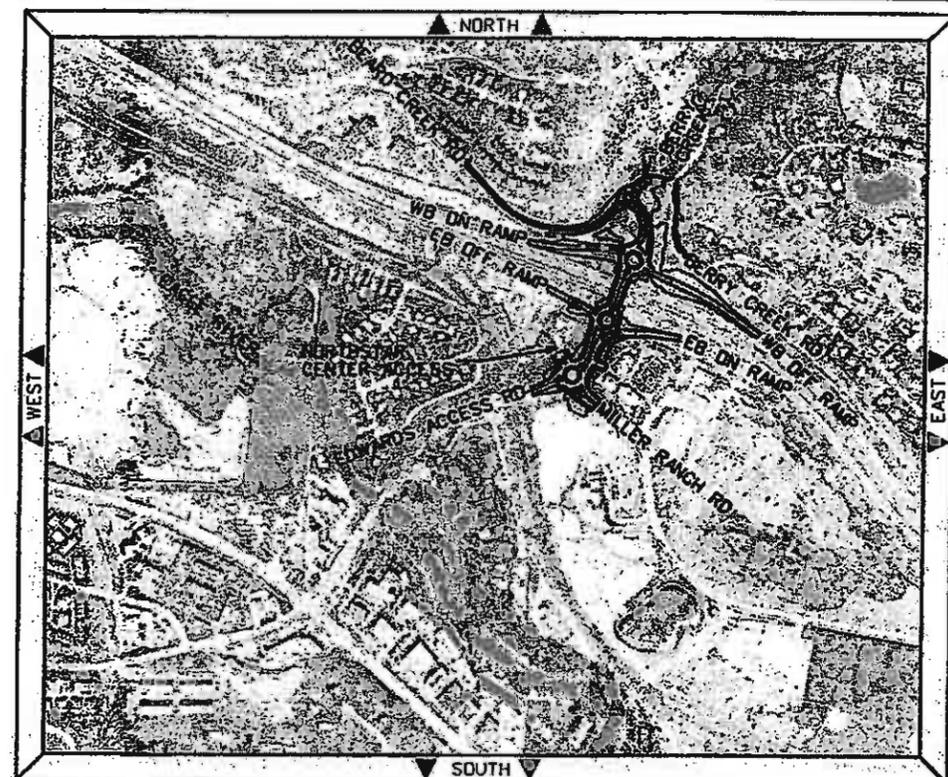


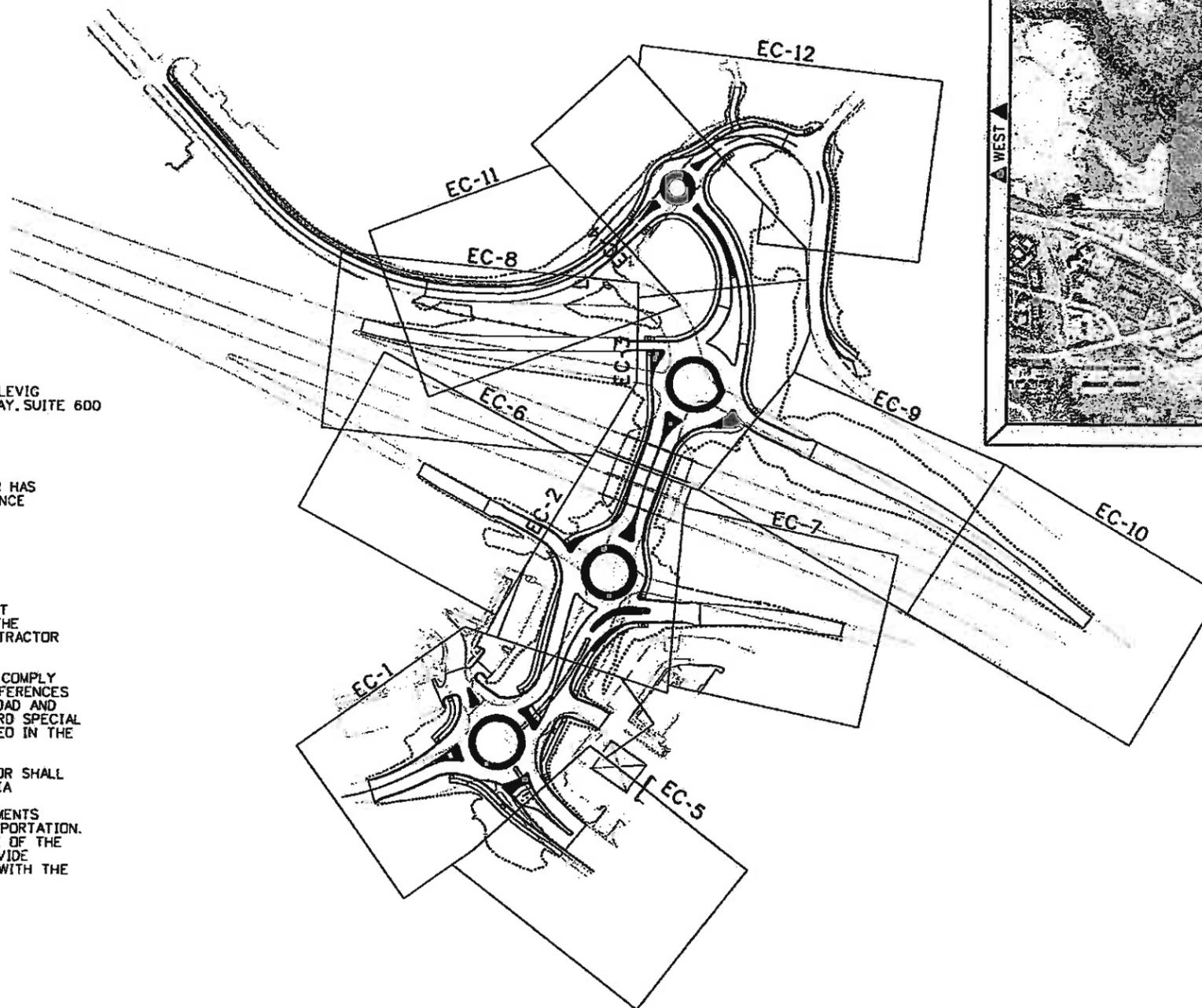


Know what's below.
Call before you dig.



STORMWATER MANAGEMENT PLAN

1. PROJECT NAME: EDWARDS INTERCHANGE UPGRADE
2. PROJECT ADDRESS: EDWARDS/I-70 INTERCHANGE
EDWARDS, CO
3. OWNER ADDRESS: CDOT
714 GRAND AVENUE, P.O. BOX 298
EAGLE, CO 81631
4. DESIGN FIRM'S NAME AND ADDRESS: FELSBERG HOLT & ULLEVIG
6300 S. SYRACUSE WAY, SUITE 600
CENTENNIAL, CO 80111
5. PLAN INDEX: SEE DIAGRAM TO THE RIGHT.
6. DESIGN ENGINEER'S SIGNATURE BLOCK:
THE EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS
BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE
WITH THE REQUIREMENTS OF CDDT GUIDELINES & CRITERIA
7. GENERAL NOTES: SEE SW-2 THRU SW-4 FOR CDDT &
EAGLE COUNTY SEDIMENT CONTROL & GENERAL NOTES.
8. THIS PROJECT INCLUDES IMPROVEMENTS ON RIGHT-OF-WAY
GOVERNED BY EAGLE COUNTY AND THE COLORADO DEPARTMENT
OF TRANSPORTATION. THE CONTRACTOR SHALL COMPLY WITH THE
CDPS-SCP PERMIT ON ALL PROPERTIES. IN ADDITION, THE CONTRACTOR
SHALL ALSO COMPLY WITH THE FOLLOWING:
 - 8.1 WITHIN CDDT RIGHT-OF-WAY, THE CONTRACTOR SHALL COMPLY
WITH CDDT GUIDELINES AND CRITERIA. SUBSECTION REFERENCES
ARE TO CDDT STANDARDS AND SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION, 2005, AND ASSOCIATED STANDARD SPECIAL
PROVISIONS. ADDITIONAL GUIDELINES ARE ALSO INCLUDED IN THE
PROJECT SPECIAL PROVISIONS FOR THIS PROJECT.
 - 8.2 WITHIN EAGLE COUNTY RIGHT-OF-WAY THE CONTRACTOR SHALL
COMPLY WITH EAGLE COUNTY GUIDELINES AND CRITERIA
9. THESE STORMWATER MANAGEMENT PLANS INCLUDE REQUIREMENTS
OF EAGLE COUNTY AND THE COLORADO DEPARTMENT OF TRANSPORTATION.
WHERE MULTIPLE GUIDELINES ARE REFERENCED, THE GUIDELINE OF THE
RIGHT-OF-WAY OWNER SHALL GOVERN. WHERE GUIDELINES PROVIDE
CONFLICTING INFORMATION, THE CONTRACTOR SHALL CONSULT WITH THE
COUNTY ECS INSPECTOR FOR DIRECTION.



PLAN INDEX

DRAWING NO.	DESCRIPTION
SW-1 TO SW-4	STORMWATER MANAGEMENT PLANS
EC-1 TO EC-12	GRADING/EROSION CONTROL PLANS



FELSBERG
HOLT &
ULLEVIG

Print Date: 11/4/2009

Drawing File Name: 06193SWMP00.dgn

Horiz. Scale: 1:275

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

(R-X)

0000

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3

MLM

As Constructed

No Revisions: 6-6-2011

Revised:

Void:

EDWARDS INTERCHANGE UPGRADE
EDWARDS ACCESS RD
STORMWATER MANAGEMENT PLAN

Designer: CDT
Detailer: RSA

Sheet Subset: GRADING
Subset Sheets: SW-1 of 4

Project No./Code

ES3 0702-297

17303

Sheet Number 158

1. SITE DESCRIPTION

ADDITIONAL INFORMATION FOR PERMITTED PROJECTS
FOR INFORMATION ONLY TO FULFILL THE CDPS-SCP (COLORADO DISCHARGE PERMIT SYSTEM - STORMWATER CONSTRUCTION PERMIT)

A. PROJECT SITE DESCRIPTION: THIS PROJECT INCLUDES RECONSTRUCTION OF THE EXISTING INTERCHANGE AT I-70 AND THE EDWARDS ACCESS ROAD IN EDWARDS. THE PROJECT BEGINS APPROX. 125 FEET NORTH OF THE RAILROAD TRACKS SOUTH OF THE INTERSECTION OF THE EDWARDS ACCESS ROAD AND MILLER RANCH ROAD. THE IMPROVEMENTS EXTEND APPROX. 1500 FEET NORTH TOWARDS BERRY CREEK ROAD AND BEARD CREEK ROAD. THE PROPOSED IMPROVEMENTS TO THE ROADWAY INCLUDE PROVIDING FOUR NEW TRAFFIC ROUNDABOUTS, TWO OF WHICH ARE LOCATED AT THE I-70 EB AND WB RAMPS AND THE OTHER AT THE EDWARDS ACCESS ROAD AND MILLER RANCH ROAD INTERSECTION. OTHER ROADWAY IMPROVEMENTS INCLUDE PROVIDING ADDITIONAL LANES WITH IMPROVED SIGHT DISTANCE, RETAINING WALLS, STORM DRAINAGE INCLUDING THE BERRY CREEK RELOCATION AND UTILITY RELOCATIONS. INITIAL CONSTRUCTION ACTIVITIES WILL INCLUDE PLACING THE EMBANKMENT MATERIAL AND INSTALLING UTILITIES AND DRAINAGE STRUCTURES. CONTOUR FURROWING, SEEDING AND MULCHING OF ALL DISTURBED AREAS NOT TO BE PAVED SHALL OCCUR AS SOON AS THE EMBANKMENT AND TOPSOIL HAVE BEEN PLACED.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL IDENTIFY CHANGES IN THE SWMP PLAN AND THE LOCATIONS OF AREAS USED FOR STORAGE OF BUILDING MATERIAL, SOILS OR WASTES, LOCATIONS OF ANY DEDICATED ASPHALT OR CONCRETE BATCH PLANTS, LOCATIONS OF ACCESS ROUTES DURING CONSTRUCTION AND LOCATIONS OF BORROW AND WASTE LOCATIONS.

DURING THE CONSTRUCTION OF THE INTERCHANGE, SEDIMENT TRAPS, CULVERTS, SILT FENCE, INLET PROTECTION, TEMPORARY SEEDING, EROSION CONTROL BLANKETS, TEMPORARY BERMS, CHECK DAMS, EROSION LOGS AND RIPRAP SHALL BE INSTALLED. PROTECT ALL EXISTING AND NEW DRAINAGE FACILITIES WITHIN THE PROJECT LIMITS DURING ALL CONSTRUCTION PHASES. AFTER CONSTRUCTION PROTECT ALL CULVERT OUTLETS AND CONTOUR FURROW/MULCH/SEED DISTURBED AREAS.

REMOVE TEMPORARY DETOUR PAVEMENT (IF ANY), CONTOUR FURROW/MULCH/SEED DISTURBED AREAS NOT TO BE PAVED. ADD OR MODIFY EROSION CONTROL MEASURES AS NEEDED.

B. PROPOSED SEQUENCING FOR MAJOR ACTIVITIES: IT IS ANTICIPATED THAT INITIAL GRADING ACTIVITIES SHALL INCLUDE EXCAVATION AND GRADING FOR INTERCHANGE ROUNDABOUTS, RAMPS, ACCESS ROADS, BERRY CREEK REALIGNMENT AND INSTALLATION OF DRAINAGE FACILITIES. SEE DRAINAGE/GRADING/EROSION CONTROL PLANS.

C. ACRES OF DISTURBANCE:

- TOTAL AREA OF CONSTRUCTION SITE: 26 ACRES
- TOTAL AREA OF DISTURBANCE: 14 ACRES
- ACREAGE OF SEEDING: INITIAL=0 ACRES; INTERIM=8.5 ACRES; FINAL=8.5 ACRES; TOTAL=17 ACRES

D. EXISTING SOIL DATA: SANDY CLAY SOILS, SANDY GRAVELLY CLAY LOAMS, COBBLY TO EXTREME COBBLY SAND LOAMS ARE PRESENT THAT HAVE SLOW TO MEDIUM RUNOFF, SLIGHT TO MODERATE WATER EROSION HAZARDS AND SEVERE WIND EROSION HAZARDS. ALL SOILS ARE MODERATE TO HIGHLY CORROSIVE TO STEEL. ADDITIONAL INFO CAN BE FOUND IN THE GEOTECHNICAL PLANS.

