



DOWNTOWN TAMPA INTERCHANGE

FPID 445056-1, 445056-2, 445057-1

Contract E7R70

November 9, 2021

LETTER OF INTEREST



Design-Build Firm Name and Prequalifications

Design-Build Firm Name & Contact

Prince Contracting, LLC

Robert Burr

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Prequalifications

Prime Firms

Prince Contracting, LLC (Prince)

7, 11, 25

GAI Consultants, Inc. (GAI)

2.0, 3.1, 3.2, 3.3, 4.1.1, 4.2.1, 4.2.2, 5.4, 6.2, 7.1, 7.2, 7.3

Subconsultants

Michael Baker International, Inc. (MBI)

4.1.1, 4.2.1, 4.2.2, 4.2.3, 5.4

EAC Consulting, Inc. (EAC)

4.1.1, 5.4

Tierra, Inc. (Tierra)

9.1, 9.2, 9.4.1, 9.4.2

Universal Engineering Sciences, Inc. (UES)

9.1, 9.2, 9.4.1, 9.4.2

Echezabal & Associates, Inc. (E&A) (DBE, SBE)

8.1, 8.2, 8.4

Echo UES, Inc. (Echo) (DBE, SBE)

Utility Coordination

VIBEngineering, Inc. (VIBE) (DBE, SBE)

6.3.1, 6.3.2, 7.1, 7.2, 7.3

I.F. Rooks & Associates, LLC (IFR)

8.3

Prince Contracting, LLC (Prince) and GAI Consultants, Inc. (GAI)

(The Prince Team) have assembled a team of highly experienced professionals

with a strong history of delivering FDOT Design-Build (DB) projects throughout

Florida similar to the Downtown Tampa Interchange (DTI) project. We recognize this project is critical

to the Tampa region due to the accelerating residential and commercial development in the City and

surrounding areas.

Our Team brings the financial strength, innovation, resources, reputation, and qualifications necessary to deliver a high-quality product safely, efficiently, and on an aggressive schedule for District 7 (D7). Some advantages of the Prince Team include:

- A history of successful collaboration – Prince and GAI have successfully completed two major DB projects for FDOT (US 27 Widening from Barry Rd to US 192) and FTE (Veterans Expressway Widening). The Team has also worked together on several Cost Savings Initiatives (CSI) that shared savings between the contractor and the Department, including the I-75 at SR 60 CSI for D7.
- A reputation for delivering projects ahead of schedule (i.e. I-75/SR 64 Interchange in SW Florida).
- Intimate, first-hand knowledge of designing and constructing innovative interchange improvements, including the I-75 Segment E Flyover (Prince), the I-95 Express Lanes Phase 3B-2 (Prince), the I-10/I-95 Operational Improvements (GAI), and the I-4/I-95/US 92 Systems Interchange (GAI).
- A culture of partnership which helped accelerate construction of projects in D7, D1, D2, and D4.
- A Team that is thoroughly focused on DB, with Prince and GAI having collectively designed and/or constructed 53 DB projects for FDOT, valued at over \$1.8 Billion.

Past Performance Evaluations, Design-Build Project Experience, Organization, Staffing

Contractor Grades

Prince maintains a statewide 5-year average CPPR score of **96** for all projects and a **100** on DB projects! Exceptional scores from past projects include:

- FDOT D7 – I-75 / I-4 Interchange, **Score 108**
- FDOT D1 – I-75 / SR 64 Interchange, **Score 104**
- FDOT D1 – US 17 Reconstruction (SR 544 to US 17), **Score 104**

Professional Consultant Grades

GAI has an average composite design consultant performance grade of **3.4**.

Performance History with Other States or Agencies if None with FDOT

Prince and GAI have extensive history with FDOT, having collectively delivered 53 DB projects.

Design-Build Project Experience

Table 1 illustrates our Team's exceptional DB experience.

TABLE 1 – Design-Build Project Experience

PRINCE / GAI	Turnpike • Veterans Expressway Widening Design-Build • \$51M This major highway project increased capacity on the Veterans Expressway toll road between the Sugarwood Toll Plaza and Van Dyke Rd. This project added express lanes into the middle of a highly urbanized section of a 20-mile system. One general use lane and one express lane were added in each direction. This project lies within the primary flight path for Tampa International Airport, and coordination with the FAA was required for use of cranes and controlling acceptable beam heights. Winner DBIA Merit Award, Winner FTBA Best in Construction Design-Build.	
PRINCE / GAI	FDOT D1 • US 27 Widening from Barry Rd to US 192 Design-Build • \$22M The Prince/GAI Team designed and built this project, which widened 4.4 miles of US Highway 27 from four to six lanes and included 6,500' of sound walls and ramp improvements at the US 192 interchange. Our Team's approach greatly reduced utility impacts and shaved more than 500 days off of the Department's initial schedule. In addition, nearly 14,000' of retaining walls were eliminated, as was more than 30,000 CY of excavation. This allowed the project to better fit within its surroundings and harmonize with the rural, rolling environment.	
PRINCE	FDOT D4 • I-95 Express Lanes Phase 3B-1 Design-Build • \$102M Prince is the Prime Contractor for this DB project that involves converting the existing I-95 HOV lanes to managed lanes and widening to provide two tolled express lanes in each direction. MOT consists of 3 phases: Phase 1 includes reconstruction of the I-95 NB as well as the Hillsboro Canal Bridge. Phase 2 includes construction of all I-95 median work. Phase 3 includes construction of the I-95 SB corridor. An innovative MOT solution was developed that eliminated all temporary bridge construction.	
PRINCE	FDOT D4 • I-95 Express Lanes Phase 3A-2 Design-Build • \$154M This project creates two tolled express lanes in both the northbound and southbound directions for the 7.4 mile section of I-95 from north of Commercial Blvd to south of SW 10 St. The project improvements include milling, resurfacing, construction of two new ramp bridges, replacement of a pedestrian bridge over I-95, and the widening of 16 bridges. The bridges use both FIBs and AASHTO Type II Beams and are supported by 18" and 24" driven concrete piling.	

TABLE 1 – Design-Build Project Experience

WE HAVE DONE THIS BEFORE. Designing constructible solutions for highly complicated interchanges is our specialty. Several of our DB projects have involved complicated construction challenges in densely urbanized locations similar to the Downtown Tampa Interchange.

FDOT D2 • I-10/I-95 Operational Improvements Design-Build • \$117M



- Category 2 Bridge
- Post-tensioned retrofit
- Widening of steel flyover
- Complex MOT
- Systems interchange
- Critical shoring system
- Efficient detours

FTE • I-4/Turnpike Direct Connect Design-Build • \$84.9M



- Category 2 Bridge
- Post-tensioned straddles
- Complex MOT
- Systems interchange
- Critical shoring system
- Adjacent project coord.
- Efficient detours

PRINCE **FDOT D4 • I-95 Express Lanes Phase 3B-2 Design-Build • \$148M** Project consisted of milling, resurfacing, and widening I-95 to accommodate two additional express lanes in each direction, as well as interchange improvements, including the addition of a DDI. Additional work included the construction of dual exits; bridge widenings and replacements including reconstruction of roadway approaches and entrance ramps, and construction of shared use paths.



PRINCE **FDOT D6 • I-75 Segment E Flyover Design-Build • \$76.9M** Prince was a dedicated subcontractor on the project and constructed all structures. Project consisted of a new 4-lane, toll-managed, divided express lane facility NB & SB in the existing I-75 median. It also included reversible lanes that directly connected to I-595 Express via a new high-level 2-lane, 16-span ramp bridge utilizing 72" and 78" Florida U-Beams, with an overall bridge length of 2,280'. **Winner 2018 FTBA Best in Construction Major Bridge.**



PRINCE **FDOT D7 • I-75 Widening CR 54 to SR 52 Design-Build • \$71M** This 1,080-day project consisted of widening of a 6.7-mile section of interstate highway to six lanes, as well as improvements to the interchange at I-75 and SR 52. The project also includes four single-span bridge structures that range in length from 94' to 168', supported by driven concrete piles.



GAI **FDOT D5 • I-95/I-4/US 92 Systems Interchange Design-Build • \$205M** This project included reconfiguration of the systems interchange of I-95 with I-4 and US 92, along with widening of I-95 from 4 to 6 lanes from SR 44 to US 92. GAI's innovative redesign of the interchange resulted in saving nearly \$30M of R/W acquisition. Additional scope items include drainage improvements, bridge widening/replacement, and ITS modifications. This project fronts the Daytona International Airport, and required extensive coordination with both the FAA and airport operations for crane use and permanent construction.



