

**CONSTRUCTION STORMWATER MANAGEMENT PLAN:
LOTS 3, 4, AND 5 NORTHCREST CENTER FILING NO 2
PHASE 1 SUBDIVISION
“NORTHCREST CENTER”**

**NORTHWEST CORNER OF
CONSTITUTION AVE & CANADA DR.
COLORADO SPRINGS, COLORADO
80922**

**PREPARED FOR: LEISURE CONSTRUCTION
3443 TAMPA ROAD, SUITE B
PALM HARBOR, FL 34684
(727) 242-5121**

QUALIFIED STORMWATER MANAGER: CONTRACTOR –TBD

EPC PROJECT NO. PPR-21-036

October 18, 2021

PREPARED BY

SCOTT MARVEL, P.E.

ROCKY MOUNTAIN GROUP

2910 AUSTIN BLUFFS PKWY. | COLORADO SPRINGS, CO 80918 | 719-434-5638



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1.0 CONTACT INFORMATION

Owner/Developer:

Leisure Construction

Address: 3442 Tampa Road, Suite B
Palm Harbor, FL 34684

Phone: (727) 242-5121

GEC Admin/QSM: Contractor – TBD

Professional Engineer:

Scott Marvel (PE #52138)

Address: 2910 Austin Bluffs Parkway
Colorado Springs, CO 80918

Phone: (303) 688-9475

2.0 SUBDIVISION NAME

The subdivision name as it appears on the Final Subdivision Plat and on the City Assessor's website is entitled:

Northcrest Center Filing No 2 Phase 1

The legal description is:

Lots 3, 4, and 5 Northcrest Center Filing No 2 Phase 1 Subdivision

3.0 SIGNATURE BLOCKS

Engineer's Statement

This CSWMP 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 CSWMP, 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.

Printed Name: _____ Date: _____

Phone Number: _____

Seal:

Contractor's Statement

I will comply with the requirements of the Grading and Erosion Control Plan/CSWMP including Construction Control Measure inspection requirements and final stabilization requirements. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Name of Contractor: _____

Authorized Signature: _____ Date: _____

Title: _____

Phone Number: _____

Address: _____

Email Address: _____

Owner's Statement

The owner will comply with the requirements of the City Stormwater Management Plan including Construction Control Measure inspection requirements and final stabilization requirements according to the City of Colorado Springs Stormwater Construction Manual. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Owner Signature: _____ Date: _____

Name of Owner: _____ Phone: _____

Title: _____ Email: _____

City of Colorado Springs Grading and Erosion Control Review

This CSWMP is filed in accordance with City Code. This plan is reviewed in accordance with the Stormwater Construction Manual; latest revisions.

_____ Date: _____

For the SWENT Manager

Notes: _____

4.0 ADJACENT AREAS

Lots 3, 4 and 5 are surrounded by single-family homes to the north commercial properties to the west, east and south as a part of the Northcrest Center Subdivision with Bismark Road as frontage to the north, Canada Drive to the west and Constitution Drive to the south. All adjacent lots and roadways, including the west lot addressed 6805 Bismark Road, are not expected to have significant impacts due to this construction. There are no streams in the vicinity of the property.

5.0 CONSTRUCTION PHASING

The site of interest will not have a land disturbance area greater than 30 acres therefore the project will be constructed in one phase, and will not use construction phasing.

Project phasing activities shall be sequenced to limit the amount of disturbed area at any given time, to the extent practical. Follow typical phased BMP installation from Mile High Flood District (MHFD) Construction phasing/Sequencing Document (SM-1).

Typical project phasing will involve:

1. Pre-disturbance & Site Access
 - a. Establish sediment controls downgradient of access points
 - b. Establish vehicle tracking control at entrances to paved streets
 - c. Install construction fencing to define project boundary.
2. Site Clearing & Grubbing
 - a. Install perimeter controls
 - b. Limit disturbance to areas planned for disturbance and protect undisturbed areas within the site (construction fencing, flagging, etc.)
 - c. Preserve vegetative buffer at site perimeter
 - d. Create stabilized staging area
 - e. Locate portable toilets on flat surfaces away from drainage paths. Stake in areas susceptible to high winds.
 - f. Construct concrete washout area and provide signage
 - g. Establish waste disposal areas
 - h. Install sediment basins
 - i. Create dirt perimeter berms and/or brush barriers during grubbing and clearing
 - j. Separate and stockpile topsoil, leave roughened and/or cover
 - k. Protect stockpiles with perimeter control BMPs. Stockpiles should be located away from drainage paths and should be accessed from the upgradient side so that perimeter controls can remain in place on the downgradient side. Use erosion control blankets, temporary seeding, and/or mulch for stockpiles that will be inactive for an extended period
 - l. Leave disturbed area of site in a roughened condition to limit erosion. Consider temporary revegetation for areas of the site that have been disturbed but that will be inactive for an extended period

- m. Leave disturbed area of site in a roughened condition to limit erosion. Consider temporary revegetation for areas of the site that have disturbed but that will be inactive for an extended period.
 - n. Water to minimize dust but not to the point that watering creates runoff
- 3. Utility and Infrastructure Installation
 - a. In addition to the above BMPs,
 - b. Close trenches as soon as possible (generally at the end of the day)
 - c. Use rough-cut street control or apply road base for streets that will not be promptly paved
 - d. Provide inlet protection as streets are paved and inlets are constructed
 - e. Protect and repair BMPs, as necessary
 - f. Perform street sweeping as needed
- 4. Building Construction
 - a. In addition to the above BMPs,
 - b. Implement materials management and good housekeeping practices for home building activities
 - c. Use perimeter controls for temporary stockpiles from foundation excavations
 - d. For lots adjacent to streets, lot-line perimeter controls may be necessary at the back of curb
- 5. Final Grading
 - a. In addition to the above BMPs,
 - b. Remove excess or waste materials
 - c. Remove stored materials
- 6. Final Stabilization
 - a. Seed and mulch/tackify
 - b. Seed and install blankets on steep slopes
 - c. Remove all temporary BMPs when site has reached final stabilization

6.0 SOILS

The soils indicative to the site are classified as Truckton sandy loam by the USDA Soil Conservation Service and are listed as NRCS (National Resources Conservation Service) Hydrologic Soil Group A. A USDA Soil Map is provided in the Appendix. A more detailed soil description via investigative soil borings and their associated reports is in the Section 7.0.

The existing site vegetation consists of native grasses and has been identified via site visits and aerial photography. The existing site has approximately 1.5% impervious material with the rest vegetated.

7.0 SOIL BORINGS/TESTS AND GROUNDWATER

A subsurface soils investigation was conducted for Commercial Development Site Constitution and Peterson and a letter was developed entitled *Geotechnical Report* by RMG – Rocky Mountain Group dated February 23, 2021. The investigation “revealed similar substance subsurface soil conditions across the site, being primarily silty sand extending from the ground surface to the extent of the test borings. Neither expansive clay soil nor bedrock were encountered in the borings.”

The study found that “groundwater was not encountered in the test borings during field exploration.”

The Natural Resources Conservation Service (NRCS) Websoil Survey website was used to evaluate soil erosion potential. The erosion factor K was reviews to evaluate the susceptibility of the soil to sheet and rill erosion by water. Factor K is one of the factors used in the Soil Loss Equations to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. Values of K range from 0.02 to 0.69 with higher values being more susceptible to sheet and rill erosion by water.

The site specific K value for whole soil reported a value of 0.28 which is in the 38% percentile of erosion potential. Uncontrolled stormwater discharges could have adverse effects on erosion and sediment control and should be controlled.

8.0 OWNER INSPECTIONS AND MAINTENANCE OF CONSTRUCTION CONTROL MEASURES

The Qualified Stormwater Manager (QSM) is to be familiar with all requirements of the erosion and sediment control plans and notes. The contractor shall protect the existing structures and reroute any runoff as necessary during construction activities to prevent erosion and damage. All exposed and unworked soils shall be stabilized by suitable application of best management practices such as vegetative cover, mulching, plastic covering or application of gravel surfaces in areas to be graveled. No exposed and unworked soils shall remain unstabilized. Once construction activity is completed, permanent seeding shall be installed. All temporary and permanent erosion and sediment control facilities shall be inspected, maintained, and repaired by the contractor as needed to assure continued performance of their intended use. All on-site erosion and control measures shall be inspected by the QSM at least once every seven days and within 24 hours of any storm event equal to or greater than 0.25” of rain per 24-hour period or snowmelt event that causes surface erosion. An inspection report file shall be maintained by the contractor and kept on site. The owner is responsible for inspection and maintenance of control measures after final stabilization.

9.0 GEC ADMINISTRATOR CERTIFICATION & QUALIFIED STORMWATER

MANAGER

A certificate of completion for City-sponsored Stormwater Management and Erosion Control During Construction class or approved equivalent is to be included in the submitted documents prior to issuance of a permit.

10.0 CONSTRUCTION GENERAL PERMIT – SWMP CONTENTS

10.1 DESIGNATION OF A QUALIFIED STORMWATER MANAGER

The QSM is to be the contractor & GEC Admin to be sufficiently qualified for the required duties per the ECM Appendix I.5

10.2 SPILL PREVENTION AND RESPONSE PLAN

No chemicals or other polluting materials are required for this project and will not be allowed on site. Fueling and minor maintenance of vehicles or equipment may be allowed only in stabilized staging areas which are identified in the GEC Plan. No major maintenance of vehicles or equipment is to be performed on site.

Any spills that occur are to be addressed according to the requirements of Colorado Department Public Health and Environment, Hazardous Materials and Waste Management Division.

No groundwater and/or stormwater dewatering activities are proposed or expected for the proposed construction activities.

This project does not anticipate use of a dedicated asphalt/concrete batch plant, or masonry mixing stations on-site.

10.3 MATERIALS HANDLING

The project will consist of clearing and grubbing within the disturbance limits after implementation of perimeter controls such as sediment control logs at the initial stage. Road grading is not a part of the scope of this project. Final grading and stabilization may take place after the hardscape installations are in place. All control measures are to remain until permanent stabilization is completed and construction is finished.

Concrete trucks are expected on-site and shall have access to a dedicated concrete washout area to control discarded concrete.

Portable toilets are expected on-site and shall be installed on flat surfaces away from drainage paths. Stake down portable toilets in areas susceptible to high winds.

Dedicated non-industrial waste collection is required for trash disposal including trash cans or dedicated collection bins.