E. EXISTING VEGETATION, INCLUDING PERCENT COVER: GROUND COVER CONSISTS OF WEEDS, NATIVE GRASSES AND SOME DECIDUOUS TREES WITH AN AVERAGE EXISTING GROUND COVER OF APPROXIMATELY 75%.

DATE OF SURVEY: FALL 2007.

F. POTENTIAL POLLUTANTS SOURCES: SEE FIRST CONSTRUCTION ACTIVITIES UNDER POTENTIAL POLLUTANT SOURCES. THE ECS SHALL PREPARE A LIST OF ALL POTENTIAL POLLUTANTS AND THEIR LOCATIONS IN ACCORDANCE WITH SUBSECTION 107.25.

G. RECEIVING WATER:

- OUTFALL LOCATIONS: SEE DRAINAGE PLANS FOR MULTIPLE LOCATIONS
- NAMES OF RECEIVING WATER(S) ON SITE AND THE ULTIMATE RECEIVING WATER: EAGLE RIVER VIA BERRY CREEK TRIBUTARIES AND LOCAL DRAINAGE SYSTEMS.
- DISTANCE ULTIMATE RECEIVING WATER IS FROM PROJECT: THE EAGLE RIVER IS APPROXIMATELY 0.5 MILE TO THE SOUTHWEST.
- DOES THE RECEIVING WATER HAVE AN APPROVED TMDL: NO

H. ALLOWABLE NON-STORMWATER DISCHARGES: NO OTHER NON-STORMWATER COMPONENTS OF THE DISCHARGE, SUCH AS SPRINGS AND LANDSCAPE IRRIGATION RETURN FLOWS ARE KNOWN TO EXIST AT THIS SITE.

1. GROUNDWATER AND STORMWATER DEWATERING: DISCHARGE TO THE GROUND OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES MAY BE AUTHORIZED PROVIDED THAT:

- THE SOURCE IS GROUNDWATER AND/OR GROUNDWATER COMBINED WITH STORMWATER THAT DOES NOT CONTAIN POLLUTANTS.
- THE SOURCE AND BMP'S ARE IDENTIFIED IN THE SWMP.
- DISCHARGES DO NOT LEAVE THE SITE AS SURFACE RUNOFF OR TO SURFACE WATERS.

2. IF DISCHARGES DO NOT MEET THE ABOVE CRITERIA A SEPARATE PERMIT FROM THE DEPARTMENT OF HEALTH WILL BE REQUIRED. CONTAMINATED GROUNDWATER REQUIRING COVERAGE UNDER A SEPARATE PERMIT MAY INCLUDE GROUNDWATER CONTAMINATED WITH POLLUTANTS FROM A LANDFILL, MINING ACTIVITIES, INDUSTRIAL POLLUTANT PLUMES, UNDERGROUND STORAGE TANK, ETC.

I. ENVIRONMENTAL IMPACTS:

- WETLAND IMPACTS: YES
- STREAM IMPACTS: YES
- THREATENED AND ENDANGERED SPECIES: NO

2. SITE MAP COMPONENTS:

PRE-CONSTRUCTION

- CONSTRUCTION SITE BOUNDARIES-SEE ROADWAY PLANS
- ALL AREAS OF GROUND SURFACE DISTURBANCE-SEE DRAINAGE/GRADING/EROSION PLANS
- AREAS OF CUT AND FILL-SEE DRAINAGE/GRADING/EROSION PLANS.
- LOCATION OF ALL STRUCTURAL BMP'S IDENTIFIED IN THE SWMP-SEE DRAINAGE/GRADING/EROSION PLANS.
- LOCATION OF NON-STRUCTURAL BMP'S AS APPLICABLE IN THE SWMP-SEE DRAINAGE/GRADING/EROSION PLANS.
- SPRINGS, STREAMS, WETLANDS AND OTHER SURFACE WATER-SEE DRAINAGE/GRADING/EROSION CONTROL PLANS.
- PROTECTION OF TREES, SHRUBS, CULTURAL RESOURCES AND MATURE VEGETATION-SEE ROADWAY/WETLAND MITIGATION PLANS.

3. SWMP ADMINISTRATOR FOR DESIGN:

ED LIND, P.E.

4. STORMWATER MANAGEMENT CONTROLS FIRST CONSTRUCTION ACTIVITIES

THE CONTRACTOR SHALL PERFORM THE FOLLOWING:

A. DESIGNATE A SWMP ADMINISTRATOR/EROSION CONTROL SUPERVISOR (TO BE FILLED OUT AT TIME OF CONSTRUCTION; DESIGNATE THE INDIVIDUAL(S) RESPONSIBLE FOR IMPLEMENTING, MAINTAINING AND REVISING SWMP, INCLUDING THE TITLE AND CONTACT INFORMATION. THE ACTIVITIES AND RESPONSIBILITIES OF THE ADMINISTRATOR SHALL ADDRESS ALL ASPECTS OF THE PROJECT'S SWMP.) (THE ECS SHALL BE CERTIFIED AND PRESENT CERTIFICATION TO PROJECT ENGINEER.)

B. POTENTIAL POLLUTANT SOURCES EVALUATE, IDENTIFY AND DESCRIBE ALL POTENTIAL SOURCES OF POLLUTANTS AT THE SITE IN ACCORDANCE WITH SUBSECTION 107.25 AND PLACE IN THE SWMP NOTEBOOK. ALL BMP'S RELATED TO POTENTIAL POLLUTANTS SHALL BE SHOWN ON THE SWMP SITE MAP BY THE CONTRACTOR'S ECS.

C. BEST MANAGEMENT PRACTICES (BMPs) FOR STORMWATER POLLUTION PREVENTION PHASED BMP IMPLEMENTATION

DURING DESIGN: FIELDS ARE MARKED WHEN USED IN THE SWMP. DURING CONSTRUCTION: THE ECS SHALL UPDATE THE CHECKED BOXES TO MATCH SITE CONDITIONS.

STRUCTURAL BMP PRACTICES FOR EROSION AND SEDIMENT CONTROL; PRACTICES MAY INCLUDE, BUT ARE NOT LIMITED TO: THE CONTRACTORS STAGING AND DETOUR PLAN MAY VARY WITH THE CONSTRUCTION STAGING/TRAFFIC CONTROL PLANS AS SHOWN IN THIS PLAN SET. IF THE CONTRACTORS STAGING AND DETOUR PLANS VARY, THE CONTRACTORS STAGING AND DETOUR PLANS SHALL INCORPORATE THE APPROPRIATE EROSION CONTROL MEASURES. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AND PREVENT EROSION THROUGH OUT THE CONSTRUCTION STAGING OF THE PROJECT. IF ANY EROSION CONTROL MEASURES ARE DESTROYED DURING CONSTRUCTION OR CONSTRUCTION PHASING ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS AND MAINTENANCE AT NO ADDITIONAL COST TO THE PROJECT.

BMP	TYPE OF CONTROL	BMP AS DESIGNED	IN USE ON SITE	FIRST CONSTRUCTION ACTIVITIES	DURING CONSTRUCTION	INTERIM/FINAL STABILIZATION
EARTH BERM/DIVERSION	EROSION	X		X	X	X
CHECK DAMS	SEDIMENT	X		X	X	X
SILT FENCE	SEDIMENT					
EROSION LOGS	SEDIMENT	X		X	X	X
TEMPORARY SEDIMENT TRAP/BASIN	SEDIMENT	X				
PERMANENT SEDIMENT TRAP/BASIN	SEDIMENT	X				
EMBANKMENT PROTECTOR	EROSION					
INLET PROTECTION	EROSION	X				
OUTLET PROTECTION	EROSION	X		X	X	X
CONCRETE WASHOUTS	CONSTRUCTION	X		X	X	X
STABILIZED CONSTRUCTION ENTRANCE	CONSTRUCTION	X		X	X	X
DEWATERING	SEDIMENT	X		X		
TEMPORARY STREAM CROSSING	EROSION	X			X	
OTHER:GRADIENT	PERIMETER	X		X	X	X

Print Date: 11/4/2009	Sheet Revisions			Colorado Department of Transportation  714 Grand Avenue, P.O. Box 298 Eagle, CO 81631 Phone: 970-328-6385 FAX: 970-328-2368 Region 3	As Constructed		EDWARDS INTERCHANGE UPGRADE EDWARDS ACCESS RD STORMWATER MANAGEMENT PLAN		Project No./Code
Drawing File Name: 061935WMP01.dgn	Date:	Comments:	Init.		No Revisions: 6-6-2011	Revised:	Void:	Designer: CDT	Structure Numbers
Horiz. Scale: 1:1	Vert. Scale: As Noted						Detailer: RSA		17303
Unit Information	Unit Leader Initials						Sheet Subset: GRADING	Subset Sheets: SW-2 of 4	Sheet Number 159

NARRATIVE DETAILS OF STRUCTURAL BMP PRACTICES FOR EROSION AND SEDIMENT CONTROL

1. EARTHEN BERMS/DIVERSIONS SHALL BE UTILIZED ON THE PROJECT AS EXISTING GRADIENTS ALLOW AND AS DIRECTED BY THE EROSION CONTROL SUPERVISOR (ECS).
2. CHECK DAMS MAY BE PLACED AS DIRECTED BY THE ECS. DITCHES ARE DESIGNED WITH SEDIMENT TRAPS WHICH WILL REMAIN AS PERMANENT FACILITIES. AT THE DIRECTION OF THE ECS, CHECK DAMS MAY BE PLACED AS TEMPORARY SEDIMENT CONTROL MEASURES WITHIN THE DITCHES IF ADDITIONAL SEDIMENT CONTROL IS NEEDED. CHECK DAMS SHALL REMAIN AS PERMANENT WATER QUALITY FEATURES IN ACCORDANCE WITH THE PLANS.
3. EROSION LOGS ARE USED TO CAPTURE AND FILTER SEDIMENT LADEN RUNOFF FROM DISTURBED AREAS DURING CONSTRUCTION. THEY SHALL BE PLACED IN SWALES IMMEDIATELY AFTER THEY HAVE BEEN GRADED AND REMOVED AFTER FINAL STABILIZATION OR AS DIRECTED BY THE ECS.
4. TEMPORARY/PERMANENT SEDIMENT TRAPS/BASINS SHALL BE CONSTRUCTED EARLY IN THE PROJECT AND IN THE LOCATIONS INDICATED IN THE PLANS. FOR THE PURPOSES OF THIS PROJECT CHECK DAMS ALSO SERVE AS PERMANENT SEDIMENT TRAPS WITHIN DITCHES AS INDICATED IN THESE PLANS. CHECK DAMS/SEDIMENT TRAPS SHALL BE PLACED AS THE DITCHLINE GRADING AND STABILIZATION IS COMPLETED. CHECK DAMS/SEDIMENT TRAPS SHALL BE CLEANED OUT AS DIRECTED BY THE ECS. CHECK DAMS/SEDIMENT TRAPS SHALL BECOME PERMANENT FEATURES UPON COMPLETION OF CONSTRUCTION.
5. INLET PROTECTION SHALL BE PLACED IMMEDIATELY FOLLOWING INSTALLATION OF EACH INLET OR CULVERT. INLET PROTECTION SHALL BE PLACED AT EXISTING INLETS OR CULVERT INVERTS WHERE DISTURBANCE MAY BE OCCURRING AND HAS THE POTENTIAL TO CAUSE SEDIMENT LADEN WATER TO ENTER PIPES OR PIPE SYSTEMS. INLET PROTECTION FEATURES SHALL BE INSPECTED, CLEANED AND REMOVED AS DIRECTED BY THE ECS.
6. OUTLET PROTECTION SHALL BE INSTALLED IMMEDIATELY FOLLOWING CONSTRUCTION OF STORM SEWERS AND END SECTIONS. OUTLET PROTECTION SHALL BE MONITORED DURING CONSTRUCTION FOR STABILIZATION AND SHALL REMAIN AS PERMANENT FEATURES FOLLOWING COMPLETION OF CONSTRUCTION.
7. CONCRETE WASHOUTS SHALL BE LOCATED THROUGHOUT THE PROJECT WHERE OPERATIONS ARE OCCURRING. THESE FACILITIES SHALL BE CLEANED OUT DURING CONSTRUCTION AS DIRECTED BY THE ECS. ALL CONCRETE WASHOUT FACILITIES SHALL BE REMOVED AND DISPOSED OF IN A PROPER MANNER WHEN AND AS DIRECTED BY THE ECS. LOCATIONS OF CONCRETE WASHOUTS SHALL BE RETURNED TO THEIR PREVIOUS CONTOURS AND STABILIZED FOLLOWING REMOVAL OF THE CONCRETE WASHOUT.
8. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PLACED WHERE CONSTRUCTION TRAFFIC ENTERS THE ADJACENT ROADWAYS. THEY SHALL BE LOCATED, MAINTAINED, CLEANED AND REMOVED AS DIRECTED BY THE ECS.
9. EXISTING RIGHTS-OF-WAY ARE THE LIMITS OF DISTURBANCE FOR THIS PROJECT AND ARE BOUND BY EXISTING VEGETATION IN THE FORM OF SWALES OR NATIVE VEGETATION. DISTURBED SLOPES WILL BE STABILIZED IMMEDIATELY FOLLOWING COMPLETION OF GRADING TO LIMIT THE USE OF ADDITIONAL GROUND DISTURBING TEMPORARY MEASURES ALONG THE PERIMETER.

