

This Grading and Erosion Control Plan was prepared under my direction and supervision and is correct to the best of my knowledge and belief. Said plan has been prepared according iteria established by the County for Grading and Erosion Control Plans. I accept responsibility for any about the bar any negligent acts, errors or omissions on my part in preparing this report.

Joseph Houghton, PE# 49694

OWNER'S STATEMENT The Owner will comply with the requirements of the Grading and Erosion Control Plan.

Tim Benedict, Field Engineering Supervisor Color ado Springs Utilities

7710 Durant Drive Colorado Springs CO 80920

County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/ or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/ or accuracy of this document.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual, Volumes 1 and 2, and Engineering Criteria Manual as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years. the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion. Please change to

Joshua Palmer, P.E.

Jennifer Irvine, P.E.

County Engineer / ECM Administrator

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

TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED OR GRADED: NAME OF RECEIVING WATERS:

3.4 acres East Fork of Sand Creek, discharging to Sand Creek which discharges to

Fountain Creek SOILS INFORMATION:

Blendon Sandy Loam (0-3% slopes), Blakeland Loamy Sand (1-9% slopes)

[NRCS Soil Survey]

EPC STORMWATER REVIEW COMMENTS ARE SHOWN IN ORANGE BOXES WITH BLACK TEXT

September 1, 2022

June 30, 2023

SUBDIVISION NAME: N/A.

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

 $\max 30 \text{ bags x } $3/\text{unit} = 90

Seiment Control Log 1,500 ft x \$3/LF = \$4,500

Street Sweeping 15 days * \$220/day = \$3,300 (Assume three times a week during construction) Vehicle Tracking 1 Tracking Pad * \$1,800/pad = \$1,800 for VTC

Restoration max 1 acre * \$2,900/acre = \$2,900 for Hydrseeding/mulching/tackifier

Subtotal = \$12,590

Subtotal x 40% Maintenance of CONTROL MEASURES = \$5,036

Total = \$17,626

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: Figures 2-4

LOCATION OF PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES: Figures 2-4

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

EMERGENCY OVERFLOW SWALES: N/A

FLOW ROUTE - FLOW THROUGH AND OVERFLOW OF PERMANENT CONTROL MEASURES AND TEMPORARY SEDIMENT BASINS: Figure 4

DETAIL DRAWINGS OF PERMANENT CONTROL MEASURES: Appendix 3 to the SWMP

Date

8/3/22

8/4/12

Fueling of equipment may occur along the project route; fueling guidelines are included in the SWMP. Approximately 13% of the disturbance area is within the designated 100-year floodplain.

GENERAL NOTES

1. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or offsite waters, including

2. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage

Criteria Manual Volume 2. Any deviations to regulations and standards must be requested, and approved, in writing. 3. A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SWMP is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector and shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.

4. Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff. 5. Control measures must be installed prior to commencement of activities that may contribute pollutants to stormwater. Temporary sediment and erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be completed immediately upon completion of the disturbance.

6. All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures is needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan prior to implementation.

7. Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days. An area that is going to remain in an interim state for more than 60 days shall also be stabilized.

8. Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plan density of 70 percent of predisturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.

9. All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.

10. Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.

11. Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control shall also be protected from sedimentation during construction until final stabilization is achieved.

12. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site. 13. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.

14. During dewatering operations, uncontaminated groundwater may be discharged on-site, but shall not leave the site in the form of

surface runoff unless an approved State dewatering permit is in place. 15. Erosion control blanketing is to be used on slopes steeper than 3:1.

16. Building, construction, excavation, or other waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. BMP's may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances. 17. Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly

disposed of immediately. 18. Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried,

dumped, or discharged at the site. 19. The owner, site developer, contractor, and/or their authorized agents shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance system and stormwater

appurtenances as a result of site development. 20. The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with

original manufacturer's labels. 21. No chemicals are to be used by the contractor, which have the potential to be released in stormwater unless permission for the use of a specific chemical is granted in writing by the ECM Administrator. In granting the use of such chemicals, special conditions and

22. Bulk storage of petroleum products or other liquid chemicals in excess of 55 gallons shall have adequate secondary containment protection to contain all spills and prevent any spilled material from entering State Waters, including any surface or subsurface storm

drainage system or facilities. 23. No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter or in the ditch flow line. 24. Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.

25. All construction traffic must enter/exit the site at approved construction access points. 26. Prior to actual construction the permitee shall verify the location of existing utilities.

Stockpile Management (SM)

27. A water source shall be available on site during earthwork operations and utilized as required to minimize dust from earthwork

equipment and wind. 28. The soils report for this site has been prepared by National Resources Conservation Service and shall be considered a part of these

29. At least ten (10) days prior to the anticipated start of construction, for projects that will disturb 1 acre or more, the owner or

operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this grading and erosion control plan may be a part. For information or application materials contact: Color ado Department of Public Health and Environment

