

ITEM 10604.0451 M - SPECIAL CONTROL STRUCTURE “A”
ITEM 10604.0452 M - SPECIAL CONTROL STRUCTURE “B”

DESCRIPTION

This work shall consist of construction special drainage structures in accordance with the Plans and Specifications and as directed by the Engineer.

MATERIALS

Material used for the construction of special drainage structures shall be as indicated on the plans, and/or Standard Sheets, and shall conform to the requirements of the following, as modified herein:

Cast-in-Place Concrete - Class A.....	501
Frames and Grates.....	655
Concrete Repair Material.....	701-04
Concrete Grouting Material.....	701-05
Premolded Resilient Joint Filler.....	705-07
Mortar for Concrete Masonry.....	705-21
Reinforced Concrete Pipe.....	706-02
Bar Reinforcement, Grade 420.....	709-01
Wire Fabric for Concrete Reinforcement.....	709-02
Cold Drawn Wire for Concrete Reinforcement.....	709-09
Steps for Manholes.....	725-02
Aluminum Castings.....	715-03
Wrought Aluminum.....	715-04
Galvanized Coatings and Repair Methods.....	719-01
Precast Concrete Drainage Units.....	706-04
Structural Steel.....	715-01

Aluminum trash racks and frames shall be made of Aluminum Castings or Fabricated Wrought Aluminum at the option of the Contractor and as approved by the Engineer.

Galvanized steel bar posts and base plates shall be structural steel meeting the requirements of ASTM A36M and section 715-01, and shall be Type I Galvanized per section 719-01. Galvanized steel rail tubes shall be structural steel meeting the requirements of ASTM A500 Grade B and section 710-23, and shall be Type I Galvanized per section 719-01.

Ships ladder shall be structural steel meeting the requirements of ASTM A36M and section 715-01, and shall be Type I Galvanized per section 719-01.

ITEM 10604.0451 M - SPECIAL CONTROL STRUCTURE "A"(Cont'd)
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ITEM 10604.0452 SPECIAL CONTROL STRUCTURE "B"(Cont'd)

CONSTRUCTION DETAILS:

Applicable provisions of subsections 604-3.01, 604-3.02, 604-3.05, 604-3.06, 604-3.07 and 604-3.11 shall apply.

Shop drawings shall be submitted to Engineer for approval prior to commencement of work. Shop drawings will be required for each special drainage structure and shall include aluminum trash rack and frames, ships ladders and handrail assembly including anchorage hardware. Applicable provisions of Section 604-3.02 and 656-3.01 shall apply. Aluminum trash racks shall be parallel bar type, and shall be capable of supporting a 71KN wheel load. All structural steel elements in direct contact with aluminum trash racks and frames shall be Type I or Type II hot-dipped galvanized in accordance with Section 719-01.

Control Structure "A" shall be constructed of cast-in-place Class A concrete and to the requirements of Section 555, Structural Concrete.

Control Structure "B" may be either cast-in-place or precast, at the Contractor's option.

The Contractor shall not have the option of modifying the shape of Control Structure A or B.

METHOD OF MEASUREMENT:

Payment for Control Structure A and Control Structure B will be made on a lump sum basis.

BASIS OF PAYMENT:

The lump sum price bid shall include the cost of furnishing all labor, materials and equipment necessary to complete the work including aluminum trash racks and frames for Control Structure A, cheekwalls at Control Structure A, Handrail assembly including base plates and anchorage at Control Structure A, ships ladder at Control Structure A, bar reinforcement, welded wire fabric, manhole steps and cast-in-place formed invert for Control Structure B. The cost of control valves, excavation, backfill, frames and grates for Control Structure B, sheeting and pipe jacking will be paid for separately under their appropriate pay items.