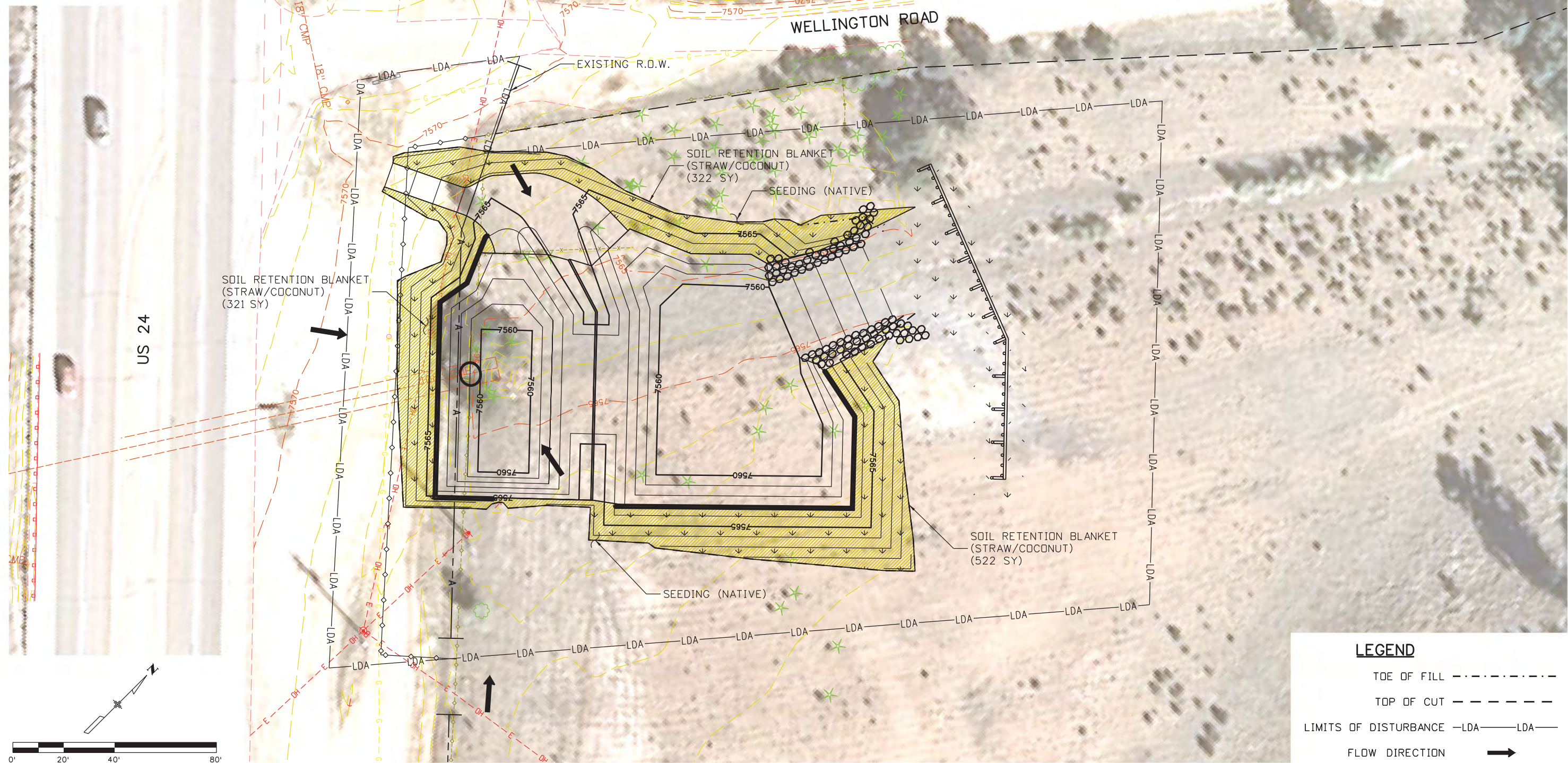
Sheet Number **38**

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NOTES:
1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA-LDA-
- FLOW DIRECTION →

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Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	B-10 of 10

Project No./Code
NH 0242-056
19358
Sheet Number 39

POUR POINT C TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-0001	CLEARING AND GRUBBING	LS	1
202-00010	REMOVAL OF TREE	EA	17
202-00220	REMOVAL OF ASPHALT MAT	SY	792
202-01000	REMOVAL OF FENCE	LF	137
202-04002	CLEAN CULVERT	EA	7
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	3000
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
207-00205	TOPSOIL	CY	320
208-00002	EROSION LOG (12 INCH)	LF	1300
208-00020	SILT FENCE	LF	241
208-00034	GRAVEL BAG	LF	486
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-01130	RESET GUARDRAIL TYPE 3	LF	43
212-00006	SEEDING (NATIVE)	AC	0.4
212-00032	SOIL CONDITIONING	AC	0.4
213-00002	MULCHING (WEED FREE)	AC	0.4
214-00450	EVERGREEN TREE (5 GALLON CONTAINER)	EA	17
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	2105
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	23
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	1171
506-00030	GROUTED RIPRAP	CY	120
506-00412	SOIL RIPRAP (12 INCH)	CY	423
507-00725	SLOPE AND DITCH PAVING (SPECIAL)	CY	120
601-01000	CONCRETE CLASS B	CY	103
603-01240	24 INCH REINFORCED CONCRETE PIPE (CIP)	LF	154
603-01420	42 INCH REINFORCED CONCRETE PIPE (CIP)	LF	108
603-05024	24 INCH REINFORCED CONCRETE END SECTION	EA	4
603-05042	42 INCH REINFORCED CONCRETE END SECTION	EA	2
604-50050	INLET GRATING AND FRAME SPECIAL	EA	1
608-00100	REINFORCED GRASS/CONCRETE POROUS PAVEMENT	SY	491

NOTE: TREES SHALL BE PLACED AS DIRECTED BY THE ENGINEER.

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET			
			EMBANKMENT MATERIAL (CIP) (FOR INFO. ONLY)	CU. YDS.	
			CASCADE SLIDE AREA	881	
			SUBTOTAL	881	
			TOTAL	881	
			UNCLASSIFIED EXCAVATION	CU. YDS.	
			CASCADE SLIDE AREA	2,921	
			OTHER EXCAVATION	79	
			SUBTOTAL	3,000	
			TOTAL FOR PAY QUANTITY	3,000	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	881	
			TOTAL	881	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (881 x 0.040 M. GAL./yd)	M. GAL. 35	
			TOTAL	35	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YDS.	
			EMBANKMENT (NET)	881	
			EMBANKMENT X FACTOR (1.15)	1,013	
			BALANCE TOTAL	1,013	
			UNCLASSIFIED EXCAVATION TO BE EXPORTED BY THE CONTRACTOR	3,000 -1,987	
			BALANCE TOTAL	1,013	

Print Date: 3/18/2013	0000
File Name: 19358HYDR_Tabs_Earthwork_Cascade.dgn	
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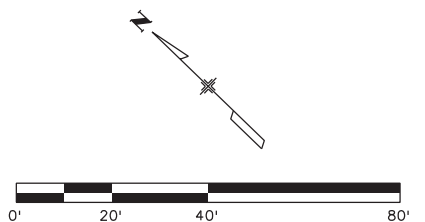
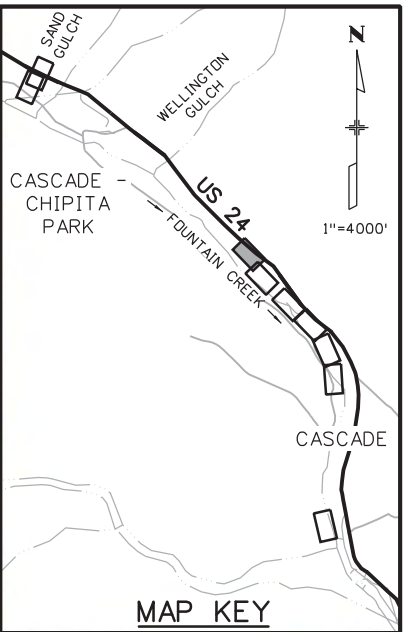
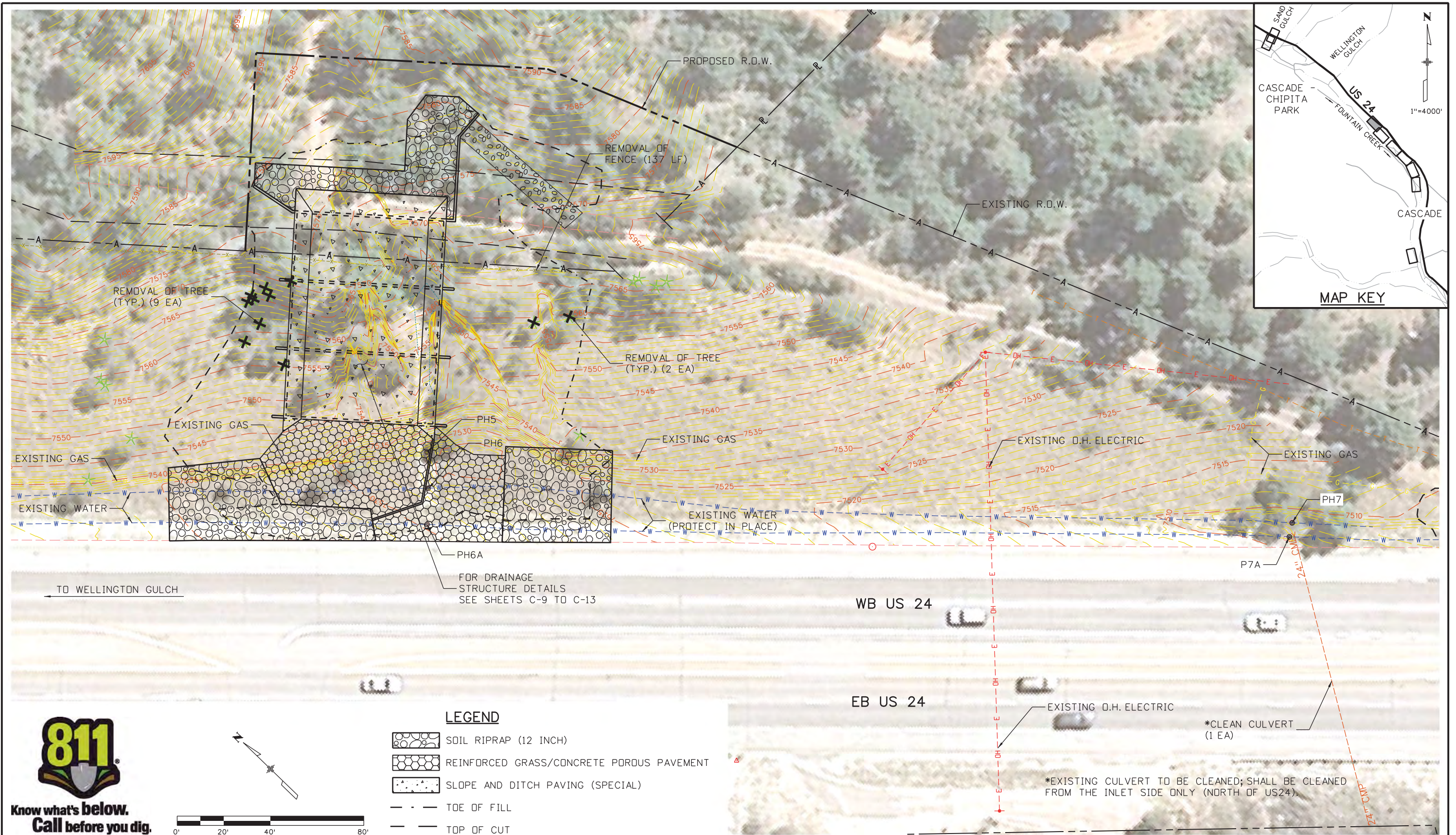
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US 24 WALDO CANYON TABULATION POUR POINT C - CASCADE			
Designer:	CDT	Structure	
Detailer:	KL T	Numbers	
Sheet Subset:	TAB	Subset Sheets:	C-1 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	40

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LEGEND

	SOIL RIPRAP (12 INCH)
	REINFORCED GRASS/CONCRETE POROUS PAVEMENT
	SLOPE AND DITCH PAVING (SPECIAL)
	TOE OF FILL
	TOP OF CUT

Print Date: 3/18/2013
File Name: 19358HYDR_Aerial_Cascade_01.dgn
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Void:

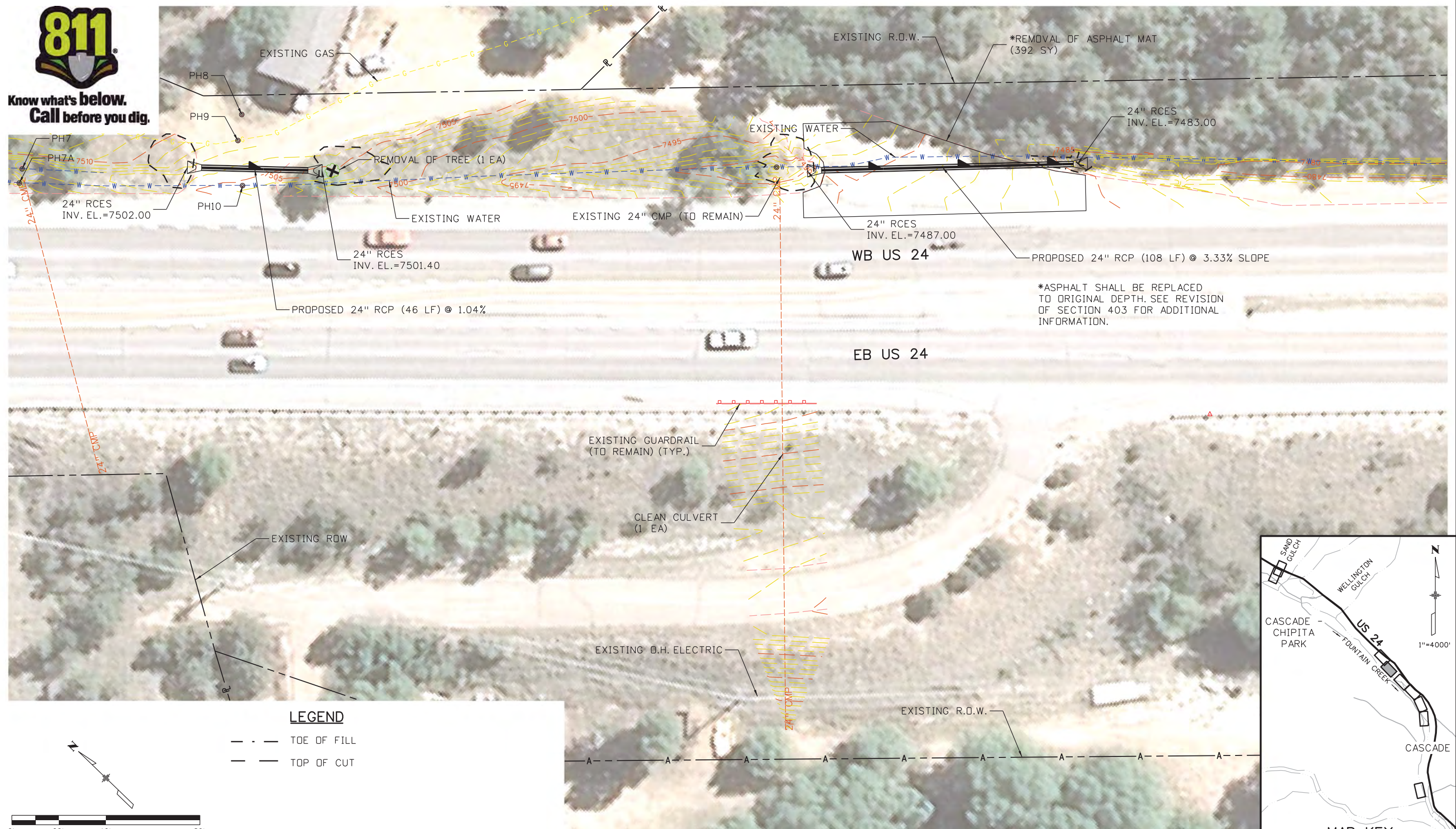
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Detailer:	KLT	Numbers	
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Project No./Code
NH 0242-056
19358
Sheet Number 41

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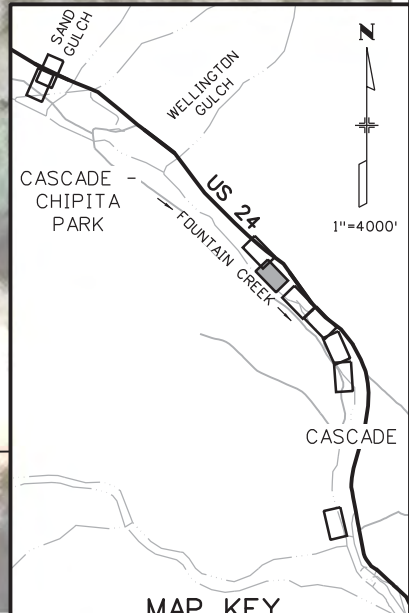
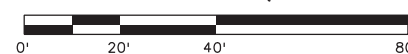
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*ASPHALT SHALL BE REPLACED TO ORIGINAL DEPTH. SEE REVISION OF SECTION 403 FOR ADDITIONAL INFORMATION.

LEGEND

- - - TOE OF FILL
- - - TOP OF CUT

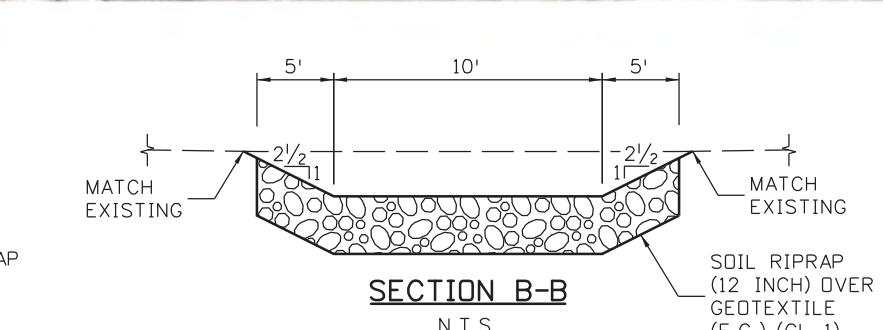
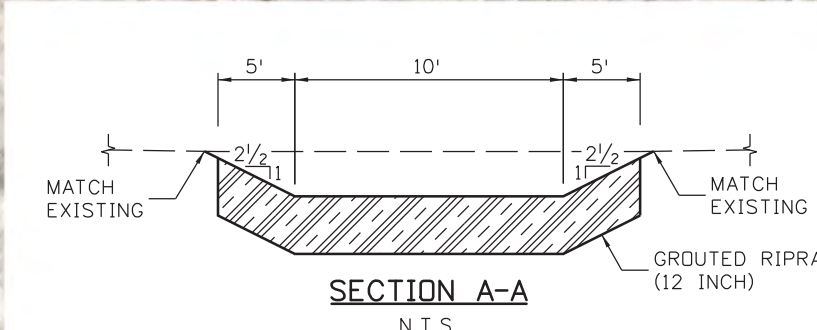
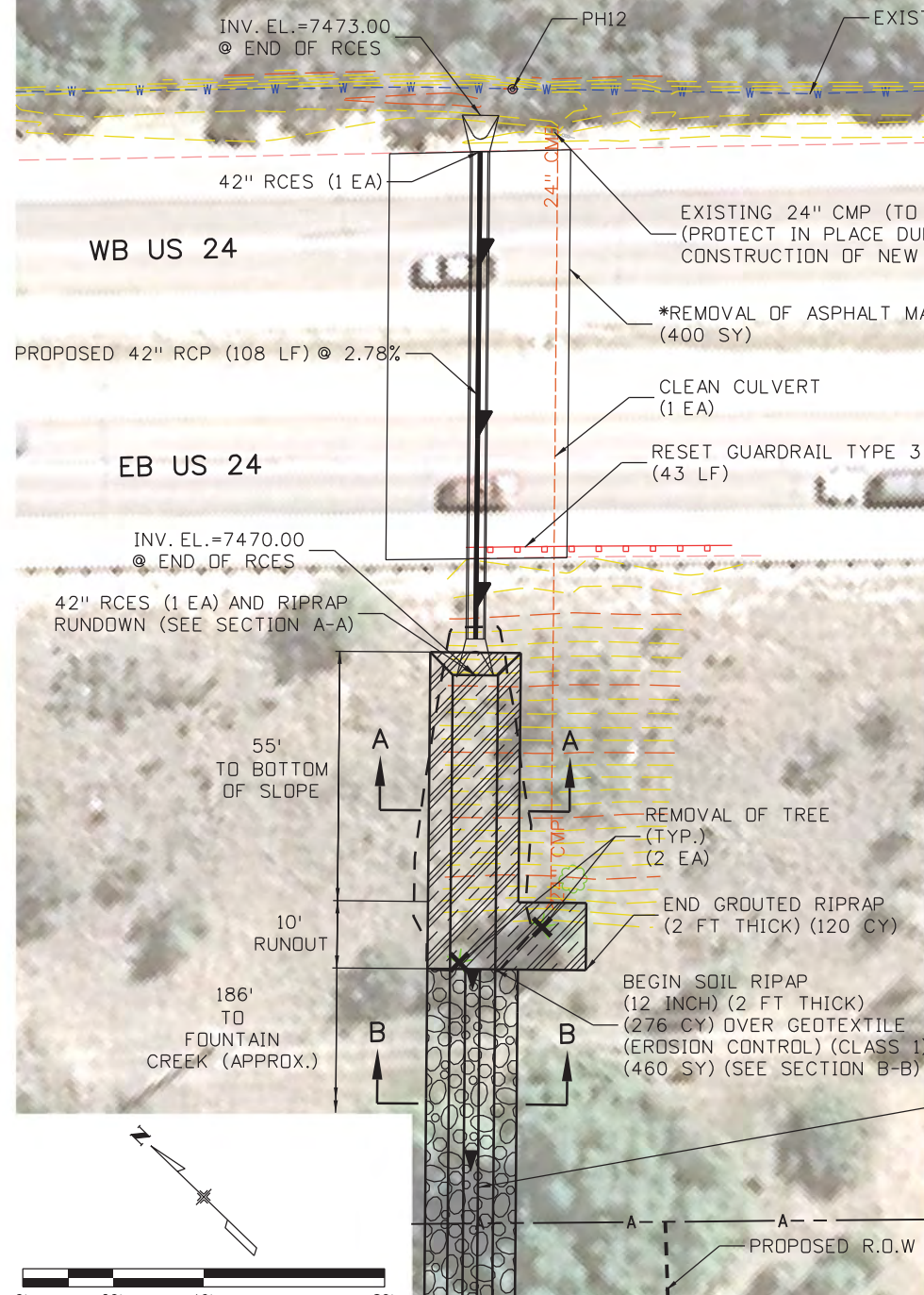
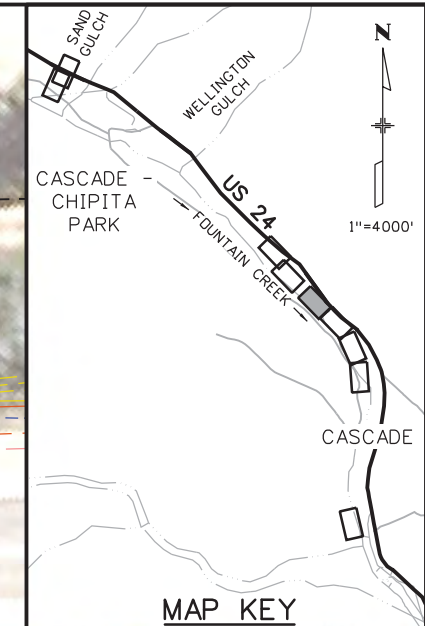
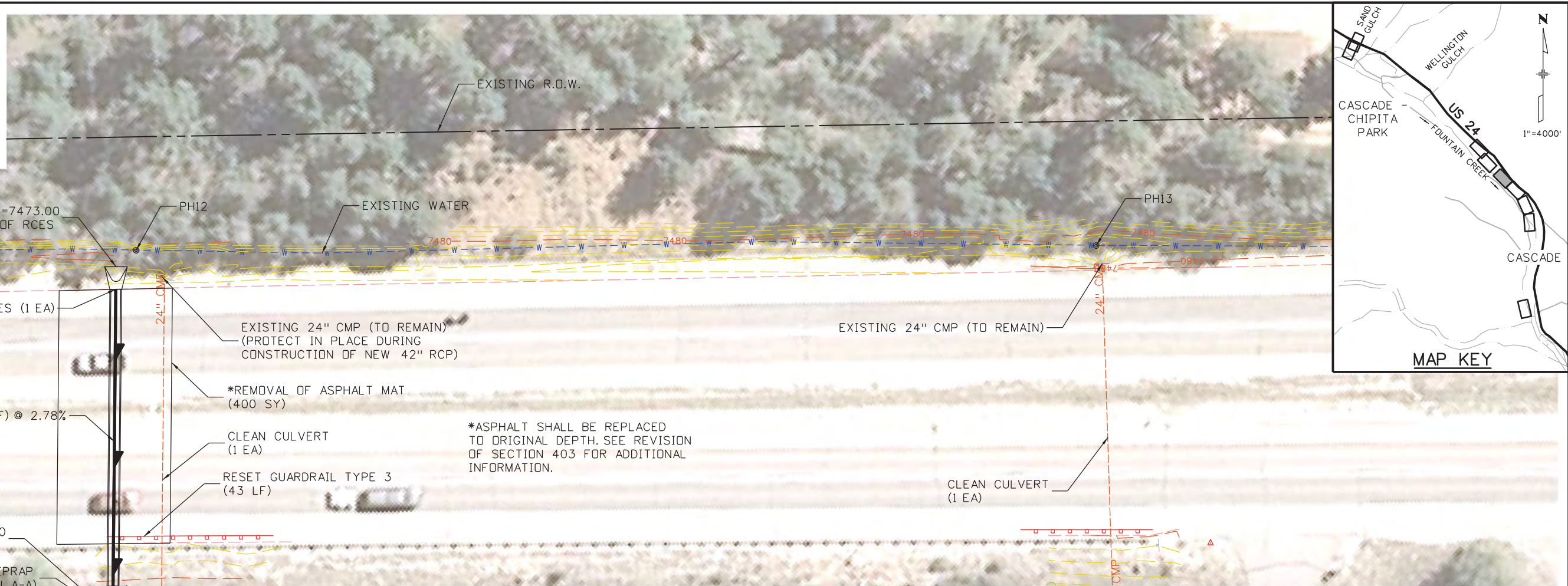


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Sheet Revisions																							
Date:	Comments	Init.																					
File Name: 19358HYDR_Aerial_Cascade_02.dgn		0000		Revised:		Designer: CDT Detailer: KLT		NH 0242-056															
Horiz. Scale: 1:40		Unit Leader Initials		Region 2		Void:		Sheet Subset: AERIAL Subset Sheets: C-3 of 30		19358													
Unit Information		6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		LM				Sheet Number 42															



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THE CONTRACTOR SHALL GRADE A NEW 186' LONG DITCH TOWARDS FOUNTAIN CREEK. THE DITCH SECTION SHALL BE AS SHOWN IN SECTION B-B THIS SHEET. THE ENTIRE DITCH SECTION SHALL BE LINED WITH SOIL RIPRAP (12 INCH). SEE SOIL RIPRAP (D50) DETAILS ON SHEET J-10.

GRADING, PLACEMENT OF SOIL RIPRAP (12 INCH) AND ALL OTHER INCIDENTAL ITEMS REQUIRED TO CONSTRUCT THE DITCH SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF SOIL RIPRAP (12 INCH).

(RIPRAP HATCH NOT SHOWN FOR CLARITY).

LEGEND

	GRouted RIPRAP (12 INCH)
	SOIL RIPRAP (12 INCH)
	TOE OF FILL
	TOP OF CUT

Print Date: 3/18/2013

File Name: 19358HYDR_Aerial_Cascade_03.dgn

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US 24 WALDO CANYON
AERIAL PLAN
POUR POINT C - CASCADE

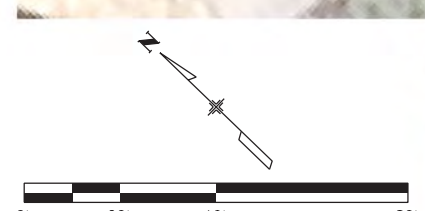
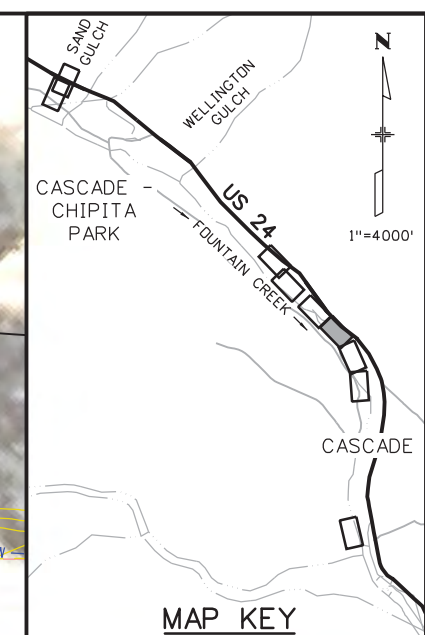
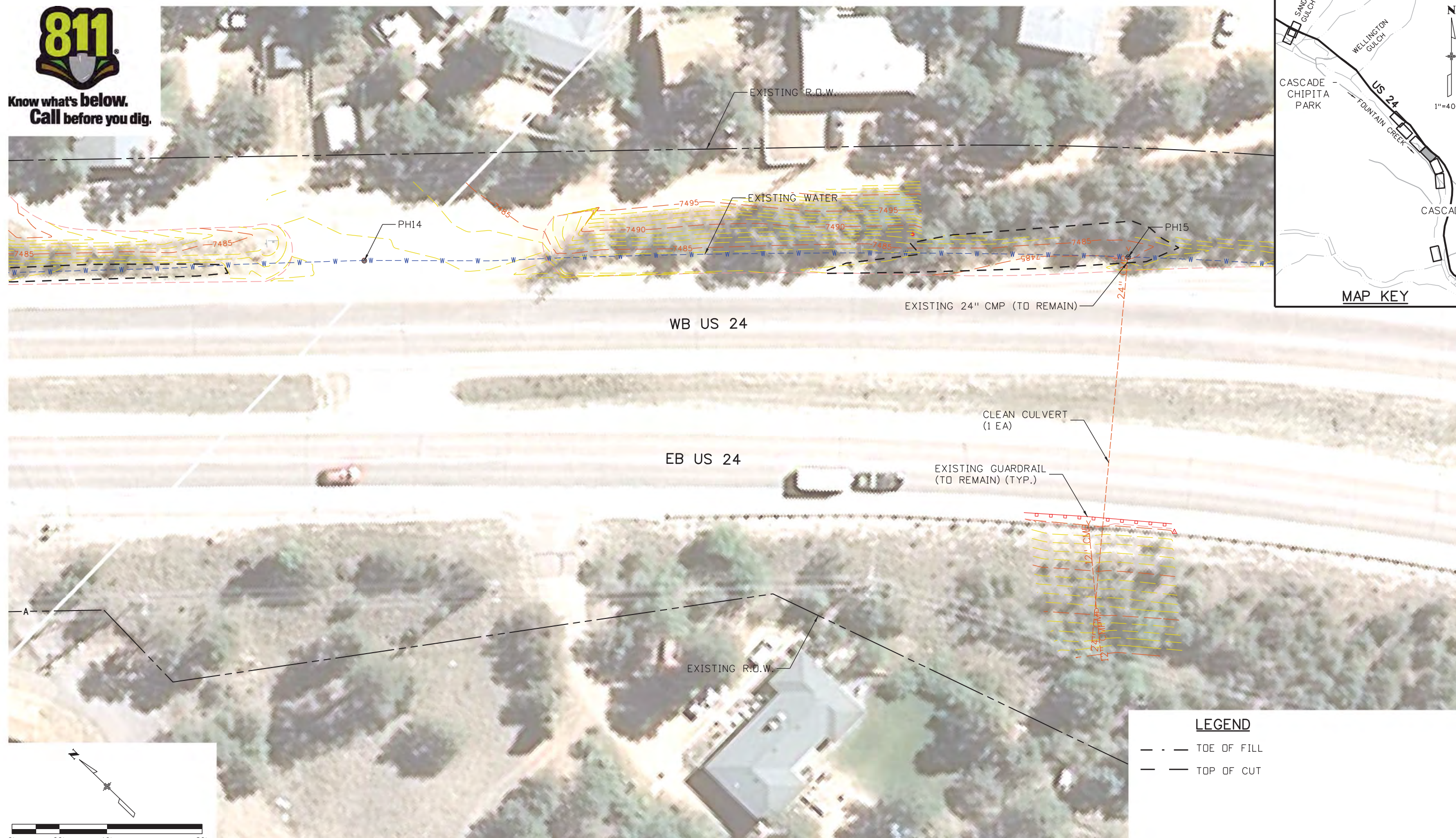
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Detailer:	KLT	
Sheet Subset:	AERIAL	Subset Sheets: C-4 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 43

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LEGEND

- - - TOE OF FILL
- - - TOP OF CUT

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Print Date: 3/18/2013	
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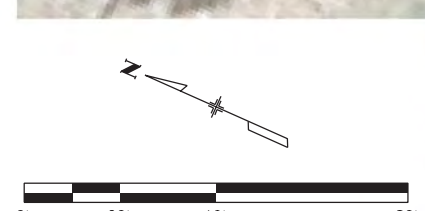
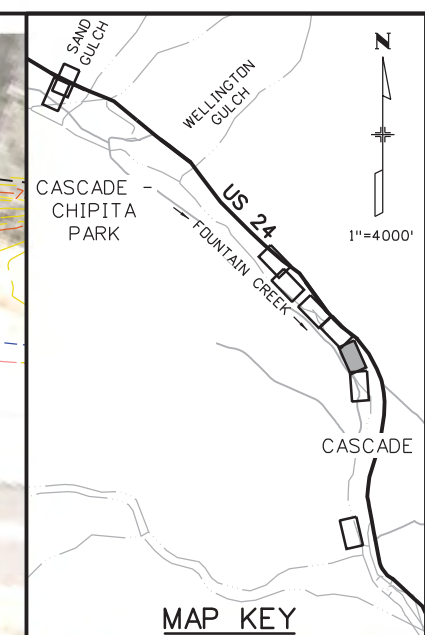
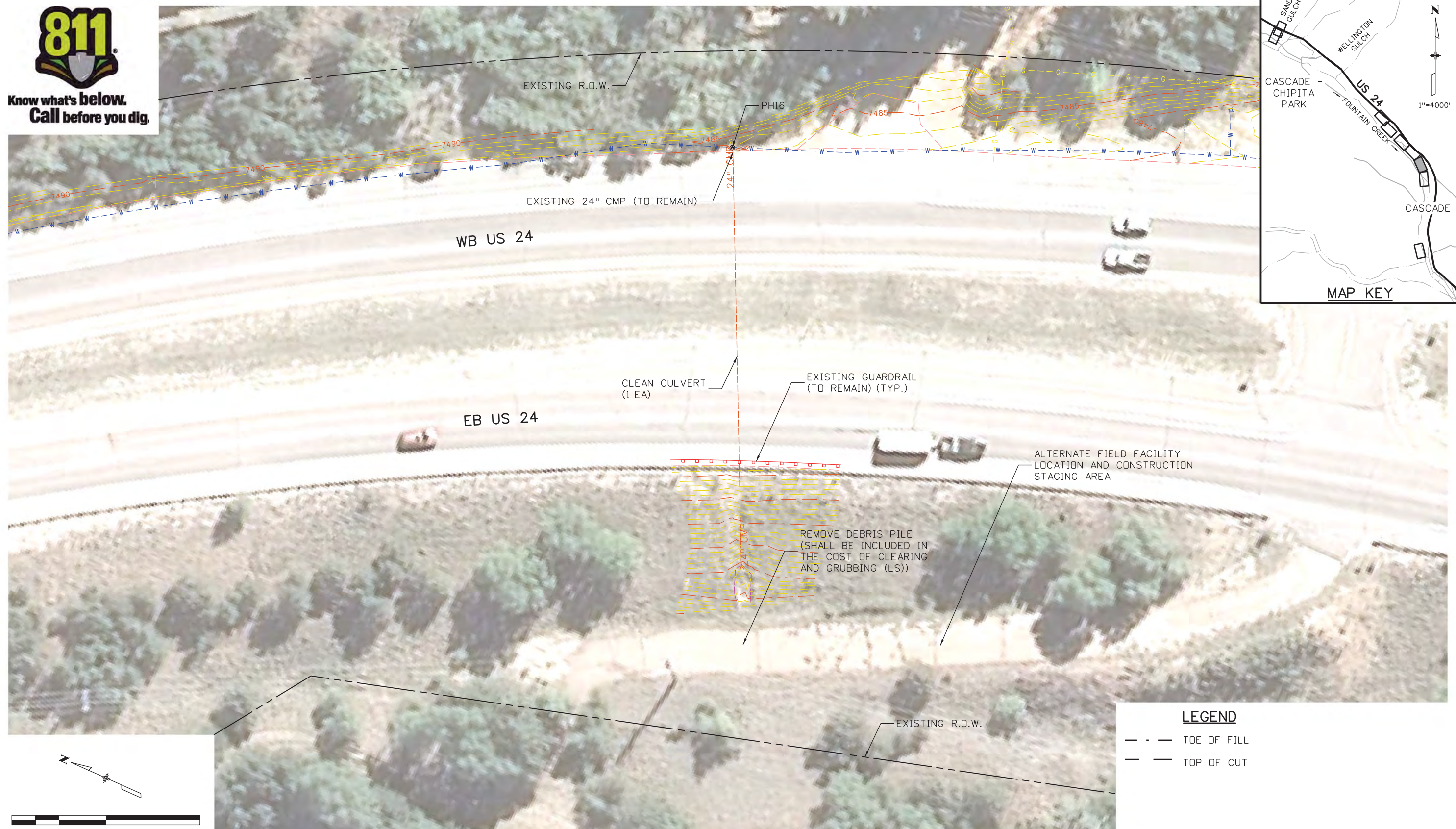
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	AERIAL	Subset Sheets:	C-5 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	44



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LEGEND

- - - TOE OF FILL
- - - TOP OF CUT

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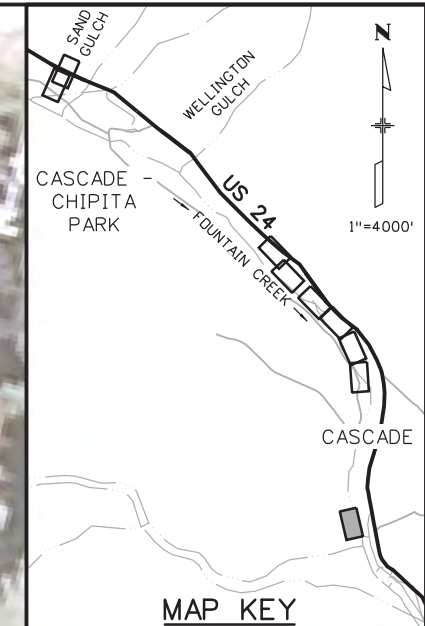
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
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19358	
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Date:	Comments	Init.

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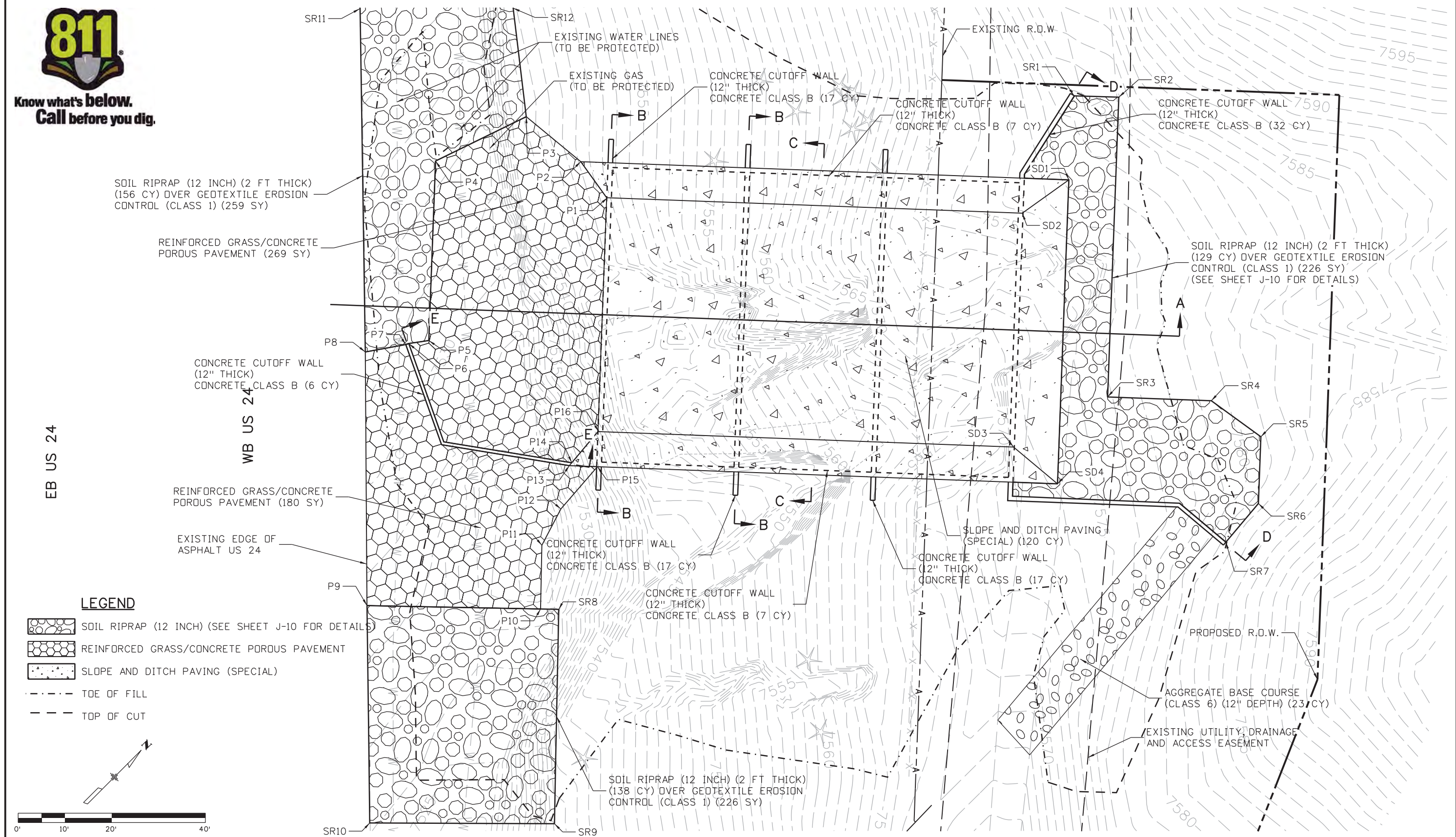
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US 24 WALDO CANYON AERIAL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
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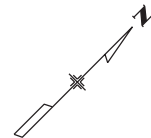
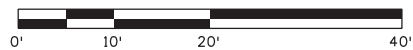
Project No./Code	NH 0242-056
	19358
Sheet Number	47



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- SOIL RIPRAP (12 INCH) (SEE SHEET J-10 FOR DETAILS)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT



Print Date: 3/18/2013

File Name: 19358HYDR_Detail_Cascade_01.dgn

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**US 24 WALDO CANYON
DETAIL
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers
Detailer:	KLT	
Sheet Subset: DRAINAGE	Subset Sheets: C-9 of 30	

Project No./Code

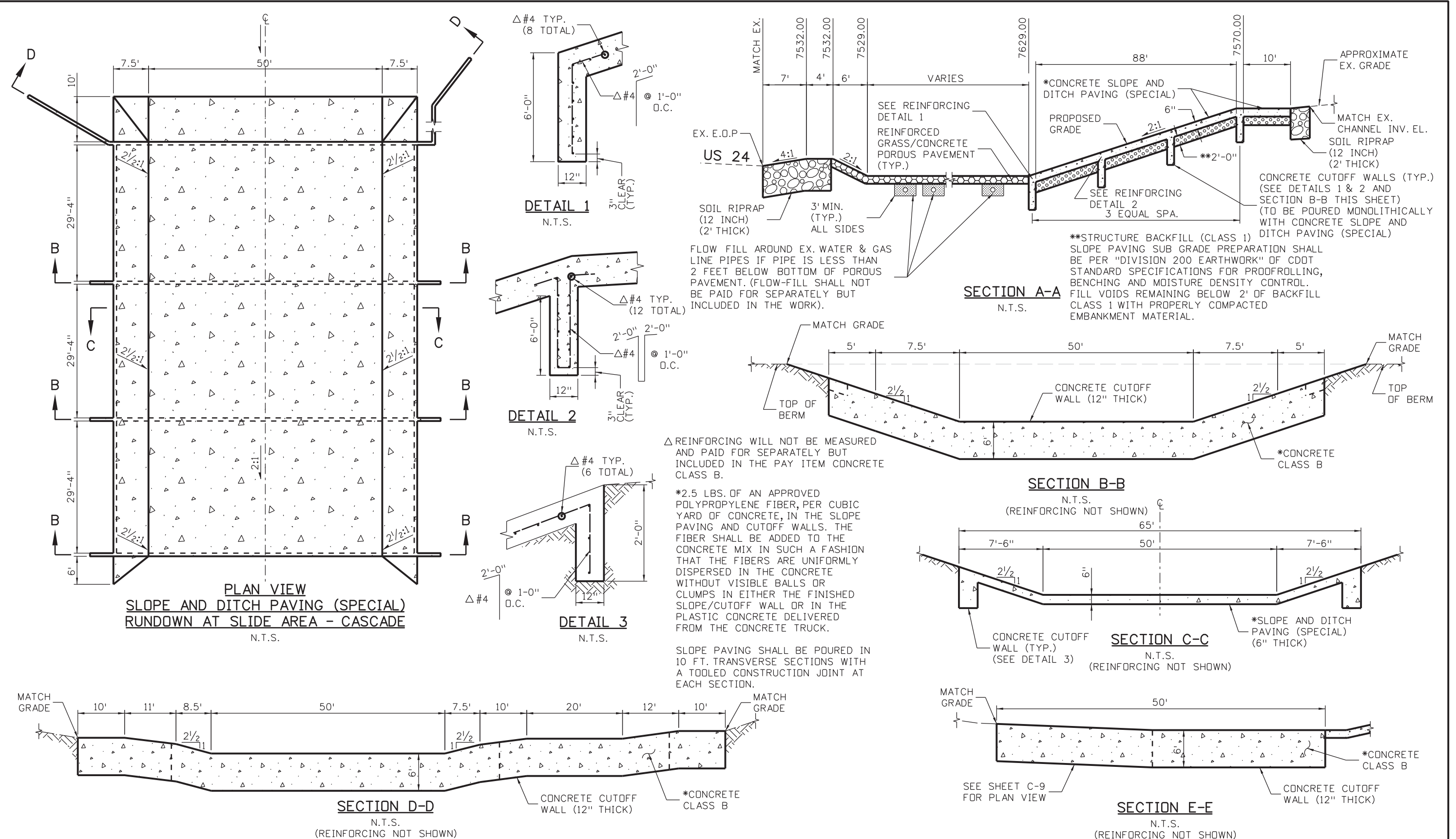
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19358

Sheet Number

48

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File Name: 19358HYDR_Detail_Cascade_02.dgn	Date:	Comments:	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2		No Revisions:		Designer: CDT Detailer: KLT Sheet Subset: DRAINAGE Subset Sheets: C-10 of 30		NH 0242-056			
Horiz. Scale: 1:10 Vert. Scale: As Noted						Revised:				Structure Numbers		19358	
Unit Information Unit Leader Initials						Void:						Sheet Number 49	

POINT DATA TABLE - POUR POINT C - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION	POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	393979.89	150030.24	7534.00	FINISHED GRADE	G36	394064.09	150125.26	7575.00	FINISHED GRADE
G2	393993.50	150029.05	7534.00	FINISHED GRADE	G37	394070.02	150127.21	7576.00	FINISHED GRADE
G3	393965.98	150042.28	7534.00	FINISHED GRADE	G38	394078.49	150137.84	7580.00	FINISHED GRADE
G4	393959.49	150044.49	7533.00	FINISHED GRADE	G39	394079.74	150141.67	7580.00	FINISHED GRADE
G5	393956.04	150056.19	7534.00	FINISHED GRADE	G40	394057.97	150126.40	7575.00	FINISHED GRADE
G6	393959.66	150058.32	7534.00	FINISHED GRADE	G41	394064.79	150140.39	7580.00	FINISHED GRADE
G7	393944.43	150058.82	7532.00	FINISHED GRADE	G42	394067.82	150143.90	7580.00	FINISHED GRADE
G8	393943.96	150069.61	7533.00	FINISHED GRADE	G43	394077.89	150160.12	7579.00	FINISHED GRADE
G9	393947.32	150071.64	7533.00	FINISHED GRADE	G44	394061.27	150154.67	7576.00	FINISHED GRADE
G10	393933.74	150072.82	7531.00	FINISHED GRADE	G45	394018.92	150191.30	7576.00	FINISHED GRADE
G11	393929.41	150092.20	7532.00	FINISHED GRADE	G46	394023.80	150206.11	7578.00	FINISHED GRADE
G12	393930.49	150093.83	7532.00	FINISHED GRADE	G47	394034.95	150203.92	7578.00	FINISHED GRADE
G13	393935.24	150090.66	7532.00	FINISHED GRADE	G48	394041.92	150215.57	7579.00	FINISHED GRADE
G14	393920.30	150092.96	7530.00	FINISHED GRADE	G49	394034.53	150227.29	7581.00	FINISHED GRADE
G15	393917.28	150102.85	7528.00	FINISHED GRADE	G50	394033.93	150215.99	7581.00	FINISHED GRADE
G16	393914.86	150113.64	7526.00	FINISHED GRADE	G51	394025.94	150216.41	7581.00	FINISHED GRADE
G17	393902.23	150111.91	7528.00	FINISHED GRADE	G52	394026.62	150229.29	7581.00	FINISHED GRADE
G18	393876.57	150136.72	7526.00	FINISHED GRADE	G53	394022.47	150226.61	7580.00	FINISHED GRADE
G19	393920.77	150122.49	7526.00	FINISHED GRADE	G54	394021.10	150209.11	7578.00	FINISHED GRADE
G20	393935.00	150114.99	7530.00	FINISHED GRADE	G55	394005.55	150209.48	7574.00	FINISHED GRADE
G21	393941.24	150117.13	7531.00	FINISHED GRADE	G56	394009.27	150189.32	7578.00	FINISHED GRADE
G22	393944.37	150088.20	7529.00	FINISHED GRADE	G57	394006.29	150191.99	7578.00	FINISHED GRADE
G23	393958.87	150109.92	7529.00	FINISHED GRADE	G58	393967.00	150197.02	7567.00	FINISHED GRADE
G24	393950.61	150079.37	7529.00	FINISHED GRADE	G59	393975.10	150201.79	7568.00	FINISHED GRADE
G25	393971.41	150061.38	7529.00	FINISHED GRADE	G60	393982.00	150218.73	7570.00	FINISHED GRADE
G26	393984.12	150066.24	7529.00	FINISHED GRADE	G61	393982.53	150228.71	7570.00	FINISHED GRADE
G27	393993.61	150077.22	7529.00	FINISHED GRADE	G62	393980.16	150246.51	7578.00	FINISHED GRADE
G28	393993.03	150080.36	7529.00	FINISHED GRADE	G63	393948.04	150208.65	7565.00	FINISHED GRADE
G29	393975.35	150050.04	7532.00	FINISHED GRADE	G64	393989.44	150165.29	7563.00	FINISHED GRADE
G30	393989.46	150059.72	7531.00	FINISHED GRADE	G65	393926.94	150183.21	7552.00	FINISHED GRADE
G31	393997.24	150054.13	7533.00	FINISHED GRADE	G66	393916.07	150160.58	7542.00	FINISHED GRADE
G32	393997.44	150044.05	7534.00	FINISHED GRADE	G67	393934.58	150130.41	7538.00	FINISHED GRADE
G33	394013.08	150034.09	7541.00	FINISHED GRADE	G68	393933.75	150117.42	7531.00	FINISHED GRADE
G34	394034.63	150055.11	7552.00	FINISHED GRADE	G69	393928.44	150127.45	7535.00	FINISHED GRADE
G35	394046.16	150104.36	7555.00	FINISHED GRADE	G70	393898.54	150161.41	7538.00	FINISHED GRADE

POINT DATA TABLE - POUR POINT C - SLOPE AND DITCH PAVING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
SD1	394064.67	150151.72	7577.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD2	394052.68	150149.32	7574.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD3	394014.86	150182.03	7574.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION
SD4	394015.52	150194.25	7577.50	SLOPE AND DITCH PAVING FINISHED GRADE ELEVATION

POINT DATA TABLE - POUR POINT C - POROUS PAVERS

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
P1	393994.66	150082.26	7530.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P2	393996.41	150072.81	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P3	393995.52	150057.76	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P4	393975.35	150050.04	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P5	393946.33	150075.15	7532.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P6	393942.92	150072.46	7532.75	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P7	393942.33	150072.15	7532.75	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P8	393935.29	150066.90	-	REINFORCED GRASS/CONC. POROUS PAVEMENT MATCH EX. GRADE EL.
P9	393895.89	150104.12	-	REINFORCED GRASS/CONC. POROUS PAVEMENT MATCH EX. GRADE EL.
P10	393920.64	150131.75	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P11	393930.80	150122.65	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P12	393939.24	150120.33	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P13	393947.25	150115.34	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P14	393948.04	150115.31	7531.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P15	393951.18	150119.87	7533.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.
P16	393956.85	150114.97	7530.00	REINFORCED GRASS/CONC. POROUS PAVEMENT FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT C - AGGREGATE BASE COURSE (CL. 6)

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
BC1	393969.91	150219.36	7569.00	ABC (CL. 6) MATCH EX. GRADE EL.
BC2	393969.11	150229.42	7569.00	ABC (CL. 6) MATCH EX. GRADE EL.
BC3	394029.46	150216.23	7581.00	ABC (CL. 6) FINISHED GRADE EL.
BC4	394030.13	150226.21	7581.00	ABC (CL. 6) FINISHED GRADE EL.

POINT DATA TABLE - POUR POINT C - CUTOFF WALL

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
W1	394078.52	150139.87	7580.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W2	394066.30	150142.14	7580.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W3	394058.86	150143.53	7577.50	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W4	394006.33	150188.98	7577.33	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W5	394007.78	150190.66	7578.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W6	394024.31	150209.77	7579.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W7	394029.94	150216.27	7581.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W8	394030.61	150229.08	7581.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W9	394034.32	150109.00	7578.04	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W10	393977.60	150158.06	7557.75	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W11	394004.34	150074.33	7535.25	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W12	393947.61	150123.40	753.5.25	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W13	393942.63	150072.31	7532.75	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W14	393932.28	150092.30	7532.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W15	393933.42	150094.01	7531.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.
W16	393947.64	150115.32	7531.00	CONCRETE CUTOFF WALL - FINISHED GRADE EL.

Print Date: 3/18/2013

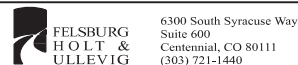
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Horiz. Scale: 1:10

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Unit Information

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Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



Region 2

1480 Quail Lake Loop
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Phone: 719-227-3201 FAX: 719-227-3298

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Void:

US 24 WALDO CANYON
DETAIL
POUR POINT C - CASCADE

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	DRAINAGE	Subset Sheets:	C-11 of 30

Project No./Code

NH 0242-056

19358

Sheet Number **50**



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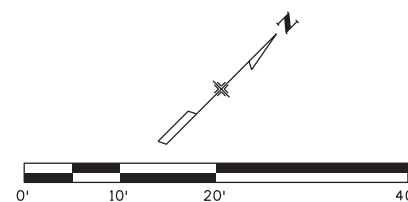


EB US 24

WB US 24

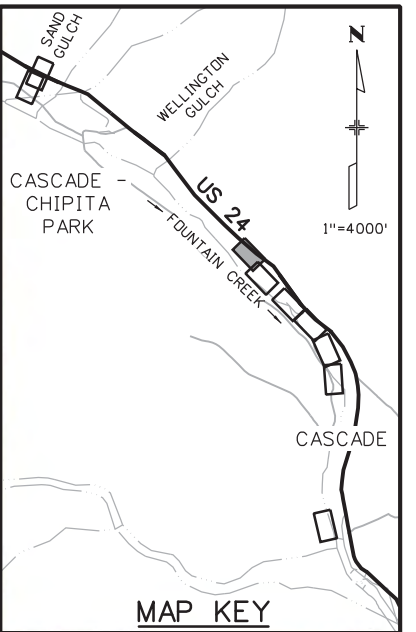
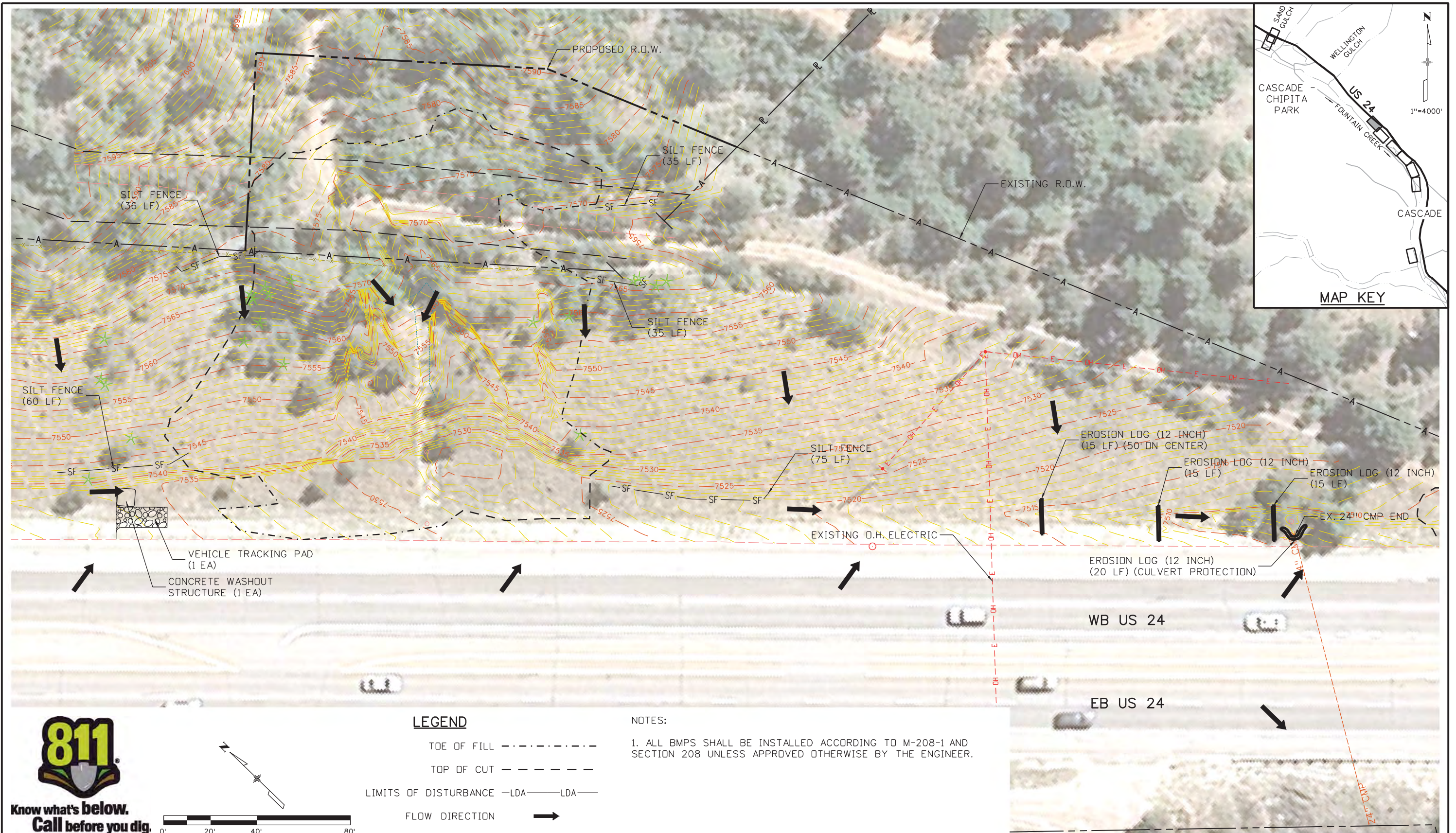
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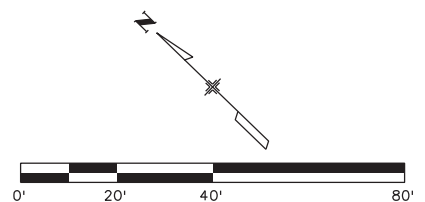


Print Date: 3/18/2013		Sheet Revisions		Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON DETAIL		Project No./Code		
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Horiz. Scale: 1:20 Vert. Scale: As Noted							Revised:		Designer: CDT	Structure Numbers	19358	
Unit Information Unit Leader Initials					Void:		Detailer: KLT		Sheet Subset: DRAINAGE		Subset Sheets: C-12 of 30	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		Region 2		LM		Sheet Subset: DRAINAGE		Subset Sheets: C-12 of 30		Sheet Number 51		

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LEGEND

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TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013	0000
File Name: 19358Erosion_INI_Cascade_01.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
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Sheet Revisions		
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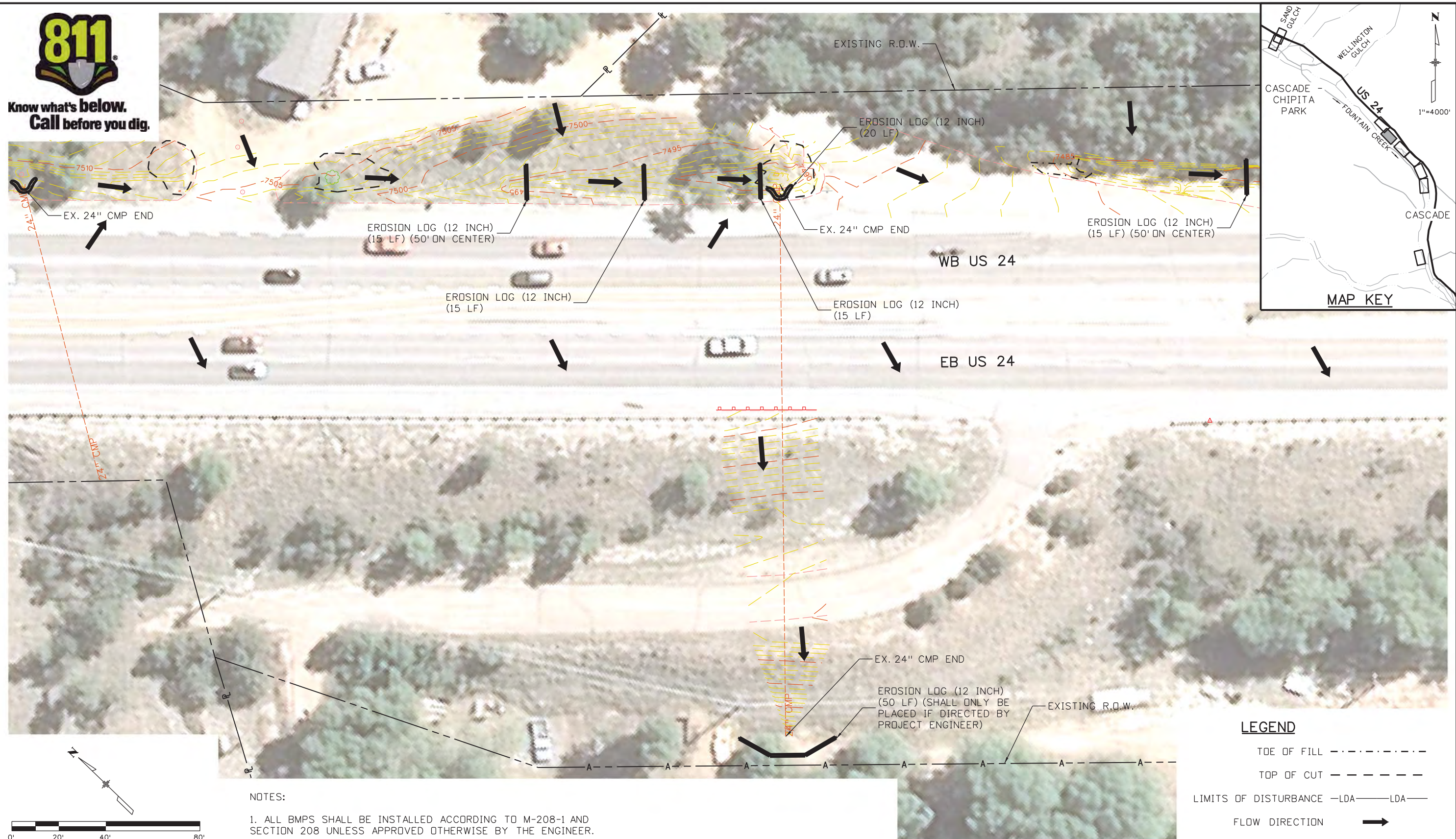
As Constructed
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Revised:
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US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-13 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 52



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- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_INI_Cascade_02.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
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Date:	Comments	Init.