Water Quality Control Division WQCD - Permits

4300 Cherry Creek Drive South

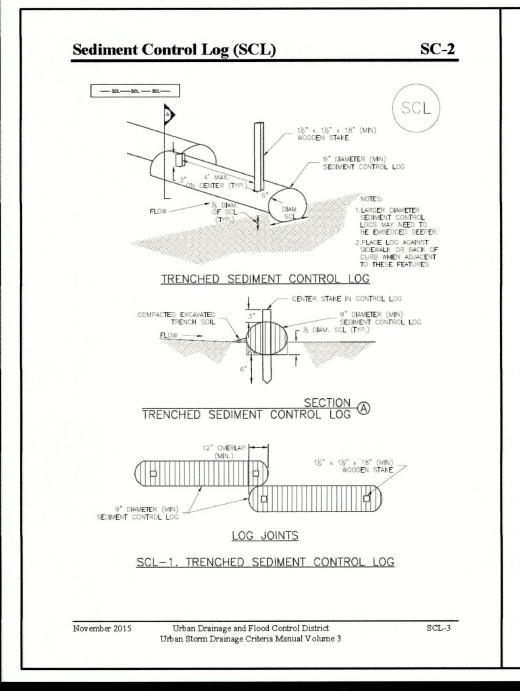
Denver, CO 80246-1530

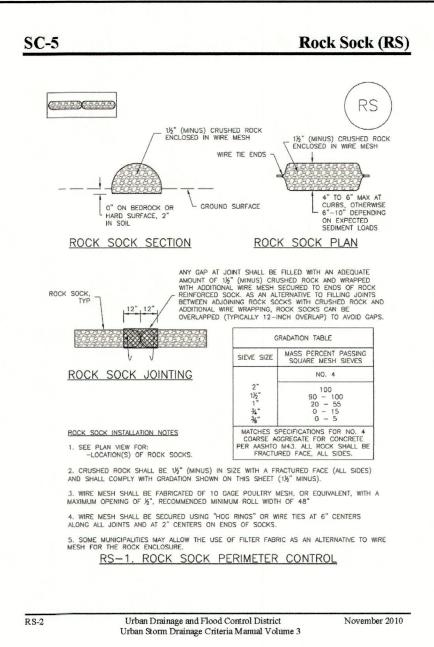
MM-2

Attn: Permits Unit

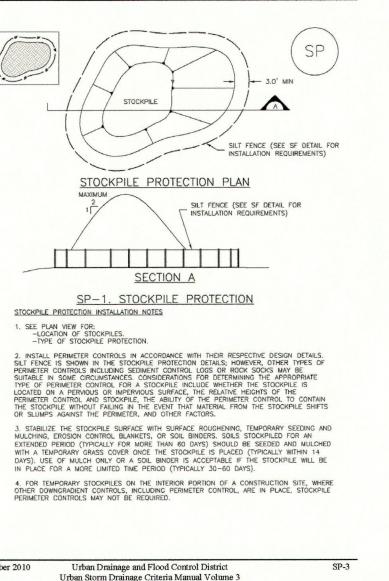
MM-2

Additional erosion control details on maintenance and installation are located in Attachment 4 to the SWMP/GESQCP Narrative

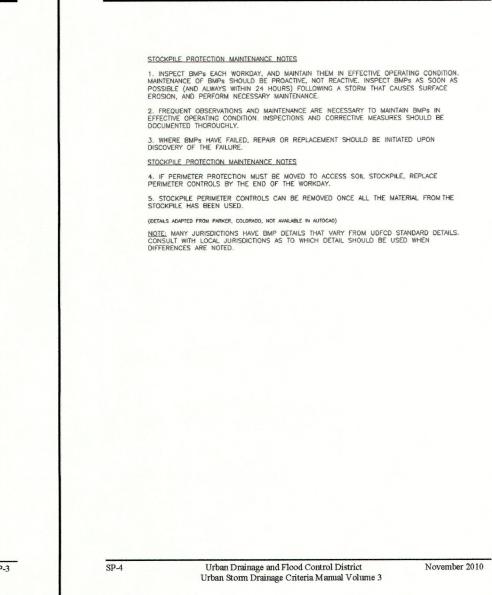








Stockpile Management (SP)





Peterson Rd and

Seeding details.

ENVIRONMENTAL SERVICES DEPARTMENT

It's how we're all connected

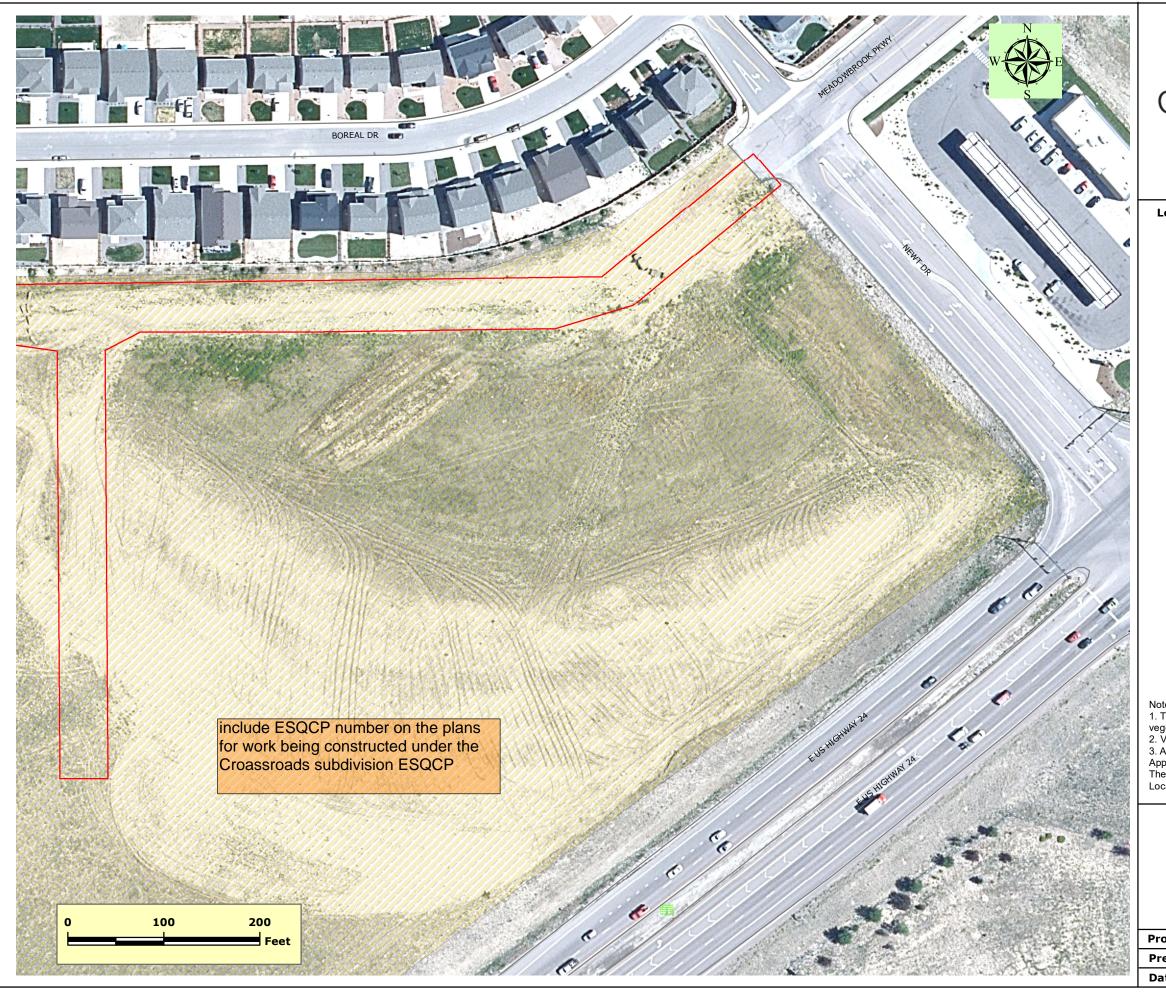
TECHNICAL SERVICES SECTION P.O. Box 1103, Mail Code 940 COLORADO SPRINGS, CO 80947 (719) 668-8426

