

Oversight / NHS

FHWA REGION VIII OVERSIGHT? NO YES

NATIONAL HIGHWAY SYSTEM? NO YES

DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

Related Projects:

P. E. UNDER PROJECT: STA 092A-018
Project Number: 14934
Project Code:

R.O.W. Projects:

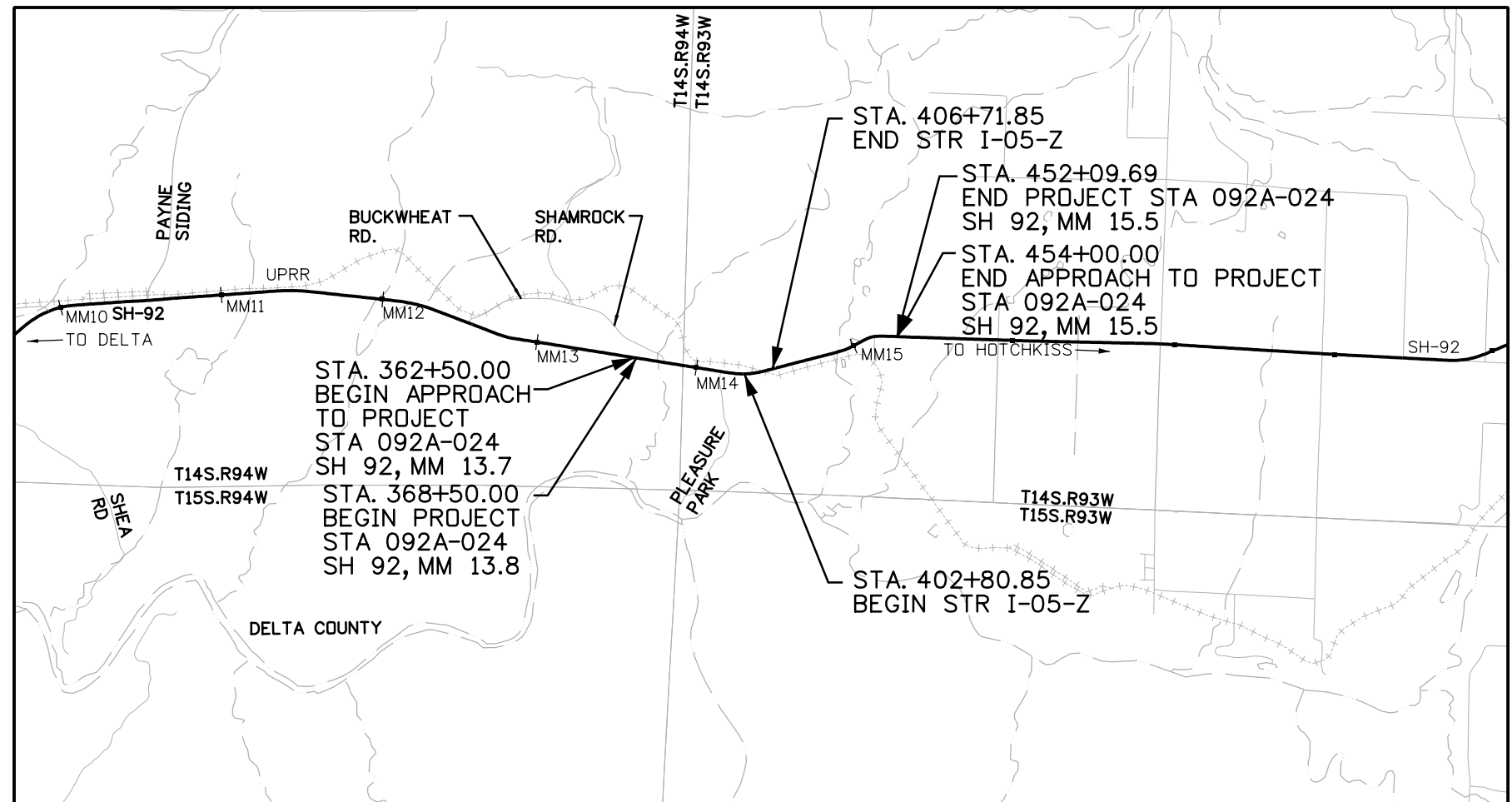
R.O.W. Project Description: STA 092A-023
Project Code: 17774

TABULATION OF LENGTH & DESIGN DATA

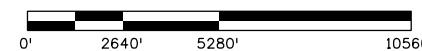
STATION	FEET	
	ROADWAY SH 92	MAJOR STR.
BEGIN APPROACH TO PROJECT STA. 362+50.00		
BEGIN STA 092A-024 STA. 368+50.00 ON SH92 MM 13.8	3430.85	
STA. 402+80.85 BEGIN STRUCTURE NO. I-05-Z		391.00
STA. 406+71.85 END STRUCTURE NO. I-05-Z		
END STA 092A-024 STA. 452+09.69 ON SH92 MM 15.5	4537.84	
END OF APPROACH TO PROJECT STA. 454+00.00		
TOTAL	7968.69	391.00
SUMMARY OF PROJECT LENGTH	FEET	MILES
ROADWAY	7968.69	1.51
MAJOR STRUCTURE	391.00	.07
PROJECT GROSS LENGTH	8359.69	1.58
DESIGN DATA	S.H. 92	
MAXIMUM RADIUS OF CURVE	10,000 ft	
MAXIMUM GRADE	6.0%	
MINIMUM S.S.D. HORIZONTAL	495 ft	
MINIMUM S.S.D. VERTICAL	495 ft	
MAXIMUM DESIGN SPEED	55 MPH	
2030 DESIGN TRAFFIC	DHV = 873	
	ADT = 7938	
DHV TRUCKS %	6.2%	
CLEAR ZONE DISTANCE	30 ft	
CONSTRUCTION CLEAR ZONE (MIN 18')	18 ft	

* FOR INFORMATION ONLY

HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED COLORADO PROJECT NO. STA 092A-024 STATE HIGHWAY NO. 92 DELTA COUNTY CONSTRUCTION PROJECT CODE NO. 17772



PROJECT LOCATION MAP



Print Date: 11/4/2013

File Name: 17772DES_TitleSht.dgn

Horiz. Scale: 1:1

Vert. Scale: As Noted

Unit Information

Unit Leader Initials



Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



2424 North Townsend Avenue
Montrose, CO 81401
Phone: 972-249-5285 FAX: 970-249-6018

Region 3

RA

As Constructed

No Revisions:

Revised:

Void:

Contract Information

Contractor:

Resident Engineer:

Project Engineer:

PROJECT STARTED: / / ACCEPTED: / /

Comments:

Project No./Code

STA 092A-024

17772



Sheet Number 1

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772\Design\Drawings\17772DES_IndexOfSheets.dgn

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS
3	STANDARD PLANS LIST
4-7	TYPICAL SECTIONS
8-9	GENERAL NOTES
10-14	SUMMARY OF QUANTITIES
15-16	SUMMARY OF STRUCTURE QUANTITIES
17	SUMMARY OF EARTHWORK
18	TABULATION OF SURFACING
19	TABULATION OF FENCE
20	TABULATION OF GUARDRAIL
21-22	TABULATION OF REMOVALS
23-24	GEOMETRIC LAYOUT PLANS
25-29	FENCE, HMA PATCHING AND TRENCH, PIPE OUTLET PAVEING, DRAINAGE DETAILS
30-39	UTILITY NOTES, PLANS AND WATER LINE DETAILS
40-43	DEMOLITION PLANS
44	TABULATION OF APPROACHES
45-55	APPROACH PLAN AND PROFILES
56-62	ROADWAY PLAN AND PROFILES WITH DRAINAGE - SH92
63	ROADWAY PLAN AND PROFILES WITH DRAINAGE- SHAMROCK RD.
64	ROADWAY PLAN AND PROFILES WITH DRAINAGE- PLEASURE PARK RD
65-100	BRIDGE PLANS
101-125	EAST WALL, WEST WALL AND RETAINING WALL 442 PLANS
126-131	BIG GULCH STRUCTURAL PLANS
132	SURVEY TABULATION SHEET
133-135	SURVEY CONTROL DIAGRAM SHEETS
136-139	STRUCTURE CROSS SECTIONS
140	IRRIGATION CROSS SECTIONS
141-144	STORM WATER MANAGEMENT PLAN
145-151	GRADING AND EROSION CONTROL PLANS
152-184	CONSTRUCTION PHASING PLANS
185	TABULATION OF TRAFFIC ENGINEERING ITEMS
186	TABULATION OF DELINEATORS
187	TABULATION OF SIGNS
188	TABULATION OF PERMANENT PAVEMENT MARKINGS
189-192	SIGNING AND STRIPING PLANS
500-626	ROADWAY CROSS SECTIONS - SH92

PROJECT DESCRIPTION

LOCATED ON SH 92 IN DELTA COUNTY BEGINNING AT MM 13.8 AND EXTENDING EASTERLY TO MM 15.5. THIS PROJECT WILL PROVIDE AN IMPROVED 2-LANE FACILITY BY RECONSTRUCTING AND WIDENING SH 92. EXISTING SHOULDERS WILL BE UPGRADED TO CURRENT STANDARDS. SLOPE STABILIZATION AND IMPROVEMENTS TO DRAINAGE, 'Z' SLOPES, SIDE SLOPES, AUXILIARY LANES, AND CLEAR ZONES WILL BE REQUIRED THROUGHOUT THE PROJECT LIMITS. THE "AT-GRADE" RAILROAD CROSSING WILL BE REPLACED WITH A GRADE SEPARATED CROSSING WITH SH 92.

Print Date: 11/4/2013		<table border="1"> <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> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>			Sheet Revisions			Date:	Comments	Init.													<table border="1"> <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:		<table border="1"> <thead> <tr> <th colspan="3">INDEX OF SHEETS</th> </tr> </thead> <tbody> <tr> <td>Designer:</td> <td>P. WELLS</td> <td>Structure Numbers</td> <td> </td> </tr> <tr> <td>Detailer:</td> <td>B. TENNANT</td> <td> </td> <td> </td> </tr> <tr> <td>Sheet Subset:</td> <td>INDEX</td> <td>Subset Sheets:</td> <td>01 of 01</td> </tr> </tbody> </table>			INDEX OF SHEETS			Designer:	P. WELLS	Structure Numbers		Detailer:	B. TENNANT			Sheet Subset:	INDEX	Subset Sheets:	01 of 01	Project No./Code	
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Horiz. Scale: 1:1 Vert. Scale: Unit Information Unit Leader Initials				Sheet Number 2																																																

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772_Design\Drawings\17772DES_StdPlanList.dgn

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
<input checked="" type="checkbox"/>		M-100-1 STANDARD SYMBOLS (3 SHEETS).....	1-3	<input checked="" type="checkbox"/>		M-607-1 WIRE FENCES AND GATES (3 SHEETS).....	100-102	<input checked="" type="checkbox"/>		S-612-1 DELINEATOR INSTALLATIONS (7 SHEETS).....	151-157
<input checked="" type="checkbox"/>		M-100-2 ACRONYMS AND ABBREVIATIONS (4 SHEETS).....	4-7	<input type="checkbox"/>		M-607-2 CHAIN LINK FENCE (3 SHEETS).....	103-105	<input type="checkbox"/>	<input checked="" type="checkbox"/>	S-614-1 GROUND SIGN PLACEMENT (2 SHEETS) (REVISED ON JULY 24, 2012)....	158-159
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	M-203-1 APPROACH ROADS (REVISED ON JULY 08, 2013).....	8	<input type="checkbox"/>		M-607-3 BARRIER FENCE.....	106	<input checked="" type="checkbox"/>		S-614-2 CLASS I SIGNS.....	160
<input checked="" type="checkbox"/>		M-203-2 DITCH TYPES.....	9	<input type="checkbox"/>		M-607-4 DEER FENCE AND GATES (3 SHEETS).....	107-109	<input checked="" type="checkbox"/>		S-614-3 CLASS II SIGNS.....	161
<input checked="" type="checkbox"/>		M-203-11 SUPERELEVATION CROWNED AND DIVIDED HIGHWAYS (3 SHEETS).....	10-12	<input type="checkbox"/>		M-607-10 PICKET SNOW FENCE.....	110	<input type="checkbox"/>		S-614-4 CLASS III SIGNS (3 SHEETS).....	162-164
<input type="checkbox"/>		M-203-12 SUPERELEVATION STREETS (2 SHEETS).....	13-14	<input type="checkbox"/>		M-607-15 ROAD CLOSURE GATE (9 SHEETS).....	111-119	<input type="checkbox"/>		S-614-5 BREAK-AWAY SIGN SUPPORT DETAILS FOR GROUND SIGNS (2 SHEETS).....	165-166
<input checked="" type="checkbox"/>		M-206-1 EXCAVATION AND BACKFILL FOR STRUCTURES (2 SHEETS).....	15-16	<input type="checkbox"/>		M-608-1 CURB RAMPS (6 SHEETS).....	120-125	<input type="checkbox"/>	<input type="checkbox"/>	S-614-6 CONCRETE FOOTINGS AND SIGN ISLANDS FOR CLASS III SIGNS (2 SHEETS) (REVISED ON SEPTEMBER 16, 2013)....	167-168
<input checked="" type="checkbox"/>		M-206-2 EXCAVATION AND BACKFILL FOR BRIDGES (2 SHEETS).....	17-18	<input type="checkbox"/>	<input type="checkbox"/>	M-609-1 CURBS, GUTTERS, AND SIDEWALKS (4 SHEETS) (REVISED ON JULY 24, 2012)....	126-129	<input type="checkbox"/>	<input checked="" type="checkbox"/>	S-614-8 TUBULAR STEEL SIGN SUPPORT DETAILS (5 SHEETS).....	169-173
<input checked="" type="checkbox"/>		M-208-1 TEMPORARY EROSION CONTROL (12 SHEETS).....	19-30	<input type="checkbox"/>		M-611-1 CATTLE GUARD (2 SHEETS).....	130-131	<input type="checkbox"/>		S-614-9 PEDESTRIAN PUSH BUTTON POST ASSEMBLY.....	174
<input checked="" type="checkbox"/>		M-210-1 MAILBOX SUPPORTS (2 SHEETS).....	31-32	<input type="checkbox"/>		M-613-1 ROADWAY LIGHTING (4 SHEETS).....	132-135	<input checked="" type="checkbox"/>		S-614-10 MARKER ASSEMBLY INSTALLATIONS.....	175
<input type="checkbox"/>		M-214-1 PLANTING DETAILS.....	33	<input type="checkbox"/>		M-614-1 RUMBLE STRIPS (3 SHEETS).....	136-138	<input type="checkbox"/>		S-614-11 MILEPOST SIGN DETAIL FOR HIGH SNOW AREAS.....	176
<input type="checkbox"/>	<input type="checkbox"/>	M-412-1 CONCRETE PAVEMENT JOINTS (5 SHEETS) (REVISED ON JULY 24, 2012)....	34-38	<input type="checkbox"/>		M-614-2 SAND BARREL ARRAYS (2 SHEETS).....	139-140	<input checked="" type="checkbox"/>		S-614-12 STRUCTURE NUMBER INSTALLATION.....	177
<input type="checkbox"/>		M-510-1 STRUCTURAL PLATE PIPE H-20 LOADING.....	39	<input checked="" type="checkbox"/>		M-615-1 EMBANKMENT PROTECTOR TYPE 3.....	141	<input type="checkbox"/>		S-614-14 FLASHING BEACON AND SIGN INSTALLATIONS (3 SHEETS).....	178-180
<input type="checkbox"/>	<input type="checkbox"/>	M-601-1 SINGLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON AUGUST 27, 2013)....	40-41	<input checked="" type="checkbox"/>		M-615-2 EMBANKMENT PROTECTOR TYPE 5.....	142	<input type="checkbox"/>		S-614-20 TYPICAL POLE MOUNT SIGN INSTALLATIONS.....	181
<input type="checkbox"/>	<input type="checkbox"/>	M-601-2 DOUBLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON AUGUST 27, 2013)....	42-43	<input type="checkbox"/>		M-616-1 INVERTED SIPHON.....	143	<input type="checkbox"/>		S-614-21 CONCRETE BARRIER SIGN POST INSTALLATIONS.....	182
<input type="checkbox"/>	<input type="checkbox"/>	M-601-3 TRIPLE CONCRETE BOX CULVERT (2 SHEETS) (REVISED ON AUGUST 27, 2013)....	44-45	<input checked="" type="checkbox"/>		M-620-1 FIELD LABORATORY CLASS 1.....	144	<input type="checkbox"/>		S-614-22 TYPICAL MULTI-SIGN INSTALLATIONS.....	183
<input type="checkbox"/>		M-601-10 HEADWALL FOR PIPES.....	46	<input type="checkbox"/>		M-620-2 FIELD LABORATORY CLASS 2 (2 SHEETS).....	145-146	<input checked="" type="checkbox"/>		S-614-40 TYPICAL TRAFFIC SIGNAL INSTALLATION DETAILS (5 SHEETS).....	184-188
<input type="checkbox"/>		M-601-11 TYPE "S" SADDLE HEADWALLS FOR PIPE.....	47	<input type="checkbox"/>		M-620-11 FIELD OFFICE CLASS 1.....	147	<input type="checkbox"/>	<input type="checkbox"/>	S-614-40A ALTERNATIVE TRAFFIC SIGNAL INSTALLATION DETAILS (4 SHEETS) (REVISED ON SEPTEMBER 25, 2012)....	189-192
<input checked="" type="checkbox"/>		M-601-12 HEADWALLS AND PIPE OUTLET PAVING.....	48	<input checked="" type="checkbox"/>		M-620-12 FIELD OFFICE CLASS 2.....	148	<input type="checkbox"/>		S-614-41 PEDESTAL POLE AND TEMPORARY SPAN WIRE SIGNALS.....	193
<input checked="" type="checkbox"/>		M-601-20 WINGWALLS FOR PIPE OR BOX CULVERTS.....	49	<input type="checkbox"/>		M-629-1 SURVEY MONUMENTS (2 SHEETS).....	149-150	<input type="checkbox"/>		S-614-42 CABINET FOUNDATION DETAIL (4 SHEETS).....	194-197
<input type="checkbox"/>		M-603-1 METAL PIPE (4 SHEETS).....	50-53					<input type="checkbox"/>		S-614-43 TRAFFIC LOOP AND MISCELLANEOUS SIGNAL DETAILS (10 SHEETS).....	198-207
<input checked="" type="checkbox"/>		M-603-2 REINFORCED CONCRETE PIPE.....	54					<input type="checkbox"/>		S-614-50 STATIC SIGN MONOTUBE STRUCTURES (12 SHEETS).....	208-219
<input type="checkbox"/>		M-603-3 PRECAST CONCRETE BOX CULVERT.....	55					<input type="checkbox"/>		S-614-60 DYNAMIC SIGN MONOTUBE STRUCTURES (14 SHEETS).....	220-233
<input type="checkbox"/>		M-603-4 CORRUGATED POLYETHYLENE PIPE (AASHTO M294).....	56					<input type="checkbox"/>		S-627-1 PAVEMENT MARKINGS (5 SHEETS) (REVISED ON SEPTEMBER 16, 2013)....	234-238
<input type="checkbox"/>		M-603-5 POLYVINYL CHLORIDE (PVC) PIPE (AASHTO M304).....	57					<input type="checkbox"/>		S-630-1 TRAFFIC CONTROLS FOR HIGHWAY CONSTRUCTION (20 SHEETS) (REVISED ON JULY 26, 2013)....	239-258
<input type="checkbox"/>		M-603-10 CONCRETE AND METAL END SECTIONS (2 SHEETS).....	58-59					<input checked="" type="checkbox"/>		S-630-2 BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP) AND VERTICAL PANELS.....	259
<input type="checkbox"/>		M-604-10 INLET, TYPE C.....	60					<input type="checkbox"/>		S-630-3 FLASHING BEACON (PORTABLE) DETAILS.....	260
<input checked="" type="checkbox"/>		M-604-11 INLET, TYPE D.....	61					<input type="checkbox"/>		S-630-4 STEEL SIGN SUPPORT (TEMPORARY) INSTALLATION DETAILS (2 SHEETS).....	261-262
<input type="checkbox"/>		M-604-12 CURB INLET TYPE R (2 SHEETS).....	62-63					<input type="checkbox"/>		S-630-5 PORTABLE RUMBLE STRIPS (TEMPORARY) (2 SHEETS).....	263-264
<input type="checkbox"/>		M-604-13 CONCRETE INLET TYPE 13.....	64					<input type="checkbox"/>		S-630-6 EMERGENCY PULL-OFF AREA (TEMPORARY).....	265
<input type="checkbox"/>		M-604-20 MANHOLES (3 SHEETS).....	65-67					<input type="checkbox"/>		S-630-7 ROLLING ROADBLOCKS FOR TRAFFIC CONTROL (3 SHEETS).....	266-268
<input type="checkbox"/>		M-604-25 VANE GRATE INLET (5 SHEETS).....	68-72								
<input type="checkbox"/>		M-605-1 SUBSURFACE DRAINS.....	73								
<input checked="" type="checkbox"/>		M-606-1 GUARDRAIL TYPE 3 W-BEAM (19 SHEETS).....	74-92								
<input type="checkbox"/>	<input type="checkbox"/>	M-606-13 GUARDRAIL TYPE 7 F-SHAPE BARRIER (4 SHEETS) (REVISED ON AUGUST 30, 2013)....	93-96								
<input checked="" type="checkbox"/>		M-606-14 PRECAST TYPE 7 CONCRETE BARRIER (3 SHEETS).....	97-99								