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**US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer: CDT Structure Numbers
Detailer: KLT
Sheet Subset: EROSION Subset Sheets: C-14 of 30

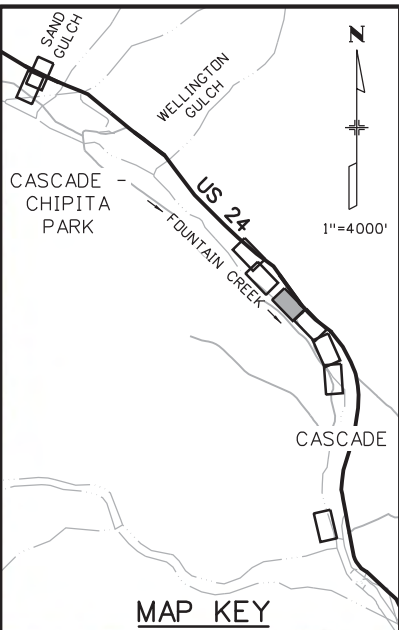
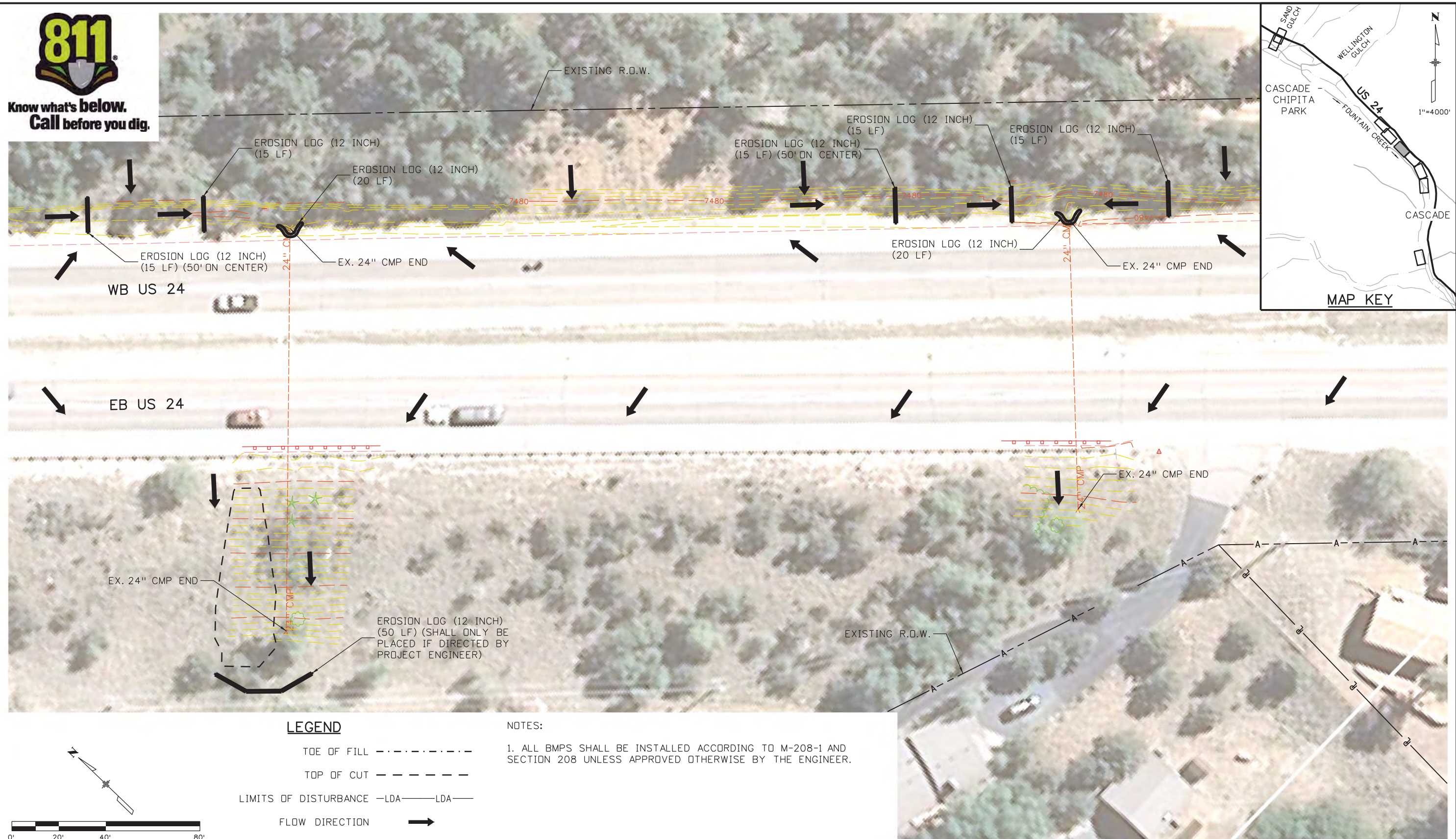
Project No./Code

NH 0242-056
19358
Sheet Number **53**

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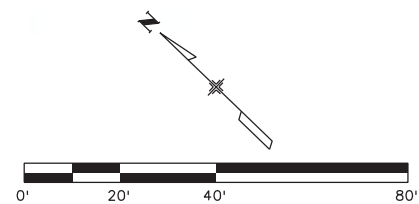


LEGEND

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- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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Sheet Revisions

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**US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-15 of 30

Project No./Code

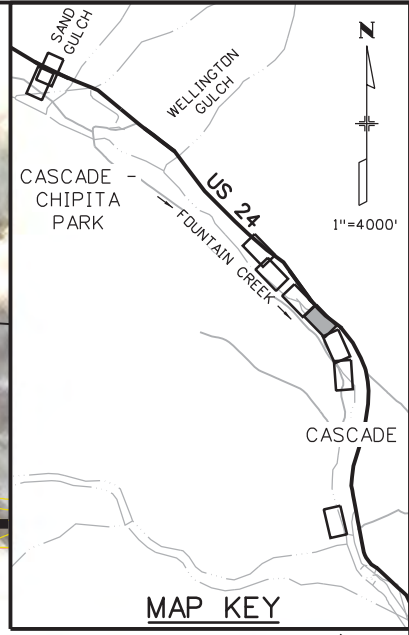
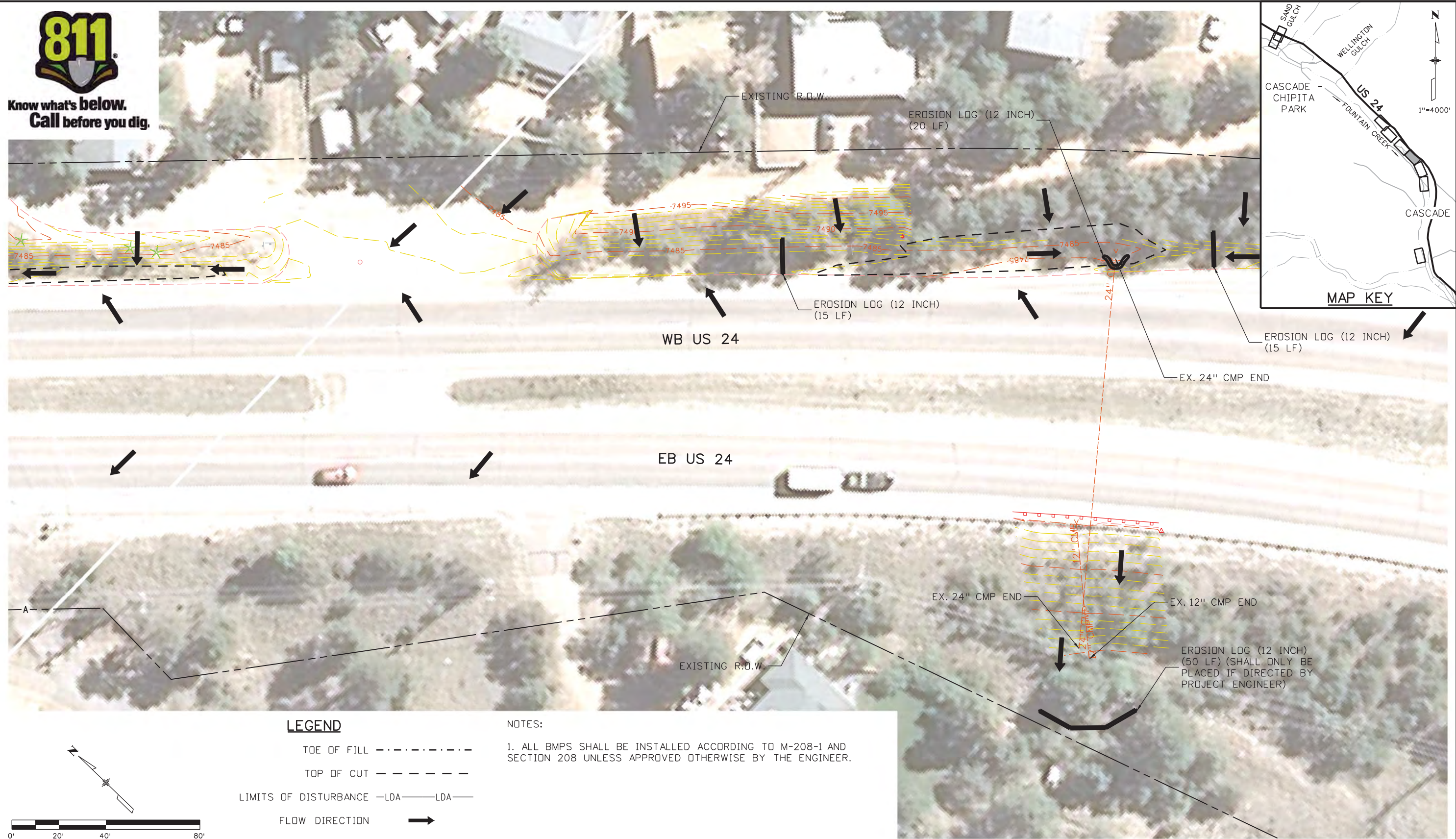
NH 0242-056

19358

Sheet Number **54**



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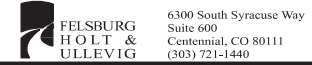
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- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

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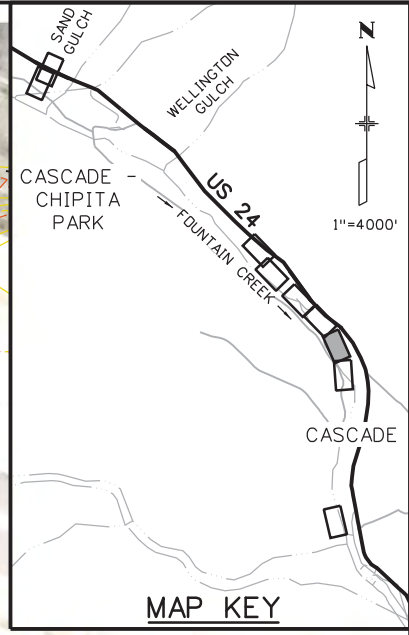
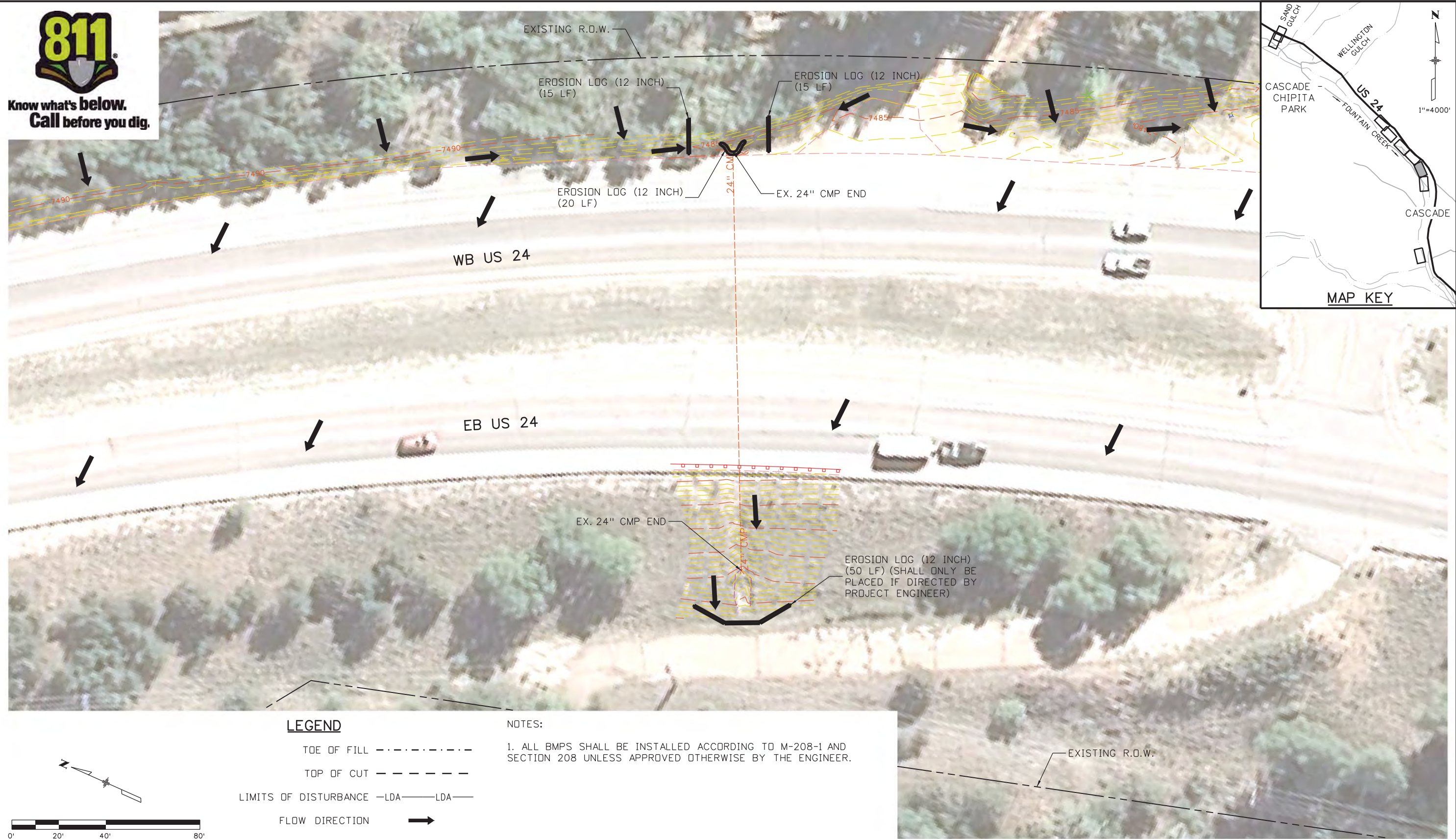
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Detailer:	KLT		
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Project No./Code
NH 0242-056
19358
Sheet Number 55

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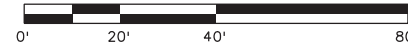


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
File Name: 19358Erosion_INI_Cascade_05.dgn	
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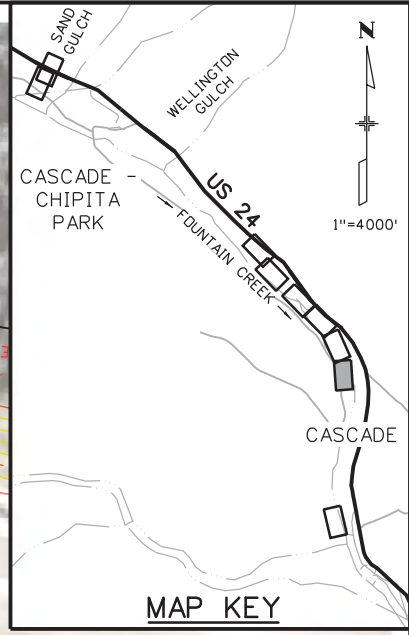
US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
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Detailer:	KLT		
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Project No./Code
NH 0242-056
19358
Sheet Number 56

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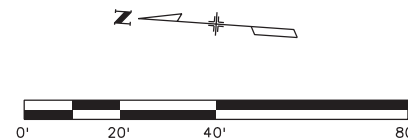


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



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File Name: 19358Erosion_INI_Cascade_06.dgn
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Sheet Revisions		
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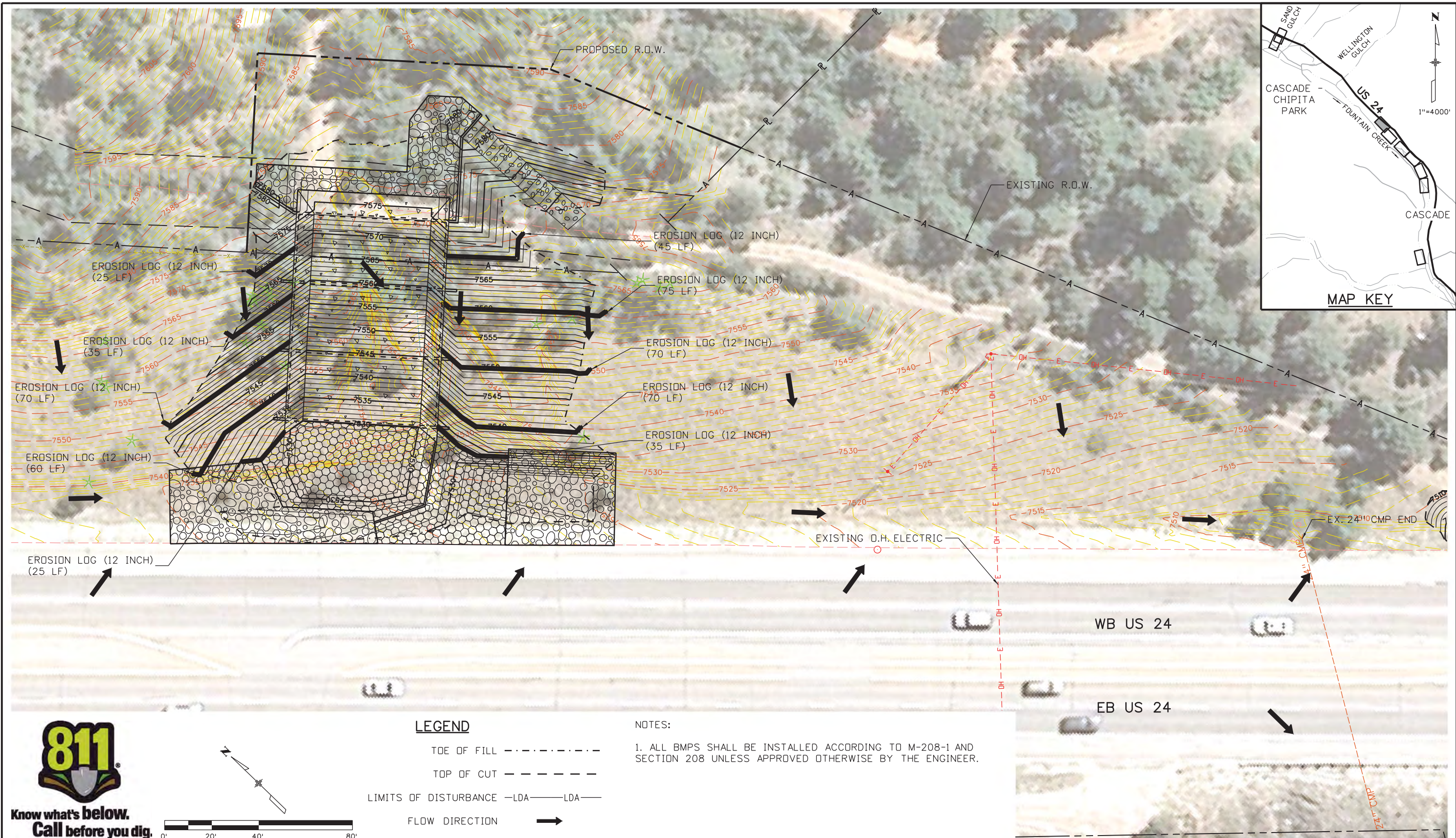
Region 2 LM

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US 24 WALDO CANYON GRADING/INITIAL EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Structure Numbers	
Sheet Subset:	EROSION	Subset Sheets:	C-18 of 30

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19358
Sheet Number 57

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Know what's below.
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LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

Print Date: 3/18/2013

File Name: 19358Erosion_INT_Cascade_01.dgn

Horiz. Scale: 1:40 Vert. Scale: As Noted

Unit Information Unit Leader Initials

	FELSBURG HOLT & ULLEVIG	6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440
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Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

As Constructed

No Revisions: Revised: Void:

**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-19 of 30

Project No./Code

NH 0242-056

19358

Sheet Number **58**



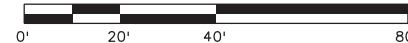
Know what's below.
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LEGEND

TOE OF FILL	-----
TOP OF CUT	-----
LIMITS OF DISTURBANCE	-LDA-----LDA-
FLOW DIRECTION	→

NOTES:
1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
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Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

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Void:	

US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-20 of 30

Project No./Code	
NH 0242-056	
19358	
Sheet Number	59

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Know what's below.
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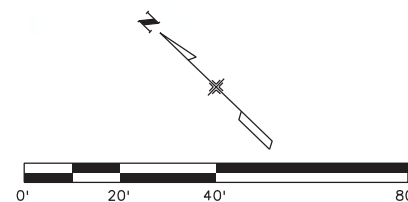


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

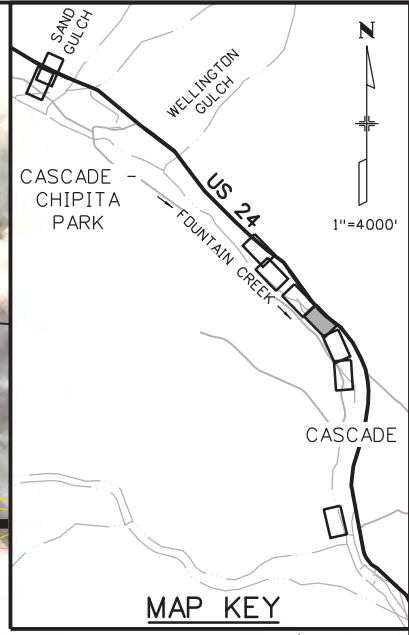
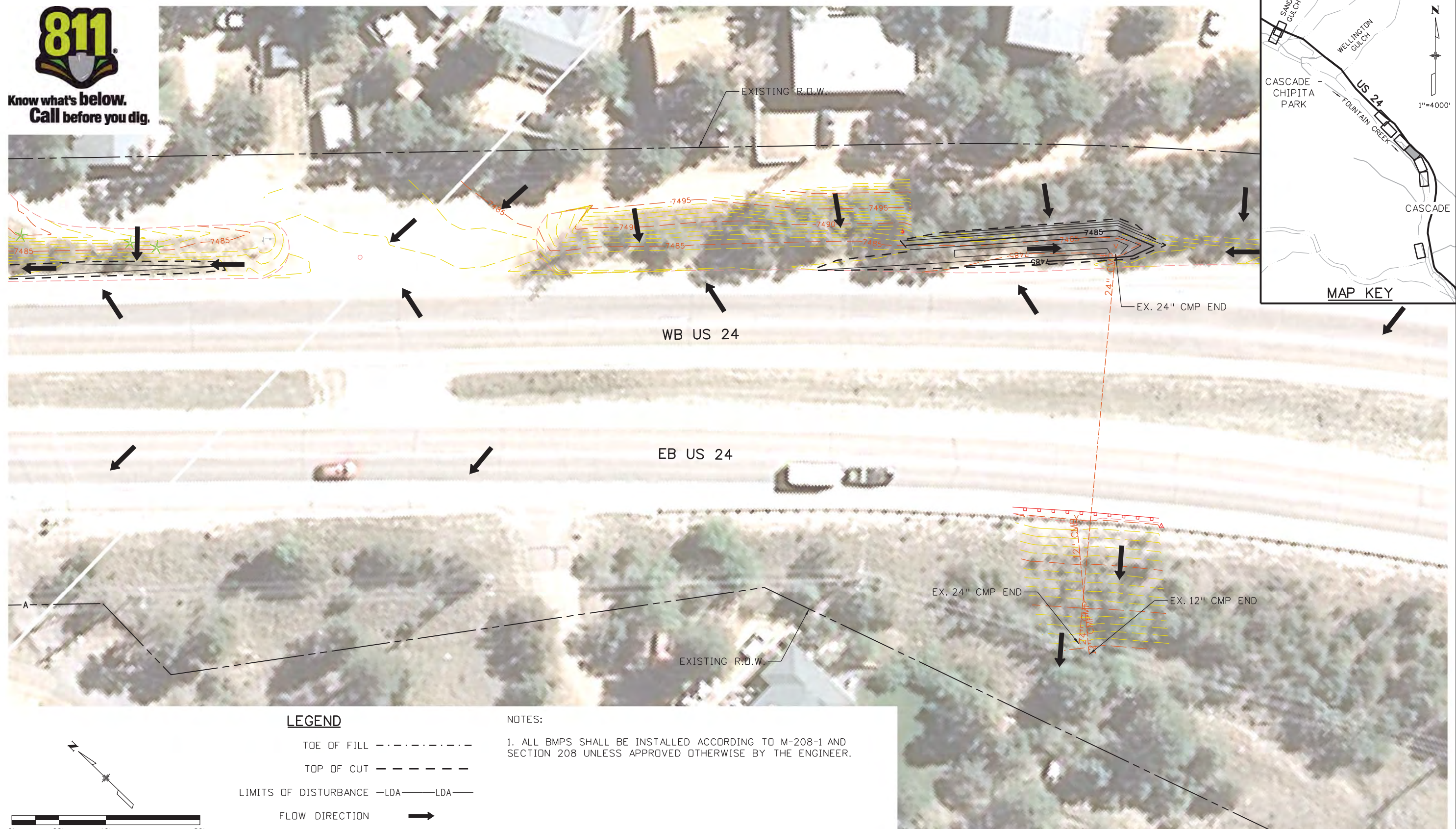


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Sheet Revisions																							
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Unit Information		Unit Leader Initials		Void:		Structure Numbers		19358															
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440						Subset Sheets: C-21 of 30		Sheet Number 60															

Kelly 10:37:25 AM K:\112266-06\19358 Landscape_Environmental\Drawings\19358Erosion_INT_Cascade_03.dgn



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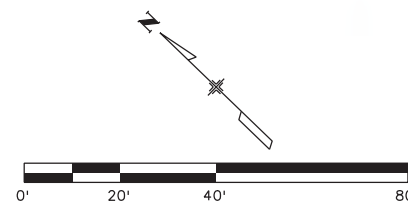


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

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Print Date: 3/18/2013
 File Name: 19358Erosion_INT_Cascade_04.dgn
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 Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 1480 Quail Lake Loop, 80806
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US 24 WALDO CANYON
 GRADING/INTERIM EROSION CONTROL PLAN
 POUR POINT C - CASCADE

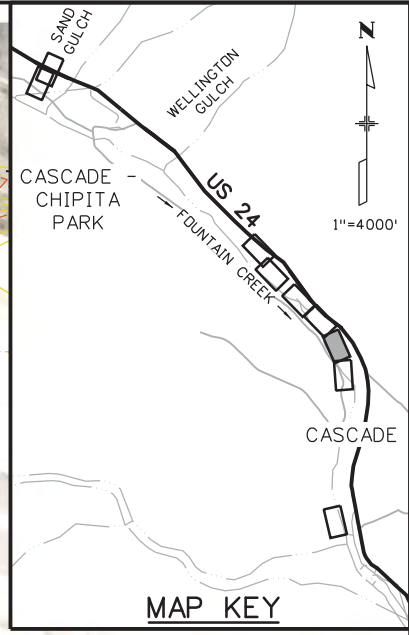
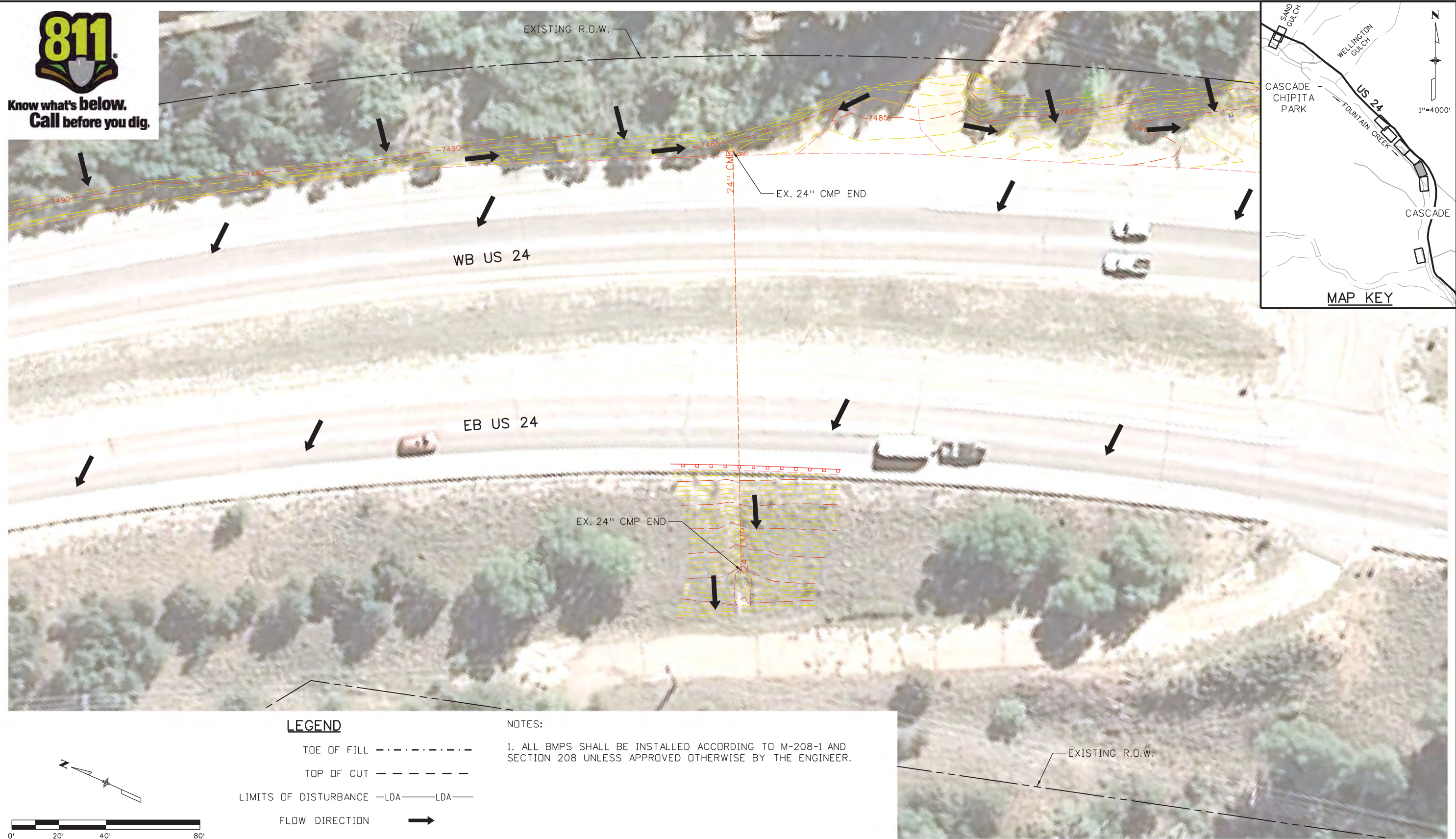
Designer: CDT
 Detailer: KLT
 Sheet Subset: EROSION Subset Sheets: C-22 of 30

Project No./Code
 NH 0242-056
 19358
 Sheet Number **61**

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Know what's below.
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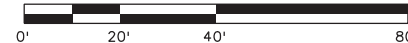


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.



Print Date: 3/18/2013	
File Name: 19358Erosion_INT_Cascade_05.dgn	
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Unit Information	Unit Leader Initials
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Date:	Comments	Init.

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No Revisions:
Revised:
Void:

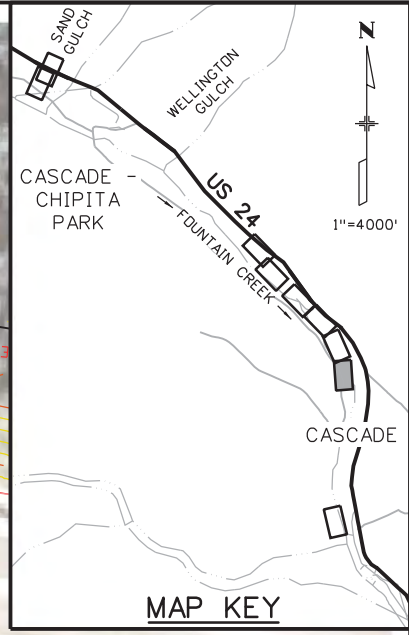
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Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-23 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 62

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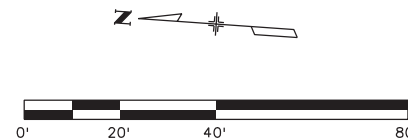


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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Print Date: 3/18/2013	
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Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Phone: 719-227-3201 FAX: 719-227-3298

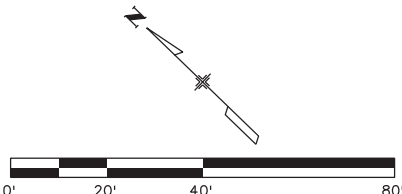
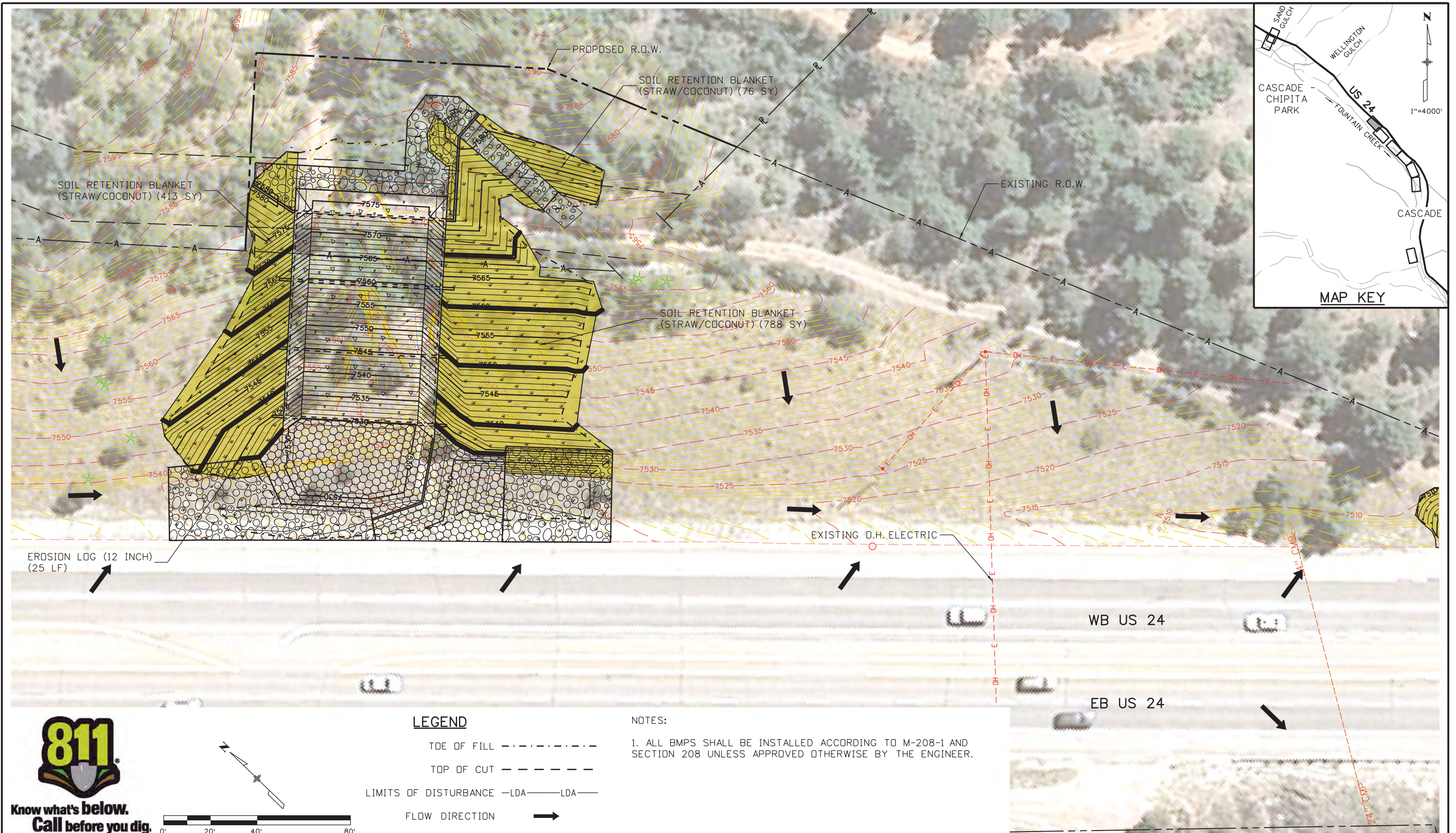
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US 24 WALDO CANYON GRADING/INTERIM EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-24 of 30

Project No./Code	NH 0242-056
	19358
Sheet Number	63

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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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Print Date: 3/18/2013	0000
File Name: 19358Erosion_FIN_Cascade_01.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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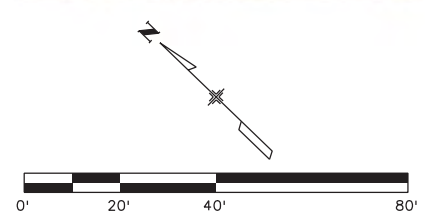
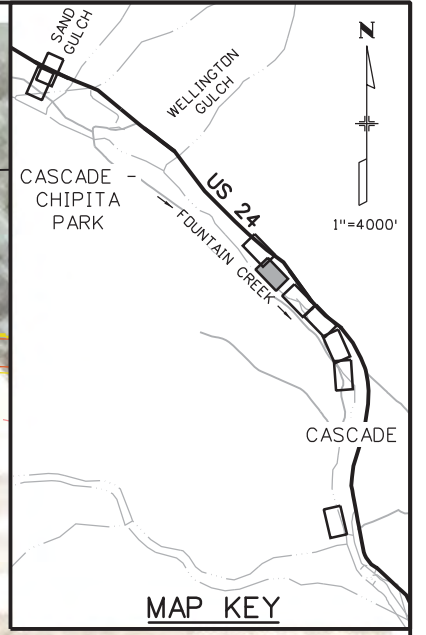
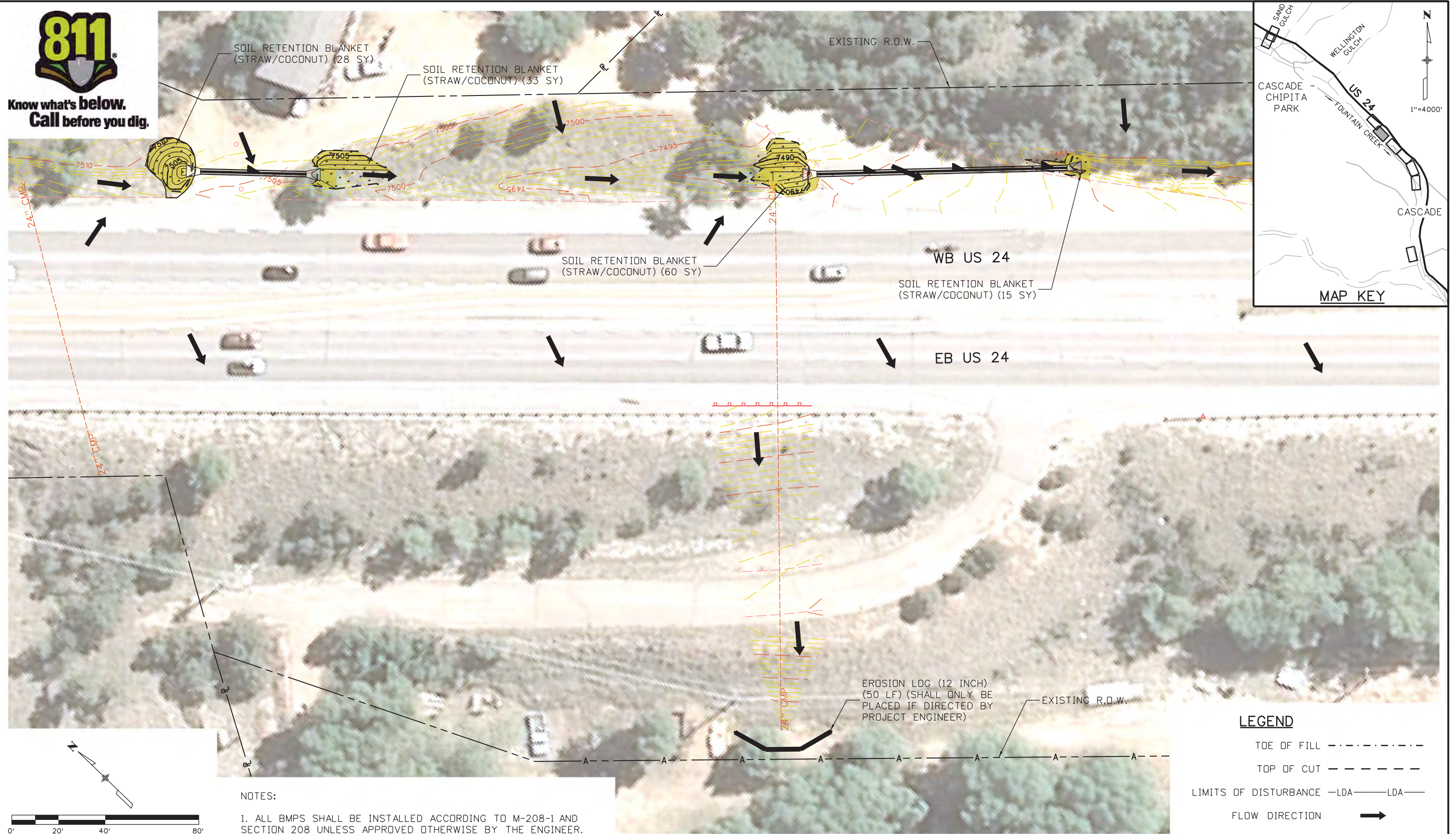
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Revised:
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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN			
POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-25 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 64



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NOTES:
1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.

LEGEND

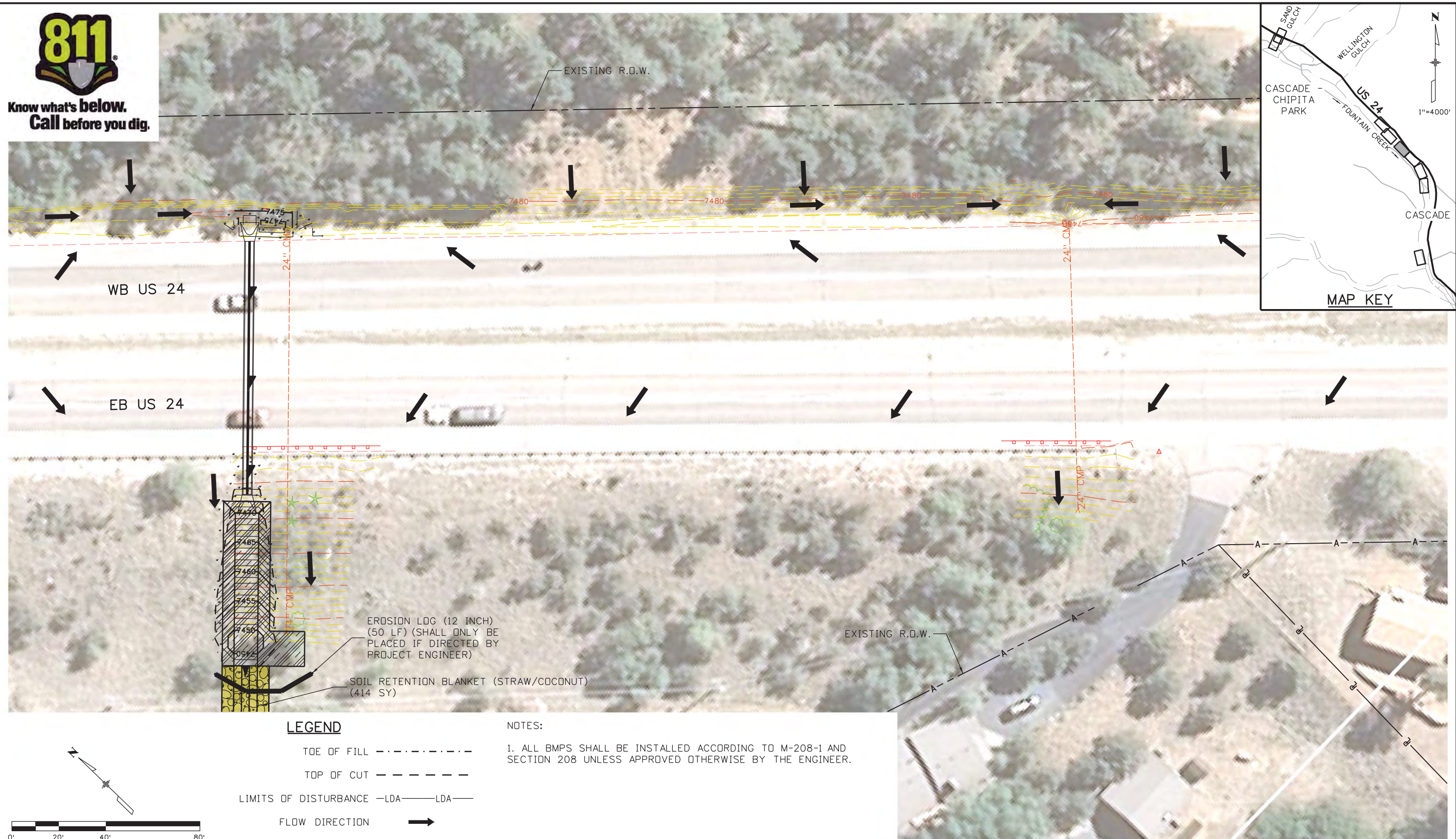
TOE OF FILL	-----
TOP OF CUT	- - - - -
LIMITS OF DISTURBANCE	-LDA-----LDA-
FLOW DIRECTION	➔

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Horiz. Scale: 1:40		Unit Information		6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440		Structure Numbers		19358															
Unit Leader Initials				Region 2		Sheet Subset: EROSION Subset Sheets: C-26 of 30		Sheet Number 65															



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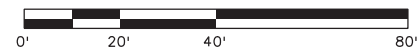


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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Print Date: 3/18/2013

File Name: 19358Erosion_FIN_Cascade_03.dgn

Horiz. Scale: 1:40

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

**FELSBURG
HOLT &
ULLEVIG**
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440



Sheet Revisions

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Region 2

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**US 24 WALDO CANYON
GRADING/FINAL EROSION CONTROL PLAN
POUR POINT C - CASCADE**

Designer:	CDT	Structure Numbers	
Detailer:	KLT		
Sheet Subset:	EROSION	Subset Sheets:	C-27 of 30

Project No./Code

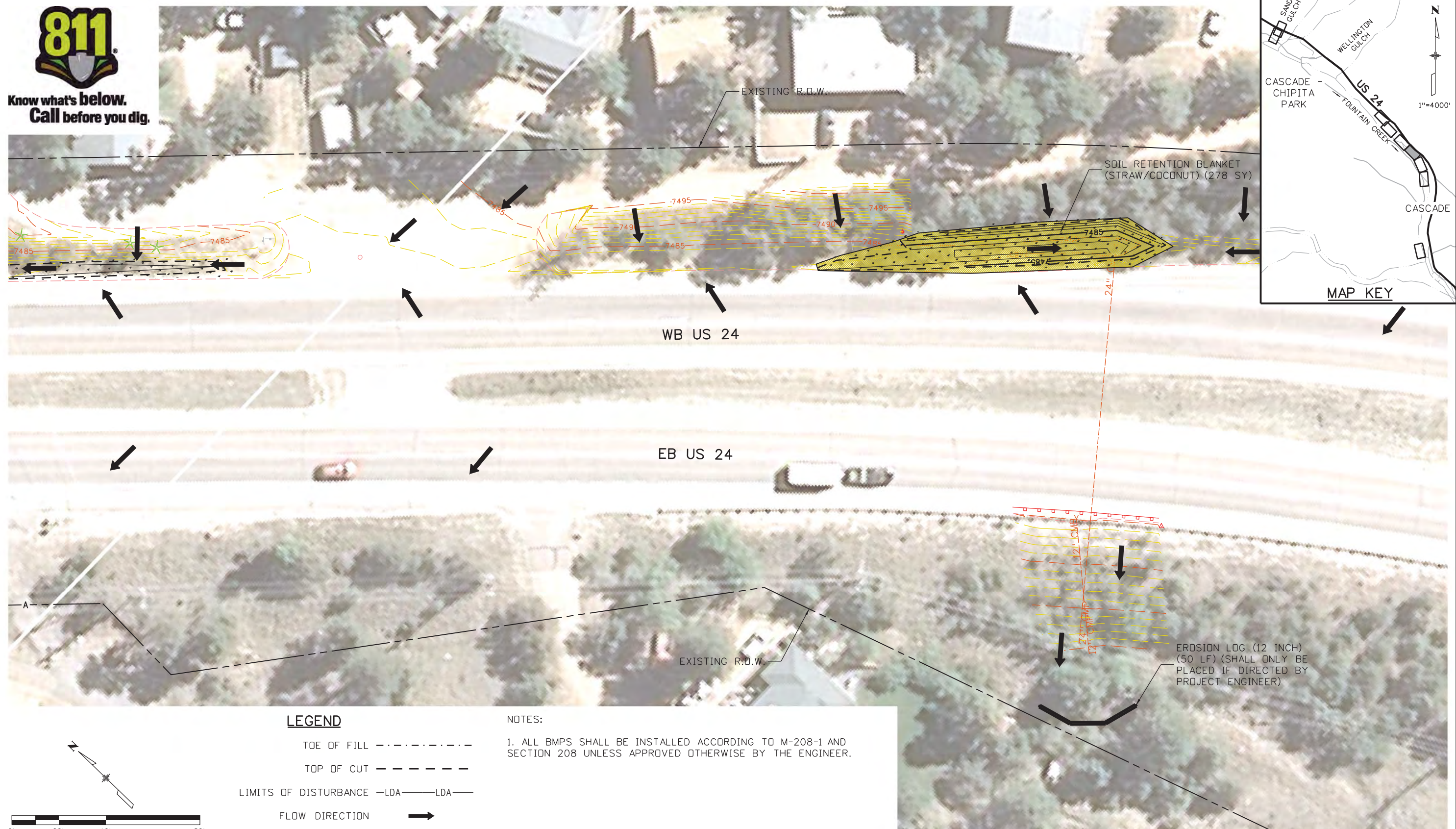
NH 0242-056

19358

Sheet Number **66**



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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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Print Date: 3/18/2013

File Name: 19358Erosion_FIN_Cascade_04.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

**FELSBURG
HOLT &
ULLEVIG**
6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

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Region 2 **LM**

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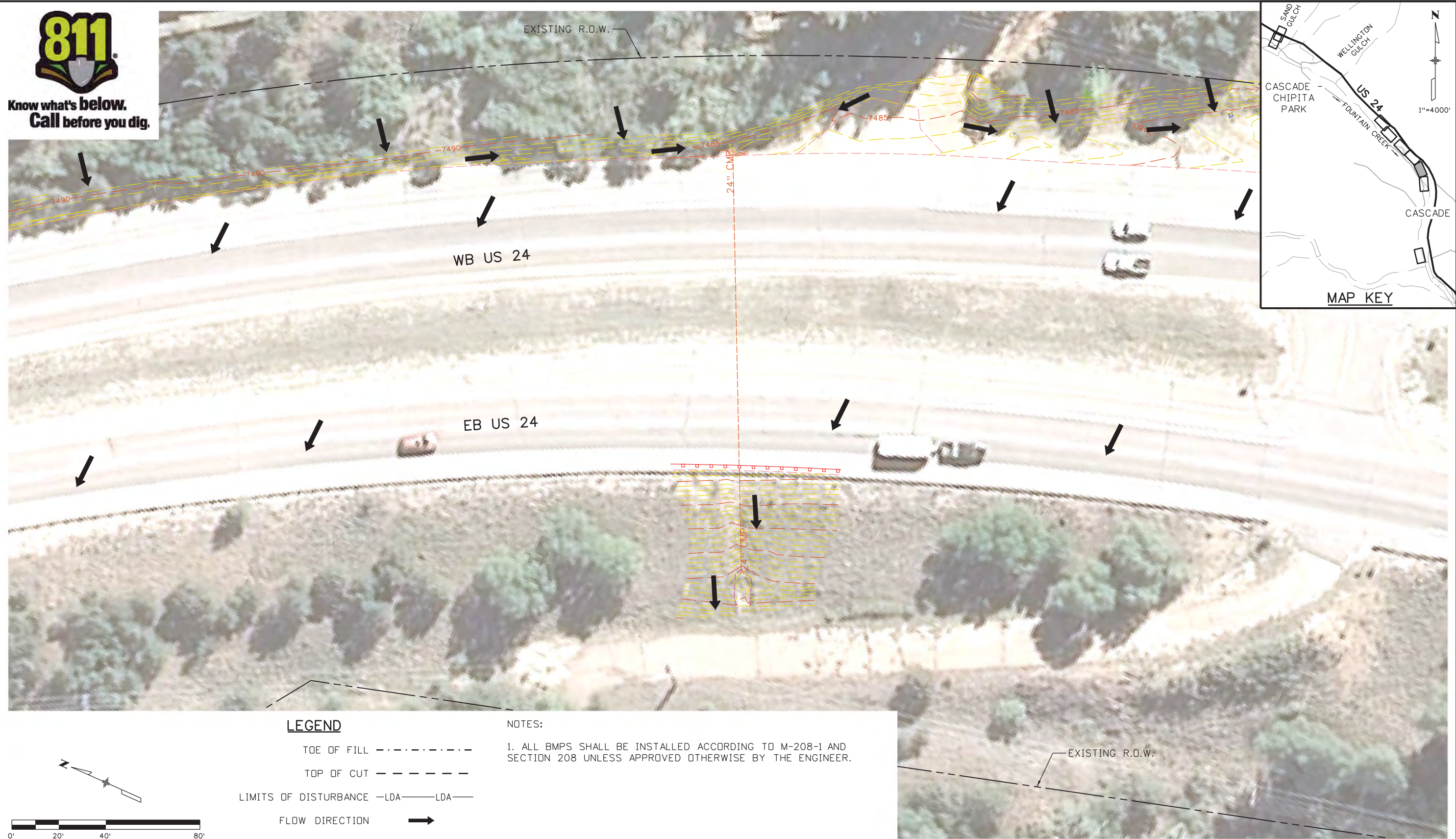
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Sheet Subset:	EROSION	Subset Sheets:	C-28 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 67

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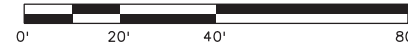


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

Sheet Revisions		
Date:	Comments	Init.

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Region 2 LM

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No Revisions:
Revised:
Void:

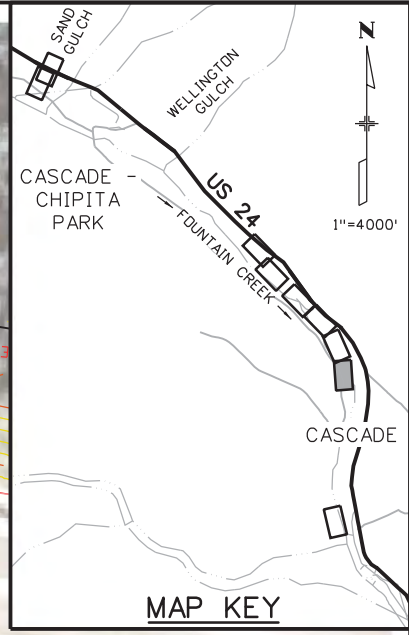
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Detailer:	KLT		
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Project No./Code
NH 0242-056
19358
Sheet Number 68

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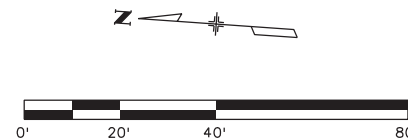


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
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Unit Information Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440

Sheet Revisions		
Date:	Comments	Init.

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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT C - CASCADE			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Structure Numbers	
Sheet Subset:	EROSION	Subset Sheets:	C-30 of 30

Project No./Code
NH 0242-056
19358
Sheet Number 69

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POUR POINT H TABULATION

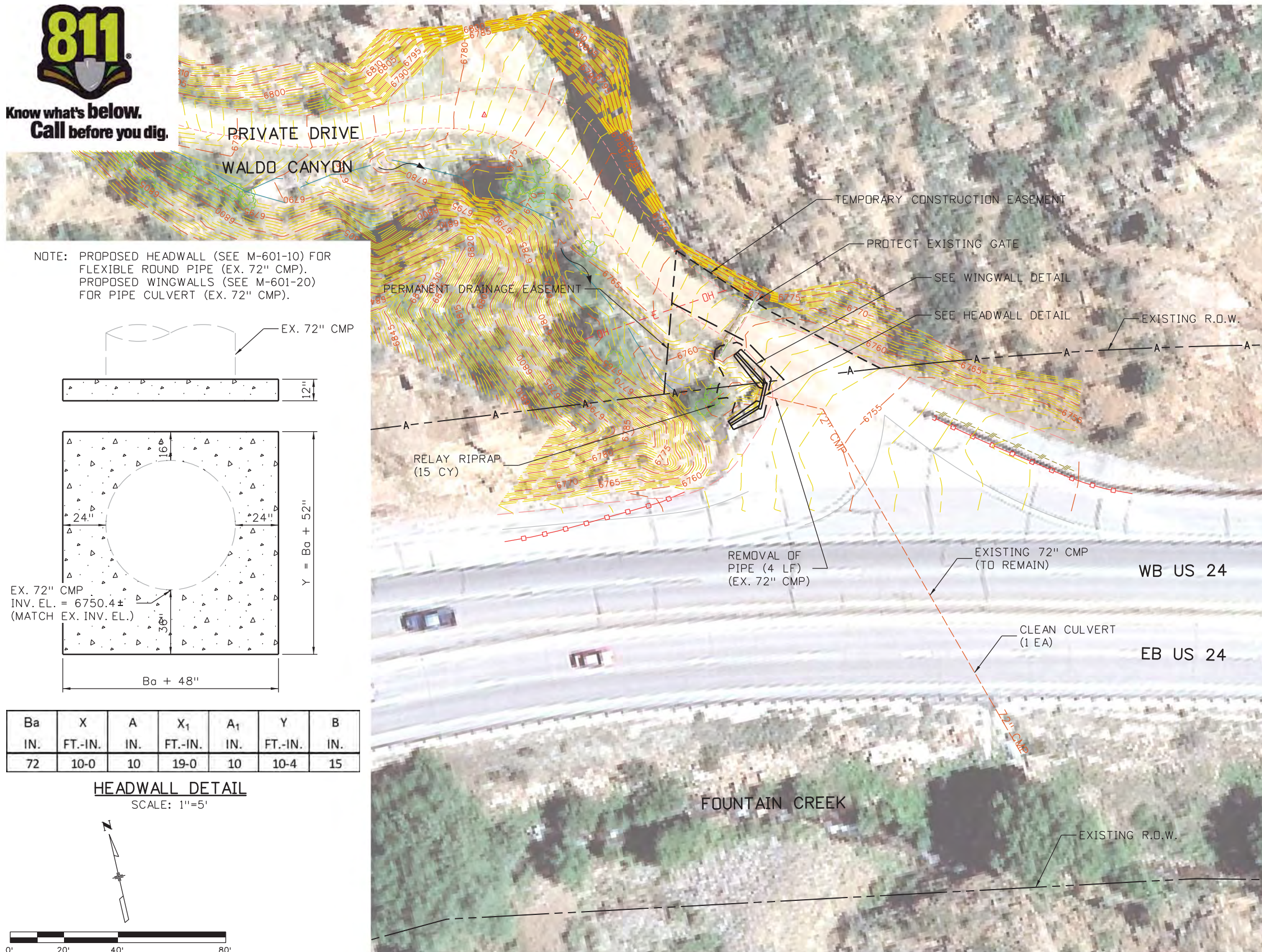
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201-00001	CLEARING AND GRUBBING	LS	1
202-00035	REMOVAL OF PIPE	LF	4
202-04002	CLEAN CULVERT	EA	1
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
208-00034	GRAVEL BAG	LF	150
208-00045	CONCRETE WASHOUT STRUCTURE	EA	1
208-00070	VEHICLE TRACKING PAD	EA	1
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
210-02900	RELAY RIPRAP	CY	15
601-01000	CONCRETE CLASS B	CY	15
601-03050	CONCRETE CLASS D (WALL)	CY	13
602-00000	REINFORCING STEEL	LB	750

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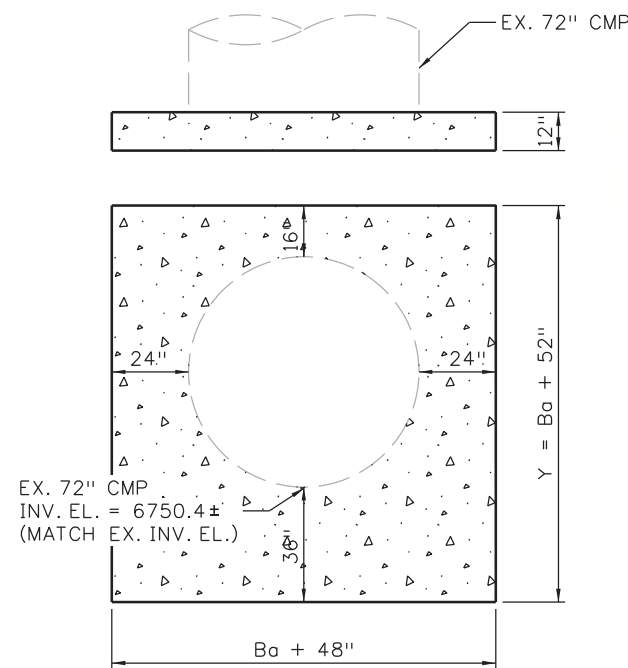
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Horiz. Scale: 1:1 Vert. Scale: As Noted									Designer: CDT Structure Detailer: KLT Numbers		19358	
Unit Information Unit Leader Initials											Sheet Subset: TAB Subset Sheets: H-1 of 6	
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	Region 2			LM								



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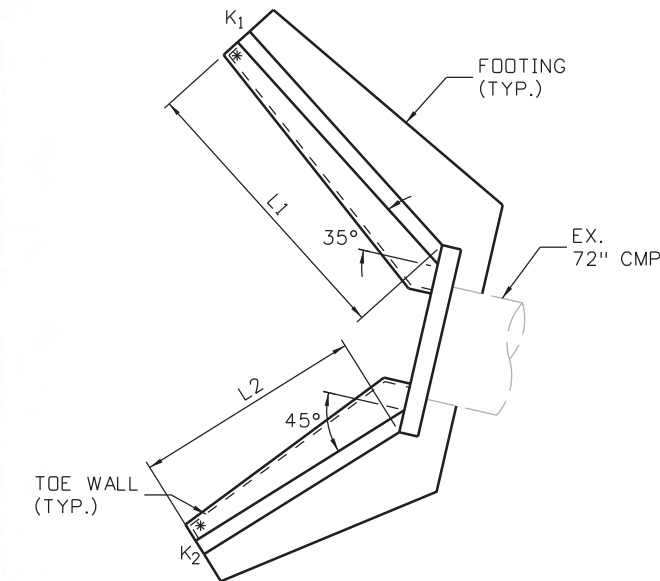
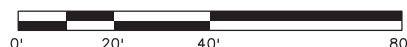


NOTE: PROPOSED HEADWALL (SEE M-601-10) FOR FLEXIBLE ROUND PIPE (EX. 72" CMP). PROPOSED WINGWALLS (SEE M-601-20) FOR PIPE CULVERT (EX. 72" CMP).



