

Oversight / NHS

FWMA REGION VIII OVERSIGHT NO YES

NATIONAL HIGHWAY SYSTEM NO YES

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
 OR **534-6700** IN METRO DENVER
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE DUG, GRADE, OR EXCAVATE FOR THE MEMBER UTILITIES

TABULATION OF LENGTH AND DESIGN DATA	
STATION	ROADWAY LIN. FT.
STA. 50+15.15 BEGIN NH 2854-068 M.P. 234.79	3334.77
STA. 83+49.92 STR NO. F-15-DJ STA. 84+04.30	54.38
STA. 113+55.96 STR NO. F-15-DI STA. 114+16.96	61.00
STA. 212+63.99 STR NO. F-15-DG STA. 213+38.45	74.46
STA. 235+00 END NH 2854-068 M.P. 238.29	2161.55
TOTAL	189.84
SUMMARY	18,295.01
	MILES
ROADWAY (NET LENGTH)	3.465
MAJOR STRUCTURE	0.036
PROJECT GROSS LENGTH	3.501

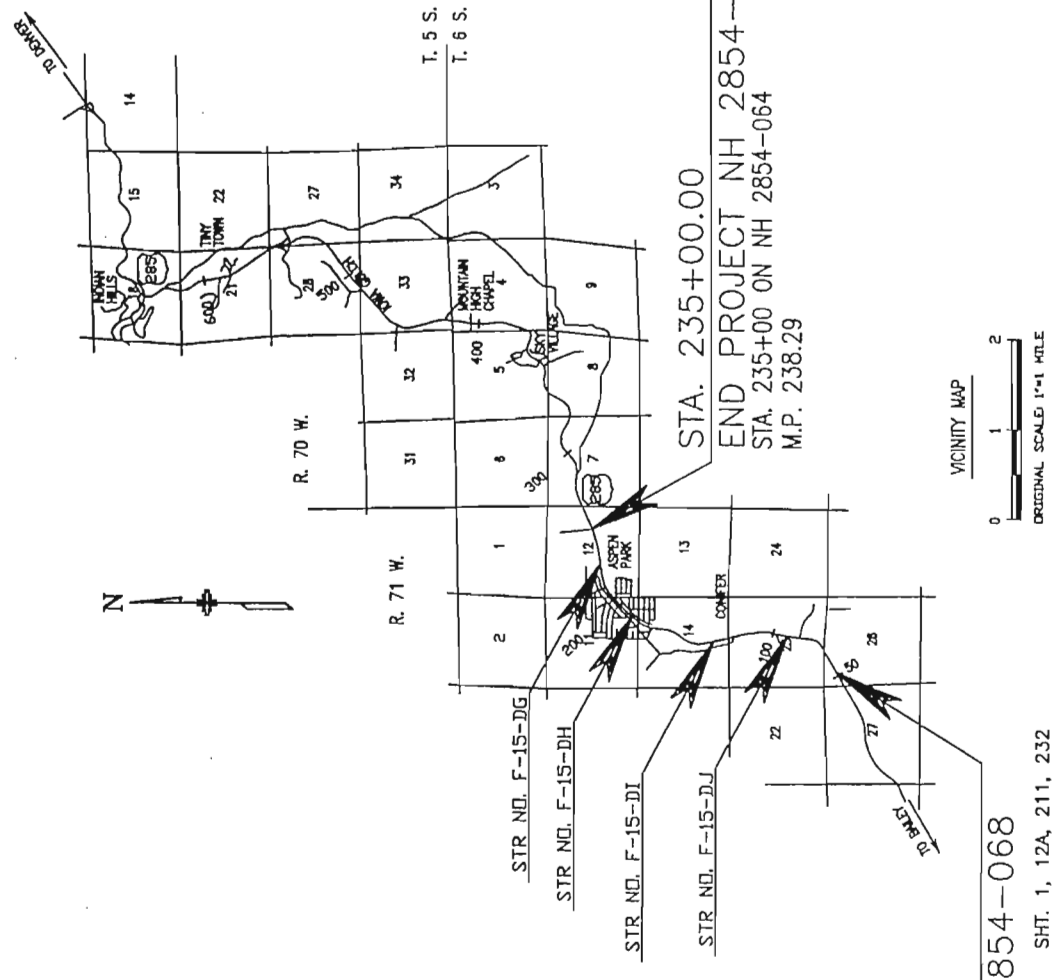
DESIGN DATA	
S.H. 285	
MAXIMUM DEGREE OF CURVE	5°15'00"
MAXIMUM GRADE	5.336%
MINIMUM S.S.D. HORIZONTAL	450'
MINIMUM S.S.D. VERTICAL	574'
MAXIMUM DESIGN SPEED	55 M.P.H.
DESIGN TRAFFIC VOLUME (2019)DHV	4,600
ADT	30,400
DDHV	3,220
%TRUCKS	2%

STA. 50+15.15
 BEGIN PROJECT NH 2854-068
 M.P. 234.79

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

HIGHWAY CONSTRUCTION BID PLANS OF FOXTON ROAD TO EAGLE CLIFF ROAD
 FEDERAL AID PROJECT NO. NH 2854-068
 STATE HIGHWAY NO. 285

JEFFERSON COUNTY
 CONSTRUCTION PROJECT CODE NO. 11848
 SCALE AS SHOWN ON INDIVIDUAL SHEETS



Computer File Information	
Creation Date:	11/10/97 Initials: CJN
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<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

As Constructed	
No Revisions:	
Revised:	
Void:	

Contract Information	
Contractor	NH 2854-068
Resident Engineer	11848
Project Engineer	
PROJECT STARTED	ACCEPTED
Comments:	

Related Projects:
 P. UNDER PROJECT NH 2854-064
 Project Number 11585
 Project Code NH 2854-067
 R.O.W. Project Number 11847
 Project Code

MK CENTENNIAL
 CENTENNIAL ENGINEERING, INC.

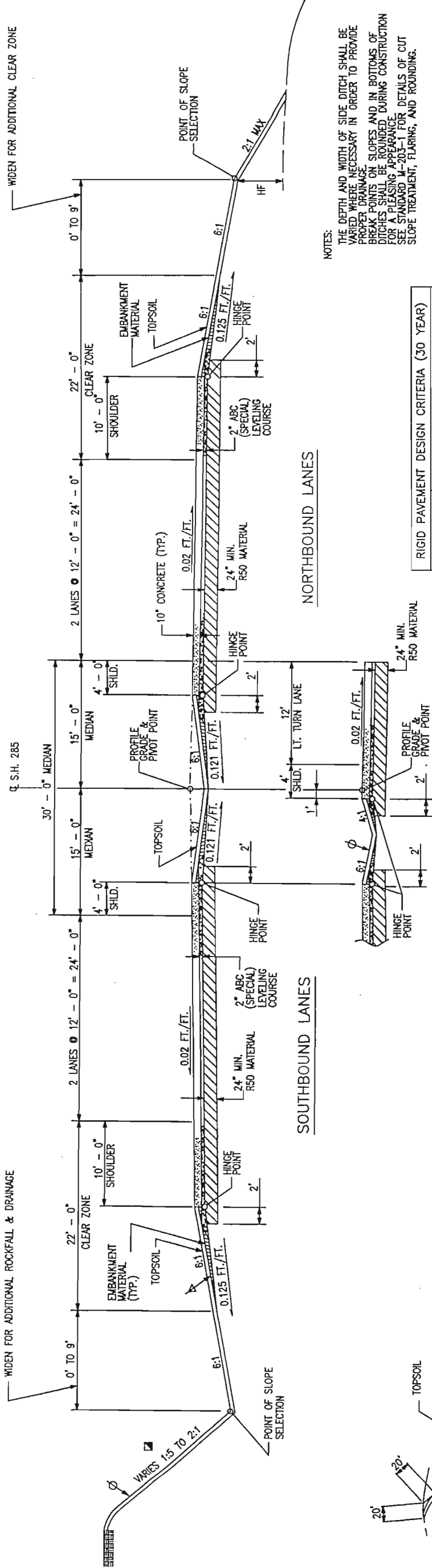
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NEW AND REVISED STANDARDS

NO.	DESCRIPTION
M-107-1	4 SHEETS 3-24-97 TEMPORARY EROSION CONTROL
M-206-1	2 SHEETS 5-7-99 EXCAVATION & BACKFILL FOR STRUCTURES
M-412-1	3 SHEETS 8-21-97 CONCRETE PAVEMENT JOINTS
M-606-1	15 SHEETS 1-5-00 GUARDRAIL TYPE 3 W-BEAM
M-606-12	2 SHEETS 10-29-98 GUARDRAIL TYPE 4 CONCRETE
M-606-13	4 SHEETS 5-7-99 GUARDRAIL TYPE 7 F-SHAPE
M-629-1	2 SHEETS 8-28-97 SURVEY MONUMENTS