GAI **FDOT D4 • I-95 Express Phase 3C Design-Build • \$457M** GAI is serving as design subconsultant on this project involving a total of 35 bridges that require structural improvements and/or new construction ranging from widening, strengthening, retrofitting, and painting. Structures range from concrete beams to steel girder bridges; as well as miscellaneous structures such as walls, signs, signals, platforms, and fenders. GAI's work includes the Pond Apple Slough dual bridges which consist of 51 spans, currently being widened on the inside and outside of both directions. The bridge crosses over the South Fork New River Canal, the FPL Cooling Canal, and the Rock Pit Pond.



GAI **FDOT D2 • SR 9B Design-Build • \$68M** This project included a system-to-system Interchange at I-295 and SR 9B, three miles of new interstate alignment, PCCP construction, 13 bridge structures over waterways, wetlands and active interstate highways, stormwater management facility design and permitting, and wetland permitting oversight.



Similar Project Experience

Table 2 illustrates our Team's Similar Project experience.

TABLE 2 – Similar Project Experience

PRINCE/GAI **FDOT D7 • I-75 at SR 60 Interchange Improvements • \$52.6M** This 1,115-calendar-day project improved the interchange at SR 60 and I-75 in Tampa. Project consisted of six bridges, totaling almost 3000 CY of structural concrete. New ramps were constructed for operational improvements of the interchange, including a vast amount of structural concrete walls. Final roadway surface encompassed more than 73,000 SY of concrete pavement, all self-performed by Prince. **Prince and GAI successfully implemented a CSI saving the Department over \$225K and presented 6 Alternate Traffic Control Plans aimed to ease traffic flow and expedite the critical path.**



PRINCE **FDOT D7 • I-75 and I-4 Ramp • \$15.4M** A 500-day project in Hillsborough County, FL, which consisted of interchange improvements for the SR 93A (I-75) SB off-ramp to WB I-4 by constructing a new auxiliary lane on SB I-75, widening from a one-lane to a two-lane ramp. The proposed widening of the SB I-75 Ramp will include bridge widening over Sligh Ave., an 11' x 10' quad box culvert extension, 12,380 SY of 12" thick concrete paving, extensive sub-soil excavation, and improvements to the corridor's ITS.



PRINCE **FDOT D1 • I-75 at University Pkwy • \$70M** A 745-day project that replaced the existing interchange with **Florida's first DDI** at University Pkwy and I-75. The project included 4 bridge widenings and 2 bridge replacements. Significant work elements included 500,000 CY of embankment, 300,000 SY of base and paving, 25,000' of drainage pipe and associated structures, 5,000' of underground utility piping, signalization, lighting, SAPM, and ITS improvements. **Winner Roads & Bridges Magazine 2018 Top 10 Roads Award and FTBA Award for Best in Construction Interchange.**



GAI **FDOT D5 • Wekiva Pkwy (SR 429) Segment 6 Design-Build • \$234M** This project included 18 bridges, 3 of which cross the Wekiva River, and 5,700' of new wildlife bridges. Work was done in an environmentally sensitive area – requiring intense agency coordination, including Section 7(A) determination through the National Park Service. Roadway aspects included a 4-lane divided highway, 2-lane service road, and interchange ramps. Structure types include 3 parallel segmental bridge structures and 15 Florida I-Beam girder bridges spanning wildlife and roadway crossings, and an all-electronic tolling gantry. GAI provided all concept plans and permitting, developed the RFP package, and acted as owner's representative throughout the life of the project.



GAI **FDOT D3 • US 231 Reconstruction Design • \$7M (Design Fee)** GAI provided design services for the widening of SR 75 (US 231) from four to six lanes from south of Pipeline Road to north of Penny Road, as well as the design of flyover ramps at SR 390/CR 2321, and at Titus Road/Star Ave in Bay County, Florida. The design introduces two new interchanges to a suburban typical section to improve safety and operations. The project includes both open and closed systems and the design of multiple wet stormwater facilities. The project also includes twin bridges over an environmentally sensitive waterway (Bayou George) which included utility attachments.



Environmental Record

Our Team clearly understands the nature of working in and around environmentally sensitive areas. **Prince has an average score of 12 out of 12 in CPPR Category 7 (Environmental Compliance)** which includes numerous similar interstate and urban widening projects, including:

- District 7, SR 60 / I-75
- District 1, I-75 at SWFIA
- District 5, Sand Lake Rd
- District 3, SR 30 in Destin
- District 4, I-95 Express Lanes 3B-1
- Turnpike, HEFT Project
- District 4, Glades Rd

Our Best Management Practices and environmental protection methods are proven and follow all National Pollutant Discharge Elimination System (NPDES) stormwater permitting regulations. Only NPDES certified personnel will work within wetlands or near protected species habitat. Our Team's **Environmental Supervisor, Manny Cardenas**, will supervise and ensure that all permit requirements are met. As an example of our commitment to the protection of the environment, throughout the months of June and July in 2014, the I-75 at SWFIA project site experienced record rainfall totals that resulted in long periods in which water staged above the seasonal high elevation. In some cases, stages up to 2' above existing ground were observed, and the project was essentially under water. Complicating matters, during a 1-week period, rainfall amounts exceeded 10". During this period, the FDOT, Lee County, and South Florida Water Management District conducted a QAR for Environmental Compliance which passed with minor comments. We are extremely proud of the efforts made on this project to protect the environment. The commitment of staff to implement and maintain a comprehensive erosion control plan was key to that success.

Contractor Experience Modification Rating (Current Years)

Safety is our #1 priority! Prince is committed to providing employees with a safe working environment. Every executive, manager, supervisor, and construction worker is dedicated to taking this responsibility seriously. All project managers, engineers, superintendents, and foremen have certifications in OSHA 10-Hour Construction Safety, OSHA Trenching & Excavation Safety, and Advanced Maintenance of Traffic (MOT). Prince invests heavily into safety training, and **Alejandro Baralt, CHST, ASP, Prince's Safety Director**, is responsible for the coordination and implementation of our safety program. This commitment to safety extends beyond our own staff. **Prince's average Contractor Experience Modification Rating is currently 0.76, well below the industry average of 1.0.**

Design-Build Firm Organization

Our Team was carefully selected due to their abundant DB experience, relationship with each other, innovative thinking, and experience with D7.

Prince Contracting, LLC, as prime contractor, specializes in heavy highway construction on FDOT interstate and urban widening projects and will self-perform the major scope items of work. Prince is a leader in the DB industry in Florida, including an extensive portfolio with D7. Prince has a modern, multi-million-dollar construction fleet, consisting of over 300 pieces of equipment, including the latest GPS-equipped graders and a fleet of cranes. Prior to NTP of this contract, Prince will have completed our SR 60/I-75 Interchange project and two other Hillsborough County Projects (Citrus Park Ext. & Apollo Beach Flyover), which will create a wealth of local resources immediately available for this project.

Prince has a longstanding track record of successfully delivering quality projects on expedited schedules for D7. Recently, these include the **I-75 at I-4 Ramp project (T7406), which finished nearly three months ahead of allowable contract time, and the I-75 at SR 60 Interchange project (T7408), which is scheduled to be completed 88 days early.** With D7 as our primary market, we have the extensive local resources to deliver the DTI project ahead of schedule as well. Prince's experienced DB construction team is also known for optimizing designs for improved MOT, cost-savings initiatives, and constructability, providing strong support on the design side of DB projects.

GAI Consultants, Inc. (GAI) will lead the design efforts for this project and will provide roadway, drainage, structures, and environmental services. Over the past 15 years, **GAI has completed or is actively working on 43 FDOT DB projects**

and another 9 DB projects for other agencies throughout Florida, totaling more than \$1B in design and construction value. GAI and our subconsultant partners are prequalified in all the required design categories and offer FDOT unparalleled experience working together on DB Projects as shown in **Tables 1 & 2.**

Michael Baker International, Inc. (MBI) is a multidiscipline transportation design firm that will complement and augment GAI's structures team by providing innovative, cost effective, and constructible solutions to the DTI. MBI's staff proposed for this project have extensive experience working with Prince and GAI. MBI has delivered over 90 DB projects in excess of \$35B in design and construction costs within the last 20 years. MBI completed the US 90 SPUI at the main gate of Hurlburt Field in D3 and **won the 2017 FICE Outstanding DB Award** and recently completed the Ninemile Road DB near Pensacola for D3. MBI's most recent DB project completion is the Courtland St Bridge DB for GDOT that replaced 28 spans of the 110-year old bridge in downtown Atlanta within 155 days.