Any waste disposal is to be done off-site at the designation of the contractor at a location approved by the City of Colorado Springs. Waste disposal, spill prevention, and response procedures are to be according to CDPHE and City of Colorado Springs standards.

10.4 DESCRIPTION OF POTENTIAL POLLUTANTS

The development of the project will not require the use of any unusual pollutants. All equipment maintenance and refueling shall be conducted in a safe manner, in an isolated location, with spill kits located on-site to clean any spills that may occur. There is to be no storage of chemicals on the site. Construction materials including soil shall be protected from weather events including installation of silt fence and sediment control logs around storage areas. The contractor is responsible for dust control at all times during construction including watering activities during loading and unloading of materials including soil. Sediment runoff is controlled by use of sediment/erosion control logs on all downstream sides of the disturbance area within the lot and the contractor is to prevent sediment flow off-site at all times. Vehicle Tracking Controls shall be used to prevent transfer of on-site soil to off-site locations. Routine maintenance activities including use of fertilizers, pesticides, herbicides, detergents, fuels, solvents, oils, etc. are not expected but are to be carried out per product directions and shall be limited from contaminating the site. End of day procedures shall include BMP inspection by the contractor including removal of any sediment.

10.5 IMPLEMENTATION OF CONTROL MEASURES

Construction Fencing (CF) shall be installed around the project limits to visually identify construction and non-construction boundaries. This will aid in prevention of non-construction vehicles and people from entering the site and act as a boundary for construction activities.

Silt Fence (SF) shall be installed as a perimeter control to prevent sediment from moving offsite. This will allow isolation of sediment that has transferred across the site and support proper collection and disposal.

Vehicle Tracking Controls (VTC) shall be installed at the spots indicated on the designated plan and in accordance with the details provided. This will aid in the reduction of the deposition of unwanted sediment onto the site.

Sediment Control Logs (SCL) shall be installed at the spots indicated on the designated plan and in accordance with the details provided. These will reduce pollution onto surrounding properties by filtering out sediment and slowing down runoff.

Inlet Protection (IP) shall be installed at the spots indicated on the designated plan and in accordance with the details provided. These will aid in the reduction of sediment entering the existing stormwater curb inlet.

10.6 USE AGREEMENT

A use agreement between the applicable construction site owner or operator and the owner or operator of any Control Measures located outside of the construction site boundaries that are used by the applicable construction site for compliance with the GEC Plan, but not under the direct control of the applicable construction site owner or operator is included. The applicable construction site owner or operator is responsible for ensuring that all Control Measures located outside of the construction site boundaries, that are being used by the applicable construction site, are properly maintained and in compliance with all terms and conditions of Part I.B.3. There are no Control Measures located outside of the property and therefore no Use Agreement is required for this construction project.

10.7 SITE DESCRIPTION

The proposed project scope is the development of a commercial center on Lots 3, 4, and 5 in El Paso County, Colorado within the Northcrest Center Filing No 2 Phase 1 Subdivision. The total square footage of the proposed structure is 29,640 square feet.

The land disturbance is anticipated to be approximately 155,945 square feet (3.58 acres) for the construction of thirteen commercial units and site-wide improvements. The limits of disturbance are shown on the civil GEC plan set.

The anticipated project start time period is upon the receipt of the permit, assumed to be the beginning of March 2022 when pre-disturbance and site access will be completed including installation of initial construction BMPs such as vehicle tracking downstream sediment controls, and construction fencing, as shown on the GEC Plan. Site clearing and grubbing is assumed to be completed in late March 2022 which includes continued installation of construction BMPs such as perimeter controls, establishment of stabilized staging areas, installation of portable toilets, and watering to minimize dust while grubbing. Utility and infrastructure installation is assumed to begin in April 2022 including trenching and rough-cutting of streets which will include interim construction BMPs and repair/addition of initial construction BMPs. Building construction is assumed to begin in late May 2022 including vertical construction of walls and the structure. Material management and good housekeeping including temporary stockpiling are anticipated in this phase and include all initial and interim construction BMPs. Final grading and final stabilization is anticipated to be completed in July 2022 including all final construction BMPs including removal of excess materials and waste from the site, final landscaping, and soil stabilization. The project end date is anticipated to be end of July 2022 after final stabilization is completed.

The construction project will require approximately 8,630 cubic yards of cut and 3,580 cubic yards of fill, without accounting for soil swell and compaction. This yields a net of approximately 5,050 cubic yards of cut. The stabilized staging area which may include stockpiling is located towards the south center of the property, however, the contractor shall haul cut material as often as possible to retain sufficient space on the site and decrease sediment runoff whenever possible. No on-site stockpiling is to occur over night.

Lots 3, 4 and 5 are zoned CC CAD-O and are approximately 3.25 acres total, located north of Constitution Drive and within the SW 1/4 of Section 32, Township 13 South, Range 65 West of the 6th P.M., City of Colorado Springs, Country of El Paso County, State of Colorado. The parcel abuts Canada Drive, a 60' public ROW asphalt street to the east.

The existing topography consists of grades between 5.3 and 19.17 percent within the area of interest, sloping to the southeast and ultimately to existing stormwater infrastructure at the intersection of Canada Drive and Constitution Avenue. There are no known existing non-stormwater discharges on the lot. The project lies within Zone X, according to information published in the Federal Emergency Management Agency Floodplain Map No. 08041C0752G, dated December 07, 2018 and is not in a designated floodplain. The FEMA map is provided in the Appendix.

Runoff will be directed towards the southeast of the property following proposed grading. The developed conditions minimize disturbance to the site and retain as much native landscape as possible while maintaining the historical drainage pattern and improving the existing conditions, implementing code-compliant grading around the project.

There are no known stream crossings located within the construction limits.

11.0 PERMANENT STABILIZATION

The site will be stabilized at final grades as indicated by the engineering plan set with compaction to the local standards and per the Geotechnical Report recommendations. All grading and drainage measures are to be implemented according to the engineering plan set in order to convey storm water according to the proposed drainage patterns consistent with the Drainage Report. Final stabilization will include landscaping, hydro seeding and hydro mulching to accommodate site drainage improvements.

A permanent control measure, an extended detention basin, will be installed per plans to capture stormwater runoff as required in order to provide water quality and flow attenuation into the municipal stormwater system. This project does not rely on control measures owned or operated by another private entity.

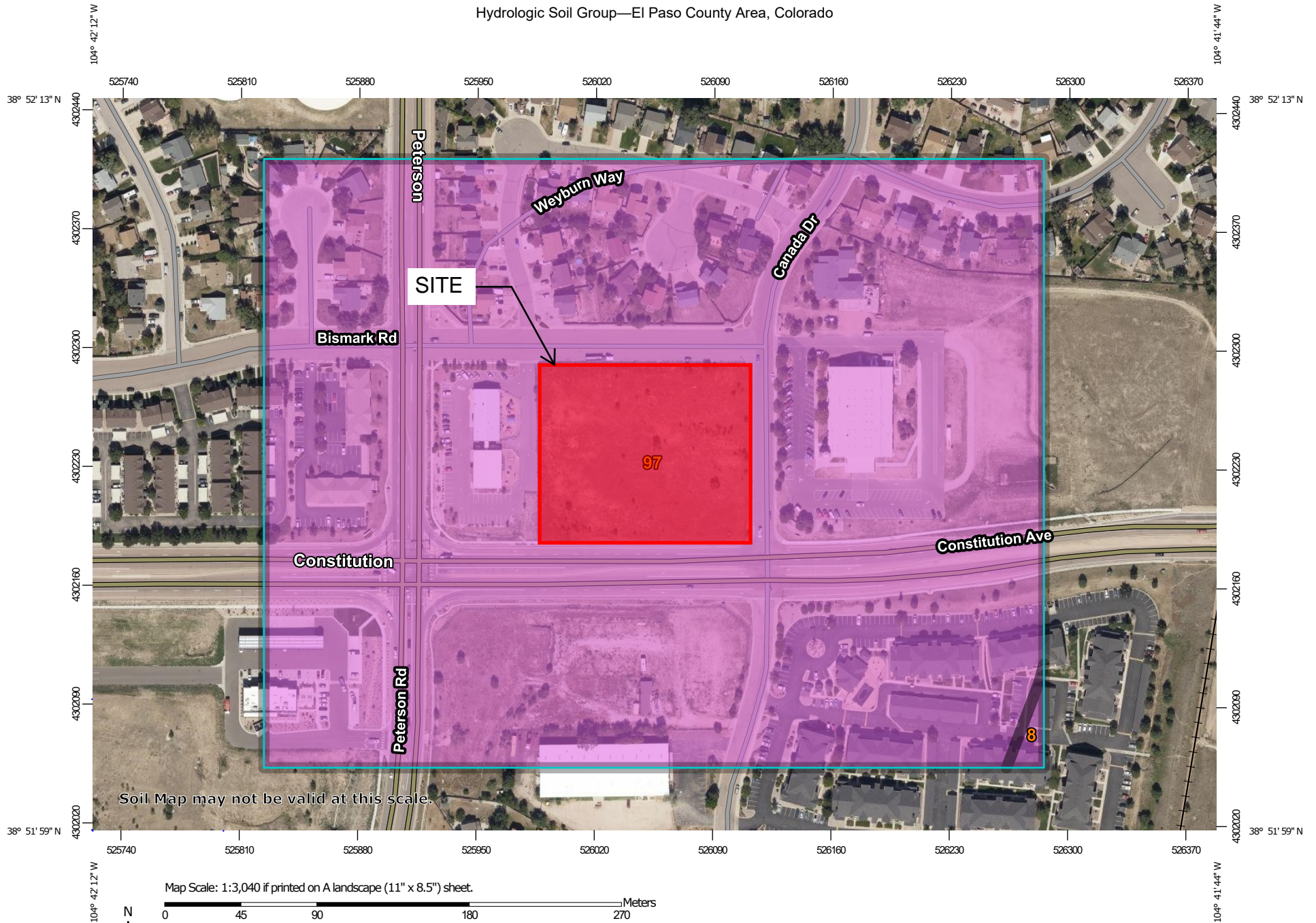
All exposed areas of disturbance shall be permanently seeded excluding areas for hardscape, structures, walls, above ground infrastructure, etc. The developed conditions will not result in polluted stormwater discharge from the site. Refer to landscape architecture plans for final and permanent conditions, i.e. plantings, landscaping.

