Reference is made to the subject solicitation wherein the following additional formal changes are hereby incorporated via release of this ‘track-change’ version of the revised RFP. NYSDOT is releasing this version of the RFP again as an RFP Modification so that all interested parties can account for each RFP revision in order of RFP appearance. Highlights of Changes:

- Proposal due date has been extended to Thursday, March 2, 2017 at 12noon EST.

No other provision of the solicitation is otherwise changed or modified.

Bidders must acknowledge receipt of RFP Modification #1, Modification #2 and Modification #3 using Form AOR.
Initial Information for Submittal

A. Please note the following dates and deadlines:

**January 19, 2017:** Deadline for additional questions about the RFP at 12:00 PM (Eastern Time). NYSDOT is opening up a final Q&A round. After reading through RFP Modification #2, potential bidders are encouraged to submit final additional questions or comments regarding the Revised Request for Proposals (RFP).

**February 2, 2017:** Final Q&A round answers shall be released on February 2, 2017 via RFP Modification #2. NYSDOT has no obligation to respond to any questions submitted after October 18th. However, NYSDOT will listen to any late questions with an option to respond only if such that will clarify and improve responses.

**March 2, 2017:** Deadline for the submission of proposals at 12:00 PM (Eastern Time)

B. Complete proposals are to be submitted to the Designated Contact stipulated in Section 1.4.
C. Please note the following dates and deadlines:

- March 2, 2017: Deadline for the submission of proposals at 12:00 PM (Eastern Time)
- January 19, 2017: Deadline for questions about the RFP at 12:00 PM (Eastern Time)

D. The Department reserves the right to schedule a pre-proposal conference prior to deadline for submission of proposals.

E. Complete proposals are to be submitted to the Designated Contact stipulated in Section 1.5 of this RFP.
RFP RESPONSE FORM

RFP RESPONSE FORM: C031480 - INTEGRATED CORRIDOR MANAGEMENT (ICM)
SYSTEMS INTEGRATOR SERVICES FOR NYSDOT

Please review this RFP, complete the following information, and e-mail to the NYSDOT address shown below, by the earliest practical date. This RFP Response form must be submitted along with the two required Procurement Lobbying Law forms (see Section 5.8) before questions or other communications with the Department regarding this solicitation can be initiated.

__________ WE DO INTEND TO SUBMIT A PROPOSAL

__________ WE DO NOT INTEND TO SUBMIT A PROPOSAL FOR THE FOLLOWING REASONS:

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Name and Address of Organization (Include Zip Code):

_______________________________________________________________________
_______________________________________________________________________
_______________________________________________________________________

Date: ________________

Typed Name and Title: _________________________________________________

Telephone: _______________________ Fax: _________________________________

E-Mail Address: ________________________________________________________

Please e-mail: patricia.kappeller@dot.ny.gov
# NEW YORK STATE DEPARTMENT OF TRANSPORTATION
## REQUEST FOR PROPOSALS
### INTEGRATED CORRIDOR MANAGEMENT (ICM)
#### SYSTEMS INTEGRATOR SERVICES FOR NYSDOT

**Contract # C031480**

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1. INTRODUCTION

1.1. Purpose

The New York State Department of Transportation (NYSDOT) is releasing this Request for Proposals (RFP) to seek proposals from responsive and responsible Consultants to provide reliable and comprehensive Systems Integrator (SI) Services for the Lower Hudson Travel Link (LHTL) Integrated Corridor Management System (ICMS). NYSDOT intends to make its selection and enter into contract # C031480 with a Systems Integrator that provides Best Value to the State.

1.2. Background

The New York State Department of Transportation (NYSDOT), in collaboration with the New York State Thruway Authority (NYSTA) and various local municipalities, is planning to implement Integrated Corridor Management (ICM). Interstate 287 (I-287), in the Lower Hudson Valley Region of New York State, is a 30-mile long corridor connecting Rockland and Westchester Counties, with over 140,000 daily vehicles on its busiest segment. Coordinating with the construction of the New NY Bridge and the Lower Hudson Transit Link Bus Rapid Transit (LHTL-BRT), this corridor will be the target of an Integrated Corridor Management Framework.

This coordination will be achieved through institutional integration of NYSDOT, NYSTA and other authorities responsible for transportation elements in the corridor, and it will focus on improving travel times and reliability, safety, and emissions.

The managers of agencies in the Corridor will rely on Intelligent Transportation Systems (ITS) technologies – such as Ramp Metering, Transit Signal Priority (TSP) and a Decision Support System– and on cross-network strategies developed around demand management, load balancing, event response and capital improvements to deliver the ICM enhancements. The I-287 ICM project has several related projects that influence the system integration delivery. These components are listed below:
1.2.1. **LHTL- BRT Operations**

The LHTL-BRT Program is an integrated and comprehensive program of short, medium and long-term transit improvements that:

- Increases the attractiveness and ridership of local transit and the new regional Bus Rapid Transit (BRT) system through improved frequency, availability, and accessibility throughout the Lower Hudson Valley, as well as the provision of increased amenities for passengers
- Reduces transit travel times along the corridor and improves reliability and safety for all travelers

Through a competitive bidding process, New York State will enter into a contract with a private Contractor to manage and operate the BRT service. The State will set performance and service standards while the BRT Contractor will develop detailed schedules to meet the service’s standards, and will procure, operate, and maintain transit vehicles and on-street infrastructure.

The integration of LHTL-BRT operations into the ICM system is a key component of this project.

1.2.2. **Corridor Operational Improvements**

A part of the ICM scope for the I-287 corridor includes operational improvements for various sub-systems along the corridor. These include ramp metering on candidate I-287 ramps, Transit Signal Priority (TSP) on candidate intersections along the BRT route and alternate routes, adaptive traffic signal control and traffic signal upgrades on Route 59 and Route 119 and other enhancements such as new Closed Circuit Television Cameras (CCTV), Variable Message Signs (VMS), and traffic detectors.

Some of these operational improvements require the procurement and installation of new field devices and upgrades to existing devices. NYSDOT will work with appointed contractors to address these requirements. The integration of these new devices into NYSDOT’s existing Advanced Traffic Management Systems (ATMS) and the corresponding ICMS is a key dependency for the ICM Systems Integration.