Design-Build Firm Staffing Plan

Members of the Prince Team were carefully selected for this project based on their expertise in DB project delivery and their experience working in and around high traffic interstate/interchange areas on projects of similar scope to the DTI. The construction staff will be led by **Neil Parekh, Construction Project Manager**. The design team will be managed by **Design Project Manager Steve Boylan, PE**. Our Key Personnel for this project are identified in **Table 3** below. Detailed project experience and credentials for key personnel, along with the organization structure of our team, are described in the included resumes and organizational chart, respectively.

Additionally, we are committed to exceeding the Department's goal of 10.65% DBE and 3% non-DBE Small Business utilization. We understand D7's commitment to DBE firms and your desire to exceed the statewide goals, especially on large, high profile projects.

GAI Consultants maintains an A+ DBE/SBE Participation Grade, with 26.95% DBE/SBE Utilization for 2019-2020 FY!

TABLE 3 Key Personnel		Years' Experience	Design-Build	Major Interchange	Constrained MOT	Complex Bridge	Constructability Challenges	Highly Congested Area	Public Involvement
STAFF									
CONSTRUCTION	Neil Parekh Project Manager	12	✓	✓	✓	✓	✓	✓	✓
	Mike Reinke, PE DB Coordinator	14	✓	✓	✓	✓	✓	✓	✓
	Bryon Arthur Roadway SI	32	✓	✓	✓	✓	✓	✓	
	John Guilliano Structures SI	20	✓	✓	✓	✓	✓	✓	
	Bart Farhubel MOT SI	10	✓	✓	✓	✓	✓	✓	
DESIGN	Steve Boylan, PE Project Manager	28	✓	✓	✓	✓	✓	✓	✓
	Scott Bear, PE Roadway EOR	34	✓	✓	✓	✓	✓	✓	✓
	Ben Allis, PE Structures EOR	22	✓	✓	✓	✓	✓	✓	
	David Verlander, PE Drainage EOR	10	✓	✓	✓		✓	✓	
	Trisha Miller Utility Coordinator	18	✓	✓			✓	✓	✓

Design-Build Firm Coordination Plan

The Prince Team is committed to providing positive and effective communication and resolving issues at the lowest levels possible. Prince and GAI share a similar culture and philosophy, and we will achieve quality and efficiency through constant collaboration. This sets a positive tone that fosters continuous communication, so team members are aware of the needs of others, and actions are proper and timely. Based upon Prince and GAI’s similar approaches to several successful DB projects, design focus meetings will be held on a weekly basis, where all key construction and design personnel discuss key project challenges and solutions. Progress, constructability, and specific issue resolution meetings will also be held to gather proper input and keep the project moving forward. All commitments will be tracked using project management software, clearly defining issues in an Issue Log which will be reviewed weekly. We also will implement and adhere to a Submittal Register, enabling D7 to anticipate upcoming submittals.

Adjacent Project Coordination

To ensure a smooth transition throughout the life of the project, we will coordinate design efforts and our TTCP to eliminate conflicts between any adjacent projects. The Prince Team will coordinate with the following projects identified in **Table 4**:

Project Number	Description
FDOT 431821-2 & 443770-1	I-275 from north of I-4 to north of Hillsborough Ave
FDOT 440511-2	US 41 B / N Tampa St and N Florida Ave from E Tyler St to Columbus Dr
FDOT 440511-6	Central Ave Bikeway from 7th Ave to US 41/ N Florida Ave
FDOT 440511-7	US 41 B / N Tampa St and N Florida Ave from Columbus Dr to MLK Jr. Blvd
FDOT 443492-1	US 41 B / N Tampa St and N Florida Ave from Columbus Dr to MLK Jr. Blvd
Tampa Proj. #1001531 FDOT 436640-1	Floribaska Ave Complete Streets from N Tampa St to 9th St
Tampa Proj. #1001221 FDOT 436639-1	Columbus Dr Complete Streets from Nebraska Ave to 14th St
Tampa Proj. #1000254 FDOT 439476-3	Green Spine Cycle Track Phase 3B from 7th Ave to 13th Ave
Tampa Proj. #1000254 FDOT 439476-4	Green Spine Cycle Track Phase 3 C from 13th Ave to 21st Ave

Public Involvement

This phase of the project serves as the continuation of years of effort and immeasurable community outreach and engagement. The Prince Team will strive to build upon this philosophy of partnership and will work hand-in-hand with D7’s Public Involvement office to develop and communicate a single face to the project. We will support all public meeting and outreach with graphics and interactive renderings that will intuitively communicate the project’s intent and progress.

Coordination with Utility Agency Owners (UAOs)

The Prince Team’s utility coordination services will be led by our **Utility Coordination Manager, Trisha Miller (Echo)**, and be in accordance with FDOT’s Utility Coordination Standards and the RFP for this project. While utility impacts are not a major issue themselves, the Prince Team understands that most utility relocations will be reimbursable, and that opportunities to avoid impacts will provide direct savings to the Department as well as the overall schedule. The Prince Team has begun utility coordination efforts with all UAOs during the proposal phase and will continue to do so throughout design and construction. We also understand that the City of Tampa wishes to enter into UWHC agreements to facilitate their relocations; therefore, proactive coordination will be needed to progress that design concurrent with the other improvements to keep activities on schedule.

Our role specifically will include coordination of the utility relocation schedules for the project, and harmonizing these schedules with the major design improvements, project schedule, and the construction phasing plans. Below is a list of 14 UAOs that have been identified within the project corridor:

- CenturyLink
- City of Tampa Transportation
- City of Tampa Wastewater
- City of Tampa Water
- Fiberlight, LLC
- Frontier Communications
- Hillsborough Co. Clerk of Court
- Hillsborough Co. Public Utilities
- Hillsborough Co. Sheriff
- MCI/Verizon Business
- Spectrum Sunshine State LLC
- Tampa Electric Company
- TECO Peoples Gas
- Uniti Fiber

An Emergency Action Plan (EAP) will be developed within 30 days of contract execution. This plan will be a living document that accounts for all UAO activities from start to finish. If there are issues with a utility owner, the Team will be able to reference the EAP to retrieve any data needed to correctly validate the DB Team’s issues with the utility for communicating with FDOT.

All electrical service points will be vetted for connectivity and service availability with TECO. OSHA clearances will be reviewed, and an action plan will be developed with FP&L to ensure a safe work zone near overhead lines.

Design Review Coordination and Quality Management

The Prince Team considers quality as one of our top priorities, requiring close coordination throughout all phases of the project. A QC Plan will be adopted based on our decades of previous experience, where we have collectively collaborated internally on cloud-based platforms such as ProjectSolve and Bluebeam, allowing easy, direct access to all submittal reviews. Reviewers will be a part of each submittal to FDOT, which includes interdisciplinary and detailed constructability reviews, each performed by qualified independent reviewers.

COVID-19

To address the reality of COVID-19, the Prince Team has implemented measures on several on-going projects which have proven effective, including procedures for effective communication via on-line meetings. For on-site activities and in-person meetings, our Team will continue to use established procedures for PPE, including abiding by all state and local guidance. We will self-report and provide daily contact tracing based on individuals cleared to enter worksites. Incident reports are immediately available to the project team and owners.

