

GENERAL VICINITY MAP

CITY OF COLORADO SPRINGS EROSION CONTROL PLAN REVIEW This grading plan is filed in accordance with section 7.7.1503 (enacted as ord. 82-56) of the code of the City of Colorado Springs, 2001, as amended. Erosion control is reviewed in accordance with the Drainage Criteria Manual, Vol. I (2014) and Vol. II (2014); latest revisions.

For the City Engineer Please use county -signature blocks attached in checklist

This Erosion and Stormwater Quality Control/Grading Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. If such work is performed in accordance with the grading and erosion control plan, the work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use, or stability of a public way, drainage channel, or other property. I am employed by and perform engineering services solely for Colorado Springs Utilities, an enterprise of the City of Colorado Springs, and therefore am exempt from Colorado Revised Statute Title 12, Article 25, Part 1 according to §12-25-103(1), C.R.S.

Richard Schastian - Coleman Printed Name Thankol Selastions- Taleman

Authorized Signature

I hereby certify that the drainage and grading for Pinkerton Ph. 1 shall be constructed according to the design presented in this plan. I further understand that field changes must be reviewed by the City Review Engineer to ensure conformance with the original design intent. I am employed by and perform engineering services solely for Colorado Springs Utilities, an enterprise of the City of Colorado Springs, and therefore am exempt from Colorado Revised Statute Title 12, Article 25, Part 1 according to §12-25-103(1), C.R.S.

Date 9/19/2018

Date 9-27-18

Developer/Owner Signature: Bonds w? Name of Developer/Owner: DBA: Colorado Springs Utilities Title: Operations Supervisor Address: 6543 Ray Nixon Road, Fountain, CO, 80817

**Brad Pritekel** Phone: 719-668-8954 Email: bpritekel@csu.org REPORTING REQUIREMENTS

ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING: EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:

September 4, 2018 September 7, 2018

TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED: 6.7 acres NAME OF RECEIVING WATERS: South Clear Springs Ranch Drainage Ditch ultimately discharges to

Fountain Creek SOILS INFORMATION:

Kim Loam (1-8% slopes); Limon Clay (0-3% slopes), Schamber-Razor Complex (8-50% slopes); [NRCS Soil Survey]

SUBDIVISION NAME: N/A.

BMP COST ESTIMATE: (not inclusive of pavement or curb & gutter repair)

max. 1.00acre x \$582/acre = \$582 for Hydro Seeding / Mulching + fertilizer and tackifier

1 unit x \$1,625/unit = \$1,625 for Vehicle Tracking Control 50 units x \$6.00/unit = \$300 for Erosion Control Logs

50 LF x 4/LF = 200 for Silt Fence Subtotal = \$2,707.00

Subtotal x 40% Maintenance of BMP's = \$1,082.80

ocated. Show this on

Total = \$3,789.80

PROPOSED TOPOGRAPHY: The site will be returned as closely as possible to its pre-construction grade

LOCATION OF ANY OTHER PROPOSED FEATURES AND STRUCTURES ON THIS SITE: N/A

LOCATION AND PLANS FOR ALL DRAINAGE FEATURES: N/A

LOCATION OF PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES: N/A

LOCATION OF ANY DEDICATED ASPHALT OR CONCRETE BATCH PLANTS: N/A

IS THE SITE IN THE CITY'S STREAMSIDE ZONE: No

EMERGENCY OVERFLOW SWALES: N/A

FLOW ROUTE - FLOW THROUGH AND OVERFLOW OF PERMANENT BMP'S AND TEMPORARY SEDIMENT BASINS: N/A DETAIL DRAWINGS OF PERMANENT BMP'S: N/A

#### NOTES:

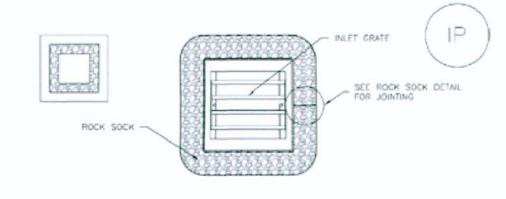
A designated concrete truck washout is not anticipated for this project. Fueling of equipment may occur along the project route; fueling guidelines are included in the SWMP. The entirety of this project is outside of the designated 100 year floodplain.