COLORADO
DEPARTMENT OF TRANSPORTATION
M&S STANDARDS PLANS LIST
 July 04, 2012
 Revised on September 16, 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.

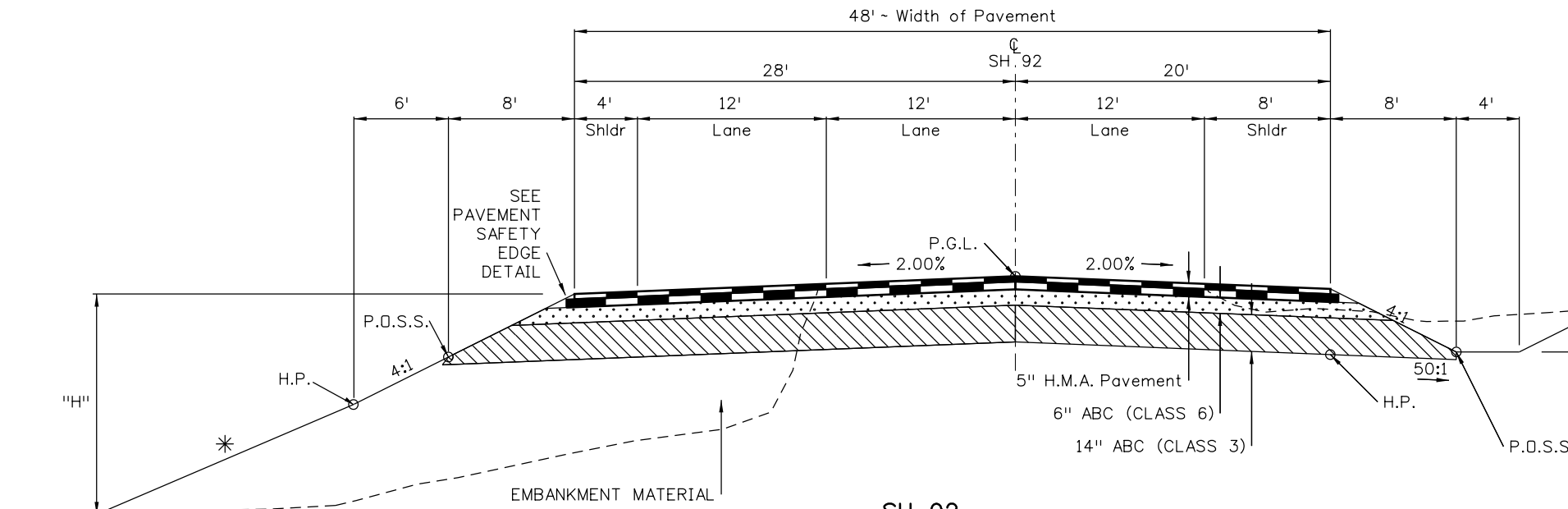
NEW OR REVISED STANDARD PLAN SHEETS APPLICABLE TO THIS PROJECT, INDICATED BY A MARKED BOX , WILL BE ATTACHED TO THE PLANS.

Print Date: 11/4/2013		Sheet Revisions			Colorado Department of Transportation		As Constructed		STANDARD PLANS LIST			Project No./Code			
File Name: 17772DES_StdPlanList.dgn		Date:	Comments	Init.	 2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018		No Revisions:		Designer: P. WELLS Detailer: B. TENNANT Sheet Subset: PLAN LIST			STA 092A-024			
Horiz. Scale: 1:1	Vert. Scale:						Revised:					Structure Numbers		17772	
Unit Information							Void:					Subset Sheets: 01 of 01		Sheet Number 3	
					Region 3		RA								

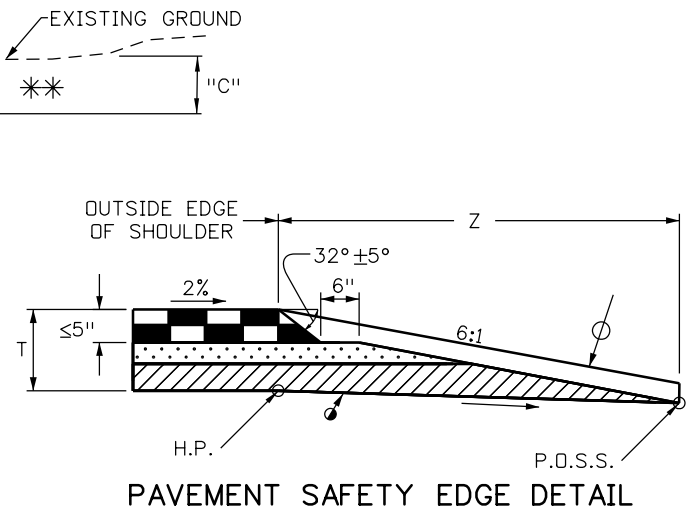


TYPICAL SECTION NOTES

- P.G.L. - Profile Grade Line & Axis of Rotation
 - H.M.A. - Hot Mix Asphalt
 - H.P. - Hinge point
 - P.O.S.S. - Point of Slope Selection
1. EMBANKMENT AND EMBANKMENT (SPECIAL) SHALL BE BENCHED AS PER STANDARD SPECIFICATION 203.06



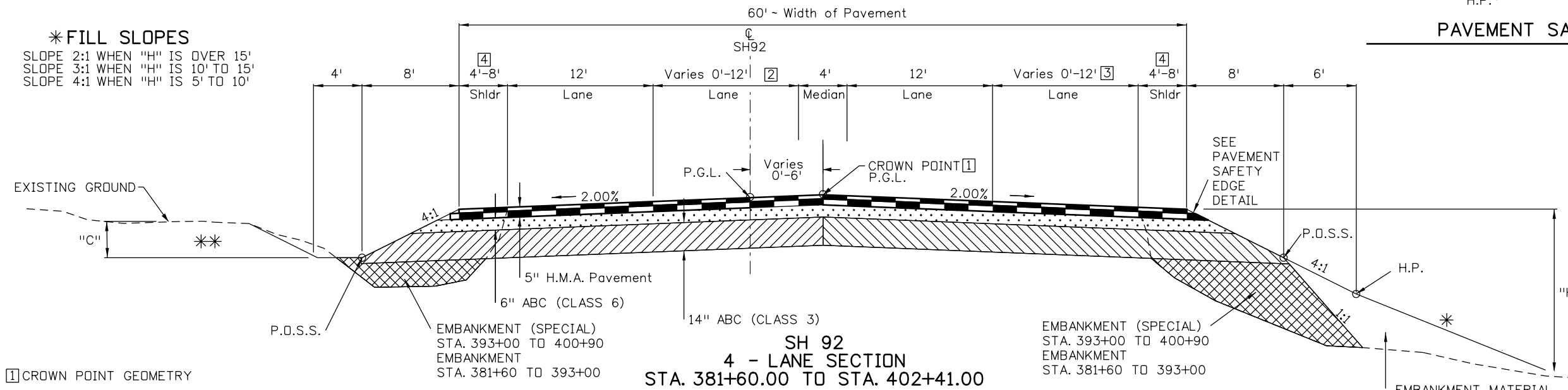
**SH 92
WITH WESTBOUND CLIMBING LANE
STA. 368+50.00 TO STA. 381+60.00**



PAVEMENT SAFETY EDGE DETAIL

**** CUT SLOPES**
 SLOPE 4:1 WHEN "C" IS 5' TO 10'
 SLOPE 3:1 WHEN "C" IS 10' TO 15'
 SLOPE 2:1 WHEN "C" IS OVER 15'

*** FILL SLOPES**
 SLOPE 2:1 WHEN "H" IS OVER 15'
 SLOPE 3:1 WHEN "H" IS 10' TO 15'
 SLOPE 4:1 WHEN "H" IS 5' TO 10'



**SH 92
4 - LANE SECTION
STA. 381+60.00 TO STA. 402+41.00**

1] CROWN POINT GEOMETRY

STA. 381+60	OFFSET 0'
STA. 386+00	OFFSET 6' RT
STA. 394+91	OFFSET 6' RT
STA. 396+40	OFFSET 0'
STA. 402+41	OFFSET 0'

2] LANE WIDTH TABLE

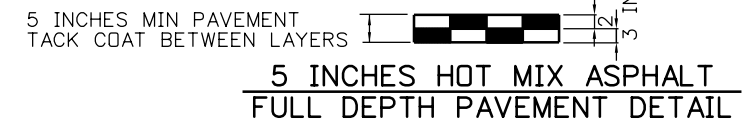
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STA. 395+00	WIDTH 12'
STA. 396+50	WIDTH 0'
STA. 402+41	WIDTH 0'

3] LANE WIDTH TABLE

STA. 381+60	WIDTH 0'
STA. 382+75	WIDTH 0'
STA. 385+00	WIDTH 12'
STA. 399+31	WIDTH 12'
STA. 402+41	WIDTH 0'

4] SHOULDER WIDTH TABLE

LEFT SIDE		RIGHT SIDE	
STA. 381+60.00	WIDTH 4'	STA. 381+60.00	WIDTH 8'
STA. 396+79.50	WIDTH 4'	STA. 382+75.00	WIDTH 8'
STA. 397+19.73	WIDTH 8'	STA. 384+97.00	WIDTH 4'
STA. 402+41.00	WIDTH 8'	STA. 399+31.00	WIDTH 4'
		STA. 400+25.97	WIDTH 8'
		STA. 402+41.00	WIDTH 8'



**5 INCHES HOT MIX ASPHALT
FULL DEPTH PAVEMENT DETAIL**

5 INCHES HOT MIX ASPHALT (GRADING SX) (75) (PG 64-28)
3 INCHES HOT MIX ASPHALT (GRADING SX) (75) (PG 58-28)

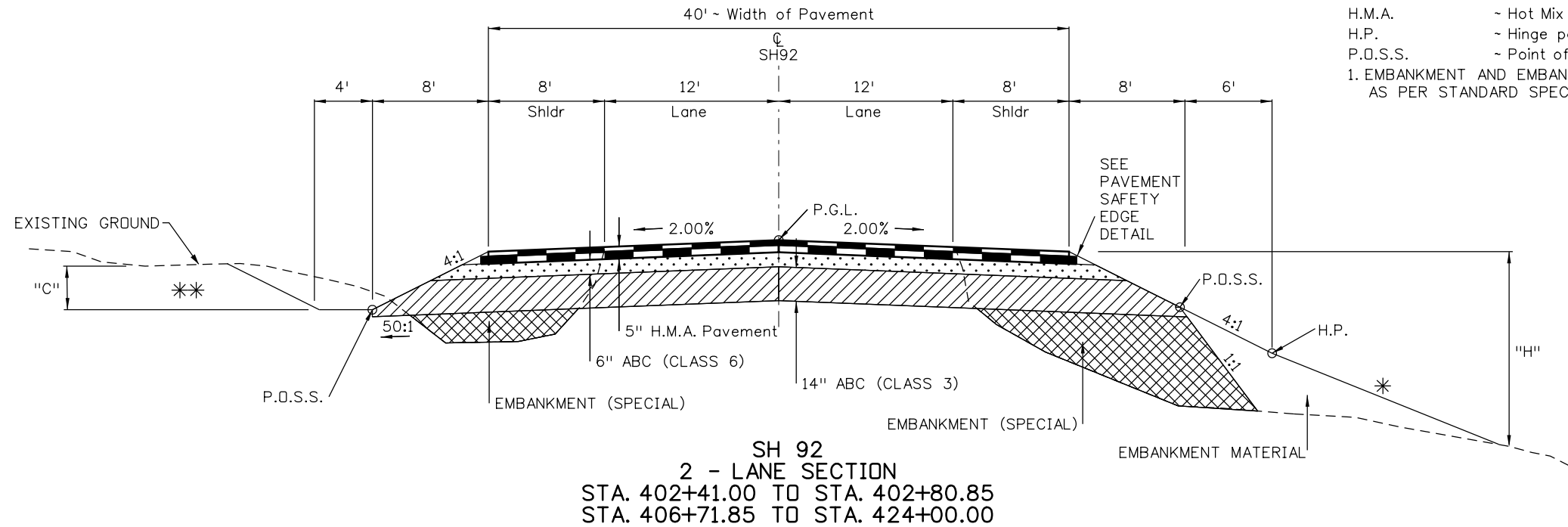
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Print Date: 11/4/2013	Sheet Revisions			Colorado Department of Transportation		As Constructed		Project No./Code	
File Name: 17772DES_TypSht01.dgn	Date:	Comments	Init.	2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018		No Revisions:		STA 092A-024	
Horiz. Scale: 1:10				Region 3		Revised:		17772	
Unit Information				RA		Void:		Sheet Number 4	
URS						TYPICAL SECTION		Designer: P. WELLS	
								Structure Numbers	
								Detailer: B. TENNANT	
								Sheet Subset: TYPICAL	
								Subset Sheets: 01 of 04	



