

Oversight / NHS

FHWA REGION VIII OVERSIGHT?  NO  YES

NATIONAL HIGHWAY SYSTEM?  NO  YES

# DEPARTMENT OF TRANSPORTATION STATE OF COLORADO

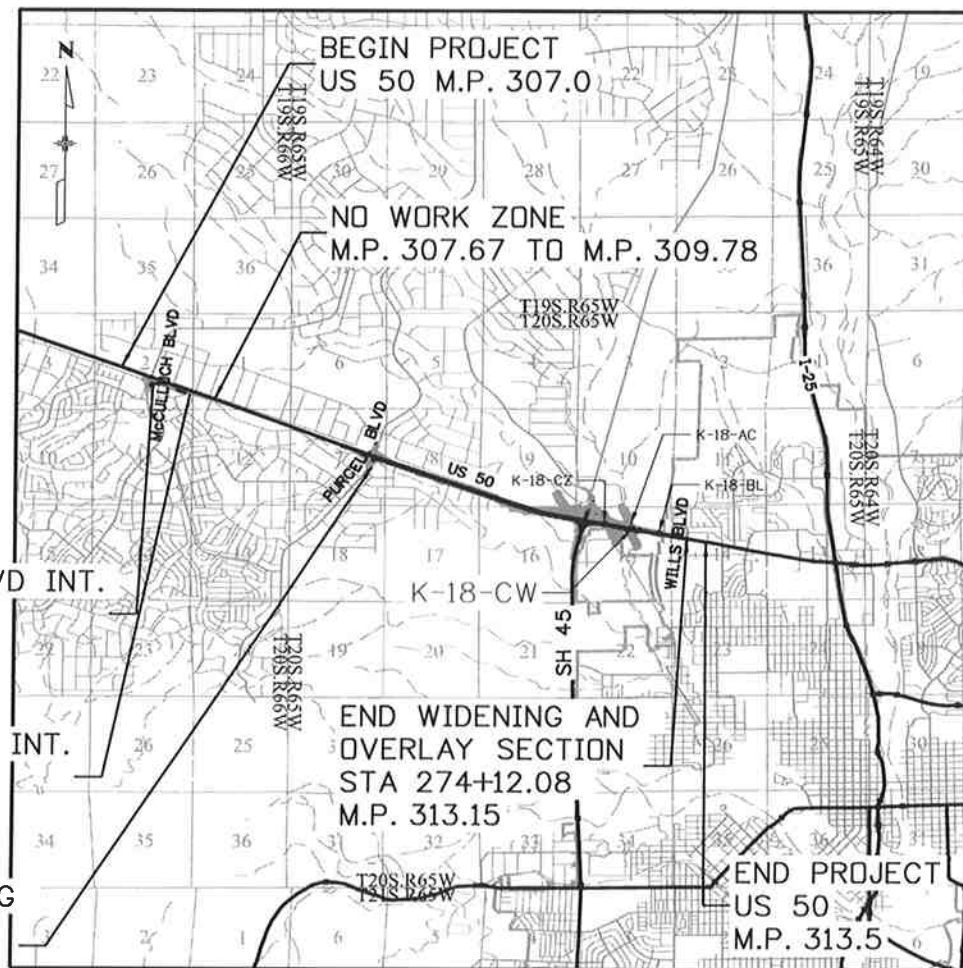
<b>Related Projects:</b>	
P. E. UNDER PROJECT:	FSA 0503-081
Project Number	19751
Project Code:	
<b>R.O.W. Projects:</b>	
R.O.W. Project Description	FSA 0503-081
	19751

**TABULATION OF LENGTH & DESIGN DATA**

STATION	FEET	
	ROADWAY US 50	MAJOR STR.
BEGIN FSA 0503-081 ON US 50		
BEGIN APPROACH TO PROJECT ON US 50 = M.P. 307.0		
BEGIN McCULLOCH BLVD INTERSECTION IMPROVEMENTS STA. 700+37.13 = MP 307.34		
END McCULLOCH BLVD INTERSECTION IMPROVEMENTS STA. 721+41.51 = MP 307.67	1,754.0	
NO WORK ZONE MP 307.67 TO 309.78		
BEGIN US 50 WIDENING AND OVERLAY STA. 97+13.10 = MP 309.78	14,560.5	
BEGIN STRUCTURE K-18-CW STA. 242+73.64 = M.P. 312.56		233.1
END STRUCTURE K-18-CW STA. 245+06.76 = MP 312.60		
END US 50 WIDENING AND OVERLAY STA. 274+12.08 = MP 313.15	2,901.6	
BEGIN APPROACH TO PROJECT = MP 313.5		
END FSA 0503-081 ON US 50		
<b>TOTAL</b>	<b>19,216.2</b>	<b>233.1</b>
<b>SUMMARY OF PROJECT LENGTH</b>	<b>FEET</b>	<b>MILES</b>
MAJOR STRUCTURE	233.1	0.04
PROJECT GROSS LENGTH	19,449.3	3.7

## HIGHWAY CONSTRUCTION BID PLANS OF PROPOSED FEDERAL AID PROJECT NO. FSA 0503-081 UNITED STATES HIGHWAY NO. 50 PUEBLO COUNTY CONSTRUCTION PROJECT CODE NO.19751