Additional erosion control details on maintenance and installation are located in Attachment 3 to the SWMP/GESQCP Narrative

State that all disturbed areas not within the proposed roadway must be reseeded.

### GENERAL NOTES

- 1. ANY LAND DISTURBANCE BY ANY OWNER, DEVELOPER, BUILDER, CONTRACTOR, OR OTHER PERSON SHALL COMPLY WITH THE BASIC GRADING, EROSION AND STORMWATER QUALITY CONTROL REQUIREMENTS AND CENERAL PROHIBITIONS NOTED IN THE DRAINAGE CRITERIA MANUAL VOLUME II, INCLUDING THE 22 PLAN NOTES IN CH. 7.
- 2. NO CLEARING, GRADING, EXCAVATION, FILLING OR OTHER LAND DISTURBING ACTIVITIES SHALL BE PERMITTED UNTIL SIGNOFF AND ACCEPTANCE OF THE GRADING PLAN AND EROSION AND STORMWATER QUALITY CONTROL PLAN IS RECEIVED FROM CITY ENGINEERING.
- 3. THE INSTALLATION OF THE FIRST LEVEL OF TEMPORARY EROSION CONTROL FACILITIES AND BMP'S SHALL BE INSTALLED AND INSPECTED PRIOR TO ANY EARTH DISTURBANCE OPERATIONS TAKING PLACE. CALL CITY STORMWATER INSPECTIONS, 385-5980, 48 HOURS PRIOR TO CONSTRUCTION.
- 4. SEDIMENT (MUD AND DIRT) TRANSPORTED ONTO A PUBLIC ROAD, REGARDLESS OF THE SIZE OF THE SITE, SHALL BE CLEANED IMMEDIATELY.
- 5. CONCRETE WASH WATER SHALL NOT BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
- 6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHAINCIUDE the El Paso County Standard 27 GEC Notes as DISTURBED LAND AREA SHALL BE COMPLETED WITHIN TWENTY-ONE (21) CALENDAR DAYS attached with the checklist R FINAL EARTH DISTURBANCE HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMP'S SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED.
- 7. THE GRADING AND EROSION CONTROL PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE CITY OF COLORADO SPRINGS ENGINEERING SHOULD ANY OF THE FOLLOWING OCCUR: GRADING DOES NOT COMMENCE WITHIN 12 MONTHS OF THE CITY ENGINEER'S ACCEPTANCE OF THE PLAN, A CHANGE IN PROPERTY OWNERSHIP, PROPOSED DEVELOPMENT CHANGES, OR PROPOSED GRADING REVISIONS.
- 8. THE PLAN SHALL NOT CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY LINES. ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE IN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO GRADE WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY COLORADO SPRINGS UTILITIES EASEMENT OR RIGHT-OF-WAY WITHOUT THEIR WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE COST TO RELOCATE OR PROTECT UTILITIES OR TO PROVIDE INTERIM ACCESS IS THE APPLICANT'S EXPENSE.