DESIGNED BY	INITIAL DATE
CHECKED BY	
QUANTITIES BY	
DRAWN BY	



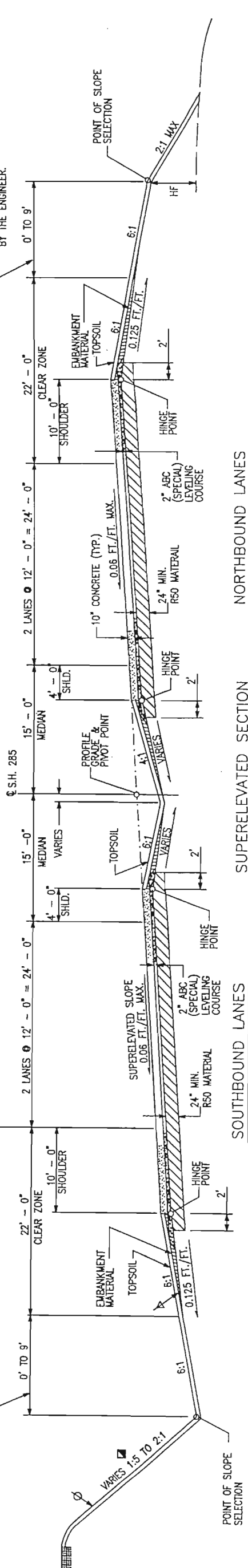
RIGID PAVEMENT DESIGN CRITERIA (30 YEAR)

ITEM	S.H. 285
18-KIP EASL	8,605.4%
INITIAL SERVICE	4.5
TERMINAL SERVICE	2.5
MEAN EFFECTIVE R-VALUE	178 PSI/IN
RELIABILITY LEVEL	95%
CALCULATED DESIGN THICKNESS	10.0

TANGENT SECTION
S.H. 285

NOTES:
 THE DEPTH AND WIDTH OF SIDE DITCH SHALL BE VARIED WHERE NECESSARY IN ORDER TO PROVIDE PROPER DRAINAGE.
 BREAK POINTS ON SLOPES AND IN BOTTOMS OF DITCHES SHALL BE ROUNDED DURING CONSTRUCTION FOR A PLEASING APPEARANCE.
 SEE STANDARD M-203-1 FOR DETAILS OF CUT SLOPE TREATMENT, FLARING, AND ROUNDING.

- ∅ THE CONTRACTOR WILL BE REQUIRED TO PLACE TOPSOIL TO THIS LINE AFTER COMPLETION OF PAVING OPERATION. TOP SOIL SHALL BE 6" ON SLOPES 2:1 OR FLATTER AND 4" ON SLOPES STEEPER THAN 2:1.
- ☑ ADDITIONAL EXCAVATION IN ROCK FACE WILL BE REQUIRED AROUND CULVERT ENTRANCES. SEE STRUCTURE CROSS SECTIONS.
- ∇ THE CONTRACTOR WILL BE REQUIRED TO PLACE EMBANKMENT MATERIAL TO THIS LINE IN CUT AREAS.
- * NO SLOPE SHALL BE STEEPER THAN 4:1 WITHIN THE S.H. 285 CLEAR ZONE.
- 2" ABC (SPECIAL) WILL BE PLACED ONLY AS DIRECTED BY THE ENGINEER.



SUPERELEVATED SECTION
S.H. 285

Computer File Information		Sheet Revisions		As Constructed		TYPICAL SECTIONS		Project No./Code	
Creation Date:	01/28/98	Initials:	CJN			FOXTON ROAD TO EAGLE CLIFF ROAD No Revisions: Revised: Void:		NH 2854-068 11848 Sheet Number	
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Colorado Department of Transportation
 Region 1 Construction
 9858 W. Giron Drive
 Lakewood, Colorado 80227-4326
 Phone: 303-988-5474 FAX: 303-980-9860
 R.H.

DESIGNED BY	INITIAL	DATE
CHECKED BY		
QUANTITIES BY		
DRAWN BY		

ALL SALVABLE GUARDRAIL AND SIGNAL ITEMS SHALL BECOME THE PROPERTY OF CDOT. THE CONTRACTOR SHALL LOAD ALL SALVABLE MATERIAL ONTO CDOT MAINTENANCE VEHICLES.

IT IS ESTIMATED THAT 100 TREES WILL REQUIRE TRIMMING AS PART OF THIS PROJECT AS DIRECTED BY THE ENGINEER. THE WORK SHALL BE PAID FOR AS BID ITEM 202 - "TREE TRIMMING".

BID ITEM 202 - "REMOVAL OF STRUCTURES AND OBSTRUCTIONS" WILL CONSIST OF REMOVAL AND DISPOSAL OF MISCELLANEOUS SURFACE DEBRIS. SEE SPECIAL PROVISIONS.

OBLETION OF OLD ROAD AT LOCATIONS SHOWN ON THE PLANS WILL BE PAID FOR AS OBLITERATE OLD ROAD - LUMP SUM. THIS WORK SHALL CONSIST OF THE REMOVAL OF ASPHALT AND REGRADING THE AREA TO MATCH THE SURROUNDING AREA.

THE CONTRACTOR SHALL INITIATE A REQUEST TO INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION FOR ANY CONSTRUCTION RELATED TEMPORARY ELECTRICAL POWER SOURCES AS SOON AS POSSIBLE. IN SOME CASES, UP TO 30 DAYS MAY BE REQUIRED TO PROVIDE THE SOURCES. THE REQUEST IS TO BE PROCESSED THROUGH I.R.E.A. AT (303) 674-6879.

THE CONTRACTOR SHALL MAINTAIN NATURAL DRAINAGE AT ALL TIMES DURING CONSTRUCTION.

TYPE OF COMPACTION FOR THIS PROJECT WILL BE AASHTO T180.

THE SLOPES ABOVE ALL CUTS SHALL BE SCALED TO REMOVE LOOSE ROCKS AS DIRECTED. IT IS ESTIMATED THAT 240 HOURS OF ROCK SCALING WILL BE REQUIRED FOR THIS WORK.

IT IS ESTIMATED THAT 100 HOURS OF POTHOLES WILL BE REQUIRED AS PART OF THIS PROJECT. THE ENGINEER AND THE APPROPRIATE UTILITY SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF THE WORK.

BLASTING WILL BE REQUIRED ON THIS PROJECT. BLASTING WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

THE APPROXIMATE THICKNESS OF TOPSOIL (HAUL) SHALL BE 4 INCHES OR 6 INCHES AS SHOWN ON THE TYPICAL SECTIONS. IT IS ESTIMATED THAT 46,884 CU.YDS. WILL BE REQUIRED.

WATER SHALL BE USED AS A DUST PALLIATIVE AS DIRECTED BY THE ENGINEER AND SHALL BE CONSIDERED SUBSIDIARY TO THE WORK. IT IS ESTIMATED THAT 18,000 MGALS. WILL BE REQUIRED.

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

- HOT BITUMINOUS PAVEMENT (GRADING S) AT 110 LBS. PER SQ. YD./INCH.
- DILUTED EMULSIFIED ASPHALT FOR TACK COAT AT 0.10 GAL. PER SQ.YD. CONSISTING OF ONE PART EMULSIFIED ASPHALT (SLOW-SETTING) AND ONE PART WATER.
- AGGREGATE BASE COURSE AT 133 LBS. PER CU. FT.
- RATES OF APPLICATION SHALL BE DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED, EXCEPT AS DIRECTED BY THE ENGINEER.

ROAD APPROACHES THAT REQUIRE BITUMINOUS PAVEMENT SHALL BE PRIMED AND A 2-INCH THICKNESS OF PAVEMENT PLACED AS FOLLOWS:

PUBLIC APPROACHES AND ENTRANCES TO BUILDINGS OR RESIDENCES SHALL BE PAVED 50' OUT FROM EDGE OF SHOULDER OR TO THE RIGHT-OF-WAY LINE, WHICH EVER IS LESS. FIELD ENTRANCES SHALL BE PAVED 4 FEET OUT FROM THE EDGE OF THE SHOULDER.

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 DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE WORK.

FOR CONCRETE PAVEMENT, SMOOTHNESS CATEGORY #2 SHALL BE USED.

FOR THIS PROJECT, ROADWAY SMOOTHNESS FOR ALL HOT BITUMINOUS PAVEMENT SHALL NOT BE MEASURED AND SHALL BE ASSIGNED A PAY FACTOR (PF) OF 1.000.

IT IS ESTIMATED THAT THE FOLLOWING ITEMS WILL BE REQUIRED ON THIS PROJECT.

FIELD OFFICE (SPECIAL)	1 EACH
FIELD LABORATORY (CLASS 2)	1 EACH
SANITARY FACILITY	2 EACH
MOBILIZATION	1 LUMP SUM

THE CONTRACTOR SHALL SET FLOWLINES OF DITCHES AT CULVERT ENTRANCES 3 INCHES BELOW GIVEN ELEVATION FOR HEADWALL INVERTS TO COLLECT SEDIMENT.

THE TOP LIFT OF ASPHALT PAVEMENT FOR SIDE ROADS WILL NOT BE PAVED UNTIL TIME FOR FINAL STRIPING UNLESS APPROVED BY THE ENGINEER.

THE CONTRACTOR SHALL MAINTAIN FULL COMPLIANCE PAVEMENT MARKINGS ON SH 285 DURING ALL PHASES OF THE CONSTRUCTION PERIOD.

PLASTIC PIPE SHALL BE POLYETHYLENE PER SUBSECTION 712.14 OF THE STANDARD SPECIFICATIONS. PIPE JOINTS SHALL BE WATER RESISTANT AS APPROVED BY THE ENGINEER.

IT IS ESTIMATED THAT 3,000 S.Y. OF HERBICIDE TREATMENT USING CLOPYRALID (TRANSILINE) OR METSULFURON METHYL (ESCORT) WILL BE REQUIRED FOR WEED CONTROL IN ACCORDANCE TO SPECIFICATION 217.

