



**WOODFORD MANUFACTURING BUILDING ADDITION
LOT 1, BLOCK 1, WAYNOKA ROAD INDUSTRIAL
2121 WAYNOKA ROAD, COLORADO SPRINGS, CO
STORMWATER MANAGEMENT PLAN (SWMP)
PCD File No. PPR-1837**

September, 2018

1. Applicant / Contact Information

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Contractor: Hammers Construction, Inc.
1141 Woolsey Heights
Colorado Springs, CO 80915
Attn: Joe Butler (719)-570-1599
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2. Site Description

- a. Woodford Manufacturing is planning to construct an addition on the south side of the existing manufacturing building at 2121 Waynoka Road in El Paso County, Colorado. The project site is an existing 8.9-acre developed lot described as Lot 1, Block 1, Waynoka Road Industrial Subdivision. Woodford Manufacturing also owns the adjoining vacant lot to the south (Lot 2, Block 1, Waynoka Road Industrial). The two adjoining lots (El Paso County Assessor's No. 54062-05-001 and 54063-03-001) comprise a total area of 13.5 acres located on the east side of Waynoka Road, north of

Palmer Park Boulevard. The properties are zoned Heavy Industrial (I-3). Site development activities will include site grading, utilities, a new school building, internal roads, parking lots, and site landscaping.

- b. Waynoka Road is a paved public street adjoining the west boundary of the properties. Waynoka Road curves to the east along both the north boundary of Lot 1 and the south boundary of Lot 2. The existing Cherokee Ridge Golf Course adjoins the east boundary of the two lots.
- c. The site development plan consists of proposed 18,000 square-foot building addition at the southeast corner of the existing industrial building, with associated parking and site improvements impacting a total disturbed area of approximately 3.5 acres. Access will continue to be provided by the two existing driveways on the south side of the building, connecting to Waynoka Road on the west side of the property. There will be no changes to the parking lot on the north side of the existing building. The proposed internal parking area improvements on the south side of the building will be paved with a combination of asphalt and concrete.
- d. Proposed sequence of major activities:
 - Mobilization / implementation of BMP's
 - Clearing and grubbing
 - Rough grading
 - Final grading of building site and parking areas
- e. Total site area = 8.9 acres; Projected disturbed area = 3.5 acres
- f. Historic runoff coefficient, $C = 0.35$;
Developed runoff coefficient, $C = 0.70$
- g. Existing vegetation on site: existing gravel and native meadow grasses (approx. 50% coverage)
- h. Potential pollution sources: vehicle fueling on-site
- i. Non-stormwater components of discharge: none anticipated
- j. Receiving water: Surface drainage from this site will flow southwesterly into the existing ditch along the east side of Meridian Road, which flows to an existing downstream drainage channel in the Falcon Drainage Basin.
- k. Soil erosion potential and potential impacts upon discharge: On-site soils are comprised of Ellicott loamy coarse sand. These soils are classified as hydrologic soils group A (low runoff potential; high infiltration rate; slight to moderate hazard of erosion). Uncontrolled soil erosion may adversely impact downstream drainageways; on-site BMP's will be provided and maintained to mitigate adverse impacts.

Update j. Within the Sand Creek Drainage Basin.

3. Site Map (see Construction Drawings – Sheet C1.1)

4. BMP's for Stormwater Pollution Prevention (See Sheet C1.1 for GEC Plan and Sh. C2-C3 for BMP Details):

<u>Phase</u>	<u>BMP</u>
Clearing and Grubbing necessary for perimeter controls	VTC's
Initiation of perimeter controls	Silt Fence
Remaining clearing and grubbing	
Site Grading	IP / SF
Rain Garden (temporary sediment pond during construction)	RG / SB
Stabilization	SM
Removal of erosion control measures	

a. Erosion and Sediment Controls

1) Structural Practices:

- Vehicle Tracking Control (VTC) pad at construction entry
- Silt fence at toe of slope along downstream limits of disturbed areas
- Inlet protection (IP) at storm inlets
- Rain Garden (RG) at southwest corner of project area

2) Non-Structural Practices:

- Preserve existing vegetation beyond limits of work
- Temporary seeding of areas to remain disturbed for significant periods of time
- Permanent seeding/mulching (SM) upon completion of rough grading

b. Materials Handling and Spill Prevention

• General Materials Handling Practices:

- Potential pollutants shall be stored and used in a manner consistent with the manufacturer's instructions in a secure location. To the extent practical, material storage areas should not be located near storm drain inlets and should be equipped with covers, roofs, or secondary containment as required to prevent storm water from contacting stored materials. Chemicals that are not compatible shall be stored and segregated areas so that spilled materials cannot combine and react.
- Disposal of materials shall be in accordance with the manufacturer's instructions and applicable local, state, and federal regulations.
- Materials no longer required for construction shall be removed from the site as soon as possible.
- Adequate garbage, construction waste, and sanitary waste handling and disposal facilities shall be provided as necessary to keep the site clear of obstruction and BMPs clear and functional.
- Specific Materials Handling Practices:
 - All pollutants, including waste materials and demolition debris, that occur on-site during construction shall be handled in a way that does not contaminate storm water.

- All chemicals including liquid products, petroleum products, water treatment chemicals, and wastes stored on site shall be covered and contained and protected from vandalism.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, degreasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants, shall be conducted under cover during wet weather and on an impervious surface to prevent release of contaminants onto the ground. Materials spilled during maintenance operations shall be cleaned up immediately and properly disposed of.
- Wheel wash water shall be settled and discharged on site by infiltration. Wheel wash water shall not be discharged to the storm water system.
- Application of agricultural chemicals, including fertilizers and pesticides, shall be conducted in a manner and at application rates that will not result in loss of chemical to storm water runoff. Follow manufacturer's recommendations for application rates and procedures.
- pH-modifying sources shall be managed to prevent contamination of runoff and storm water collected on site. The most common sources of pH-modifying materials are bulk cement, cement kiln dust (CKD), fly ash, new concrete washing and curing waters, waste streams generated from concrete grinding and sawing, exposed aggregate processes, and concrete pumping and mixer washout waters.
- Equipment maintenance and fueling: Contractor shall implement appropriate spill prevention and response procedures
- Spill Prevention and Response Procedures:
 - The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize their migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on site and prevent their release into receiving waters.
 - Spill Response Procedures:
 - Notify site superintendent immediately when a spill, or the threat of a spill, is observed. The superintendent shall assess the situation and determine the appropriate response.
 - If spills represent an imminent threat of escaping on-site facilities and entering the receiving waters, site personnel shall respond immediately to contain the release and notify the superintendent after the situation has stabilized.

- The site superintendent, or his designee, shall be responsible for completing a spill reporting form and for reporting the spill to the appropriate agency.
- Spill response equipment shall be inspected and maintained as necessary to replace any materials used in spill response activities.
- Spill kits shall be on-hand at all fueling sites. Spill kit location(s) shall be reported to the SWMP Administrator.
- Absorbent materials shall be on-hand at all fueling areas for use in containing inadvertent spills. Containers shall be on-hand at all fueling sites for disposal of used absorbents.
- Recommended components of spill kits include the following:
 - Oil absorbent pads (one bale)
 - Oil absorbent booms (40 feet)
 - 55-gallon drums (2)
 - 9-mil plastic bags (10)
 - Personal protective equipment including gloves and goggles
- Concrete Wash Water: Unless confined in a pre-defined, bermed containment area, the cleaning of concrete truck delivery chutes is prohibited at the job site. The discharge of water containing waste cement to the storm drainage system is prohibited.
- Concrete Batch Plant: This project will not have an on-site dedicated batch plant.
- Notification Procedures:
 - In the event of an accident or spill, the SWMP Administrator shall be notified as a minimum.
 - Depending on the nature of the spill material involved, the Colorado Department of Public Health and Environment (24-hour spill reporting line: 877-518-5608), downstream water users, or other agencies may also need to be notified.
 - Any spill of oil which 1) violates water quality standards, 2) produces a “sheen” on a surface water, or 3) causes a sludge or emulsion, or any hazardous substance release, or hazardous waste release which exceeds the reportable quantity, must be reported immediately by telephone to the National Response Center Hotline at (800)-424-8802.