12.0 SWMP REVISIONS

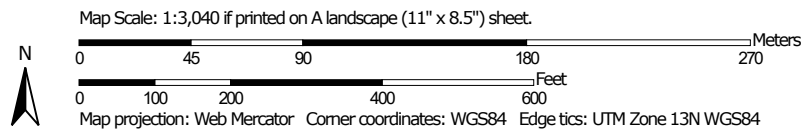
The SWMP should be viewed as a “living document” that is continuously being reviewed and modified as a part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, operation or maintenance of the site which would require the implementation of new or revised control measures or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity or when control measures are no longer necessary and are removed.

APPENDIX A – USDA SOILS MAP

Hydrologic Soil Group—El Paso County Area, Colorado



Soil Map may not be valid at this scale.



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

3/17/2021
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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: El Paso County Area, Colorado
 Survey Area Data: Version 18, Jun 5, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 19, 2018—Sep 23, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	A	0.2	0.4%
97	Truckton sandy loam, 3 to 9 percent slopes	A	40.9	99.6%
Totals for Area of Interest			41.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX B – FEMA FLOODPLAIN MAP

National Flood Hazard Layer FIRMette



104°42'18"W 38°52'21"N



0 250 500 1,000 1,500 2,000 Feet

1:6,000

104°41'41"W 38°51'53"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/17/2021 at 3:21 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

REPORTING CHEMICAL SPILLS AND RELEASES IN COLORADO

General

For all hazardous substance incidents, local emergency response agencies must be notified.

Releases from Fixed Facilities

The Superfund Amendments and Reauthorization Act (SARA) Title III, requires reporting releases from fixed facilities

Refer to the SARA Title III List of Lists, available from the Environmental Protection Agency (EPA), for the reportable quantity.

The party that owns the spilled material must immediately notify the following agencies or organizations:

- National Response Center (NRC) 1-800-424-8802;
- Colorado Emergency Planning Committee (CEPC), represented by the Colorado Department of Public Health and Environment (CDPHE) 1-877-518-5608; and
- Local Emergency Planning Committee (LEPC) 1-720-852-6600.

In addition to telephone notification, the responsible party must also send written notification describing the release and associated emergency response to both the CEPC (in this case, CDPHE) and the LEPC.

Releases from RCRA Facilities

Emergency releases from facilities permitted under the Resource Conservation and Recovery Act (RCRA) are reportable according to the permit requirements.

The permit often requires reporting to CDPHE, even if the amount of the release is less than a reportable quantity under SARA Title III (6 CCR 1007-3 Part 264).

Permitted facilities and large quantity generators (LQGs) of hazardous waste are required to have and implement a contingency plan that describes the actions facility personnel must take in response to fires, explosions or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, surface or ground water at the facility (6 CCR 1007-3 Sections 264.52/265.52).

Whenever there is an imminent or actual emergency situation, appropriate state or local agencies, with designated response roles as described in the contingency plan, must be notified immediately.

The National Response Center or government official designated as the regional on-scene coordinator must be notified immediately if it is determined that the facility has had a release, fire or explosion that could threaten human health or the environment outside the facility (6 CCR 1007-3 Sections 264.56/265.56).

CDPHE and local authorities must be notified when the facility is back in compliance and ready to resume operations. In addition, the facility must send a written report to CDPHE within 15 days of any incident that requires implementation of the contingency plan. The contingency plan should include current contact information for notification and submittal of written reports.

Permitted facilities and LQGs that store hazardous waste in tanks must notify CDPHE within 24 hours of any release to the environment that is greater than one (1) pound and must submit a written report to CDPHE within 30 days of the release (6 CCR 1007-3 Section 264.196(d)/265.196(d)).

Transportation Accidents

Transportation accidents that require reporting:

- Result in a spill or release of a hazardous substance in excess of the reportable quantity (40 CFR Part 302.6)
- Cause injury or death or cause estimated property damage exceeding \$50,000.

- Cause an evacuation of the general public lasting one or more hours.

Those that close or shut down one or more major transportation arteries or facilities or result in fire, breakage, spillage, or suspected contamination from radioactive or infectious substances must immediately be reported to the National Response Center.

Refer to the EPA SARA Title III List of Lists for those substances that have reportable quantities.

In addition to the NRC being notified, the local emergency number (9-1-1) must be called and CDPHE should be notified.

Written notification of any transportation accident involving a release of hazardous materials must be provided to the U.S. Department of Transportation within 30 days (49 CFR Part 171.16)

Since hazardous waste is a subset of hazardous materials, transporters who have discharged hazardous waste must notify the NRC and provide a written report to the US Department of Transportation as noted in the above reporting requirements.

The transporter must give immediate notice to the nearest Colorado State Patrol office (8 CCR 1507-8 HMP 5) and the nearest law enforcement agency if the accident or spill involved a vehicle (42-20-113(3) CRS).

Notification and a written report detailing the ultimate disposition of the discharge of hazardous waste must also be provided to CDPHE (6 CCR 1007-2 Section 263.30). This may be a duplicate copy of the US Department of Transportation report

In the event of a spill or discharge of hazardous waste at a transfer facility, the transporter must notify CDPHE within 24 hours if the spill exceeds 55 gallons or if there is a fire or explosion.

Within 15 days of a reportable incident, the transporter must submit a written report of the incident to CDPHE, including the final disposition of the material (6 CCR 1007-2 Section 263.40).

Releases of hazardous waste at a transfer facility may also require notification to the National Response Center and a written report to the U.S. Department of Transportation.

Releases to Water

A release of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS).

Written notification to CDPHE must follow within five (5) days (5 CCR 1002-61, Section 61.8(5)(d)).

Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.

Releases of petroleum products and certain hazardous substances listed under the Federal Clean Water Act (40 CFR Part 116) must be reported to the National Response Center as well as to CDPHE (1-877-518-5608) as required under the Clean Water Act and the Oil Pollution Act.

Releases to Air

Any unpredictable failure of air pollution control or process equipment that results in the violation of emission control regulations should be reported CDPHE by 10 a.m. of the following working day, followed by a written notice explaining the cause of the occurrence and describing action that has been or is being taken to correct the condition causing the violation and to prevent such excess emissions in the future (5 CCR 1001-2 Common Provisions Regulations Section II.E).

If emergency conditions cause excess emissions at a permitted facility, the owner/operator must provide notice to CDPHE no later than noon of the next working day following the emergency, and follow by written notice within one month of the time when emission limitations were exceeded due to the emergency (5 CCR 1001-5, Regulation 3 Part C, Section VII.C.4).

Releases from Oil and Gas Wells

All spills and releases of exploration and production wastes or produced fluids which meet the reporting thresholds of the Colorado Oil and Gas Conservation Commission (COGCC) Rule 906 shall be reported verbally to the COGCC within 24 hours of discovery and on the COGCC Spill/Release Report Form 19 within 72 hours of discovery.

Spills are reportable to the COGCC in the following circumstances:

- 1) the spill or release impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock or a public byway;
- 2) a spill or release in which 1 barrel or more is released outside of berms or other secondary containment; or
- 3) any spill or release of 5 barrels or more. If the spill impacts or threatens to impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), it must also be reported immediately to CDPHE (25-8-601 CRS).

COGCC also requires reportable spills be reported to the surface owner and local government. Whether or not they are reportable, spills or releases of any size must be cleaned up as soon as practicable.

Releases from Storage Tanks

Petroleum releases of 25 gallons or more (or that cause a sheen on nearby surface waters) from regulated aboveground and underground fuel storage tanks must be reported to the State Oil Inspector within 24 hours (after-hours contact CDPHE Emergency and Incident Reporting Line). This includes spills from fuel pumps.

Spills or releases of hazardous substances from regulated storage tanks in excess of the reportable quantity (40 CFR Part 302.6) must be reported to the National Response Center and the local fire authority

immediately, and to the State Oil Inspector within 24 hours. (8-20.5-208 CRS and 7 CCR 1101-14 Article 4).

Owners/operators of regulated storage tanks must contain and immediately clean up a spill or overfill of less than 25 gallons of petroleum and a spill or overfill of a hazardous substance that is less than the reportable quantity.

If cleanup cannot be accomplished within 24 hours, the State Inspector of Oils must be notified immediately (7 CCR 1101-14 Article 4-4).

CDPHE should also be notified in the case of hazardous substance releases as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Any release that has or may impact waters of the state (which include surface water, ground water and dry gullies or storm sewers leading to surface water), no matter how small, must be reported immediately to CDPHE (25-8-601 CRS).

Releases from Pipelines

Releases of five or more gallons of hazardous liquids or carbon dioxide from a pipeline that result in explosion or fire, cause injury or death or cause estimated property damage (including cost of clean-up and recovery, value of lost product and property damage) exceeding \$50,000 must be reported immediately to the US Department of Transportation Office of Pipeline Safety (49 CFR Part 195 Subpart B) and the National Response Center.

Releases of five or more gallons of hazardous liquids or carbon dioxide from interstate pipelines that do not involve explosion or fire, injury or death or property damage exceeding \$50,000 should be reported to the US Department of Transportation Office of Pipeline Safety within 30 days after the incident.

Releases of natural gas from intrastate pipelines that cause injury or death, property damage in excess of \$50,000 (including the cost of lost product), closure of a public road, or evacuation of 50 or more people must be reported immediately to the Colorado Public Utilities Commission, Pipeline Safety Group (4 CCR 723-11-2).

Releases of natural gas or liquefied natural gas (LNG) from interstate pipelines that cause injury or death,

property damage in excess of \$50,000 (including the cost of lost product), or results in an emergency shutdown of the facility must be reported immediately to the National Response Center and the US Dept of Transportation Office of Pipeline Safety.

Releases of oil, petroleum products or other hazardous liquids from interstate and intrastate pipelines that have or may enter waters of the State of Colorado (which include surface water, ground water and dry gullies or storm sewers leading to surface water) must be reported to CDPHE immediately (25-8-601 CRS). CDPHE should also be notified of releases to soil as cleanup activities may be covered by state solid or hazardous waste requirements (6 CCR 1007-2, 6 CCR 1007-3).

Radiological Accidents, Incidents, and Events

CDPHE must be notified of any condition that has caused or threatens to cause an event, which meets or exceeds the criteria specified in (6 CCR 1007-1) RH 4.51 and RH 4.52 of the State of Colorado *Rules and Regulations Pertaining to Radiation Control*. Reportable events include lost radioactive materials, lost radiation producing machines, over-exposures to persons, contamination events and fires or explosions involving radioactive materials.

Depending upon the severity of the event, notification may be required immediately, within 24 hours, or within 30 days. In most cases, a written follow-up report is also required.