Ba	X	A	X ₁	A ₁	Y	B
IN.	FT.-IN.	IN.	FT.-IN.	IN.	FT.-IN.	IN.
72	10-0	10	19-0	10	10-4	15

HEADWALL DETAIL
SCALE: 1"=5'



K ₁	K ₂	L ₁	L ₂
FT.-IN.	FT.-IN.	FT.-IN.	FT.-IN.
2-0	2-0	15-0	12-0

*WINGWALLS REQUIRE TOE WALLS AS SHOWN ON M-601-20.

WINGWALL DETAIL
SCALE: 1"=10'

STRUCTURAL EXCAVATION AND BACKFILL FOR THE WINGWALLS AND HEADWALL SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE WORK.

LEGEND

- SOIL RIPRAP (12 INCH)
- REINFORCED GRASS/CONCRETE POROUS PAVEMENT
- SLOPE AND DITCH PAVING (SPECIAL)
- TOE OF FILL
- TOP OF CUT

Kelly 10:37:58 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Aerial_WaldoCyn.dgn

Print Date: 3/18/2013
 File Name: 19358HYDR_Aerial_WaldoCyn.dgn
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 Unit Information Unit Leader Initials

6300 South Syracuse Way
Suite 600
Centennial, CO 80111
(303) 721-1440

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Date:	Comments	Init.

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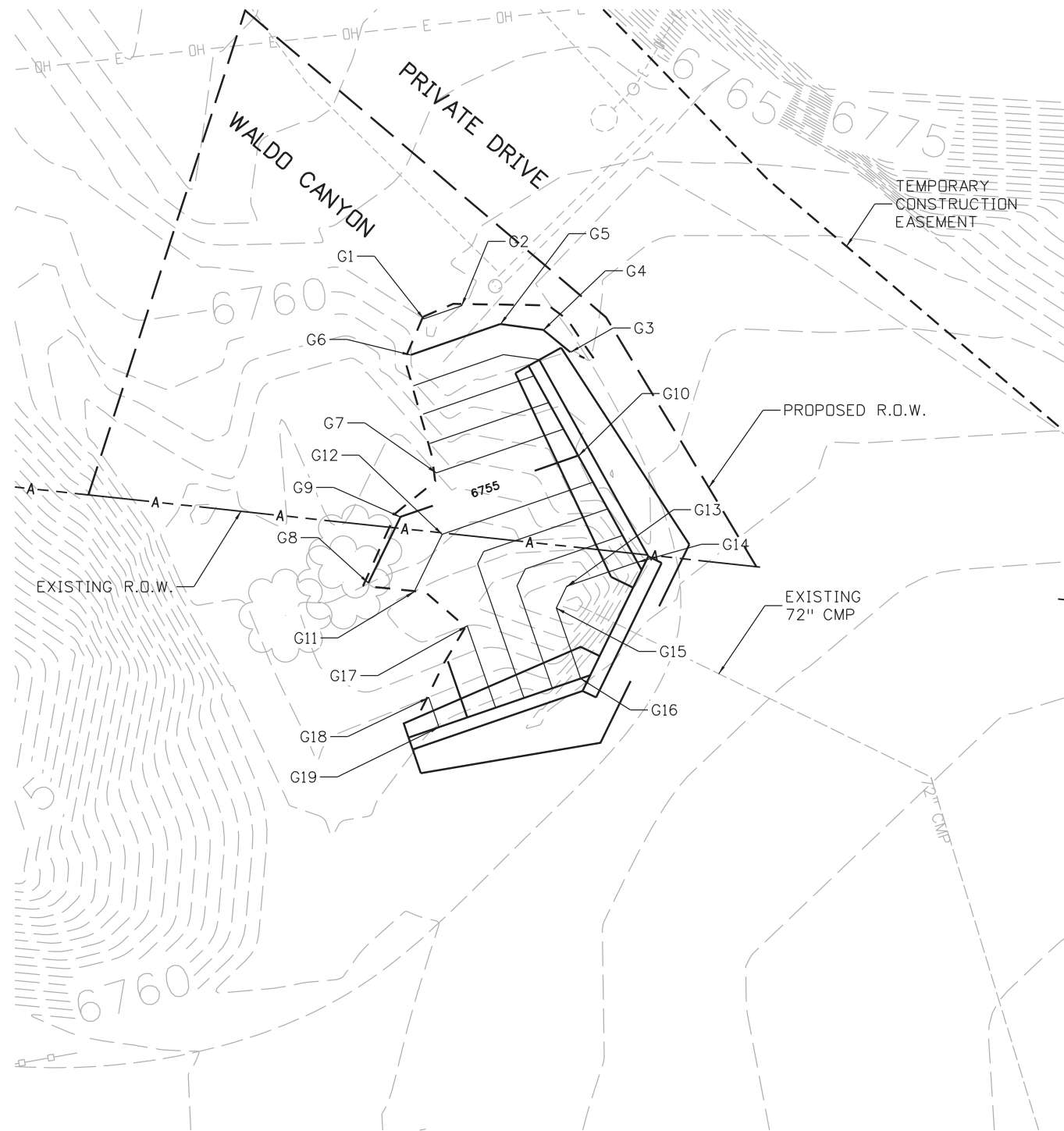
US 24 WALDO CANYON
AERIAL PLAN
POUR POINT H - WALDO CANYON

Designer: CDT
 Detailer: KLT
 Sheet Subset: AERIAL Subset Sheets: H-2 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 71

POINT DATA TABLE - POUR POINT H - GRADING

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
G1	381076.80	162767.89	6761.00	FINISHED GRADE
G2	381077.67	162770.42	6761.00	FINISHED GRADE
G3	381074.58	162777.68	6760.00	FINISHED GRADE
G4	381076.06	162775.87	6760.00	FINISHED GRADE
G5	381076.45	162773.00	6760.00	FINISHED GRADE
G6	381074.39	162767.04	6760.00	FINISHED GRADE
G7	381066.52	162768.74	6756.00	FINISHED GRADE
G8	381059.16	162764.20	6755.00	FINISHED GRADE
G9	381063.58	162766.35	6755.00	FINISHED GRADE
G10	381067.66	162778.20	6755.00	FINISHED GRADE
G11	381058.59	162767.26	6754.00	FINISHED GRADE
G12	381062.42	162769.12	6754.00	FINISHED GRADE
G13	381058.94	162777.44	6751.00	FINISHED GRADE
G14	381060.56	162782.13	6751.00	FINISHED GRADE
G15	381057.50	162776.74	6751.00	FINISHED GRADE
G16	381052.81	162778.36	6751.00	FINISHED GRADE
G17	381056.32	162770.80	6754.00	FINISHED GRADE
G18	381051.53	162768.22	6756.00	FINISHED GRADE
G19	381049.55	162768.90	6756.00	FINISHED GRADE



LEGEND

- TOE OF FILL
- TOP OF CUT

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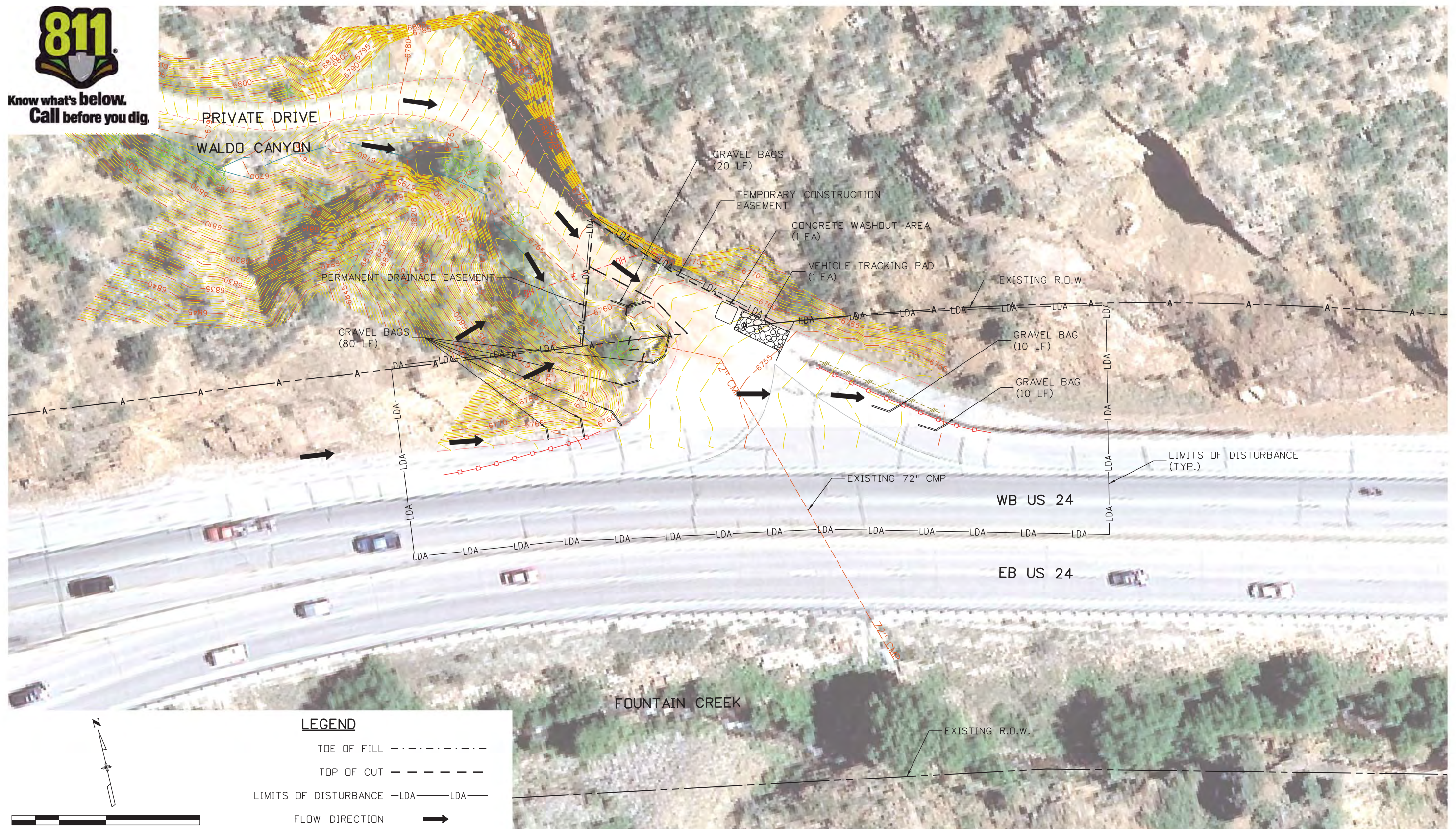
US 24 WALDO CANYON POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure Numbers	
Detailer:	KLT	Subset Sheets:	H-3 of 6
Sheet Subset:	DRAINAGE		

Project No./Code
NH 0242-056
19358
Sheet Number 72

Kelly 10:38:07 AM K:\112266-06\19358\Hydraulics\Drawings\19358HYDR_Detail_WaldoCyn_01.dgn



Know what's below.
Call before you dig.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

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 File Name: 19358Erosion_INI_WaldoCyn.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
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US 24 WALDO CANYON
 GRADING/INITIAL EROSION CONTROL PLAN
 POUR POINT H - WALDO CANYON

Designer: CDT Structure: Numbers:
 Detailer: KLT
 Sheet Subset: EROSION Subset Sheets: H-4 of 6

Project No./Code

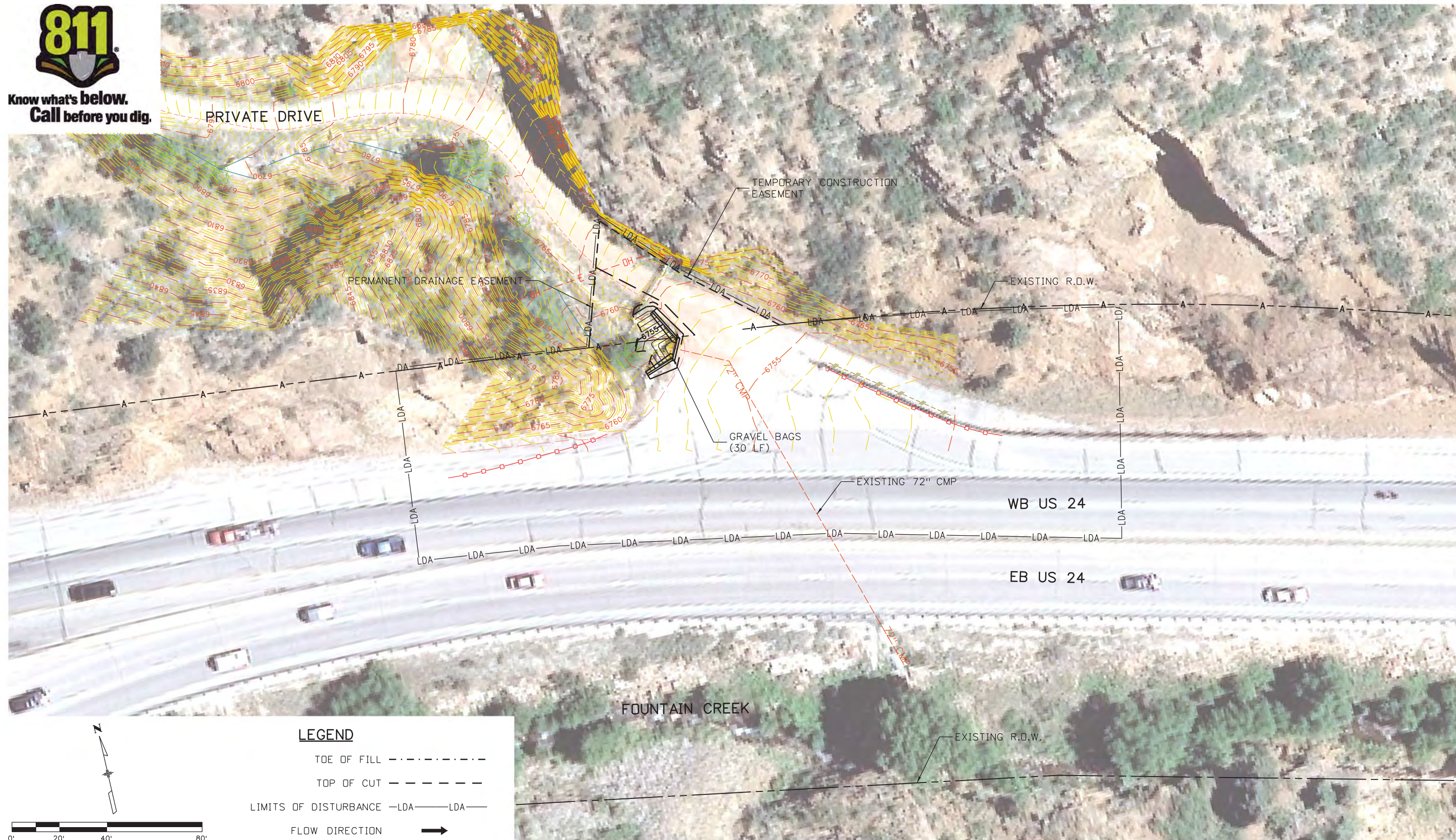
NH 0242-056

19358

Sheet Number **73**



Know what's below.
Call before you dig.



LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA-LDA-

FLOW DIRECTION →

Print Date: 3/18/2013	
File Name: 19358Erosion_INT_WaldoCyn.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
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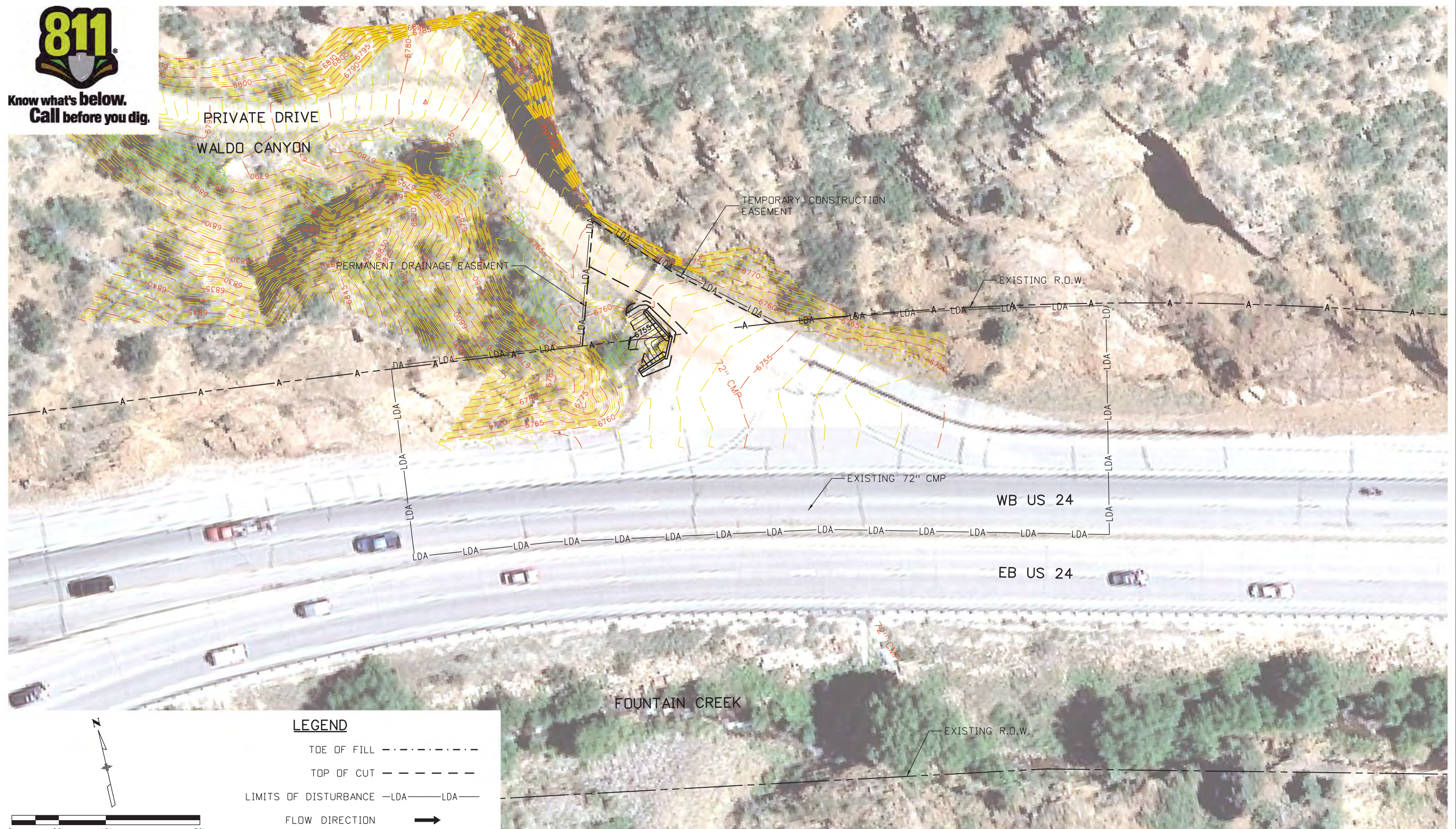
US 24 WALDO CANYON			
GRADING/INTERIM EROSION CONTROL PLAN			
POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	H-5 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 74

Kelly 10:38:17 AM K:\112266-06\19358\Landscapes_Environmental\Drawings\19358Erosion_INT_WaldoCyn.dgn



Know what's below.
Call before you dig.



LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →

Print Date: 3/18/2013	
File Name: 19358Erosion_FIN_WaldoCyn.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

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US 24 WALDO CANYON GRADING/FINAL EROSION CONTROL PLAN POUR POINT H - WALDO CANYON			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	H-6 of 6

Project No./Code
NH 0242-056
19358
Sheet Number 75

Kelly 10:38:20 AM K:\112266-06\19358_Landscape_Environmental\Drawings_19358Erosion_FIN_WaldoCyn.dgn

POUR POINT J - TABULATION

CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	QUANTITY
201-00001	CLEARING AND GRUBBING	LS	1
202-00027	REMOVAL OF RIPRAP	SY	86
203-00010	UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE)	CY	12916
203-00060	EMBANKMENT MATERIAL (COMPLETE IN PLACE)	CY	450
203-00598	ROCK SCALING	HR	60
203-01622	SWEEPING (WITH PICKUP BROOM)	HR	40
206-00000	STRUCTURE EXCAVATION	CY	450
206-00510	FILTER MATERIAL (CLASS A)	CY	200
207-00205	TOPSOIL	CY	202
208-00002	EROSION LOG (12 INCH)	LF	455
208-00034	GRAVEL BAG	LF	490
208-00041	ROCK CHECK DAM	EA	1
208-00045	CONCRETE WASHOUT STRUCTURE	EA	2
208-00070	VEHICLE TRACKING PAD	EA	2
208-00103	REMOVAL AND DISPOSAL OF SEDIMENT (LABOR)	HR	80
208-00105	REMOVAL AND DISPOSAL OF SEDIMENT (EQUIPMENT)	HR	40
208-00205	EROSION CONTROL SUPERVISOR	DAY	30
208-00301	TEMPORARY DIVERSION	LF	300
210-00475	RESET CLOSED CIRCUIT TELEVISION POLE	EA	1
210-00810	RESET GROUND SIGN	EA	1
212-00006	SEEDING (NATIVE)	AC	0.25
212-00032	SOIL CONDITIONING	AC	0.25
213-00002	MULCHING (WEED FREE)	AC	0.25
216-00041	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	563
304-06000	AGGREGATE BASE COURSE (CLASS 6)	CY	79
420-00102	GEOTEXTILE (EROSION CONTROL) (CLASS 1)	SY	540
504-06315	GROUND NAIL (15 FOOT)	EA	60
506-00010	RIPRAP (SPECIAL)	CY	35
506-00036	GROUTED RIPRAP (36 INCH) (SPECIAL)	CY	275
506-00218	RIPRAP (18 INCH)	CY	275
506-00412	SOIL RIPRAP (12 INCH)	CY	81
506-01020	GEOGRID REINFORCEMENT	SY	856
607-53172	FENCE CHAIN LINK (72 INCH)	LF	174
607-55100	WIRE MESH	SF	52330
609-21020	CURB AND GUTTER TYPE 2 (SECTION II-B)	LF	390
641-10000	SHOTCRETE	SY	139

INDEX			ITEM	PROJECT TOTALS	
BOOK	PAGE	SHEET			
			*EMBANKMENT MATERIAL (CIP) (FROM CROSS-SECTIONS) (FOR INFO ONLY) ACCESS ROAD STA. 0+00.00 TO STA. 04+46.03	CU. YDS.	
				226	
			SUBTOTAL	226	
			TOTAL	226	
			*UNCLASSIFIED EXCAVATION (FROM CROSS-SECTIONS) ACCESS ROAD STA. 0+00.00 TO STA. 04+46.03	CU. YDS.	
				162	
			SUBTOTAL	162	
			TOTAL FOR PAY QUANTITY	162	
			COMPACTION (FOR INFORMATION ONLY) (MOISTURE & DENSITY CONTROL) EMBANKMENT (NET)	226	
			TOTAL	226	
			WETTING QUANTITIES (FOR INFORMATION ONLY) COMPACTION (226 x 0.040 M. GAL./yd)	M. GAL.	
				9	
			TOTAL	9	
			ACCESS ROAD QUANTITIES BALANCE (FOR INFORMATION ONLY)	CU. YDS.	
			EMBANKMENT (NET)	226	
			EMBANKMENT X FACTOR (1.15)	260	
			BALANCE TOTAL	260	
			UNCLASSIFIED EXCAVATION TO BE IMPORTED BY THE CONTRACTOR	162	
				98	
			BALANCE TOTAL	260	

Print Date: 3/18/2013
 File Name: 19358DES_Tabs_Earthwork_AccessRoad.dgn
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US 24 WALDO CANYON
 TABULATION
 POUR POINT J - ACCESS ROAD

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: TAB Subset Sheets: J-1 of 41

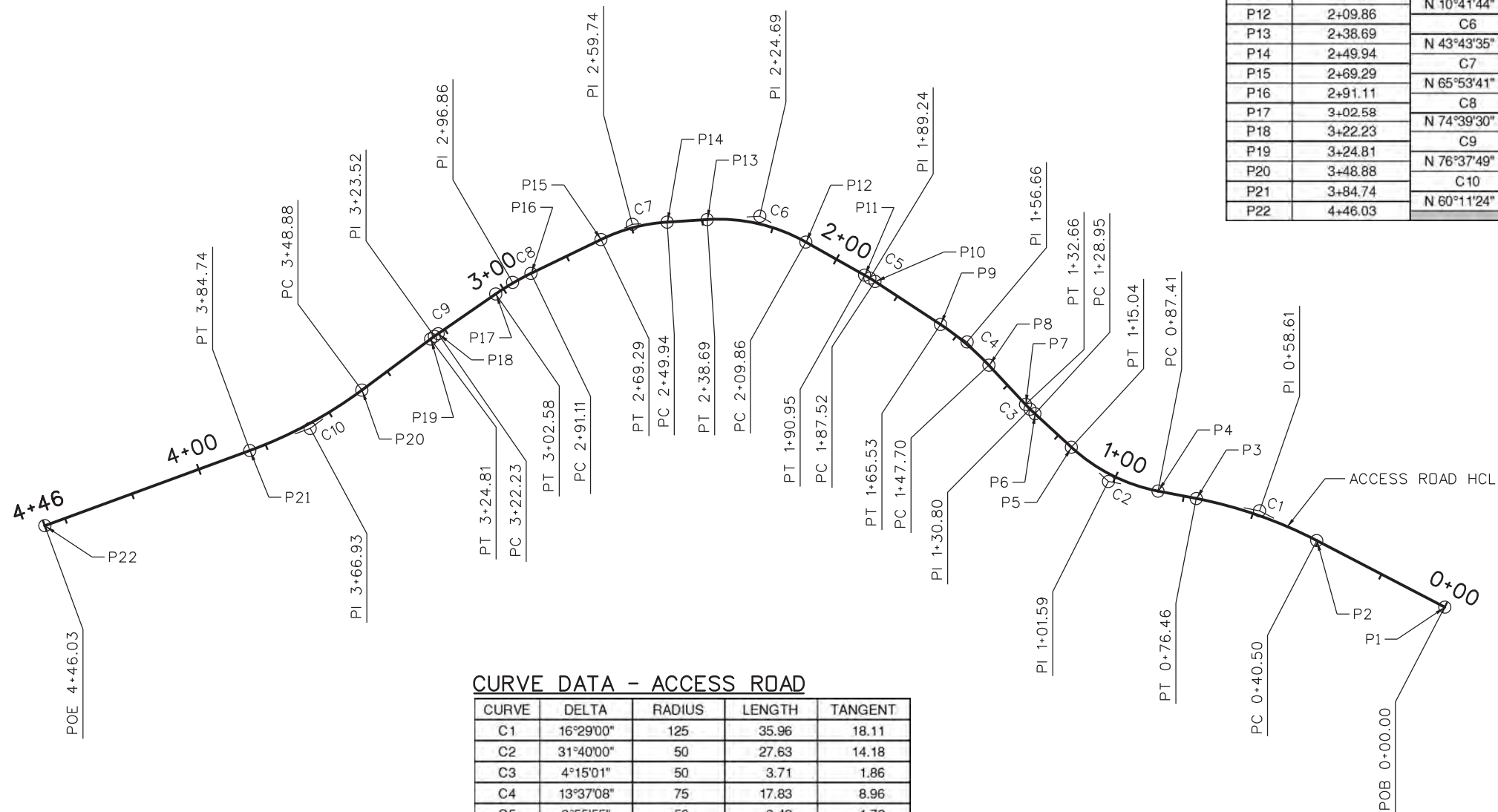
Project No./Code
 NH 0242-056
 19358
 Sheet Number **76**



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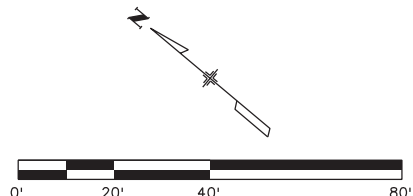
COORDINATE DATA - ACCESS ROAD

POINT	STATION	BEARING/CURVE	NORTHING	EASTING
P1	0+00.00		378238.1658	165043.3779
P2	0+40.50	N 12°34'42" W	378277.6935	165035.1582
P3	0+76.46	C1	378311.1905	165022.4205
P4	0+87.41	N 29°03'42" W	378320.7584	165017.1035
P5	1+15.04	C2	378347.3184	165010.3601
P6	1+28.95	N 2°36'18" E	378361.2104	165011.4921
P7	1+32.66	C3	378364.9059	165011.7979
P8	1+47.70	N 6°51'19" E	378379.8446	165013.5939
P9	1+65.53	C4	378397.6298	165013.3081
P10	1+87.52	N 6°45'49" W	378419.4666	165011.0183
P11	1+90.95	C5	378422.8574	165010.4976
P12	2+09.86	N 10°41'44" W	378441.4396	165006.3880
P13	2+38.69	C6	378466.7210	164993.3890
P14	2+49.94	N 43°43'35" W	378474.8555	164986.2083
P15	2+69.29	C7	378485.9345	164970.4967
P16	2+91.11	N 65°53'41" W	378494.8469	164950.5776
P17	3+02.58	C8	378498.7147	164939.7894
P18	3+22.23	N 74°39'30" W	378503.9131	164920.3411
P19	3+24.81	C9	378504.5500	164918.3406
P20	3+48.88	N 76°37'49" W	378510.1174	164894.3289
P21	3+84.74	C10	378523.2698	164861.3924
P22	4+46.03	N 60°11'24" W	378553.7373	164808.5145



CURVE DATA - ACCESS ROAD

CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	16°29'00"	125	35.96	18.11
C2	31°40'00"	50	27.63	14.18
C3	4°15'01"	50	3.71	1.86
C4	13°37'08"	75	17.83	8.96
C5	3°55'55"	50	3.43	1.72
C6	33°01'52"	50	28.83	14.83
C7	22°10'05"	50	19.35	9.80
C8	8°45'50"	75	11.47	5.75
C9	1°58'19"	75	2.58	1.29
C10	16°26'25"	125	35.87	18.06



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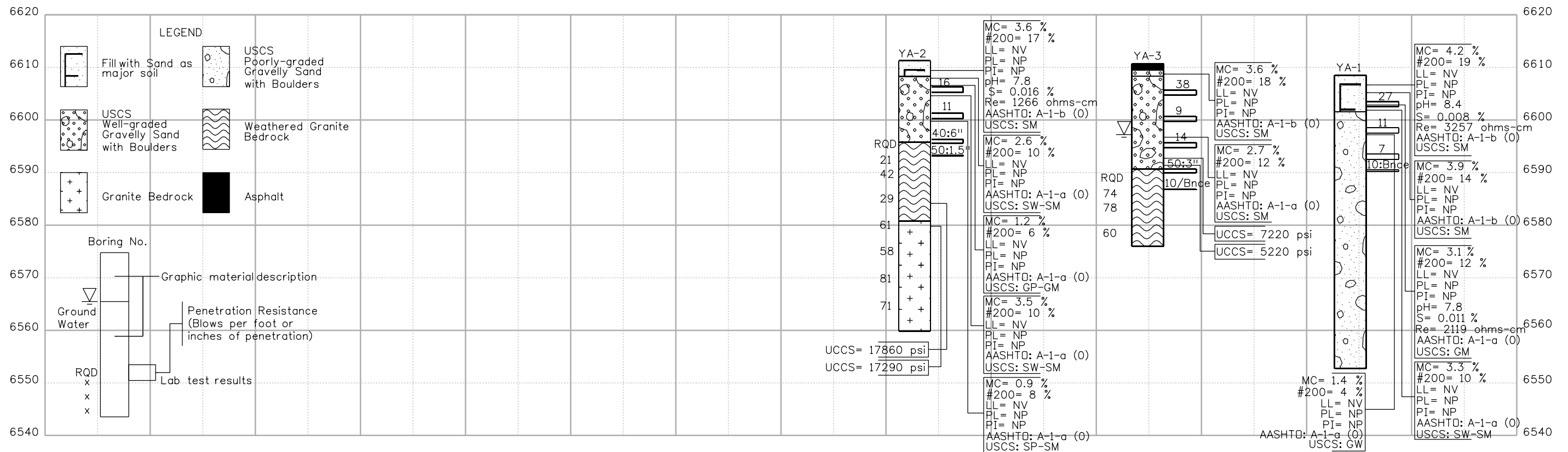
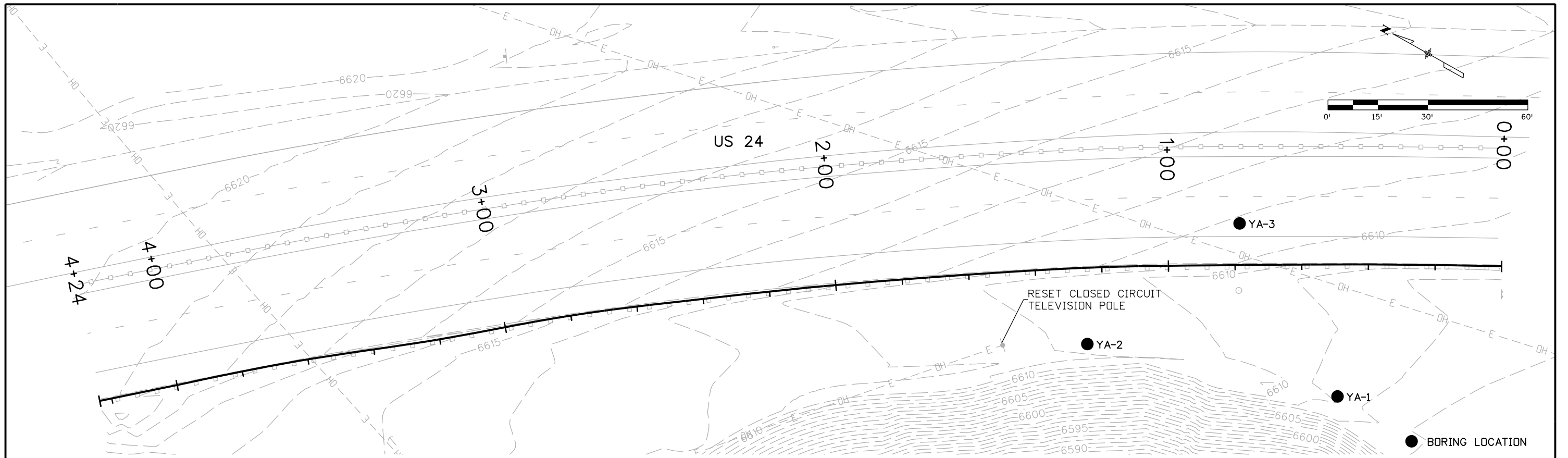
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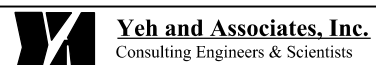
US 24 WALDO CANYON GEOMETRIC PLAN POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	J-2 of 41

Project No./Code
NH 0242-056
19358
Sheet Number 77

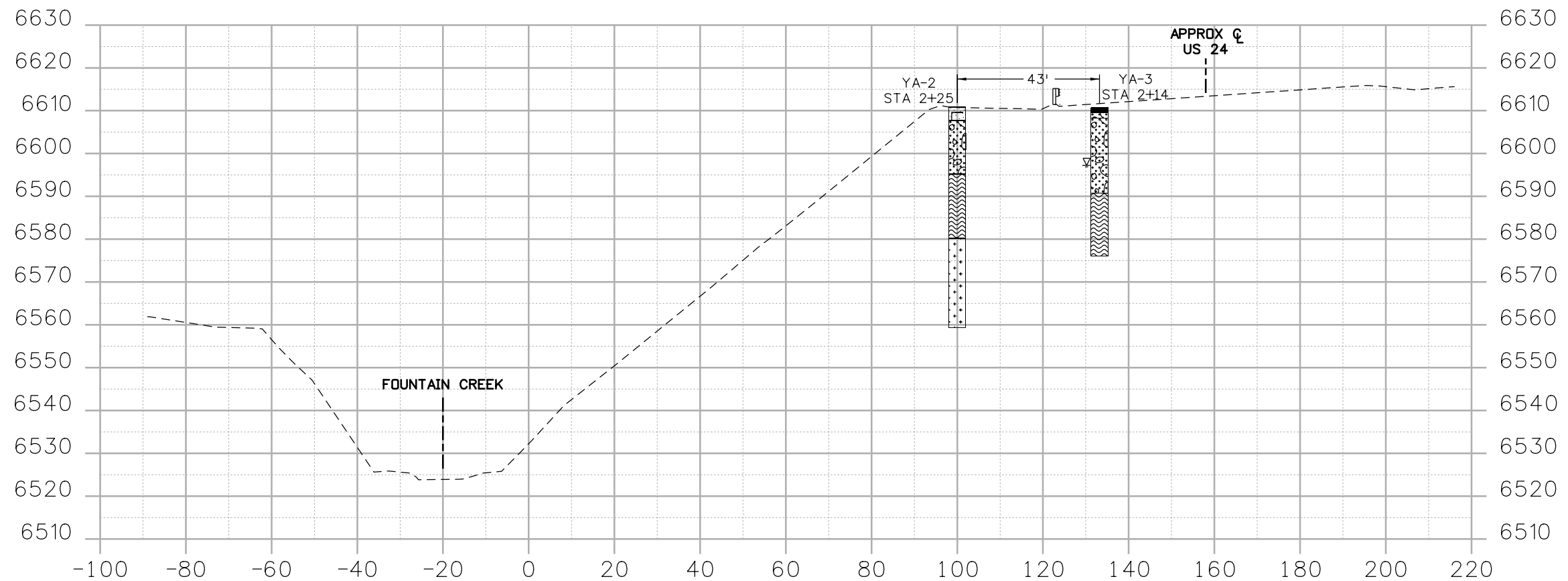



Mike Walz 1:57:01 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Engineering Geology.dgn

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Date:	Comments	Init.															



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Print Date: 3/15/2013	
File Name: 19358 Typical Section-Exist Condition.dgn	
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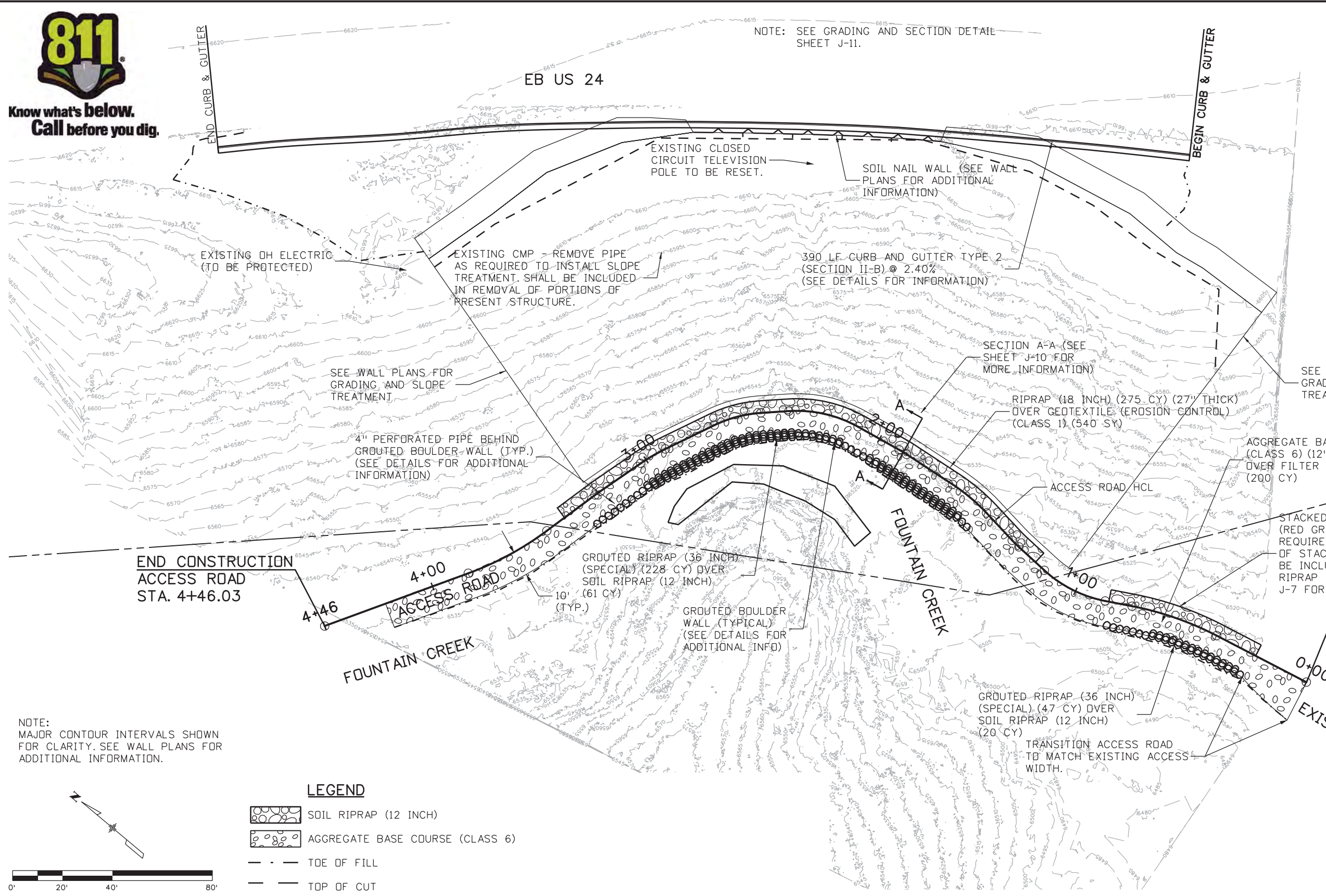
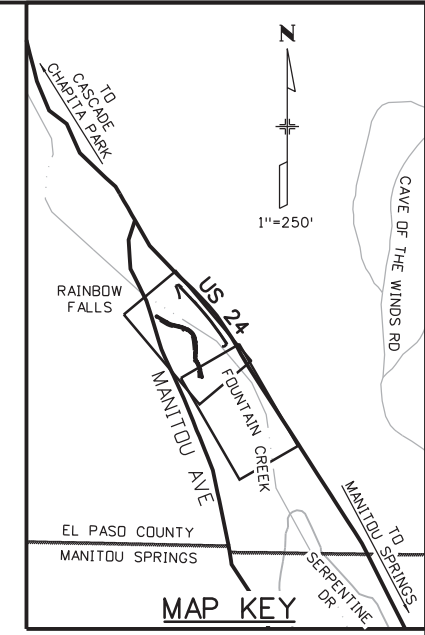
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Designer: B. Arndt	Structure Numbers	
Detailer: M. Walz		
Sheet Subset:	Subset Sheets:	

Project No./Code
NH 0242-056
19358
Sheet Number 79



Know what's below.
Call before you dig.

NOTE: SEE GRADING AND SECTION DETAIL SHEET J-11.



NOTE: MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.

LEGEND

	SOIL RIPRAP (12 INCH)
	AGGREGATE BASE COURSE (CLASS 6)
	TOE OF FILL
	TOP OF CUT

Print Date: 3/18/2013

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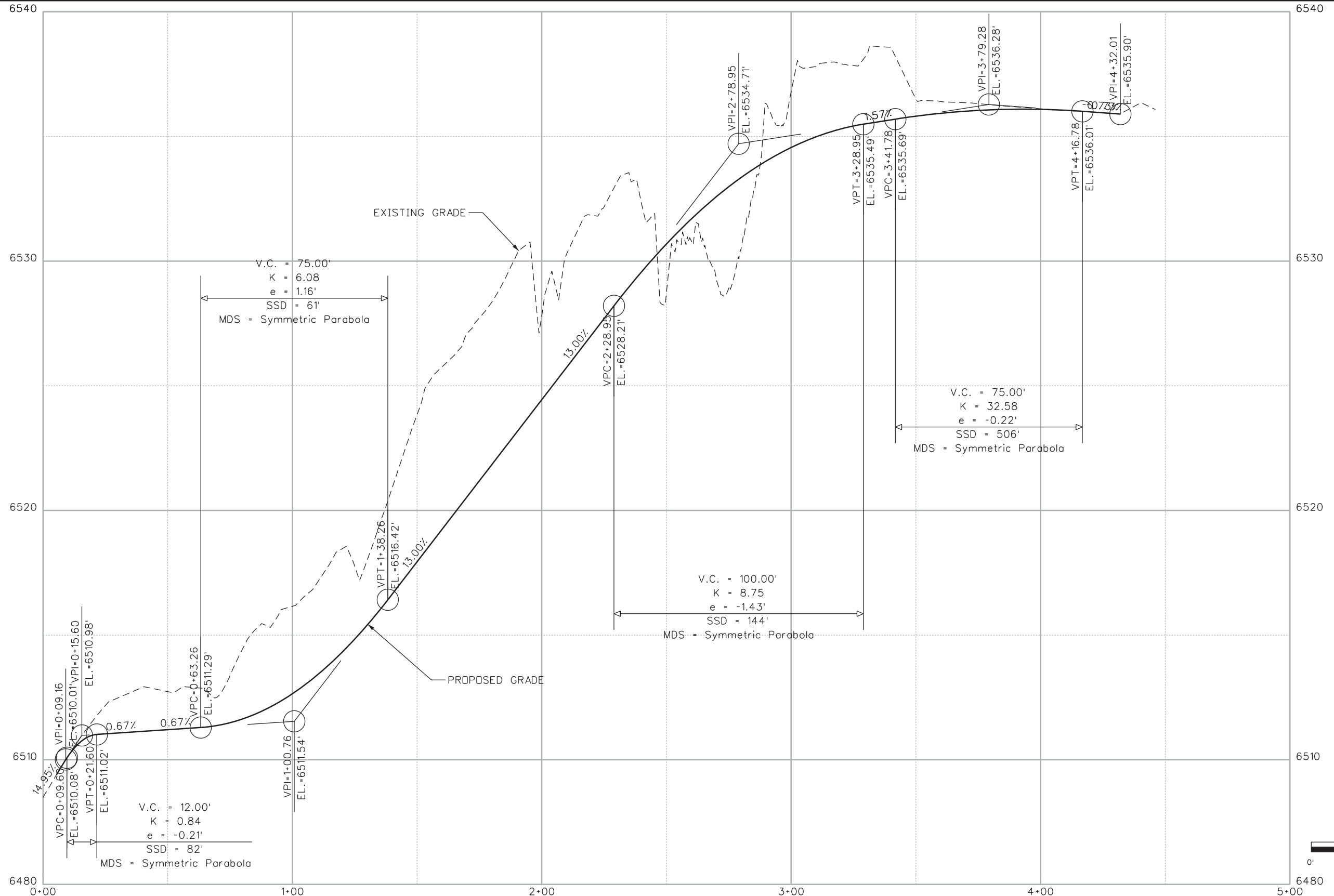
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US 24 WALDO CANYON
PLAN
POUR POINT J - ACCESS ROAD

Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	J-5 of 41

Project No./Code	NH 0242-056
	19358
Sheet Number	80

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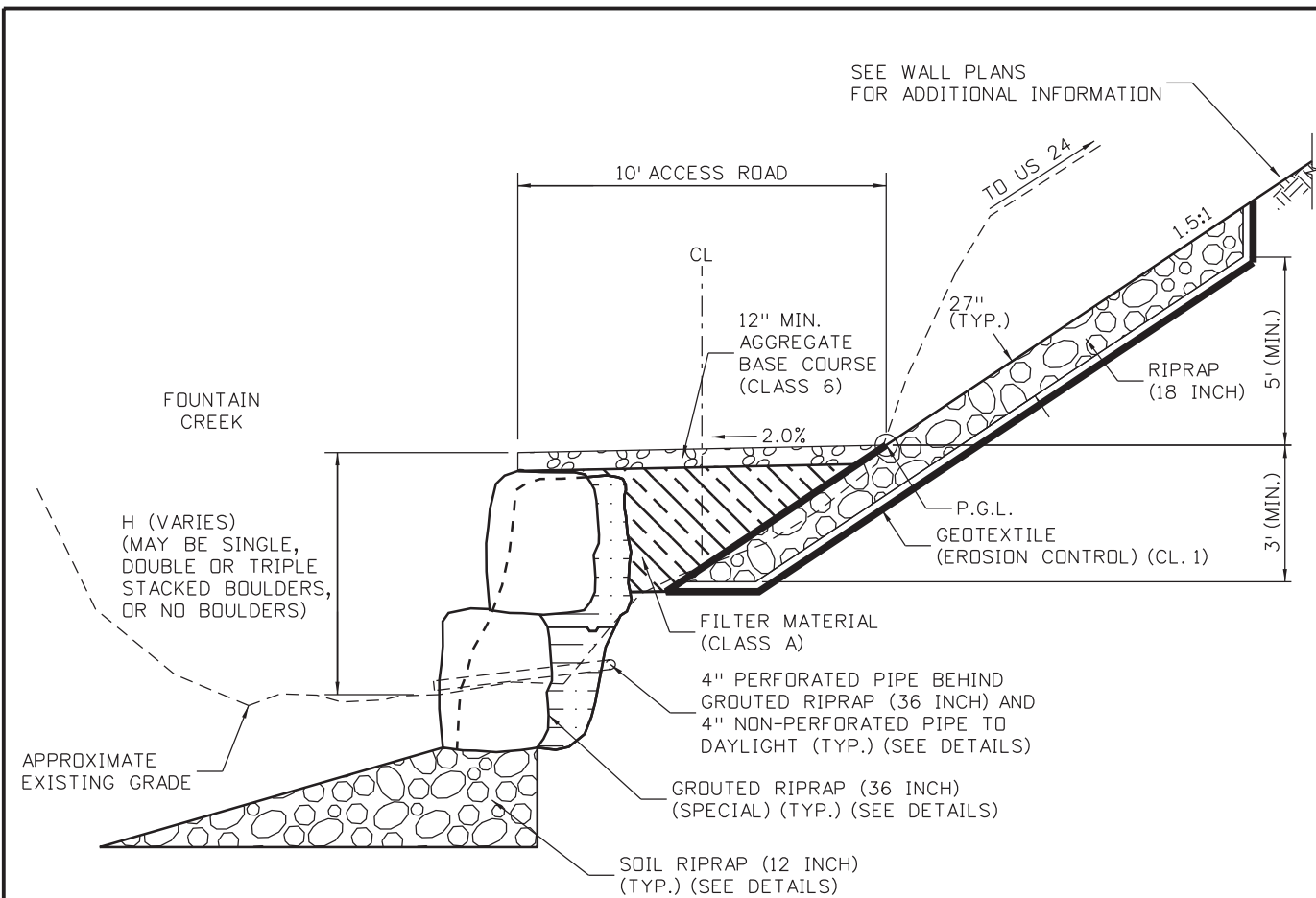
**US 24 WALDO CANYON
 PROFILE SHEET
 POUR POINT J - ACCESS ROAD**

Designer: CDT Structure Numbers
 Detailer: KLT
 Sheet Subset: ROADWAY Subset Sheets: J-6 of 41

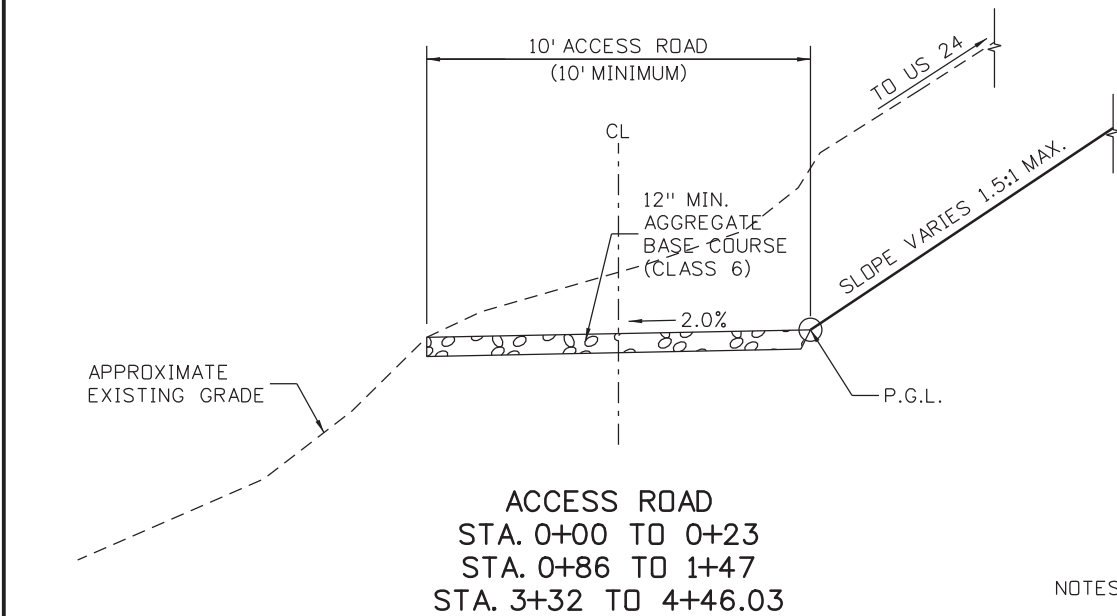
Project No./Code
 NH 0242-056
 19358
 Sheet Number **81**

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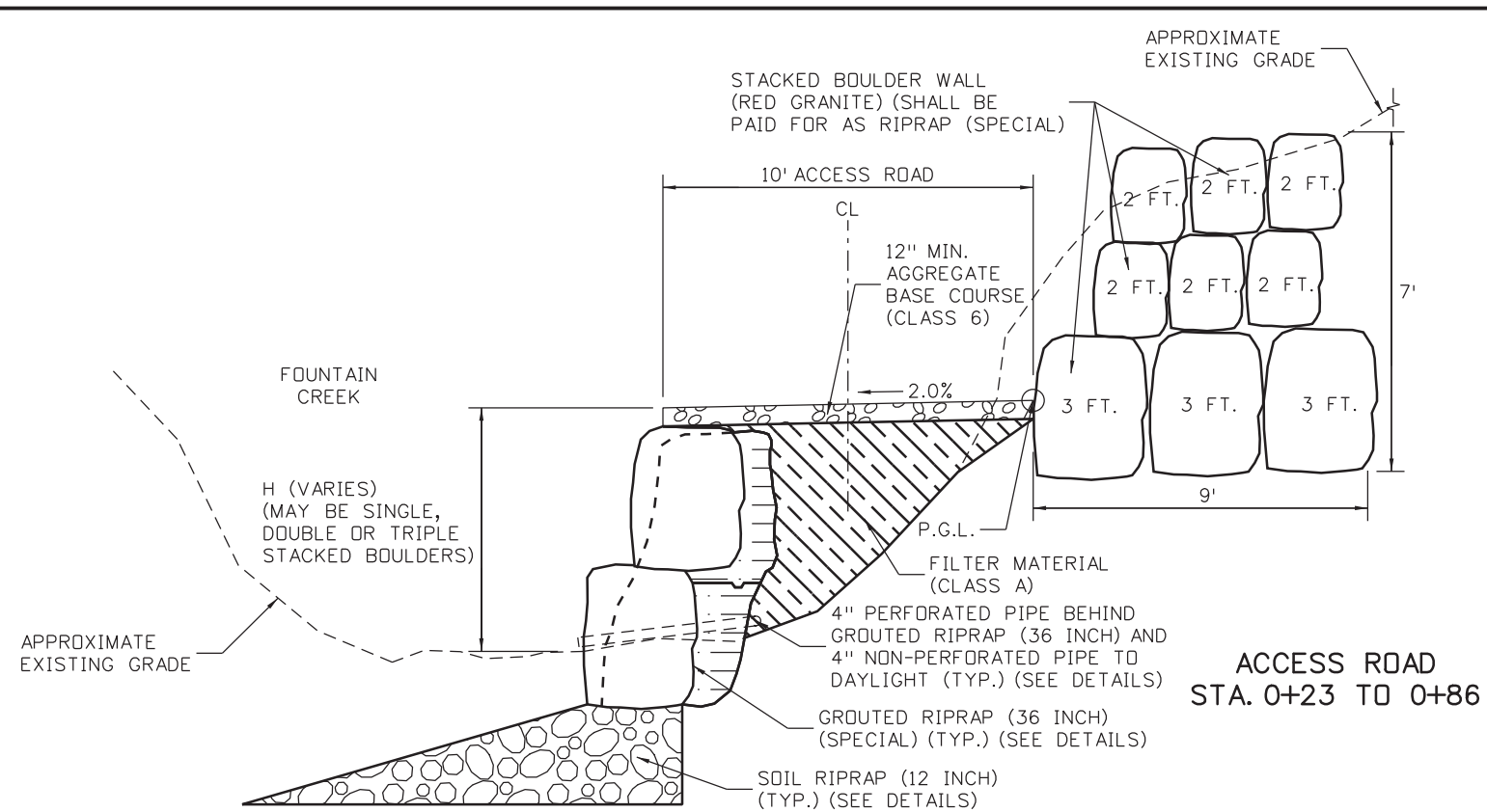
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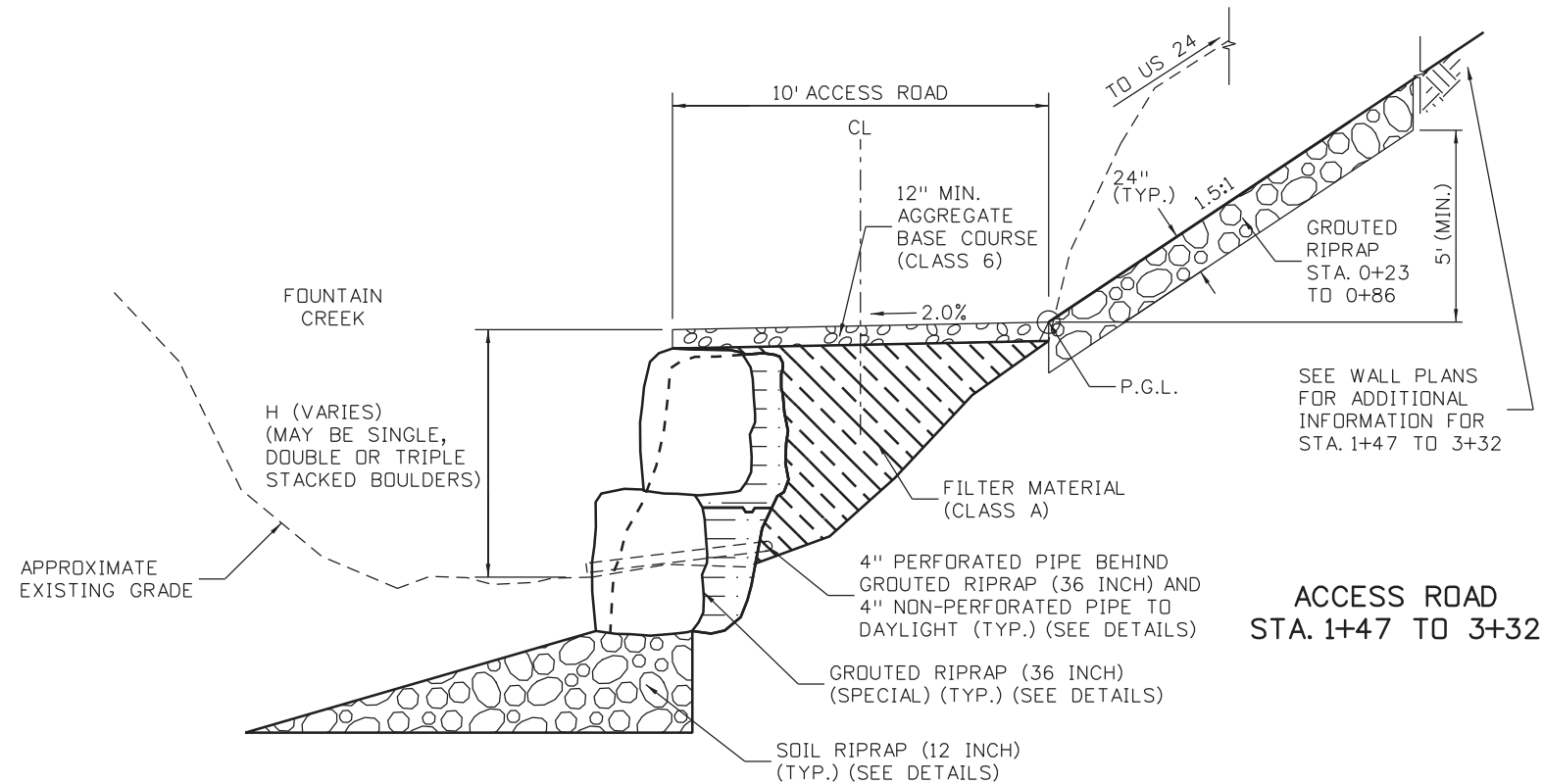
ACCESS ROAD
STA. 1+20 TO 3+40



ACCESS ROAD
STA. 0+00 TO 0+23
STA. 0+86 TO 1+47
STA. 3+32 TO 4+46.03



ACCESS ROAD
STA. 0+23 TO 0+86



ACCESS ROAD
STA. 1+47 TO 3+32

NOTES:

1. 36" GROUDED RIPRAP (36 INCH) HEIGHT VARIES, SEE DETAILS.

