## PART 1 GENERAL

- 1.1 REFERENCE
  - .1 Comply with the General Conditions of the Contract, Supplementary General Conditions and the requirements of Division 1.

## 1.2 RELATED WORK SPECIFIED ELSEWHERE

- .1 Excavation and Grading Section 02200
- .2 Cast-In-Place Concrete Section 03300
- .3 Mechanical Storm Drain Division 15
- 1.3 SCOPE OF WORK INCLUDED
  - .1 Supply and install drainage pipe including all fittings, connections, filter cloth and gravel

## PART 2 PRODUCTS

- 2.1 MATERIALS
  - .1 Pipe and Fittings: 4" dia. corrugated, plastic drainage tubing to CGSB 41-GP-29M, Type 1 (non-perforated) for discharge lines, Type 2 (perforated) for collector lines. Big "O" or approved alternate.
  - .2 Filter Cloth: Mirafi "P150" by Mirafi Inc., Woodstock, Ontario.
  - .3 Filter Material: Well graded, clean crushed stone, or gravel to CAN-A23.1-M77, Table 3, Group 1, 3/4" to 1/8".
  - .4 Cleanouts:
    - .1 Interior Cast iron with threaded removable brass cover to suit floor finish, in accordance with Division 15.
    - .2 Exterior Brass ferule with threaded brass cap, chain and keeper.

## PART 3 EXECUTION

- 3.1 INSTALLATION
  - .1 Place minimum 6" filter material.
  - .2 Lay perforated pipe directly on filter cloth and continuously wrap around entire length of pipe ensuring adequate laps at all filter cloth joints.
  - .3 Non-perforated pipe to be laid 1/8" to 10'.
  - .4 Install minimum 6" filter material to sides and top of perforated pipe for perimeter drainage.
  - .5 Install minimum 6" filter material to top and sides and 4" to bottom of perforated pipe for underfloor drainage. Filter material over perforated pipe to terminate at underside of granular material under slabon-grade.
  - .6 Install minimum 6" clean fill cover on all sides of non-perforated pipe.
  - .7 Where collector lines are inside the building, install interior type cleanouts in floor at ends of each collector line, at maximum 8 m apart located where directed by the Consultant.
  - .8 Ensure pipe interior and coupling surfaces are clean before laying.
  - .9 Do not use concrete, masonry, stones, wood or any type of shim to establish pipe slope.
  - .10 Connect pipes using manufacturer's recommended fittings.
  - .11 Install plugs at ends of underfloor collector lines.
  - .12 Protect pipe ends from damage and ingress of foreign material at each end of each days work or work stoppage.
  - .13 Connect pipe to discharge lines, sump pits, storm sewer lines by appropriate adapters manufactured for this purpose.

- .14 Place filter material after pipe installation has been inspected.
- .15 Place filter material behind in 6" lifts. Consolidate by tamping lightly. Prevent displacement of pipe.

END OF SECTION