If you are unsure of the proper notification requirement, please contact CDPHE immediately. During normal business hours, the Laboratory and Radiation Services Division is available to receive telephone notifications at (303) 692-3300. After hours contact the CDPHE Emergency and Incident Reporting Line **1-877- 518-5608**.

NOTIFICATION NUMBERS

Colorado Department of Public Health and Environment toll-free 24-hour environmental emergency and incident reporting line: **(877) 518-5608 (24-hour)**

National Response Center
(800) 424-8802 (24-hour)

State Oil Inspector (Colorado Division of Oil & Public Safety-Above & Underground Storage Tank Regulators)
(303) 318-8547



Colorado Department of Public Health and Environment

**Office of Emergency
Preparedness & Response**

Environmental Spill Reporting

**24– Hour Emergency and
Incident Reporting Line
1-877-518-5608**

Updated February 2017

APPENDIX D – CERTIFICATIONS & QUALIFICATIONS

APPENDIX E – GEC PLANS

EROSION CONTROL LEGEND

- SF SILT FENCE (INITIAL/INTERIM)
- RS CURB ROCK SOCKS (INITIAL/INTERIM)
- CF CONSTRUCTION FENCE (INITIAL)
- SCL SEDIMENT CONTROL LOG (INITIAL, INTERIM)
- PS PERMANENT SEEDING (INITIAL, INTERIM)
- TSB TEMPORARY SEDIMENT BASIN (INITIAL)
- SSA STABILIZED STAGING AREA (INITIAL)
- CWA CONCRETE WASHOUT AREA (INTERIM)
- SP STOCKPILE AREA (INTERIM)
- VTC VEHICLE TRACKING CONTROL (INITIAL)
- IP-1 ON-GRADE INLET PROTECTION (INITIAL/INTERIM)

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- SETBACK LINE
- LIMITS OF DISTURBANCE/CONSTRUCTION
- PROPERTY CORNER/MONUMENT, BENCHMARK OR TEMPORARY BENCHMARK
- BM
- SHEET FLOW/DRAINAGE DIRECTION
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- SPOT ELEVATION

SITE HATCHING

- AREAS OF CUT
- AREAS OF FILL
- PROP. STRUCTURE/BUILDING

FEMA FLOODPLAIN STATEMENT:
ACCORDING TO FEMA FLOODPLAIN MAP 08041C0752G
DATED 12/07/2018, THE PROPERTY FALLS WITHIN
ZONE X, AREA OF MINIMAL FLOOD HAZARD.

BATCH PLANT STATEMENT
NO BATCH PLANTS ARE TO BE USED ON SITE

EXISTING VEGETATION COVERS APPROXIMATELY 98.5% OF THE SITE AND
CONSISTS OF NATIVE GRASS WITH EXISTING IMPERVIOUSNESS OF
APPROXIMATELY 1.5%

*CONTRACTOR TO HAUL DIRT/SOIL OFF-SITE DURING CONSTRUCTION. NO
OVER NIGHT STOCKPILING OF MATERIALS TO BE DONE ON-SITE.

BMP COST ESTIMATE:

BID ITEM	UNIT	EST. \$/UNIT	TOTAL COST
SILT FENCE	0 LF	\$2.50/LF	\$ 0.00
SEDIMENT CONTROL LOGS	894 LF	\$2.75/LF	\$ 2,458.50
ROCK SOCKS (PAIR)	2 EA	\$110/EA	\$ 220.00
VEHICLE TRACKING CONTROL	3 EA	\$1,325/EA	\$ 3,975.00
EROSION CONTROL BLANKET	0 SF	\$0.37/SF	\$ 0.00
CONCRETE WASHOUT	1 EA	\$760/EA	\$ 760.00
SURFACE ROUGHENING	3.25 AC.	\$225/AC.	\$ 731.25
RESEEDING	21,780 SF	\$0.09/SF	\$ 1,960.20

NET: \$10,104.45
MAINTENANCE (40%): \$4,041.78
TOTAL: \$14,146.23
RESEEDING INCLUDES HYDRO MULCH, HYDRO SEED

NOTES:

- ALL UNIT PRICES REFLECT INSTALLED PRICES UNLESS OTHERWISE NOTED.
- REFER TO CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL VOLUME II FOR DETAILS REGARDING ITEM DESCRIPTION.
- ALL UNIT PRICES PROVIDED BY CITY OF COLORADO SPRINGS ENGINEERING DEPARTMENT AS TABLE ENTITLED "EROSION CONTROL MEASURE 2012 UNIT PRICING".

OWNER'S STATEMENT:

I, THE OWNER/DEVELOPER, HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

OWNER SIGNATURE _____ DATE _____

ENGINEER'S STATEMENT:

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 TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

ENGINEER OF RECORD SIGNATURE _____ DATE _____

EL PASO COUNTY STANDARD NOTES:

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCES SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY SON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- 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 DEVIATION FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP 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.
- ONCE THE ESQCP IS APPROVED AND A NOTICE TO PROCEED HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL 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.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPED, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT 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 AREAS SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE 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.
- 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.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS A REQUIRED STEP WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE 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.
- 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.
- 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 THE WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE MEANS. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION FOR INFILTRATION AND VEGETATIVE CONTROL MEASURES MUST BE LOOSERED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S). ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
- 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.
- 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.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- 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. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, ROCK, TRASH, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THE 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.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION POINTS. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM THE EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THE SITE HAS BEEN PREPARED BY RMG-ROCKY MOUNTAIN GROUP AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (1) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OF 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 OF APPLICATION MATERIALS CONTACT: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WATER QUALITY CONTROL DIVISION WOOD-PERMITS 4300 CHERRY CREEK DRIVE SOUTH DENVER, CO 80246-1530 ATTN: PERMITS UNIT

EL PASO COUNTY:

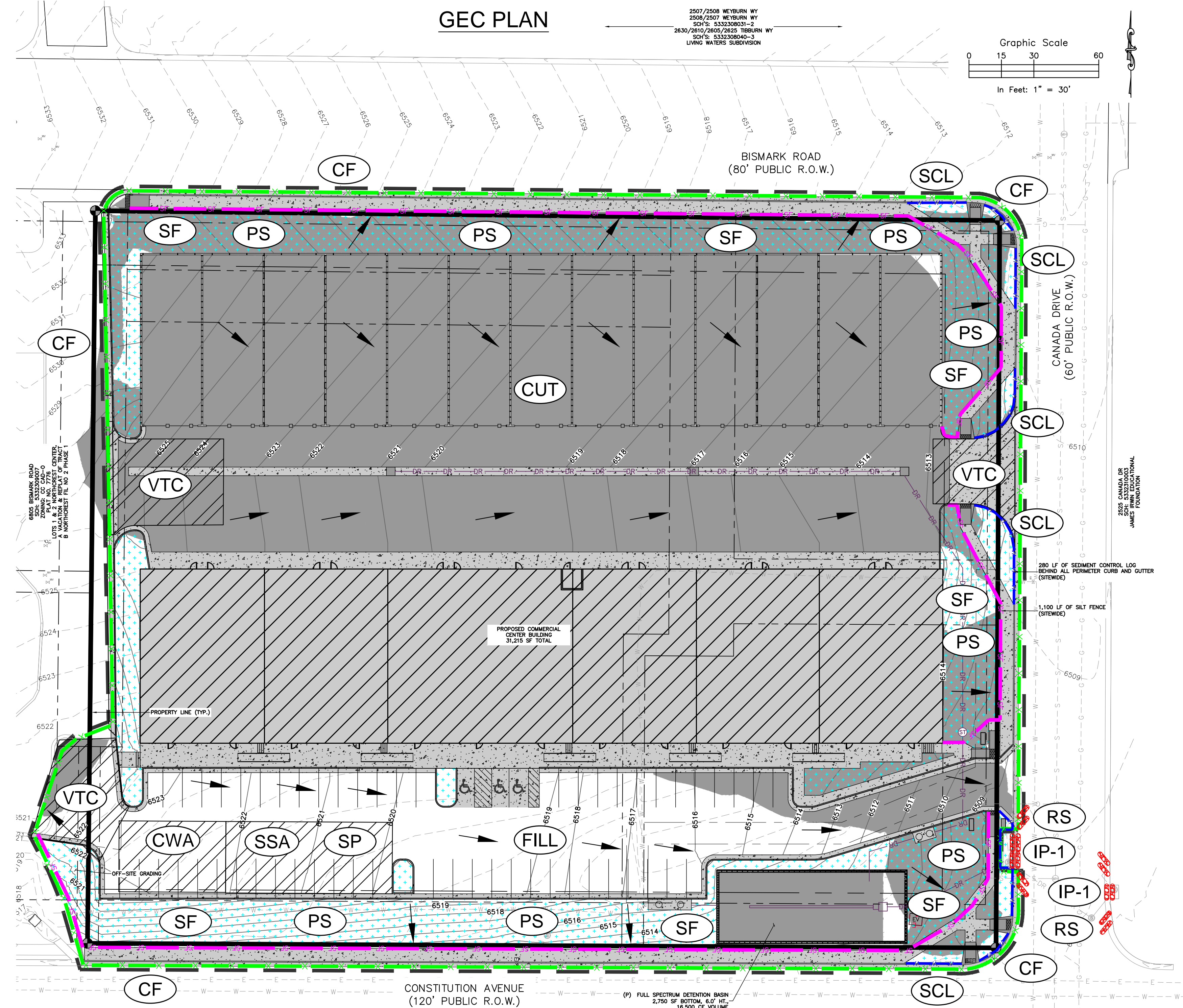
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA 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 DIRECTOR'S DISCRETION.

