

Storm Water Management Plan (SWMP) For Construction Activities

Les Schwab Tire Center Meridian Crossing Filing Number 1 Falcon, Colorado

Prepared for:

SFP-E, LLC PO Box 5350 Bend, OR 97708 Attn: George Bunting Title: SWMP Administrator

Please provide the SWMP administrator and contractor information. If unknown please add title blocks and leave blank to be filled in later.

Prepared by:

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PPR 18-016

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- Vicinity Map
- General Permit Application (State) and Stormwater Construction Permit Application (Local)
- Final Permit, Colorado Discharge Permit System Stormwater Certification (State)
- CDPS General Permit Stormwater Discharges Associated with Construction Activity
- Project Site Posting Document (For Construction Entrance)
- Pre-Construction Meeting Document (Includes contact list)
- Weekly Site Inspection Checklist
- Site Logs for Earthwork Activity, Spills, and EPA/Government Inspections
- Inactivation Notice
- Stormwater Management Plans
- Landscape and Mitigation Plans



I. Introduction

The objective of this Stormwater Management Plan (SWMP) is to identify, design, construct, and implement Best Management Practices (BMP's) to reduce to the greatest extent practical pollutants in storm water discharges during the construction of this project.

This SWMP includes, but is not limited to, all Erosion and Sediment Control Plans in the Contract Drawings including location maps, phasing drawings, detail sheets, and all applicable attachments: General Permit Application, Inspection Checklists, Logs, and Inactivation Notice. This SWMP is a living, breathing document with all updates and modifications during construction by authorized on-site personnel made part of the overall plan as they occur.

The EPA and local government agencies that oversee this project are:

Colorado Department of Public Health and Environment Water Quality Control Division WQCD-Permits 4300 Cherry Creek Drive South Denver, Colorado 80246-1560 Ph. (303) 692-3517

El Paso County 2880 International Circle Suite 110 Colorado Springs, Colorado 80910

II. Contact List of Operators

Prior to the commencement of earth disturbing activities, a Pre-Construction Meeting is to be held and the attached Pre-Construction Meeting Form will be fully executed listing all required contact names and numbers. Any subcontractor(s) required to be a co-permittee by local jurisdictions must be listed and provide a copy of their General Permit Application or co-permit to the owner and attached to this SWMP.

III. Project Description

A. <u>Project Scope</u>: The proposed development includes the construction of a 12,589 square foot Les Schwab Tire Center automotive service facility and the associated parking and landscape areas. The proposed building will be located centrally within the property, and will accommodate 8 service bays in addition to retail and shop space. Vehicle traffic will enter and exit the site via existing shared access drives providing connection to from Meridian Road. A concrete channel is

No off-site construction is included within the proposed project.

B. <u>Location and Maps</u>: The site is located in Southeast Quarter of Section 32 within the Les Schwab Range 64 West. More specifically, it is located Southeast of Meridian Roll to the south of Site, so all drainage improvements south of

Developments in the area include a Falcon Liquor Outlet to the East and a Nthe private road are Restaurant to the Northeast. There are additional retail commercial devel considered off-site. and North of the site.



being constructed off

site. Anything not



Site Plan



Vicinity Map



No. D	escription		Date
C3.0	Erosion Control Plan		August 2018
C3.5	Erosion Control Details		August 2018
C. Site Area:			
	Site Area=	2.48 Acres \pm	
	Offsite Disturbed Area=	0.27 Acres \pm	
	Total Disturbed Area=	2.75 Acres±	
D. Site Impervious Ar	ea: Before Development:		10 %
(% to total)	Post Development:		71 %
E. <u>Runoff Volume</u> :	Before Development:		22.0 (100-Year)
	Post Development:		18.4 (100-Year)

Erosion and sediment control construction drawings for this project are included in the attachments to this report. Please reference the following site drawings:

F. Existing Site Topography/Use: The site is currently vacant and vegetation is native grasses, bare soil, and weeds making up approximately 90% of the site. The topography for the site generally slopes northwest at slopes ranging from 1% to 5%.

Storm water runoff either percolates on site or flows into the existing adjacent storm sewer system, eventually draining to St. Vrain Creek approximately 1.4 miles north of the site.

Per FEMA FIRM map 08041C0575-F dated March 17, 1997, the site is located within Flood Zone X, an area defined as being outside the 0.2% annual chance floodplain.

G. Site Soils: According to the NRCA National Cooperative Soil Survey – Web Soil Survey 2.0, site soils are made up of Blakeland Loamy Sand and Blakeland-Fluvaquentic Haplaquolls. These soils fall into Hydrologic soils group Type A. These soils are defined as having high infiltration rates.

H. Rainfall information:

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Average	.31	.35	.98	1.42	2.05	2.52	2.83	3.35	1.18	0.83	0.39	0.35	16.56
rainfall in													
inches													

- The total average annual rainfall for the project area is: 16.56 inches
- The design rain event for this project is: 5.05-inch, 24-hour rainfall with a 100-year return interval
- I. Name of Receiving Waters: Storm runoff either percolates on site, or overland flows into the adjacent Old Meridian Road storm system where it eventually discharges into an area retention pond approximately 1/4 miles south of the site, at Latitude 38°55'55"N, Longitude 104°36'50"W. Ultimate Receiving Waters are Falcon basin DPBS which is in a FEMA Designated Flood Plain.



The receiving waters is Falcon Creek, which ultimately discharges into Fountain Creek. Please remove "basin" and "DPBS".

J. <u>Site Earthwork/Off-Site Borrow Location (If applicable)</u>:

The grading operations for this project will disturb approximately 2.48 acres. Cuts and fills ranging from -3 to +4 feet are expected during grading operations. The final grading could see a net fill of approximately 1,050 cubic yards. These quantities are approximate and do not include over-excavation or shrink/swell factors. The contractor is responsible for performing their own calculations for the earthwork. The Contractor is responsible for hauling and disposing of any excess cut in a manner compliant with all EPA and jurisdictional requirements. Once the grading is complete, the site will be stabilized with permanent landscaping as well as seeding and mulching. Refer to the project construction plans for location and limits of the grading operations.

<Location to be Determined, Contractor to Insert Location information below once determined.>

Additional information regarding borrow materials can be added at any time during the course of construction for this SWMP. An off-site borrow location for imported soil material that is solely designated to this project must be monitored under this SWMP. If the off-site borrow location services multiple locations it should have it's own NOI and SWMP by the owner/operator of the borrow location. The general contractor is responsible for verifying any and all sources of imported material to be within this SWMP.

K. <u>Endangered Species</u>: The CDPS General Permit does not require evaluation for Threatened and Endangered Species

L. Other Industrial Activities: None.

IV. Erosion and Sediment Controls

A. <u>Sequence of Major Activities</u>: BMP activities are anticipated to begin 10/9/18 up until final stabilization on 5/20/19. The order of activities will be as follows:

Phase 1

Implementation and installation of the following areas: trailer, parking, lay down, porta-potty, wheel wash, concrete washout, mason's area, fuel and material storage containers, solid waste containers, etc., immediately denote them on the site maps and note any changes in location as they occur throughout the construction phases.