P.G.L. - PROFILE GRADE LINE

Print Date: 3/18/2013	
File Name: 19358DES_Typ1SectAccessRoad J.dgn	
Horiz. Scale: 1:10 Vert. Scale: As Noted	
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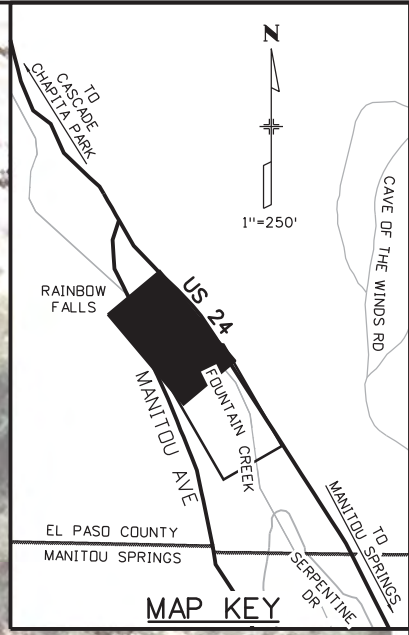
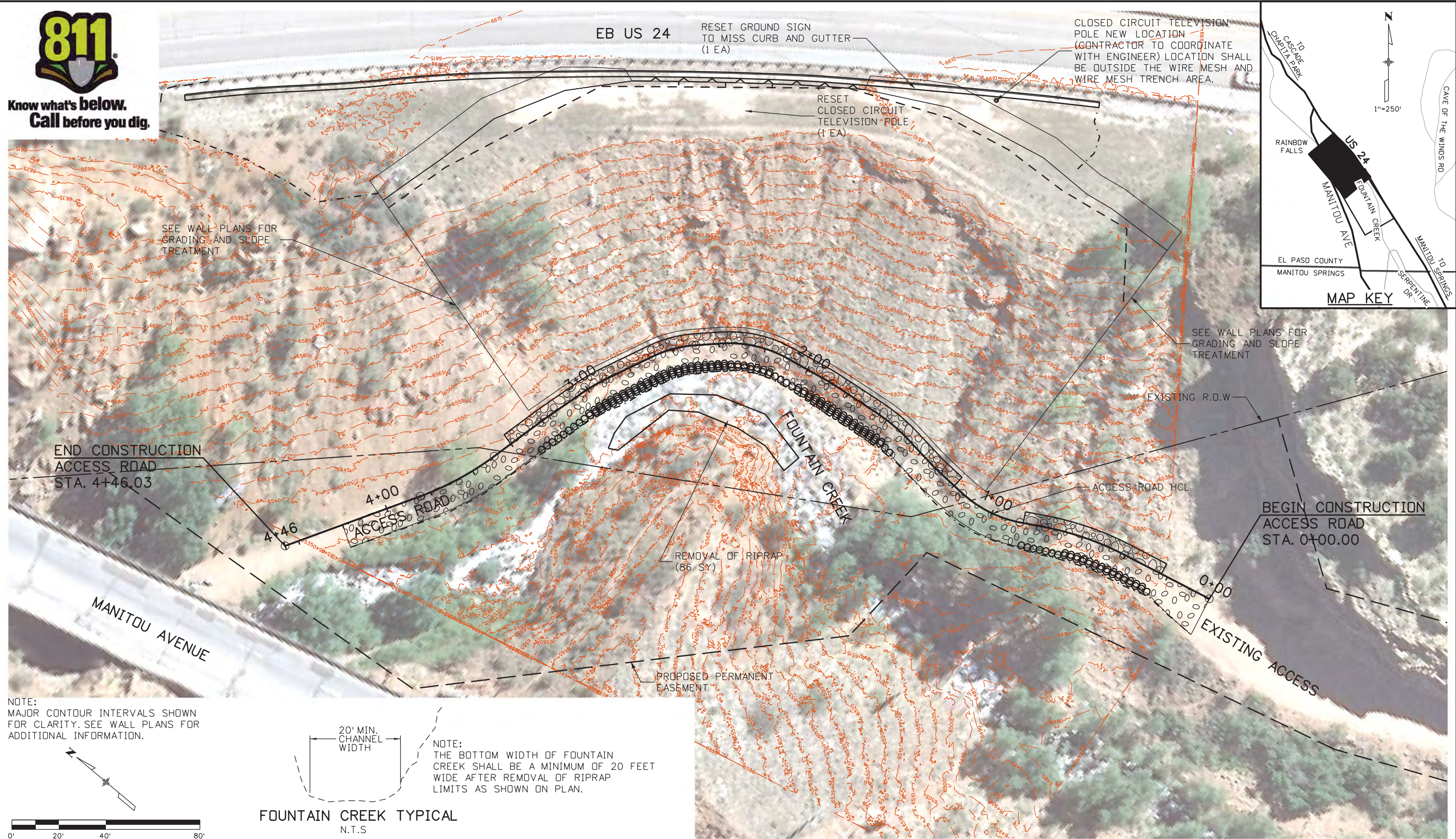
US 24 WALDO CANYON TYPICAL SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:		Subset Sheets:	J-7 of 41

Project No./Code	NH 0242-056
	19358
Sheet Number	82

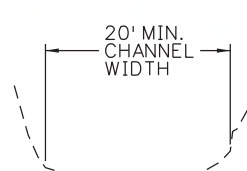
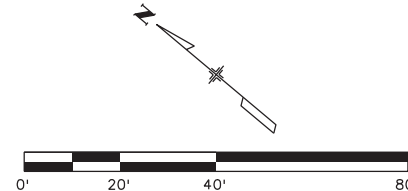
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Know what's below.
Call before you dig.



NOTE:
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FOUNTAIN CREEK TYPICAL
N.T.S.

NOTE:
THE BOTTOM WIDTH OF FOUNTAIN CREEK SHALL BE A MINIMUM OF 20 FEET WIDE AFTER REMOVAL OF RIPRAP LIMITS AS SHOWN ON PLAN.

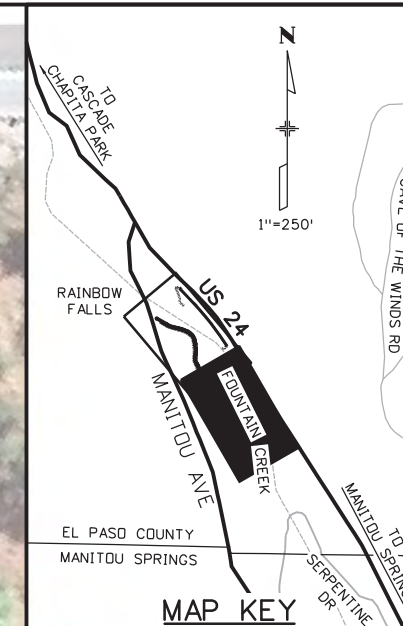
Print Date: 3/18/2013	Sheet Revisions			Colorado Department of Transportation			As Constructed		US 24 WALDO CANYON REMOVALS / RESETS POUR POINT J - ACCESS ROAD		Project No./Code	
File Name: 19358DES_Aerial_AccessRoad_01.dgn	Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		Designer: CDT		NH 0242-056		
Horiz. Scale: 1:40 Vert. Scale: As Noted				Region 2 LM		Revised:		Detailer: KLT		19358		
Unit Information Unit Leader Initials						Void:		Sheet Subset: ROADWAY		Subset Sheets: J-8 of 41		
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				Region 2				Structure Numbers		Sheet Number 83		

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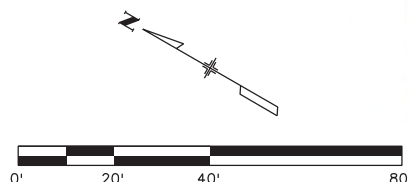
EB US 24



0+00
EXISTING ACCESS

FIELD FACILITY LOCATION
(OFFICE, LABORATORY AND PARKING)
(SEE GN-1 GENERAL NOTES FOR
ADDITIONAL INFORMATION)

NOTE:
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FOR CLARITY. SEE WALL PLANS FOR
ADDITIONAL INFORMATION.



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Print Date: 3/18/2013	
File Name: 19358DES_Aerial_AccessRoad_02.dgn	
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Date:	Comments	Init.

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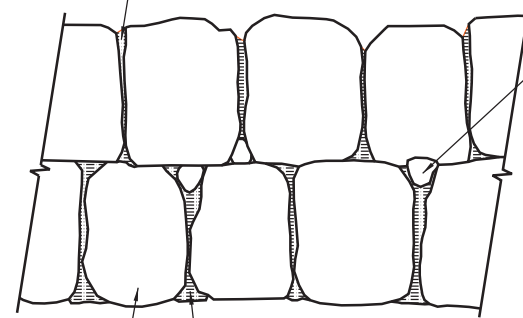
Region 2 LM

As Constructed
No Revisions:
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Void:

US 24 WALDO CANYON REMOVALS / RESETS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	ROADWAY	Subset Sheets:	J-9 of 41

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	19358
Sheet Number	84

ALL EXPOSED GROUT SHALL BE TROWELED OUT AND FINISHED TO MINIMIZE VISIBILITY. WASH OFF ALL EXCESS GROUT SPILLAGE AND CLEAN ALL VISIBLE ROCK SURFACES (SEE SPECIFICATION)

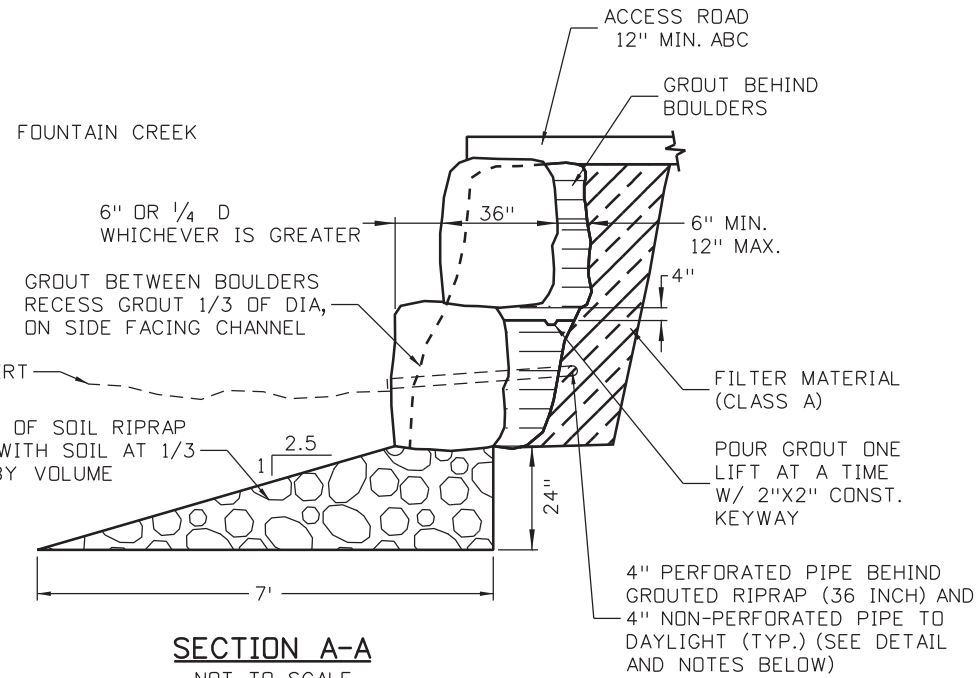


CHINK ROCKS IN BOULDER GAPS THAT EXCEED 4"

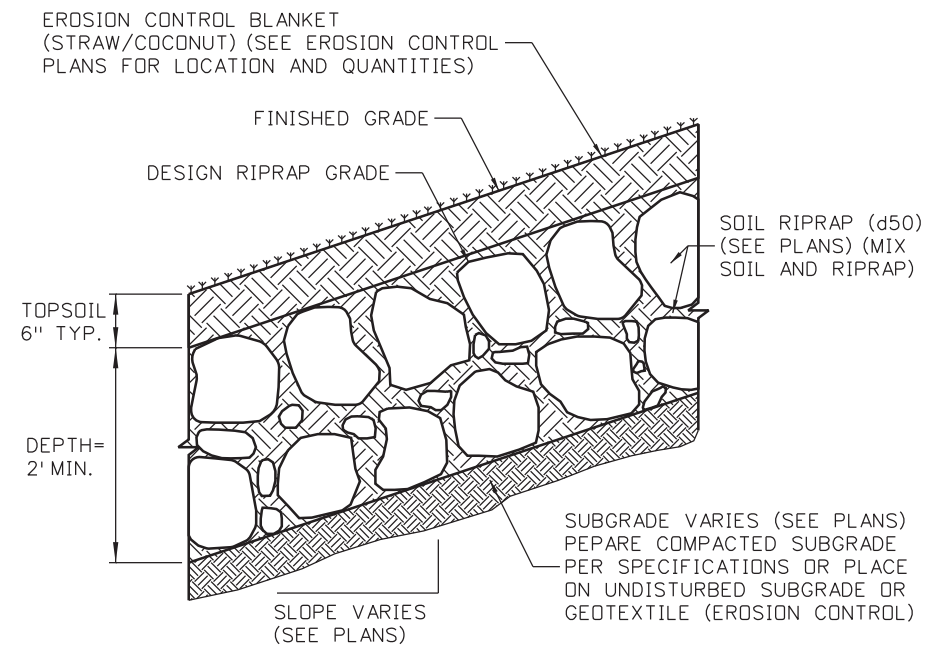
LARGE MACHINE PLACED 36" BOULDERS

PLACE BOULDERS AS CLOSELY AS POSSIBLE (TOUCHING EACH OTHER) TO MINIMIZE GROUT. VOIDS SHALL NOT EXCEED 4" WITHOUT CHINKING.

ELEVATION
NOT TO SCALE



SECTION A-A
NOT TO SCALE



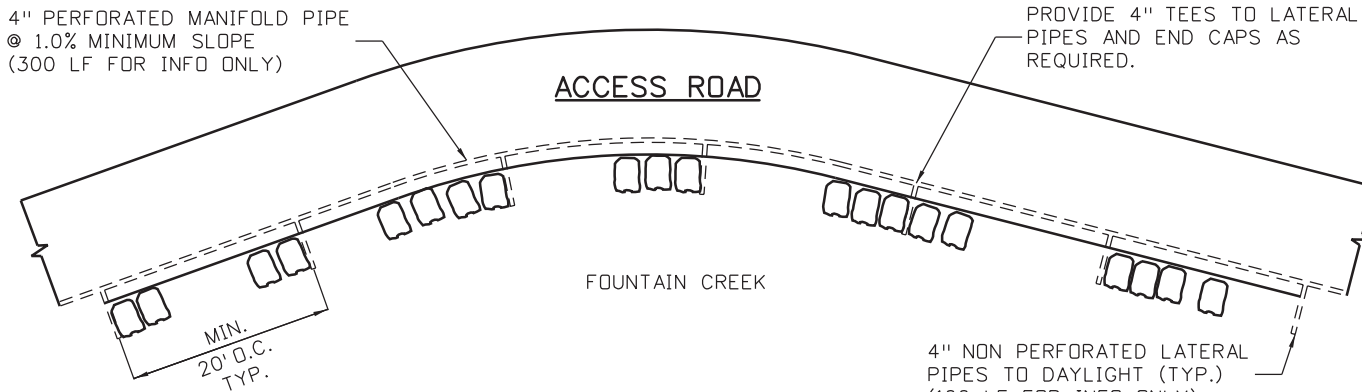
SOIL RIPRAP (d50)
TYPICAL SECTION
NOT TO SCALE

GROUT PLACEMENT NOTES:

1. TRENCH BEHIND BOULDERS A MINIMUM OF 12" OR 1/2 d50, WHICHEVER IS LESS.
2. PLACE AND VIBRATORY COMPACT GROUT FOR BOTTOM ROW OF BOULDERS BEFORE PLACING AND GROUTING TOP ROW OF BOULDERS.
3. GROUT MAY BE MIXED ON SITE FROM ONE PART PORTLAND CEMENT AND SIX PARTS SAND, BY VOLUME (15% CEMENT).
4. EQUIPMENT FOR GROUTING OPERATIONS SHALL BE LOCATED SOUTH OF THE PROJECT NEAR THE CONSTRUCTION STAGING AREA ADJACENT TO SERPENTINE DR.

4" PERFORATED MANIFOLD PIPE @ 1.0% MINIMUM SLOPE (300 LF FOR INFO ONLY)

PROVIDE 4" TEES TO LATERAL PIPES AND END CAPS AS REQUIRED.



4" PERFORATED PIPE DETAIL
NOT TO SCALE

4" PERFORATED PIPE NOTES:

1. SEE M-605-1 FOR PIPE UNDERDRAIN TYPICAL SECTION.
2. ALL MATERIALS AND LABOR SHALL BE INCLUDED IN THE COST OF GROUTED RIPRAP (36 INCH) (SPECIAL).

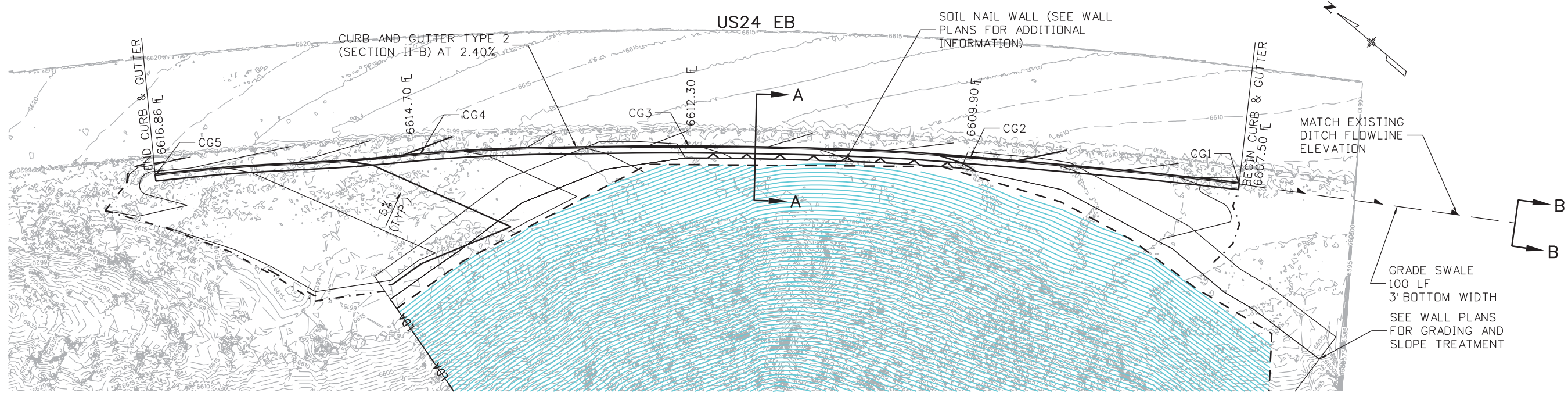
SOIL RIPRAP (12 INCH) NOTES:

1. SOIL RIPRAP DETAILS ARE APPLICABLE TO SLOPED AREAS. REFER TO THE PLAN FOR ACTUAL LOCATION AND LIMITS.
2. MIX UNIFORMLY 2/3 RIPRAP BY VOLUME WITH 1/3 OF APPROVED SOIL BY VOLUME FROM THE ENGINEER PRIOR TO PLACEMENT.
3. PLACE STONE-SOIL MIX TO RESULT IN SECURELY INTERLOCKED ROCK AT THE DESIGN THICKNESS. GRADE COMPACT AND LEVEL TO ELIMINATE ALL VOIDS AND ROCKS PROJECTING ABOVE DESIGN RIPRAP TOP GRADE.
4. CRIMP MULCH AS CALLED FOR IN THE PLANS AND SPECIFICATIONS.
5. TOPSOIL PAID FOR AS TOPSOIL (CY). SEE PLANS FOR ADDITIONAL INFORMATION.

GROUTED RIPRAP (36 INCH) (SPECIAL) DETAILS

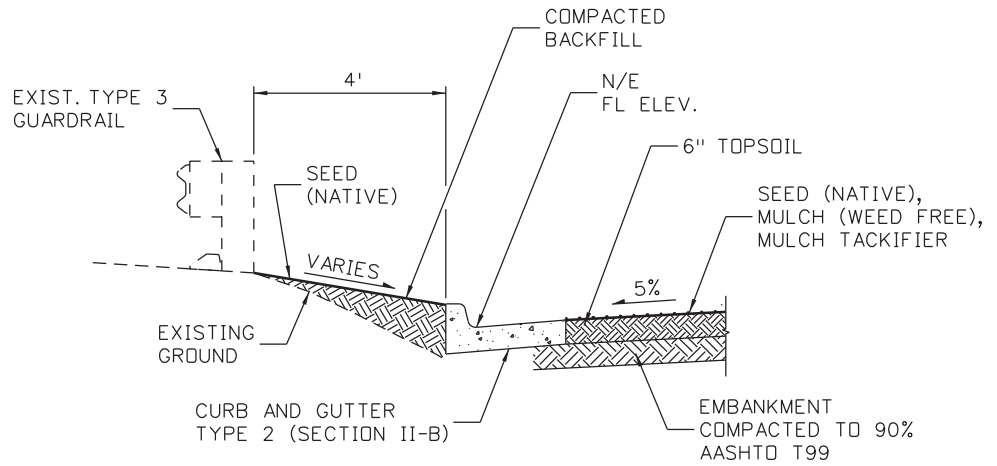
SOIL RIPRAP (d50) DETAILS

Print Date: 3/18/2013	Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON BOULDER DETAILS		Project No./Code
File Name: 19358HYDR_Detail_AccessRoad_01.dgn	Date:	Comments	Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		No Revisions:		POUR POINT J - ACCESS ROAD		NH 0242-056
Horiz. Scale: 1:10 Vert. Scale: As Noted				Region 2 LM		Revised:		Designer: CDT	Structure Numbers	19358
Unit Information Unit Leader Initials						Void:		Detailer: KLT		Sheet Number 85
FELSBURG HOLT & ULLEVIG 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440				DEPARTMENT OF TRANSPORTATION		Sheet Subset: ROADWAY		Subset Sheets: J-10 OF 41		



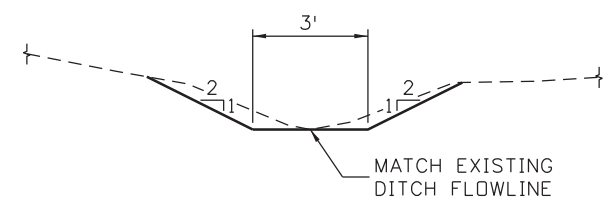
GRADING DETAIL

SCALE: 1"=40'



SECTION A-A

HORIZONTAL SCALE: 1"=10'
VERTICAL SCALE: 1"=10'



SECTION B-B

N.T.S.

POINT DATA FOR CURB AND GUTTER

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CG1	165175.58	378409.65	6607.50	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG2	165120.64	378489.65	6609.90	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG3	165058.85	378569.31	6612.30	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG4	164994.40	378641.67	6614.70	FINISHED GRADE - C&G FLOWLINE ELEVATION
CG5	164927.83	378709.67	6616.86	FINISHED GRADE - C&G FLOWLINE ELEVATION

Print Date: 3/18/2013

File Name: 19358HYDR_Detail_AccessRoad_02.dgn

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Unit Information Unit Leader Initials

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Suite 600
Centennial, CO 80111
(303) 721-1440

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US 24 WALDO CANYON GRADING DETAIL

POUR POINT J - ACCESS ROAD

Designer: CDT Structure Numbers

Detailer: KLT

Sheet Subset: ROADWAY Subset Sheets: J-11 OF 41

Project No./Code
NH 0242-056
19358
Sheet Number 86

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GENERAL NOTES

- GROUND NAIL WALL IS INTENDED AS AN EMBANKMENT SLOPE STABILIZATION SYSTEM THAT WILL BE BACKFILLED IN FRONT OF THE FACING.
- ALL STEEL SHALL BE EPOXY-COATED OR GALVANIZED UNLESS OTHERWISE NOTED.
- Ⓝ DENOTES NON-COATED REINFORCING STEEL.

WIRE MESH

- WIRE MESH FOR FINAL SLOPE SHALL BE 8 X 10 DOUBLE TWIST HEXAGONAL NETTING, ZINC AND PVC COATED IN ACCORDANCE WITH ASTM A975-97 (2003). THE MINIMUM MESH WIRE DIAMETER SHALL BE 2.7 MM AND HAVE A TENSILE STRENGTH OF 75 KSI PER ASTM A 641 FOR SOFT TEMPER STEEL. CONTRACTOR SHALL SUBMIT SAMPLE COLOR FOR FINAL APPROVAL.
- LACING WIRE AND FASTENERS. LACING WIRES, FASTENERS, TIES, CLIPS, AND CONNECTING WIRE SHALL BE SUPPLIED IN SUFFICIENT QUANTITY FOR SECURELY FASTENING ALL EDGES OF THE SLOPE PROTECTION WIRE MESH AS SHOWN IN THE PLANS AND SHALL BE IN ACCORDANCE WITH ASTM A 975-97(2003) PER PVC COATED GABION CHARACTERISTICS.
- MESH WILL BE MEASURED AND PAID BY THE SQUARE FOOT COMPLETED IN PLACE EXCLUSIVE OF THE AREA OF WIRE MESH USED IN ANY OVERLAPS. CONTRACTOR TO VERIFY QUANTITIES WITH ENGINEER PRIOR TO ORDERING MATERIALS.

GROUND NAIL WALL

- GROUND NAILS-ASTM A 519, HOLLOW INJECTION BAR, MINIMUM 1-1/2 INCH (38mm) BAR WITH A MINIMUM YIELD STRENGTH OF 90 KIPS. BARS SHALL BE EPOXY COATED PER ASTM A-934 (PURPLE COATING).
- CONTRACTOR TO INSTALL 3 VERIFICATION TESTS AT LOCATIONS DESIGNATED IN PLANS OR AS APPROVED BY THE ENGINEER. VERIFICATION GROUND NAILS TO BE INSTALLED FULL DEPTH WITH UPPER 10 FEET HAVING ADEQUATE BOND BREAKER TO TRANSFER LOADING TO BOTTOM 5 FEET OF GROUND NAIL. TESTING SHALL BE CONDUCTED AND ACCEPTED BY THE ENGINEER PRIOR TO PRODUCTION NAIL CONSTRUCTION.
- GROUT - GROUT MAY BE NEAT-CEMENT OR WITH SAND, WITH TYPE II CEMENT IN ACCORDANCE WITH ASTM C150. WATER-CEMENT RATIO SHOULD BE BETWEEN 0.4 AND 0.6 AND GROUT SHOULD DEVELOP THE FOLLOWING STRENGTHS AT THE SPECIFIED CURE PERIODS:
f'c=3,000 PSI MINIMUM 7 DAY
- END HARDWARE - NUTS AND WASHERS SHALL BE IN ACCORDANCE WITH GROUND NAIL MANUFACTURER'S RECOMMENDATIONS. BEARING PLATE SHALL BE IN ACCORDANCE WITH ASTM A36, GRADE 36. ALL NUTS, WASHERS AND BEARING PLATES SHALL BE EPOXY COATED IN ACCORDANCE WITH ASTM A934.
- SHOTCRETE - IN ACCORDANCE WITH CDDT REVISED SECTION 641.
- UNLESS OTHERWISE NOTED ON THE PLANS, MINIMUM COVER OF SHOTCRETE REINFORCEMENT AND NAIL END HARDWARE SHOULD BE AS FOLLOWS:
FACE EXPOSED TO WEATHER - 2"
FACE EXPOSED TO SOIL - 3"
- WELDED WIRE MESH SHALL BE IN ACCORDANCE WITH ASTM A185.
FY=65,000 PSI
- WALERS AND VERTICAL BEARING BARS SHALL BE IN ACCORDANCE WITH ASTM A615.
FY=60,000 PSI
- STRIP DRAINS CONSIST OF 12" WIDE DIMPLED CORES WRAPPED IN GEOTEXTILE IN ACCORDANCE WITH SPECIAL PROVISIONS.

GROUND NAIL WALL SPECIAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SLOPE STABILITY ABOVE AND BELOW THE GROUND NAIL WALL DURING CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL NEARBY UTILITIES. CONFLICTING UTILITIES MAY REQUIRE GROUND NAIL WALL REDESIGN, AT ENGINEER'S DISCRETION.
- THE BOND STRENGTHS (Qd) SHOWN ON THE PLANS ARE THE MINIMUM ASSUMED FOR DESIGN.
- GROUND NAIL LENGTHS SHOWN ON THE PLANS ARE THE MINIMUM LENGTHS REQUIRED.
- PRIOR TO BEGINNING EXCAVATION FOR THE GROUND NAIL WALL, THE CONTRACTOR SHALL:
 - SURVEY THE LAYOUT LINE AND TOP OF WALL LINE.
 - CONFIRM THE LINES, GRADES, AND EXCAVATION LIMITS SHOWN ON THE PLANS.
 - THE CONTRACTOR SHALL MODIFY THE PLAN WALL PROFILES USING THE FIELD SURVEY INFORMATION AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL.

GROUND NAIL WALL CONSTRUCTION SEQUENCE

- EXCAVATE ONE LIFT TO A MAXIMUM DEPTH OF FIVE (5) FEET. BOULDERS, COBBLES AND/OR BEDROCK MAY BE ENCOUNTERED AT ANY DEPTH OF THE EXCAVATION OR DURING DRILLING. IF SLOUGHING GROUND CONDITIONS ARE ENCOUNTERED, GROUND NAILS SHALL BE DRILLED AND INSTALLED THROUGH A TEMPORARY STABILIZING BERM OR PLACEMENT OF A SACRIFICIAL REINFORCED SHOTCRETE FLASH COAT SHALL BE USED TO TEMPORARILY STABILIZE EXCAVATION PRIOR TO DRILLING GROUND NAILS. CARE SHOULD BE TAKEN DURING EXCAVATION THAT NO GROUND IS LOST FROM BEHIND THE EXISTING SHOTCRETE.
- PROVIDE A PRODUCTION NAIL LOCATION PLAN TO THE ENGINEER FOR REVIEW. INSTALL GROUND NAILS AT THE SPACINGS AND TO THE LENGTHS SHOWN ON THE PLANS. INJECT GROUT CONTINUOUSLY AS GROUND NAIL IS DRILLED/INSERTED. THE TOP ROW OF GROUND NAILS SHALL BE WITHIN 2.5 FEET OF THE TOP OF THE WALL. THE BOTTOM ROW OF NAILS SHALL BE WITHIN 2 FEET OF THE BOTTOM OF THE WALL. THE TOLERANCE FOR GROUND NAIL LOCATIONS SHALL BE 6 INCHES.
- THE DRILL HOLE SHALL BE GROUTED CONTINUOUSLY DURING DRILLING. CONTINUOUS GROUT FLOW SHALL BE OBSERVED AT THE SURFACE. IF LOSS OF GROUT CIRCULATION OCCURS, DRILLING ADVANCEMENT SHOULD BE STOPPED AND GROUT PUMPING SHALL CONTINUE UNTIL GROUT RETURN IS RE-ESTABLISHED. IF GROUT RETURN DOES NOT RE-ESTABLISH, THE BAR SHALL BE REMOVED AND THE ENGINEER SHOULD BE NOTIFIED. THE COMPLETE GROUND NAIL INSTALLATION, INCLUDING DRILLING, NAIL PLACEMENT AND GROUTING SHALL OCCUR WITHIN THE SAME WORK SHIFT. DRILL HOLES SHALL NOT BE LEFT OPEN OVERNIGHT FOR COMPLETION DURING A SUBSEQUENT SHIFT.
- INSTALL STRIP DRAINS, WELDED WIRE MESH, WALERS AND VERTICAL BEARING BARS AS SHOWN ON THE DRAWINGS. USE PLASTIC CHAIRS TO HOLD THE WELDED WIRE MESH AWAY FROM THE SOIL AS NECESSARY.
- INSTALL SHOTCRETE TO THE MINIMUM THICKNESS SHOWN ON THE DRAWINGS AND TO ATTAIN THE MINIMUM COVERAGES SPECIFIED HEREIN. GIVE SPECIAL ATTENTION TO FILLING THE VOID IN THE BORE HOLE ABOVE THE GROUT LINE. COLD WEATHER PROTECTION MEASURES MAY BE NECESSARY.
- INSTALL THE GROUND NAIL END HARDWARE AFTER THE SHOTCRETE HAS BEEN INSTALLED. WHILE THE SHOTCRETE IS STILL WET, EMBED THE PLATE INTO THE SHOTCRETE SURFACE UNTIL THERE IS NO VOID BEHIND THE PLATE. HAND TIGHTEN THE NUT. APPLY ADDITIONAL SHOTCRETE TO ATTAIN MINIMUM COVERAGE FOR THE GROUND NAIL AND END HARDWARE.
- ONCE THE GROUT AND SHOTCRETE OF THE CURRENT LIFT HAVE ATTAINED 50% OF THEIR SPECIFIED STRENGTHS, REPEAT CONSTRUCTION SEQUENCE TO THE BOTTOM OF THE WALL.
- AT THE BOTTOM LIFT, CONSTRUCT GEOCOMPOSITE STRIP DRAINS AS SHOWN ON THE DRAWINGS.

GROUND NAIL WALL DESIGN PARAMETERS

- THE FOLLOWING VALUES HAVE BEEN USED FOR DESIGN PARAMETERS:

GRANULAR ON-SITE SOIL	ϕ 37	c 10	γ 115	Q_d 2261	ϕ ANGLE OF INTERNAL FRICTION
					c COHESION
					γ UNIT WEIGHT
					Q_d DESIGN SHEAR RESISTANCE
					BOND STRESS (ALLOWABLE)

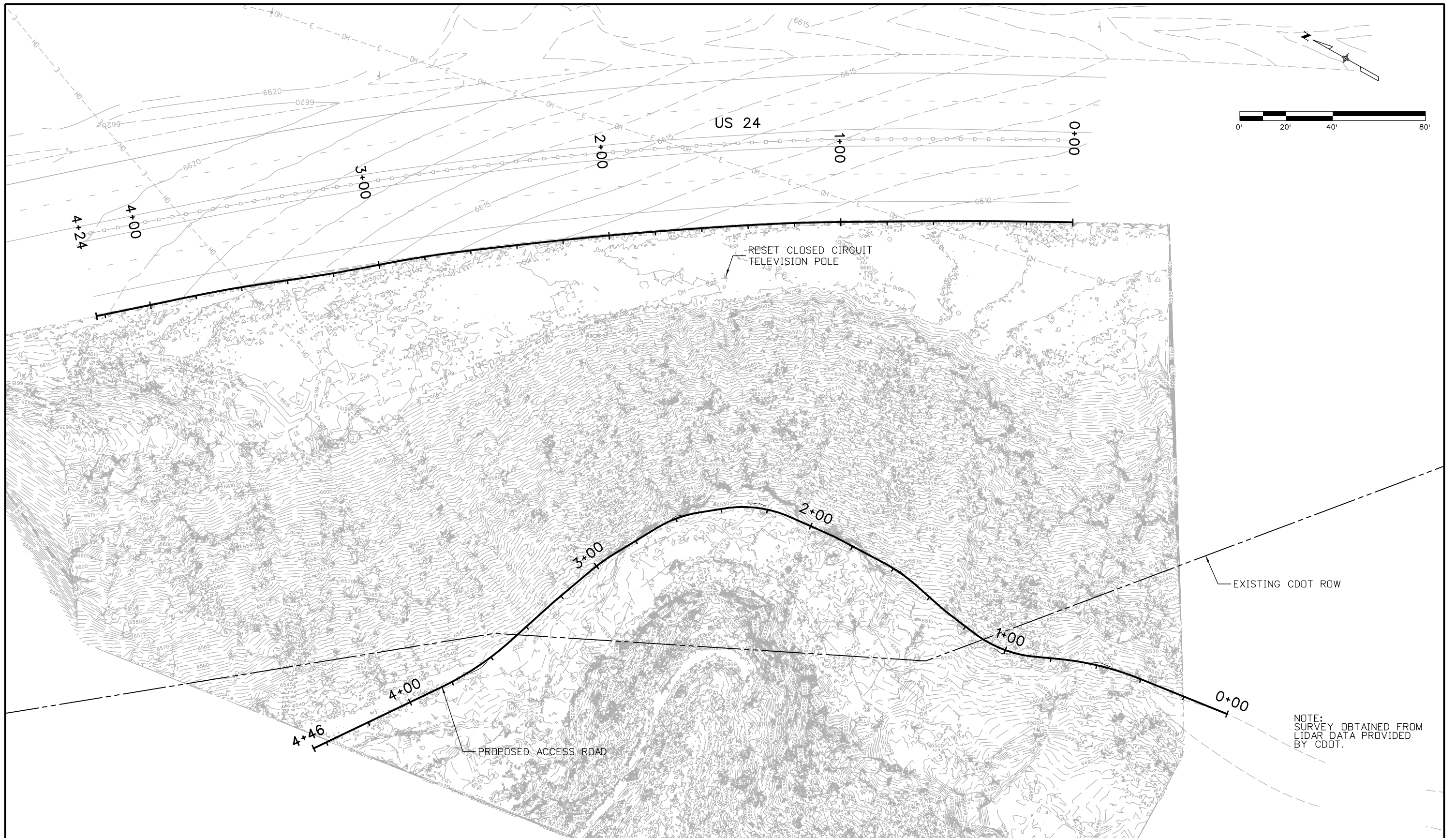
LIMITATIONS FOR ROCKFALL SYSTEM

ROCKFALL AND ROCKFALL EVENTS ARE SPORADIC AND UNPREDICTABLE. CAUSES CAN INCLUDE, BUT ARE NOT LIMITED TO, FACTORS SUCH AS ANIMAL, HUMAN, CONSTRUCTION, ENVIRONMENTAL, WEATHER, AND/OR EARTHQUAKES. BECAUSE OF THE MULTIPLICITY OF FACTORS AFFECTING ROCKFALL DYNAMICS, ROCKFALL CANNOT BE PREDICTED AND IS NOT AN EXACT SCIENCE THAT GUARANTEES THE SAFETY OF INDIVIDUALS AND PROPERTY. HOWEVER, BY THE APPLICATION OF SOUND ENGINEERING PRINCIPLES TO A RANGE OF ROCKFALL DYNAMICS, THE RISK OF INJURY AND PROPERTY LOSS CAN BE REDUCED BY THE USE OF PROPERLY DESIGNED ROCKFALL MITIGATION FEATURES IN IDENTIFIED RISK AREAS. CONSEQUENTLY, NEITHER THE ROCKFALL HAZARD IN TERMS OF PROBABILITY OF A ROCKFALL AT ANY SPECIFIC LOCATION, NOR THE RISK TO PEOPLE OR FACILITIES FROM SUCH EVENTS, IS ASSESSED IN THE DESIGN.


PERIODIC INSPECTION AND MAINTENANCE OF ROCKFALL MITIGATION FEATURES IS NECESSARY TO ENSURE THE DESIRED PROTECTION LEVEL IS NOT DEGRADED BY IMPACT DAMAGE WHICH EXCEEDS THE DESIGN LIMITS OF THE MESH SYSTEM INCLUDING, BUT NOT LIMITED TO, EXTREMELY WET SNOW AVALANCHES OR LARGE DEBRIS FLOW EVENTS.

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BEFORE YOU DIG**
CALL 811
(or 1-800-922-1987)
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File Name: 19358 SNW GeneralNotes.dgn		Date: Comments Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	No Revisions:		NH 0242-056
Horiz. Scale: 1:1 Vert. Scale: As Noted			Region 2 LM	Revised:	Designer: B. Arndt Structure Numbers	19358
Unit Information Unit Leader Initials				Void:	Detailer: M. Walz Subset Sheets:	Sheet Number 87
Yeh and Associates, Inc. Consulting Engineers & Scientists						



Mike Walz 1:54:43 PM W:\2012 Projects\212-192 CDOT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 Plan Sheet-Existing.dgn

Print Date: 3/15/2013	
File Name: 19358 Plan Sheet-Existing.dgn	
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Unit Information	Unit Leader Initials
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Sheet Revisions		
Date:	Comments	Init.

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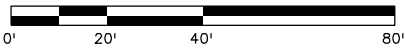

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US 24 WALDO CANYON PLAN SHEET EXISTING SITE CONDITIONS			
Designer:	B. Arndt	Structure Numbers	
Detailer:	M. Walz	Subset Sheets:	
Sheet Subset:			

Project No./Code
NH 0242-056
19358
Sheet Number 88

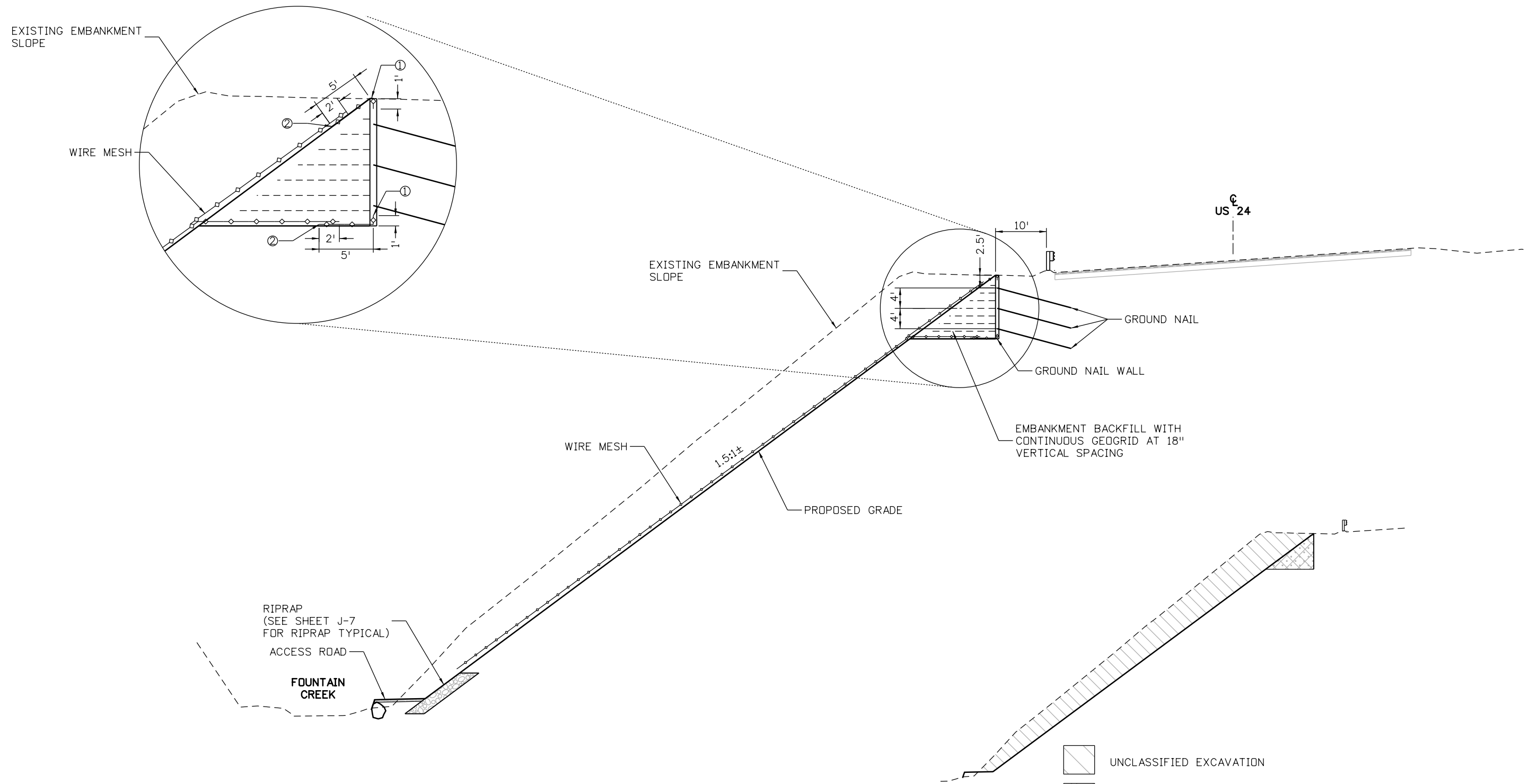


NOTE:
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Print Date: 3/18/2013		Sheet Revisions Date: Comments Init.			Colorado Department of Transportation  1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298		As Constructed No Revisions: Revised: Void:		US 24 WALDO CANYON PLAN SHEET - REGRADED SLOPE AND GROUND NAIL WALL			Project No./Code	
File Name: 19358 Plan Sheet-Wall_Slope.dgn												Region 2	
Horiz. Scale: 1:40 Vert. Scale: As Noted		0000						Designer: B. Arndt Structure		19358			
Unit Information Unit Leader Initials								Detailer: M. Walz Numbers		Sheet Number			
 Yeh and Associates, Inc. Consulting Engineers & Scientists								Sheet Subset: Subset Sheets:		89			

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Mike Walz 1:54:58 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 TypicalSection-Wall.dgn



- NOTE:
- 1' MIN. LENGTH WIRE MESH COVERED CONTINUOUSLY WITH 2" MIN. SHOTCRETE FOR ATTACHMENT TO OTHER SECTIONS OF WIRE MESH.
 - OVERLAP WIRE MESH 2' MIN.

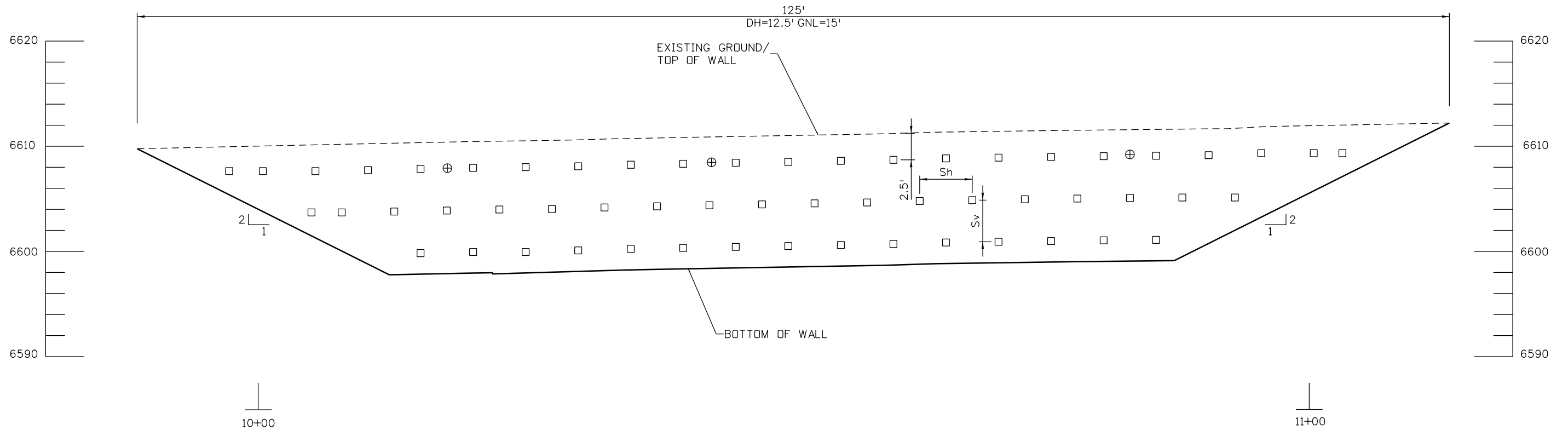
ACCESS ROAD STA 2+18 TO STA 2+56

BASIS OF EARTHWORK QUANTITIES

- UNCLASSIFIED EXCAVATION
- STRUCTURE EXCAVATION
- EMBANKMENT BACKFILL


Print Date: 3/15/2013		Sheet Revisions	Colorado Department of Transportation	As Constructed	US 24 WALDO CANYON TYPICAL SECTION GROUND NAIL WALL	Project No./Code
File Name: 19358 TypicalSection-Wall.dgn		Date: Comments Init.	1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298	No Revisions:	Designer: B. Arndt	NH 0242-056
Horiz. Scale: 1:20 Vert. Scale: As Noted			Region 2 LM	Revised:	Detailer: M. Walz	19358
Unit Information Unit Leader Initials				Void:	Sheet Subset:	Sheet Number 90
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					Subset Sheets:	

Mike Walz 1:54:59 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 SN Elevation.dgn



Sv=4' MAXIMUM
 Sh=5' MAXIMUM
 DH= DESIGN HEIGHT
 GNL= GROUND NAIL LENGTH

- 15' GROUND NAIL
- ⊕ 15' SACRIFICIAL GROUND NAIL LOCATIONS
 (BOND BREAKER IN UPPER 10' OF BAR)

Print Date: 3/15/2013	
File Name: 19358 SN Elevation.dgn	
Horiz. Scale: 1:10	Vert. Scale: As Noted
Unit Information	Unit Leader Initials
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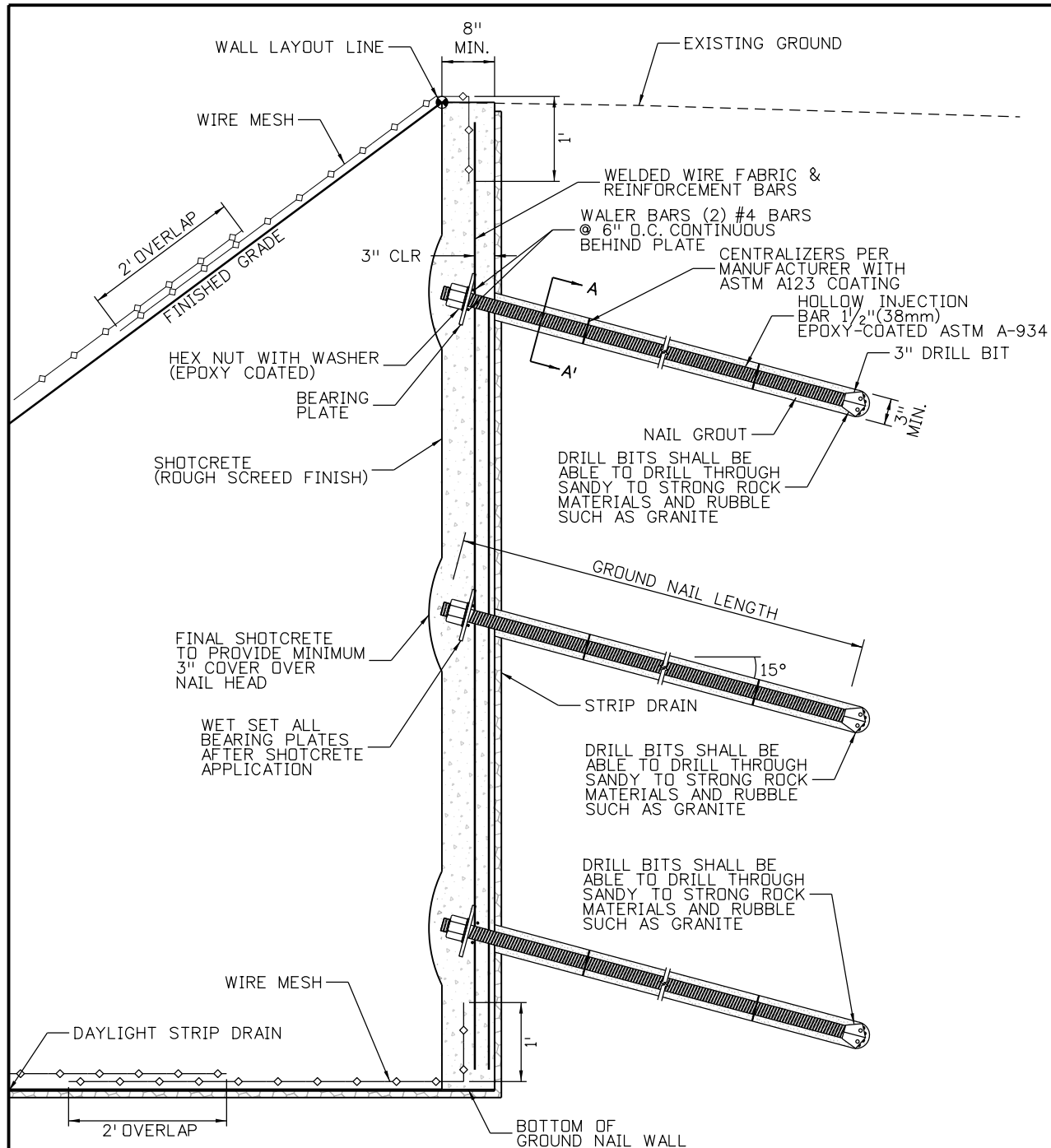

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Revised:
Void:

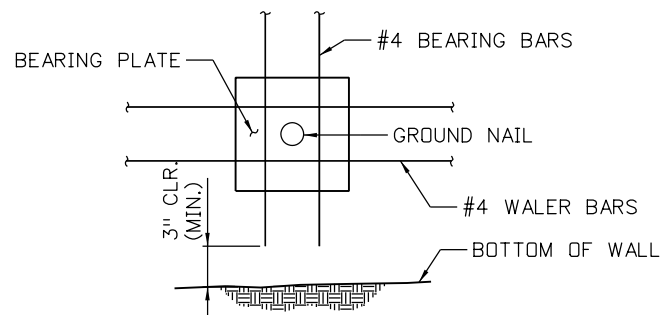
US 24 WALDO CANYON WALL ELEVATION			
Designer:	B. Arndt	Structure Numbers	
Detailer:	M. Walz		
Sheet Subset:		Subset Sheets:	

Project No./Code
NH 0242-056
19358
Sheet Number 91

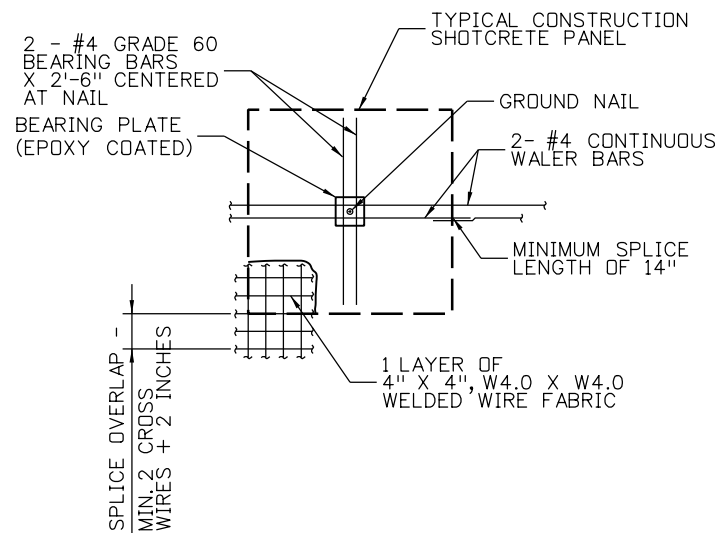


TYPICAL GROUND NAIL DETAIL

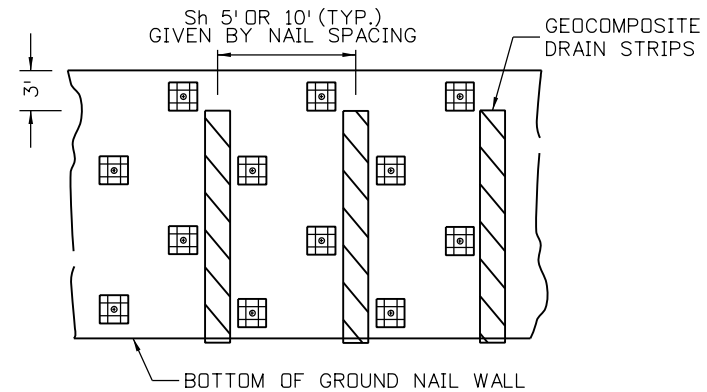
- NOTES:
- REINFORCEMENT OF THE SHOTCRETE FACING SHALL BE INSTALLED THROUGHOUT THE ENTIRE SHOTCRETE FACING, INCLUDING THE FACING BEYOND THE GROUND NAILS.
 - MAXIMUM EDGE DISTANCE OF 3 FT FOR EACH ROW OF GROUND NAILS AT END OF WALL.
 - THE MINIMUM SHOTCRETE THICKNESS IS 8 IN. FOR WALL FACE.
 - 3" MIN. COVER ON ALL REINFORCING EXPOSED TO GROUND.



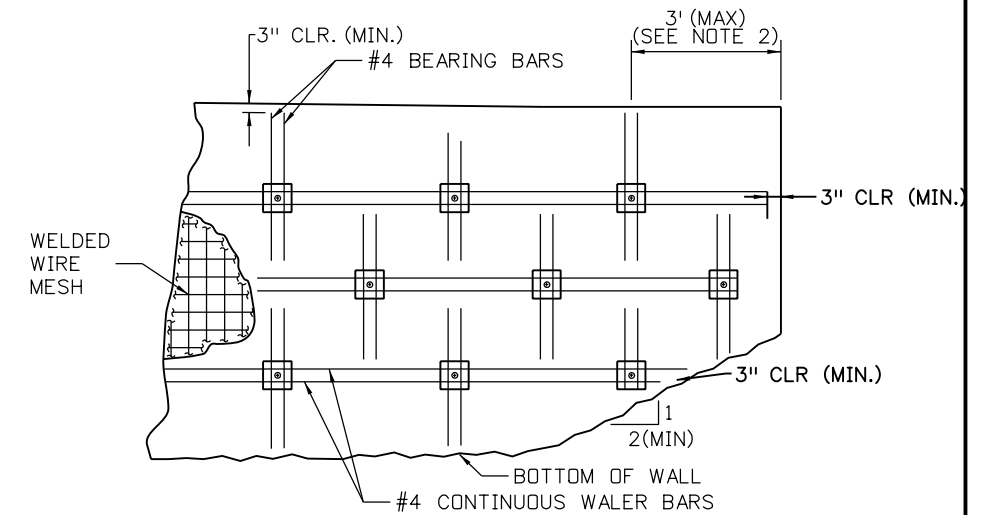
**TYPICAL REINFORCEMENT
BOTTOM ROW OF GROUND NAILS**



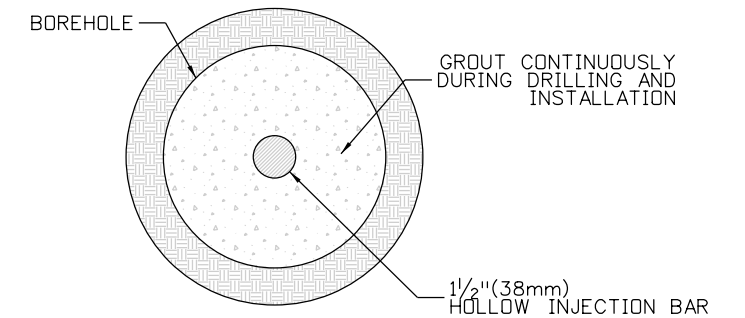
**TYPICAL SHOTCRETE
FACING PANEL REINFORCEMENT**



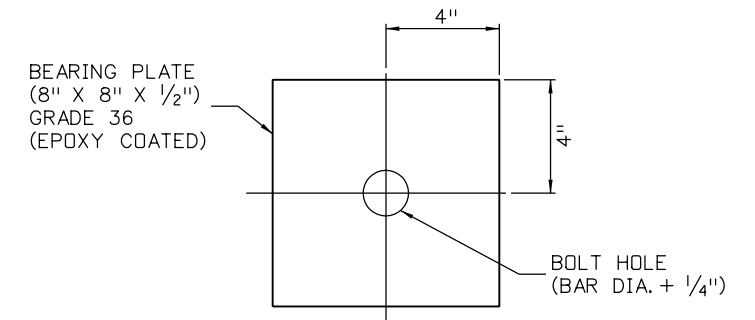
TYPICAL STRIP DRAIN DETAIL



**TYPICAL SHOTCRETE FACING
REINFORCEMENT - END OF WALL (NOTE 1)**



**GROUND NAIL CROSS
SECTION A-A'**



BEARING PLATE DETAIL

Print Date: 3/15/2013
File Name: 19358 SNW Details01.dgn
Horiz. Scale: 1:1 Vert. Scale: As Noted
Shaw-Broider Branch-Unit 0221 Unit Leader Inisidw
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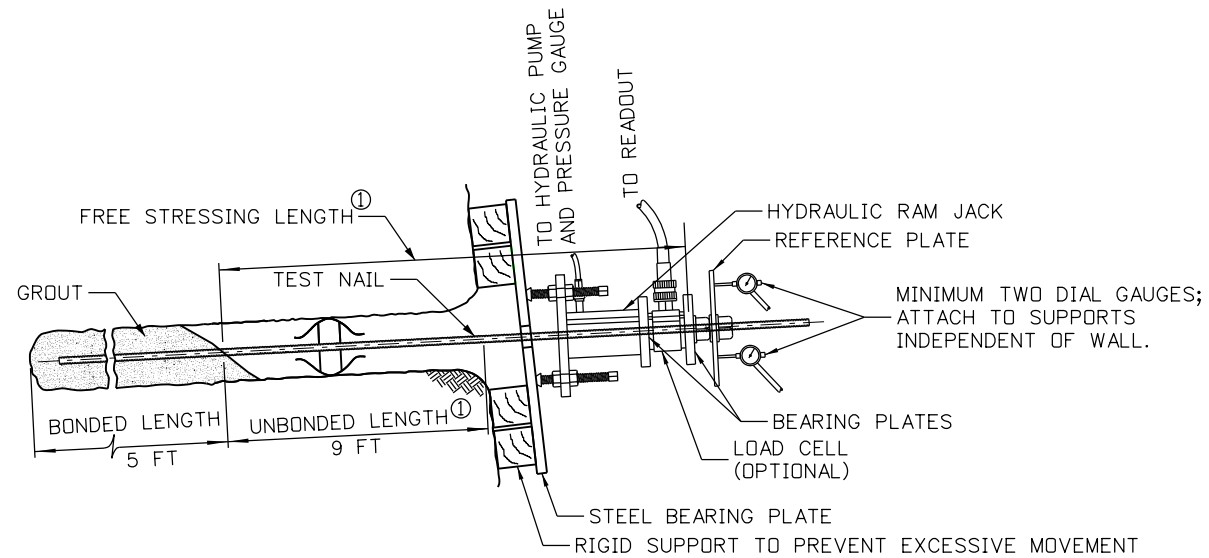
1480 Quail Lake Loop
Colorado Springs, CO 80806
Phone: 719-227-3201 FAX: 719-227-3298

Region 2 LM

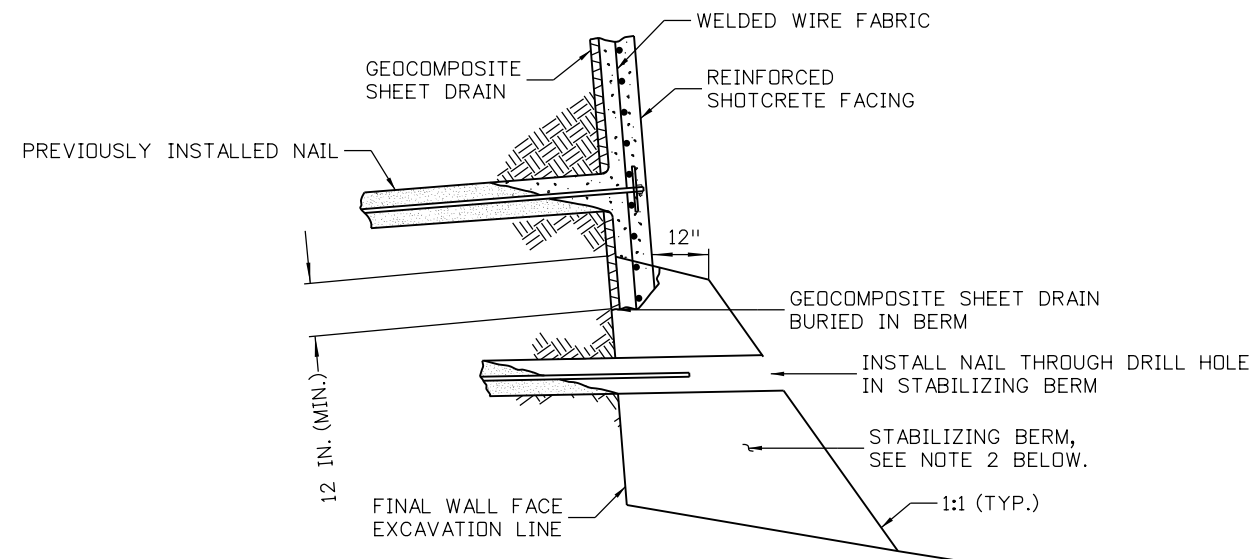
As Constructed
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Revised:
Void:

US 24 WALDO CANYON GROUND NAIL DETAILS		
Designer:	B. Arndt	Structure Numbers
Detailer:	M. Walz	
Sheet Subset:		Subset Sheets:

Project No./Code
NH 0242-056
19358
Sheet Number 92



VERIFICATION GROUND NAIL TEST SETUP



NAIL INSTALLATION THROUGH TEMPORARY STABILIZING BERM
(USE IN CASE OF SLDUGHING GROUND)

GROUND NAIL TESTING NOTES:

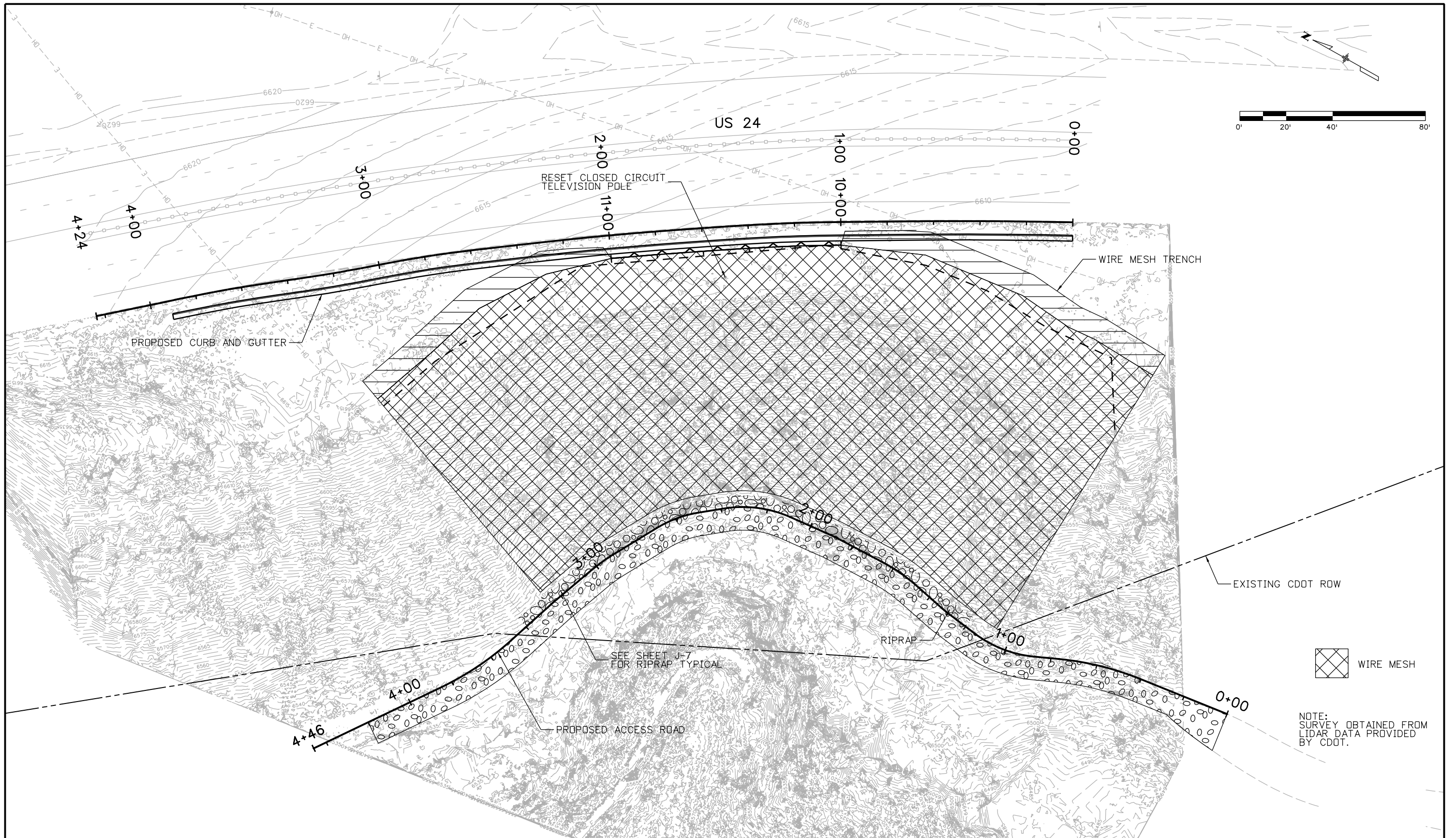
1. SEE SPECIFICATIONS FOR TESTING REQUIREMENTS.
2. THE TEST SUPPORT SYSTEM (EG. CRIBBING, CHAIRS, BEARING PLATES, ETC.) SHALL BE SUFFICIENT TO COMPLETE THE TEST WITHOUT EXCESSIVE DEFLECTION OR BEARING FAILURE. IF TEST SETUP IS NOT ADEQUATE FOR TEST, CONTRACTOR SHALL PROPOSE SYSTEM TO ENGINEER.