SHEET NO.	INDEX OF SHEETS
(R-1) 1a	TITLE SHEET
2	STANDARD PLANS LIST
3	GENERAL NOTES
4-9	TYPICAL SECTIONS
10-11	SUMMARY OF APPROXIMATE QUANTITIES
(R-1) 12a	SUMMARY OF APPROXIMATE QUANTITIES
13-15	SUMMARY OF APPROXIMATE QUANTITIES
(R-1) 16a-17a	SUMMARY OF APPROXIMATE QUANTITIES
18-27	TABULATIONS
28-43	UTILITY PLAN
44-45	GEOMETRY PLAN
46-53	REMOVALS AND RESETS
54-70	ROADWAY PLAN AND PROFILE
71-77	INTERSECTION DETAILS
78-89	GEOTECHNICAL/BORING SHEETS
90-91	ENGINEERING GEOLOGY
92-96	SURVEY CONTROL DIAGRAM
97-101	RIGHT OF WAY PLANS
102-117	GRADING AND DRAINAGE PLANS
118-119	POND DETAILS
120-128	DRAINAGE DETAILS
129-140	CROSS PIPE PLAN AND PROFILES
141-144	STORM SYSTEM PLAN AND PROFILE
145-146	STORM SYSTEM LATERAL PROFILES
147-178	BRIDGE PLANS
179	RAILROAD BRIDGE SLOPE PAVING MODIFICATIONS
180	HEADWALL DETAIL
(R-1) 181a-182a	ENVIRONMENTAL PLAN
183-200	ENVIRONMENTAL PLAN
200-204	STORMWATER MANAGEMENT NOTES
205-220	STORMWATER MANAGEMENT PLAN - INITIAL
221-236	STORMWATER MANAGEMENT PLAN - FINAL
(R-1) 237a	TABULATION OF TRAFFIC ENGINEERING ITEMS
238-245	CONSTRUCTION PHASING
246-278	CONSTRUCTION TRAFFIC CONTROL (CTC)
279-282	TRAFFIC SIGNAL PLANS AND TABULATION
283-285	SIGNING AND PAVEMENT MARKING TABULATION
286-301	SIGNING AND STRIPING PLAN
302-303	CLASS III CROSS SECTIONS
304	ITS PLAN AND TABULATION



PROJECT LOCATION MAP



DESIGN DATA	US 50 (EB)
MAXIMUM RADIUS OF CURVE	6,844 FT.
MAXIMUM GRADE	5.20%
MINIMUM S.S.D. HORIZONTAL	495 FT.
MINIMUM S.S.D. VERTICAL	495 FT.
MAXIMUM DESIGN SPEED	65 MPH
2035 DESIGN TRAFFIC	DHV = 4,493 vph ADT = 43,425 vpd
DHV TRUCK %	6.40%
CLEAR ZONE DISTANCE (TANGENT)	24 FT.
CLEAR ZONE DISTANCE (XXX MIN. RADIUS)	24 FT.
CONSTRUCTION CLEAR ZONE (MIN 18')	18 FT.

BEGIN McCULLOCH BLVD INT. IMPROVEMENTS  
M.P. 307.34

END McCULLOCH BLVD INT. IMPROVEMENTS  
M.P. 307.67

BEGIN US 50 WIDENING AND OVERLAY  
STA 97+13.10  
M.P. 309.78

END WIDENING AND OVERLAY SECTION  
STA 274+12.08  
M.P. 313.15

END PROJECT US 50  
M.P. 313.5

Print Date: 11/21/2014		<b>Sheet Revisions</b>			<b>As Constructed</b>		<b>Contract Information</b>		<b>Project No./Code</b> FSA 0503-081 19751 Sheet Number 1a		
File Name: 19056DES_TitleSht_Revision_1.dgn		Date:	Comments		Init.	No Revisions:	Contractor:			Resident Engineer:	
Horiz. Scale: 1:1      Vert. Scale: As Noted		11/20/14	Revision 1		GV	Revised:	Project Engineer:			PROJECT STARTED: / /      ACCEPTED: / /	
Unit Information      DTD						Void:		Comments:			
	J. F. SATO AND ASSOCIATES 5898 South Rapp Street Littleton, Colorado 80120			Region 2      DTD							

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INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	ROADWAY										STRUCTURE K-18-CW		PROJECT TOTALS	
BOOK	PAGE	SHEET				PLAN	AS CONST.											PLAN	AS CONST.
			212-00006	Seeding (Native)	ACRE	19.6												19.6	
			212-00010	Seeding (Lawn)	LB	5												5	
			212-00025	Seeding (Shrubs)	LB	5												5	
			212-00032	Soil Conditioning	ACRE	10												10	
			212-00040	Soil Preparation (Lawn)	ACRE	1												1	
			213-00002	Mulching (Weed Free Hay)	ACRE	20												20	
			213-00061	Mulch Tackifier	LB	6												6	
			213-00150	Bonded Fiber Matrix	ACRE	1												1	
			214-00205	Deciduous Tree (5 Gallon Container)	EACH	2												2	
			214-01015	Willow Cuttings	EACH	1,100												1,100	
			216-00042	Soil Retention Blanket (Biodegradable Straw/Coconut)	SY	2,420												2,420	
			216-00301	Turf Reinforcement Mat (Class 1)	SY	17												17	
			217-00020	Herbicide Treatment	HOUR	80												80	
			240-00010	Removal of Nests	HOUR	40												40	
			240-00020	Netting	SY	50												50	
			240-00100	Prairie Dog Management	L S	1												1	
			250-00010	Environmental Health and Safety Management	L S	1												1	
			250-00050	Monitoring Technician	HOUR	80												80	
			250-00110	Health and Safety Officer	HOUR	80												80	
			250-00200	Material Handling (Stockpile)	CY	100												100	
			250-00210	Solid Waste Disposal	CY	50												50	
			250-00220	Hazardous Waste Disposal	CY	50												50	
			304-06000	Aggregate Base Course (Class 6)	TON	57,645												57,645	
			306-01000	Reconditioning	SY	29,529												29,529	
			403-00720	Hot Mix Asphalt (Patching) (Asphalt)	TON	105												105	
			403-33841	Hot Mix Asphalt (Grading S) (100) (PG 64-22)	TON	20,957												20,957	
			403-34841	Hot Mix Asphalt (Grading SX) (100) (PG 64-22)	TON									243				243	
			403-34871	Hot Mix Asphalt (Grading SX) (100) (PG 76-28)	TON	15,555												15,555	
			411-10255	Emulsified Asphalt (Slow-Setting)	GAL	13,023												13,023	
			412-00600	Concrete Pavement (6 Inch)	SY	20												20	
			420-00102	Geotextile (Erosion Control) (Class 1)	SY									4,199				4,199	
			420-00112	Geotextile (Drainage) (Class 1)	SY	567												567	