1.2.3. **New NY Bridge (NNYB)**

The New NY Bridge, a replacement to the Tappan Zee Bridge, is expected to be fully operational in 2018 and includes in its scope the upgrade of several ITS technologies including the delivery
of a new Advanced Traffic Management System (ATMS). The bridge falls within the I-287 project corridor and the integration of the new ITS technologies and coordination with the bridge replacement project will also impact the ICM Systems Integration.

1.2.4. **Existing Operations at Hudson Valley Traffic Management Center (HVTMC) and Thruway Statewide Operations Center (TSOC)**

The primary venue for corridor control will be the HVTMC, which is NYSDOT’s Traffic Management Center for Region 8. Region 8 encompasses the counties in the Lower Hudson Valley, including Westchester and Rockland, and the entire I-287 corridor falls within it.

The New York State Thruway Authority is a key stakeholder in the I-287 ICM project. NYSTA controls its operations from the Thruway Statewide Operations Center (TSOC) in Albany. The TSOC is a key center for the ICMS systems and for the Systems Integration portion of the ICM project.

The ICM system envisioned for this project integrates the Advanced Traffic Management Systems (ATMS) (existing or upgraded) and a newly developed Decision Support System that acts as a complementary system to the existing ATMS. The ICMS is expected to be housed at the HVTMC with co-located presence of Thruway and LHTL BRT staff. The current systems at the HVTMC and the TSOC are in the process of being upgraded. The schedule and mechanisms of existing system upgrades has an impact on the ICM systems integration.

1.3. **LHTL Stakeholders**

Besides NYSDOT, other important stakeholders will be involved in the LHTL ICM system. These entities include, but are not limited to, many other transportation-related agencies and municipalities such as:

- New York State Thruway Authority (NYSTA)
- Rockland County
  - TOR Transit System
- Westchester County
  - Bee-Line Transit System
- City of White Plains
- TRANSCOM
- New York State Police
The Systems Integration of the ICM system will involve integration into existing systems of some of the above agencies.

1.3.1. **ICM Project Boundaries**

The ICM system will be focused around supporting general mobility in the corridor as well as the new LHTL-BRT service that will initially operate between Suffern, Rockland County and White Plains, Westchester County in southern New York State. The primary corridor will be comprised of I-287, Route 59 and Route 119 as illustrated below in Figure 1.

![Figure 1: Proposed boundaries for the actively managed ICM corridor](image)

1.4. **Minimum RFP Responsiveness**

Any Firm that does not provide all of the following by the RFP deadline will be determined to be non-responsive and will be removed from further consideration (prior to the technical evaluation
of proposals):

- Requirements as per Section 5.1
- Requirements as per Table 5.1

Part II of the Proposal – Cost and Administrative Submission

Completion of all applicable attachments:

- Requirements as per Table 5.2
- Certification of online vendor responsibility questionnaire
- Submission of DBE Participation Information, Solicitation Log, and Goal Attainment Letter

Provision of all deliverables specified in Section 4.3 and 5 as part of Proposal response.

1.5. **Designated Contact**

Potential responders are advised that under New York State Finance Law Section 139-j, communication on procurements can be made only to designated contact persons. The Department’s Designated Contact for this procurement is:

Patricia Kappeller  
New York State Department of Transportation  
Contract Management Bureau  
50 Wolf Road, 6th Floor  
Albany, NY 12232  
E-mail: patricia.kappeller@dot.ny.gov

The above-named person, as the Department’s Designated Contact for this procurement, shall be the Department’s only point of contact and source of information for this procurement.

1.6. **RFP Modifications**

If necessary, NYSDOT will issue Modifications to modify conditions or requirements of this RFP. Proposers are advised to visit the NYSDOT web site ([https://www.dot.ny.gov/portal/page/portal/doing-business/opportunities/consult-opportunities](https://www.dot.ny.gov/portal/page/portal/doing-business/opportunities/consult-opportunities)) regularly to check for Modifications. Interested parties are encouraged to formally express interest in this RFP by sending an e-mail to Ms. Kappeller. A list of all parties expressing interest shall be kept and used to alert interested parties regarding the release of RFP updates. The RFP’s final Modification will be posted on NYSDOT’s web site not later than seven calendar days prior to the Proposal due date. If an additional Modification is required within seven days of the Proposal due date, the due date shall be revised such that there will be seven
days from the final Modification to the Proposal due date.
2. CIVIL RIGHTS REQUIREMENTS

2.1. Disadvantaged Business Enterprise Participation

2.1.1. While not indicative of a proposer’s individual merit (technical excellence, proposer’s ability, experience, etc.), NYSDOT encourages the participation of certified Disadvantaged Business Enterprises (DBE) in its solicitations. The level of DBE participation will be relevant to the process of selecting proposals that will best achieve the overall goals of the Department. Please visit the New York State Unified Certification Program (NYSUCP) DBE Directory for certified Disadvantaged Business Enterprises via: https://nysucp.newnycontracts.com/. The general DBE participation goal for federally-funded projects is 11%.

2.1.2. For this specific procurement, NYSDOT has established a DBE participation goal of 11 percent for this contract. Meaningful participation by either a prime Consultant who is certified as a NYSUCP DBE or inclusion of sub-consultant(s) who is/are certified as a NYSUCP DBE count toward the DBE participation goal. Meaningful participation is defined as providing commercially useful functions or services. These services should:
   • Result in a product or service distinguishable from the Prime Consultant’s product or service or be a part of the services provided by the Prime Consultant,
   • Be for scope of service elements which can be and are completely performed, supervised and managed by the DBE Sub-consultant, and/or
   • Perform significant tasks which can be considered commercially marketable.

2.1.3. Interested proposers should verify their attainment of the above established DBE participation goal by completing Attachment 5: DBE Participation Information. To count towards the Department’s DBE goal, a firm offering DBE participation must be currently certified per the NYSUCP DBE Directory at the time of proposal submission.

2.1.4. If the proposal does not meet or exceed the 11 percent DBE participation goal, the firm must provide acceptable evidence of a good faith effort by completing Attachment 6: Participation Solicitation Log. Additionally, if the firm does not meet the specified goal, the firm must include in its submission a Goal Attainment Explanation Letter explaining why the firm was unable to meet the DBE goal,
which serves to substantiate the firm’s good faith effort. The letter should include sufficient justification as to why the goal was not met and should at a minimum address the following factors: the potential firm’s method of accomplishing the work, the subcontracting opportunities associated with the proposed approach and scope of services, and the availability of certified firms for the work to be performed by either a prime Consultant or via subcontract.

