

Technical Proposal For the SR 247 & College Street Bridges over NS Railway Design-Build Project



Lead Contractor



Lead Design Consultant



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C.1.1. Construction Staging Narrative

C.1.1.a. Construction Phasing and Project Challenges

After award of the project, our key team members will be available to immediately begin work. Our team understands that the interconnected dependencies of the project elements will be fundamental to completing design and construction as quickly and efficiently as possible.

Below we have detailed our approach to the Construction Phasing, identified critical tasks, potential risk items, and our plan for delivering the project on time. Our goals in developing the construction phasing plan are to minimize the number of traffic impacts and duration of road closures necessary at each bridge, minimize the risk for vibration, noise, dust, and light caused by the project, and ensure easily navigable routes for pedestrians and traffic through all stages.

Our team has identified three major categories of risk that must be managed to maintain the schedule.

CLOSURE DURATIONS

The team has developed a project schedule to ensure that the key goals of GDOT are attained. These goals include, among others, delivering the entire project through effective design and construction solutions, minimizing inconvenience to the traveling public, and completing the project as quickly and efficiently as possible. At the Pio Nono Avenue bridge, increasing vertical clearance on this busy avenue necessitates an aggressive accelerated schedule. We have developed a strategy that combines several innovative elements to accomplish the proposed construction schedule. These include the use of high early strength concrete, precast approach slabs, and asphalt overlay as opposed to a concrete topping slab. At College Street, our proposed use of soldier piles and tie-back walls will result in a significant reduction of temporary shoring, eliminating the need for excessive preparatory work and leading directly into productive construction for the new bridge.

VIBRATION, NOISE, DUST, AND LIGHT MITIGATION

Unless mitigation strategies are continuously implemented, the proliferation of vibration, noise, dust and light due to construction may result in interruptions to the project at any critical moment. At Pio Nono Avenue, we recognize that these factors may impact the adjacent businesses, emergency facilities, and nearby residents. Dust, noise, and vibration during the demolition periods will be minimized by off-site processing of removed materials. Superstructure, girders, walls and other materials for both bridges will be loaded and transported to a staging yard, where they will be further deconstructed for disposal. In the preliminary schedule, we have eliminated the need for night operations except those that may be required by restriction on the Norfolk Southern track outage. If necessary, temporary lighting during night operations will be kept to a minimum within the work zone areas and will not spill out to adjacent properties.

Due to the nature of the historical neighborhood surrounding the College Street Bridge, these risk factors can have a lasting impact on the preservation of Macon's rich local history. Based on extensive examination of the geotechnical data, the project team has proposed a design involving drilled pilot holes, soldier piles, and tie-back walls. By drilling pilot holes, only minimal driving will be required to achieve bridge bearing requirements, substantially reducing the risk of driving vibration and noise. This also eliminates significant pile driving for temporary purposes of shoring and ensures that the only driving performed is necessary for productive purposes. The team also considered that construction of tie-back walls requires less excavation and backfill when compared to traditional MSE walls. This has a multitude of benefits, reducing trucking traffic and the potential for dust, noise, and traffic within and around the project.

Dust control at all stages will be monitored continuously and will be addressed immediately by an on-site water truck. Dust, noise, and vibration during the demolition periods will be minimized by off-site processing of removed materials. Superstructure, girders, walls and other materials will be loaded and transported to a staging yard, where they will be further deconstructed for disposal.

UTILITY COORDINATION

Utility relocations make up the largest portion of activities outside our direct control. At College Street, supporting the existing AT&T conduits will be critical to the successful execution of the project. To mitigate potential schedule impact,

we have already prepared engineering submittals regarding the temporary support system, specifically a steel girder truss that can be safely supported on piers above the bridge to safely support the conduits and provide future construction clearance. With preliminary engineering already completed for this system, we anticipate that plan submittal and approval by AT&T will proceed according to our preliminary schedule and allow for support and installation of their conduit to be completed well ahead of the milestone date.

At both bridges, relocating overhead utilities and securing crane clearances early will be critical to the project schedule. Identification of lines in conflict with construction activities have already been identified and preliminary recommendations for utility adjustments and design are well underway. Securing overhead crane clearance will be priority for early NTP 3A activities. We are confident these preemptive coordination efforts will support achievement of the relocation goals set in the preliminary schedule.

C.1.1.b. Sequencing of Work

Construction phasing will include four major phases for each bridge site.

PIO NONO AVENUE (SR 247)

In Phase 1 (Pre-Closure), utilities will be adjusted as necessary for construction clearance and required relocations under an early NTP 3A. Advanced warning signs and erosion control will be implemented. No work performed in this phase will impact current lane access, widths or alignment. Detour signage will be installed and covered until implementation. In coordination with the Norfolk Southern flagman, a filter fabric ballast protection system will be installed during track time. Early activities will include milling of the existing asphalt on Pio Nono Avenue and adjacent roadways under temporary lane closures. On the bridge, sawcutting and coring of the box beams can also be accomplished under temporary lane closures to maximize efficiency of the full road closure. Lanes will be kept open outside lane closure hours with temporary striping on the milled surface. During this phase, we will also deactivate and retire the existing 12" gas main.

