



# City of Greensboro Project Management Report



## Union Square Campus

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# STEVEN B. TANGER CENTER FOR THE PERFORMING ARTS

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Council District: 3  
Department: COLISEUM  
Construction Start: Spring, 2017  
Project Completion: 2018  
Estimated Cost: \$78,000,000

**The Steven Tanger Center for the Performing Arts (STPAC) is a brand new performing arts facility to be constructed in downtown Greensboro to replace the former War Memorial Auditorium. The project site is located in downtown Greensboro within the properties adjacent to East Lindsay Street, Summit Avenue and North Elm Street. The facility is designed at 3,000 seats with multiple levels of seating including Orchestra, Grande tier and Loge with various seating configurations for Symphony and smaller events. The facility would meet the needs of all area performing arts groups, with emphasis on national touring Broadway plays and major concert and family shows.**

**The footprint design of the Tanger Center has been coordinated with the new Lebauer Park including the re-alignment of a small section of Summit Avenue at the short east west connector to Elm Street being re-named Abe Brenner Place.**

**Inside the STPAC will include large lobbies, grand stairs, multiple elevators, pre-functionary spaces, a patio overlooking Lebauer Park and a large backstage working space to support the largest Broadway and traveling PAC shows. The STPAC will permanently include a first class performance line array sound system, an acoustical enhancement sound system for symphonic events, and an LED lighting stage plot to bring the latest in technological enhancements to the state-of-the-art facility.**

In December 2015, the Steven Tanger Center for Performing Arts entered the Design Development stage of planning and design. This phase lasted 9 months leading to formal construction drawings that are due December 22, 2016. Once final plans are agreeable, the selected Construction Manager at Risk (CMAR) will provide a price to be mutually agreed upon and formally approved by City Council. Council is projected to vote on the final CMAR price in first quarter of 2017 with groundbreaking immediately thereafter. Interior finishes and sound system announcements are expected in November 2016 by private donor's request for updates and in preparation for bid documents and sub-contractor pricing by the CMAR.



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# THE FIELDHOUSE - HOME OF THE NBA-DL GREENSBORO SWARM

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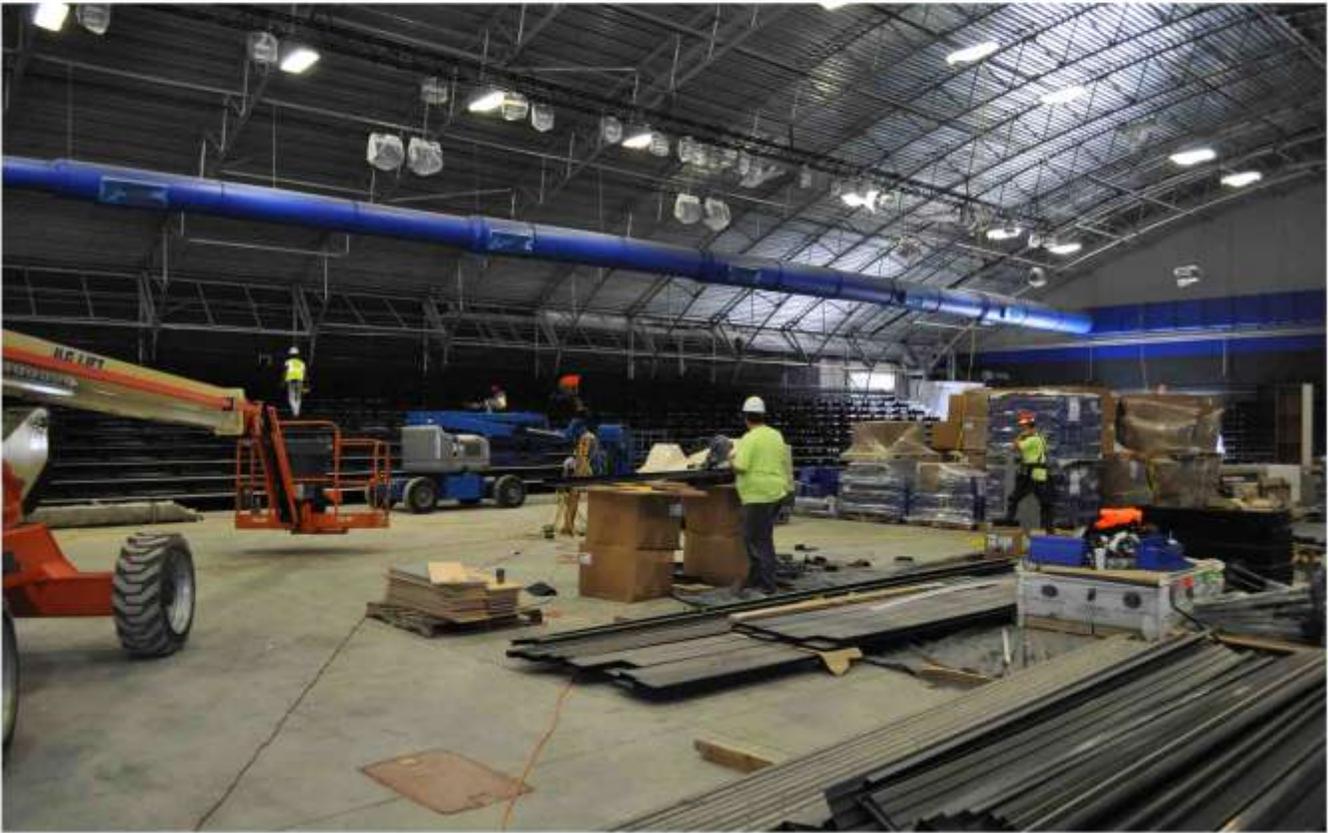
Council District: 1  
Department: COLISEUM  
Construction Start: March, 2016  
Project Completion: November 1, 2016  
Estimated Cost: \$5,708,000

**The Greensboro Coliseum Complex Fieldhouse project will become the home court for the Greensboro Swarm, being the NBA Charlotte Hornets Development League franchise. This project will encompass a complete renovation of the existing 30,000 sq. ft. Coliseum Complex Pavilion structure venue into a classic basketball Fieldhouse. The construction will include installing a new standing seam metal roof, new exterior glass storefront, new exterior architectural façade finishes, and approximately 10,000 square feet of additional Team Support Space for Home Team activity.**

The Fieldhouse is being designed by Greensboro firm, Moser Mayer Phoenix Assoc., who has worked closely with Samet Corporation/SRS, Inc., the construction manager at risk (CMAR,) to provide plans and cost estimates to renovate the existing Pavilion building. On December 15, 2015 City Council approved Samet/SRS, Inc. as the CMAR to work with the design team to develop the Guaranteed Maximum Price (GMP). On April 5, 2016 City Council approved the construction contract with Samet/SRS, Inc. in the amount of \$5,482,424.00.

The Fieldhouse renovations will include building new 'back of house' support rooms including dressing rooms, coaches' offices, a medical room, media work room, a new public entrance/box office/lobby and additional restrooms. Renovations will also include new scoreboards, basketball goals and stadium seating risers and seats.

November 1, 2016 is the targeted completion date and the CMAR process was selected to expedite this significantly short construction schedule. The Swarm's first home game is scheduled November 12, 2016 with the team and coaches moving into the facility in late October.



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# FIRE STATION 63 - BURLINGTON ROAD - EAST GREENSBORO

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Council District: 1  
Department: FIRE  
Construction Start: Fall, 2016  
Project Completion: Fall, 2017  
Estimated Cost: \$4,500,000

**Fire Station 63 located at 4306 Burlington Road will allow the department to serve approximately 4,231 citizens in accordance with established performance standards. The facility will be approximately 12,800 square feet with EMS and a storage garage facility on site. The area identified for this project currently has a tax valuation in excess of \$154,631,000.**

Tma architect, p.a. have completed the design and the project was advertised in August for construction bids. Four bids were received on September 29 and are currently under review for M/WBE compliance.



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## GREENSBORO SCIENCE CENTER (PHASE II)

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Council District: 3  
Department: GREENSBORO SCIENCE CENTER  
Construction Start: Fall, 2016  
Project Completion: Spring, 2017  
Estimated Cost: \$5,000,000

**The Greensboro Science Center (formerly the Natural Science Center) project was approved by voters in the 2009 Bond referendum. The current 68,000 square-foot Science Center will be fully renovated to include a human health and biology wing (Health Quest), a dinosaur wing (Prehistoric Passages), an interactive science and technology wing (Sci-Tech Jungle), aquatic reptiles (Water Monsters), a restaurant, and an Omni-Sphere theater. The Animal Discovery Park will double in size to include an aviary complex, a museum of flight, and additional animal habitats. The Sci-Quarium, a 26,000 square-foot hybrid aquarium and science museum, will become the new entrance portal into the Science Center.**

Phase I - Opened to the public on June 2013

Phase II - This phase currently includes three primary areas of reinvention and renewal:

Sky Wild: This aerial adventure opened to the public on May 2nd, 2015.

