

SECTION 02133

STORMWATER POLLUTION PREVENTION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A.** Prohibit illicit discharge (non-rainwater) into the storm drain system.
- B.** Construct any and all necessary systems to eliminate contaminants from entering the storm water system.
- C.** Clean up and control of work site materials, spoils and debris.
- D.** Removal of contaminants produced by the project.
- E.** The work shall include the provision of all labor, materials, equipment and apparatus not specifically mentioned herein or noted on the plans, but which are incidental and necessary to complete the work specified.

1.02 APPLICABLE PUBLICATIONS

- A.** National Pollution Discharge Elimination system (NPDES) Permit No. CAS612008 - October 14, 2009, revised November 28, 2011.
- B.** California Storm Water Best Management Practice Handbooks:
 - 1. Municipal
 - 2. Industrial/Commercial
 - 3. Construction Activity
- C.** C.3 Stormwater Technical Guidance Ver 3.0, December 5, 2011.
- D.** California State Water Resources Control Board, Construction General Permit CAS000002 Order No. 2010-0014 DWQ (for sites greater than 1 (one) acre.

1.03 QUALITY ASSURANCE

- A.** All work performed under this contract and all contractors and their associates and/or employees are required to comply with all applicable storm water regulations and to implement Best Management Practices (BMP's) at all times.
- B.** A plan shall be submitted for the proposed control of contaminants entering the storm water system. The plan must be approved by the Engineer prior to the commencement of work.
- C.** All employees and subcontractors shall be trained on the storm water pollution prevention requirements contained in these specifications.

- D. A supply of spill clean-up materials such as rags or absorbents shall be kept readily accessible on-site.

1.04 ALLOWABLE DISCHARGES

- A. Under current NPDES regulations, the following discharges to the storm drainage system are permitted, as long as the discharges are not significant pollutants:
 1. Diverted stream flows, springs and natural drainage courses;
 2. Rising flood waters;
 3. Air conditioning condensation;
 4. Domestic water line and hydrant flushing; and
 5. Landscape irrigation.
- B. Groundwater from dewatering and foundation drains will need additional certification that the groundwater has been tested or evaluated for the presence of pollutants subject to non-stormwater discharge regulations. In such a case, a Special Sewer Discharge Permit shall be required for the water to be discharged to the Sanitary Sewer System, as directed.

PART 2 - PRODUCTS

NONE

PART 3 – EXECUTION

3.01 RECYCLING

- A. At the end of each working day, all scrap, debris and waste material shall be collected and materials disposed of properly.
- B. Dry, empty paint cans/buckets, old brushes, rollers, rags and drop cloths shall be disposed of in approved waste collection.
- C. Dumpsters shall be inspected for leaks. As leaks are detected, the trash hauling contractor shall be contacted to replace or repair dumpsters that leak.
- D. Water from cleaning dumpsters shall not be discharged on-site.
- E. Regular waste collection shall be arranged for before dumpsters overflow.

3.02 HAZARDOUS MATERIAL/WASTE MANAGEMENT/MATERIALS MANAGEMENT

- A. Designated areas of the project site shall be proposed by the contractor for approval by the Engineer suitable for material delivery, storage and waste collection as far from catch basins, gutters, drainage courses and creeks as possible.

- B.** All hazardous materials such as pesticides, paints, thinners, solvents and fuels; and all hazardous wastes such as waste oil and antifreeze shall be labeled and stored in accordance with State and Federal regulations.
- C.** All hazardous materials and all hazardous wastes shall be stored in accordance with secondary containment regulations, and it is recommended that these materials and wastes be covered as needed, to avoid potential management of collected rain water as a hazardous waste.
- D.** The contractor shall dispose of all excess thinners, solvents, chemicals, oil-based and water-based paint as hazardous waste.
- E.** Regular hazardous waste collection shall be arranged for to comply with time limits on the storage of hazardous wastes.
- F.** Granular materials shall be stored a minimum of ten feet from the closest catch basin and curb return. The contractor shall not allow these granular materials to enter the storm drain or creek.
- G.** Warning signs shall be posted in areas containing or treated with chemicals.
- H.** An accurate up-to-date inventory, including Material Safety Data Sheets (MSDS) of hazardous wastes stored on site shall be kept and available to assist emergency response personnel in the event of a hazardous materials incident.
- I.** Maintenance and fueling of vehicles and equipment shall be performed in a designated, bermed area, or over a drip pan that will not allow run-off of spills. Vehicles and equipment shall be regularly checked and have leaks repaired promptly. Secondary containment, shall be used to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed or poured.