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

Aura at Crossroads Electric and Gas Main Installation

PCD Filing No: CDR-22-013 **Figure** Prepared By: JPH of 5 June 2022 Date:

Please include date of





It's how we're all connected

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

Legend:

Construction Project Location



Boundary of Planned Construction Disturbance

Crossroads GEC Plan Area

- Notes:

 1. The Eastern half of the project area has been recently graded and had no vegetation. It is shown as developer graded area.

 2. Vegetation in the disturbance area consists of mostly grasses and weeds.

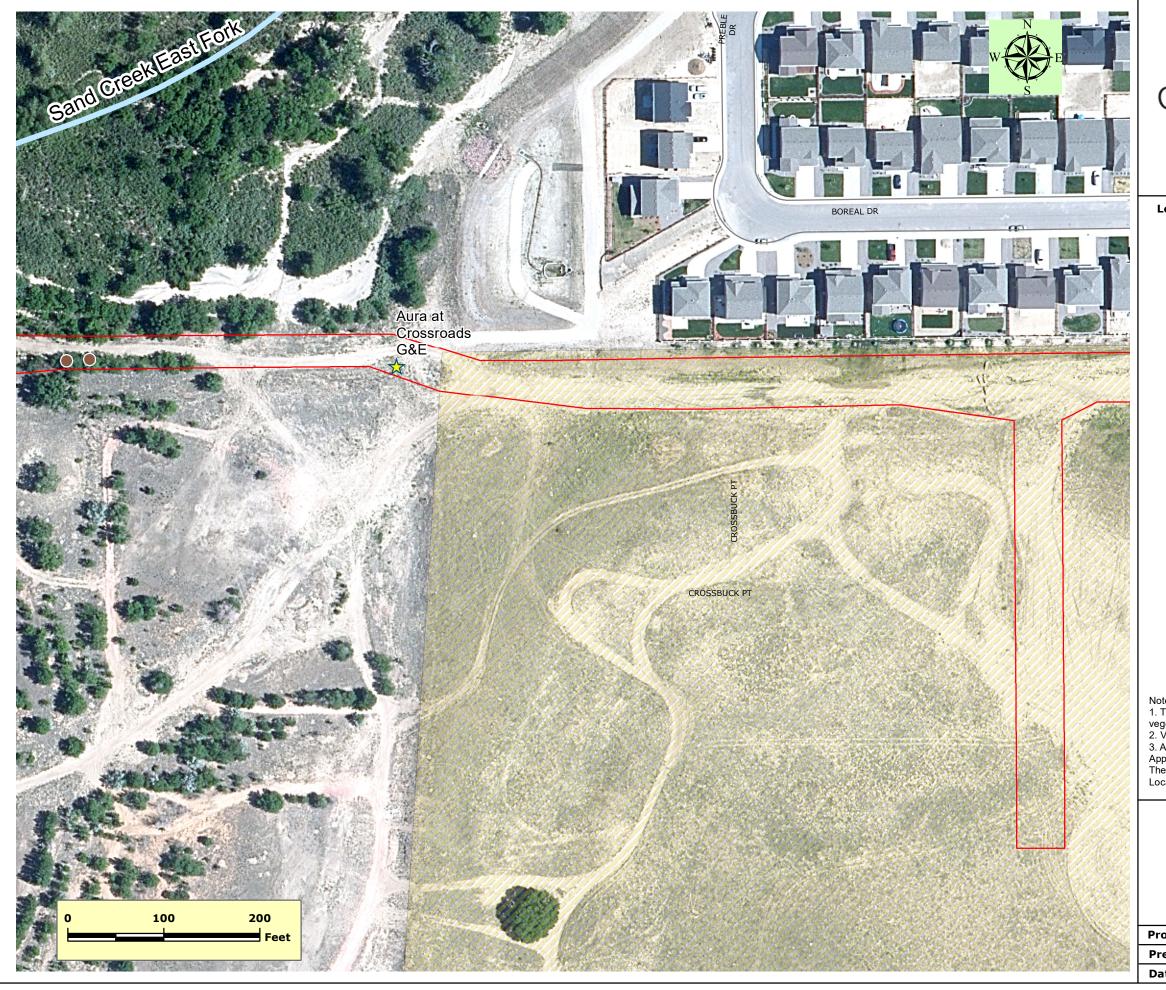
 3. A stand of trees exists within the disturbance area. Most will be left alone. Approximately 4 trees will be removed from the alignment.
- The property owner supports the removal of these trees.