Design-Build Project Requirements & Critical Issues

Understanding of Design-Build Project Requirements

The Prince Team has a comprehensive understanding of the history and commitments made to the public and local agencies on this high-profile project. Years of efforts working with community leaders have resulted in the solutions proposed within the RFP, culminating in the PD&E commitments listed below:

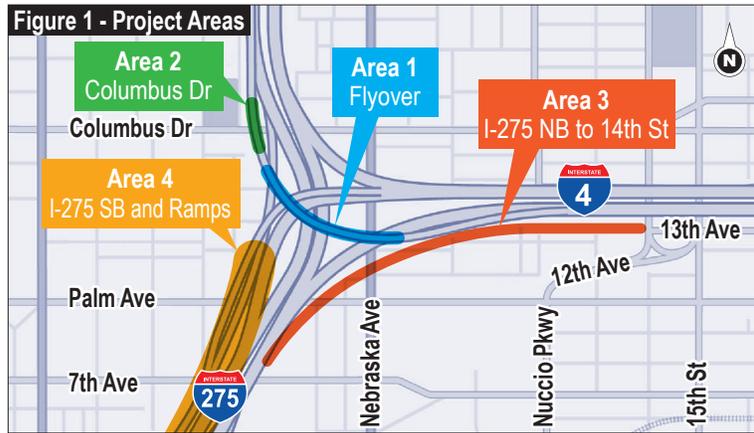
- Enhance connectivity by constructing sidewalk and shared use pathways
- Provide a wider and improved shared use path connection for pedestrians and bicyclists underneath 14th and 15th Streets by cutting back the underpass slope pavement along Palm Ave
- Minimize construction noise disruptions to adjacent properties and residences by driving piles and sheet pile walls during the day and reducing noise from heavy equipment and trucks
- Construct noise wall and visual barrier walls as identified in the RFP
- Collaborate and hold Aesthetic Design Review Meetings to seamlessly implement the Urban Design Guidelines

We have unmatched available resources in the Tampa region, with the crews and equipment needed to construct this project on-time and within budget. **Many of our staff drive through this interchange en-route to our corporate headquarters, located less than 6 miles from the project site. We have a vested interest in its success as a hallmark project within our community.**

Understanding of the Project Areas

The project has four distinct areas where we have focused our efforts in the development of this LOI (see **Figure 1**). Each distinct area can be designed and constructed independently of each other, while MOT strategies will allow for

integrated concurrent construction of each project area. This strategy will allow the Prince Team to accelerate portions of the improvements and move them into operation while productive work occurs elsewhere on the project. **This will enable compliance with the Incentive-Disincentive for Detour Rental specifications.**



Area 1 - Flyover

The Flyover bridge will be widened on each side per the RFP concept to maintain a balanced widening and minimize substructure modifications and strengthening. Our Team will employ our complex steel bridge and widening experience to optimize constructability, with a focus on work zone safety and minimizing flyover ramp and underlying roadway lane closures and detours. Some of the key issues we will address are discussed below:

Bridge Analysis and Modeling. Similar to our I-95/I-10 Operational Improvements Project, our Team will develop 3D finite element models in MIDAS Civil software. We will validate our results with an independent CSiBridge model prior to FDOT's independent Category 2 review. Our structural modeling and analyses will consider a detailed construction sequence, starting with an existing bridge model based on the as-built plans. We will sequentially add each structural component per the proposed erection and deck pour sequences. This will allow our Team to accurately identify locked-in stresses, and perform temporary condition capacity checks, and predict deflections during each step of construction. This modeling approach will provide a better prediction of cross frame forces, potentially limiting the required strengthening. Boundary conditions used in the model will account for integral diaphragm, column, and foundation stiffness.

Differential Deflections. Accommodating differential deflections between the new and existing steel girders is key in achieving a successful steel fit-up and producing a consistent finished riding surface. Short and long slotted holes can be used in one ply of slip-critical connections, as was done on our I-95/I-10 Operational Improvements Project. Using this type of connection on both ends of the cross frames can accommodate up to 2½" of movement which will accommodate the expected non-composite deflections along the bridge. Field drilling the holes in connection plates on one end of the cross frames will also be considered.

A closure pour will allow opportunity to adjust for fit should the real-world deflection from deck placement not match the theoretical models. Combinations of strategic preloading on top and/or jacking girders from below can accomplish the adjustments required to bring the structure into alignment prior to closure pour concrete placement.

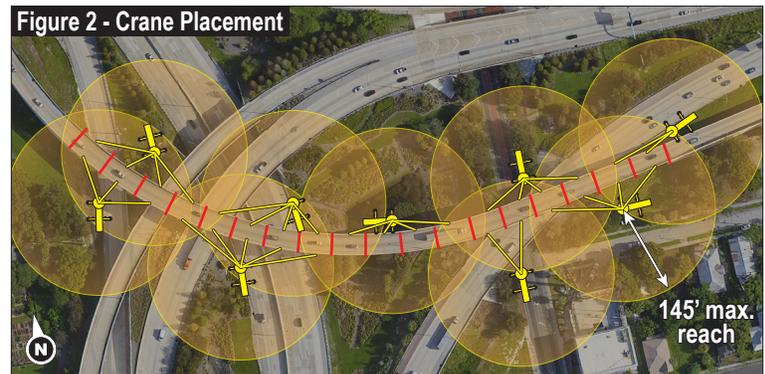
The Prince Team observed that the width of the RFP concept closure pour violates SDG 4.2.11.A requirements and could complicate the connection to the existing structure. GAI will provide tables of anticipated movements for the existing exterior girders resulting from partial removal, as well as for new and existing girders due to both the widening deck placement and integral diaphragm post-tensioning.

Bridge Strengthening. Our Team will design strengthening concepts to satisfy the RFP design and load rating requirements. Cross frame members will be strengthened with additional WT shapes added to the back side of the existing gusset plates. If cross frame connections require additional structural resistance capacity, we will replace bolts with 1" diameter bolts and, when necessary, use Grade A490 bolts with structures design office approval. Girder webs will be locally

strengthened with bolted transverse stiffeners to provide required shear capacity. It is also expected that additional shear studs will be required on the existing girders to achieve full composite action between the deck slab and the steel superstructure.

Post-Tensioned Diaphragms. The integral diaphragms will be designed with a thorough consideration of each phase of construction. The retrofitted bridge will be supported on two new HLMR bearings at each pier. Our experience indicates the integral diaphragms will be subject to significant torsional loading due to differential rotation of the girders. These forces will be captured in the refined FEM analysis with MIDAS Civil. Torsional reinforcement detailing will be critical for constructability, while still satisfying the need for closed stirrups to resist torsional loading. The detailing will evaluate potential conflicts with post-tensioning ducts, full-depth steel diaphragms, and steel cross frames. Where holes are cut in steel girder webs or full-depth steel diaphragms, our Team will evaluate the capacity of those components in the temporary condition and will design retrofits as required.

Bridge Erection. Our Team will develop a preliminary erection plan at the onset of the project to allow the final structure design to account for the timing of construction for each structural component. We will optimize an erection procedure that uses a combination of top-down and conventional crane placements. All-terrain cranes set on the underlying ground will be used as much as possible to maximize safety, production efficiency, and to limit interruptions to traffic, with a potential layout as illustrated in **Figure 2** below.

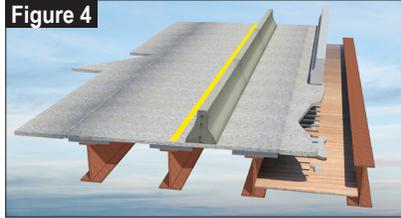


Crane stability, short ramp closure time allowance duration, and safety are a significant concern for flyover top-down crane picks. Our Team will only perform top-down construction when necessary. Short girder segments, like the RFP concept, may be utilized with both erection approaches to limit the size of equipment required, and to allow the required work to occur during the short overnight lane closures. Our Team will evaluate the number of bolts that can be practically installed during a single shift to ensure that there will be sufficient time to complete the required work prior to the required 5 AM roadway opening. For the top-down crane concept, leveling of the cranes positioned on the superelevated (7.9%) flyover deck is required to maintain crane stability and to maximize the safe lifting capacity of the crane (**see Figure 3**).

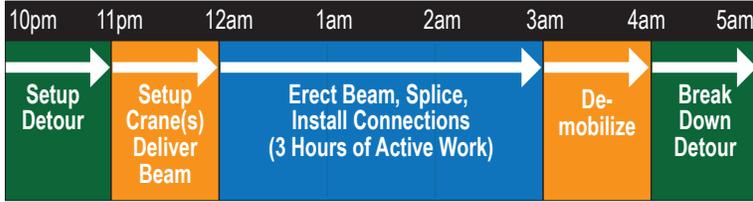


Maintenance of Traffic. The Prince Team's approach to limiting detours begins with limiting the amount of work that is to be done over traffic. Temporary barrier walls will be placed on the shoulders of the travel lanes that pass below the flyover ramp, so that pier cap modification work may be completed outside of traffic. The lanes and barrier walls will be positioned so that a 10' shoulder is maintained on

at least one side of the roadway and existing sight distance is maintained. Not only does this approach reduce impacts to traffic, it expedites construction since Prince would no longer have to schedule pier cap work around lane closure and detour times. To further protect the public from falling debris in the work zone, Prince will install a false floor between the bottom flanges of the new girder and existing exterior girder after girder erection (see Figure 4).