- 1. Install stabilized construction exit(s) and SWMP entrance sign.
- 2. Install silt fences on the site (clear only those areas necessary to install silt fence).
- *3. Prepare temporary parking and storage area.*



Halt all activities and contact the civil engineering consultant to perform inspection and certification of BMPs. General Contractor shall schedule and conduct storm water preconstruction meeting with engineer and all ground-disturbing contractors before proceeding with construction.

- 6. *Clear and grub the site as construction activities require.*
- 7. Begin grading the site.
- 8. Start construction of building pad and structures.

Phase II

- 1. Temporarily seed, or apply erosion control blanket throughout construction, any denuded areas that will be inactive for 7 days or more.
- 2. Maintain silt fence, inlet protection and stabilized construction exits installed during Phase 1.
- *3. Install utilities, underdrains and storm sewers.*
- 4. Install rip-rap around outlet structures as each structure is installed.
- 5. Install inlet protection around all storm sewer structures as each inlet structure is installed.
- 6. *Permanently stabilize areas to be vegetated as they are brought to final grade.*
- 7. *Prepare site for paving.*
- 8. Pave site.
- 9. Install appropriate inlet protection devices for paved areas as work progresses.
- 10. Complete grading and installation of permanent stabilization over all areas including out lots.
- 11. Contact civil engineering consultant after the site appears to be fully stabilized for an inspection.
- 12. *Remove all temporary erosion and sediment control devices after approval of the civil engineering consultant and stabilize any areas disturbed by the removal of the BMP.*
- 13. Continue daily inspection reports until the final daily inspection is signed off by the construction manager that the site is fully stabilized and the permit may be terminated.

Note: the general contractor may complete construction-related activities concurrently only if all preceding BMPs have been completely installed. BMP-related steps in the above sequence are italicized for clarity.

- B. <u>Temporary Stabilization</u>: Soil stockpiles and disturbed portions of the site where construction activity temporarily ceases are to be stabilized within **seven** days. Stabilization as defined in the above "Sequence of Major Activities." Straw mulch is to be tracked into place by machine, disked, or tackified to prevent blowing and washing away of the straw.
- C. <u>Dewatering</u>: The area between check dams will not be allowed to discharge except through infiltration or by construction dewatering practices. Dewatering may also be necessary for on-site utility installations and foundation construction. Therefore, construction dewatering is anticipated and the General Contractor will be required to obtain a construction dewatering permit from Colorado Department of Health and Environment. The General Contractor will be required to submit a construction dewatering application at least 30 days prior to the anticipated date of discharge and pay the associated fees.



Discharges from dewatering operations must be directed through an appropriate pollution prevention/treatment measure, such as a pump discharge filter bag, sediment trap or sediment basin prior to being discharged from the site. Locations of pollution prevention/treatment measures shall be shown on the Site Maps once they are determined. Under no circumstances are discharges from dewatering operations to be discharged directly into streams, rivers, lakes or other areas off-site. Likewise, discharges into storm sewer systems that do not drain to a suitable on-site treatment facility, such as a basin, are also prohibited. Discharges from dewatering operations must also be conducted in a manner sufficient to prevent erosion from the discharge runoff.

- D. <u>Permanent Stabilization</u>: Disturbed portions of the site where construction activities permanently cease are to be stabilized with permanent seed, mulch, sod, etc. per the final landscaping plan in the Construction Drawings. This permanent stabilization must occur within **seven** days of an area reaching final grade.
- E. <u>Structural Practices:</u> The structural practices for this project include, but are not limited to, those specific items shown of the erosion and sediment control drawings listed in Section III. B. Other BMP's may be required or added with Owner's Civil Engineering Consultant's approval letter.
 - 1. General Best Method Practices (BMP's) are listed below:
 - a. <u>Diversion Ditches/Berms</u> They consist of temporary or permanent swales or dikes made of soil material, sometimes with impermeable liners, to control the flow of sediment laden surface water. Most of these BMP's will be coupled with check dams, sediment traps, and or basins.
 - b. <u>Check Dam</u> (Also known as Ditch Checks) Consists of rock, riprap, or other material designed to control concentrated flows of water in a ditch or swale. Water moving at a higher velocity will be pooled by a check dam to allow sediment to settle out before the surface water continues through the device.
 - c. <u>Construction Entrance</u> All access to and from the site will require the appropriately constructed access drive usually consisting of stone on top of a geotextile fabric. When conditions require, a truck wash station will also be utilized to prevent the tracking of sediment off site.
 - d. <u>Inlet protection</u> These devices may consist of a wood frame with silt fence fabric, straw bales, large rock or other pre-manufactured products designed to keep sediment-laden water from entering storm drain inlets.
 - e. <u>Sediment Basins / Traps</u> Consist of a depression created in the earth to collect sedimentladen surface water to allow settlement of suspended soil particles before storm water is allowed to exit the site. The size and construction of these devices are to be shown on the site-specific drawings. Accumulated sediment must be removed to maintain effectiveness.
 - f. <u>Silt Fence</u> This BMP consists of a synthetic permeable woven fabric that must only be used to control small surface water flows within this product's design capability. Silt fence must also be inspected and cleaned per the weekly checklist to maintain its effectiveness.
 - g. <u>Fiber Flocculent Tube (Wattles)</u> Wattles are placed at locations indicated on the Site Maps to capture any sediment being carried by overland flow across landscaped areas downhill of



an area being disturbed. Wattles shall be buried 2 to 4 inches below the surface and shall be supported by wood stakes on the downstream side.

V. Other Pollutant Controls

- A. The following items are pollutant issues (outside of storm water sediment) during the construction process:
 - 1. <u>Dust Control</u> The general contractor will employ the use of water trucks or other dust control agents to reduce dust generated during construction to levels acceptable by local authorities and the owner's agent. Tackifiers may be used to hold soil in place and prevent dust. Manufacturer recommendations for application locations and rates must be used for dust control applications.
 - 2. <u>Concrete Waste</u> (Washout from Ready Mix Trucks) All concrete washouts will be in designated locations, noted by the general contractor on the job site erosion control plan. The concrete washout will be isolated and contained from storm water run-off. Excess liquid may be allowed to percolate into the ground on-site; it may not be discharged off site as runoff in any storm drainage conveyance. Off-site disposal, solids or liquids, only allowed to an appropriately licensed facility.
 - 3. <u>Equipment/Vehicle Maintenance</u> All on-site equipment shall receive regular maintenance by the contractors using the equipment to help prevent leaking of fluids or other pollutant discharges. The general contractor is responsible for overseeing that any onsite vehicle maintenance is handled appropriately and that all fluids and materials are disposed of properly.
 - 4. <u>Fuel Tanks</u> All onsite fuel tanks must meet all government standards including proper barriers for safety and containment of potential spills. The general contractor must note the location of any fuel tanks on the job site erosion control plan.
 - 5. <u>Hazardous Waste Management and Spill Reporting</u> Any hazardous or potentially hazardous material that is brought onto the construction site will be handled properly in order to reduce the potential for storm water pollution. All materials used on this construction site will be properly stored, handled, dispensed and disposed of following all applicable label directions. Flammable and combustible liquids will be stored and handled according to 29 CFR 1926.152. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.