NON-STRUCTURAL BMP PRACTICES FOR EROSION AND SEDIMENT CONTROL; PRACTICES MAY INCLUDE, BUT ARE NOT LIMITED TO: THE CONTRACTORS STAGING AND DETOUR PLAN MAY VARY WITH THE CONSTRUCTION STAGING/TRAFFIC CONTROL PLANS AS SHOWN IN THIS PLAN SET. IF THE THE CONTRACTORS STAGING AND DETOUR PLANS VARY, THE CONTRACTORS STAGING AND DETOUR PLANS SHALL INCORPORATE THE APPROPRIATE EROSION CONTROL MEASURES. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES AND PREVENT EROSION THROUGH OUT THE CONSTRUCTION STAGING OF THE PROJECT. IF ANY EROSION CONTROL MEASURES ARE DESTROYED DURING CONSTRUCTION OR CONSTRUCTION PHASING ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIRS AND MAINTENANCE AT NO ADDITIONAL COST TO THE PROJECT.

NARRATIVE DETAILS OF NON-STRUCTURAL BMP PRACTICES FOR EROSION AND SEDIMENT CONTROL

1. SURFACE ROUGHENING/GRADING TECHNIQUES SHALL BE USED TO PROVIDE IMMEDIATE EROSION PROTECTION ON BARE SOIL WHILE TEMPORARY OR PERMANENT VEGETATIVE COVER IS BEING ESTABLISHED. SURFACE ROUGHENING WITH HORIZONTAL DEPRESSIONS PARALLEL TO THE CONTOUR SHALL BE CREATED WITH SUITABLE EQUIPMENT LEAVING SLOPES IN A ROUGHENED CONDITION. THIS TREATMENT SHALL OCCUR WHERE GRADING IS NOT STABILIZED AND THE POTENTIAL FOR EROSION EXISTS, AS DIRECTED BY THE ECS AND AS STATED IN SUBSECTION 208.04(d) AND 208.054.
2. TEMPORARY/PERMANENT SEEDING SHALL BE PLACED AS INDICATED IN THE PLANS AND AS DIRECTED BY THE ECS. TEMPORARY SEEDING OFFERS RAPID PROTECTION TO EXPOSED AREAS. TEMPORARY SEEDING SHALL NOT BE SUBJECT TO HEAVY WEAR BY CONSTRUCTION VEHICLES. SEEDING MIXES, OPERATIONS AND TIMELINES SHALL BE IN ACCORDANCE WITH THE SPECS. AND THESE PLANS. PERMANENT SEEDING SHALL OCCUR AS SOON AS ALLOWABLE ON DISTURBED SURFACES NOT PAVED AS PART OF THIS PROJECT.
3. MULCH/MULCH TACKIFIER OFFERS INSTANT PROTECTION TO EXPOSED AREAS AND CONSERVES MOISTURE FOR SEED GERMINATION. MULCH/MULCH TACKIFIER SHALL BE PLACED IMMEDIATELY FOLLOWING SEEDING WHERE TEMPORARY SEED MIXES ARE PLACED AT THE DIRECTION OF THE ECS. AREAS TO RECEIVE SOIL RETENTION BLANKET SHALL NOT BE MULCHED.
4. SOIL BINDER SHALL BE APPLIED IN AREAS WHERE SOIL PROPERTIES WARRANT AS DIRECTED BY THE ECS.
5. SOIL RETENTION BLANKET SHALL BE INSTALLED WITHIN DITCHLINES AND ENTRANCE GRADIENTS TO WATER QUALITY PONDS AS SHOWN IN THESE PLANS. SOIL RETENTION BLANKET SHALL BE INSTALLED WITHIN DITCHES IMMEDIATELY FOLLOWING GRADING AND SEEDING, AND IN ACCORDANCE WITH MANUFACTURER INSTALLATION REQUIREMENTS. SOIL RETENTION BLANKET SHALL REMAIN AS A PERMANENT EROSION CONTROL FEATURE. BLANKETS SHALL BE USED IN PLACE OF MULCH ON ALL SLOPES 3:1 OR STEEPER.
6. PRESERVATION OF MATURE VEGETATION SHALL OCCUR THROUGHOUT THE PROJECT. CONTRACTOR SHALL MINIMIZE DISTURBED AREAS AND AVOID DISTURBANCE TO NATURAL CLUMPS OF VEGETATION, STRIPS OF GRASSES AND INDIVIDUAL SHRUBS/TREES AS POSSIBLE. NATIVE VEGETATION LEFT ALONG THE PERIMETER OF DISTURBED CONSTRUCTION SURFACES PROVIDES A BUFFER WHICH ASSISTS IN REDUCING SOIL EROSION FROM THE CONSTRUCTION SITE.

D. OFFSITE DRAINAGE (RUN ON WATER)

1. DESCRIBE AND RECORD BMP'S ON THE SWMP SITE MAP THAT HAVE BEEN IMPLEMENTED TO ADDRESS RUN-ON WATER IN ACCORDANCE WITH SUBSECTION 208.03.

E. STABILIZED CONSTRUCTION ENTRANCE/VEHICLE TRACKING CONTROL

1. BMP'S SHALL BE IMPLEMENTED IN ACCORDANCE WITH SUBSECTION 208.04.

F. PERIMETER CONTROL

1. PERIMETER CONTROL SHALL BE ESTABLISHED AS THE FIRST ITEM ON THE SWMP TO PREVENT THE POTENTIAL FOR POLLUTANTS LEAVING THE CONSTRUCTION SITE BOUNDARIES, ENTERING THE STORMWATER DRAINAGE SYSTEM, OR DISCHARGING TO STATE WATERS.
2. PERIMETER CONTROL MAY CONSIST OF VEGETATION BUFFERS, BERMS, SILT FENCE, EROSION LOGS, EXISTING LANDFORMS, OR OTHER BMP'S AS APPROVED.
3. PERIMETER CONTROL SHALL BE IN ACCORDANCE WITH SUBSECTION 208.04.

5. DURING CONSTRUCTION

RESPONSIBILITIES OF THE SWMP ADMINISTRATOR/EROSION CONTROL SUPERVISOR DURING CONSTRUCTION

THE SWMP SHOULD BE CONSIDERED A "LIVING DOCUMENT" THAT IS CONTINUOUSLY REVIEWED AND MODIFIED. DURING CONSTRUCTION, THE FOLLOWING ITEMS SHALL BE ADDED, UPDATED, OR AMENDED AS NEEDED BY THE SWMP ADMINISTRATION/EROSION CONTROL SUPERVISOR (ECS) IN ACCORDANCE WITH SECTION 208.

- A. MATERIALS HANDLING AND SPILL PREVENTION
- B. STOCKPILE MANAGEMENT
- C. GRADING AND SLOPE STABILIZATION
- D. SURFACE ROUGHENING
- E. VEHICLE TRACKING
- F. TEMPORARY STABILIZATION
- G. CONCRETE WASHOUT

1. CONCRETE WASH OUT WATER OR WASTE FROM FIELD LABORATORIES AND PAVING EQUIPMENT SHALL BE CONTAINED IN ACCORDANCE WITH SUBSECTION 208.05.

H. SAW CUTTING

I. NEW INLET/CULVERT PROTECTION

J. STREET CLEANING

6. INSPECTIONS

- A. INSPECTIONS SHALL BE IN ACCORDANCE WITH SUBSECTION 208.03 (C).

7. BMP MAINTENANCE

- A. MAINTENANCE SHALL BE IN ACCORDANCE WITH SUBSECTION 208.04 (E).

8. RECORD KEEPING

- A. RECORDS SHALL BE KEPT IN ACCORDANCE WITH SUBSECTION 208.03 (C).

BMP	TYPE OF CONTROL	BMP AS DESIGNED	IN USE ON SITE	FIRST CONSTRUCTION ACTIVITIES	DURING CONSTRUCTION	INTERIM/FINAL STABILIZATION
SURFACE ROUGHENING/GRADING TECHNIQUES	EROSION	X		X	X	X
SEEDING PERMANENT	EROSION	X			X	X
SEEDING TEMPORARY	EROSION	X		X	X	X
MULCH/MULCH TACKIFIER	EROSION	X			X	X
SOIL BINDER	EROSION	X			X	X
SOIL RETENTION BLANKET	EROSION	X			X	X
VEGETATIVE BUFFER STRIPS	EROSION					
PROTECTION OF TREES	EROSION	X		X	X	X
PRESERVATION OF MATURE VEGETATION	EROSION	X		X	X	X
OTHER: GRADIENT	PERIMETER					

EROSION CONTROL DEVICES ARE USED TO LIMIT THE AMOUNT OF EROSION ON SITE. SEDIMENT CONTROL DEVICES ARE DESIGNED TO CAPTURE SEDIMENT ON THE PROJECT SITE. CONSTRUCTION CONTROL ARE BMP'S RELATED TO CONSTRUCTION ACCESS AND STAGING. BMP LOCATIONS ARE INDICATED ON THE PLANS. BMP INSTALLATION DETAILS ARE IN THE SWMP NOTEBOOK.

Print Date: 11/4/2009	 Colorado Department of Transportation 714 Grand Avenue, P.O. Box 298 Eagle, CO 81631 Phone: 970-328-6385 FAX: 970-328-2368 Region 3 MLM	Sheet Revisions		As Constructed	EDWARDS INTERCHANGE UPGRADE EDWARDS ACCESS RD STORMWATER MANAGEMENT PLAN	Project No./Code		
Drawing File Name: 06193SWMP02.dgn		Date:	Comments	Init.		No Revisions: 6-6-2011	ES3 0702-297	
Horiz. Scale: 1:1		Vert. Scale: As Noted				Revised:	Designer: CDT	Structure Numbers
Unit Information		Unit Leader Initials				Void:	Detailer: RSA	17303
					Sheet Subset: GRADING	Subset Sheets: SW-3 of 4	Sheet Number 160	

9. INTERIM AND FINAL STABILIZATION

A. SEEDING PLAN

SOIL PREPARATION, SOIL CONDITIONING OR TOPSOIL, SEEDING (NATIVE), MULCHING (WEED FREE), AND MULCH TACKIFIER WILL BE REQUIRED FOR AN ESTIMATED 8.5 (INTERIM); 8.5 (FINAL); 17.0 (TOTAL) ACRES OF DISTURBED AREA WITHIN THE RIGHT-OF-WAY LIMITS WHICH ARE NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:

SEEDING (NATIVE):

COMMON NAME	BOTANICAL NAME	POUNDS PLS/ACRE
SANDBERG BLUEGRASS	POA SECUNDA	2
"SAN LUIS" SLENDER WHEATGRASS	ELYMUS TRACHYCAULUS SSP. TRACHYCAULUS	6
"ARRIBA" WESTERN WHEATGRASS	PASCOPYRUM SMITHII	8
"SODAR" STREAMBANK WHEATGRASS	ELYMUS LANCEOLATUS SSP. PSAMMOPHILIUS	6
"GARNET" MOUNTAIN BROME	BROMUS MARGINATUS	8
*WHEAT X WHEATGRASS STERILE HYBRID	TRITICUM AESTIVUM X ELYTRIGIA ELONGATA	3
TOTAL		33

*TEMPORARY SEEDING SHALL BE WHEAT X WHEATGRASS STERILE HYBRID A RATE OF 3 LBS/ACRE.

B. SEEDING APPLICATION: DRILL SEED 0.25 INCH TO 0.5 INCH INTO THE SOIL. IN SMALL AREAS NOT ACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RAKE 0.25 INCH TO 0.5 INCH INTO SOIL.

C. MULCHING APPLICATION: APPLY 1½ TONS OF CERTIFIED WEED FREE HAY PER ACRE MECHANICALLY CRIMPED INTO THE SOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER.

D. SPECIAL REQUIREMENTS: DUE TO HIGH FAILURE RATES, HYDROMULCHING AND/OR HYDROSEEDING WILL NOT BE ALLOWED.

E. SOIL CONDITIONING AND FERTILIZER REQUIREMENTS:

- FERTILIZER WILL NOT BE REQUIRED ON THE PROJECT.
- SOIL CONDITIONER, ORGANIC AMENDMENT SHALL BE APPLIED TO ALL SEEDED AREAS PER REVISED STANDARD SPECIFICATION 207 AND 212. THE STANDARD RATE FOR AGED MANURE IS 3 CY/SF. THE STANDARD RATE FOR BIOSOIL IF USED IN LIEU OF AGED MANURE IS 1000 LBS/AC.

F. BLANKET APPLICATION: ON SLOPES AND DITCHES REQUIRING A BLANKET, THE BLANKET SHALL BE PLACED IN LIEU OF MULCH AND MULCH TACKIFIER. SEE SWMP FOR BLANKET LOCATIONS.

G. RESEEDING OPERATIONS/CORRECTIVE STABILIZATION

PRIOR TO FINAL ACCEPTANCE

- SEEDED AREAS SHALL BE REVIEWED DURING THE 7 DAY INSPECTIONS BY THE EROSION CONTROL SUPERVISOR FOR BARE SOILS CAUSED BY SURFACE OR WIND EROSION. BARE AREAS CAUSED BY SURFACE OR GULLY EROSION, BLOWN AWAY MULCH, ETC. SHALL BE REGRADED, SEEDED, MULCHED AND HAVE MULCH TACKIFIER (OR BLANKET) APPLIED AS NECESSARY.
- AREAS WHERE SEED HAS NOT GERMINATED AFTER ONE SEASON SHALL BE EVALUATED BY THE ENGINEER AND CDOT LANDSCAPE ARCHITECT. AREAS THAT HAVE NOT GERMINATED SHALL HAVE SEED, MULCH AND MULCH TACKIFIER (OR BLANKET) REAPPLIED. WORK SHALL BE PAID FOR BY THE APPROPRIATE BID ITEM BY THE CONTRACTOR.
- THE CONTRACTOR SHALL MAINTAIN SEEDING/MULCH/TACKIFIER AND MOW TO CONTROL WEEDS.