Limiting Closures and Detours. The Prince Team recognizes the specific lane closure and detour restrictions presented in the RFP, and will plan construction accordingly. Working underneath these short windows is extremely challenging, particularly considering setup and break-down times:



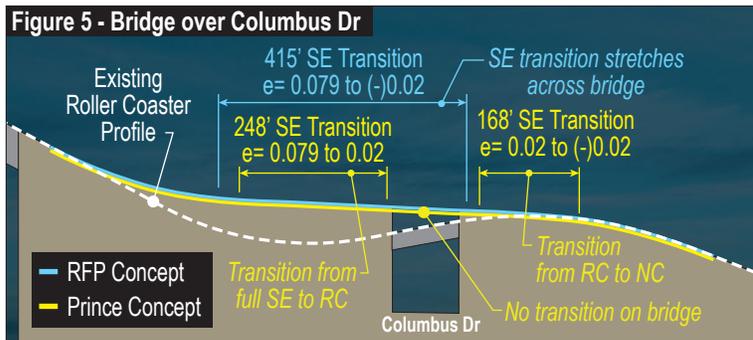
This results in a significant amount of closures and detours, which is contrary to the project’s goal of limiting impacts to traffic operations and the public-at-large.

The Prince Team is fully aware of the current D7 philosophy (discussed at the October 27 contractors meeting) to “rip off the band aid” in lieu of a thousand cuts. The RFP currently allows for partial weekend ramp closures, though it restricts its use to accommodate concrete pours for the flyover bridge diaphragms. A handful of these weekend closures (that allow for 12-hour work periods) can replace weeks of short-term overnight closures and greatly increase productivity – reducing both time and costs. **More importantly, longer closure times in which work is not rushed promotes safety and provides a bigger “buffer” between work activities and opening the ramp(s) up to traffic.** These ramp closures would be implemented in concert with the District’s public involvement office and include advance notifications and strategic use of the area’s ITS.

Our Team will present these strategies alongside detailed traffic analyses as part of the first ATC meeting, seeking to bring the safest project plan while providing the best value. Results and input received from the first ATC meeting will be carried forward into our constructability package that will be submitted prior to ATC Meeting #2 (and ultimately finalized prior to submission of the technical proposal).

Area 2 - Columbus Dr

Roadway Design. The RFP proposes to reconstruct Ramp NE on a higher profile to increase clearance over Columbus Dr and help reduce the “roller coaster effect” of the ramp profile. The concept plans call for a 415’ superelevation transition that extends across the new bridge over Columbus Dr, which complicates bridge construction by introducing a variable cross slope. The Prince Team proposes to simplify construction by splitting this transition before and after the bridge, rotating from full SE to reverse crown south of the Columbus bridge, followed by a transition from reverse crown to normal crown once north of the bridge (see Figure 5).

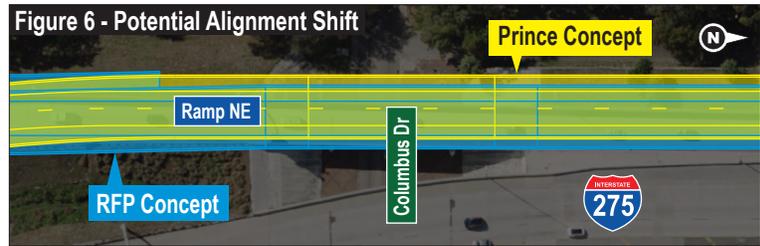


The Prince Team recognizes this bridge is in good condition, and that converting the alignment to allow for widening in lieu of total replacement would add significant

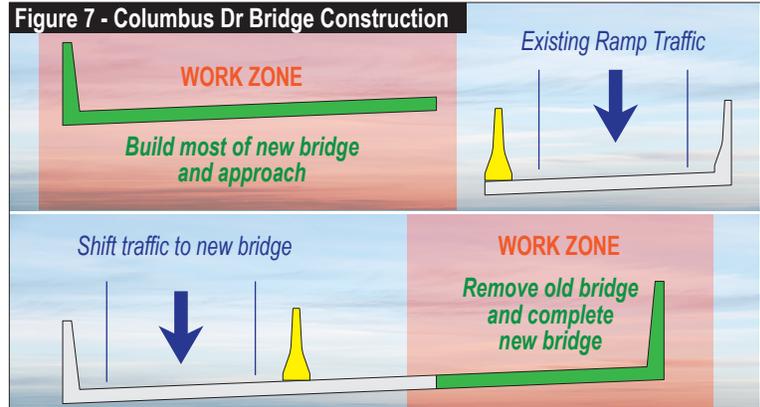
value to the project. This approach would naturally retain the rolling profile of the ramp, but would greatly simplify MOT and constructability. The Team will carefully review available crash data to determine if this is only a comfort issue and not a safety concern and, if appropriate, present alternatives at the first ATC meeting that maintain existing structure, enhance rider comfort, and address any hazards.

There is also potential for optimizing the typical section underneath the new ramp bridge by narrowing the clear span. This narrowed clear span would still allow for all traffic and pedestrian/bicycle movements to be accommodated and would add the benefit of a shorter bridge and shallower structure depth (and associated flexibility in profile). The Prince Team will present this as an ATC for consideration in the first meeting in early January.

Maintenance of Traffic. Partial removal of the existing ramp bridge superstructure will be necessary so that enough of the new bridge may be constructed to carry one lane of traffic. The Prince Team will investigate a minor shift of the alignment of this section of Ramp NE so that partial removal of the existing bridge may be limited to just one beam line rather than two. This approach also widens available construction area between the proposed bridge and the existing structure carrying I-275 (see Figure 6).



Bridge. The Ramp NE bridge over Columbus Dr (Bridge No. 100244) will be replaced with a new two-lane bridge that improves ramp geometrics and the underlying vertical clearance while maintaining one lane of traffic throughout construction. Our Team will optimize the alignment to maximize working space between phases to promote work zone safety for ramp users and construction personnel (see Figure 7). The new profile will reduce the “roller coaster” effect associated with the existing conditions to increase driver comfort and safety.



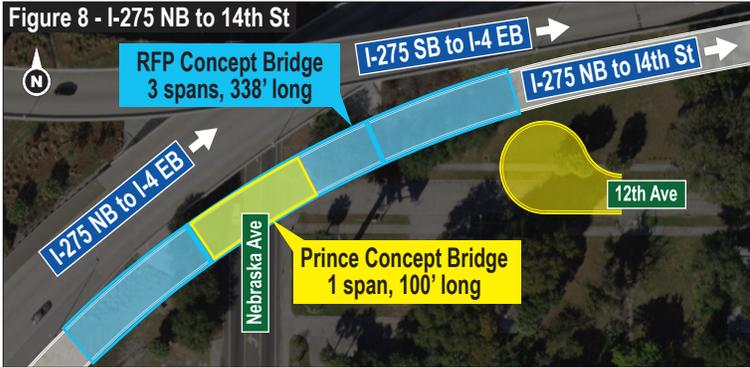
The Prince Team will optimize the proposed span length and beam size, avoid interferences with existing piles and underground communication lines, avoid interferences with the proposed piers and beams with the existing superstructure, and maintain continuity and connectivity of the Columbus Dr sidewalks. During construction, the Team will install protective pedestrian tunnel structures to maintain pedestrian access. The MSE wing walls will be phased to maintain Ramp NE traffic during construction and to avoid conflicts or a perched wall condition with the North Elmore Ave cast-in-place concrete cantilever retaining wall.

Area 3 - I-275 NB to 14th St

This movement will provide a direct connection between NB I-275 and local roadways, separating systems movements from local access, and enhancing safety. This may be accomplished without additional R/W acquisition while avoiding direct impacts to the billboard located just to the SE of the alignment.

The RFP concept bridges the entirety of the Nebraska Ave/E 12th Ave intersection, requiring an expensive, 338’ 3-span curved steel structure. The Prince Team has

developed an innovative alternative that adds a cul-de-sac on E 12th Ave just prior to Nebraska Ave, which allows for construction of a straighter, shorter concrete beam bridge (see Figure 8). With this approach, a simple diversion takes vehicles down N 10th St to provide connectivity to Nebraska Ave via E 11th Ave. There are only 17 parcels between N 10th St and Nebraska Ave, eight of which are already owned by FDOT. This approach has an added benefit of lowering the overall profile, again providing enhanced flexibility to set grades, reduce wall costs, and harmonize tie-ins. The Prince Team recognizes some of the public sensitivities in this area which stem from the prior realignment of Nuccio Pkwy, and will carefully evaluate this alternative's feasibility during the ATC process.



