

**DIVISION 44 – POLLUTION CONTROL EQUIPMENT
SECTION 44 42 49 – WATER TREATMENT OIL/GREASE INTERCEPTORS**

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Furnish all labor, materials and equipment to install interceptor(s) and separator(s) as specified herein. Work shall include but not be limited to:
 - 1. Excavation.
 - 2. Installation.
 - 3. Internal and external piping with required supports and concrete encasement.
 - 4. Backfill.

1.02 SUBMITTALS

- A. Submit shop drawings/product data from manufacturers' descriptive literature and specifications for all materials used in this Section.

PART 2 – PRODUCTS

2.01 GENERAL

- A. General: Interceptors and separators shall be provided to prevent the discharge of oil, grease, fats, sand and other substances harmful or hazardous to the building drainage system, the public sewer, or sewage treatment plant or processes.
- B. The materials and methods utilized for the construction and installation of traps, interceptors and separators shall comply with the applicable provisions of this Section. The fittings shall not have ledges, shoulders or reductions capable of retarding or obstructing flow of the piping.
- C. The size, type and location of each interceptor and of each separator shall be designed and installed in accordance with the manufacturer's instructions and requirements of this section based on the anticipated conditions of use. Wastes that do not require treatment or separation shall not be discharged into any interceptor or separator.

2.02 GREASE INTERCEPTORS

- A. Grease traps and grease interceptors shall comply with the requirements of the following:
1. Grease Traps and Grease Interceptors Required: A grease trap or grease interceptor shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias, or restaurants and clubs.
 2. Grease Trap and Grease Interceptor Not Required: A grease trap or a grease interceptor shall not be required for individual dwelling units or any private living quarters.
 3. Grease traps and grease interceptors covered by this section shall pertain to outdoor type traps and interceptors. Indoor type traps and interceptors are not encouraged or advised. Exceptions may be granted in special cases following an advance request and subsequent review and approval by the Authority/Engineer.
- B. Design:
1. Grease traps and grease interceptors shall be sized to provide 10 gallons of capacity per seat, with a minimum capacity of 1,000 gallons and a maximum capacity of 1,500 gallons. If capacity greater than 1,500 gallons is required, multiple interceptors in series shall be used.
 2. The interceptor shall be multi chambered (minimum of two (2) compartments) and incorporate a flow diffusing baffle and sediment trap. Pop-riveted side wall baffles are not acceptable.
 3. Grease traps and interceptors shall be constructed of precast concrete and be adequately designed and rated for traffic loading if located in paved areas or areas subject to travel. Piping for flow into, out of, and between chambers shall be constructed of polyvinyl chloride (PVC). Distributive influent piping (a tee or wye to provide two (2) ports into the first chamber) is recommended.
 4. All interceptor applications shall be designed in accordance with the manufacturer's recommendations contingent upon the approval of the Authority.
- C. Manufacturer:
1. Monarch Products - Grease Oil/Interceptor Traffic Rated.
 2. Approved Equal.

2.03 OIL SEPARATORS

- A. At repair garages, car washing facilities with engine or undercarriage cleaning capability and at factories where oily and flammable liquid wastes are produced, separators shall be installed into which all oil-bearing, grease-bearing or flammable wastes shall be discharged before emptying in the building drainage system or other point of disposal.
 - 1. A mixture of treated or untreated light and heavy liquids with various specific gravities shall be separated in an approved receptacle.

- B. Design: Oil separators shall be designed in accordance with the following:
 - 1. Oil separators shall have a depth of not less than two (2) feet below the invert of the discharge drain. The outlet opening of the separator shall have not less than an 18-inch water seal.
 - 2. Oil separators shall be multi-chambered and contain a flow diffusing baffle.
 - 3. Where automobiles are serviced, greased, repaired or washed or where gasoline is dispensed, oil separators shall have a minimum capacity of six (6) cubic feet for the first 100 square feet of area to be drained, plus one (1) cubic foot for each additional 100 square feet of area to be drained into the separator. The following represent exceptions to these requirements:
 - a.) Parking garages in which servicing, repairing or washing is not conducted, and in which gasoline is not dispensed, shall not require a separator.
 - b.) Areas of commercial garages utilized only for storage of automobiles are not required to be drained through a separator.

2.04 MONITORING

- A. An inspection manhole shall be installed for monitoring of the waste. Access shall be safe and secure from tampering, mischief, etc.

- B. Access shall be provided to each interceptor and separator for service and maintenance. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, or other floating substances and solids deposited in the interceptor or separator as required by the Authority.

2.05 VENTING

- A. Interceptors and separators shall be designed so as not to become air bound where tight covers are utilized. Each interceptor or separator shall be vented where subject to a loss of trap seal.

2.06 OTHER MATERIALS

- A. All other materials not specifically described but required for proper and complete installation of the work of this Section shall be selected by the Contractor subject to the approval of the Authority/Engineer.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Examine the areas and conditions under which Work of this Section will be installed. Correct or modify conditions detrimental to proper completion of the Work. Do not proceed until unsatisfactory conditions of site have been corrected.

3.02 INSTALLATION

- A. Install equipment with skilled labor in accordance with manufacturer's instructions.
- B. All products, pre-cast or cast-in-place sections/pads shall be placed on a minimum six (6) inch depth of AASHTO No. 57 aggregate.
- C. Install internal/external piping using specified materials.
- D. Equipment installed shall be inspected, adjusted, approved, and certified satisfactory by the manufacturer. Provide certification(s) that equipment is ready for operation.

3.03 BACKFILL AND COMPACTION

- A. Per Section 31 23 33.

3.04 TESTING

- A. All piping shall be tested as directed by the Authority per Section 33 31 00.

END OF SECTION