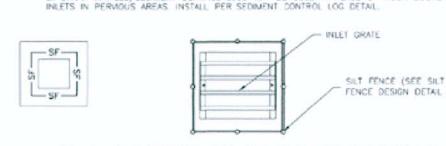


#### IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

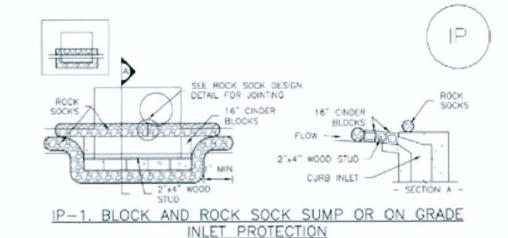
2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR



IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

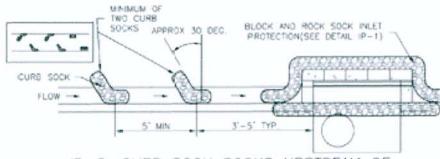
- 1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- 2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES
- 3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1 SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB. J. GRAVEL BAGS SHALL BE PLACED ARDUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP-2, CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

- CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES 1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
- 2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 3D DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
- J. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MININUM OF 5 FEET APART. 4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

GENERAL INLET PROTECTION INSTALLATION NOTES

INLET PROTECTION MAINTENANCE NOTES

1. SEE PLAN VIEW FOR: OCATION OF INLET PROTECTION -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6) INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFOD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION, MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE. EROSION, AND PERFORM NECESSARY MAINTENANCE

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN FFECTIVE OPERATING CONDITION INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BYPA HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON 4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES

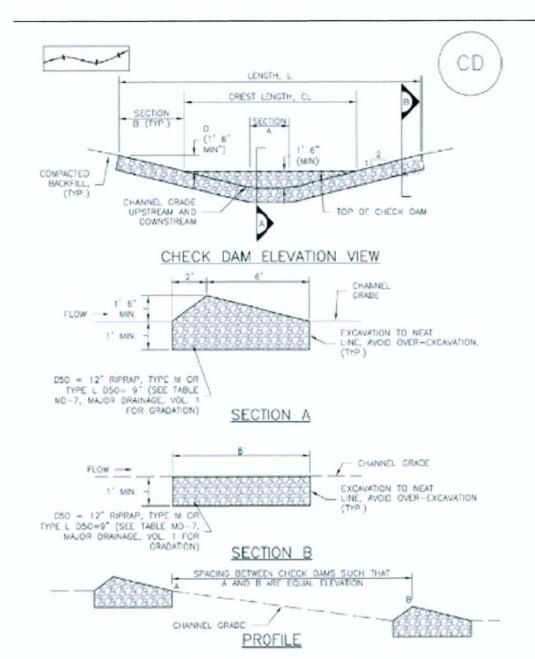
50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR K OF THE HEIGHT FOR 5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED. THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADMPTED FROM TOMM OF PARKER, COLCRADO AND OTY OF AURORA, COLCRADO, NOT AVAILABLE IN AUTOCAG) NOTE, MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET, UDFOD NEITHER ENDORSES MOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWAPP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROMIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.



CD-1. CHECK DAM

CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -LOCATION OF CHECK DAMS. -CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).

-LENGTH (L), CREST LENGTH (CL), AND DEPTH (D). CHECK DAMS INDICATED ON INITIAL SWAIP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES. 3. RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAWS ARE TYPE M (050 12") OR TYPE L (050 9")

4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINMUM OF 1". 5. THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER

### CHECK DAM MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BWPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, FEPAR OR REPLACEMENT SHOULD BE INITIATED UPON

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN & OF THE HEICHT OF THE CREST. 5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. WHEN CHECK DAYS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION. (DETAILS ADAPTED FROM DOUGLAS COUNTY COLDRADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM LIDEOD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN



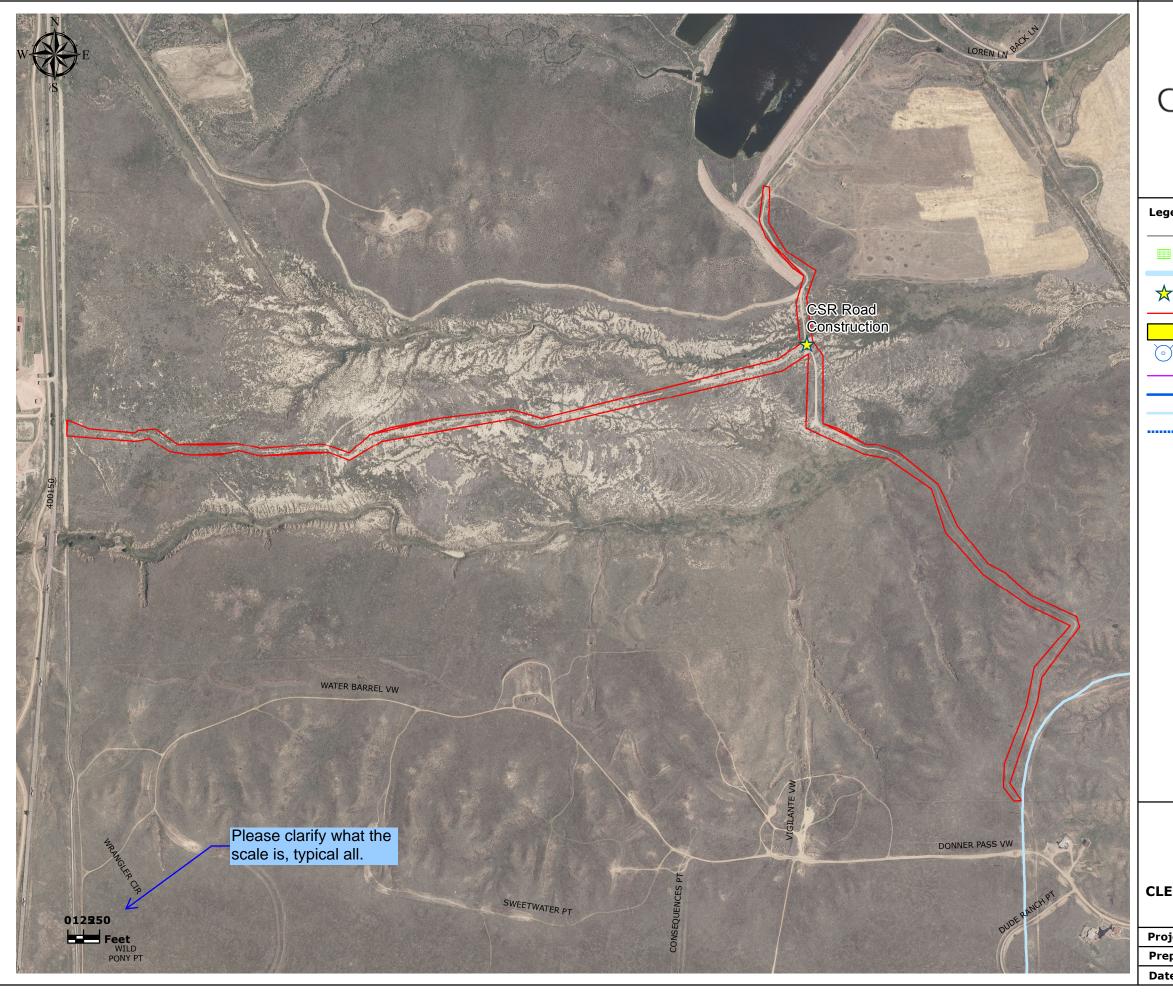
## **ENVIRONMENT, HEALTH, & SAFETY** DEPARTMENT

TECHNICAL SERVICES SECTION P.O. Box 1103, Mail Code 940 COLORADO SPRINGS, CO 80947 (719) 668-8688

## TITLE PAGE **EROSION AND STORMWATER QUALITY CONTROL PLAN**

**Clear Springs Ranch Access Road Fire Break** 

Project No:	See SWMP	Figure
Prepared By:	RSC	1 of 4
Date:	AUGUST 2018	





It's how we're all connected

Environmental Services Department 121 South Tejon Street, Fourth Floor Colorado Springs, Colorado 80903