THE CONTRACTOR MAY BE DIRECTED BY THE ENGINEER TO PLACE EXCESS MATERIAL TO CREATE BERMS. ALL EXCESS MATERIAL SHALL BE COMPACTED WITH MOISTURE AND DENSITY CONTROL PER SECTION 203 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

IT IS ESTIMATED THAT 267 SY OF GROUT TEST SECTIONS AND 267 SY OF REMOVE CONCRETE PAVEMENT PLANNING ARE REQUIRED UNDER THIS PROJECT IN ACCORDANCE WITH SECTION 412 TEST SECTIONS.

KEY TO SYMBOLS

<p>Symbol Description</p> <p>Strata Symbols</p> <ul style="list-style-type: none"> Low plasticity organic silts Low plasticity clay Migmatite Quartz Monzonite Clayey sand Extra fine gravel Fill <p>Misc. Symbols</p> <ul style="list-style-type: none"> Water table during drilling <p>Soil Samplers</p> <ul style="list-style-type: none"> California sampler Rock core Small Disturbed Sample 	<p>Symbol Description</p> <ul style="list-style-type: none"> Split Spoon sampler No recovery
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Notes:

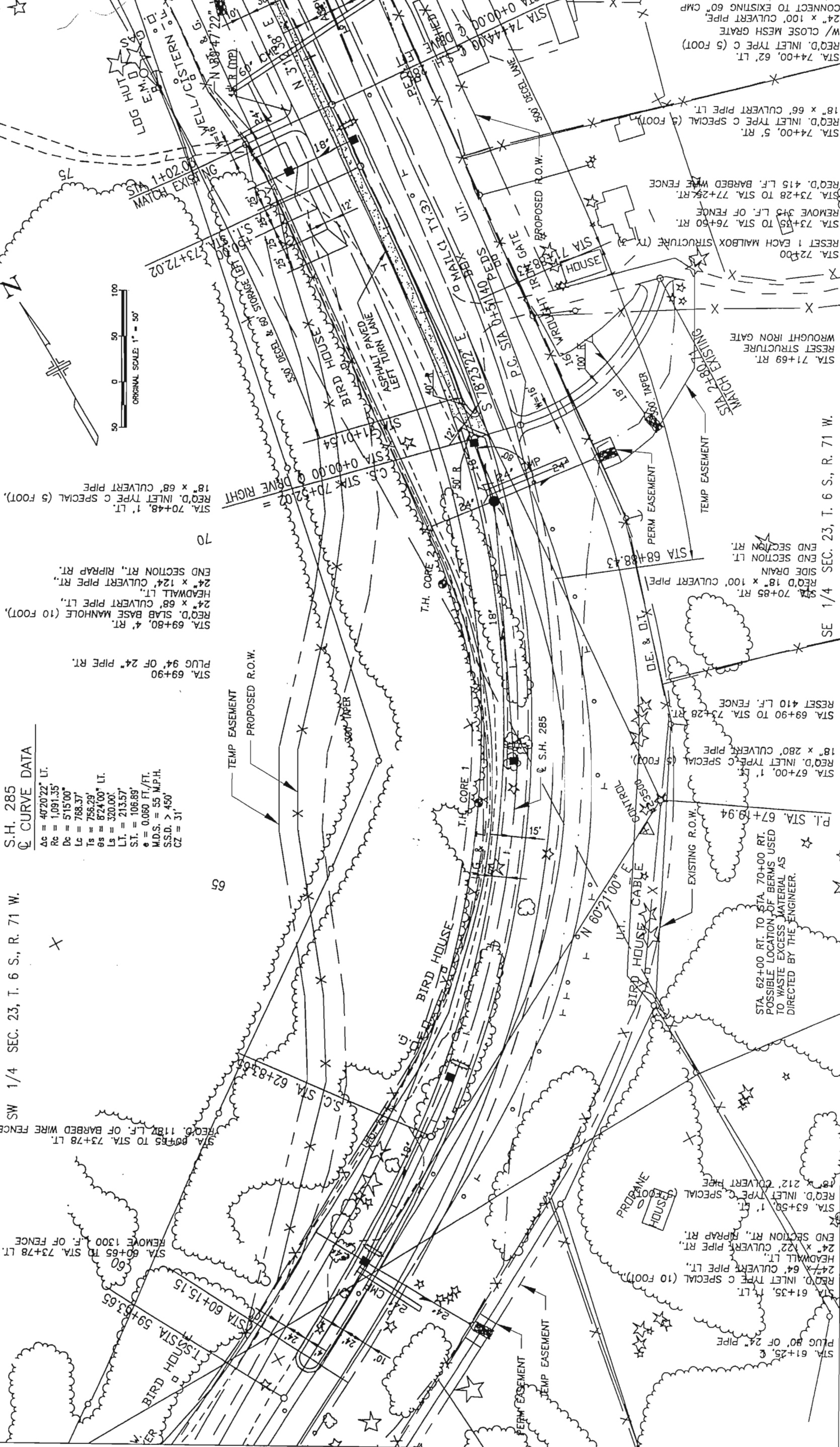
- Exploratory borings were drilled on using a 4-inch diameter continuous flight auger or a NX-wire line diamond core bit.
- Ground water level readings shown on the logs were made at the time and under the conditions indicated. Fluctuations in the groundwater level may occur with time.
- Locations of the test holes were measured approximately by pacing from features shown on the site plan provided.
- Logs from the test holes are drawn to depth.
- The lines between materials shown on the test hole logs represent approximate boundaries between material types and the transitions may be gradual

DESIGNED BY	CHECKED BY	QUANTITIES BY	CHECKED BY

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Acad Ver.	R14	Scale:	NONE	Units:	English						

INDEX	CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		RETAINING WALLS		STRUCTURE #F-15-DJ		STRUCTURE #F-15-DI		STRUCTURE #F-15-DH		STRUCTURE #F-15-DG		PROJECT TOTALS		
				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN
	607-01000	Fence Barbed Wire with Metal Posts	LF	16,353													16,353	
	607-11455	Fence Wood	LF	80													80	
	607-11525	Fence (Plastic)	LF	2,890													2,890	
	607-11580	Fence (Temporary)	LF	1,770													1,770	
	607-21300	Fence Barrier With Metal Posts	LF	2,231													2,231	
	607-52905	End Post (Chain Link)	EACH	2													2	
	607-52910	Corner and Line Brace Post (Chain Link)	EACH	2													2	
	607-53137	Fence Chain Link (Special) (36 Inch)	LF						227									227
	607-53172	Fence Chain Link (72 Inch)	LF	1,062													1,062	
	607-53173	Fence Chain Link (Special) (72 Inch)	LF			882											882	
	607-53197	Fence Chain Link (Special) (96 Inch)	LF						227									227
	607-60600	Security Gate	EACH	1													1	
	608-00000	Concrete Sidewalk	SY	1,210													1,210	
	608-00010	Concrete Curb Ramp	SY	56													56	
	609-21020	Curb and Gutter Type 2 (Section II-B)	LF	2,004													2,004	
	609-24010	Gutter Type 2 (10 Foot)	LF	129													129	
	609-60011	Curb Type 6 (Section M)	LF	222													222	
	612-00041	Delineator (Flexible) (Type I)	EACH	380													380	
	612-00042	Delineator (Flexible) (Type II)	EACH	295													295	
	612-00043	Delineator (Flexible) (Type III)	EACH	16													16	
	613-00200	2 Inch Electrical Conduit	LF					137										137
	613-01200	2 Inch Electrical Conduit (Plastic)	LF	18,510						123								123
	613-01300	3 Inch Electrical Conduit (Plastic)	LF	540								35						35
	613-10000	Wiring	L S	1														1
	613-32400	Light Standard Steel (40 Foot)	EACH	84														84
	613-40000	Concrete Foundation Pad	EACH	84														84
	613-70400	Luminaire High Pressure Sodium (400 Watt)	EACH	88														88
	613-72150	Luminaire High Pressure Sodium (Wall Type) (150 Watt)	EACH	8														8
	614-00011	Sign Panel (Class I)	SF	624														624
	614-00012	Sign Panel (Class II)	SF	1,041														1,041
	614-00013	Sign Panel (Class III)	SF	255														255
	614-00200	Steel Sign Post (U-2)	LF	174														174

Computer File Information		Sheet Revisions		Colorado Department of Transportation		As Constructed		SUMMARY OF APPROXIMATE QUANTITIES		Project No./Code	
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Full Path: \\11585 NH 2854-068\Pre...\Plans\Ad Plans				Void:		Lakewood, CO 80227		Structure Numbers		11848	
Drawing File Name: 11848_Sheet12						Phone: 303-888-5474 Fax: 303-880-9860		Subset			
Acad Ver. R14 W						Resident Engineer		Subset Sheets:			Sheet Number: 12



S.H. 285
 CURVE DATA
 Ac = 4020'22" LT.
 R_c = 1091.35
 D_c = 515'00"
 L_c = 788.37
 T_s = 756.29'
 E_s = 824'00" LT.
 L_s = 320.00'
 L_t = 213.57'
 S_t = 106.89'
 e = 0.060 FT./FT.
 M.D.S. = 55 M.P.H.
 S.S.D. > 450'
 C_Z = 31'

SW 1/4 SEC. 23, T. 6 S., R. 71 W.