Location of trees shown on the Figure

SWMP/ESQCP EXISTING SITE CONDITIONS

Aura at Crossroads G&E

Project No: PCD File No.: Figure Prepared By: J HOUGHTON Number JUNE 2022 2 East





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

Legend:

clarify what this means Construction Project Location

Please

Boundary of Planned Construction Dieturbance

Crossroads GEC Plan Area

- Notes:

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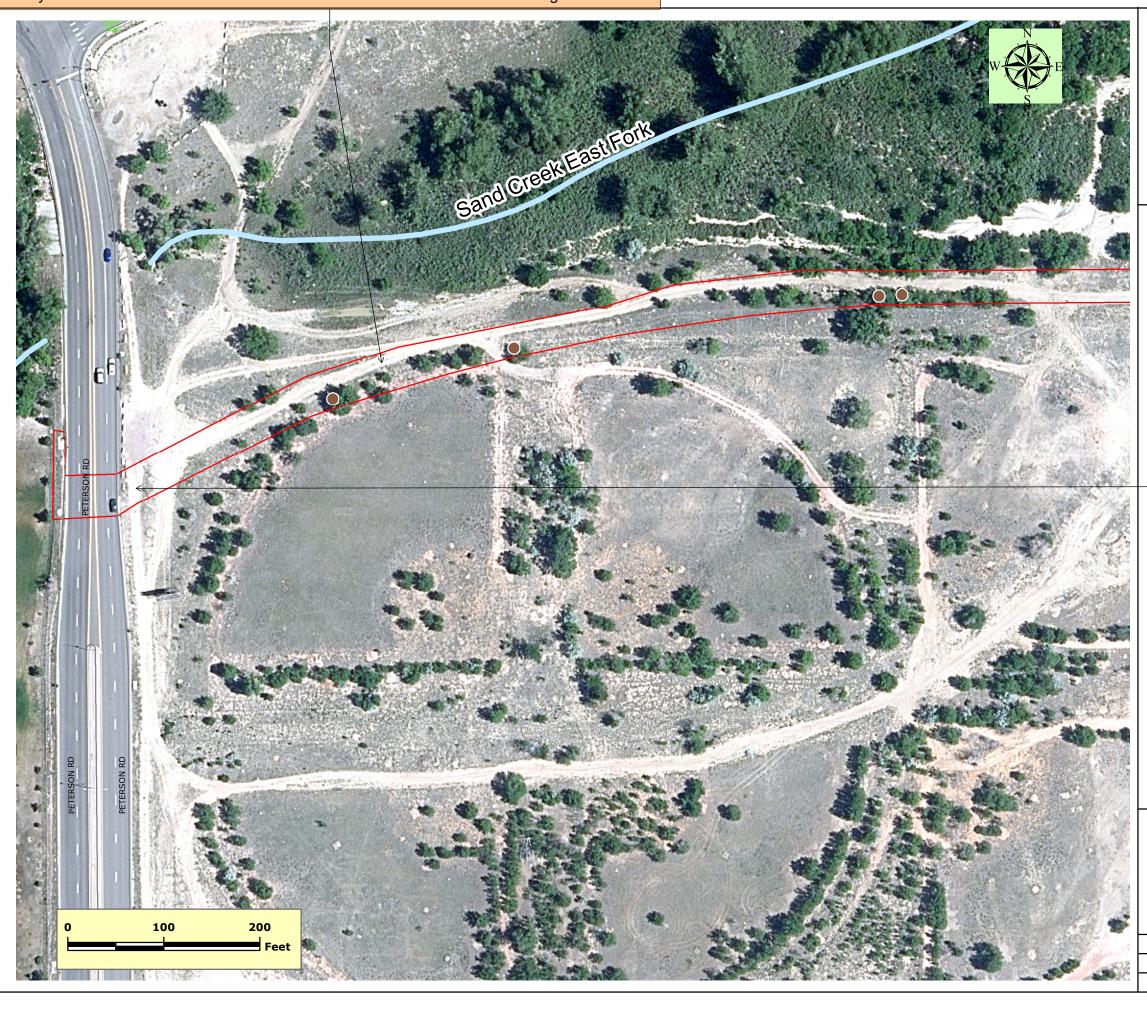
Location of trees shown on the Figure

SWMP/ESQCP EXISTING SITE CONDITIONS

Aura at Crossroads G&E

Project No: PCD File No.: Prepared By: J HOUGHTON JUNE 2022

Figure Number 2 Central Clarify if this a trail that will need to be reestablished or if it be seeded following construction?





Colorado Springs Utilities

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Legend:

Streets

Ⅲ ∧

Construction Project Location



Boundary of Planned Construction Disturbance-



Crossroads GEC Plan Area

Will there be access made available to the construction site via Peterson Rd? If not, construction fencing, barricades, and signage should be provided at access points not to be used for construction.

Otherwise, install a VTC and provide BMP detail.

Notes

- 1. The Eastern half of the project area has been recently graded and had no vegetation. It is shown as developer graded area.
- 2. Vegetation in the disturbance area consists of mostly grasses and weeds.

 3. A stand of trees exists within the disturbance area. Most will be left alone.

 Approximately 4 trees will be removed from the alignment.
- The property owner supports the removal of these trees.