#### Legend:

Streets

Colorado Springs SW Inlets

Water Way

Construction Project Location

Boundary of Planned Construction Disturbance

Construction Project Impervious Areas

Hydrant

NonPotablePipe

PotablePipe

RawPipe

Existing Water Service Line

## SWMP / ESQCP EXISTING SITE CONDITIONS

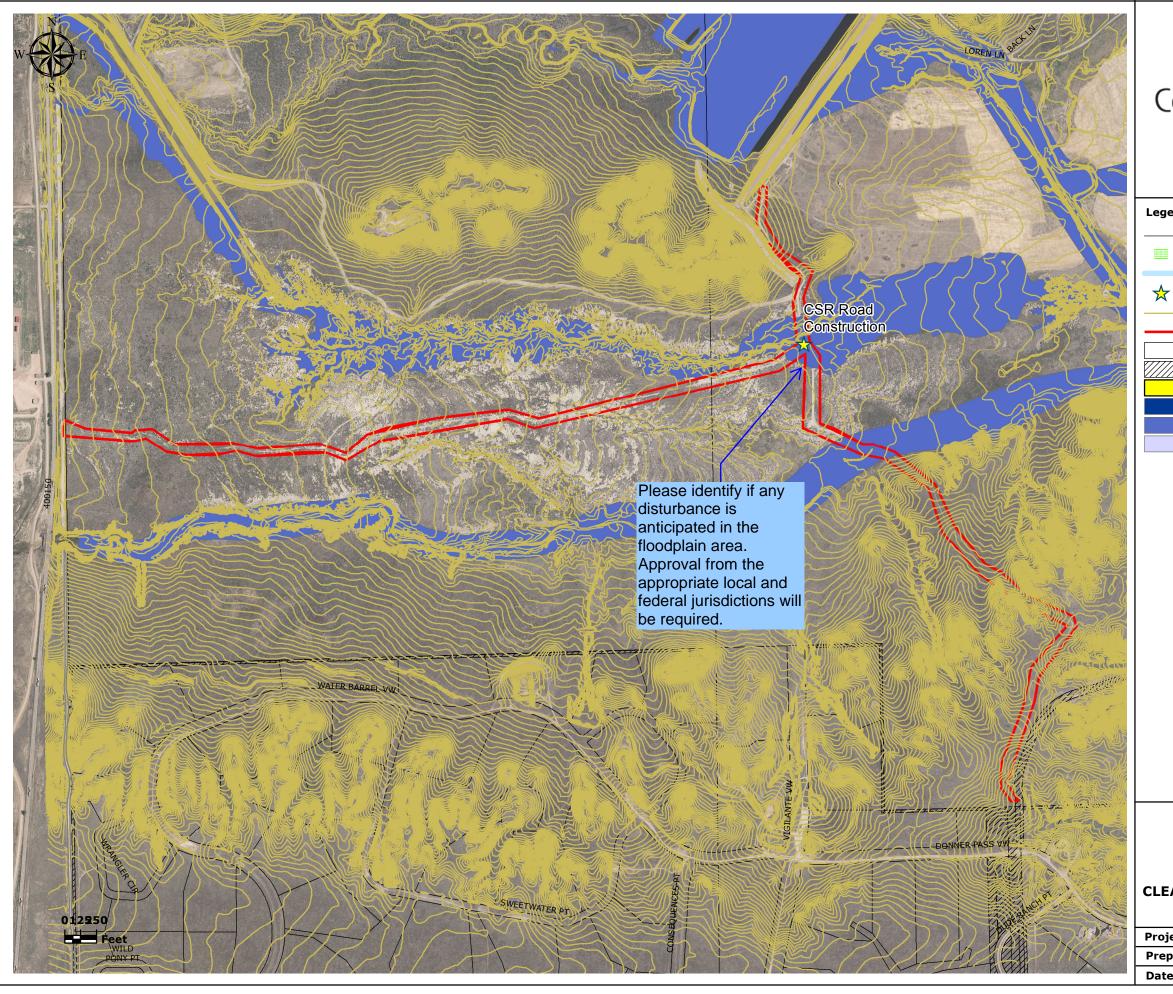
#### CLEAR SPRINGS RANCH ROAD CONSTRUCTION

