

Item Numbers refer to SWMP Checklist

WYOMING ESTATES SUBDIVISION

GRADING, EROSION CONTROL AND STORMWATER QUALITY REPORT

PREPARED BY

Mike Bartusek
RESPEC
102 S Tejon St., Suite 1110
Colorado Springs, CO 80903
719-283-7671

PREPARED FOR

Home Run Restorations, Inc.
5090 Wiley Road
Peyton, CO 80904
719-325-6155

JUNE 23, 2020

Project Number 03433

PCD File No. MS 196

Item 1. Add Qualified Stormwater Manager and Contractor information to cover/title sheet. If unknown, add a placeholder to be updated prior to the pre-construction meeting:

QUALIFIED STORMWATER MANAGER

Name: _____

Company: _____

Address: _____

CONTRACTOR

Name: _____

Company: _____

Address: _____



Table of Contents

TABLE OF CONTENTS	i
VICINITY MAP	ii
PROJECT DESCRIPTION	1
General Location	1
SITE DESCRIPTION	1
Soils	1
EROSION AND SEDIMENT CONTROL CRITERIA	1
Areas and Volumes	1
Erosion and Sediment Control Measures	1
Initial Stage	2
Temporary Stabilization	2
Vehicle Tracking Control	2
Silt Fence	2
Outlet Protection	2
Non-Structural Practices	2
Construction Timing	2
Permanent Stabilization	3
Stormwater Management	3
Maintenance	3
Cost	4
STORMWATER MANAGEMENT	4
Stormwater Management	5
Potential Pollution Sources	5
CONCLUSION	6
Compliance with Standards	6
REFERENCES	6
APPENDIX A	
Vicinity Map & Grading and Erosion Control Plans	
APPENDIX C	Appendix B?
Inspection Checklist	

PROJECT DESCRIPTION

This project consists of the development of the Wyoming Estates Subdivision. The currently vacant 40.01 acre site is located west of Curtis Road approximately 2.5 mile north of SH 94. It is further described as the southern portion of Section 33, Township 13 South, Range 66 West of the 6th Principal Meridian in El Paso County, Colorado.

All of this lot is located in Squirrel Creek drainage basin. Flows from the site drain into the west ditch of Curtis Road and flow north to the West Fork of Squirrel Creek.

SITE DESCRIPTION

Existing Site Conditions

The existing site is undeveloped and covered in Rangeland grasses with approximately 90% coverage. The site slopes in a southwest direction with slopes that range from 2% to 8%.

Item 9. Include method used to determine ground cover (i.e., visual, aerial inspection)

Soils

The soil on the site can be described as having a rapid permeability, medium-surface runoff, and moderate to high hazard of erosion. The soils within the site are:

- 8 Blakeland Loamy Sand A
- 95 Truckton Sandy Loams B

Item 8. Include a summary of the data used to determine the soil erosion potential

Item 15. name the ultimate receiving waters.

EROSION AND SEDIMENT CONTROL CRITERIA

Item 16. Describe any stream crossings onsite or add a statement that no streams cross the project area.

Areas and Volumes

The proposed subdivision will consist of four (4) lots with Lot 1 containing 5.15 acres, Lot 2 containing 5.08 acres, Lot 3 containing 5.06 acres and Lot 4 containing 21.19 acres. It will also contain an asphalt cul-de-sac located across from Patton Drive with a private gravel road extending from the cul-de-sac and connecting to the existing access road to the west. These new lots are assumed to be developed with 3000 sf homes and 12 ft gravel drives. No overlot grading will take place within the proposed subdivision.

Improvements shall include the construction of a temporary sedimentation basin on the property to account for the areas of disturbance. The total area of disturbance shall be about 2.2 acres. Construction activities shall consist of clearing, grubbing and grading for the new roadway. Approximately 3,000 cubic yards of cut and fill shall be moved. Disturbed and exposed areas of the site shall be seeded and mulched if construction activities cease for more than 30 consecutive days.

Erosion and Sediment Control Measures

Erosion control and sediment prevention measures describe a wide range of management procedures, schedules of activities, prohibitions on practices, and other best management practices (BMP). BMPs also include operating procedures, treatment requirements and practices to control site runoff, drainage from materials storage, spills or leaks. Structural practices for this site include silt fences, straw bales, inlet protection, and vehicular tracking control. Erosion matting may be required on unstable slopes, if directed by the engineer. General descriptions of the BMPs to be used during the construction of this project are listed below. See the Erosion Control Plans for the specific type and location of each erosion and sediment control device required for this project.

and outlet

Item 18.
Discuss inlet
protection
and straw
bales
installation

Initial Stage

These BMPs shall be installed at the outset of construction, prior to the initial pre-construction meeting and any other land-disturbing activities. Initial controls are to be placed on existing grades but shall be based in part on proposed grading operations. The initial stage includes clearing, grubbing, overlot grading, and utility and other construction prior to paving operations.

Temporary Stabilization

Disturbed areas will be temporarily stabilized as soon as construction activities are completed. Seeding will be applied to completed areas within 14 days of completion.

Vehicle Tracking Control

A vehicle tracking control device will be installed at the construction entrance where the construction entrance intersects an existing paved private roadway.

Silt Fence

Prior to the start of construction, silt fence will be installed along the perimeter of all disturbed areas that are within the project site. Silt fence shall be placed as indicated on the plan drawing. Sediment shall be removed when depth exceeds one-fourth the height of the silt fence. The engineer may require additional silt fence as necessary to retard sediment transport on or off the project site.

Outlet Protection

Outlet protection at the water quality basin on the site will be provided to prevent erosion and scour of the water quality basin area by the concentrated flows gathered by the storm sewer system both during and after construction.

Non-Structural Practices

Upon completion of the grading, temporary seeding and mulching will be applied to all disturbed areas on and adjacent to the site. All seeding, fertilizers, and mulching shall conform to *El Paso County Engineering Criteria Manual*.