Material Safety Data Sheets (MSDS) information will be kept on site for any and all applicable materials.

In the event of an accidental spill, immediate action will be undertaken by the General Contractor to contain and remove the spilled material. All hazardous materials will be disposed of by the Contractor in the manner specified by federal, state and local regulations and by the manufacturer of such products. As soon as possible, the spill will be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States will be properly reported. The General Contractor will prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, which ever is less. The General Contractor will provide notice to Owner immediately upon identification of a reportable spill.

Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported to the EPA



National Response Center (1-800-424-8802) and the Colorado Department of Public Health and Environment (CDPHE) (1-877-518-5608).

The State reportable quantity for petroleum products is 25 gallons or more (or that cause a sheen on nearby surface waters). Spills from regulated aboveground and underground fuel storage tanks must be reported to the State Oil Inspector within 24 hours (after-hours contact CDPHE Emergency Spill Reporting Line). This includes spills from fuel pumps. Spills or releases of hazardous substances from regulated storage tanks in excess of the reportable quantity (40 CFR Part 302.6) must be reported to the National Response Center and the local fire authority immediately and to the State Oil Inspector within 24 hours

The reportable quantity for hazardous materials can be found in 40 CFR 302 and http://a257.g.akamaitech.net/7/257/2422/08aug20031600/edocket.access.gpo.gov/cfr_2003/julqtr/ pdf/40cfr302.6.pdf

In order to minimize the potential for a spill of petroleum product or hazardous materials to come in contact with storm water, the following steps will be implemented:

a) All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, additives for soil stabilization, concrete, curing compounds and additives, etc.) will be stored in a secure location, under cover, when not in use.

b) The minimum practical quantity of all such materials will be kept on the job site and scheduled for delivery as close to time of use as practical.

c) A spill control and containment kit (containing for example, absorbent material such as kitty litter or sawdust, acid neutralizing agent, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) will be provided on the construction site and location(s) shown on Site Maps.

d) All of the product in a container will be used before the container is disposed of. All such containers will be triple rinsed, with water prior to disposal. The rinse water used in these containers will be disposed of in a manner in compliance with state and federal regulations and will not be allowed to mix with storm water discharges.

e) All products will be stored in and used from the original container with the original product label.

f) All products will be used in strict compliance with instructions on the product label.

g) The disposal of excess or used products will be in strict compliance with instructions on the products label.

- Misc. Building Materials or Supplies All materials that will become part of the permanent improvements are to be kept in sealed containers and maintained in an orderly fashion until installed. The general contractor will be responsible for monitoring any and all stockpiles of material and equipment on site.
- 7. <u>Offsite Vehicle Tracking</u> Per the Structural Practices section, a stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved streets adjacent to the



site are to be swept as necessary to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling loose material from the construction site are to be covered with a tarpaulin.

- 8. <u>Sanitary Waste</u> All on site personnel are to utilize the temporary or permanent sanitary facilities provided on site by the general contractor. Sanitary waste is to be collected from the temporary/portable units a minimum of one time per week by a licensed sanitary waste management contractor, or as required by local regulation. The location of sanitary units is to be noted on the job site erosion control plan by the general contractor.
- 9. <u>Solid Waste Material</u> (Construction Debris) No solid waste is to be allowed in storm water discharges. *On site burning or burying of waste material is prohibited*. All trash and construction debris from the site is to be deposited in dumpsters or proper hauling equipment. The dumpsters are to meet local and state solid waste management regulations and emptied as deemed necessary to an approved off site dump. The location of dumpsters is to be noted on the job site erosion control plan by the general contractor. All construction companies working on site will be responsible for the correct procedure in their waste disposal.
- 10. <u>Non Stormwater Discharges</u> The General Permit for Storm Water Discharges Associated with Construction Activities prohibits most non-storm water discharges during the construction phase. Allowable non-storm water discharges that occur during construction on this project, which are covered by the General Permit, include:
 - 1. Emergency fire fighting activities;
 - 2. Un-contaminated springs;
 - 3. Landscape irrigation return flows.

Construction dewatering water can not be discharged to surface waters 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 BMPs are implemented. Refer to section 4C for more information on dewatering.

No other non-stormwater discharges are anticipated, or allowed by coverage of the CDPS General Permit.

11. <u>Asphalt and Concrete Batch Plants</u> – Shall not be permitted on-site.

VI. Inspection and Maintenance Procedures for Construction

A. The cornerstone of the maintenance procedure is the attached Inspection Report. Qualified owners representatives and general contractor site superintendents will be trained in the inspection and maintenance practices necessary for keeping the pollutant controls used in this SWMP in good working order. The site superintendent will be responsible for the daily oversight of the pollution controls along with the execution of the site inspection report in accordance with this SWMP. The owner's representative will also have periodic inspection requirements to ensure proper execution of site inspections and maintenance.



VII. Certification of Compliance with Federal, State, and Local Requirements

A. This Stormwater Management Plan reflects State of Colorado and County of El Paso Colorado requirements for storm water management and erosion and sediments control. This plan was prepared in accordance with the <u>attached permit text.</u> There are no other known applicable State or Federal requirements for sediment and erosion site plans (or permits); or storm water management site plans (or permits).

VIII. Post Construction Practices

A. Structures and Pollutants

- 1. The proposed development includes the construction of 12,589 square foot Les Schwab Tire Center automotive service facility and the associated parking and landscape areas. Storm runoff from the buildings, parking, and drive areas will be flow overland and via storm sewer pipes into an off-site stormwater pond.
- 2. The expected pollutants to be generated by this site should be typical of an automobile maintenance facility. Some of those sources include fluids from automobiles and trucks like oil, grease, fuel, antifreeze, and brake fluid, plus particulates created by or carried on vehicles and deposited on the site such as brake dust, rubber fragments from tires, and dirt picked up from or carried onto the site. In addition, trash generated by building occupants or blown onto the site may be found at times. Thermal pollution may also occur during rainfall events when the building roof or asphalt pavement is hot from significant sunlight prior to the rainfall.
- 3. The post construction measures used to minimize pollutants in waterways include regular monitoring and collection of trash and debris, and good housekeeping of delivered and stored operating/retail goods.

B. Maintenance Guidelines for Post Construction Operation

1. Maintenance of all storm water pollution prevention measures will be the responsibility of the onsite management staff. The maintenance guidelines consist mostly of good housekeeping measures. Any grassed or vegetated areas that experience erosion from rainfall events should be repaired and revegetated as soon as possible. Trash or litter should be picked up and properly disposed to prevent it from getting into the storm drainage system and downstream waterways. The detention and retention ponds will be monitored for sediment build up. Periodic removal of sediment should be done to keep the structures effective. Pavement areas should also be monitored for pollutants. Any large quantity of fluids such as oil, antifreeze, brake fluid, etc. found on the pavement should be reported to the office and the source determined, if possible, and removed from the site for maintenance or repair. Pavements should also be monitored for sediment coming from vegetated areas that drain onto the pavement. If sediment is found it should be cleaned off the pavement, and the source of the soil found and repaired as discussed above.



