

Nowell Creek Multifamily Development

Charleston, SC



PROJECT OVERVIEW

CUSTOMER:

Nowell Creek
Multifamily Development

PRODUCTS:

VDC Services
New Initiatives Group

LOCATION:

Charleston, SC

CHALLENGE:

The site sat on the old Charleston Battery Soccer Field (MUSC Health Stadium), which created unknown variables. Existing water, storm, sewer and fiber optic lines needed removed or phased out and new, more sophisticated systems needed phased in.

Existing services coupled also with an adjacent (Parcel K South) infrastructure project that Gantt's right on top of their project's new site construction.

It became apparent to WM Jordan's team that this project's variable needed to be controlled. Factors such as the existing conditions, truncated time schedule, and pending construction on adjacent parcels necessitated an innovative approach to ensure critical path to construction was met.

PRODUCT ADVANTAGES:

- Working with Ferguson to model all the utilities accurate to code, practice, field and cost
- The initial pass of drawings included a "2D takeoff" or "quality takeoff," where Ferguson reviewed local specs and drawings and ran through all the C drawings to build a list of materials for the project, per specification
- Identifying and addressing all low-hanging RFIs before 3D modeling
- A weekly cadenced findings meeting was implemented to promote asking questions and sharing data across teams

BACKGROUND

This project was large in scale, including four parcels totaling 8.98 acres and eight 3- or 4-story multi-family residential buildings with a total of 320 apartments. It also included two one-story amenity buildings, a clubhouse, leasing office, and more. Not only was phased demo of existing water, storm, sewer and fiber optic required, but new water, storm, sewer and electrical was required. All of this needed expertly coordinated with services for an ongoing project on an adjacent parcel.

PROJECT SCOPE

Because this site sat on the old Charleston Battery Soccer Field (MUSC Health Stadium), there were a variety of unknowns. Existing utilities needed removed and new, more sophisticated systems needed phased in. Because all the existing services also coupled with an adjacent parcel, it became apparent to WM Jordan's team that project variables needed controlled.

Challenging existing conditions, a truncated time schedule, and pending construction on the adjacent parcel meant an innovative approach was crucial to completing this project on time.

METHOD

WM Jordan decided to work with Ferguson's New Initiatives Division to develop a Civil Infrastructure Modeling (CIM) project execution plan and with Ferguson's VDC to create a 3D model. The initial pass of drawings included a "2D takeoff" or "quantity takeoff," where Ferguson reviewed local specs and drawings, running through all the C drawings and services to build a list of materials for the project, to specification, right down to bolts and gasket packs.

From there, we moved into 3D Modeling, where we weened out any low-hanging RFIs that needed to be addressed. As the teams were making their own internal observations, asking questions and sharing data, it became apparent that sharing information across teams was critical to success. A weekly cadence of findings meetings was implemented and these weekly meetings later became a more classic BIM/MEP type of coordination, clash resolution meeting.

THE SOLUTION: FERGUSON WATERWORKS

According to WM Jordan, "By knowing the UG conditions in relation to foundations and future utilities allowed us to add clarifications in contract to protect us from delays and costs." Ted Grimes went on to say that "the Ferguson team was able to find design issues that could have added about \$1.8M in construction delays to the Nowell Creek Project." As a result of this partnership, there was less rework, fewer requests for information, fewer change orders, better cost control, streamlined material selection, earlier material cost analysis and better supply chain visibility.

For more information, contact:

Trent Furtch, Director of Construction Technologies at trent.furtch@ferguson.com