Construction Timing

The site will be graded to accommodate the proposed redevelopment items delineated previously. This project will be constructed in a single phase. Once construction begins, it will continue until the project is complete; therefore, construction phasing will not be necessary. The construction process will consist of grading (excavation and fill) activities, installation of utilities, paving, concrete placement, landscaping, and building construction. The general sequence for major construction activities will be as follows:

- Establish limits of disturbance
- Install vehicle tracking control (VTC)
- Install silt fence
- Install Portable Toilet
- Install temporary sedimentation basin
- Clear and grub the site
- Excavation and fill placement
- Install gravel
- Place storage trailers on site
- Install permanent landscaping

Item 6. Provide construction schedule of anticipated starting and completion dates for each stage of land-disturbing activity.

Add inlet/outlet protection concrete washout area?

- Install water quality/detention basin (EDB)
- Remove BMPs

To be fully effective, erosion and sediment control measures must be installed and phased with the construction activities. The vehicular tracking control device shall be installed at the entrance prior to the mobilization of construction equipment on-site. Prior to the clearing and grubbing of the entire construction area, localized clearing shall be performed for the placement of perimeter erosion control measures. Site clearing shall commence only after the perimeter erosion control measures are in place. Erosion control devices must be in place to reduce the potential of eroded excavated material entering the storm drainage system. Protection devices shall be placed during grading activities, in the appropriate areas, as indicated on the plan drawing that is located in the Appendix.

Anticipated starting and completion date: September 1 to November 1, 2020

Expected date on which the final stabilization will be completed: December 1, 2020

70% vegetation will likely not be achieved 1 month from seeding during the winter months.

Permanent Stabilization

Disturbed areas shall be permanently stabilized as soon as construction activities are completed. Viable vegetative cover shall be established no later than one year from disturbance. Areas to be revegetated shall be treated with soil amendments to provide an adequate grown medium to sustain vegetation and shall ~~match the existing 70 percent pre-disturbed vegetation cover.~~

be at least 70 percent of the pre-disturbed vegetation cover.

The seedbed shall be well settled and firm, but friable enough that seed can be placed at the seeding depth specified. The seedbed shall be reasonably free of weeds. Soils that have been over-compacted by traffic or equipment, especially when wet, shall be tilled to break up rooting restrictive layers and then harrowed, rolled, or packed to prepare the required firm seedbed. Mulch shall be applied at a rate of two and one-half (2 ½) tons per acre and shall be spread uniformly, in a continuous blanket, after seeding is complete. Mulch shall be clean, weed and seed free, long-stemmed grass or hay, or long-stemmed straw of oats, wheat, or rye. At least 50 percent of mulch, by weight, shall be ten inches or longer. Mulch shall be spread by hand or blower-type mulch spreader. Mulching shall be started on the windward side of relatively flat areas or on the upper part of steep slope and continued uniformly until the area is covered. The mulch shall not be bunched. Immediately following spreading, the mulch shall be anchored to the soil by a v-type wheel land packer or scalloped-disk land packer designed to force mulch into the soil surface a minimum of three inches. All seeded areas shall be mulched after seeding on the same day as the seeding. The type of seed mix used for permanent vegetation shall utilize perennial grasses as delineated on the plans.

Stormwater Management

All developed stormwater will be routed through the EDB facilities to provide stormwater quality as delineated on the drawings.

Maintenance

All temporary and permanent erosion and sediment control practices shall be maintained and repaired as needed by the contractor throughout the duration of construction to assure that each BMP will function as intended. As required by the stormwater discharge permit, a weekly inspection of these items will be performed. In addition, all facilities must be inspected by the owner or the owner's representative following each heavy precipitation or snowmelt event that results in runoff, with maintenance occurring immediately after discovering a need.

Silt fence may require periodic replacement. All sediment accumulated behind the silt fence must be removed and disposed of properly when depth exceeds one-fourth the height of the silt fence. On-site construction traffic will be monitored to minimize the transport of sediment onto the proposed on-site streets, as well as onto adjacent city streets. The Owner, Site Developer, Contractor, and/or their authorized agents shall prevent loss of cut and fill material being transported to and from the site by taking appropriate measures. All mud and sediment tracked onto public streets shall be cleaned immediately. Road cleaning includes shoveling and sweeping activities.

Diversion ditches shall be kept clean and functional during construction. They shall be routinely checked on a weekly basis and cleaned if the height of sedimentation exceeds one-half its depth.

Inlet/outlet protection shall be inspected to ensure proper operation. Excess debris or sediment must be removed prior to final acceptance of the project.

The temporary sedimentation pond shall remain in place until such time as the major grading operations in the area are completed and the ground stabilized by either temporary or permanent measures. The ponds will be cleaned out periodically with depth of sediment at no time allowed to accumulate more than one-half the depth of the facility.

Cost

An engineer's cost estimate for the anticipated erosion and sediment control items for the entire site are listed below:

Section 1 – Grading & Erosion Control BMPs	Quantity	Units	Price	Total
Earthwork	3500	CY	\$5	\$17,500.00
Permanent Seeding	1.5	AC	\$582	\$ 837.00
Mulching	1.5	AC	\$507	\$ 760.50
Erosion Bales	27	EA	\$21	\$ 567.00
Temporary Mulch	1.5	AC	\$507	\$ 760.50
Temporary Seeding	1.5	AC	\$485	\$ 727.50
Inlet Protection	2	EA	\$153	\$ 306.00
Vehicle Tracking Control	1	EA	\$1,625	\$ 1,625.00
Silt Fence	1437	LF	\$4	\$5,748.00
Sedimentation Basin	1	EA	\$1,625	\$1,625.00
TOTAL EROSION & SEDIMENT CONTROL COST				\$30,268.50

STORMWATER MANAGEMENT

Stormwater Management

Stormwater quality shall be protected and preserved throughout the life of this development. During mass grading and construction, measures such as sediment fences, straw bales, and vehicle tracking control shall be used to minimize erosion and sedimentation on site. During construction, the proposed extended detention basin shall function as a temporary sediment basin to reduce the potential for sediment leaving this development. Temporary diversion dikes shall be constructed to transport runoff that may contain sediment to the temporary sediment basin located

on site until a stormwater system is installed. After various stages of the construction, when applicable, temporary or permanent erosion control stabilization shall be installed and maintained (landscaping, seeding, mulching, etc.).

