

**County Stormwater Management Plan (SWMP)
Hanover School District – Prairie Heights Elementary School
7930 Indian Village Heights
Lot 110 Midway Ranches Fil No 7
El Paso County, Colorado**

Permittee:
Hanover School District – Prairie Heights Elementary School
17050 S. Peyton Hwy,
Colorado Springs, Colorado
(719) 683-2247

GEC Administrator and Qualified Stormwater Manager:

Company Name:

Administrator Contact Name:

Phone:

Address:

Contractor:

Company Name:

SWMP Point of Contact Name:

Phone:

Address:

CSWMP /SWMP Preparing Engineer:



1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

Contact: Todd Cartwright, P.E.

Kiowa Project No. 24047
EPC Project Number:

January 24, 2025

Engineer's Statement

This SWMP 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 SWMP, 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: Todd Cartwright, PE Date: _____.

Phone Number: (719) 694-0012

Seal

Contractor's Statement

I will comply with the requirements of the Grading and Erosion Control Plan SWMP 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: _____

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STATE STORMWATER DISCHARGE PERMIT REQUIREMENTS

At least ten days prior to the anticipated start of construction activities (i.e. the initial disturbance of soils associated with clearing, grading, excavation activities, installation of structural Construction Control Measures, or other activities), for projects that will disturb one (1.0) acre or more, the owner or operator of the construction activity must submit an application as provided by the Colorado Department of Public Health and Environment, Water Quality Control Division (Division). This form may be reproduced and is also available from the Division's web site. Applications received by the Division are processed and a permit certification and other relevant materials will be sent to the attention of the legally responsible person. The application contains certification of completion of a storm water management plan (SWMP). Do not include a copy of the Stormwater Management Plan, unless requested by the Division.

For information or application materials contact:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
<https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits>

Electronic Application – CDPHE website:

<https://www.colorado.gov/pacific/cdphe/WQ%20permits%20construction%20electronic%20application>

I. STORMWATER MANAGEMENT PLAN OBJECTIVES

The objective of the Stormwater Management Plan (SWMP) is “to identify possible pollutant sources that may contribute pollutants to stormwater and identify Construction Control Measures (CCMs) that, when implemented, will reduce or eliminate any possible water quality impacts. The SWMP must be completed and implemented at the time the project breaks ground and revised as construction proceeds, to accurately reflect the conditions and practices at the site (CDPHE *Stormwater Management Plan Preparation Guidance*)”. A general schedule or phasing of CCMs will be determined by construction schedule and ground disturbances necessitating required erosion control methods/CCMs. The SWMP shall be implemented until expiration or inactivation of permit coverage. Evaluations of and modifications to this plan may be necessary during the length of the construction project until the site is finally stabilized.

SWMP Plan Availability: A copy of the Stormwater Discharge Permit from the State of Colorado, SWMP Report, SWMP Site Map, SWMP Notes and Details; and inspection reports shall be kept on site by the GEC Administrator at all times, as to be available for use by the operator/ GEC Administrator and to be available for inspection by federal, state and local agencies. If an office location is not available at the site, the SWMP must be managed so that it is available at the site when construction activities are occurring (for example: by keeping the SWMP in the superintendent’s vehicle). The permittee shall retain copies of the SWMP and all reports required by the Permit and records of all data used to complete the Permit application for three (3) years minimum after expiration or inactivation of permit coverage, unless the community requires a longer period.

This 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 GEC Administrator 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 CCMs 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 CCMs are no longer necessary and are removed. If the GEC Administrator feels that modifications to the CCMs shown on the SWMP are necessary to provide for a more effective plan, the process will include: 1) Evaluate pollutant sources, 2) Select CCMs, 3) Document CCMs, 4) Implement CCMs.

SWMP revisions must be made prior to changes in the site conditions, except for “Responsive SWMP Changes” as follows:

- SWMP revision must be made immediately after changes are made in the field to address CCM installation and/or implementation issues; or
- SWMP revisions must be made as soon as practicable, but in no case more than 72 hours, after change(s) in CCM installation and/or implementation occur at the site that require development of materials to modify the SWMP
 - ◊ A notation must be included in the SWMP prior to the site change(s) that includes the time and date of the change(s) in the field, and identification of the CCM(s) removed or added and the location(s) of the CCM(s). Modifications to the SWMP shall be submitted to the County within seven days.

An El Paso County Erosion and Stormwater Quality Control Permit (ESQCP) is required along with a Colorado Discharge Permit System (CDPS), Stormwater Discharge Associated with Construction Activities Permit from the Colorado Department of Public Health and Environment for this project. The general conditions associated with the permits must be followed through the duration of the land disturbing activities at the site. For additional details or more specific information on the CDPS permit, consult the CDPS General Permit No. COR-030000.

A. State Permit Applicant

The State Permit applicant (also referred to as the Permittee) must be a legal entity that meets the definition of the owner and/or operator of the construction site, in order for this application to legally cover the activities occurring at the site. The applicant must have day-to-day supervision and control over activities at the site and implementation of the SWMP. Although it is acceptable for the applicant to meet this requirement through the actions of a contractor, as discussed in the examples below, the applicant remains liable for violations resulting from the actions of their contractor and/or subcontractors. Examples of acceptable applicants include:

Owner or Developer - An owner or developer who is operating as the site manager or otherwise has supervision and control over the site, either directly or through a contract with an entity such as those listed below.

General Contractor or Subcontractor - A contractor with contractual responsibility and operational control (including SWMP implementation) to address the impacts construction activities may have on stormwater quality.

Other Designated Agents/Contractors - Other agents, such as a consultant acting as construction manager under contract with the owner or developer, with contractual responsibility and operational control (including SWMP implementation) to address the impacts construction activities may have on stormwater quality.

Refer to the CDPHE, *Stormwater Management Plan Preparation Guidance* for additional information.

The Permittee shall be legally responsible for compliance with the State Permit.

B. SWMP Terms

Construction Control Measures (CCMs): CCMs encompass a wide range of erosion and sediment control practices, both structural and non-structural in nature, that are intended to reduce or eliminate any possible water quality impacts from stormwater leaving a construction site. The individual CCMs appropriate for a particular construction site are largely dependent of the types of potential pollutant sources present, the nature of the construction activity, and specific-site conditions.

Nonstructural CCMs, such as preserving natural vegetation, preventive maintenance and spill response procedures, schedules of activities, prohibition of specific practices, education, and other management practices are mainly operational or managerial techniques.

Structural CCMs include treatment processes and practices ranging from diversion structures and silt fences, to retention ponds and inlet protection.

Construction Start Date: This is the day when ground disturbing activities are expected to begin, including grubbing, stockpiling, excavating, demolition, and grading activities.

Disturbance Area Determination: Aside from clearing, grading and excavation activities, disturbed areas also include areas receiving overburden (e.g., stockpiles), demolition areas, and areas with heavy equipment/vehicle traffic and storage that disturb existing vegetative cover.

Final Stabilization Date: In terms of permit coverage, this is when the site is finally stabilized. This means that all ground surface disturbing activities at the site have been completed, and all disturbed areas have been either built on, paved, or a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels (refer to Final Stabilization Section). Permit coverage must be maintained until the site has reached Final Stabilization. Even if only one part of the project is being done, the estimated final stabilization date must be for the overall project. If permit coverage is still required once your part is completed, the permit certification may be transferred or reassigned to a new responsible entity(s).

SWMP Drawings: Also known as the SWMP Site Map.

C. Contractor Required Items

The Contractor shall include and/or provide the following items prior to beginning land disturbing activities:

- Add the GEC Administrator and Alternate with phone numbers to this plan.
- Construction Dates – Verify the construction dates indicated in this report. Update as necessary to reflect the planned schedule.
- Material Handling and Spill Prevention procedures – See Section IV-4. Review and modify as necessary.

II. SITE DESCRIPTION

A. Nature of the Construction Activity

The proposed project will construct a 12,000 sf expansion to an existing 12,000 sf elementary school. In addition, several site improvements will be made to include a bus / student drop off, teacher parking and playground improvements.

i. Site Description

A vicinity map showing the general location of the site is presented in Appendix A. Prairie Heights Elementary School is comprised of 38.56 acres, located in southwest El Paso County. The street address for the site is 7930 Indian Village Heights. The platted name is Lot 110 Midway Ranches Fil No 7. The property is primarily located in Sections 28, Township 17 South, Range 65 West of the 6th Principal Meridian, in El Paso County, Colorado. The site also extends into sections 29, 32 and 33. The school itself is primarily in section 33. The expansion will extend into section 28.

The vegetation on the site consists of native grass. There are no proposed developments within a designated floodplain, as indicated on FEMA panel 08041C1170G, effective 12/7/2018. A FEMA firmette for the site is located in Appendix A.

95 % of the site consists of hydrologic group 'C' soils Kimera Loam and Wilid Silt Loam and less than 5% hydrologic group 'A' soils Schamber-Razor Complex. A copy of the USDA Custom Soil Resource Report is located in Appendix A.

The school is located in the southwest corner of the site. Are area of disturbance for this project will be 2.81 acres. The outline of the area of disturbance encompasses 3.27 acres, however the portion of existing school to remain has a 0.46 acre foot print resulting in the 2.81 acres of disturbance. The portable buildings (modulars) will be removed with this project.

The project schedule is as follows:

- begin 06/01/2025
- Initial erosion control measures 06/01/2025
- Interim erosion control measures 09/01/2025
- complete 9/01/2026
- final stabilization 9/01/2026
- There are no utilities or vertical construction with this project so interim and final are the same

ii. Adjacent Areas

The school is surrounded by 5 acre residential lots and fire station.

B. Sequence of Major Activities

Prior to the commencement of the majority of clearing and grubbing activities, minimal clearing and grubbing may be necessary to install initial erosion control devices such as silt fencing and vehicle tracking control, clearing and grubbing will commence, and grading will proceed as shown on the SWMP Site Plan. When the finished grades are attained, the concrete pavement will begin. In general, the GEC Administrator will identify the precise schedule.

The major construction activities associated with this project are shown in the table below along with an approximate timing of the sequence. In general, the GEC Administrator and the Contractor will identify the precise schedule to be used during the term of this project and modify this schedule as needed. Minimal clearing and grubbing may be necessary to install the initial erosion control features.

Approximate Sequence of Major Construction Activities:

Installation of initial CCMs	06/01/2025
Clearing, grubbing and earthworks	06/01/2025
Site work	06/01/2025- 9/01/2026
End Construction (refer to <i>Final Stabilization...</i> section)	9/01/2026

The temporary erosion control measures can be removed when Final Stabilization has occurred. Refer to the Final Stabilization section for a description of the requirements.

C. Estimate of Area and Volume Disturbed

The total site area associated with the project is approximately 38.6 acres. The estimated area of disturbance is 2.81 acres. The estimated area of disturbance corresponds to the necessary to construct site improvements as shown on the SWMP Site Maps. All other areas are to remain undisturbed.

Earthwork cut and fill operations will be roughly 600 cubic yards of fill.

D. Soil Data

95 % of the site consists of hydrologic group 'C' soils Kimera Loam and Wilid Silt Loam and less than 5% hydrologic group 'A' soils Schamber-Razor Complex. A copy of the USDA Custom Soil Resource Report is located in Appendix A. Both series has a moderate to high erosion hazard.

E. Existing Vegetation and Ground Cover

A survey including a general description of existing vegetation shall be conducted by the GEC Administrator for Construction prior to any ground disturbance on the project. The manager shall photo document existing vegetation where all work will be occurring. The manager shall also perform the vegetation survey transect(s) including photo documentation as outlined in Chapter 4. 11.2 of CDOT's Erosion Control and Stormwater Quality Guide. The overall existing vegetative cover is estimated at about 25% by field observation.

It is recommended that the contractor take pictures of the existing vegetative cover prior to construction and any calculations they feel necessary to make the Final Stabilization comparison (refer to Final Stabilization section for additional information). The contractor will be responsible for providing the documentation to make this comparison to the County and the State of Colorado, Water Quality Control Division.

F. Potential Pollution Sources

The potential pollution sources for the site that may have an impact to stormwater include the following items:

1. Concrete washouts – Concrete, slurry
2. Construction Dewatering – Sediment
3. Ground disturbing activities and grading - Sediment
4. Haul routes – Sediment, fuel, oil
5. Landscaping – Fertilizers, sediment, over-watering, pesticides
6. Loading and unloading operations
7. Management of contaminated soils
8. Off-site vehicle tracking - Sediment
9. Outdoor storage activities
10. Portolet – Chemicals, human waste
11. Significant dust or particulate generating processes
12. Soil, aggregate and sand stockpiling – Sediment
13. Storage of disposal items – Sediment
14. Storage of fertilizers, materials or chemicals - Chemicals
15. Vehicle maintenance or fueling – Fuel, oil, chemicals

G. Non-stormwater Discharges

In the existing condition there are no known non-stormwater discharges from the project site, such as springs and landscape irrigation return flows. During construction, the following non-stormwater discharges from the project site could occur.

1. Release of concrete washout water – Not anticipated. The washout water should be contained within the concrete washout CCM.

2. Runoff from water used for dust control – Not anticipated. The contractor should limit the amount of water used for dust control to an amount less than would result in runoff. Perimeter control CCMs are planned to filter water that may runoff.

If any other non-stormwater discharges from the site become apparent during the term of construction, the occurrence and mitigation shall be addressed by the GEC Administrator.

H. Receiving Waters

The Rock Island Trail, Constitution Avenue to Waynoka Tl discharges directly to Sand Creek by overland flow in both the existing condition and proposed condition. The project spans Sand Creek and the 100 year flood plain with a 210 foot pedestrian bridge.

Immediate Receiving water(s): Sand Creek

Ultimate Receiving Water(s): Fountain Creek

The site is not located within FEMA flood zone based on FEMA maps 08041C1170G effective December 7, 2018.

III. SWMP SITE MAP CONTENTS

The SWMP Site Map and SWMP Drawings are considered a part of this plan. It identifies the following:

1. Construction site boundaries;
2. All areas of ground disturbance;
3. Existing and proposed topography;
4. Areas used for storage of building materials, equipment, soil, stockpiles or waste;
5. Locations of all structural CCMs;
6. Locations of non-structural CCMs where applicable;
7. Locations of springs, streams, wetlands, detention basins, roadside ditches and other surface waters.

The SWMP Site Map must be updated and or red-lined by the GEC Administrator on a regular basis to reflect current conditions of the site at all times. The SWMP site maps are contained at the rear of this report.

IV. STORMWATER MANAGEMENT CONTROLS

A. GEC Administrator

The Permittee shall designate the GEC Administrator. The GEC Administrator is typically the Contractor or his/her designated representative and is responsible for developing, implementing, maintaining and revising the SWMP. The GEC Administrator is the contact person with the County and State for all matter pertaining to the SWMP. The GEC Administrator is the person responsible for the SWMP accuracy, completeness and implementation. Therefore, the GEC Administrator should be a person with authority to adequately manage and direct day to day stormwater quality management activities at the site. The GEC Administrator shall have the authority to act on behalf of the Permittee(s) to ensure the site remains in compliance with the CDPS Stormwater Discharge Associated with Construction Activities Permit and the County's Grading Permit. An Alternate GEC

Administrator who is able to serve in the same capacity as the GEC Administrator shall also be selected.

The GEC Administrator shall be present at the project site a majority of the time and (along with the Alternate GEC Administrator) shall provide the County with a 24-hour emergency contact number.

If the GEC Administrator or Alternate changes for any reason, it shall be noted/redlined on this Plan. The County shall be notified in writing of any change.

GEC Administrator: _____

Phone: _____

Alternate GEC Administrator: _____

Phone: _____

B. Identification of Potential Pollutant Sources:

At a minimum, the following sources and activities shall be evaluated for the potential to contribute pollutants to stormwater discharges and identified in the SWMP if found to have such potential. The sources of any potential pollutants must be controlled through CCM selection and implementation. Each pollutant source recognized through this process as having the potential to contribute pollutants to stormwater, must be identified in the SWMP along with the specific stormwater management control (CCMs) that will be implemented to adequately control the source. (Note: the actual evaluation of the potential pollutant sources does NOT need to be included in the SWMP – just the resultant pollutant sources and their associated CCMs.). The GEC Administrator shall determine the need for and locations of each of the following potential pollutant sources during the course of the construction project.

Could it Contribute?	Potential Pollutant Source	CCM Implemented to Control Source
Yes	All disturbed and stored soils	Silt fence, sediment control logs, rock socks, seed and mulch
Yes	Vehicle tracking of sediments	Vehicle tracking control, street sweeping
No	Management of contaminated soils	
Yes	Loading and unloading operations	Stabilized staging area, materials storage area, vehicle tracking control, silt fence
Yes	Outdoor storage activities (building materials, fertilizers, chemicals, etc.)	Stabilized staging area, materials storage area, silt fence
Yes	Vehicle and equipment maintenance and fueling	Stabilized staging area, materials storage area, silt fence
Not expected	Significant dust or particulate generating processes	Control by sprinkling with water and other appropriate means.
Yes	Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc	Use as recommended by manufacturer and in areas specified, silt fence

Yes	On-site waste management practices (waste piles, liquid wastes, dumpsters, etc)	Stabilized staging area, silt fence, non-structural CCMs
Yes	Concrete truck/equipment washing, including the concrete truck chute and associated fixtures and equipment	Concrete washout area, stabilized staging area, vehicle tracking control, silt fence
No	Dedicated asphalt and concrete batch plants	
Yes	Non-industrial waste sources such as worker trash and portable toilets	Stabilized staging area, construction fence, non-structural CCMs
Yes	Other areas or procedures where potential spills can occur	Non-structural CCMs, construction fence

C. Construction Control Measures (CCMs) for Pollution Prevention

1. A list of the Structural CCMs for erosion and sediment control implemented on the site to minimize erosion and sediment are as follows. Refer to the GEC Plan for Installation and Maintenance requirements for each structural CCM and refer to the GEC Plan for the location of the CCMs.
 - a) Concrete Washout Area (CWA): An approved portable concrete washout system, or a shallow excavation with a small perimeter berm to isolate concrete truck washout operations.
 - b) Inlet protection (IP): Installed at appropriate inlets.
 - c) Erosion Control Blanket (ECB): At selected areas steeper than 3-to-1 as indicated on the plans shall be protected with an erosion control blanket.
 - d) Seeding and Mulching (SM): Temporary seeding and mulching can be used to stabilize disturbed areas that will be inactive for an extended period of time. Permanent seeding should be used to stabilize areas at final grade that will not otherwise be stabilized.
 - e) Silt Fence (SF): A temporary sediment barrier constructed of woven fabric stretched across supporting posts.
 - f) Stabilized Staging Area (SSA): Consists of stripping topsoil and spreading a layer of granular material in the area to be used for a trailer, parking, storage, unloading and loading.
 - g) Temporary Stockpile Areas (SP): Temporary stockpiles of excess excavated material and stockpiles for imported materials shall be shown on the SWMP drawings. Slopes shall not be steeper than 3H to 1V. Temporary soil stockpile areas will require approved erosion protection such as silt fence or sediment control logs.
 - h) Vehicle Tracking Control (VTC): Consists of a rock pad that is intended to help strip mud from tires prior to vehicles leaving the construction site. Installed at all entrance/exit points to the site. The number of access points shall be minimized.

Minimal clearing and grubbing may be necessary prior to installing the initial erosion control features.

2. Non-structural practices for erosion and sediment control to be used to minimize erosion and sediment transport are:

Seeding and mulching in areas that will not be hard surfaced. Minimize the amount of existing vegetation to be removed during construction, leaving native vegetation in place when possible. Only the existing vegetation that is specified or requiring removal shall be disturbed or removed. If possible, leave existing ground cover in place or remove just prior to grading to minimize the length of soil exposure.

3. Phased CCM Implementation:

The GEC Administrator shall update the CCM Implementation if necessary to meet and/or address the Contractor's schedule. The SWMP shall be updated as necessary to reflect the CCMs installed.

a) Installation of Initial CCMs.

Prior to any construction activities, erosion control facilities shall be installed. Minimal clearing and grubbing may be necessary prior to installing the initial erosion control features. Stabilization of cleared or grubbed areas to be completed the same day if possible. The "initial" CCMs include, but may not be limited to, construction fence, silt fence, vehicle tracking control, stabilized staging area, materials storage area, concrete washout area, and inlet protection. Designate areas for construction trailer (if used), trash container, portaloets, vehicle and equipment parking and material storage. If these areas are not indicated on the plan, the contractor must "red line" the plan with the locations. Provide a confined area for maintenance and fueling of equipment from which runoff will be contained and filtered. CCM / Erosion Control facility waste shall be disposed of properly.

b) Clearing, grubbing and earthworks

The measures included in the previous sequence shall be maintained and continue. The removed cleared and grubbed items, soil, storm sewer pipe and fence shall be disposed of properly. If a soil stockpile area is needed, the area shall be protected as shown in the Details and the stockpile area shall be redlined onto the plan. Existing vegetation to remain shall be protected with construction fence. Wind erosion shall be controlled on the site by sprinkling and other appropriate means.

c) Site Grading, Retaining Walls, Utility Infrastructure, and Stormwater Facility Construction

The measures included in the previous sequence shall be maintained and continue. This phase includes overall site work. Other than dewatering for surface runoff, it is not expected that a subsurface dewatering system will be required to complete the work shown on the plans. A CDPHE construction dewatering permit is required prior to performing the dewatering activities. Materials site and building construction shall be stored in the designated areas delineated on the plan. If an area is not delineated on the plan, the contractor shall "red line" the plan to show the location. Material waste from the detention basin construction shall be disposed of properly. Solvents, paints and chemicals shall be stored and disposed properly.

d) Building construction.