H. TEMPORARY SEEDING: TEMPORARY SEEDING SHALL CONSIST OF AN ANNUAL, STERILE HYBRID GRASS SPECIES. TEMPORARY SEEDING USED IN CONJUNCTION WITH PERMANENT SEEDING PROVIDES IMMEDIATE PROTECTION ON UNSTABLE ROUGH-GRADED SLOPES DURING THE ESTABLISHMENT PERIOD FOR PERMANENT SEEDING. THE QUICK GERMINATION RATES AND RAPIDLY GROWING ROOT SYSTEM OF STERILE HYBRID SPECIES HELP CONTROL RUNOFF AND EROSION, TRAPS SUSPENDED SEDIMENT, CONTROLS DUST, AND PROVIDES COMPETITION WITH UNDESIRABLE WEEDS, INCLUDING NOXIOUS WEEDS UNTIL FINAL STABILIZATION BY PERMANENT SEEDING IS ESTABLISHED. SEED BEDS FOR TEMPORARY SEEDING SHALL BE PREPARED IN THE SAME MANNER AS PERMANENT SEEDING IN ACCORDANCE WITH SUBSECTION 212.06(C).

10. PRIOR TO FINAL ACCEPTANCE

A. FINAL ACCEPTANCE SHALL BE IN ACCORDANCE WITH SUBSECTION 208.061.

11. TABULATION OF STORMWATER QUANTITIES

PAY ITEM	DESCRIPTION	UNIT	INITIAL	INTERIM	FINAL	PROJECT TOTALS
203	BLADING	HOUR	10	15	40	65
203	DOZING	HOUR	10	15	40	65
203	COMBINATION LOADER	HOUR	10	15	40	65
203	BACKHOE	HOUR	10	15	40	65
208	TEMPORARY BERMS	LF	0	500	1000	1500
208	EROSION LOG (12 INCH)	LF	500	800	2031	3331
208	SILT FENCE	LF	1333	500	0	1833
208	CHECK DAM	EA	5	10	3	18
208	CONCRETE WASHOUT STRUCTURE	EACH	0	3	0	3
208	STABILIZED CONSTRUCTION ENTRANCE	EACH	3	3	0	6
208	STORM DRAIN INLET PROTECTION	EACH	39	23	39	101
208	SEDIMENT REMOVAL AND DISPOSAL (LABOR)	HR	20	20	20	60
208	EROSION CONTROL SUPERVISOR	DAY	20	63	63	146
212	SEEDING (NATIVE)	ACRE	0	8.5	8.5	17
*212	SOIL CONDITIONING	ACRE	0	0	8.5	8.5
213	MULCHING (WEED FREE)	ACRE	0	8.5	8.5	17
216	SOIL RETENTION BLANKET (STRAW/COCONUT)	SY	0	1200	3995	5195
216	SOIL RETENTION BLANKET (SPECIAL)	SY	0	1300	4429	5729

* FOR INFORMATION ONLY

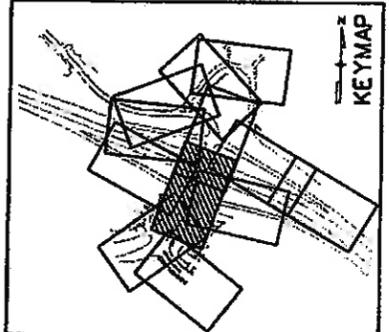
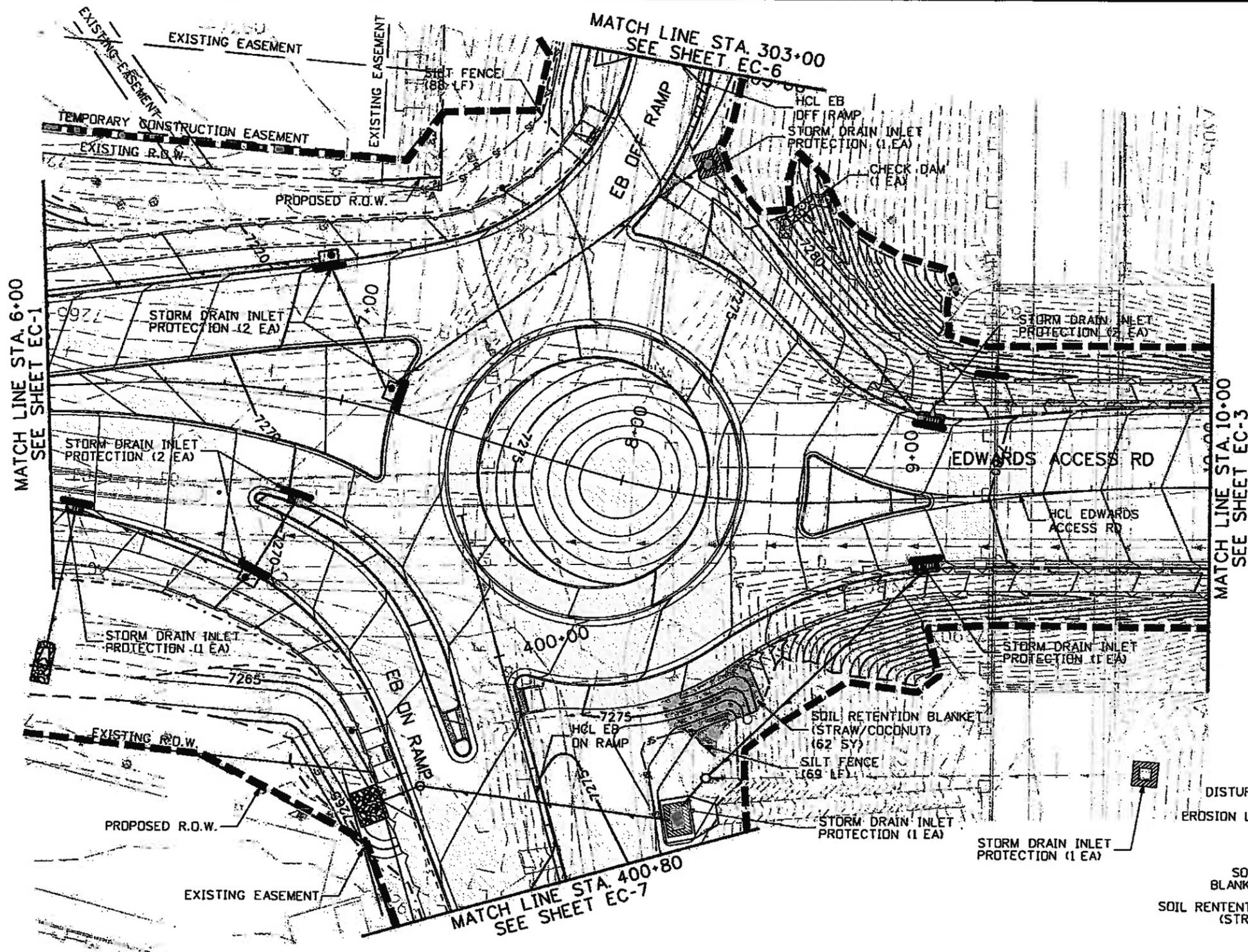
- THE ITEMS AND QUANTITIES SHOWN FOR SILT FENCE, TEMPORARY BERM, EROSION LOGS, STORM DRAIN INLET PROTECTION (GRAVEL BAGS) AND SILT FENCE ARE APPROXIMATE AND SHALL BE LOCATED ON THE PROJECT BY THE ECS.
- BMP REPLACEMENT AND MAINTENANCE SHALL BE INCLUDED IN THE COST OF THE EROSION CONTROL DEVICE.
- ONE CONCRETE WASH STRUCTURE SHALL BE USED FOR THE FIELD LABORATORIES.
- THE BLADING EQUIPMENT SHALL BE 120 HORSEPOWER, THE BACKHOE EQUIPMENT SHALL BE 75 HORSEPOWER, AND THE DOZING EQUIPMENT SHALL BE 100 HORSEPOWER.
- THE STABILIZED CONSTRUCTION ENTRANCE(S) WILL BE REQUIRED AS DIRECTED TO MINIMIZE VEHICLE TRACKING CONTROL. LOCATIONS SHALL BE AS DIRECTED BY THE ENGINEER.
- MAINTENANCE OF SEEDED AREAS SHALL BE PAID FOR AS SEEDING (NATIVE).
- TEMPORARY SEEDING SHALL BE INCLUDED IN THE COST OF SEEDING (NATIVE).

See Summary of Project Quantities

Print Date: 11/4/2009	Sheet Revisions			Colorado Department of Transportation	As Constructed	EDWARDS INTERCHANGE UPGRADE		Project No./Code
Drawing File Name: 061935WMP03.dgn	Date:	Comments	Init.			EDWARDS ACCESS RD		
Unit Information	Horiz. Scale: 1:1	Vert. Scale: As Noted		 714 Grand Avenue, P.O. Box 298 Eagle, CO 81631 Phone: 970-328-6385 FAX: 970-328-2368 Region 3	Revised: 6-6-2011	Designer: CDT	Structure Numbers	17303
Unit Leader Initials					Void:	Detailer: RSA	Sheet Subset: GRADING	Subset Sheets: SW-4 of 4



Know what's below. Call before you dig.



LEGEND

- TDE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE - SF - SF -
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) - - - - -
- RIPRAP - - - - -
- SOIL RETENTION BLANKET (SPECIAL) - - - - -
- SOIL RETENTION BLANKET (STRAW/COCONUT) - - - - -



Print Date: 11/4/2009	
Drawing File Name: 06193PLAN02.dgn	
Horiz. Scale: 1:40.0007	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

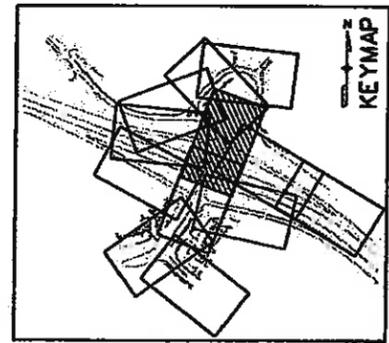
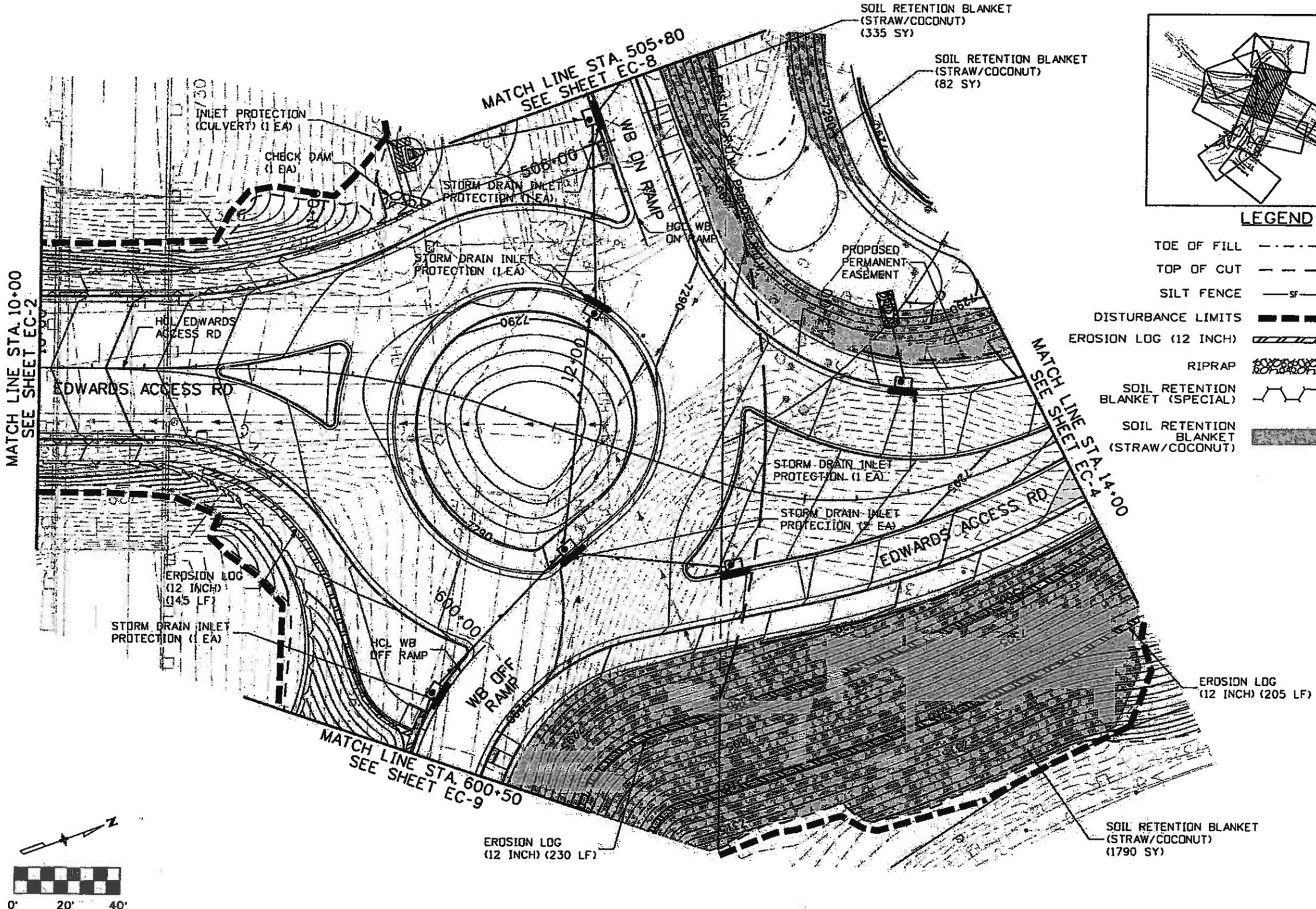
Sheet Revisions		
Date	Comments	Init.