Sci-Play Bay: This renovated children's area opened to the public on July 1st, 2015.

Prehistoric Passage: This exhibit renovation is being developed in two proposals. The first proposal is for the Komodo Dragon Exhibit and bids were opened on September 27. They are currently under review for M/WBE compliance. The second proposal for the remainder of the Prehistoric Passages Exhibit is funded privately in the amount of \$650,000. Construction is scheduled to commence in late fall 2016 with current anticipation of completion by spring 2017.

Phase III: Sci-Quarium Building Expansion:

This building expansion is being funded by private supporters to expand the Sci-Quarium. Greensboro Science Center entered into contract with Lindsey Architecture to provide professional design services. Lindsey Architecture and the Greensboro Science Center staff interviewed and selected Samet Construction as the construction manager at risk. Samet Construction joined Lindsey Architecture in the design development phase of the design through the construction phase.

The construction is nearing completion with the building punch list work ongoing. The Science Center staff continues to set-up tanks in the newly expanded area. The acquired sea life is being delivered to special off-site holding tanks until the new tanks are ready to receive them. The expanded exhibit is anticipated to be open to the public by mid December, depending upon the completed acclimation of the sea life.



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## BARBER PARK MASTER PLAN IMPLEMENTATION - PHASE 2

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Council District: 1  
Department: PARKS & RECREATION  
Construction Start: Summer, 2016  
Project Completion: Spring, 2017  
Estimated Cost: \$3,900,000

**Parks & Recreation Department selected Shermin Ata, Architect PLLC to provide construction documents for the second phase implementation of the adopted master plan. Phase 2 design services and construction is funded by the Wicker grant/donation and the 2008 Bond for the Community Center and the Memorial to Women of Greensboro, and a modified maintenance building that will be shared with Barber Park and Gateway Garden staff.**

The architectural firm of Shermin Ata, Architect PLLC under contract with 33% MWBE participation has upgraded the overall master plan and completed the designs for the Community Center/Memorial to Women of Greensboro and the new maintenance building. The architect entered into a separate contract directly with Safety Town, Inc. for the design of the Safety Town site. This site is located west of the Spray Ground and has been approved by P&R.

The Community Center/Memorial to Women of Greensboro, the Maintenance Building and Safety Town projects received bids for construction on October 21, 2015. Bid amounts exceeded the City's budget and as a result, the Maintenance Building project will be constructed in the future after funding is identified. Construction of Safety Town is on hold while Safety Town officials look for additional funding for their project.

Notice to proceed with the construction of the Community Center was issued to Holden Building Construction Inc. on June 1 with an anticipated construction completion of March 2017. A ground breaking ceremony was held on July 15. The Contractor is currently clearing and grubbing the site and installing erosion control devices and storm sewer lines.



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# CONE BOULEVARD/NEALTOWN ROAD EXTENSIONS & BRIDGE

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Council District: 2  
Department: GDOT  
Construction Start: Winter, 2015  
Project Completion: Spring, 2018  
Estimated Cost: \$13,852,000

**This project includes a 3,200 linear foot easterly extension of Cone Boulevard and a 2,000 linear foot northerly extension of Nealtown Road. Cone Boulevard will have two lanes, curb and gutter, and a sidewalk on the south side. Nealtown Road will have two lanes with curb and gutter, sidewalks and a significant bridge.**

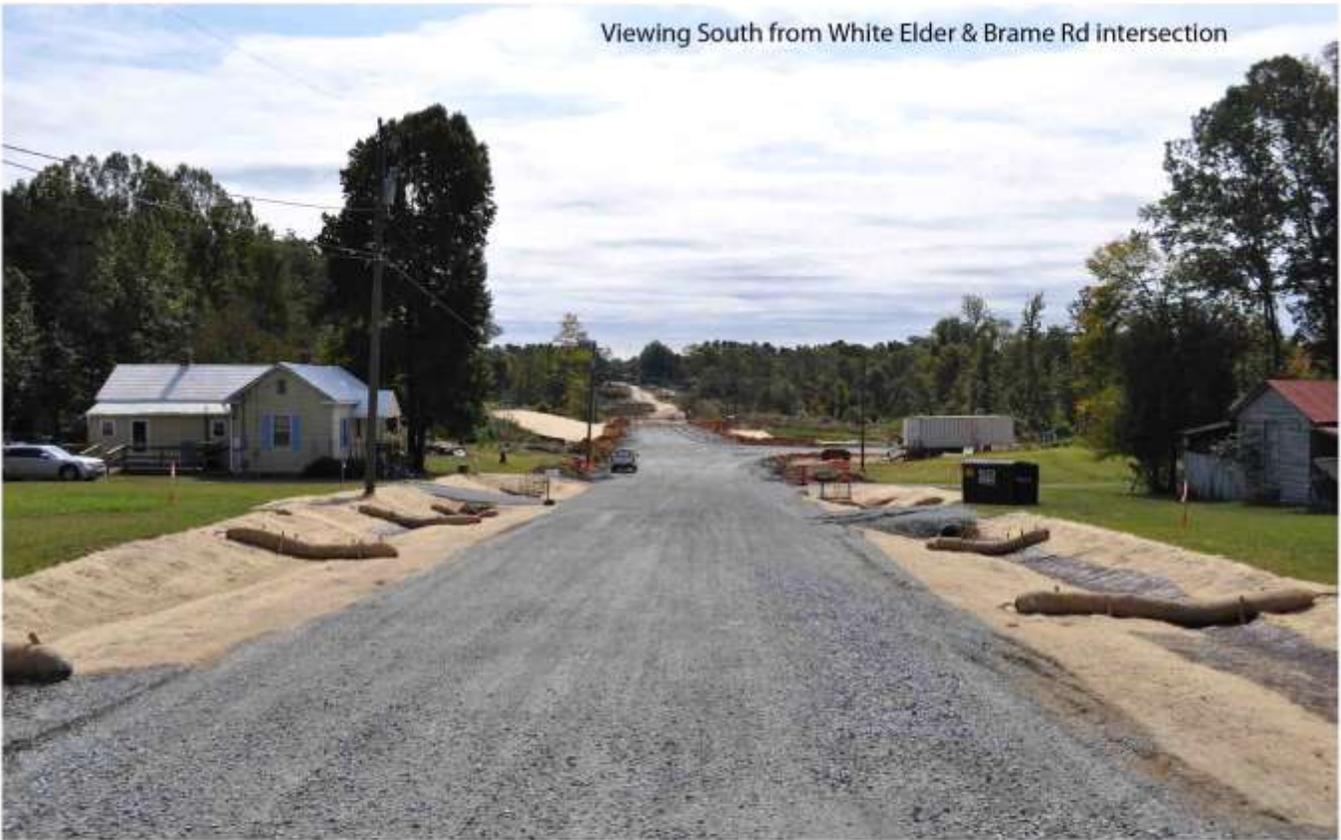
Bids were opened on August 25, 2015. The successful bidder was J. R. Lynch & Sons with a bid of \$13,655,598.72. M/WBE participation is 5% MBE and 8.49 % WBE and met the Good Faith requirements.

Installation of storm sewer is in progress. Final grading and curb installation is commencing on White Elder Road along with lane realignments at Cone Boulevard and 16th Street. Construction of two of the three supports for the bridge over North Buffalo Creek is ongoing. A separate hauling road has been built from the project area to the White Street landfill. Waste removal from the abandoned landfill in the Nealtown Road corridor is ongoing. Due to more extensive soil testing, the scheduled construction completion date has been extended by approximately 12 months.

The project is scheduled to be completed in spring of 2018.

S&ME, a consultant on excavations and landfill materials, is providing on-site inspections during construction to address potential hazardous materials in accordance with latest NCDENR requirements. The contract provisions include removal and disposal of the old landfill material. Hauling of non-hazardous material will be provided directly to the City's landfill without use of White Street or Nealtown Road.

Viewing South from White Elder & Brame Rd intersection



Viewing East from E Cone Blvd & 16th St intersection



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# DOWNTOWN GREENWAY

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Council District: 1,2,3  
Department: GDOT  
Construction Start: February, 2009  
Project Completion: 2019  
Estimated Cost: \$30,000,000

**The Downtown Greenway is a planned 4-mile walking and biking greenway that will loop around downtown Greensboro, and will serve as a key economic development tool for our community. It will enhance the urban landscape with a green space that will promote fitness, encourage alternative transportation, and provide connectedness and well-being for both our residents and visitors in an aesthetically pleasing environment. The loop provides a unique opportunity for Greensboro to have the only one of its kind in the state—and one of few in the country. In addition, with the connections to the extensive existing and planned greenway systems in the city and the county, this loop will connect residents from all parts of the community and beyond.**

#### Phases 1B and 1C:

Plans are complete from Eugene Street to MLK, Jr. Drive. Phase 1B, along Bragg Street from Eugene to MLK Jr. Drive, is surrounded by new re-development projects in various stages of design, including the S. Elm Street Redevelopment project and the Union Square Campus. Phase 1B has been awarded to Yates Construction Company with work scheduled to start in October. Phase 1C from MLK to Lee/Murrow intersection is under design. Construction is anticipated to begin in late fall 2017.