Roff Avenue East will be closed first to the traveling public. Construction equipment and materials necessary for the superstructure demolition will be staged in the ROW on Roff Avenue. An off-site staging area will also be established for processing of the demolished bridge materials prior to disposal.

In Phase 2 (Demolition), the full-road closure will be installed for Pio Nono Avenue, and superstructure demolition will begin. The existing traffic signal at Pio Nono Ave and Roff Ave will be deactivated and removed to allow clearance for RT crane access. The transverse diaphragm rod will be sawcut on each span to allow for individual box beam removal.

Box beam removal on Pio Nono Avenue will begin with Span 1, in co-ordination with a Norfolk Southern flagman in track time. Removed beams will be immediately loaded on to flatbed trucks and transported to the off-site staging area for further demolition before disposal. This will ensure there is room to initiate the more extensive roadway construction on the South side, including storm drain adjustments, curb and gutter, and new sidewalks. The crane will relocate to the North side of the Pio Nono Avenue bridge, where Span 2 beams will be removed, followed by Span 3.

The existing approach slabs on both sides of the bridge will be removed, as well as any remaining asphalt, curb and gutter, and flatwork required for full-depth replacement and raising profile of the roadway. We anticipate that this work can be completed quickly and will not cause disturbance to the operations of the adjacent fire department. Access and parking for emergency vehicles can be provided toward the south end of the site on to Pio Nono Avenue.

In Phase 3 (Construction), immediately following the removal of Span 1 beams, modification of the existing substructure elements will begin at Bent 1. Work at each Bent will commence as each span is removed. Drill and epoxy techniques, as well as high early strength concrete, will be used to shore up the substructure to attain the required clearance over the Norfolk Southern Railroad. New bearing pads will be set on each bent ahead of beam delivery. Upon completion of curing for substructure modifications, new box girders will be shipped and set in place for each span. To further accelerate installation of the parapet, the outside girders will be fabricated with pre-installed reinforcing steel for the parapet.

Outside of the bridge, subgrade work will progress, including storm drain modification and construction of the new concrete flatwork. Sidewalks may be opened to pedestrians upon curing in areas that do not conflict with the active roadway and bridge construction. Precast approach slabs will be set at each end of the bridge. This allows for immediate

pouring of barrier walls and paving of the asphalt overlay. The new gas main will be installed on hangers on the new bridge and fencing will be installed on the new barrier walls. Temporary striping, signals, and signage will be utilized in order to provide an early opening of the new bridge to traffic.

In Phase 4 (Post-Closure), Pio Nono Avenue and Roff Avenue West will be opened first to traffic under a temporary signal, including pedestrian access across the bridge. Final striping will be installed on the cured asphalt surface. Work will be completed to install the final traffic signal, CCTV and ITS items, and Roff Avenue East will be opened to traffic. All laydown and staging areas will be restored back to their original state.

COLLEGE STREET

In Phase 1 (Pre-Closure), utilities will be adjusted as necessary for construction clearance and required relocations under an early NTP 3A. Advanced warning signs and erosion control will be implemented first. No work performed in this phase will impact current lane access, widths or alignment. Detour signage will be installed and covered until implementation. In coordination with the Norfolk Southern flagman, a filter fabric ballast protection system will be installed during track time. Clearing and grubbing for access and construction of the new walls can be completed without full closure of the roadway. Under lane closures, the existing asphalt will be milled to expose underlying brick. Traffic on the milled roadway will be maintained with temporary striping and MOT devices. Equipment and materials shall be staged on the proposed green space.

In Phase 2 (Track Outage & Demolition), the full-road closure will be installed for College Street, and superstructure demolition will begin. There will be a full demolition crew at each end of the College Street Bridge, with all equipment necessary to maximize use of the first Norfolk Southern 12-hour track outage.

Immediately upon closing the road and track, trench shield panels will be lowered to a skid steer at track level and carried into place under the arch. Each individual shield panel will have stands in place of spreader bars and be placed horizontally with clearance over the track. This system has been engineered by the DB team to provide a track protection solution that meets the requirements of Norfolk Southern Railroad and lends itself to quick and efficient installation.

Demolition will begin with excavators and hoe rams removing the existing brick structure. Steel girder superstructure will be picked out by crane and excavator claws. Materials will be excavated progressively to the arch level and hauled to a nearby staging site, where they can be sifted through to retain brick for use in the hardscaping. Upon reaching the arch, it will be broken safely, and any materials falling to the shielding below will be removed. During this outage demolition period, we anticipate that the bridge and brick walls may be demolished to the lower level of post-installed reinforcing studs. Any remaining demolition and removal can be completed under track time in conjunction with the NS flagman.

In Phase 3 (Construction), two crews will be mobilized to install soldier piles, lagging walls, and tie-backs on both sides of the bridge. Completed in conjunction, work will continue with two crews to install crashwalls and substructure for the bridge. Once complete and cured, girders will be set on the substructure along with overhead track protection. Diaphragms and endwalls will be constructed. Final hangers, casing, and waterline will be secured in final configuration along with the AT&T duct bank. Metal decking and overhang forms will be installed across the bridge. The deck will be completed in a single pour.

