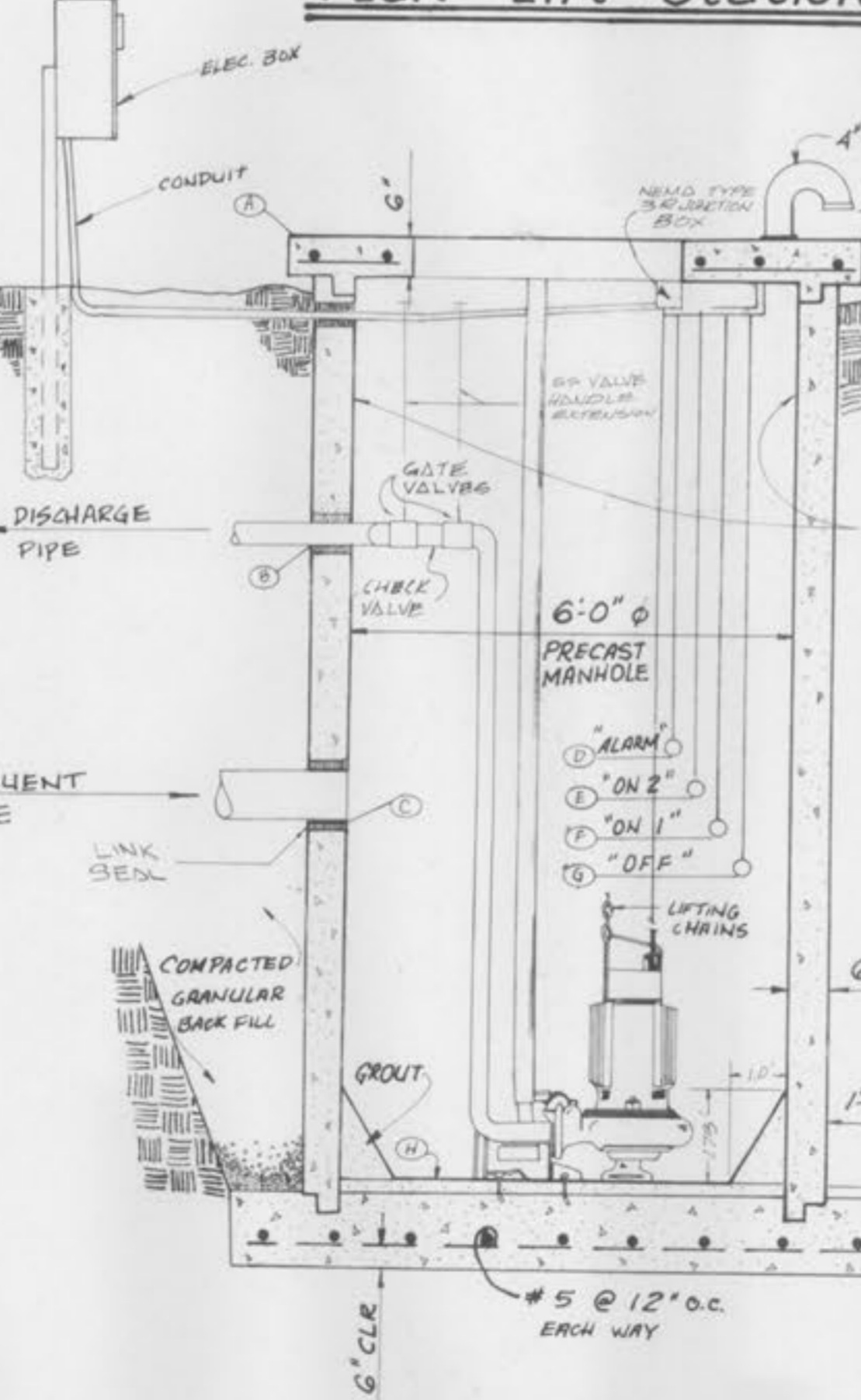
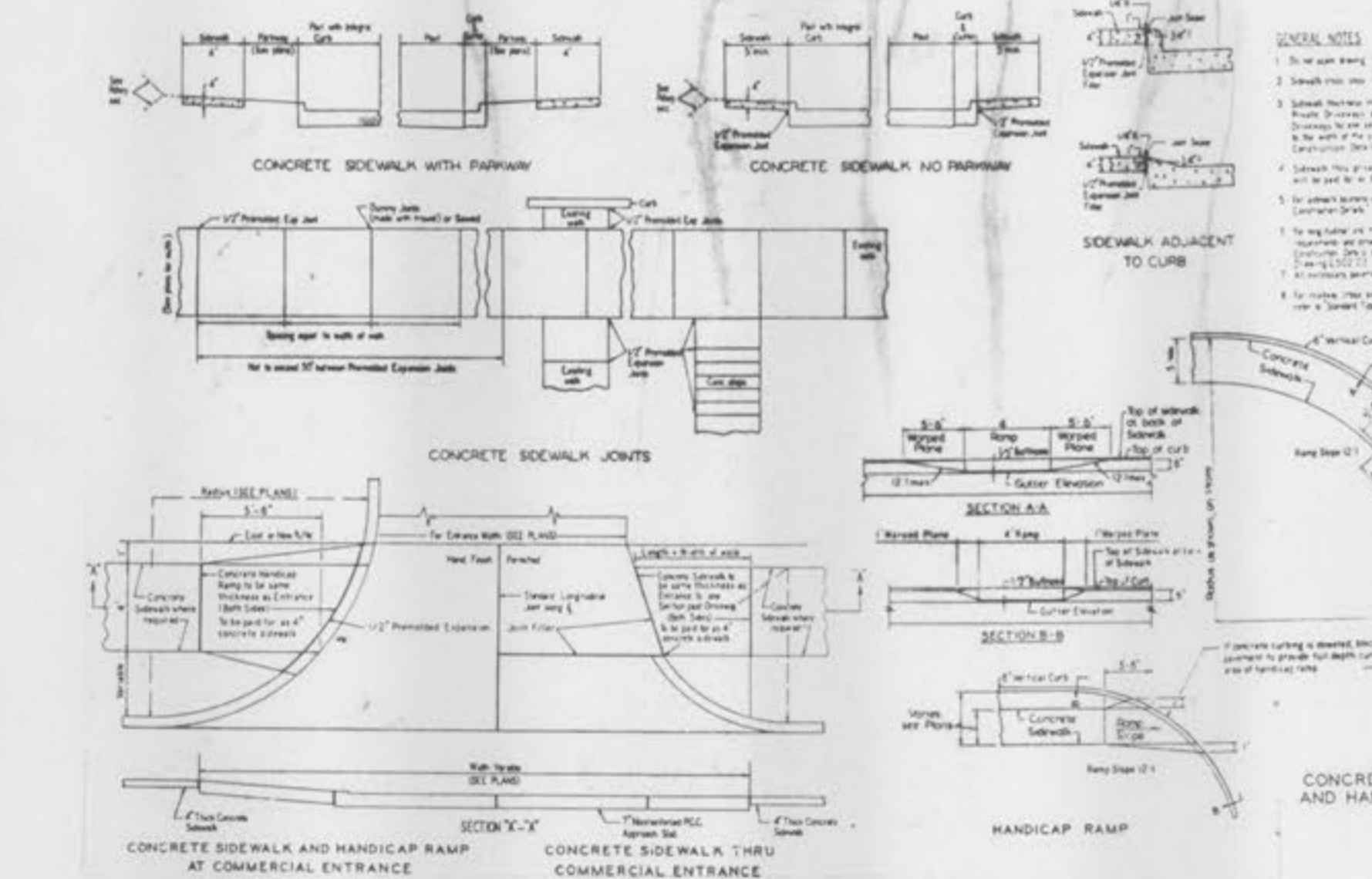