Potential Pollution Sources

Materials are sometimes used at the construction site that present a potential for contamination of stormwater runoff. These include sediment, equipment/vehicle washing, vehicle maintenance and fueling, petroleum products, paint, solvents, treated wood products, asphalt (bituminous) paving, concrete, concrete-curing compounds, metal, waste storage and disposal and other liquid chemicals such as fertilizers, herbicides, and pesticides. Practices that can be used to prevent or minimize toxic materials in runoff from a construction site are described in this section.

Areas at the construction site that are used for storage of toxic materials and petroleum products shall be designed with an enclosure, container, or dike located around the perimeter of the storage area to prevent discharge of these materials in runoff from the construction site. These barriers shall also function to contain spilled materials from contact with surface runoff. Proposed locations for storage of toxic materials have not been determined at the time of this report. Locations shall depend upon construction phasing.

Measures to prevent spills or leaks of fuel, gear oil, lubricants, antifreeze, and other fluids from construction vehicles and heavy equipment shall be considered to protect groundwater and runoff quality. All equipment maintenance shall be performed in designated areas and shall use spill control measures, such as drip pans, to contain petroleum products. Spills of construction-related materials, such as paints, solvents, or other fluids and chemicals, shall be cleaned up immediately and disposed of properly.

Trash receptacles shall be provided and kept clean as required to keep the site clean of trash. In addition, portable toilets shall be provided for all workers on the site during construction. All portable toilet facilities shall be located at least three feet from curb flow lines and paved surfaces. The facilities shall be stationed on ground and secured down to prevent tipping.

Potable water is anticipated as a non-stormwater discharge. Potable water shall be used for grading, dust control, and irrigation of erosion control and permanent landscaping. An effort shall be made to use only the amount of potable water required for these operations.

Owner Inspection and Maintenance of Constructed BMPs

All inspection logs will include signatures on the logs and be kept on site along with other SWWP records.

1. **Minimum Inspection Schedule.** The permittee shall, at a minimum, make a thorough inspection at least once every 14 calendar days. Also, post-storm event inspections shall be conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections shall be used to fulfill the 14-day routine inspection requirement. A more frequent inspection schedule than the minimum inspections described may be necessary to ensure that BMPs continue to operate as needed to comply with the permit.

- 1.1. **Post-Storm Event Inspections at Temporarily Idle Sites.** If no construction activities will occur following a storm event, post-storm event inspections shall be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event.

Item 10. Add vehicle tracking and discuss VTC

Add the following text: Portable toilets will be located a minimum of 50 feet from state waters. They shall be adequately staked and cleaned on a weekly basis. They will be inspected daily for spills.

The occurrence of any such delayed inspection must be documented in the inspection record. Routine inspections still must be conducted at least every 14 calendar days.

1.2. **Inspections at Completed Sites/Areas.** For sites, or portions of sites, that meet the following criteria; but final stabilization has not been achieved due to a vegetative cover that has not become established, the permittee shall make a thorough inspection of their stormwater management system at least once every month. Post-storm event inspections are not required. This reduced inspection schedule is only allowed if:

1.2.1.all construction activities that will result in surface ground disturbance are completed;

1.2.2.all activities required for final stabilization in accordance with the Grading and Erosion Control/Stormwater Quality Plan have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and

1.2.3.the Grading and Erosion Control/Stormwater Quality Plan has been amended to indicate those areas that will be inspected in accordance with the reduced schedule allowed for in this section.

1.3. **Winter Conditions Inspections Exclusion.** No changes are expected for winter work.

CONCLUSION

This SWMP Report and the Best Management Practices (BMPs) specified on the Erosion Control Plans have been designed to reduce any adverse impacts the construction of this project might have on the surrounding properties. If properly installed and maintained, the design shall protect the quality of the stormwater runoff that is released from this development.

All temporary erosion and sediment control measures shall be removed and disposed of within thirty (30) days after final site stabilization is achieved, or after temporary measures are no longer needed, whichever occurs earliest, or as authorized by the local governing jurisdiction.

Temporary erosion control measures may be removed only after streets and drives are paved, and all disturbed areas have been stabilized. Trapped sediment and disturbed soil areas resulting from the disposal of temporary measures must be returned to final plan grades and permanently stabilized to prevent additional soil erosion.

Final stabilization is reached when all soil disturbing activities at the site have been completed, and uniform vegetative cover has been established with a density of at least 70 percent of pre-disturbance levels; or equivalent permanent, physical erosion reduction methods have been employed.

Compliance with Standards

This report was prepared in accordance with the procedures and concepts outlined in the *El Paso County Engineering Criteria Manual*.

REFERENCES

- *City of Colorado Springs Drainage Criteria Manual, Volume 2, including Addendums I and II.*
- *El Paso County Engineering Criteria Manual.*

Item 11. Add a section discussing the material handling, to include spill prevention and response plan and procedures