STA. 60+65 TO STA. 73+78 LT.
 REMOVE 1300 L.F. OF FENCE
 STA. 60+15.15
 STA. 59+53.65
 STA. 62+83.00
 STA. 69+90
 PLUG 94' OF 24" PIPE RT.
 STA. 69+80, 4' RT.
 REQ'D. SLAB BASE MANHOLE (10 FOOT).
 24" x 68" CULVERT PIPE LT.
 HEADWALL LT.
 24" x 124" CULVERT PIPE RT.
 END SECTION RT., RIPRAP RT.
 STA. 69+85 TO STA. 73+78 LT.
 REQ'D. 1187 L.F. OF BARBED WIRE FENCE

STA. 69+80, 4' RT.
 REQ'D. SLAB BASE MANHOLE (10 FOOT).
 24" x 68" CULVERT PIPE LT.
 HEADWALL LT.
 24" x 124" CULVERT PIPE RT.
 END SECTION RT., RIPRAP RT.
 STA. 70+48, 1' LT.
 REQ'D. INLET TYPE C SPECIAL (5 FOOT).
 18" x 68" CULVERT PIPE

STA. 71+69 RT.
 RESET STRUCTURE
 WROUGHT IRON GATE
 STA. 72+00
 RESET 1 EACH MAILBOX STRUCTURE (7)
 STA. 73+05 TO STA. 76+50 RT.
 REMOVE 349 L.F. OF FENCE
 STA. 73+28 TO STA. 77+28 RT.
 REQ'D. 415 L.F. BARBED WIRE FENCE
 STA. 74+00, 5' RT.
 REQ'D. INLET TYPE C SPECIAL (5 FOOT).
 18" x 68" CULVERT PIPE LT.

STA. 74+44.00
 STA. 0+00.00
 W/16 GAGE STEEL SADDLE PLATE
 CONNECT TO EXISTING 60" CMP
 24" x 100" CULVERT PIPE
 W/ CLOSE MESH GRATE
 REQ'D. INLET TYPE C (5 FOOT)

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CHECKED BY		
QUANTITIES BY		
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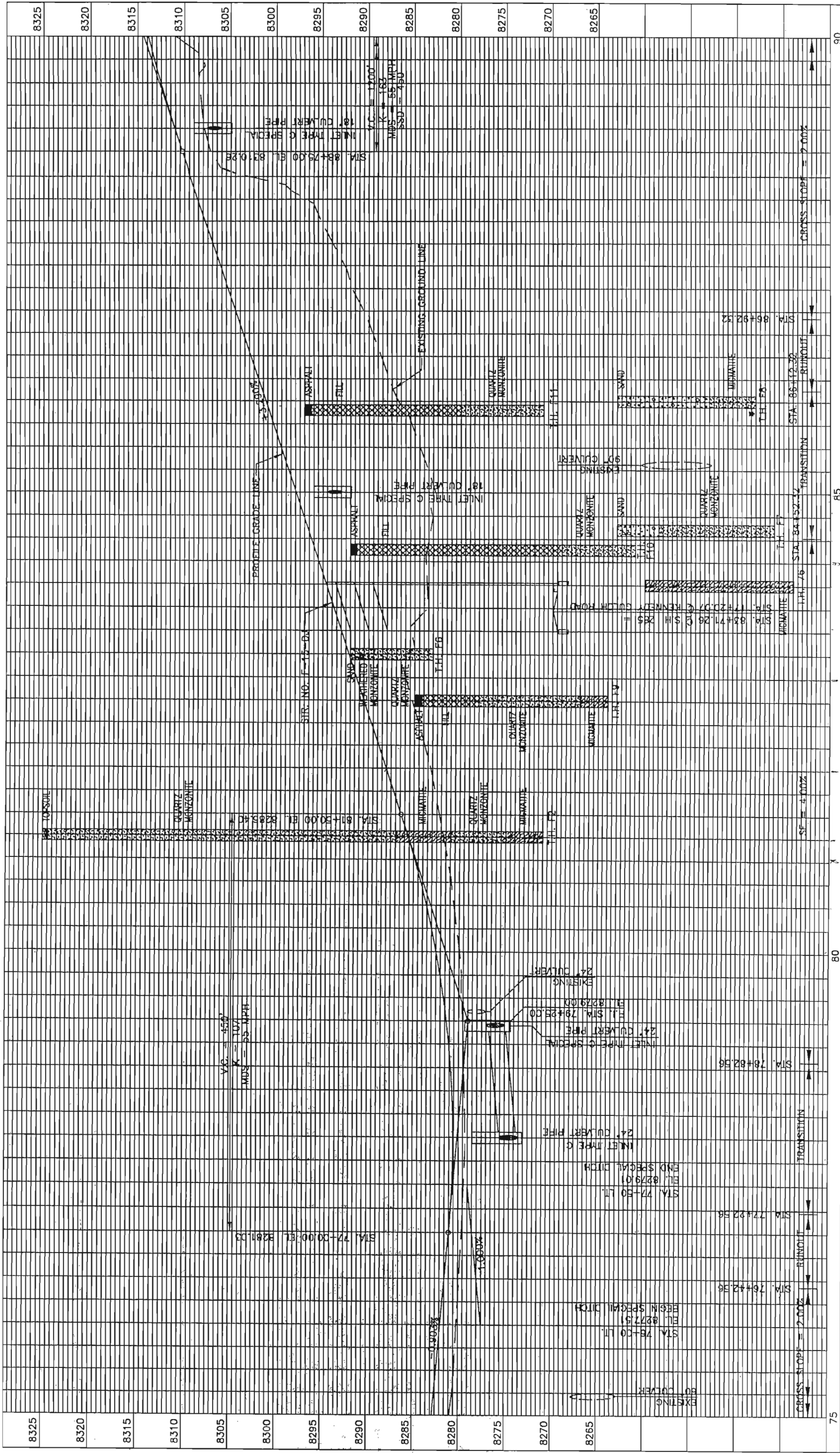
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Colorado Department of Transportation
 Region 1 Construction
 9858 W Gorton Drive
 Lakewood, Colorado 80227-4326
 Phone: 303-988-5474 FAX: 303-980-9860
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 11848
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ROADWAY PLAN SHEET
 FOXTON ROAD TO EAGLE CLIFF ROAD



Project No./Code
NH 2854-068

Sheet Number
11848

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No Revisions:
Revised:
Void:

Colorado Department of Transportation
Region 1 Construction
9858 W Girton Drive
Lakewood, Colorado 80227-4326
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R.H.

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Units:	English		

DESIGNED BY	
CHECKED BY	
QUANTITIES BY	
CHECKED BY	
INITIAL DATE	

NOTE:
 ▲ REMOVE EXISTING SIGN
 ▲ INSTALL NEW SIGN AT LOCATION SHOWN

10' EDGE SHOULDER
 12' WHITE EDGE LINE
 12' LANE LINE
 12' YELLOW EDGE LINE
 4' EDGE SHOULDER

ORIGINAL SCALE 1" = 100'

30R5-1
 36W6-3
 36W6-2

48W1-6L
 48W1-6R

4" WHITE EDGE LINE

SPEED LIMIT 55

2" YELLOW CENTER LINES

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

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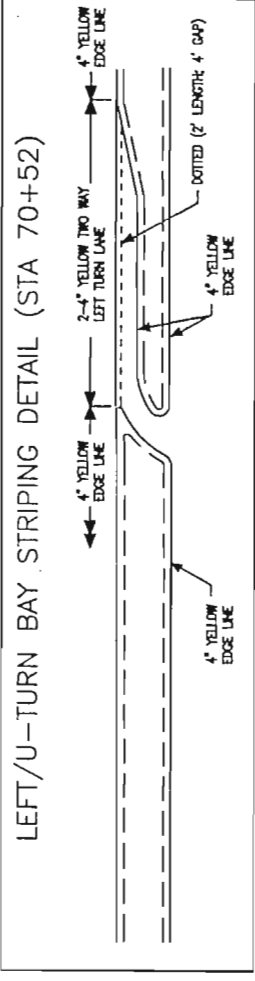
ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL

ADAPT HWY LITTER CONTROL



Computer File Information	
Creation Date:	09/14/98 Initials: CJN
Last Modification Date:	12/07/98 Initials: LCW
Full Path:	\\182300\CADD
Drawing File Name:	LS182301.DWG
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Units:	English

Sheet Revisions	
(R-1)	
(R-2)	
(R-3)	
(R-4)	
(R-5)	

Colorado Department of Transportation
 Region 1 Construction
 9858 W Gitton Drive
 Lakewood, Colorado 80227-4325
 Phone: 303-988-5474 FAX: 303-980-9860
 R.H.
 Region 1

As Constructed
 No Revisions:
 Revised:
 Void:

FINAL SIGNING AND STRIPING PLAN
 FOXTON ROAD TO EAGLE CLIFF ROAD

Project No./Code
 NH 2854-068
 11848
 Sheet Number

DESIGNED BY	INITIALS	DATE
CHECKED BY	QUANTITIES BY	DRAWN BY
CHECKED BY	DATE	

STORMWATER MANAGEMENT PLAN - ADDITIONAL INFORMATION

Estimated runoff coefficient: .52
 Pre-construction: .52
 Post-construction: .61

Existing data describing soil or quality of discharge:
 Soils are moderate deep to shallow. They are formed in loamy material and contain high percentages of rock.

Existing vegetation: Woodlands of the lower mountains mixed with grasses, shrubs and forbes.