TYPICAL SECTION NOTES

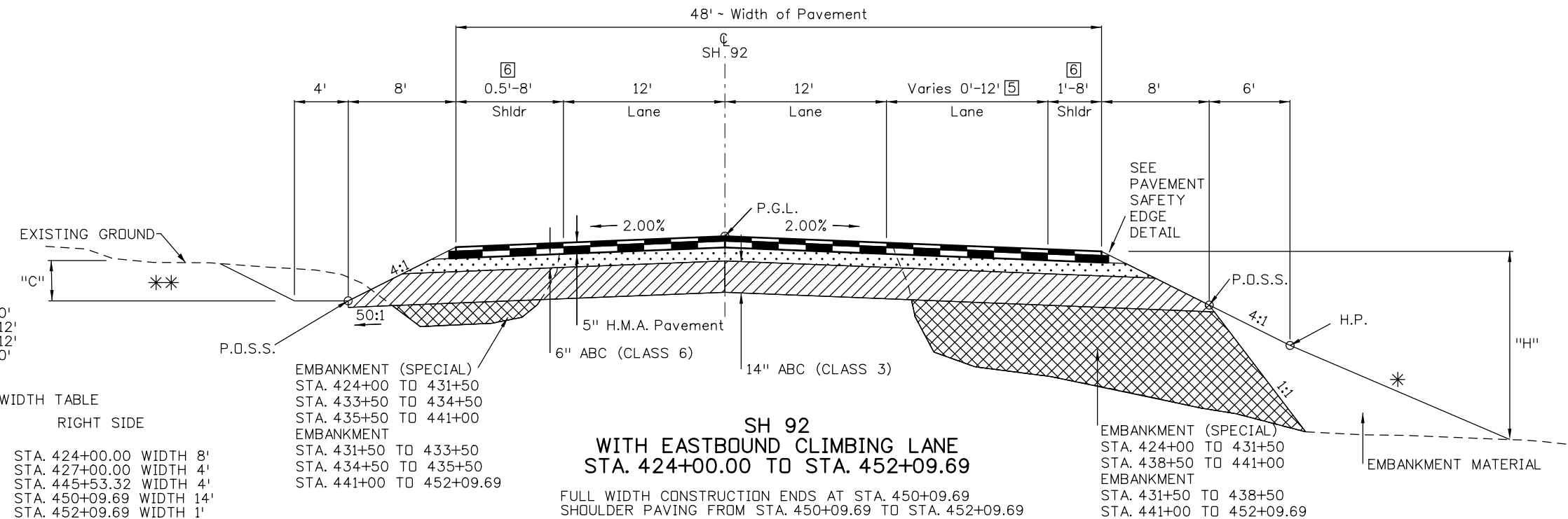
- P.G.L. - Profile Grade Line & Axis of Rotation
 - H.M.A. - Hot Mix Asphalt
 - H.P. - Hinge point
 - P.O.S.S. - Point of Slope Selection
1. EMBANKMENT AND EMBANKMENT (SPECIAL) SHALL BE BENCHED AS PER STANDARD SPECIFICATION 203.06



**** CUT SLOPES**
 SLOPE 4:1 WHEN "C" IS 5' TO 10'
 SLOPE 3:1 WHEN "C" IS 10' TO 15'
 SLOPE 2:1 WHEN "C" IS OVER 15'

*** FILL SLOPES**
 SLOPE 2:1 WHEN "H" IS OVER 15'
 SLOPE 3:1 WHEN "H" IS 10' TO 15'
 SLOPE 4:1 WHEN "H" IS 5' TO 10'

**SH 92
 2 - LANE SECTION
 STA. 402+41.00 TO STA. 402+80.85
 STA. 406+71.85 TO STA. 424+00.00**



5 LANE WIDTH TABLE

STA. 424+00.00	WIDTH 0'
STA. 427+00.00	WIDTH 12'
STA. 445+53.32	WIDTH 12'
STA. 450+09.69	WIDTH 0'

6 SHOULDER WIDTH TABLE

LEFT SIDE		RIGHT SIDE	
STA. 424+00.00	WIDTH 8'	STA. 424+00.00	WIDTH 8'
STA. 450+09.69	WIDTH 8'	STA. 427+00.00	WIDTH 4'
STA. 451+27.99	WIDTH 0.5'	STA. 445+53.32	WIDTH 4'
		STA. 450+09.69	WIDTH 14'
		STA. 452+09.69	WIDTH 1'

EMBANKMENT (SPECIAL)

STA. 424+00 TO 431+50
STA. 433+50 TO 434+50
STA. 435+50 TO 441+00
EMBANKMENT
STA. 431+50 TO 433+50
STA. 434+50 TO 435+50
STA. 441+00 TO 452+09.69

**SH 92
 WITH EASTBOUND CLIMBING LANE
 STA. 424+00.00 TO STA. 452+09.69**
 FULL WIDTH CONSTRUCTION ENDS AT STA. 450+09.69
 SHOULDER PAVING FROM STA. 450+09.69 TO STA. 452+09.69

EMBANKMENT (SPECIAL)

STA. 424+00 TO 431+50
STA. 438+50 TO 441+00
EMBANKMENT
STA. 431+50 TO 438+50
STA. 441+00 TO 452+09.69

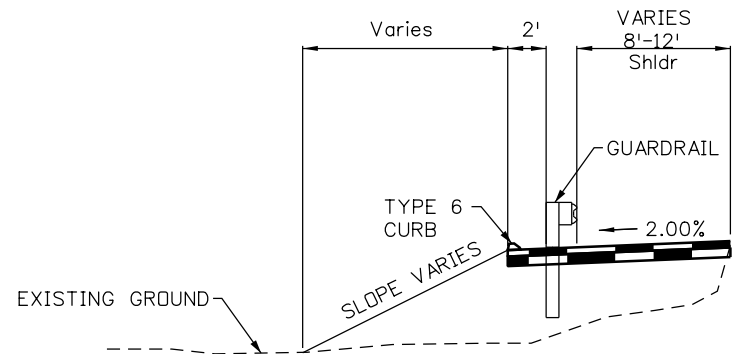
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File Name: 17772DES_TypSht02.dgn	Date: Comments Init.	2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018 Region 3	No Revisions:	STA 092A-024		
Horiz. Scale: 1:10 Vert. Scale:			Revised:	Designer: P. WELLS	Structure Numbers	17772
Unit Information Unit Leader Initials			Void:	Detailer: B. TENNANT	Subset Sheets: 02 of 04	Sheet Number 5
URS		RA				



TYPICAL SECTION NOTES

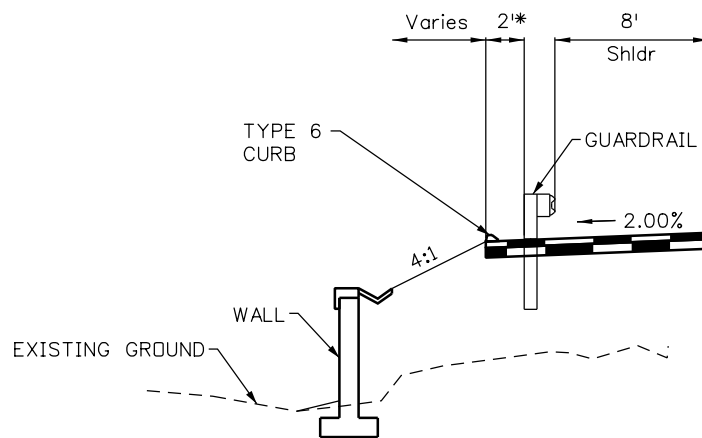
- P.G.L. ~ Profile Grade Line & Axis of Rotation
- H.M.A. ~ Hot Mix Asphalt
- H.P. ~ Hinge point
- P.D.S.S. ~ Point of Slope Selection



* SEE CDOT STANDARDS FOR FLARED END AREA.

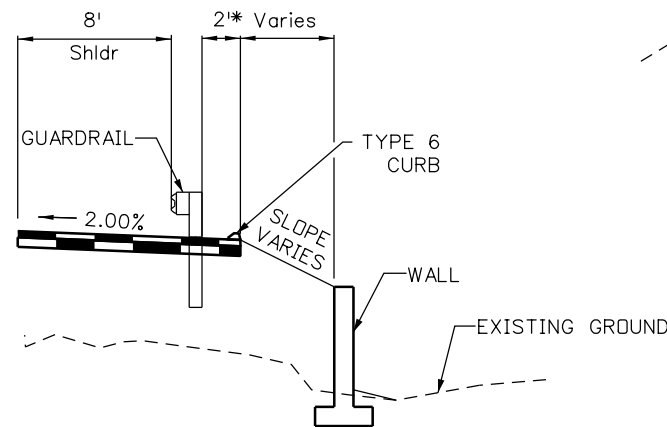
SH 92 GUARDRAIL DETAIL

STA. 396+68.10 TO STA. 399+00.00 LT
 STA. 400+11.56 TO STA. 402+68.35 RT
 STA. 406+84.35 TO STA. 409+40.60 LT
 STA. 413+05.26 TO STA. 415+15.60 RT



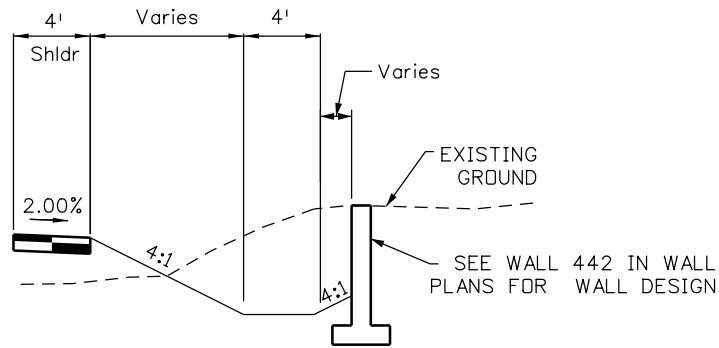
SH 92 FILL WALL W/GUARDRAIL DETAIL LEFT

STA. 399+00.00 TO STA. 402+68.35 LT



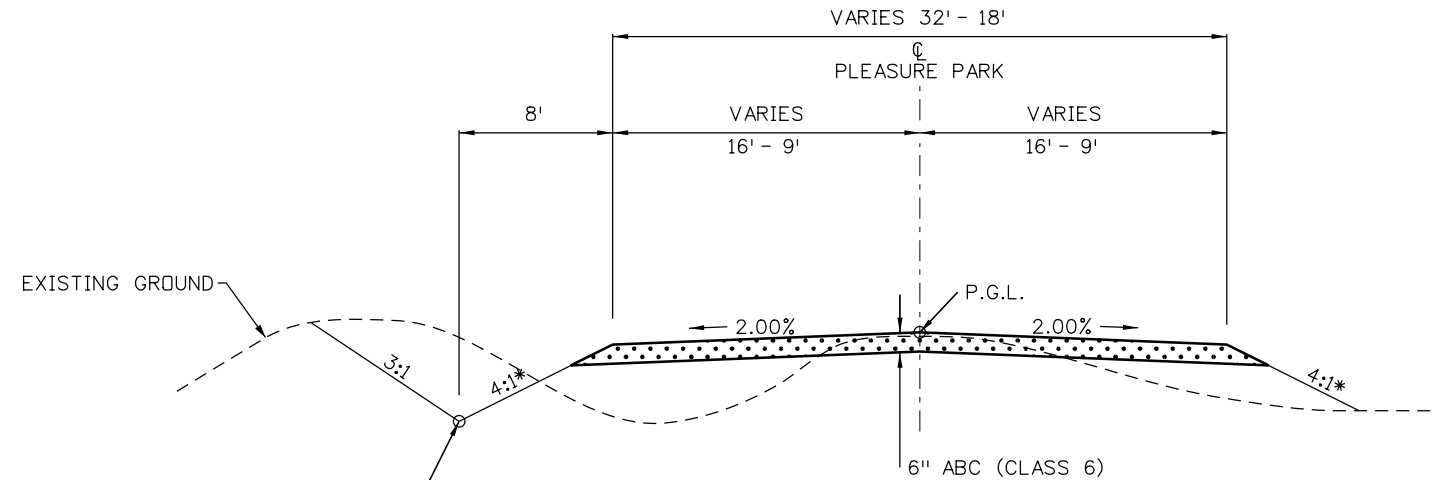
SH 92 FILL WALL W/GUARDRAIL DETAIL RIGHT

STA. 406+84.35 TO STA. 413+05.26 RT



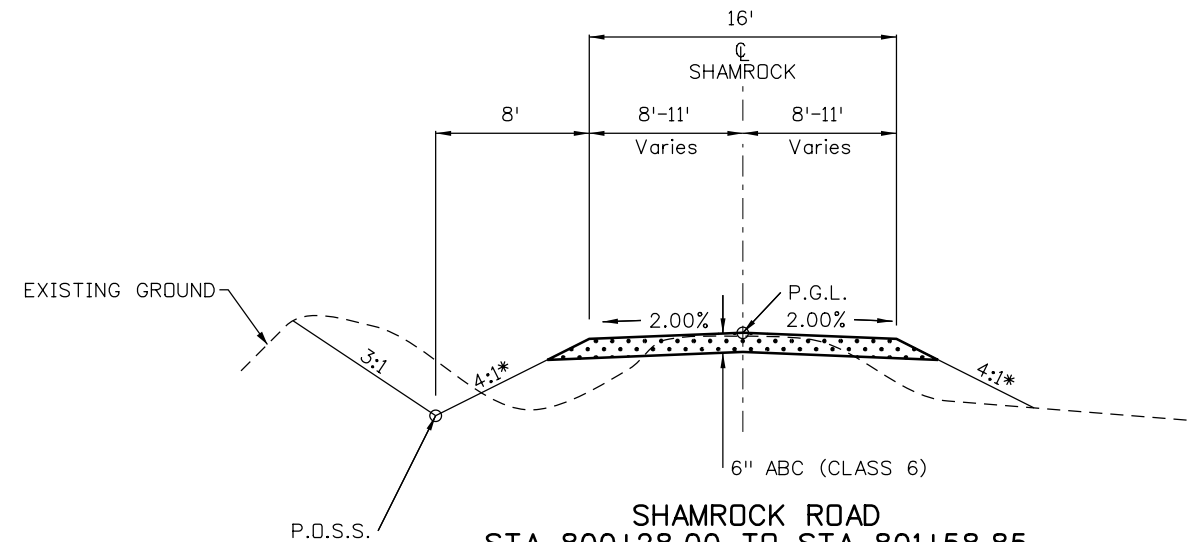
SH 92 CUT WALL DETAIL

STA. 442+50.24 TO STA. 446+35.38 RT



PLEASURE PARK
 STA. 100+36.06 TO STA. 104+40.00

* 6:1 FROM STA. 100+36.06 TO STA. 100+50.06



SHAMROCK ROAD
 STA. 800+28.00 TO STA. 801+58.85

* 6:1 FROM STA. 800+28.00 TO STA. 800+54.00

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Print Date: 11/4/2013	0000
File Name: 17772DES_TypSht03.dgn	
Horiz. Scale: 1:10 Vert. Scale:	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

2424 North Townsend Avenue
 Montrose, CO 81401
 Phone: 972-249-5285 FAX: 970-249-6018

Region 3 RA

As Constructed
No Revisions:
Revised:
Void:

TYPICAL SECTION		
Designer: P. WELLS	Structure Numbers	
Detailer: B. TENNANT		
Sheet Subset: TYPICAL	Subset Sheets: 03 of 04	

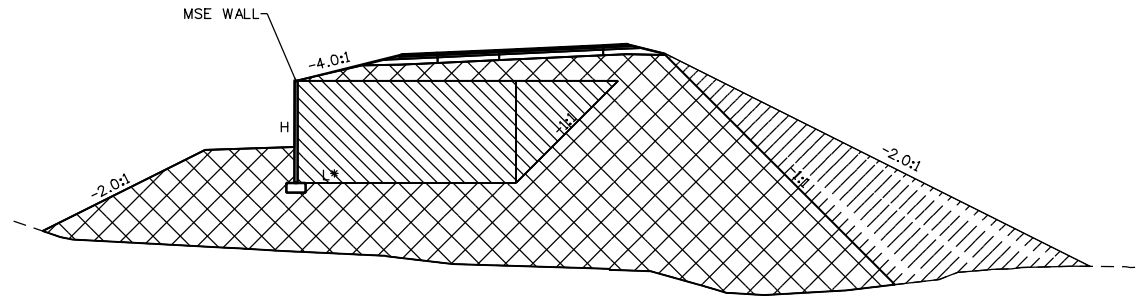
Project No./Code
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17772
Sheet Number 6



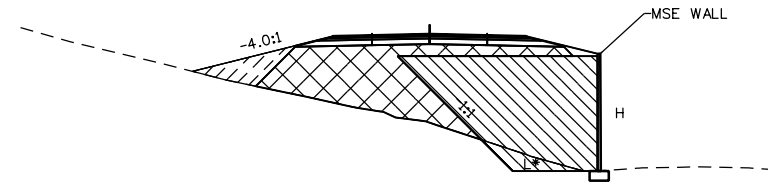
SH 92 TYPICAL SECTIONS WITH STRUCTURE BACKFILL AND EMBANKMENT

TYPICAL SECTION NOTES

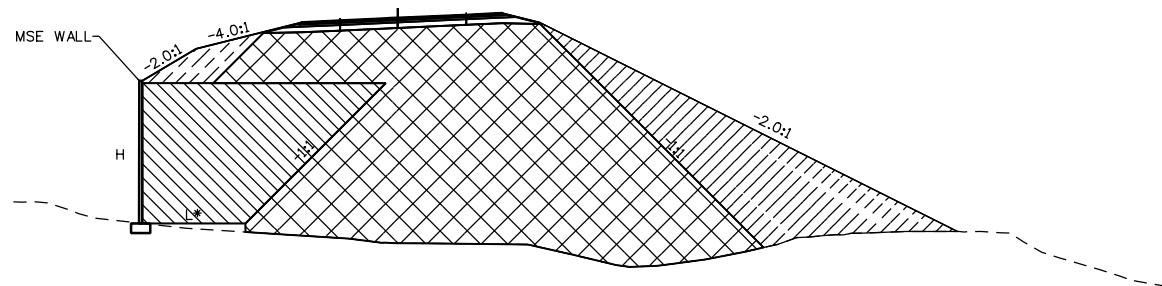
L* = RL+1.5' - See Sheet "M.S.E. Wall Design Data (1)"
For Reinforcement Length, RL.