Bridges. Ramp WE-B over SR 45 (Nebraska Ave) is a new one-lane, three-span continuous steel plate girder bridge in the RFP concept plans. By optimizing as described above, constructability costs and maintainability can be improved by:

- **Evaluating a single span concrete bridge.** The curvature is not expected to result in unacceptable deck overhangs.
- **Evaluating a straddle pier over E 12th Ave to utilize a 2-span bridge and low maintenance concrete beams.** An inverted tee-beam straddle bent will be evaluated to maximize the vertical clearance to the underlying street.

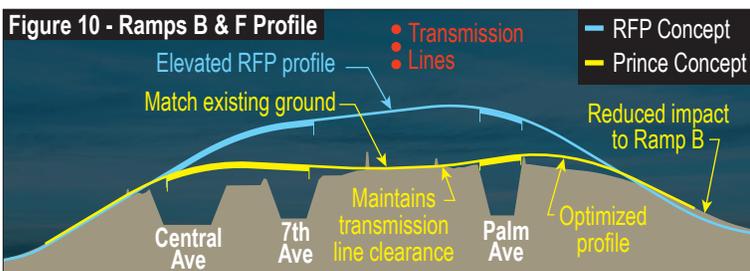
Constructability will be a key issue for this structure regardless of the proposed structure type. If the structure is steel, stability of the horizontally curved steel girders will need to be addressed during beam erection. Our design will identify if any temporary falsework towers will be required until the time the structure is fully connected and stable from the curvature roll-over effects.

Area 4 - I-275 SB and Ramps

Roadway Design. The RFP requires that Ramps B and F be shifted outward to accommodate the widening of I-275 SB. This necessitates the replacement of the Ramp B and F bridge over Central Ave. The RFP plan also calls for the replacement of the Ramp F bridge over Palm Ave; however, the Prince Team has developed a modified layout and profile that salvages this structure as shown in Figure 9:

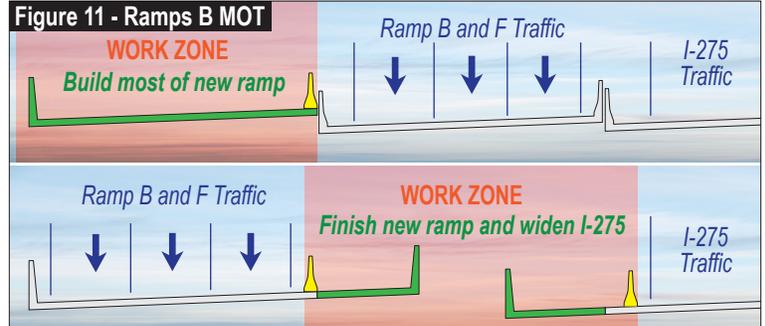


This modified layout maintains the ramp terminal spacing proposed by the RFP concept – one of the primary goals of the proposal. In addition, our planned profile shown in Figure 10 increases the vertical clearance to the transmission lines.



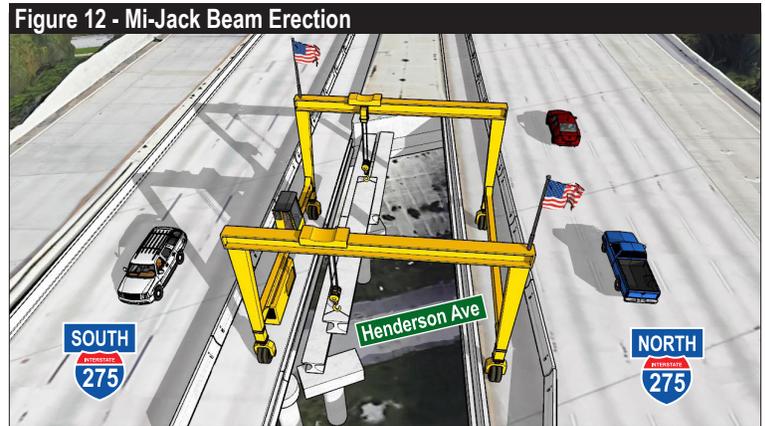
Maintenance of Traffic. The Prince Team's profile for Ramps B and F significantly simplifies the reconstruction of these ramps. The critical terminal where the two

ramps join together may be constructed through widening rather than reconstruction. The alignment of Ramps B and F is set so that enough bridge may be constructed in Phase 1 to carry three lanes of traffic. With the traffic shifted over, the existing structure will be removed so that the new ramp bridge and I-275 mainline widening may be completed (see Figure 11).



Bridges. The SB I-275 and ramp bridge segment of the project consists of three bridge removals (Bridge Nos. 100649, 100074, and 100082), one partial bridge removal (Bridge No. 100143), two bridge widenings (Bridge Nos. 100139 and 100141), and two new bridges. The new bridges carry Ramps B and F over Palm Ave and Ramp B over 7th Ave/Henderson Ave/Central Ave.

The key structural issues within this section are focused on constructability, safety, maintenance of traffic and phasing of the structural work. Our Team will optimize the maintenance of traffic scheme to maximize working space to effectively replace or widen the bridges within this section. Figure 12 shows one beam erection concept using a Mi-Jack crane to construct widening between I-275 NB and SB on Bridge #100139 and #100141. Utilizing this system will allow our Team to maintain a narrower work zone with less mobilization and demobilization time, allowing our superstructure construction duration to be reduced substantially.



Lighting. The length of area underneath these bridges is already extreme, and will only be increased as part of the planned improvements. As a value-added enhancement, the Prince Team will consider adding supplemental daytime lighting underneath these bridges in accordance with ANSI/IES RP-22-11 (Tunnel Lighting Guide). This enhances safety for motorists traveling through these long, dark areas and also provides a deterrent to the homeless population who routinely shelter underneath these bridges.

Common Challenges and Strategies

Risk Management

Managing costs and risks in an uncertain world will be paramount to meeting an aggressive schedule and maintaining competitive pricing. The Prince Team is well positioned to face these challenges.

- **Innovate the design to utilize more common materials.** We will prepare ATCs and design innovations to eliminate complex, special elements such as steel beams, using concrete wherever possible.
- **Self-perform to manage staffing and lead times.** Prince has abilities to perform virtually all work in-house, and will seek to reduce specialty subcontracting that can often impact project schedules.

- **Rely on extensive resources in the region.** Prince is one of the largest contractors in the Tampa region, and will have significant forces available to complete this project on time at a high level of quality. We will apply our experience in delivering some of your most complex projects towards the success of the DTI, always working in the spirit of partnership and collaboration.
- **Work with FDOT to develop a risk matrix and identify areas of shared responsibility.** By working together to identify areas where the greatest risks of the project exist, the Prince Team and FDOT can work together to limit risks carried within the project's bid and provide value to Florida's taxpayers. Some examples include:
 - Relying on investments made by FDOT in geotechnical data and signed/sealed reports
 - Sharing risks on pricing for highly volatile items such as steel, asphalt and concrete
 - Partnering to make mutually beneficial improvements to lane closures and detours that ultimately reduce impacts to the public

Structures

Nearly every bridge on this project qualifies as a Category 2 structure. This includes the multi-span horizontally curved steel bridges, the modified Florida I-Beam bridges, and all non-redundant drilled shaft foundations. The Prince Team will seek to eliminate these elements wherever possible to reduce the number of Category 2 structures on the project – streamlining the design process and reducing workload of Department staff.

Our Team will proactively complete structural submittals for the Category 2 structures. The review durations will be input into the project's CPM schedule and will be reviewed routinely with the Department's project manager and any supporting Category 2 peer review firm(s) to ensure that the project is not delayed by any critical path bridges. The Prince Team has extensive experience working with FDOT Central Office during the design review/approval process.

The bridges that carry I-4 over 14th and 15th Streets will each feature 10' wide sidewalks in their east back-span. The Team will evaluate constructability of the required gravity retaining walls. It is expected that shotcrete temporary slope facing may be a feasible method to maintain slope integrity until the proposed gravity wall has been installed. The front face of the retaining walls will be constructed with brick formliners to match the existing motif at this interchange (see Figure 13). The concrete will be stained with the pattern and color of the existing approach wing walls and decorative towers. The decorative towers and lighting will be removed and reconstructed, along with the fiberglass reinforced panels (FRP).