Proposed sequence for major activities, location of any other potential pollution source, areas used for storage of building materials, soils or wastes, and location of any dedicated asphalt or concrete batch plants: see water quality and erosion control specifications, and documents submitted by the contractor at the preconstruction conference.

100-year Flood plain boundaries: see Bridge hydraulic information sheet (if existent).

Description of the construction activity, and of the area expected to undergo excavation, and name of the receiving water: see CDP's stormwater permit application.

Contract Document location of erosion control and stormwater quality management measures not referenced above nor included on the Stormwater Management Plan Sheet(s):
 ROADWAY AND DRAINAGE PLANS.

THE ECS SHALL BE A PERSON OTHER THAN THE SUPERINTENDENT.

DISTURBED SURFACES SHALL BE LEFT IN A ROUGHENED CONDITION AT ALL TIMES. ROUGHEN VERTICAL DEPTH SHALL BE 2 TO 4 INCHES.

PRIOR TO CONSTRUCTION, AN ENVIRONMENTAL REVIEW WILL BE HELD IN ACCORDANCE TO PROJECT SPECIAL PROV. 208 PROJECT WILL BE SUBJECT TO REVIEW AND INSPECTIONS BY STATE AND FEDERAL ENVIRONMENTAL AGENCIES.

IT IS ESTIMATED THAT 500 FT OF TEMPORARY SLOPE DRAINS WILL BE REQUIRED PER PROJECT SPECIAL PROV. 208 AND AS DIRECTED.

IT IS ESTIMATED THAT 494 LF OF SILT DIKE WILL BE REQUIRED IN ROADWAY DITCHES AS DIRECTED AND PER DETAIL

IT IS ESTIMATED THAT 5119 LF OF SILT FENCE WILL BE REQUIRED IN ACCORDANCE WITH STANDARD SPEC. 208 AND REVISED M-107 STANDARD.

IT IS ESTIMATED 350 BACKHOLE HOURS USING A BACKHOLE IN THE 200-250 HORSE POWER RANGE WILL BE REQUIRED FOR EROSION CONTROL AS DIRECTED.

IT IS ESTIMATED THAT 450 COMBINATION LOADER (HORSE POWER 75-115), 200 DOZING (LANDSCAPING) HOURS (HORSE POWER 150-250) AND 100 BLADING HOURS (HORSE POWER 100-125) WILL BE REQUIRED FOR EROSION CONTROL AS DIRECTED.

IT IS ESTIMATED THAT 1910 EROSION BALES WILL BE REQUIRED PER REVISED M-107-1 STANDARD AND STANDARD SPEC 208. SEDIMENT REMOVAL AND DISPOSAL OF MATERIAL GENERATED BY STORM RUN-OFF WILL BE PAID FOR VIA SEDIMENT REMOVAL AND DISPOSAL (CY) AND OR COMBINATION LOADER. REMOVE SEDIMENT FROM BEHIND OR WITHIN BMP'S IN ACCORDANCE TO STANDARD SPEC 208.

IT IS ESTIMATED THAT 890 LF OF FENCE (PLASTIC) WILL BE REQUIRED IN ACCORDANCE WITH SPECIAL PROVISION 107-PROTECTION OF EXISTING VEGETATION AND STANDARD SPEC. 607-FENCE (PLASTIC) SEE WETLAND MITIGATION PLAN FOR ADDITIONAL QUANT.

TOPSOIL, SEED AND MULCH ERODABLE SURFACES IN ACCORDANCE WITH REQUIREMENTS REFERENCED IN THE STANDARD SPEC. & PROVISION 208. PRIOR TO EACH NOV. 1ST, COMPLETED EARTHWORK WILL BE TOPSOILED, SEED AND MULCHED. IT IS ESTIMATED THAT A MINIMUM OF 15 MOBILIZATIONS FOR SEEDING AND MULCHING WILL BE REQUIRED AND SHALL BE INCLUDED IN THE PRICE OF THE WORK.

SEEDING PLAN

NATIVE SEEDING

Soil preparation, seeding, mulch tackifier and mulching will be required for an estimated 60 acres 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	POUNDS PLS/ACRE
Western Wheatgrass	Pascopyrum smithii var. roseanna	6.0
Sheep Fescue	Festuca ovina v. duracula	3.0
Sideoats grama	Bouteloua curtipendula var vaughn	2.0
Sandberg bluegrass	Poa sandbergii	2.0
Slender wheatgrass	Elymus trachycalus v. primar	5.0
Streambank wheatgrass	Agropyron riparium	3.0
Bird's eyes	Gilia tricolor	0.1
Rocky Mountain Penstemon	Penstemon strictus var. bandera	0.5
Blanket Flower	Gallardia arifolia	0.5
Fringed sage	Artemisia frigida	0.1
Scarlet bugler	Penstemon barbatus	0.5
Blue Flax	Linum lewisii	0.5
Black-eyed Susan	Rudbeckia hirta	0.5
TOTAL		23.7 LBS/ACRE

SEEDING APPLICATION: Seeding (Native): Drill seed to a depth of .25" to .5" into soil where possible. Seeding (Native) (Hydraulic): Hydraulic seeding in combination with soil binder will be required where access is limited or unsafe for equipment and as approved by the Engineer. Increase seed lbs p/ls/acre to 2 times the rate when hydraulic seeding or hand seeding.

MULCHING APPLICATION: 1.5 tons/acre mulching (weed free hay) mechanically crimped into soil in combination with an organic mulch tackifier per special provision 213-mulch tackifier. On erodible slopes where access is limited or unsafe for equipment install soil retention blanket (s/c) per standard spec. 216, or apply bonded fiber matrix per special provision 213- bonded fiber matrix as directed.

It is estimated that 60 acres of soil prep (special) will be required on all areas to be native seeded per special provision 212. Apply soil preparation mixture upon completion of project or as directed.


It is estimated that 10 additional acres of soil binder, soil prep (special), seeding (native) (hydraulic), mulching (weed free hay) and 2000 lbs of mulch tackifier will be required to stabilize areas between mile post 241.42 and 246.20 as directed.

ROADWAY PROJECT TOTALS:

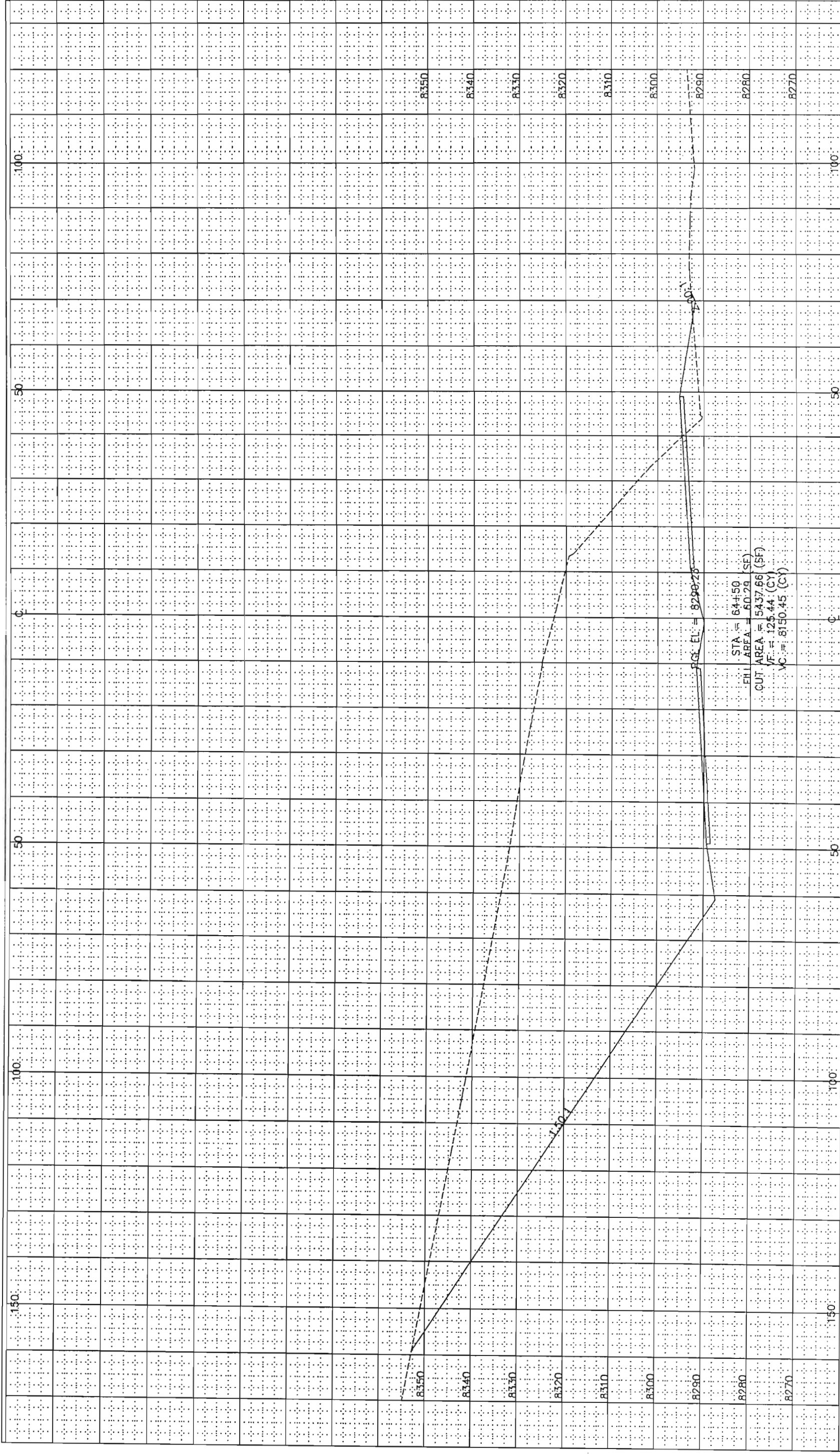
DESCRIPTION	UNIT	QUANT	SPECIAL PROVISION
203 BLADING	HR	100	
203 BACKHOLE	HR	350	
203 COMBINATION LOADER	HR	450	203
203 DOZING (LANDSCAPING)	HR	200	
208 EROSION CONTROL SUPERVISOR	LS	1	
208 TEMPORARY SLOPE DRAINS	LF	500	208
208 EROSION BALES (WEED FREE)	EACH	1910	
208 SILT FENCE	LF	5119	
208 SILT DIKE	LF	494	208
208 SEDIMENT REM AND DISPOSAL	CY	1500	
212 SOIL PREPARATION (SPECIAL)	ACRES	45	212
212 SEEDING (NATIVE)	ACRES	45	
212 SEEDING (NATIVE) (HYDRAULIC)	ACRES	25	
213 MULCHING (WEED FREE HAY)	ACRE	*64	
213 MULCH TACKIFIER	LBS.	*12800	213
213 BONDED FIBER MATRIX	ACRE	5	213
213 SOIL BINDER	ACRE	*25	213
216 SOIL RETEN BLANKET (S/C)	SY	7174	
216 SOIL RETEN BLANKET (PLASTIC)	SY	1133	216
607 FENCE (PLASTIC)	LF	890	
F/A EROSION CONTROL	F.A.	1	