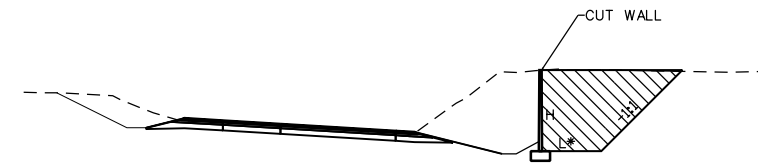
FILL SECTION WITH MSE WALL



FILL SECTION WITH MSE WALL






FILL SECTION WITH MSE WALL



FILL SECTION WITH CUT WALL


LEGEND:

-  ON SITE FILL EMBANKMENT MATERIAL
-  STRUCTURE BACKFILL
-  EMBANKMENT (SPECIAL) (IMPORTED)

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TYPICAL SECTION			
Designer: P. WELLS	Structure Numbers		
Detailer: B. TENNANT	Subset Sheets: 04 of 04		
Sheet Subset: TYPICAL			



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1. THERE SHALL BE AN ON DEMAND DISPUTES REVIEW BOARD FOR THIS PROJECT AND PAID FOR AS DISPUTES REVIEW BOARD (FA).
2. FOR PLAN QUANTITIES OF PAVEMENT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:
 EMULSIFIED ASPHALT (PRIME COAT) @ 0.3 GAL./SQ. YD (DILUTED 1:1 WITH WATER)
 TACK COAT DILUTED EMULSIFIED ASPHALT (SLOW-SETTING) @ 0.1 GAL./SQ. YD (DILUTED 1:1 WITH WATER)
 HOT MIX ASPHALT GRADING SX (75) @ 110 LBS./SQ. YD-IN.
 RATES OF APPLICATION SHALL BE AS DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.
3. THE FOLLOWING SHALL BE FURNISHED WITH EACH PAVER:
 1. A SKI TYPE DEVICE AT LEAST 50 FEET IN LENGTH.
 2. SHORT SKI OR SHOE.
 3. TAPERED SHOE
4. PRIOR TO APPLYING BITUMINOUS MATERIAL, SWEEPING OF DIRT AND GRAVEL FROM THE EXISTING MAT IS REQUIRED. SWEEPING WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HOT MIX ASPHALT GRADING SX (75).
5. ANY LAYER OF HOT MIX ASPHALT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THERON SHALL BE COMPLETED FULL WIDTH BEFORE THE SUCCEEDING LAYER IS PLACED.
6. WHERE IT IS REQUIRED TO CUT EXISTING PAVEMENT, THE CUTTING SHALL BE DONE TO A NEAT WORK LINE WITH A SAW AS APPROVED BY THE ENGINEER. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE HOT MIX ASPHALT GRADING SX (75).
7. ROAD APPROACHES WHICH REQUIRE HOT MIX ASPHALT SHALL BE PAVED WITH 5 INCHES, PLACED IN TWO LIFTS, OF HOT MIX ASPHALT OVER 6" ABC CLASS 6. FIELD ENTRANCES SHALL BE PAVED 4 FT. OUT FROM EDGE OF SHOULDER WITH 5 INCHES HOT MIX ASPHALT PLACED IN TWO LIFTS.
8. WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.
9. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AASHTO T-99 AND AS FOLLOWS:
 1. FULL DEPTH OF ALL EMBANKMENT.
 2. BASES OF CUTS AND FILLS 6 INCHES.
10. EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS WILL BE INCIDENTAL TO THE WORK AND WILL NOT BE PAID FOR SEPARATELY.
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL NEGOTIATIONS WITH THE RESPECTIVE PROPERTY OWNER RELATING TO THE USE OF MATERIAL BORROW OR WASTE SITES. ALL NEGOTIATIONS/AGREEMENTS SHALL BE PROVIDED TO THE ENGINEER. UPON COMPLETION OF THE PROJECT, RELEASES FROM RESPECTIVE OWNERS SHALL BE PROVIDED TO THE ENGINEER.
12. UNLESS OTHERWISE SPECIFIED, REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVALS SHALL BE DISPOSED OF OUTSIDE OF PROJECT LIMITS, UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER.
13. UNDER NO CIRCUMSTANCE WILL ANY EXCESS MATERIAL BE DISPOSED OF IN WETLANDS OR WATERWAYS. REMOVED ASPHALT WILL NOT BE DISPOSED OF IN ANY MANNER THAT WOULD ALLOW THIS MATERIAL TO COME IN CONTACT WITH GROUND WATER. THE CONTRACTOR SHALL SUBMIT A DISPOSAL PLAN TO THE ENGINEER FOR APPROVAL.
14. IT IS ESTIMATED THAT ONE FIELD OFFICE (CLASS 2) AND ONE FIELD LABORATORY (CLASS 2) WILL BE NEEDED FOR THIS PROJECT.
15. IT IS ESTIMATED THAT ONE SANITARY FACILITY WILL BE REQUIRED FOR THIS PROJECT.
16. IT IS ALSO ESTIMATED THAT 500 SY OF HMA (PATCHING)(ASPHALT) WILL BE REQUIRED AS DIRECTED BY THE ENGINEER.
17. IT IS ESTIMATED THAT 867 CY OF WETLAND TOPSOIL IS WITHIN THE CONSTRUCTION LIMITS. THE CONTRACTOR SHALL SALVAGE AND STOCKPILE THIS MATERIAL AS DIRECTED BY THE ENGINEER AND STANDARD SPECIFICATION 207. THE CONTRACTOR SHALL PLACE THE STOCKPILED WETLAND TOPSOIL IN LOCATIONS DESIGNATED BY THE ENGINEER.

18. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND TDES OF SLOPES AS SHOWN IN THE PLANS AND CROSS-SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES, IN ADDITION TO NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE VEHICLE AND EQUIPMENT PARKING, DISPOSAL OF LITTER, AND ANY OTHER ACTIVITY WHICH WOULD ALTER EXISTING CONDITIONS.
19. ALL WORK SHALL BE WITHIN THE EXISTING RIGHT-OF-WAY OR EASEMENTS, UNLESS OTHERWISE NOTED ON THE PLANS.
20. WHEN DELTA COUNTY ROADS ARE TO BE USED AS HAUL ROUTES, THE CONTRACTOR SHALL CONTACT DELTA COUNTY AND COMPLY WITH ANY SPECIAL COUNTY REQUIRMENTS ASSOCIATED WITH USING THE COUNTY ROADS. THE CONTACT NUMBER FOR DELTA COUNTY ROAD AND BRIDGE IS (920) 874-2116. CONDITIONS, AGREEMENTS, PERMITS AND FINAL RELEASES SHALL BE PROVIDED TO THE ENGINEER.
21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AND FIELD APPROACHES AT ALL TIMES DURING CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE ENGINEER.
22. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY AND RIGHT-OF-WAY MONUMENTATION DURING CONSTRUCTION OPERATIONS. ANY MONUMENTS DISTURBED BY THE CONSTRUCTION OPERATIONS SHALL BE RESET BY A COLORADO LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
23. RUMBLE STRIPS WILL NOT BE REQUIRED FOR THIS PROJECT.
24. THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACING TRAFFIC CONTROL DEVICES SO THAT THE WORK ZONES ARE IN FULL COMPLIANCE WITH THE MUTCD AND CDDT STANDARDS AT ALL TIMES.
25. IT IS ESTIMATED THAT 5000 C.Y. OF MUCK EXCAVATION IS REQUIRED. LIMITS SHALL BE AS DIRECTED BY THE ENGINEER.
26. IT IS ESTIMATED THAT 20 HOURS OF UTILITY POTHOLING WILL BE NEEDED FOR THIS PROJECT. POTHOLING WILL BE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL CONTACT THE AFFECTED UTILITY COMPANY DIRECTLY AT LEAST THREE BUSINESS DAYS PRIOR TO POTHOLING.
27. IT IS ESTIMATED THAT 40 HOURS OF PROOF ROLLING WILL BE REQUIRED FOR THIS PROJECT AS DIRECTED BY THE ENGINEER.
28. ALL ABANDONED UTILITY MATERIALS WITHIN THE PROJECT LIMITS WILL BECOME THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR WILL VERIFY WITH THE UTILITY OWNER THAT THE UTILITY MATERIAL IS ABANDONED BEFORE REMOVAL. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF THE MATERIALS. THE COST FOR REMOVAL AND DISPOSAL OF THE ABANDONED UTILITY MATERIALS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE BID ITEM UNCLASSIFIED EXCAVATION (COMPLETE IN PLACE).
29. SULFATE RESISTANT CONCRETE FOR THIS PROJECT SHALL BE CLASS 2. SMOOTHNESS FOR HMA PAVEMENT FOR THIS PROJECT SHALL BE HRI CATEGORY II.
30. CLEARING AND GRUBBING WILL BE REQUIRED FOR THIS PROJECT AND WILL BE PAID FOR AS CLEARING AND GRUBBING (LS). REMOVAL OF SHRUBS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CLEARING & GRUBBING. TREES WITH A DIAMETER LESS THAN 12" SHALL BE INCLUDED IN THE COST OF CLEARING AND GRUBBING.
31. MATERIAL FROM REMOVAL OF ASPHALT MAT MAY BE USED FOR ABC CLASS 6. THIS MATERIAL MAY NEED TO BE MIXED WITH ADDITIONAL MATERIAL TO MEET THE SPECIFICATION IN THE PROJECT SPECIAL PROVISIONS FOR ABC CLASS 6.
32. CONTRACTOR SHALL USE HAND AUGER TO DRILL POST HOLES WHERE FENCE IS TO BE INSTALLED IN WETLAND AREA, AND/OR IN PROXIMITY TO UTILITIES, AS DIRECTED BY THE ENGINEER.

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File Name: 17772DES_GenlNote01.dgn						No Revisions:				STA 092A-024
Horiz. Scale: 1:1 Vert. Scale:						Revised:	Designer: P. WELLS	Structure		
Unit Information Unit Leader Initials						Void:	Detailer: B.TENNANT	Numbers	17772	
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35. TO PROTECT ENVIRONMENTAL RESOURCES WITHIN CDOT ROW (I.E. WETLANDS, CULTURAL SITES, AND THREATENED AND ENDANGERED SPECIES), TEMPORARY USE AREAS FOR EQUIPMENT INCLUDING STAGING, SET-UP, REPAIR, OR OVERNIGHT PARKING AREAS SHALL BE PRE-APPROVED BY THE PROJECT ENGINEER FOLLOWING COORDINATION WITH THE REGIONAL ENVIRONMENTAL STAFF. COORDINATION FOR TEMPORARY USE AREAS WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.

36. WETLAND AREAS AND STATE WATERS SHALL BE PROTECTED FROM CONSTRUCTION, SURVEYOR EQUIPMENT, MATERIALS, AND DEBRIS. ALL WETLAND AREAS ADJACENT TO PERMITTED FILLS SHALL BE PROTECTED BY INSTALLING TEMPORARY ORANGE CONSTRUCTION FENCING AS DIRECTED BY THE ENGINEER AND SHALL BE REMOVED UPON PROJECT COMPLETION. REPLACEMENT OF RIGHT OF WAY FENCING ACROSS WETLANDS SHALL BE PERFORMED MANUALLY. ALL CONSTRUCTION AND SURVEYOR LITTER, DEBRIS AND WASTE SHALL BE IMMEDIATELY REMOVED FROM WETLANDS AND WATERWAYS, THIS INCLUDES BUT IS NOT LIMITED TO EXCESS FENCING MATERIALS, CONCRETE WASTE, AND SPRAY PAINT CANS. ALL HEAVY EQUIPMENT SHALL STAY OUT OF THE WETLAND AREAS AND CREEKS AT ALL TIMES. THE CONTRACTOR SHALL NOT DRIVE ACROSS WETLANDS WITHOUT PRE-APPROVAL AND INSTALLATION OF PROPER SOIL AND WETLAND PROTECTIONS. STOCKPILES SHALL REMAIN 50 FEET FROM WETLANDS AND WATERWAYS AND THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION MATERIALS AND/OR CONSTRUCTION WASTE ARE NOT STORED IN WETLAND AREAS. FOR FURTHER INFORMATION, CONTACT PAULA DURKIN, CDOT ENVIRONMENTAL, AT 970-683-6255.

37. IT IS ESTIMATED THAT 20 HOURS TRUCK (DUMP)(HOUR) WILL BE REQUIRED FOR THIS PROJECT. AS APPROVED BY THE ENGINEER.

38. IT IS ESTIMATED THAT 20 HOURS FRONT END LOADER (RUBBER TIRE)(HOUR) WILL BE REQUIRED FOR THIS PROJECT AS APPROVED BY THE ENGINEER.

39. THE INFORMATION SHOWN IN THIS PLAN SET CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

40. IT IS ANTICIPATED THAT SHORING WILL BE REQUIRED BETWEEN STATIONS 400+50 TO 402+05 AND STATIONS 407+00 TO 413+00.

RAILROAD SPECIFIC NOTES

1. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.

2. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

3. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.

4. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.

5. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.

6. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.



7. RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.

8. FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.

9. ALL PERMANENT CLEARANCES INCLUDING HORIZONTAL AND VERTICAL CLEARANCE TO EXISTING RAILROAD FEATURES SHALL BE FIELD VERIFIED AND DOCUMENTED BY THE CONTRACTOR TO BE APPROVED BY THE RAILROAD.


10. IT IS ANTICIPATED THAT SHORING WILL BE REQUIRED BETWEEN STATIONS 401+50 TO 403+00 AND 406+50 TO 407+00. SHORING NEAR RAILROAD TO BE DESIGNED AND SEALED BY LICENSED PROFESSIONAL ENGINEER. SHORING DESIGN MUST BE SUBMITTED FOR RAILROAD REVIEW 4 WEEKS PRIOR TO PLACEMENT OR SHORING.

11. INSIDE RAILROAD GUARD RAIL WILL BE ADDED TO THE EXISTING TRACK WHERE PROPOSED BRIDGE PIERS OR OTHER OBSTRUCTIONS ARE WITHIN 25' OF EXISTING RAILROAD CENTERLINE. THIS WORK WILL BE COMPLETED BY THE UPRR OR UPRR REPRESENTIVES. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE UPRR.


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			202-00001	Removal of Structure	EACH	1									1	
			202-00010	Removal of Tree	EACH	3									3	
			202-00015	Removal of Headwall	EACH	5									5	
			202-00035	Removal of Pipe	LF	636									636	
			202-00240	Removal of Asphalt Mat (Planing)	SY	23,084									23,084	
			202-00500	Removal of Portions of Present Structure	EACH							1			1	
			202-01000	Removal of Fence	LF	7,632									7,632	
			202-06000	Removal of Detour	L S	1									1	
			203-00060	Embankment Material (Complete In Place)	CY	107,838									107,838	
			203-00062	Embankment Material (Complete In Place) (Special)	CY	154,621									154,621	
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			203-01515	Backhoe (Landscaping)	HOUR	80									80	
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			206-00000	Structure Excavation	CY					24,669			199		24,868	
			206-00100	Structure Backfill (Class 1)	CY			680		71,597			372		72,649	
			206-00105	Cement Treated Base	CY					1,412					1,412	
			206-00200	Structure Backfill (Class 2)	CY			158							158	
			206-00360	Mechanical Reinforcement of Soil	CY			680		49,281					49,961	
			206-01750	Shoring	L S	1									1	
			208-00002	Erosion Log (12 Inch)	LF	7,149									7,149	
			208-00020	Silt Fence	LF	1,000									1,000	
			208-00045	Concrete Washout Structure	EACH	4									4	
			208-00070	Vehicle Tracking Pad	EACH	6									6	
			208-00103	Removal and Disposal of Sediment (Labor)	HOUR	200									200	
			208-00105	Removal and Disposal of Sediment (Equipment)	HOUR	150									150	
			208-00206	Erosion Control Supervisor	DAY	250									250	

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 Unit Information Unit Leader Initials


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Date:	Comments	Init.