#### Phase 2:

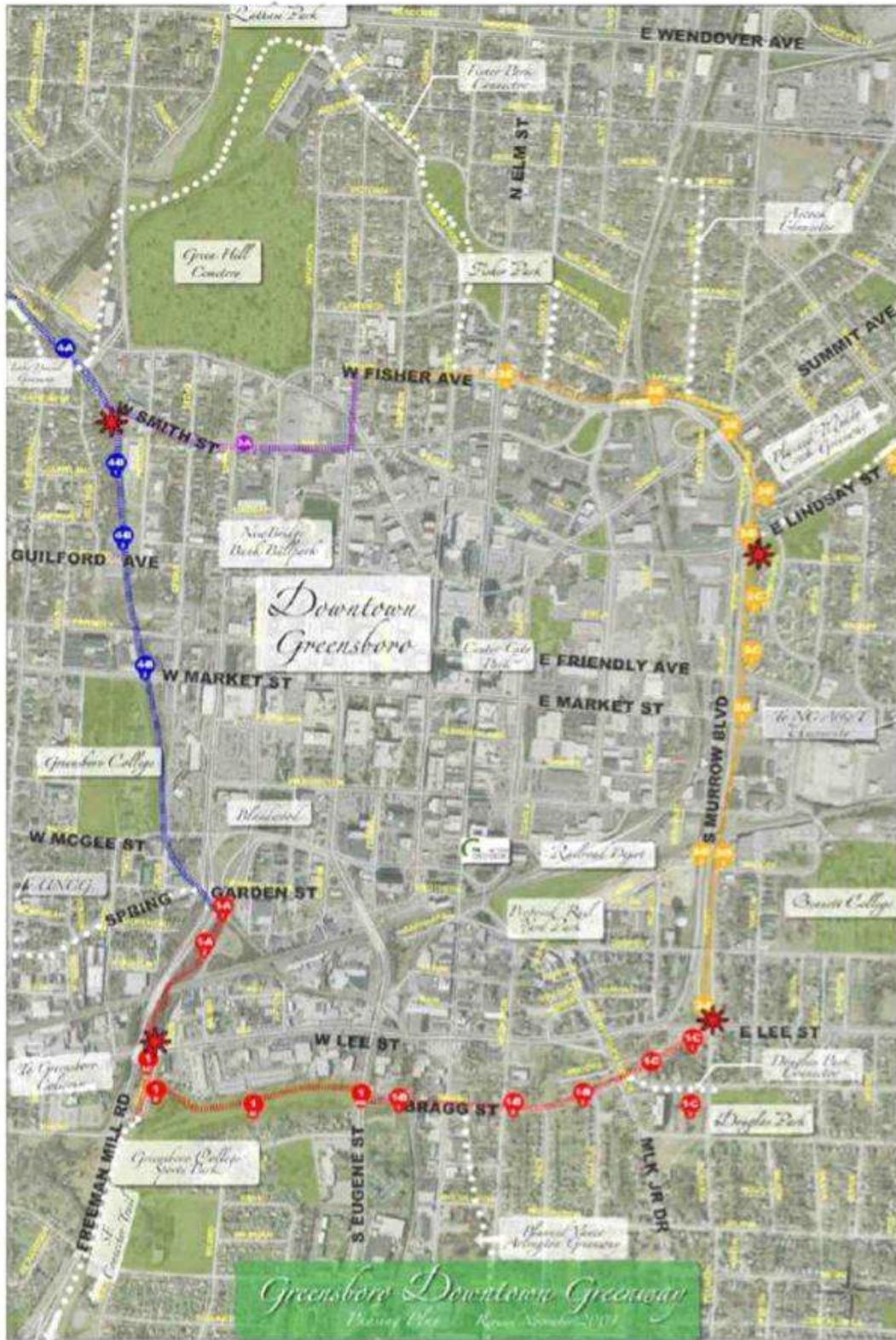
The revised 100% plans for the section from Gate City Boulevard along Murrow Boulevard and Fisher Avenue to Greene Street have been submitted and are undergoing plan review at the City and NCDOT. Property acquisition appraisals have been completed and negotiations are in process. Water Resources has added a waterline upgrade along Fisher Ave. GDOT is incorporating bike lanes along Gate City Blvd and has added mast arms for traffic signals along this corridor. Construction is projected to begin in early 2017. A short section of Phase 2 from N. Greene Street to N. Eugene Street will be constructed with the next stage of Phase 3.

#### Phase 3:

Phase 3A section along Eugene St. from Smith St. to Fisher Ave. along with a short section of Phase 2 on Fisher Ave. from Eugene St. to Greene St. is scheduled to start construction on October 17.

#### Phase 4:

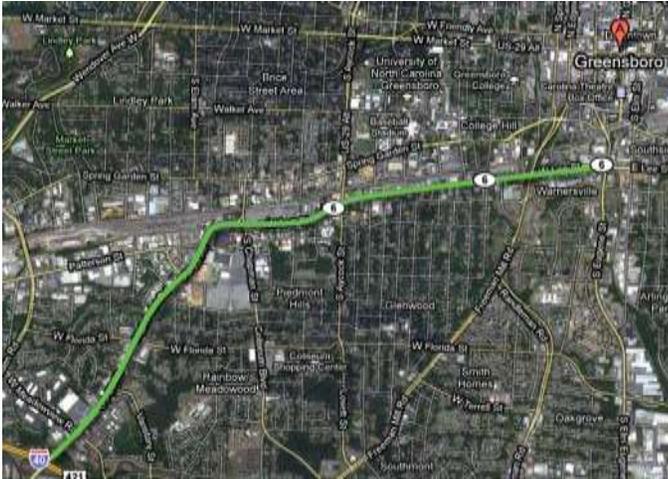
This portion of the Greenway is along the Atlantic & Yadkin Railroad line from Smith Street to Spring Garden Street and includes a section for the A&Y Greenway connection to Phase 4 from Markland St. to Smith St. Kimley-Horn & Associates consulting firm was selected for the project planning study and concept plan development/functional design. The project planning study and concept plan development has been completed, and the final functional design has been delivered. Design proposals for Phase 4 and the A&Y section have been submitted and are currently being evaluated.



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# GATE CITY BOULEVARD STREETScape, PHASE 1

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Council District: 1, 4, 5  
Department: GDOT  
Construction Start: Spring, 2015  
Project Completion: Spring, 2017  
Estimated Cost: \$13,600,000

**The Gate City Blvd./W. Lee St. streetscape project, Phase I, will focus on improving the visual appeal, and enhancing pedestrian, bicycle, transit mobility and safety while preserving the existing capacity for motorists. Reinvestment corridors are defined by the plan as older commercial corridors that would benefit from significant public and private investment to enhance their economic viability and strengthen adjacent neighborhoods. Phase I extends from Pineroft Rd. to Coliseum Blvd.**