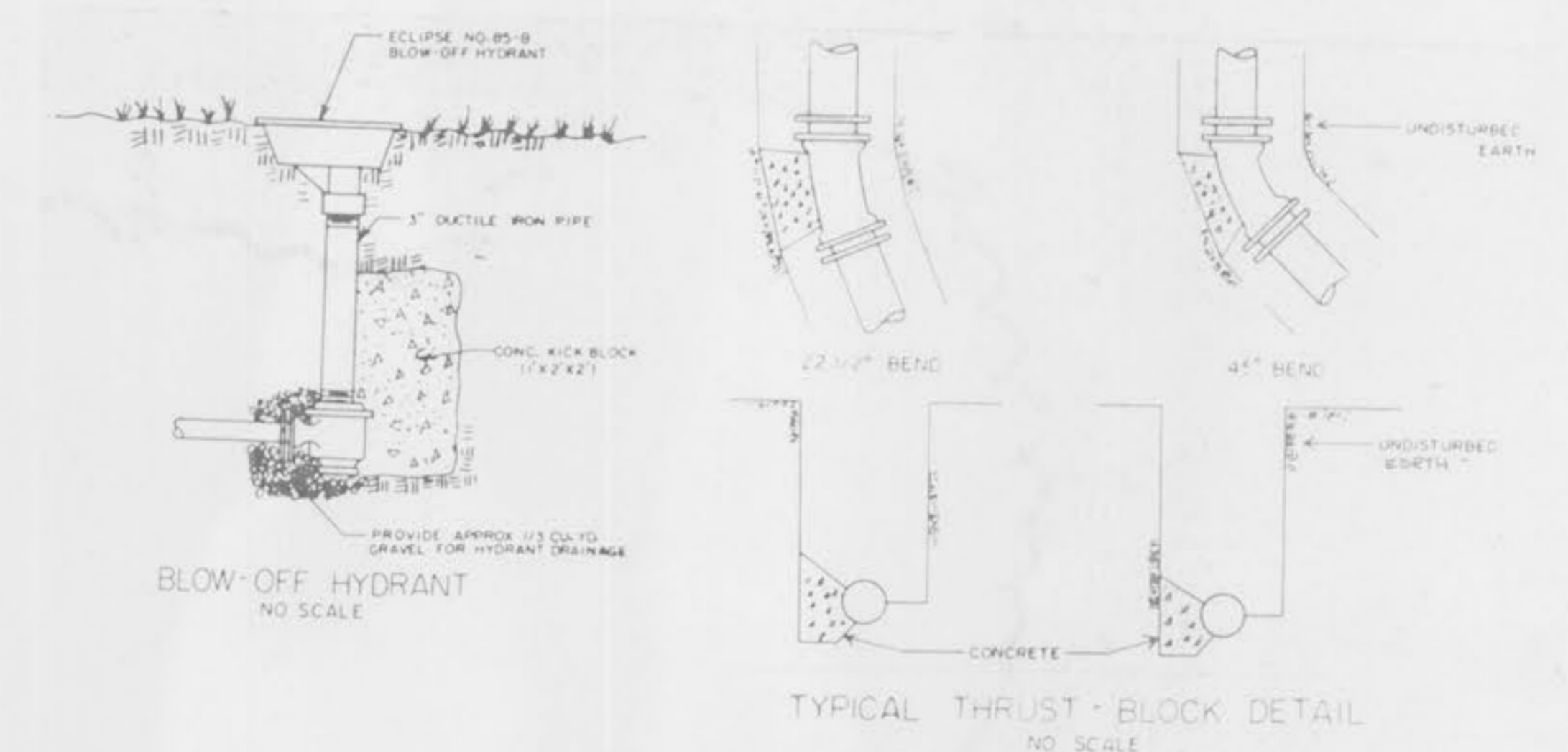
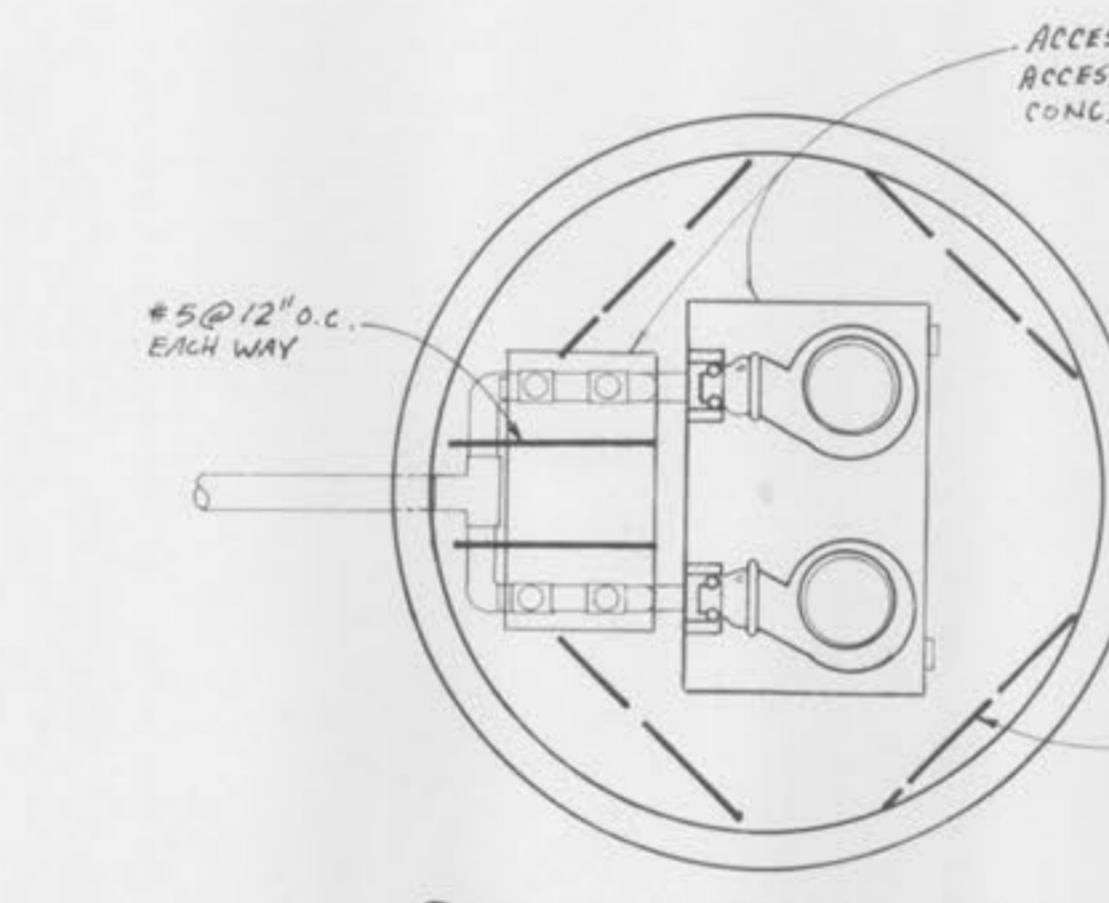