Colorado Department of Transportation

 2424 North Townsend Avenue
 Montrose, CO 81401
 Phone: 972-249-5285 FAX: 970-249-6018
 Region 3 RA


As Constructed
 No Revisions:
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 Void:

SUMMARY OF QUANTITIES			
Designer:	P. WELLS	Structure Numbers	
Detailer:	B. TENNANT	Subset Sheets:	01 of 05
Sheet Subset:	SAQ	Sheet Number	10


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INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		BRIDGE I-05-Z		WALLS		ARCH CULVERT		PROJECT TOTALS		
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	
			210-00011	Reset Mailbox Structure (Type 1)	EACH	3									3	
			210-00012	Reset Mailbox Structure (Type 2)	EACH	2									2	
			210-00013	Reset Mailbox Structure (Type 3)	EACH	1									1	
			210-00810	Reset Ground Sign	EACH	2									2	
			212-00006	Seeding (Native)	ACRE	17									17	
			212-00032	Soil Conditioning	ACRE	17									17	
			213-00002	Mulching (Weed Free Hay)	ACRE	17									17	
			213-00012	Spray-on Mulch Blanket	ACRE	5									5	
			213-00061	Mulch Tackifier	LB	3,400									3,400	
			216-00042	Soil Retention Blanket (Biodegradable Straw/Coconut)	SY	25,684									25,684	
			217-00020	Herbicide Treatment	HOUR	40									40	
			240-00000	Wildlife Biologist	HOUR	80									80	
			304-03005	Aggregate Base Course (Class 3)	CY	17,224					20,719				37,943	
			304-06007	Aggregate Base Course (Class 6)	CY	8,337									8,337	
			403-00721	Hot Mix Asphalt (Patching) (Asphalt)	SY	500									500	
			403-34701	Hot Mix Asphalt (Grading SX) (75)	TON	12,571			282						12,853	
			411-03342	Asphalt Cement Performance Grade (PG 64-28)	TON	298			17						315	
			411-03352	Asphalt Cement Performance Grade (PG 58-28)	TON	472									472	
			411-10255	Emulsified Asphalt (Slow-Setting)	GAL	2,255									2,255	
			411-10300	Emulsified Asphalt (Prime Coat)	GAL	6,762									6,762	
			420-00000	Geomembrane	SY						8,697				8,697	
			420-00112	Geotextile (Drainage) (Class 1)	SY	158									158	
			502-00460	Pile Tip	EACH				16						16	
			502-11274	Steel Piling (HP 12x74)	LF				776						776	
			503-00030	Drilled Caisson (30 Inch)	LF						930				930	
			503-00102	Drilled Caisson (102 Inch)	LF				100						100	
			503-00200	Caisson (Special)	LF						638				638	
			504-03600	Temporary Earth Retaining Wall	SF						3,636				3,636	
			504-04420	Precast Panel Facing	SF						30,704				30,704	
			506-00209	Riprap (9 Inch)	CY	81									81	
			515-00120	Waterproofing (Membrane)	SY				1,739						1,739	
			518-01004	Bridge Expansion Device (0-4 Inch)	LF				80						80	

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Colorado Department of Transportation

 2424 North Townsend Avenue
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 Phone: 972-249-5285 FAX: 970-249-6018
 Region 3 RA

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SUMMARY OF QUANTITIES

Designer: P. WELLS	Structure Numbers
Detailer: B. TENNANT	
Sheet Subset: SAQ	Subset Sheets: 02 of 05


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BOOK	PAGE	SHEET				PLAN	AS CONST.		PLAN	AS CONST.		PLAN	AS CONST.		PLAN	AS CONST.		PLAN	AS CONST.
			601-01000	Concrete Class B	CY	2												2	
			601-01065	Concrete Class B (Mud Slab)	CY							5,006						5,006	
			601-03030	Concrete Class D (Box Culvert)	CY									192				192	
			601-03040	Concrete Class D (Bridge)	CY					1,065								1,065	
			601-03050	Concrete Class D (Wall)	CY							578						578	
			601-40300	Structural Concrete Coating	SY					2,008				3,814				5,822	
			602-00000	Reinforcing Steel	LB	176								74,193		14,268		88,637	
			602-00020	Reinforcing Steel (Epoxy Coated)	LB					247,835				8,085				255,920	
			603-01185	18 Inch Reinforced Concrete Pipe (Complete In Place)	LF	227												227	
			603-01245	24 Inch Reinforced Concrete Pipe (Complete In Place)	LF	640												640	
			603-01305	30 Inch Reinforced Concrete Pipe (Complete In Place)	LF	61												61	
			603-01365	36 Inch Reinforced Concrete Pipe (Complete In Place)	LF	106												106	
			603-05018	18 Inch Reinforced Concrete End Section	EACH	10												10	
			603-05024	24 Inch Reinforced Concrete End Section	EACH	10												10	
			603-05030	30 Inch Reinforced Concrete End Section	EACH	2												2	
			603-05036	36 Inch Reinforced Concrete End Section	EACH	1												1	
			604-00310	Inlet Type C (10 Foot)	EACH	1												1	
			604-00515	Inlet Type D (15 Foot)	EACH	1												1	
			606-00301	Guardrail Type 3 (6-3 Post Spacing)	LF	1,375												1,375	
			606-01370	Transition Type 3G	EACH	4												4	
			606-02005	End Anchorage (Flared)	EACH	4												4	
			606-10700	Bridge Rail Type 7	LF					833								833	
			607-00005	End Post	EACH	20												20	
			607-00010	Corner and Line Brace Post	EACH	18												18	
			607-01110	Fence Barbed Wire With Treated Wooden Posts (Special)	LF	6,613												6,613	
			607-11310	Fence Combination Wire With Treated Wooden Posts (Special)	LF	1,428												1,428	
			607-11350	Fence Deer	LF	397												397	
			607-11525	Fence (Plastic)	LF	1,200												1,200	
			607-53005	Fence Chain Link (Special)	LF					784								784	
			607-60000	Deer Gate	EACH	1												1	

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Colorado Department of Transportation

 2424 North Townsend Avenue
 Montrose, CO 81401
 Phone: 972-249-5285 FAX: 970-249-6018
Region 3 **RA**

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SUMMARY OF QUANTITIES		
Designer: P. WELLS	Structure Numbers	
Detailer: B. TENNANT		
Sheet Subset: SAQ	Subset Sheets: 03 of 05	

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INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY		BRIDGE I-05-Z		WALLS		ARCH CULVERT		PROJECT TOTALS		
BOOK	PAGE	SHEET				PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	PLAN	AS CONST.	
			607-60316	16 Foot Gate Twin	EACH	1									1	
			609-60011	Curb Type 6 (Section M)	LF	593									593	
			612-00001	Delineator (Type I)	EACH	78									78	
			612-00002	Delineator (Type II)	EACH	20									20	
			612-00003	Delineator (Type III)	EACH	4									4	
			614-00011	Sign Panel (Class I)	SF	118									118	
			614-01503	Steel Sign Support (2-Inch Round)(Post and Socket)	EACH	3									3	
			614-01583	Steel Sign Support (2-1/2 In Round Sch 80) (Post & Slipbase)	EACH	10									10	
			615-00050	Embankment Protector Type 5	EACH	2									2	
			616-00180	18 Inch Concrete Siphon Pipe	LF	101									101	
			616-30018	18 Inch Trash Guard	EACH	2									2	
			618-00178	Prestressed Concrete I (BT78)	LF			2,429							2,429	
			619-00010	Water Line (Special)	L S	1									1	
			620-00002	Field Office (Class 2)	EACH	1									1	
			620-00012	Field Laboratory (Class 2)	EACH	1									1	
			620-00020	Sanitary Facility	EACH	1									1	
			621-00450	Detour Pavement	SY	7,080									7,080	
			625-00000	Construction Surveying	L S	1									1	
			626-00000	Mobilization	L S	1									1	
			626-01000	Public Information Services	L S	1									1	
			627-00001	Pavement Marking Paint	GAL	361									361	
			627-00005	Epoxy Pavement Marking	GAL	140									140	
			627-30327	Preformed Plastic Pavement Marking (Word-Symbol) (Type III)	SF	116									116	
			629-01001	Survey Monument (Type 1)	EACH	15									15	
			629-01002	Survey Monument (Type 2)	EACH	7									7	
			629-01006	Survey Monument (Type 6)	EACH	2									2	
			630-00000	Flagging	HOUR	1,000									1,000	
			630-00007	Traffic Control Inspection	DAY	113									113	
			630-00012	Traffic Control Management	DAY	251									251	
			630-80335	Barricade (Type 3 M-A) (Temporary)	EACH	8									8	
			630-80341	Construction Traffic Sign (Panel Size A)	EACH	42									42	
			630-80342	Construction Traffic Sign (Panel Size B)	EACH	43									43	

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Unit Information

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Colorado Department of Transportation



2424 North Townsend Avenue
Montrose, CO 81401
Phone: 972-249-5285 FAX: 970-249-6018

Region 3

RA

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SUMMARY OF QUANTITIES

Designer:	P. WELLS	Structure Numbers	
Detailer:	B. TENNANT	Subset Sheets:	04 of 05
Sheet Subset:	SAQ		

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INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY				BRIDGE I-05-Z				WALLS				ARCH CULVERT				PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.			PLAN	AS CONST.			PLAN	AS CONST.			PLAN	AS CONST.			PLAN	AS CONST.
			630-80344	Construction Traffic Sign (Special)	SF	64															64		
			630-80355	Portable Message Sign Panel	EACH	2															2		
			630-80360	Drum Channelizing Device	EACH	116															116		
			630-80363	Drum Channelizing Device (With Light) (Flashing)	EACH	40															40		
			630-80370	Concrete Barrier (Temporary)	LF	4,665															4,665		
			630-80380	Traffic Cone	EACH	500															500		
			630-85006	Impact Attenuator (Sand Filled Plastic Barrel) (Temporary)	EACH	10															10		
			700-70010	FORCE ACCOUNT =====	F A	1															1		
			700-70011	F/A Minor Contract Revisions	F A	1															1		
			700-70012	F/A Partnering	F A	1															1		
			700-70016	F/A Asphalt Pavement Incentive	F A	1															1		
			700-70016	F/A Fuel Cost Adjustment	F A	1															1		
			700-70018	F/A Roadway Smoothness Incentive	F A	1															1		
			700-70019	F/A Asphalt Cement Cost Adjustment	F A	1															1		
			700-70028	F/A ESB Program	F A	1															1		
			700-70034	F/A Disputes Review Board(On Demand)	F A	1															1		
			700-70380	F/A Erosion Control	F A	1															1		

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Colorado Department of Transportation
 2424 North Townsend Avenue
 Montrose, CO 81401
 Phone: 972-249-5285 FAX: 970-249-6018
 Region 3 RA

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 Revised:
 Void:

SUMMARY OF QUANTITIES			
Designer:	P. WELLS	Structure	
Detailer:	B. TENNANT	Numbers	
Sheet Subset:	SAQ	Subset Sheets:	05 of 05

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 STA 092A-024
 17772
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SUMMARY OF STRUCTURE QUANTITIES

LOCATION	REMOVAL OF HEADWALL	REMOVAL OF PIPE	GEOTEXTILE (DRAINAGE) (CLASS A)		CONCRETE CLASS B	REINFORCING STEEL	PIPE STORM SEWER				CONCRETE END SECTION				INLET TYPE C - HT=5'	INLET TYPE D - HT=15'	CONCRETE SIPHON PIPE		EMBANKMENT PROTECTOR TYPE 5	STRUCTURE EXCAVATION (FID)- PIPE ZONE	STRUCTURE BACKFILL (FLOWFILL) (FID) - PIPE ZONE	EMBANKMENT (SPECIAL)*	UNCLASSIFIED EXCAVATION *	COMMENTS			
	EA	LF	SY	CY			LBS	CIRCULAR PIPE SIZE AND LENGTH				EACH					LF	EA									
								18"	24"	30"	36"	18"	24"	30"			36"	EA							EA	18"	18"
	EA	LF	SY	CY			LBS	18"	24"	30"	36"	18"	24"	30"			36"	EA							EA	18"	18"
SH 92																											
STA. 372+17 LT			6.7	3.5					83				2						76	58			SIDE DRAIN				
STA. 376+25	1	61																					REMOVAL ONLY				
STA. 381+73	1	60																					REMOVAL ONLY				
STA. 386+33	1	59	6.7	3.5					76				2						70	54							
STA. 390+90 RT			6.7	3.5					113				2						99	75			SIDE DRAIN				
STA. 393+20		77																					REMOVAL ONLY				
STA. 394+16			6.7	3.5					161				2						135	103							
STA. 397+22		75	6.7	3.5					207				2						170	130							
STA. 398+00 LT			11.1	5.6														1	6								
STA. 405+04 LT to STA. 406+32 LT			73	36.7															37				SD407L DITCH RIPRAP RUNDOWN				
STA. 408+35	1	40											1														
STA. 408+53 LT			11.1	5.6														1	6								

FID - FOR INFORMATION ONLY

* QUANTITIES CARRIED FORWARD TO SUMMARY OF EARTHWORK.

** ALL PIPE CULVERTS SHALL HAVE RIPRAP OUTLET PROTECTION, D₅₀=9" PER CDOT STANDARD M-601-12 W/ GEOTEXTILE (DRAINAGE)(CLASS 1).

Print Date: 11/4/2013

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Colorado Department of Transportation



2424 North Townsend Avenue
Montrose, CO 81401
Phone: 972-249-5285 FAX: 970-249-6018

Region 3

RA

As Constructed

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**SUMMARY OF
STRUCTURE QUANTITIES**

Designer: B. YOUNG

Detailer: B. TENNANT

Sheet Subset: STR TAB

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SUMMARY OF STRUCTURE QUANTITIES

LOCATION	REMOVAL OF HEADWALL	REMOVAL OF PIPE	GEOTEXTILE (DRAINAGE) (CLASS A)**	RIPRAP D50 =9" **	CONCRETE CLASS B	REINFORCING STEEL	PIPE STORM SEWER				CONCRETE END SECTION				INLET TYPE C - HT=5'	INLET TYPE D - HT=15'	CONCRETE SIPHON PIPE	TRASH GUARD	EMBANKMENT PROTECTOR TYPE 5	STRUCTURE EXCAVATION (FIO)- PIPE ZONE	STRUCTURE BACKFILL (FLOWFILL) (FIO) - PIPE ZONE	EMBANKMENT (SPECIAL)*	UNCLASSIFIED EXCAVATION *	COMMENTS
	EA	LF	SY	CY	CY	LBS	LINEAR FEET				EACH				EA	EA	LF	EA	EA	CY	CY	CY	CY	
							18"	24"	30"	36"	18"	24"	30"	36"										
STA. 416+24		45								106				1						152	103	56	56	
STA. 421+46 LT		44	3.8	2.0			47				2									36	30			SIDE DRAIN
STA. 437+89 LT		20	3.8	2.0			78				2									54	44			15 SIDE DRAIN
STA. 438+00 RT			3.8	2.0			30				2									27	22			SIDE DRAIN
STA. 446+38 RT			3.8	2.0			51				2									39	31			SIDE DRAIN
STA. 446+78	1	77			2.3	176											101	2		66	54	24	24	BENDS INCL. IN COST OF PIPE
STA. 448+77		65	10.4	5.2					61			2								78	56			
STA. 450+16 LT		13	3.8	2.0			21				2									23	19			SIDE DRAIN
PROJECT TOTALS	5	636	158	81	2.3	176	227	640	61	106	10	10	2	1	1	1	101	2	2	1073	779	80	80	

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* QUANTITIES CARRIED FORWARD TO SUMMARY OF EARTHWORK.

** ALL PIPE CULVERTS SHALL HAVE RIPRAP OUTLET PROTECTION, D₅₀=9" PER CDOT STANDARD M-601-12 W/ GEOTEXTILE (DRAINAGE)(CLASS 1).

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Colorado Department of Transportation



2424 North Townsend Avenue
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Phone: 972-249-5285 FAX: 970-249-6018

Region 3 **RA**

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SUMMARY OF STRUCTURE QUANTITIES			
Designer: B. YOUNG	Structure Numbers		
Detailer: B. TENNANT			
Sheet Subset: STR TAB	Subset Sheets: 02 of 02		

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NOTE: EMBANKMENT (SPECIAL) WILL BE PROVIDED BY AN OFF SITE SOURCE. THE MATERIAL WILL BE PAID FOR AS EMBANKMENT (SPECIAL).