The measures included in the previous sequence shall be maintained and continue, unless the work requiring the measure is completed.

e) Seeding and mulching.

The measures included in the previous sequence shall be maintained and continue, unless the work requiring the measure is completed. Seeding, mulching and blanketing shall be installed. Avoid excess watering and placing of fertilizers and chemicals.

f) Final Stabilization.

The necessary erosion control measures included in the previous sequence shall continue until Final Stabilization is reached. Refer to Final Stabilization section for requirements.

The GEC Administrator shall amend the SWMP if necessary and as required, refer to Section I.

4. Materials handling and spill prevention:

The GEC Administrator will inspect daily to ensure proper use and disposal of materials on-site including solvents, fertilizers, chemicals, waste materials and equipment maintenance or fueling procedures. All materials stored on-site will be stored in a neat and orderly manner in the original containers with the original manufacturer's label, and if possible under a roof or other enclosure to prevent contact with stormwater. Chemicals should be stored within berms or other secondary containment devices to prevent leaks and spills from contacting stormwater runoff. Before disposing of the container, all of a product will be used up whenever possible and manufacturer's recommendations for proper disposal will be followed according to state and local regulations.

Material and equipment necessary for spill cleanup will be kept in the material storage area on-site. Manufacturer's recommendations for spill cleanup will be posted and site personnel will be made aware of the procedures along with the location of the information and cleanup supplies.

The contractor shall have spill prevention and response procedures that include the following:

- a) Notification procedures to be used in the event of an accident. At the very least, the GEC Administrator should be notified. Depending on the nature of the spill and the material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line - 877-518-5608), downstream water users or other agencies may also need to be notified.
- b) Instructions for clean-up procedures and identification of spill kit location(s).
- c) Provisions for absorbents to be made available for use in fuel areas and for containers to be available for used absorbents.
- d) Procedures for properly washing out concrete truck chutes and other equipment in a manner and location so that the materials and wash water cannot discharge from the site and never into a storm drain system or stream.

5. Dedicated concrete or asphalt batch plants:

No dedicated concrete or asphalt batch plants will be used.

6. Vehicle tracking control:

Off-site vehicle tracking of sediment shall be minimized and is as shown on the SWMP Site Map. Vehicle Tracking Control shall be installed at the construction access points. The contractor shall minimize the number of construction access points to reduce the amount of sediment tracked from the site. Streets shall be kept clean and free of mud, soil and construction waste. Street sweeping or other acceptable methods shall be used to prevent sediment from being washed from the project site. Streets shall not be washed down with water. Street cleaning operations shall occur if necessary or as directed by the County.

7. Waste management and disposal including concrete washout:

A concrete washout area is specified on the SWMP. Concrete wash water shall not be discharged to state waters, to storm sewer systems or from the site as surface runoff. The washout area shall be an approved portable concrete washout system or a shallow excavation with a small perimeter berm to isolate concrete truck washout operations. At the end of construction, all concrete shall be removed from the site and disposed of at an approved waste site. Signs shall be placed at the washout to clearly indicate the concrete washout area to operators of concrete trucks and pump rigs. Refer to the standard detail for requirements.

All construction site waste both liquid and solid must be contained in approved waste containers and disposed of off-site according to state and local regulations. Portable sanitary facilities shall be provided at the site throughout the construction phase and must comply with state and local sanitary or septic system.

Waste disposal bins will be inspected daily for leaks and capacity. The bins will be placed on a surface that would indicate if there were a leak in the bin and prevent the leak from infiltrating the ground. If a leak is identified the bin will be repaired or replaced within 24 hours. No leakage will be allowed into the ground. Bins will be inspected for capacity by marking the bins with a level line at 80% of the internal height at the lowest rim. When any debris exceeds the 80% line, The bin will be closed or covered and no more debris will be inserted and the bin will be emptied with in 48 hours. No debris will be allowed to extend past the rim of the container.

Portable toilets will be located a minimum of 10ft from stormwater inlets and 50ft from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills.

8. Groundwater and stormwater dewatering:

Groundwater dewatering is not anticipated on the site work or building construction. Locations and practices to be implemented to control stormwater pollution from excavations, etc. must be noted on the SWMP. A separate CDPHE construction discharge (dewatering) permit will be required for groundwater dewatering and shall be obtained by the GEC Administrator. Construction dewatering water cannot be discharged to surface water or to storm sewer systems without separate permit coverage. The discharge of Construction Dewatering water to the ground, under specific conditions, may be allowed by the Stormwater Construction Permit when appropriate CCMs are implemented. Refer to USDCM Volume III (UDFCD) for County acceptable means of dewatering.

9. Control Measures Owner and Operator.

This project relies on control measures owned or operated by the contractor.

V. FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

“Final stabilization is reached when all ground surface disturbing activities at the site have been completed and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.” When vegetation is used to achieve final stabilization, the 70% vegetation requirement applies to a uniform plant density, which means that all areas of the site that rely on a vegetative cover to achieve stabilization must be uniformly vegetated. Noxious weeds are not to be counted toward the 70% requirement. The contractor will be responsible for providing the documentation to make this comparison to the County and the State of Colorado, Water Quality Control Division. The stormwater permit allows the permittee to use alternatives to vegetation to achieve final stabilization. All alternatives to vegetation must meet specific criteria to be considered equivalent to vegetation, specifically: stabilization must be permanent, all disturbed areas must be stabilized, and alternatives must follow good practices as described in the CDPHE Memo, dated March 5, 2013 (see References).

Temporary seeding for the project site shall include seeding and mulching. For the application methods, soil preparation and seeding and mulching requirements, refer to SWMP Drawings. All slopes of three-to-one (3:1) or steeper must be covered with an erosion control blanket.

Management of storm water after completion of construction will be accomplished by utilizing the practices listed below.

- Upon completion of construction, the site shall be inspected to ensure that all equipment, waste materials and debris have been removed.
- The site will be inspected to make certain that all graded surfaces have been landscaped or seeded with an appropriate ground cover.
- All silt fence, rock socks, etc. and all other control practices and measures that are to remain after completion of construction will be inspected to ensure their proper functioning.
- The contractor shall remove erosion control measures that are not required to remain.

After all construction activities are completed on the site, but final stabilization has not been achieved, the contractor shall make a thorough inspection of the stormwater management system at least once every month.

The contractor shall be responsible for maintaining the CCMs and stormwater controls in good working order and shall also be responsible for the costs incurred until final stabilization is reached. Once final stabilization has been achieved the contractor shall be responsible for removal of the erosion control measures.

Should any of the erosion control facilities (CCMs) become in disrepair prior to the establishment of the native or natural erosion control measures, the Contractor is responsible for the cost of such maintenance. The Contractor is also responsible for the clean-up of offsite areas affected by any sediment that may leave the site. Control of erosion from areas disturbed by project construction will be the responsibility of the respective contractor. All erosion control measures shown on the plan shall be installed and maintained in accordance with Construction Control Measures.

Inactivation of permit coverage: Coverage under the Stormwater Construction Permit may be inactivated by the permittee when the site has attained final stabilization, all temporary erosion and sediment control measures have been removed, and all components of the SWMP are complete.

VI. RECOMMENDED INSPECTION AND MAINTENANCE PROCEDURES

A. Minimum Inspection Schedule

1. Frequency. Contractor should inspect and document Construction CCM's at the following times and intervals.
 - a) After installation of any Construction CCM;
 - b) At least once every 14 days, but a more frequent inspection schedule may be necessary to ensure that CCMs continue to operate as needed to comply with the permit.
 - c) Within 24 hours after a precipitation or snowmelt event that produces runoff or causes surface erosion.
2. Consult State Permit No. COR-030000 for alternate inspection requirements at temporarily idle sites, at completed sites, or for winter conditions.
3. Refer to the Standard Details for the maintenance procedures associated with each CCM.
4. Inspection Procedures. The inspection must include observation of:
 - a) The construction site perimeter and discharge points (including discharges into a storm sewer system);
 - b) All disturbed areas;
 - c) Areas used for material/waste storage that are exposed to precipitation
 - d) Other areas determined to have a significant potential for stormwater pollution, such as concrete washout locations, or locations where vehicles enter or leave the site;
 - e) Erosion and sediment control measures identified in the SWMP; and any other structural CCMs that may require maintenance, such as secondary containment around fuel tanks, or the condition of spill response kits.

The inspection must determine if there is evidence of, or the potential for, pollutants entering the drainage system. CCMs should be reviewed to determine if they still meet the design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site. Any CCMs not operating in accordance with the SWMP must be addressed as soon as possible, immediately in most cases, to minimize the discharge of pollutants, and the SWMP must be updated as described.
5. Record Keeping and Documenting Inspections: Keeping accurate and complete records serves several functions. First, keeping records of spills, leaks, inspections, etc. is a requirement of the State Stormwater Construction Permit; therefore, enforcement action, including fines, could result if records are not adequate. Second, by keeping accurate and detailed records, you will have documentation of events which could prove invaluable should complications arise concerning the permit, lawsuits, etc.
6. Inspection Checklist/Report. The Permittee must document inspection results and maintain a record of the results for a period of 3 years following expiration or inactivation of permit coverage. These records must be made available to CDPHE, the County or EPA upon request. The GEC Administrator

should record the inspection results on a site-specific standardized inspection report or County Inspection Checklist to be maintained and kept on the construction site. An example template for the inspection report format is included in Appendix. The GEC Administrator should develop a site-specific inspection report that itemizes the selected Construction CCMs for their site. At a minimum the following information from each inspection should be recorded on the site-specific report. This report should be located within 8 feet of the main entrance to job site trailer and within sight of the entrance. If within a cabinet or drawer, there needs to be a sign on the enclosure with a minimum of ½ inch tall letters indicting “SWMP /CSWMP Inspection Report Inside”:

- a) Date of inspection,
 - b) Name and title of inspector,
 - c) Signature of inspector,
 - d) Location(s) of discharges of sediment or other pollutants from the site,
 - e) Location(s) of CCMs that need to be maintained,
 - f) Location(s) of CCMs that failed to operate as designed or proved inadequate for a particular location,
 - g) Location(s) where additional CCMs are needed that were not in place at the time of inspection,
 - h) Deviations from the minimum inspection schedule as provided in the permit,
 - i) Descriptions of corrective actions for any item above, date(s) of corrective actions taken, and measures taken to prevent future violations, including requisite changes to the SWMP, as necessary and
 - j) After adequate corrective action(s) has been taken, or where a report does not identify any incidents requiring corrective actions, the report shall contain a signed statement indicating the site is in compliance with the permit to the best of the signer’s knowledge and belief.
7. Inspection Checklists/Reports to County: Completed Inspection Checklists will be submitted electronically to the assigned County Engineering inspector within 5 business days of the inspection. The inspections checklists must also be kept on-site.
 8. GEC Administrator to perform self-inspections at a minimum once every 14 calendar days, and within 24 hours of storm events or snowmelt event that causes surface erosion. The GEC Administrator must complete and submit self-inspection form within 5 business days of the self-inspections.

B. CCM Operation and Maintenance.

The GEC Administrator is responsible for operation and maintenance of construction CCMs. The GEC Administrator will inspect the site per inspection and monitoring protocol outlined above and will make any necessary repairs to construction CCMs immediately after a defect or other need for repair is discovered. The project site and the adjacent streets impacted by the construction shall be kept neat, clean and free of debris. The erosion control measures and facilities will be maintained in good working order until final stabilization. Any items that are not functioning properly or are inadequate will be promptly repaired or upgraded. Records of inspections must be kept and be available for review by the State of Colorado Water Quality Control Division or the County.

VII. REFERENCES

- 1) CDPS General Permit: Stormwater Discharges Associated with Construction Activity Permit No. COR-030000, Colorado Department of Public Health and Environment, dated July 1, 2007. Administratively continued effective July 1, 2012.
- 2) CDPHE, Stormwater Discharges Associated with Construction Activity, Stormwater Management Plan Preparation Guidance, prepared by CDPHE, dated April 2011.
- 3) CDPHE Memorandum, Final Stabilization requirements for stormwater construction permit termination, Alternatives to the 70% plant density re-vegetation requirement, prepared by CDPHE, dated March 5, 2013.
- 4) Volume 1 and 2, City of Colorado Springs, Drainage Criteria Manual, by City of Colorado Springs, current edition.
- 5) Volume 3, Urban Storm Drainage Criteria Manual, by Urban Drainage and Flood Control District, current edition.
- 6) El Paso County Area Soil Survey, prepared by the Natural Resources Conservation Service.
- 7) City of Colorado Springs and El Paso County Flood Insurance Study, prepared by the Federal Emergency Management Agency, dated March 1997.

APPENDIX TABLE OF CONTENTS

APPENDIX A

Vicinity Map

Soil Survey Map

Flood Insurance Rate Map

APPENDIX B

Example – Exhibit A: Erosion and Sediment Control Field Inspection Report

Example – Exhibit B: Corrective Action Report

APPENDIX C

Stormwater Certificate

APPENDIX D

CCM Details

APPENDIX E

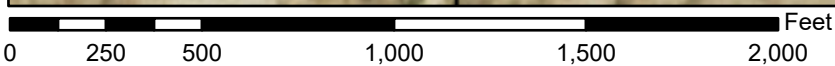
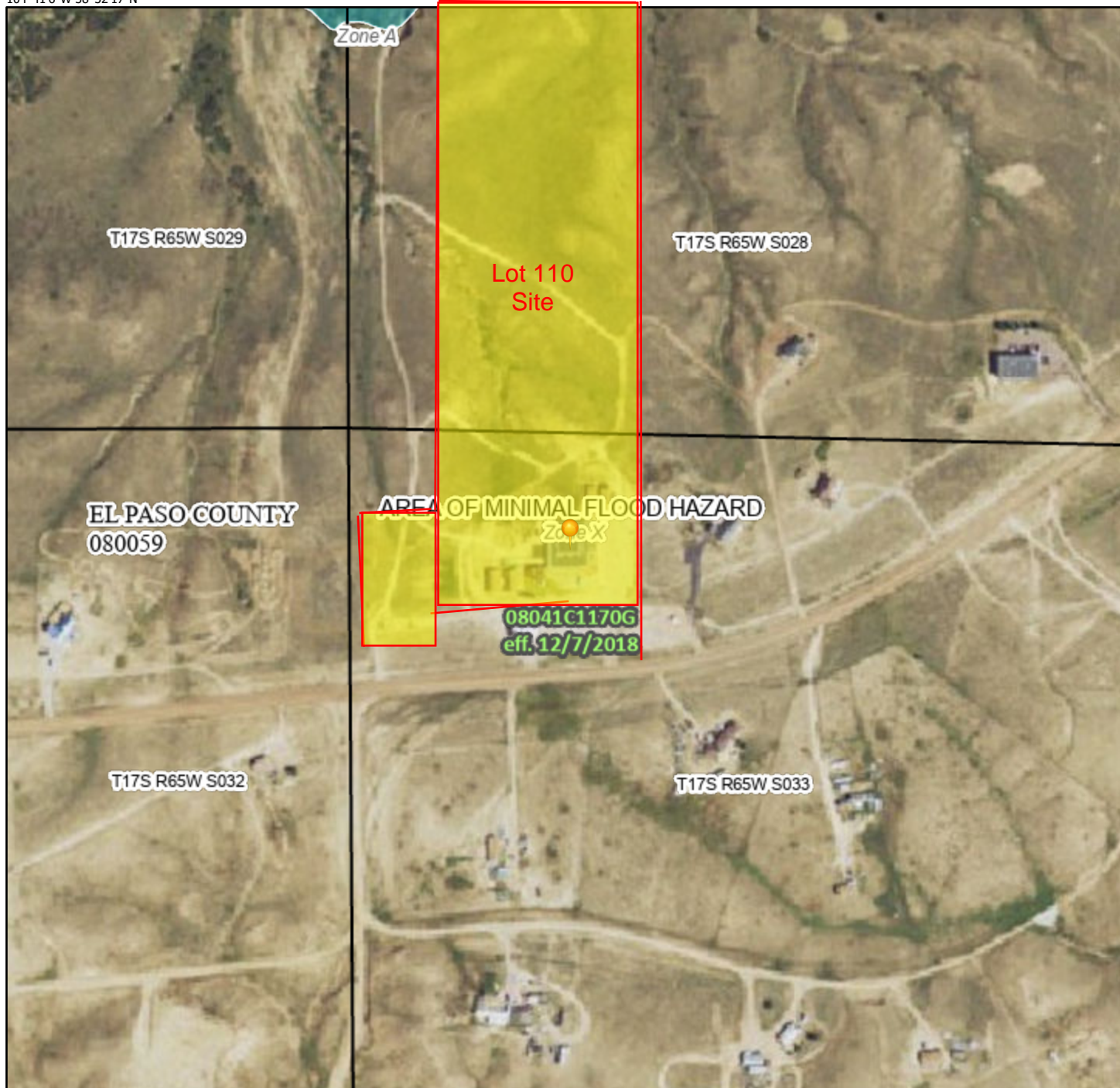
SWMP Plan (GEC Plan)

APPENDIX A
Vicinity Map
Soil Survey Map
Flood Insurance Rate Map

National Flood Hazard Layer FIRMMette



104°41'6"W 38°32'17"N



1:6,000

104°40'29"W 38°31'48"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		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 <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
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 1/24/2025 at 6:54 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.



United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

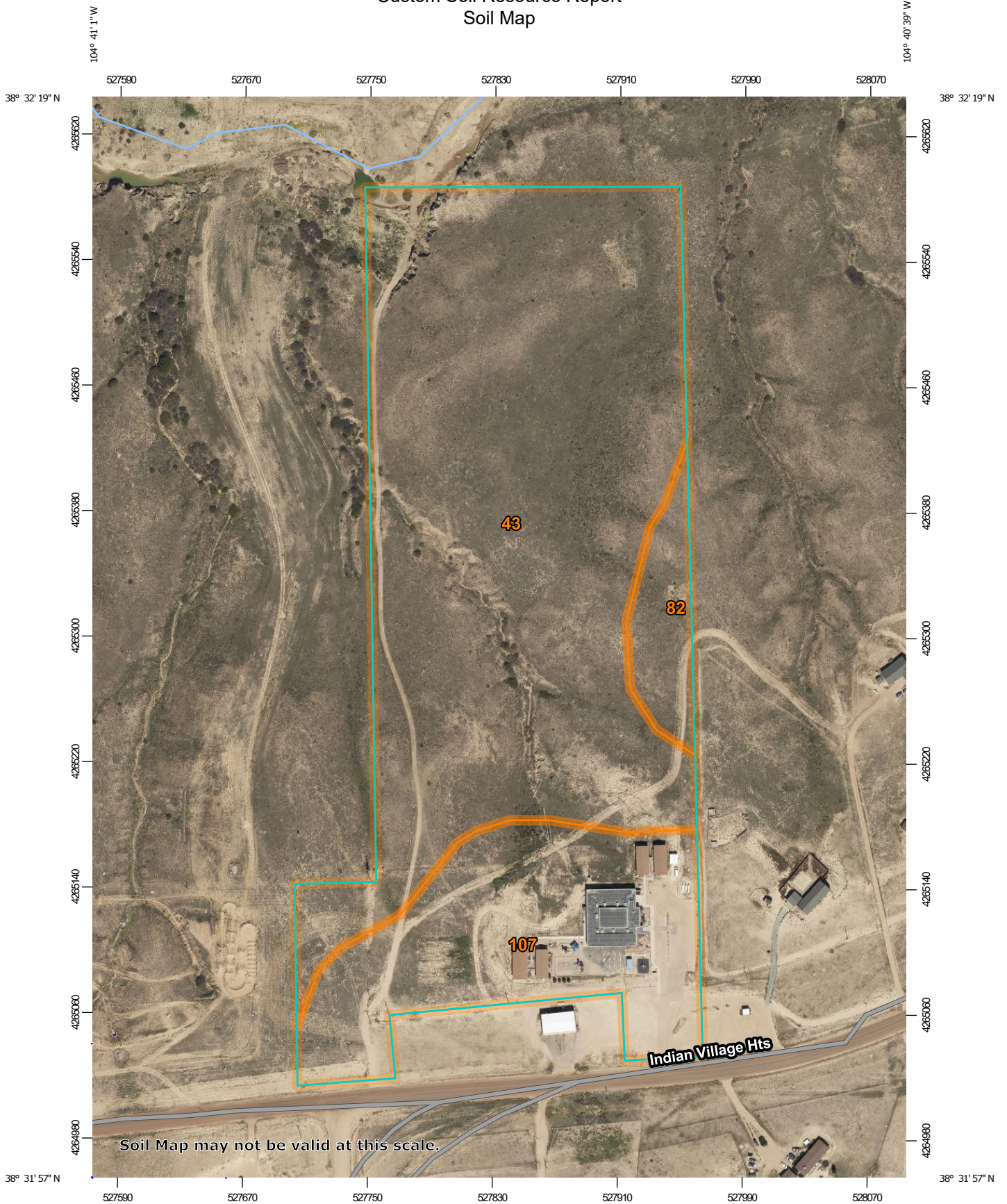
A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **El Paso County Area, Colorado**

