

SECTION 01050

FIELD ENGINEERING

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. WORK covered in this Section includes the surveying and field engineering required to complete the project and meet the provisions of this document.

1.02 QUALITY CONTROL

- A. DEVELOPER/CONTRACTOR will employ a Land Surveyor registered in the State of Georgia and acceptable to the Town of Braselton.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 SURVEY REQUIREMENTS

- A. Construction Staking
 - 1. The DEVELOPER/CONTRACTOR shall provide all construction staking using recognized surveying and engineering practices. The surveyor shall locate lines, grades and locations called for in the approved development drawings.
- B. Record Drawings ("As-Built Drawings")
 - 1. The Public Works Department of the Town of Braselton requires that all record or as-built drawings be submitted in the following file format: DXF (drawing exchange format), or DWG (AutoCad drawing) unless waived by the Town.
 - 2. The Town of Braselton requires that all record drawings be completed utilizing and based on Braselton's adopted coordinate system.
 - 3. Survey coordinates shall be based on Braselton control points (BCP), designated as BCP-1 through BCP-8. See Standard Details for locations of coordinates and monuments.
 - 4. The control monuments were established using Gwinnett County control

monuments G013 and G003A.

5. The horizontal datum = NAD 1983 with 1995 adjustment.
6. The vertical datum = NAVD 1988 and were computed from the original height based on the “National Geodetic Vertical Datum of 1929” (NGVD 1929) utilizing the Vertcon conversion program.
7. The drawing’s layer names shall be as specified in the following list of layer names and descriptions.

| Layer Name | Layer Description |
|-------------------|---|
| BENCHMARK | Location of benchmarks, including surveyed monuments, right-of-way markers, property pins, etc |
| BUFFER | Location and information of buffers for water bodies, detention ponds, wetlands, and property set-backs |
| CONTOUR_LABELS | Labels of the contour lines showing proper elevations |
| CONTOURS | Topography of the site at the conclusion of the project at 2-ft. intervals |
| ESMT_PERM | Location and size of permanent easement |
| NORTH | The north arrow with proper orientation |
| SCALE | Graphic scale reflecting correct paper scale |
| TEXT | Informative or descriptive text |
| EXBLDG | The footprint location of any existing structure located on the site (regardless of whether they are to be demolished or will remain) |
| EXBRIDGE | Location and type of any existing bridges |
| EXCL | The centerlines of any existing roads within the site with road names |
| EXCOMM | Location of any existing overhead or underground telephone lines, cable lines, fiber optics, cable boxes, pedestals or utility poles |
| EXCONTOURS | Topography of the site prior to any grading, all contour lines showing proper elevations at 2-ft. intervals |
| EXCREEK | Location of any existing creek, stream, pond, lake, or any other water body |
| EXCURB | Location of curb lines of any existing road within the site |
| EXDITCH | Location of the centerline of any existing ditch |
| EXEOG | Location of existing edge of gravel, including roads, parking, and driveways |
| EXEOP | Location of existing edge of pavement, including roads, alleys, parking, loading docks or driveways |
| EXFENCE | Location and type of any existing fences |
| EXFLOOD-LIMITS | Location and information of any existing flood limits |
| EXGAS | Location, type and size of any existing natural gas lines, valves or meters |
| EXGUARD | Location of any existing guard rails |
| EXPL | Location of existing property lines |
| EXPOWER | Location of any existing power lines, electricity transmission lines, transformers, or utility poles |
| EXRAIL | Location and information of any existing railways |
| EXRW | Location and information for existing right-of-ways |
| EXSAN | Location and information for existing sanitary sewer on the downstream manhole, upstream manhole and sewer line type and size |
| EXSTORM | Location and information for existing storm sewer of the downstream manhole, upstream manhole, pipe types and sizes, culverts, inlets, headwalls, and inverts |
| EXTREES | Location of any existing tree lines, trees bushes, shrubs or miscellaneous landscaping (regardless of whether they are to be demolished or will remain) |
| EXWALKS | Location of any existing sidewalks |
| EXWATER | Location, size and type of existing waterlines, water valves, water meters and fire hydrants |

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|----------------|---|
| ABBLDG | Footprint of the building(s) located at the site with the finished floor elevation- to include awnings, out-buildings, etc. |
| ABCL | Road centerlines of any new or adjusted roads added to the development |
| ABCURB | Road curb lines of any new or adjusted road added to the development |
| ABDITCH | Centerline of any new ditches added to the development |
| ABEOP | Location of any new or adjusted edge of pavement, including roads, alleys, parking, loading docks or driveways |
| ABFENCE | Location and type of any new fences |
| ABFLOOD-LIMITS | Location and information of any new flood limits |
| ABGAS | Location, type and size of natural gas lines, valves or meters |
| ABGUARD | Location of guard rails |
| ABPOWER | Location of all power lines, electricity transmission lines, transformers, or utility poles |
| ABRAIL | Location and information of railways |
| ABSAN | Location and information on the sanitary sewer piping and manhole tops and inverts |
| ABSTORM | Location and information on the storm sewer pipe types and sizes, manhole tops, inverts, culverts, inlets and headwalls |
| ABTREES | Location of tree lines, trees bushes, shrubs or miscellaneous landscaping |
| ABWALKS | Location of all sidewalks within the site |
| ABWATER | Location, size and type of waterlines, water valves, water meters and fire hydrants on the site |

8. Prior to final acceptance of a development, or before issuance of a Certificate of Occupancy, DEVELOPER/CONTRACTOR is required to provide the Town of Braselton three (3) sets of draft record drawings, scaled and a digital set of drawings, showing horizontal location of all structures and major appurtenances installed. These included, but are not limited to, manholes, sewer laterals, water mains, water valves, water meters, force mains, pump stations, air/vacuum release valves, structures, earth embankments, ponds, and any other component of the sewer or water system. The elevations of all gravity sewers, storm sewers, structure inverts, and structure tops shall be shown.
9. The following items shall be called out with specific coordinates: all valves (water and/or sewer), fire hydrants, and sanitary sewer manholes.
10. Final submittal shall include two (2) sets of stamped and signed plans and a digital copy of all plans.

END OF SECTION