COUNTY ENGINEER/ECM ADMINISTRATOR _____ DATE _____

GEC PLAN



RESTORATION NOTES:

- FURTHER DETAIL AND NOTES PROVIDED IN THE DRAINAGE CRITERIA MANUAL VOLUME III, CHAPTER 14.
- SEE SEED MIX TABLES 14-9 THROUGH 14-14 FOR GIVEN GEOGRAPHIC AND GEOLOGIC CONDITIONS IN THE DRAINAGE CRITERIA MANUAL VOLUME III, CHAPTER 14.
- UNDEVELOPED AREAS AND AREAS DISTURBED DURING CONSTRUCTION SHOULD BE ACTIVELY REVEGETATED. SEED MIXES SHOULD BE SELECTED TO MATCH THE CONDITIONS WHERE THEY WILL BE USED. RECOMMENDED SEED MIXES FOR THE BOTTOM (WET SOILS) AND SIDE SLOPES OF DRAINAGE FACILITIES ARE INCLUDED IN TABLES 14-9 AND 14-10, RESPECTIVELY. SEED MIXES FOR ALKALI SOILS AND ALL OTHER SOIL CONDITIONS IN UPLAND AREAS ARE PROVIDED IN TABLES 14-11 AND 14-12, RESPECTIVELY. WILDFLOWER MIXES ARE PROVIDED IN TABLE 14-13. THE SEEDING RATES IN THESE MIXES ARE RECOMMENDED MINIMUM RATES FOR DRILL SEEDING. THESE RATES SHOULD BE DOUBLED FOR BROADCAST SEEDING AND HYDRO-SEEDING IN SMALL AREAS OR STEEP CONDITIONS WITH SLOPES GREATER THAN 3 TO 1.

THE RECOMMENDED SEED MIXES ARE SUITABLE FOR THE COLORADO FRONT RANGE FOR SITES FROM 4,500 TO 7,000 FT IN ELEVATION. APPLICATIONS OUTSIDE THESE RANGES SHOULD BE MADE AFTER CONSULTATION WITH A QUALIFIED REVEGETATION SPECIALIST.

FALL IS THE PREFERRED TIME FOR NON-IRRIGATED SEEDING. LATE SUMMER SEEDBED PREPARATION FOLLOWED BY INSTALLATION OF THE SEED IN THE FALL (OCTOBER) ALLOWS WINTER MONTHS FOR ADDITIONAL FIRING OF THE SEEDBED BEFORE SPRING AND GERMINATION. FALL SEEDING BENEFITS FROM WINTER, SPRING MOISTURE, AND USUALLY ASSURES MAXIMUM SOIL MOISTURE AVAILABILITY FOR ESTABLISHMENT.

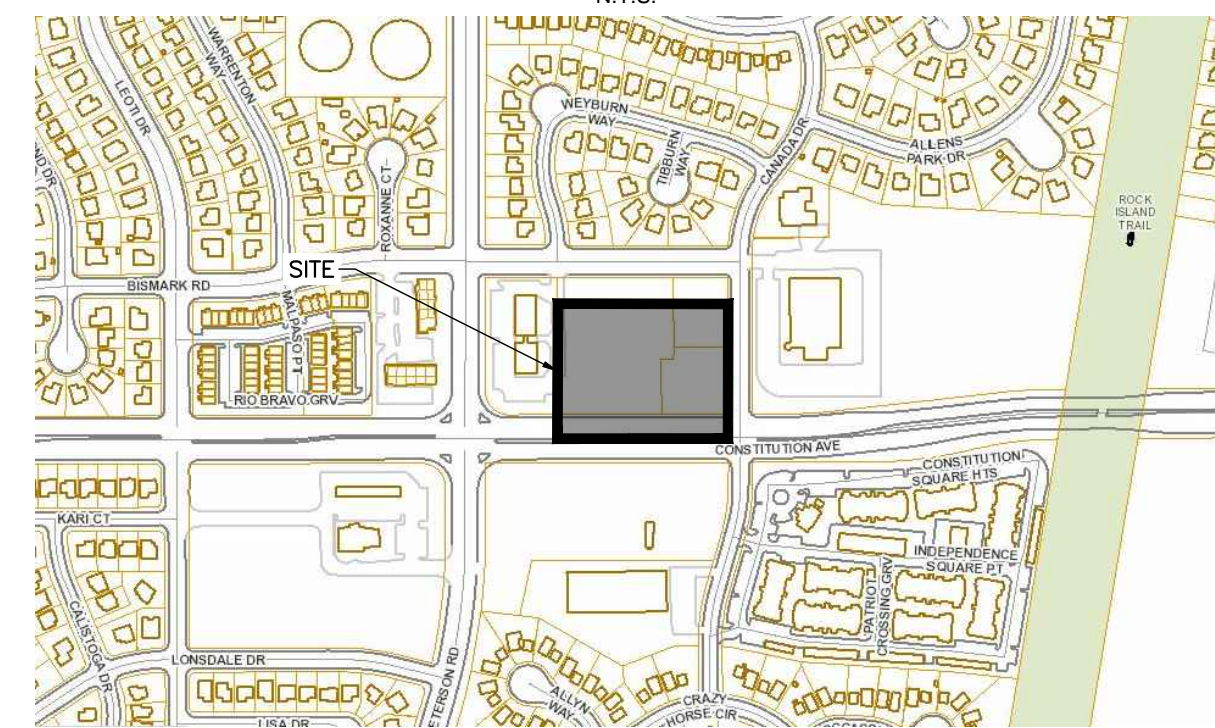
LATE WINTER TO EARLY SPRING (FEBRUARY TO EARLY APRIL) IS TYPICALLY THE NEXT MOST FAVORABLE TIME PERIOD FOR SEEDING. WINTER AND EARLY SPRING SEEDING SHOULD NOT BE CONDUCTED IF THE SOIL IS FROZEN, SNOW COVERED, OR WET (MUDDY). WHILE OF GREATER RISK, SPRING SEEDING (MID-APRIL TO EARLY JUNE) CAN BE SUCCESSFUL, ESPECIALLY DURING MOST YEARS. MID- TO LATE SUMMER SEEDING CAN BE SUCCESSFUL, WITH ADEQUATE PRECIPITATION.

CHAPTER 14 REVEGETATION MAY 2014 CITY OF COLORADO SPRINGS 14-21 DRAINAGE CRITERIA MANUAL, VOLUME I OR IRRIGATION TO WET AND SETTLE THE SEED BED. FIRING OF THE SEEDBED FOLLOWING SEEDING WILL IMPROVE RESULTS DURING DRY OR WARM SEEDING TIMES.

CONTRACTOR SHALL BE FAMILIAR WITH THE CUT/FILL OF THE PROPOSED CONDITIONS IN ORDER TO MINIMIZE STOCKPILING OF EXCAVATED DIRT. SITE IS NET CUT AND STOCKPILING OVERNIGHT IS NOT PERMITTED WITHOUT PERMISSION FROM THE CITY OF COLORADO SPRINGS.

VICINITY MAP

N.T.S.



ROCKY MOUNTAIN GROUP

ARCHITECTS

Geotechnical
Materials Testing
Civil Planning

RMG
ENGINEERS

Architectural
Structural
Forensics

2910 ALBERTA BLVD. PARKWAY, COLORADO SPRINGS, CO 80918
(719) 546-0000 - WWW.ROCKYMOUNTAINENGINEERS.COM
SOUTHERN CALIFORNIA DIVISION: 1000 N. GARDEN, SUITE 100, ANAHEIM, CA 92815

NOT FOR CONSTRUCTION
FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT

2510 & 2522 CANADA DRIVE

COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

SHEET NAME
COVER

ENG: SAM

DRAWN: ARP

CHECKED: SAM

DATE
11/08/2021

#	REVISION	DATE
1
2
3
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7
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9
10

JOB NO.
180649

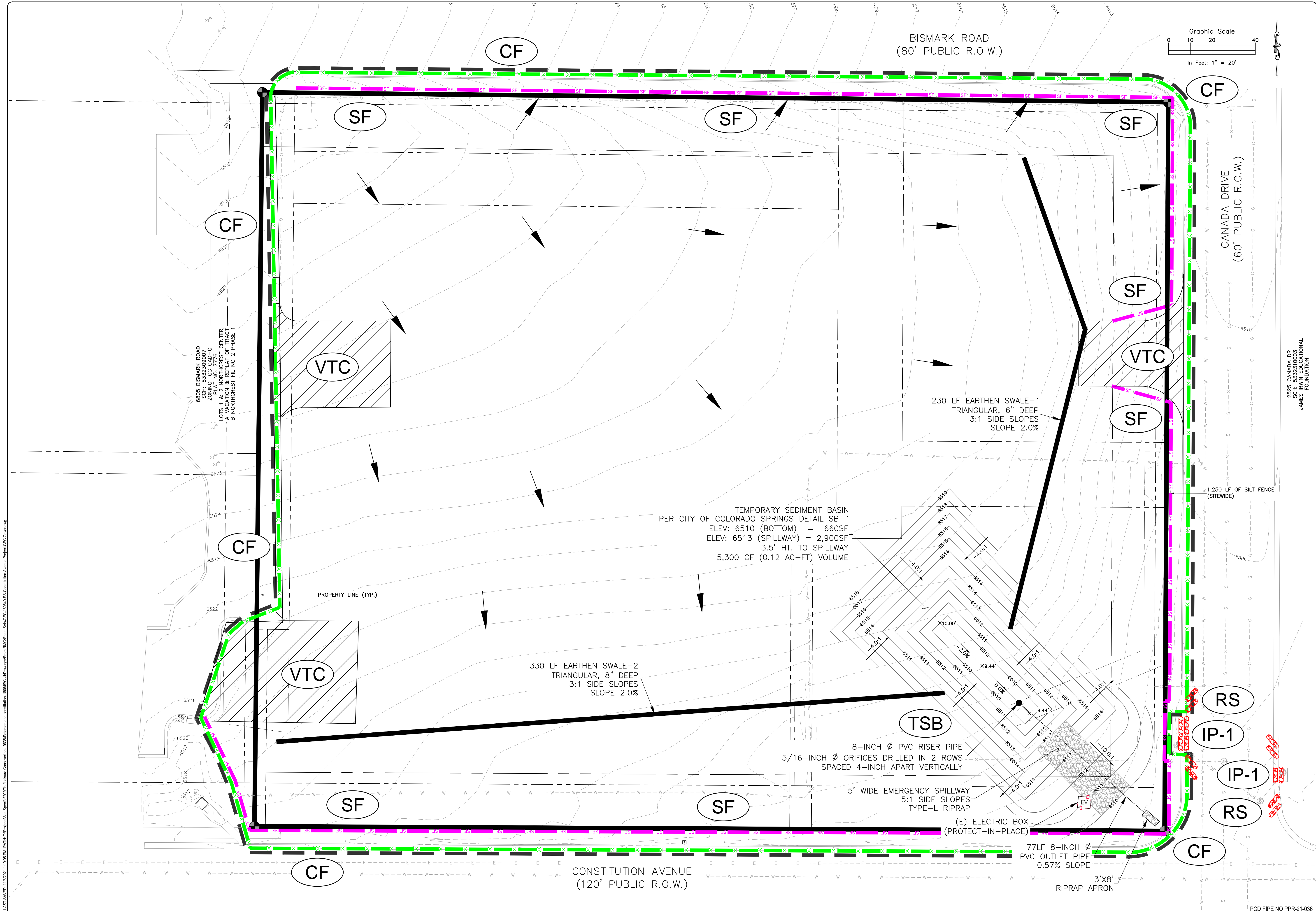
SHEET NO.
C-01

of 8

PROJECT STATUS
DESIGN DEVELOPMENT

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FORENSICS

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NORTHEAST PEMB DEVELOPMENT

2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

EROSION CONTROL PLAN -
INITIAL

DESIGN DEVELOPMENT

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JOB NO: 180649
SHEET NO: C-02
of 8