During this process, roadway items will steadily progress with any required grading, storm drain installation, and installation of the granite curbs. Once complete, sections of the sidewalk may be returned to pedestrian access in stages. Approach slabs and barrier wall will be constructed following the deck pour, and final-surface asphalt will be paved up to the bridge ends. The roadway will be temporary striped, signs installed, and preparations to open the new bridge to traffic will be completed.

In Phase 4 (Post-Closure), College Street will be opened to traffic. Remaining work to complete the project will include final brickwork and hardscaping, relocation of the bus stop to its permanent location, and decorative lighting installation. Sod will be placed to provide an immediately pleasing appearance to the completed green space.

C.1.1.c. Utility Staging Approach

The Wright Brothers Team's approach to utility staging primarily involves communication of the construction sequencing plan and required clearances. During the proposal process, the team has already identified and prioritized existing utilities on a scale of Will Conflict, May Conflict, and Not Anticipated to Conflict, based on analysis of plans, MOU, UIAs, field inspection, and selection of specific equipment to be utilized for construction. This system has been used to develop a preliminary relocation concept plan for each bridge site. Since Pio Nono Avenue work results in a roadway profile increase across the project, it is our intent to preserve as much of the subsurface utilities as possible. Overhead lines that must be adjusted for construction clearance will be selectively relocated prior to construction. At College Street, most relocations involve utilities inside the existing bridge. A clear strategy has been developed to provide temporary shoring and permanent support for the AT&T duct bank.

Upon award, we will conduct meetings with all the utility owners within the project area to notify them of the construction schedule goals and phasing. Based on these workshop meetings, we can establish opportunities for design to mitigate potential conflicts and prevent extensive relocation activities. To manage these responsibilities, our strategy is to mobilize a supplemental project "Start Up" team to assist the Lead Utility Coordinator with the preparation of these deliverables so that they can proceed simultaneously with the design. We shall prepare the construction team to mobilize, as soon as we receive an NTP 3A for utilities, with all completed submittal approvals and required permits.

C.1.1.d. Optimization of Driving Conditions

Using a multidisciplinary approach, our Team has developed a traffic management concept that organizes and sequences the construction closure requirements, outlined in this proposal, in a safe and efficient manner. Our phased concept will convey the design decisions that are necessary to provide constructability of the project, while providing a method to maintain consistent signing and pavement marking throughout each construction stage that will complement driver's expectations, reduce confusion, and provide a safe flow of traffic through the work zone. Our general approach to the traffic management concept is to maximize the use of specific work zone areas while traffic is still in the existing pattern during early construction phases. This approach will support subsequent phases by setting up manageable detours and limit the need for temporary lane closures.

A Transportation Management Plan (TMP) will be prepared for each bridge project and will consist of three key components: 1 - Public Information (PI), 2 - Temporary Traffic Control (TTC), and 3 - Transportation Operations (TO). Our Team understands the importance of engaging local stakeholders early so that the PI component is effective and accomplishes the goal of communicating project information and TMP strategies to affected road users and emergency responders. The TTC component includes various traffic control devices to accommodate road users within the work zone in an efficient and safe manner. The TO component identifies strategies to mitigate work zone impacts and will include management strategies, incident management strategies, and work zone safety management strategies.

Prior to mobilizing to the project site, a public information plan will be implemented that will keep the traveling public informed on the status of construction throughout the life of the project. This information will include notification of work that will impact traffic movements including lane closures and detours. Changeable message boards will be used at all project approaches to notify drivers of any deviation in the established traffic movements. Our Project Information Contact will arrange for and ensure that the GDOT Office of Communications is provided with accurate information and will verify that the information is posted at appropriate outlets.

Our Team is committed to providing access within the project area throughout all phases of construction. Information will be developed for distribution to inform the local residents, trucking industry, local businesses, and the traveling public of the planned construction project and scheduled detours. Prior to the proposed closure period, where Pio Nono Avenue or College Street will be closed and detours will be required, changeable message boards will be placed at strategic locations Pio Nono, College Street, and nearby cross streets. The message boards will be placed several weeks prior to the traffic change to notify the traveling public of the dates of the planned detour.

C.1.2. Proposal Schedule Requirements

The Wright Brothers Team has provided a preliminary baseline schedule, included as a PDF attachment, that demonstrates our plan for accomplishing the entirety of the work for the proposed project from receipt of NTP 1 through Final Acceptance. Our schedule has been developed to include all items within the project scope, as well as items to be performed by other parties such as **Agency reviews, Utility action items and Railroad Reviews**. Restrictions outlined in the RFP have been included by utilizing Start on or After Constraints. Calendars include weather days and standard holidays as non-working. The construction calendar is based on a 6-day work week. These features demonstrate that this schedule is realistic and obtainable. Schedule performance and timely completion is supported by allocation of the vast resources of the Wright Brothers Team.

