# General

**RoD SPEC NOTE:** Use this Section to specify requirements for survey, utility locate, and other preparatory work before commencement of construction. Also use this Section to specify examination and preparation requirements that are common to most or all technical Specifications Sections, thus negating the need to repeat these types of requirements in technical Sections.

## Summary

* + 1. The Work of this Section includes, but is not limited to the following:
       1. Construction layout
       2. Survey preparation
       3. Existing utilities and structures
       4. Verification of existing conditions
       5. Project Record Drawings

## Submittals

* + 1. Engage a Registered Land Surveyor, licensed to practice in Place of the Work.
    2. Submit name and address of Registered Land Surveyor performing survey Work.
    3. Submit to Owner and Consultant the survey of the Work prepared and issued by a Registered Land Surveyor as required by Authorities having Jurisdiction and on completion of the Work.

## Construction layout

* + 1. Verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. Notify Consultant promptly if discrepancies are discovered.
    2. Engage a land surveyor to lay out the Work using accepted surveying practices:
       1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
       2. Establish dimensions within tolerances indicated; do not scale Drawings to obtain required dimensions.
       3. Inform installers of lines and levels to which they must comply.
       4. Check the location, level and plumb, of every major element as the Work progresses.
       5. Notify Consultant when deviations from required lines and levels exceed allowable tolerances.
       6. Verify accuracy of site dimensions shown on drawings.
       7. Verify that present, or known future restrictions, are not violated by construction on the site or lines of traverse to all public utilities.
       8. Verify accurately the final underground location on site of all buried storm, sanitary, water and electrical duct banks, when applicable.
       9. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
    3. Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical Work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
    4. Maintain a log of layout control Work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Consultant when requested.

## Survey preparation

* + 1. Survey reference points:
       1. Verify existing base horizontal and vertical control points designated on drawings.
       2. Locate and confirm permanent reference points prior to starting site Work. Preserve and protect permanent reference points on site during construction.
       3. Do not change or relocate reference points without prior written notice to Consultant.
       4. Report to Consultant when a reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations. Require Registered Land Surveyor to replace reference points in accordance with original survey.
       5. Verify before commencing Work at adjacent public property, that no plans for altering clearances, set-backs, easements, grades, or otherwise have been made by local authorities having jurisdiction, subsequent to their approval of Contract Documents, and which would affect the original intent.
    2. Survey requirements:
       1. Establish sufficient permanent benchmarks on site, referenced to established benchmarks by survey control points.
       2. Confirm that existing survey reference points are in accordance with Owner’s survey and property limits.
       3. Establish initial lines and levels for building layout.
       4. Maintain a complete, accurate log of control and survey Work as it progresses. Record locations with horizontal and vertical data in project record documents.
    3. Survey layout:
       1. Coordinate with Contractor for layout and protection of grade controls.
       2. Establish permanent benchmark(s) as required, referred to established bench marks by survey control points; record locations, with horizontal and vertical data.
       3. Establish lines and levels, locate and layout, by instrumentation.
       4. Stake for grading, cuts and fills, slopes.
       5. Replace grade controls lost or destroyed as a result of construction activities.

## Existing utilities and structures

* + 1. Before commencing excavation, drilling or other earthwork, establish or confirm location and extent of all existing underground utilities and structures in Work area.
    2. Promptly notify Consultant if underground utilities, structures, or their locations differ from those indicated in Contract Documents or in available project information. Consultant will provide appropriate direction.
    3. Record locations of maintained, re-routed and abandoned utility lines.

## Verification of existing conditions

* + 1. Existing grades, lines, and site conditions shown on drawings were taken from survey information established by persons engaged directly by Owner. The accuracy of survey information is not the Consultant's responsibility.
    2. Where Work specified in any Section is dependent on the Work of another Section or Sections having been properly completed, verify that Work is complete and in a condition suitable to receive the subsequent Work. Commencement of Work of a Section that is dependent on the Work of another Section or Sections having been properly completed, means acceptance of the existing conditions.
    3. Verify that ambient conditions are suitable before commencing the Work of any Section and will remain suitable for as long as required for proper setting, curing, or drying of Products used.
    4. Ensure that substrate surfaces are clean, dimensionally stable, cured and free of contaminants.
    5. Notify Consultant in writing of unacceptable conditions.

## Project record drawings

* + 1. Prepare interference and equipment placing drawings to scale to ensure that all components will be properly accommodated within the spaces provided, as indicated in Section 01 78 00.

# Products – not used

# Execution – not used

End of section