2.1.1.5. Additionally, prime Consultant certified as a DBE who propose to meet the Department’s DBE participation goal via their meaningful participation are not relieved from seeking participation of certified Disadvantaged Business Enterprises (DBEs) for sub-contractable services in this solicitation. In these situations, it is expected that unless DBE outreach efforts by the prime result in proposed DBE sub-consultants, the prime Consultant will provide evidence of a good faith effort by completing Attachment 6: Sub-Consultant Participation Solicitation Log.

2.1.1.6. The above forms and letter must be included in Part II: Cost and Contract submission. Firms are advised to refer to Section 6.1.2.2 for the procedure the Department will follow in evaluating a firm’s proposed DBE participation.

2.2. Title VI Assurance

The New York State Department of Transportation (NYSDOT), in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C 2000d to 2000d-4 and Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation and Title 23 Code of Federal Regulations, Part 200, Title VI Program and Related Statutes, as amended, issued pursuant to such Act, hereby notifies all who respond to a written NYSDOT solicitation, request for proposal or invitation for bid that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, sex, age, disability/handicap and income status in consideration for an award.
3. PROJECT AND CONTRACT OBJECTIVES

3.1. Project Objectives

The LHTL ICM System will allow the proactive traffic and transportation management of the corridor by a collaborative Partnership that includes the New York State Department of Transportation, the New York State Thruway Authority, the New York State Police, Rockland County, Westchester County, the City of White Plains, the selected BRT Contractor, and MTA Metro-North by using a consensus-based approach and agreed-upon performance measures. The ICM design will need to be flexible and scalable to support the changing needs in the corridor as well as the future expansion of the LHTL BRT network in the Lower Hudson Region as proposed by the Mass Transit Task Force (https://www.newnybridge.com/documents/2014-02-28-mttf-final-report.pdf).

3.2. Contract Objectives

The objective is to process and execute a single separate contract with a single designated Consultant. Only one responsive and responsible Consultant (or team of consultants wherein the contract will be with the prime Consultant) will be retained through this RFP solicitation. Sub-consulting and teaming arrangements are encouraged. Joint ventures are not allowed.

3.3. Acronyms

A complete list of all acronyms from this RFP and the Scope of Services is included in Attachment 21.
3.4. Ownership of Work Products

3.4.1.1. All intellectual property produced under this Contract belongs to NYSDOT. This includes all drawings, designs, specifications, manuals, reports, studies, surveys, models, software, source code and source code documentation, documentation or system architecture and any other documents, materials, data and products (“Work Products”) prepared or assembled and furnished to HVTMC.

3.4.1.2. Insofar as third party commercial software is concerned, that intellectual property remains that of the commercial software publisher, however all license to use that software, relative to this project will be conferred to NYSDOT.

3.4.1.3. The Consultant hereby assigns NYSDOT ownership of all rights, title and interest in and to such work products, including ownership of any copyright, patent, trademark, trade secret, or other intellectual property or proprietary rights in the Work Products.

3.4.1.4. The Consultant also agrees to execute all papers necessary for NYSDOT to perfect their ownership of the rights in the Work Products.

3.4.1.5. The Consultant shall be responsible for the preservation of any and all such work products prior to transmittal to NYSDOT, and shall replace any such work products that are lost, destroyed, or damaged while in its possession without additional cost to NYSDOT.

3.5. Contract Term and Rate Adjustments

3.5.1.1. The Department estimates that the work for the successful Consultant will commence on March 1, 2017. The base term or duration for the contract is three years. The contract may be extended for up to two additional one-year periods upon written agreement of both parties and approval by the Office of the State Comptroller and FHWA.

3.5.1.2. If the contract is extended for the optional years, the Producer Price Index (PPI) as published by the U.S. Department of Labor, Bureau of Labor Statistics, or 2%, whichever is lower, will be used as a basis for adjusting the hourly rates/lump sum deliverable amounts. The rate adjustment will be effective on January 1 and calculated using the previous September Index, using Series ID PCU5413--5413--(Architectural, engineering, and related services).
http://data.bls.gov/timeseries/PCU5413--5413--?data_tool=XGtable ). If at any time the above Index Series ID is discontinued or becomes unavailable, the State reserves the right to implement a comparable Index.

3.5.1.3. An example of the rate adjustment calculation is as follows (all numbers and titles used are for illustrative purposes only):

QAT-2 Auditor 1/1/12 - 12/31/12 Billing Rate $9.00/Hour
October 2012 PPI Index (PCU5413--5413--) 132.1
October 2011 PPI Index (PCU5413--5413--) 130.0
Index Point Change 2.1
Divided by previous Index 130.0
Percent change, rounded to nearest tenth 1.6%
QAT-2 Auditor 1/1/13 – 12/31/13 Billing Rate ($9 x 1.016) $9.14/Hour

3.5.1.4. If the actual start of the contract is substantially different than the above estimated date, then the effective date for the rate adjustment will be similarly changed.

3.5.1.5. The State reserves the right to negotiate a lower rate adjustment than stated above for the two additional one-year extensions.

3.5.1.6. NYSDOT reserves the right to extend the contract beyond the five years, up to a maximum of 12 months, to enable transition of the System Integration tasks to the next consultant. This extension would provide any time necessary for the Consultant to support the next selected consultant. Any such extension will be performed at the rates in effect at the end of the contract. Any extension will need to be approved and executed by NYSDOT, the NYS Attorney General and the Office of the State Comptroller before becoming effective.

3.6. Required Project Schedule

3.6.1.1. A project schedule outline is included below highlighting major milestones for delivering the integrated ICM System. The ICM Consultant shall complete the Scope of Services as listed in this RFP and Attachment 15. The ICM Consultant shall also complete Attachment 19- Schedule of Contract Durations that provides completion dates for each milestone listed in the project schedule outline.

3.6.1.2. The ICM System operations are part of the services linked to the opening of the New NY Bridge which is currently scheduled for April 2018. The ICM System
must be operational after the opening of the bridge (April 2018) and before the opening of transit operations (currently scheduled for November 2018). The stipulated operational date for the ICM system is set to September 2018. Failure to meet the operational date shall result in liquidated damages being assessed against the Consultant at the rate of $5,000 per day. NOTE: Day 1 Operations includes the delivery of DSS and Phase 1 sub-systems delivery as defined at the Combined Design Review event.