IX. Certification by Owner, General Contractor, and Engineer

A. OWNER'S STORMWATER MANAGEMENT PLAN CERTIFICATION

I certify under penalty of law this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature
Printed Name

Title

Date:

B. GENERAL CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of this Stormwater Management Plan and the permit text attached that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

An officer of the company or owner must sign.

Signature

Printed Name

Title

Date



C. ENGINEER'S CERTIFICATION

This report for the construction activities stormwater plan for Les Schwab Tire Center, Falcon, Colorado was prepared by me (or under my supervision) in accordance with the requirements of El Paso County and the Colorado Department of Public Health and Environment, and was designed to comply with the provisions thereof. I understand that El Paso County does not, and will not, assume liability for drainage facilities designed by others.

Joseph D. Park State of Colorado No. 42470

Date _____



X. Attachments

- *General Permit Application* (State) and *Stormwater Construction Permit Application* (Local) (*Contractor To Add*)
- Final Permit, Colorado Discharge Permit System Stormwater Certification (State) (Contractor To Add)
- CDPS General Permit Stormwater Discharges Associated with Construction Activity (Contractor To Add)
- Project Site Posting Document (For Construction Entrance)
- Pre-Construction Meeting Document (Includes contact list)
- Weekly Site Inspection Checklist
- Site Logs for Earthwork Activity, Spills, and EPA/Government Inspections
- Inactivation Notice (Contractor To Add)
- Stormwater Management Plans
- Site Grading and Drainage Construction Drawings
- Landscape and Mitigation Plans



Les Schwab Tire Center SWMP

Construction Site Notice

For the CDPS General Permit

General Contractor Name:

General Contractor Address:

SWMP Administrator Contact/Number:

Project Name:

***The Stormwater Management Plan (SWMP) is on file in the field office.



Les Schwab Tire Center Stormwater Management Plan Pre-Construction Meeting

Attendees				
Description	Name (Printed	Signature	Company/Firm	Phone #
Required Atte	endees			
GC Superintendent				
GC Project Manager				
Les Schwab Tire Center				
Civil Engineer				
Additional At	tendees			
Local EPA Rep				
Subcontractor				
Subcontractor				
Subcontractor				
Other				
Other				

Date: _____ Store Number/Location: _____

All Stormwater Management Plans (SWMP) and Best Management Practices (BMP's) must be in place as required by local permitting authorities prior to the initiation of earth disturbing activity. The following items must be reviewed and checked off prior to earth disturbing work:

- □ A Copy of the *General Permit Application* (State)
- □ The original SWMP is on site and has been reviewed by all attendees.
- □ The proper sign, including a copies of the General Permit Application, *Final Permit, Colorado Discharge Permit System Stormwater Certification* (State) is posted at the site entrance per the SWMP.
- □ All attendees acknowledge that the posted SWMP is a fluid document that must be updated in conjunction with the Field Inspection Reports.

Note any areas of the SWMP that need alterations or adjustments at this time:



Les Schwab Tire Center Stormwater Management Plan Weekly Site Inspection Checklist

Summary of BMP (Best Management Practices)

Temporary Stabilization

This is the most effective BMP. All disturbed areas that will lie dormant for over [7] days must be stabilized within [seven] days of the date the area becomes inactive. The goal of temporary stabilization is to provide cover, quickly. Areas within [50] feet of a stream must be stabilized within [two] days of inactivity. This is accomplished by seeding with fast-growing grasses then covering with straw mulch. Apply only mulch between [November 1] and [March 31]. To minimize your costs of temporary stabilization, leave natural cover in place for as long as possible. Only disturb areas you intend to work within the next 21 days.

Construction Entrances

Construction entrances are installed to minimize off-site tracking of sediments. A heavy angular stone access drive must be installed at every point where vehicles enter or exit the site (reference the SWMP for designated locations). The SWMP must be updated if any alterations to construction entrances are made. Any track out of soil or sediment must be promptly swept up and must not be allowed to enter a storm drain system including drainage swales or ditches.

Sediment Ponds

This is the sediment control of choice for areas, which exceed the design capacity of silt fence or to control concentrated flows or runoff. There are two types of sediment ponds: sediment basins and sediment traps. A sediment trap is appropriate where the contributing drainage area is 10 acres or less. The outlet is an earthen embankment with a simple stone spillway. A sediment basin is appropriate for drainage areas larger than 10 acres. The outlet is an engineered riser pipe. Often a permanent storm water management pond, such as a retention or detention basin, can be modified to act as a sediment basin during construction. Reference the SWMP for size and location of sediment ponds. All sediment ponds, regardless of whether they are a trap or a basin and regardless of whether they will be come a permanent storm water pond, must provide a minimum storage of [67] cubic yards per acre of total contributing drainage area. Sediment ponds must be installed within [seven] days of first grubbing the area they control.

Silt Fence

This is a typically used at the perimeter of a disturbed area. It's only for small drainage areas on relatively flat slopes or around small soil storage piles. <u>Not</u> suitable where runoff is concentrated in a ditch, pipe, or through streams. For large drainage areas where flow is concentrated, collect runoff in diversion berms or channels and pass it through a sediment pond prior to discharging it from the site. As with all sediment controls, silt fence must be capable of ponding runoff so that sediment can settle out of suspension. Silt fence, in most cases, must be installed prior to earthwork on site and modified throughout the construction period. All silt fences must be labeled by station markings per the SWMP to better communicate areas of alteration and repair.

Inlet Protection

These must be installed on all yard drains and curb drains when these inlets do not drain to a sediment trap or basin. Even if there is a sediment trap or basin, inlet protection is still required, as it increases the overall sediment removal efficiency. If working properly, inlet protection will cause water to pond. If used on curb inlets, streets will flood temporarily during heavy storms. Reference the SWMP for locations and coordinate placement with the local governing authority before installing inlet protection that may affect public roads. Proper maintenance of inlet protection is required to allow the correct operation of the inlet protection.



Permanent Stabilization

All areas at final grade must be permanently stabilized within [seven] days of reaching final grade. This is usually accomplished by using seed and mulch, but special measures are sometimes required. This is particularly true in drainage ditches or on sleep slopes. Reference the SWMP and landscaping drawings for permanent stabilization methods for this Project. Permanent seeding should be done [March 1] to [May 31] and [August 1] to [September 30]. Dormant seeding can be done from [November 20] to [March 15]. At all other times of the year, the area should be temporarily stabilized until a permanent seeding can be applied.

Non-Sediment Pollution Control

Although sediment is the pollutant of greatest concern on most construction sites, there are other sources of pollution: storage tanks, concrete wash out, solid or liquid waste. Most of these BMPs are easy to implement with a little bit of planning and go a long way toward keeping your site clean and organized. Please be sure to inform all contractors how these BMPs and the SWMP affect their operations on the site, particularly those that will be working near a stream.

Outflow or Discharge Point(s)

Any pipe or concentrated storm water flow that leaves the disturbed property into an off-site storm system or surface stream, ditch, etc. Inspecting the discharge/outflow point(s) during or immediately after a rainfall or run-off event is a valuable tool in assessing the effectiveness of the site's BMPs to control sediment and pollution.