* INCLUDES QUANTITIES FOR WORK TO BE PERFORMED BETWEEN M.P. 241.42-246.2

Computer File Information		Sheet Revisions		As Constructed		Project No./Code	
Creation Date:	5-00 Initials: MRB	mm/dd/yy	XXXXX	No Revisions:	SEED PLAN, NOTES AND SWMP TABULATION		NH 2854-068
Last Modification Date:	5-00 Initials: MRB	mm/dd/yy	XXXXX	Revised:	MRB Structure		11848
Full Path:	\\XXXXX\XXXXX	mm/dd/yy	XXXXX	Void:	MRB Numbers		Sheet Number
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Acad Ver:	R13 Scale: X:XXXX Units: XXXXX	mm/dd/yy	XXXXX				



Colorado Department of Transportation
 Street Address: 9858 W GILTON DRIVE
 LAKEWOOD, CO 80227
 Phone: 303 988 5474 FAX: 303-XXX-XXXX
 REGION 1
 R.H.



Computer File Information		Sheet Revisions		Colorado Department of Transportation		As Constructed		Project No./Code	
Creation Date:	Initials:			Region 1 Construction 9858 W. Giron Drive Lakewood, CO 80227 Phone: 303-988-5474 FAX: 303-980-9860 R.H.		No Revisions:		NH 2854-068	
Last Modification Date:	Initials:			Region 1		Revised:		11848	
Full Path:	Initials:			Colorado Department of Transportation		Void:		Sheet Number	
Drawing File Name:	Initials:			Region 1				FOXTON ROAD TO EAGLE CLIFF ROAD	
Acad Ver. R13	Scale: 1:10	Units: English							

DESIGNED BY	INITIAL	DATE
CHECKED BY		
QUANTITIES BY		
CHECKED BY		

COLORADO DEPARTMENT OF TRANSPORTATION
 Region 1 Construction
 18500 East Colfax Avenue
 Aurora, Colorado 80011
 Phone: 303-757-9117 FAX: 303-757-9746

RIGHT OF WAY PLANS UNIT 5:

Sheet Revisions
 5/27/99 IE-2 Revised Easement
 5/27/99 PE-3 Added Easement

GWL
 GWL

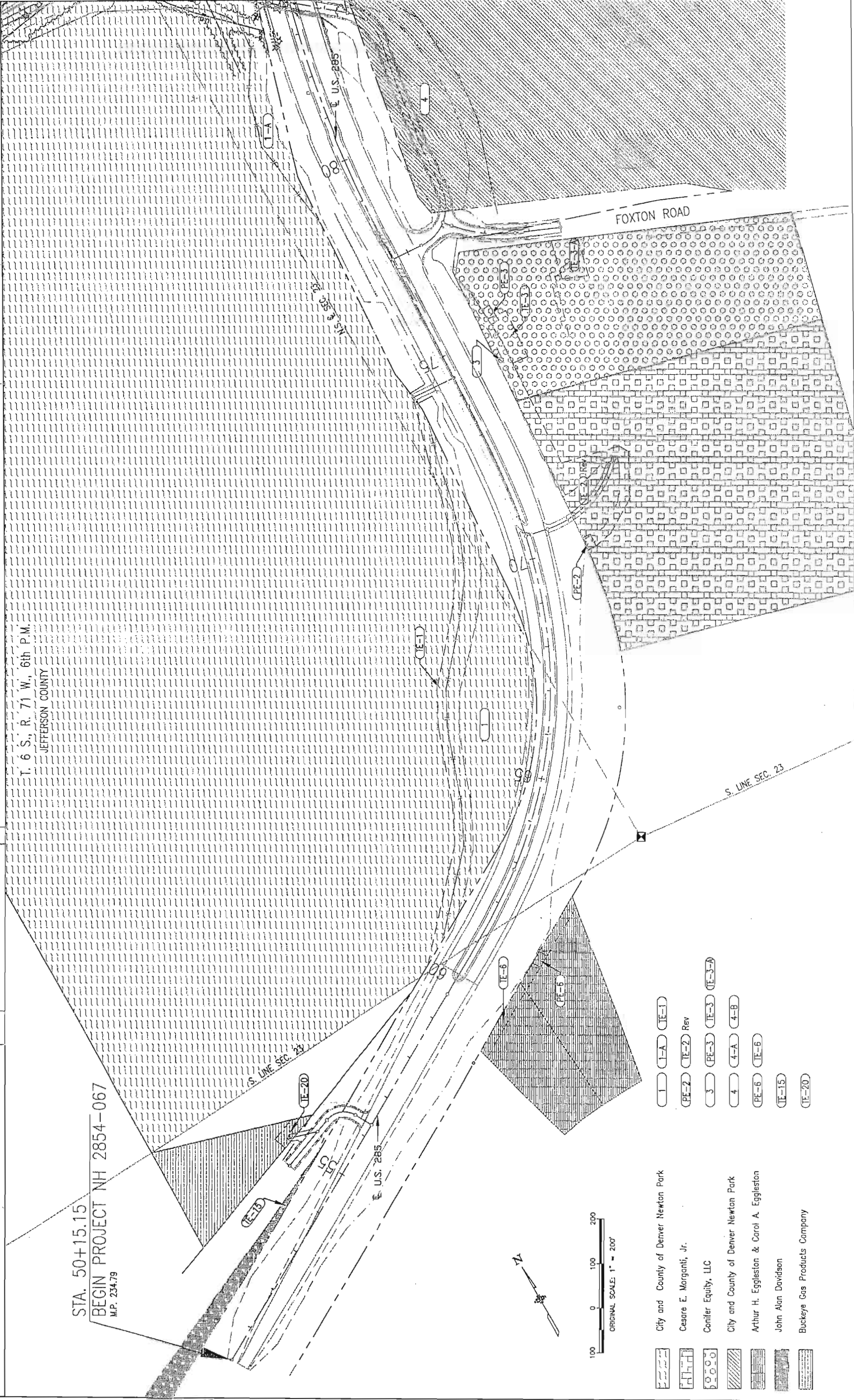
RIGHT OF WAY OWNERSHIP MAP
 NH 2854-067

Foxton Road to Eagle Cliff Road

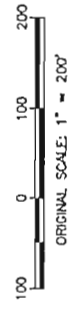
PROJECT CODE: 11847 SHEET NUMBER: 18 of 24