The Wright Brothers Team is **committed to expediting the RFPs milestone deadlines** as identified on Form M. The durations shown for each road closure are shorter than the maximum number of days allowed on Form M. Pio Nono Avenue will be open to traffic on or before **May 11, 2020, 50 days earlier than the contract date of June 30, 2020** and will be **closed for only 25 days**. The vertical clearance will be established for the College Street bridge on or before **May 23, 2020, 38 days earlier than the contract date of June 30, 2020**. Additionally, College Street will reopen to traffic **after only 129 days of closure**.

The critical path for the project will run through the design and construction of the College Street site. Completion of design for College Street will take slightly more time than Pio Nono Avenue, however, preliminary construction activities at College Street will commence before the Pio Nono Avenue bridge is opened to traffic. The critical path tasks are shown in red on the attached PDF of the schedule.

The design of both sites will proceed simultaneously. The schedule shows major design activities to be completed by the DB Team and review periods to be completed by GDOT and Norfolk Southern. The design phase of the project will run from the issuance of NTP 1 until the completion of design in April of 2020 when full NTP 3 will be issued for each site.

To expedite construction and ensure that the site is ready for roadway and bridge construction to start, the schedule shows obtaining a NTP 3A for Utility Relocations at each site. Completing the utility work while design is ongoing will ensure that the expedited opening date of May 11, 2020 for Pio Nono Avenue and achieving the new vertical clearance date of May 23, 2020 for College Street will be achieved well before the June 30, 2020 deadline required by the contract.

The Wright Brothers Team is dedicated to protecting the railroad's property and its own personnel. For the construction of both projects we will have a railroad flagman on site during each day of construction that requires work encroaching upon the railroad right-of-way. Additionally, we will be using a 12-hour outage, to be designated by the railroad, to remove the arch portion of the College Street bridge. We feel this is the most productive use of the allowed outage time. Once the removal of the arch commences, it is best to completely remove it while track protection is in place and without having interruptions from trains.

Our schedule reflects the Wright Brothers Team commitment to expedite GDOT's schedule for this project and to minimize the impacts to the public and Norfolk Southern Railroad. The vast resources of the Wright Brothers Team will be allocated to this project ensuring that this realistic and obtainable schedule is met.

C.1.3.1. (a) Organization Chart

Wright Brothers Construction Company, Inc. will be the contracting entity with the Department and will be responsible for the completion of the scope of work to the Department's standards and expectations. In addition to the primary construction management responsibilities, Wright Brothers will provide the construction services for the bridge, grading, and asphalt paving on the project.