Colorado Department of Transportation
 714 Grand Avenue, P.D. Box 298
 Eagle, CO 81631
 Phone: 970-328-6385 FAX: 970-328-2368
 Region 3 MLM

As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE EDWARDS ACCESS RD GRADING/EROSION CONTROL PLAN		
Designer:	CDT	Structure Numbers
Detailer:	RSA	
Sheet Subset:	GRADING	Subset Sheets: EC-2 of 12

Project No./Code
ES3 0702-297
17303
Sheet Number 163

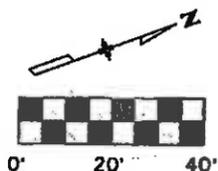


LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE -sf-sf-sf-
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [hatched pattern]
- RIPRAP [stippled pattern]
- SOIL RETENTION BLANKET (SPECIAL) [wavy line pattern]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [solid grey fill]



**FELSBURG
HOLT &
ULLEVIG**



Print Date: 11/4/2009	
Drawing File Name: 06193PLAN03.dgn	
Horiz. Scale: 1:40	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

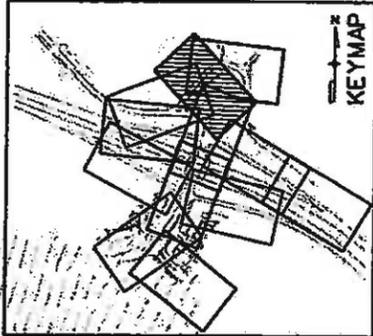
714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

As Constructed
No Revisions: 6-6-2011
Revised:
Void:

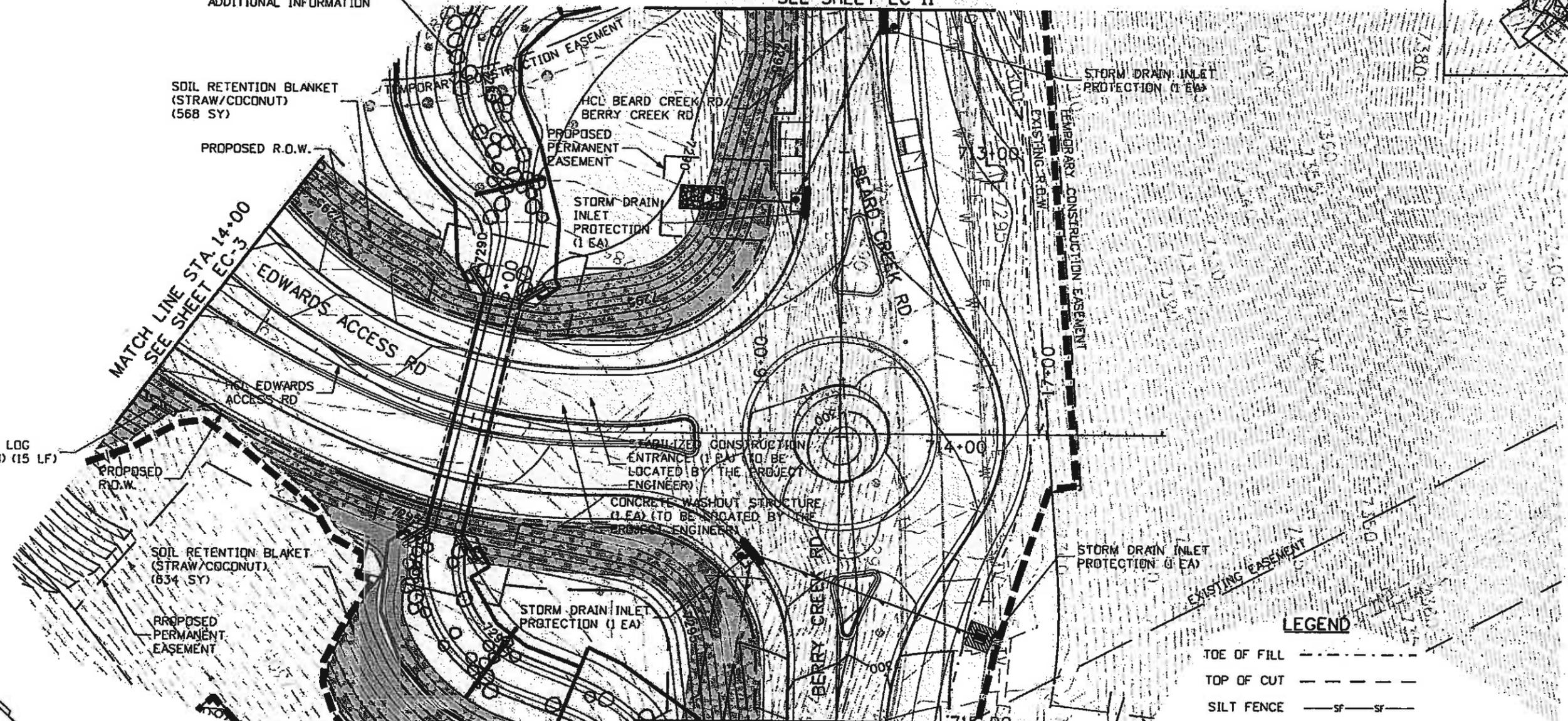
EDWARDS INTERCHANGE UPGRADE EDWARDS ACCESS RD GRADING/EROSION CONTROL PLAN		
Designer:	CDT	Structure Numbers
Detailer:	RSA	
Sheet Subset:	GRADING	Subset Sheets: EC-3 of 12

Project No./Code	ES3 0702-297
	17303
Sheet Number	164



SEE BERRY CREEK PLANS FOR DETAILS AND ADDITIONAL INFORMATION

MATCH LINE STA. 712+50
SEE SHEET EC-11



MATCH LINE STA. 14+00
SEE SHEET EC-3

MATCH LINE STA. 715+00
SEE SHEET EC-12

EROSION LOG (12 INCH) (15 LF)

SOIL RETENTION BLANKET (STRAW/COCONUT) (634 SY)

STORM DRAIN INLET PROTECTION (1 EA)

STORM DRAIN INLET PROTECTION (1 EA)

LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE -sf- sf-
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) - - - - -
- RIPRAP - - - - -
- SOIL RETENTION BLANKET (SPECIAL) - - - - -
- SOIL RETENTION BLANKET (STRAW/COCONUT) - - - - -



Print Date: 11/4/2009	
Drawing File Name: 06193PLAND4.dgn	
Horiz. Scale: 1:40.0006	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date	Comments	Init.

Colorado Department of Transportation

714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

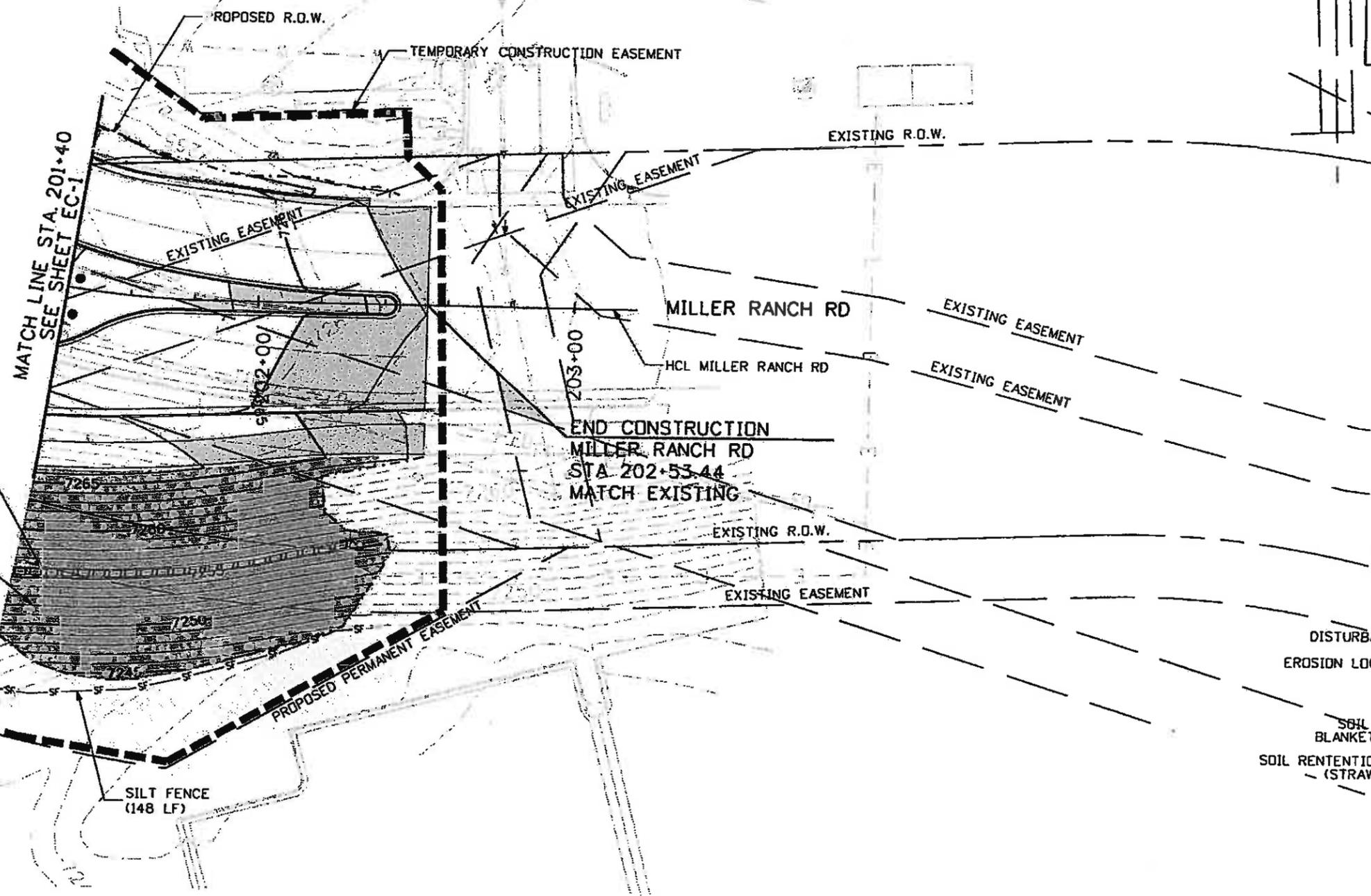
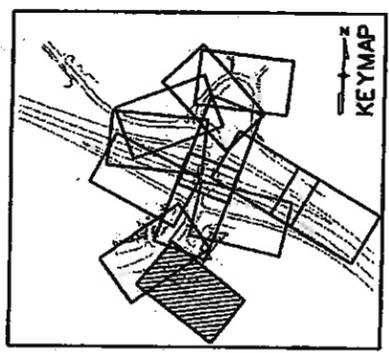
As Constructed	No Revisions: 6-6-2011
Revised:	
Void:	

EDWARDS INTERCHANGE UPGRADE EDWARDS ACCESS RD/BEARD/BERRY GRADING/EROSION CONTROL PLAN	
Designer: CDT	Structure Numbers
Detailer: RSA	
Sheet Subset: GRADING	Subset Sheets: EC-4 of 12

Project No./Code	ES3 0702-297
	17303
Sheet Number	165



EDWARDS STATION



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE - SF - SF -
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [hatched pattern]
- RIPRAP [cross-hatched pattern]
- SOIL RETENTION BLANKET (SPECIAL) [wavy line pattern]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [stippled pattern]



Print Date: 11/4/2009	
Drawing File Name: 06193PLAN05.dgn	
Horiz. Scale: 1:40.0017	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

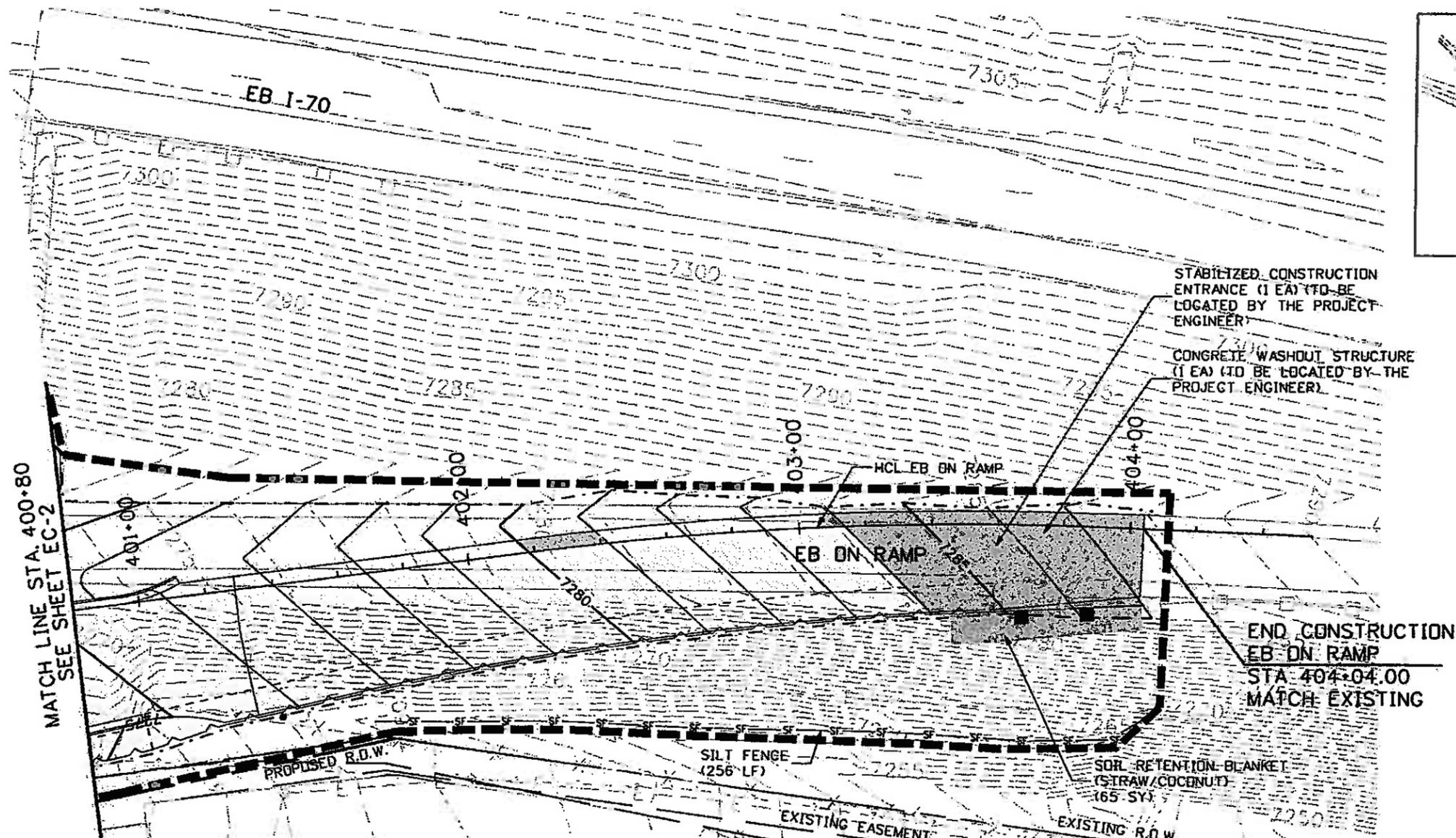
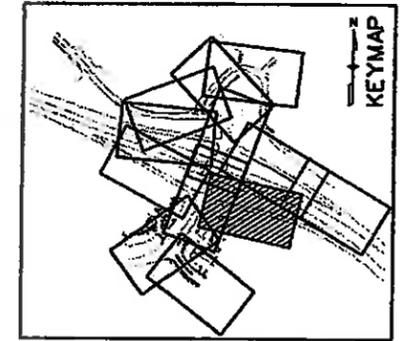
As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE MILLER RANCH RD GRADING/EROSION CONTROL PLAN		
Designer:	CDT	Structure Numbers
Detailer:	RSA	
Sheet Subset: GRADING	Subset Sheets: EC-5 of 12	