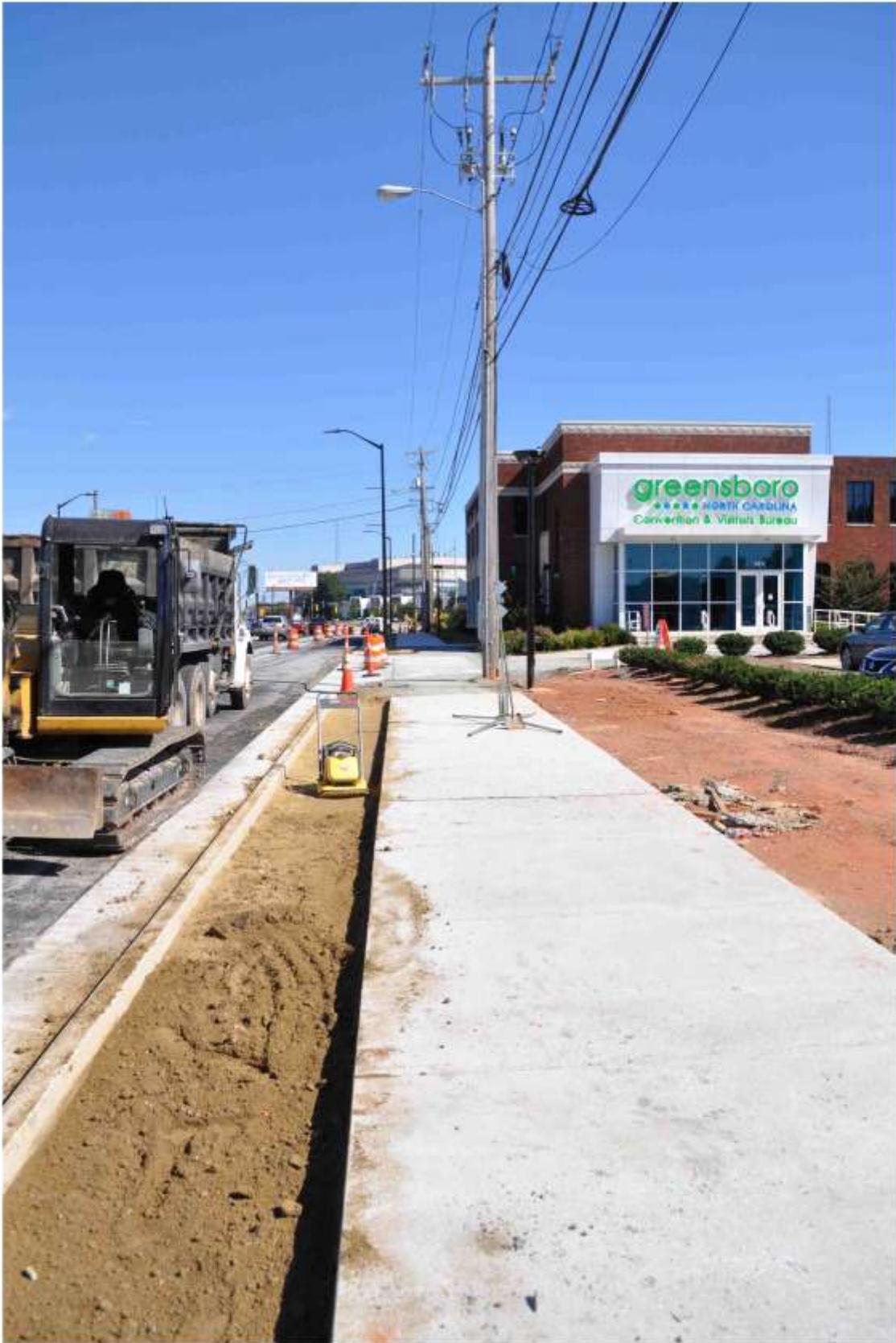
The contract was awarded on November 18, 2014 by City Council to Sharpe Brothers Division of Vecellio & Grogan, Inc. (Greensboro, NC) in the amount of \$13,292,638.73 with 5% MBE and 6% WBE participation. Construction began on March 16, 2015.

Three primary work objectives to prepare for overall construction were moving and upgrading water and sewer utilities under Gate City Blvd, replacing curbs and sidewalks on the north side of the project between Patterson St. and Chapman St., and moving utility poles and services in the areas under construction. The contractor has completed the installation of all water and sewer lines in Gate City Blvd. and is tying in all services. Also, a water line replacement project on Coliseum Drive has been added to the contract.

Moving the curb line and installing new sidewalks on the west side of Gate City Blvd. between I-40 and Chapman is near completion. This work includes changes to the stormwater culverts behind the curbline. Brick work and landscaping along the western side of the road is in progress. Street lights and pedestrian lights along the west side of the road have been installed and will be operational as soon as wiring is completed on both sides.

Construction from Meadowview to Florida, with the exception of plantings and a few minor items that require coordination with the business owners, is complete. A few driveways remain to be installed between Florida Street and Chapman Street. Curb and sidewalks are currently being installed from Florida St. to Chapman St. Work on the median islands will begin this month between Patterson St. and Chapman St. Construction is scheduled to be completed this fall with the exception of final asphalt overlay which will depend on weather conditions at that time. If weather restrictions are imposed, the final asphalt overlay will take place in March 2017.

GDOT has a Municipal Agreement with NCDOT for \$1.25 million for the resurfacing, milling, pavement marking, and utility adjustments on Gate City Blvd, a state maintained road.



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# HORSE PEN CREEK ROAD

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Council District: 3, 4, 5  
Department: GDOT  
Construction Start: Spring, 2017  
Project Completion: Spring, 2020  
Estimated Cost: \$33,030,000

The Horse Pen Creek Road will be widened from New Garden Road to Battleground Avenue. The project was developed to serve future transportation volumes, relieve congestion, address growth in the area, improve safety, and improve pedestrian and bicycle mobility. Horse Pen Creek Road is 3.4 miles long with 25 intersections (5 signalized). It is a minor thoroughfare with current daily traffic volumes of 11,900 to 18,700.

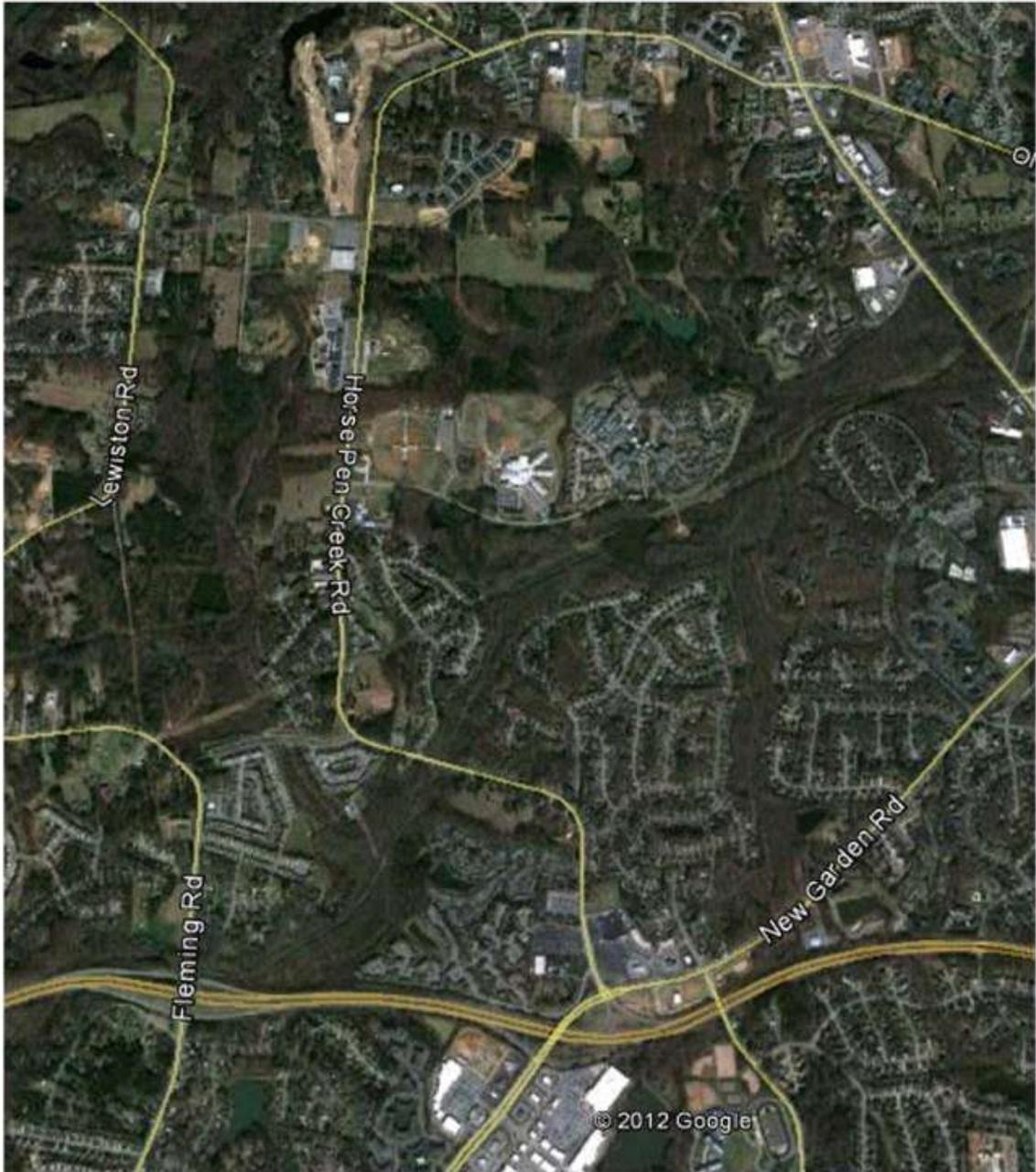
This is a significant roadway project which will add new lanes, a wide median, bicycle lanes and sidewalks. A new bridge over Horse Pen Creek will replace an undersized culvert and allow for pedestrian and bicycle traffic along the creek. With the new roadway, new curb and gutter will support an enhanced storm water collection system along the road. This roadway project, the largest City roadway project in many years, will also incorporate aesthetic treatments in a parkway.

City Council authorized the improvements on March 15, 2011. The consultant selected for the project design is HDR Engineering, a national engineering firm with an office in Charlotte.

Final design plan revisions and adjustments are near completion. Obtaining permits and encroachment agreements is in progress.

Property acquisition is nearing completion. Nine properties were purchased in their entirety to accommodate the proposed widening and alignment changes. Easement acquisition by Duke Energy for overhead utility relocations is in process. Overhead utility relocations had begun but are currently being delayed due to hurricane Matthew.