SUMMARY OF EARTHWORK

<u>EMBANKMENT MATERIAL (C.I.P.)</u>		<u>CUBIC YARDS</u>
SH 92 (FROM CROSS SECTIONS)		73,846
SHAMROCK RD.		190
PLEASURE PARK RD		2,332
REPLACEMENT OF MUCK		5,000
VOLUME OF WETLAND TOPSOIL IN FILL		867
APPROACHES		19,069
SH92 DETOUR		6,534
	TOTAL	107,838
<u>EMBANKMENT (SPECIAL) (C.I.P.)</u>		<u>CUBIC YARDS</u>
SH 92 (FROM CROSS SECTIONS)		154,541
DRAINAGE EMBANKMENT		80
	TOTAL	154,621
<u>STRUCTURAL EXCAVATION (C.I.P.)</u>		<u>CUBIC YARDS</u>
TOTAL		24,868
<u>MUCK EXCAVATION (PAID FOR AS MUCK EXC.)</u>		<u>CUBIC YARDS</u>
TOTAL		5,000
<u>UNCLASSIFIED EXCAVATION (C.I.P.)(FOR INFORMATION ONLY)</u>		<u>CUBIC YARDS</u>
SH 92 (FROM CROSS SECTIONS)		83,021
SHAMROCK RD		123
PLEASURE PARK RD		247
DRAINAGE EXCAVATION		80
APPROACHES		1,815
OBLITERATE EXISTING SH92		6,245
SH92 DETOUR		61
	TOTAL	91,592
<u>COMPACTION (AASHTO T-99)(FOR INFORMATION ONLY)</u>		<u>CUBIC YARDS</u>
EMBANKMENT (NET)		262,459
BASES OF CUTS AND FILLS		13,856
	TOTAL	276,315
<u>QUANTITIES BALANCE*</u>		<u>CUBIC YARDS</u>
UNCLASSIFIED EXCAVATION		91,592
MUCK EXCAVATION		5,000
STRUCTURAL EXCAVATION		24,868
	TOTAL	121,460
EMBANKMENT MATERIAL X 1.10 (FOR INFORMATION ONLY)		288,705
	TOTAL	288,705
	TOTAL BORROW	167,245

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File Name: 17772DES_EarthworkQuant01.dgn		Date:	Comments	Init.		No Revisions:			STA 092A-024		
Horiz. Scale: 1:10 Vert. Scale:						Revised:	Designer: M. PEREZ	Structure Numbers	17772		
Unit Information Unit Leader Initials						Void:	Detailer: M. JENSEN	Subset Sheets: 01 of 01	Sheet Number 17		
					Sheet Subset: EARTHWRK						

TABULATION OF SURFACING

STATION TO STATION	SIDE	HMA (GRADING SX) TOP LIFT		HMA (GRADING SX) BOTTOM LIFT		AGGREGATE BASE COURSE (CLASS 6)		AGGREGATE BASE COURSE (CLASS 3)		ASPHALT CEMENT PERF GRADE (PG 64-28) TOP LIFT		ASPHALT CEMENT PERF GRADE (PG 58-28) BOTTOM LIFT		EMULSIFIED ASPHALT (PRIME COAT)		EMULSIFIED ASPHALT (SLOW-SETTING)		COMMENTS
		2 INCH		3 INCH		CY		CY		TON		TON		GAL		GAL		
		TON		TON		CY		CY		TON		TON		GAL		GAL		
		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
SH 92																		
368+50 TO 371+00	LT & RT	148		224		222		519		9		14		200		67		
371+00 TO 385+00	LT & RT	849		1289		1278		2982		52		78		1150		383		
SHAMROCK ROAD	LT	29		44		77		104				5		40		13		5" HMA (PG 58-28)
385+00 TO 399+00	LT & RT	1010		1531		1522		3552		62		93		1370		457		
PLEASURE PARK ROAD	RT	33		49		242		116				5		45		15		5" HMA (PG 58-28)
399+00 TO 413+00	LT & RT	710		1081		1068		2492		44		66		961		320		
413+00 TO 427+00	LT & RT	704		1073		1059		2472		43		65		953		318		
427+00 TO 441+00	LT & RT	826		1255		1244		2902		51		76		1119		373		
441+00 TO 451+27.71	LT & RT	593		903		894		2085		37		55		804		268		
APPRDACHES		88		132		731						15		120		41		5" HMA (PG 58-28)
TOTAL		4,990		7,581		8,337		17,224		298		472		6,762		2,255		

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772DES_Drawings\17772DES_TabSurf01.dgn




Print Date: 11/4/2013		Sheet Revisions			Colorado Department of Transportation 2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018 Region 3	As Constructed No Revisions: Revised: Void:	TABULATION OF SURFACING				Project No./Code STA 092A-024 17772 Sheet Number 18
File Name: 17772DES_TabSurf01.dgn		Date:	Comments	Init.			Designer: P. WELLS	Structure Numbers			
Horiz. Scale: 1:10 Vert. Scale:							Detailer: B. TENNANT				
Unit Information Unit Leader Initials							Sheet Subset: SURFACING	Subset Sheets: 01 of 01			



TABULATION OF FENCE

STATION TO STATION	SIDE	FENCE BARBED WIRE W/ WOOD POST (SPECIAL)		FENCE COMBINATION WIRE W/ WOOD POST (SPECIAL)		DEER FENCE		16 FOOT GATE		16 FOOT GATE TWIN		CORNER AND LINE BRACE POST		END POST		DEER GATE		REMARKS
		LF		LF		LF		EA		EA		EACH		EACH		EACH		
		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
370+15 TO 390+84	RT	2,167										4		1				
370+15 TO 371+80	LT	209										2		1				
372+40 TO 380+55	LT	809												2				
391+27 TO 401+85	RT	1,082										1		2				
401+85 TO 401+86	RT			37				1						2				
401+85 TO 403+20	RT			185								1		2				
401+86 TO 403+37	RT			185								1		2				
414+00 TO 420+86	LT	686										1		2				
421+34 TO 437+85	LT	1,660								1		4		2				
438+02 TO 447+79	LT			1,021								2		2				
442+32 TO 446+40	RT					397						2		2		1		
PROJECT TOTALS		6,613		1,428		397		1		1		18		20		1		

NOTE:
FENCE SHALL BE PLACED 1' INSIDE CDOT ROW LINE, UNLESS OTHERWISE SHOWN IN PLAN OR DIRECTED BY ENGINEER.

Print Date: 11/4/2013 File Name: 17772DES_TabFence01.dgn Horiz. Scale: 1:10 Vert. Scale: Unit Information Unit Leader Initials 		Sheet Revisions Date: Comments Init.			Colorado Department of Transportation  2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018 Region 3 RA	As Constructed No Revisions:		TABULATION OF FENCE Designer: P. WELLS Structure Numbers Detailer: B. TENNANT Sheet Subset: FENCE TAB Subset Sheets: 01 of 01			Project No./Code STA 092A-024	
		Revised:		17772								
		Void:		Sheet Number 19								

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772_Design\Drawings\17772DES_TabFence01.dgn

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0 Project Deliverables\17772\Design\Drawings\17772DES_TabGuardrail01.dgn

GUARDRAIL TABULATION

STATION TO STATION	SIDE	GUARDRAIL TYPE 3 (6'-3" POST SPACING)		END ANCHORAGE (FLARED)		END ANCHORAGE (TYPE 3G)		CURB TYPE 6 (SECTION M)		COMMENTS
		LF		EACH		EACH		EACH		
		PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
SH-92										
STA. 397+99.60 TO STA. 402+82.75	LT	425		1		1		446		
STA. 400+99.60 TO STA. 402+82.75	RT	125		1		1				
STA. 406+69.95 TO STA. 408+53.10	LT	125		1		1		146		
STA. 406+69.95 TO STA. 414+28.10	RT	700		1		1				
PROJECT TOTALS		1375		4		4		592		

NOTES:
 1. ALL GUARDRAIL TYPE 3 SHALL BE GALVANIZED. REFLECTOR TABS SHALL BE PROVIDED AND PLACED.
 2. ALL GUARDRAIL POSTS SHALL BE GALVANIZED STEEL, EXCEPT AS REQUIRED FOR END ANCHORAGES.
 3. ALL BLOCKS SHALL BE COMPOSITE PLASTIC (SYNTHETIC) PER M-STD M606-1.

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File Name: 17772DES_TabGuardrail01.dgn		Date:	Comments	Init.		No Revisions:	Designer: P. WELLS Detailer: B. TENNANT Sheet Subset: GUARD TAB			STA 092A-024		
Horiz. Scale: 1:10 Vert. Scale:						Revised:				17772		
Unit Information Unit Leader Initials						Void:				20		
				RA	Structure Numbers		Subset Sheets: 01 of 01		Sheet Number			

REMOVAL OF ASPHALT

STATION TO STATION	SIDE	REMOVAL OF ASPHALT MAT		REMARKS
		SY		
		PLAN	FINAL	
SH 92				
362+50 TO 371+00	LT & RT	1242		
371+00 TO 385+00	RT	3885		
385+00 TO 399+00	RT	3798		
399+00 TO 413+00	RT	3803		
413+00 TO 427+00	RT	3668		
427+00 TO 441+00	RT	3748		
441+00 to 451+27.71	LT & RT	2940		
TOTALS		23,084		

REMOVAL OF TREES



STATION	OFFSET	SIDE	REMOVAL OF TREE		REMARKS
			EACH		
			PLAN	FINAL	
445+00	38'	LT	3		
PROJECT TOTALS			3		

NOTE: SEE DEMOLITION PLANS FOR REMOVALS AND RESETS.

REMOVAL OF STRUCTURE

STATION	SIDE	REMOVE STRUCTURE		REMARKS
		EACH		
		PLAN	FINAL	
446+57.62	RT	1		METAL GATE
PROJECT TOTALS		1		

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Print Date: 11/4/2013		Sheet Revisions			Colorado Department of Transportation			As Constructed		TABULATION OF REMOVAL			Project No./Code		
File Name: 17772DES_TabRem01.dgn															Date:
Horiz. Scale: 1:10								Revised:		Designer: P. WELLS		Structure Numbers		17772	
Unit Information										Unit Leader Initials		Void:		Detailer: B. TENNANT	

File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772\Design\Drawings\17772DES_TabRem02.dgn


REMOVAL OF FENCE

STATION TO STATION	SIDE	REMOVAL OF FENCE		REMARKS
		LF		
		PLAN	FINAL	
SH 92				
370+15 TO 391+09	RT	2,113		BARBED WIRE
370+16 TO 372+11	LT	203		BARBED WIRE
372+69 TO 389+75	LT,RT	688		BARBED WIRE
391+95 TO 403+37	RT	1,228		BARBED WIRE
417+78 TO 417+85	LT	98		BARBED WIRE
417+78 TO 421+00	LT	321		BARBED WIRE
421+74 TO 425+45	LT	194		BARBED WIRE
423+50 TO 423+93	LT	98		BARBED WIRE
425+45 TO 425+53	LT	89		COMBINATION WIRE
429+03 TO 436+65	LT,RT	780		BARBED AND COMBINATION WIRE
430+98 TO 431+29	LT	76		BARBED WIRE
436+43 TO 437+23	RT,LT	145		COMBINATION WIRE
436+94 TO 447+79	RT,LT	1,109		COMBINATION WIRE
436+99 TO 438+01	RT,LT	160		COMBINATION WIRE
442+32 TO 446+68	RT	299		DEER FENCE
445+00 TO 445+02	LT	31		BARBED WIRE
PROJECT TOTALS		7,632		

RESET OF MAILBOXES

STATION	OFFSET	SIDE	RESET MAILBOX (TYPE 1)		RESET MAILBOX (TYPE 2)		RESET MAILBOX (TYPE 3)		REMARKS
			EACH		EACH		EACH		
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
428+98.16	13.85'	RT	1		1		1		
436+98.06	40.26'	RT			1				
438+74.20	116.06'	RT	1						
446+24.73	25.52'	RT	1						FENCE POST W/ NEWSPAPER RECEPTACLE
PROJECT TOTALS			3		2		1		

NOTE: SEE DEMOLITION PLANS FOR REMOVALS AND RESETS.

Print Date: 11/4/2013	0000	Sheet Revisions			Colorado Department of Transportation			As Constructed		TABULATION OF REMOVAL			Project No./Code		
File Name: 17772DES_TabRem02.dgn		Date:	Comments	Init.	 2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018			No Revisions: Revised: Void:		Designer: P. WELLS Detailer: B. TENNANT		Structure Numbers Subset Sheets: 02 of 02		STA 092A-024	
Horiz. Scale: 1:10 Vert. Scale:														17772	
Unit Information Unit Leader Initials														Sheet Number 22	
URS				Region 3 RA											



STATE HIGHWAY 92 CENTERLINE COORDINATES (FEET)

NAME	STATION	PROJECT COORD.		DESCRIPTION
		NORTHING	EASTING	
1	362+00.00	359856.14	332420.74	PDB STA. PT
2	370+92.59	359727.53	333253.46	TS STA. PT
3	372+92.59	359697.66	333451.21	SC STA. PT
4	375+15.62	359662.96	333671.53	PI STA. PT
5	377+38.41	359643.87	333893.74	CS STA. PT
6	379+38.41	359625.50	334092.89	ST STA. PT
7	397+30.46	359466.83	335877.91	TS STA. PT
8	399+30.46	359451.44	336077.30	SC STA. PT
9	403+21.07	359414.54	336466.20	PI STA. PT
10	407+02.07	359513.62	336844.07	CS STA. PT

SH-92 CROWN CENTERLINE SHIFT COORDINATES (FEET)

NAME	STATION	PROJECT COORD.		DESCRIPTION
		NORTHING	EASTING	
1	1381+60.00	359605.88	334313.62	POB STA. PT
2	1386+00.00	359560.95	334751.32	PI STA. PT
3	1394+91.00	359482.06	335638.82	PI STA. PT
4	1396+40.16	359474.84	335787.80	POE STA. PT

CURVE DATA B-1

CIRCULAR CURVE
 $\Delta_c = 73^\circ 30'10''$ LT
 $D_c = 28^\circ 38'52''$
 $T_c = 149.35'$
 $L_c = 256.57'$
 $R_c = 200.00'$

SHAMROCK ROAD CENTERLINE COORDINATES (FEET)

NAME	STATION	PROJECT COORD.		DESCRIPTION
		NORTHING	EASTING	
1	800+00.00	359707.87	333381.93	PDB STA. PT
2	800+22.82	359730.43	333385.42	PC STA. PT
3	801+72.18	359878.03	333408.21	PI STA. PT
4	802+79.40	359941.81	333273.16	PT STA. PT
5	804+32.26	360007.08	333134.94	PDE STA. PT

BEGIN WORK AREA
 STA. 362+50.00

BEGIN PROJECT STA 092A-024
 STA 368+50

DAY DRIVE CENTERLINE COORDINATES (FEET)

NAME	STATION	PROJECT COORD.		DESCRIPTION
		NORTHING	EASTING	
1	200+00.00	359378.64	335240.15	POB STA. PT
2	200+87.38	359378.64	335327.52	PC STA. PT
3	201+62.88	359378.64	335403.03	PI STA. PT
4	202+38.10	359367.30	335477.68	PT STA. PT
5	203+05.32	359357.21	335544.14	PC STA. PT
6	206+28.60	359308.67	335863.75	PI STA. PT
7	209+49.75	359324.04	336186.66	PT STA. PT
8	211+58.25	359333.95	336394.92	PC STA. PT
9	212+66.35	359339.09	336502.89	PI STA. PT
10	213+23.11	359231.05	336499.63	PT STA. PT
11	215+28.04	359026.20	336493.45	PDE STA. PT

CURVE DATA A-1

TOTAL CURVE
 $\Delta = 3^\circ 42'01''$ LT
 $T = 423.03'$
 $E = 5.38'$

CIRCULAR CURVE
 $\Delta_c = 2^\circ 33'16''$ LT
 $D_c = 0^\circ 34'23''$
 $T_c = 222.95'$
 $L_c = 445.82'$
 $R_c = 10000.00'$

SPIRAL CURVE
 $\Delta_s = 0^\circ 34'23''$ LT
 $L_s = 200.00'$
 $L_{T1} = 133.33'$
 $S_{T1} = 66.67'$

PLEASURE PARK CENTERLINE COORDINATES (FEET)

NAME	STATION	PROJECT COORD.		DESCRIPTION
		NORTHING	EASTING	
1	100+00.00	359523.13	335244.55	PDB STA. PT
2	102+26.71	359296.53	335237.64	PC STA. PT
3	102+52.75	359270.50	335236.85	PI STA. PT
4	102+78.50	359245.14	335242.75	PT STA. PT
5	103+09.01	359215.42	335249.66	PC STA. PT
6	103+32.30	359192.73	335254.93	PI STA. PT
7	103+55.38	359169.44	335254.86	PT STA. PT
8	104+60.00	359064.82	335254.50	PDE STA. PT

CURVE DATA A-2

TOTAL CURVE
 $\Delta = 19^\circ 25'51''$ LT
 $T = 590.61'$
 $E = 42.28'$

CIRCULAR CURVE
 $\Delta_c = 15^\circ 25'52''$ LT
 $D_c = 1^\circ 59'59''$
 $T_c = 388.15'$
 $L_c = 771.61'$
 $R_c = 2865.00'$

SPIRAL CURVE
 $\Delta_s = 1^\circ 59'59''$ LT
 $L_s = 200.00'$
 $L_{T1} = 133.34'$
 $S_{T1} = 66.67'$

MATCHLINE STA. 380+00

SH92 ROAD CROWN SHIFT

CURVE DATA C-1

CIRCULAR CURVE
 $\Delta_c = 14^\circ 50'12''$ LT
 $D_c = 28^\circ 38'52''$
 $T_c = 26.04'$
 $L_c = 51.79'$
 $R_c = 200.00'$

CURVE DATA C-2

CIRCULAR CURVE
 $\Delta_c = 13^\circ 17'04''$ RT
 $D_c = 28^\circ 38'52''$
 $T_c = 23.29'$
 $L_c = 46.37'$
 $R_c = 200.00'$

SH92

PLEASURE PARK

CURVE C-1

CIRCULAR CURVE
 $\Delta_c = 13^\circ 05'28''$ E
 $D_c = 30.51'$
 $T_c = 103+32.30$
 $L_c = 103+55.38$
 $R_c = 104.62'$

CURVE C-2

CIRCULAR CURVE
 $\Delta_c = 0^\circ 11'37''$ W
 $D_c = 104.62'$
 $T_c = 104.62'$
 $R_c = 104.62'$

CURVE DATA D-1

CIRCULAR CURVE
 $\Delta_c = 8^\circ 38'09''$ RT
 $D_c = 5^\circ 43'46''$
 $T_c = 75.51'$
 $L_c = 150.73'$
 $R_c = 1000.00'$

CURVE DATA D-2

CIRCULAR CURVE
 $\Delta_c = 11^\circ 21'40''$ LT
 $D_c = 1^\circ 45'47''$
 $T_c = 323.28'$
 $L_c = 644.43'$
 $R_c = 3250.00'$

CURVE DATA D-3

CIRCULAR CURVE
 $\Delta_c = 94^\circ 27'13''$ RT
 $D_c = 57^\circ 17'45''$
 $T_c = 108.09'$
 $L_c = 164.85'$
 $R_c = 100.00'$

MATCHLINE STA. 380+00

SH92 ROAD CROWN SHIFT

PLEASURE PARK

DAY DRIVE

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File Name: 17772DES_GeometricLayoutPlan01.dgn

Horiz. Scale: 1:200

Vert. Scale:

Unit Information

Unit Leader Initials



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Date:	Comments	Init.