3.6.1.3. Some components of the ICM System are expected to be delivered beyond Day 1 operations. For these enhancements, the delivery date is scheduled for no later than September 2019 (Day 1+12 months). Failure to meet this operational date shall result in liquidated damages being assessed against the Consultant at the rate of $5,000 per day.

3.6.1.4. In addition, there are Major Interim Milestones that shall be completed, otherwise liquidated damages shall be assessed against the Consultant at the rate of $1,000 per day. Attachment 23 lists the summary of liquidated damages for this scope of work.

3.6.1.5. The Consultant must propose dates for the major interim milestones outlined in Attachment 19, Schedule of Contract Durations as part of their proposal. These interim milestones are identified as follows:

- Preliminary Design Review
- ICM System Design Review (independent SI/Consultant)
  - Combined Design Review (LHTL Operator and SI/Consultant)
- System Integration Readiness Review
- System Test Readiness Review
- System Functional Configuration Audit
- System Physical Configuration Audit
- System Operational Readiness Review
- Day 1+6 months (DSS Offline Model +Phase II sub-system delivery)
4. SCOPE OF SERVICES

4.1. Overview

4.1.1. The successful Proposer (henceforth referred to as the “Consultant”) will be responsible for providing ICM System Integration and related services. All services must be consistent with State and Federal laws and regulations.

4.1.1.2. This section of the RFP and Attachment 15, Scope of Services provide details on specific requirements, Consultant responsibilities, and other pertinent information for Proposers to be able to respond. The Consultant is solely responsible for meeting all the requirements in this RFP Attachment 15, Scope of Services.

4.1.1.3. Submission of a proposal is an affirmation by the Proposer that its organization complies with all the requirements and meets/exceeds the qualifications set forth in this RFP and Scope of Services and that its organization is capable of performing the services required in a manner consistent with the terms of this RFP, the required schedule, and Attachment 15-Scope of Services.

4.2. Overall Scope of Services

4.2.1. The primary location for all systems integration services is the HVTMC located at 200 Bradhurst Avenue, Hawthorne, NY. However, depending on the final systems design, systems integration may involve connections to and integration work within the following locations.

- Thruway Statewide Operations Center (200 Southern Boulevard, Albany NY)
- LHTL-BRT Transit Control Center (TBD following appointment of Transit Operator)
- Westchester County Transportation Control Center (148 Martine Avenue, White Plains, New York 10601)
- Rockland County Transportation Control Center (50 Sanatorium Road, Building T, Pomona, NY 10970)
- TRANSCOM Center (11 Town Square Place - Suite 605 Jersey City, NJ 07310)
- NNYB Control Center (200 Southern Boulevard, Albany NY)
- City of White Plains Transportation Center (255 Main Street, White Plains, NY)
- NYSDOT Main Office (ATMS. Now Cloud server with access from 50 Wolf Road Albany, NY 12232)
4.2.1.2. The Systems Integrator will provide the following Systems Integration services to NYSDOT. More detailed descriptions of the individual tasks are found in Section 4.9

- System Integration of roadside and central systems necessary to support the ICM concept of operations and new ITS technology into the respective Advanced Traffic Management Systems (ATMS) of the ICM Partners including NYSDOT and NYSTA.
- Any modeling support required for the configuration of sub-systems such as Adaptive Signal Control and Transit Signal Priority
- Detailed design, development and commissioning of a new DSS, including an offline/online micro-simulation model. The DSS outlined in this project is expected to have a phased delivery mechanism that extends the delivery of the off-line and online model components beyond Day 1 Operations.
- System integration of the existing ATMS with ICMS.
- Center-Center integration of respective ICM partners
- System integration of the LHTL-BRT Transit Operations into the ICM system
- Procurement and integration of any software, tools, products and hardware required to support the operation of the ICM system at the HVTMC as outlined in individual tasks in Section 4.9.
- Delivery of any operational and maintenance and staff training required to support the operation of the new ICMS
- Transition planning and cutover of the ICM system with minimal disruption to existing operations
- Development and delivery of all systems engineering and technical review documentation as listed in the attached statement of work.

4.2.1.3. Attachment 24 – LHTL ICM Summary Scope Table includes the responsibilities of the Systems Integrator and other agencies/contractors with whom the Systems Integrator is responsible for coordinating.

4.3. Summary of Proposal Response Deliverables

Section 4.9 identifies the full scope of services and corresponding deliverables. This section highlights the key deliverables that the Consultant is responsible for delivering as part of the proposal. Additional details on these deliverables are listed in Section 5.

- High Level Conceptual Design of the proposed ICM System
- Initial Project Management Plan with a summary of project approach including design, development, installation, testing, operational commissioning and training
4.4. Procurement Process

The Consultant must establish the procurement needs for the scope of this work as part of response to the proposal. All estimates for procurement costs (including the procurement for the requirements management tool, the DSS, ramp metering, Sceptre software, McCain QuicNet upgrade to Transparity and any others listed as System Integration procurement responsibility under Attachment 24), operations, maintenance, support and training within the scope of work must be identified by the Consultant as part of the Proposal. Any and all procurements performed by the Consultant on behalf of NYSDOT shall utilize procurement methods followed by or consistent with those used by NYSDOT.

Any procurement estimates proposed by the Consultant must be equal to or less than NYSDOT’s OGS procurement rates; failing which NYSDOT reserves the right to conduct the procurement.

4.5. Implementation Phases

NYSDOT expects the following phases to occur during the life of the contract. Tasks that correspond to each phase are outlined in Section 4.9. Each Task is linked to a list of deliverables. The process and details on the nature of deliverables are identified in Attachment 15, Scope of Services.

4.5.1. Phase I

Systems Integration Initiation and Planning – The Consultant will refine and confirm the project scope, schedule and risk assessment activities. The Project Management Plans and the Project Schedule are refined until they form a baseline project plan.
4.5.2. **Phase II**

Systems Integration Detailed Design Development and Procurement – The Consultant will adhere to a systems engineering process for the development of detailed systems integration design.

4.5.3. **Phase III**

Systems Integration Deployment – The Consultant will deploy the approved detailed design in adherence to the systems engineering process.

4.5.4. **Phase IV**

System Integration Verification and Validation (V& V) – The Consultant will perform verification and validation in adherence to the systems engineering process. The Consultant will also work with an independent verification and validation contractor appointed by NYSDOT during this phase. The Independent V&V contractor will be responsible for developing user acceptance test specifications and witnessing of the test procedures developed by the Consultant.