Construction is anticipated to begin in late spring 2017.



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# SIDEWALK PROJECTS

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Council District: 1,2,3,4,5  
Department: GDOT  
Construction Start: Ongoing  
Project Completion: Various  
Estimated Cost: \$13,600,000

**The construction of new City sidewalks is an ongoing project to improve pedestrian safety and enhance new alternative modes of transportation. Sidewalk projects are selected consistent with the BiPed Plan approved by City Council and with extensive public involvement. Priority is given to major streets, transit routes and gaps in existing sidewalks. Individual contracts are bid as they become available and are approved by the NCDOT.**

**District 1:**

16,800 LF along Florida and Randleman (EL-5101 DG) – Construction began on December 7, 2015 and scheduled to be completed winter 2016.

**District 2:**

5,500 LF along Phillips Avenue (U-5532B) – Construction is expected to be completed in early 2017.

**Districts 1 and 2:**

16,000 LF along Lowdermilk and Holts Chapel (EL-5101 DM) – design by consultant (Kimley-Horn Assoc.) – Bid opening is scheduled for spring 2017.

5,650 LF along Lovett Street (EB-5712) – Project is a recipient of Safe Route to School Funds – Bid opening is scheduled for winter 2016.

**Districts 1, 3, 4, and 5:**

12,575 LF along JJ Drive, W. Friendly Avenue, Vandalia Road, McConnell Road, and W. Wendover Avenue (C-5555A) - Construction is complete. Additional work will be contracted to construct a sidewalk along West Wendover Avenue at the Bulk Mail Center in spring of 2017.

**Districts 1, 2, and 5:**

Approximately 16 miles of sidewalk along W. Friendly Avenue, Pisgah Church Road, Lees Chapel Road, Yanceyville Street, and English Street (EL-5101DL) – advertisement is scheduled for summer 2017.

For a detailed listing of sidewalk projects through FY2022 see Appendix A.



**Phillips Ave,  
viewing East from Woodmere Dr**



**E Florida St,  
Britton St intersection**

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# WEST MARKET STREET AT GUILFORD COLLEGE ROAD

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Council District: 4, 5  
Department: GDOT  
Construction Start: Spring, 2017  
Project Completion: Fall, 2018  
Estimated Cost: \$8,200,000

**This project includes widening, additional turn lanes and sidewalks on each side of the intersection of West Market Street and Guilford College Road. Improvements on College Road extend north to Guida Drive.**

This project was designed by STV/Ralph Whitehead Associates. The final plans and specifications have been submitted and revisions are in process.

The adjacent railroad line, the numerous utilities installed underground and above, and the close proximity of existing commercial buildings to the roadway present unusual complications in the preparation of this site for construction. Municipal agreements are in place for 80% federal funding for property acquisition and construction.

The right of way purchase authorization has been received from NCDOT. Property acquisition is complete. The railroad encroachment agreement has been finalized.

Construction is anticipated to start in spring 2017.



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# SOUTH ELM STREET - BROWNFIELD REDEVELOPMENT - INFRASTRUCTURE IMPROVEMENTS

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Council District: 2  
Department: PLANNING  
Construction Start: Spring, 2007  
Project Completion: Spring, 2019  
Estimated Cost: \$11,013,500

**This project is a Brownfield redevelopment area extending west from Arlington Street to the railroad tracks and south from Lee Street to Bragg Street and beyond. The project's goal is to develop the site's properties according to the adopted redevelopment plan. This is being achieved with the following objectives: assess the site for environmental contamination, acquire properties to be redeveloped, remediate contamination as required and implement the development plan. The project includes construction of component development and improved infrastructure.**

The first building of the first development component, Union Square Campus, which is three stories and 83,000 square feet, began construction in April 2015 and opened in August 2016. City support for the Campus includes enhanced streetscape, provision of parking, and transfer of land at no cost.

Design of infrastructure and streetscape improvements for Elm and Arlington Streets and Gate City Boulevard and for temporary surface parking is complete. The first Phase includes streetscape along the west side of Arlington and the south side of Gate City Boulevard, including the intersections at Arlington and South Elm, as well as relocation of storm sewer lines along Gate City Boulevard. Phase 1 work should be completed in November 2016. M/WBE goals for this phase have been set at 8% MBE and 8% WBE.

Upgrades to signalization and decorative crosswalk treatments at the intersections of Gate City Boulevard and Arlington and Elm Streets will be done under a separate contract with NCDOT and street maintenance funds. This work is scheduled to begin in late October or early November.

The Master Developer continues to work on procurement of additional component developers.

Total Estimated Cost includes land acquisition, environmental assessment, and remediation. Estimated Cost for design and construction of temporary parking and infrastructure improvements is \$6,000,000.

Infrastructure Design: Waller & Associates - \$116,205 – MWBE participation – 100%  
Traffic Impact & Pedestrian Study: Davenport - \$15,750 - MWBE participation – 100%  
Streetscape Design & Stormwater Improvements – Union Square Campus, Inc. - \$789,656 – MWBE Participation – 22%



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# GREENSBORO RANDOLPH MEGA SITE

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Council District: County  
Department: WATER RESOURCES  
Construction Start: Summer/Fall, 2017  
Project Completion: Spring, 2019  
Estimated Cost: \$28,400,000

**The Greensboro Randolph Mega Site is located south of Greensboro in Randolph County near the Town of Liberty. This site has been identified as a possible location for an automobile manufacturing and assembly plant or other major industrial uses.**

**The purpose of this project is to provide water and sewer services to the site. The anticipated utility demand for the site is 1.5 million gallons of water and 1.0 million gallons of sewer per day. The proposed infrastructure includes approximately 87,900 feet of 16-inch water line, 42,700 feet of 16-inch sewer force main, and a sewer lift station with a pumping capacity of 1.5 million gallons per day.**

**To improve reliability of the water supply and provide operational flexibility for the area, two proposed water mains will be installed. A proposed 16" along NC 62 and a proposed 16" along Liberty Road will be connected to existing water lines to provide multiple feed points for the area. The waste water will be conveyed from the proposed sewer lift station, located south of the mega site, with a proposed force main to an existing gravity sewer and via the Big Alamance pump station to the treatment plant. The waste water will be received and treated at the TZO Water Reclamation Facility.**

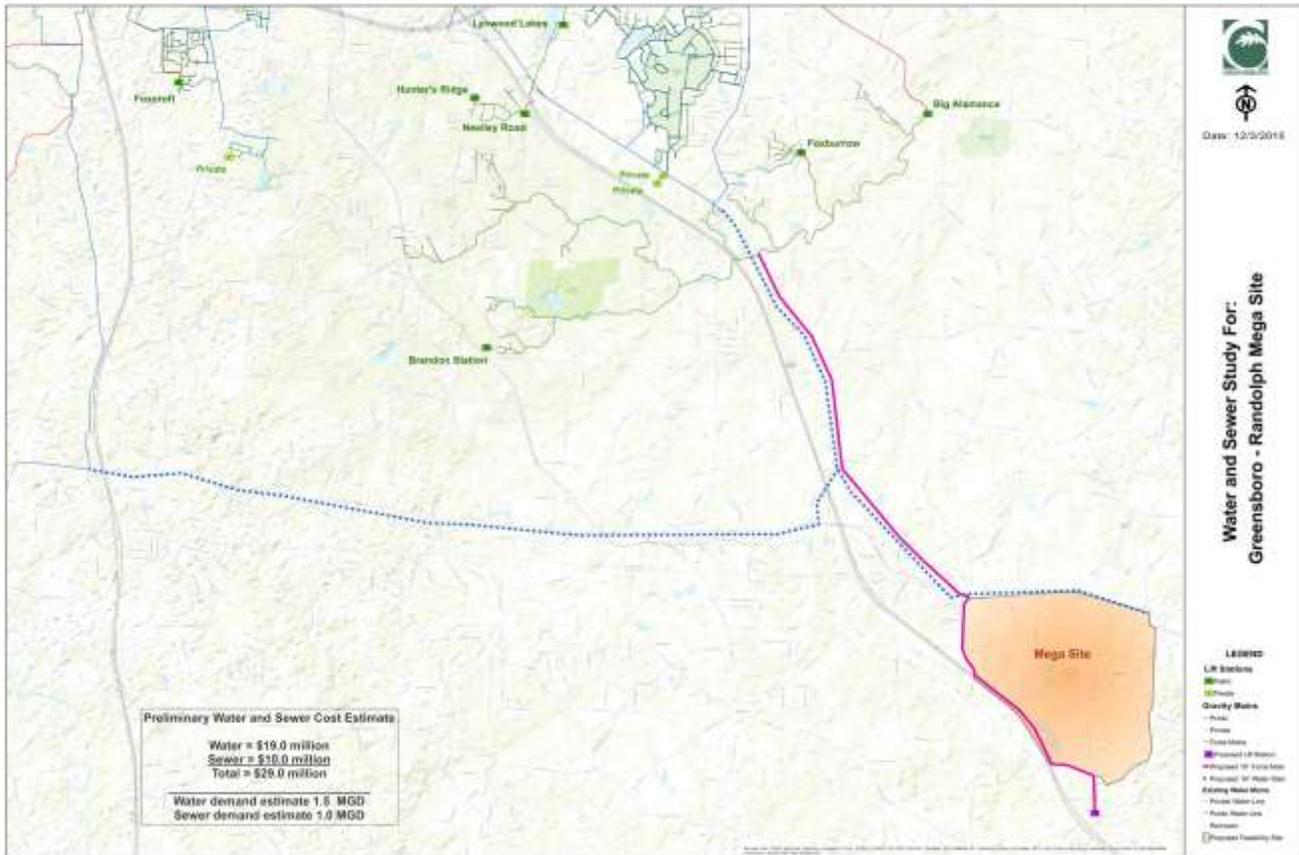
On March 3, 2015 City Council approved a resolution authorizing staff to proceed with engineering design and permitting activities necessary for extending water and sewer utility services to the Greensboro-Randolph Mega Site. On May 19, 2015 City Council approved a contract with HDR Engineering, Inc. of the Carolina's in the amount of \$2,297,000 to proceed with the design and permitting phase in support of utility service for the site.