STA. 50+15.15
 BEGIN PROJECT NH 2854-067
 M.P. 234.79

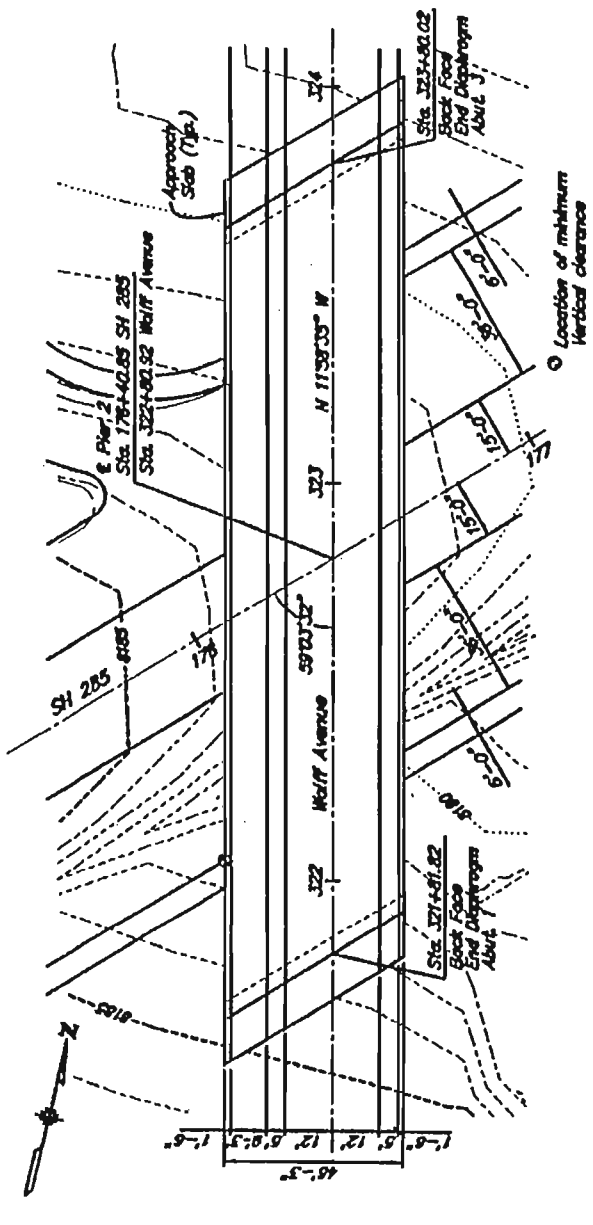
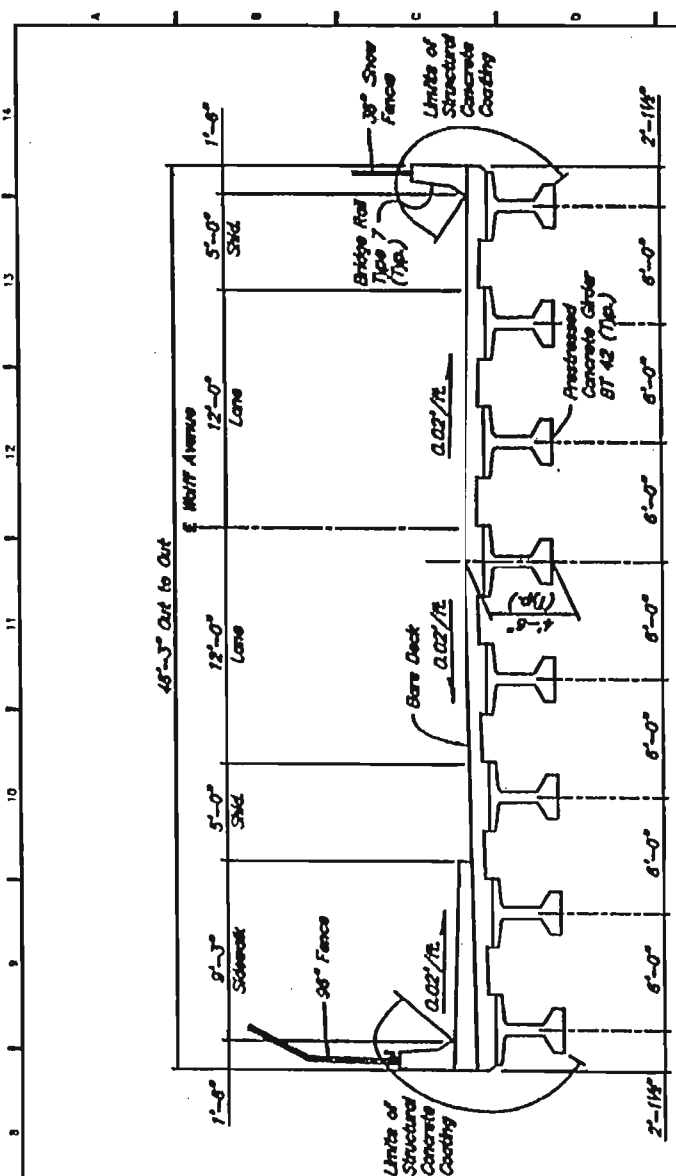
T. 6 S., R. 71 W., 6th P.M.
 JEFFERSON COUNTY



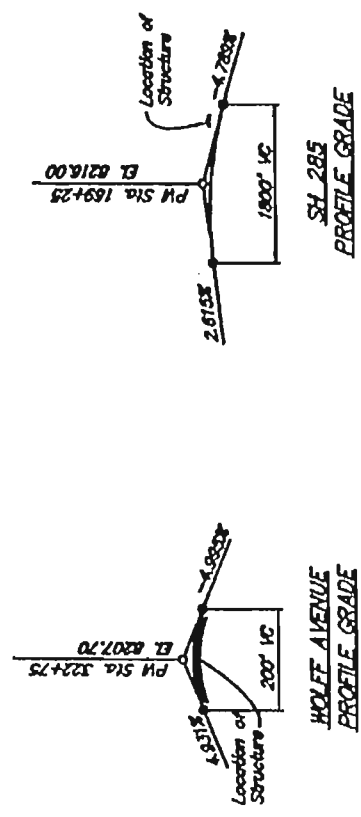
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 DEPOSITED THIS _____ DAY OF _____
 OF THE COUNTY LAND SURVEYS/RIGHT OF WAY
 SURVEYS AT PAGE _____ RECEPTION NUMBER _____
 SIGNED _____ DEPT. _____



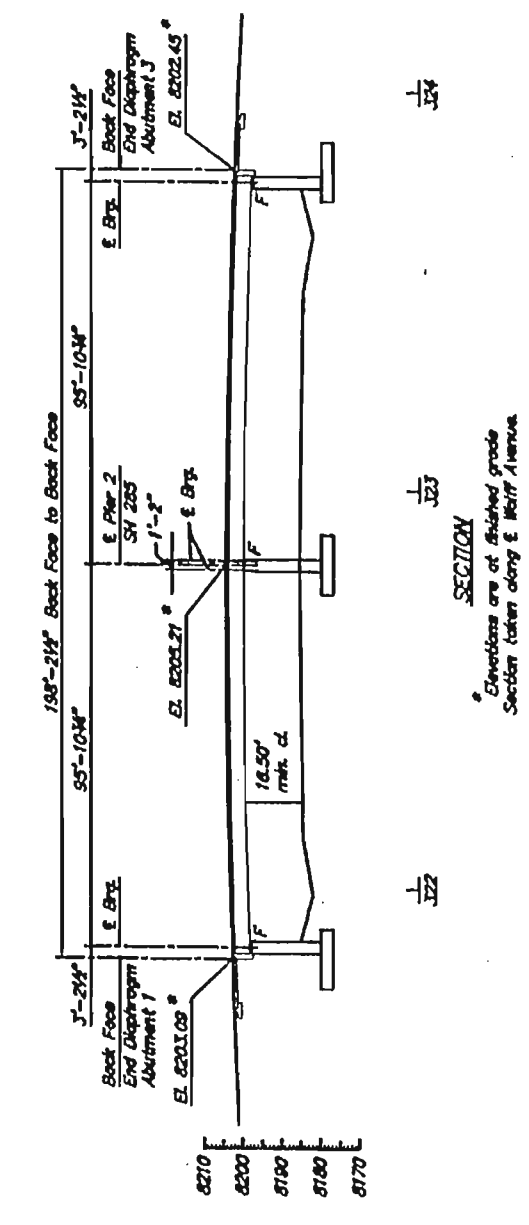
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|--|--|--|------------------|
| | City and County of Denver Newton Park | | IE-1 |
| | Cesare E. Morganti, Jr. | | IE-2 Rev |
| | Conifer Equity, LLC | | PE-3 IE-3 IE-3-A |
| | City and County of Denver Newton Park | | 4-A 4-B |
| | Arthur H. Eggleston & Carol A. Eggleston | | IE-6 |
| | John Alan Davidson | | IE-15 |
| | Buckeye Gas Products Company | | IE-20 |