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EROSION CONTROL PLAN -
INTERIM

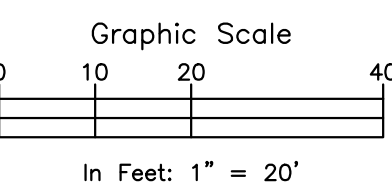
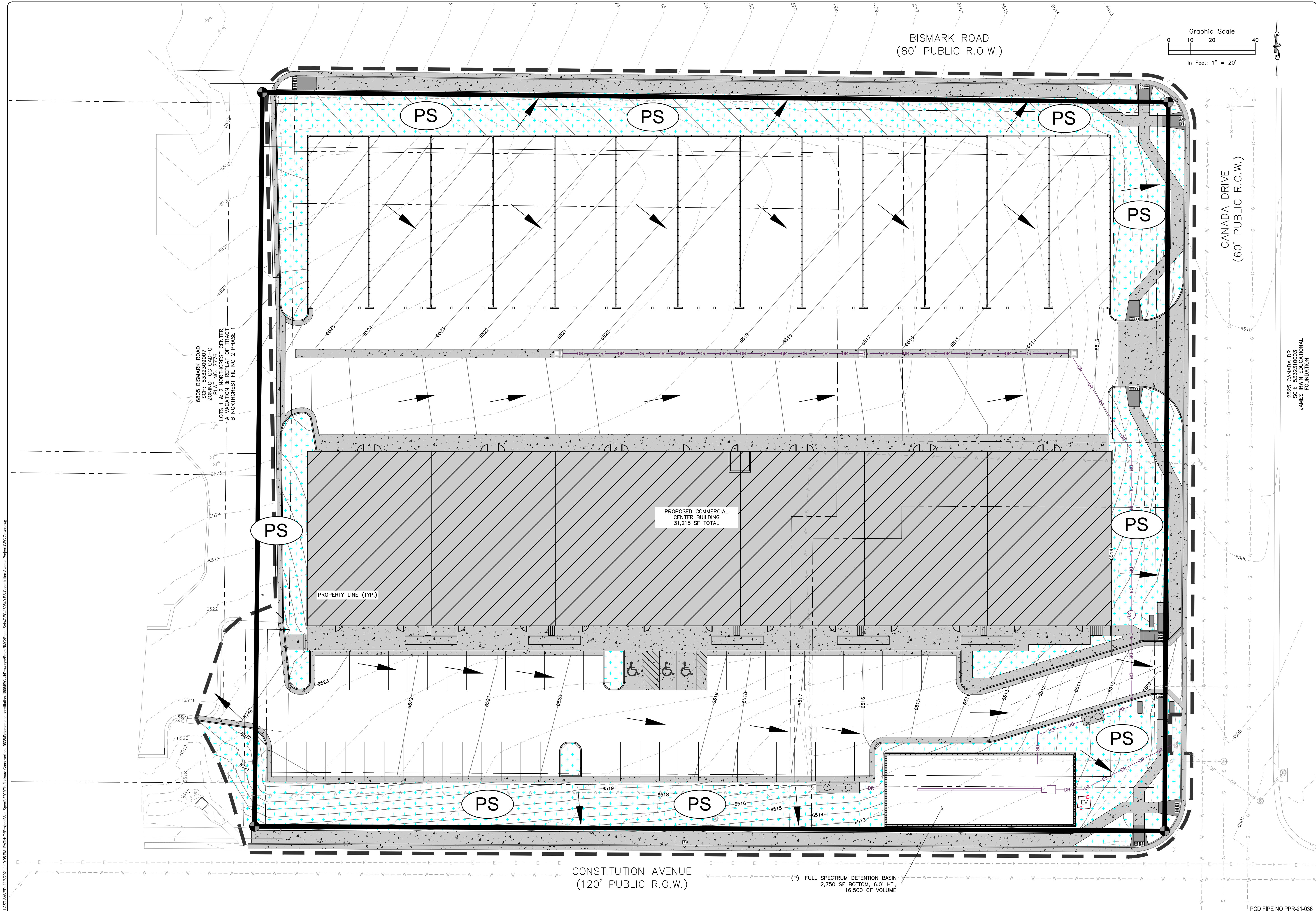
DESIGN DEVELOPMENT

ENG: SAM
DRAWN: ARP
CHECKED: SAM
DATE: 11/08/2021

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JOB NO: 180649
SHEET NO: C-03
of 8

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2525 CANADA DR
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2510 & 2522 CANADA DRIVE
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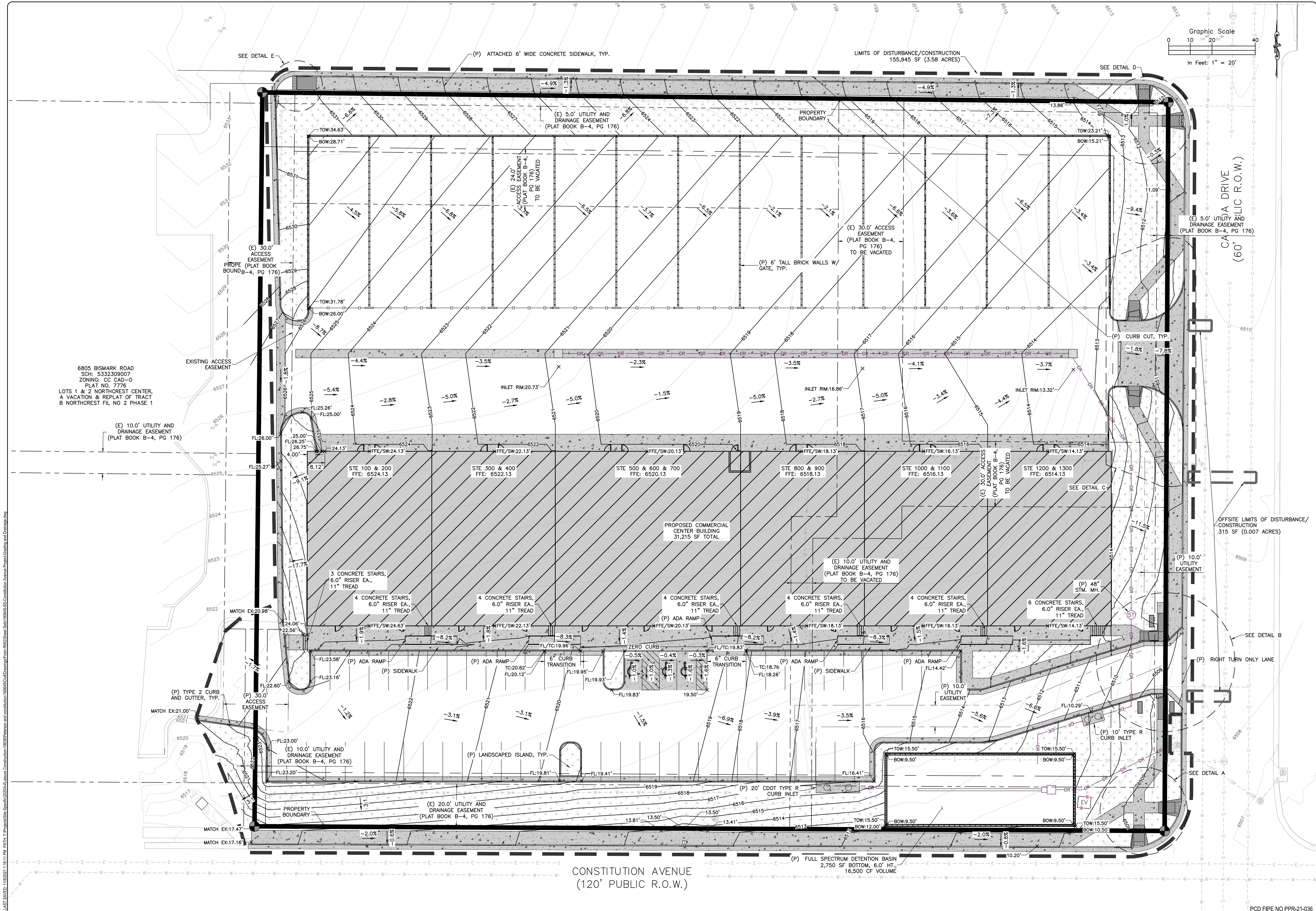
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FINAL