Water and sewer design engineering efforts are well underway. The project has reached 90% design completion and HDR Engineering is currently addressing the City's review comments. The 90% construction cost estimate is \$28.4 million with \$19 million for water and \$9.4 million for sewer extensions.

To save time during the construction phases, the project will likely be bid as three packages. Package one will construct the 16" water main along NC 62, package two will construct the water and sewer along Liberty Road and package three will construct the lift station south of the site.

To support the project's schedule, the City of Greensboro's Legal Department has retained several firms to perform title research on the affected properties along the water and force main alignments with a focus on properties impacted by the force main to be constructed under package two. Appraisals for easement acquisition for the force main properties are expected to begin mid-November. The overall acquisition process is expected to take a year. The construction start in summer/fall 2017 will depend on funding availability. The City is expected to hear whether it will receive funding from the Golden Leaf Foundation within the next several weeks.

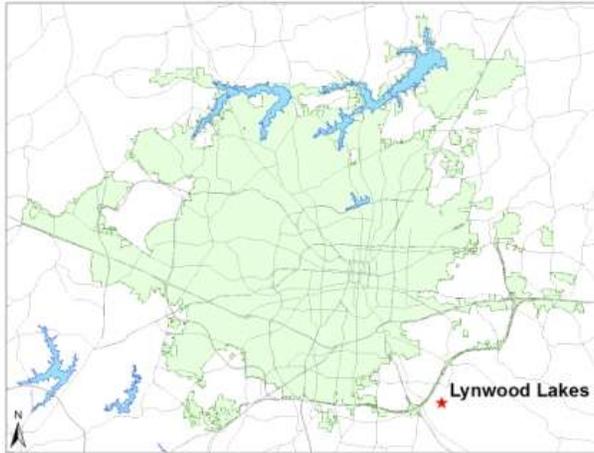
The site has been certified by KPMG on July 11, 2016 to meet commonly accepted industrial site standards. Before the site can be certified by the State all easements need to be acquired.



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# LYNWOOD LAKES WATER & SEWER EXTENSION

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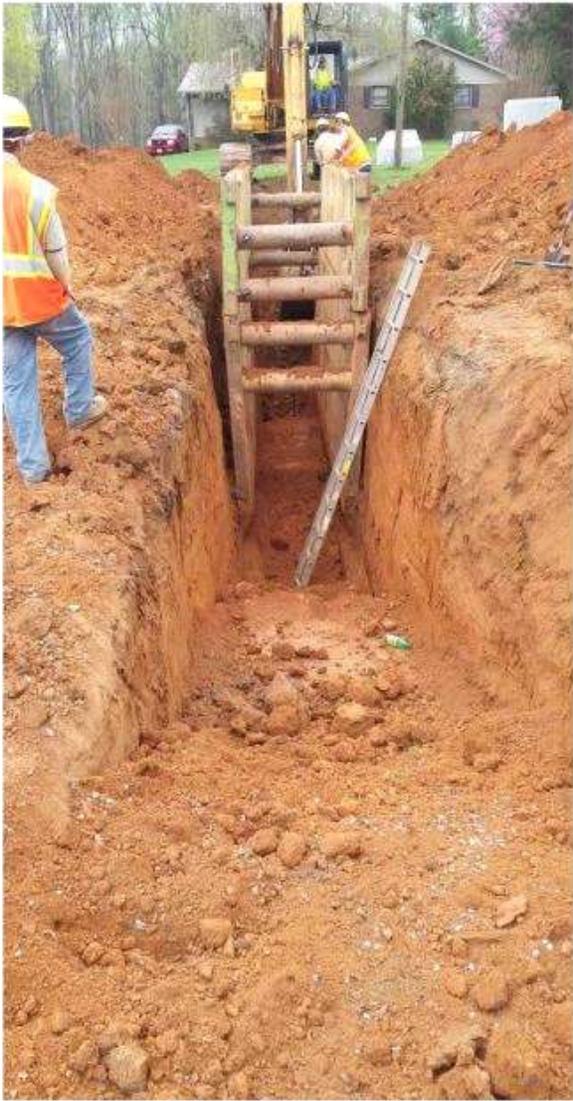


Council District: County  
Department: WATER RESOURCES  
Construction Start: March 3, 2014  
Project Completion: December 2016  
Estimated Cost: \$9,801,419

**The Lynwood Lakes water and sewer project involves construction of approximately 26,000 feet of water line and approximately 30,000 feet of sanitary sewer line to serve the roughly 300 residences in the Lynwood Lakes area of Guilford County. The water lines will primarily be constructed along the roadways. The sewer lines will follow the roadway where possible but approximately 14,000 feet of the sewer line construction will be across residential lots and below the water table. The Lynwood Lakes subdivision was primarily developed from 1959 to 1971 and has very well established lots with mature trees and vegetation that will need to be protected from damage to the greatest extent possible.**

Bids for the project were opened on 11/4/13. The low bid from Devere Construction Co., Inc. in the amount of \$10,768,025 with 4% MBE and 7% WBE participation was awarded by City Council on 12/17/13. The notice to proceed was issued for March 3, 2014 with 545 calendar days to complete the work. Due to the unexpected departure of DeVere, the substantial complete date has been extended.

Liberty Mutual, DeVere's bonding company, has retained Yates Construction to complete the Lynwood Lakes Project. Yates notice to proceed date was June 27, 2016. The project is approximately 90% complete. Yates has connected all the properties that had well and septic impacts due to the construction. Yates has begun final yard restorations and will be working from one end of the neighborhood to the other and is expected to be complete with all activities by the end of 2016. Sharpe Brothers will begin paving mid-October.



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# T.Z. OSBORNE WATER RECLAMATION FACILITY - BIOLOGICAL NUTRIENT REMOVAL AND 56 MGD UPGRADE PROJECT

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Council District: 1  
Department: WATER RESOURCES  
Construction Start: September, 2014  
Project Completion: March, 2021  
Estimated Cost: \$118,240,800

**This project entails upgrading and expanding the T.Z. Osborne Water Reclamation Facility to enhance nitrogen and phosphorous removal and provide additional treatment capacity in conjunction with decommissioning the North Buffalo Water Reclamation Facility to meet EPA mandated Total Maximum Daily load (TMDL) reductions for nutrient sensitive waters in the State.**