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File Name: Rev_L_19056DES_SAO.dgn		Date:	Comments	Init.	No Revisions:		Designer:		FSA 0503-081		
Horiz. Scale: 1:200 Vert. Scale: As Noted		11/20/14	Quantity deleted	GV	Revised:		Detailer:		19751		
JFS&A J.F. SATO AND ASSOCIATES 5898 South Rapp Street Littleton, Colorado 80120		Region 2		902 Erie Avenue Pueblo, CO 81001 Phone: 719-562-5509 FAX: 719-546-5702		Void:		Structure Numbers		Sheet Number 12a	
				DTD		Subset:		Subset Sheets: of			

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BOOK	PAGE	SHEET				PLAN	AS CONST.											PLAN	AS CONST.
			614-87011	Fiber Optic Cable (Single Mode) (24 Fiber)	LF	50												50	
			614-87524	Splice Fiber Optic Cable (24 Strand)	EACH	1												1	
			618-00142	Prestressed Concrete I (BT42)	LF										730			730	
			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	611												611	
			625-00000	Construction Surveying	L S	1												1	
			626-00000	Mobilization	L S	1												1	
			626-01000	Public Information Services	L S	1												1	
			627-00007	Epoxy Pavement Marking (Special)	GAL	179												179	
			627-00011	Pavement Marking Paint (Waterborne)	GAL	400												400	
			627-30205	Thermoplastic Pavement Marking (Word-Symbol)	SF	93												93	
			627-30210	Thermoplastic Pavement Marking (Xwalk-Stopline)	SF	903												903	
			630-00000	Flagging	HOUR	3,808												3,808	
			630-00007	Traffic Control Inspection	DAY	127												127	
			630-00012	Traffic Control Management	DAY	238												238	
			630-80001	Flashing Beacon (Portable)	EACH	10												10	
			630-80335	Barricade (Type 3 M-A) (Temporary)	EACH	3												3	
			630-80341	Construction Traffic Sign (Panel Size A)	EACH	43												43	
			630-80342	Construction Traffic Sign (Panel Size B)	EACH	91												91	
			630-80344	Construction Traffic Sign (Special)	SF	165												165	
			630-80358	Advance Warning Flashing or Sequencing Arrow Panel (C Type)	EACH	6												6	
			630-80359	Portable Message Sign Panel	DAY	4												4	
			<b>(R-1)</b> 630-80363	Drum Channelizing Device (With Light) (Flashing)	EACH	<del>75</del> 200												<del>75</del> 200	
			630-80370	Concrete Barrier (Temporary)	LF	3,000												3,000	
			630-80380	Traffic Cone	EACH	100												100	
			630-85011	Impact Attenuator (Temporary)	DAY	50												50	
			700-70010	FORCE ACCOUNT =====	F A	1												1	
			700-70011	F/A Partnering	F A	1												1	
			700-70012	F/A Asphalt Pavement Incentive	F A	1												1	

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Horiz. Scale: 1:200 Vert. Scale: As Noted		11/20/14	Quantity change	GV	Region 2 DTD		Revised:		19751		
<b>JFS&amp;A</b> J. F. SATO AND ASSOCIATES 5898 South Rapp Street Littleton, Colorado 80120							Void:		Sheet Number 16a		
							Designer:		Structure Numbers		
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BOOK	PAGE	SHEET				PLAN	AS CONST.											PLAN	AS CONST.
			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	
			700-70021	F/A On-The-Job Trainee	HOUR	1,920												1,920	
			700-70031	F/A INTERIM SURFACE REPAIR	F A	1												1	
			700-70082	F/A Furnish & Install Electrical Service	F A	1												1	
			700-70380	F/A Erosion Control	F A	1												1	
			700-70594	F/A DRB Standing Committee	F A	1												1	
			700-73351	F/A Removal of Asbestos and Lead Based Paint	F A	1												1	
			R-1 700-70035	F/A Prairie Dog Management (Burrowing Owl)	F A	1												1	
			R-1 700-70060	F/A Adjust Utility	F A	1												1	

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 J. F. SATO AND ASSOCIATES 5898 South Rapp Street Littleton, Colorado 80120		 CDOT Region 2		DTD		Designer: Detailer: Subset:		Structure Numbers Subset Sheets: of		Sheet Number 17a	





Know what's below.  
Call before you dig.