Project No./Code	ES3 0702-297
	17303
Sheet Number	166

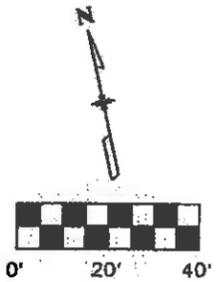


Know what's below.
Call before you dig.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE - SF - SF -
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [hatched pattern]
- RIPRAP [cross-hatched pattern]
- SOIL RETENTION BLANKET (SPECIAL) [X-X-X-X pattern]
- SOIL RETENTION BLANKET (STRAW/COCNUT) [stippled pattern]



Print Date: 11/4/2009
Drawing File Name: 06193PLAN07.dgn
Horiz. Scale: 1=40.0021
Unit Information
Vert. Scale: As Noted
Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

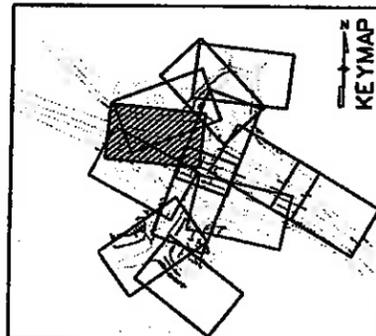
As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE EB ON RAMP GRADING/EROSION CONTROL PLAN		
Designer:	CDT	Structure
Detailer:	RSA	Numbers
Sheet Subset:	GRADING	Subset Sheets: EC-7 of 12

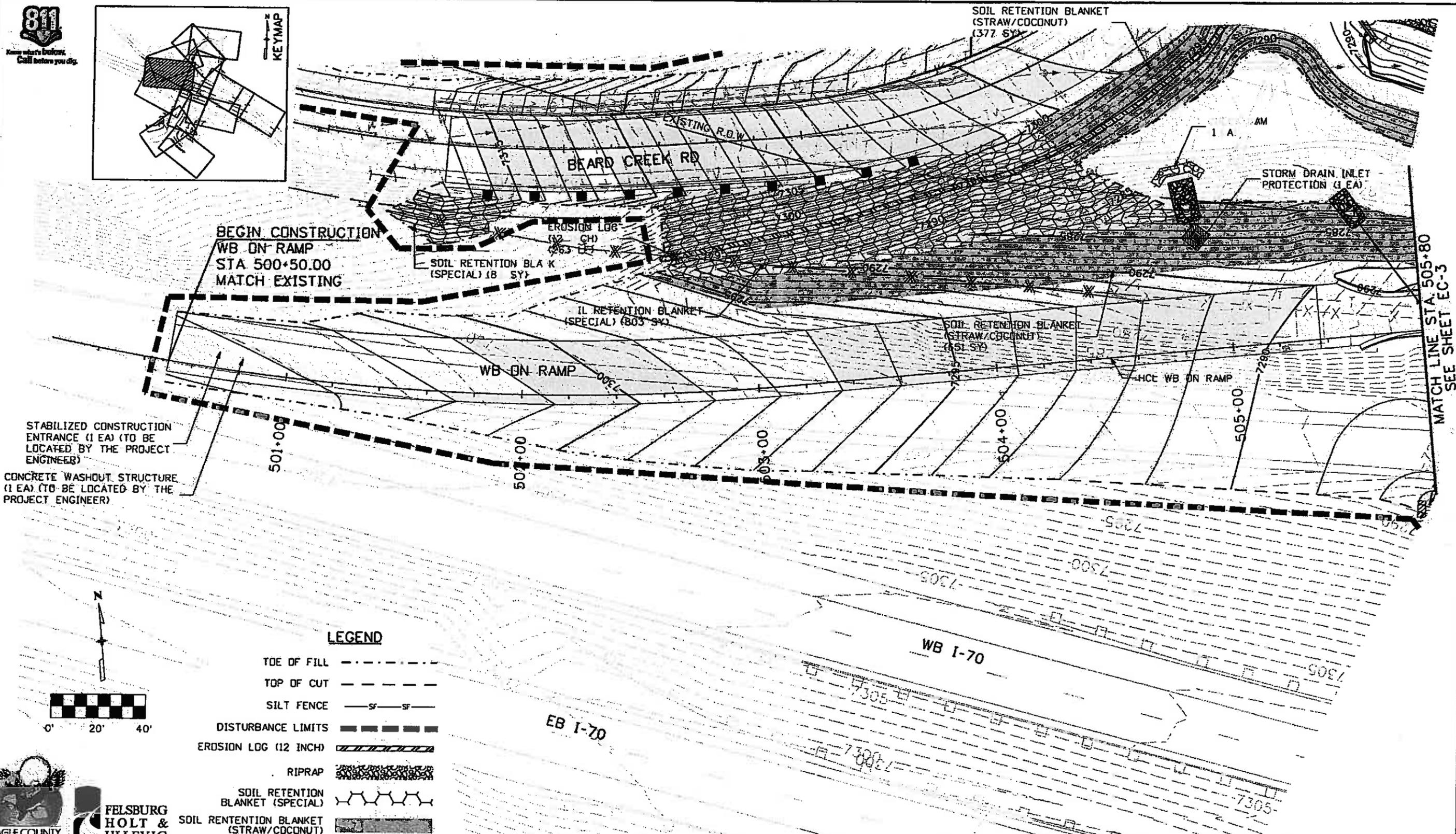
Project No./Code
ES3 0702-297
17303
Sheet Number 168



Know what's below.
Call before you dig.



KEYMAP



STABILIZED CONSTRUCTION ENTRANCE (1 EA) (TO BE LOCATED BY THE PROJECT ENGINEER)
CONCRETE WASHOUT STRUCTURE (1 EA) (TO BE LOCATED BY THE PROJECT ENGINEER)

BEGIN CONSTRUCTION
WB ON RAMP
STA 500+50.00
MATCH EXISTING

MATCH LINE STA. 505+80
SEE SHEET EC-3



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE - - - - -
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [diagonal hatching]
- RIPRAP [cross-hatching]
- SOIL RETENTION BLANKET (SPECIAL) [wavy line pattern]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [stippled pattern]



**FELSBURG
HOLT &
ULLEVIG**

Print Date: 11/4/2009	
Drawing File Name: 06193PLAN08.dgn	
Horiz. Scale: 1:40.0026	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date	Comments	Init.

Colorado Department of Transportation



714 Grand Avenue, P.D. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

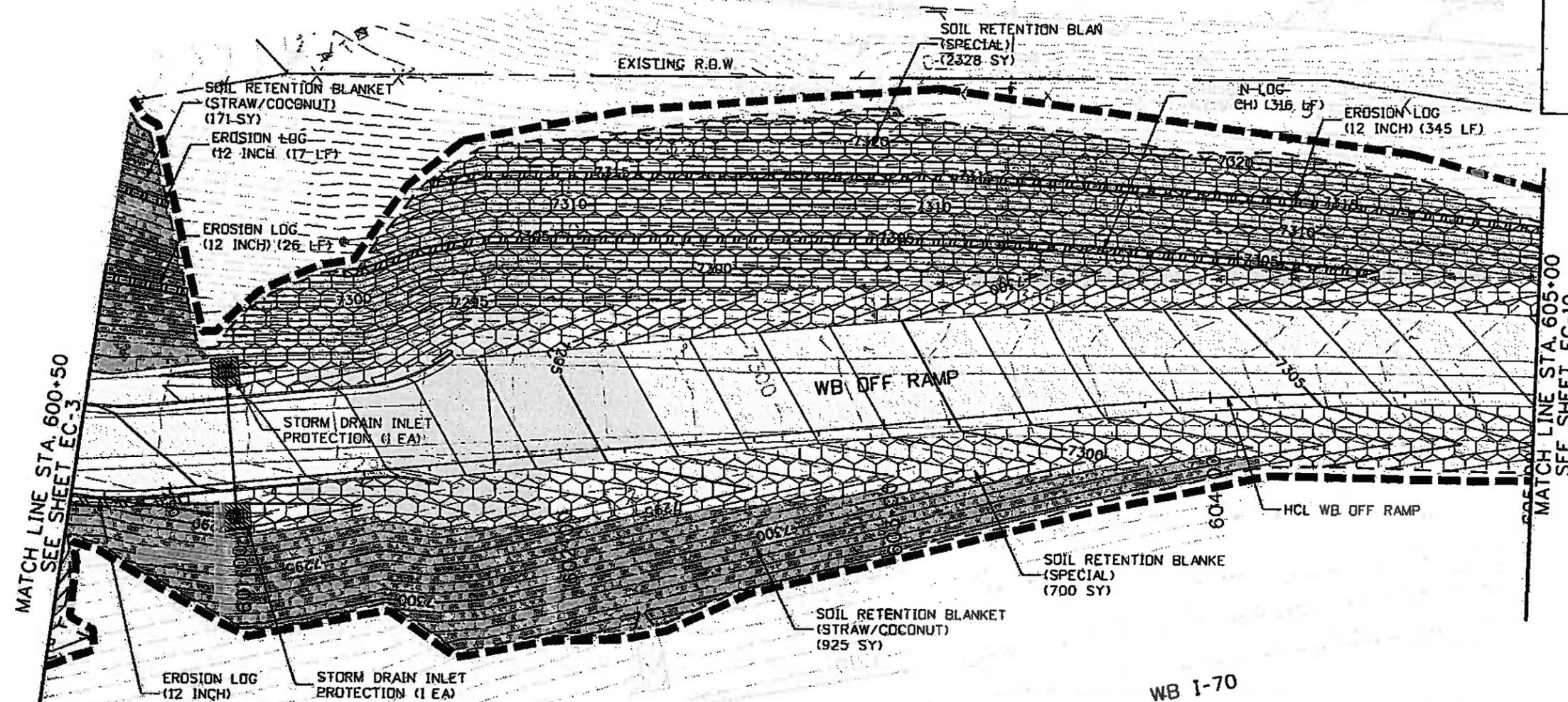
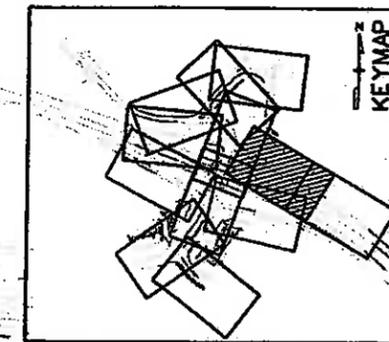
As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE WB OFF RAMP GRADING/EROSION CONTROL PLAN	
Designer: CDT	Structure Numbers
Detailer: RSA	
Sheet Subset: GRADING	Subset Sheets: EC-8 of 12

Project No./Code
ES3 0702-297
17303
Sheet Number 169



Know what's below. Call before you dig.



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE - s - s -
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [hatched pattern]
- RIPRAP [stippled pattern]
- SOIL RETENTION BLANKET (SPECIAL) [wavy line pattern]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [cross-hatched pattern]

EAGLE COUNTY
FELSBURG HOLT & ULLEVIG

Print Date: 11/4/2009	
Drawing File Name: 06193PLAN09.dgn	
Unit Information	
Horiz. Scale: 1:40.0014	Vert. Scale: As Noted
Unit Leader Initials	

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
 714 Grand Avenue, P.O. Box 298
 Eagle, CO 81631
 Phone: 970-328-6385 FAX: 970-328-2368
Region 3 **MLM**

