PART 1 - GENERAL

1.1 PREPARATION

A. Lay out and install all Work to lines and grades in accordance with Contract Documents.

1.2 LAYOUTS AND MEASUREMENTS

A. Contractor shall provide all survey Work required for horizontal and vertical location of all Work in this Project.

B. The location shall be staked from lines shown on the Drawings. Contractor shall mark the limits of the Project site and obtain Underground Service Alert (USA North/1-800-227-2600 or 811) clearance prior to starting clearing or excavation Work. Provide USA permit number to University's Representative prior to starting site Work.

C. Contractor shall be responsible for replacement and reestablishment of control stakes, monuments, and lines furnished by the University that are destroyed or disturbed by Contractor's operation.

D. Contractor shall furnish the University's Representative, prior to Project acceptance, 2 complete sets of the field notes for the survey Work and cut sheets in addition to 1 set of Drawings marked showing all deviations from Project alignment and grades.

E. Generally, grades shall match adjacent surfaces, and existing flow lines shall be maintained.

1.3 SURVEY REFERENCE POINTS

A. Basic horizontal and vertical control points for the Project will be established from existing structure.

B. Locate and protect control points prior to beginning the Work, and preserve all permanent reference points throughout construction operations.

1. Do not change reference points without prior approval of the University's Representative.

2. Report to the University's Representative when any reference point is lost, destroyed, or requires relocation due to necessary changes in grades or locations.

3. Replace, at no additional cost to University, control points that may be lost or destroyed; base replacements on original survey control.

1.4 PROJECT SURVEY REQUIREMENTS

A. Establish lines and levels, locate, and lay out:

1. Site improvements.
   a. Stakes for grading and fill placement.
   b. Utility slopes and invert elevations.
2. Batter boards for structures.
3. Building foundations, column locations, and floor levels.
4. Controlling lines and levels required for mechanical and electrical Work.

B. Verify layouts as Work proceeds to assure compliance with required lines, levels, and tolerances.

1.5 RECORDS

A. Maintain a complete and accurate log of all control and survey Work as it progresses.

B. On completion of foundation walls and major site improvements, prepare a certified survey showing all dimensions, locations, angles, and elevations of construction.

1.6 SUBMITTALS

A. Upon request, submit documentation to verify accuracy of field engineering Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01720