ENVIRONMENTAL GENERAL NOTES:

~~1. IF CONSTRUCTION IS TO OCCUR DURING THE MIGRATORY BIRD NESTING SEASON, (BETWEEN APRIL 1 AND AUGUST 31 AND BETWEEN MARCH 15 AND OCTOBER 31 FOR WESTERN BURROWING OWLS) THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240, (PROTECTION OF MIGRATORY BIRDS), WHICH REQUIRES A SURVEY. THE CDOT PROJECT ENGINEER SHALL DESIGNATE A QUALIFIED BIOLOGIST TO PERFORM THE SURVEY.~~

1. IF CONSTRUCTION IS TO OCCUR DURING THE MIGRATORY BIRD NESTING SEASON (BETWEEN APRIL 1 AND AUGUST 31), THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240 PROTECTION OF MIGRATORY BIRDS WHICH REQUIRES A SURVEY. ALSO, IF CONSTRUCTION IS TO OCCUR BETWEEN THE NESTING SEASON FOR WESTERN BURROWING OWLS (MARCH 15 AND OCTOBER 31), THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240 (BLACK TAILED PRAIRIE DOG MANAGEMENT (WESTERN BURROWING OWL), WHICH REQUIRES A SURVEY. THE CDOT PROJECT ENGINEER SHALL DESIGNATE A QUALIFIED BIOLOGIST TO PERFORM THE SURVEYS. (R-1)

IF MIGRATORY BIRDS ARE IDENTIFIED, CDOT REGION 2 ENVIRONMENTAL PERSONNEL SHALL COORDINATE WITH THE DESIGN PROJECT MANAGER TO SHOW BIRD NESTS AND POTENTIAL NESTING HABITAT IN THE PLAN. THE CDOT BIOLOGIST SHALL RECORD THE LOCATION OF EACH PROTECTED NEST, BIRD SPECIES, PROTECTION METHODS USED, AND DATE INSTALLED. A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER. THESE PROTECTION METHODS SHALL REMAIN IN PLACE DURING THE NESTING SEASON (BETWEEN APRIL 1 AND AUGUST 31).

2. THE CONTRACTOR SHALL PERFORM CONSTRUCTION ACTIVITIES TO AVOID UNNECESSARY IMPACTS TO VEGETATION, INCLUDING TREES AND SHRUBS. PROTECTIVE FENCING WILL BE USED TO IDENTIFY THESE AREAS, AS NOTED ON THE STORMWATER MANAGEMENT PLAN. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITIONS BY THE CONTRACTOR AT THEIR OWN EXPENSE. TREES NOT DESIGNATED FOR REMOVAL WILL BE PROTECTED WITH ORANGE FENCING (PLASTIC). THE CONTRACTOR SHALL NOT PARK ANY VEHICLES OR EQUIPMENT OR DISTURB ANY AREA NOT APPROVED BY THE ENGINEER.

3. RIPARIAN/ STREAM BANK (SENATE BILL 40) RESOURCES ALONG WILD HORSE DRY CREEK WILL BE RESTORED, AS NOTED IN THE STORMWATER MANAGEMENT PLAN. PLANTING OF TREES AND SHRUBS WILL FOLLOW CDOT'S STANDARD SPECIFICATION 214 - PLANTING AND PROJECT SPECIAL PROVISION 217 HERBICIDE TREATMENT.

THE CONTRACTOR SHALL REMOVE TWO TREES AS SHOWN ON PAGES ENV-3 AND ENV-13. THE LOCATION AND TYPE OF TREES TO BE RE-PLANTED BY THE CONTRACTOR SHALL BE AS DIRECTED BY CDOT ENGINEER AND REGION 2 ENVIRONMENTAL STAFF.

4. EROSION CONTROL BEST MANAGEMENT PRACTICES INCLUDED IN THE STORMWATER MANAGEMENT PLAN WILL ADDRESS THE POTENTIAL IMPACTS TO THE PLAINS LEOPARD FROG, NORTHERN LEOPARD FROG AND TRIPLOID COLORADO CHECKERED WHIPTAIL. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR BETWEEN MARCH 1 AND JULY 31 AT SITES THAT CONTAIN HABITAT FOR THE PLAINS LEOPARD FROG AND NORTHERN LEOPARD FROG (WILLIAMS CREEK AND WILD HORSE DRY CREEK, THE CDOT STAFF BIOLOGIST AND THE COLORADO PARKS AND WILDLIFE WILL BE CONSULTED PRIOR TO CONSTRUCTION TO DETERMINE ACTIONS NECESSARY TO AVOID AND MINIMIZE IMPACTS. ALSO, APPLICATION OF HERBICIDES NEAR PERMANENT BODIES OF WATER WILL BE RESTRICTED DURING THE PERIOD OF FROG METAMORPHOSIS (JUNE TO AUGUST).

EROSION CONTROL BEST MANAGEMENT PRACTICES INCLUDED IN THE STORMWATER MANAGEMENT PLAN WILL ALSO ADDRESS THE POTENTIAL IMPACTS TO THE MASSASAUGA RATTLESNAKE AND THE TRIPLOID COLORADO CHECKERED WHIPTAIL. IF CONSTRUCTION ACTIVITIES ARE TO OCCUR BETWEEN MARCH 1 AND JULY 31 AT SITES THAT CONTAIN HABITAT FOR THE MASSASAUGA RATTLESNAKE, THE CDOT STAFF BIOLOGIST WILL BE CONSULTED PRIOR TO CONSTRUCTION TO DETERMINE ACTIONS NECESSARY TO AVOID AND MINIMIZE IMPACTS.