4.5.5. **Phase V**

System Operation, Maintenance and Transition Support – Immediately after the commencement of operations, the Consultant will operate and maintain the ICM System Integration for the duration of the contract. In addition, the Consultant will include a Support Plan for Transition Services.

4.6. **NYSDOT Responsibilities**

NYSDOT will be responsible for the following:

4.6.1. **Provision of Information**

NYSDOT will provide guidance and information that will assist in the systems integration process. It will also outline procedures for identification and implementation of technical trade-offs.

4.6.2. **Appointing a Project Manager**

NYSDOT will appoint a Project Manager who will serve as the single point of contact for the Consultant. The NYSDOT Project Manager will be solely responsible for decisions related to the acceptance and approval of all deliverables provided by the Consultant.
4.6.3. **Accepting Deliverables**

NYSDOT will review deliverables and evaluate them for completeness, clarity, adherence to generally recognized standards, and compliance with NYSDOT’s intent as conveyed in this RFP and contained in the resulting contract. A deliverable, phase, or milestone will not be considered complete until formal, written acceptance has been provided by NYSDOT.

4.6.4. **Providing User Acceptance**

NYSDOT is responsible for approving all deliverables provided by the Consultant. NYSDOT or its sub-contractor is responsible for development of test specifications and witnessing of tests conducted by the Consultant.

4.6.5. **Facilitating Internal NYSDOT Communication**

NYSDOT is responsible for facilitating communications among various NYSDOT regions divisions. NYSDOT will provide contact information, staff descriptions and any additional coordination mechanisms.

4.6.6. **Providing a Unified ICM Control Center**

NYSDOT will be responsible for providing a unified control center at the HVTMC where both highway operators and dedicated staff from various agencies including the LHTL-BRT transit operator can manage day-to-day operations of the transit and highway systems, plan and coordinate special events, and resolve unplanned incidents as they arise.

4.6.7. **Temporary Provision of Facilities for the Consultant at the HVTMC**

NYSDOT will be responsible for provision of office facilities for the Consultant as needed for the duration of the Contract Term. NYSDOT will provide facilities for a maximum of five Consultant personnel during the Contract Term. Any additional requirements for office space must be formally requested by the Contractor and will be subject to NYSDOT approval.

4.6.8. **Coordination of work being performed by other contractors**

NYSDOT will be responsible for coordination of work being delivered by other contractors. Examples of work include but are not limited to:

- Procurement and installation of new field equipment for sub-system specific operational improvements.
- Procurement and installation of ITS technologies on the NNYB.
- Vendor of the existing Foundation III ATMS system.
4.7. Other Agencies’ Responsibilities

The ICM System Integration scope of services involves integration of new field devices into the existing ATMS. A primary agency other than NYSDOT for the ICM system integration is NYSTA. The Thruway Statewide Traffic Operations Center, which is also responsible for the NNYB currently houses the CARS ATMS. As part of the NNYB bridge project ITS scope, a new DYNAC ATMS is being procured. For the purpose of this project, it is expected that the new DYNAC ATMS will be the primary and only relevant interface for systems integration for all NYSTA thruway operations.

NYSTA and other agencies are responsible for the provision of information and access to enable the Consultant to perform the requisite integration. NYSTA and other agencies are also responsible for facilitation and coordination with other contractors for the purpose of Consultant. This includes co-ordination with the vendor of the DYNAC ATMS to facilitate key tasks listed in Section 4.9

4.8. Consultant Responsibilities

The selected Consultant shall provide the requested professional Systems Integrator services and produce all of the deliverables as specified in this RFP and Attachment 15, Scope of Services and as agreed upon in the resulting contract.

NYSDOT will contract with a single prime Consultant to provide the ICM System Integration services as detailed in this RFP. The exact approach and methodologies proposed by the Proposer to fulfill the deliverables and requirements of all phases as described below must be provided in the Technical Approach portion of the firm’s Part I Technical and Management Proposal.

The Proposer must address all deliverables for the following phases in their project plan. The Proposer can organize and plan for the accomplishment of the work based on their experience with projects of similar scale and scope.

Specifically, the Consultant is responsible for the following:

4.8.1. Providing Experienced Personnel

The selected Consultant is responsible for committing fully qualified professional resources to all project phases over the contract’s entire 3 + 2 year term. NYSDOT reserves the right to approve or reject the replacement of Key Personnel (project leadership) who have responsibility with the System Integration project.
4.8.2. **Providing Services and Deliverables**

The selected Consultant shall provide the services and deliverables specified in this RFP and Attachment 15 - Scope of Services and the resulting contract. The Consultant shall perform all of the activities and tasks in a manner that meets all of the project’s and contract’s objectives, subject to available funds. All services provided must be consistent with state and federal laws and regulations and shall be appropriate and acceptable to NYSDOT.

4.8.3. **Adherence to the Systems Engineering Process and Deliverables**

The selected Consultant shall adhere to the systems engineering process and corresponding deliverables as outlined in Attachment 15 - Scope of Services.

4.9. **Tasks**

This section outlines the specific tasks that the Consultant is required to undertake for each Phase of the project. In fulfilling these tasks, the Consultant is responsible for the protection of all HVTMC traffic operations and existing field assets within the project limits and shall maintain the operational status of the HVTMC systems throughout the length of the Contract.

None of the functionality of the existing HVTMC system may be lost or negatively affected by construction or integration activities related to this Project. Any temporary scheme to maintain operational functionality shall be submitted to the Department for review and acceptance. Any disruptions to the existing system caused by the system integration operations shall be repaired by the Consultant at no additional cost to the Department.

**Phase I – Systems Integration Initiation and Planning**

4.9.1. **Task 1 – Updated List of Deliverables**

4.9.1.1. Two weeks after the Phase I Notice to Proceed is given to the Consultant, the Consultant shall submit an updated list of deliverables to NYSDOT Project Manager for review. The list shall include the deliverables identified in this RFP or referred to in Attachment 15 - Scope of Services.

4.9.1.2. In addition, for the following key deliverables, the Consultant must supply best practice examples which may be used as a standard for the Consultant to develop the corresponding deliverable.