Location of trees shown on the Figure

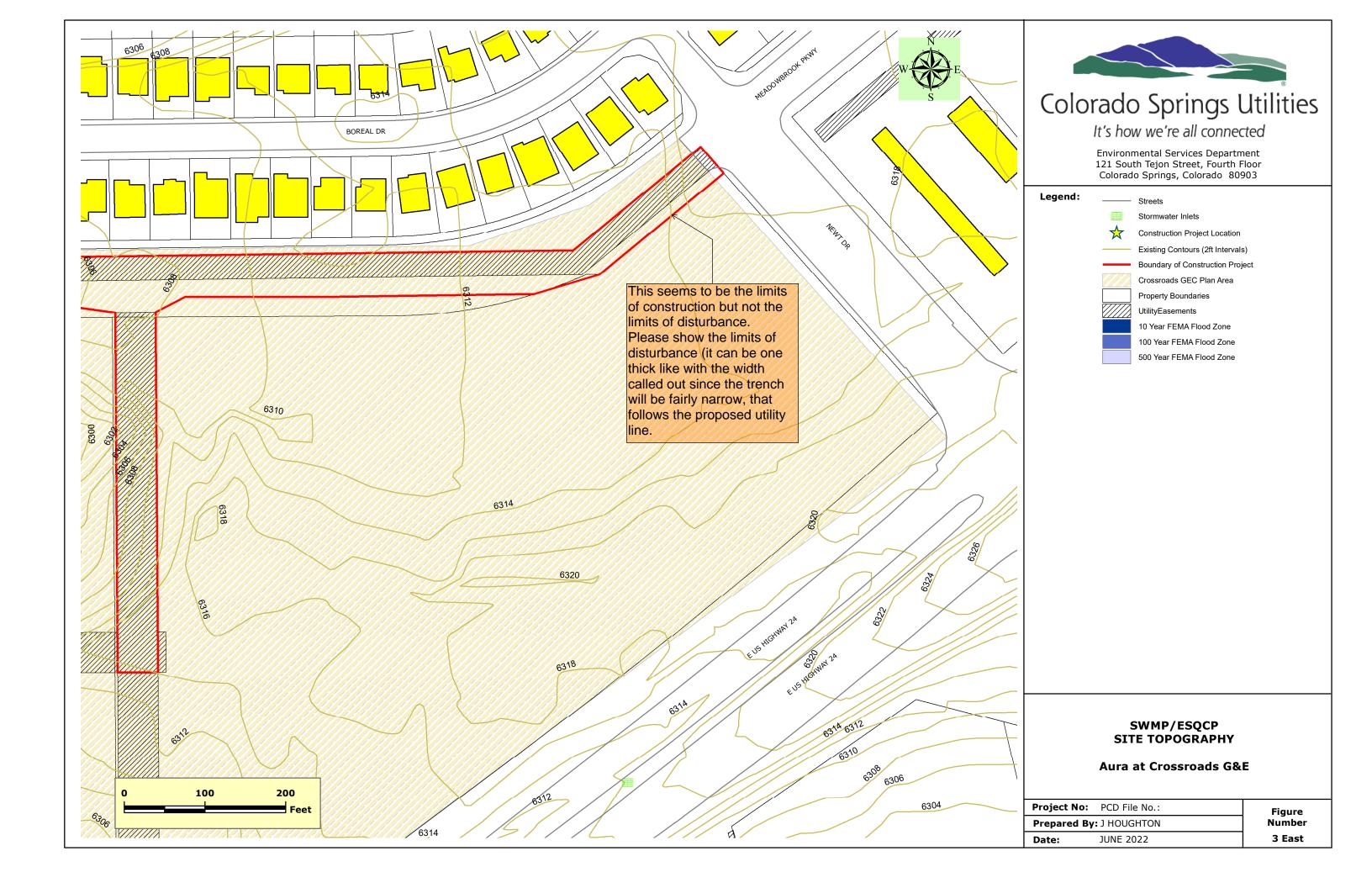
SWMP/ESQCP EXISTING SITE CONDITIONS