NOTES:

1. VERIFICATION NAILS WILL HAVE BONDED, UNBONDED AND FREE STRESSING LENGTHS. PRODUCTION NAILS WILL BE BONDED FOR THE FULL NAIL LENGTH.
2. EXCAVATE STABILIZING BERM TO FINAL WALL FACE EXCAVATION LINE FOR SHOTCRETE PLACEMENT. CONTRACTOR SHALL CAREFULLY EXCAVATE STABILIZING BERM TO AVOID HITTING GROUND NAILS BURIED IN THE BERM.

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File Name: 19358 SNW Testing and Const.dgn							NH 0242-056	
Horiz. Scale: 1:1 Vert. Scale: As Noted					Designer: B. Arndt Structure Numbers Detailer: M. Walz		19358	
Unit Information Unit Leader Initials					Sheet Subset: Subset Sheets:		Sheet Number 93	
Yeh and Associates, Inc. Consulting Engineers & Scientists	Region 2	LM						

Mike Walz 1:55:02 PM W:\2012 Projects\212-192 CDDT US24 Waldo Canyon Fire Mitigation Project\dgn\19358 SNW Testing and Const.dgn



Print Date: 3/18/2013	0000
File Name: 19358 Plan Sheet-Wire Mesh.dgn	
Horiz. Scale: 1:40 Vert. Scale: As Noted	
Unit Information Unit Leader Initials	
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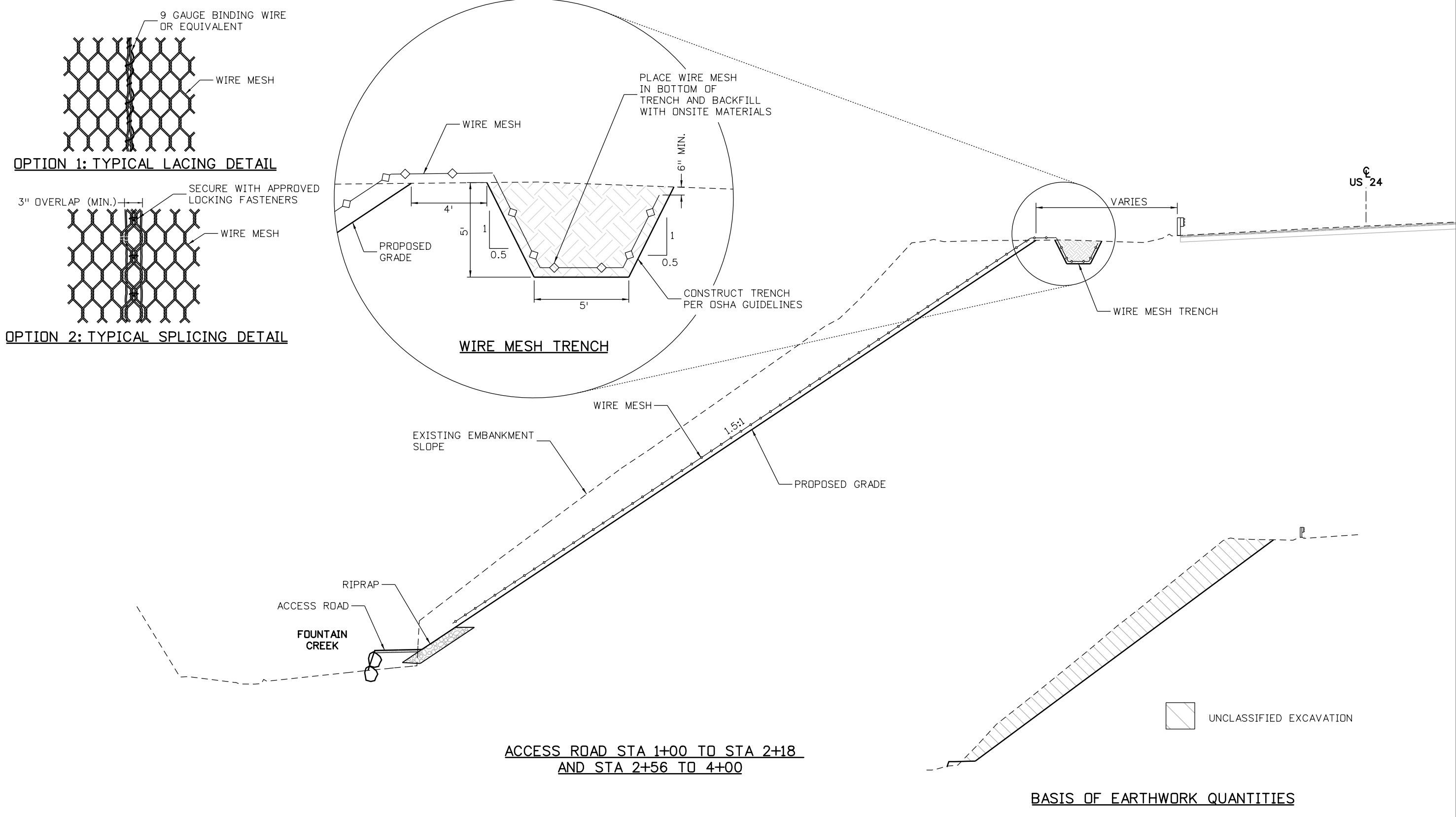
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US 24 WALDO CANYON PLAN SHEET WIRE MESH PLACEMENT			
Designer:	B. Arndt	Structure Numbers	
Detailer:	M. Walz	Subset Sheets:	
Sheet Subset:			

Project No./Code
NH 0242-056
19358
Sheet Number 94

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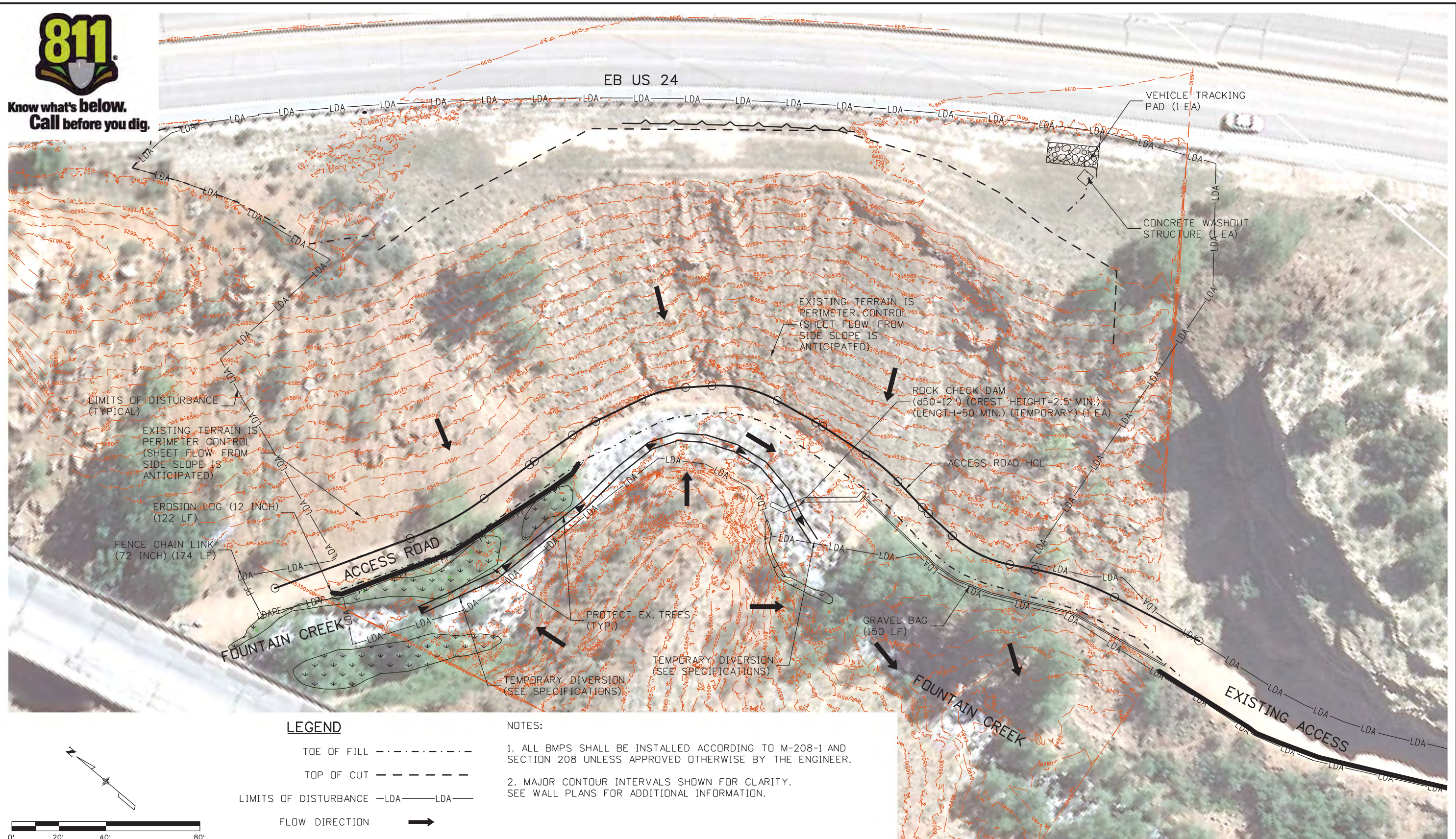
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File Name: 19358 Typical Section-Ditch.dgn		Date:	Comments	Init.		No Revisions:	NH 0242-056				
Horiz. Scale: 1:20 Vert. Scale: As Noted						Revised:	Designer: B. Arndt	Structure Numbers:	19358		
Unit Information Unit Leader Initials						Void:	Detailer: M. Walz	Subset Sheets:	Sheet Number 95		
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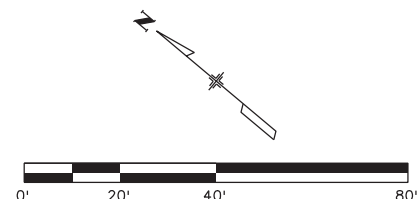


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



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Unit Information

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US 24 WALDO CANYON
GRADING/INITIAL EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD

Designer: CDT
Detailer: KLT
Structure Numbers
Sheet Subset: EROSION
Subset Sheets: J-21 of 41

Project No./Code

NH 0242-056

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Sheet Number **96**



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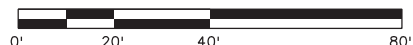
NOTES:

1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



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- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →



Print Date: 3/18/2013

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POUR POINT J - ACCESS ROAD**

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Detailer:	KLT	Subset Sheets:	J-22 of 41
Sheet Subset:	EROSION		

Project No./Code

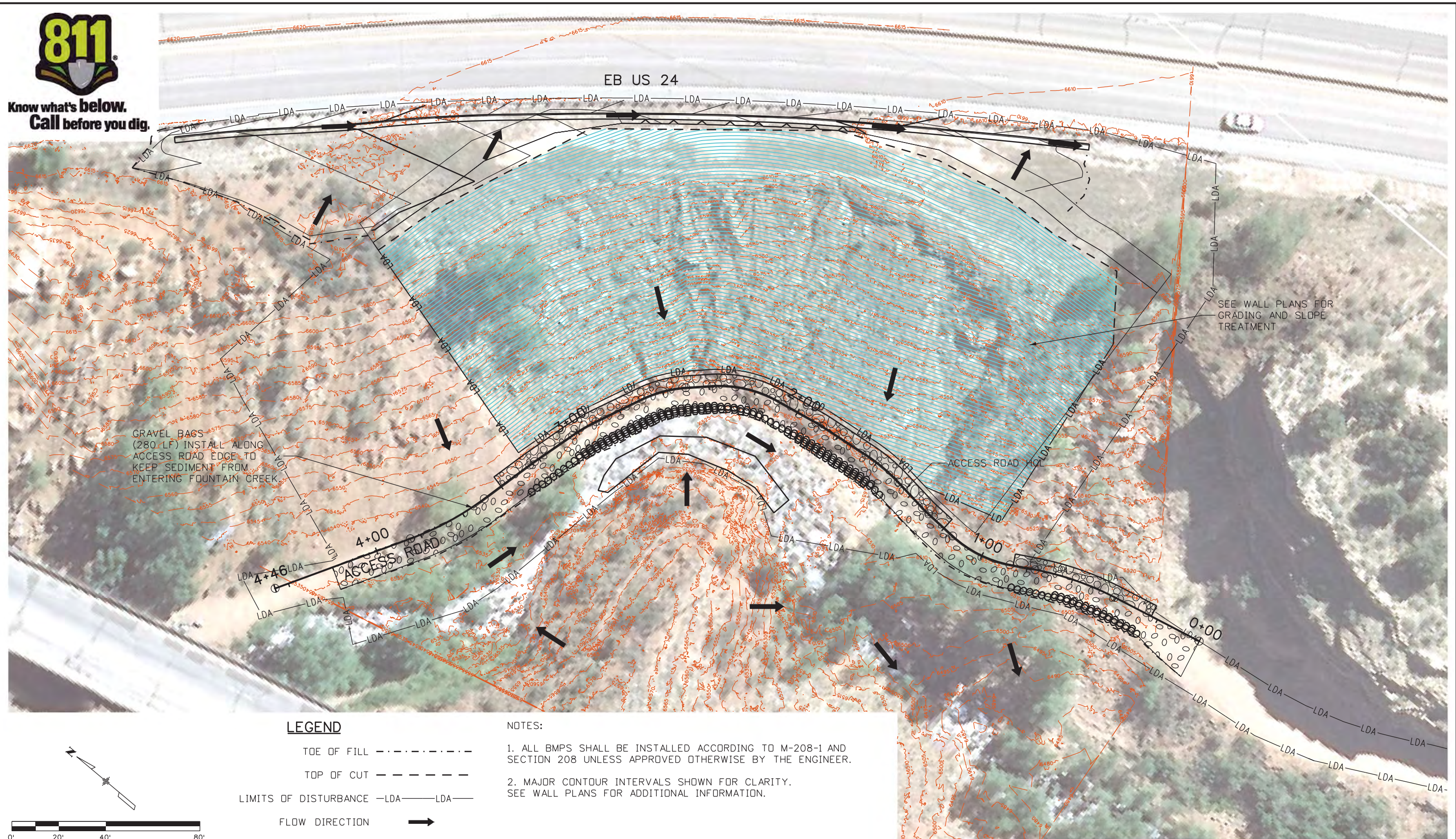
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Sheet Number **97**



Know what's below.
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GRAVEL BAGS
(280 LF) INSTALL ALONG
ACCESS ROAD EDGE TO
KEEP SEDIMENT FROM
ENTERING FOUNTAIN CREEK

SEE WALL PLANS FOR
GRADING AND SLOPE
TREATMENT

LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.

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**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure	
Detailer:	KLT	Numbers	
Sheet Subset:	EROSION	Subset Sheets:	J-23 of 41

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Sheet Number **98**



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1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



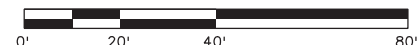
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TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →



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**US 24 WALDO CANYON
GRADING/INTERIM EROSION CONTROL PLAN
POUR POINT J - ACCESS ROAD**

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Detailer:	KLT	Subset Sheets:	J-24 of 41
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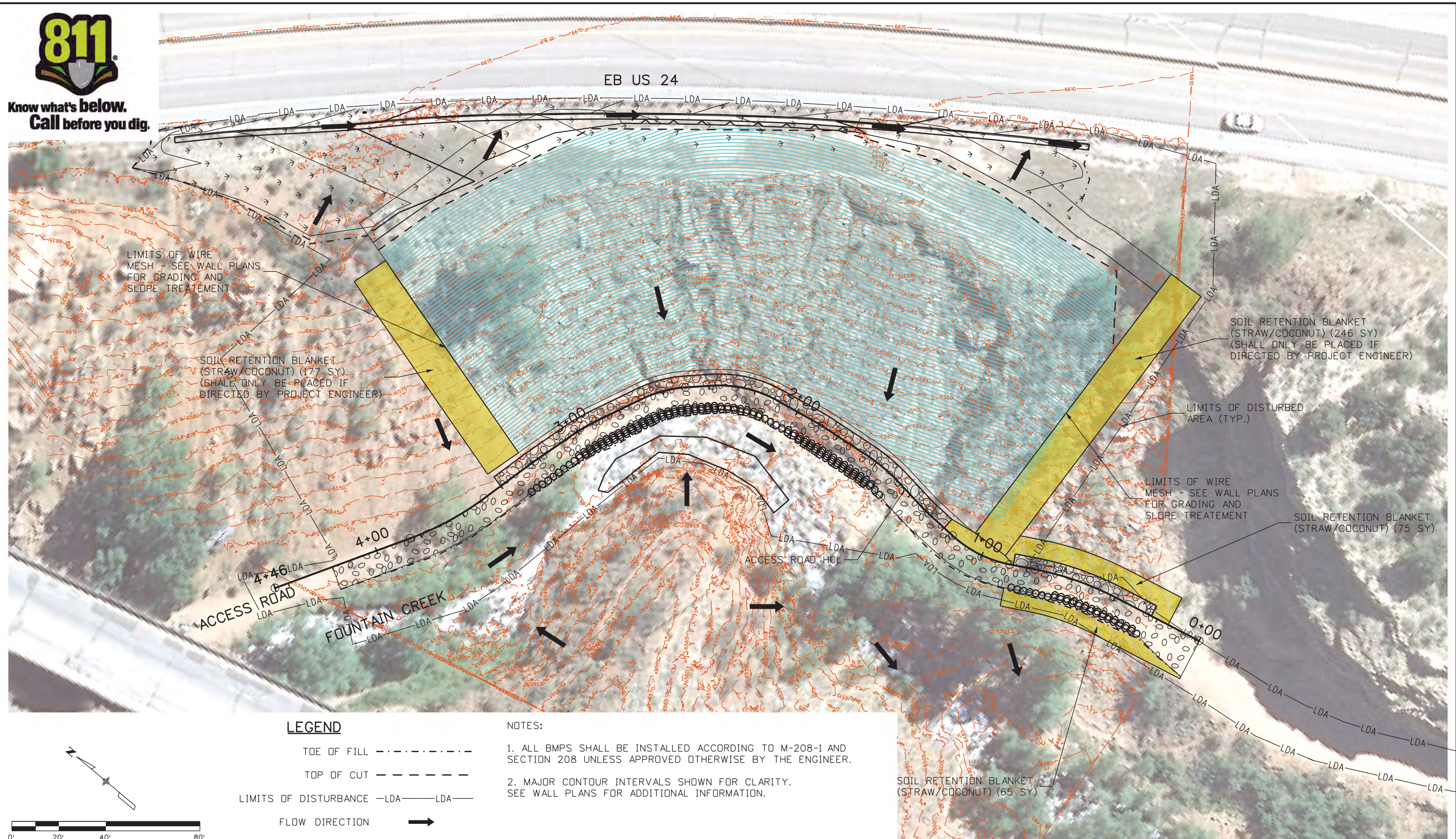
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Sheet Number **99**



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LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- LIMITS OF DISTURBANCE -LDA- LDA-
- FLOW DIRECTION →

NOTES:

1. ALL BMPs SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
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**US 24 WALDO CANYON
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POUR POINT J - ACCESS ROAD**

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1. ALL BMPS SHALL BE INSTALLED ACCORDING TO M-208-1 AND SECTION 208 UNLESS APPROVED OTHERWISE BY THE ENGINEER.
2. MAJOR CONTOUR INTERVALS SHOWN FOR CLARITY. SEE WALL PLANS FOR ADDITIONAL INFORMATION.



LEGEND

TOE OF FILL - - - - -

TOP OF CUT - - - - -

LIMITS OF DISTURBANCE -LDA- LDA-

FLOW DIRECTION →



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POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	
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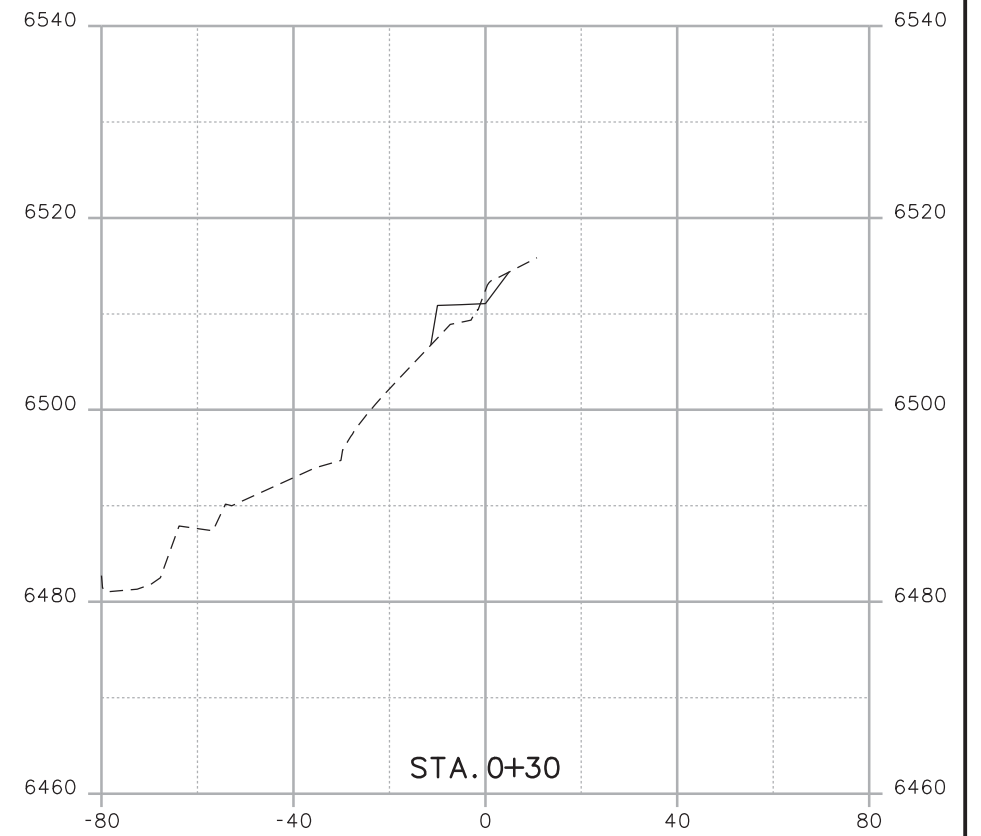
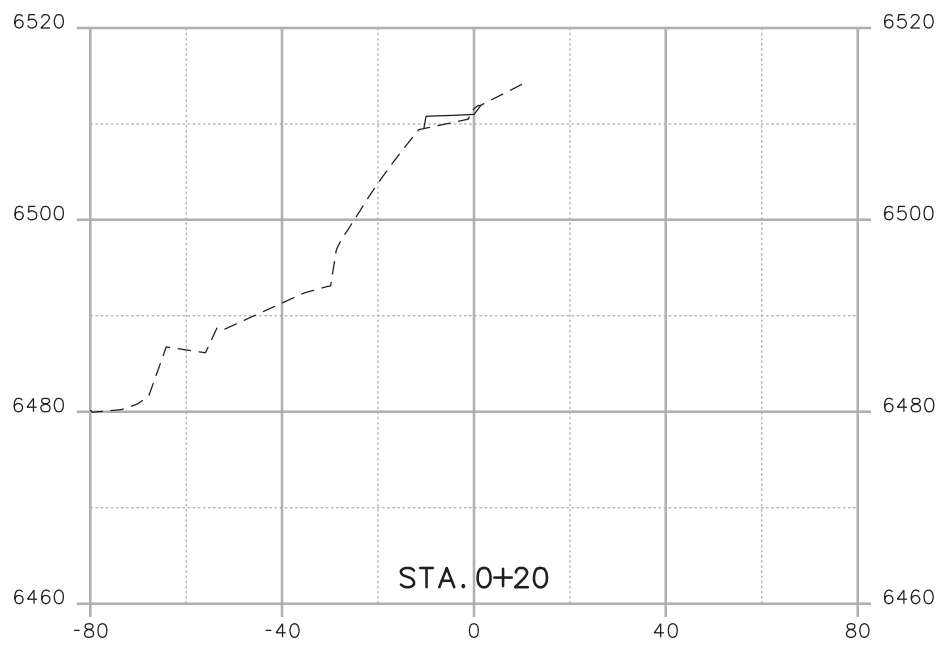
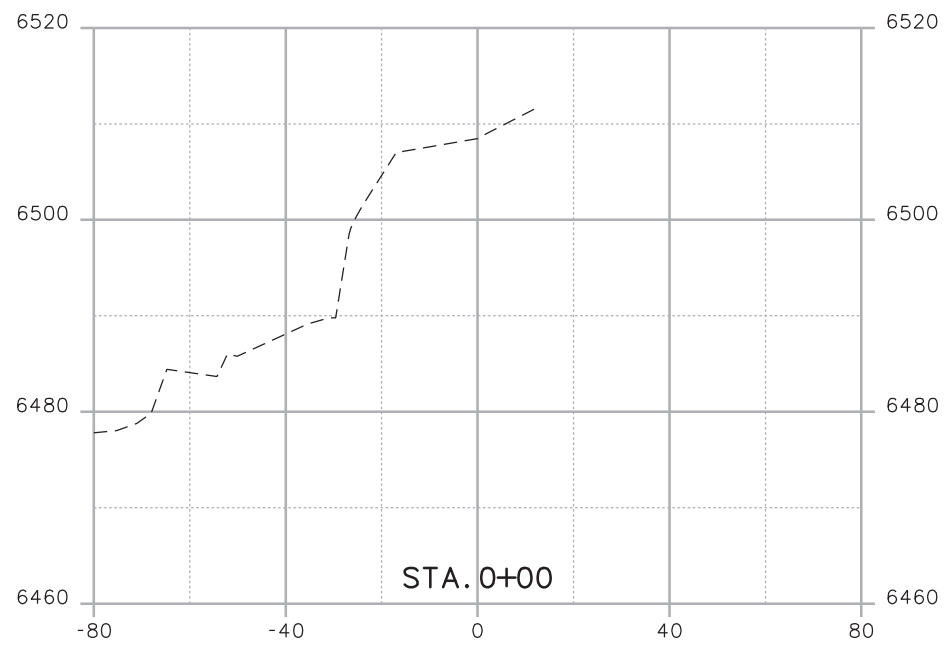
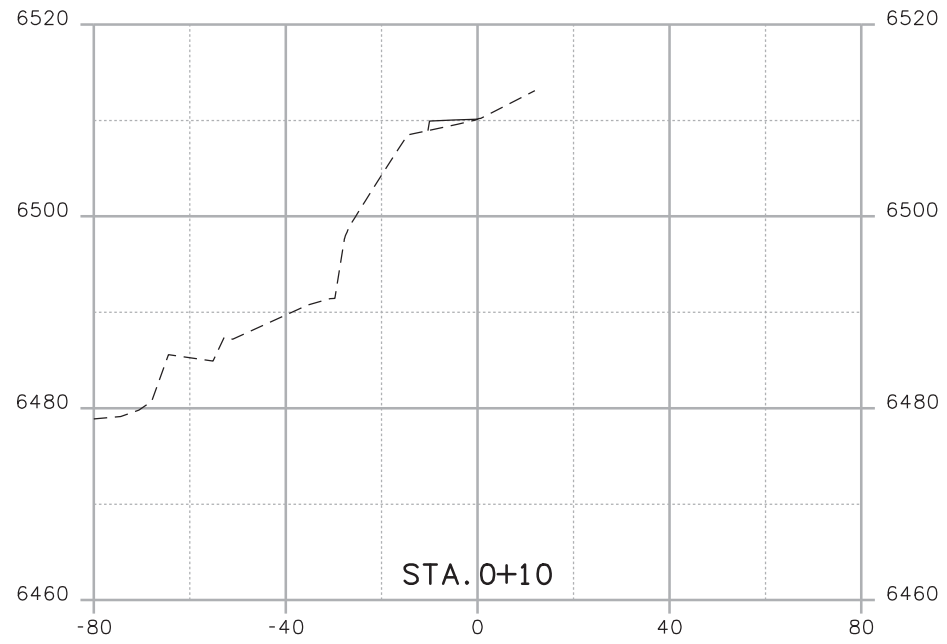
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Sheet Number **101**

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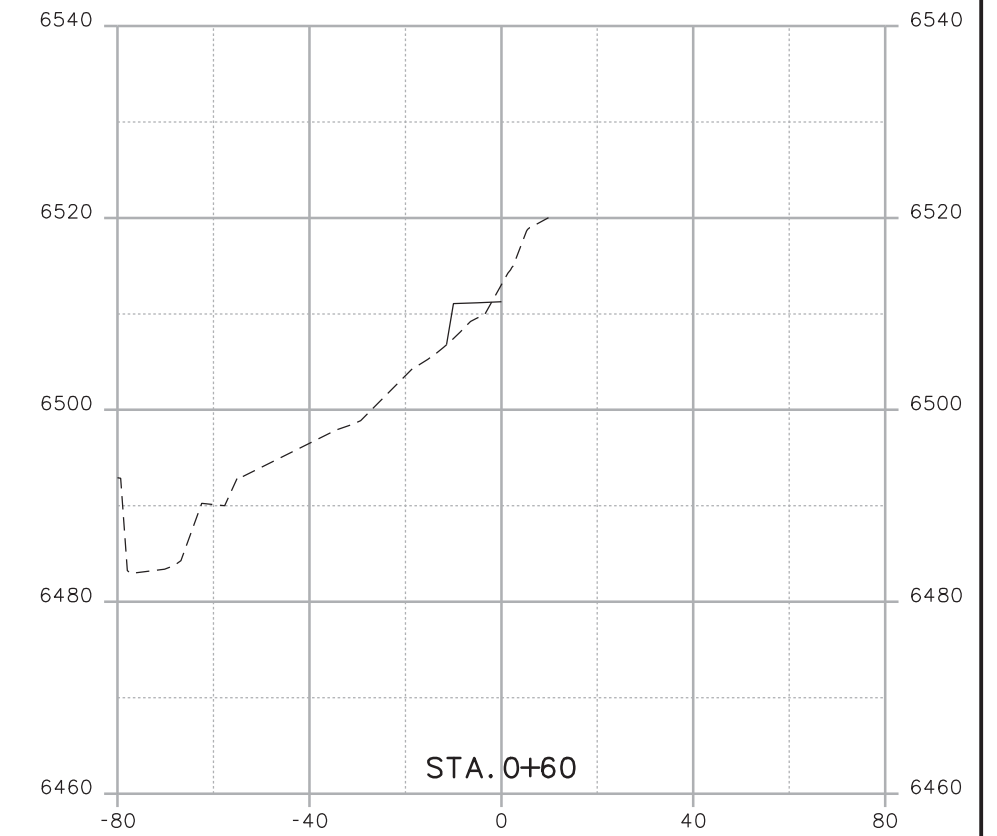
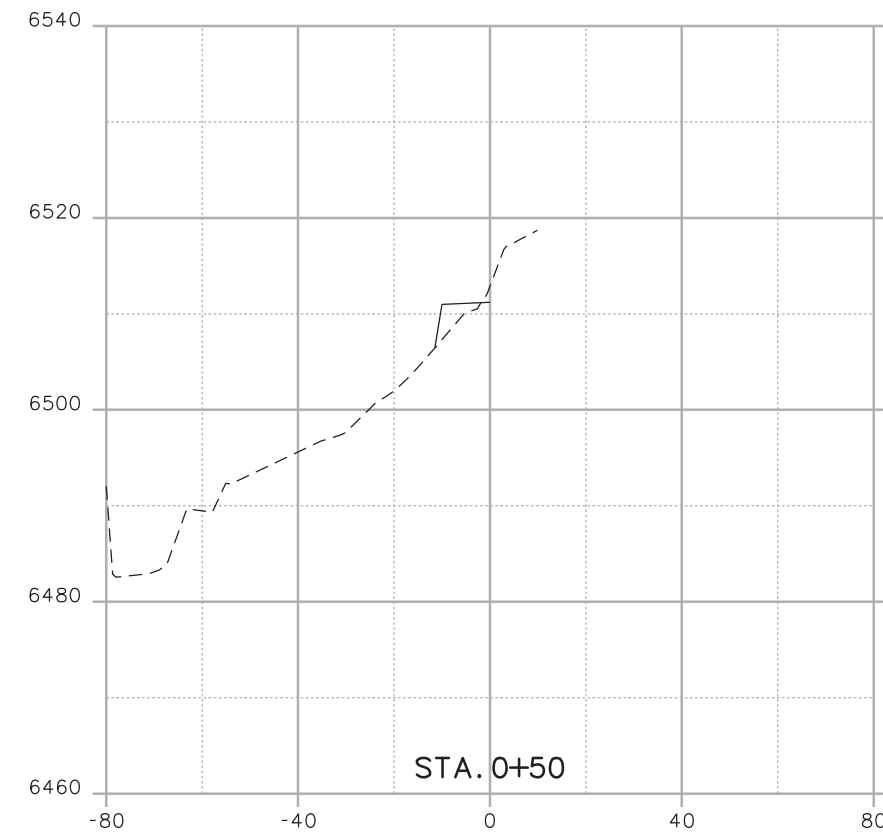
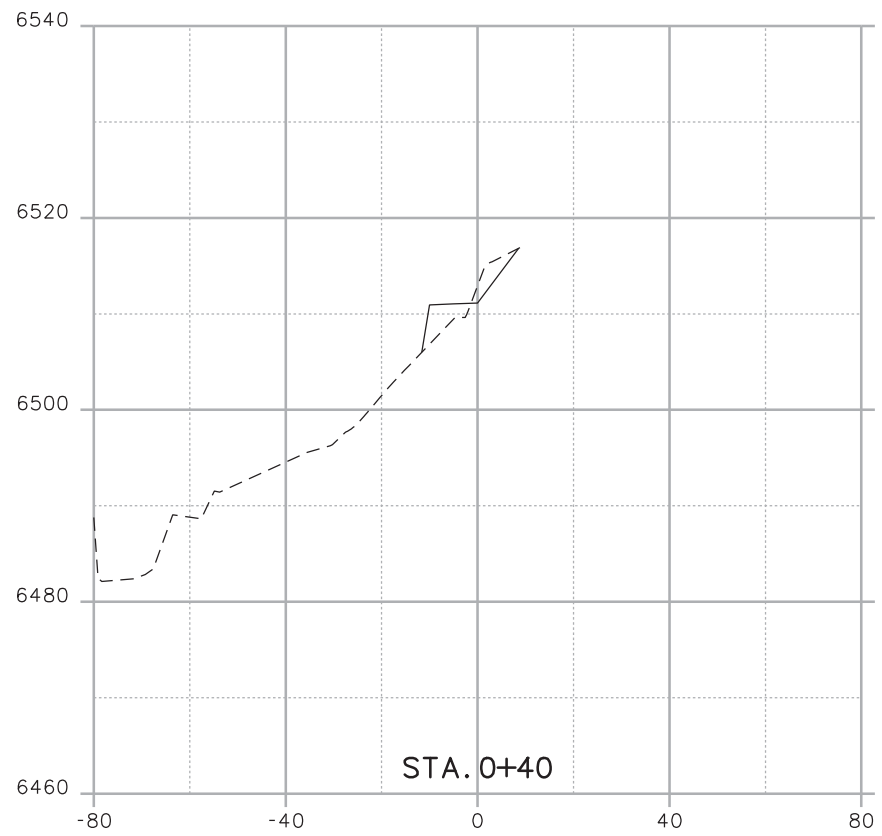
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Project No./Code
Project Number
Code
Sheet Number 102

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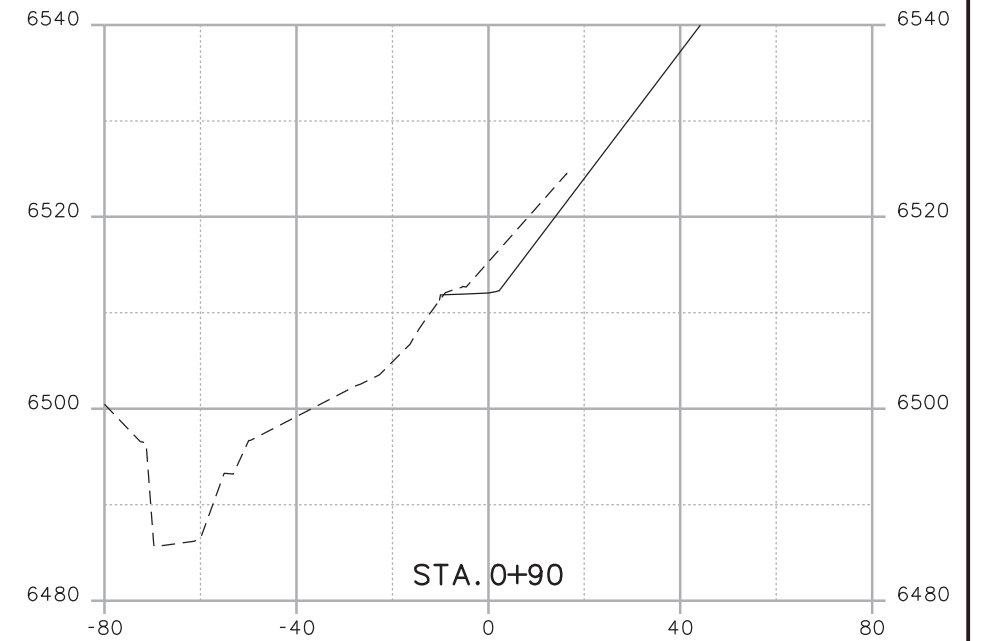
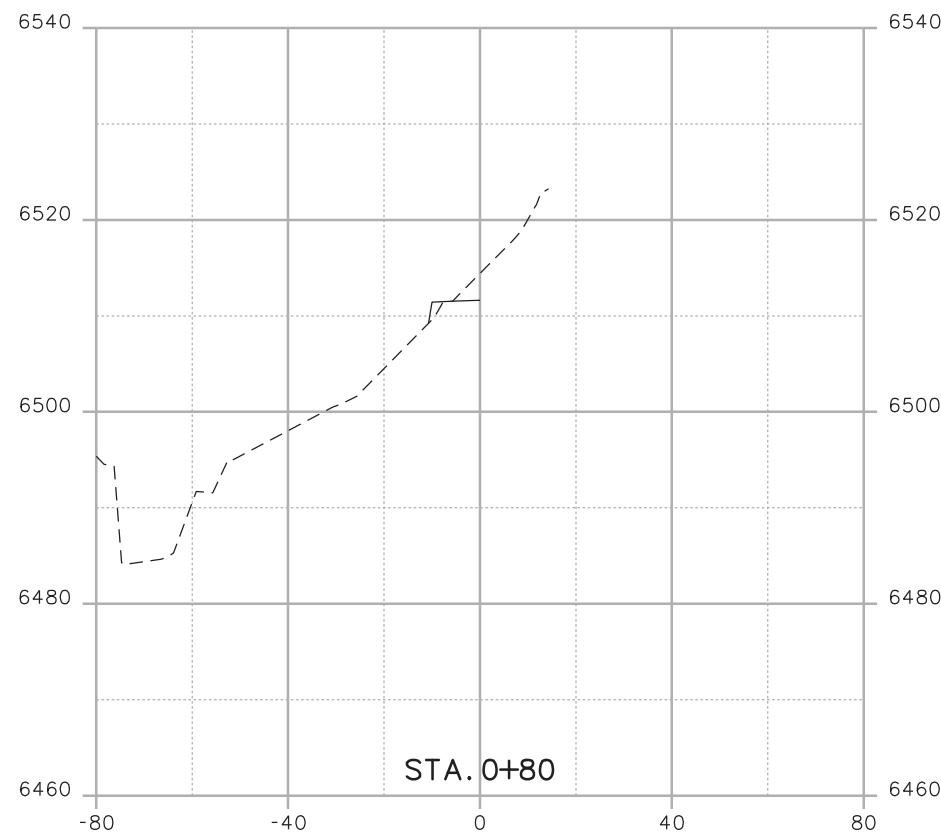
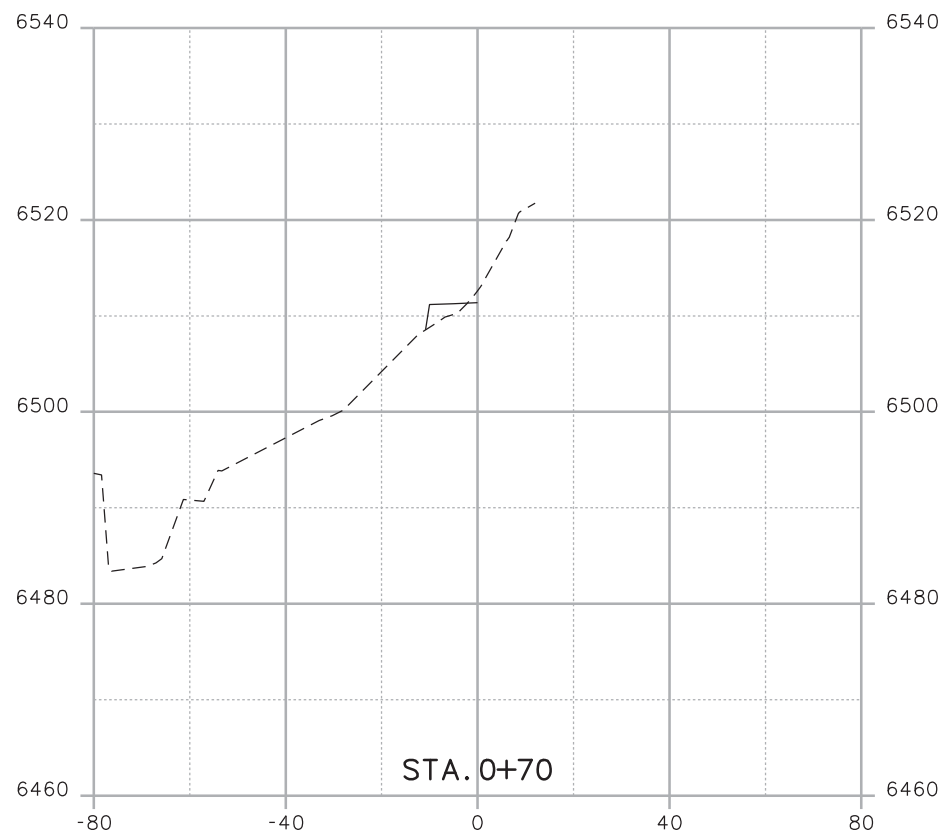
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Detailer:	KLT	Structure Numbers	X-XX-XX
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Project No./Code	
Project Number	
Code	
Sheet Number	103

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 Unit Information Unit Leader Initials

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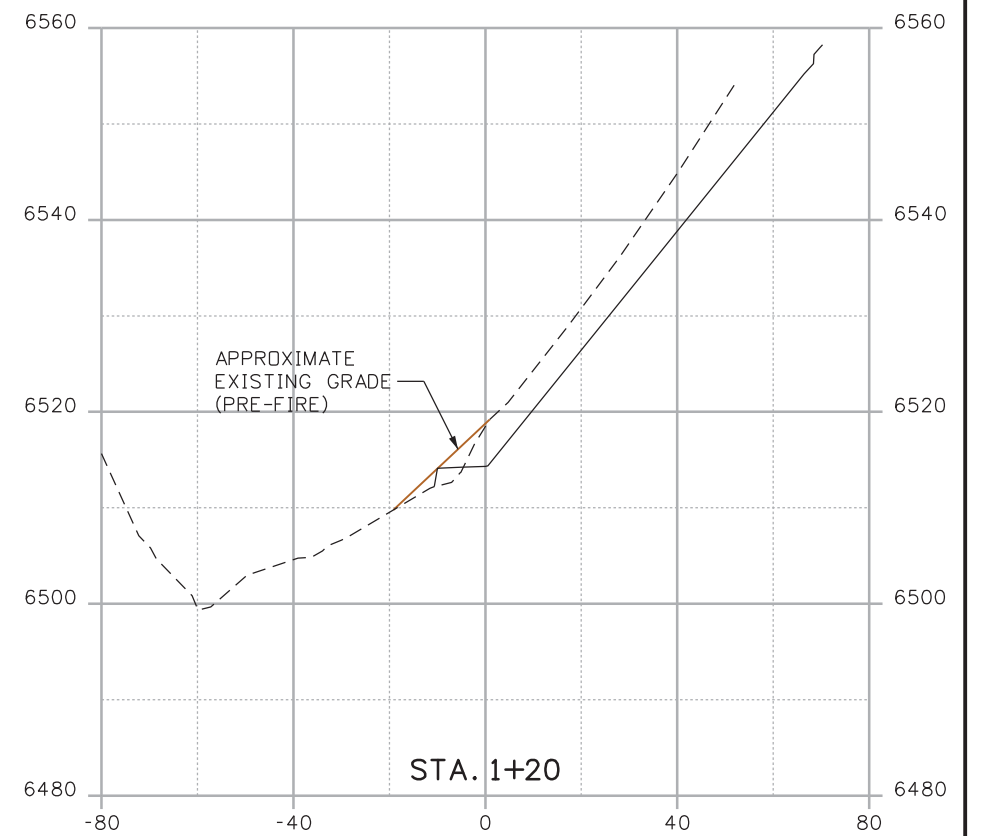
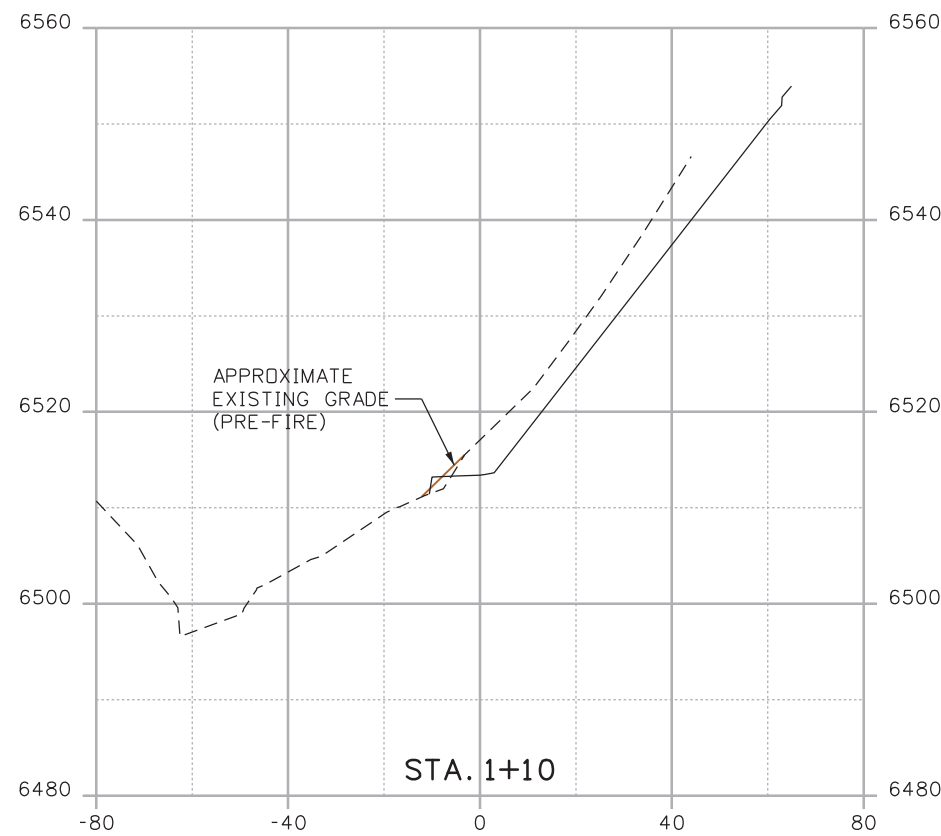
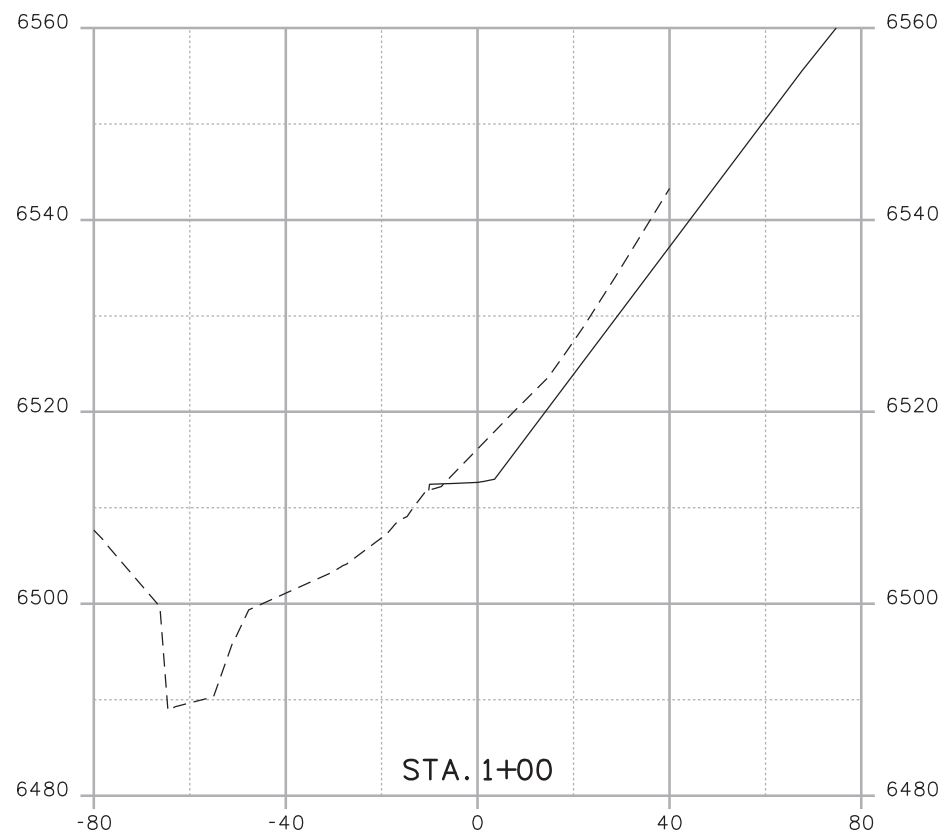
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 Project Number
 Code
 Sheet Number **104**

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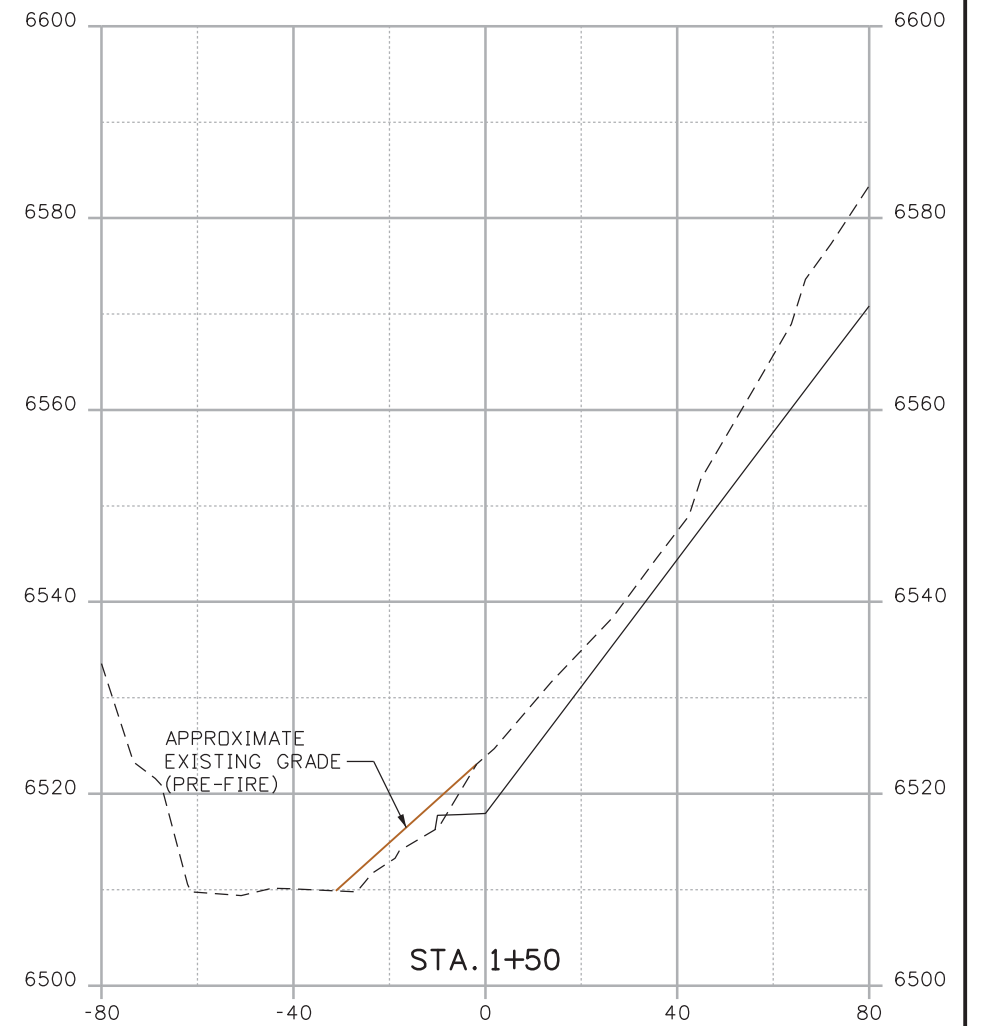
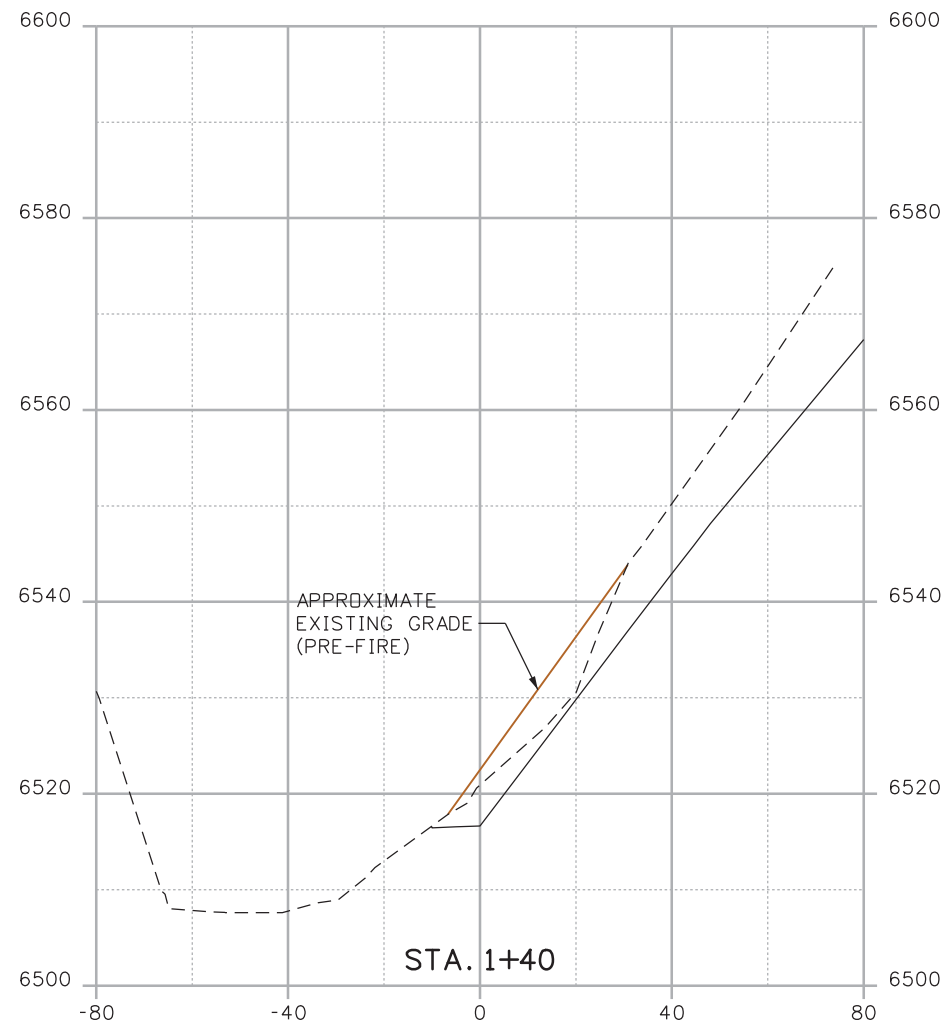
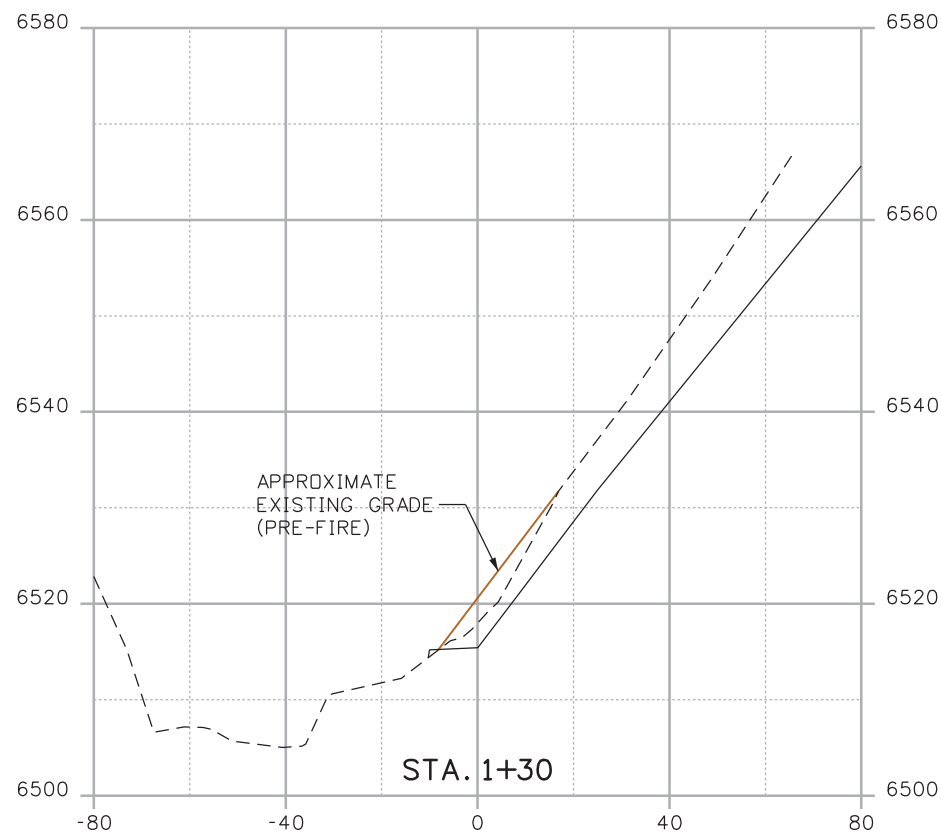
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Detailer:	KLT	Structure Numbers	X-XX-XX
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Project Number
Code
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Sheet Revisions		
Date:	Comments	Init.