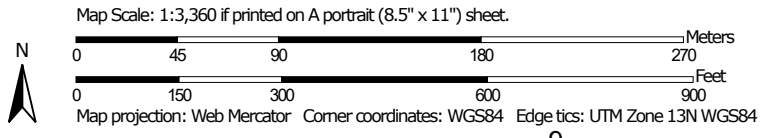
Prairie Heights Elem School



Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

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 22, Sep 3, 2024

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

Date(s) aerial images were photographed: Aug 14, 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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
43	Kimera loam, 0 to 5 percent slopes	20.5	71.6%
82	Schamber-Razor complex, 8 to 50 percent slopes	1.3	4.7%
107	Wilid silt loam, 0 to 3 percent slopes	6.8	23.7%
Totals for Area of Interest		28.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

El Paso County Area, Colorado

43—Kimera loam, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2t51v
Elevation: 3,700 to 6,400 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 130 to 170 days

Map Unit Composition

Kimera and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimera

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Old alluvium and/or eolian deposits

Typical profile

A - 0 to 6 inches: loam
Bw - 6 to 16 inches: loam
Bk1 - 16 to 28 inches: clay loam
Bk2 - 28 to 38 inches: loam
Bk3 - 38 to 79 inches: loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Very slightly saline (2.0 to 3.9 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
***Hydrologic Soil Group:* C**
Ecological site: R069XY006CO - Loamy Plains
Forage suitability group: Loamy (G069XW017CO)
Other vegetative classification: Loamy (G069XW017CO), Loamy Plains #6 (069XY006CO_2)

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Hydric soil rating: No

Minor Components

Wilid

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains

Other vegetative classification: Loamy (G069XW017CO), Loamy Plains #6
(069XY006CO_2)

Hydric soil rating: No

Oterodry

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY026CO - Sandy Plains

Hydric soil rating: No

Fort

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains

Other vegetative classification: Loamy (G069XW017CO), Loamy Plains #6
(069XY006CO_2)

Hydric soil rating: No

Travessilla

Percent of map unit: 5 percent

Landform: Scarps

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Linear

Ecological site: R069XY053CO - Sandstone Breaks

Other vegetative classification: Needs Field Review (G069XW050CO), Sandstone
Breaks #53 (069XY053CO_2)

Hydric soil rating: No

82—Schamber-Razor complex, 8 to 50 percent slopes

Map Unit Setting

National map unit symbol: 369y
Elevation: 5,500 to 6,500 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 135 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition

Schamber and similar soils: 55 percent
Razor and similar soils: 43 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Schamber

Setting

Landform: Breaks
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite and/or colluvium derived from granite and/or eolian deposits derived from granite

Typical profile

A - 0 to 5 inches: gravelly loam
AC - 5 to 15 inches: very gravelly loam
C - 15 to 60 inches: very gravelly sand

Properties and qualities

Slope: 8 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
***Hydrologic Soil Group:* A**
Ecological site: R069XY064CO - Gravel Breaks
Hydric soil rating: No

Description of Razor

Setting

Landform: Breaks

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Clayey slope alluvium over residuum weathered from shale

Typical profile

A - 0 to 3 inches: clay loam

Bw - 3 to 9 inches: clay loam

Bk - 9 to 31 inches: clay

Cr - 31 to 35 inches: weathered bedrock

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Gypsum, maximum content: 5 percent

Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)

Sodium adsorption ratio, maximum: 15.0

Available water supply, 0 to 60 inches: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): 6e

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Ecological site: R069XY047CO - Alkaline Plains

Other vegetative classification: ALKALINE PLAINS (069AY047CO)

Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: 1 percent

Hydric soil rating: No

Pleasant

Percent of map unit: 1 percent

Landform: Depressions

Hydric soil rating: Yes

107—Wilid silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2qnmq
Elevation: 4,000 to 6,200 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 125 to 175 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Wilid and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wilid

Setting

Landform: Interfluves
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess and/or eolian deposits

Typical profile

A - 0 to 6 inches: silt loam
Bt - 6 to 10 inches: silty clay loam
Btk - 10 to 30 inches: silty clay loam
Bk1 - 30 to 44 inches: silty clay loam
Bk2 - 44 to 79 inches: silt loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.5 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e

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Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: R069XY006CO - Loamy Plains

Forage suitability group: Loamy (G069XW017CO)

Other vegetative classification: Loamy (G069XW017CO), Loamy Plains #6 (069XY006CO_2)

Hydric soil rating: No

Minor Components

Minnequa

Percent of map unit: 5 percent

Landform: Ridges, pediments

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains

Other vegetative classification: Loamy (G069XW017CO)

Hydric soil rating: No

Almagre

Percent of map unit: 5 percent

Landform: Interfluves

Landform position (two-dimensional): Footslope, summit

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains

Other vegetative classification: Loamy Plains #6 (069XY006CO_2), Loamy (G069XW017CO)

Hydric soil rating: No

Manzanola

Percent of map unit: 5 percent

Landform: Depressions, drainageways

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Talf

Down-slope shape: Concave, linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains

Other vegetative classification: Clayey (G069XW001CO), Loamy Plains #6 (069XY006CO_2)

Hydric soil rating: No

References

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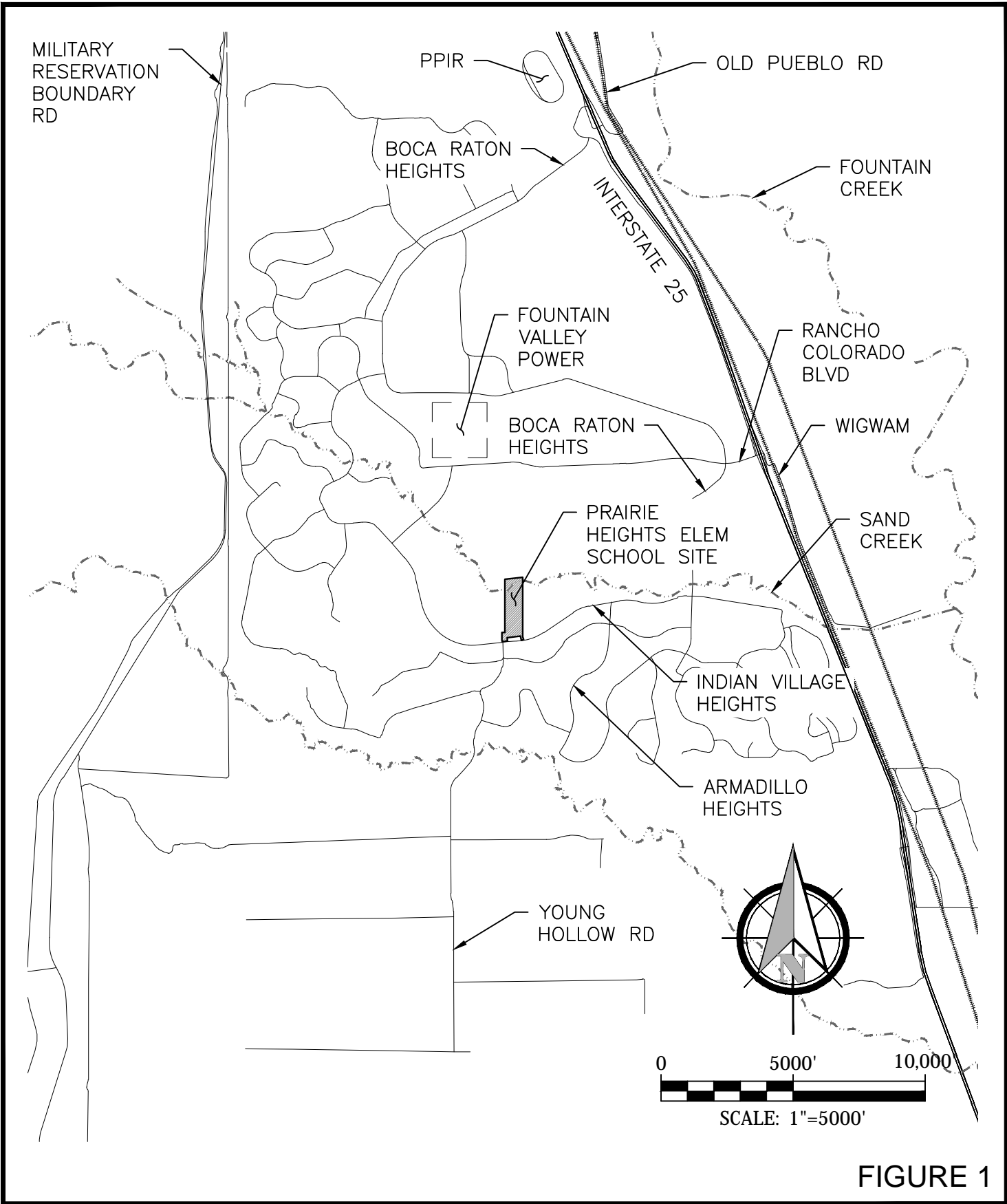


FIGURE 1

APPENDIX B

Example – Exhibit A: Erosion and Sediment Control Field Inspection Report
Example – Exhibit B: Corrective Action Report

Exhibit A
Erosion and Sediment Control Field Inspection Report

Project Name:	Date of Inspection:
Project Address/Location:	Time of Inspection:
Contractor:	Name of Inspector:

Reason for Inspection:

BMP for Erosion Control	Practice Used		Maintenance or Sediment Removal Required		Explain Required Action
	Yes	No	Yes	No	
Check Dams					
Concrete Washout Area					
Construction Fence					
Diversion Ditch/Swales/Berms					
Erosion Control Blankets					
Inlet Protection					
Reinforced Rock Berms					
Reinforced Rock Berms - Culvert					
Sediment Basin					
Sediment Control Log					
Seed & Mulch (Temp. or Permanent)					
Silt Fence					
Sodding					
Stabilized Staging Area					
Straw Bale Barrier					
Surface Roughening					
Vehicle Tracking Control Pad					

Contractor's Comments:

Inspector's Comments:

I certify this Erosion and Sediment Control Field Inspection Report is complete and accurate, to my knowledge and belief.

Inspector Signature and Date:	Reviewed By:
-------------------------------	--------------

Exhibit B
Corrective Action Report

Site: _____

Inspector: _____

Date: _____

.....
Erosion Control Measure/Facility Requiring Attention:

Recommended Corrective Action:

Scheduled Completion Date: _____ Date Completed: _____

.....

Erosion Control Measure/Facility Requiring Attention:

Recommended Corrective Action:

Scheduled Completion Date: _____ Date Completed: _____

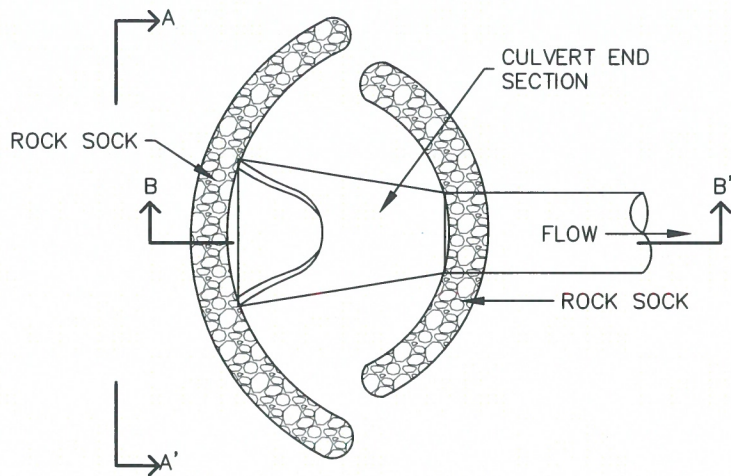
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Erosion Control Measure/Facility Requiring Attention:

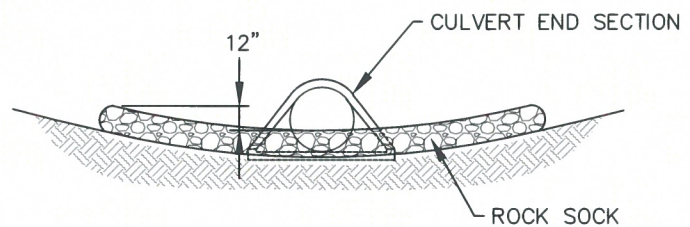
Recommended Corrective Action:

Scheduled Completion Date: _____ Date Completed: _____

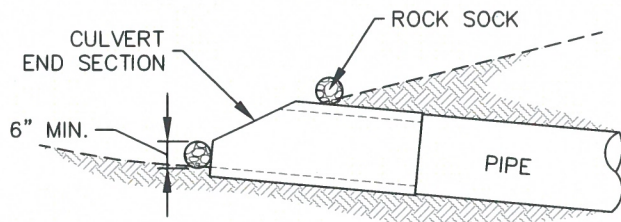
APPENDIX C
Stormwater Certificate



CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

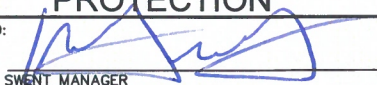
INSTALLATION NOTES

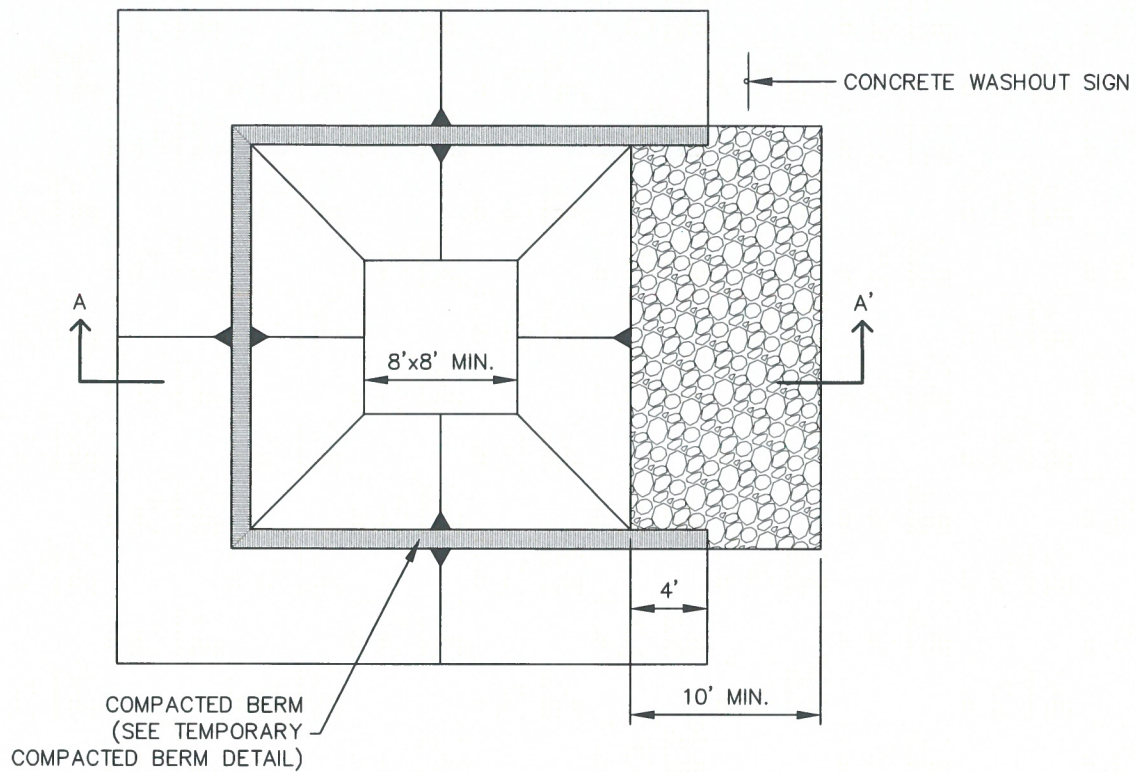
1. SEE ROCK SOCK DETAIL.

MAINTENANCE NOTES

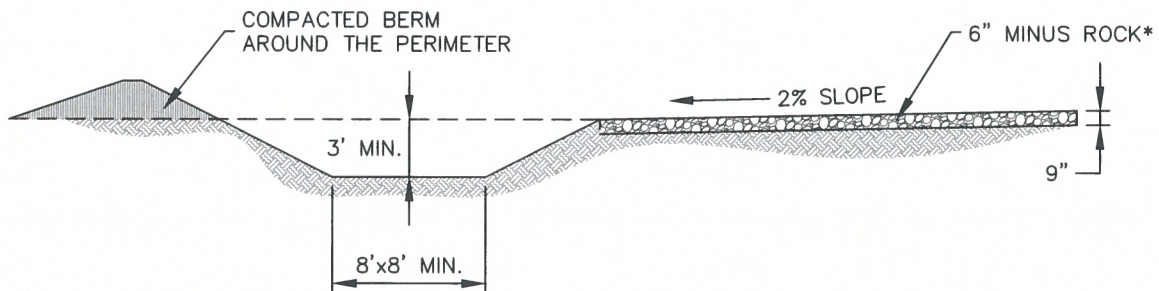
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS $\frac{1}{2}$ HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.



CULVERT INLET PROTECTION		
APPROVED: 		
SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-CIP



CONCRETE WASHOUT AREA PLAN



SECTION A-A'

*ROCK REQUIRED BASED ON
SITE CONDITIONS AT THE
DISCRETION OF THE GEC
INSPECTOR



CONCRETE WASHOUT AREA		
APPROVED:		
SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-CWA-1

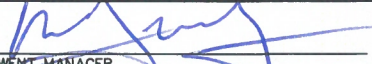
INSTALLATION NOTES

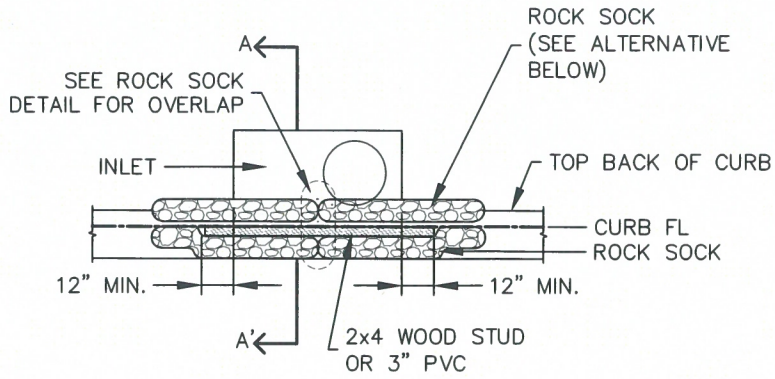
1. SEE PLAN VIEW FOR:
-LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL. MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

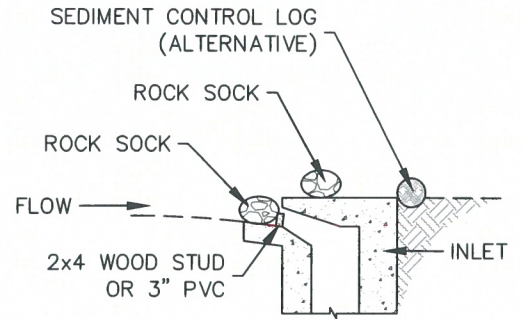
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF $\frac{2}{3}$ THE HEIGHT OF THE CONCRETE WASH AREA.
3. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE, AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.