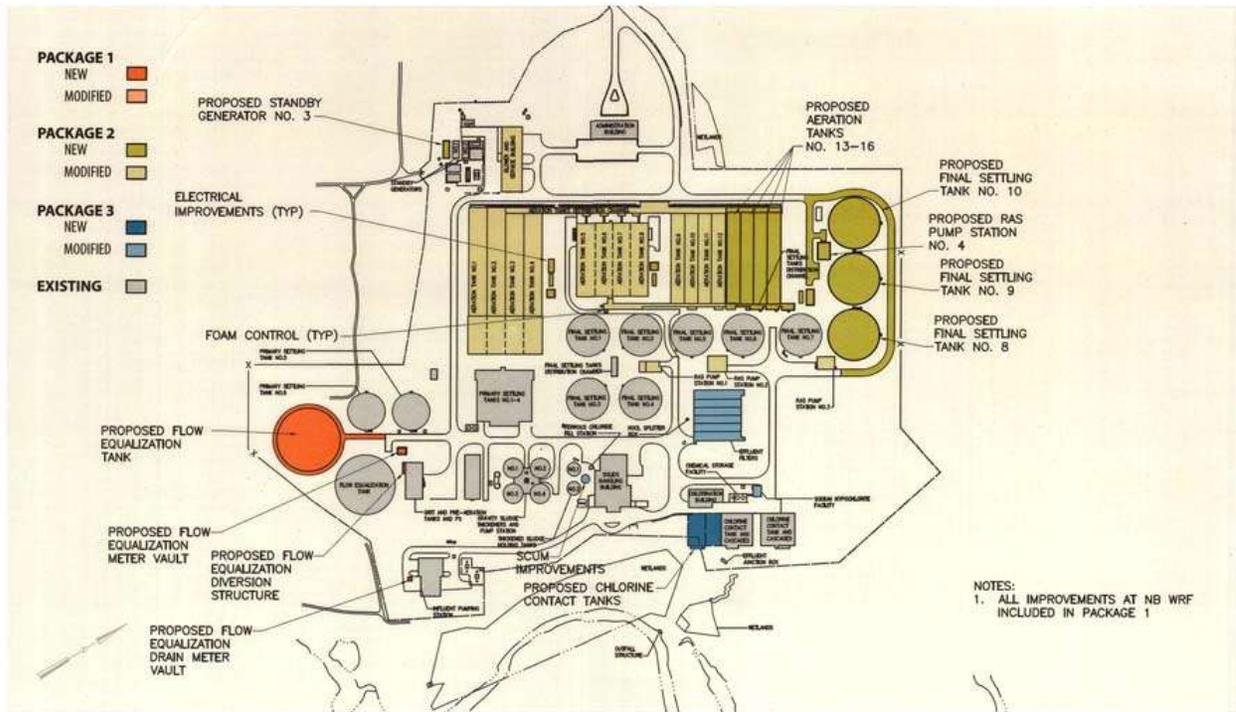
In order to comply with B. Everett Jordan Reservoir Watershed Rules and provide sufficient treatment capacity through year 2035, the T.Z. Osborne facility is undergoing major modifications and capacity expansion. The improvements have been configured into four separate construction packages competitively bid in order to capitalize on the timing for implementing and meeting nutrient removal levels for the facility.

Construction contract for package 1 was awarded to Garney Companies, Inc. with a low bid of \$7,530,000. Package 1 construction will result in the decommissioning of the North Buffalo Plant by July 1, 2017 and provide additional temporary storage for wastewater that will be transferred to the T.Z. Osborne Plant for processing. The anticipated completion date for package 1 is 12/31/2017.

The construction contract for package 2 was awarded to Garney Companies, Inc. with a low bid of \$26,640,000. Package 2 will facilitate hydraulic capacity upgrades at the T.Z. Osborne Plant to allow the City to maintain full permitted capacity for future growth. The anticipated completion date for Package 2 is 09/06/2017.

Package 3 construction activities are being delivered using the Construction Manager at Risk (CMAR) project delivery method. Package 3 provides filter treatment process and chlorine contact chamber upgrades which are necessary to support treatment operations and maintain future growth capacity. The Construction Manager (CM) for package 3 is Garney Companies, Inc. and the CM's Guaranteed Maximum Price (GMP) of \$17,822,035 was approved by City Council on November 10, 2015. The anticipated final completion for package 3 is June 2017.

Additional design efforts by Hazen & Sawyer to support Package 4 construction activities have commenced with construction phase activities slated to begin in the fall of 2017 and be completed by July 2020. Package 4 improvements will provide specific upgrades (i.e. retrofitted and new aeration basins) required for nitrogen removal and if necessary address potential treatment rules for ammonia and metals in order to comply with Jordan Rules (\$50 million estimate).



## Appendix A: FY2016 thru FY2022 Sidewalk Projects

<b>Funding Fiscal Year</b>	<b>Project</b>	<b>Description</b>	<b>Length</b>	<b>Council District</b>
*2014	Cone Boulevard Extension	From end of Cone Blvd to end of Nealtown Rd	10,500	2
*2014	Florida Street	Between Ashe St and Willow St where none exists	9,000	1
*2014	High Point/Lee Street Streetscape Ph 1	Between Pincroft Rd and Coliseum Blvd	8,600	4
*2014	Nealtown Road Extension	From End of Nealtown Rd to Cone Blvd	4,000	2
*2014	Randleman Road	East side from CreekrIDGE Rd to Glendale Rd	6,220	1
*2015	East Florida Street Sidewalk Gap	South side from Oxford Rd to Benbow Rd	1,200	1
*2016	Battleground - New Garden	Intersection improvements	2,380	3,4
*2016	Battleground-Benjamin-Cone	Intersection improvements	3,060	3,4
*2016	Downtown Greenway	Fisher Ave south side from Greene St to Eugene St	760	3
*2016	Downtown Greenway	Eugene St from Smith St to Fisher Ave; including Battleground Ave intersection	675	3
*2016	Downtown Greenway Ph 1-B1	Bragg St from Eugene St to Elm St	700	2
*2016	Downtown Greenway Ph 1-B2	Bragg Street from Elm Street to MLK JR Dr	1,400	2
*2016	Phillips Avenue	Summit Ave to Huffine Mill Rd where none exists	5,500	2
2017	Aycock Street	Pedestrian safety corridor improvements from north of Walker Avenue to north of Spring Garden Street; design, right-of-way & construction	500	4
2017	Battleground - Westridge	Intersection improvements	6,300	3,4
2017	Bessemer Avenue	Grecale St to Hill St; north side where none exists	1,250	3
2017	Big Tree Way	Both sides from Wendover Ave to Shelby Dr where none exists and west side from Shelby Dr to NCDOT's Bridford Pkwy project limits on Big Tree Way	4,452	4,5
2017	Bridford Parkway / Hornaday Road	Wendover Ave to west of Nicholas Rd	3,400	5
2017	Byers Road	West side of Byers Rd from Lees Chapel Rd to existing and west side from existing on Byers Rd to existing on east side of Byers Ridge Dr	1,200	2
2017	College Road	East side from 530' south of Friendly Ave to Guida Dr	2,400	4
2017	Courtland Street	North side from East Lake Dr to existing sidewalk	162	3
2017	Downtown Greenway Ph 2	Murrow Blvd from Gate City Blvd to Fisher Ave; Fisher Ave from Murrow Blvd to Greene St	7,460	2,3

## Appendix A: FY2016 thru FY2022 Sidewalk Projects

<b>Funding Fiscal Year</b>	<b>Project</b>	<b>Description</b>	<b>Length</b>	<b>Council District</b>
2017	Downtown Greenway Ph 3C	Smith St from Spring St to Prescott St	2,500	3
2017	East Lake Drive	East side from Courtland St; west side from existing to oak tree on park side	350	3
2017	East Wendover Sidewalk Gap	North side from English St to Waugh St; south side from Rollins St to Waugh St	2,400	2
2017	English Street Sidewalk	East side: Phillips Ave to Wendover Ave where none exists	3,000	2
2017	English Street Sidewalk	Wendover Ave to East Market St; both sides where none exists	7,000	2
2017	English Street Sidewalk	East Market St to E. Gate City Blvd; both sides where none exists	6,200	1
2017	English Street Sidewalk	E. Gate City Blvd to E. Florida St; both sides where none exists	2,600	1
2017	Four Seasons Boulevard	East side from Vanstory St to Creekridge Rd	4,000	1
2017	Franklin Boulevard Sidewalk Gap	From south of railroad crossing to Burlington Rd	365	1
2017	Friendly Avenue, West	W. Market Street to approximately 1350' east of Chimney Rock Rd; south side only	4,500	5
2017	Friendly Avenue, West	Existing sidewalk 240' west of Carriage Ln to existing sidewalk 250' west of King George Dr; north side only	2,100	5
2017	Friendly Avenue, West	Existing sidewalk 430' east of Forsythia Dr to existing sidewalk approx. 500' west of Lindley Rd; south side only	3,000	5
2017	Friendly Avenue, West	Lindley Road to Francis King Street; south side only	2,200	5
2017	Green Valley Road	West side Madison Ave to Friendly Ave.	1,700	4
2017	Green Valley Road	North side from Lendew St to Battleground Ave and south side from Westover Terr to Battleground Ave	1,700	3
2017	Green Valley Road	East side from Friendly Ave to Northline Ave and west side from Northline Ave to Benjamin Pkwy	2,300	3
2017	Hewitt Street	Norwalk St to Merritt Dr	7,680	4
2017	Holden Road	Spring Garden St to 860' south of Meadowview Rd; west side	4,900	4
2017	Holts Chapel Rd	From Franklin Blvd to E. Market St along both sides	9,630	1, 2
2017	Horse Pen Creek Road	From New Garden Rd to Battleground Ave	26,290	3,4,5
2017	Latham Park Greenway	Trail extension along Hill St from Battleground Ave to Mendenhall St; including intersection modification at Smith St	620	3