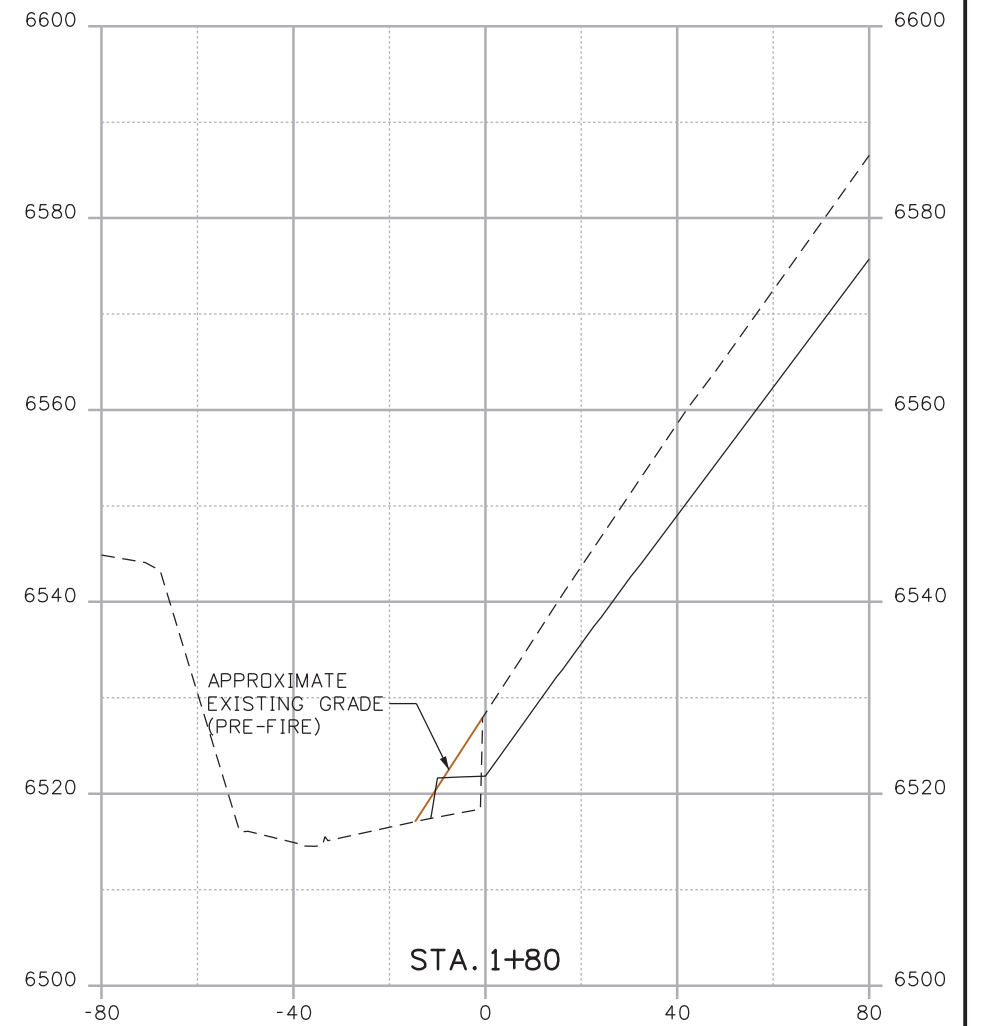
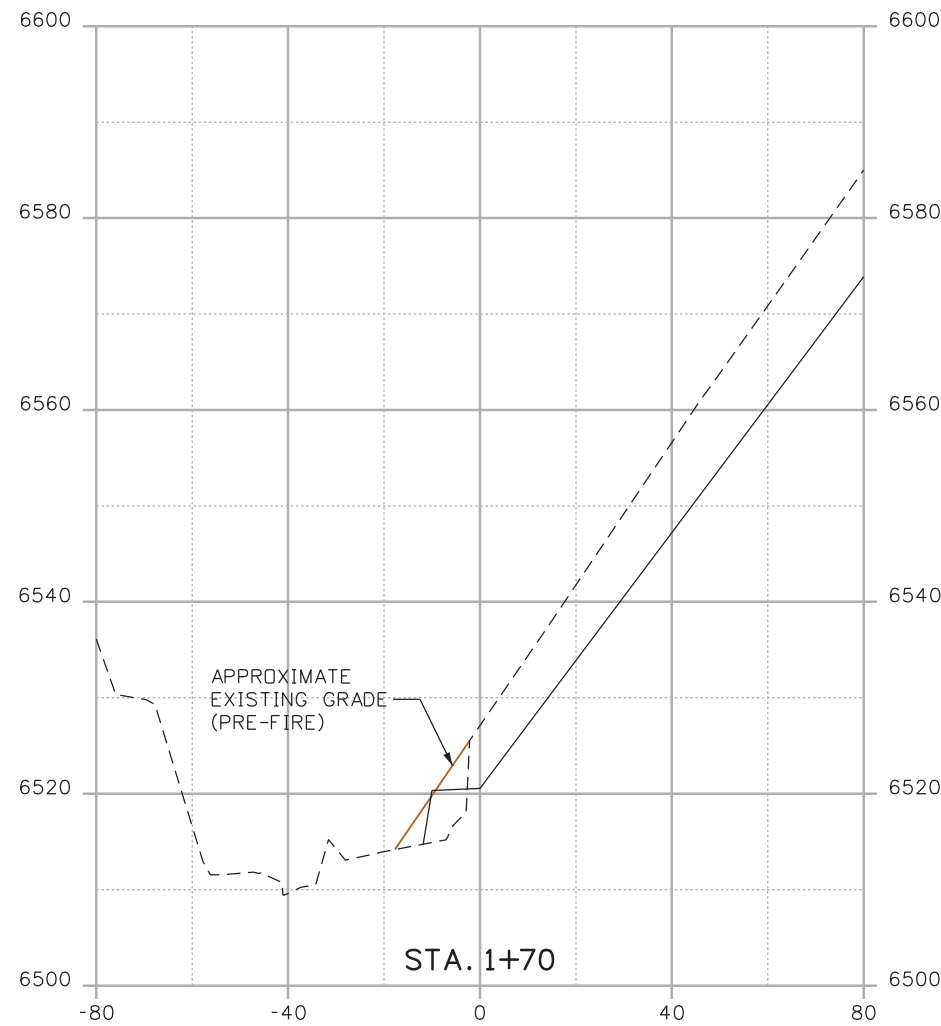
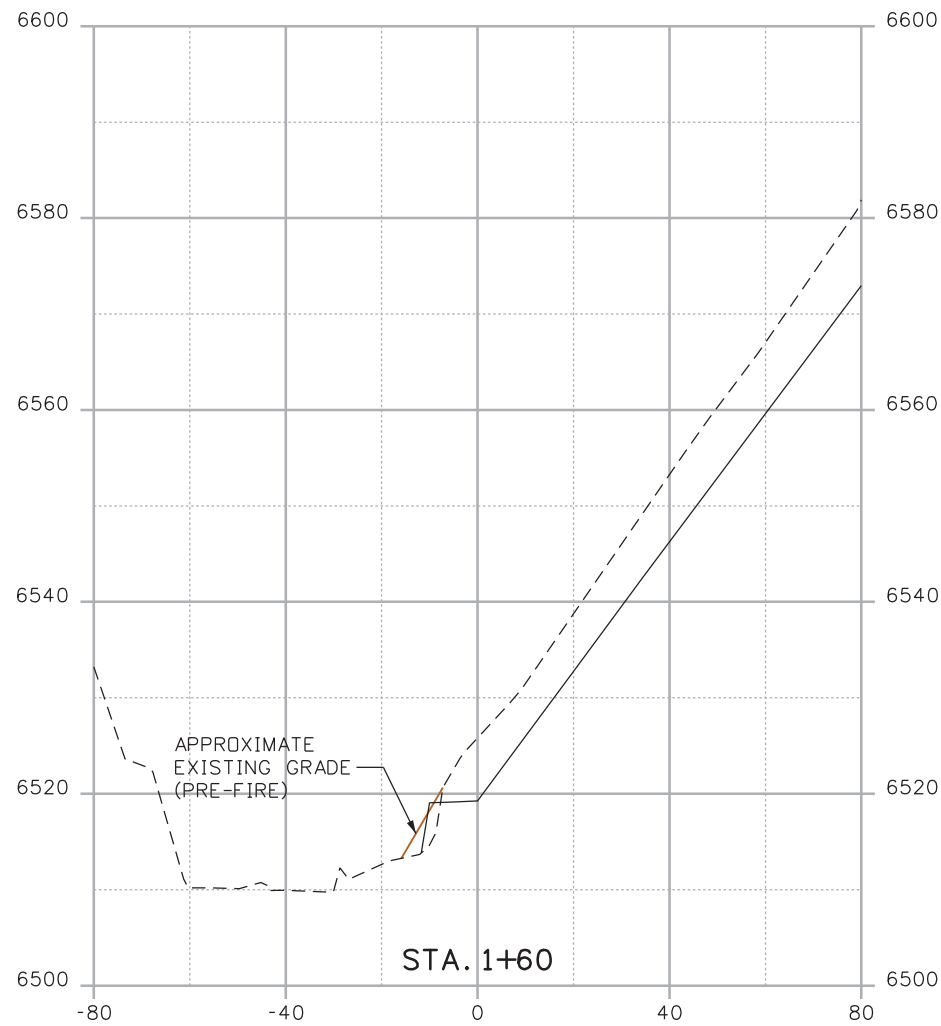
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 Revised:
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**CROSS SECTIONS
 POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-30 OF 41

Project No./Code
 Project Number
 Code
 Sheet Number **106**

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Print Date: 3/18/2013
 File Name: 19358DES_Model_J_Sections.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

R-X
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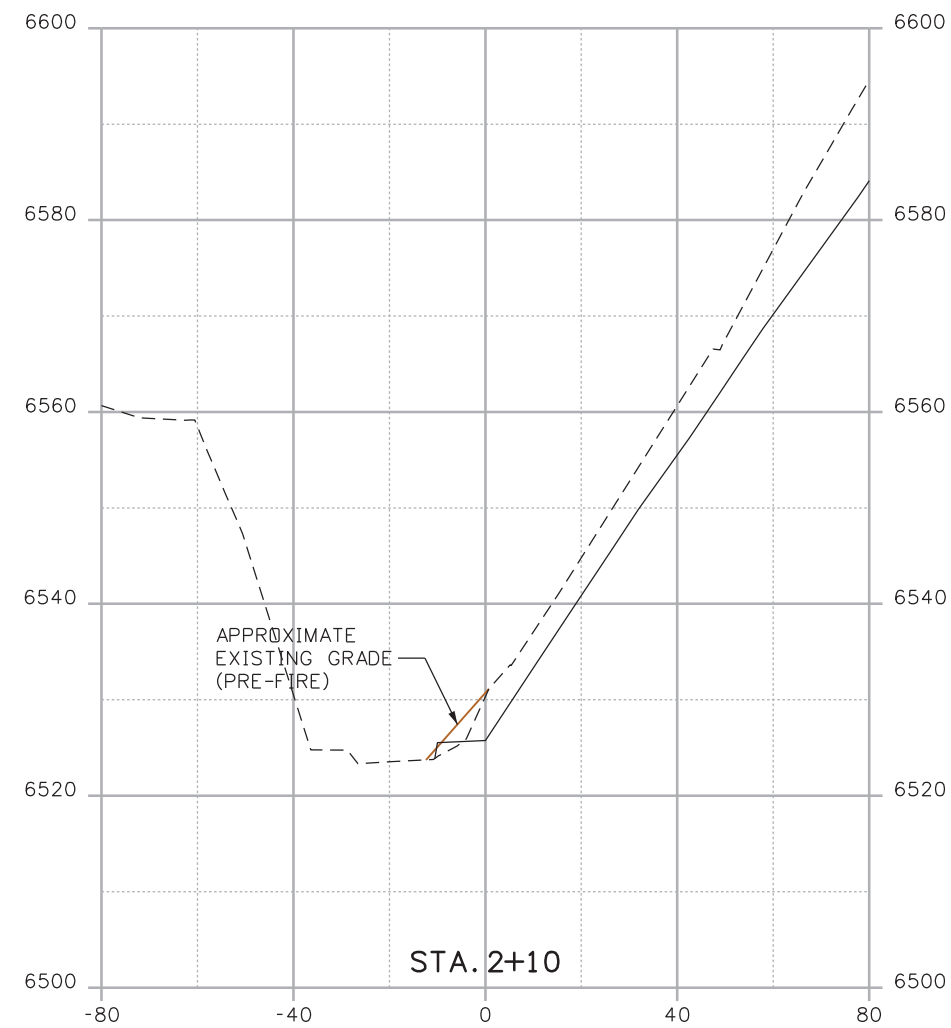
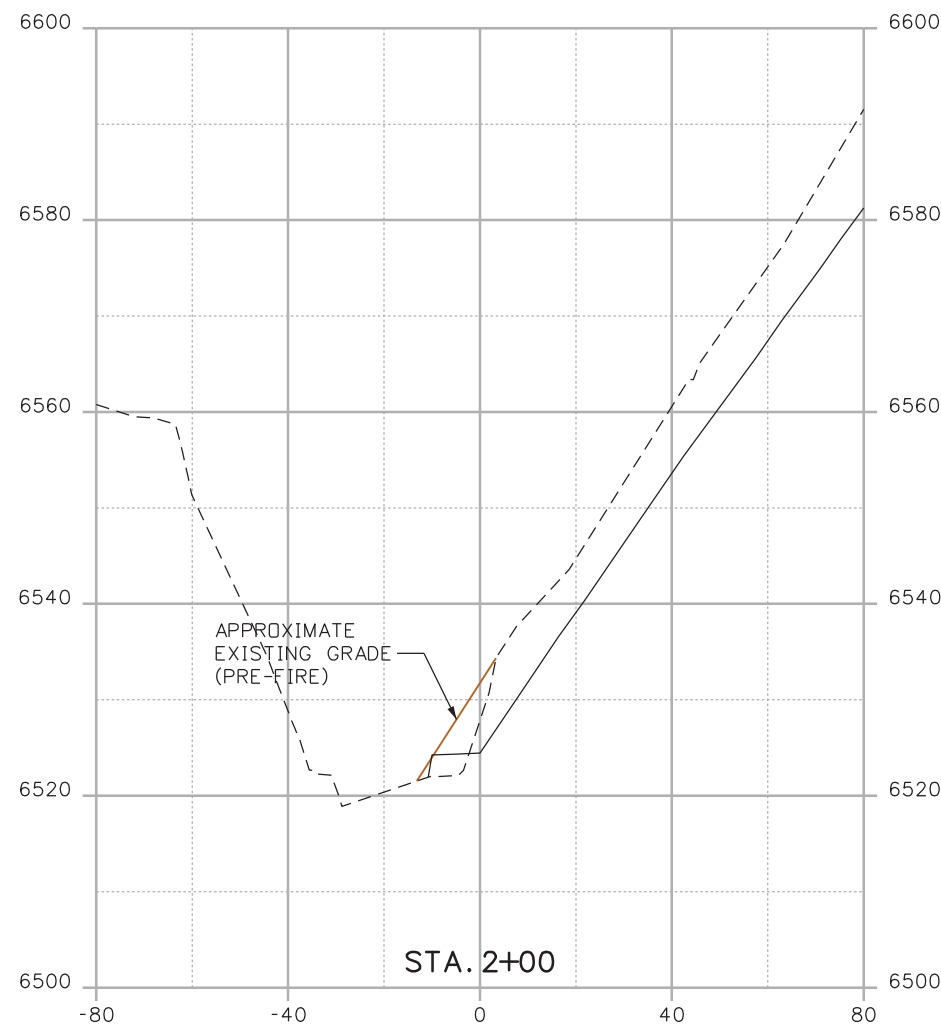
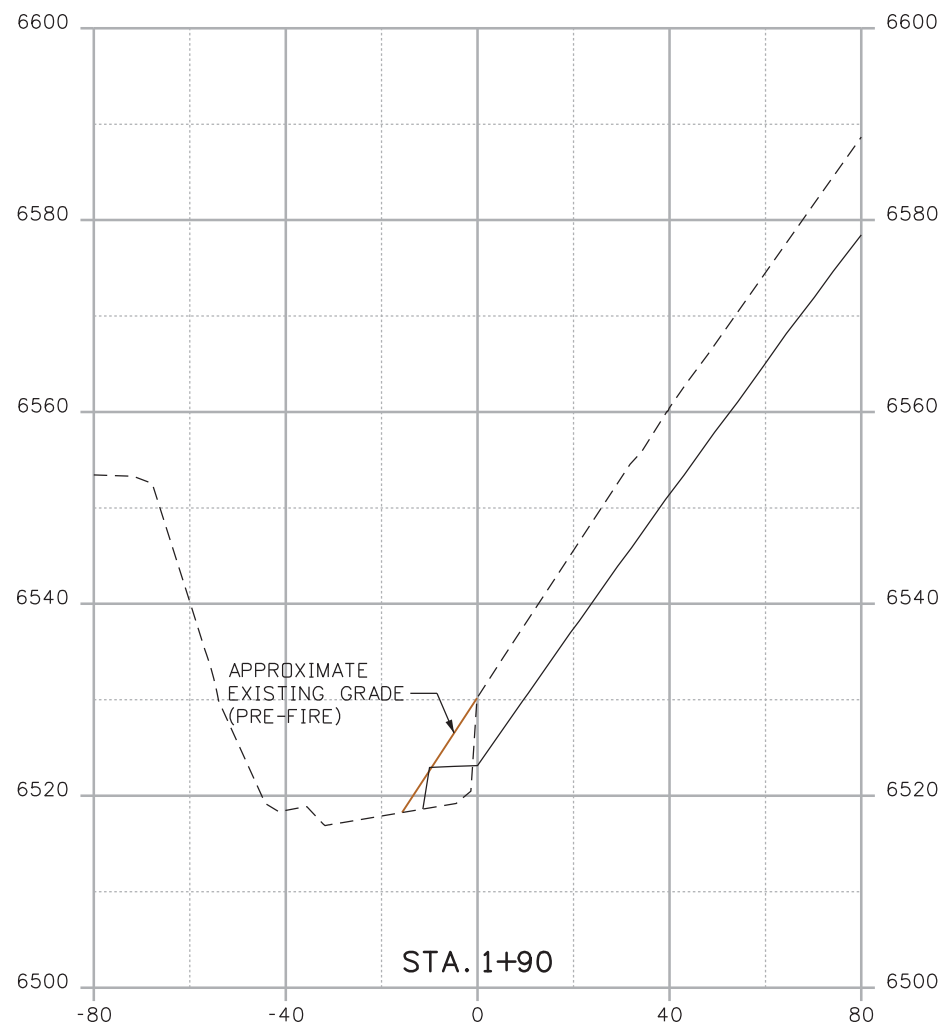
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Date:	Comments	Init.

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Revised:
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CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-31 OF 41

Project No./Code
Project Number
Code
Sheet Number 107

Kelly 10:39:41 AM K:\112266-06\19358DES\Design\Drawings\Reference_Files\19358DES_Model_J_Sections.dgn



Print Date: 3/18/2013
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 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

R-X
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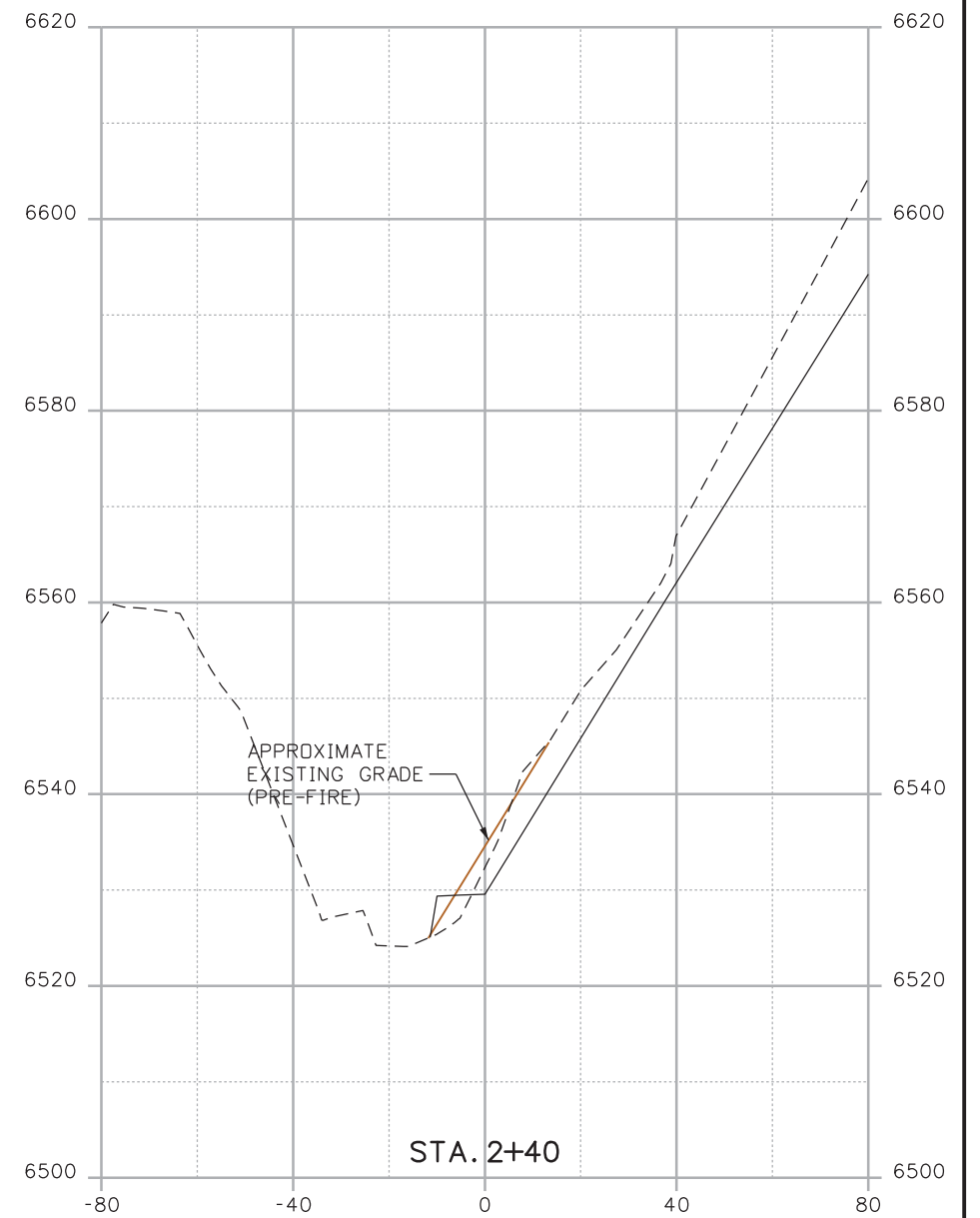
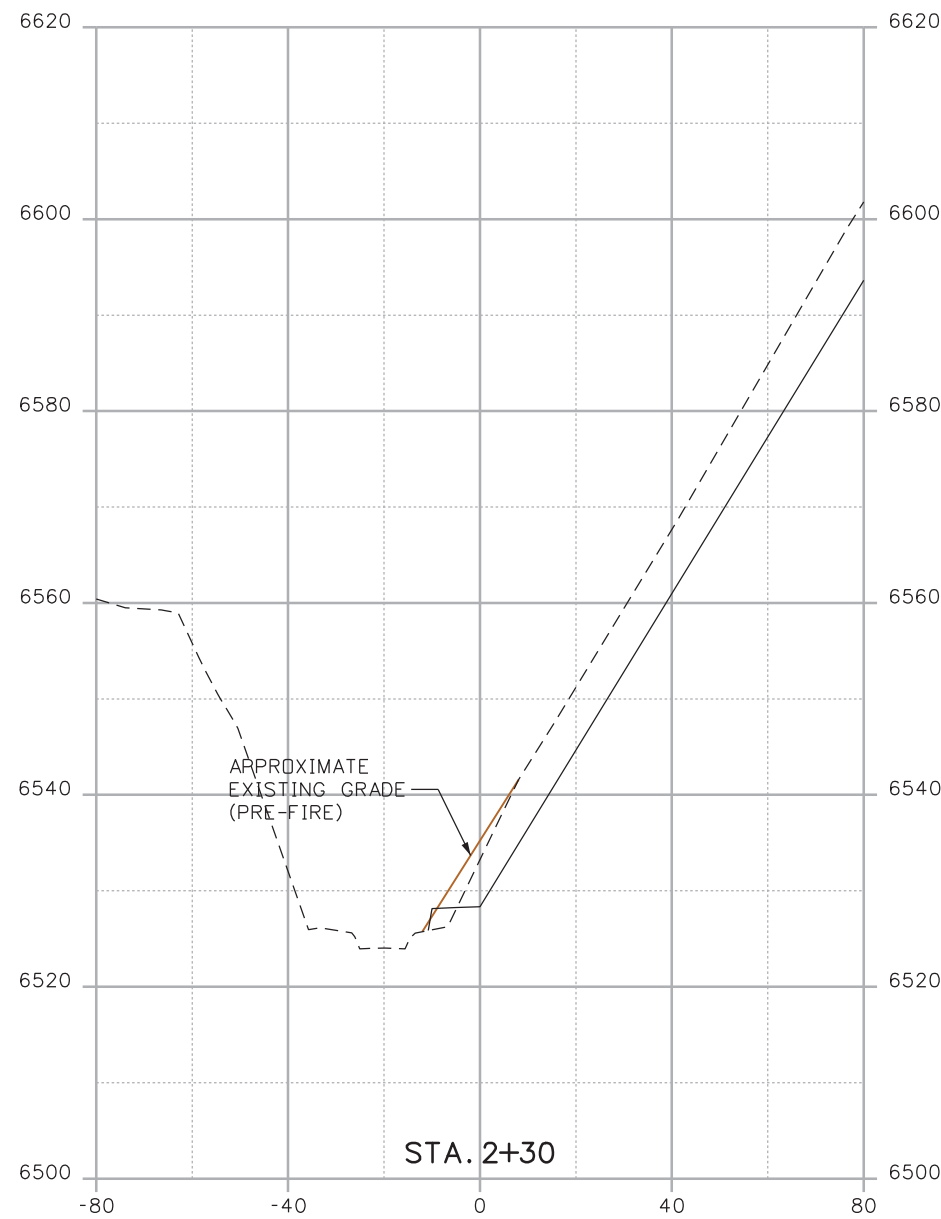
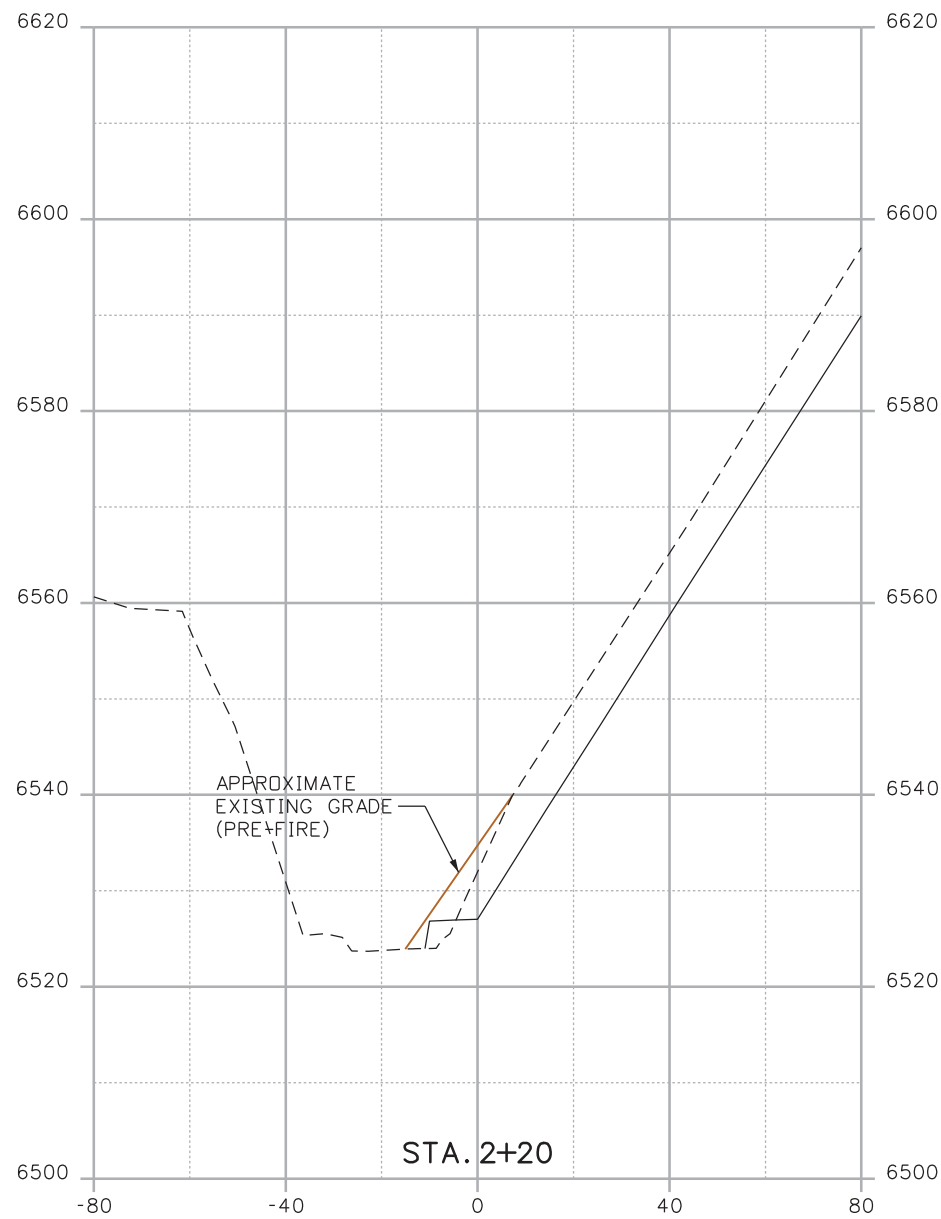
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Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

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Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-32 OF 41

Project No./Code
Project Number
Code
Sheet Number 108

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Print Date: 3/18/2013
File Name: 19358DES_Model_J_Sections.dgn
Horiz. Scale: 1:40 Vert. Scale: As Noted
Unit Information Unit Leader Initials

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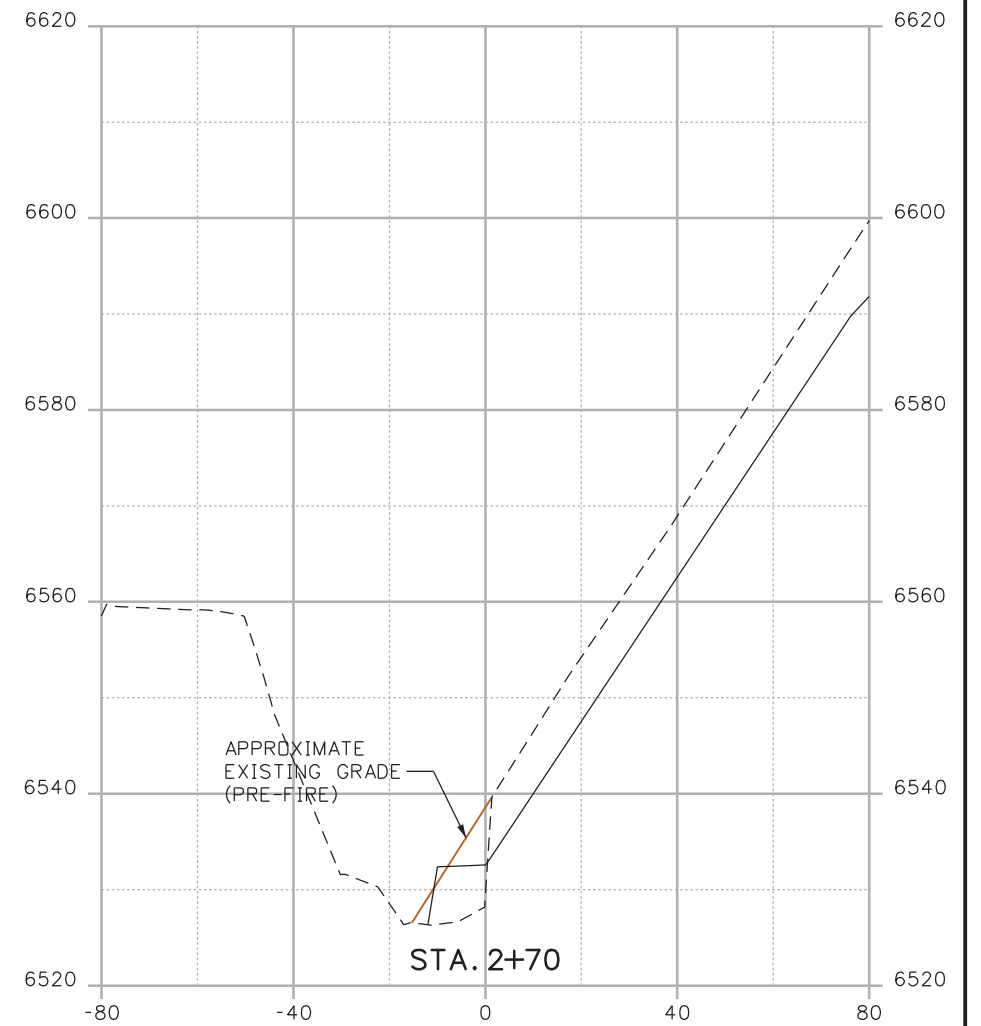
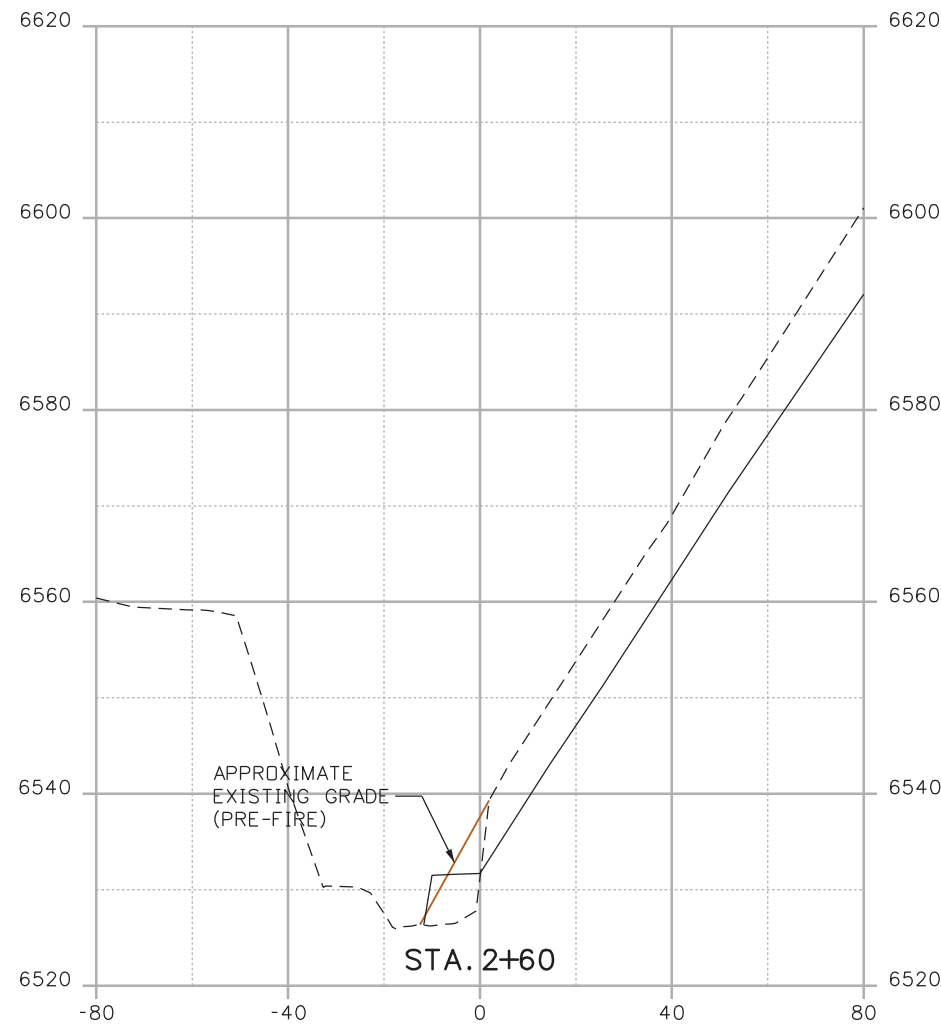
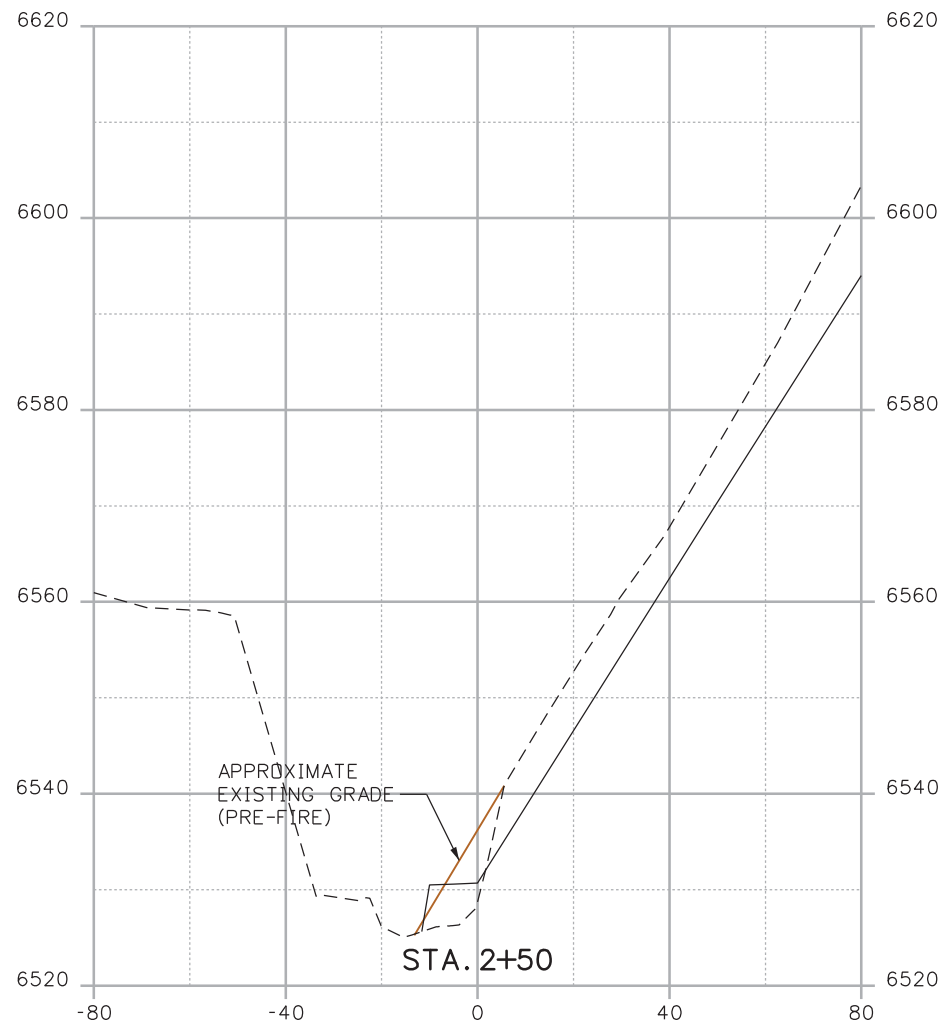
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Date:	Comments	Init.

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No Revisions:
Revised:
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Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-33 OF 41

Project No./Code
Project Number
Code
Sheet Number 109

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Print Date: 3/18/2013
 File Name: 19358DES_Model_J_Sections.dgn
 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
Date:	Comments	Init.

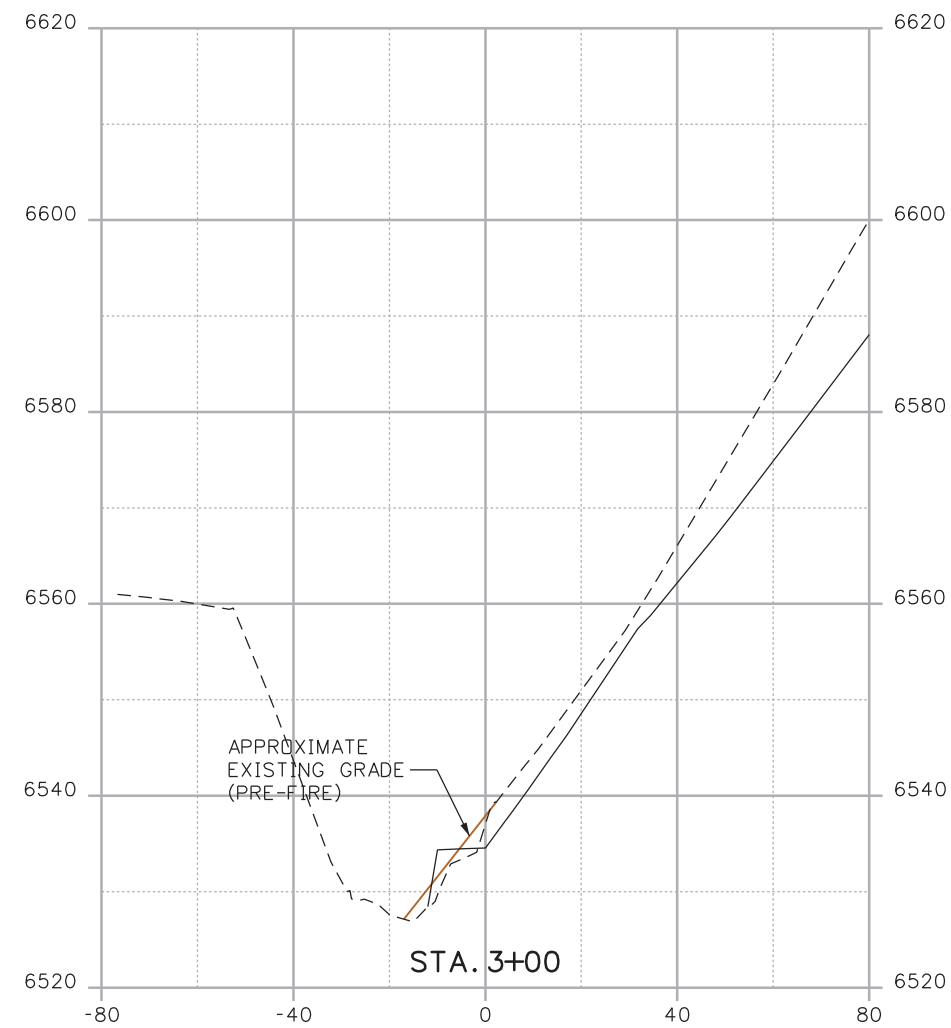
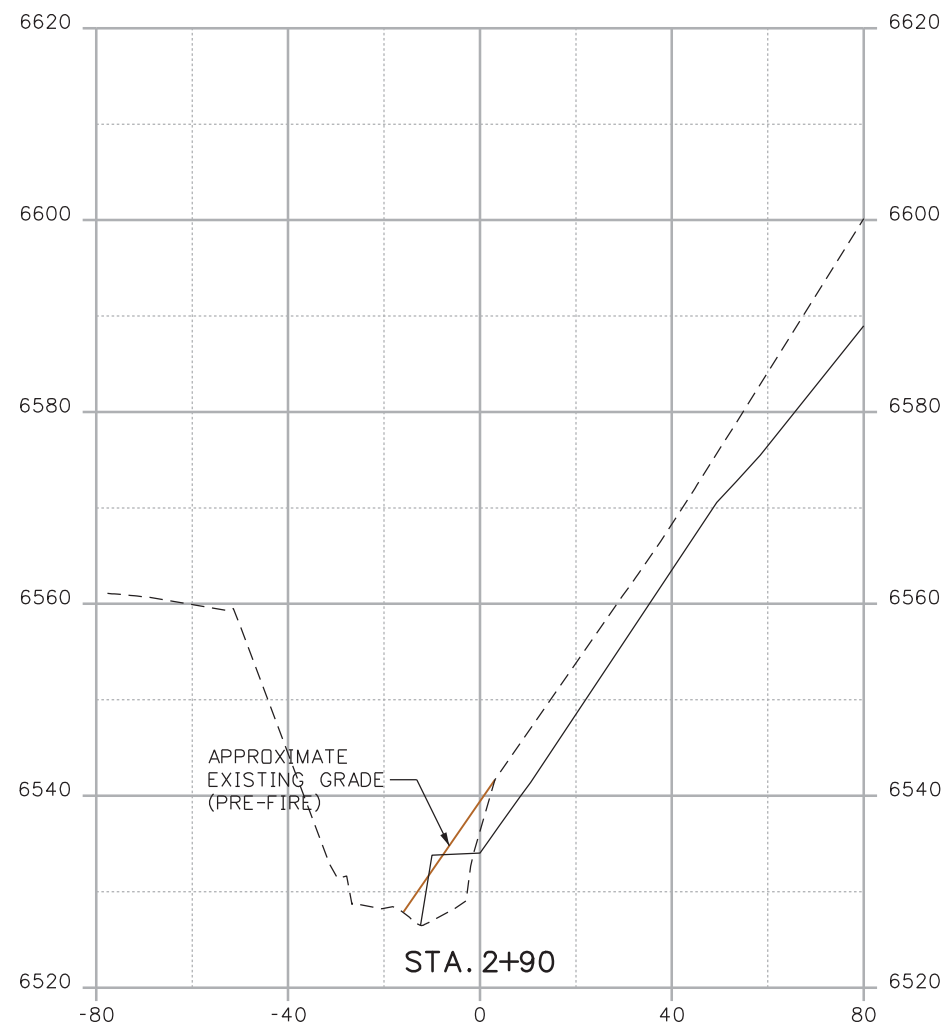
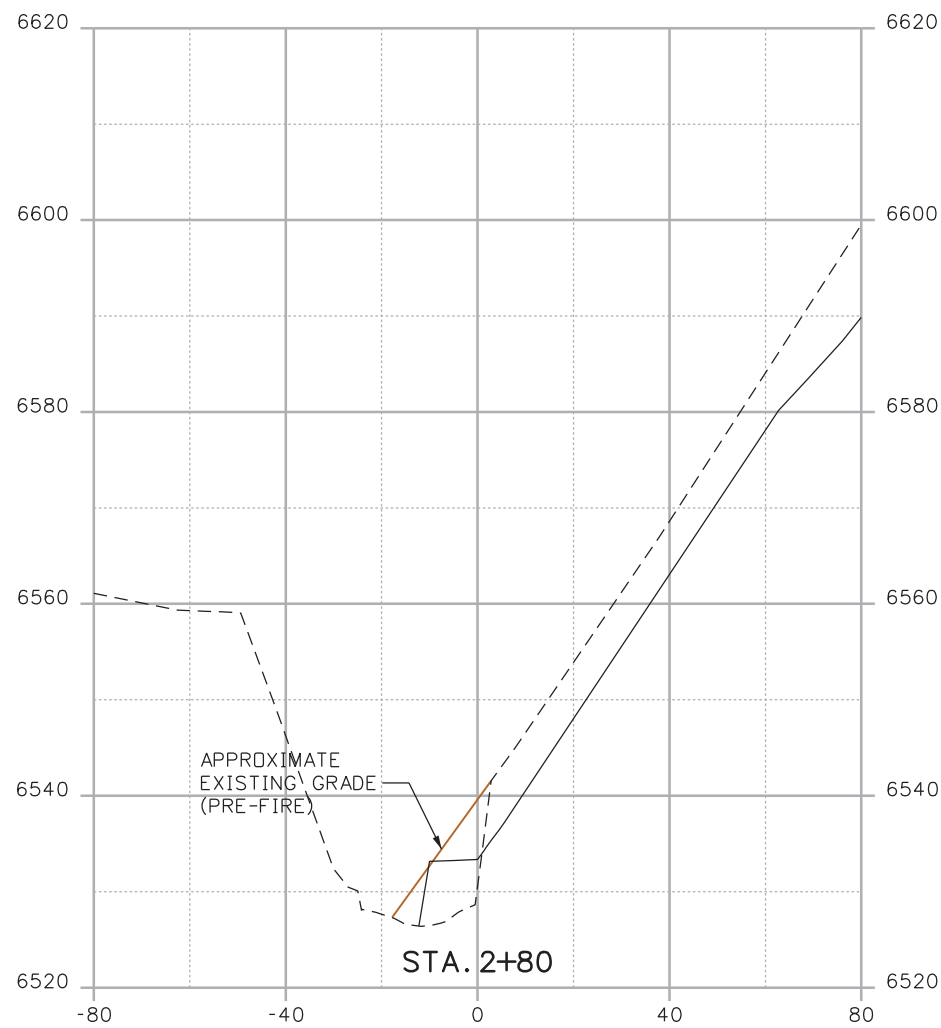
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 POUR POINT J - ACCESS ROAD**

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Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-34 OF 41

Project No./Code
 Project Number
 Code
 Sheet Number **110**

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Print Date: 3/18/2013
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 Unit Information Unit Leader Initials

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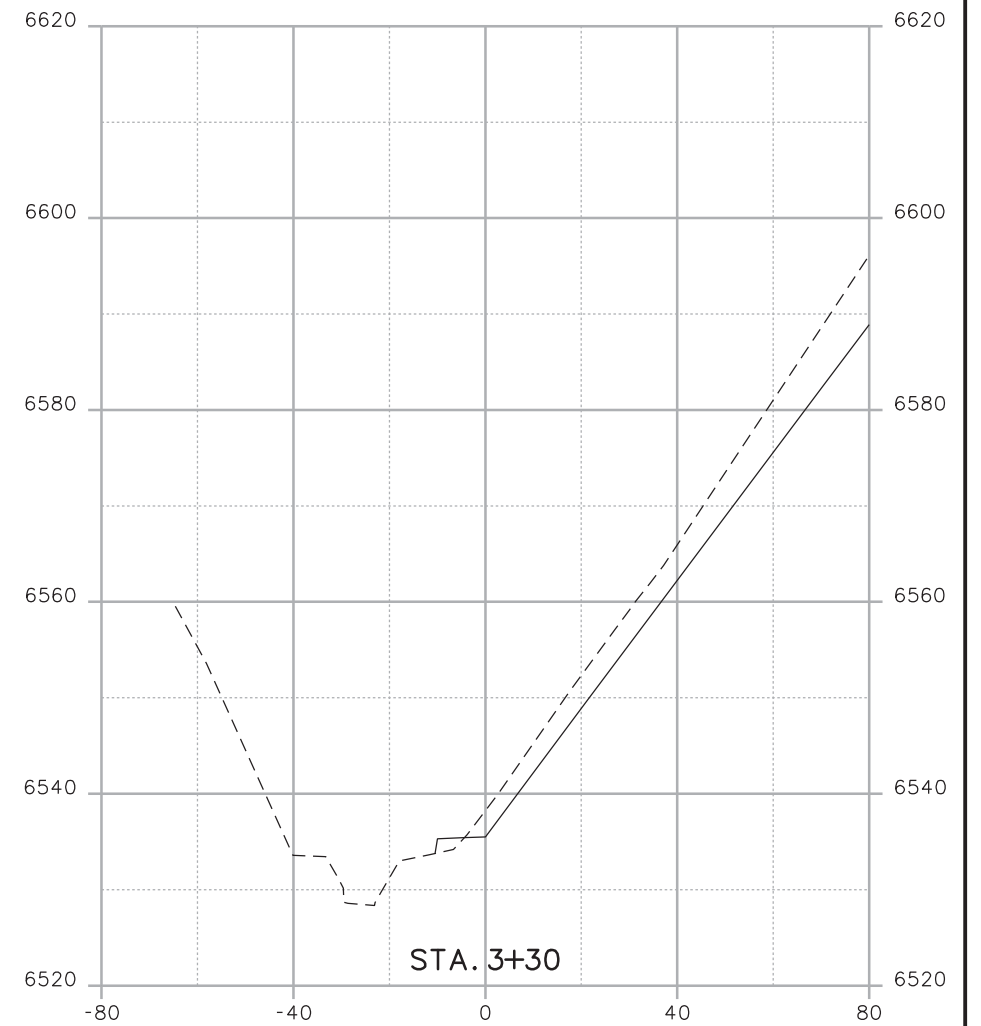
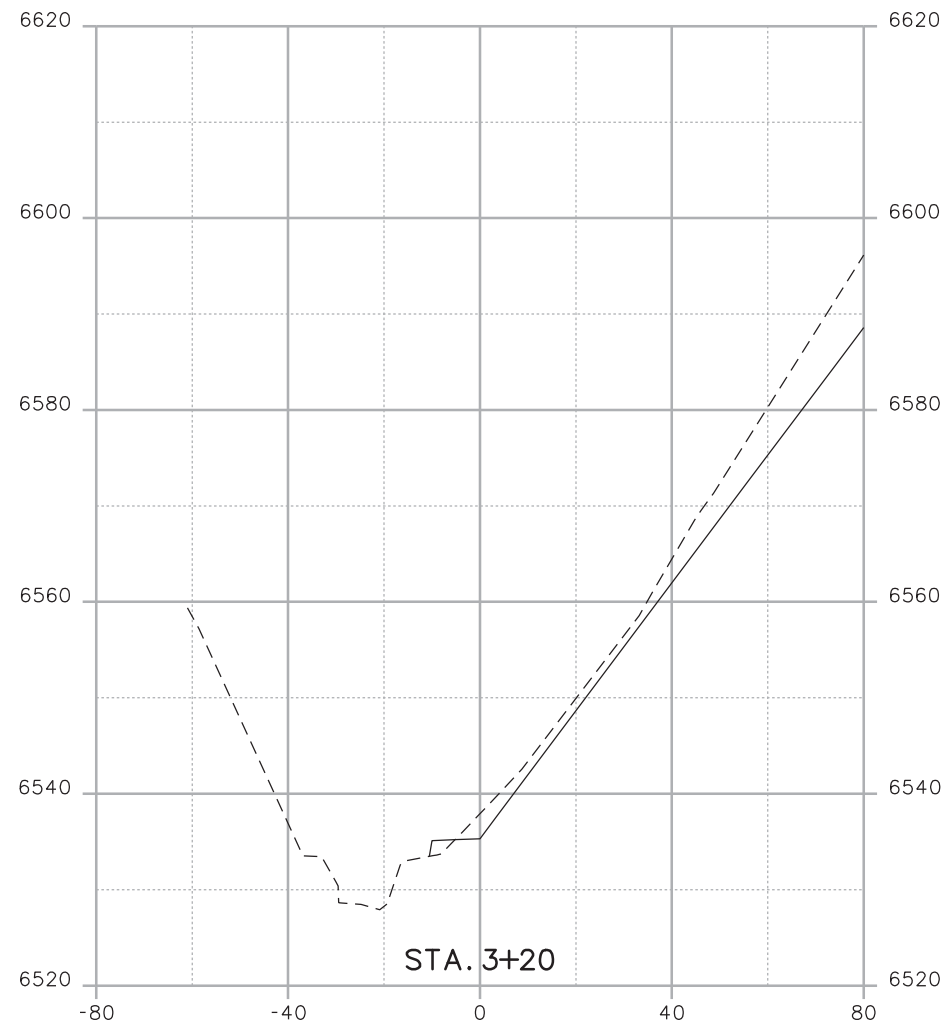
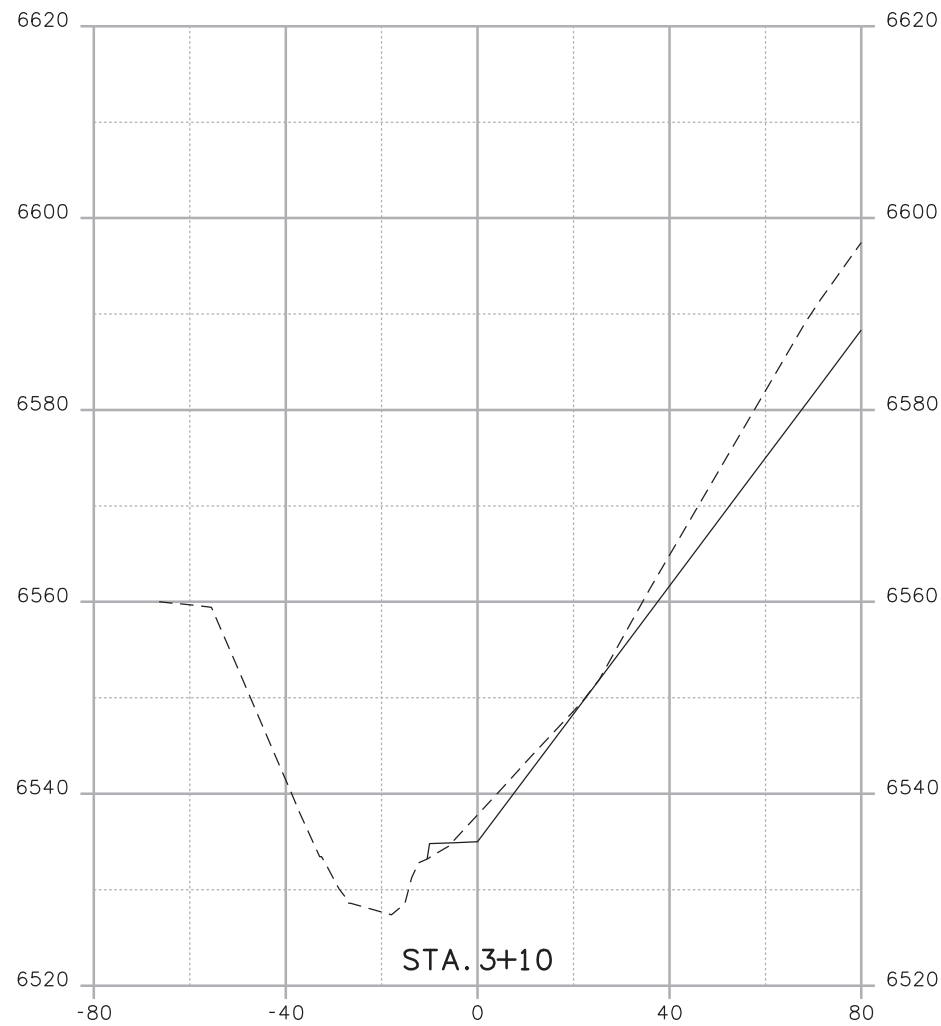
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Revised:
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Designer:	CDT	Structure	X-XX-XX
Detailer:	KLT	Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-35 OF 41

Project No./Code
Project Number
Code
Sheet Number 111

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Print Date: 3/18/2013
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 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
Date:	Comments	Init.