- Systems Engineering Management Plan
- Project Management Plan
• Through Life Support Plan
• Project Security Plan
• Configuration Management Plan

4.9.1.3. The list of deliverables presented by the Consultant will be reviewed and re-issued by NYSDOT upon approval.

Deliverables

• Updated List of Deliverables including planned delivery dates

4.9.2. Task 2 – Evaluation of Existing System and Project Documentation

4.9.2.1. The Consultant shall review and/or document updates as needed to the latest versions of the following project documents:

  o System Engineering Management Plan (SEMP) (Attachment 11)
  o Inventory scope document (Attachment 12)
  o Scope of Services (Attachment 15)
  o HVTMC Internal Network Conceptual Design (Attachment 20)
  o Concept of Operations –Attachment 22
  o System Requirements Specification (Attachment 26)
4.9.2.2. The Consultant shall hold meetings with NYSDOT or its designated representative as needed to request clarification on any portion of these documents that may have an impact on integration activities. The Systems Consultant shall propose revisions to any of these documents; any proposed revision may result in modification to the corresponding document(s). After the initial revision, the Consultant shall update these documents to reflect any changes every 3 months at no additional cost to the State.

4.9.2.3. As part of a response to this RFP, the Proposer is expected to propose a requirements management solution and demonstrate that the proposed solution satisfies the stated criteria and needs of NYSDOT for this project. The Consultant is also expected to provide support to NYSDOT through the life of the contract.

4.9.2.4. In addition, the Consultant will migrate the existing Systems Requirements Specifications to a requirements management tool. The requirements management tool selected or currently used by the Consultant must satisfy the following criteria.

- Project-wide availability and collaboration for multiple users
- Ease of use and learning
- Technical/Functional capabilities and analysis features
- Ability to classify requirements in comprehensive database and provide traceability to linked needs and relevant requirements
- Web/cloud-based interface options and/or customized report generation features
- Efficient and robust change management procedures and automation
- Ability to integrate with other tools or software
- Ability to store historical requirements archives throughout project
- Ability to establish multiple user profiles to manage levels of user access and control to requirements databases

**Deliverables**

- Update or addendum to Attachment 11- SEMP
- Update to Attachment 15 - Scope of Services
- Attachment 26 – System Requirements Specifications (SRS) migrated to a requirements management software

4.9.3. **Task 3 – Revision of a Project Management Plan**

4.9.3.1. Following the approval of the deliverables in Task 2, the Consultant shall revise the initial project management plan submitted as part of the proposal. The project
management plan will be delivered to maintain correspondence with the requirements laid out in Attachment 15 - Scope of Services, Part 1.2.

Deliverables

- Revised Project Management Plan following the data items outlined in Attachment 15 - Scope of Services, DID-001

**Phase II – Systems Integration Detailed Design, Development, and Procurement**

4.9.4. **Task 4 – High Level Systems Design Review**

4.9.4.1. This is the first task in the Project Execution phase. The Consultant shall refine the conceptual design included in the proposal as part of this phase and begin the preliminary detailed design. The preliminary detailed design or the High Level Systems Design Review forms the first step in a series of technical reviews and audits through the system design and testing phase. The details of the technical reviews and audits are listed in Attachment 15 - Scope of Services, Part 2.6

Deliverables

- As outlined in Attachment 15 - Scope of Services, Part 2.6.2
4.9.5. **Task 5 – (Detailed) Systems Design and Development**

4.9.5.1. The Consultant shall devolve the Systems Requirements Specifications into the necessary level of detail and provide the detailed Systems Requirements Specifications as a deliverable.

4.9.5.2. Based on the system requirements specification, the Consultant shall develop a detailed system design document that details all systems, interfaces, hardware and software impacted by the I-287 ICM project. The detailed system design document shall include high-level system diagrams and subsystem diagrams.

4.9.5.3. The Consultant shall add approved detailed design documents developed in subsequent tasks to the overall Detailed System Design document to create a unified document. Further details for the detailed system design are found in Attachment 15 - Scope of Services, Part 3. The detailed (system) design review criteria are listed in Part 2.6.3.

**Deliverables**
- Detailed Systems Requirements Specifications
- As outlined in Attachment 15- Scope of Services, Part 2.6.3, DID-008, DID-011


4.9.6.1. The Consultant shall prepare Plan Documents for the development of a Decision Support System that meets the project requirements. The Development Plan document shall provide detailed specifications for various components of the Decision Support System. Consultant shall update the Plan Documents for the DSS as required throughout the project lifecycle. Attachment 17 - Decision Support System Overview, lists the basic vision for Decision Support System Operations.

**Deliverables**
- DSS Development Plan
4.9.7. **Task 7 – Development of Integration & Installation Plans**

4.9.7.1. The Consultant shall develop plans for Integration and Installation as part of these tasks.

4.9.7.2. The Integration and Installation Plan shall include a plan for the upgrade of the Internal Network at HVTMC and the creation of a new ICMS network based on the Attachment 20 – Conceptual Network Design. The Consultant shall consider bandwidth and network efficiency to be key focus areas of the network design. The concept design intent is to implement a network topology that delivers high network availability.

4.9.7.3. Attachment 15 - Scope of Services, part 3.6.1- part 3.6.4 provides guidelines to the Consultant for this Task.

**Deliverables**
- Installation, Integration Plan (including network re-configuration/development plan) as part of the Verification and Validation Plan outlined in Attachment 15 - Statement Scope of Services, DID – 012,13,14

4.9.8. **Task 8 – Development of a Verification and Validation Plan**

4.9.8.1. The Consultant shall develop a Verification and Validation Plan. The Plan shall establish requirements, methodologies and procedures needed to validate the functionality and performance of all hardware, software, and systems of the I-287 ICM.

4.9.8.2. The Verification Plan shall be a comprehensive document and include approved system, subsystem and standalone test plans developed in subsequent tasks.

4.9.8.3. The Verification Plan must delineate the scope between the Consultant and the Independent V&V contractor of NYSDOT who is responsible for providing DOT test specifications and witnessing of testing. The Verification Plan must adhere to Attachment 15 - Scope of Services, part 3.6

**Deliverables**
- Verification Plan described in Attachment 15 – Scope of Services, Part 3.6, DID-012,013,014

4.9.9.1. The Consultant shall develop Operations, Maintenance, and Training Plans in accordance with the requirements stipulated in Attachment 15 - Scope of Services, parts 3.8-3.12

**Deliverables**
- Operations, Maintenance and Training Plans based on requirements outlined in Attachment 15 - Scope of Services, parts 3.8-3.12

**Phase III – Systems Integration Deployment**

The Consultant will perform the deployment phase of the Systems Integration through but not limited to the following tasks.