**Project No:** WO# 3344840

Prepared By: RICHARD SEBASTIAN-COLEMAN

**Date:** AUGUST 2018

Figure Number 2





It's how we're all connected

Environmental Services Department 121 South Tejon Street, Fourth Floor Colorado Springs, Colorado 80903



Please call out the owner of each parcel the road runs through.

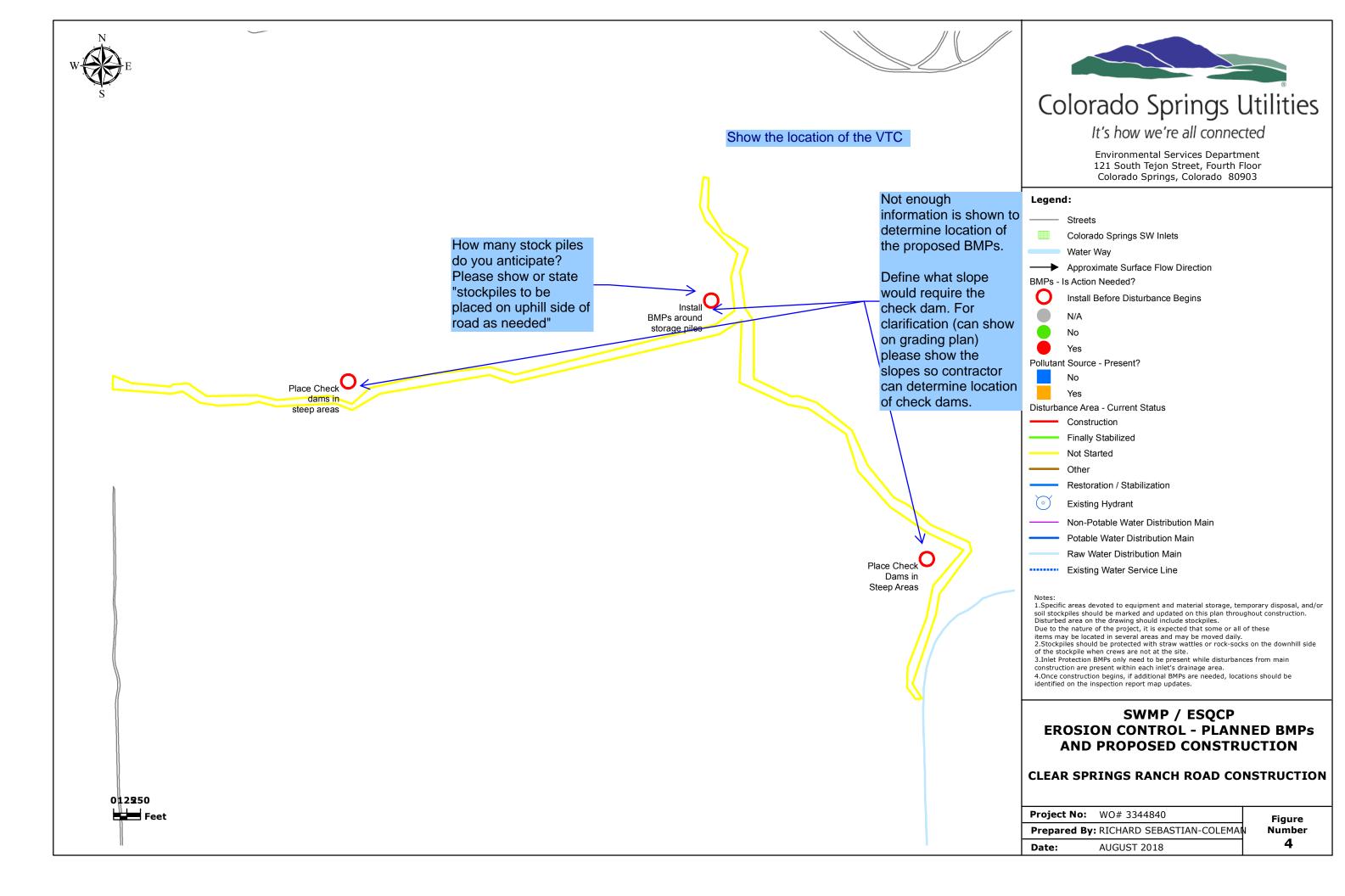
# SWMP / ESQCP PROPOSED SITE CONDITIONS CLEAR SPRINGS RANCH ROAD CONSTRUCTION

**Project No:** WO# 3344840

Prepared By: RICHARD SEBASTIAN-COLEMAN

Date: AUGUST 2018

Figure Number 3



#### Markup Summary

#### dsdgrimm (14)



Subject: Engineer Page Label: 3 Author: dsdgrimm

Date: 10/22/2018 9:15:23 AM

Color:

Separate the existing and proposed contours into two line types



Subject: Line Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 1:28:55 PM

Color:



Subject: Line Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 1:28:59 PM

Color:



PILES WHICH ARE NOT AT FINAL (
3E MULCHED WITHIN 21 DAYS AFTE
TE FOR MORE THAN 60 DAYS SHAL

Subject: Engineer Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 1:29:14 PM

Color:

Include the El Paso County Standard 27 GEC Notes as attached with the checklist



Subject: Engineer Page Label: 3 Author: dsdgrimm

Date: 10/23/2018 1:35:45 PM

Color: ■

Please identify if any disturbance is anticipated in the floodplain area. Approval from the appropriate local and federal jurisdictions will be required.



Subject: Engineer Page Label: 4 Author: dsdgrimm

Date: 10/23/2018 1:42:53 PM

Color:

Not enough information is shown to determine location of the proposed BMPs.