Colorado Department of Transportation



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 Phone: 972-249-5285 FAX: 970-249-6018

Region 3

RA

As Constructed

No Revisions:

Revised:

Void:

GEOMETRIC LAYOUT PLAN

Designer: P. WELLS

Detailer: B. TENNANT

Sheet Subset: GEOMETRIC

Structure Numbers

Subset Sheets: 01 of 02

Project No./Code

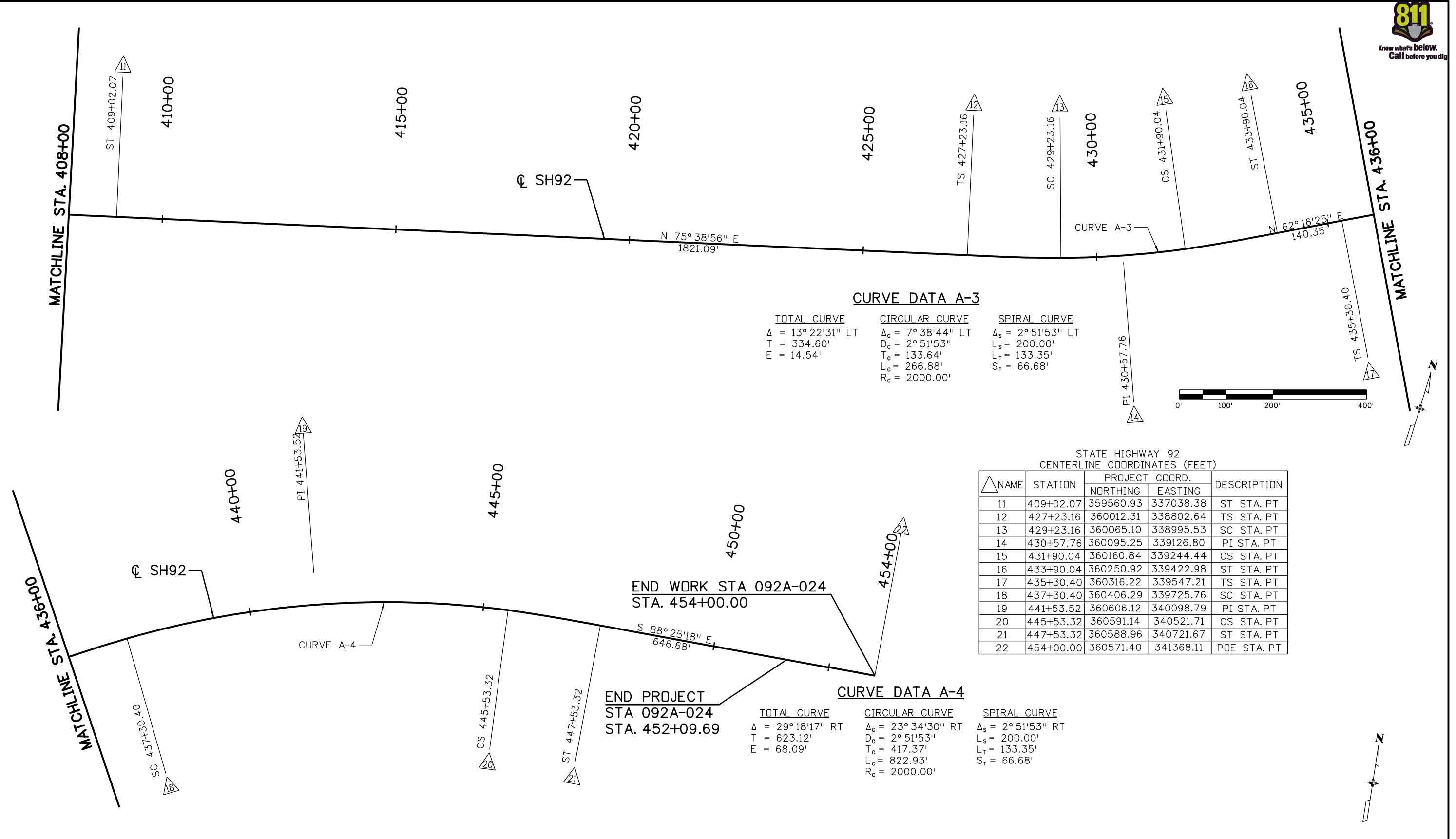
STA 092A-024

17772

Sheet Number 23

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CURVE DATA A-3


TOTAL CURVE	CIRCULAR CURVE	SPIRAL CURVE
$\Delta = 13^\circ 22' 31''$ LT	$\Delta_c = 7^\circ 38' 44''$ LT	$\Delta_s = 2^\circ 51' 53''$ LT
T = 334.60'	$D_c = 2^\circ 51' 53''$	$L_s = 200.00'$
E = 14.54'	$T_c = 133.64'$	$L_T = 133.35'$
	$L_c = 266.88'$	$S_T = 66.68'$
	$R_c = 2000.00'$	

CURVE DATA A-4

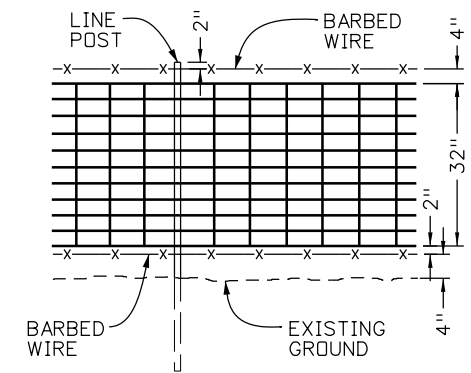
TOTAL CURVE	CIRCULAR CURVE	SPIRAL CURVE
$\Delta = 29^\circ 18' 17''$ RT	$\Delta_c = 23^\circ 34' 30''$ RT	$\Delta_s = 2^\circ 51' 53''$ RT
T = 623.12'	$D_c = 2^\circ 51' 53''$	$L_s = 200.00'$
E = 68.09'	$T_c = 417.37'$	$L_T = 133.35'$
	$L_c = 822.93'$	$S_T = 66.68'$
	$R_c = 2000.00'$	

STATE HIGHWAY 92
CENTERLINE COORDINATES (FEET)

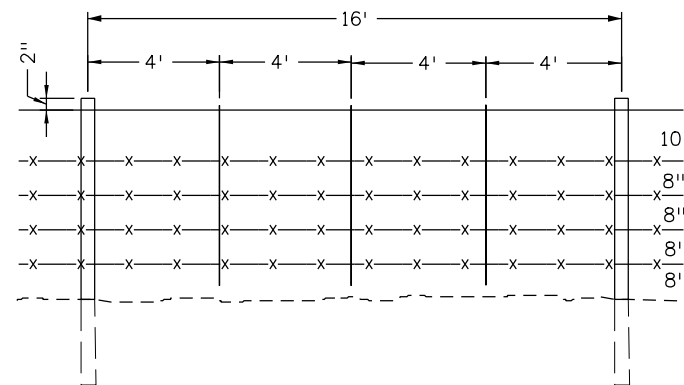
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		NORTHING	EASTING	
11	409+02.07	359560.93	337038.38	ST STA. PT
12	427+23.16	360012.31	338802.64	TS STA. PT
13	429+23.16	360065.10	338995.53	SC STA. PT
14	430+57.76	360095.25	339126.80	PI STA. PT
15	431+90.04	360160.84	339244.44	CS STA. PT
16	433+90.04	360250.92	339422.98	ST STA. PT
17	435+30.40	360316.22	339547.21	TS STA. PT
18	437+30.40	360406.29	339725.76	SC STA. PT
19	441+53.52	360606.12	340098.79	PI STA. PT
20	445+53.32	360591.14	340521.71	CS STA. PT
21	447+53.32	360588.96	340721.67	ST STA. PT
22	454+00.00	360571.40	341368.11	PDE STA. PT

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File Name: 17772DES_GeometricLayoutPlan02.dgn		Date: Comments Init.	 2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018	No Revisions:	Designer: P. WELLS	Structure Numbers
Horiz. Scale: 1:200 Vert. Scale:				Revised:	Detailer: B. TENNANT	17772
Unit Information Unit Leader Initials			Region 3 RA	Void:	Sheet Subset: GEOMETRIC	Subset Sheets: 02 of 02
URS	0000					Sheet Number 24

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FENCE COMBINATION WIRE WITH WOOD POSTS (SPECIAL)



FENCE BARBED WIRE WITH WOOD POSTS (SPECIAL)

FIVE STRANDS OF WIRE SHALL BE USED, AND SPACING OF WIRES ON FENCE SHALL BE CHANGED FROM WHAT IS SHOWN IN STANDARD M-607-1 AS FOLLOWS:

1. STARTING FROM THE BOTTOM, SPACING SHALL BE 8", 8", 8", 8" AND 10".
2. BARBED WIRE FENCE SHALL HAVE WOOD POSTS, BE 5-STRAND (TOP STRAND SHALL BE SMOOTH), AND SHALL HAVE THREE (3) WOOD STAYS, EQUALLY SPACED, BETWEEN POSTS.

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 File Name: 17772DES_Det01.dgn
 Horiz. Scale: 1:100 Vert. Scale:
 Unit Information Unit Leader Initials



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Date:	Comments	Init.

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Region 3

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Void:

FENCE DETAIL

Designer:	P.WELLS	Structure Numbers	
Detailer:	B.TENNANT		
Sheet Subset:	DETAIL	Subset Sheets:	01 of 06

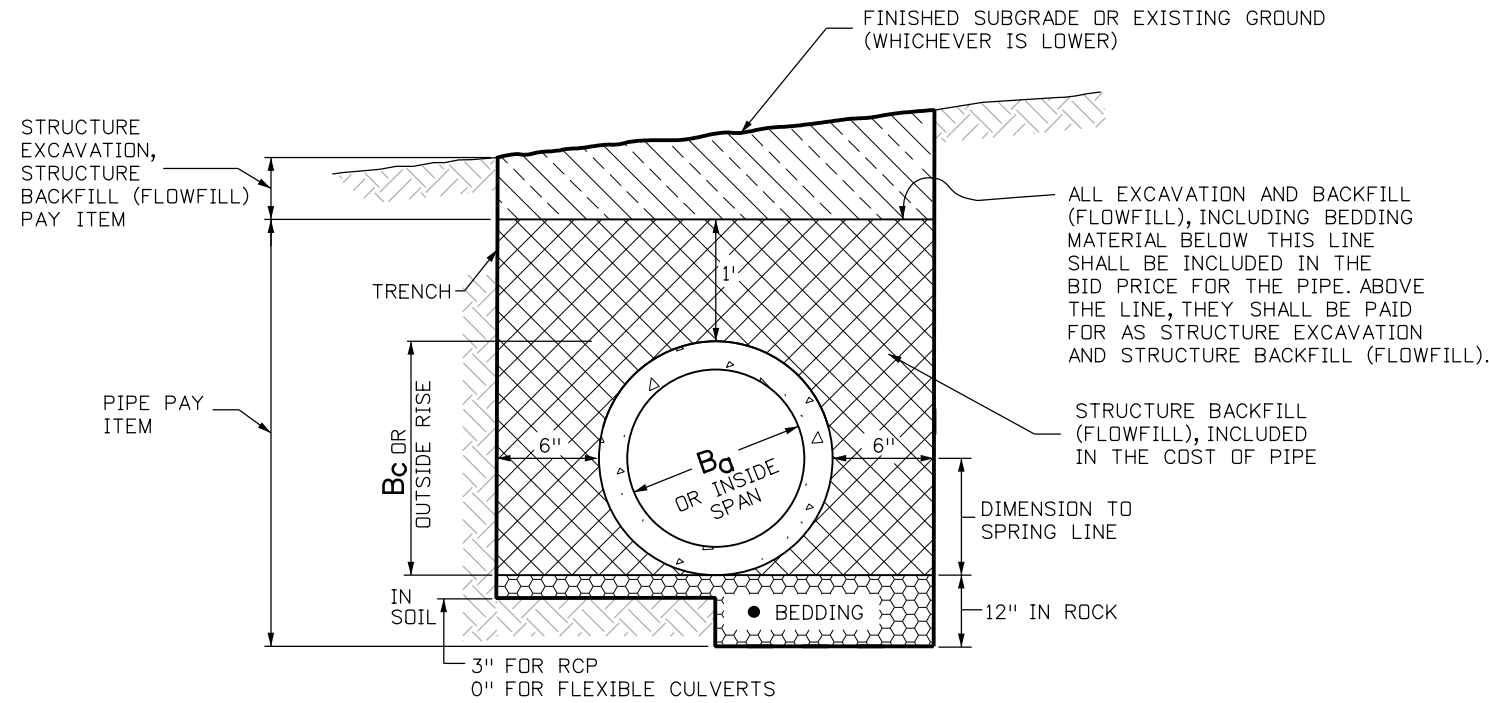
Project No./Code

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Sheet Number 25

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PIPE TRENCH DETAIL @ STATION 386+33, 446+78, 448+77

- THE BEDDING MATERIAL FOR RIGID PIPE IN SOIL SHALL BE 3 IN. OF LOOSE STRUCTURE BACKFILL (CLASS 1 OR 2). BEDDING IS NOT REQUIRED FOR FLEXIBLE PIPE IN SOIL. BEDDING MATERIAL FOR RIGID OR FLEXIBLE PIPE IN ROCK SHALL BE 12 IN. OF LOOSE STRUCTURE BACKFILL, CLASS 1.

NOTES:

PATCHING SHALL BE MEASURED AND PAID FOR AS SHOWN BY THE DIMENSIONS SHOWN ON THESE PLANS (PATCHING LIMITS x LENGTH OF PIPE UNDER EXISTING PAVEMENT). PATCHING SHALL BE MEASURED IN SY AND SHALL BE PAID FOR AS HOT MIX ASPHALT (PATCHING)(ASPHALT). MINIMUM THICKNESS OF PATCH SHALL BE 5".