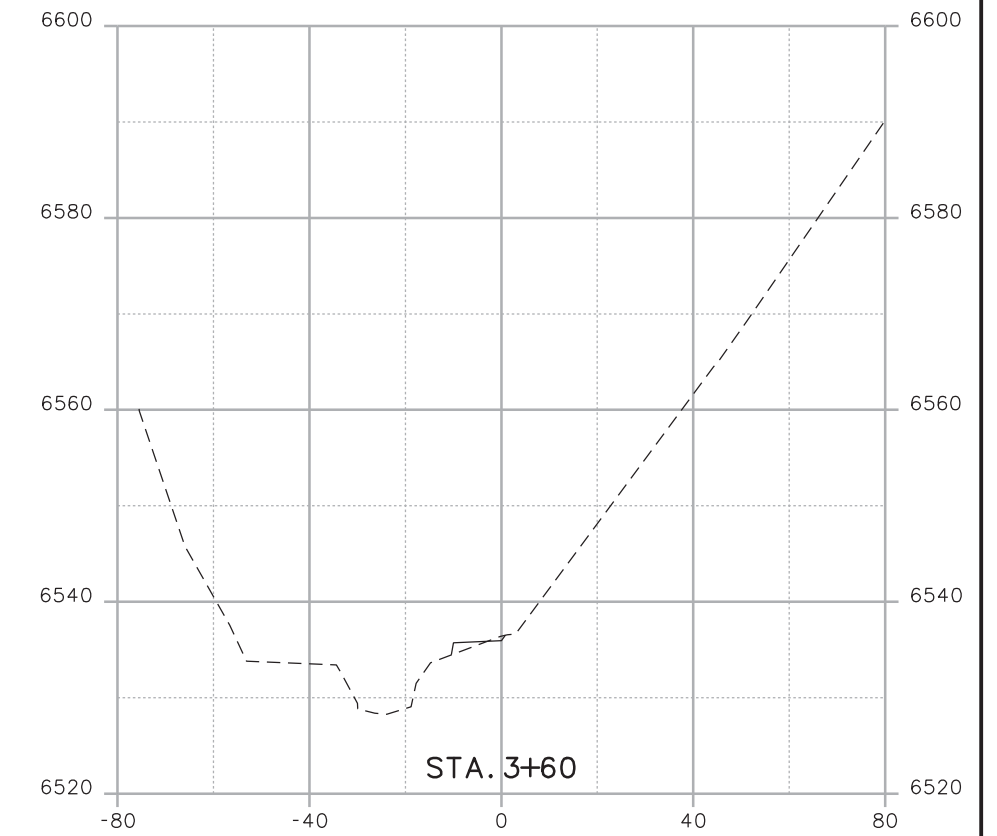
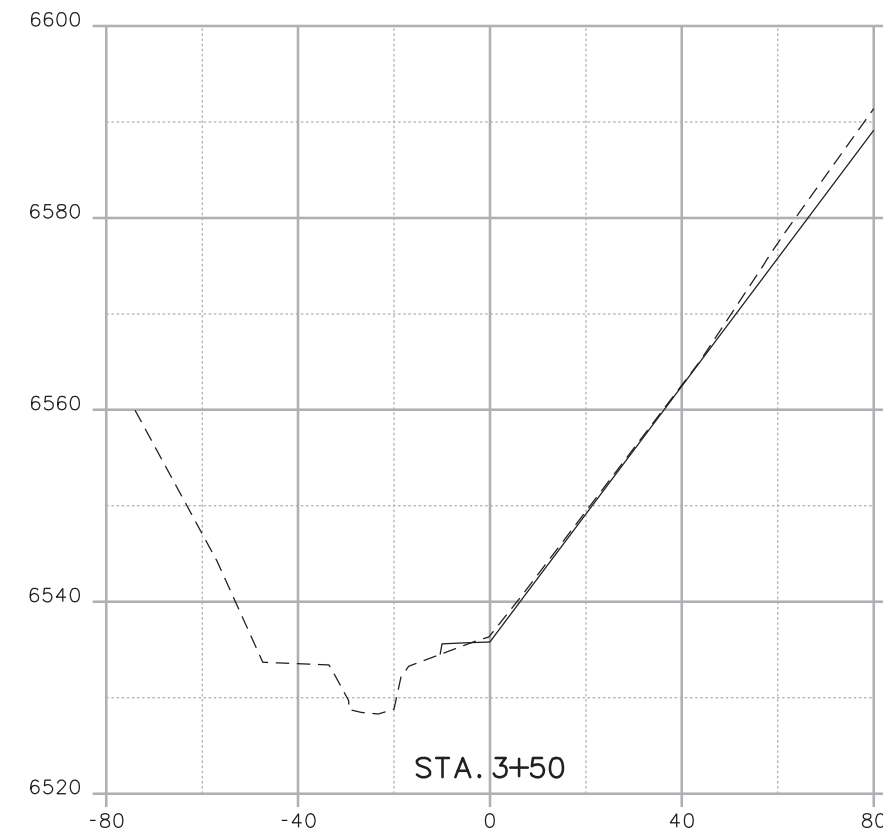
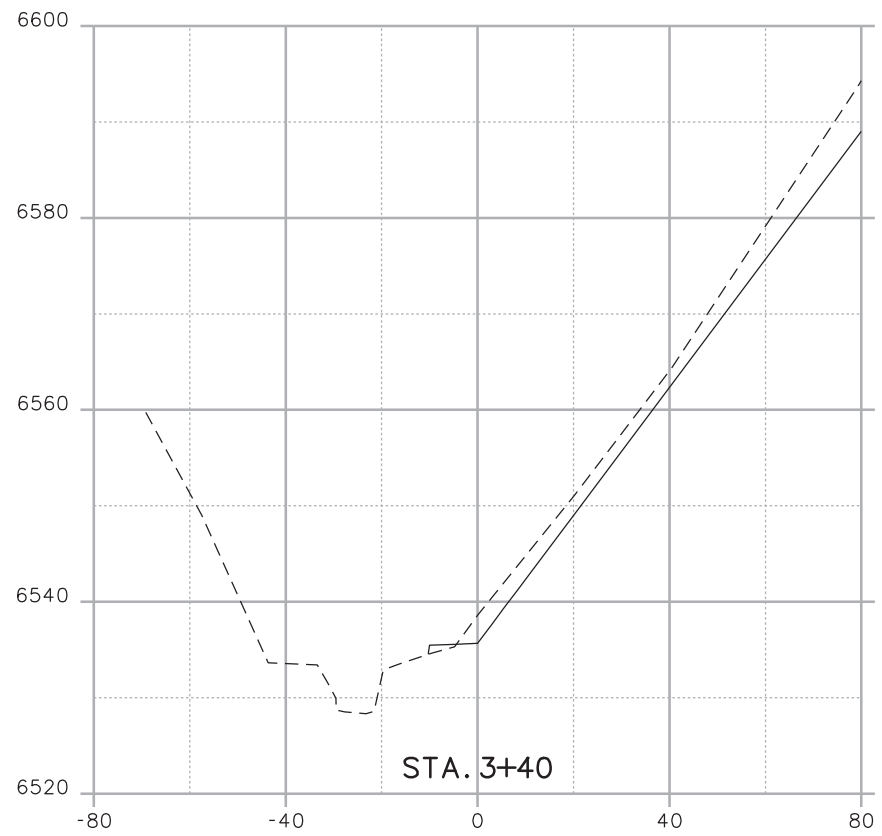
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**CROSS SECTIONS
 POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-36 OF 41

Project No./Code
 Project Number
 Code
 Sheet Number **112**

Kelly 10:39:50 AM K:\112266-06\19358\Design\Drawings\Reference_Files\19358DES_Model_J_Sections.dgn



Print Date: 3/18/2013	
File Name: 19358DES_Model_J_Sections.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials



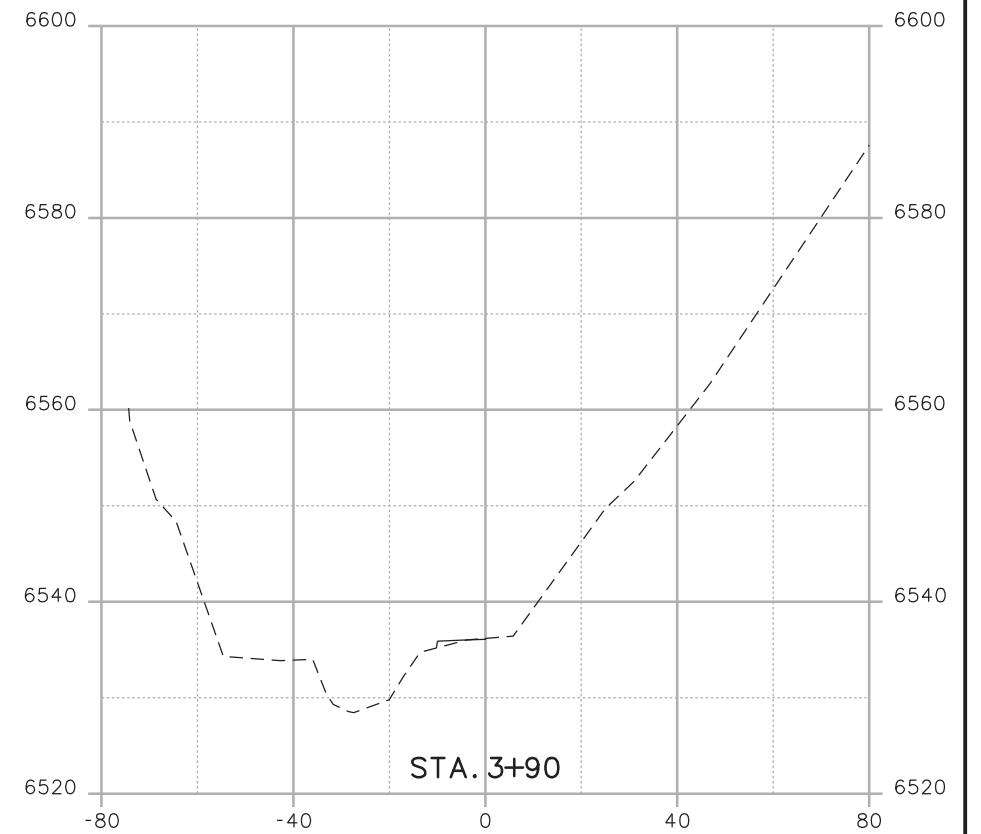
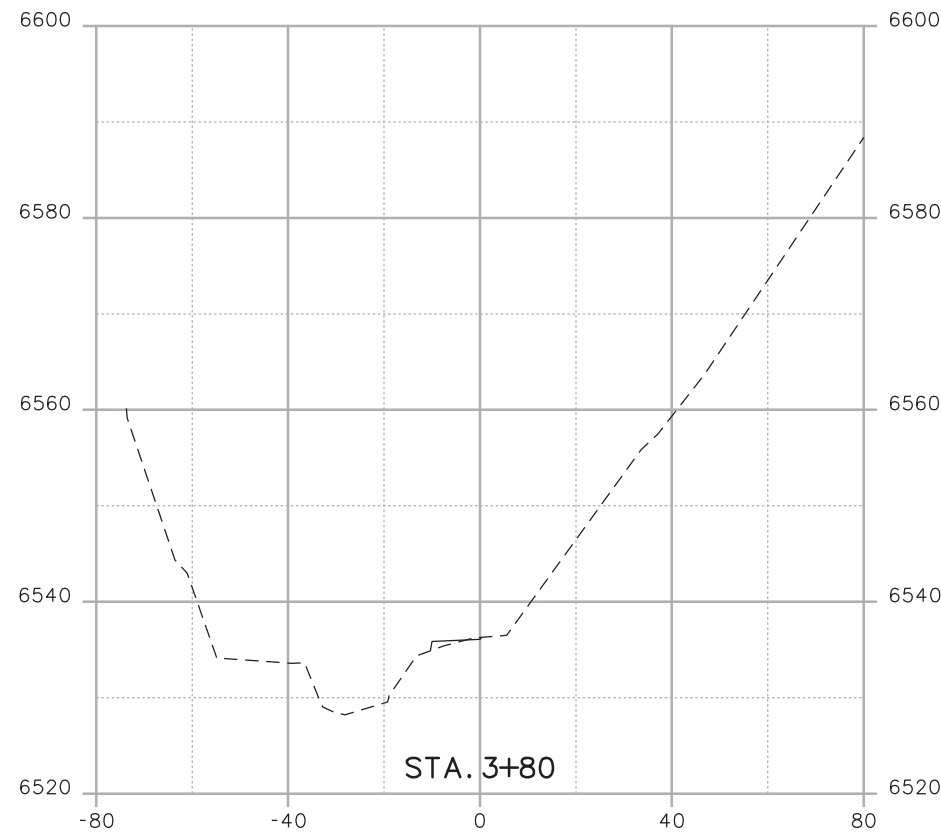
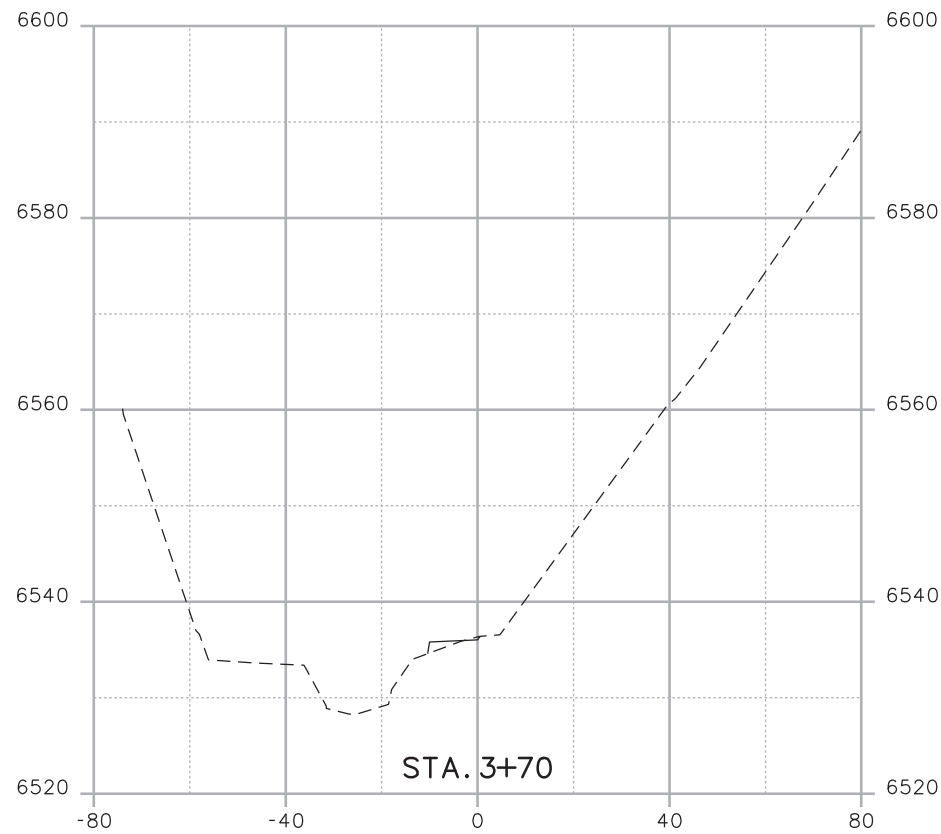
Sheet Revisions		
Date:	Comments	Init.

As Constructed
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Revised:
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Designer:	CDT	Structure	X-XX-XX
Detailer:	KLT	Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-37 OF 41

Project No./Code
Project Number
Code
Sheet Number 113

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Print Date: 3/18/2013
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 Horiz. Scale: 1:40 Vert. Scale: As Noted
 Unit Information Unit Leader Initials

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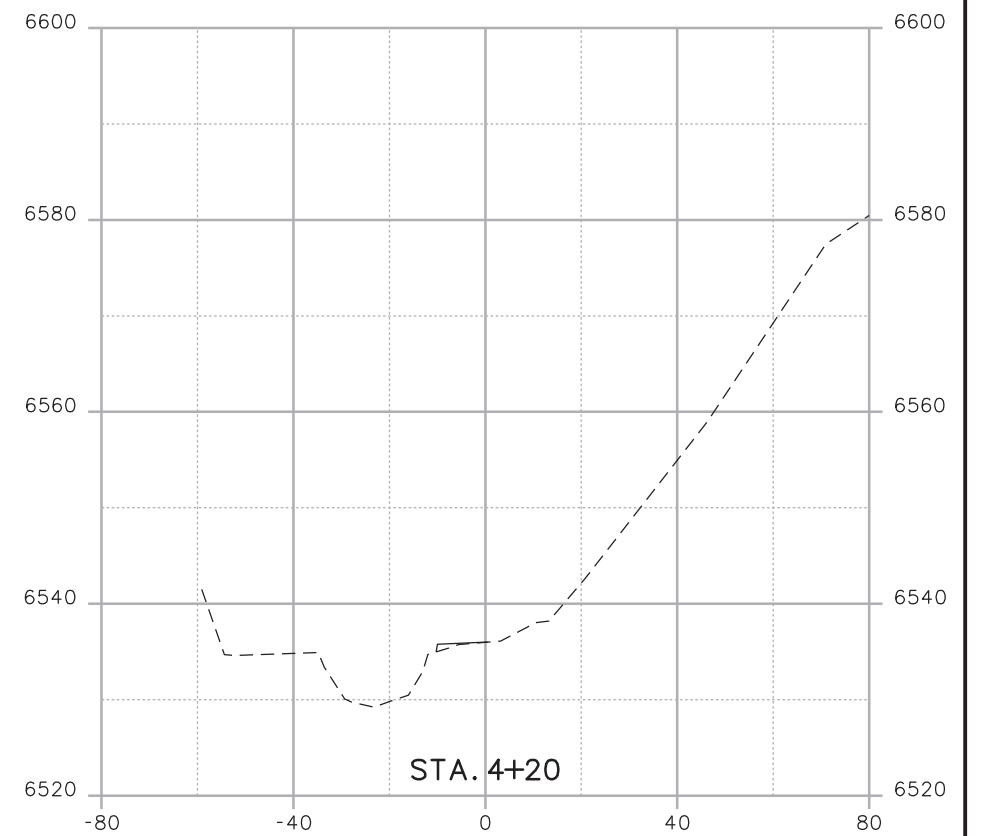
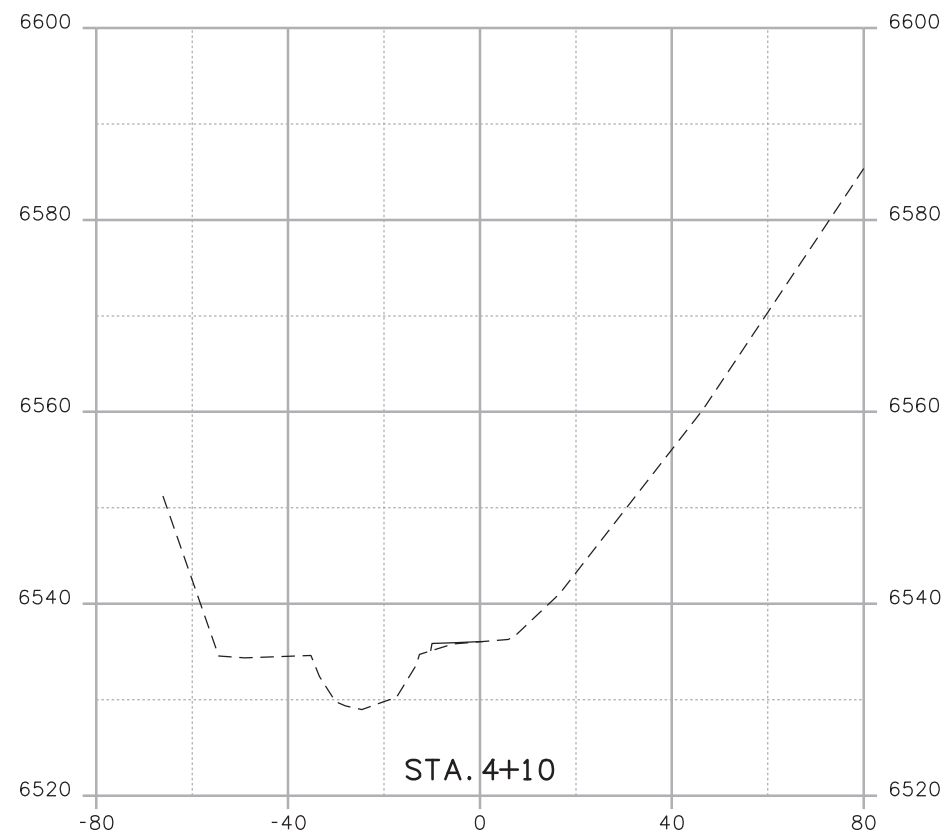
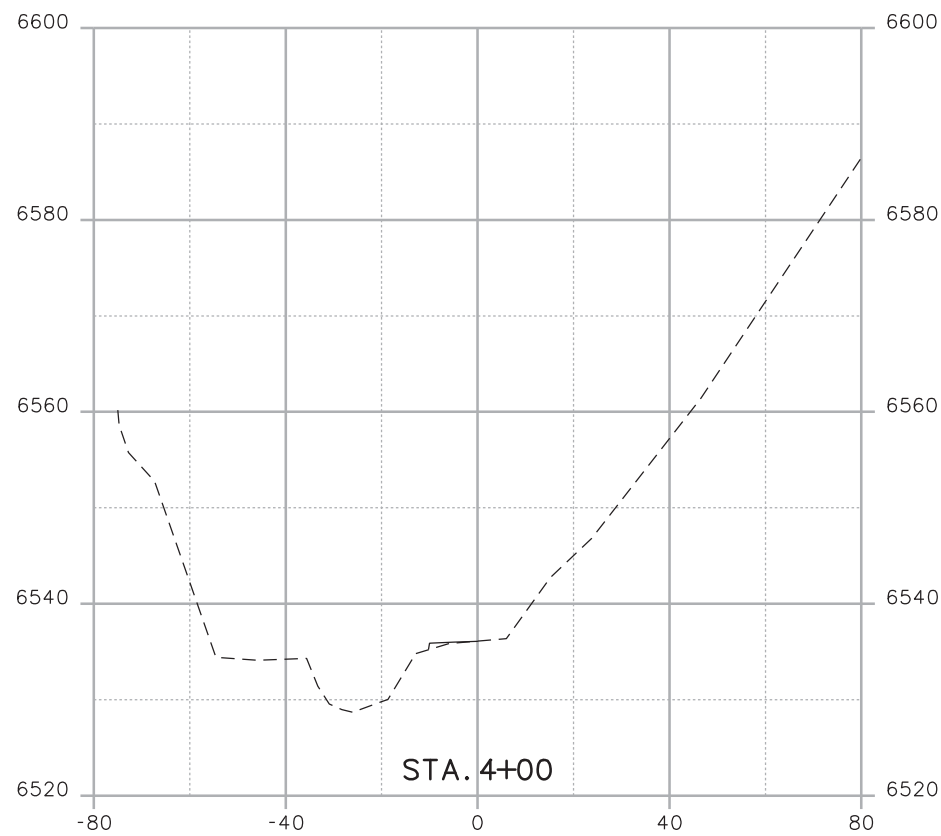
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Date:	Comments	Init.

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No Revisions:
Revised:
Void:

CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-38 OF 41

Project No./Code
Project Number
Code
Sheet Number 114

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Print Date: 3/18/2013
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 Unit Information Unit Leader Initials

R-X
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Sheet Revisions		
Date:	Comments	Init.

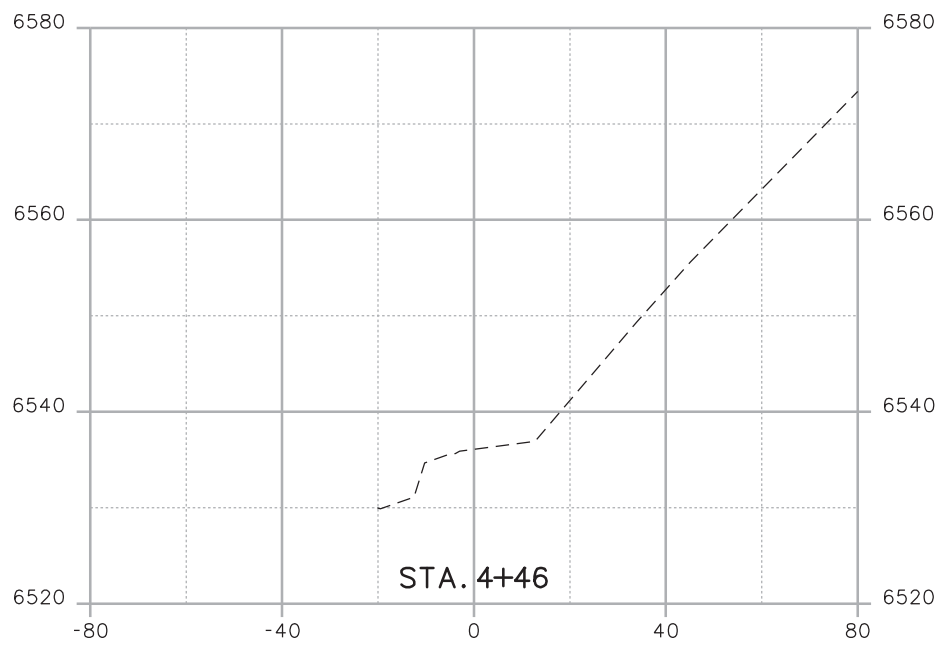
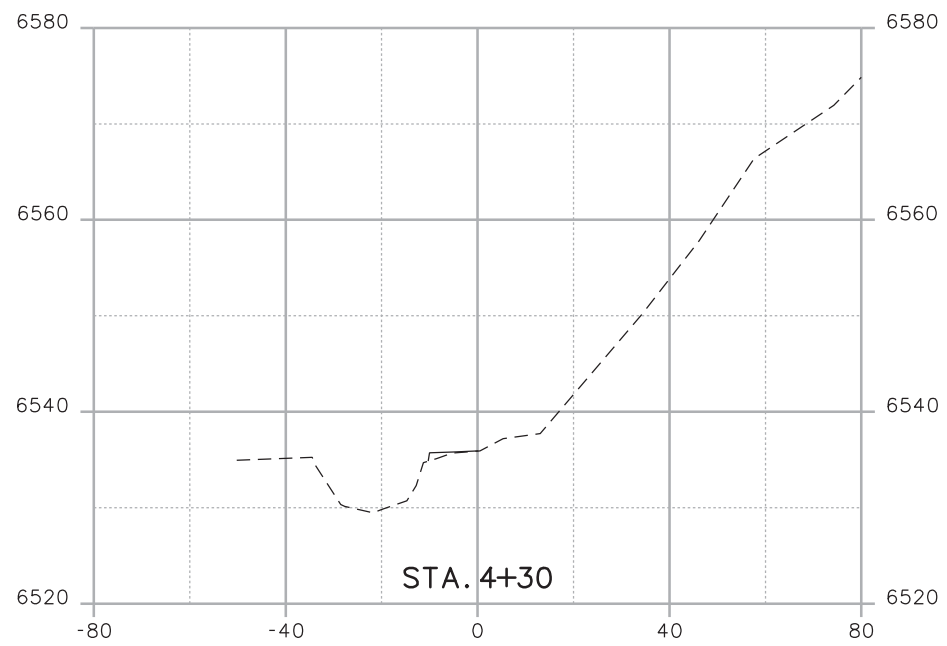
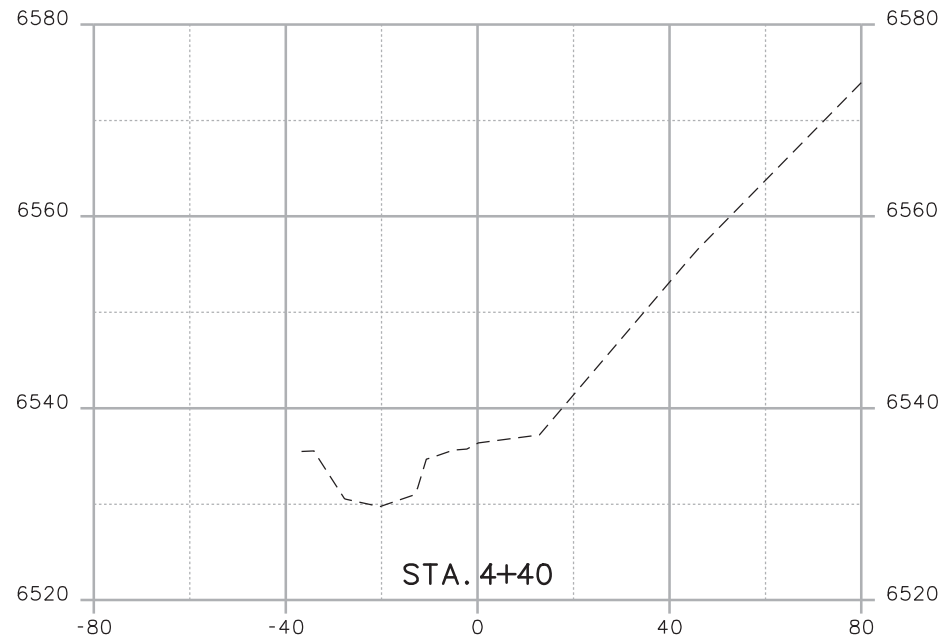
As Constructed
 No Revisions:
 Revised:
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**CROSS SECTIONS
 POUR POINT J - ACCESS ROAD**

Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-39 OF 41

Project No./Code
 Project Number
 Code
 Sheet Number **115**

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Print Date: 3/18/2013	
File Name: 19358DES_Model_J_Sections.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

As Constructed
No Revisions:
Revised:
Void:

CROSS SECTIONS POUR POINT J - ACCESS ROAD			
Designer:	CDT	Structure Numbers	X-XX-XX
Detailer:	KLT	Structure Numbers	X-XX-XX
Sheet Subset:	SECTIONS	Subset Sheets:	J-41 OF 41

Project No./Code	
Project Number	
Code	
Sheet Number	116



Region 2
Address: 905 S. Erie Ave.
Pueblo, CO 81001
Phone: (719) 546-5496 FAX: (719) 546-5414

Right of Way Plans Unit: 2152

Sheet Revisions		Sheet Revisions		Sheet Revisions	
mm/yy		mm/yy		mm/yy	

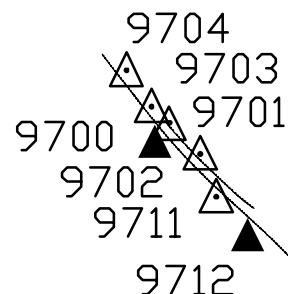
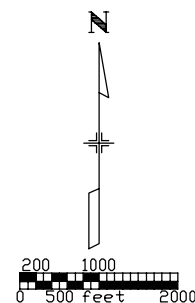
Control Diagram Sheet

Project Number: 14173				
Project Location: U.S. Hwy. 24				
Project Location: Manitou to Cascade				
Project Code	Last Mod. Date	Subset Sheets	Sheet No.	Total No. of Sheets
14173	00-00-00	1 of 1	1	1

CONYERS ▲

U.S. HIGHWAY 24
IN EL PASO COUNTY

SECTIONS 5, 6 T 14 S. R. 67 W. OF THE 6TH P.M.
SEC. 31 T. 13 S. R 68 W. OF THE 6TH P.M.
SECTIONS 25, 26, 36 T 13 S. R. 68 W. OF THE 6TH P.M.



PROJECT COORDINATES

NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
9581	381949.066	158856.89	6992.634	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.81
9712	378731.759	164906.292	6618.344	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 297.12
9503	384884.427	156340.484	7146.085	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.03
9700	379262.309	164380.867	6625.027	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 297.00
9497	384994.933	156072.267	7157.701	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 294.97
9586	381749.838	159044.454	6984.54	CDOT Control Monument, 3 1/2" Alum. Cap at M.P. 295.86
CONYERS	401915.887	141761.702	7924.853	NGS Control Monument at M.P. 290.2
QUILLEN	374992.798	168814.069	6438.849	NGS Control Monument at M.P. 298.15
9711	378855.569	164769.391	6622.303	CDOT Secondary Control, nail/shiner
9701	379261.637	164499.1	6620.89	CDOT Secondary Control, nail/shiner
9702	379096.042	164679.488	6606.506	CDOT Secondary Control, nail/shiner
9703	379362.75	164403.557	6626.13	CDOT Secondary Control, nail/shiner
9704	379565.604	164262.933	6635.457	CDOT Secondary Control, nail/shiner

[Project Coordinates (ft) + (northing (1,000,000) or easting (3,000,000) reduction)] x (combined scale factor (0.9996090023) = State Plane Coordinates (ft) (Central Zone - 0502 NAD83)].

GEODETIC COORDINATES

NAME	LATITUDE NAD-83	LONGITUDE NAD-83	ELLIPSOID HEIGHT (M)	CONVERGANCE	SCALE FACTOR	NORTHING CO SPC (FT)	EASTING CO SPC (FT)	ORTHO HEIGHT (FT)	NAME	DESCRIPTION
QUILLEN	38° 51' 36.05163" N	104° 54' 41.39062" W	1946.554	0° 22' 16.18481"	0.999944710	1374992.798	3168814.069	6438.849	QUILLEN	NGS CONTROL MONUMENT
9712	38° 52' 13.24263" N	104° 55' 30.47601" W	2001.412	0° 21' 45.22716"	0.999943972	1378731.759	3164906.292	6618.343	9712	CDOT TYPE 2 CONTROL MONUMENT
9700	38° 52' 18.51767" N	104° 55' 37.07471" W	2003.467	0° 21' 41.06543"	0.999943870	1379262.309	3164380.868	6625.026	9700	CDOT TYPE 2 CONTROL MONUMENT
9586	38° 52' 43.42352" N	104° 56' 44.33287" W	2113.228	0° 20' 58.64642"	0.999943397	1381749.838	3159044.455	6984.540	9586	CDOT TYPE 2 CONTROL MONUMENT
9581	38° 52' 45.40335" N	104° 56' 46.68849" W	2115.701	0° 20' 57.16075"	0.999943360	1381949.066	3158856.890	6992.634	9581	CDOT TYPE 2 CONTROL MONUMENT
9503	38° 53' 14.55730" N	104° 57' 18.27559" W	2162.559	0° 20' 37.23910"	0.999942826	1384884.427	3156340.484	7146.085	9503	CDOT TYPE 2 CONTROL MONUMENT
9497	38° 53' 15.66506" N	104° 57' 21.65813" W	2166.109	0° 20' 35.10576"	0.999942806	1384994.933	3156072.267	7157.702	9497	CDOT TYPE 2 CONTROL MONUMENT
CONYERS	38° 56' 03.66464" N	105° 00' 21.41541" W	2400.355	0° 18' 41.73472"	0.999940120	1401915.887	3141761.702	7924.900	CONYERS	NGS CONTROL MONUMENT

GENERAL NOTES

- 1.) This Control Survey Diagram is for the use of the Colorado Department of Transportation. This survey is NOT a complete Land or Right of Way survey, nor is the Control Diagram Sheet a Land or Right of Way Survey Plat.
- 2.) The Control Survey represented by this Control Survey Diagram meets Colorado Department of Transportation minimum horizontal control tolerances for a Type B Survey (+/- 0.25' at a 95% level of certainty).
- 3.) All coordinates listed are based on G.P.S. observations taken in October of 2002.
- 4.) No guarantee as to the accuracy of the information contained hereon is implied or expressed unless this copy bears an original signature and seal of the Professional Land Surveyor certifying this Survey Control Diagram.

NOTICE: According to Colorado Law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

BASIS OF BEARING

The basis of bearing for project reference is a line from CDOT Control Monument 9581 to CDOT Control Monument 9586 having a bearing of S 43° 16' 22" E at a distance of 273.63 feet.

SURVEY SYMBOL TABLE

- ▲ Control Monument / Project
- △ Secondary Monument / Project

SURVEYOR CERTIFICATE

I hereby state that this survey was performed under my supervision and checking, for and on the behalf of the Colorado Department of Transportation, and to the best of my knowledge, the information presented hereon is true and correct.

DATE

Sheet Revisions			Sheet Revisions			Sheet Revisions		
Date	Description	Initials	Date	Description	Initials	Date	Description	Initials
03-06-13	Revised Design Reference	SDP						

RIGHT OF WAY			
Title Sheet			
Project Number: NH 0242-056			
Project Location: U.S. 24 Fire Mitigation - Cascade			
EL PASO COUNTY, COLORADO			
Project Code:	Last Mod. Date	Subset	Sheet No. Sheet Total
19358	03-06-13	1.00 of 1.00	1.00 13

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

DEPARTMENT OF TRANSPORTATION

STATE OF COLORADO

RIGHT OF WAY PLANS OF PROPOSED PROJECT NO. NH 0242-56 STATE HIGHWAY NO. 24 EL PASO COUNTY

SHEET NO.	INDEX OF SHEETS
1.00	(1) Title Sheet
1.01-1.02	(2) Exhibit EA-PE-1 & EA-PE-1A
2.01-2.02	(2) Exhibit EA-TE-2
3.01-3.02	(2) Exhibit EA-3
4.01-4.02	(2) Exhibit EA-4
5.01-5.02	(2) Exhibit EA-5
6.01-6.02	(2) Exhibit EA-PE-6 & EA-TE-6
	(13) Total Sheets

Scales of Original 11x17 Drawings
 Plan Sheets 1"=100'
 Ownership Map 1"=1000'

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CDNYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6" concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

- This Right-of-Way Plan is not a boundary survey of the adjoining property and is prepared for the Colorado Department of Transportation purposes only.
- For title information, The Colorado Department of Transportation relied on Title Commitments prepared by H. C. Peck & Associates.
- This plan set is subject to change and may not be the most current set. It is the user's responsibility to verify with CDDT that this set is the most current. The information contained on the attached drawing is not valid unless this copy bears an original signature of the Professional Land Surveyor hereon named.

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years from the date of the certification shown hereon.

COLORADO DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY PROJECT

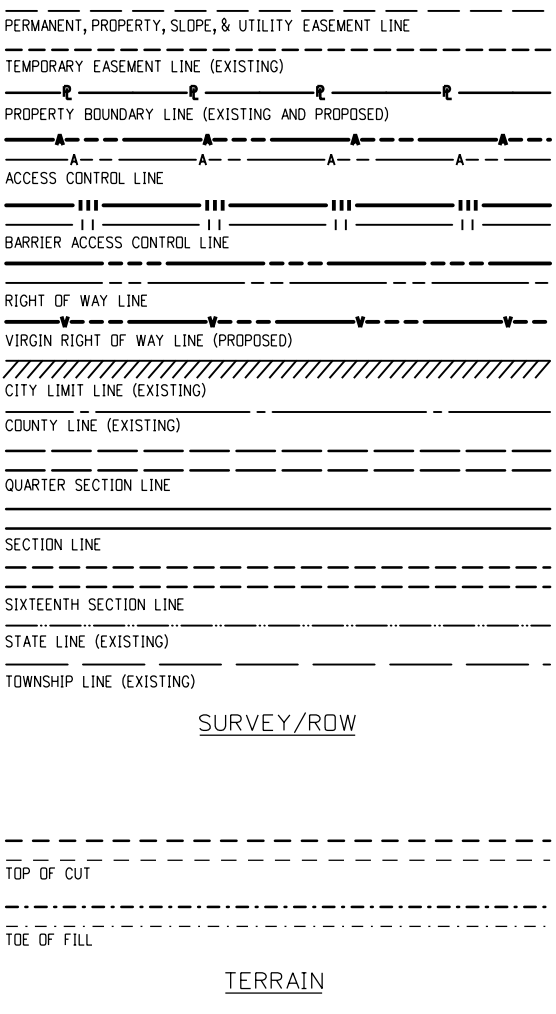
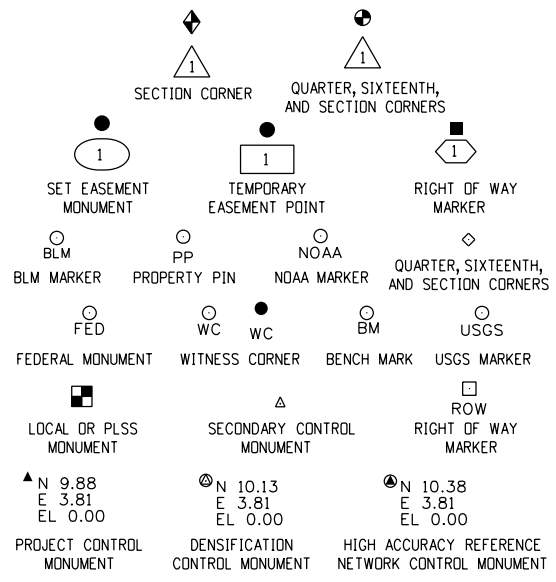
ROW PLANS AUTHORIZED: _____ DATE _____

_____ CDDT RIGHT OF WAY MANAGER

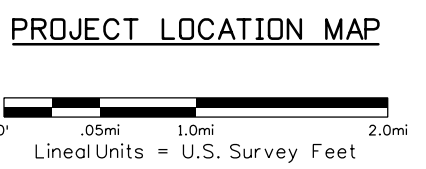
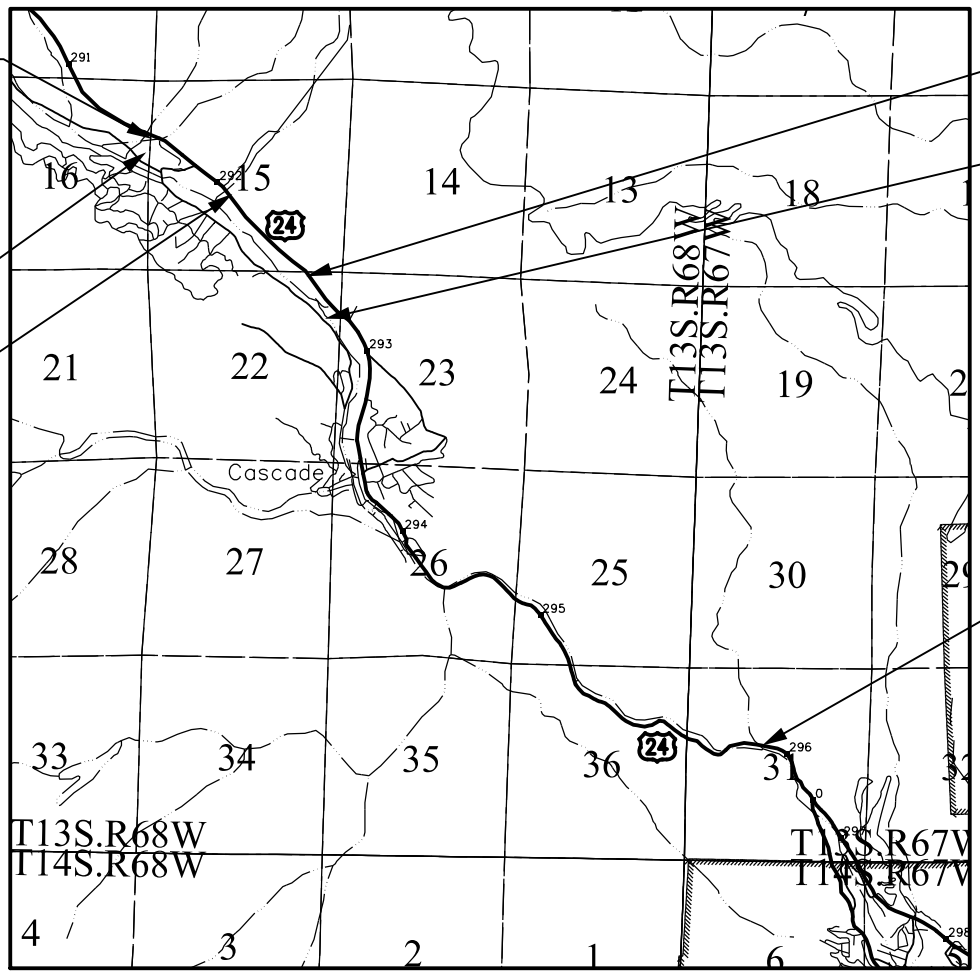
SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



Note: For a complete listing of symbology used within this set of plans, please refer to the M-100-1 Standard Symbols of the Colorado Department of Transportation M&S Standards Publication dated July 2006. Existing features are shown as screened weight (gray scale), except as noted with the word (existing). Proposed or new features are shown as full weight without screening, except as noted with the word (proposed).



FILING CERTIFICATION: _____ DAY OF _____, 20____, AT _____ M.,
 DEPOSITED THIS _____ OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
 SURVEYS AT PAGE _____, RECEPTION NUMBER _____
 SIGNED _____ DEPT. _____
 3/6/2013 sparker 12:17:49 PM P:\2012\0121426-US24 Waido Canyon\19358\ROW_Survey\Drawings\19358ROW_TitleSht.dgn

Sheet Revisions		
Date	Description	Initials

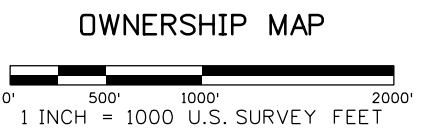
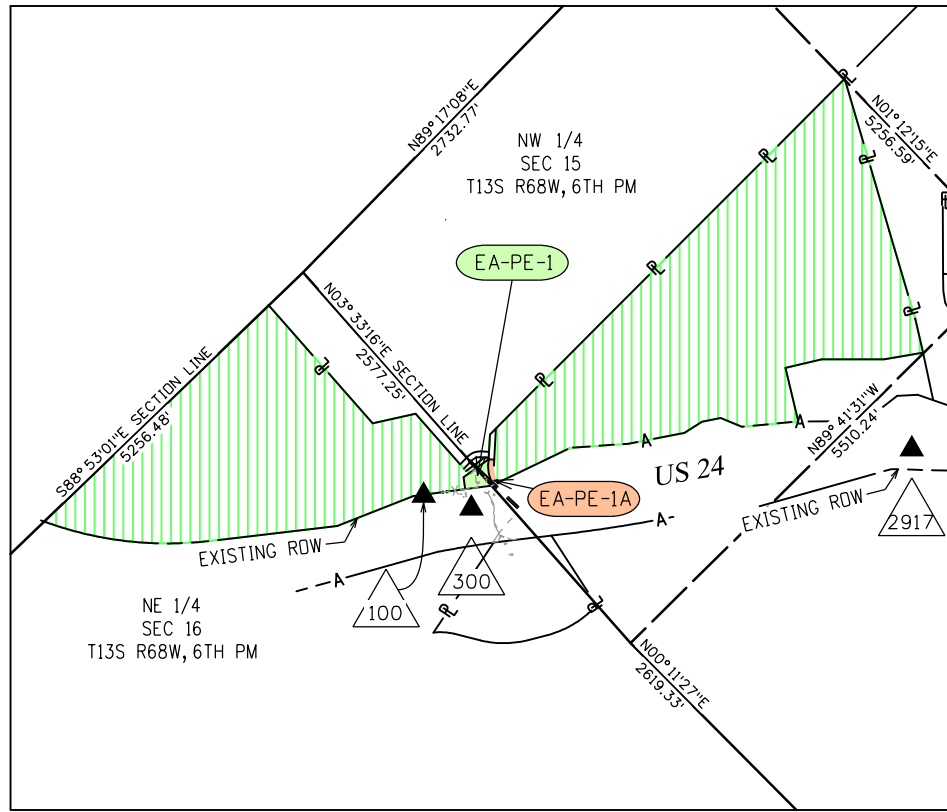
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-1 & EA-PE-1A				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	1.01 of 1.02	1.01	13

**SECTIONS 15 & 16
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO**



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
100	397916.25	145713.32	7654.78	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
300	397692.95	145841.94	7650.50	MAG. NAIL IN ASPHALT SHOULDER OF HWY 24
2917	147683.17	396289.12	7477.22	C.D.O.H. C.M. M.P. 291.7
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments prepared by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-PE-1	TWN ROCKS INVESTMENT GROUP, LLC, A COLORADO LIMITED LIABILITY COMPANY		SECTIONS 15 & 16	13,552 SQ FT (0.311 AC)				337,324 SQ FT (77.439 AC)		05490A2013	for the purpose of construction and maintenance of drainage structures
EA-PE-1A	6225 WELLINGTON GULCH CASCADE, CO 80809		SECTION 15	3,910 SQFT (0.090 AC)				346,966 SQ FT (77.660 AC)			for ingress and egress

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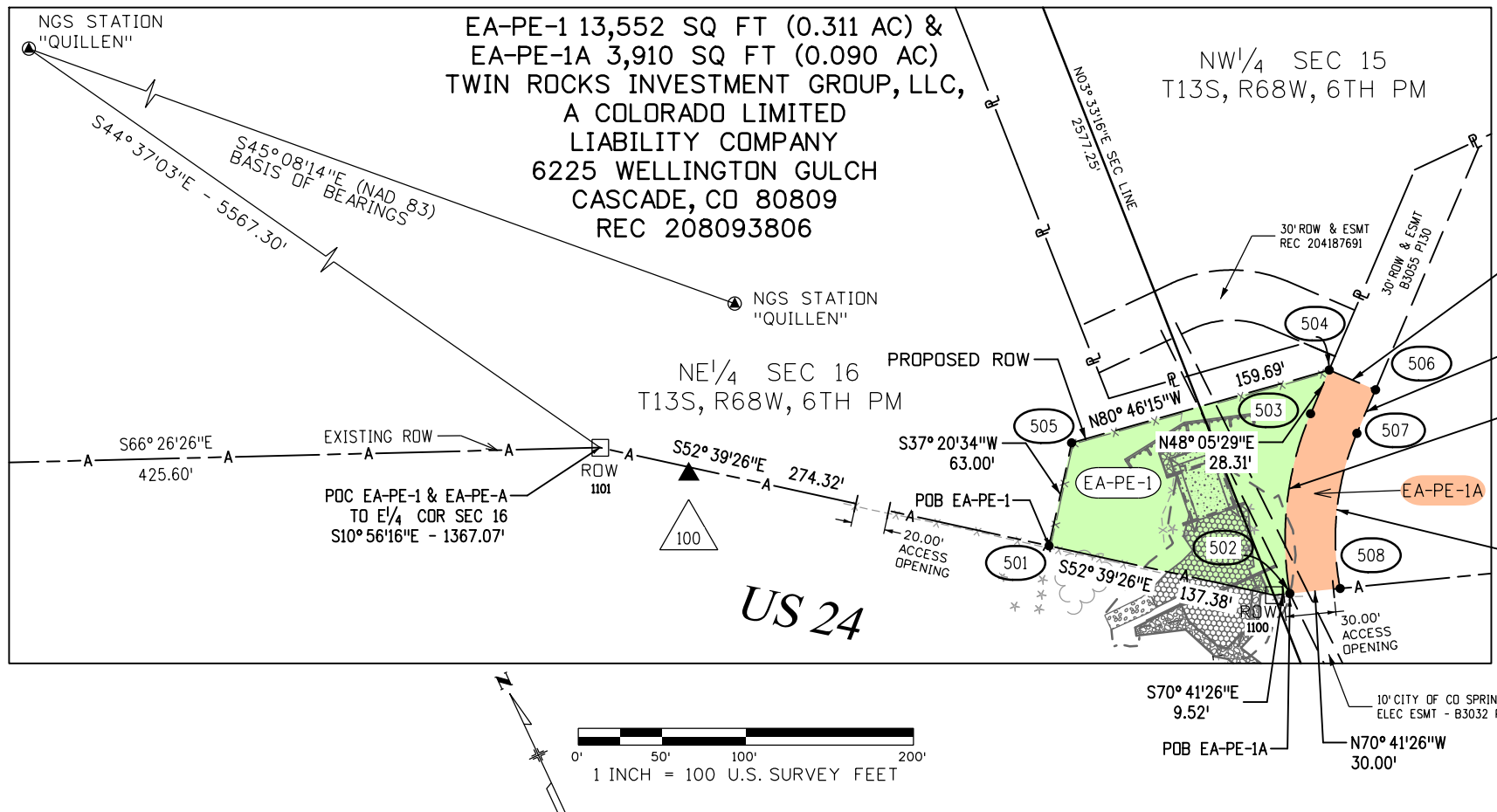
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Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 ENGINEERS ARCHITECTS SURVEYORS
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-1 & AE-PE-1A				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	1.02 of 1.02	1.02	13



Notes:
 1. The following easement covers existing facilities without a defined width or size and cannot be depicted:
 The Colorado Telephone Co. right-of-way, in Book 852 at Page 264

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
1100	397703.28	145999.32	1.5" AL CAP - LS 12043
1101	397952.90	145672.15	1.5" AL CAP - LS 12043

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
501	397786.62	145890.09	CDOT TYPE VI MONUMENT
502	397700.14	146008.30	CDOT TYPE VI MONUMENT
503	397792.18	146064.87	CDOT TYPE VI MONUMENT
504	397811.09	146085.93	CDOT TYPE VI MONUMENT
505	397836.70	145928.31	CDOT TYPE VI MONUMENT
506	397788.77	146105.97	CDOT TYPE VI MONUMENT
507	397769.86	146084.90	CDOT TYPE VI MONUMENT
508	397690.18	146036.70	CDOT TYPE VI MONUMENT

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drill hole in sandstone near mile post 298.15. Said line bears S45° 08'14"E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

SURVEYOR STATEMENT (R.O.W. MONUMENTS)
 I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.
 PLS No. 37948



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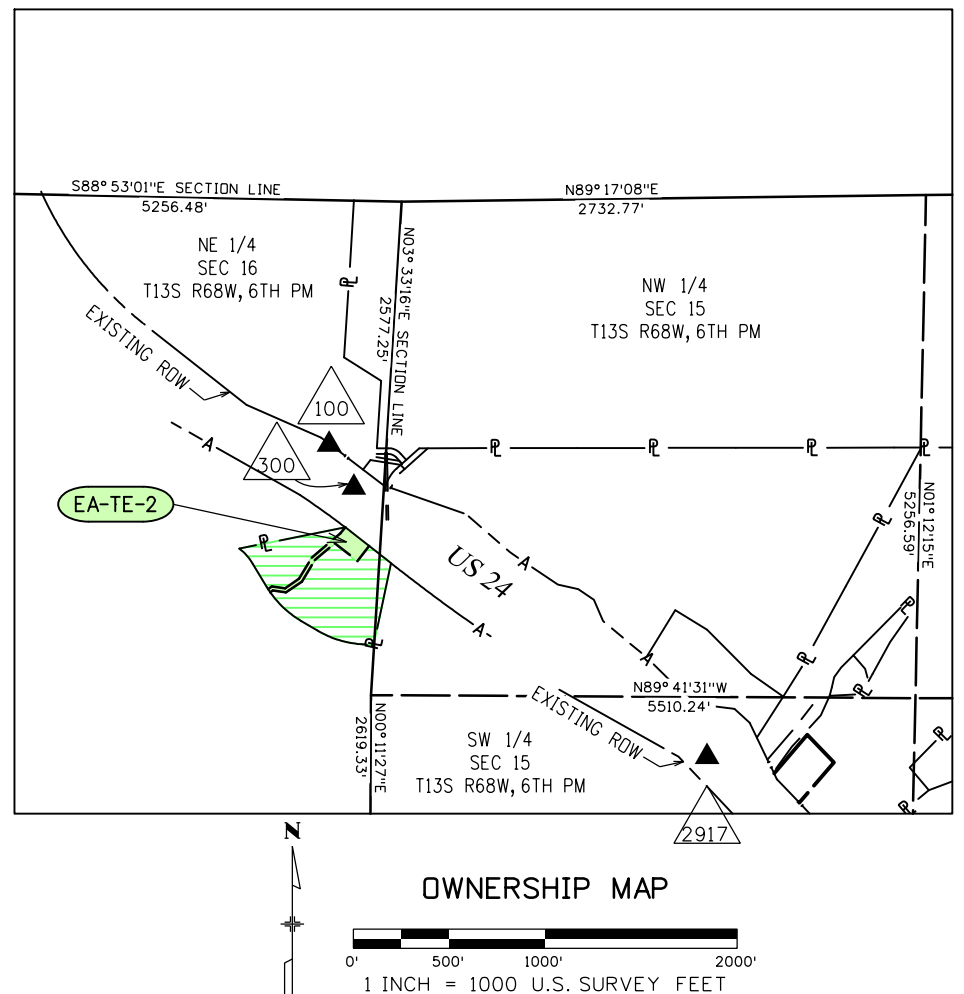
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 COLORADO SPRINGS, COLORADO 80907
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 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-TE-2				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	2.01 of 2.02	2.01	13

SECTION 16
T13S, R68W, 6TH PM
EL PASO COUNTY, CO



General Notes:

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3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For owner information Farnsworth Group, Inc. relied on documents provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
100	397916.25	145713.32	7654.78	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
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2917	147683.17	396289.12	7477.22	C.D.O.H. C.M. M.P. 291.7
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/OR Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
AE-TE-2	SCHOOL DISTRICT NO 14 405 EL MONTE PL MANITOU SPRINGS, CO 80829-2502	9230 CHIPITA PARK RD	SECTION 16	25,163 SQ FT (05.578 AC)							FOR CONSTRUCTION OF OUTLET PROTECTION FOR EXISTING BOX CULVERT

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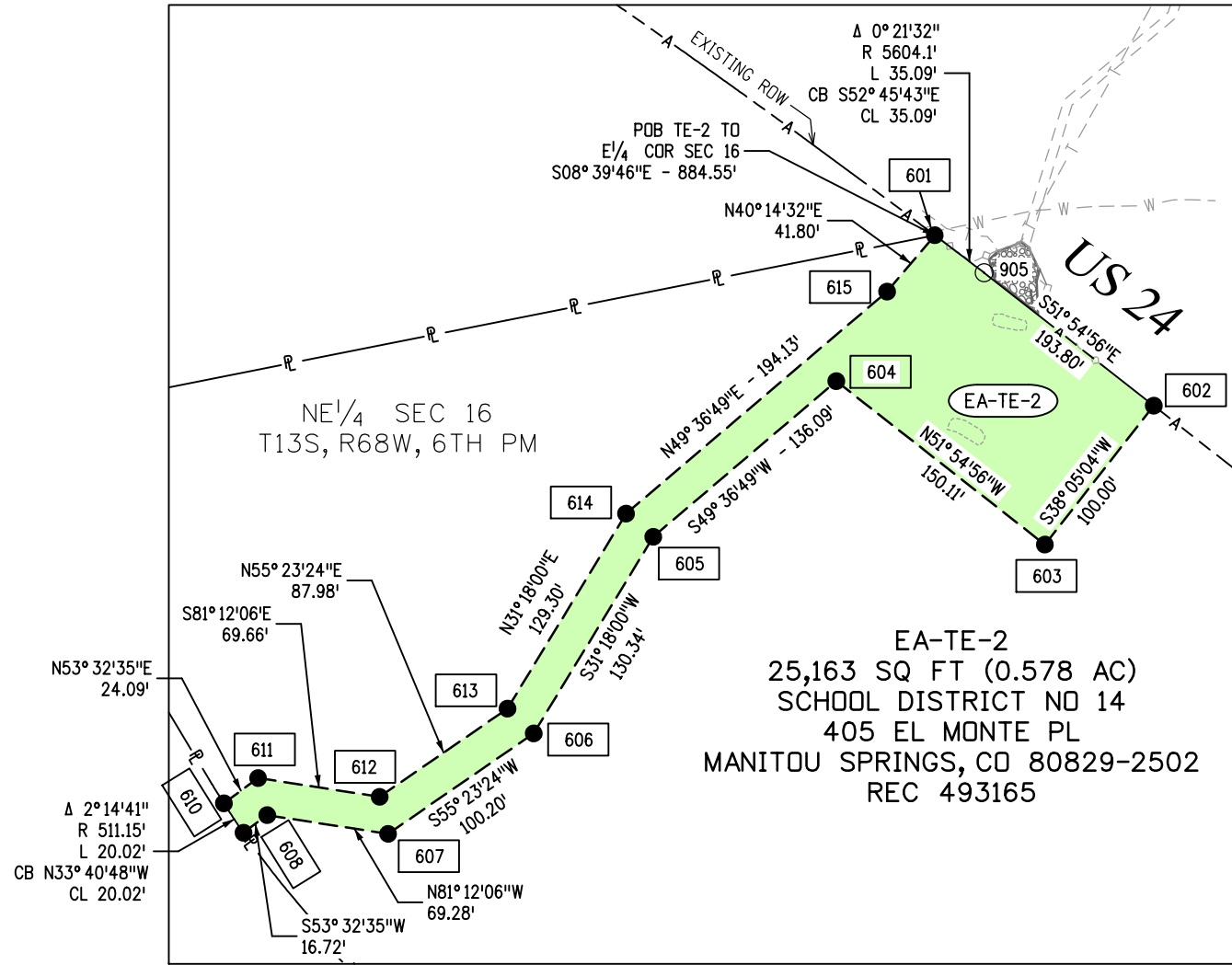
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Date	Description	Initials
03-06-13	Revised Design Reference	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-TE-2				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	2.02 of 2.02	2.02	13

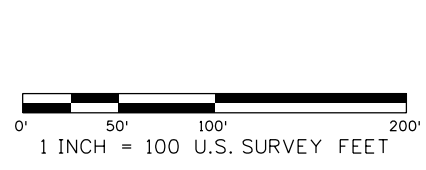


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TABULATION OF TEMPORARY EASEMENTS POINTS TO BE STAKED			
Point No.	Northing(ft)	Easting(ft)	Description
601	397485.24	145798.17	
602	397388.69	145922.20	
603	397309.98	145860.52	
604	397402.57	145742.37	
605	397314.40	145638.71	
606	397203.03	145571.00	
607	397146.11	145488.53	
608	397156.71	145420.06	
609	397146.77	145406.61	
610	397163.43	145395.50	
611	397177.75	145414.88	
612	397167.09	145483.72	
613	397217.06	145556.13	
614	397327.54	145623.30	
615	397453.33	145771.17	

○
 XXX

TABULATION OF Calculated Points			
Point No.	Northing(ft)	Easting(ft)	Description
905	397464.00	145826.11	



Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drill hole in sandstone near mile post 298.15. Said line bears S45° 08'14"E per CDDT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



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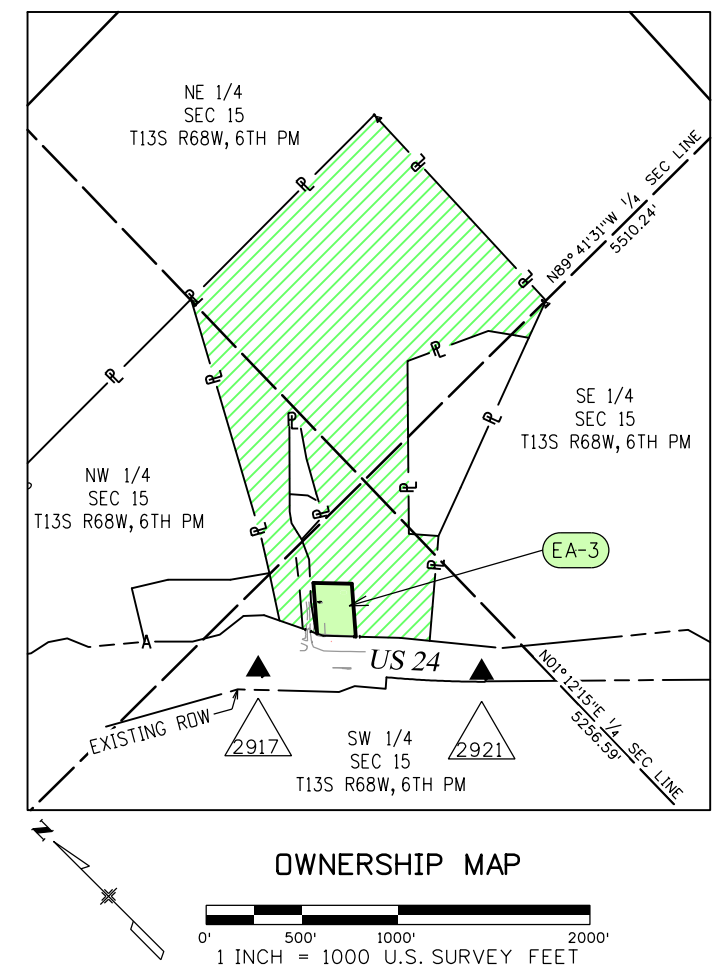
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Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-3				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	02-22-13	3.01 of 3.02	3.01	13

SECTION 15
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO



General Notes:

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3. Existing right-of-way lines were established using CDOT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments prepared by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.
 Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
2917	396289.12	147683.17	7477.22	C.D.O.H. C.M. M.P. 291.7
2921	395454.64	148495.48	7468.19	C.D.O.H. C.M. M.P. 292.1
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)				Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left			
EA-3	KAHLM, LLC, A COLORADO LIMITED LIABILITY COMPANY 5975 WELLINGTON RD CASCADE, CO 80809-1025		SECTION 15	54,839 SQ FT (1.259 AC)				2,525,483 SQ FT (57.977 AC)	05489A2013	

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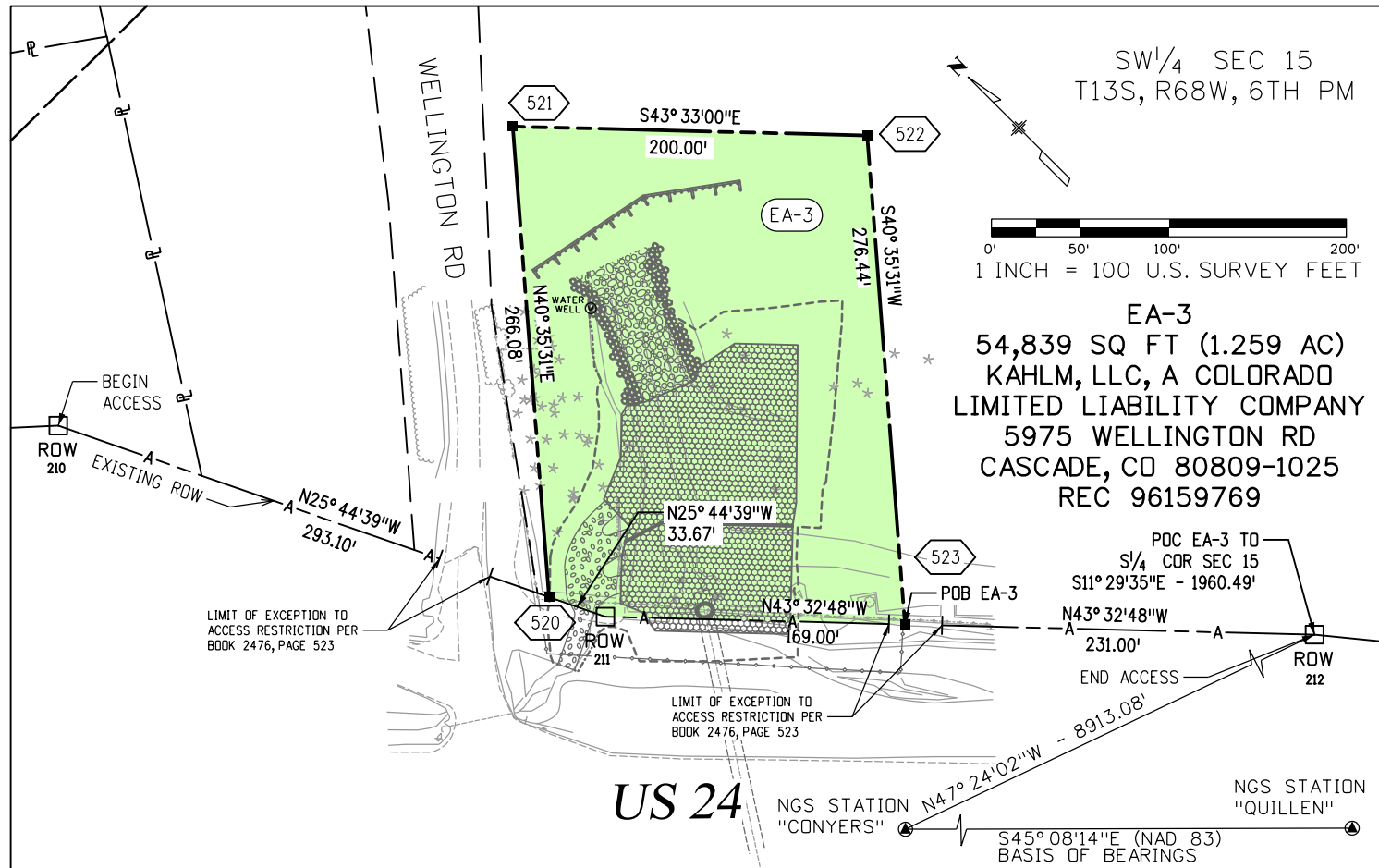
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Date	Description	Initials
03-06-13	Revised Design References	SDP
03-06-13	Added Water Well Location	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
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 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-3				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	3.02 of 3.02	3.02	13



Notes:

1. The exact location and type of right-of-way of Wellington Road is unknown at this time. Vesting deeds reference Book 601, Page 457 which is illegible in many areas and Book 123, Page 65 which does not exist according to the Title Commitment. The approximate right-of-way line based on fences and utilities is shown.
2. Easement for waterline in Book 3534, Page 225 adjacent to Wellington Road cannot be depicted as no width has been designated.
3. Easement for Plateau Natural Gas Company in Book 1994, Page 289 along the northerly side of Highway 24 cannot be depicted as no width has been designated.
4. Easement for Colorado Telephone Co. in Book 358, Page 577 cannot be depicted as no specific location has been noted.