5. THE CONTRACTOR SHALL OBTAIN ANY OR ALL APPLICABLE AIR POLLUTION EMISSION NOTICE (APEN) OR FUGITIVE DUST CONTROL PLAN APPROVALS REQUIRED BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) AND LOCAL REGULATORY AGENCIES FOR THIS PROJECT (PER SUBSECTION 107.24 OF THE STANDARD SPECIFICATIONS). THE CONTRACTOR SHALL PROVIDE COPY(S) OF THE APPROVED PERMITS OR NOTIFICATIONS TO THE PROJECT ENGINEER PRIOR TO CONSTRUCTION OR COMMENCEMENT OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE APPLICATION FOR AND MANAGEMENT OF THIS PERMIT.

6. THE CONTRACTOR SHALL MAINTAIN EQUIPMENT ON A REGULAR BASIS. EQUIPMENT WILL BE SUBJECT TO INSPECTION BY THE ENGINEER TO ENSURE MAINTENANCE. ALSO, THE CONTRACTOR SHALL NOT ALLOW EXCESSIVE IDLING OF INACTIVE EQUIPMENT OR VEHICLES.

7. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A DUST CONTROL PLAN THAT DETAILS METHODS FOR MITIGATION OF FUGITIVE DUST RESULTING FROM THE WORK, INCLUDING DUST FROM THE BRIDGE. THE DUST CONTROL PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO WORK COMMENCEMENT. PREPARATION OF THIS PLAN SHALL BE INCLUDED IN THE COST OF THE WORK AND SHALL NOT BE PAID FOR SEPARATELY.

WATER SHALL BE USED AS A DUST PALLIATIVE AS DETAILED IN CDOT STANDARD SPECIFICATION 209 WHERE REQUIRED. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER. WATER FOR A DUST PALLIATIVE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. CONTAMINATED GROUNDWATER SHALL NOT BE USED AS A DUST PALLIATIVE.

DUST CONTROL FOR THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.

8. THE CONTRACTOR IS ADVISED THAT KNOWN SOIL AND GROUNDWATER CONTAMINATION HAS BEEN IDENTIFIED IN THE EASTERN PORTION OF THE PROJECT LIMITS BETWEEN WILLS BLVD AND THE BURLINGTON NORTHERN SANTA FE RAILROAD TRACKS. IF ANY CONTAMINATED SOILS ARE ENCOUNTERED, THEY SHALL BE PROPERLY BE STOCKPILED, SAMPLED, AND DISPOSED OF IN ACCORDANCE WITH SUBSECTION 250.03(d) OF THE STANDARD SPECIFICATIONS AND THE CONTRACTOR'S HEALTH AND SAFETY PLAN. PAYMENT FOR THIS WORK, IF ENCOUNTERED SHALL BE IN ACCORDANCE WITH THIS CONTRACT.

9. GROUNDWATER MONITORING WELLS ARE LOCATED WITHIN PROJECT LIMITS AS SHOWN ON SHEET ENV-15. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF GROUNDWATER WELLS PRIOR TO CONSTRUCTION. IF NECESSARY, WELL ABANDONMENT/RELOCATION/RESET SHALL BE IN ACCORDANCE WITH SUBSECTION 202 OF THE CDOT STANDARD SPECIFICATIONS AND IN COORDINATION WITH CDOT ENVIRONMENTAL STAFF.

10. THIS PROJECT REQUIRES A COLORADO DISCHARGE PERMIT SYSTEM CONSTRUCTION DEWATERING PERMIT. THE CONTRACTOR WILL OBTAIN THE DEWATERING PERMIT PRIOR TO CONSTRUCTION.

11. THIS PROJECT REQUIRES A COLORADO DISCHARGE PERMIT SYSTEM STORMWATER CONSTRUCTION PERMIT (CDPS-SCP). ALL PERMIT REQUIREMENTS SHALL BE ADHERED TO BY THE CONTRACTOR. CDOT WILL OBTAIN THE CDPS-SCP PRIOR TO ADVERTISEMENT AND TRANSFER TO THE CONTRACTOR.

12. WETLANDS EXIST WITHIN THE LIMITS OF THE PROJECT AS SHOWN ON SHEETS ENV-13 THROUGH ENV-14. 10 DAYS PRIOR TO MOBILIZATION, THE CDOT ENGINEERING PROJECT MANAGER WILL BE NOTIFIED, WHO WILL SCHEDULE WITH A QUALIFIED BIOLOGIST FOR A WETLANDS / RIPARIAN FIELD REVIEW. THE QUALIFIED BIOLOGIST WILL LOCATE AND DELINEATE WITH MARKERS, SUCH AS PIN FLAGS, SENSITIVE RIPARIAN AND / OR WETLAND AREAS TO AVOID AND / OR PROTECT. ONCE THE ABOVE RIPARIAN / WETLAND AREAS ARE MARKED, THE CONTRACTOR WILL INSTALL SAFETY BARRIER FENCING (ORANGE FENCING) TO PROTECT WETLANDS / RIPARIAN AREAS FROM CONSTRUCTION ACTIVITIES.

13. IF HISTORICAL OR ARCHAEOLOGICAL MATERIALS ARE ENCOUNTERED OR UNEARTHED DURING CONSTRUCTION, WORK WILL BE HALTED IMMEDIATELY IN THE VICINITY OF THE FIND. THE CDOT ENGINEER SHALL CONTACT THE CDOT CULTURAL RESOURCES SPECIALIST PROMPTLY. THE PROCESS IS OUTLINED IN SUBSECTION 107.23 OF CDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR PROCEDURES REGARDING UNEXPECTED DISCOVERIES DURING CONSTRUCTION.