Figure 13 - Retaining Walls



Retaining walls will be designed with constructible and standard details that FDOT D7 is accustomed to. There are approximately 1,340' of gravity walls and 210,000 SF of MSE walls. Our Team will evaluate wall locations to utilize self-supporting MSE walls wherever practical. For locations where standard strap lengths cannot be developed, our Team will design bin walls with straps connecting the new panels to the existing wall with an anchored connection. The top panels of the existing MSE walls will be removed to allow MSE straps to run from the new bin wall panels into the existing wall reinforced fill zone. Select granular material will be used in bin walls where there is sufficient room to compact the fill. At narrower locations, flowable fill will be used in the bin wall fill zone. All hardware and straps will be composed of galvanized material to maximize useful service life. We will evaluate the remaining service life of the existing MSE walls, with the goal of proving a 75-year design life for the retrofitted MSE walls. MSE fabricators

and their engineering departments will be consulted to ensure that our proposed solutions are at the forefront of MSE and bin wall technology and best practices.

Maintenance of Traffic

The Prince Team has a clear understanding of the intent, restrictions, and incentives/disincentives associated with detours and lane closure restrictions outlined in the RFP. Special events will be carefully avoided, and a detailed Hurricane Readiness Plan established and updated after every major shift between construction phases. We will fully comply with all RFP requirements and seek to partner with the Department to build efficiencies into maintenance of traffic plans wherever possible.

The project will utilize a Smart Work Zone system. The goal of this system is to communicate information about traffic conditions in real-time to drivers and traffic management officials. A variety of devices present immediate data such as the location of stopped traffic, travel times through the work zone, and actual traffic speeds. This information is critical to help approaching drivers understand and prepare for conditions in the work zone. CCTV cameras and other devices help traffic management officials identify incidents in the work zone and promptly dispatch emergency responders and roadside services. **Prince has direct experience in implementation of these strategies, having used them on GDOT's I-16/I-95 Interchange and Interstate Reconstruction project with a high degree of success. Prince will also implement a Smart Work Zone on the I-75/MLK DDI project in D7.**

Geotechnical

Our Team will perform a comprehensive Geotechnical Investigation Plan that includes additional borings and complete detailed geotechnical evaluations in conformance with the RFP, in order to avoid the potential of unforeseen conditions and construction delays. In addition to the geotechnical design, we will provide a Settlement and Vibration Monitoring Plan (SVMP) and monitor construction operations to limit construction-related vibration and noise. There are five identified vibration-sensitive sites within the RFP, as shown in Figure 14. A number of these locations are inconveniently close to proposed bridge construction activities, many of which will transmit vibrations outside of the R/W. Vibrating or oscillating in drilled shaft casings – while less impactful than conventional, high-displacement concrete piles – will still create vibrations that will need to be carefully monitored throughout operations. Alternative foundations such as low displacement H-piles will be evaluated, with pre-drilling to further limit vibration.

Figure 14 - Vibration Sensitive Sites



Non-vibratory compaction for all earthwork and paving activities will also be utilized to reduce potential for impacts to nearby structures. All sensitive sites will be surveyed and photo-recorded prior to any construction commencing and monitored throughout the life of the project to protect them and identify issues.

R/W Availability

The RFP indicates that a number of parcels will not be acquired until May of 2024, including parcels alongside the WB to NB ramp between I-4 and I-275. This will affect the construction of this ramp and work along WB I-4 for both roadway and utilities, and may drive certain critical path items on the project. The Prince Team will take this into account within our construction sequencing to assure functionality of MOT phasing within other areas of the interchange.

GAI has direct experience on a DB project in which R/W acquisition overlapped design on our I-95/I-4/US 92 systems interchange project. In that case, GAI was able to reduce overall needs through approved ATCs and eliminate much of the

acquisition originally contemplated in the concept plans – **ultimately saving the Department nearly \$30M in property costs.** The Prince Team will seek out similar opportunities to potentially eliminate acquisitions through the ATC process.

Aesthetics

An important aspect of this project is to maintain and enhance aesthetics throughout the region by preserving brick streets, decorative lighting, MSE wall treatments/textures, monotube sign structures, and towers/fascias on bridges along I-4. The Prince Team's design will include all of these elements as well as matching equipment, along with all color matching and approvals required within the RFP.

We recognize the fragility of existing bricks, curbs, and specialty pavers that are to be removed and re-used. **These decorative elements will be carefully removed and stockpiled in a dedicated, fenced-off area to prevent inadvertent damage by construction equipment and personnel.**

Prince has significant experience in incorporating aesthetic features into projects, having built a portion of the high profile Wekiva Pkwy project and a number of projects with the Central Florida Expressway Authority (who prioritize aesthetics on all of their roadways). Additionally, GAI is assisting the City of Tampa in managing their Brick Street Restoration Program.

Avoidance of SIMR Re-evaluations

The Prince Team understands the potential risks associated with major interchange revisions. We know that the solution in the RFP is a product of years of coordination, community buy-in, and negotiations with FHWA. As discussed in our TRC presentation, our Team does not intend to make transformative changes to the interchange concept, but will instead focus on minor enhancements and changes that improve constructability and add value. We will specifically avoid:

- Relocation of gore points on the interstate
- Changes to number of ramp lanes
- Reduction of terminal queue lengths and auxiliary lanes
- Changes to ramp cross street terminals (signals, etc.)
- Changes to sequencing of movements
- Additional impacts to residents or the environment

Drainage

The project is located within the Hillsborough River (1443E) and Ybor City Drain (158A1) Basins, none of which are designated Outstanding Florida Waters or impaired water bodies. Southwest Florida Water Management District is the primary permitting agency and will require the DB Team to modify the existing master conceptual permit to include improvements to the interchange. There will be a total of six ponds (2 proposed, 4 existing) to treat and attenuate for the additional impervious area. The Hillsborough River is tidally influenced and will not require attenuation; however, the 60" piped outfall system must be checked for hydraulic grade line clearance. There will be surplus treatment and attenuation that future FDOT projects may utilize it in the future; this will be carefully documented within the permit process and communicated to District permitting staff. Important considerations for the proposed conveyance system will be wall zone criteria, major utilities, bridge deck drainage, and constructability. Existing systems will be analyzed for adequate hydraulic capacity and service life.

Temporary Drainage Accommodations. Our design and construction plan will contemplate temporary stormwater management, protection of partially constructed embankments using sandbags and other temporary stabilization, and temporary drainage structures to prevent spread into travel lanes.

Shared Use Pathways

The project includes significant enhancements to pedestrian/bicycle connectivity. Construction of these pathways and associated infrastructure (lighting, etc.) will be incorporated into larger work zones and harmonized with roadway construction activities – and not as an “afterthought”. Sections of the trail system will be prioritized in the construction schedule to allow for early opening of portions wherever possible – bringing enhancements to the public sooner.

Environmental

There are two bald eagle nests in the area of the project, the closest (designated HL072) is located 1.95 miles southeast of the interchange and was not active

during the 2021 nesting season. The closest active nest (designated HL063) is located 3.8 miles northeast of the interchange. As proposed construction will occur outside of the 660' protection zone of the nest, no monitoring will be required during construction. The proposed improvements will not result in wetland impacts. The project corridor falls within the U.S. Fish and Wildlife Service's (Service) Consultation Area (CA) for several species, including eastern black rail, red knot, wood stork, and eastern indigo snake; however, as the improvements are primarily to the center of an existing facility and the areas do not contain wetlands, impacts to these species are unlikely and protected species permitting is not anticipated. There is a concern for the presence of gopher tortoise within the project area, as well as bats associated with the existing bridges. An environmental review of the interchange will be conducted early in the project schedule to document existing conditions and verify there are no natural environmental concerns. Should the presence of gopher tortoise burrows be confirmed, a management plan for gopher tortoise will be prepared in coordination with Department staff.