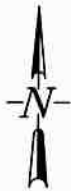
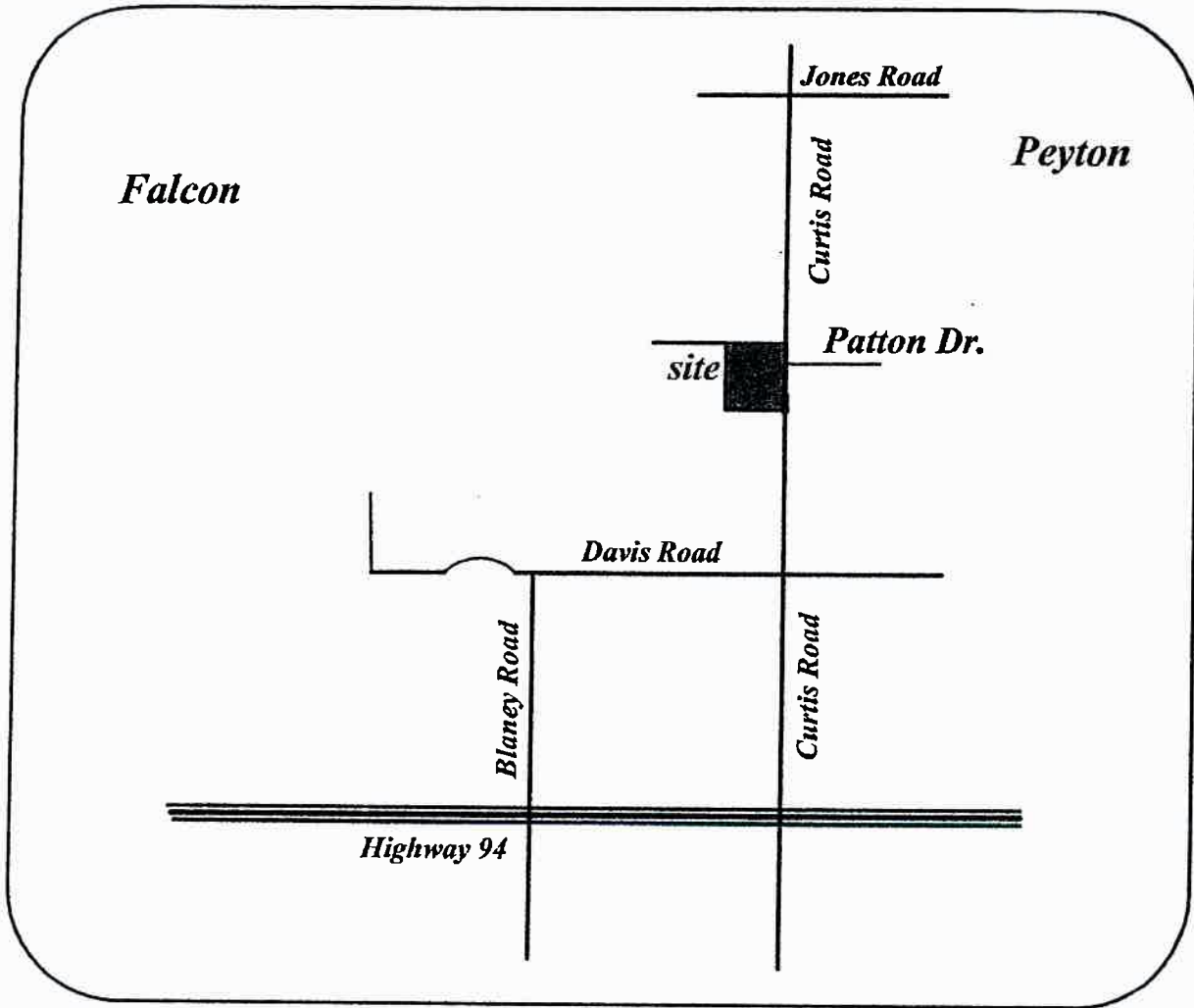
Item 12. Note that this project does not anticipate utilizing batch plants in the SWMP text

Item 21. Add text stating that the SWMP should be viewed as a “living document” that is continuously being reviewed and modified as a part of the overall process of evaluating and managing stormwater quality issues at the site. The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, operation or maintenance of the site which would require the implementation of new or revised BMPs 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 BMPs are no longer necessary and are removed.

Item 26. Add a note stating that this project does not rely on control measures owned or operated by another entity.

APPENDIX A

Vicinity Map Grading and Erosion Control Plans



VICINITY MAP

N.T.S.

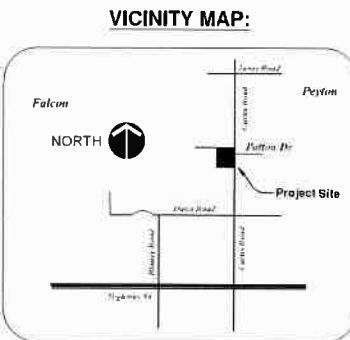
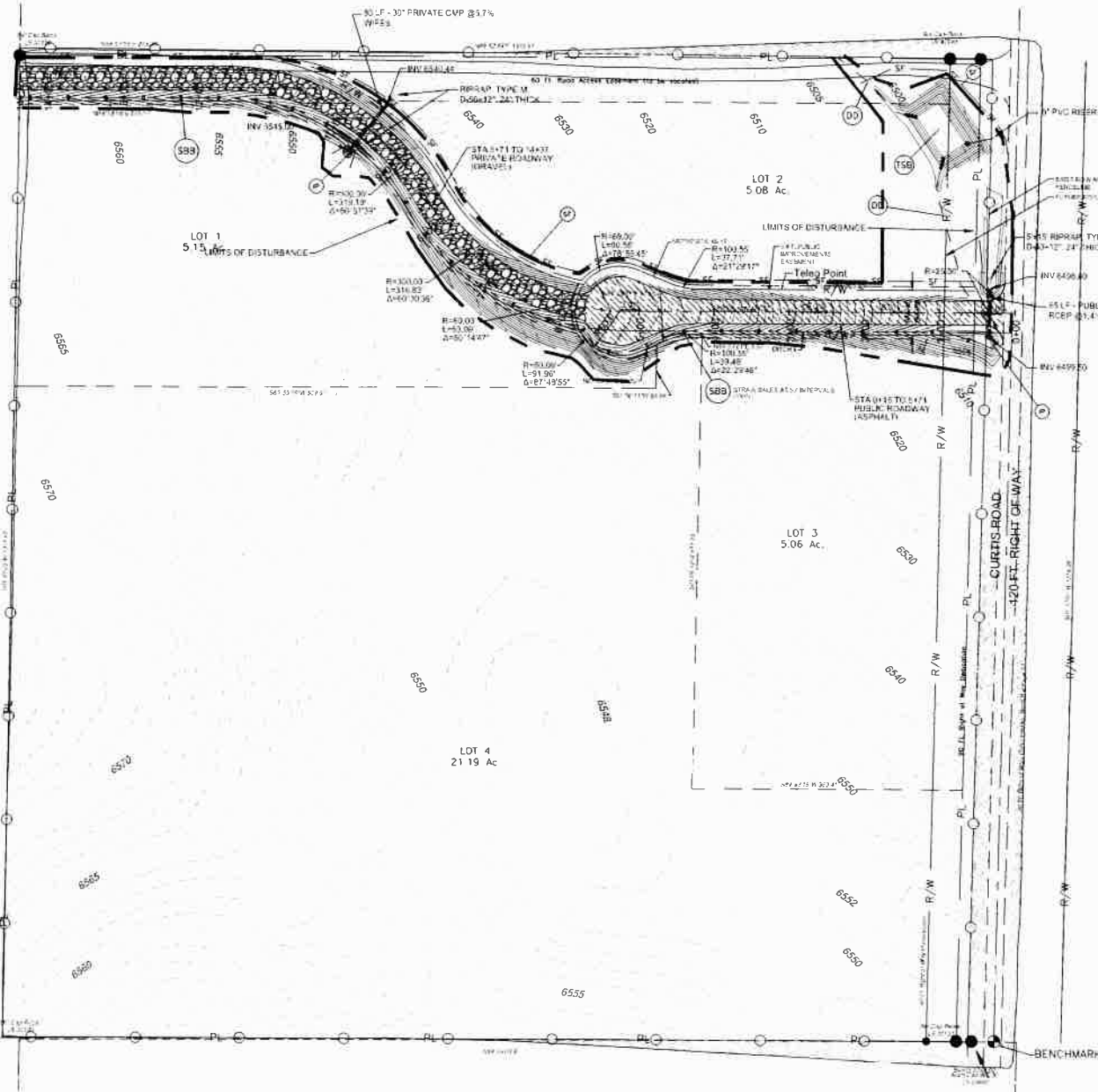