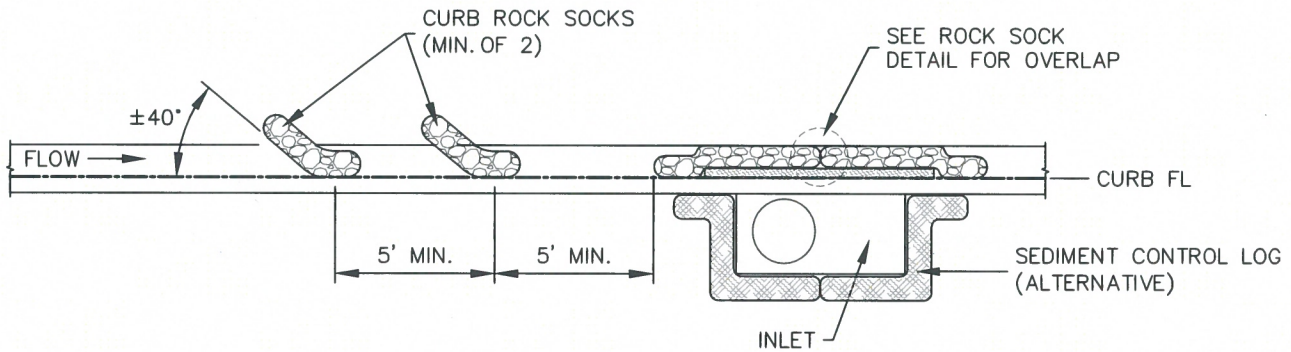
CONCRETE WASHOUT AREA		
APPROVED: 		
SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-CWA-2



CURB INLET PROTECTION PLAN



SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

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

MAINTENANCE NOTES

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

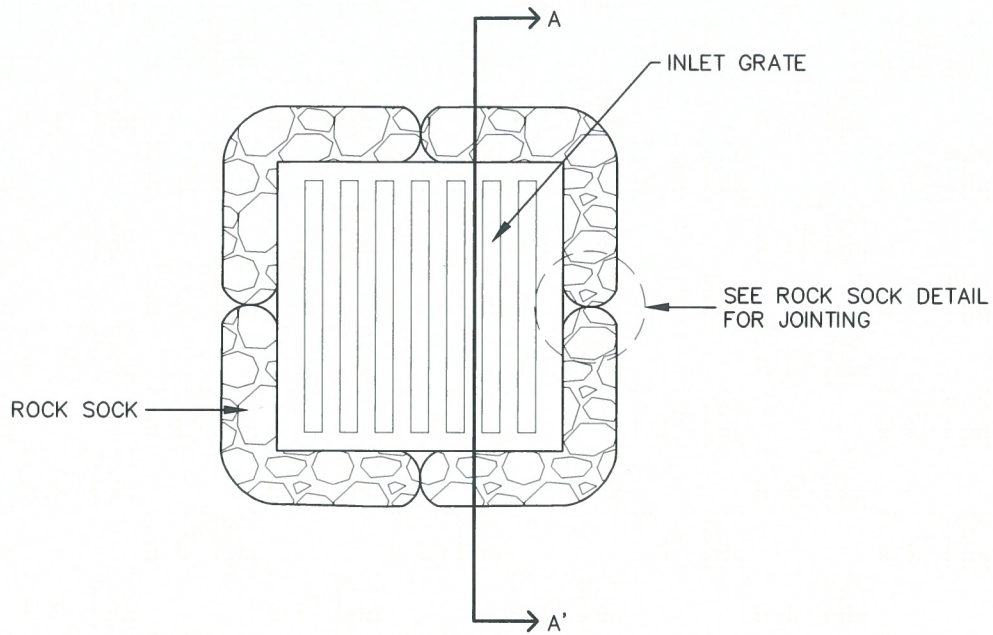
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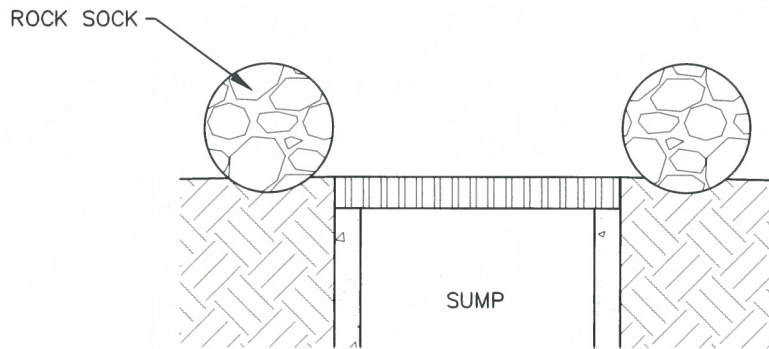
ON-GRADE INLET PROTECTION

APPROVED: *[Signature]*
SWENT MANAGER

ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-IP-1
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ROCK SOCK SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL
3. CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

MAINTENANCE NOTES

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

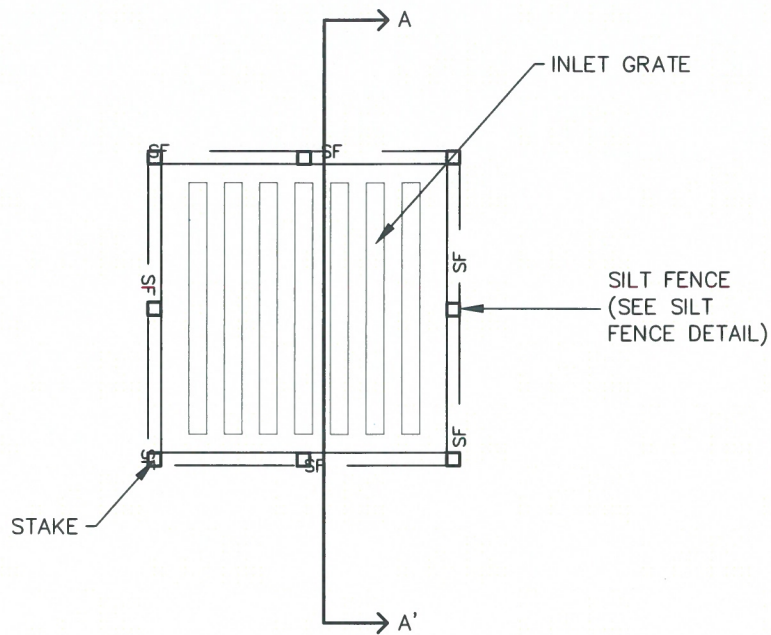
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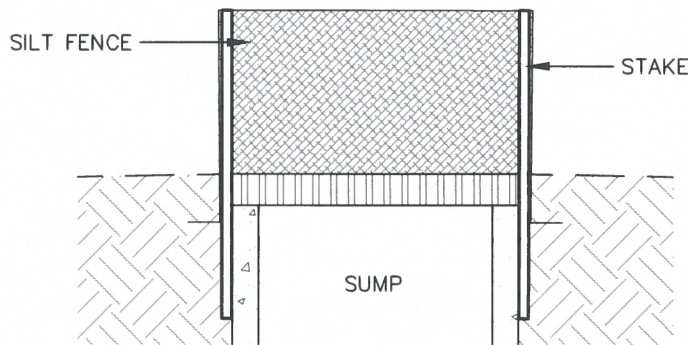
SUMP INLET PROTECTION

APPROVED: 
SWENT MANAGER

ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-IP-2
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SILT FENCE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

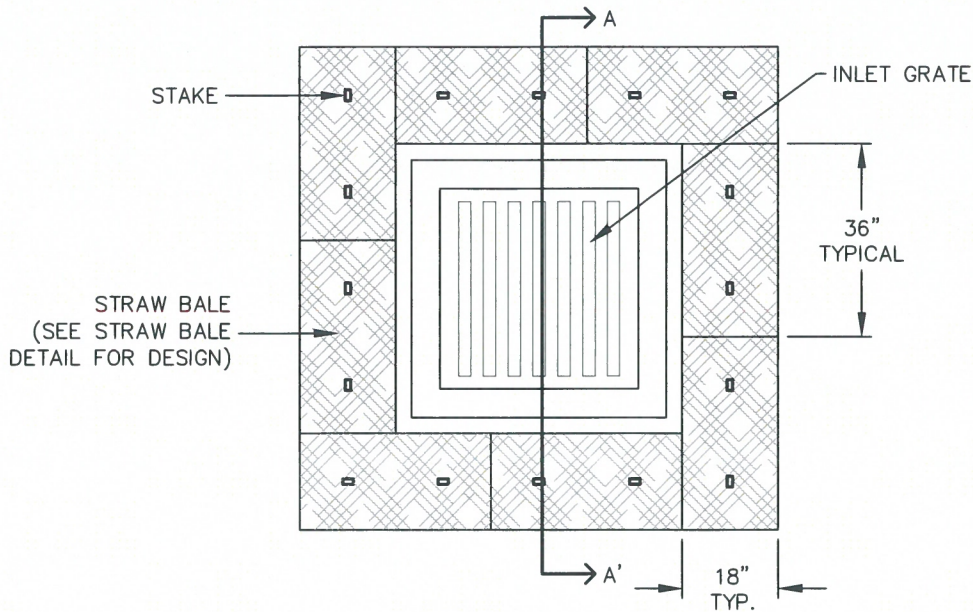
1. SEE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF THREE FEET.
3. SILT FENCE FABRIC SHOULD HAVE A FLOW RATE IN EXCESS OF 30 GALLONS PER MINUTE PER SQUARE YARD SO AS TO ALLOW SOME WATER FLOW AND NOT DAM THE WATER. STANDARD, LOW-FLOW SILT FENCE FABRIC WILL NOT BE ALLOWED.

MAINTENANCE NOTES

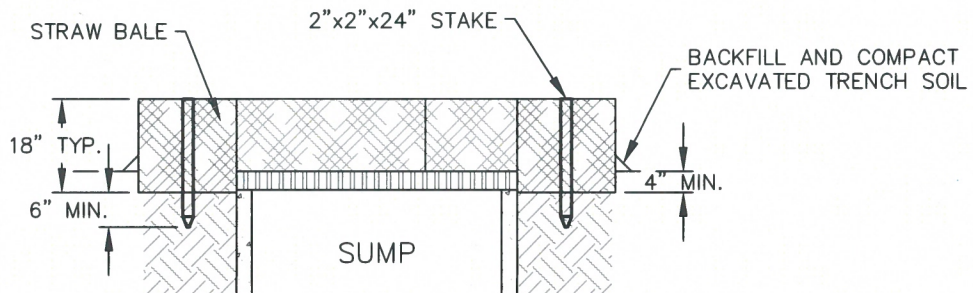
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. SILT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

IP-3

	SUMP INLET PROTECTION		
	APPROVED:		
	SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-IP-3	



STRAW BALE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE ENDS OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
5. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PACED SO THAT THE BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S).
6. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKED SHALL BE 2"x2"x24 (MIN.)". WOODEN STAKES SHALL BE DRIVEN A MINIMUM OF 6" INTO THE GROUND.

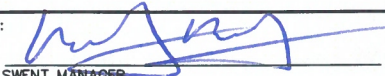
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. STRAW BALES MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER STRAW BALES ARE REMOVED WHEN REMOVAL IS APPROPRIATE.
5. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN OR DAMAGED BEYOND REPAIR.

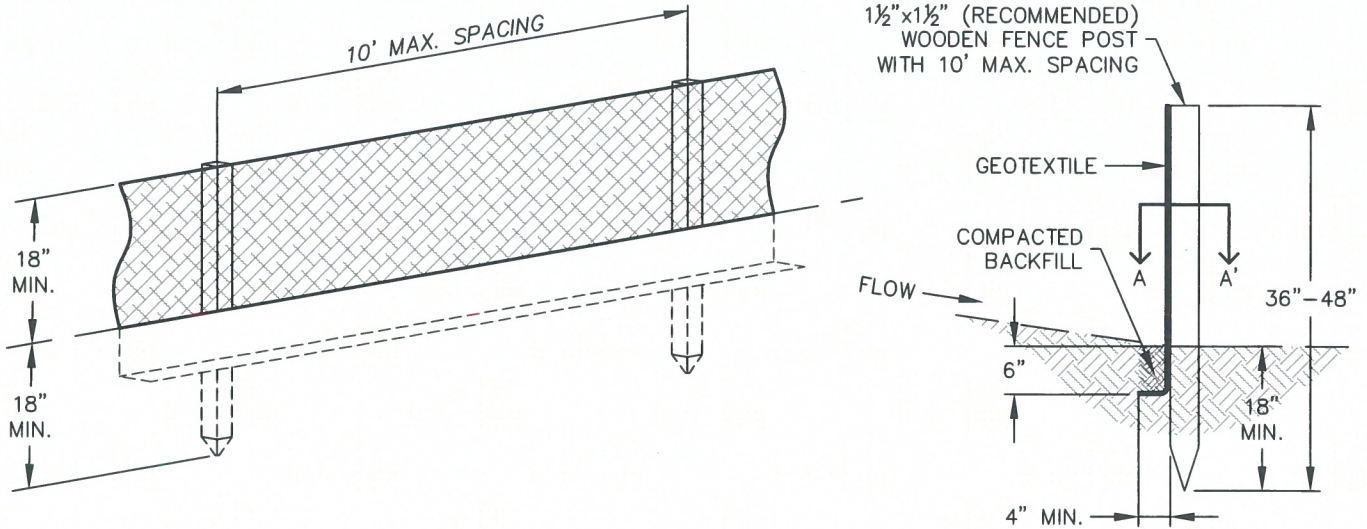
IP-4



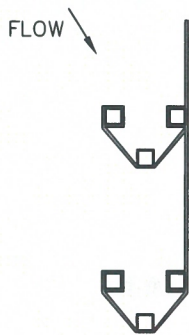
SUMP INLET PROTECTION

APPROVED: 
SWENT MANAGER

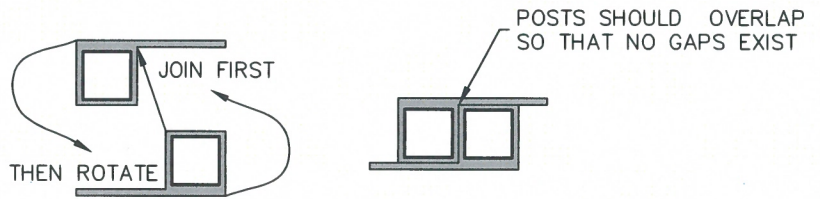
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-IP-4
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SILT FENCE



J-HOOK INSTALLATION



SECTION A-A'

INSTALLATION NOTES

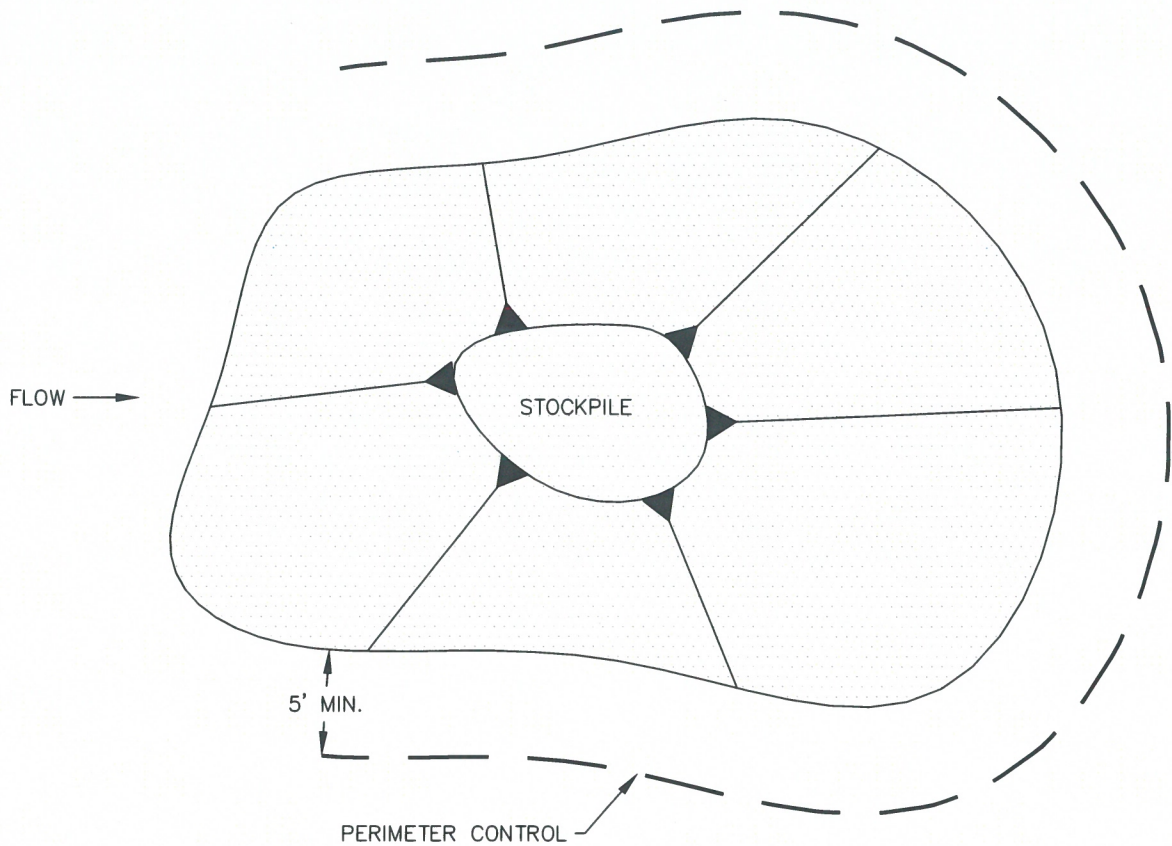
1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES

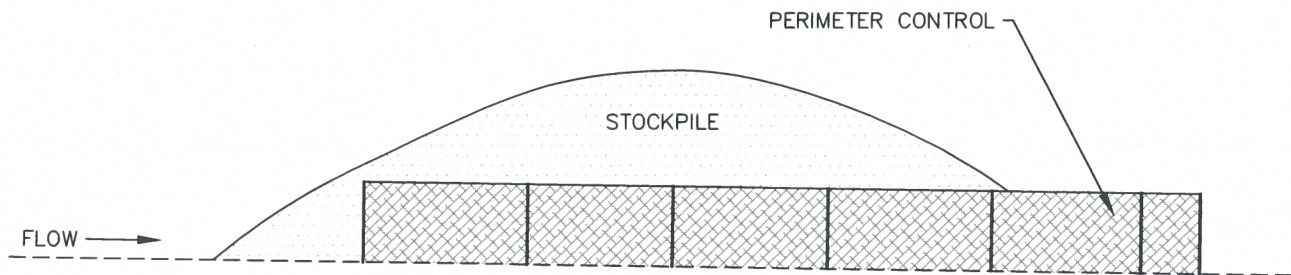
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES 1/2 OF THE DESIGN HEIGHT OF THE SILT FENCE.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.



	SILT FENCE	
	APPROVED:	
	SWENT MANAGER	
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-SF



STOCKPILE PROTECTION PLAN



STOCKPILE PROTECTION ELEVATION

INSTALLATION NOTES

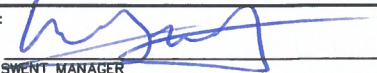
1. INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRAIDENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
2. FOR STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRAIDENT CONTROLS INCLUDING PERIMETER CONTROL ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
3. ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.



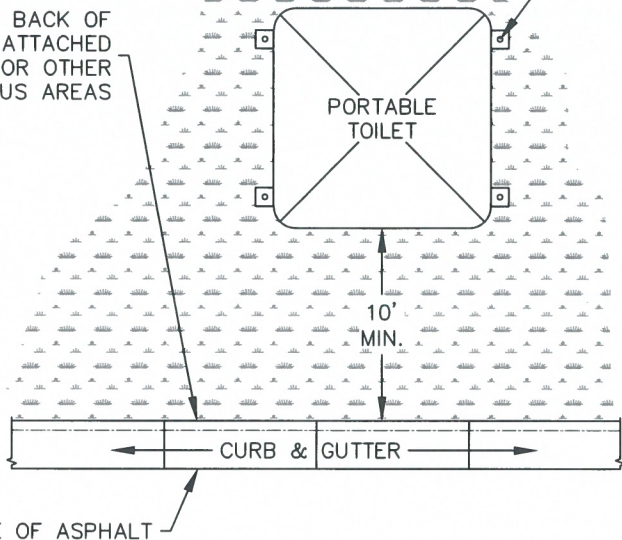
STOCKPILE PROTECTION

APPROVED: 
SWENT MANAGER

ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-SP
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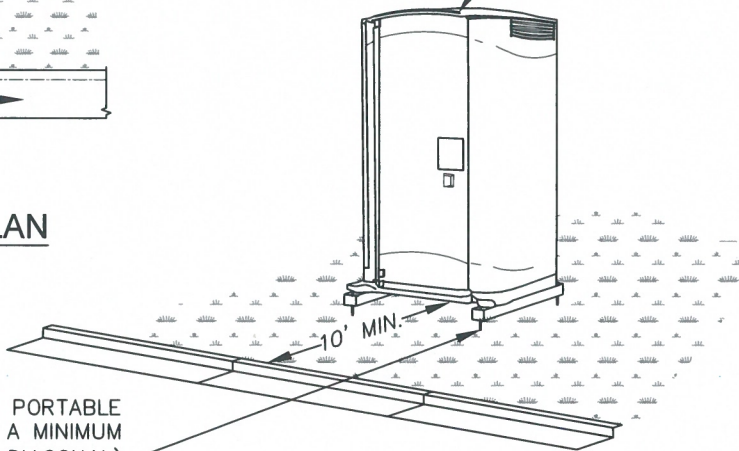
CONTRACTOR SHALL ANCHOR PORTABLE TOILET TO THE GROUND, AT A MINIMUM OF TWO OPPOSING CORNERS (ON A DIAGONAL) USING U-SHAPED REBAR STAKES

TOP BACK OF CURB, ATTACHED SIDEWALK, OR OTHER IMPERVIOUS AREAS



PORTABLE TOILET PLAN

PORTABLE TOILET (TYPICAL)



ISOMETRIC

CONTRACTOR SHALL ANCHOR PORTABLE TOILET TO THE GROUND, AT A MINIMUM OF TWO OPPOSING CORNERS (ON A DIAGONAL) USING U-SHAPED REBAR STAKES OR OTHER EFFECTIVE ANCHORING

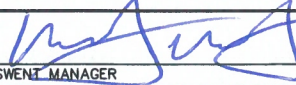
INSTALLATION NOTES

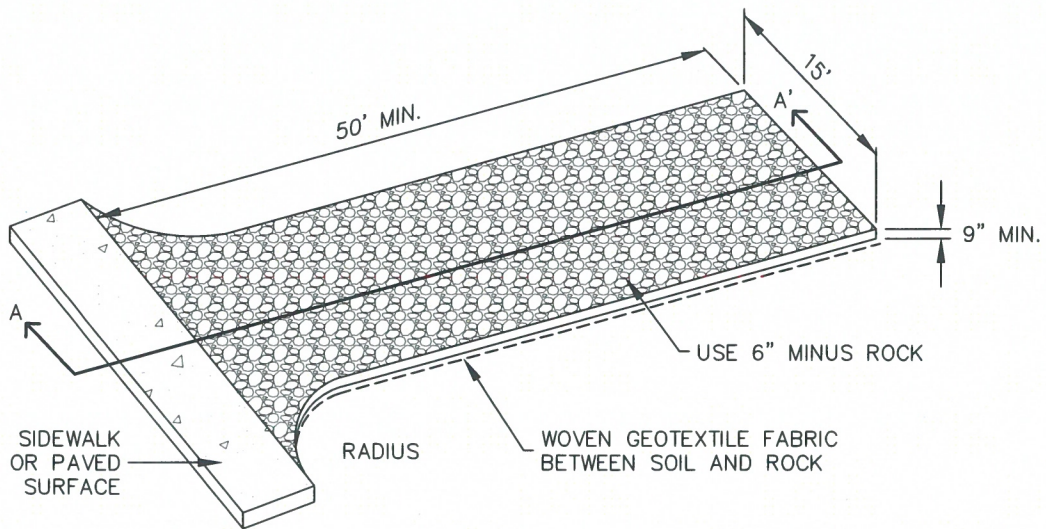
1. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS; 50 FEET FROM STORM INLETS, AND 100 FEET FROM WATERWAYS.
2. PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY BE INSTALLED IN ACCORDANCE WITH NOTE #1 IN STAGING AREAS/YARDS.
3. PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER EFFECTIVE ANCHORING.
4. ANCHORING SHALL BE POSITIONED ON AT LEAST TWO OPPOSING (DIAGONAL) CORNERS.
5. TOILET CONTAINMENT PANS MAY BE USED IN PLACE OF A TRAILER AT THE GEC INSPECTOR'S DISCRETION. TOILET CONTAINMENT PANS MUST BE ANCHORED IN PLACE AND MUST NOT BE USED WITHIN THE CITY R.O.W.