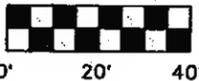
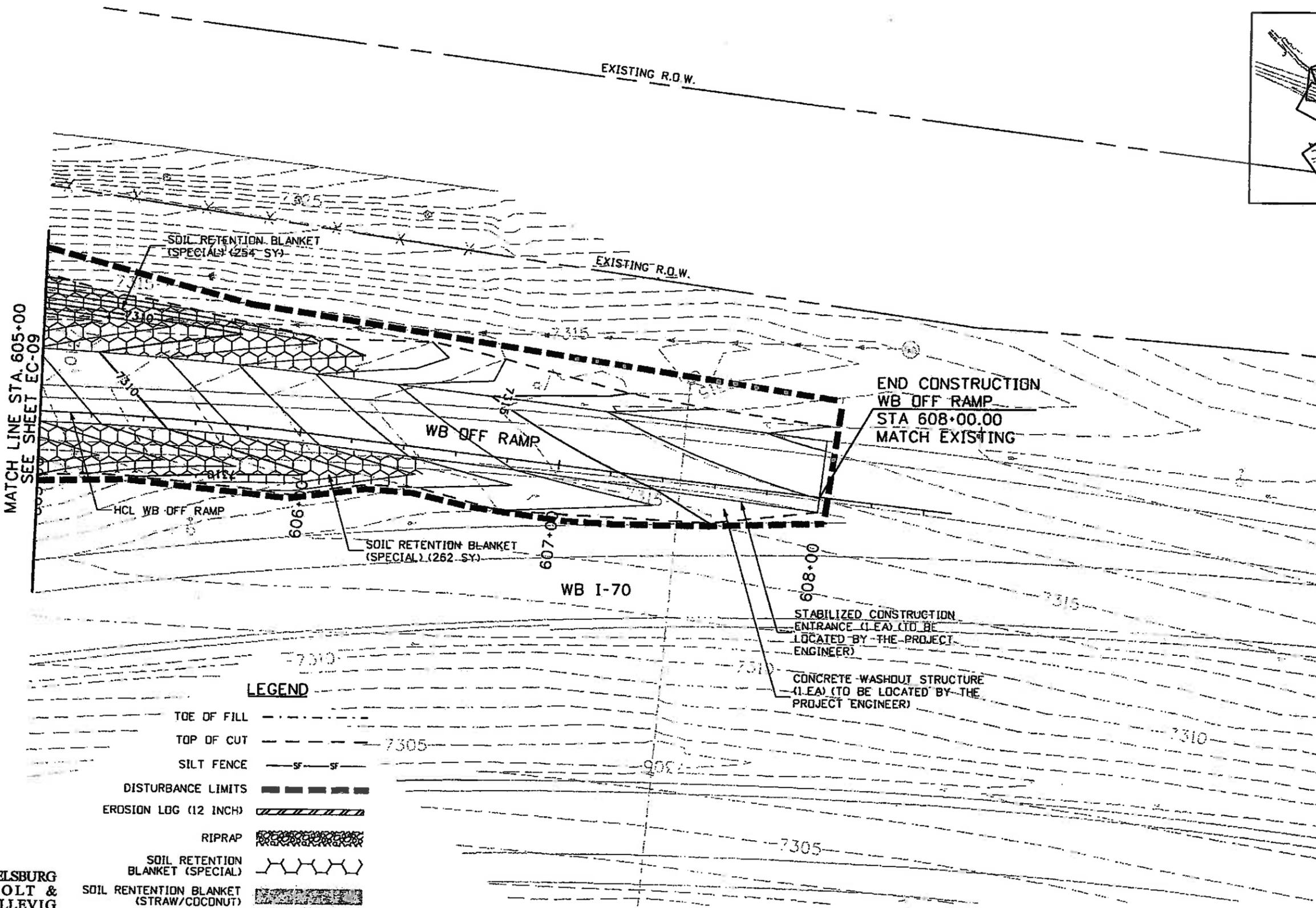
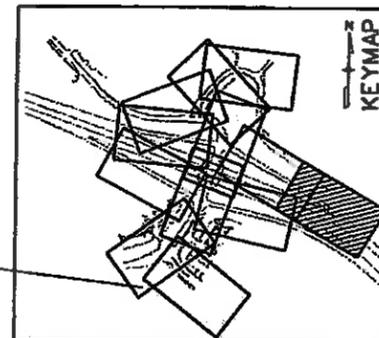
As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE	
WB OFF RAMP	
GRADING/EROSION CONTROL PLAN	
Designer: CDT	Structure:
Detailer: RSA	Numbers:
Sheet Subset: GRADING	Subset Sheets: EC-9 of 12

Project No./Code
ES3 0702-297
17303
Sheet Number 170



Know what's Below.
Call before you dig.



LEGEND

- TOE OF FILL
- TOP OF CUT
- SILT FENCE
- DISTURBANCE LIMITS
- EROSION LOG (12 INCH)
- RIPRAP
- SOIL RETENTION BLANKET (SPECIAL)
- SOIL RETENTION BLANKET (STRAW/CDCONUT)



**FELSBURG
HOLT &
ULLEVIG**

Print Date: 11/4/2009

Drawing File Name: 06193PLAN10.dgn

Horiz. Scale: 1:40.0014

Vert. Scale: As Noted

Unit Information

Unit Leader Initials

(R-X)
000

Sheet Revisions

Date:	Comments	Init.

Colorado Department of Transportation



714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3

MLM

As Constructed

No Revisions: 6-6-2011

Revised:

Void:

**EDWARDS INTERCHANGE UPGRADE
WB OFF RAMP
GRADING/EROSION CONTROL PLAN**

Designer: CDT
Detailer: RSA

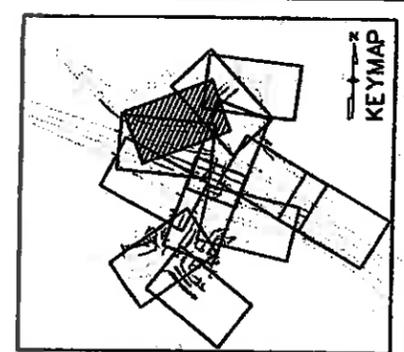
Structure Numbers
Sheet Subset: GRADING Subset Sheets: EC-10 of 12

Project No./Code

ES3 0702-297

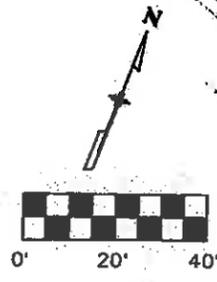
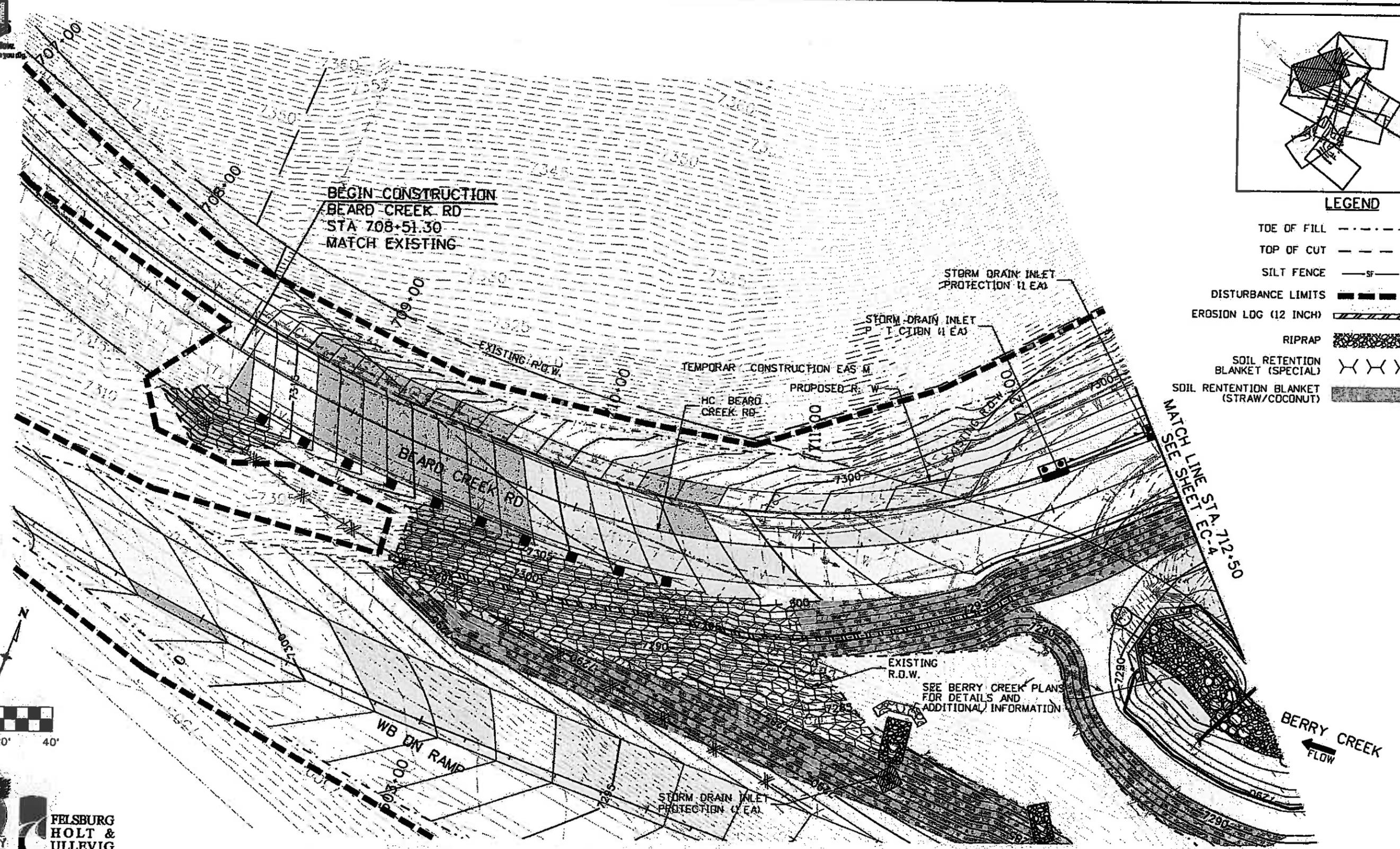
17303

Sheet Number 171



LEGEND

- TDE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE -sf- -sf-
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [hatched pattern]
- RIPRAP [cross-hatched pattern]
- SOIL RETENTION BLANKET (SPECIAL) [X-X-X-X pattern]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [stippled pattern]



Print Date: 11/4/2009

Drawing File Name: 06193PLAN11.dgn

Horiz. Scale: 1:40.0022 Vert. Scale: As Noted

Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

DOT

714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

As Constructed

No Revisions: 6-6-2011

Revised:

Void:

**EDWARDS INTERCHANGE UPGRADE
BEARD CREEK RD
GRADING/EROSION CONTROL PLAN**

Designer: CDT Structure
Detailer: RSA Numbers

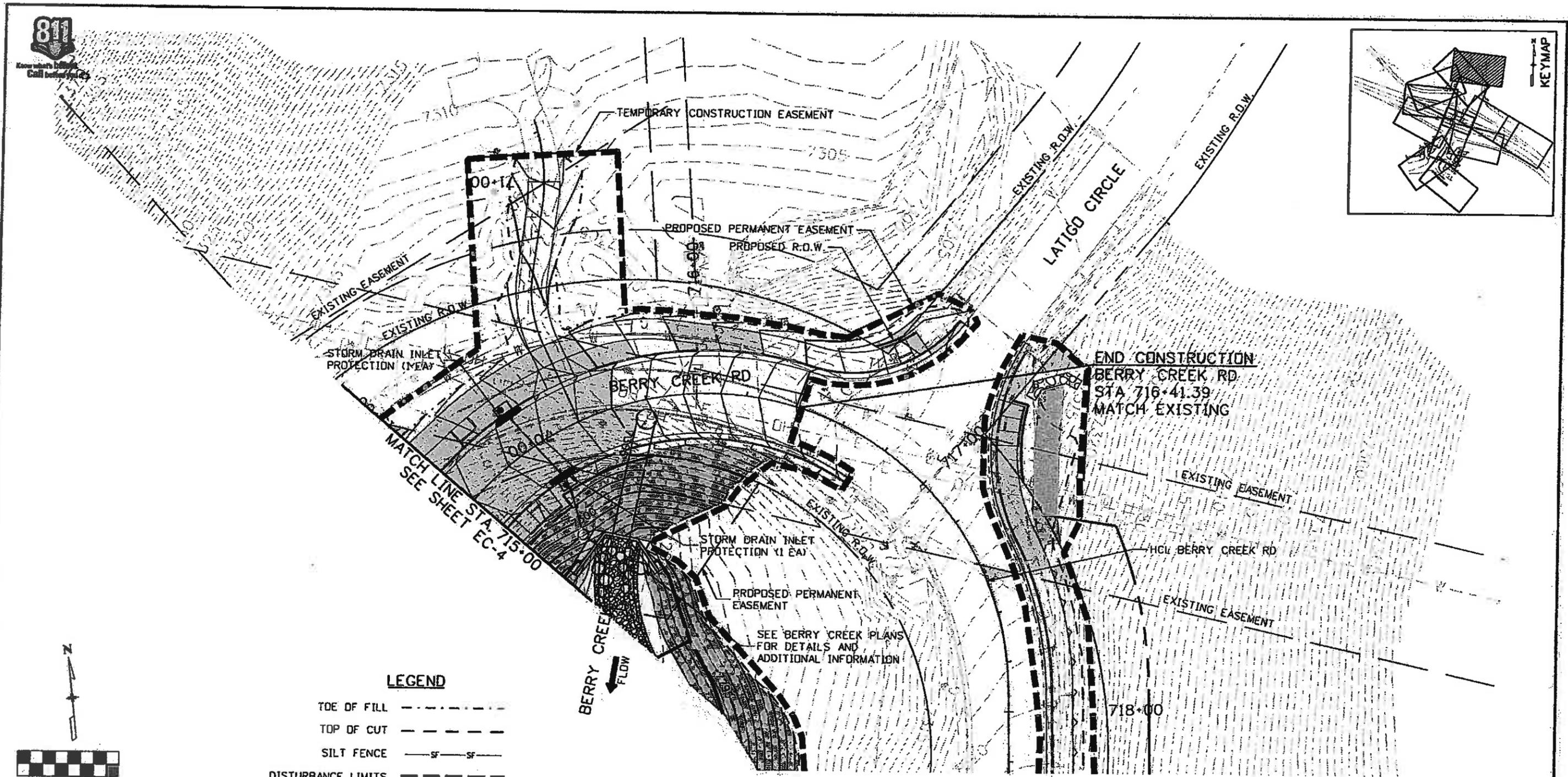
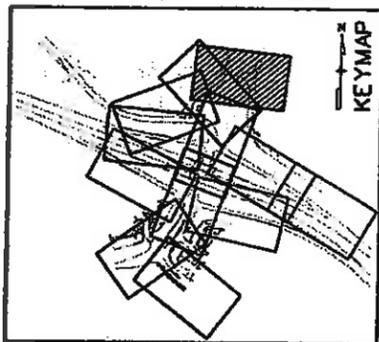
Sheet Subset: GRADING Subset Sheets EC 11 of 12

Project No./Code

ES3 0702-297

17303

Sheet Number 17



LEGEND

- TOE OF FILL - - - - -
- TOP OF CUT - - - - -
- SILT FENCE — SF — SF —
- DISTURBANCE LIMITS - - - - -
- EROSION LOG (12 INCH) [diagonal hatching symbol]
- RIPRAP [cross-hatching symbol]
- SOIL RETENTION BLANKET (SPECIAL) [wavy line symbol]
- SOIL RETENTION BLANKET (STRAW/COCONUT) [stippled symbol]



Print Date: 11/4/2009
Drawing File Name: 06193PLAN12.dgn
Horiz. Scale: 1:40.001 Vert. Scale: As Noted
Unit Information Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE BERRY CREEK RD GRADING/EROSION CONTROL PLAN		
Designer:	CDT	Structure
Detailer:	RSA	Numbers
Sheet Subset:	GRADING	Subset Sheets: EC-12 of 12

Project No./Code
ES3 0702-297
17303
Sheet Number 173



811
Report a Problem
Call 811

7295

7295

7290

7290

7295

WILLOW TRANSPLANTS,
PLACED RANDOMLY AT 3 FT
CENTERS BETWEEN 7283 AND
7286 FT CONTOURS AS SHOWN.