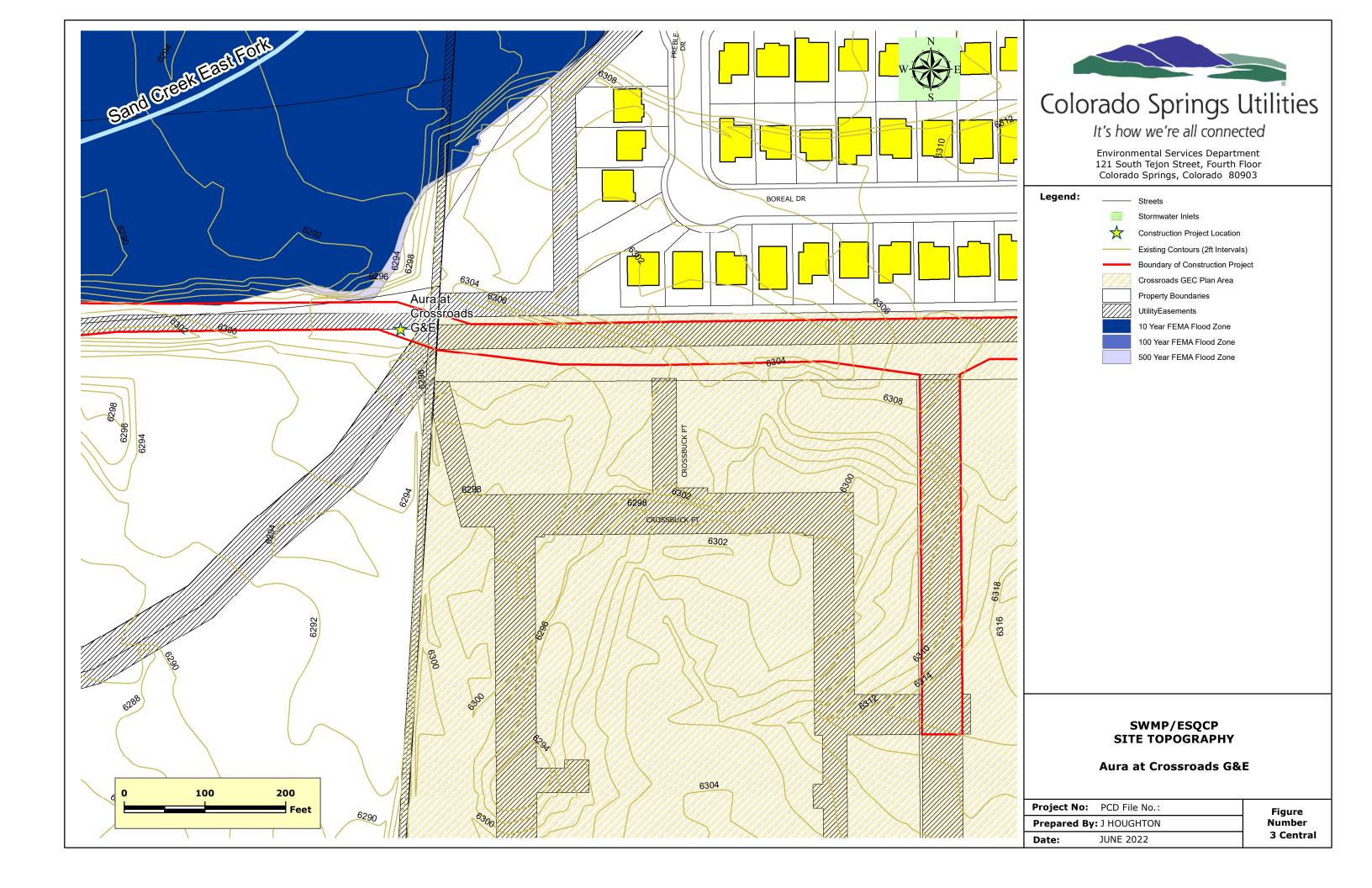
Aura at Crossroads G&E

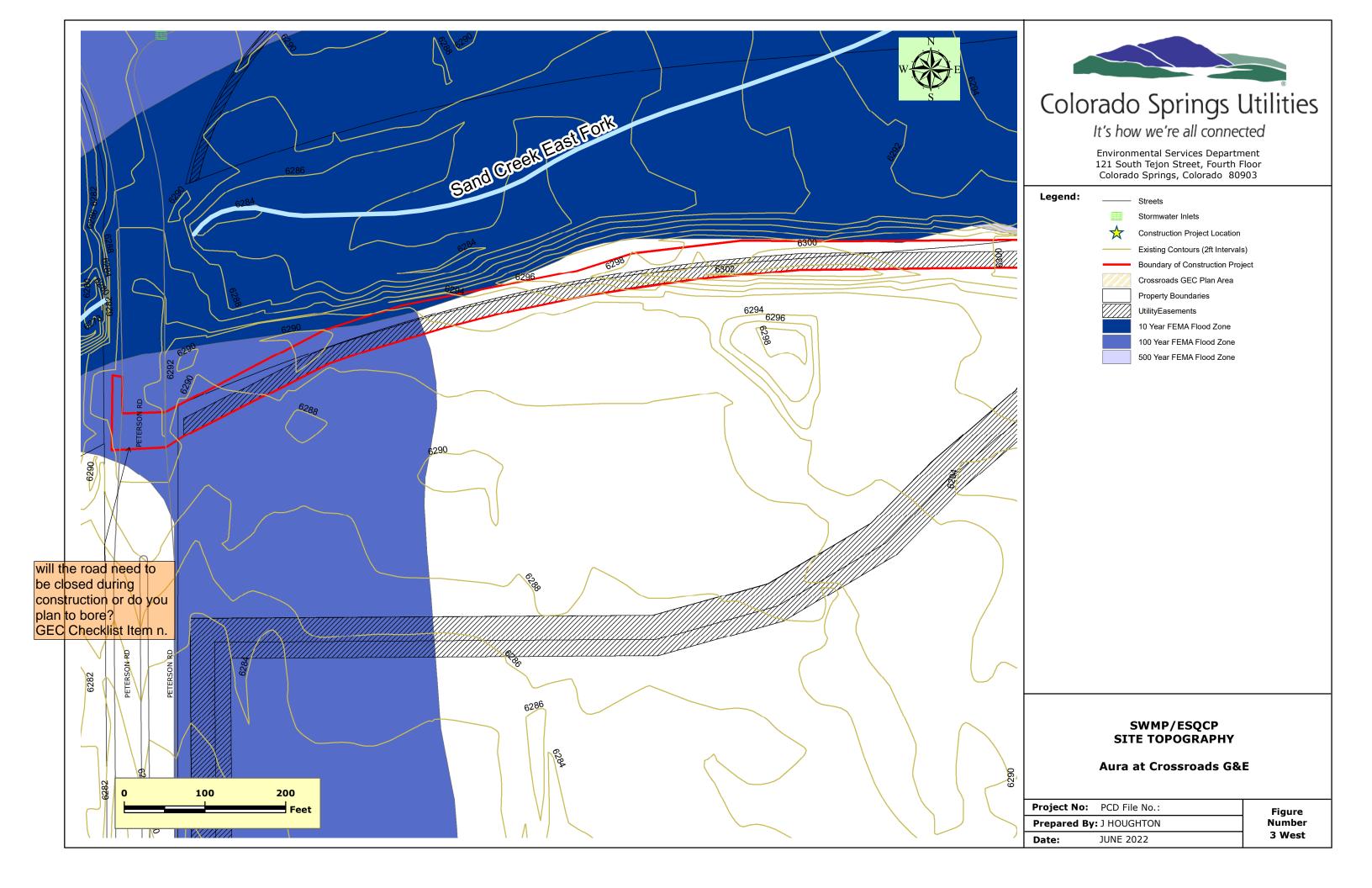
Project No: PCD File No.:
Prepared By: J HOUGHTON