DESIGN DEVELOPMENT

JOB NO. 180649

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of 8

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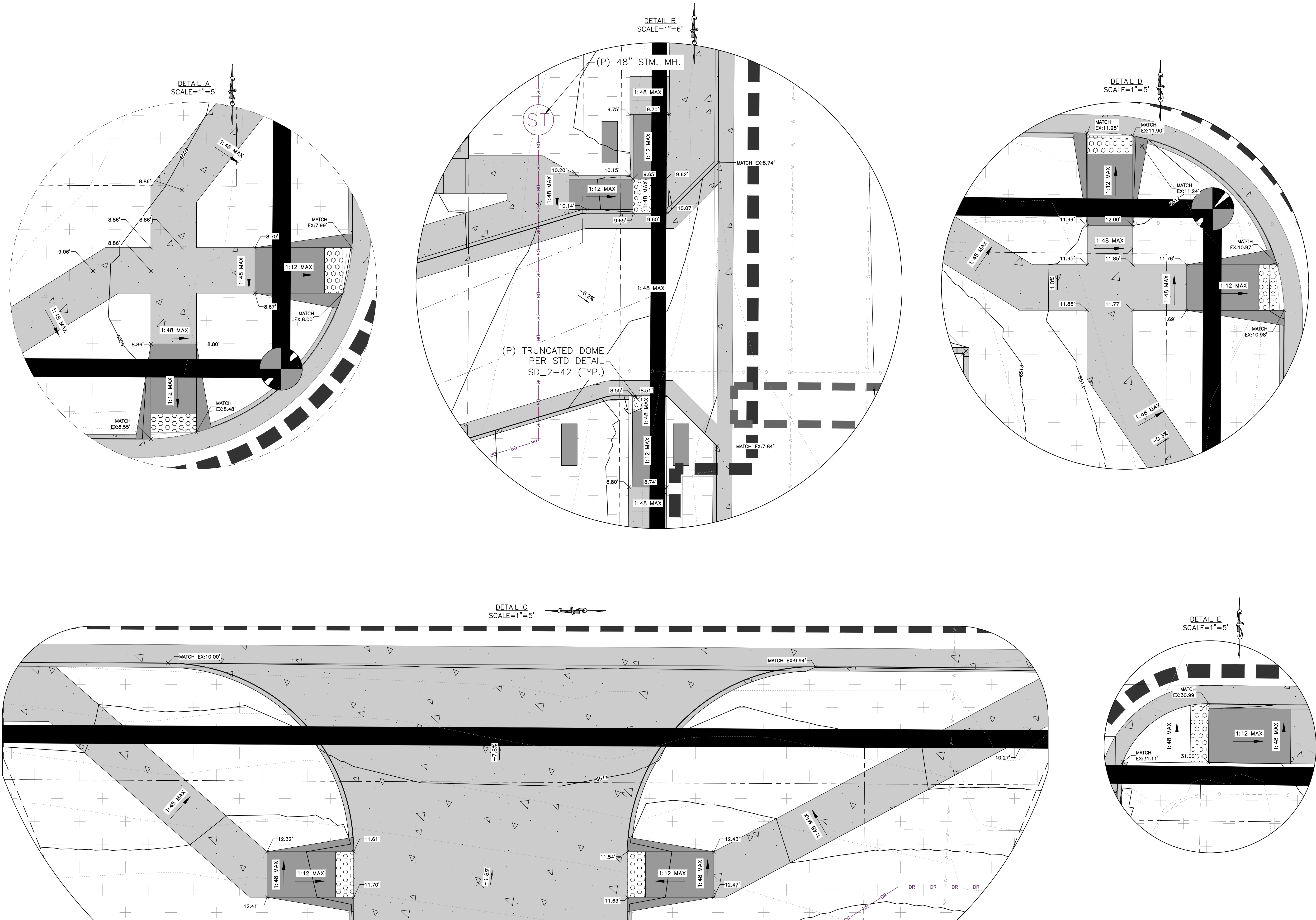
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NORTHCREST PEMB DEVELOPMENT
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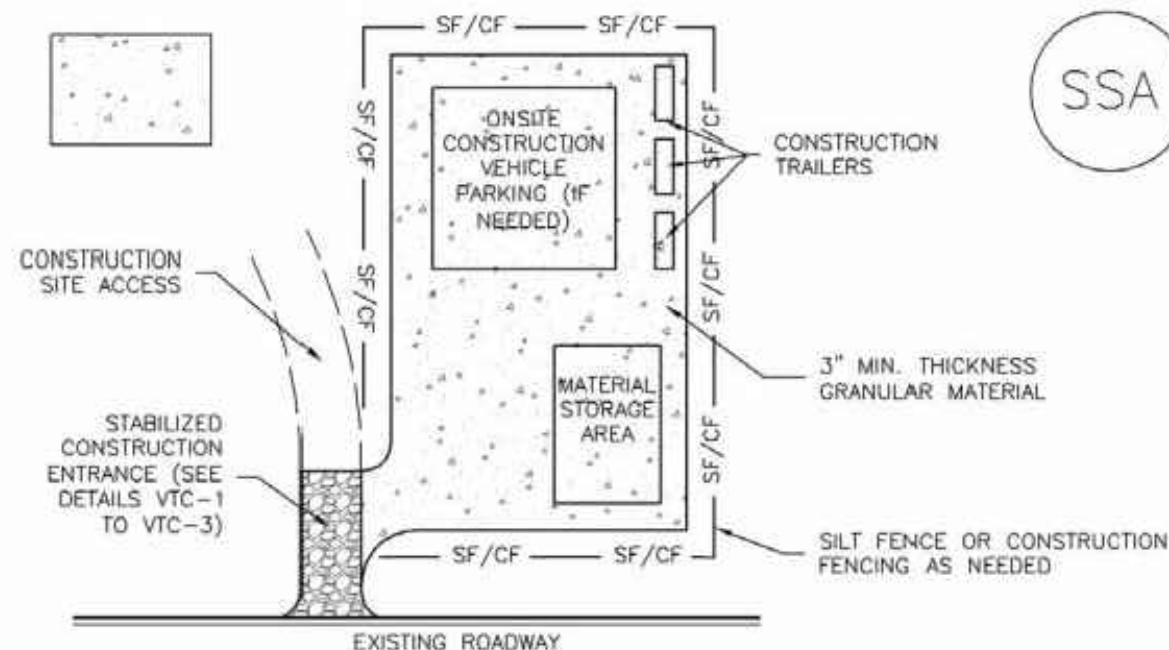
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FOR CIVIL ONLY

NORTHCREST PEMB DEVELOPMENT
2510 & 2522 CANADA DRIVE
COLORADO SPRINGS, COLORADO
LEISURE CONSTRUCTION

SHEET NAME
PRELIMINARY GRADING &
DRAINAGE 2
PROJECT STATUS
DESIGN DEVELOPMENT

ENG:	SAM	
DRAWN:	ARP	
CHECKED:	SAM	
DATE		
11/08/2021		
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SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF STAGING AREA(S).
 - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
- STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
- STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
- THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
- UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

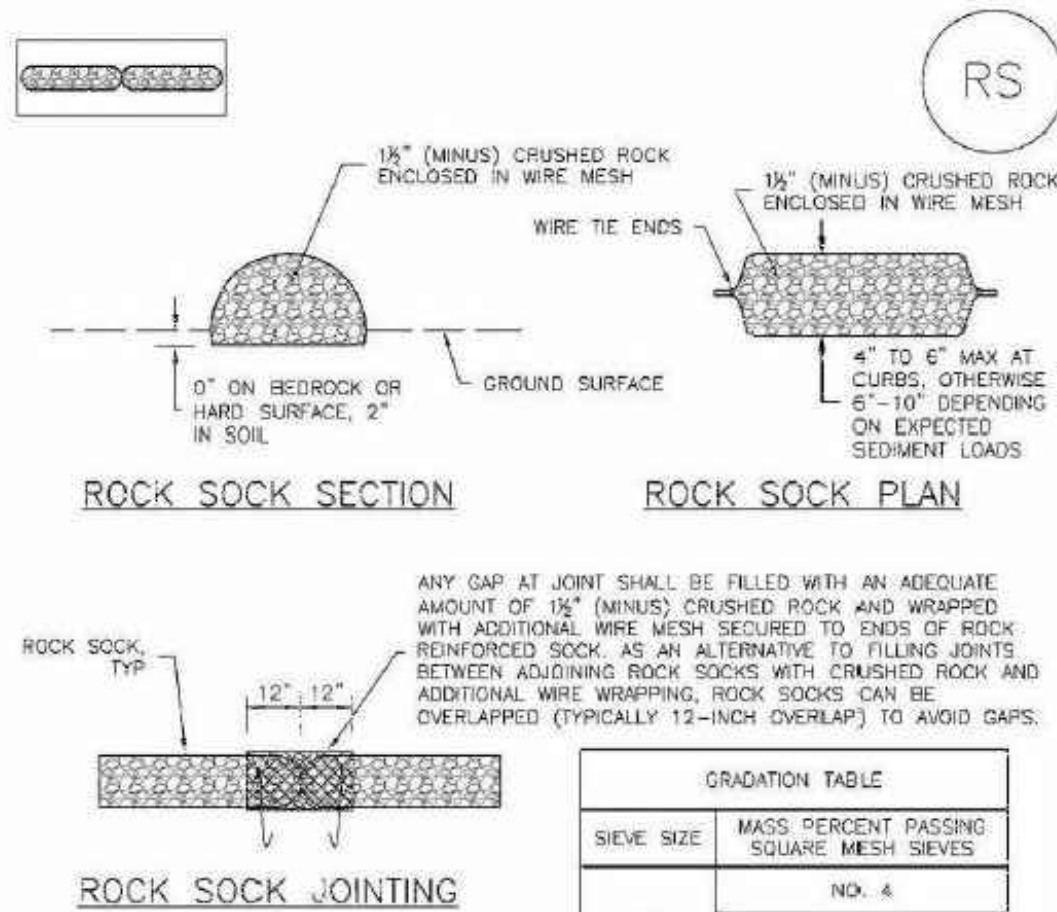
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

STABILIZED STAGING AREA MAINTENANCE NOTES

- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
- THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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



GRADATION TABLE		
SIEVE SIZE	MASS PERCENT PASSING	SQUARE MESH SIEVES
NO. 4		
2"	100	
1 1/2"	90 - 100	
1"	20 - 55	
3/4"	0 - 15	
3/8"	0 - 5	

MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SOCKS.

ROCK SOCK INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION(S) OF ROCK SOCKS.
- CRUSHED ROCK SHALL BE 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1 1/2" MINUS).
- WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/4 INCH, RECOMMENDED MINIMUM ROLL WIDTH OF 48 INCHES.
- WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS.
- ALONG ALL JOINTS AND AT 2' CENTERS ON ENDS OF SOCKS.
- JEFFERSON COUNTY MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE IF SPECIFIED ON THE APPROVED PLANS.