4.9.10. **Task 10 – Review of existing conditions**

4.9.10.1. As part of the deployment phase of the integration, the Consultant will review existing conditions at all the centers relevant to the I-287 ICM project including but not limited to the HVTMC, TSOC, LHTL Transit Operations Center (to be determined following the Transit RFP procurement). The Consultant will verify operational readiness of all components to begin deployment.

**Deliverables**
- Documented coordination with all relevant agencies to ensure readiness for system deployment
- Documented Verification of operational readiness of all components for system deployment.
- Updates to Design documentation.
4.9.11. Task 11 – HVTMC Internal Network Assessment and Upgrades

4.9.11.1. In this task, the SI shall work closely with the NYSDOT HVTMC IT systems staff / network administrators to design, install, configure and commission an independent ICMS network, which will serve as an interface point for all third party networks to the ICMS. The ICMS network will be modular in design so that every individual agency or third party network connection to the ICMS network will be identical.

4.9.11.2. Additionally, the existing internal HVTMC network shall be upgraded and will connect to the independent ICMS network similarly to other agencies or third party networks.

4.9.11.3. The consultant shall work closely with the HVTMC network administrators to procure, install, and configure all equipment included in the internal HVTMC network upgrade, and verify that the HVTMC network meets all performance requirements and is ready to be integrated to the ICMS.

4.9.11.4. The upgrade shall follow a detailed migration plan, developed by the Consultant and the network administrators. The migration plan shall identify all hardware/software to Attachment 20 which contains detailed scope information and network diagrams of the existing HVTMC network (the diagram includes existing network components located at the HVTMC as well as existing subsystem components located in the field, which are to be upgraded or expanded by NYSDOT’s sub-system capital works contractor).

4.9.11.5. The proposed conceptual network design for the ICMS network and the upgraded HVTMC network is also included in Attachment 20. The equipment specified in the Bill of Materials of Attachment 20 is representative of upgrade equipment required to replace existing equipment that is at or near end of life on the HVTMC network. Additionally, this equipment will scale for the delivery of the new ICMS network as it relates to core network elements.

Deliverables

- Detailed migration plan for a phased and incremental approach to the upgrade for approval by NYSDOT prior to implementation
- Final Updates to the Design Documentation provided by NYSDOT.
- As-built diagrams/network design diagrams
- Network configuration documentation
- Change Management documentation
- Service Level Agreement documentation
4.9.12. **Task 12 – Unified Incident Response**

4.9.12.1. One of the tasks of the Consultant (Task 13) involves the development of a single unified incident entry interface for both agency ATMS. As part of the task, there is a need to ensure consistency in incident classification terminologies. The Consultant is responsible for documentation and review of different incident response practices and terminology between all agencies.


**Deliverables**
- Documentation of existing differences in incident response
- Documented design deliverable with consistent incident response
- Updates to system design documentation.

4.9.13. **Task 13 – Modifications to the existing ATMS**

4.9.13.1. The Consultant is responsible for identification of all modifications to the existing ATMS that support the project needs. For example, a key project requirement includes generation of a unified incident entry interface for existing Coval Foundation III and DYNAC ATMS.

4.9.13.2. The Consultant is responsible for suggesting appropriate modifications to existing ATMS that can be coordinated and performed with the co-operation of the respective vendors. In the event of conflicting priorities with existing vendors, the Consultant shall propose a design workaround that can be used to achieve the goals of this specific task.

**Deliverables**
- Documented verification of coordination with Coval and Kapsch
- Documented verification of suggested/performed modifications
- Updates to system design documentation.

4.9.14.1. A key integrating component of the ICM system is the Decision Support System. The Consultant is responsible for the development, integration, and installation of the Decision Support System as a component of the ICMS at the HVTMC.

4.9.14.2. The Decision Support System will include a performance dashboard that will display performance measurements selected by the Operator.

4.9.14.3. The Decision Support System delivery includes Day 1 requirements and future enhancements include a fully real-time online model with a supporting off-line model to be delivered Day 1+ 12 months. An off-line model must be developed as an interim mile-stone scheduled for Day 1+6 months.


**Deliverables**
- Documentation supporting the capabilities of developed DSS
- Documented verification of the completion of integration
- Updates to system design documentation.
4.9.15. **Task 15 – Integration of new field equipment into existing ATMS**

4.9.15.1. As part of the operational improvements proposed in the I-287 ICM, a number of new field elements are proposed. These include, but are not limited to, new VMS, CCTV and Traffic Detectors of various types throughout the project corridor. The new field equipment needs to be integrated into the corresponding ATMS systems depending on the location of the field elements. In addition, the new CCTVs procured need to be integrated into the new video management system procured by NYSDOT as part of this project. The Consultant is expected to work with the vendors of existing ATMS for the completion of this task.

4.9.15.2. It should be noted that the completion of this task imposes special considerations for the Traffic Detection Systems, which are described in Task 17 under the Traffic Detectors section.

4.9.15.3. Attachment 12: Corridor Inventory provides the scope and location of the proposed field elements. The Consultant is expected to verify and update the System Inventory before the integration is begun.

**Deliverables**
- Updated Corridor System Inventory
- Documented verification of operational communication links from all field equipment
- Updates to system design documentation.
4.9.16. **Task 16 – Migration of field equipment in CARS to DYNAC ATMS**

4.9.16.1. As part of the New NY Bridge (NNYB) project, one of the delivered ITS technologies is a new ATMS - Kapsch’s DYNAC - which will integrate all the field equipment under the scope of the NNYB. Under the NNYB project, the DYNAC system is expected to have some constraints that will need to be factored into the ICM integration and deployment planning.

4.9.16.2. The current field equipment in the corridor, under the existing CARS ATMS, but outside the scope of the NNYB, is proposed to be integrated within the DYNAC ATMS. The Consultant is expected to carry out the migration of the equipment from the CARS ATMS to the DYNAC ATMS for field equipment that falls within the project corridor but outside the scope of the NNYB project.

4.9.16.3. As part of the response to the proposal, the Consultant is expected to propose a strategic plan for the completion of this and other Dynac related tasks due to the constraints specified above.