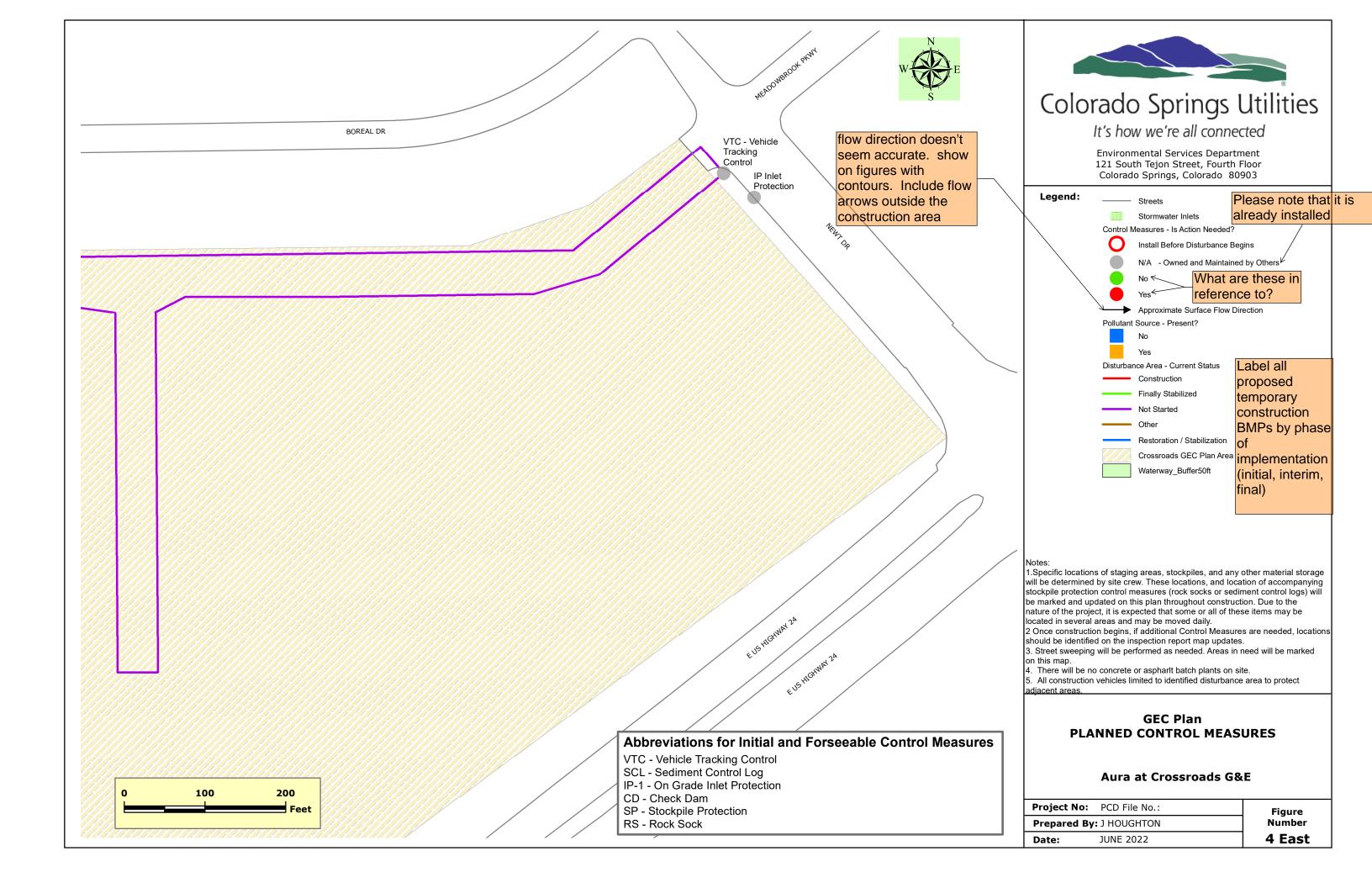
Date: JUNE 2022

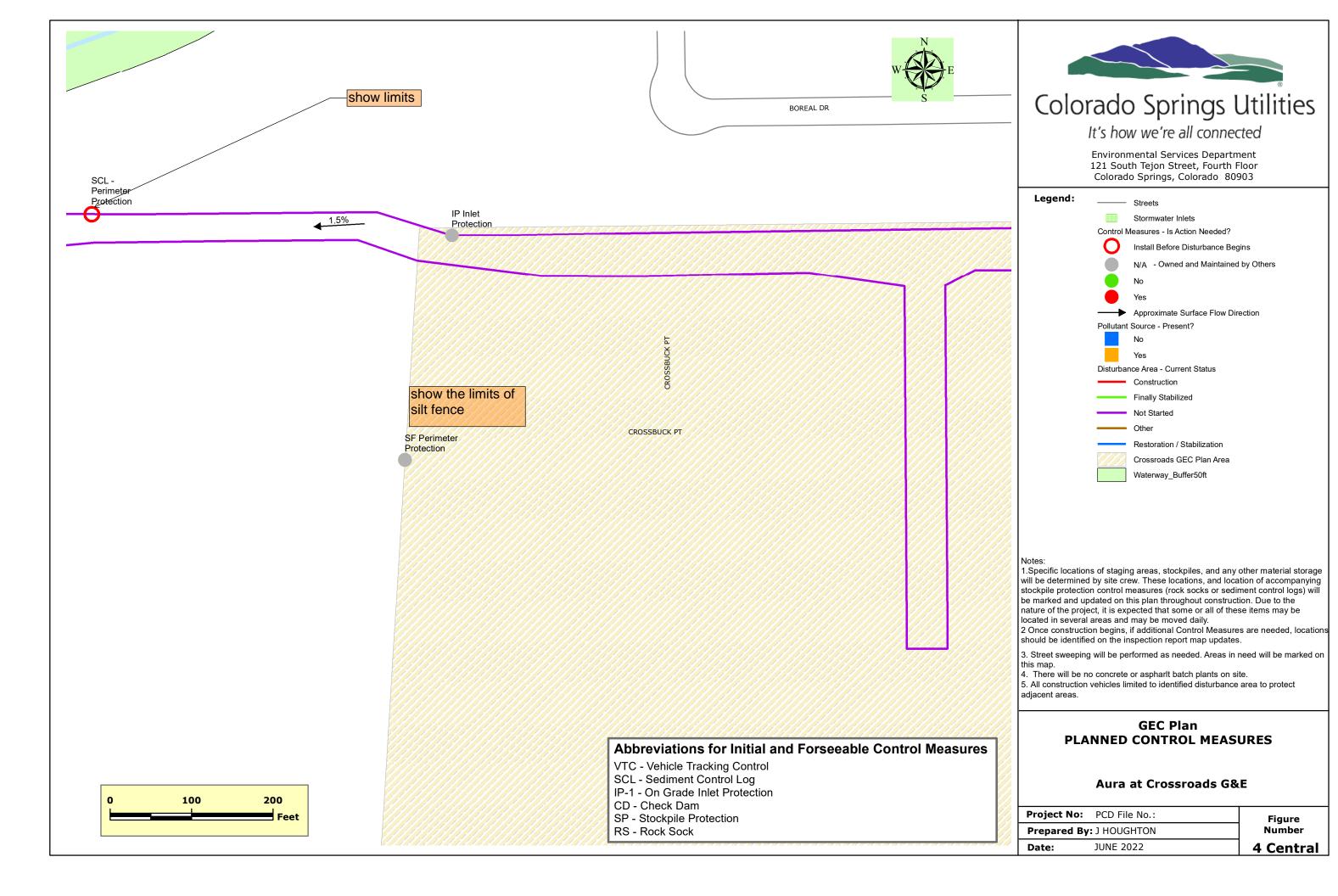
Figure Number 2 West

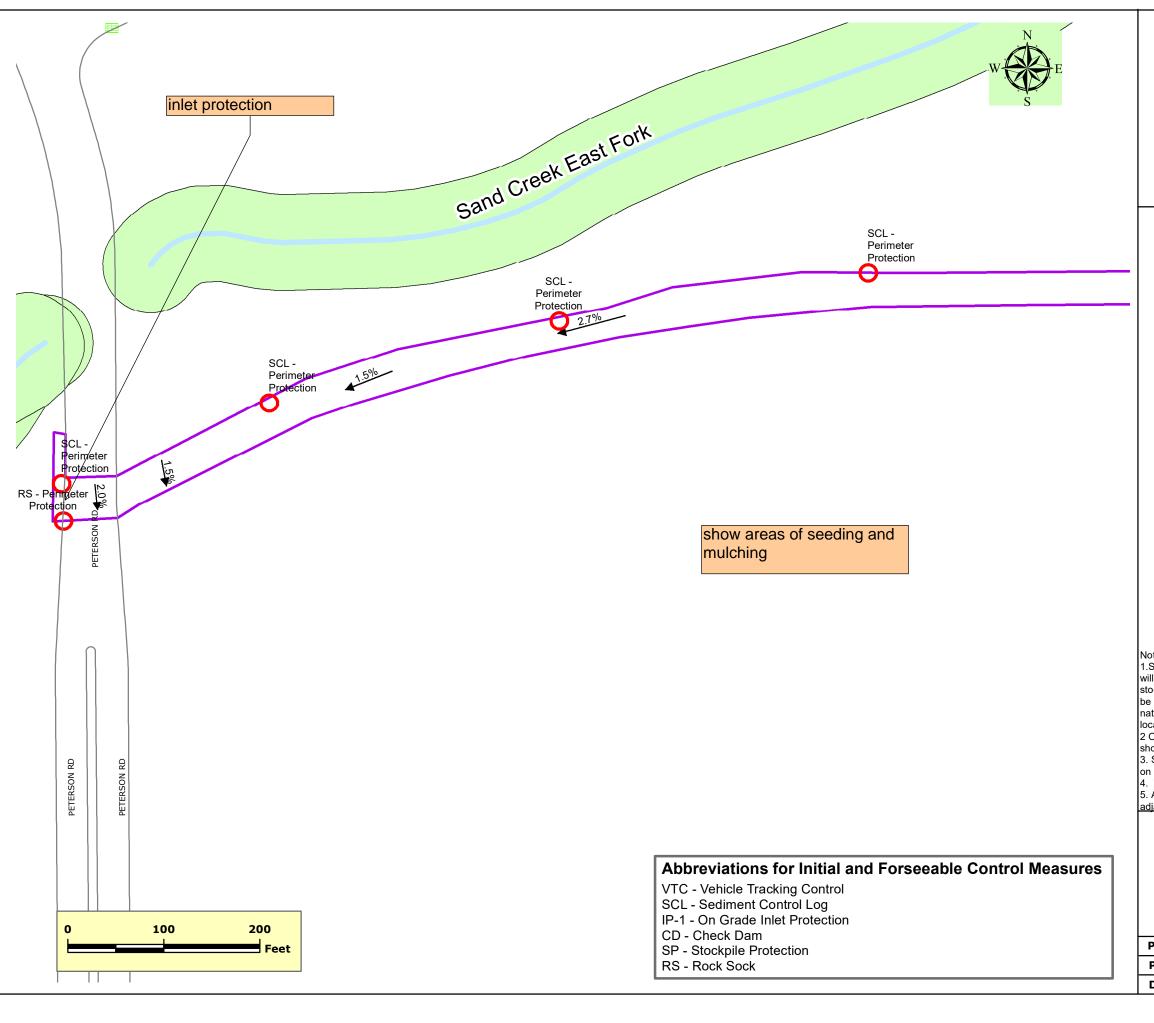














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Legend:

Stormwater Inlets

Control Measures - Is Action Needed?

Install Before Disturbance Begins N/A - Owned and Maintained by Others

Approximate Surface Flow Direction

Pollutant Source - Present?

Disturbance Area - Current Status

Construction Finally Stabilized

Not Started

Other

Restoration / Stabilization

Crossroads GEC Plan Area

Waterway Buffer50ft

- 1. Specific locations of staging areas, stockpiles, and any other material storage will be determined by site crew. These locations, and location of accompanying stockpile protection control measures (rock socks or sediment control logs) will be marked and updated on this plan throughout construction. Due to the nature of the project, it is expected that some or all of these items may be located in several areas and may be moved daily.
- 2 Once construction begins, if additional Control Measures are needed, locations should be identified on the inspection report map updates.
- 3. Street sweeping will be performed as needed. Areas in need will be marked
- There will be no concrete or aspharlt batch plants on site
 All construction vehicles limited to identified disturbance area to protect adjacent areas

GEC Plan PLANNED CONTROL MEASURES

Aura at Crossroads G&E

Project No: PCD File No.: Figure Prepared By: J HOUGHTON Number JUNE 2022 4 West