TYPICAL SECTION



PLAN

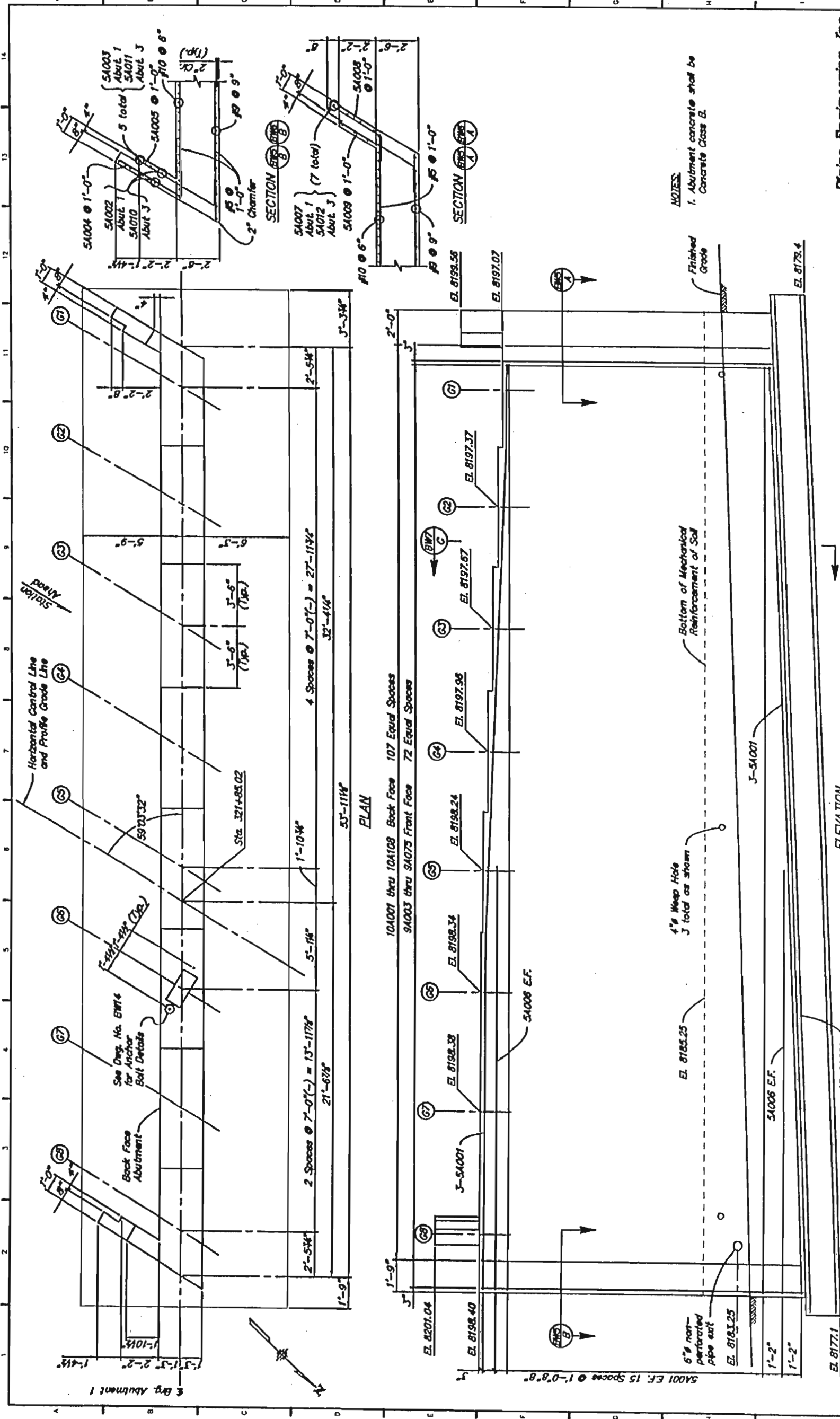


SECTION
 * Elevations are at finished grade
 Section taken along E Wolff Avenue

8170	8180	8190	8200	8210
8170	8180	8190	8200	8210

Computer File Information		Sheet Revisions	
Creation Date: 9-5-1998	Author: SJW		
Last Modification Code: 5-23-2000	Issue: SJW		
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Drawing File Name: 2855BRWCLDWG			
Acad Ver: R14	Scale: 1 = 20	Unit: ENGLISH	
Colorado Department of Transportation		As Constructed	
4301 East Arapahoe Avenue, Room 330 Denver, Colorado 80222-3400 Phone: 303-757-9332 FAX: 303-757-9197		No Revisions	
Colorado DOT Construction Management Services		Reviewed:	
Staff Bridge Branch		Void	
SH 285 PHASE 5		WOLFF AVENUE OVER SH 285	
GENERAL LAYOUT		Structure Number: F-15-DH	
Qualifier: T. Conna		Submittal Number: 11848	
Detailer: S. Westerdale		Sheet Number: 23	
Sheet Name: Wolff		Sheet of 23	
Project No./Code: NH 2854-068		Sheet Number	

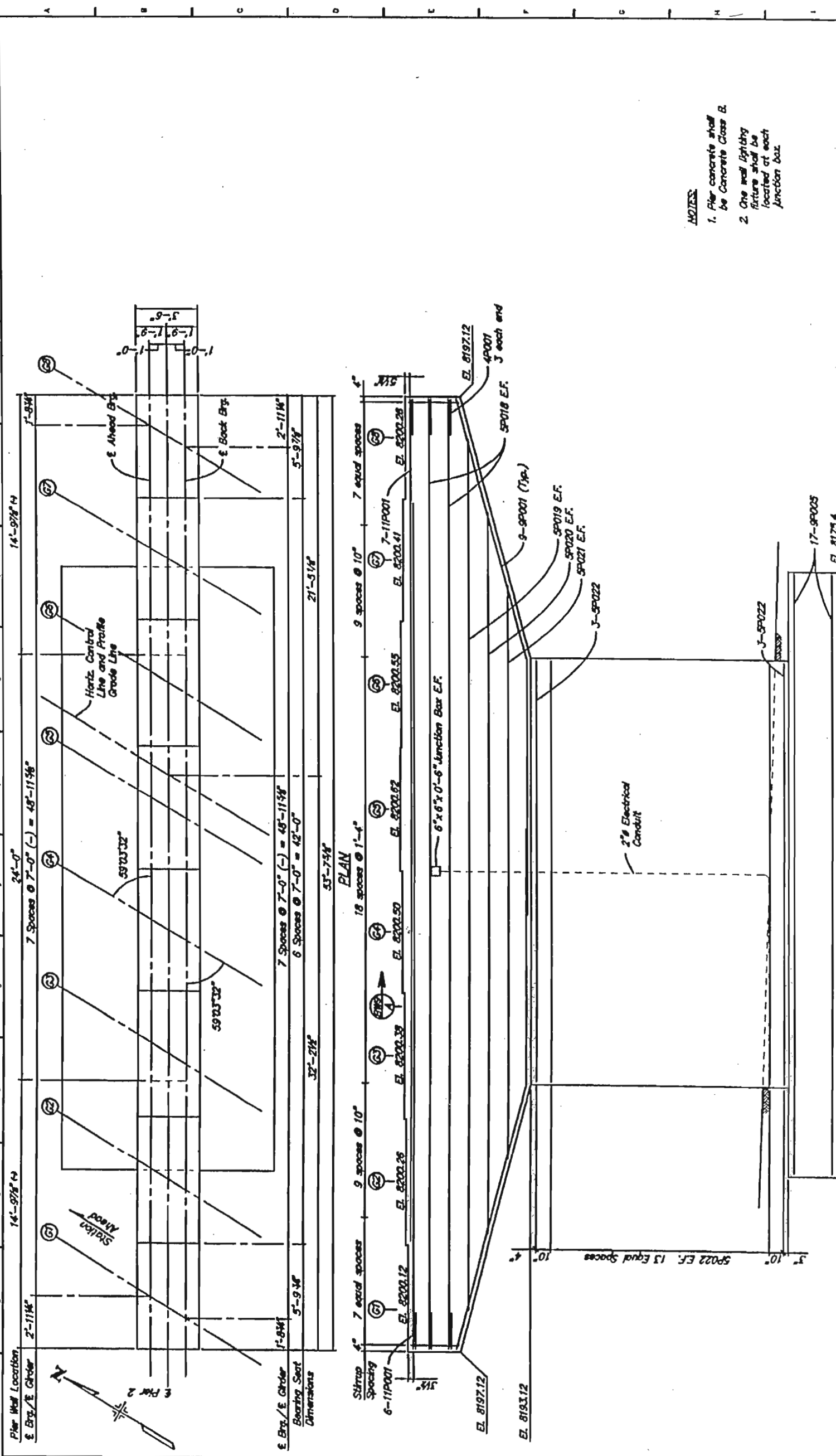
Plains Engineering, Inc.



Computer File Information Creation Date: 9-15-1998 Last Modification Date: 5-24-2000 Full Path: C:\ACAD\2855 Drawing File Name: 2855BWA1.DWG Acad Ver.: R14 Scale: 1 = 2.668... Units: ENGLISH		Sheet Revisions No Revisions Reviser: [Blank] Valt: [Blank]		As Constructed No Revisions Reviser: [Blank] Valt: [Blank]		Colorado Department of Transportation 4201 East Arkansas Avenue, Room 330 Denver, Colorado 80222-3400 Phone: 303-757-9352 FAX: 303-757-9197		Plains Engineering, Inc. SH 285 PHASE 5 WOLFF AVENUE OVER SH 285 LAYOUT - ABUTMENT 1 Designer: T. Conna Checker: S. Westergaale Sheet Number: BWS of 23		Project No./Code NH 2854-068 Structure Number F-15-DH Sheet Number 11848	
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DESIGN	DATE	BY	CHKD	DATE	BY	CHKD	DATE	BY	CHKD	
DESIGNED BY	TIC	10-88	DESIGNED BY	TIC	10-88	CHECKED BY	TIC	10-88	CHECKED BY	TIC
CHECKED BY	LF	10-88	CHECKED BY	LF	10-88	QUANTITY				

Quantity	Description
	Check by [Signature]
	Checked by [Signature]
	Drawn by [Signature]
	Reviewed by [Signature]
	Approved by [Signature]



- NOTES:**
1. Pier concrete shall be Concrete Class B.
 2. One wall lighting fixture shall be located at each junction box.

Plains Engineering, Inc.	
Project No./Code	
SH 285 PHASE 5	
WOLFF AVENUE OVER SH 285	
LAYOUT PIER 2	
Project No.	NH 2854-068
Sheet Number	
11848	
Sheet Size: BWS of 23	
As Constructed	
No Revisions	
Revised	
Void	
Colorado Department of Transportation	
4301 East Arkansas Avenue, Room 300 Denver, Colorado 80222-3400 Phone: 303-757-8382 FAX: 303-757-8197	
DOT	
Staff Bridge Branch	
Computer File Information	
Creation Date:	9-3-1998
Last Modification Date:	5-24-2000
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