MAINTENANCE NOTES

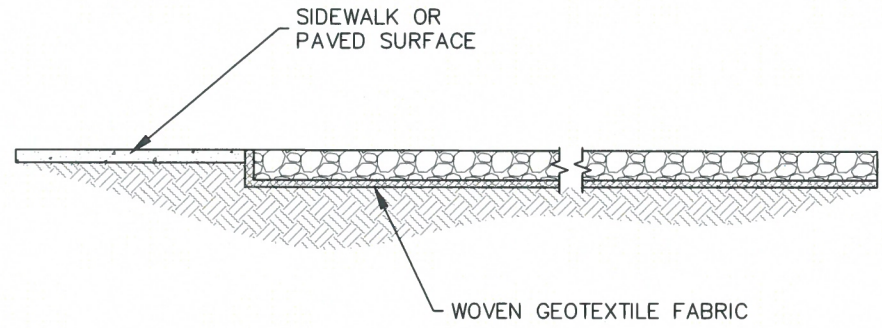
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERFLOW.
3. WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST BE PERMANENTLY STABILIZED.



PORTABLE TOILET		
APPROVED: 		
SWENT MANAGER		
ISSUED: 2/19/19	REVISED: 8/19/2020	DRAWING NO. 900-PTM



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.



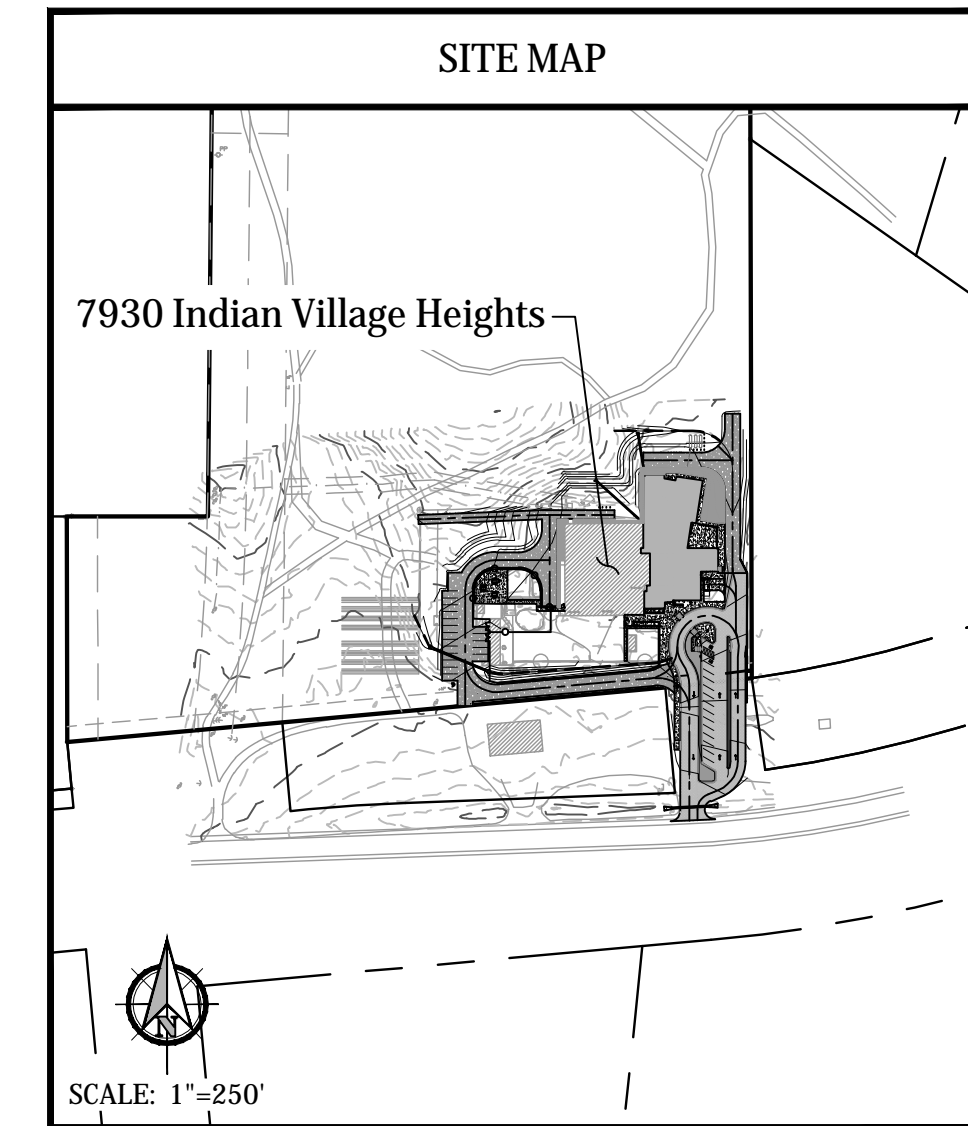
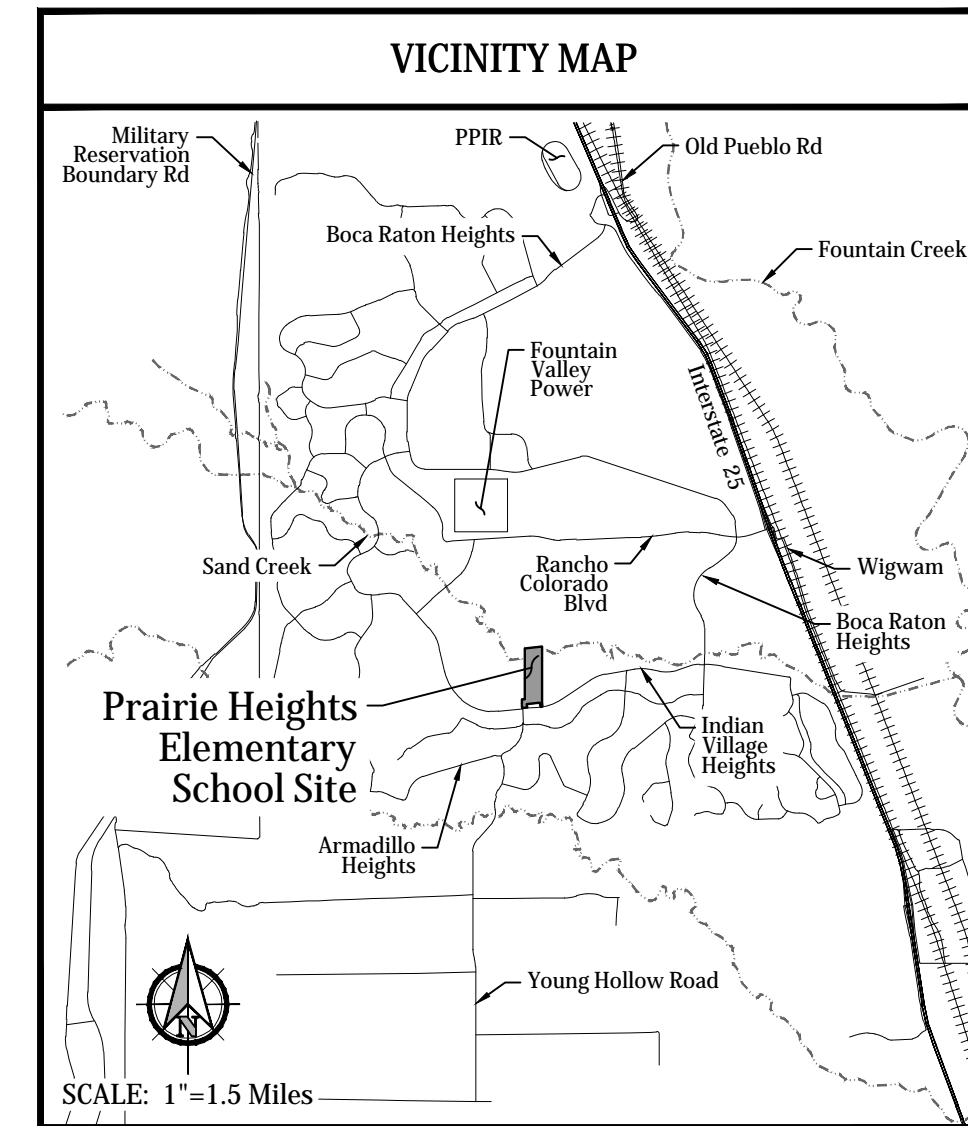
VEHICLE TRACKING CONTROL		
APPROVED: 		
SWENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-VTC

APPENDIX D
CCM Details

APPENDIX E
SWMP Plan (GEC Plan)

GRADING AND EROSION CONTROL PLAN

FOR
PRAIRIE HEIGHTS SCHOOL
LOCATED AT
7930 INDIAN VILLAGE HEIGHTS
FOUNTAIN, COLORADO



APPROVAL SIGNATURES			
TITLE	NAME	SIGNATURE	DATE
PARKS DESIGN DEV. AND TOPS PROGRAM MANAGER	BRITT HALEY	_____	_____
PARKS OPERATION & DEVELOPMENT MANAGER	ERIC BECKER	_____	_____
CITY FORESTER	DENNIS WILL	_____	_____
REGIONAL SUPERVISOR, PARKS, TRAILS & OPEN SPACE	SCOTT ABBOTT	_____	_____
CONSTRUCTION PROJECT MANAGER	EMILY DUNCAN	_____	_____
CITY ENGINEERING	PATRICK MORRIS	_____	_____
CITY TRAFFIC ENGINEERING		_____	_____
DEPT. OF UTILITIES - WATER/WASTEWATER		_____	_____
DEPT. OF UTILITIES - GAS/ELECTRIC		_____	_____
CITY WATER RESOURCE DIVISION		_____	_____

STATEMENTS	
<u>Engineer's Statement:</u>	
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 or omissions on my part in preparing this Plan.	
Todd Cartwright PE 33365	Date _____
<u>Owner's Statement:</u>	
I, the owner/developer have read and will comply with the requirements of this Grading and Erosion Control Plan.	
Signature Hanover School District	Date _____
<u>El Paso County:</u>	
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 Director's discretion.	
County Engineer/ECM Administrator	Date _____

SUMMARY OF APPROXIMATE QUANTITIES				
CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	PROJECT TOTALS	
			PLAN	AS CONST.
1	Mobilization	EA		
2	Construction staking	EA		
3	Construction traffic control	LS		
4	Concrete wash out structure	EA		
5	Silt Fencing	LF		
6	Stabilized construction entrance	EA		
7	Stabilized staging area	EA		
8	Clearing and grubbing	LS		
9	Earthwork- cut to fill	CY		
10	-----	LF		
11	-----	LF		
12	-----	LF		

PRE-EXCAVATION CHECKLIST
Gas and other utility lines of record shown on the plans.
Utilities Central Locating called at least 2 business days ahead. (1-800-922-1987)
Employees briefed on marking and color codes.*
Employees trained on excavation and safety procedures for natural gas lines.
When excavation approaches gas lines, employees expose lines by careful probing and hand digging.
*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE
Natural Gas Yellow
Electric Red
Water Blue
Wastewater Green

SHEET INDEX	
C300	COVER
C301	GRADING AND EROSION CONTROL NOTES
C311	GRADING PLAN - INITIAL
C312	GRADING PLAN - INTERIM
C313	GRADING PLAN - FINAL
C321	EROSION CONTROL PLAN - INITIAL
C322	EROSION CONTROL PLAN - INTERIM
C323	EROSION CONTROL PLAN - FINAL
C331	EROSION CONTROL DETAILS

GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
COVER
FOUNTAIN, COLORADO

Project No.:	24047
Date:	1/24/25
Design:	TAC
Drawn:	TEG
Check:	-
Revisions:	

SHEET
C300
OF _ SHEETS

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EL PASO COUNTY STANDARD NOTES FOR GRADING & EROSION CONTROL PLANS	
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 off-site waters, including wetlands.
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 from 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. Management of the SWMP / CSWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP / CSWMP 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 could contribute pollutants to stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed 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 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.
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.
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 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.
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 measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).
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 / CSWMP. 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 or other protective covering shall be used on slopes steeper than 3:1.
16.	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.
17.	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.
18.	Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
19.	The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, 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.
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 the original manufacturer's labels.

EL PASO COUNTY STANDARD NOTES FOR GRADING & EROSION CONTROL PLANS (cont)	
21.	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.
22.	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.
23.	No person shall cause the impeding of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
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 only at approved construction access points.
26.	Prior to construction the permittee shall verify the location of existing utilities.
27.	A water source shall be available on-site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.
28.	The soils report for this site has been prepared by Kumar & Assoc., 3/29/11 and shall be considered a part of these plans.
29.	At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (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 / CSWMP), of which this Grading And Erosion Control Plan may be a part. For information or application materials contact:
<p>Colorado Department of Public Health and Environment Water Quality Control Division WQCD - permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: permits unit</p>	

SITE SPECIFIC NOTES	
1.	Stockpiles are expected for the minimal on-site topsoil. Location of topsoil stockpile is to be determined by contractor on-site and noted in CSWMP.
2.	No known potential natural pollutant sources are one site.
3.	All disturbed areas not receiving permanent surface treatment will be re-seeded with Colorado Native Seed Mix per Landscape Plans.
4.	No dedicated asphalt or concrete batch plants are anticipated with this project.
5.	Street sweeping will be completed internally after paving and on adjacent streets as needed.
6.	"All utility installations within the limits of disturbance shown on this plan are covered under this plan. Locations of utilities within the limits of disturbance may be modified after plan approval as a field change. Utility installations related to the private development that extend beyond the limits of disturbance shown on this plan are considered to be part of the larger development, and therefore require a plan modification or separate plan for the additional disturbance area."
7.	No Geohazards on site.
8.	There are no "No Build" areas.
9.	No Preservation easements on site.
10.	Contractor will determine C.W.A. location.
<p>TIMING Anticipated starting and completion time period of site grading: May 2025 - Aug 2025 Expected date on which the final stabilization will be completed: July 2026</p>	
<p>AREAS Total area of the site to be cleared, excavated, or graded: 2.81 Acres</p>	
<p>RECEIVING WATERS Name of receiving waters: Sand Creek</p>	
<p>EARTHWORKS 1626 CY CUT, 2216 CY FILL, NET 590 CY FILL</p>	
<p>SITE SOIL TYPE NOTE: The Soil Types for the site classified within Hydrologic Soil Group C and erosion potential is medium to low.</p>	

KIOWA GENERAL NOTES	
1.	All materials and workmanship shall be in conformance with the latest version of Colorado Department of Transportation (CDOT) standard specifications for road and bridge construction and supplemented with the City of Colorado Springs standard specifications.
2.	The contractor shall notify the owner (city) and engineer of any problem in conforming to the approved plans for any element of the proposed improvements prior to its construction.
3.	The contractor shall protect all existing facilities in the general area of construction. The contractor shall repair any damage caused by construction operations at no cost to the project.
4.	Utility lines as shown on these drawings are plotted from the best available information. The contractor shall call 811 for utility locations at least two working days prior to any digging. The contractor shall determine the exact location of all utilities prior to construction and shall protect them from damage during construction.
5.	Surveying for this project shall be conducted in accordance with CDOT standards.
6.	Benchmark: fims monument SR10 is a 2-inch diameter aluminum cap stamped "CSU FIMS control SR10" on top of the north curb of constitution avenue at the northwest corner of the bridge over sand creek.
7.	All existing manholes to be marked with t-posts and caution tape prior to commencing with the construction.
8.	water shall be used as a dust palliative where required. Locations shall be as directed by the engineer. Water will not be paid for separately, but will be subsidiary to the excavation item.
9.	All removed asphalt will become the property of the contractor and will be disposed of outside project limits.
10.	The soil to be placed as topsoil material shall be free of refuse, stumps, roots, rocks, brush, weeds, hard clods, toxic substances or other material which would be detrimental to its use on the project. It shall have a minimum p.I. Of 5 but shall not be such heavy clay as to preclude placement with a shoulder machine.
11.	Salvageable material: material that can be saved or salvaged. Unless otherwise specified in the contract, all salvageable material shall become the property of the contractor.
12.	Topographic data indicated on these drawings was compiled from field surveys. Contractor must verify extent of work within these areas. Dimensions, elevations, and locations of existing structures, pipelines, and utilities are approximate. Where such dimensions or locations determine the limits of the work, such dimensions or locations shall be verified in the field prior to construction.
13.	The locations of existing structures, pipelines, utilities, etc., shown on the drawings have been approximated. There may be other structures, pipelines, utilities, etc., not shown on the drawings which presently exist in the area of construction. The engineer and/or owner assumes no responsibility for the accuracy or completeness of the information shown. The contractor will be responsible for locating and protecting all impacted existing structures, pipelines, utilities, etc., in the project site.
14.	The contractor shall carefully preserve all monuments, benchmarks, property markers, reference points, and stakes. In case of his destruction of these, the contractor will be responsible for resetting same, at no cost to the owner, and shall be responsible for any loss of time that may be caused.
15.	The contractor shall notify the engineer where utilities conflict with the work in conformance with the specifications. Where field verification is noted noted on the plans, this shall require the contractor to determine the location of the facility in question prior to construction. A determination shall be made by the contractor if the current design will conflict with the existing facility and notify the engineer in writing.
16.	All existing areas disturbed outside the limits of construction activities shall be re-vegetated in conformance with the specifications at no additional cost to the project. All existing roadways and sidewalks damaged during construction shall be repaired or reconstructed in conformance with the specifications.
17.	Signage shall follow the "manual on uniform traffic control devices" latest edition and the city of Colorado Springs traffic engineering signage & pavement marking standards. Contractor shall submit to the county a traffic control plan prior to commencing with the work.
18.	Contractor shall establish trail corridor with stakes. The owner will then mark all trees to be saved in a walkthrough of the trail corridor with the contractor.
19.	All discharges to drainage courses and storm sewer systems must comply with the applicable provisions of the Colorado water quality control act and the Colorado discharge permit regulations, and are subject to inspection by El Paso county and CDPHE. El Paso has a ms-4 permit. Contractor shall devise and implement a permanent plan for periodic removal and disposal of sediment from erosion control facilities and for maintenance of erosion control facilities.
20.	The contractor shall obtain construction stormwater discharge permit from CDPHE.

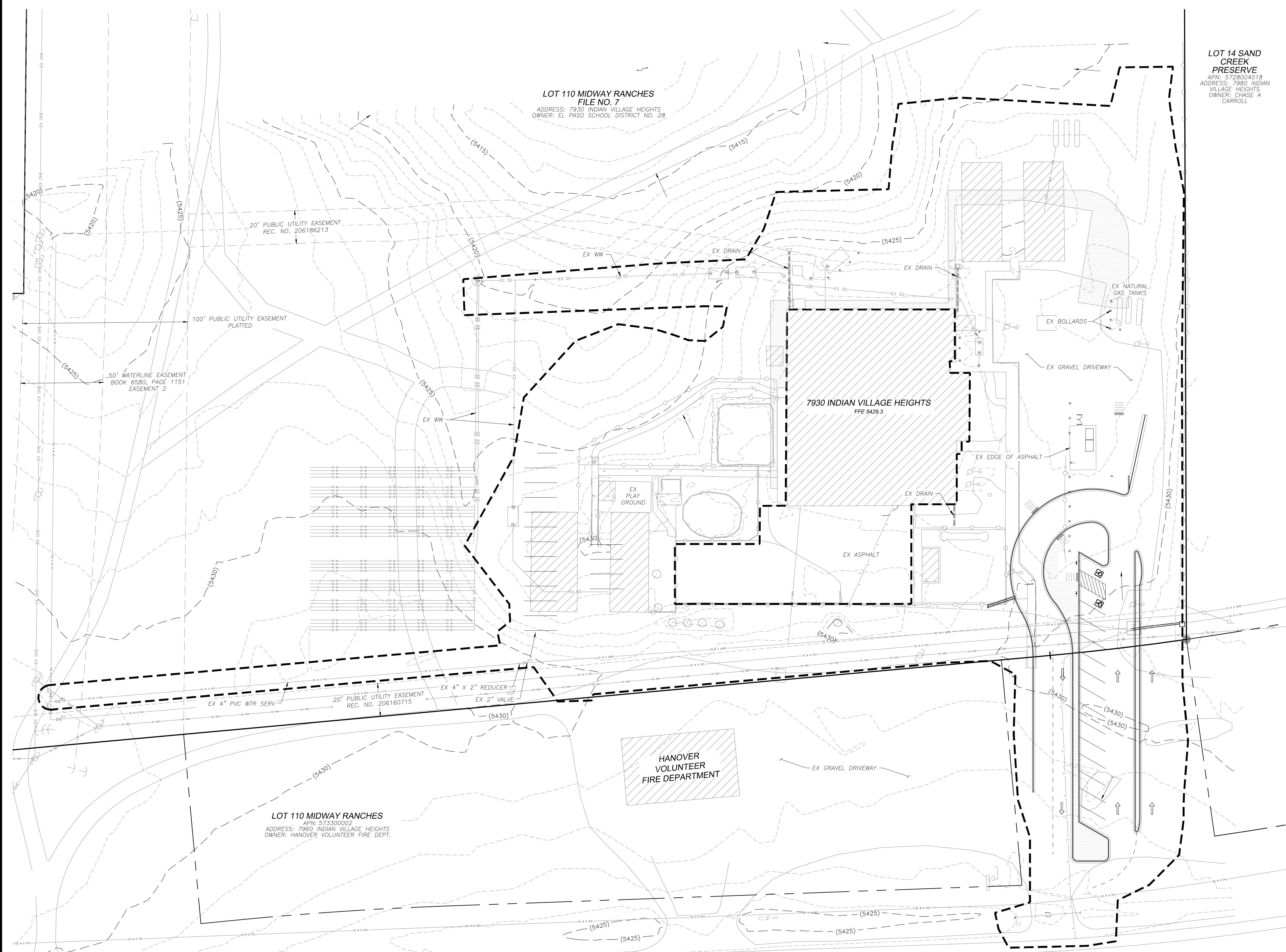
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*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE	
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GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
GRADING AND EROSION CONTROL NOTES
FOUNTAIN, COLORADO



Project No.:	24047
Date:	1/24/25
Design:	TAC
Drawn:	TEG
Check:	-
Revisions:	

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LOT 14 SAND CREEK PRESERVE
APN: 572804018
ADDRESS: 7980 INDIAN VILLAGE HEIGHTS
OWNER: CHASE A CARROLL

LOT 110 MIDWAY RANCHES FILE NO. 7
ADDRESS: 7930 INDIAN VILLAGE HEIGHTS
OWNER: EL PASO SCHOOL DISTRICT NO. 28

LOT 110 MIDWAY RANCHES
APN: 573300002
ADDRESS: 7960 INDIAN VILLAGE HEIGHTS
OWNER: HANOVER VOLUNTEER FIRE DEPT.