Define what slope would require the check dam. For clarification (can show on grading plan) please show the slopes so contractor can determine location of check dams.



Subject: Engineer Page Label: 4 Author: dsdgrimm

Date: 10/23/2018 1:43:40 PM

Color:

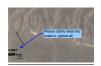
How many stock piles do you anticipate? Please show or state "stockpiles to be placed on uphill side of road as needed"

Subject: Engineer Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 1:46:02 PM

Color:

State that all disturbed areas not within the proposed roadway must be reseeded.



Subject: Engineer Page Label: 2 Author: dsdgrimm

Date: 10/23/2018 1:48:26 PM

Color: ■



Subject: Engineer Page Label: 3 Author: dsdgrimm

**Date:** 10/23/2018 1:56:01 PM

Color: ■

Please call out the owner of each parcel the road runs through.

Please clarify what the scale is, typical all.

ility of a public way, drainage collities, an enterprise of the City to §12–25–103(1), C.R.S. Provide a PE stamp

Subject: Engineer Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 2:01:50 PM

Date 9/19/ Color:

Provide a PE stamp

CONCRET VALUE INVOICE AND A STATE OF THE STATE OF T NUMBER STREET OF STREET IN STREET OF STREET OF

Subject: Engineer Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 2:02:29 PM

Please use county signature blocks attached in checklist

Vehicle Tracking Control

Subject: Engineer Page Label: 1 Author: dsdgrimm

Date: 10/23/2018 2:04:18 PM

losely as possible to its pre-constru Color: Clarify where this is located. Show this on sheet 4.

Subject: Engineer Page Label: 4 Author: dsdgrimm

**Date:** 10/23/2018 8:32:06 AM

Color:

Show the location of the VTC