(See next page for Stormwater Management Plan Weekly Site Inspection Checklist)



Site Log for Earthwork Activities

Store Number/Location:	
General Contractor:	

This log is to document areas, dates, and durations for earthwork activities on the site. When possible corresponding notations are to be made on the job site Erosion Control Plans. Dates of temporary or permanent stabilization for a specific area should be highlighted.

Description of Area or Location:	
Contractor(s) Performing Activity:	
Start Date:	End Date:
Description of Activity (Clearing, Grac	ling, Temporary or Permanent Stabilization):
Description of Area or Location:	
Contractor(s) Performing Activity:	
Start Date:	End Date:
Description of Activity (Clearing, Grac	ling, Temporary or Permanent Stabilization):
Description of Area or Location: Contractor(s) Performing Activity: Start Date: Description of Activity (Clearing, Grac	End Date: ling, Temporary or Permanent Stabilization):
Description of Area or Location: Contractor(s) Performing Activity:	
Start Date:	End Date:
Description of Activity (Clearing, Grac	ling, Temporary or Permanent Stabilization):
Description of Area or Location:	
Contractor(s) Performing Activity:	
Start Date:	End Date:
Description of Activity (Clearing, Grad	ling, Temporary or Permanent Stabilization):

Page _____ of _____



Les Schwab Tire Center SWMP Site Spill Log

Store Number/Location:	
General Contractor:	

Any site spill must be reported to the appropriate authorities in accordance with all applicable laws and regulations. Spills must also be reported to the owner's representative immediately, but no later than 24 hours of occurrence.

Date / Time of Spill:

Containment Actions Taken and Authorities Notified:

Weather Conditions: ______ Phase of Construction: ______(Clearing, Rough Grading, Building, Paving, Etc.) Contractor(s) Representatives Present:

Containment Actions Taken and Authorities Notified:

Page ____ of ____



Les Schwab Tire Center SWMP Site Visit Log for EPA/Government Officials

Store Number/Location: _	
General Contractor:	

Any site visits or inspections must be reported to the owner's representative immediately, but no later than 24 hours of occurrence.

Date:	Name of Inspector:	
Title and Agency	y of Inspector:	
Weather Conditi	ions:	
Phase of Constru	uction:	(Clearing, Rough Grading, Building, Paving, Etc.)
Contractor(s) Re	epresentatives Present:	
Comments:		
Date:	Name of Inspector:	
Title and Agency	y of Inspector:	
Weather Conditi	ions:	
Phase of Constru	uction:	(Clearing, Rough Grading, Building, Paving, Etc.)
Contractor(s) Re	epresentatives Present:	
Comments:		
 Date:	Name of Inspector:	
Title and Agency	y of Inspector:	
Weather Conditi	ions:	
Phase of Constru Contractor(s) Re	epresentatives Present:	(Clearing, Rough Grading, Building, Paving, Etc.)
Comments:		

Page _____ of _____







	PROPERTY BOUNDARY LINE
	ADJACENT PROPERTY BOUNDARY LINE
	RIGHT OF WAY LINE
	BUILDING SETBACK
	EASEMENT BOUNDARY LINE
	EXISTING TO REMAIN
	EXISTING TO BE REMOVED
	PROPOSED BY OTHERS
	PROPOSED NEW
	PROPOSED BIO-RETENTION BOUNDARY
	EXISTING CURB & GUTTER TO REMAIN
	EXISTING CURB & GUTTER TO BE REMOVED
	PROPOSED CURB & GUTTER
4	PROPOSED CONCRETE PAVING
	PROPOSED STANDARD DUTY ASPHALT PAVING
	PROPOSED HEAVY DUTY ASPHALT PAVING
· · · · · · · · · · · · · · · · · · ·	PROPOSED LANDSCAPE
	PROPOSED SIDEWALK
	SAWCUT LINE
6	PARKING COUNT
TR	PROPOSED TRANSFORMER
Get Ce	PROPOSED SITE LIGHTING
RP	PROPOSED BACKFLOW PREVENTER
Μ	PROPOSED METER
DDC	PROPOSED DOUBLE DETECTOR CHECK
	PROPOSED SANITARY MANHOLE
	PROPOSED REGULATORY SIGN
SS	EXISTING SANITARY SEWER MANHOLE COVER
SD	EXISTING STORMDRAIN MANHOLE COVER
	EXISTING INLET
-\-	EXISTING STREET LIGHT
Q	EXISTING FIRE HYDRANT
	LIMITS OF CONSTRUCTION (AREA= 116,585 SF, 2.68 AC)

CONTRACTOR TO FURNISH AND INSTALL ALL ITEMS INDICATED

- 2. ADD 6800' TO ALL SPOT ELEVATIONS.
- CONTRACTOR SHALL FIELD VERIFY GRADES IN THE LOCATION INDICATED AT THE TIME OF CONSTRUCTION. CARE SHALL BE TAKEN TO MATCH EXISTING GRADES AT PROPERTY LINE TO ENSURE A SMOOTH TRANSITION BETWEEN PROPOSED ASPHALT PAVEMENT AND ADJACENT PROPERTY.
- 4. OFFSITE GRADING INCLUDES CONSTRUCTION OF CHANNEL TO CONVEY FLOWS TO EXISTING WATER QUALITY PLD LOCATED

GRADING LEGEND

339	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
340	PROPOSED MAJOR CONTOUR
40.0 XX	PROPOSED SPOT ELEVATION
FF	FINISHED FLOOR
TOS	TOP OF SIDEWALK
TC	TOP OF CURB
Р	TOP OF PAVEMENT
FL	FLOWLINE
HP	HIGH POINT
LP	LOW POINT
ME	MATCH EXISTING
GB	GRADE BREAK
С	TOP OF CONCRETE
EOC	EDGE OF CONCRETE
FG	FINISH GRADE
TOG	TOP OF GRATE
BOW	BACK OF WALK
FS	FINISH SURFACE
TOE	TOE OF SLOPE
TOC	TOP OF CONCRETE
TBC	TOP BACK OF CURB
BW	BOTTOM OF WALL
TW	TOP OF WALL

CONTRACTOR TO FIELD VERIFY CLEAR DIMENSION BETWEEN EXISTING APPURTENANCES AND PROPOSED 24-INCH RCP PRIOR TO ORDERING 30' DRAINAGE MATERIALS AND INSTALLATION IN AREAS WHERE PROPER COMPACTION



Gaaloov Planning. Architecture. Eng 1755 Telstar Drive, Suite 10 Colorado Springs, Co 8092 719.900.7220 O www.gallowayUS.com	Yay
	CHWAB
COPYRIGHT REVERSION OF COPYRIGHTS AND INFRING BE ENFORCED AND PROSEC	RUMENT OF DPERTY OF BE DUPLICATED, CED WITHOUT GALLOWAY. EMENTS WILL CUTED.
LES SCHWAB TIRE CO. PLANNING DOCUMENTS MERIDIAN CROSSING FILING No. 1A LOT 1	7105 N. MERIDIAN ROAD FALCON, COLORADO
# Date Issue / Descr 0 3/27/18 CLIENT SET 1 4/6/18 SDP SUBMITTAL 2 6/8/18 2ND SDP SUBMITTAL 3 8/7/18 BID SET 4 8/10/18 3RD SDP SUBMITT	iption Init. JDP JDP AL JDP AL JDP AL JDP