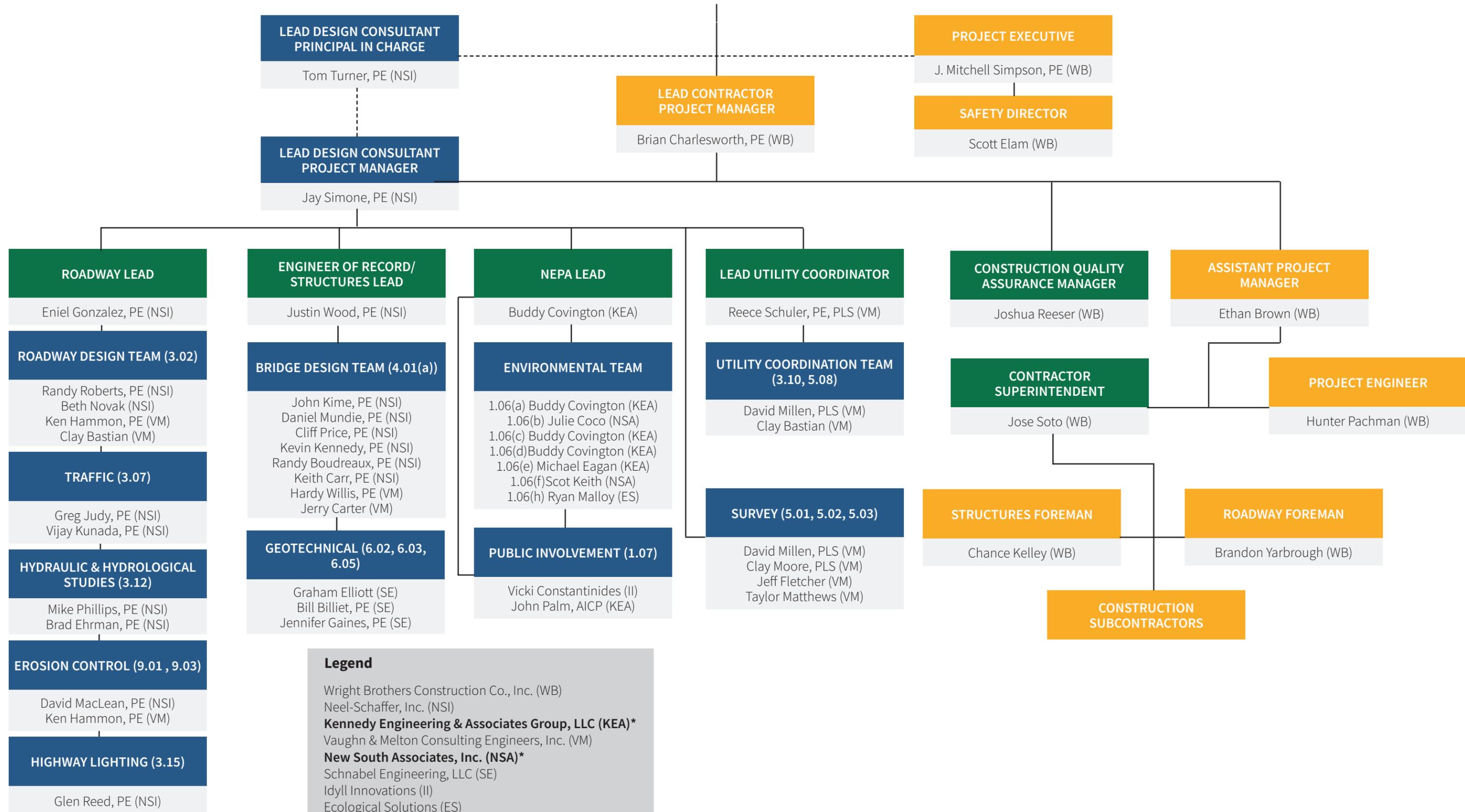


Neel-Schaffer, Inc. will serve as our lead design consultant, providing design and managing all engineering services for the team. Neel-Schaffer is a leader in design-build procurement and innovative solutions in the transportation industry, having participated on numerous similar projects nationwide. Neel-Schaffer will subcontract with the following consultants to perform key services:



- Schnabel Engineering, LLC (Geotechnical)
- Kennedy Engineering & Associates Group, LLC (Environmental)
- New South Associates, Inc. (Environmental)
- Ecological Solutions (Environmental)
- Vaughn & Melton Consulting Engineers, Inc. (Survey & SUE)
- Idyll Innovations (Public Involvement)

The DB team project management approach is to create a completely integrated team that will facilitate clear communication and movement of information between sub-organizations and management personnel. The following Organization Chart outlines the structure of our fully assembled management organization including the reporting relationships among our key personnel. Our team's organization chart reflects an integrated organization with a clear delineation of each member role and responsibility, as well as a clear structure and reporting relationship for the personnel involved in the project.



Legend

- Wright Brothers Construction Co., Inc. (WB)
- Neel-Schaffer, Inc. (NSI)
- Kennedy Engineering & Associates Group, LLC (KEA)***
- Vaughn & Melton Consulting Engineers, Inc. (VM)
- New South Associates, Inc. (NSA)***
- Schnabel Engineering, LLC (SE)
- Idyll Innovations (II)
- Ecological Solutions (ES)
- *Certified DBE**

Our team has assembled a selection of key staff and supporting resources consisting of highly qualified transportation design and construction professionals, all of whom are committed to the success of this project.

Name/Role	Project Function / Responsibilities	Project Availability
Construction		
Brian Charlesworth, PE (WB) Lead Contractor Project Manager	Brian will lead our team as Design-Build Project Manager. He will be responsible for the management and coordination of all aspects of design and construction. He will serve as the Department’s single point of contact	100%
Joshua Reeser (WB) Construction Quality Assurance Manager	Josh’s responsibilities will include coordination with GDOT CEI, ensuring that QA/QC programs are adhered to, job correspondence, maintaining the project schedule, recordkeeping, and other project management duties.	75%
Jose Soto (WB) Contractor Superintendent	Jose will be responsible for the execution of construction through understanding of project specifications, daily work planning, identifying changes in conditions, subcontractor scheduling, material buy-out and ordering, project crew staffing, equipment, and project safety.	100%
Design		
Jay Simone, PE (NS) Lead Design Consultant Project Manager	Jay will be the Design Project Manager responsible for all roadway and structures design elements, including coordination with supporting subconsultants.	50%
Justin Wood, PE (NS) Engineer of Record	Justin will be the EOR for the project. He will be responsible for and lead all bridge and wall designs for the project.	65%
Reece Schuler, PE (VM) Lead Utility Coordinator	Reece will initiate coordination efforts with all utility owners on the project, resolve conflicts, and assist with utility relocation and coordination activities critical to project completion.	40%

C.1.3.1. (b) Description of Proposer's approach to organization, management, design, construction, quality, project controls and reporting for performing work

The DB team will rely upon our extensive design-build experience, integration of design and construction teams, and GDOT participation for successful project management. We will ensure a successful project by focusing on quality, schedule, safety, and Maintenance of Traffic (MOT). The DB team has established a comprehensive management approach to effectively coordinate project activities, to address design, construction, quality, documentation, scheduling, risk analysis and mitigation, and to assist in GDOT community outreach. Our team's mutual experience, developed together on a current GDOT Design-Build project, provides an invaluable foundation of communication and teamwork necessary to accomplish the goals of this project. This well-established route of coordination with each other during design and construction will provide GDOT with a quality project.