121 S Tejon St., Suite 1110 Colorado Springs, CO 80903
Phone: (719) 283-7671

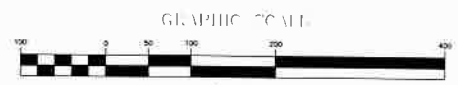
STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- 1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM DEVELOPMENT SERVICES AND A PRE-CONSTRUCTION CONFERENCE IS HELD WITH PLANNING AND COMMUNITY DEVELOPMENT
2. STORM-WATER 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.
3. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED AND APPROVED IN WRITING.
4. A SEPARATE STORM-WATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORM-WATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORM-WATER MANAGER. SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD. ONCE THE ESQCP IS APPROVED AND A 'NOTICE TO PROCEED' HAS BEEN ISSUED THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRE-CONSTRUCTION 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, 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 THESE 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 MEASUREMENTS. 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 EGM 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 SEIMENTATION 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 LOOSENEED 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. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER 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.
14. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
16. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
17. 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.
18. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED AS MUCH AS PRACTICAL TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR ORIGINAL CONTAINERS WITH ORIGINAL MANUFACTURER'S LABELS.
19. 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 EGM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
20. 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.
21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
22. 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 EGM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (FLOODPLAIN, 405 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.
23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
24. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
25. 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.
26. NAME: K:\LAND PROJECTS\201804033-0550 CURTIS ROAD\DWG\03433-GRADERS_RECOVER.DWG
PLOT DATE: June 23, 2020 12:57 PM BY: ADAN CAMANEC

GRADING AND EROSION CONTROL PLAN
WYOMING ESTATES SUBDIVISION
EL PASO COUNTY, CO



SITE MAP
THE BASIS OF BEARINGS FOR THIS PROJECT IS THE WEST LINE OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 5, T12S, R65W, N00°15'58" W - 1324.20 FEET. THE BEARING IS A GRID BEARING OF THE COLORADO STATE PLANE CENTRAL ZONE NAD 83. THE LINE IS MONUMENTED BY 1934 GLO BRASS CAP ON THE NORTH END AND A 2" DIAMETER ALUMINUM CAP PLS 4942 ON THE SOUTH END.
BENCHMARK:
ALUM CAP LS 23890 LOCATED 30' WEST OF EXISTING SOUTHEAST PROPERTY CORNER ELEV = 6549.00'



OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

HOMERUN RESTORATIONS INC DATE
SHAWN SNAFFER OWNER

ENGINEER'S STATEMENT

These detailed plans were prepared under my direction and supervision. Said plans and specifications have been prepared in accordance with the criteria established by the County for detailed roadway, drainage, grading and erosion control plans and specifications, and said plans and specifications are in conformity with applicable master drainage plans and master transportation plans. Said plans and specifications meet the purposes for which the particular roadway and drainage facilities are designed and are correct to the best of my knowledge and belief. I accept responsibility for any liability caused by any negligent acts, errors or omissions on my part in preparing these detailed plans and specifications.

Michael A. Bartusek P.E. #23323

DEVELOPER'S STATEMENT

I, the Developer, have read and will comply with all of the requirements specified on this plan.

By: SHAWN SHAFFER
Title: OWNER
Address: HOME RUN RESTORATIONS, INC
5090 WILEY RD
PEYTON, CO 80831

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

SHAWN SHAFFER OWNER Date

EL PASO COUNTY

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA 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 EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JENIFER IRVINE P.E. COUNTY ENGINEER/EGM ADMINISTRATOR DATE