Project No:	LST00067
Drawn By:	JRP
Checked By:	JDP
Date:	4/6/2018

GRADING PLAN





GRADING I FGEND

339	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
40.0 XX	PROPOSED SPOT ELEVATION
FF	FINISHED FLOOR
TOS	TOP OF SIDEWALK
TC	TOP OF CURB
Р	TOP OF PAVEMENT
FL	FLOWLINE
HP	HIGH POINT
LP	LOW POINT
ME	MATCH EXISTING
GB	GRADE BREAK
С	TOP OF CONCRETE
EOC	EDGE OF CONCRETE
FG	FINISH GRADE

EROSION CONTROL LEGEND

	FLOW ARROW
\bigcirc	LIMITS OF CONSTRUCTION (AREA= 119,912 SF, 2.75 AC)
D	LIMITS OF DISTURBANCE (AREA= 119,912 SF, 2.75 AC)
\mathbf{b}	SILT FENCE
\mathbf{D}	CONSTRUCTION FENCE
S	SMALL SITE CONCRETE WASHOUT AREA
\bigcirc	TEMPORARY STOCKPILE
\bigcirc	VEHICLE TRACKING CONTROL/CONSTRUCTION ENTRANCE
Ð	EROSION CONTROL BLANKET
\bigcirc	INLET PROTECTION
$\mathbf{)}$	SWMP SITE POSTING
Ð	STABILIZED STAGING AREA
\supset	DIVERSION DITCH/BERM
	SILT DIKE ON PAVEMENT
\mathbf{D}	LANDSCAPE AREA
\mathbf{S}	PORTABLE RESTROOM

- AND THE PERMIT IS RELEASED.

- NECESSARILY SHOWN ON THIS PLAN. 9. THE EXISTING VEGETATION OF THE SITE INCLUDES GRASSES AND WEEDS AND COVERS APPROXIMATELY 2.0 ACRES OF THE
- 10. TOTAL SITE AREA IS 2.49 AC.; EXPECTED AREA TO UNDERGO DISTURBANCE IS APPROXIMATELY 2.75 AC.

- 14. NO BATCH PLANTS ARE USED FOR THIS SITE.
- IRRIGATION DITCHES, ETC.

- ROUTING OF FLOWS THROUGH EXISTING WATER QUALITY POND PLD.
- ADDITION TO AUTHORITY HAVING JURISDICTION.

SCALE: 1"=40'

3. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, BORING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.

4. THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY "BEST MANAGEMENT PRACTICES" AS INDICATED IN THE APPROVED STORMWATER MANAGEMENT PLAN.

5. THE DEVELOPER, GENERAL CONTRACTOR, GRADING CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL INSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC RIGHTS OF WAY.

6. SOILS THAT WILL BE STOCKPILED FOR MORE THAN 30 DAYS SHALL BE PROTECTED FROM WIND AND WATER EROSION WITHIN 14 DAYS OF STOCKPILE CONSTRUCTION. IF STOCKPILES ARE LOCATED WITHIN 100 FEET OF A DRAINAGEWAY, ADDITIONAL SEDIMENT CONTROLS SUCH AS TEMPORARY DIKES OR SILT FENCE SHALL BE REQUIRED.

7. APPROVED EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR OF THE DURATION OF THIS PROJECT. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP WHEN THE SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP.

8. THE CONTRACTOR SHALL PROTECT STORM DRAIN INLETS DIRECTLY DOWNSTREAM OF CONSTRUCTION AREA NOT

11. SOIL EROSION POTENTIAL IS LOW. POTENTIAL IMPACTS UPON DISCHARGE INCLUDES TYPICAL SOIL EROSION. 12. OTHER POTENTIAL POLLUTION SOURCES INCLUDE AUTOMOBILE MAINTENANCE, LOCATED AT BUILDING ON SITE. 13. MATERIAL HANDLING PROCEDURES ARE INDICATED IN THE APPROVED STORMWATER MANAGEMENT PLAN.

15. OTHER STORM WATER POLLUTANT CONTROL PROCEDURES INCLUDE WASTE DISPOSAL AND OFFSITE SOIL TRACKING. 16. THERE ARE NO NON-STORMWATER COMPONENTS OF DISCHARGE ON PROJECT SITE, INCLUDING NATURAL SPRINGS,

17. ULTIMATE RECEIVING WATERS ARE FALCON BASIN DPBS WHICH IS IN A FEMA DESIGNATED FLOODPLAIN. 18. EXISTING STORM WATER OUTFALL IS LOCATED ¹/₄ MILES SOUTH OF THE SITE AT AN EXISTING RETENTION POND. 19. FINAL STABILIZATION INCLUDES PAVEMENT AND LANDSCAPING. LONG-TERM STORM WATER QUALITY IS OBTAINED BY

20. VEGETATIVE COVER DENSITY SHALL BE MINIMUM 70% OF PRE-DISTURBED LEVELS TO BE CONSIDERED STABILIZED. 21. CONTRACTOR TO INCLUDE SIGNATURE ON INSPECTION LOGS AND LOCATION OF SWMP RECORDS ON-SITE AT ALL TIMES IN



DUST CONTROL GENERAL NOTES

THE CITY ENGINEER MAY REQUIRE THE SUBMITTAL OF A DUST PREVENTION AND CONTROL PLAN FOR GRADING AND CONSTRUCTION AS DEEMED NECESSARY. AT THE VERY MINIMUM THE FOLLOWING CONDITIONS CONCERNING THE CONTROL OF GRADING AND CONSTRUCTION DUST SHALL BE ADHERED TO, AS WELL AS FOLLOWING SCAQMD REQUIREMENTS WITH REGARDS TO FUGITIVE DUST.

- FUGITIVE DUST EMISSIONS WILL BE CONTROLLED TWENTY-FOUR (24) HOURS A DAY, SEVEN (7) DAYS A WEEK, WHETHER OR NOT THERE IS CURRENT ACTIVITY ON THE SITE.
- THERE SHALL BE A 24-HOUR CONTACT NAME AND PHONE NUMBER FOR THE PERSON RESPONSIBLE FOR ENSURING THE CONTROL OF FUGITIVE DUST, WHETHER OR NOT THERE IS CURRENT ACTIVITY AT THE SITE.
- DUST CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO THE APPLICATION OF WATER OR DUST PALLIATIVES, THE INSTALLATION OF WIND FENCING, AND THE TREATMENT OF STAGING AREAS.
- WHEN AN ENTIRE PROJECT IS GRADED AND THE SUBSEQUENT CONSTRUCTION ON THE SITE IS TO BE COMPLETED IN PHASES, THE PORTION OF THE SITE NOT UNDER CONSTRUCTION SHALL BE TREATED WITH CHEMICAL STABILIZERS, OR PLANT MATERIALS AND AN IRRIGATION SYSTEM.

IF THE IMPORTING OR EXPORTING OF SOIL IS NECESSARY, DUST CONTROL SHALL INCLUDE PROCEDURES FOR THE CONTROL OF DUST RESULTING FROM THE LOADING, TRANSPORTATION AND UNLOADING OF SOIL FROM, TO OR WITHIN THE PROJECT AREA AND ON PUBLIC ROADWAYS.