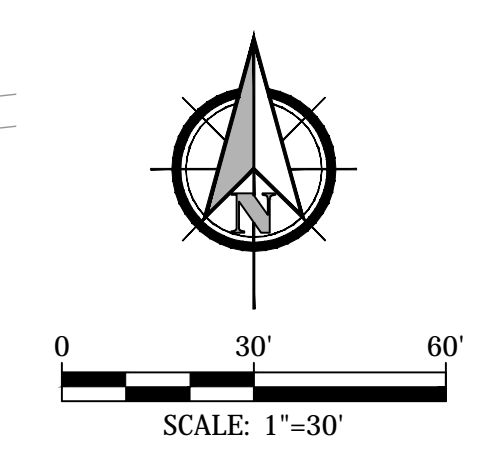
INDIAN VILLAGE HEIGHTS
(PUBLIC R.O.W. VARIES)

LOT 58 VALEROSA VILLAGE FILE NO. 1
APN: 5733002005
ADDRESS: 7805 INDIAN VILLAGE HEIGHTS
OWNER: RAMON VENZOR

EROSION CONTROL AND GRADING LEGEND	
	CURB RAMPS TYPICAL - REFER TO DETAILS
	CUT/FILL DEMARCATION LINE
	EXISTING 100 YEAR FLOODPLAIN
	EXISTING CONTOURS
	EXISTING EASEMENT
	EXISTING FENCE
	EXISTING FLOW DIRECTION AND SLOPE
	EXISTING GAS LINE
	EXISTING INLET
	EXISTING INLET
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	EXISTING SANITARY SEWER
	EXISTING SPOT ELEVATION
	EXISTING APPROXIMATE SPOT ELEVATION, ELEVATION TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
	EXISTING STORM SEWER
	EXISTING STORM SEWER MANHOLE
	EXISTING STREET LIGHT
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING WATER LINE
	PROPOSED 100 YEAR FLOODPLAIN
	PROPOSED CONTOURS
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	PROPOSED SPOT ELEVATION
	PROPOSED SLOPE
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	DRAINAGE SWALE
	EROSION CONTROL BLANKET
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	SILT FENCE
	STOCKPILE AREA
	STABILIZED STAGING AREA
	SLOPE TRACKING
	SURFACE ROUGHENING
	TEMPORARY COMPACTED BERM
	TEMPORARY SEDIMENT BASIN
	TEMPORARY SLOPE DRAIN
	VEHICLE TRACKING CONTROL
	CURB AND GUTTER: CARRY
	CURB AND GUTTER: SPILL

- NOTES:
1. WATER MAIN LOCATIONS SHOWN AT SOUTH PROPERTY LINE ARE APPROXIMATE.
 2. ALL ELEVATIONS ARE FLOW LINE TO FLOW LINE UNLESS OTHERWISE INDICATED.
 3. ADD 5400 TO SPOT ELEVATIONS.

FLOODPLAIN STATEMENT:
LOT 110, MIDWAY RANCHES FILE NO. 7 DOES NOT LIE WITHIN A DESIGNATED FLOODPLAIN ACCORDING TO INFORMATION PUBLISHED IN THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOODPLAIN MAP NO. 08041C1170G DATED DECEMBER 7, 2018.



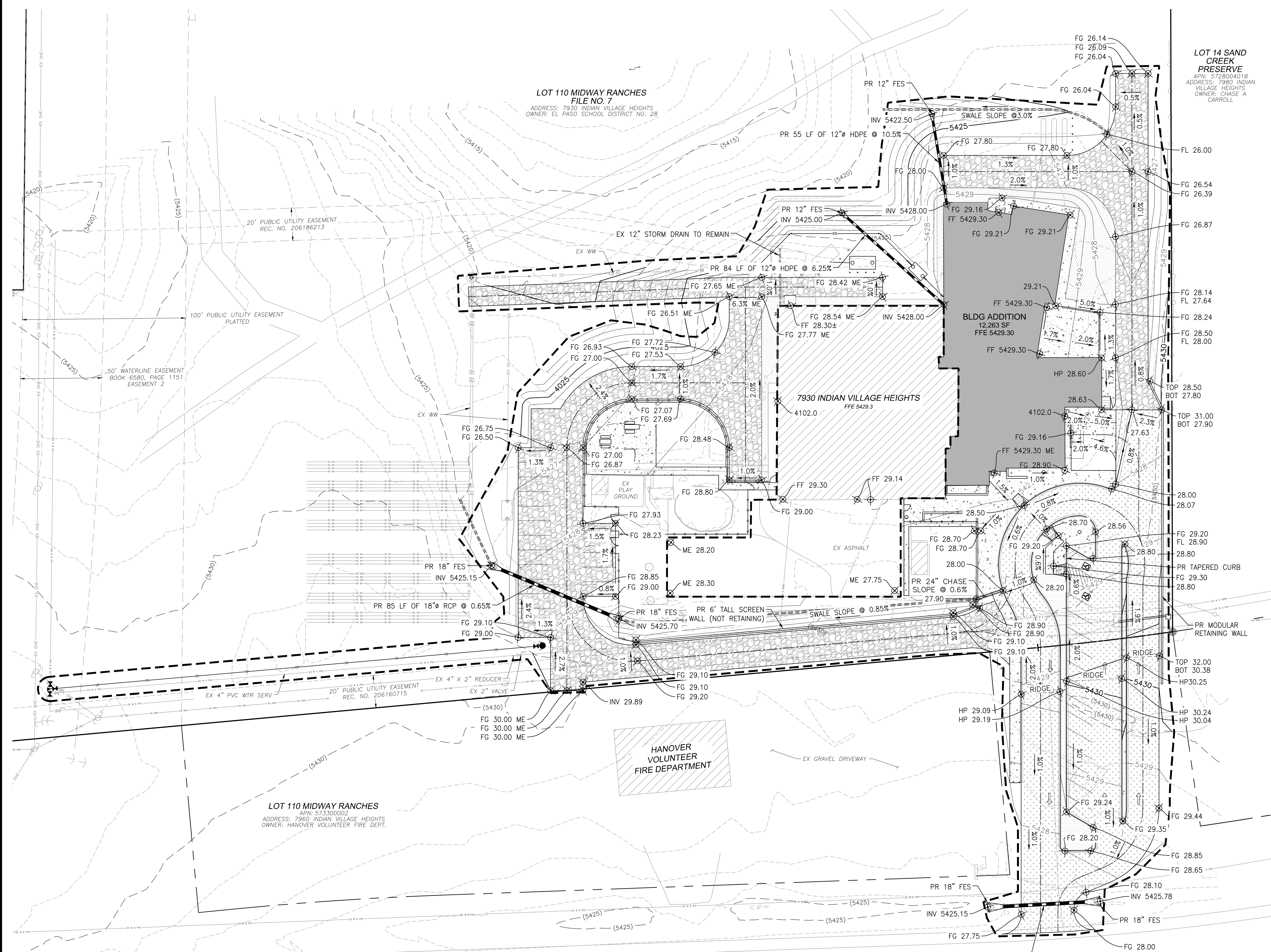
IN PROGRESS
NOT FOR CONSTRUCTION

For and on Behalf of
Kiowa Engineering Corporation Date

GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
GRADING PLAN - INITIAL
FOUNTAIN, COLORADO

Project No.:	24047
Date:	1/24/25
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Drawn:	TEG
Check:	-
Revisions:	

K:\2024\24047 Prairie Hts school Drawings\CDs\24047 C310.CEC.dwg Jan 24, 2025 - 2:30pm



**LOT 110 MIDWAY RANCHES
FILE NO. 7**
ADDRESS: 7930 INDIAN VILLAGE HEIGHTS
OWNER: EL PASO SCHOOL DISTRICT NO. 28

20' PUBLIC UTILITY EASEMENT
REC. NO. 206186213

100' PUBLIC UTILITY EASEMENT
PLATTED

.50' WATERLINE EASEMENT
BOOK 6580, PAGE 1151
EASEMENT 2

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ADDRESS: 7960 INDIAN VILLAGE HEIGHTS
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INDIAN VILLAGE HEIGHTS
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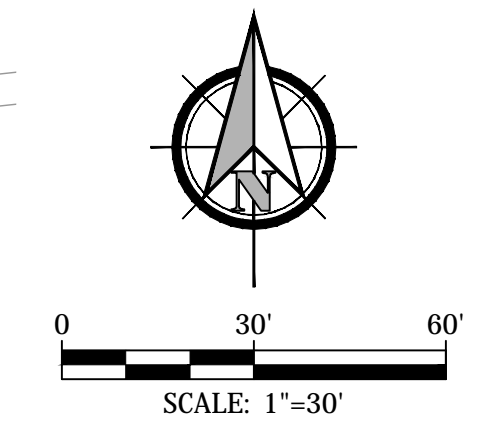
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	TEMPORARY COMPACTED BERM
	TEMPORARY SEDIMENT BASIN
	TEMPORARY SLOPE DRAIN
	VEHICLE TRACKING CONTROL
	CURB AND GUTTER: CARRY
	CURB AND GUTTER: SPILL

- NOTES:
1. WATER MAIN LOCATIONS SHOWN AT SOUTH PROPERTY LINE ARE APPROXIMATE.
 2. ALL ELEVATIONS ARE FLOW LINE TO FLOW LINE UNLESS OTHERWISE INDICATED.
 3. ADD 5400 TO SPOT ELEVATIONS.

FLOODPLAIN STATEMENT:
LOT 110, MIDWAY RANCHES FILE NO. 7 DOES NOT LIE WITHIN A DESIGNATED FLOODPLAIN ACCORDING TO INFORMATION PUBLISHED IN THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOODPLAIN MAP NO. 08041C1170G DATED DECEMBER 7, 2018.

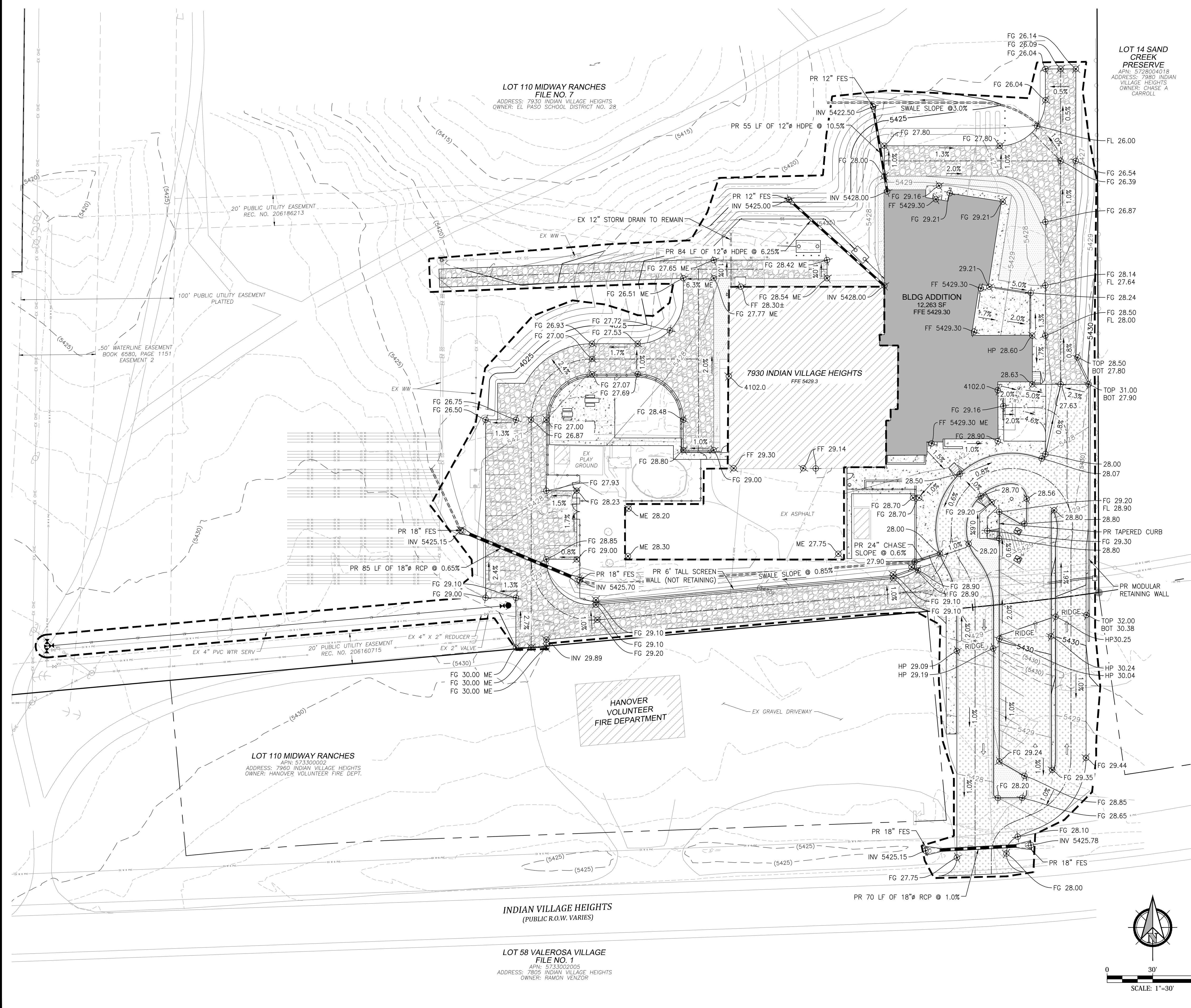


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For and on Behalf of
Kiowa Engineering Corporation Date

GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
GRADING PLAN - INTERIM
FOUNTAIN, COLORADO

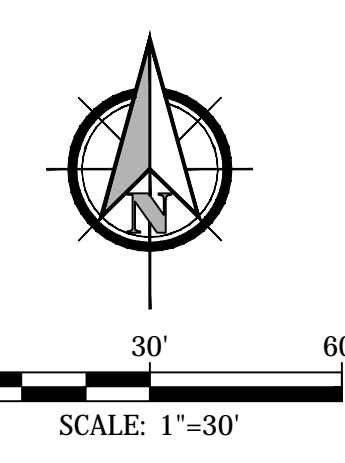
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EROSION CONTROL AND GRADING LEGEND	
	CURB RAMP TYPICAL - REFER TO DETAILS
	CUT/FILL DEMARCATION LINE
	EXISTING 100 YEAR FLOODPLAIN
	EXISTING CONTOURS
	EXISTING EASEMENT
	EXISTING FLOW DIRECTION AND SLOPE
	EXISTING GAS LINE
	EXISTING INLET
	EXISTING INLET
	EXISTING PROPERTY OR ROW LINE
	EXISTING SANITARY SEWER
	EXISTING SPOT ELEVATION
	EXISTING APPROXIMATE SPOT ELEVATION, ELEVATION TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
	EXISTING STORM SEWER
	EXISTING STORM SEWER MANHOLE
	EXISTING STREET LIGHT
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING WATER LINE
	PROPOSED 100 YEAR FLOODPLAIN
	PROPOSED CONTOURS
	PROPOSED EASEMENT
	PROPOSED FLOW DIRECTION AND SLOPE
	PROPOSED INLET
	PROPOSED SPOT ELEVATION
	PROPOSED SLOPE
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER MANHOLE
	CHECK DAM
	CULVERT INLET PROTECTION
	CONCRETE WASHOUT AREA
	CONSTRUCTION FENCE
	DRAINAGE SWALE
	EROSION CONTROL BLANKET
	INLET PROTECTION CURB
	INLET PROTECTION AREA - ROCK SOCK
	INLET PROTECTION AREA - SILT FENCE
	INLET PROTECTION AREA - STRAW BALE
	LIMIT OF CONSTRUCTION/DISTURBANCE - APPROXIMATE
	PORTABLE TOILET
	ROCK SOCK
	SEDIMENT CONTROL LOG
	SEEDING AND MULCHING
	SILT FENCE
	STOCKPILE AREA
	STABILIZED STAGING AREA
	SLOPE TRACKING
	SURFACE ROUGHENING
	TEMPORARY COMPACTED BERM
	TEMPORARY SEDIMENT BASIN
	TEMPORARY SLOPE DRAIN
	VEHICLE TRACKING CONTROL
	CURB AND GUTTER: CARRY
	CURB AND GUTTER: SPILL

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For and on Behalf of
 Kiowa Engineering Corporation Date

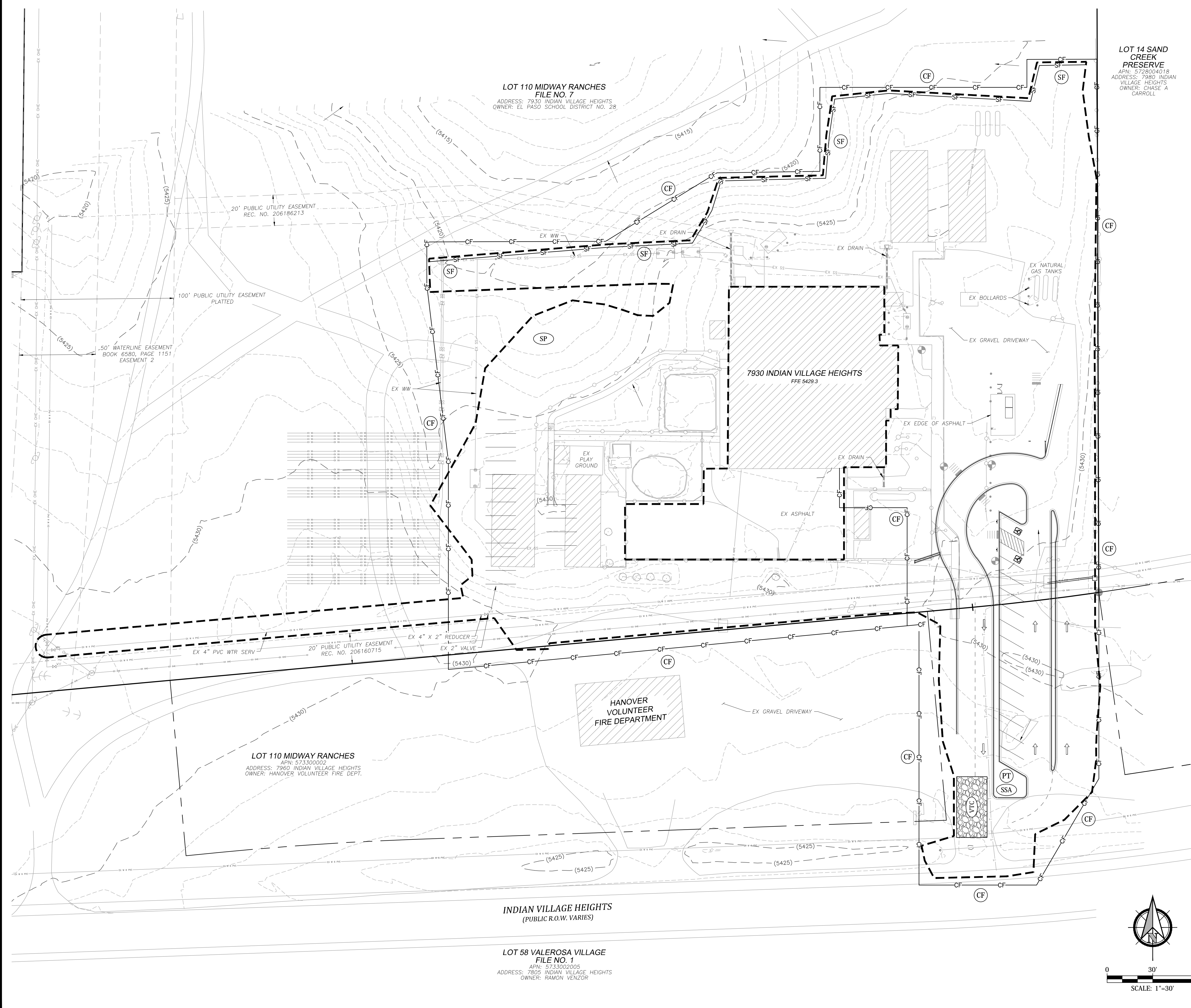
Kiowa
 Engineering Corporation

1604 South 21st Street
 Colorado Springs, Colorado 80904
 (719) 630-7342

GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
GRADING PLAN - FINAL
 FOUNTAIN, COLORADO

Project No.:	24047
Date:	1/24/25
Design:	TAC
Drawn:	TEG
Check:	-
Revisions:	
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C313	
OF _ SHEETS	

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LOT 14 SAND CREEK PRESERVE
APN: 572804018
ADDRESS: 7980 INDIAN VILLAGE HEIGHTS
OWNER: CHASE A CARROLL

LOT 110 MIDWAY RANCHES FILE NO. 7
ADDRESS: 7930 INDIAN VILLAGE HEIGHTS
OWNER: EL PASO SCHOOL DISTRICT NO. 28

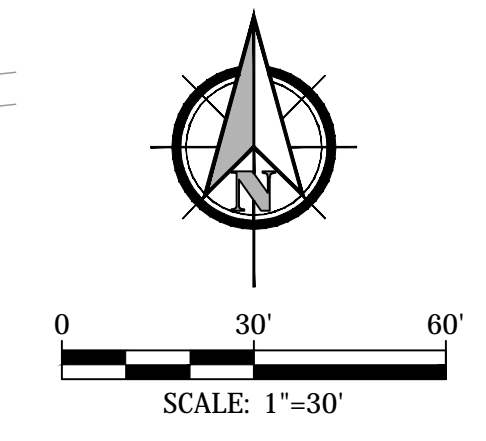
LOT 110 MIDWAY RANCHES
APN: 573300002
ADDRESS: 7960 INDIAN VILLAGE HEIGHTS
OWNER: HANOVER VOLUNTEER FIRE DEPT.