LEGEND

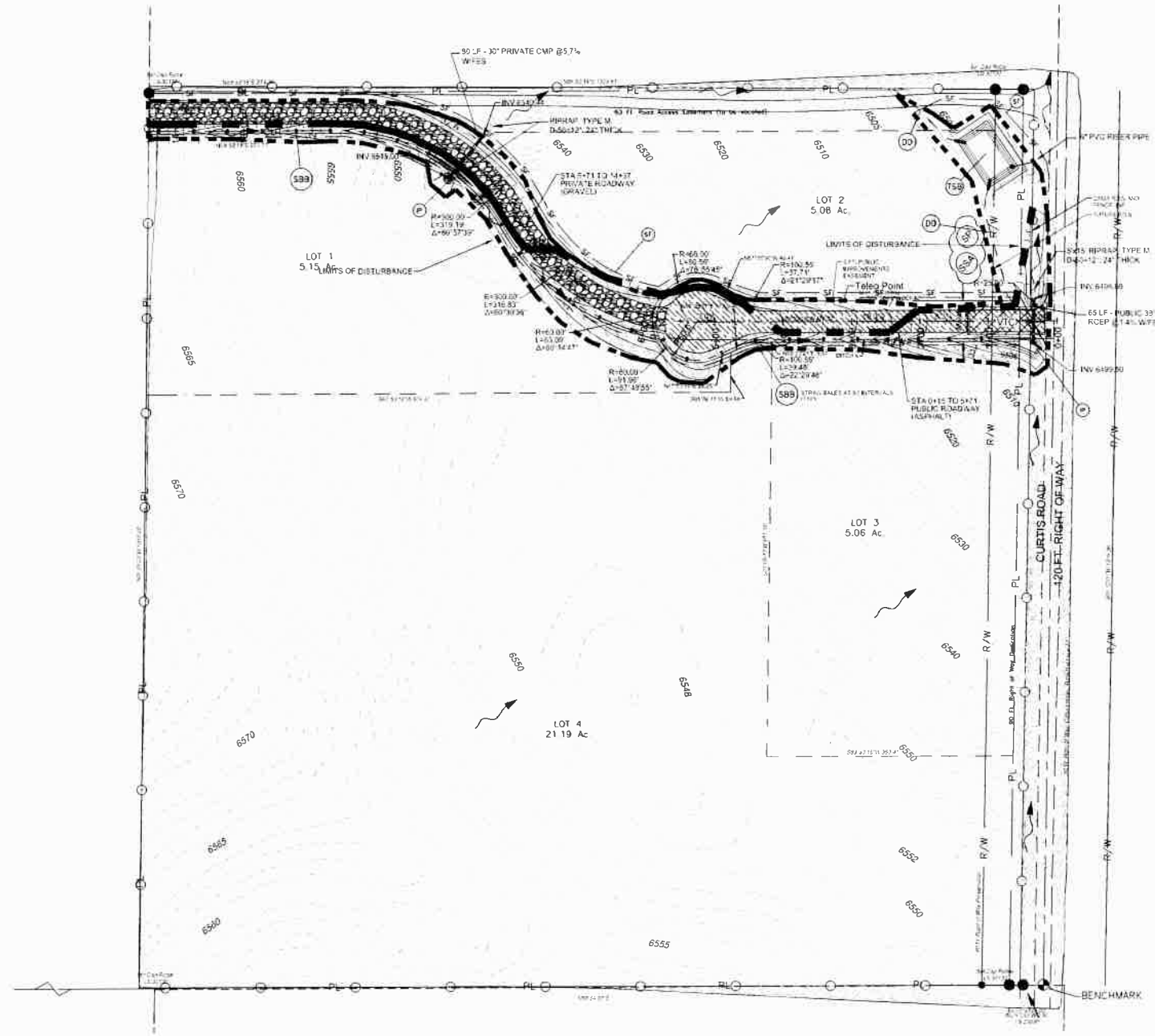
- PROPOSED MAJOR CONTOUR
PROPOSED MINOR CONTOUR
EXISTING MAJOR CONTOUR
EXISTING MINOR CONTOUR
UG PIPE (MATERIAL AND SIZE AS NOTED)
SILT FENCE
LIMITS OF CONSTRUCTION
LIMITS OF DISTURBANCE
VEHICLE TRACKING CONTROL
STRAV BALE BARRIER
INLET PROTECTION
DRAINAGE DITCH
TEMPORARY SEDIMENT BASIN
STOCKPILE PROTECTION
STABILIZED STAGING AREA
CUT
CUT/FILL BOUNDARY

SHEET INDEX

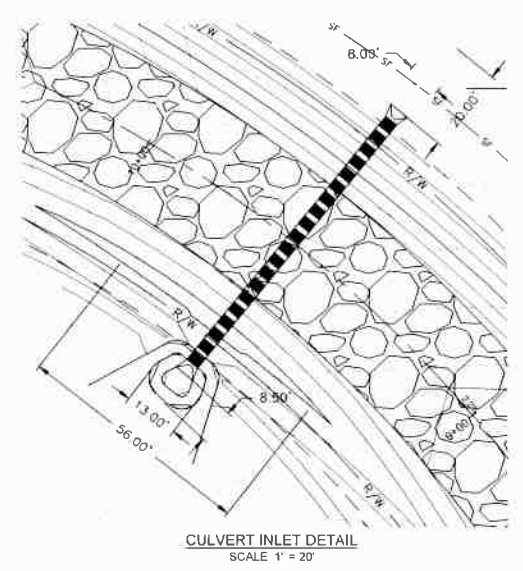
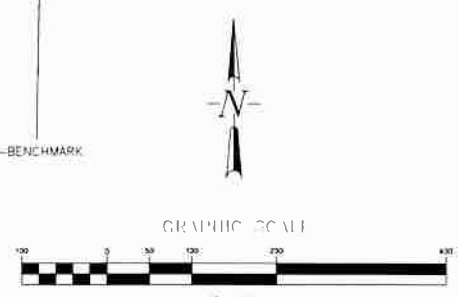
- 1 - DRAINAGE, GRADING AND EROSION CONTROL COVER
2 - DRAINAGE, GRADING & EROSION CONTROL PLAN
3 - DRAINAGE, GRADING & EROSION CONTROL DETAIL

REVISION table, DESIGNED, DRAWN, CHECKED, DATE, STAMP, HOME RUN RESTORATIONS, INC 5090 WILEY RD PEYTON, CO 80831, WYOMING ESTATES SUBDIVISION EL PASO COUNTY, CO, DRAINAGE, GRADING AND EROSION CONTROL COVER, DRAWING NUMBER: C, SHEET 1, PCD PROJECT NO. MS196

NAME \\LAND PROJECTS\01808451-3050 CURTIS ROAD\DWG\03433-GRADEROS.DWG
 PLOT DATE: JUNE 24, 2022 9:43 AM BY: ADAN CAMARGO



NOTE:
 SITE COVERED WITH RANGELAND GRASSES




- LEGEND:**
- PROPOSED MAJOR CONTOUR
 - - - PROPOSED MINOR CONTOUR
 - - - EXISTING MAJOR CONTOUR
 - - - EXISTING MINOR CONTOUR
 - U/G PIPE (MATERIAL AND SIZE AS NOTED)
 - SF — SILT FENCE
 - LIMITS OF CONSTRUCTION
 - LIMITS OF DISTURBANCE
 - ☒ VEHICLE TRACKING CONTROL
 - ⊗ SBB STRAW BALE BARRIER
 - ⊙ IP INLET PROTECTION
 - ⊙ DD DRAINAGE DITCH
 - ⊙ TSB TEMPORARY SEDIMENT BASIN
 - ⊙ SP STOCKPILE PROTECTION
 - ⊙ SSA STABILIZED STAGING AREA
 - FILL
 - CUT
 - CUT/FILL BOUNDARY