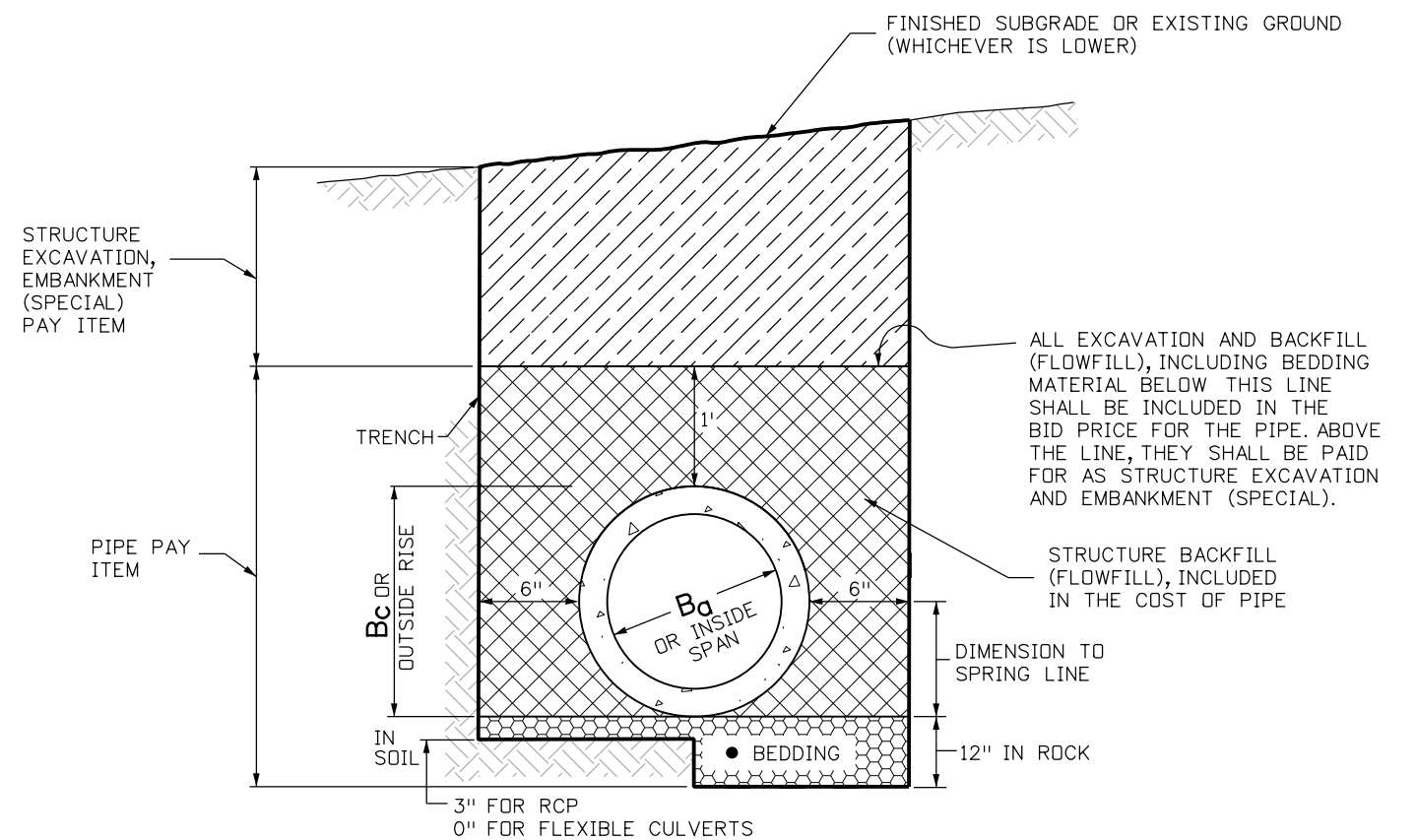
EXCAVATION FOR CHANNEL CHANGE OR CHANNEL IMPROVEMENT WILL BE EITHER UNCLASSIFIED EXCAVATION OR MUCK EXCAVATION AND WILL BE NOTED ON THE PLANS. EXCAVATION FROM THE CHANNEL FLOWLINE TO THE DEPTH REQUIRED FOR THE NEW STRUCTURE AND INCIDENTAL CHANNEL EXCAVATION WILL BE PAID FOR AS STRUCTURE EXCAVATION.

B_a EQUALS THE INSIDE DIAMETER OF A PIPE AND **B_c** EQUALS THE OUTSIDE DIAMETER OF A PIPE. FOR THIN WALLED PIPES, IT IS ASSUMED THAT **B_c = B_a**.

APPROXIMATE STRUCTURE EXCAVATION AND BACKFILL QUANTITIES, UP TO 1 FT. OVER THE PIPE WILL BE SHOWN ON THE PLANS, FOR INFORMATION ONLY.

HOT MIX ASPHALT PATCHING SHALL BE KEYED IN AS SHOWN IN DETAIL. PATCHING WILL BE MEASURED AND PAID FOR BY THE SY (PIPE LENGTH X PATCHING LIMITS) AND SHALL INCLUDE THE COST OF ABC CLASS 6 AND ABC CLASS 1.

LEGEND:		STRUCTURE EXCAVATION, AGGREGATE BASE COURSE (CLASS 3) PAY QUANTITY	STRUCTURE EXCAVATION, STRUCTURE BACKFILL (FLOWFILL) PAY QUANTITY	BEDDING	CONCRETE
STRUCTURE EXCAVATION LIMITS	EARTH				
STRUCTURE BACKFILL (FLOW FILL), INCLUDED IN COST OF PIPE					



PIPE TRENCH DETAIL @ STATION 394+16, 397+22, 416+24

- THE BEDDING MATERIAL FOR RIGID PIPE IN SOIL SHALL BE 3 IN. OF LOOSE STRUCTURE BACKFILL (CLASS 1 OR 2). BEDDING IS NOT REQUIRED FOR FLEXIBLE PIPE IN SOIL. BEDDING MATERIAL FOR RIGID OR FLEXIBLE PIPE IN ROCK SHALL BE 12 IN. OF LOOSE STRUCTURE BACKFILL, CLASS 1.

Print Date: 11/4/2013
File Name: 17772DES_Det03.dgn
Horiz. Scale: 1:10 Vert. Scale:
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Sheet Revisions		
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Colorado Department of Transportation

2424 North Townsend Avenue
Montrose, CO 81401
Phone: 972-249-5285 FAX: 970-249-6018

Region 3 RA

As Constructed
No Revisions:
Revised:
Void:

HMA PATCHING & PIPE TRENCH DETAIL		
Designer: P. WELLS	Structure Numbers	
Detailer: B. TENNANT		
Sheet Subset: DETAIL	Subset Sheets: 03 of 06	

Project No./Code
STA 092A-024
17772
Sheet Number 26



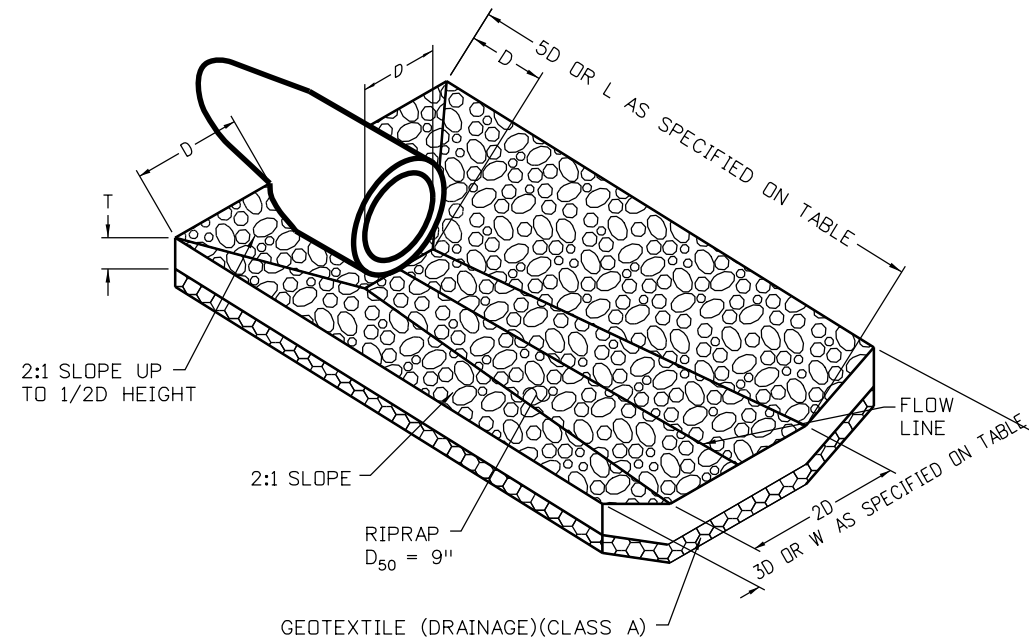
File Path: I:\PROJECTS\22239666_SH92_Master\22241827_T05_Final_Design\6.0_Project_Deliverables\17772DES_Det04.dgn

Culvert		Outlet Paving			D ₅₀	Rip Rap	Geotextile
Station	D	T	L	W		Volume	Surface Area
		(IN)	(FT)	(FT)	(IN)	(CY)	(SY)
386+33	24"	18	10	6	9	3.5	6.7
394+16	24"	18	10	6	9	3.5	6.7
397+22	24"	18	10	6	9	3.5	6.7
448+77	30"	18	12.5	7.5	9	5.2	10.4
372+17	24"	18	10	6	9	3.5	6.7
390+90	24"	18	10	6	9	3.5	6.7
421+46	18"	18	7.5	4.5	9	2.0	3.8
437+89	18"	18	7.5	4.5	9	2.0	3.8
438+00	18"	18	7.5	4.5	9	2.0	3.8
446+38	18"	18	7.5	4.5	9	2.0	3.8
450+16	18"	18	7.5	4.5	9	2.0	3.8

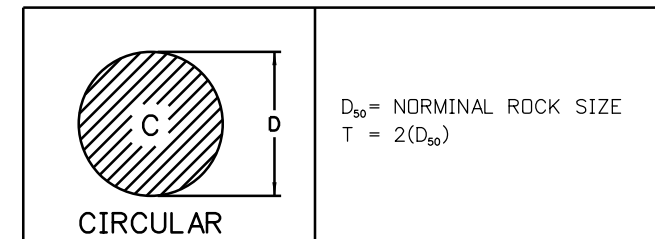
SPECIAL PIPE OUTLET PAVING

GENERAL NOTES

1. PIPE OUTLET PAVING TO CONFORM TO CDOT M-STANDARD M-601-12 WITH THE MODIFICATIONS SPECIFIED BELOW.
2. FOR SIZE AND LOCATION OF PIPES, SEE THE PLANS.
3. ALL CULVERT PIPES SHALL HAVE PIPE OUTLET PAVING.



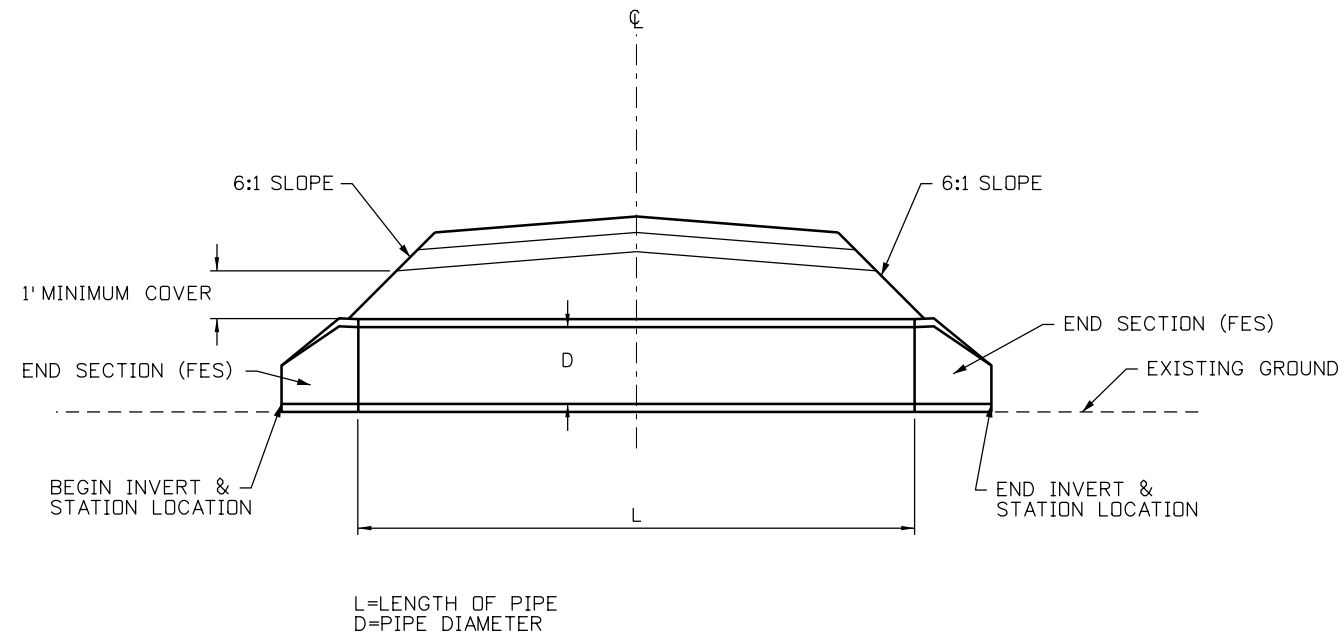
PIPE OUTLET PAVING



TYPE OF PIPE OUTLET PAVING DIMENSIONS

Print Date: 11/4/2013		Sheet Revisions			<p>Colorado Department of Transportation 2424 North Townsend Avenue Montrose, CO 81401 Phone: 972-249-5285 FAX: 970-249-6018 Region 3 RA</p>	As Constructed		PIPE OUTLET PAVING		Project No./Code	
File Name: 17772DES_Det04.dgn		Date:	Comments	Init.		No Revisions:	Designer: B. YOUNG		Structure Numbers	STA 092A-024	
Horiz. Scale: 1:20 Vert. Scale:						Revised:	Detailer: B. TENNANT			17772	
Unit Information Unit Leader Initials						Void:	Sheet Subset: DETAIL		Subset Sheets: 04 of 06	Sheet Number 27	


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SIDE DRAIN TABULATION


ACCESS LOCATION	DIAMETER (D)	MATERIAL	UPSTREAM STATION	UPSTREAM INVERT	DOWNSTREAM STATION	DOWNSTREAM INVERT	LENGTH	FES	COMMENTS
STA. 372+17, LT	24"	RCP	372+64, 54' LT	5279.40	371+68, 50' LT	5278.00	83.0'	2	
STA. 390+90, RT	24"	RCP	391+54, 97' RT	5343.00	390+28, 90' RT	5340.00	113.0'	2	
STA. 421+46, LT	18"	RCP	421+76, 40' LT	5484.65	421+17, 38' LT	5484.15	47.0'	2	
STA. 437+89, LT	18"	RCP	438+28, 64' LT	5449.50	437+45, 81' LT	5448.5	78.0'	2	
STA. 438+00, RT	18"	RCP	438+12, 68' RT	5449.50	437+84, 101' RT	5448.5	30.0'	2	
STA. 446+38, RT	18"	RCP	446+70, 47' RT	5500.50	446+06, 40' RT	5499.90	51.0'	2	
STA. 450+16, LT	18"	RCP	450+33, 38' LT	5508.10+	450+00, 37' LT	5507.75	21.0'	2	MATCH EXISTING

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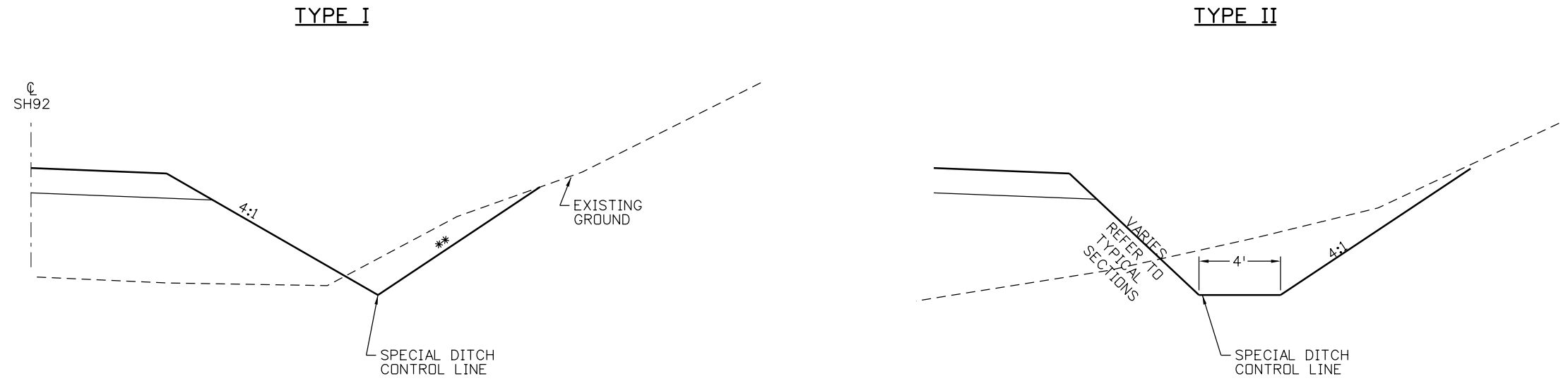


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Void:

**DRAINAGE DETAIL
SIDE DRAIN INSTALLATION**

Designer: J. JONES	Structure Numbers
Detailer: B. TENNANT	
Sheet Subset: DETAIL	Subset Sheets: 05 of 06

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	17772
Sheet Number	28



DITCH ID	SIDE	FROM STA.	TO STA.	**	TYPE
SD403R	RT	STA. 403+73	STA. 403+84		GRADE TO DRAIN ALONG SHOWN ALIGNMENT
SD407L	LT	STA. 406+70	STA. 407+48	2:1	I
SD411L	LT	STA. 409+00	STA. 411+00	3:1	I
SD419R	RT	STA. 416+05	STA. 419+00		II
SD437R	RT	STA. 437+53	STA. 437+84	4:1	I

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File Name: 17772DES_Det06.dgn	
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Date:	Comments	Init.

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Region 3 **RA**

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Void:

DRAINAGE DETAIL SPECIAL DITCH		
Designer: J. JONES	Structure Numbers	
Detailer: B. TENNANT	Subset Sheets: 06 of 06	
Sheet Subset: DR DETAIL		

Project No./Code
STA 092A-024
17772
Sheet Number 29