INDIAN VILLAGE HEIGHTS
(PUBLIC R.O.W. VARIES)

LOT 58 VALEROSA VILLAGE FILE NO. 1
APN: 5733002005
ADDRESS: 7805 INDIAN VILLAGE HEIGHTS
OWNER: RAMON VENZOR

EROSION CONTROL AND GRADING LEGEND	
	CURB RAMPS TYPICAL - REFER TO DETAILS
	CUT/FILL DEMARCATION LINE
	EXISTING 100 YEAR FLOODPLAIN
	EXISTING CONTOURS
	EXISTING EASEMENT
	EXISTING FENCE
	EXISTING FLOW DIRECTION AND SLOPE
	EXISTING GAS LINE
	EXISTING INLET
	EXISTING INLET
	EXISTING PROPERTY OR ROW LINE
	EXISTING SANITARY SEWER
	EXISTING APPROXIMATE SPOT ELEVATION, ELEVATION TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
	EXISTING STORM SEWER
	EXISTING STORM SEWER MANHOLE
	EXISTING STREET LIGHT
	EXISTING UNDERGROUND ELECTRIC LINE
	EXISTING WATER LINE
	PROPOSED 100 YEAR FLOODPLAIN
	PROPOSED CONTOURS
	PROPOSED EASEMENT
	PROPOSED FLOW DIRECTION AND SLOPE
	PROPOSED INLET
	PROPOSED SPOT ELEVATION
	PROPOSED SLOPE
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER MANHOLE
	CHECK DAM
	CULVERT INLET PROTECTION
	CONCRETE WASHOUT AREA
	CONSTRUCTION FENCE
	DRAINAGE SWALE
	EROSION CONTROL BLANKET
	INLET PROTECTION CURB
	INLET PROTECTION AREA - ROCK SOCK
	INLET PROTECTION AREA - SILT FENCE
	INLET PROTECTION AREA - STRAW BALE
	LIMIT OF CONSTRUCTION/DISTURBANCE - APPROXIMATE
	PORTABLE TOILET
	ROCK SOCK
	SEDIMENT CONTROL LOG
	SEEDING AND MULCHING
	SILT FENCE
	STOCKPILE AREA
	STABILIZED STAGING AREA
	SLOPE TRACKING
	SURFACE ROUGHENING
	TEMPORARY COMPACTED BERM
	TEMPORARY SEDIMENT BASIN
	TEMPORARY SLOPE DRAIN
	VEHICLE TRACKING CONTROL
	CURB AND GUTTER: CARRY
	CURB AND GUTTER: SPILL

- NOTES:
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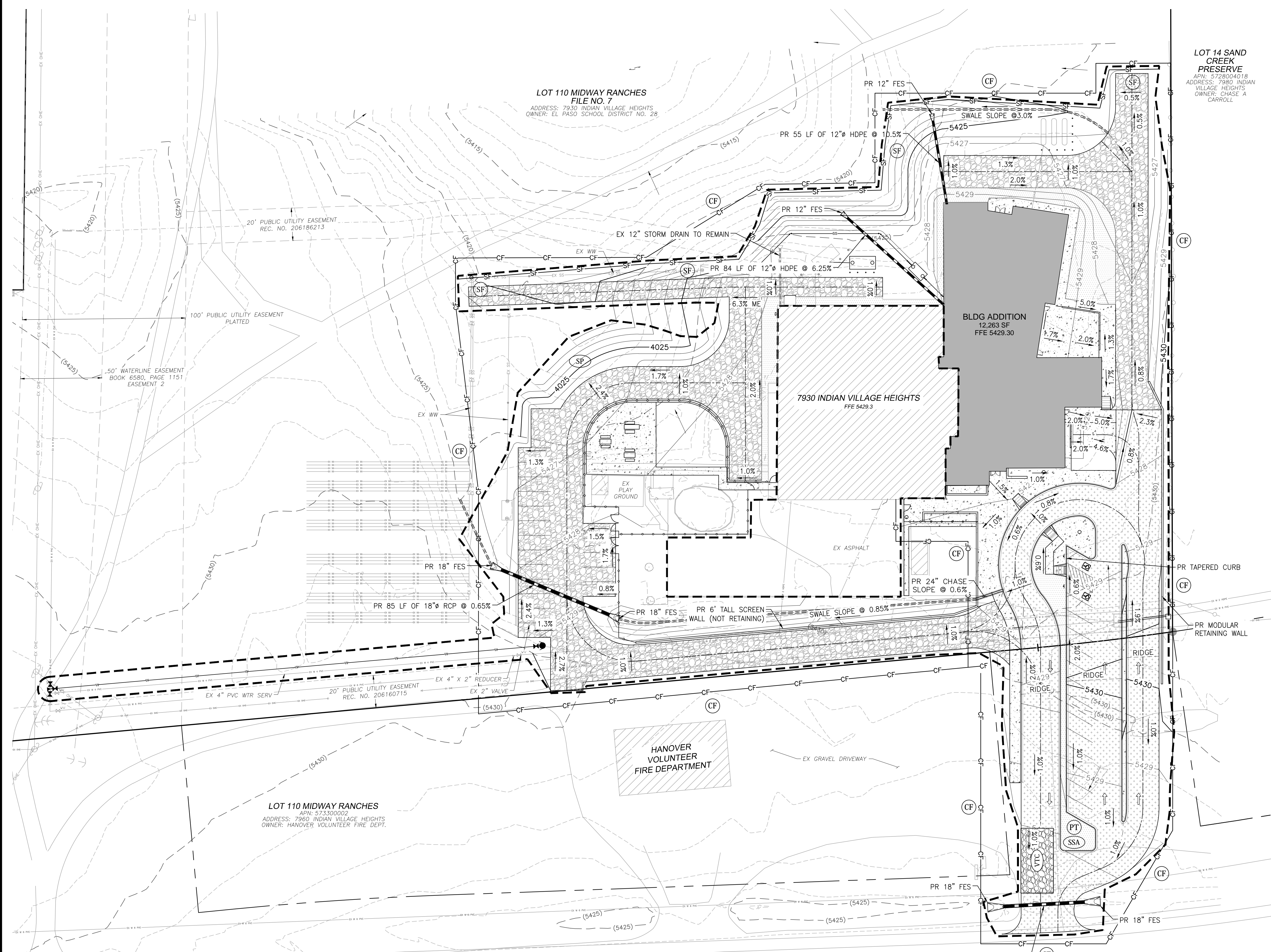
Kiowa
Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

**GRADING AND EROSION CONTROL PLAN
PRAIRIE HEIGHTS SCHOOL
EROSION CONTROL PLAN - INITIAL
FOUNTAIN, COLORADO**

Project No.:	24047
Date:	1/24/25
Design:	TAC
Drawn:	TEG
Check:	-
Revisions:	

SHEET
C321
OF _ SHEETS

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**LOT 110 MIDWAY RANCHES
FILE NO. 7**
ADDRESS: 7930 INDIAN VILLAGE HEIGHTS
OWNER: EL PASO SCHOOL DISTRICT NO. 28

**LOT 14 SAND CREEK
PRESERVE**
APN: 572804018
ADDRESS: 7980 INDIAN VILLAGE HEIGHTS
OWNER: CHASE A CARROLL

20' PUBLIC UTILITY EASEMENT
REC. NO. 206186213

100' PUBLIC UTILITY EASEMENT
PLATTED

.50' WATERLINE EASEMENT
BOOK 6580, PAGE 1151
EASEMENT 2

20' PUBLIC UTILITY EASEMENT
REC. NO. 206160715

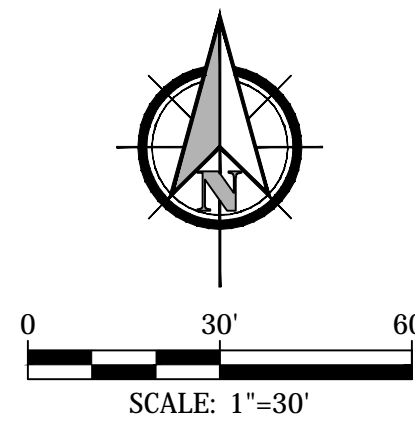
LOT 110 MIDWAY RANCHES
APN: 573300002
ADDRESS: 7960 INDIAN VILLAGE HEIGHTS
OWNER: HANOVER VOLUNTEER FIRE DEPT.

**INDIAN VILLAGE HEIGHTS
(PUBLIC R.O.W. VARIES)**

**LOT 58 VALEROSA VILLAGE
FILE NO. 1**
APN: 5733002005
ADDRESS: 7805 INDIAN VILLAGE HEIGHTS
OWNER: RAMON VENZOR

EROSION CONTROL AND GRADING LEGEND	
	CURB RAMPS TYPICAL - REFER TO DETAILS
	CUT/FILL DEMARCATION LINE
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	CURB AND GUTTER: CARRY
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For and on Behalf of
Kiowa Engineering Corporation Date

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PRAIRIE HEIGHTS SCHOOL
EROSION CONTROL PLAN - INTERIM
FOUNTAIN, COLORADO

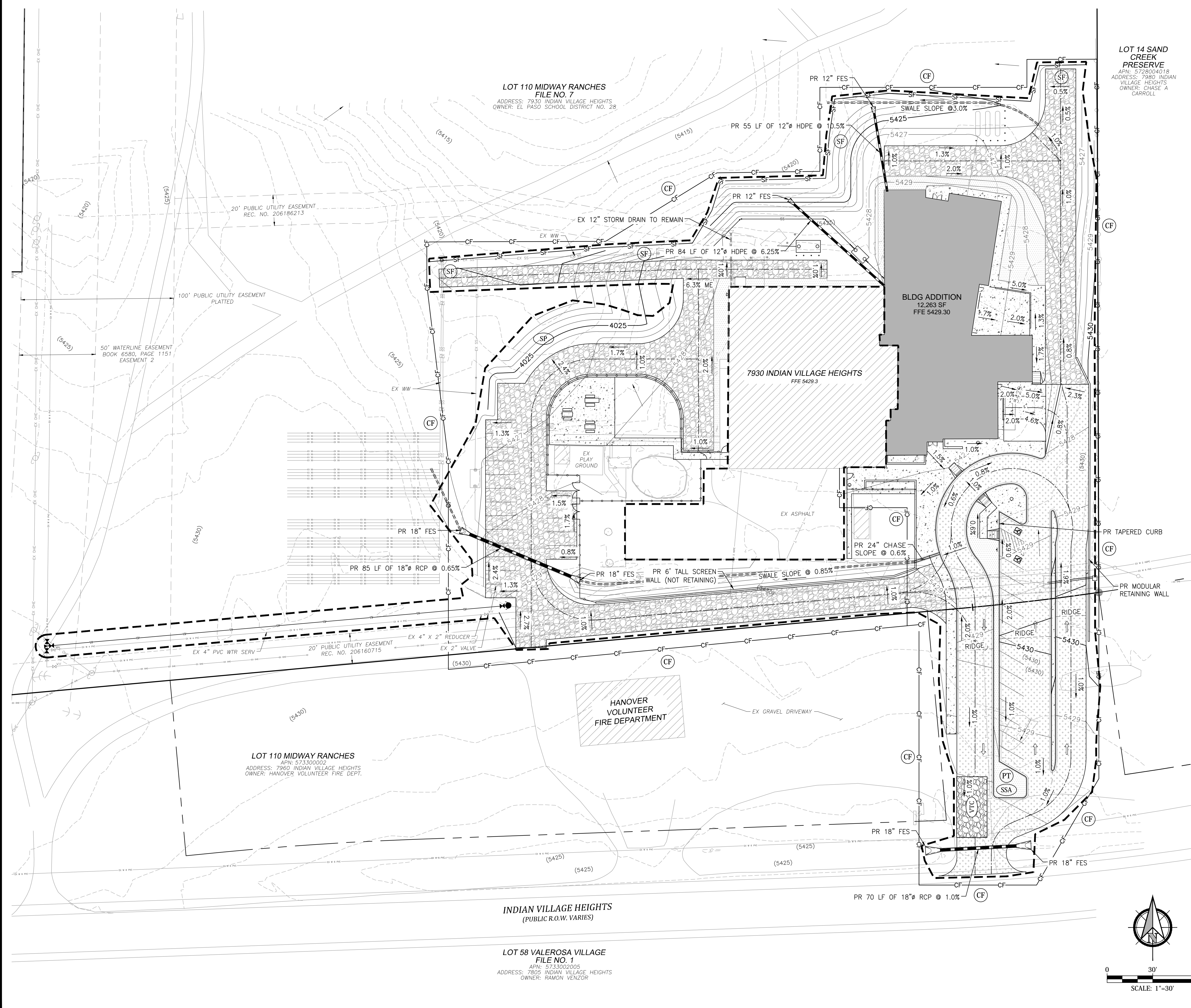
Project No.:	24047
Date:	1/24/25
Design:	TAC
Drawn:	TEG
Check:	-
Revisions:	

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OF _ SHEETS

Kiowa
Engineering Corporation

1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

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EROSION CONTROL AND GRADING LEGEND

