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Engineering Surveys and Services

Consulting Engineers, Scientists, and Land Surveyors
Analytical and Materials Laboratories

1775 West Main Street Sedalia, Missouri 65301 Telephone 660-826-8618 Facsimile 660-826-6158 E-Mail ess@ESS-Inc.com http://www.ESS-Inc.com

February 25, 2015

Mr. Devin Brown Fairway Construction 206 Peach Way Columbia, MO 65203

Re:

Special Inspections
Wilshire Hills Phase II
Lee's Summit, Missouri

Dear Mr. Brown:

We have reviewed our quality assurance testing and observations for the above referenced project. Testing and observations were provided in the areas of building foundation, subgrade, engineered fill placement, reinforcing steel observations, retaining wall construction, and concrete testing. The purpose of the observations and testing was to verify that the workmanship and materials met or exceeded project plans and specifications, or changes approved by the appropriate authority of record.

All testing and observations were performed on an "as called" basis. Following is a summary of the testing results and observations.

Compaction Testing

Between September 2013 and October 2014, compaction testing was performed on the fill material. The compaction tests were conducted on the retaining wall backfill, utility trenches, the building pad and general site fill. There were no areas tested that did not meet project specifications.

Several subgrade observations were also performed. Each area observed appeared suitable for fill placement or slab-on-grade construction.

Foundations and Concrete Reinforcing Steel Observations

Building foundations and concrete reinforcing steel for the building foundations and elevator pit walls were observed from December 2013 thru May 2014. Foundations were checked for proper design dimensions and construction. The reinforcing steel was checked for proper bar size, spacing, lap lengths and concrete coverage. Observations revealed that the foundation excavations were properly constructed and the reinforcing steel met plans and specifications or changes approved by the structural engineer.

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Concrete Testing

Between December 2013 and November 2014, several sets of concrete cylinders were molded and tested from concrete used in the construction of the foundations, slabs of the new structure and parking area pavement. Results of the compressive strength tests on the cylinders indicated strengths in excess of design mix strength at 28 days for all specimens. This met or exceeded project specifications.

In summary, the areas observed and materials tested during our quality assurance inspections met the project plans and specifications, or changes approved by the appropriate authority of record.

I trust this letter provides the requested information. Please contact us if we can be of further assistance.

Respectfully submitted?

COTT JOSEPH KELLY

Scott J. Kelly, PE

cc: Reese (email)

Engineering Surveys and Services

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February 26, 2015

E-Mail ess@ESS-Inc.com http://www.ESS-Inc.com

Mr. Devin Brown Fairway Construction 206 Peach Way Columbia, MO 65203

RE:

Subgrade Observations

Wilshire Hills South Box Culvert

Lee's Summit, Missouri

Dear Mr. Brown:

Over the past month, representatives of this firm have performed subgrade observations at the above referenced project. The area observed included the base of the excavation for the new box culvert and clean rock placement south of STA 6+36.47.

Daily observations were performed on January 27 thru 29 on the base of the trench and placement of granular fill. Placement and compaction of the granular drainage layer was observed prior to placement of box sections. At this time, all pre-cast box sections have been placed.

I trust this letter provides the requested information. Please contact us if we can be of further assistance.

Respectfully,

Scott L Kelly, PF

cc:

Fairway Reece

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