INSPECTION AND MAINTENANCE PROCEDURES FOR CONSTRUCTION

THE CORNERSTONE OF THE MAINTENANCE PROCEDURE IS CONTAINED IN THE APPROVED STORMWATER MANAGEMENT PLAN. QUALIFIED OWNERS REPRESENTATIVES AND GENERAL CONTRACTOR SITE SUPERINTENDENTS WILL BE TRAINED IN THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE POLLUTANT CONTROLS USED IN THE SWMP IN GOOD WORKING ORDER. THE SITE SUPERINTENDENT WILL BE RESPONSIBLE FOR THE DAILY OVERSIGHT OF THE POLLUTION CONTROLS ALONG WITH THE EXECUTION OF THE SITE INSPECTION REPORT IN ACCORDANCE WITH THE SWMP. THE OWNER'S REPRESENTATIVE WILL ALSO HAVE PERIODIC INSPECTION REQUIREMENTS TO ENSURE PROPER EXECUTION OF SITE INSPECTIONS AND MAINTENANCE.

NARRATIVE:

- DESCRIPTION OF BMPS TO BE USED, INCLUDING DIVERSION DITCHES / BERM, CHECK DAM, CONSTRUCTION ENTRANCE, INLET PROTECTION, SEDIMENT BASINS / TRAPS, SILT FENCE, AND FIBER FLOCCULENT TUBE (WATTLES) ARE INCLUDED IN THE APPROVED STORMWATER MANAGEMENT PLAN. DESCRITION OF NON-STRUCTURAL BMPS INCLUDING DUST CONTROL, CONCRETE WASTE, EQUIPMENT/VEHICLE MAINTANENCE,
- FUEL TANKS, HAZARDOUS WASTE MANAGEMENT AND SPILL REPORTING, BUILDING MATERIALS AND SUPPLIES, OFFSITE VEHICLE TRACKING, SANITARY WASTE, SOLID WASTE MATERIAL, AND NON STORMWATER DISCHARGED ARE INCLUDED IN THE APPROVED STORMWATER MANAGEMENT PLAN.
- DESCRIPTION OF CONSTRUCTION ACTIVITIES INCLUDING PRE (PHASE I) AND POST (PHASE II) SEQUENCING, TEMPORARY STABALIZATION, DEWATERING, AND PERMANENT STABILIZATION ARE INCLUDED IN THE APPROVED STORMWATER MANAGEMENT PLAN.



SWMP REVISION NOTE:

THE SWMP (E.G., DESIGN OF RETENTION POND CAPACITY)

AT NEARLY EVERY SITE, THE IMPLEMENTED BMPS WILL HAVE TO BE MODIFIED TO ADAPT TO CHANGING SITE CONDITIONS, OR TO ENSURE THAT POTENTIAL POLLUTANTS ARE CONSISTENTLY AND PROPERLY MANAGED. THE POLLUTANT SOURCES AND MANAGEMENT PRACTICES AT A SITE MUST BE REVIEWED ON AN ONGOING BASIS (AND SPECIFICALLY DURING THE REQUIRED INSPECTIONS LISTED IN PART I.D.6 OF THE CDPHE STORMWATER CONSTRUCTION PERMIT). WHEN BMPS OR OTHER SITE CONDITIONS CHANGE. THE SWMP MUST BE MODIFIED TO ACCURATELY REFLECT THE ACTUAL FIELD CONDITIONS. EXAMPLES INCLUDE. BUT ARE NOT LIMITED TO, REMOVAL OF BMPS, IDENTIFICATION OF NEW POTENTIAL POLLUTANT SOURCES, ADDITION OF BMPS, MODIFICATION OF BMP INSTALLATION AND IMPLEMENTATION CRITERIA OR MAINTENANCE PROCEDURES, AND CHANGES IN ITEMS INCLUDED IN THE SITE MAP AND/OR DESCRIPTION. SWMP REVISIONS MUST BE MADE PRIOR TO CHANGES IN SITE CONDITIONS, EXCEPT FOR RESPONSIVE SWMP CHANGES, AS FOLLOWS: SWMP REVISIONS MUST BE MADE IMMEDIATELY AFTER CHANGES ARE MADE IN THE FIELD TO ADDRESS BMP 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 BMP INSTALLATION AND/OR IMPLEMENTATION OCCUR AT THE SITE THAT REQUIRE DEVELOPMENT OF MATERIALS TO MODIFY

THE SWMP SHOULD BE VIEWED AS A "LIVING DOCUMENT" THAT IS CONTINUOUSLY BEING REVIEWED AND MODIFIED AS PART OF THE OVERALL PROCESS OF ASSESSING AND MANAGING STORMWATER QUALITY ISSUES AT THE SITE.

BENCHMARK

THE NATIONAL GEODETIC SURVEY (NGS) MONUMENT DESIGNATION 'E 24' , PID JK0239, WHICH HAS AN ELEVATION OF 6902.3 (NAVD 88 DATUM). THE STATION IS LOCATED ABOUT 7 MI (11.3 KM) SOUTHWEST OF PEYTON, 2 MI (3.2 KM) NORTHEAST OF FALCON AND ON U.S. HIGHWAY 24, IN THE SOUTHEAST 1/4 OF SECTION 32, T 12 S, R 64 W, AND AT U.S. HIGHWAY 24 MILEPOST 322.45. OWNERSHIP--EL PASO COUNTY PARK PROPERTY TO REACH THE STATION, GO TO THE INTERSECTION OF U.S. HIGHWAY 24 AND JUDGE ORR ROAD AND THE STATION IN THE NORTHEAST CORNER OF THE INTERSECTION THE STATION IS A STANDARD DISK SET IN A 25 CM SQUARE CONCRETE POST, PROJECTING 30 CM ABOVE THE GROUND. IT IS 26.8 M (87.9 FT) EAST-NORTHEAST FROM JUDGE ORR ROAD, 15.7 M (51.5 FT) FROM A DIRT ROAD TO A PRIVATE RESIDENCE, 0.8 M (2.6 FT) SOUTHWEST FROM A PLASTIC WITNESS POST, 0.7 M (2.3 FT) NORTH FROM A METAL WITNESS POST AND 0.6 M (2.0 FT) EAST FROM A FENCE CORNER.

NAVD88 ELEVATION = 6902.3'

LEGAL DESCRIPTION

ALL OF LOTS 3 AND 4, MERIDIAN CROSSING FILING NO. 1, SITUATED IN THE NORTHEAST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF FALCON, COUNTY OF EL PASO, STATE OF COLORADO.

BASIS OF BEARING

BEARINGS ARE BASED ON THE NORTHWESTERLY LINE OF MERIDIAN CROSSING FILING NO. 1, LOTS 1 & 2 AND IS ASSUMED TO BEAR N51°13'14"E.