14. THE CONTRACTOR IS ADVISED THERE ARE AREAS OF PALEONTOLOGICAL CONCERN WITHIN THE LIMITS OF THE PROJECT. IF ANY SUB-SURFACE FOSSILS OR OTHER POTENTIALLY SIGNIFICANT FOSSILS ARE FOUND ANYWHERE WITHIN THE US 50 WEST PROJECT LIMITS DURING CONSTRUCTION, WORK IN THE IMMEDIATE VICINITY SHALL BE TEMPORARILY SUSPENDED. THE CDOT PROJECT ENGINEER SHALL NOTIFY THE CDOT PALEONTOLOGIST TO ASSESS THE SIGNIFICANCE OF THE FIND AND MAKE FURTHER RECOMMENDATIONS.

~~15. THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 201 (CLEARING AND GRUBBING) FOR ALL ACTIVITIES THAT AFFECT BLACK TAILED PRAIRIE DOGS WITHIN THE PROJECT FOOTPRINT. PAYMENT FOR BTPD MITIGATION WORK WILL NOT BE MEASURED OR PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK. CDOT'S BTPD POLICY CAN BE FOUND IN SUBSECTION 102- PROJECT PLANS AND OTHER DATA. (R-1)~~



15. THE CONTRACTOR SHALL FOLLOW CDOT'S PROJECT SPECIAL PROVISION 240 BLACK-TAILED PRAIRIE DOG MANAGEMENT (WESTERN BURROWING OWL) FOR ALL ACTIVITIES THAT AFFECT BLACK TAILED PRAIRIE DOGS WITHIN THE PROJECT FOOTPRINT. CDOT'S BTPD POLICY CAN BE FOUND IN SUBSECTION 102- PROJECT PLANS AND OTHER DATA.

16. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND CROSS SECTIONS. THE CDOT PROJECT ENGINEER SHALL CONTACT THE CDOT ENVIRONMENTAL STAFF IF ANY DISTURBANCE BEYOND THESE LIMITS IS EXPECTED TO OCCUR.

17. THE CONTRACTOR SHALL CONSIDER THE SCHEDULE FOR NIGHT WORK TO TRY AND AVOID WORKING WITHIN 500 FEET OF RESIDENCES THAT MAY BE IMPACTED BY TEMPORARY LIGHTING OR CONSTRUCTION NOISE.

18. NOXIOUS WEED MANAGEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL FOLLOW THE PROCEDURES IDENTIFIED IN THE PROJECT SPECIAL PROVISION 217 - HERBICIDE TREATMENT. ONLY A COLORADO LICENSED SUPERVISOR OR CERTIFIED OPERATOR SHALL APPLY HERBICIDES. ALL HERBICIDES WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. IN ADDITION TO THE SPECIFIC MANAGEMENT ACTIONS LISTED IN PROJECT SPECIAL PROVISION 217 - HERBICIDE TREATMENT, THE FOLLOWING PREVENTATIVE MEASURES SHALL BE IMPLEMENTED TO MINIMIZE THE SPREAD OF NOXIOUS WEEDS IN CONSTRUCTION AREAS:

- THE AREA OF GROUND DISTURBANCE WILL BE KEPT TO THE MINIMUM NECESSARY.
- MINIMIZE IMPORTED TOPSOIL DURING CONSTRUCTION.
- AREAS WITH DENSE NOXIOUS WEED POPULATIONS WILL NOT BE USED FOR TOPSOIL SALVAGE.
- ALL AREAS PLANNED FOR TOP SOIL SALVAGE WILL BE TREATED FOR NOXIOUS WEEDS PRIOR TO SALVAGE.
- ONLY HERBICIDES APPROVED FOR USE IN WATER WILL BE USED IN OR WITHIN 25 FEET OF WETLANDS OR OTHER WATER FEATURES.
- BROADCAST HERBICIDE SPRAYING WILL ONLY BE APPROVED THROUGH WRITTEN CONSENT OF THE ENGINEER AND SHALL BE APPLIED WHEN WEATHER CONDITIONS (INCLUDING WIND) ARE SUITABLE FOR SUCH WORK.
- ENGINEER WILL BE NOTIFIED 24 HOURS PRIOR TO HERBICIDE APPLICATION.

Print Date: 11/20/2014		Sheet Revisions			Colorado Department of Transportation		As Constructed		US 50 WEST ENVIRONMENTAL PLAN SHEETS GENERAL NOTES		Project No./Code	
File Name: 19506LAND_ENVI_Plan01.dgn		Date:	Comments	Init.	 902 Erie Avenue Pueblo, CO 81001 Phone: 719-562-5509 FAX: 719-546-5702 <b>Region 2 DTD</b>		No Revisions:		Designer: KAB Detailer: KAB Sheet Subset: ENVIRO		FSA 0503-081	
Horiz. Scale: 1:1 Vert. Scale: As Noted		11/20/14	REVISED COMMENT	KAB			Revised:				Structure Numbers	
 6300 South Syracuse Way, Suite 600 Centennial, CO 80111 Phone: 303.721.1440 Fax: 303.721.0832							Void:		Subset Sheets: ENV-1 of 19		Sheet Number 181a	

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11/20/2014 CDOT-DefaultPrinter\_V8.plt.ctb CDOT-PenTable.tbl



Know what's below.  
Call before you dig.