WETLAND SEEDING AREA

WETLAND SEEDING AREA

ADD CHOCHECHERRY (1-GAL), 25 PLACED
RANDOMLY AT 3 FT CENTERS BETWEEN
7284 AND 7291 FT CONTOURS AS SHOWN.

GOLDEN CURRANT (1-GAL),
20 PLACED RANDOMLY AT
3 FT CENTERS BETWEEN
7284 AND 7288 FT CONTOURS
AS SHOWN.

TWINBERRY HONEYSUCKLE (1-GAL),
20 PLACED RANDOMLY AT 3 FT
CENTERS BETWEEN 7286 AND
7288 FT CONTOURS AS SHOWN.

REDDIER DOGWOOD (1-GAL),
26 PLACED RANDOMLY AT 3 FT
CENTERS BETWEEN 7286 AND
7288 FT CONTOURS AS SHOWN.

335.19 SF

388.18 SF

306.84 SF

261.81 SF

EROSION LOGS
(12 INCH) (415 LF)

MATCHLINE A-A

EDWARDS ACCESS RD

LEGEND

- EROSION LOG (12 INCH)
- WETLAND SEEDING AREA



FELSBURG
HOLT &
ULLEVIG

Print Date: 11/5/2009
Drawing File Name: 06193BCWET01.dgn
Horiz. Scale: 1:20
Unit Information
Vert. Scale: As Noted
Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation



714 Grand Avenue, P.O. Box 298
Eagle, CO 81631
Phone: 970-328-6385 FAX: 970-328-2368

Region 3 MLM

As Constructed
No Revisions: 6-6-2011
Revised:
Void:

EDWARDS INTERCHANGE UPGRADE BERRY CREEK WETLAND MITIGATION PLAN		
Designer: AP	Structure Numbers	
Detailer: BDW		
Sheet Subset: DRAINAGE	Subset Sheets: WM-1 of 3	

Project No./Code
ES3 0702-297
17303
Sheet Number 174



Know what's below.
Call before you dig.

THINLEAF ALDER (5-GAL),
25 PLACED RANDOMLY AT
3FT CENTERS BETWEEN
7288 AND 7292 FT
CONTOURS AS SHOWN.

WETLAND SEEDING AREA

MATCHLINE A-A
EDWARDS ACCESS RD

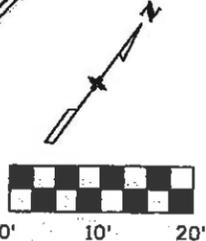
WETLAND SEEDING AREA

WETLAND SEEDING AREA

EROSION LOGS
(12 INCH) (374 LF)

SKUNKBUSH SUMAC (1-GAL),
45 PLACED RANDOMLY AT
3FT CENTERS BETWEEN 7292
AND 7295 FT CONTOURS
AS SHOWN.

WILLOW TRANSPLANTS,
PLACED RANDOMLY AT 3FT
CENTERS BETWEEN 7288 AND
7291 FT CONTOURS AS SHOWN.



LEGEND

EROSION LOG (12 INCH)

WETLAND SEEDING AREA



FELSBURG
HOLT &
ULLEVIG

Print Date: 11/5/2009	
Drawing File Name: 06193BCWET02.dgn	
Horiz. Scale: 1:20	Vert. Scale: As Noted
Unit Information	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

 714 Grand Avenue, P.O. Box 298
 Eagle, CO 81631
 Phone: 970-328-6385 FAX: 970-328-2368
 Region 3 MLM

As Constructed
 No Revisions: 6-6-2011
 Revised:
 Void:

EDWARDS INTERCHANGE UPGRADE
 BERRY CREEK
 WETLAND MITIGATION PLAN
 Designer: AP Structure
 Detailer: BDW Numbers
 Sheet Subset: DRAINAGE Subset Sheets: WM-2 of 3

Project No./Code
 ES3 0702-297
 17303
 Sheet Number 175



Know what's Below
Call before you Dig

WETLAND MITIGATION PLANTING AND SEEDING PLANS, NOTES, AND TABULATIONS

THE GOAL OF THE WETLAND MITIGATION PLAN IS TO PERMANENTLY RELOCATE BERRY CREEK TO THE NEW ALIGNMENT ADJACENT TO ITS CURRENT LOCATION AND RESTORE ALL INSTREAM AND WETLAND/RIPARIAN FUNCTIONS IN ORDER TO FACILITATE CONSTRUCTION OF THE NEW ROUNDABOUT AT BERRY CREEK ROAD AND BEARD CREEK ROAD. REFER TO THE TYPICAL SECTIONS AND GRADING PLANS FOR EXCAVATION, CONSTRUCTION AND ALIGNMENT DETAILS.

PLANTING NOTES

PLANTINGS SHALL CONSIST OF A MIX OF 5-GALLON AND 1-GALLON CONTAINERS OF NATIVE SHRUBS AND HERBACEOUS PERENNIAL PLUGS AVAILABLE FROM LOCAL NURSERY STOCK. SHRUBS SHALL BE PLACED AT APPROXIMATELY 3 FT CENTERS AS DESIGNATED ON THE PLANS AND PER THE M-214-1 PLANTING DETAIL STANDARDS. PITS SHALL BE BACKFILLED PER STANDARD PROVISION 214. WOOD CHIP MULCH SHALL BE PLACED AROUND THE PLANTINGS PITS TO A DEPTH OF 6 IN. ALL SHRUBS SHALL BE WATERED. SOIL CONDITIONER, MULCH WOOD CHIPS, AND WATER SHALL BE INCLUDED IN THE COST OF WORK.

PERENNIAL PLUGS SHALL BE PLANTED PER STANDARD PROVISION 214 AND PLACED RANDOMLY AT 1 FT CENTERS ALONG BOTH SIDES OF THE NEW LOWER CREEKBED BETWEEN THE CONTOURS INDICATED ON THE PLANS.

FINAL STABILIZATION

UPON COMPLETION OF ALL PLANTINGS AND SEEDING AND UNTIL FINAL STABILIZATION, EROSION LOGS SHALL BE PLACED AROUND THE PERIMETER OF THE MITIGATION SITE AND ALL OTHER AREAS SHALL BE SEEDING AND MULCHED PER THE PROJECT STORMWATER MANAGEMENT PLAN.

WETLAND/RIPARIAN PLANTINGS TABULATION

COMMON NAME	SCIENTIFIC NAME	UNIT	QUANTITY
DECIDUOUS SHRUB (5-GAL)			
CHOKECHERRY	PRUNUS VIRGINIANA	EA	25
THINLEAF ALDER	ALNUS INCANA SSP.	EA	25
DECIDUOUS SHRUB (1-GAL)			
GOLDEN CURRANT	RIBES AUREUM	EA	45
REDOSIER DOGWOOD	CORNUS SERICEA	EA	26
SKUNKBUSH SUMAC	RHUS TRILOBATA	EA	45
TWINBERRY HONEYSUCKLE	LONICERA INVOLUCRATA	EA	20
BRUSH LAYER CUTTINGS			
WILLOWS	SALIX SP.	EA	600
PERENNIAL PLANTINGS			
BALTIC RUSH	JUNCUS BALTICUS	EA	300
NEBRASKA SEDGE	CAREX NEBRASCENSIS	EA	700

TABULATION OF QUANTITIES FOR WETLAND MITIGATION

PAY ITEM	DESCRIPTION	UNIT	QUANTITY
207	WETLAND SOIL	CY	57.4
208	EROSION LOGS (12 INCH)	LF	789
212	SEEDING (WETLANDS)	AC	0.15
214	BRUSH LAYER CUTTINGS	EA	600
214	DECIDUOUS SHRUB (5 GAL.)	EA	50
214	DECIDUOUS SHRUB (1 GAL.)	EA	136
214	PERENNIAL (PLUGS)	EA	1000
215	TRANSPLANT SHRUB	EA	30
216	SOIL RETENTION BLANKET (S/C)	SY	532

SEEDING (WETLANDS)

SOIL CONDITIONER/SOIL PREPARATION, SEEDING, AND SOIL RETENTION BLANKETS SHALL BE REQUIRED FOR WETLAND SEEDING AREAS. THE FOLLOWING TYPES AND RATES SHALL BE USED:

COMMON NAME	SCIENTIFIC NAME	RATE LBS. PLS/AC	COWARDIN WETLAND
'SOURDOUGH' BLUEJOINT REEDGRASS	CALAMAGROSTIS CANADENSIS	2	OBL
'NORTRAN' TUFTED HAIRGRASS	DESCHAMPSIA CAESPITOSA	1	FACW
VNS. FOWL MANNAGRASS	GLYCERIA STRIATA	7	OBL
VNS. COLORADO BLUE COLUMBINE	AQUILEGIA COERULEA	3	FACU
VNS. FIREWEED	CHAMERION ANGUSTIFOLIUM	0.25	FACU
VNS. LESSER INDIAN PAINTBRUSH	CASTILLEJA MINOR SSP. MINOR	1	OBL
VNS. PURPLE GERANIUM	GERANIUM VISCOSISSIMUM	1	FACU
TOTAL		15.25	

SOIL CONDITIONER/SOIL PREPARATION AND FERTILIZER REQUIREMENTS:

SOIL CONDITIONER OR APPROVED ORGANIC AMENDMENT SHALL BE APPLIED TO THE SOIL BED AT 3 CY/1000 SF OR PER MANUFACTURERS RECOMMENDATION. FERTILIZER WILL NOT BE REQUIRED.

SEED APPLICATION:

HAND BROADCAST AT DOUBLE THE RATE ABOVE AND RAKE TO A DEPTH OF 0.25 INCH TO 0.50 INCH INTO THE PREPARED SEEDBED.

BLANKET APPLICATION:

IN LIEU OF MULCH, ALL SEEDED WETLAND AREAS SHALL BE COVERED WITH A SOIL RETENTION BLANKET (S/W).

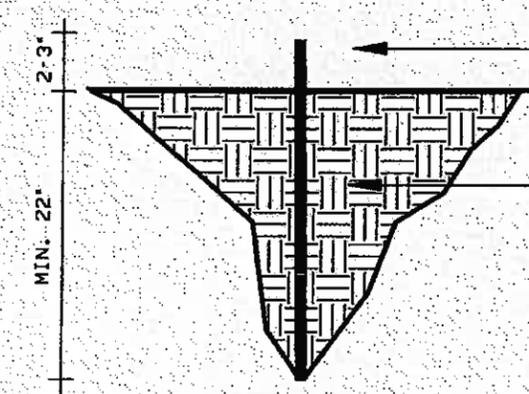
BRUSH LAYER CUTTING DETAIL AND NOTES

CUTTINGS SHALL BE:

1. MINIMUM OF 0.5 INCHES IN DIAMETER.
2. 24 TO 6 INCHES IN LENGTH, WITH BOTTOM CUT AT AN ANGLE, TOP CUT STRAIGHT
3. INSTALLED WHILE DORMANT IN EARLY SPRING WHEN THE GROUND IS NO LONGER FROZEN
4. PLACED A MINIMUM OF 22 INCHES INTO SOIL.
5. CUT OFF 2 TO 3 INCHES ABOVE THE GROUND SURFACE.

REFER TO STANDARD PROVISION 214.

CUTTINGS SHALL BE PLACED IN AREAS INDICATED IN WM-1 & WM-2.



CUTTING MIN. OF 1/2 INCH IN DIAMETER. CUT OFF EXPOSED LENGTH, 2 TO 3 INCHES ABOVE THE GROUND

PLACE CUTTING A MINIMUM OF 22 TO 30 INCHES INTO THE SOIL. CUTTING SHALL BE PLACED AS DIRECTED IN MOIST AREAS.

BRUSH LAYER CUTTING NOTES

BRUSH LAYER CUTTINGS SHALL BE COLLECTED FROM EXISTING WILLOWS IN THE CREEK AND INSTALLED PER STANDARD PROVISION 214. CUTTINGS SHALL BE PLACED RANDOMLY AT 1 FT CENTERS ALONG BOTH SIDES OF THE NEW LOWER CREEKBANKS BETWEEN THE CONTOURS INDICATED ON THE PLANS. CUTTINGS SHALL BE PREPARED FOR INSTALLATION AND INSTALLED WHILE DORMANT IN THE SPRING.



FELSBURG
HOLT &
ULLEVIG

Print Date: 11/5/2009	(R-X) 0000
Drawing File Name: 06193BCWET03.dgn	
Horiz. Scale: 1" = 1' Vert. Scale: As Noted	
Unit Information Unit Leader Initials	

Sheet Revisions		
Date	Comments	Init.

Colorado Department of Transportation

 714 Grand Avenue, P.O. Box 298
 Eagle, CO 81631
 Phone: 970-328-6385 FAX: 970-328-2368
 Region 3 MLM

As Constructed
No Revisions: 6-6-2011
Revised:
Void:

**EDWARDS INTERCHANGE UPGRADE
BERRY CREEK
WETLAND MITIGATION TABULATION**

Designer: AP Structure: Numbers: Sheet Subset: DRAINAGE
 Detailer: BDW Subst Sheets: WM-3 of 3

Project No./Code	ES3 0702-297
Sheet Number	176