One key element of this coordination is constructability reviews among design and construction staff. Our Team has already conducted numerous site visits and constructability reviews to develop the plans we have. We have participated in several working and status update meetings which will continue through final design and project completion. Our organization and Project Management Plan outlines an approach that clearly defines, communicates and implements responsibilities, authorities and lines of communication within the design and construction. Our management approach includes:

- Conducting reviews by multidisciplinary, environmental, and construction personnel to ensure constructability and environment compliance are met.
- Regular and as-needed coordination meetings comprising representatives from our team and GDOT throughout the design and construction to expedite the resolution of issues.
- Integrating the design and construction activities into a single Critical Path Method (CPM) Schedule.
- Design quality review meetings to ensure design packages meet the requirements of the design quality management plan prior to submittal.
- Construction quality work planning and review documentation to ensure conformance with design throughout construction.

This approach combines a high level of involvement, collaboration and teamwork among project participants to ensure the Project Management Plan is implemented and maintained throughout design, construction, maintenance, and documentation for the duration of the project. Our team will plan the work and work the plan. We will not be making spontaneous decisions but will simply implement the project plan to ensure a successful project.

The overall execution of the project will be the responsibility of the Lead Contractor Project Manager. All design activities will be coordinated through the dedicated Lead Design Consultant Project Manager, who will oversee all design activities between construction, engineering, and GDOT. He will ensure that the overall project design is completed, design criteria requirements are met, and design activities related to field design changes are performed efficiently. Our Construction Quality Assurance Manager will perform a quality review on design packages prior to submittal to ensure that the design package meets the requirements of the Design Quality Management Plan. All construction activities will be directed and implemented by the Assistant Project Manager and Contractor Superintendent, assisted by the QA Manager, who will confirm and document conformance with design throughout construction.

SUBCONTRACTOR COORDINATION

Our major subcontractors/subconsultants have already been identified as part of the DB team and will be included in scheduling, planning, and job mobilization meetings. This will foster an atmosphere of team integration and ensure a smooth start to construction activities after NTP1, as well as enhance the establishment of the project schedule. Contract agreement between each subcontractor will be in accordance with GDOT specifications and standards as required by the RFP. Our subconsultants will be held to the same standard of acceptance and adherence to the safety plan and quality management plan of Wright Brothers and Neel-Schaffer. Prior to the commencement of construction activity, the Contractor Superintendent will hold weekly subcontractor meeting to discuss safety, quality, schedule and any outstanding issues.

C.1.3.1. (c) Description of how the quality processes will be structured for the Project, and how the Proposer's team will ensure quality

Quality processes for the project will be structured to identify and address potential quality issues internally before they occur to reduce time spent resolving potential impacts. During both design and construction, clear communication between the entire project team will be critical to the successful completion of the project. Identifying and resolving issues early in the design process will minimize rework during the design and save considerable time and money during construction. The DB team of Wright Brothers, Neel-Schaffer, and their subconsultants will work together to provide unified design, efficient construction, and a quality final product by implementing the following approach.

Design quality processes will be implemented to provide a high-quality design that meets the project standards and is constructible in the field. Specific elements of the design quality process include:

- Independent Design Check
- Comment Resolution Process
- QA Oversight
- Internal Design Review

The design quality procedures will include independent verification of design calculations performed by an engineer who is not involved in the primary design of that element of the project.

No design submittal will be released to GDOT for review without a formal quality assurance (QA) certificate from our Design Quality Manager (DQM). The DQM will perform QA audits on every formal design submittal prior to submittal and will provide a certification that the design meets the requirements of the quality management plan.

The construction quality process begins with integrating the Construction Team during the Design Phase. This key aspect allows potential constructability or safety issues to be quickly identified and addressed without additional rework or schedule impacts. It ensures that critical information addressed in the project development process is thoroughly communicated and results in an informed and knowledgeable construction staff. Administered by the Construction Quality Assurance Manager, continuing efforts of the construction quality processes include:

- Detailed Work Planning
- Internal Construction Inspection, Testing, Management and Administration
- Progress Tracking and Construction Schedule Control
- Tracking Changes, Reviews and Responses to Construction or Design Documentation
- RFC Document Distribution

The integration of design and construction staff has already begun in the proposal process, and our proposal represents a fully cohesive approach. Working relationships and responsibilities have been established to provide a solid foundation for advancing to the next step on award of the project. This will promote unified dedication to project development and quality assurance by a team that benefits from experience gained throughout the process.

C.1.3.2. Safety Plan

Our commitment to creating a safe work environment for all employees and the traveling public will involve the following key considerations:

Approach to Safety

- Conduct mandatory safety meetings with all construction employees and subcontractors to identify and resolve potential job hazards.
- Implement a “zero” tolerance policy regarding employee use of alcohol and/or illegal drugs. Use of these substances will not be tolerated, due to the fact that they adversely affect employee performance and are a detriment to public safety. Alcohol and drug testing will be mandatory in the following situations: pre-employment, reasonable suspicion, post-accident and random.
- Monitor all traffic control to assure compliance with MUTCD, the Department’s requirements and Traffic Management Plan.
- Ensure that all subcontractors and employees comply with all federal, state and local regulations and procedures.
- Ensure that all subcontractors and employees have current certifications, adequate training, and knowledge of their work requirements (i.e. competent person trenching and shoring).

Protecting the safety and health of our employees and the general public is of paramount importance and our goal is zero accidents.