NOXIOUS WEEDS TREATMENT INFORMATION

NOXIOUS WEED	TREATMENT NAME	AREA (S.Y.)
CANADA THISTLE	AMINOPYRALID	45
DIFFUSE KNAPWEED	AMINOPYRALID	410
HOARY CRESS	METSULFURON	80
LEAFY SPURGE	AMINOPYRALID	20
MUSK THISTLE	AMINOPYRALID	185
PERENNIAL PEPPERWEED	GLYPHOSATE	200
TAMARISK	TRICLOPYR	1370

APPROXIMATE SUMMARY OF ENVIRONMENTAL QUANTITIES

ITEM NO	NAME	AMOUNT	PAY UNIT
202-00010	REMOVAL OF TREE	2	EA
202-04100	ABANDON WELL	4	EA
214-00205	DECIDUOUS TREE (5 GAL)	2	EA
214-01015	WILLOW CUTTING	1100	EA
217-00020	HERBICIDE TREATMENT	80	HR
240-00010	REMOVAL OF NESTS	40	HR
<del>240-00020</del>	<del>NESTING</del>	<del>50</del>	<del>CY</del>
<del>240-00100</del>	<del>PRAIRIE DOC MANAGEMENT</del>	<del>1</del>	<del>LS</del>
250-00010	ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT	1	LS
250-00050	MONITORING TECHNICIAN	80	HR
250-00110	HEALTH AND SAFETY OFFICER	80	HR
250-00200	MATERIAL HANDLING (STOCKPILE)	100	CY
250-00210	SOLID WASTE DISPOSAL	50	CY
250-00220	HAZARDOUS WASTE DISPOSAL	50	CY
607-11525	FENCE (PLASTIC)	1575	LF

(R-1)

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File Name: 19506LAND_ENVI_Plan02.dgn		Date: 11/20/14	Comments: REMOVE QUANTITY	Init: KAB					
Horiz. Scale: 1:1 Vert. Scale: As Noted 	6300 South Syracuse Way, Suite 600 Centennial, CO 80111 Phone: 303.721.1440 Fax: 303.721.0832								

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TABULATION OF TRAFFIC ENGINEERING ITEMS

ITEM NUMBER	ITEM DESCRIPTION	UNIT	PROJECT TOTALS
202-00040	REMOVAL OF ELECTRICAL CONDUIT *	LF	30
202-00250	REMOVAL OF PAVEMENT MARKING *	SF	12,700
202-00720	REMOVAL OF CCTV CAMERA	EA	1
202-00750	REMOVAL OF LUMINAIRE	EA	4
202-00805	REMOVAL OF OVERHEAD SIGN STRUCTURE *	EA	1
202-00810	REMOVE OF GROUND SIGN	EA	46
202-00825	REMOVAL OF FLASING BEACON	EA	2
202-00827	REMOVAL OF PULL BOX *	EA	6
202-00831	REMOVAL OF TRAFFIC SIGNAL HEAD	EA	2
202-00840	REMOVAL OF TRAFFIC SIGNAL POLE	EA	3
202-00858	REMOVAL OF PEDESTAL POLE	EA	1
202-00860	REMOVAL OF PEDESTRIAN PUSH BUTTON	EA	2
210-00476	RESET MICROWAVE VEHICLE RADAR DETECTOR (MVRD)	EA	3
210-00750	RESET LIGHT STANDARD *	EA	1
210-00815	RESET SIGN PANEL	EA	1
210-00825	RESET FLASHING BEACON	EA	2
210-00858	RESET PEDESTAL POLE	EA	1
210-00890	RESET INTERSECTION DETECTION SYSTEM (CAMERA)	EA	6
503-00012	DRILLED CAISSON (12 INCH)	LF	7
503-00018	DRILLED CAISSON (18 INCH)	LF	4
503-00036	DRILLED CAISSON (36 INCH)	LF	19
503-00048	DRILLED CAISSON (48 INCH)	LF	74
604-39050	MANHOLE (TRAFFIC MANAGEMENT SYSTEM)	EA	4
613-00200	2 INCH ELECTRICAL CONDUIT	LF	90
613-00206	2 INCH ELECTRICAL CONDUIT (BORED)	LF	659
613-00306	3 INCH ELECTRICAL CONDUIT (BORED)	LF	800
613-07023	PULL BOX (24"X36"X24")	EA	8
613-07039	PULL BOX (30"X48"X18")	EA	1
613-10000	WIRING	LS	1
613-13006	LUMINARE (LED) (8500 LUMENS)	EA	4
613-40010	LIGHT STANDARD FOUNDATION *	EA	1
614-00011	SIGN PANEL (CLASS I)	SF	131
614-00012	SIGN PANEL (CLASS II)	SF	335
614-00013	SIGN PANEL (CLASS III)	SF	385
614-00615	STEEL SIGN POST (W6X15)	LF	128
614-01502	STEEL SIGN SUPPORT (2 IN RD) (POST AND SOCKET)	LF	70
614-01572	STEEL SIGN SUPPORT (2-1/2 IN RD SCH 40) (POST AND SLIP BASE)	LF	290
614-03002	CONCRETE FOOTING (TYPE 2)	EA	8
614-10147	VARIABLE MESSAGE SIGN LED (OVERHEAD)	EA	1
614-32400	MONOTUBE OVERHEAD SIGN CANTILEVER (24 INCH DIAMETER)	EA	1
614-70150	PEDESTRIAN SIGNAL FACE (16) (COUNTDOWN)	EA	8
614-70336	TRAFFIC SIGNAL FACE (12-12-12)	EA	11
614-70448	TRAFFIC SIGNAL FACE (12-12-12-12)	EA	3
614-72860	PEDESTRIAN PUSH BUTTON	EA	7
614-72863	PEDESTRIAN PUSH BUTTON POST ASSEMBLY	EA	1
614-81150	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-50 FOOT MAST ARM)	EA	1
614-81160	TRAFFIC SIGNAL-LIGHT POLE STEEL (1-60 FOOT MAST ARM)	EA	2
614-87011	FIBER OPTIC CABLE (SINGLE MODE) (24 STRAND)	LF	50
614-87524	SPLICE FIBER OPTIC CABLE (24 STRAND)	EA	1
621-00450	DETOUR PAVEMENT	SY	611