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Tires les s	CHWAB
PRE-LIMMAR PRE-LIMMAR NOTFORCONE NOTFORCONE	NGCTION TRUCTION
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LES SCHWAB TIRE CO. PLANNING DOCUMENTS MERIDIAN CROSSING FILING No. ` LOT 1	7105 N. MERIDIAN ROAD FALCON, COLORADO
# Date Issue / Descrip 0 3/27/18 CLIENT SET 1 4/6/18 SDP SUBMITTAL 2 6/8/18 2ND SDP SUBMITTAL 3 8/7/18 BID SET 4 8/10/18 3RD SDP SUBMITTAL	otion Init. JDP JDP JDP JDP JDP JDP JDP

Project No:	LST00067
Drawn By:	JDP
Checked By:	JDP
Date:	4/6/2018

_ ____

_ ____ _

EROSION CONTROL PLAN





olco, falcon - Ist000067 - sec meridian & old meridian/CADD/3 CDILST0067_C3.5-Eros Details.dwg - Jeff Palmer - 8/10/2018



— — — — 7 5 — — —	— — EXISTING MAJOR CONTOUR
74 <i></i>	EXISTING MINOR CONTOUR
75	PROPOSED MAJOR CONTOUR
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	PROPOSED MINOR CONTOUR
STS	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	■ MAJOR BASIN BOUNDARY LINE
$\rightarrow$	FLOW ARROW
	EMERGENCY OVERFLOW LOCATION & DIRECTION
STS	EXISTING STORM SEWER
	MAJOR BASIN BOUNDARY LINE
	MINOR BASIN BOUNDARY LINE
	PROPERTY BOUNDARY
$\overline{1}$	DESIGN POINT
	BASIN DESIGNATION
A	PEAK 5-YEAR RUNOFF COEFFICIENT
	PEAK 100-YEAR RUNOFF COEFFICIENT
0.00 0.00	BASIN AREA IN ACRES
	DESIGN POINT



PIPE	FLOW	/TABLE

	DIAMETER DA		TOTAL FLOW	SLOPE	САРАСПҮ	PERCENT	
FIFE	(INCHES)	DASINS	(CFS)	(%)	(CFS)	FULL	
P-1	6	R-1	2.06	1.00%	0.73	82.0%	
P-2	12	A-2	3.22	1.00%	4.98	61.4%	
P-3 (DP1)	18	R-1, A-2	6.30	0.50%	10.39	58.9%	
P-4	12	A-1	3.89	1.00%	4.98	70.2%	
P-5 (DP2)	12	A-1, A-4	5.80	2.58%	8.00	66.4%	
P-6 (DP3)	24	R-1, A-1-4, OS-1	14.80	0.50%	22.37	62.3%	
P-7 (DP4)	24	R-1, A-1-4, OS1-4	18.40	0.50%	22.37	73.1%	





S FILING

#	Date	Issue / Description	Init.
0	3/27/18	CLIENT SET	JDP
1	4/6/18	SDP SUBMITTAL	JDP
2	6/8/18	2ND SDP SUBMITTAL	JDP
3	8/7/18	BID SET	JDP
4	8/10/18	3RD SDP SUBMITTAL	JDP

Project No:	LST00067
Drawn By:	JRP
Checked By:	JDP
Date:	4/6/2018

DRAINAGE PLAN



GEN	GEND							
GEND BREV.	BOTANIC NAME	COMMON NAME	PLANTING SIZE	QUANTITY	MATURE SIZE	REQUIRED PER CODE	WATER USE	
JOUST	IREES							
MGR	AMELANCHIER X GRANDIFLORA	AUTUMN BRILLIANCE SERVICEBERRY	1.5" CAL. B&B	4	20' X 10'	11 TOTAL TREES	LOW	
LSH	GLEDITSIA TRIACANTHOS VAR. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	1.5" CAL. B&B	5	40' X 40'	11 TOTAL TREES	LOW	
UMA	QUERCUS MACROCARPA	BUR OAK	1.5" CAL. B&B	3	50' X 40'	11 TOTAL TREES	LOW	
YRE	SYRINGA RETICULATA	JAPANESE TREE LILAC	1.5" CAL. B&B	2	15' X 12'	11 TOTAL TREES	LOW	
5								
EAT	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	#5 CONTAINER 18"-24"	13	4' X 4'	N/A	LOW	
ORA	ROSA 'RADRAZZ'	KNOCK OUT ROSE	#5 CONTAINER 18"-24"	22	3' X 3'	N/A	LOW	
S								
UIJ	EUONYMUS FORTUNEI 'IVORY JANE'	IVORY JANE EUONYMUS	#5 CONTAINER 18"-24"	25	3' X 6'	N/A	LOW	
JME	JUNIPERUS X MEDIA 'SEA GREEN'	SEA GREEN JUNIPER	#5 CONTAINER 18"-24"	7	8' X 6'	N/A	LOW	
SES AI	ND PERENNIALS							
AKF	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS	#1 CONTAINER	23	4.5' X 2.0'	N/A	LOW	
OMO	COREOPSIS VERTICILLATA 'MOONBEAM'	MOONBEAM COREOPSIS	#1 CONTAINER	163	1.5' X 1.5'	N/A	LOW	
ESE	HELICTOTRICHON SEMPERVIRENS	BLUE AVENA GRASS	#1 CONTAINER	72	2' X 2'	N/A	LOW	
EKR	PENNISETUM ORIENTALE 'KARLEY ROSE'	ORIENTAL FOUNTAIN GRASS	#1 CONTAINER	60	2' X 2'	N/A	LOW	
IISCEL	LANEOUS							
JRF	RTF SOD	SOD		5,457 SF		N/A	MODERATE	
ILCH	2" - 4" DIA. MULTI - COLOR ROCK MULCH W/ SHREDDED BARK MULCH RING. SEE MULCH NOTES	ROCK MULCH		3,997 SF		N/A		

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	2 0.10		
0	3/27/18	CLIENT SET	JDP
1	4/6/18	SDP SUBMITTAL	JDP
2	6/8/18	2ND SDP SUBMITTAL	JDP
3	8/7/18	BID SET	JDP
4	8/10/18	3RD SDP SUBMITTAL	JDP
_			

Project No:	LST00067
Drawn By:	DTT
Checked By:	JDP
Date:	4/6/2018

LANDSCAPE PLAN



# Markup Summary

A concrete channel is being constructed off site. Anything not within the Les Schwab lot is considered off site, so all drainage impro



Subject: Engineer Page Label: 3 Lock: Locked Author: dsdgrimm Date: 9/6/2018 8:50:23 AM Color: ■

A concrete channel is being constructed off site. Anything not within the Les Schwab lot is considered off site, so all drainage improvements south of the private road are considered off-site.

#### Please provide the SWMP administrator and contractor information. If unknown please add title blocks and leave blank to be filled

![](_page_27_Figure_6.jpeg)

Subject: Engineer Page Label: 1 Lock: Locked Author: dsdgrimm Date: 9/6/2018 8:50:25 AM Color:

Please provide the SWMP administrator and contractor information. If unknown please add title blocks and leave blank to be filled in later.

#### The receiving waters is Falcon Creek, which ultimately discharges into Fountain Creek. Please remove "basin" and "DPBS". (1)

![](_page_27_Figure_10.jpeg)

Subject: Engineer Page Label: 5 Lock: Locked Author: dsdgrimm Date: 9/6/2018 8:50:28 AM Color:

The receiving waters is Falcon Creek, which ultimately discharges into Fountain Creek. Please remove "basin" and "DPBS".