DESIGNED: MAB DRAWN: HUG CHECKED: MAB DATE: 09/27/2019	REVISION
RESPEC (FORMERLY ADPI) 3520 AUSTIN BLUFFS PKWY SUITE 102 COLORADO SPRINGS, CO 80913 PHONE (719) 266-5212	
<p>Know what's below. Call before you dig.</p> PROJ NO: 03433 DWG NO: 03433-GrdyEros	
HOME RUN RESTORATIONS, INC 5090 WILEY RD PEYTON, CO 80831	
WYOMING ESTATES SUBDIVISION EL PASO COUNTY, CO	
DRAINAGE, GRADING AND EROSION CONTROL PLAN	
DRAWING NUMBER: C	
PCD PROJECT NO. MS196 SHEET 2	

REVISION	
DESIGNED	MAE
DRAWN	PLG
CHECKED	MAB
DATE	09/27/2019

RESPECT (FORMERLY ADP)
1500 AUSTIN BLUFFS PKWY
SUITE 102
COLORADO SPRINGS, CO 80918
PHONE (719) 266-5212



STAMP



Know what's below.
Call before you dig.

PRJ# NL 33433
DWG# NL 03433-GridEros

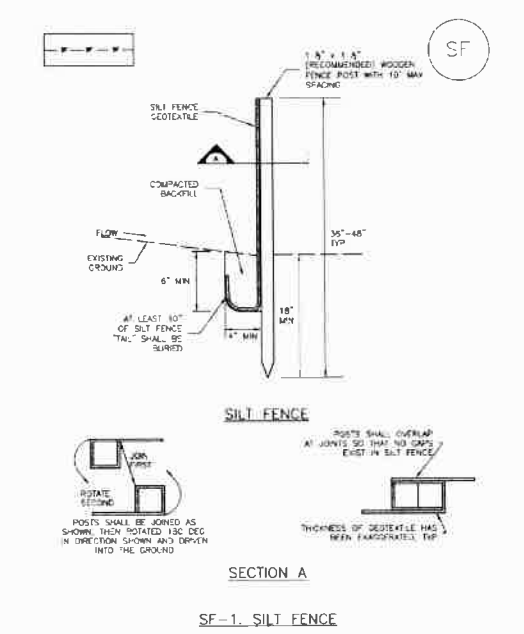
HOME RUN RESTORATIONS, INC
5090 WILEY RD
PEYTON, CO 80831

WYOMING ESTATES
SUBDIVISION
EL PASO COUNTY, CO

GRADING AND EROSION
CONTROL PLAN

DRAWING NUMBER:
C
SHEET 3

Silt Fence (SF) SC-1



November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SF-1

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

- SILT FENCES MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (3-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND EROSION.
- A UNIFORM 6" x 4" ANCHOR TRENCH SHALL BE EXCAVATED USING FRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
- COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING COMPACTOR. SHALL BE SURE THAT SILT FENCE POSTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
- SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
- SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
- AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "U-HOOK." THE "U-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
- SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

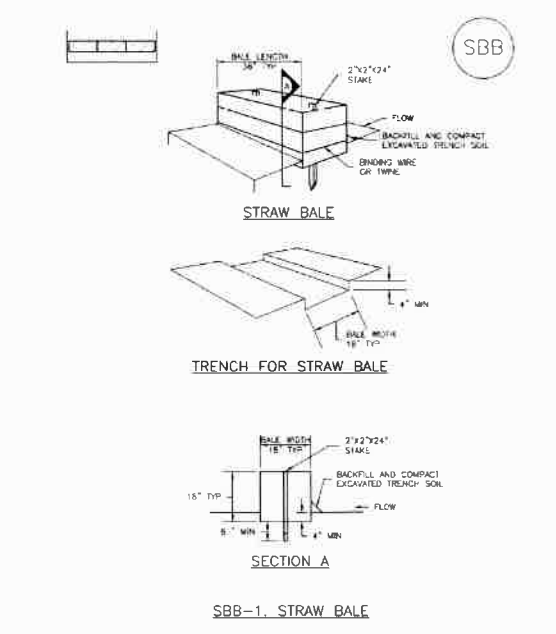
SILT FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENT IS APPROXIMATELY 6".
- REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING OR COLLAPSE.
- SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
- WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDS AND MULCHES OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN ADOBE)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDC STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SF-4

SC-3 Straw Bale Barrier (SBB)



November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SBB-2

Straw Bale Barrier (SBB) SC-3

STRAW BALE INSTALLATION NOTES

- SEE PLAN VIEW FOR LOCATIONS OF STRAW BALES.
- STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
- STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEED-NOT LESS THAN 35 POUNDS.
- WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY BUTTING ONE ANOTHER.
- STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"X18"X18".
- A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4" STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL JOINTS OF THE BALES. ALL EXCAVATED SOIL SHALL BE PLACED ON THE UPWIND SIDE OF THE STRAW BALE(S) AND COMPACTED.
- TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"X2"X24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

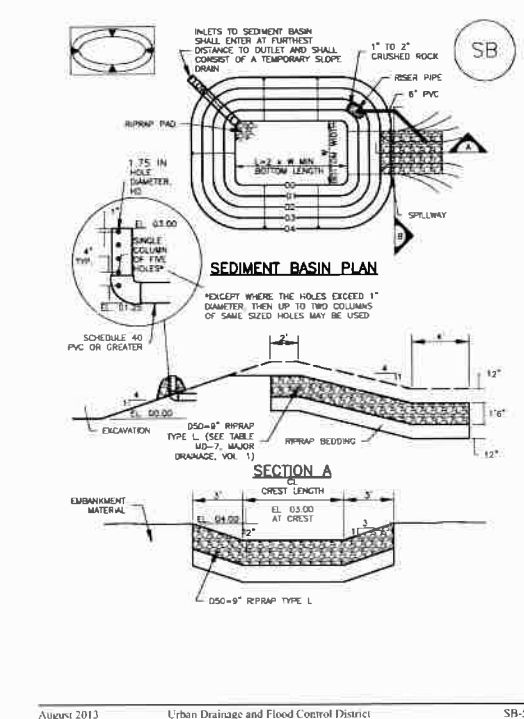
STRAW BALE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTED, OR DAMAGED BEYOND REPAIR.
- SEDIMENT ACCUMULATED UPSTREAM OF STRAW BALE BARRIER SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENT IS APPROXIMATELY 6" OF THE HEIGHT OF THE STRAW BALE BARRIER.
- STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDS AND MULCHES OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN ADOBE)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDC STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SBB-3