\* FOR INFO ONLY

NOTE:  
SCHEDULE OF TRAFFIC CONTROL DEVICES PROVIDED FOR INFORMATION ONLY.

TABULATION OF TRAFFIC ENGINEERING ITEMS

ITEM NUMBER	ITEM DESCRIPTION	UNIT	PROJECT TOTALS
627-00007	EPOXY PAVEMENT MARKING (SPECIAL)	GAL	179
627-00011	PAVEMENT MARKING PAINT (WATERBORNE)	GAL	400
627-30405	PREFORMED THERMOPLASTIC PAVEMENT MARKING (WORD-SYMBOL)	SF	93
627-30410	PREFORMED THERMOPLASTIC PAVEMENT MARKING (XWALK-STOPLINE)	SF	903
630-00000	FLAGGING	HR	3,808
630-00007	TRAFFIC CONTROL INSPECTION	DAY	127
630-00012	TRAFFIC CONTROL MANAGEMENT	DAY	238
630-80001	FLASHING BEACON (PORTABLE)	EA	10
630-80335	BARRICADE (TYPE 3 M-A) (TEMPORARY)	EA	3
630-80341	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE A)	EA	43
630-80342	CONSTRUCTION TRAFFIC SIGN (PANEL SIZE B)	EA	91
630-80344	CONSTRUCTION TRAFFIC SIGN (SPECIAL)	SF	165
630-80358	ADVANCE WARNING FLASHING OR SEQUENCING ARROW PANEL (C TYPE)	EA	6
630-80359	PORTABLE MESSAGE SIGN	EA	4
630-80363	DRUM CHANNELIZING DEVICE (WITH LIGHT) (FLASHING)	EA	75
630-80370	CONCRETE BARRIER (TEMPORARY)	LF	3,000
630-80380	TRAFFIC CONE	EA	100
630-85011	IMPACT ATTENUATOR (TEMPORARY)	DAY	50

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SCHEDULE OF TRAFFIC CONTROL DEVICES

SIGNS					
SIGN CODE	LEGEND	DIMENSION	PANEL SIZE		
			A	B	Special
			EA	EA	SF
FASTER	COLORADO AT WORK SIGN (SPECIAL)	66X60			165
G20-5	WORK ZONE	36X24	20		
G20-10	XYZ/CONSTRUCTION/THANKS YOU/555-555-5555	48X48		8	
G20-11	ROAD WORK INFORMATION	48X48		7	
M1-4	U.S. ROUTE SIGN	36X36	1		
M1-5A	STATE ROUTE SIGN	36X36	1		
M3-3	CARDINAL DIRECTION	36X18	1		
M3-4	CARDINAL DIRECTION	36X18	1		
M5-1L	ADVANCE TURN ARROW	30X21	2		
R1-2	YIELD	36X36	1		
R2-1	SPEED LIMIT	36X48		21	
R2-6(ap)	FINES/DOUBLE	36X24	6		
R3-7r	MANDATORY MOVEMENT RIGHT	30X30	1		
R4-1	DO NOT PASS	36X48		2	
R11-2	ROAD/CLOSED	48X30		4	
R52-6a	BEGIN FINES DOUBLE IN WORK ZONE	36X48		7	
R52-6b	END FINES DOUBLE IN WORK ZONE	36X48		8	
W1-2I	HORIZONTAL ALIGNMENT LEFT	48X48		2	
W1-4BL	REVERSE CURVE	48X48		2	
W1-4I	REVERSE CURVE	48X48		1	
W1-6r	ONE-DIRECTION LARGE ARROW RIGHT	60X30		2	
W1-9-3a	MIDDLE LANE CLOSED	48X48		2	
W3-3	SIGNAL AHEAD	48X48		2	
W4-1r	MERGE RIGHT	48X48		1	
W5-1	ROAD NARROWS	48X48		2	
W5-2	BRIDGE NARROWS	48X48		2	
W9-2I	LANE ENDS MERGE LEFT	48X48		1	
W12-1	DOUBLE ARROW	36X36	1		
W16-2a	ADVANCE DISTANCE	30X24	8		
W20-1	ROAD WORK	48X48		8	
W21-5	SHOULDER WORK	48X48		2	
W24-1aL	DOUBLE REVERSE CURVE LEFT	48X48		5	
W24-1aR	DOUBLE REVERSE CURVE RIGHT	48X48		2	
PROJECT TOTALS			43	91	165

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				Region 2				Detailer: ACE		Numbers	
				DTD				Subset: TR		Subset Sheets: TR1 of 1	
		J. F. SATO AND ASSOCIATES 5898 South Rapp Street Littleton, Colorado 80120								Sheet Number 237a	

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