Noise

Sound walls will be installed as illustrated within the RFP and placed as early as feasible within the construction schedule to reduce noise entering the surrounding community. During construction, focus will be placed on reducing noise impacts, including techniques such as:

- Maximizing daytime work
- Using a pile hammer that includes a noise damping system (such as a Junttan hydraulic hammer) where feasible
- Maintaining noise dampers on equipment
- Locating supporting equipment in areas that minimize impacts
- Implementing operation techniques such as forward passes and figure-eight pattern movements to reduce back-up beeper noise

Lighting

The Prince Team will design and construct lighting that is aesthetically consistent with the current conditions. Roadway lighting within the project limits will be upgraded to LED. Through a photometric analysis we will confirm the existing lighting levels within the project limits to ensure FDM requirements are met. Proposed shared use path lighting will be designed to meet City of Tampa preferences and will use fixtures and poles as specified in the RFP. In addition to the proposed five-globe lights detailed in the aesthetic plan, impacted bridge beam, bridge tower globe lights, and historic Ybor five-globe lights will be replaced and upgraded to LED. The Prince Team will design and utilize a temporary lighting plan to provide consistent lighting levels and electrical circuit routing through all phases of construction. Where feasible, the Team will construct permanent lighting infrastructure before decommissioning existing lighting to eliminate the need for temporary lighting.

ITS

Having prepared the original ITS design for the DTI, the Prince Team is very familiar with the existing infrastructure and conditions, and will design to protect the existing infrastructure including the Hub, devices, and conduit to the greatest extent possible. The device design will include protecting existing CCTV cameras, MVDS sites, modifying coverage where possible, and adding new sites for additional coverage. Two mainline DMSs will be replaced with new full color signs with verification cameras. Wrong Way Detection Systems will be added to two ramps and tied into the communications network. A Maintenance of Communication Plan will be developed to keep the communications system operational and have minimal impact to device sites during construction. The power network will be designed to reuse the two existing service sites, and generators updated as required by the RFP.

Signing and Pavement Marking

Providing consistent guide sign messages, optimum sign location, and information control will be critical to enhancing motorists' awareness and minimizing driver confusion. The signing and pavement marking will be designed and installed in accordance with the Conceptual Master Signing Plans. The messages and locations will be reviewed thoroughly and adjusted as needed. All additional regulatory, warning and guide signs, including any trailblazers needed to provide safe and efficient traffic flow through the interchange, will be installed in accordance with

the MUTCD requirements. The structural supports will be designed with adequate capacity to accommodate future sign panels where needed.

Signalization

New mast arms traffic signals will be installed at 14th St/13th Ave, 14th St/14th Ave, 15th St/13th Ave, and 15th St/14th Ave intersections. The 15th St/13th Ave intersection will have some bridge-mount signals. Ground mount pedestals will also be used to provide supplemental signals sections, ensuring adequate visibility for motorists from all approaches of travel. We will coordinate with the City of Tampa/Hillsborough County Traffic Engineering to ensure the latest equipment compatible with the existing system is utilized.

In addition, RRFBs will be installed at several locations crossing Nebraska Ave, Central Ave/Henderson Ave, and Palm Ave. The locations of these warning devices will be placed to ensure their visibility.

Landscape

The landscape scope on the project will include:

- Relocating mature trees within the reconfigured interchange
- Replacing affected landscape and irrigation
- Providing shade along the shared use pathways
- Developing a visual buffer between the interstate and surrounding areas
- Executing a maintenance plan during the landscaping establishment period

Airport Coordination

The project is approximately 3.7 miles from the end of Runway 28/10 and is within the approach surfaces for this 1.3-mile-long facility. The Prince Team will closely coordinate with TIA and the FAA during all aspects of the project’s development to assure clearances are met and that cranes are properly fitted with warning flags or lights as required. GAI has direct experience in working within this environment, having designed and coordinated all FAA/airport clearances at the Daytona Beach International Airport as part of our I-95/I-4/US-92 systems interchange Design-Build project (where the runway was 2,300’ from the active work zone).

The Prince Team’s Experience is a Differentiator

Our structural Team has the depth of resources with recent experience to design constructible solutions that meet the project technical and schedule needs. We bring a wide range of experience with complex steel and concrete superstructures, post-tensioned concrete, and temporary construction works.

Complex Steel and Concrete Superstructures Design Experience

- Horizontally curved steel bridges, new construction and widening
- 3D FEM analysis with Midas Civil and CSiBridge software
- Standard and modified Florida I-Beam bridges
- Bearing retrofits to optimize load distribution and thermal expansion
- Retrofit design for shear stiffeners, cross frames, and shear connectors
- Incremental erection analysis and camber predictions

Post-Tensioned Concrete Design Experience

- Post-tensioning analysis with ADAPT Software
- Use of ASTM A416, Grade 270 low relaxation strands with flexible filler per FDOT Standard Specifications for future strand replacement
- Design post-tensioned diaphragms per AASHTO Table 5.9.2.3.2b-1 in which the stress limit is zero tension under the Service I load combination
- Perform conflict analysis of reinforcement and post-tensioning components

Temporary Construction Works

- Design critical temporary retaining walls
- Design jacking procedures to replace bearings and falsework towers to support the superstructure during bearing replacement or to support horizontally curved steel field sections during beam erection
- Incorporate design phase constructability meetings with Prince, EOR, and Specialty Engineer to validate design assumptions and boundary conditions

Identification of and Plan for Addressing Critical Issues

The Department has invested significant time and money in the development of this project, and has crafted an RFP around addressing the defining project issues. The Prince Team fully grasps these challenges and the importance of overcoming them to deliver an on-time, successful project. Some of these critical issues include:

Elevating Focus on Safety	
Public Safety	<ul style="list-style-type: none"> ■ Limit exposure to work zones and take full advantage of detours to complete work ■ Provide a clearly communicated, clean work zone that guides motorists through the different construction phases
Worker Safety	<ul style="list-style-type: none"> ■ Utilize temporary barrier walls throughout construction to protect workers from traffic ■ Apply Prince’s culture of safety, which includes daily tailgate meetings, training, and engagement at all levels
Minimizing Impacts to the Public	
Minimize Detours	<ul style="list-style-type: none"> ■ Utilize construction staging plan to reduce needs ■ Evaluate conventional bridge erection techniques for the flyover in lieu of time consuming top-down construction
Expedite Construction	<ul style="list-style-type: none"> ■ Explore the potential to use partial weekend closures ■ Utilize deep resources of Prince Team to accelerate construction ■ Focus on self-performing wherever possible and reduce specialty contractor work
Engage the Public	<ul style="list-style-type: none"> ■ Work hand-in-hand with FDOT to clearly communicate closures, traffic shifts, and progress
Constructability	
Complex Flyover Bridge	<ul style="list-style-type: none"> ■ Develop solutions that utilize conventional construction ■ Strategically place cranes from the ground wherever possible to allow for longer steel sections and reduce splices
Reprofiling and Building Bridges Atop Existing	<ul style="list-style-type: none"> ■ Shift alignments to allow more of the bridges and approaches to be built off-line ■ Select temporary retaining and MSE wall options to accelerate construction and minimize throw-away costs
Side Street Traffic	<ul style="list-style-type: none"> ■ Focus on maintaining surface street traffic, particularly along major arterials
Develop Constructability Package	<ul style="list-style-type: none"> ■ Prepare a detailed, well-thought-out constructability package and update throughout design and construction ■ Utilize 3D modeling to clearly convey intent and intuitively identify fatal flaws
Maintaining Schedule	
Construction Phasing	<ul style="list-style-type: none"> ■ Dynamically plan work through CPM schedules, including resource scheduling ■ Construct different areas of the project along multiple critical paths
Manage R/W Availability	<ul style="list-style-type: none"> ■ Plan work within the constraints of R/W acquisition, some of which will not be available until May of 2024
Close Coordination with PIO and City	<ul style="list-style-type: none"> ■ Maintain clear channels of communication with the Department’s PIO and City stakeholders to keep the project moving forward with local support
Convert Cat 2 Structures to Cat 1	<ul style="list-style-type: none"> ■ Seek out opportunities to eliminate non-redundant shafts wherever possible to convert relatively simple bridges to Category 1, eliminating protracted review times
Utilities	<ul style="list-style-type: none"> ■ Pro-actively engage with utility companies and permitting agencies to relocate prior to major construction activities ■ Work with the City of Tampa to finalize UWHC designs on their water and sewer lines within the project limits
Prioritizing Aesthetics	
Brick Streets	<ul style="list-style-type: none"> ■ Carefully remove bricks and granite curbs and safely stockpile them in designated, protected areas
Bridge Fascias and Towers	<ul style="list-style-type: none"> ■ Replace bridge fascia panels per the RFP and construct new towers in-kind
Special Lighting and Sign Supports	<ul style="list-style-type: none"> ■ Construct new sign supports to match existing monotube structure and coating types ■ Upgrade lighting to LED and match existing decorative fixtures on the eastern end of the project