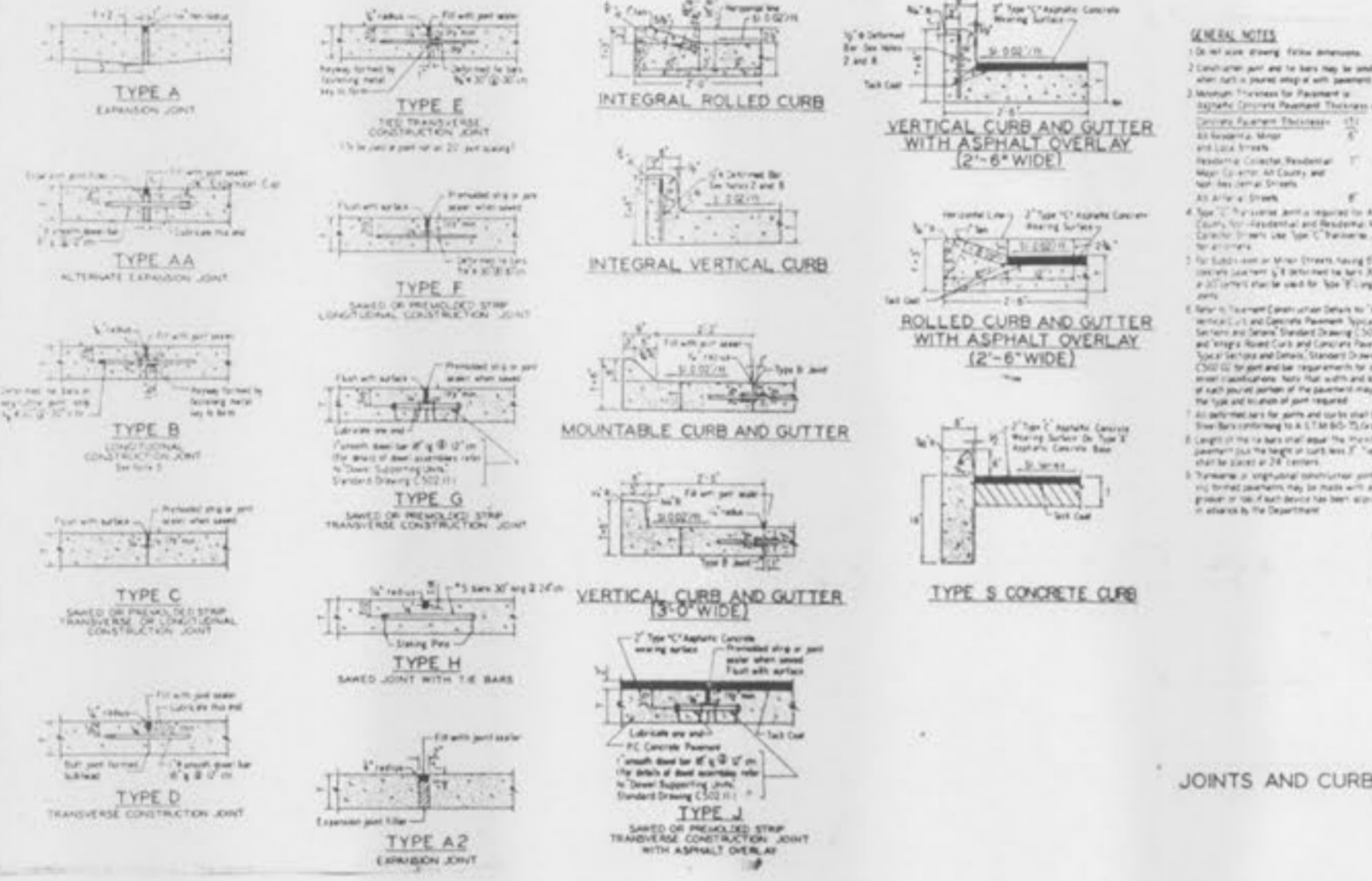
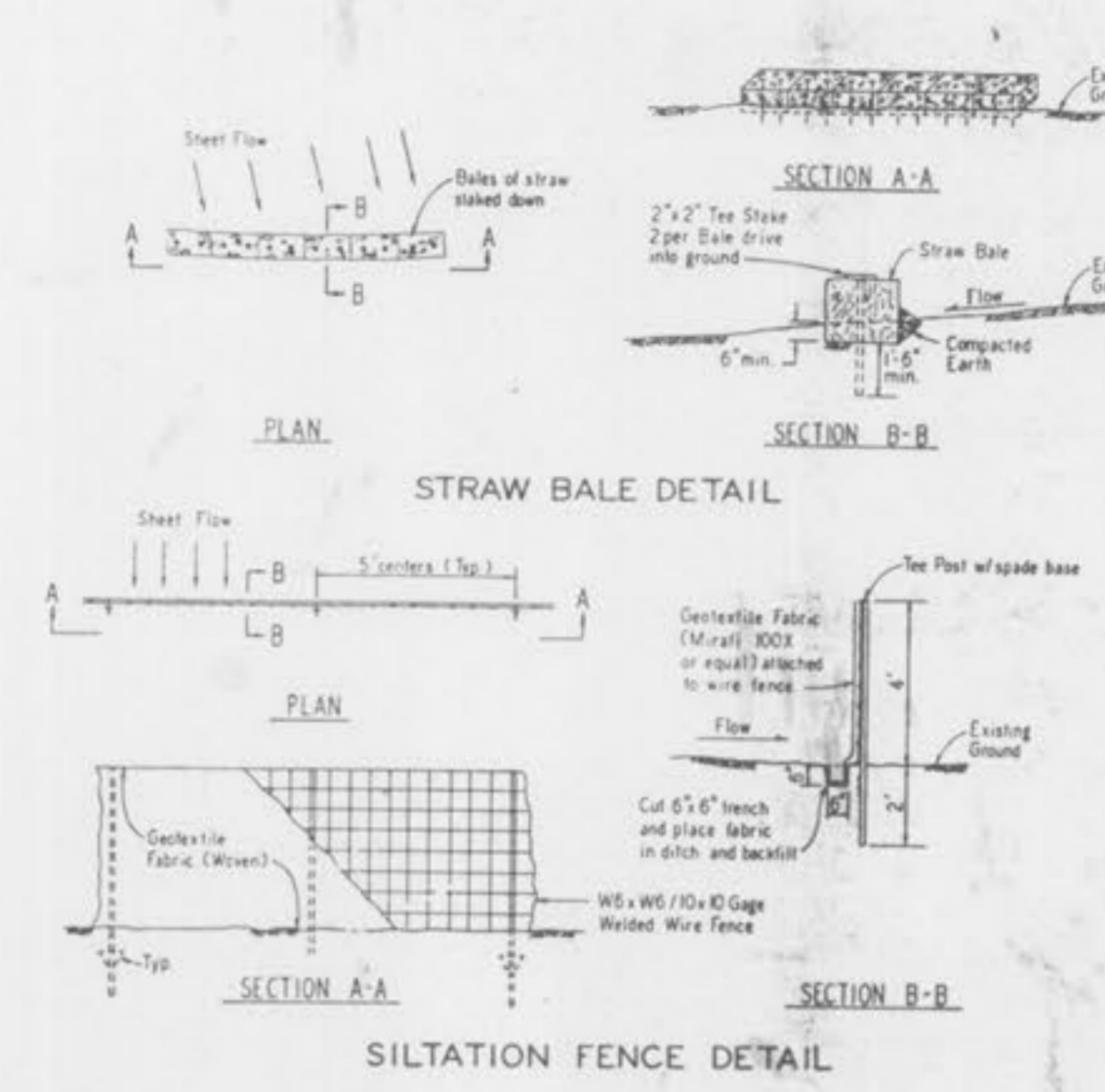