	CURB RAMP TYPICAL - REFER TO DETAILS
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	EXISTING CONTOURS
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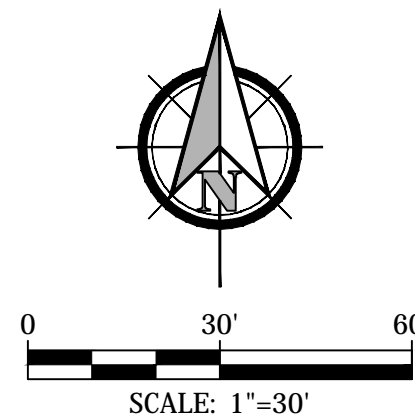
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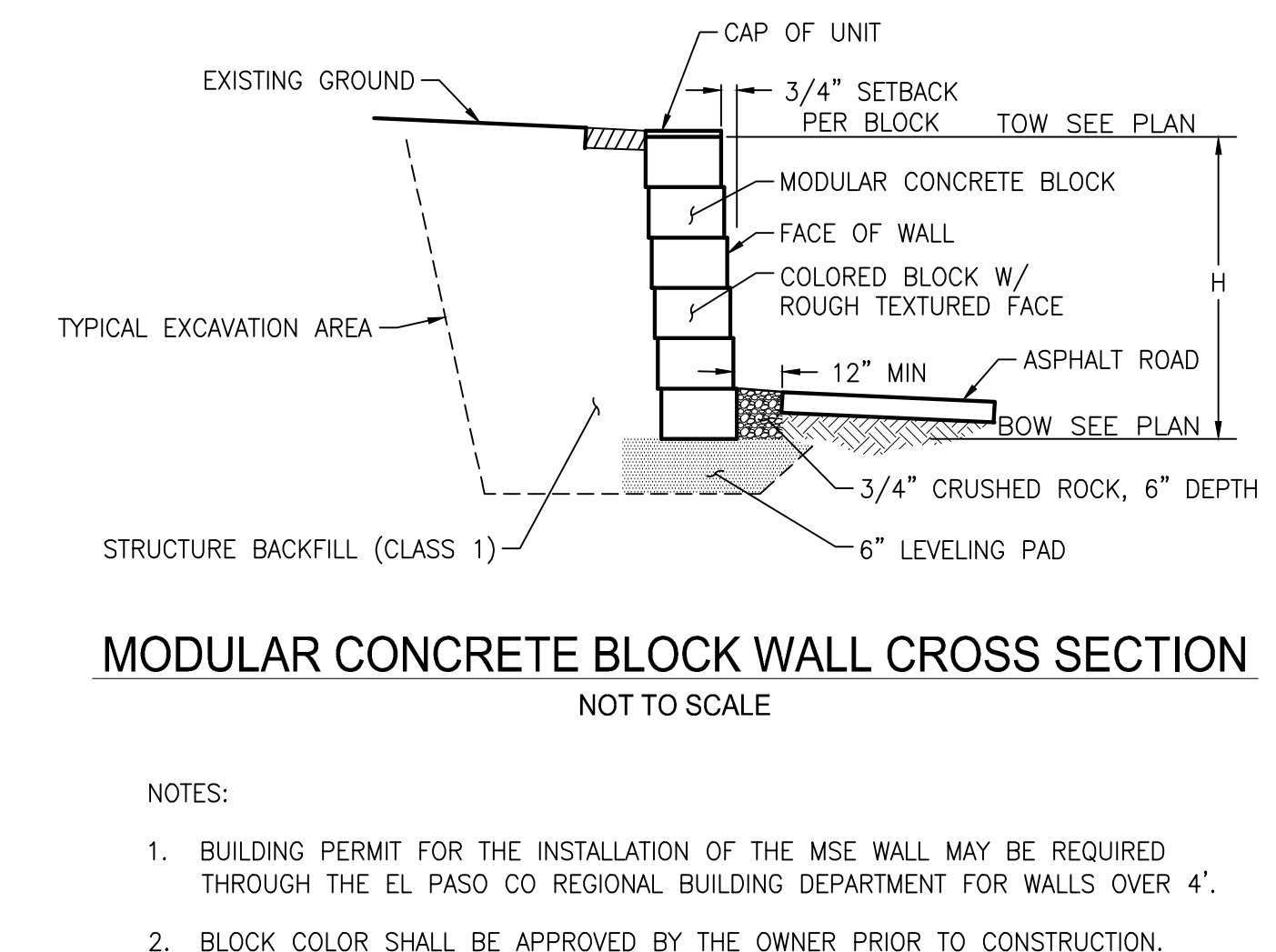
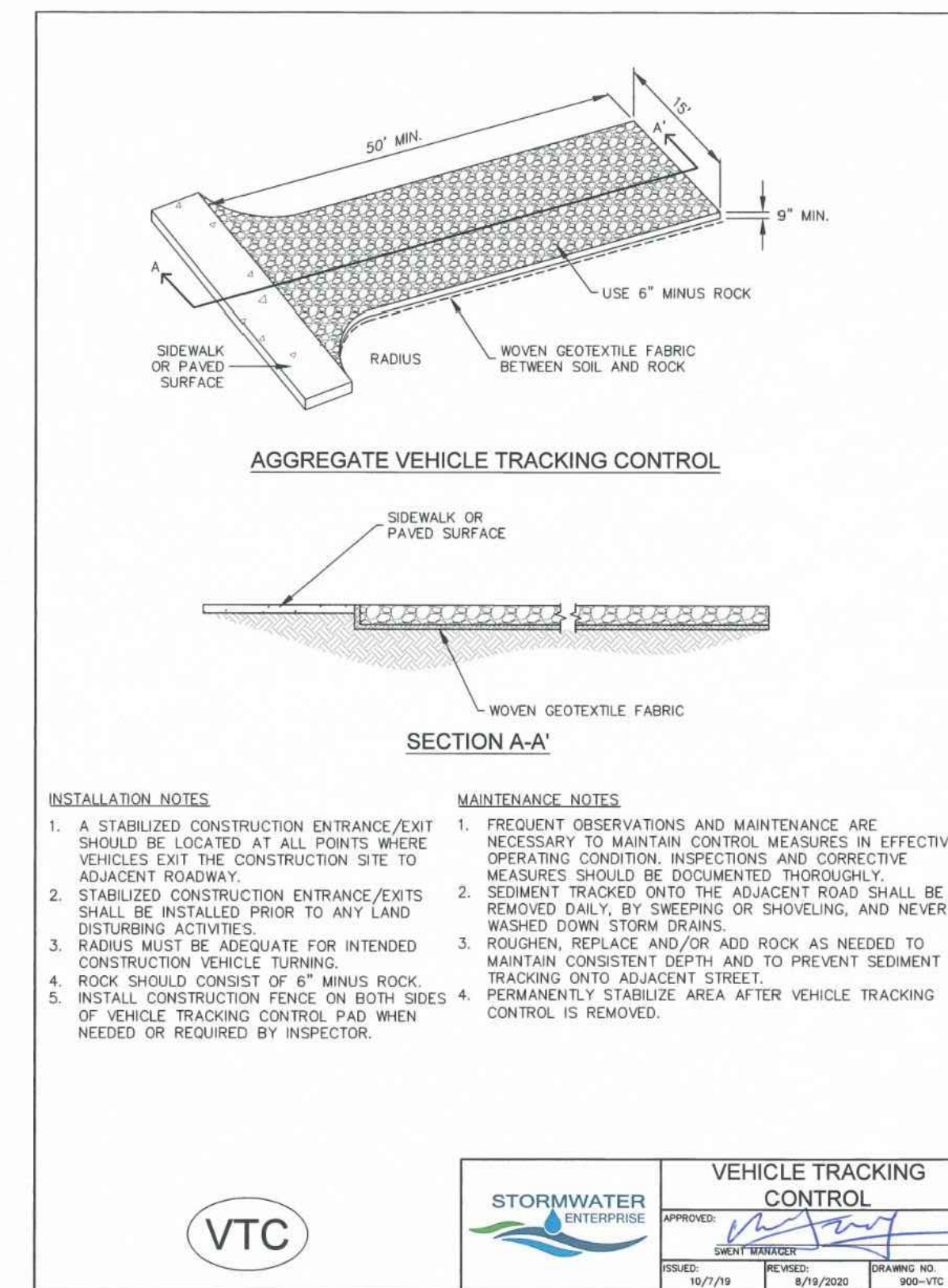
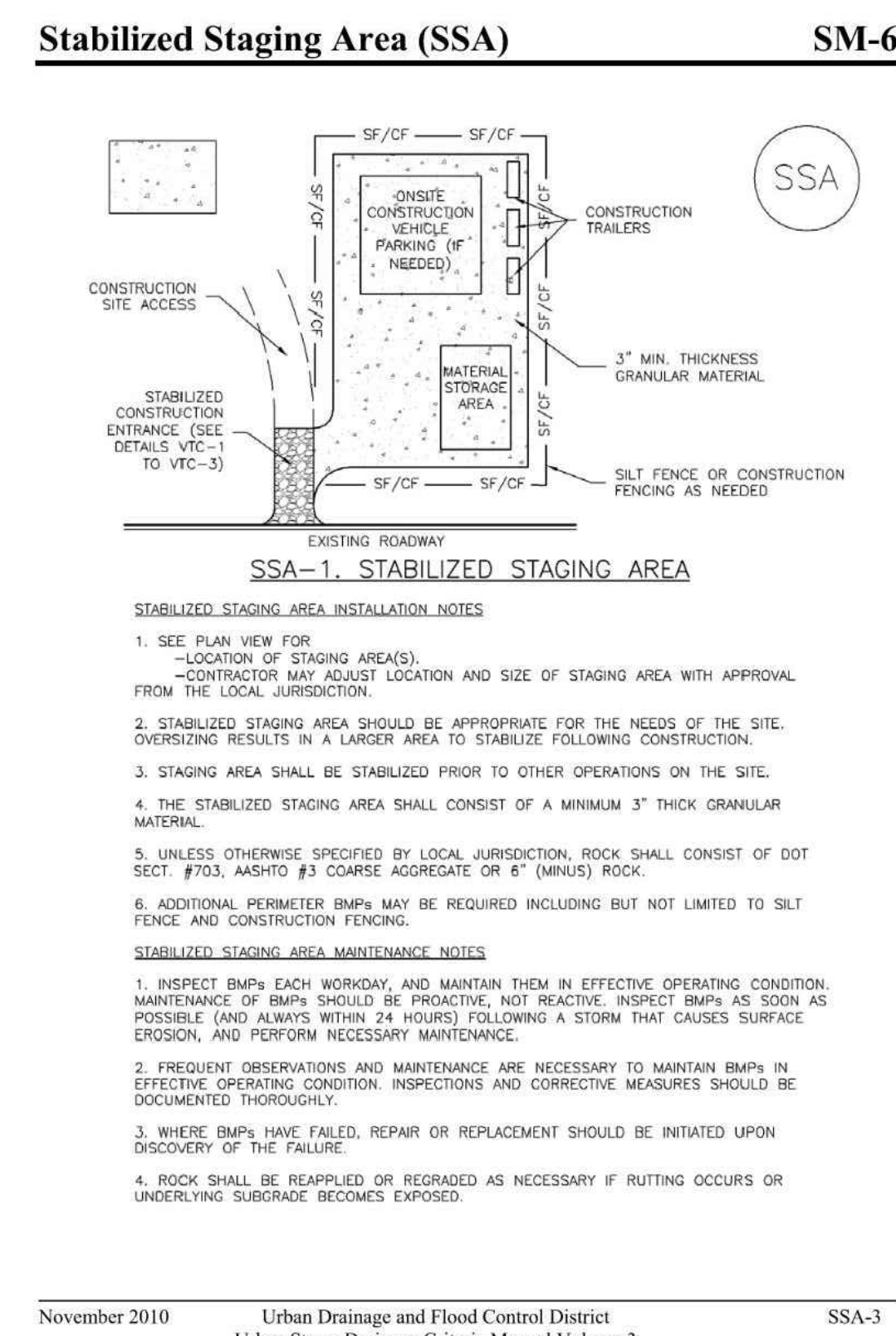
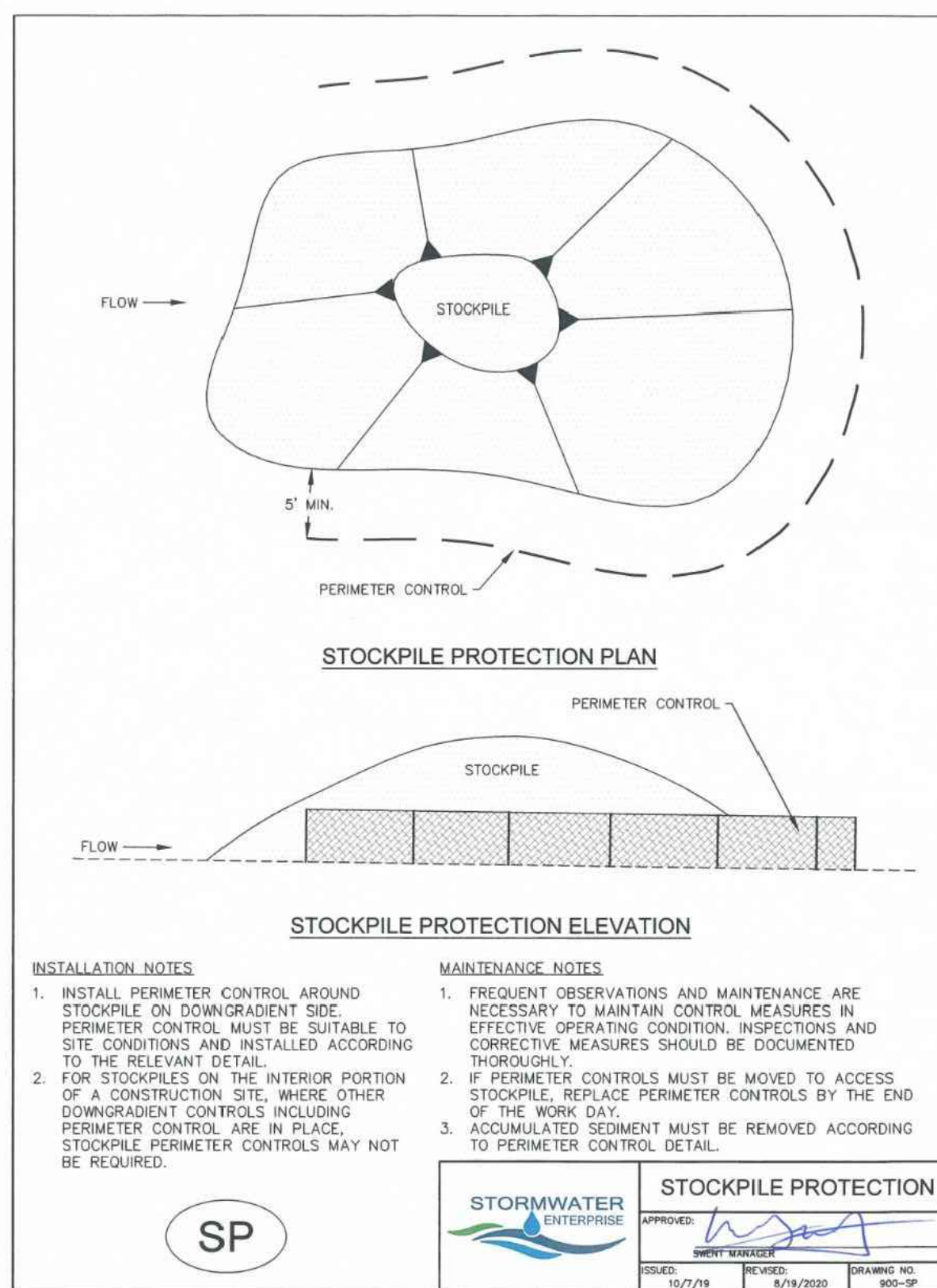
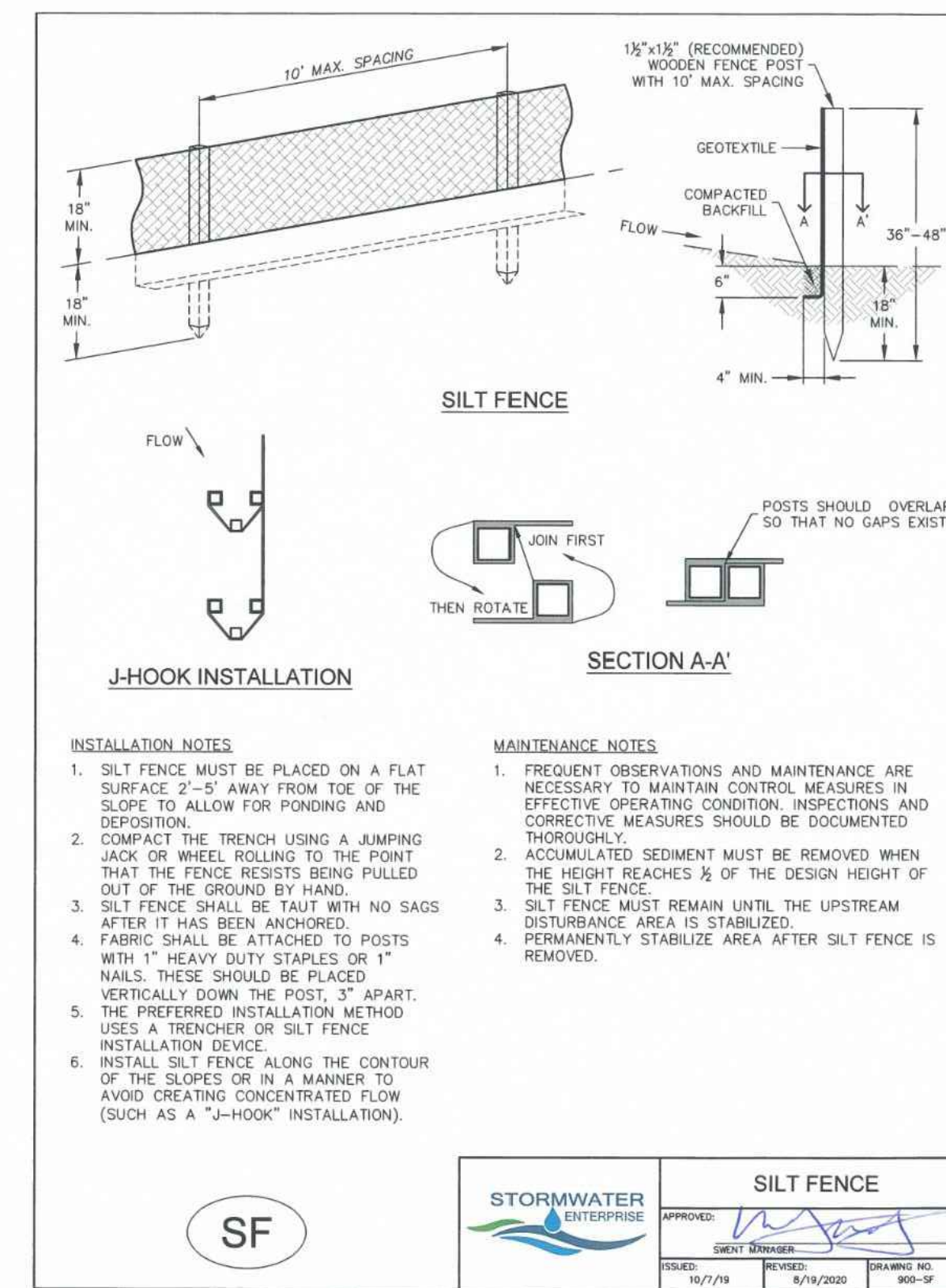
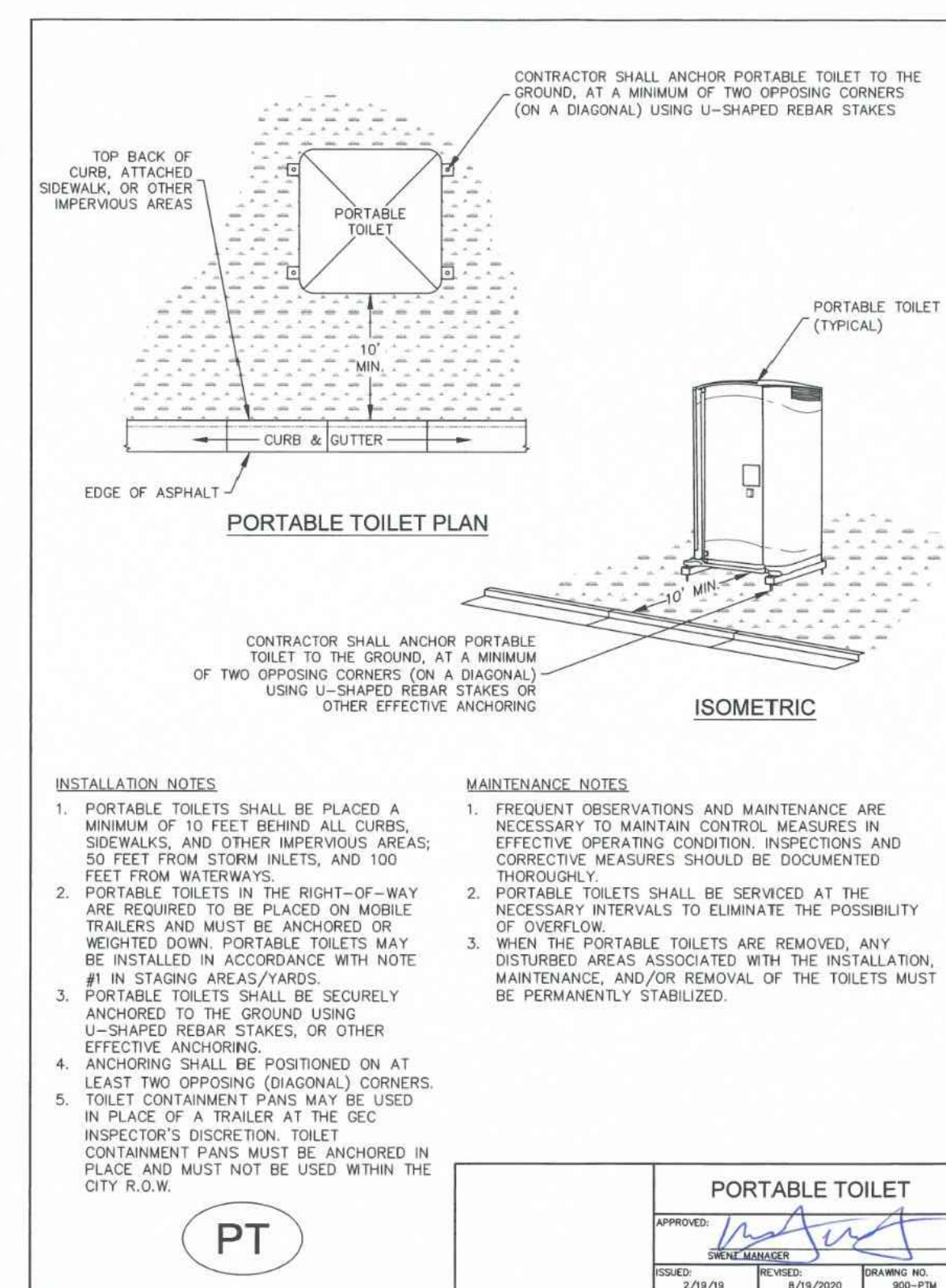
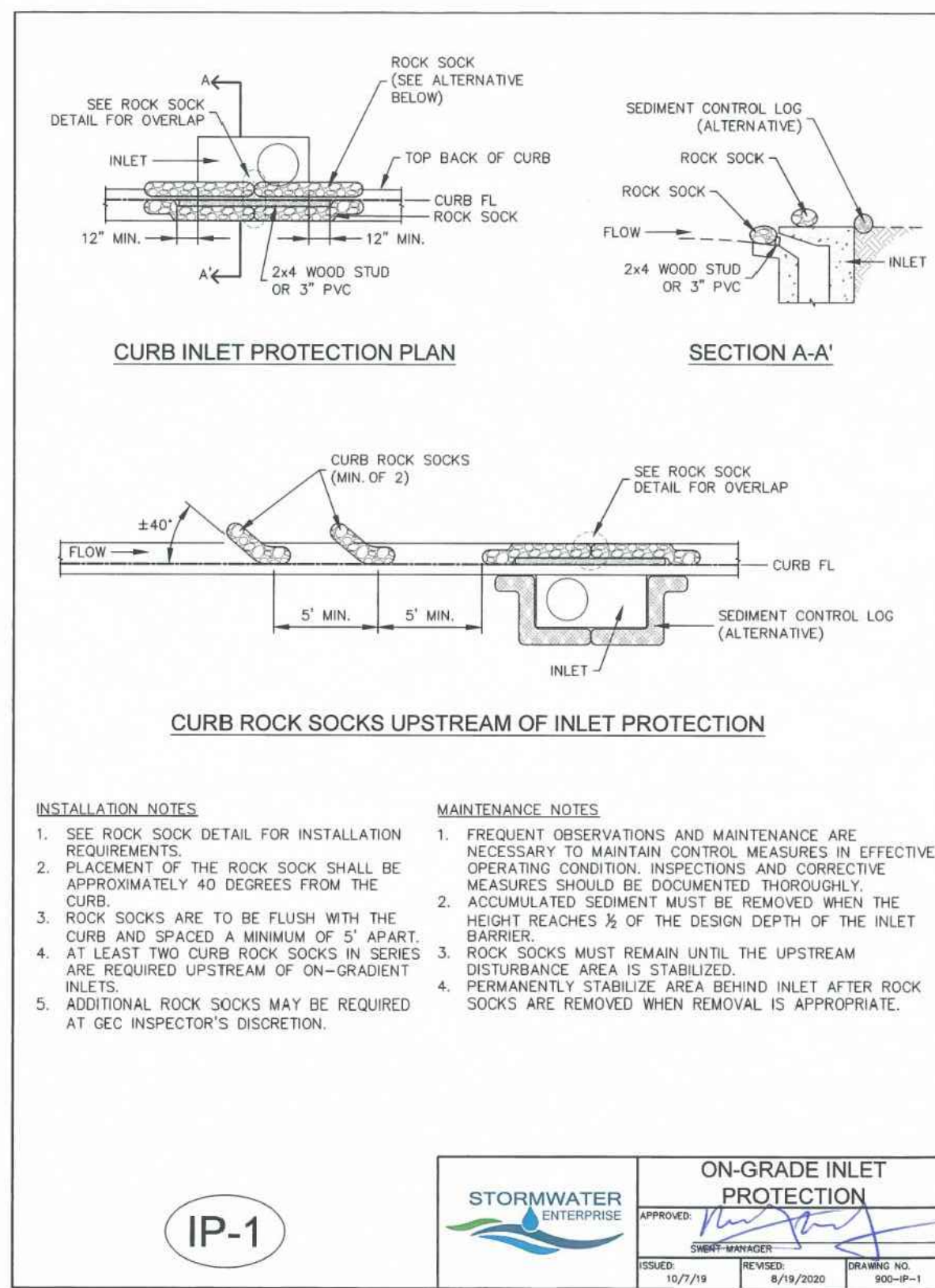
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PRAIRIE HEIGHTS SCHOOL
EROSION CONTROL PLAN - INTERIM
 FOUNTAIN, COLORADO

Kiowa Engineering Corporation
 1604 South 21st Street
 Colorado Springs, Colorado 80904
 (719) 630-7342

Project No.:	24047
Date:	1/24/25
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Revisions:	

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C323
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- So we're using SWENT details? -



Project No.:	24047
Date:	1/24/25
Design:	TAC
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