3.03 CHEMICAL USAGE

- A.** When rain is forecast within 24 hours, or during wet weather, the Engineer may prevent the contractor from applying chemicals in outside areas.
- B.** Pesticides or fertilizers shall not be over-applied and material manufacturer's instructions shall be followed regarding uses, protective equipment, ventilation, flammability and mixing of chemicals. Over-application of a pesticide constitutes a "label violation" subject to an enforcement action by the San Mateo County Agriculture Commissioner.

3.04 DUST CONTROL

- A.** Reclaimed water shall be used to control dust on a daily basis or as directed by the Engineer
- B.** At the end of each working day, or as directed by the engineer, the roadways and on-site paved areas shall be cleaned and swept of all materials attributed to or involved in the work. Streets shall not be washed down into a storm drain or

creek in lieu of street sweeping. Water wash may be picked up by a vacuum unit in lieu of sweeping.

3.05 SAWCUTTING

- A.** The contractor shall cover or barricade catch basins using control measures such as filter fabric, straw bales, sand bags and fine earthen dams to keep slurry out of the storm drain system. The contractor shall ensure that the entire opening is sealed.
- B.** Sawcutting debris and spoils be removed by shovel, absorption, vacuum or pick up of waste prior to moving to the next location or at the end of each working day, whichever is sooner.
- C.** If slurry enters a catch basin, the slurry shall be removed from the storm drain immediately.

3.06 DEWATERING OPERATIONS

- A.** Water shall be routed through a control measure as determined and approved by the Engineer such as a sediment trap, sediment basin or Baker tank to remove settleable solids prior to discharge to the storm drain system. Filtration of the water following the control measure may be required on a case-by-case basis.
- B.** The filtered water shall be reused for other purposes such as dust control or irrigation to the extent possible.
- C.** If the project is within an area of known groundwater contamination, the water from dewatering operations shall be tested prior to discharge. If the water meets the Regional Water Quality Control Board standards, it may be discharged into the storm drain. With South Bay System Authority (SBSA) permit, water may be discharged into the sanitary sewer. Otherwise, the water shall be treated and hauled off-site for proper disposal.

3.07 CONCRETE GROUT AND MORTAR WASTE MANAGEMENT

- A.** Concrete, grout and mortar shall be stored away from the drainage areas and ensure that these materials do not enter the storm drain system.
- B.** Concrete trucks shall not be washed out into streets, gutters, storm drains, drainage channels or creeks.
- C.** Concrete trucks and equipment shall be washed out off-site or in a designated area on-site where the water will flow onto dirt or into a temporary pit or bermed area. The water shall percolate into the soil and the hardened concrete placed in a waste container for disposal. If a suitable soil or bermed area is not available on-site, the wash water shall be collected and removed off-site and disposed of properly.
- D.** Water created by the washing of exposed aggregate concrete finish shall be collected in a suitable dirt area or filtered through straw bales or equivalent

material before entering the storm drain system. Sweepings from exposed aggregate finish shall be collected and disposed of in a waste container or removed off-site and disposed of properly.

3.08 PAVING OPERATIONS

- A.** Catch basins and manholes shall be covered when paving or applying seal coat, tack coat, slurry seal or fog seal.
- B.** The Engineer may direct the contractor to protect drainage courses by using control measures such as earth dike, straw bale and sand bag to divert run-off or trap filter sediment.
- C.** Excess sand (placed as part of a sand seal or to absorb excess oil) shall not be swept or washed down into gutters, storm drains or creeks. The sand shall be collected and returned to the stockpile or disposed of in a trash container or hauled to an approved dump site. Water shall not be used to wash down fresh asphalt concrete.

3.09 PAINTING

- A.** The cleaning of painting equipment and tools shall be performed in a designated area that will not enter the gutters, storm drains or creeks.
- B.** Excess paint shall be removed from brushes, rollers and equipment prior to cleanup.
- C.** Wash water from aqueous cleaning of water-based paint tools and equipment shall be disposed of in a sanitary sewer or onto a designated dirt area.
- D.** Paint thinners and solvents from oil-based paints shall be filtered and re-used when possible. Waste sludge, thinner and solvent from cleaning tools and equipment shall be disposed of as a hazardous waste.

3.10 SITE CLEANUP

- A.** The cleaning of equipment of materials shall not be performed on-site or in the street using soaps, solvents, degreasers, steam cleaning or equivalent methods.
- B.** All cleanup must be performed in a designated area that will not allow the cleaning rinse to flow off-site or into streets, gutters, storm drains, or creeks.

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