

PART 1 - GENERAL

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| <u>1.1 QUALIFICATIONS<br/>OF SURVEYOR</u> | .1 | Qualified registered land surveyor, licensed to practice in Place of Work, acceptable to Departmental Representative.   |
| <u>1.2 SURVEY<br/>REFERENCE POINTS</u>    | .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.  |
| <u>1.3 SURVEY<br/>REQUIREMENTS</u>        | .1 | Establish two 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.  |

1.3 SURVEY  
REQUIREMENTS  
(Cont'd)

- .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.

PART 2 - PRODUCTS

- 2.1 NOT USED .1 Not Used.

PART 3 - EXECUTION

- 3.1 NOT USED .1 Not Used.