## Appendix A: FY2016 thru FY2022 Sidewalk Projects

<b>Funding Fiscal Year</b>	<b>Project</b>	<b>Description</b>	<b>Length</b>	<b>Council District</b>
2017	Lees Chapel Road	Church St to Yanceyville St; both sides where none exist	9,800	2
2017	Lees Chapel Road	Yanceyville St to Brightwood School Rd	2,900	2
2017	Lindsay Street	West side from Bessemer Ave to Murrow Blvd	4,250	2
2017	Lovett Street	West side: Florida Street to Freeman Mill Road. East side: Florida Street to existing sidewalk north of Freeman Mill Road	5,650	1
2017	Lowdermilk Street	Sidewalk & curb & gutter from Holts Chapel Road to Cameron Avenue	5,600	1
2017	New Garden Road	West side from Ballinger Rd to Friendly Ave	3,100	5
2017	Northeast/Keeley Park Sidewalk Connector	From Northeast Community Greenway to Keeley Rd	1,750	2
2017	O'Conner Street	SE Walking Trail to Florida St	250	1
2017	Pisgah Church Road	Church St to Willoughby Blvd	7,920	2, 3
2017	Pisgah Church Road	Willoughby Blvd to Lawndale Dr	6,100	3
2017	Pisgah Church Road	Lawndale Dr to Battleground Ave	2,640	3
2017	Plymouth Street	West side from Harrington St to Lucerne St	460	1
2017	Rankin Road / Martin Avenue	South side of Rankin Rd from Summit Ave to Martin Ave and the east side of Martin Ave from Rankin Rd to Springmont Dr	1,600	2
2017	Rudd Station Road	East side between Scott Rd and Townsend Rd, and north side of Scott Road between Rudd Station Rd and Summit Ave	3,400	2
2017	Seminole Drive	North side from Westover Terr to Benjamin Pkwy	2,683	3
2017	Shelby Drive	Big Tree Way to Edith Ln	230	4
2017	Summit Avenue	West side 16th St to existing and east side from Rankin Rd to Avery driveway	7,000	2
2017	Vance Arlington Connector	From north of Florida St to Downtown Greenway	6,000	1
2017	W. Market St/Guilford College Rd	Intersection & sidewalk improvements and widening of College Rd to Guida Dr	5,015	4,5
2017	West Wendover Sidewalk Gap	South side from 850 feet east of Edwardia Dr to Norwalk St	2,000	4
2017	Yanceyville Street	Bessemer Ave to Water St	6,500	2
2017	Yanceyville Street	Water St to Cone Blvd	4,800	2
2017	Yanceyville Street	Cone Blvd to Lees Chapel Rd	17,500	2
2018	16th Street	South side Yanceyville St to Cone Blvd; and north side Yanceyville St to Summit Ave	11,070	2
2018	Battleground Avenue	From existing at 1310 Battleground Ave to 1400 Battleground Ave	300	3
2018	Church Street	Lees Chapel Rd to Electra Dr (east side only); replace wheelchair ramps on west side where not ADA compliant	6,430	2,3

## Appendix A: FY2016 thru FY2022 Sidewalk Projects

Funding Fiscal Year	Project	Description	Length	Council District
2018	Cobb Street	North side where none exists	410	4
2018	Cone Boulevard	O'Henry Blvd to St. Regis Rd	19,530	2,3
2018	Cornwallis Drive	Battleground Ave to Surry Dr	3,000	3
2018	Downtown Greenway Ph 4	Spring Garden St to Hill St	5,000	3
2018	East Gate City Blvd	Willow Rd to Florida St; bike lanes; C&G	7,500	1
2018	Elm Street, North	West side from Cone Blvd to existing sidewalk south of Irving Park Ct and east side from Cone Blvd south to existing sidewalk north of Cornwallis Dr	6,000	3
2018	Gentry Street	From Hunter Hills Park property limits to east side of Merritt Drive to tie in with future Park sidewalk project P05175.	160	4
2018	Holden Road	Walker Ave to Spring Garden St; both sides	6,000	4
2018	Holden Road	Construct sidewalk from 1260' north of Gate City Blvd to Gate City Blvd; west side only	1,200	5
2018	Holden Road	Construct sidewalk from 530' south of Darden Rd to Vandalia Rd; west side only	980	5
2018	Holden Road	Walker Ave to Madison Ave; both sides	7,300	4
2018	Holden Road	Madison Ave to Friendly; both sides	4,400	4
2018	Merritt Drive	West side from Hewitt St to I-40	3,800	4
2018	Merritt Drive	Both sides from Gate City Blvd to Frazier Rd	1,600	5
2018	N. Elm Street	Cone Blvd to 380' north to existing	380	3
2018	Nealtown Road	West side from Huffine Mill Rd to White St	4,750	2
2018	Spring Garden Street	From W. Market St to Pomona Dr; south side only	1,300	4
2018	Spring Garden Street	Merritt Dr to Holden Rd; north side only	2,700	4
2018	Swing Road	W. Market St to Burnt Poplar Road	3,907	5
2018	West Wendover At Sapp Road Sidewalk	North side from Sapp Rd to existing sidewalk; southside Brandonshire Ct to existing sidewalk	1,665	5
2019	Alamance Church Road	MLK to City Limits	16,000	1
2019	Cotswold Avenue	North side from Battleground Ave to Cotswold Terr	3,000	3
2019	Farmington Drive	Both sides from Gate City Blvd to Wintergarden Ln and north side from Wintergarden Ln to Holden Rd	6,000	5
2019	Four Season Boulevard	Creekridge Rd to Vandalia Rd	2,300	1
2019	Frazier Road	South side from Groometown Rd to Merritt Dr	1,400	5
2019	Glendale Drive	Between Holden Rd and Randleman Rd	17,200	1
2019	Hilltop Road	South side: existing sidewalk west of Roediger Ct to approx. 985 feet west of Gate City Blvd. North side: existing sidewalk west of railroad to Fairfax Rd	3,800	5

## Appendix A: FY2016 thru FY2022 Sidewalk Projects

<b>Funding Fiscal Year</b>	<b>Project</b>	<b>Description</b>	<b>Length</b>	<b>Council District</b>
2019	Hobbs Road	East side of Hobbs Rd from Starmount Farms Dr to N. Holden Rd	3,350	3,4
2019	Hobbs Road	West side from Northline Ave to Hobbs Ct Landing	600	4
2019	Holden Road	Cascade Dr/Cornwallis Dr to Bryan Blvd interchange; both sides	7,200	4
2019	Lawndale Drive	Pisgah Church Rd to Beaconwood Rd	6,800	3
2019	Lindley Road	Friendly Ave to College Rd	6,175	5
2019	Mackay Road	Atwater Dr to Williamsborough Ln	6,000	5
2019	Martin Avenue	East side Spry St to McKnight Mill Rd	650	2
2019	Mayflower Drive	East side from Cobb St to existing	200	4
2019	Meadowview Road	Both sides from Randleman Rd to Elm-Eugene St	2,500	1
2019	Muir's Chapel Road	East side Tower Rd to Friendly Ave	4,640	4
2019	Old Battleground Road	West side from Westridge Rd to British Lakes Dr	2,000	3
2019	Spry Street	North side Martin to Summit where none exists	360	2
2019	Vandalia Road	Groometown Rd to Randleman Rd	14,425	1,5
2019	Vanstory Street	Ontario St to Holden Rd; both sides where none exist	7,250	1,5
2019	Westover Terrace Sidewalk & Intersection Improvements	East from existing sidewalk north of Seminole Dr to Benjamin Pkwy; intersection of Westover Terr and W. Lake Dr/Benjamin Pkwy	1,300	3
2019	Westridge Road	Southern side from Trentwood Dr to Whitehurst Rd	810	4
2020	A&Y Greenway	Hill St to to existing north of Markland Dr	9,840	3,4
2020	Battleground Avenue	South of Westridge Rd to south of Martinsville Rd	3,520	3,4
2020	Benjamin Parkway	North side Mitchell Water Plant Driveway to Elam Ave	4,100	3
2020	Boulevard Street	West Ave to Boulevard Way	310	5
2020	Boulevard Way	High Point Rd to Boulevard St	580	5
2020	Cedar Fork Drive	Holden Rd to Boulevard Way	160	5
2020	McConnell Road	Arbor Dr to Beaumont Ave; both sides	3,800	1
2020	Sands Drive	West side Cone Blvd to Wendy;'s Driveway and East Side north of Lowe's driveway to McKnight Mill Rd	1,500	2
2020	Sykes Avenue	Both sides Calumet Pl to Phillips Ave	8,400	2
2020	Wendover Avenue	Both sides from Grecale St/Battleground Ct to Church St	11,685	3
2020	Wendover Avenue	Both sides Summit Ave to EL-5101DD Limits (Vicinity of US 29)	5,180	2
2021	Randleman Road	Glendale Rd to Elmsley Dr	2,860	1
2022	Benjamin Parkway	Wendover Ave to Bryan Blvd	10,930	3,4
2022	Church Street	Wendover Ave to Cone Blvd	4,450	2,3