

**Part 1            General**

**1.1                QUALIFICATIONS OF SURVEYOR**

- .1      Qualified registered land surveyor, licensed to practice in Place of Work, acceptable to Departmental Representative.

**1.2                SURVEY REFERENCE POINTS**

- .1      Existing base horizontal and vertical control points are designated on drawings.
- .2      Locate, confirm and protect control points prior to starting site work. Preserve permanent reference points during construction.
- .3      Make no changes or relocations without prior written notice to Departmental Representative.
- .4      Report to Departmental Representative when reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
- .5      Require surveyor to replace control points in accordance with original survey control.

**1.3                SURVEY REQUIREMENTS**

- .1      Establish two (2) permanent bench marks on site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record Documents.
- .2      Establish lines and levels, locate and lay out, by instrumentation.
- .3      Stake for grading, fill and topsoil placement and landscaping features.
- .4      Stake slopes and berms.
- .5      Establish pipe invert elevations.
- .6      Stake batter boards for foundations.
- .7      Establish foundation column locations and floor elevations.
- .8      Establish lines and levels for mechanical and electrical work.

**1.4                EXISTING SERVICES**

- .1      Before commencing work, establish location and extent of service lines in area of Work and notify Departmental Representative of findings.
- .2      Remove abandoned service lines within 2 m of structures. Cap or otherwise seal lines at cut-off points as directed by Departmental Representative.

**1.5                LOCATION OF EQUIPMENT AND FIXTURES**

- .1      Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.

- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform Departmental Representative of impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Departmental Representative.

## **1.6 RECORDS**

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 On completion of foundations and major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.
- .3 Record locations of maintained, re-routed and abandoned service lines.

## **1.7 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Submit name and address of Surveyor to Departmental Representative.
- .2 On request of Departmental Representative submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform and do not conform with Contract Documents.

## **1.8 SUBSURFACE CONDITIONS**

- .1 Promptly notify Departmental Representative in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption of probable conditions based thereon.
- .2 After prompt investigation, should Departmental Representative determine that conditions do differ materially; instructions will be issued for changes in Work as provided in Changes and Change Orders.

## **Part 2 Products**

### **2.1 NOT USED**

- .1 Not Used.

## **Part 3 Execution**

### **3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**