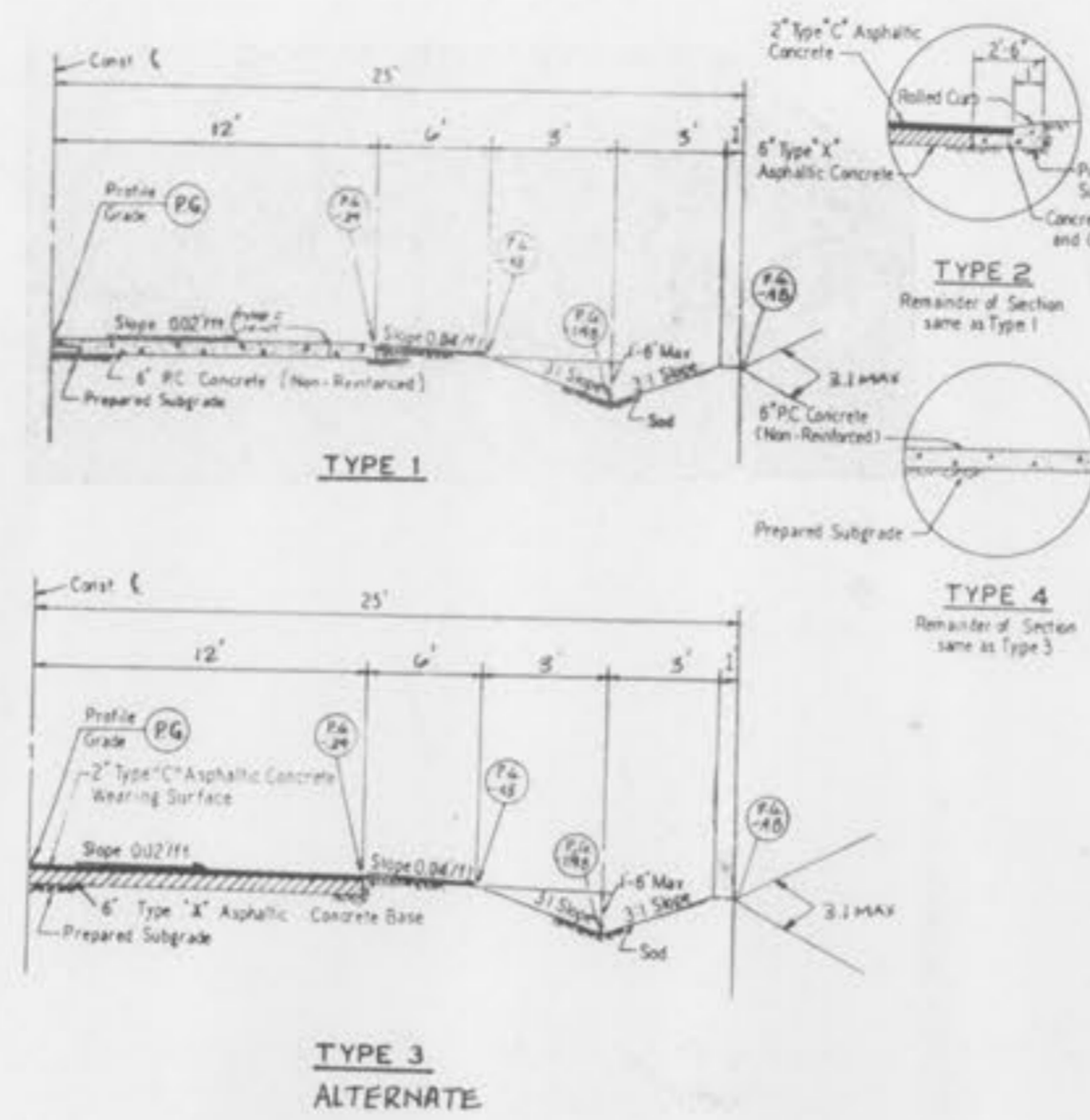
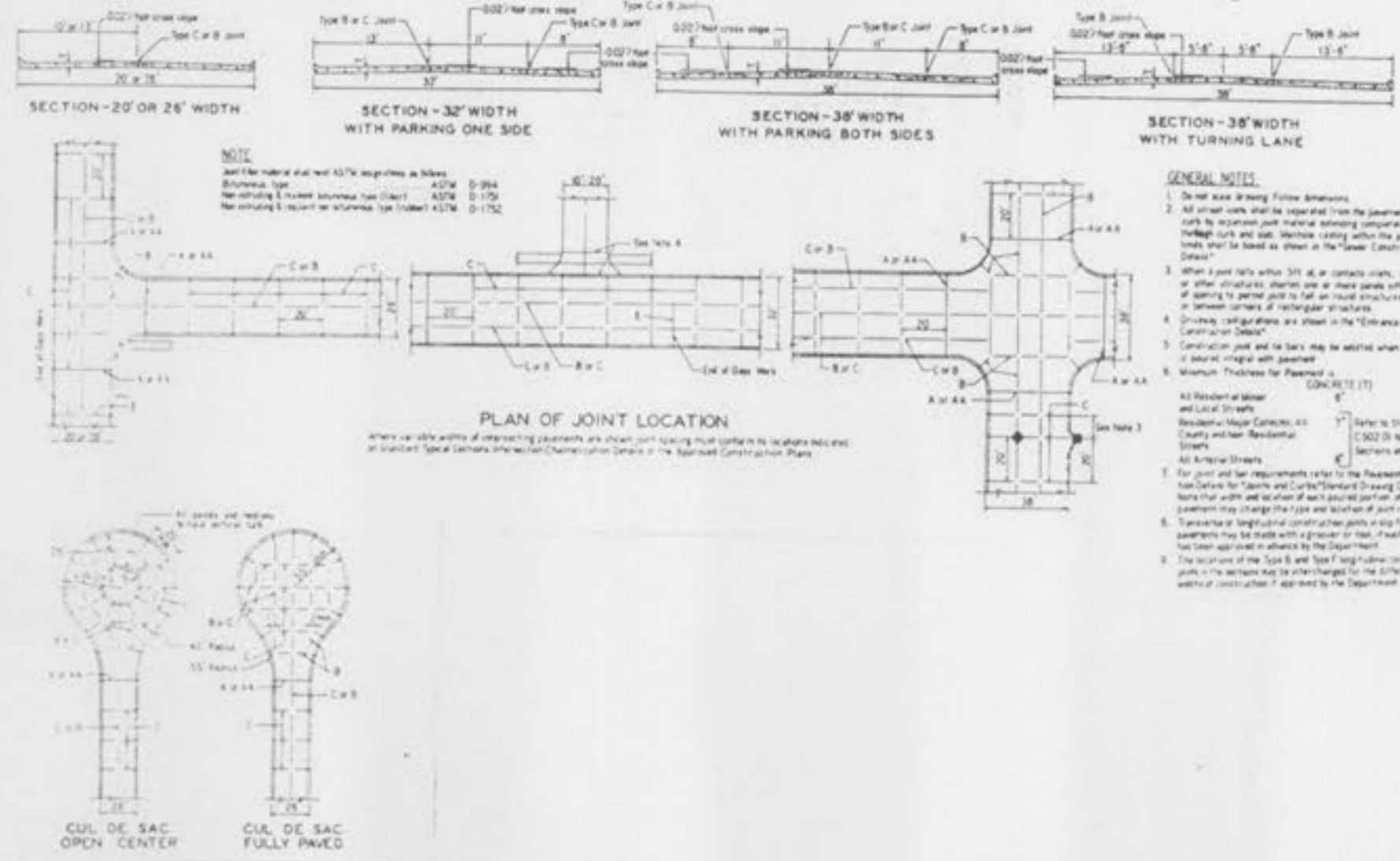


INTEGRAL ROLLED CURB AND CONCRETE PAVEMENT TYPICAL SECTIONS AND DETAILS



- LIFT STATION CONSTRUCTION NOTES
- GENERAL: The contractor shall furnish and install all items necessary for the lift station and wet well so that the installation is complete and ready for operation.