Scott Elam (WB) will be responsible for administering and monitoring the project safety program. Scott has over 14 years of experience in safety, risk management, loss control, and regulatory compliance. He currently serves as Director of Safety for Wright Brothers. He has received extensive training in the areas of health and safety.

Wright Brothers staffs our projects with qualified Safety Management Personnel that have a deep understanding of the risks associated with transportation and industrial projects. Furthermore, our dedication to establish a safe workplace is owned by all employees from the top down; not just the Safety Management Personnel. Safety is the responsibility of at all levels of employment including the Project Manager and Site Manager to Field Supervision and Craft Employees.

Our safety program challenges us to integrate our program with that of our clients into a site-specific plan and to evaluate the conditions of each project. Specifically, on this Project there are potential risks associated with a high number of personnel and equipment working in tight areas near the traveling public or over the railroad, with numerous critical lifts and demolition operations.

Considerations for employee access to the site have been made during the preparation of this proposal. Designated parking areas will be established within or near project limits, and employees will follow a safe, delineated route on foot to their area of work. If not directly adjacent to the work site, crossings and locations for interaction with the traveling public will be clearly identified and posted for awareness.

A majority of the critical construction operations will occur during demolition, lifting, work-at-height, in conjunction with railroad flagging operations. These will require the utmost focus and awareness of all supervisors and crew members present on site. An early item of work shall include delineation and limiting access to the Norfolk Southern ROW with bright orange fencing and signage. Employees will be directed to not enter the zone without making prior contact with the railroad flagman. A single point of contact will be designated for communication with the railroad flagman during all work performed under railroad flagging. This contact will have full stop-work authority to ensure safe completion of the work in conjunction with the railroad operations.

C.1.3.3. Approach to Public Outreach

The underpinning for achieving GDOT's stipulated communication and public outreach goals is a collaborative partnership and effective communication with all stakeholders. The Wright Brothers Team will support GDOT in informing and engaging stakeholders through several proven techniques, specifically Collaboration, Stakeholder Identification, Public Awareness, Involvement and Outreach. A multifaceted approach will provide the greatest engagement with the identified stakeholders beginning as soon as the contract is awarded and continuing throughout the course of the project. It is our goal to provide balanced and objective information as to construction activity, travel and noise impacts and project progress by building on established communications tools and utilizing innovative strategies to reach varied demographics. With over 30 years of communications experience, the Wright Brothers Team includes, as our Project Information Contact (PIC), former Communications Director, Vicki Constantinides (Gavalas).

COLLABORATION - The Wright Brothers Team excels in partnering with all representatives with significant project involvement and other parties interested in and affected by the project. Chief among our collaborators is, of course, the Georgia Department of Transportation - especially the Communications Office - with whom we will work to develop and implement effective strategies for public awareness and engagement. GDOT has indicated their desire to take the lead in communicating with public officials and the media. To that end, our goal is to support the Office of Communications by developing information packages, presentations, weekly and/or monthly reports, press releases, media advisories, and press kits for their review and distribution. We will also create and produce additional collateral material as needed for dispersal to other stakeholders. To assist GDOT's Transportation Management Center in providing up-to-the-minute travel data for motorists, we will provide information regularly to designated 511 managers.

COMPREHENSIVE STAKEHOLDER ANALYSIS & IDENTIFICATION – In an effort to ensure those affected by the project are informed throughout construction, a comprehensive stakeholder list will be created and updated throughout the duration of the project (as necessary) to ensure affected groups are identified and current contact information is included. Reaching out to identified stakeholders before construction is imperative. This will establish a relationship with the project and an identified point of contact, should they have questions or needs in the future. Many stakeholders have already been identified and include groups such as community associations, local businesses in the project area, emergency first responders in the area, Macon Bibb County School District, City of Macon and Bibb County governments, Mercer University, local hospitals and medical centers, in addition to GDOT funding and transportation partners. The Wright Brothers Team has taken the liberty of reaching out to several stakeholders in the immediate project area. This was done in an effort to begin the creation of a database of contact information, identify specific needs, expectations and preferred method for contacting – and, more importantly, to establish trust and good working relationships.

COLLATERAL MATERIAL – Wright Brothers Communications Team will support GDOT by developing Fact Sheets, FAQs, media releases, handouts, brochures and flyers, maps, digital renderings, animation, presentations, construction briefs as needed for GDOT review and approval.

PHOTOGRAPHIC & VIDEO DOCUMENTATION – The DB Team will provide photo documentation of project progress for collateral material, webpage, social media posts, presentations and GDOT use. Information will be archived for GDOT at the close of the project.

PROJECT WEBPAGE DEVELOPMENT - Recognizing the high level of interest and regional impact of the project, it is important that there is a reliable and complete one-stop location for current and accurate project information. The project webpage, hosted by GDOT, is a critical information tool for all aspects of the project and it is designed to provide an opportunity for two-way communication to quickly facilitate answers to online questions from project staff. The Wright Brothers Communications team will provide informational material for the webpage for GDOT review and approval and uploading in a timely and regular basis throughout the duration of the project.