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173.
 See www.ngs.noaa.gov for data sheets containing detailed location information.

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
210	147905.17	396467.07	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP
211	148047.07	396172.82	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP
212	148322.66	395882.87	FND. CDOT ROW MON W/ 3 1/4" ALUM. CAP

TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
520	396203.15	148032.44	CDOT TYPE I MONUMENT
521	396405.20	148205.57	CDOT TYPE I MONUMENT
522	396260.25	148343.37	CDOT TYPE I MONUMENT
523	396050.32	148163.50	CDOT TYPE I MONUMENT

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



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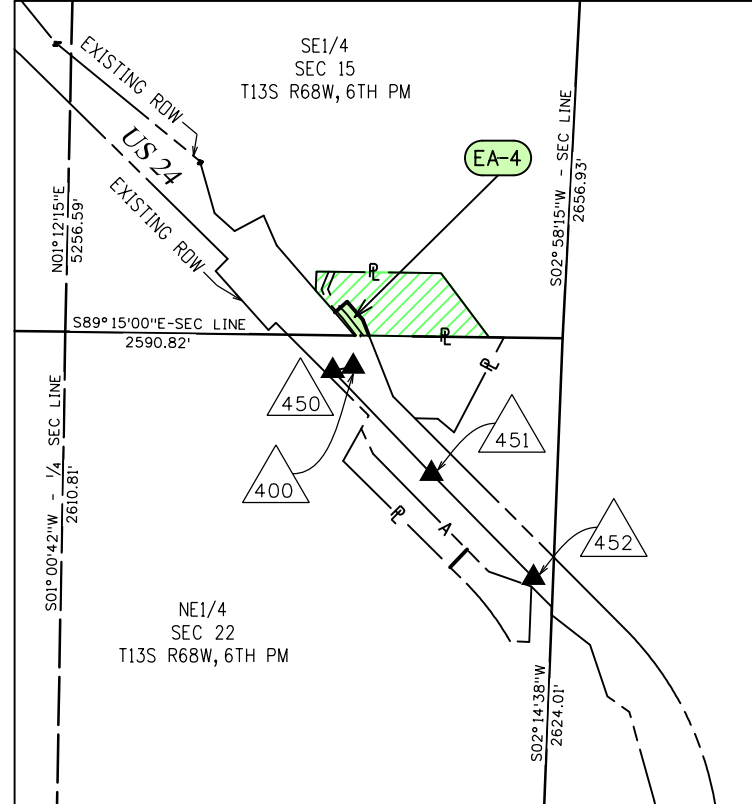
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 www.fw.com

RIGHT OF WAY EXHIBIT EA-4				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code: 19358	Last Mod. Date: 02-22-13	Subset: 4.01 of 4.02	Sheet No.: 4.01	Sheet Total: 13

SECTION 15
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO



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3. Existing right-of-way lines were established using CDDT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDDT ControlDiagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.
 Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).
 Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDDT ControlDiagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
400	393870.32	150213.02	7519.56	MAG NAIL
450	393758.48	150106.52	7523.40	MAG NAIL IN ASPHALT SHOULDER OF HWY 24
451	393221.94	150621.04	7482.85	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
452	392679.37	151152.33	7479.74	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-4	ANTONI POGERZELSKI & LIDIA POGERZELSKI 8989 W BUSINESS 83 HARLINGEN, TX 78552-2283		SE1/4 SEC 15	15,086 SQ FT (0.346 AC)				218,553 SQ FT (5.017 AC)		05491A2013	

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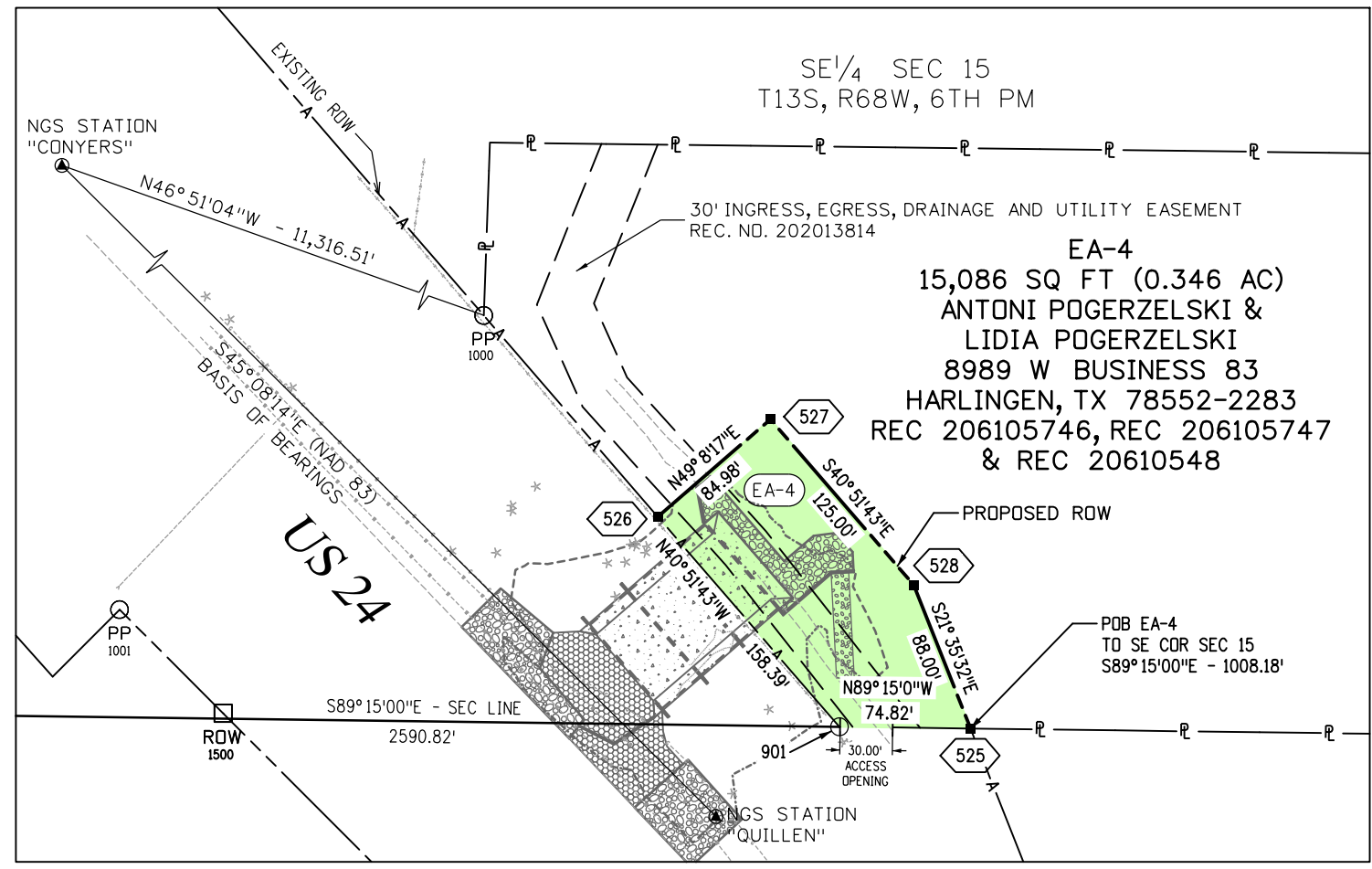
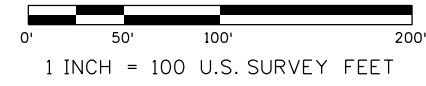
Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 4755 FORGE ROAD, SUITE 150
 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-4				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	4.02 of 4.02	4.02	13



Notes:

- The following easements are either generally described or cover existing facilities without a defined width or size and cannot be depicted:
 Plateau Natural Gas Company, in Book 1994 at Page 289
 The Mountain States Telephone and Telegraph Co., in Book 852 at Page 264
 Ute Pass Improvement Co., in Book 358 at Page 577

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.



TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
525	393941.00	150295.77	CDOT TYPE I MONUMENT
526	394061.76	150117.34	CDOT TYPE I MONUMENT
527	394117.36	150181.60	CDOT TYPE I MONUMENT
528	394022.82	150263.38	CDOT TYPE I MONUMENT

FOUND R.O.W. MONUMENT COORDINATE TABLE			
Point No.	Northing(ft)	Easting(ft)	Description
1000	394176.58	150018.01	1.5" AL CAP - LS 12043
1001	394008.78	149810.29	1.5" AL CAP - LS 15672
1500	393949.65	149869.42	3.25" BRASS CAP IN CONC

TABULATION OF Calculated Points			
Point No.	Northing(ft)	Easting(ft)	Description
901	393941.98	150220.96	

SURVEYOR STATEMENT (R.O.W. MONUMENTS)
 I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.
 PLS No. 37948



Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY EXHIBIT EA-5				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date	Subset	Sheet No.	Sheet Total
19358	02-22-13	5.01 of 5.02	5.01	13

SECTION 22
 T13S, R68W, 6TH PM
 EL PASO COUNTY, CO

General Notes:

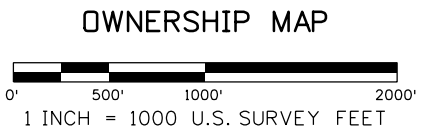
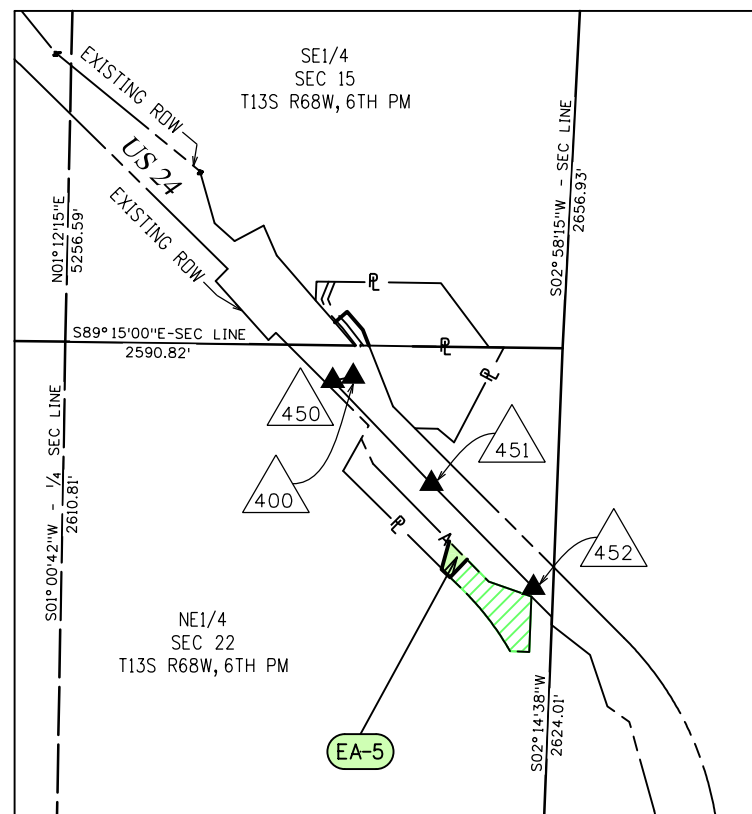
1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDDT Project No. F024-2(1) Sec. 1 Right-of-Way Plans. Aliquot section corners and lines are per CDDT ControlDiagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDDT ControlDiagram Sheet, Project No. 141173, dated Feb 19, 2003.



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
400	393870.32	150213.02	7519.56	MAG NAIL
450	393758.48	150106.52	7523.40	MAG NAIL IN ASPHALT SHOULDER OF HWY 24
451	393221.94	150621.04	7482.85	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
452	392679.37	151152.33	7479.74	18" #5 REBAR W/RPC "FARNSWORTH CONTROL POINT"
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPPING 'QUILLEN 1992'

R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-68-W, 6TH PM	Area In Square Feet (Acres)					Book and Page No. And/OR Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left	Remainder Right			
EA-5	PATRICIA G ROBBINS PO BOX 6 MANITOU SPRINGS, CO 80829-0006		NE1/4 SEC 22	12,462 SQ FT (0.286 AC)			92,953 SQ FT (2.134 AC)			05493A2013	

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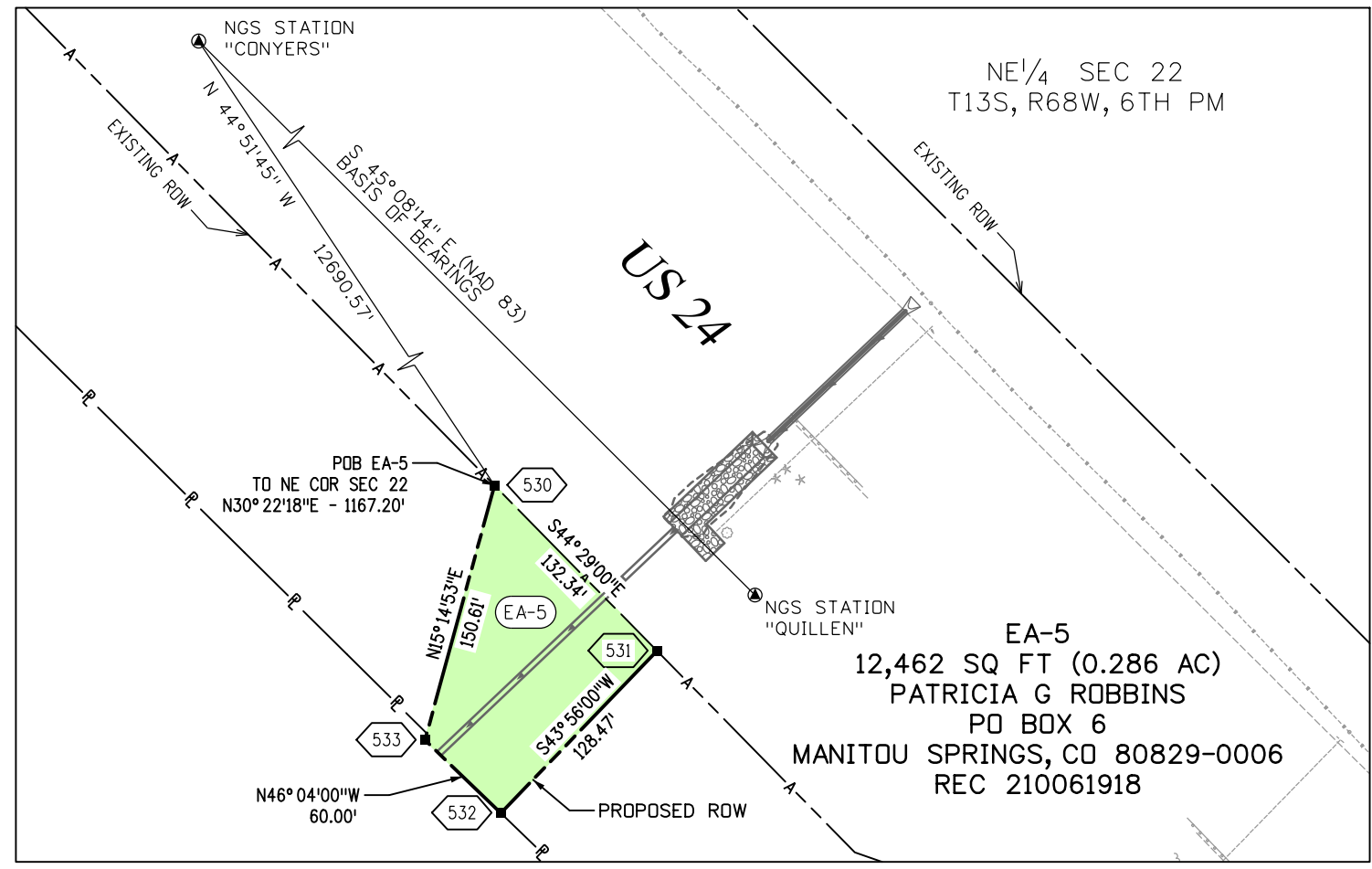
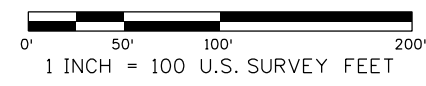
Sheet Revisions		
Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-5				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	03-06-13	5.02 of 5.02	5.02	13



Notes:

- The following easement covers existing facilities without a defined width or size and cannot be depicted:

The Mountain States Telephone and Telegraph Co., in Book 852 at Page 264

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45°08'14"E per CDOT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.



TABULATION OF R.O.W. MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
530	392920.78	150713.72	CDOT TYPE I MONUMENT
531	392826.36	150806.45	CDOT TYPE I MONUMENT
532	392733.84	150717.32	CDOT TYPE I MONUMENT
533	392775.47	150674.11	CDOT TYPE I MONUMENT

SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



Sheet Revisions		
Date	Description	Initials

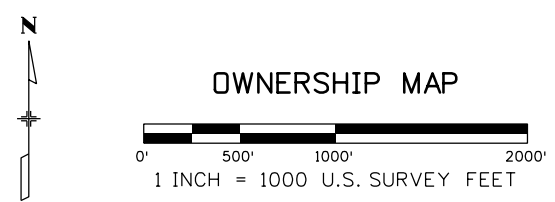
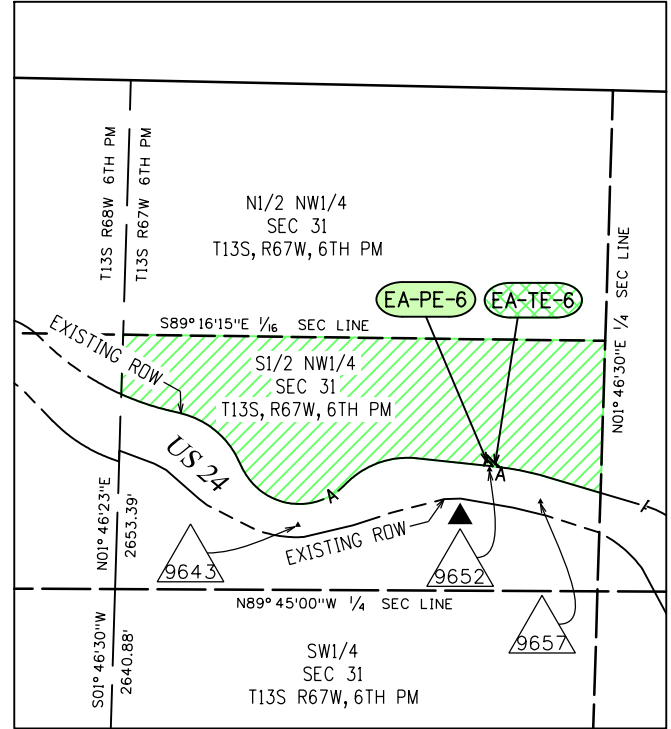
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Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

Farnsworth GROUP
 ENGINEERS ARCHITECTS SURVEYORS
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 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-6 & EA-TE-6				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code:	Last Mod. Date:	Subset:	Sheet No.:	Sheet Total:
19358	02-22-13	6.01 of 6.02	6.01	13

SECTION 31
T13S, R67W, 6TH PM
EL PASO COUNTY, CO



PROJECT CONTROL TABLE				
Point No.	Project Coordinates		Elev(ft) (NAVD88)	Description
	Northing(ft)	Easting(ft)		
9643	380755.29	161775.03	6825.52	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.43
9652	381044.37	162773.78	6758.02	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.52
9657	380876.75	163038.92	6738.45	CDOT TYPE II 3.25" ALUM. CAP M.P. 296.57
CONYERS	401915.89	141761.70	7924.85	SMOOTH STEEL ROD IN LOGO BOX 'CONYERS 1991'
QUILLEN	374992.80	168814.07	6438.85	3.25IN DIA BRASS CAP IN STONE OURCROPING 'QUILLEN 1992'

General Notes:

1. This Right-of-Way Exhibit is not a complete boundary survey of all adjoining owners and is prepared for the Colorado Department of Transportation purposes only.
2. Notice: According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon such defect in this survey be commenced more than ten years from the date of certification hereon.
3. Existing right-of-way lines were established using CDOT Project No. F017-1(2) Right-of-Way calculations and control monuments, provided by CDOT. Aliquot section corners and lines are per CDOT Control Diagram Sheet for Project CX 04-0024-45.
4. For title information Farnsworth Group, Inc. relied on title commitments provided by H. C. Peck and Associates.

COORDINATE DATUM: Project coordinates are modified Colorado State Plane Central Zone NAD '83/(92) coordinates. The combined elevation/scale factor used to modify the coordinates from state plane to project coordinates is 1.0003911506. The resulting project coordinates are truncated by 3,000,000sft in the Northing and 1,000,000sft in the Easting after converting from state plane coordinates to project coordinates. The CHARN is based on the NAD '83(92) datum.

Project Coordinates Northing US Survey Feet = (State Plane Coordinate Northing * 1.0003911506 - 3,000,000) * (3937/1200).

Project Coordinates Easting US Survey Feet = (State Plane Coordinate Easting * 1.0003911506 - 1,000,000) * (3937/1200).

Basis of Elevations: Project elevations are based on NAVD 88 values published on the CDOT Control Diagram Sheet, Project No. 141173, dated Feb 19, 2003.



R.O.W. TABULATION OF PROPERTIES IN EL PASO COUNTY - U.S. NO. 24

Parcel No.	Ownership Name and Mailing Address	Site Address	Location T-13-S R-67-W, 6TH PM	Area In Square Feet (Acres)				Book and Page No. And/Or Reception No.	Title Commitment No.	Remarks
				Area Of Parcel	Existing ROW	Net Area	Remainder Left			
EA-PE-6	AMERICAN CHRISTIAN COLLEGE, INC., AN OKLAHOMA CORPORATION, DBA SUMMIT YOUTH MINISTRIES, INC.		S1/2 NW1/4 SEC 31	844 SQ FT (0.019 AC)				1,567,332 SQ FT (35.981 AC)	05526A2013	
EA-TE-6	PO BOX 207 MANITOU SPRINGS, CO 80829-0207		SAME	1179 SQ FT (0.027 AC)						For construction and maintenance of headwalls and wingwalls for existing culvert

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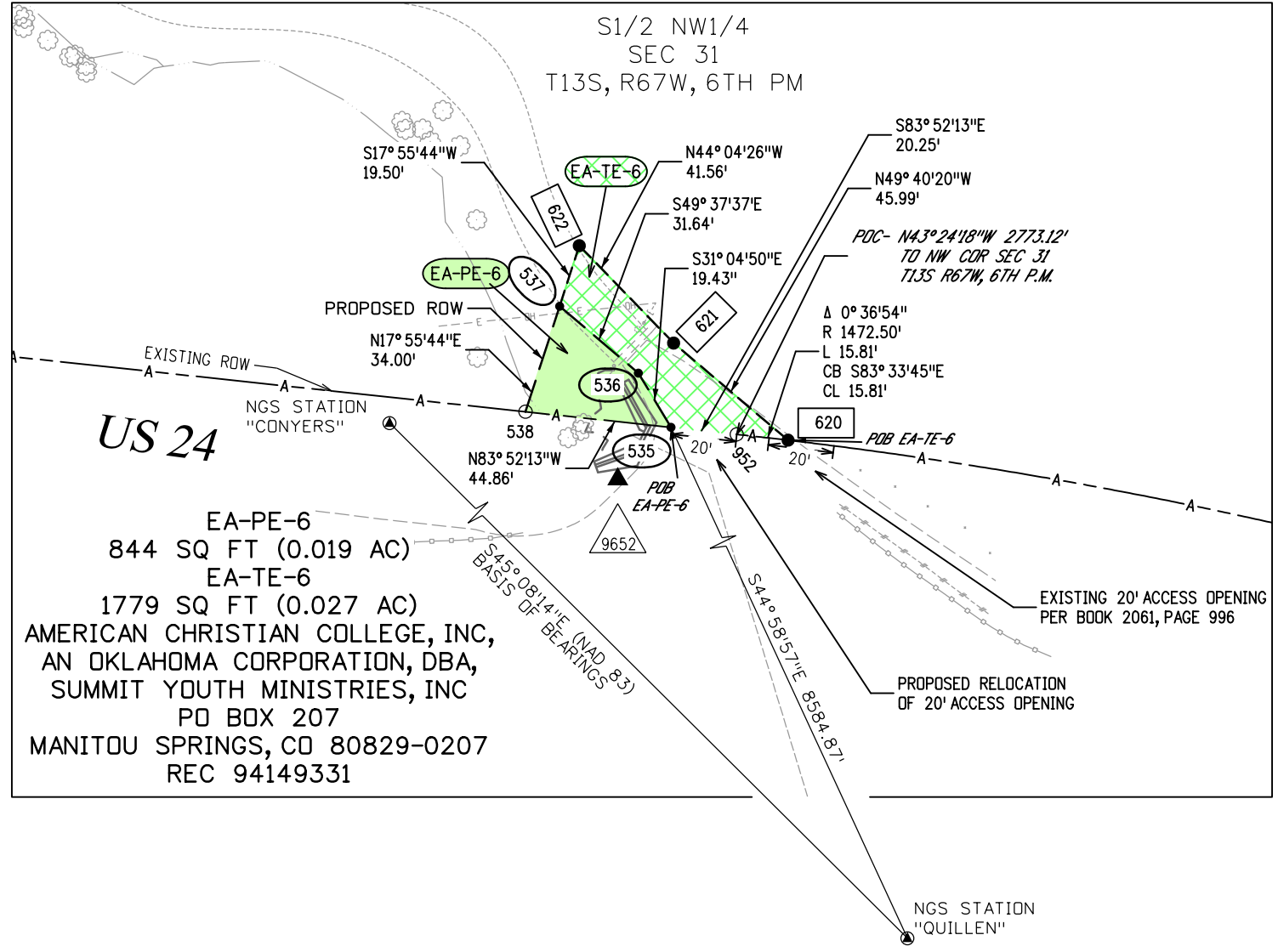
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Date	Description	Initials
03-06-13	Revised Design References	SDP

Sheet Revisions		
Date	Description	Initials

Sheet Revisions		
Date	Description	Initials

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 COLORADO SPRINGS, COLORADO 80907
 (719) 590-9194 / (719) 590-9111 Fax
 www.fw.com

RIGHT OF WAY				
EXHIBIT EA-PE-6 & EA-TE-6				
Project Number: NH 0242-056				
Project Location: U.S. 24 Fire Mitigation - Cascade				
EL PASO COUNTY, COLORADO				
Project Code: 19358	Last Mod. Date: 03-06-13	Subset: 6.02 of 6.02	Sheet No.: 6.02	Sheet Total: 13



Notes:

- Right-of-way for Waldo Canyon Creek is an exception to title; however, exact location and size of this right-of-way is unknown at this time, and can not be depicted.

TABULATION OF TEMPORARY EASEMENT POINTS TO BE STAKED			
Point No.	Northing(ft)	Easting(ft)	Description
620	381056.34	162825.94	
621	381086.1	162790.88	
622	381115.96	162761.97	

TABULATION OF PERMANENT EASEMENT MONUMENTS TO BE SET			
Point No.	Northing(ft)	Easting(ft)	Description
535	381060.27	162790.10	CDOT TYPE VI MONUMENT
536	381076.92	162780.07	CDOT TYPE VI MONUMENT
537	381097.41	162755.96	CDOT TYPE VI MONUMENT
538	381065.06	162745.50	CDOT TYPE VI MONUMENT

TABULATION OF CALCULATED POINTS			
Point No.	Northing(ft)	Easting(ft)	Description
952	381058.11	162810.23	

Basis of Bearings: Bearings are Colorado State Plane, Central Zone, NAD 83/92, based on a line between NGS station "CONYERS" PID - JK1354, a steelrod encased in PVC with NGS logo cap set in 1.6' concrete post near mile post 290.2, and NGS station "QUILLEN" PID - JK1385, a drillhole in sandstone near mile post 298.15. Said line bears S45° 08' 14" E per CDOT control diagram for project number 14173. See www.ngs.noaa.gov for data sheets containing detailed location information.

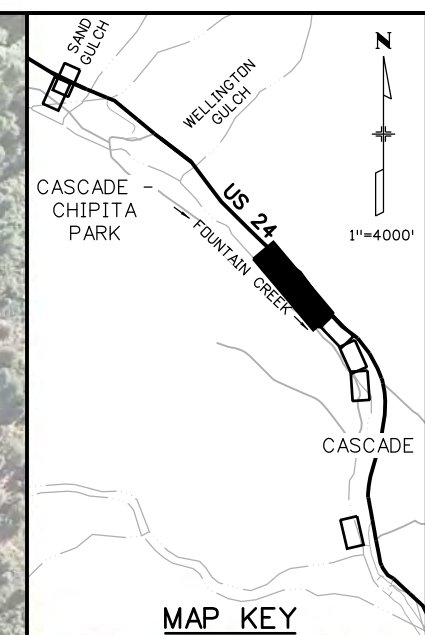
SURVEYOR STATEMENT (R.O.W. MONUMENTS)

I, Fredrick L. Easton, a professional land surveyor licensed in the State of Colorado, do hereby state to the Colorado Department of Transportation that based upon my knowledge, information and belief, adequate research, calculations and evaluation of survey evidence were performed and the Right-of-Way monuments depicted on this Right-of-Way Plan were set under my responsible charge in accordance with applicable standards of practice defined by Colorado Department of Transportation publications. This statement is not a guaranty or warranty, either expressed or implied.

PLS No. 37948



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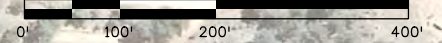
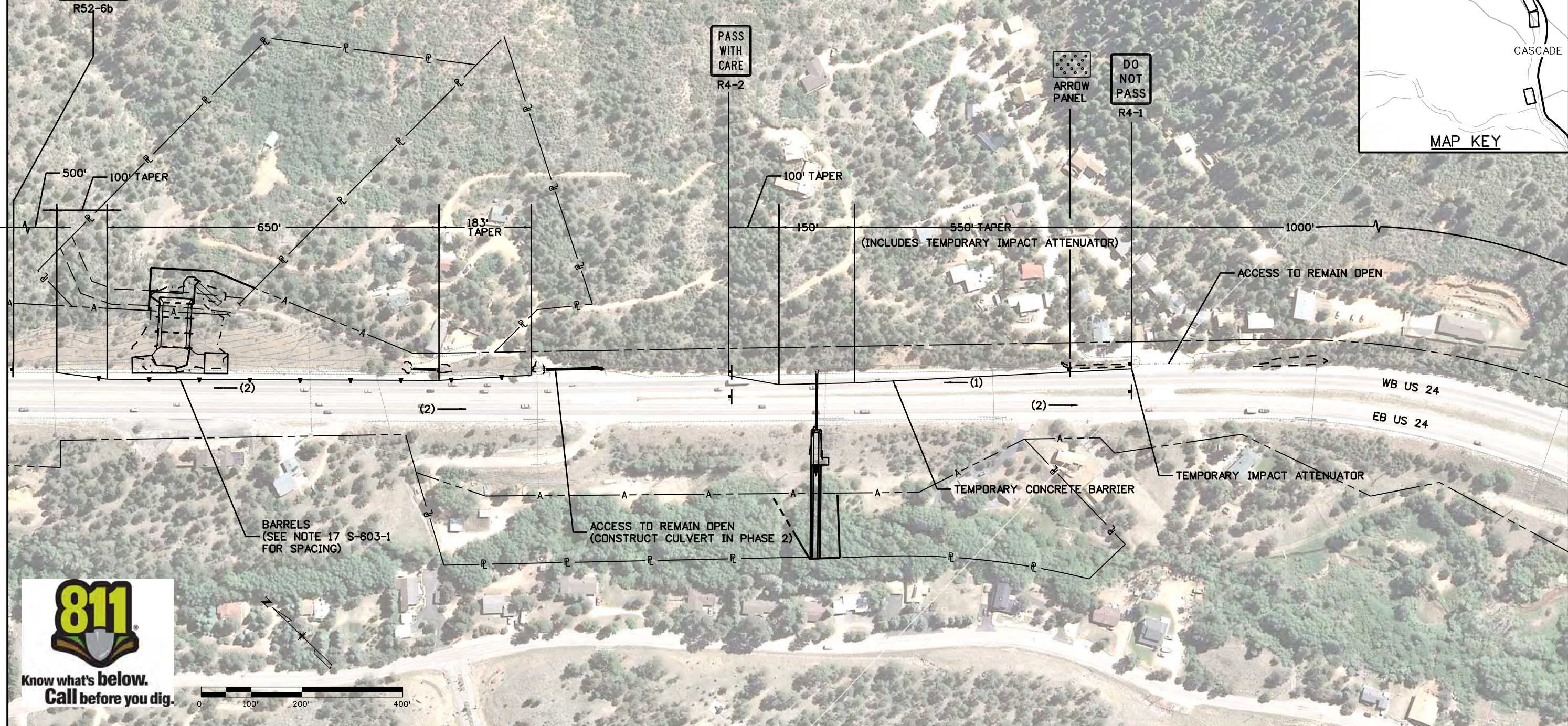
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 — CONSTRUCTION SIGNS

END FINES DOUBLE IN WORK ZONE
 R52-6b

PASS WITH CARE
 R4-2

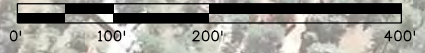
ARROW PANEL

DO NOT PASS
 R4-1



Print Date: 3/19/2013		Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON CONSTRUCTION TRAFFIC CONTROL POUR POINT C - PHASE 1		Project No./Code			
File Name: 19358Traffic_CTC_Cascade_01.dgn		Date:	Comments	Init.	 1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298 Region 2 LM		No Revisions:		Designer: JSC Detailer: - Sheet Subset: TRAFFIC		NH 0242-056			
Horiz. Scale: 1:200 Vert. Scale: As Noted							Revised:				Structure Numbers		19358	
Unit Information Unit Leader Initials							Void:				Subset Sheets: CTC-01 of 10		Sheet Number 131	
 6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440														

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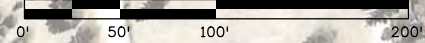
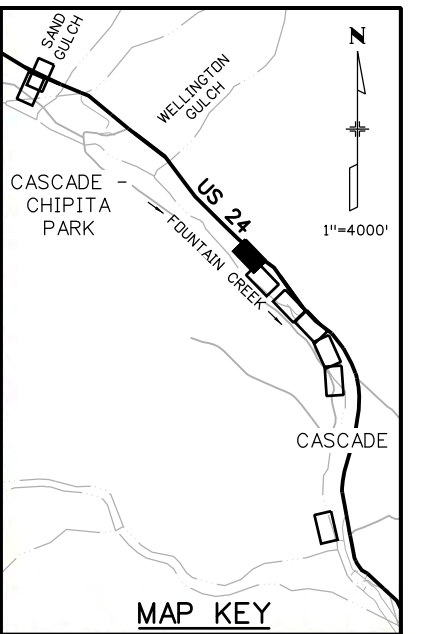
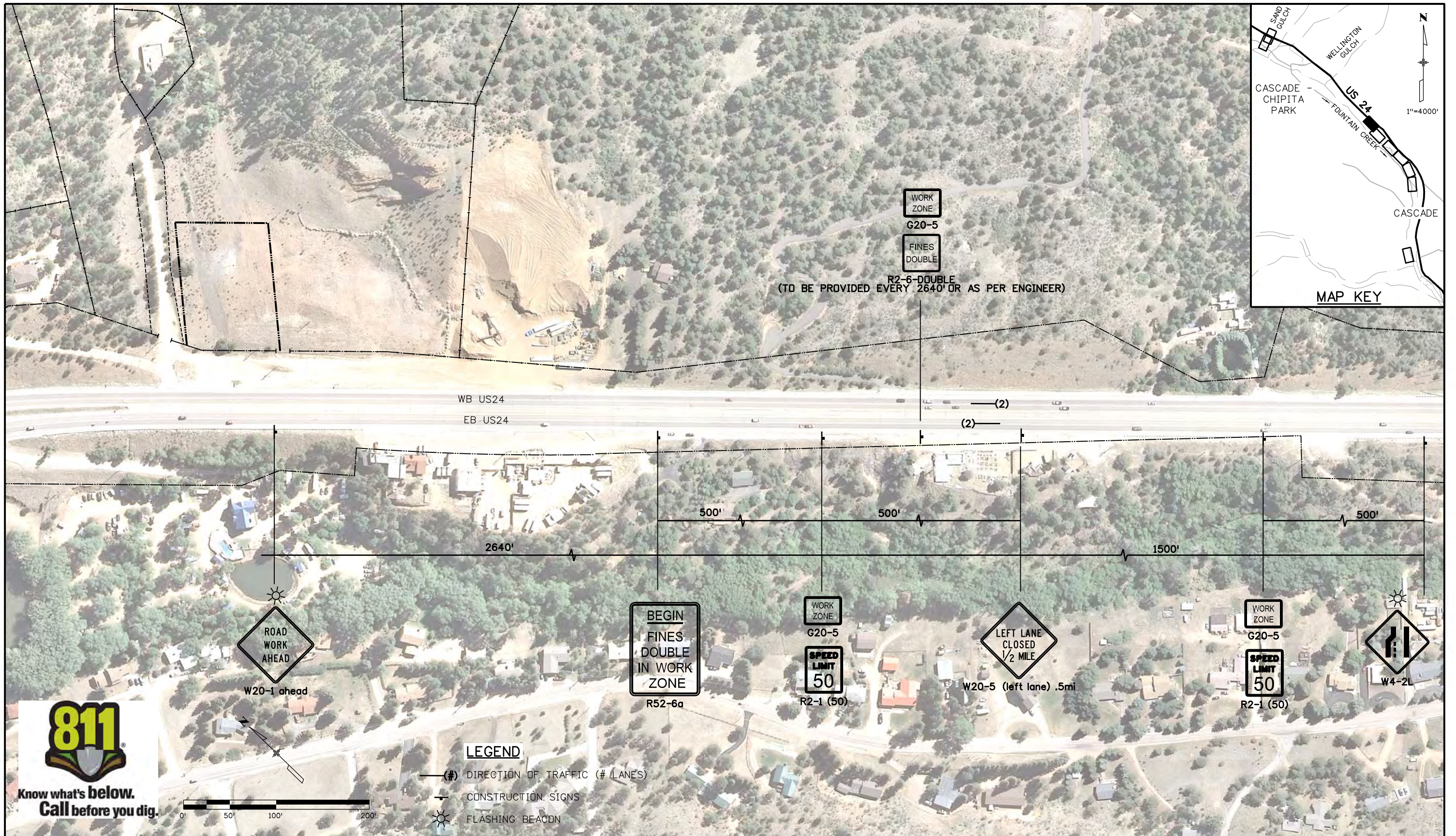


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- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- FLASHING BEACON

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Horiz. Scale: 1:200 Vert. Scale: As Noted					Region 2 LM		Revised:		9358		
Unit Information Unit Leader Initials							Void:		Sheet Number 132		
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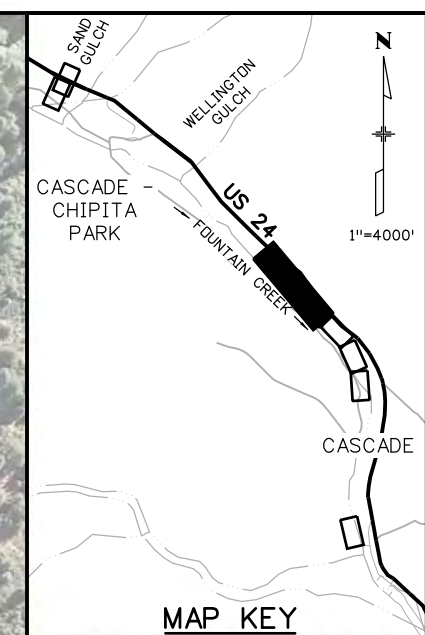


LEGEND

- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- ☀ FLASHING BEACDN

Print Date: 3/19/2013 File Name: 19358Traffic_CTC_Cascade_03.dgn Horiz. Scale: 1:200 Vert. Scale: As Noted Unit Information Unit Leader Initials		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">Sheet Revisions</th> </tr> <tr> <th>Date:</th> <th>Comments</th> <th>Init.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Sheet Revisions			Date:	Comments	Init.										<p>Colorado Department of Transportation</p> <p>1480 Quail Lake Loop Colorado Springs, CO 80806 Phone: 719-227-3201 FAX: 719-227-3298</p> <p>Region 2 LM</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">As Constructed</th> </tr> </thead> <tbody> <tr> <td>No Revisions:</td> <td> </td> </tr> <tr> <td>Revised:</td> <td> </td> </tr> <tr> <td>Void:</td> <td> </td> </tr> </tbody> </table>	As Constructed		No Revisions:		Revised:		Void:		<p>US 24 WALDO CANYON CONSTRUCTION TRAFFIC CONTROL POUR POINT C - PHASE 2</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Designer:</td> <td>JSC</td> <td>Structure Numbers</td> <td> </td> </tr> <tr> <td>Detailer:</td> <td>-</td> <td> </td> <td> </td> </tr> <tr> <td>Sheet Subset:</td> <td>TRAFFIC</td> <td>Subset Sheets:</td> <td>CTC-03 of 10</td> </tr> </table>	Designer:	JSC	Structure Numbers		Detailer:	-			Sheet Subset:	TRAFFIC	Subset Sheets:	CTC-03 of 10	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Project No./Code</td> <td>NH 0242-056</td> </tr> <tr> <td> </td> <td>19358</td> </tr> <tr> <td>Sheet Number</td> <td>133</td> </tr> </table>	Project No./Code	NH 0242-056		19358	Sheet Number	133
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LEGEND

(#) DIRECTION OF TRAFFIC (# LANES)

CONSTRUCTION SIGNS

**END
FINES
DOUBLE
IN WORK
ZONE**

R52-6b

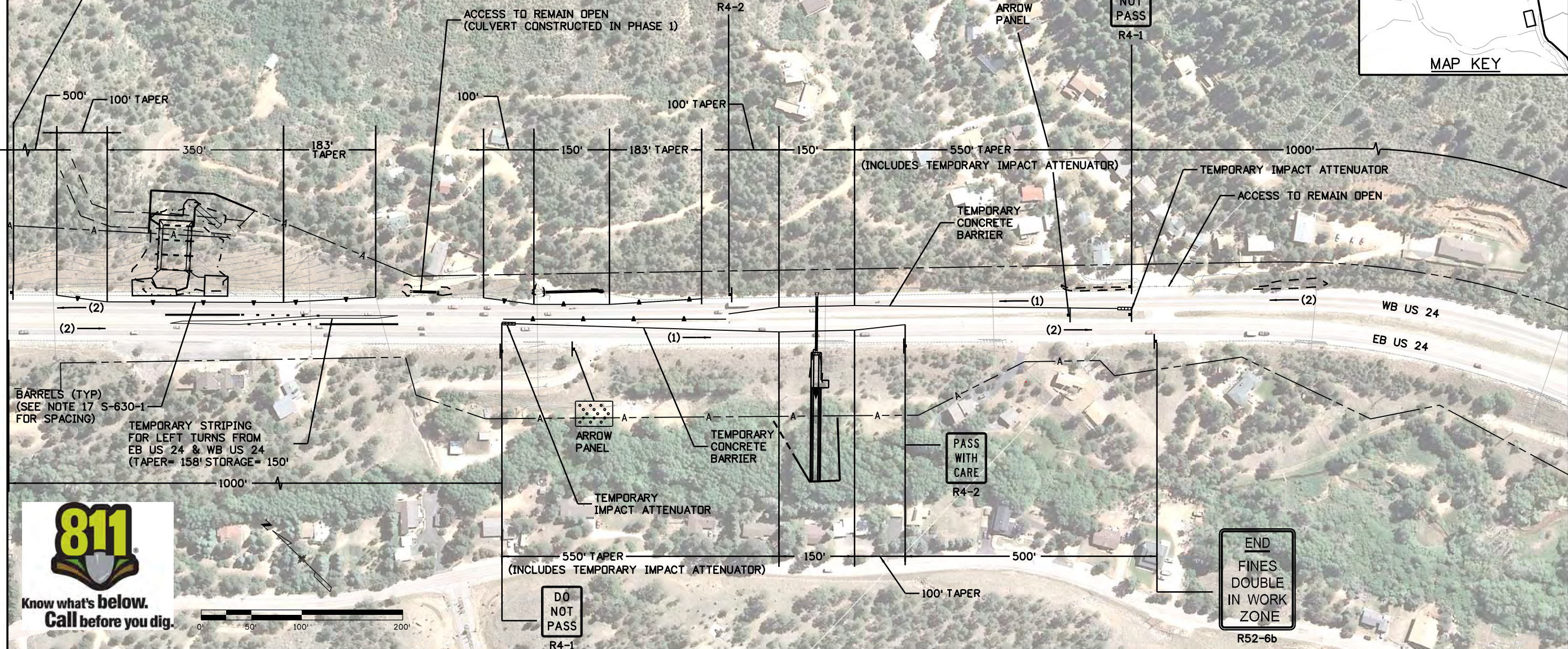
**PASS
WITH
CARE**

R4-2

**ARROW
PANEL**

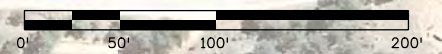
**DO
NOT
PASS**

R4-1



BARRELS (TYP)
(SEE NOTE 17 S-630-1
FOR SPACING)

TEMPORARY STRIPING
FOR LEFT TURNS FROM
EB US 24 & WB US 24
(TAPER= 158' STORAGE= 150')

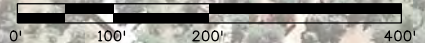
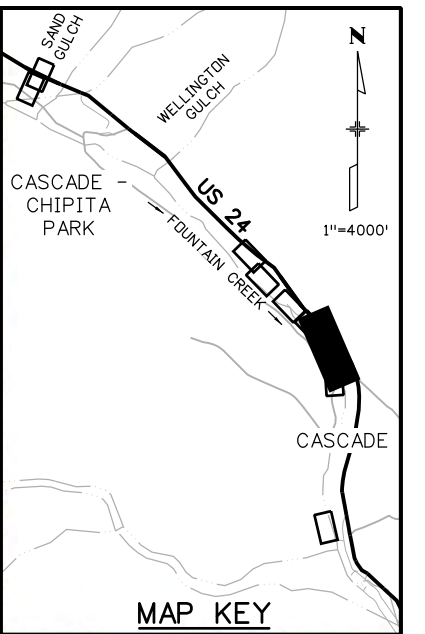


**END
FINES
DOUBLE
IN WORK
ZONE**

R52-6b

Print Date: 3/19/2013	Sheet Revisions			Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON CONSTRUCTION TRAFFIC CONTROL POUR POINT C - PHASE 2		Project No./Code	
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Unit Information Unit Leader Initials				Region 2 LM		Void:		Subset Sheets: CTC-04 of 10		Sheet Number 134	
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440											

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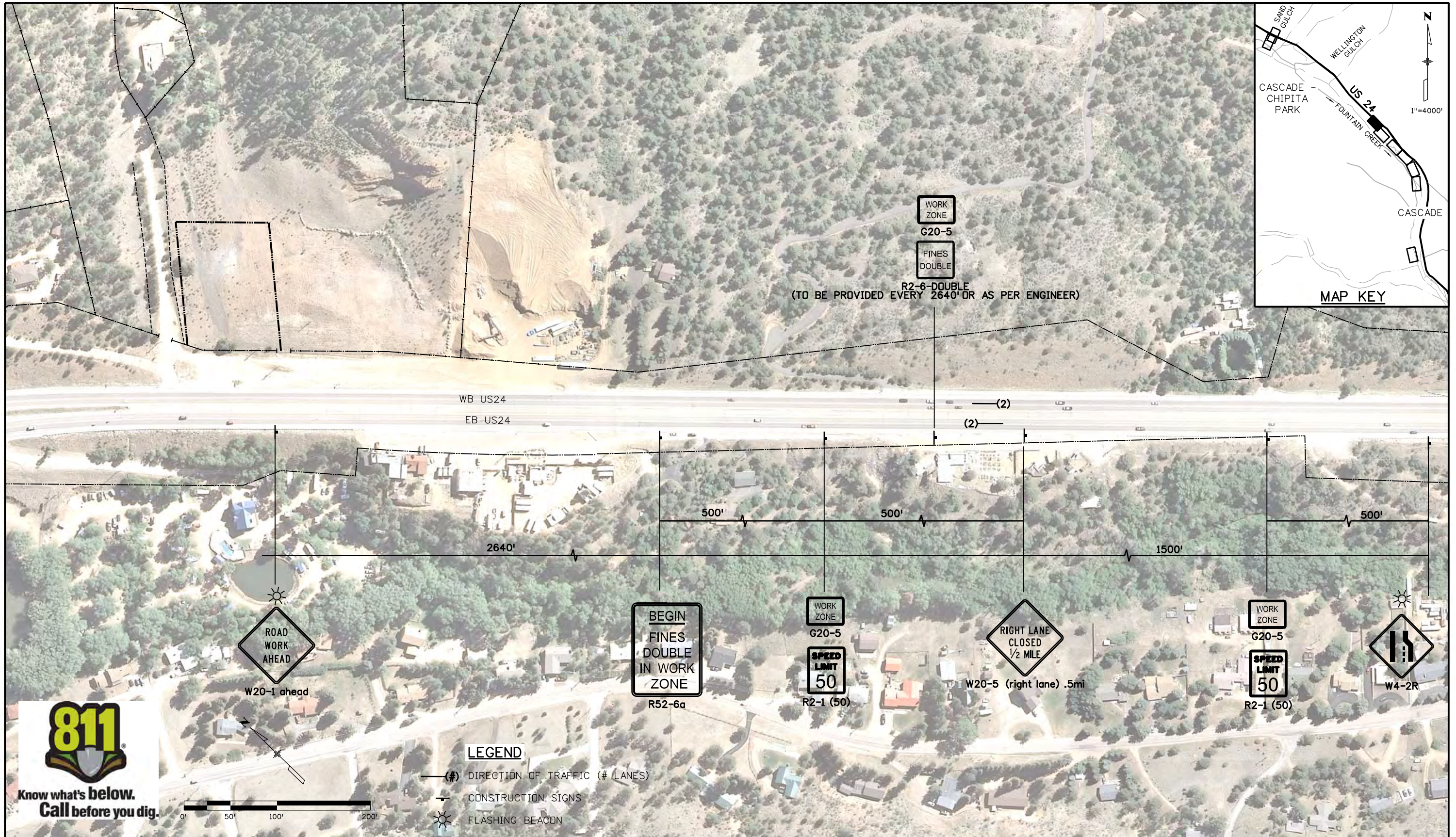


LEGEND

- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- FLASHING BEACON

Print Date: 3/19/2013		Sheet Revisions		Colorado Department of Transportation		As Constructed		US 24 WALDO CANYON CONSTRUCTION TRAFFIC CONTROL POUR POINT C - PHASE 2		Project No./Code		
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Unit Information Unit Leader Initials							Void:				Sheet Number 135	
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LEGEND

- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS
- ☀ FLASHING BEACDN

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Unit Information	Unit Leader Initials
6300 South Syracuse Way Suite 600 Centennial, CO 80111 (303) 721-1440	

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Date:	Comments	Init.

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1480 Quail Lake Loop
 Colorado Springs, CO 80806
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Region 2 LM

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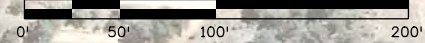
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Designer:	JSC	Structure	
Detailer:	-	Numbers	
Sheet Subset:	TRAFFIC	Subset Sheets:	CTC-06 of 10

Project No./Code	
NH 0242-056	
19358	
Sheet Number	136

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LEGEND

- (#) DIRECTION OF TRAFFIC (# LANES)
- CONSTRUCTION SIGNS



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Unit Information Unit Leader Initials							Void:		Sheet Number 137		
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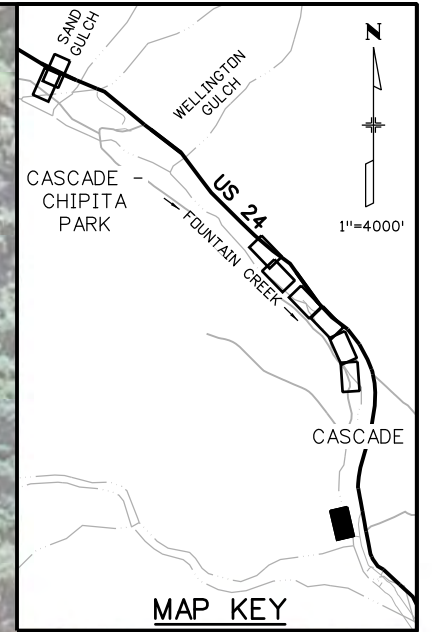
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Know what's below.
Call before you dig.

LEGEND

- CONES (SEE NOTE 17 S-630-1 FOR SPACING)
- CONSTRUCTION SIGNS



LEGEND

Print Date: 3/19/2013	
File Name: 19358Traffic_CTC_Cascade_08.dgn	
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Unit Information	Unit Leader Initials
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Date:	Comments	Init.

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Region 2 LM

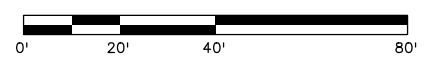
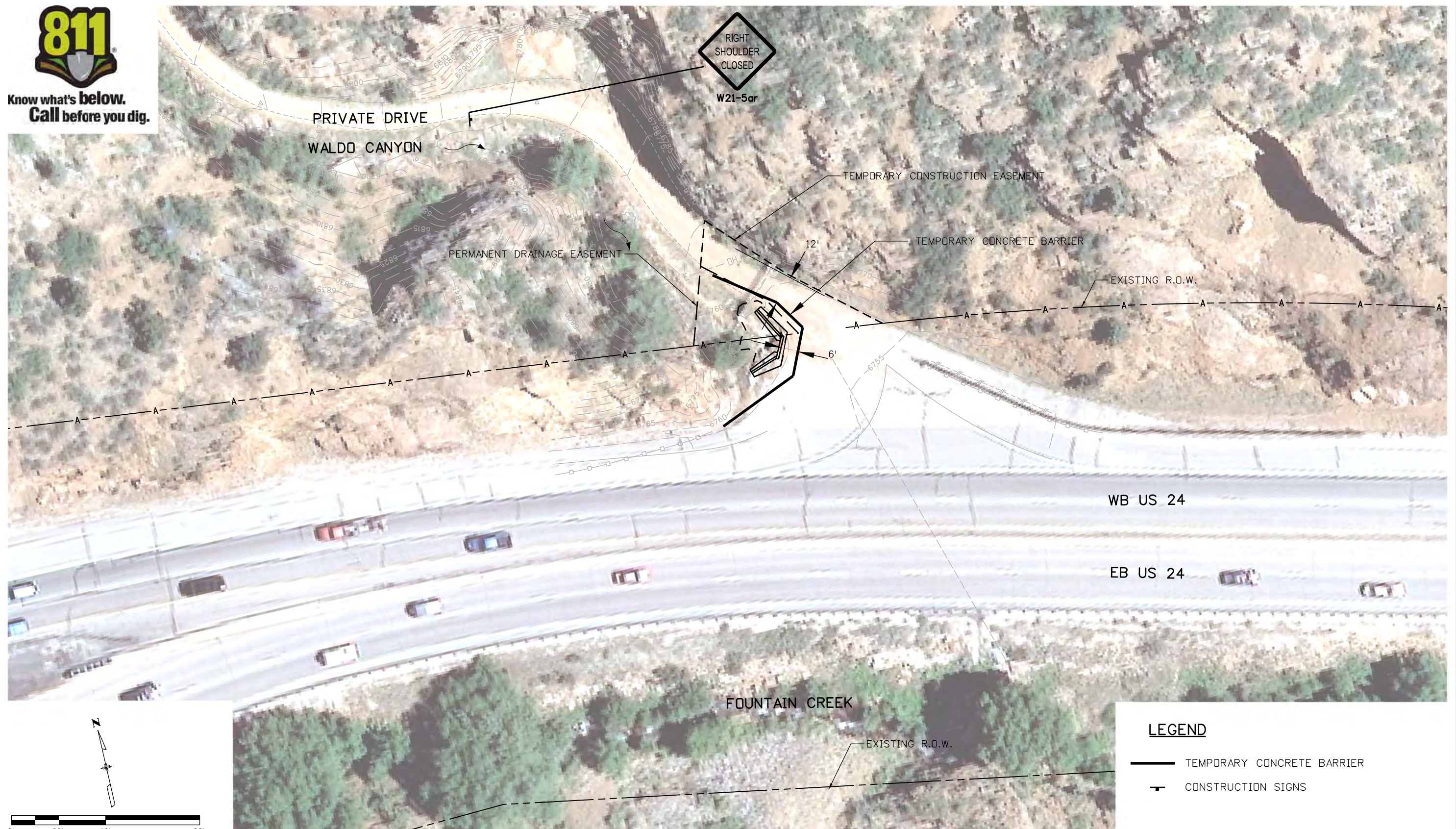
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Revised:	
Void:	

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Designer:	JSC	Structure	
Detailer:	-	Numbers	
Sheet Subset:	TRAFFIC	Subset Sheets:	CTC-08 of 10

Project No./Code
NH 0242-056
19358
Sheet Number 138



Know what's below.
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LEGEND

	TEMPORARY CONCRETE BARRIER
	CONSTRUCTION SIGNS

Print Date: 3/19/2013	
File Name: 19358Traffic_CTC_WadoCyn_09.dgn	
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Unit Information	Unit Leader Initials
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Sheet Revisions		
Date:	Comments	Init.

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Region 2 LM

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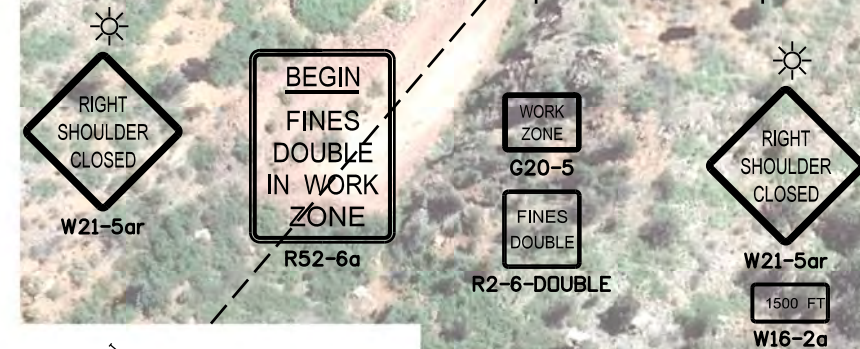
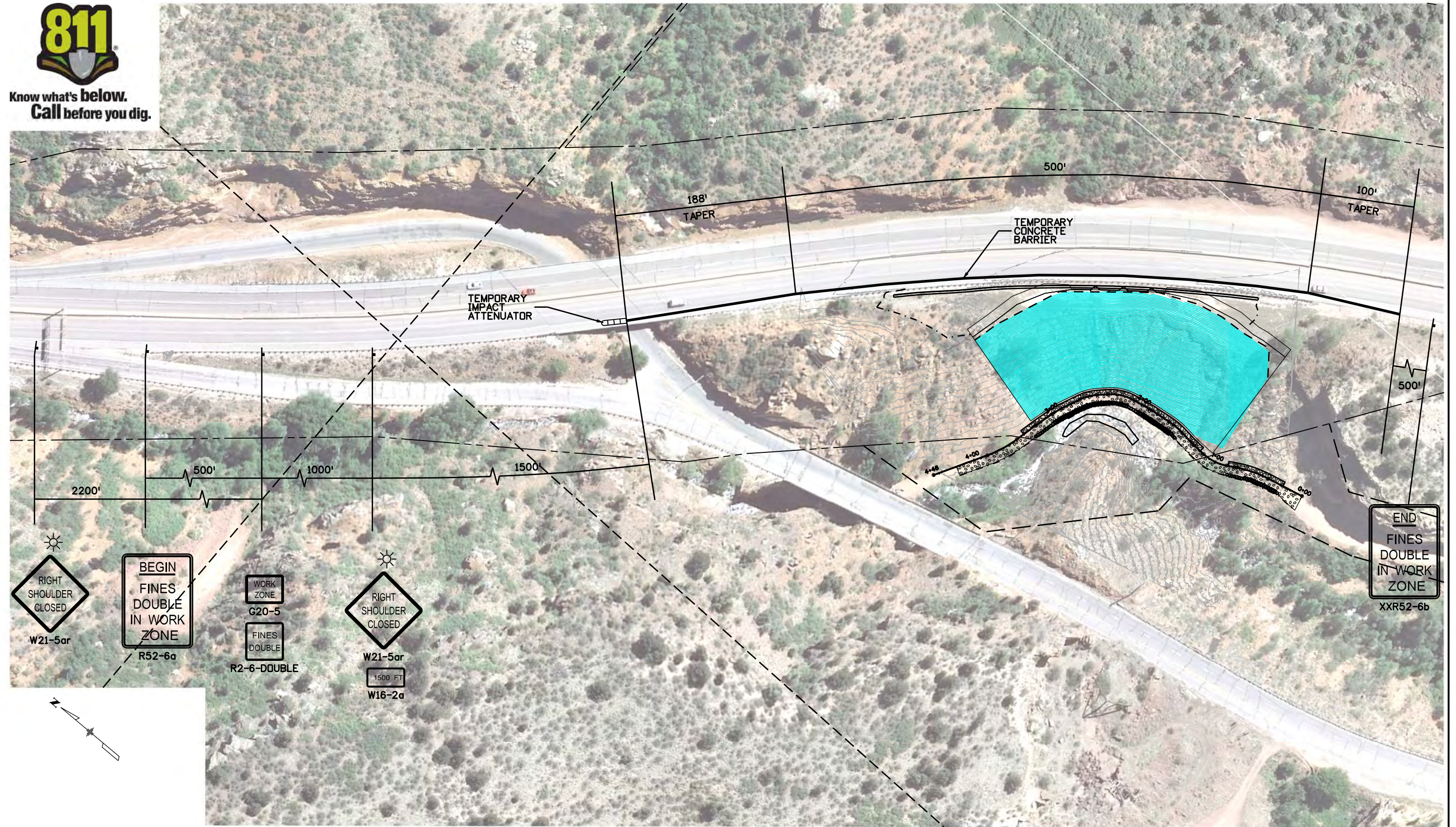
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Detailer:	-	Numbers	
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Project No./Code	NH 0242-056
	19358
Sheet Number	139

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Know what's below.
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Print Date: 3/19/2013
File Name: 19358DES_Traffic_CTC_AccessRoad_10.dgn
Horiz. Scale: 1:100 Vert. Scale: As Noted
Unit Information Unit Leader Initials
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Sheet Revisions		
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Void:

US 24 WALDO CANYON CONSTRUCTION TRAFFIC CONTROL POUR POINT J - ACCESS ROAD			
Designer:	JSC	Structure	
Detailer:	-	Numbers	
Sheet Subset:	TRAFFIC	Subset Sheets:	CTC-10 of 10

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NH 0242-056
19358
Sheet Number 140