  - WETWELL:
    - The wetwell provided shall consist of 6 foot diameter precast manhole sections placed on a concrete foundation pad as indicated on the drawings. The wetwell shall be equipped with an access lid, air vent and bag screen, a submersible pump system, inlet and outlet connections, an electrical control panel and level sensors.
    - The access lid and frame assembly shall be provided in the top of the wetwell structure. The access door shall have means of locking and a latch to hold the door in the open position.
    - The air vent and bag screen shall be constructed of galvanized steel pipe and malleable iron fittings of the configuration shown on the plans and shall be fitted with a manufactured screen to prevent intrusion of insects or birds into the vent piping.
  - SUBMERSIBLE PUMP SYSTEM:
    - A duplex set of submersible grinder pumps shall be provided within the wetwell chamber. Each pump shall be capable of pumping 10 gallons per minute against a total dynamic head of 30 feet. The pumps shall be manufactured by Ebara Corporation (or approved equal) whose local representative is Cummings Machinery Co., 406 E. Mabank, O'Fallon, Missouri 63366, Telephone: (314) 272-2707.
    - The pump motor shall operate on 230 volt, single phase power service.
    - The grinder mills shall be capable of shearing and reducing to a fine slurry all material normally found in domestic diapers, cloth diapers, wash rags, wood, plastic, etc. The slurry shall be capable of freely passing through a 1-1/4 inch piping system including check and gate valves.
    - A heavy duty submersible power cord shall be provided. The cable shall be heavy duty STO cord for water and oil resistance.
    - A guide rail system shall be provided on each pump to positively align the pump to the base. The guide rails shall be constructed of galvanized pipe.
    - A heavy duty galvanized lifting chain of adequate size shall be attached to the pump for pulling the pump to the top of the wetwell chamber and removing it from the system.
  - ELECTRICAL CONTROL CONSOLE:
    - An electrical control console shall be installed within a weatherproof enclosure. The enclosure shall be equal to NEMA Type 1B. The electrical controls shall consist of magnetic starters, circuit breakers and switches necessary to automatically control all electrical devices and/or pump motors on the lift station system. The pump motor shall be controlled by selector switches and magnetic starters in conjunction with the liquid level sensors. All electrical equipment and circuitry shall be protected by properly sized circuit breakers. All control wires that enter the wetwell shall be ground fault protected. The control console shall be configured for alteration or the pump.
    - The liquid level sensors shall be of the mercury type level controller. A mercury tube switch shall be sealed in a solid polyurethane float. The sensors shall be adjustable.
    - The control console shall contain a GFI duplex receptacle that can provide 20 amperes at 115 volts.
    - An alarm light shall be mounted on the electrical control console enclosure to show pumping system failure. The alarm light shall be equipped with a red globe. The alarm light must flash in an alarm condition.
  - FIELD SERVICE:
    - At the time the lift station is complete, the contractor shall provide the services of a representative of the manufacturer's and/or supplier's who shall instruct the owner's representative in the proper operation and maintenance of the lift station system, including instructions in conducting all required operational tests. The manufacturer's and/or supplier's representative shall furnish at this time a service manual on the equipment installed within the lift station.
    - The contractor shall guarantee for one year from the date of acceptance that the lift station and all component equipment shall be free from defective materials and workmanship.
  - OTHER REQUIREMENTS:
    - The contractor shall coordinate all work with inspectors of the City of O'Fallon, Missouri.
    - An automatic combination vacuum air relief valve shall be placed at high points in the force main to prevent air locking. The air relief valve shall be installed in accordance with the manufacturer's instructions.
    - Three wire to be installed with fence again.