SOCIAL MEDIA – Weekly posts will be provided to GDOT for inclusion on their various social media platforms (Facebook, Instagram and Twitter) and tagging pertinent stakeholder social media outlets including Macon Bibb County Schools, local business, active neighborhood associations and Mercer University. Some specific outlets are listed below.

- ✓ Engage the Macon Community via Social Media including
 - Vineville Neighborhood Association

- Historic Macon Foundation
 - Macon Magazine
 - Friends of Tattnall Square Park
 - Greater Macon Chamber of Commerce
- ✓ Engage Bibb County Schools via Social Media including:
- Bibb County School District
 - Bibb County Athletics
 - Vineville Academy of the Arts
 - Alexander II Magnet School
 - Williams Elementary School
 - Central High School
 - Miller Magnet School
 - Miller Middle School
- ✓ Engage Mercer University through their many social media outlets (Facebook, Instagram Twitter and You Tube) including
- Mercer University Main
 - Athletics
 - Alumni
 - Campus Life
 - Center for Community Engagement
 - Various Schools of Study
 - Mercer HR

MEDIA RELATIONS – In light of the high public interest and the public’s desire to learn about the project through local media, a proactive media relations approach should be applied. The Wright Brothers Team will develop press releases and media advisories about construction activity, travel impacts, project progress and milestones, utility interruption, lane closures, and any other events specified by GDOT. The Wright Brothers Communications Team may suggest opportunities for press events to GDOT media spokesperson that target local Newspapers (Macon Telegraph) and Television (WMAZ, WGXA, WMGT) on detours, project information and progress for GDOT review and approval. It is understood that all communications with the media will be conducted by GDOT.

INFORMATIONAL MEETINGS - The Wright Brothers Communications Team will support GDOT in the coordination of any information meetings or outreach that GDOT deems appropriate prior to road closures and implementation of project detour routes project information and what to expect during construction, anticipated impacts of construction and identify additional channels for on-going communications.

A critical part of a successful Public Information and Communications Plan is measuring its effectiveness. We believe that it is imperative to track and review website and social media analytics so that adjustments can be made to increase its productiveness. High numbers of social media followers, website hits, and open rates for email newsletters, accurate and positive media coverage are just a few of the channels that will provide corroborating evidence of success. Project reports will include these measurements to document that the communications plan is working. When the project is completed and success is proven, we propose to assist the GDOT Communications Office in sharing the results in the AASHTO Transportation Communications Subcommittee (TransComm) Skills Award Competition.

With the experience, personnel, and proven success rate of the Wright Brothers Communications Team, the seamless execution of this communications plan will provide a positive experience for all of the stakeholders affected by the reconstruction of Pio Nono Avenue and College Street Bridges over Norfolk Southern Railway, once again reflecting favorably on GDOT within the Macon Community.

C.2. Project Differences from Reference Information Documents (RIDs)

The DB team is proposing the use of an asphalt overlay on the SR 247 (Pio Nono Avenue) Bridge (P.I. No. 0014895) rather than the concrete overlay shown on the Costing Plans. The asphalt overlay will be 3½” minimum as required by the GDOT Bridge and Structures Design Manual. A revision to the Costing Layout has been included with the Asphalt Overlay shown. The DB team is proposing the use of tie-back walls at the College Street Bridge (P.I. No. 0014899) site rather than the MSE walls shown on the Costing Plans. A Tie-Back Wall Section Details sheet has been included as a Schematic Plan to document this project difference.

The DB team has not included Form Q in this submittal as the project differences concepts discussed above are not considered ATCs.

C.3. Closure Durations, Interim Completion, Substantial Completion, and Final Acceptance Proposal - Form M

Georgia Department of Transportation
 P.I. No. 0014895 and 0014899 – Macon Bridges over NS Railway DB Project

Instructions to Proposers
 Amendment 2: June 28, 2019

FORM M

Closure Durations, Interim Completion, Substantial Completion, and Final Acceptance Proposal

Proposer Name: Wright Brothers Construction Company, Inc.

The Proposer shall indicate acceptance of the full roadway closures, Substantial Completion Deadline, and Final Acceptance Deadline durations identified below.

Table M-1: Milestone Deadlines

Milestone Deadlines	Duration
Duration of full roadway closure of SR 247/Pio Nono Avenue for bridge modifications	<u>25</u> days (Not to exceed 30 days, and must be open to traffic no later than June 30, 2020.)
Duration of full roadway closure of Roff Avenue west of Pio Nono Avenue	<u>25</u> days (Not to exceed 30 days, and must be open to traffic no later than June 30, 2020.)
Duration of full roadway closure of Roff Avenue east of Pio Nono Avenue	Not to exceed <u>60</u> days
Duration of full roadway closure for CR5813/College Street and Appleton Lane for bridge demolition and construction	<u>129</u> days (Not to exceed 180 days, and demolition to establish required vertical clearance must be completed no later than June 30, 2020.)
Substantial Completion Deadline	No later than <u>500</u> Days after NTP 1
Final Acceptance Deadline	No later than <u>90</u> Days after Substantial Completion

Date: 7/15/2019

Proposer: Wright Brothers Construction Company, Inc.

Signature: J. Marshall Sign

Title: Vice President