5. **Final Stabilization and Long-term Stormwater Management**

- Permanent seeding will be provided to achieve long-term stabilization of the site.
- Seed Mix: “Foothills Mix” or approved equal:

- Seeding Application Rate: Drill seed 0.25” to 0.5” into the soil. In small areas not accessible to a drill, hand broadcast at double the rate and rake 0.25” to 0.5” into the soil. Apply seed at the following rates:
 - Dryland: 20-25 lbs/acre
 - Irrigated: 40 lbs/acre
- Soil Stabilization Practices:
- Mulching Application: Apply 1-1/2 tons of certified weed free hay per acre mechanically crimped into the soil in combination with an organic mulch tackifier. On slopes and ditches requiring a blanket, the blanket shall be placed in lieu of much and mulch tackifier.
- Soil Conditioning and Fertilizer Requirements:
 - Soil conditioner, organic amendment shall be applied to all seeded areas at 3 CY / 1000 SF.
 - Fertilizer shall consist of 90% fungal biomass (mycelium) and 10% potassium-magnesia with a grade of 6-1-3 or approved equal. Fertilizer shall be applied as recommended by seed supplier.
- Final stabilization is reached when all soil-disturbing activities at the site have been completed, and uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

6. Other Controls

- Contractor shall dispose of all waste materials at a permitted off-site disposal site.
- Vehicle tracking pads will be installed at all access points to limit off-site soil tracking.

7. Inspection and Maintenance

- a. Inspection Schedules:
 - Contractor shall inspect BMPs bi-weekly as a minimum, and immediately (within 24 hours) after any precipitation or snowmelt event that causes surface erosion (i.e. that results in stormwater running across the ground), to ensure that BMPs are maintained in effective operating condition.
- b. Inspection Procedures:
 - 1) Site Inspection / Observation Items:
 - Construction site perimeter and discharge points (including discharges into a storm sewer system)
 - All disturbed areas
 - Areas used for material / waste storage that are exposed to precipitation
 - Other areas having a significant potential for stormwater pollution, such as demolition areas or concrete washout locations, or locations where vehicles enter or leave the site

- Erosion and sediment control measures identified in the SWMP
 - Any other structural BMPs that may require maintenance, such as secondary containment around fuel tanks, or the condition of spill response kits.
- 2) Inspection Requirements:
- Determine if there is any evidence of, or potential for, pollutants entering the drainage system.
 - Review BMPs to determine if they still meet design and operational criteria in the SWMP, and if they continue to adequately control pollutants at the site.
 - Upgrade and/or revise any BMPs not operating in accordance with the SWMP, and update the SWMP to reflect any revisions.
- c. BMP Maintenance / Replacement and Failed BMPs:
- Contractor shall remove sediment that has been collected by perimeter controls, such as silt fence and inlet protection, on a regular basis to prevent failure of BMPs, and remove potential of sediment from being discharged from the site in the event of BMP failure.
 - Removed sediment must be moved to an appropriate location where it will not become an additional pollutant source, and should never be placed in ditches or streams.
 - Contractor shall update Erosion Control Plans as required with any new BMPs added during the construction period.
 - Contractor shall address BMPs that have failed, or have the potential to fail without maintenance or modifications, as soon as possible, immediately in most cases, to prevent discharge of pollutants.
- d. Record Keeping and Documenting Inspections:
- Contractor shall maintain records of all inspection reports, including signed inspection logs, at the project site.
 - Permittee shall document inspection results and maintain a record of the results for a period of 3 years following expiration or inactivation of permit coverage.
 - Site inspection records shall include the following:
 - Inspection date
 - Name and title of personnel making the inspection
 - Location of discharges of sediment or other pollutants from the site
 - Location(s) of BMPs that need to be maintained
 - Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location
 - Location(s) where additional BMPs are needed that were not in place at the time of inspection
 - Deviations from the minimum inspection schedule

Markup Summary

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Update j. Within the Sand Creek Drainage Basin.

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- f. Historic
- g. Develop
- h. Existing
- i. Potenti
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Update j. Within the Sand Creek Drainage Basin.