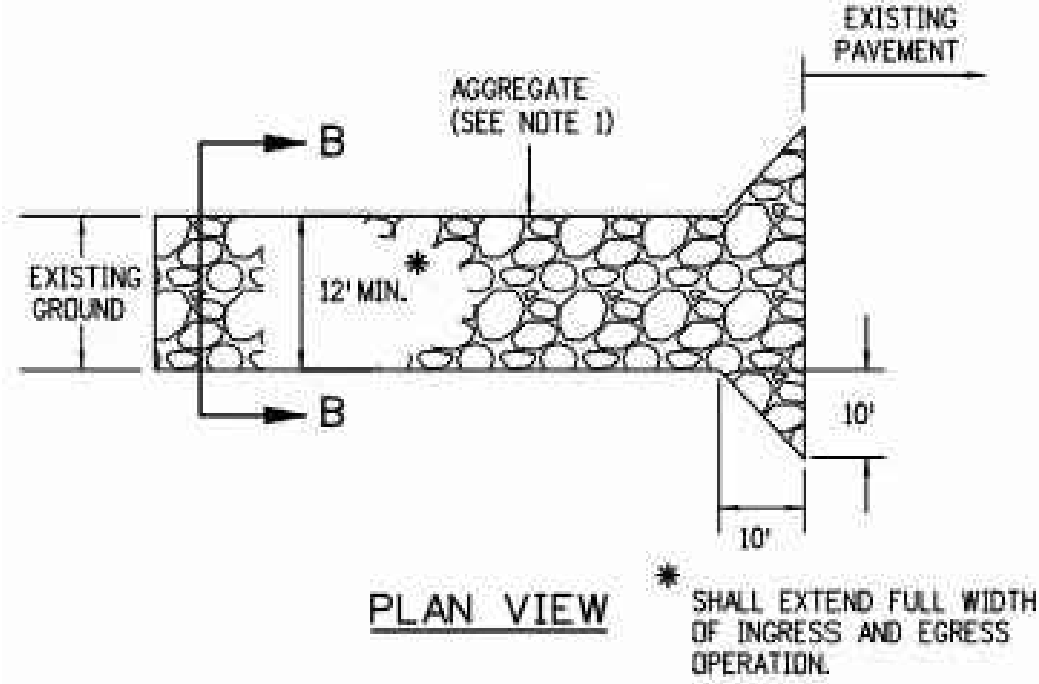
ROCK SOCK MAINTENANCE NOTES

- 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 EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
- SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
- ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY JEFFERSON COUNTY.
- WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY JEFFERSON COUNTY.

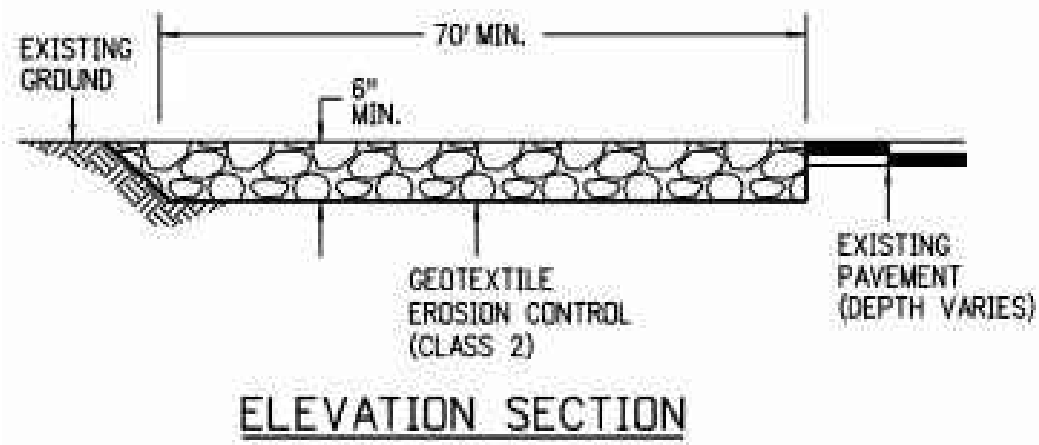
ROCK SOCK

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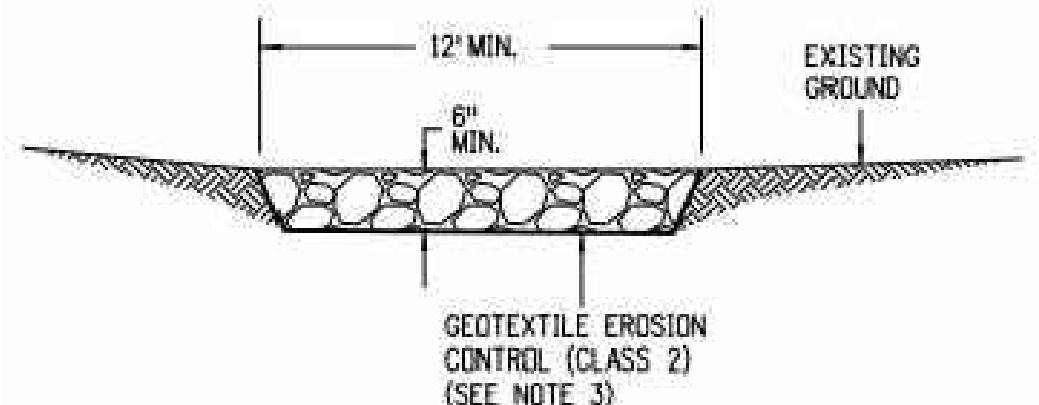
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PLAN VIEW



ELEVATION SECTION

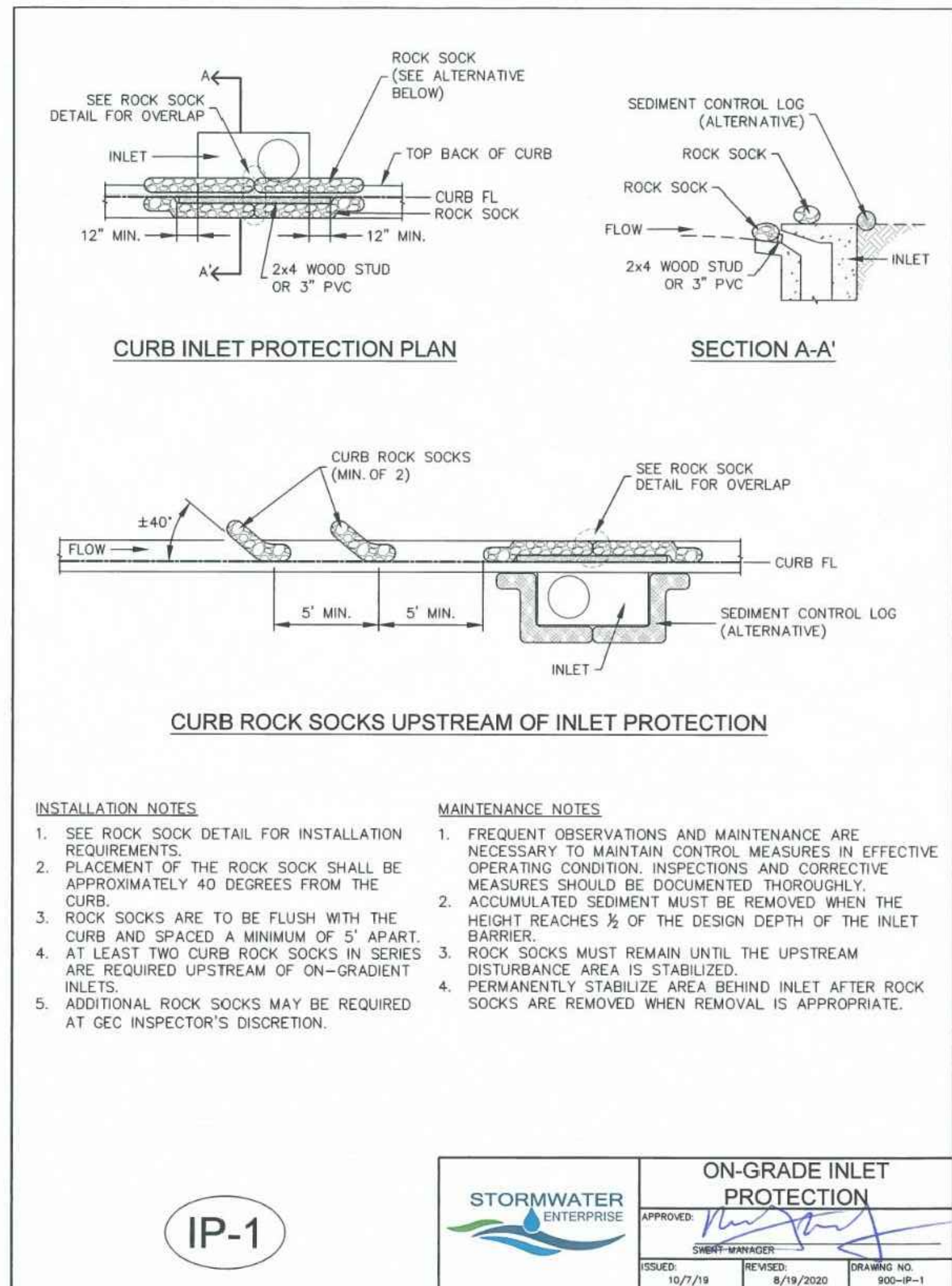


SECTION B-B

NOTES:

- AGGREGATE SHALL CONFORM TO SUBSECTION 208.02 (K).
- THE CONTRACTOR SHALL PROTECT CURB AND GUTTER THAT CROSSES THE ENTRANCE FROM DAMAGE. PROTECTION OF THE CURB AND GUTTER SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- GEOTEXTILE SHALL CONFORM TO SUBSECTION 712.08.
- ALL MATERIALS AND LABOR TO COMPLETE THE VEHICLE TRACKING PAD SHALL BE INCLUDED IN THE COST OF WORK AND NOT PAID FOR SEPARATELY.
- THE PAY ITEM NUMBER FOR VEHICLE TRACKING PAD (EACH) IS 208-00070.

VEHICLE TRACKING PAD



CURB INLET PROTECTION PLAN

SECTION A-A'

CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

- SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
- PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
- ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
- AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
- ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
- ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
- PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-1

STORMWATER ENTERPRISE		ON-GRADE INLET PROTECTION	
APPROVED: [Signature]		SWMT-WANAGER	
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-IP-1	

NOTE: THE STABILIZED DRIVEWAY ACCESS/DRIVEWAY TO BE CONSTRUCTED TO VEHICLE TRACKING CONTROL STANDARDS WITH THE PROPOSED DRIVEWAY AGGREGATE BASE COURSE MATERIAL AND COMPACTION. A MINIMUM OF 30" INSIDE RADII ARE TO BE CONSTRUCTED FOR THE STABILIZED DRIVEWAY ACCESS/DRIVEWAY AND VEHICLE TRACKING FOR HEAVY VEHICLE INGRESS/EGRESS.

ROCKY MOUNTAIN GROUP



2910 ALPINE BLVD. SUITE 100
DENVER, CO 80202
TEL: 303.733.8888
WWW.ROCKYMOUNTAINGROUP.COM

NORTHCREST PEMB DEVELOPMENT

2510 & 2522 CANADA DRIVE

COLORADO SPRINGS, COLORADO

LEISURE CONSTRUCTION

EROSION CONTROL DETAILS 2

DESIGN DEVELOPMENT

ENG:	SAM
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