Sediment Basin (SB) SC-7



August 2013 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SB-5

SC-7 Sediment Basin (SB)

TABLE SB-1 SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Equivalent Drainage Area (rounded to nearest acre), (A _d)	Basin Bottom Width (ft), (W)	Spillway Crest Length (ft), (L)	Flow Diameter (ft), (D)
1	12.5	2	1/8
2	21	3	1/8
3	28	5	1/8
4	33.5	8	1/8
5	38.5	9	1/8
6	43	11	1/8
7	47.5	12	1/8
8	51	12	1/8
9	56.5	15	1/8
10	61	16	1/8
11	64	18	1/8
12	66	18	1/8
13	67.5	18	1/8
14	70.5	21	1/8
15	73.5	22	1/8

SEDIMENT BASIN INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF SEDIMENT BASIN.
 - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH L, AND HOLE DIAMETER D.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING ITS LENGTH, HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER D, AND PIPE DIAMETER D.
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON OR BASINS AS A STORMWATER CONTROL.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF COBBLES, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D693.
- PIPE SCH 40 OR GREATER SHALL BE USED.

THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASINS FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT VOLUME, SPILLWAY, DUTCH, AND OUTFIT PROTECTION DETAILS FOR ANY SEDIMENT BASINS THAT HAVE BEYOND INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

August 2013 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SB-6

Sediment Basin (SB) SC-7

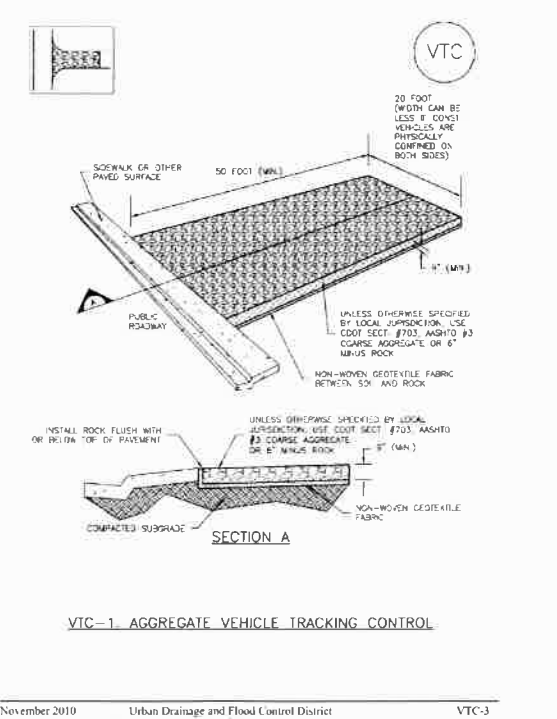
SEDIMENT BASIN MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS. TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (31.12) FEET BELOW THE SPILLWAY CREST.
- SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
- WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDS AND MULCHES OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDC STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

August 2013 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 SB-7

Vehicle Tracking Control (VTC) SM-4



November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 VTC-3

NAME & LAND PROJECTS:01806453-0001-CURTIS ROAD/030433-GRADERS.DWG
PLOT DATE: September 24 2019 12:00 PM BY: JIN SUILL

APPENDIX C
Inspection Checklist

**EXTENDED DETENTION BASIN (EDB)
MAINTENANCE FORM**

Subdivision/Business Name: _____ Completion Date: _____

Subdivision/Business Address: _____ Contact Name: _____

Maintenance Category: Routine Restoration Rehabilitation
(Circle All That Apply)

MAINTENANCE ACTIVITIES PERFORMED

ROUTINE WORK

- ___ MOWING
- ___ TRASH/DEBRIS REMOVAL
- ___ OUTLET WORKS CLEANING (TRASH RACK/WELL SCREEN)
- ___ WEED CONTROL (HERBICIDE APPLICATION)
- ___ MOSQUITO TREATMENT
- ___ ALGAE TREATMENT

RESTORATION WORK

- ___ SEDIMENT REMOVAL
 - ___ FOREBAY
 - ___ TRICKLE CHANNEL
 - ___ INFLOW
- ___ EROSION REPAIR
 - ___ INFLOW POINT
 - ___ TRICKLE CHANNEL
- ___ VEGETATION REMOVAL/TREE THINNING
 - ___ INFLOW(S)
 - ___ TRICKLE CHANNEL
 - ___ UPPER STAGE
 - ___ BOTTOM STAGE
- ___ REVEGETATION
- ___ JET-VAC/CLEARING DRAINS
 - ___ FOREBAY
 - ___ OUTLET WORKS
 - ___ INFLOWS

REHABILITATION WORK

- ___ SEDIMENT REMOVAL (DREDGING)
 - ___ BOTTOM STAGE
 - ___ UPPER STAGE
- ___ EROSION REPAIR
 - ___ OUTLET WORKS
 - ___ UPPER STAGE
 - ___ BOTTOM STAGE
 - ___ SPILLWAY
- ___ STRUCTURAL REPAIR
 - ___ INFLOW
 - ___ OUTLET WORKS
 - ___ FOREBAY
 - ___ TRICKLE CHANNEL

OTHER _____

ESTIMATED TOTAL MANHOURS: _____

COSTS INCURRED (include description of costs): _____

EQUIPMENT/MATERIAL USED (include hours of equipment usage and quantity of material used):

COMMENTS/ADDITIONAL INFO:

This Maintenance Activity Form shall be kept a minimum of 5 years and made available to the City of Colorado Springs upon request.