**Deliverables**
- Updated Corridor System Inventory
- Documented verification of completion of migration.
- Updated System Design Documentation

4.9.17. **Task 17 – Integration of existing ATMS with the ICMS**

4.9.17.1. As part of the design, it is expected that monitoring and control of devices in the corridor will be handled by the existing ATMS. The ICMS including the DSS is expected to serve as a complementary system offering decision-making guidance. A key task under the design is the integration of the existing ATMS with the ICMS. Specifically, the Consultant is responsible for the integration of the following interfaces into the ICMS.

- Coval Foundation III ATMS at the HVTMC
- Kapsch DYNAC ATMS at TSOC
- ATMS. Now (Cloud server with access from NYSDOT Main Office)
- Transparity (WCDPW)
- SCATS (CWPDPW)
- Transuite(CWPDPW)
4.9.17.2. It should be noted that most sub-systems with existing and proposed devices, will be solely integrated into the existing ATMS which will consequently be integrated into the ICMS. The only exceptions are certain traffic detection systems further discussed under their relevant sub-sections.

4.9.17.3. For all sub-systems, the Systems Integrator is responsible for verification of integration into ICMS. The detailed list of sub-tasks and associated deliverables are mentioned in sub-sections below.

4.9.17.4. Depending on the scope and complexity of integration and dependencies with other contractors, NYSDOT may prescribe alternate delivery dates for portions of the scope of sub-system integration. These will be reflected as additional delivery milestones beyond Day 1 and will match the Day 1 +6 months and Day 1+ 12 month milestones prescribed for the DSS components.

4.9.17.5. It should be noted that the phasing of the sub-systems delivery would be reviewed and approved during the Detailed Design Review milestone.

4.9.17.6. For these sub-systems, Attachment 24 – LHTL ICM Summary Scope Table delineates the scope responsibilities between the Consultant, NYSDOT and other agencies and other NYSDOT contractors.

*NYSDOT Adaptive Signal Control*
4.9.17.7. As part of operational improvements, a number of signalized intersections along the corridor are proposed to be incorporated into an Adaptive Signal Control System.

4.9.17.8. The Consultant is responsible for the configuration and verification of the SYNCHRO green adaptive module into ATMS. Now used by NYSDOT for closed loop traffic signal systems. The Consultant is responsible for the integration of ATMS Now, including the configured and integrated SYNCHRO Green module, into the ICMS.

4.9.17.9. As part of this task, the Consultant is responsible for any modeling support that enables the configuration and verification of the Adaptive Signal Control Sub-system.

4.9.17.10. The models for existing and future (no-build) conditions for the corridor sub-system will be developed by an independent NYSDOT consultant and will be provided to the Consultant during the design review milestone. The Consultant is responsible for co-ordination with the NYSDOT consultant. Attachment 28 – Sub-system Modeling provides additional details on the model that will be received by the Consultant.

**Deliverables:**

- Detailed design document outlining the design approach and integration requirements
- Interface plans, diagrams, modifications and applications necessary for integration.
- Review and recommendation for work to be performed by the appropriate NYSDOT contractor.
- Hardware and software required to perform this integration.
- Appropriate plans applicable to this task.
- Final ‘as-built’ plans.

*Other Traffic Control Systems*
4.9.17.11. The corridor-wide Traffic Control Systems (TCS) integration shall permit authorized staff at the HVTMC to view the status and timing parameters of each Traffic Control System along the I-287 ICM corridor.

4.9.17.12. Control of the TCS will be limited to the operating and maintaining agency, unless otherwise specified. The corridor-wide TCS integration shall include an interface to ICM System to allow viewing of traffic signal status through the ICM User Interface.

4.9.17.13. The Consultant shall integrate the following TCS into the ICMS:

- WestChester County’s McCain QuicNet System;
- City of White Plains SCATS;
- City of White Plains Transcore Transuite

4.9.17.14. One of the traffic control systems to be integrated- Westchester County’s McCain QuicNet System requires software upgrades to enable integration. The Systems Integrator is responsible for the installation, configuration of the upgrades and the verification of the readiness for integration with respect to the McCain QuicNet System. As part of this sub-task, the Consultant is expected to work with the manufacturer of the software and Westchester County. Westchester County will be responsible for provision of all facilitation and support required for the Consultant to perform the required upgrades. Attachment 29 provides the costs for the upgrade from QuicNet to Transparity provided by the vendor.

Deliverables:

- Detailed design document outlining the design approach and integration requirements
- Interface plans, diagrams, modifications and applications necessary to integrate the TCS.
- Review and recommendation for work to be performed by the appropriate TCS vendor/contractor.
- Hardware and software required to perform this integration.
- Appropriate plans applicable to this task.
- Final ‘as-built’ plans

Ramp Metering

4.9.17.15. For this sub-system, the Consultant is responsible for the installation and configuration of the ramp metering Scepter firmware in the field. The actual installation of the ramp metering 2070 controllers will be done under the sub-
system capital works contract. NYSDOT will be responsible for the provision of the 2070 controllers to the sub-system capital works contractor.

4.9.17.16. The Consultant is also responsible for integration of the ramp metering system into the Coval Foundation III ATMS and the verification of the integration of this sub-system into the ICMS via the existing ATMS.

4.9.17.17. As part of this task, the Consultant is responsible for any modeling support that enables the configuration and verification of the ramp metering parameters.

4.9.17.18. The models for existing and future (no-build) conditions for the corridor sub-system will be developed by an independent NYSDOT consultant. The Consultant is responsible for co-ordination with the NYSDOT consultant. Attachment 28 – Sub-system Modeling provides additional details on the model that will be received by the Consultant.

**Deliverables:**

- Detailed design document outlining the design approach and integration requirements
- Interface plans, diagrams, modifications and applications necessary to integrate the sub-system.
- Review and recommendation for approval work to be performed by the appropriate NYSDOT contractor.
- Hardware and software required to perform this integration.
- Appropriate plans applicable to this task.
- Final ‘as-built’ plans

**Transit Signal Priority**

4.9.17.19. For the Transit Signal Priority Sub-system, TSP. Now was identified as the system of choice in order to maintain conformity with the existing systems in Westchester County and other systems in the State.

4.9.17.20. For the TSP sub-system, any procurement, installation, support and maintenance on the bus are the responsibility of the transit operator. Any field equipment procurement, installation, configuration, support and maintenance is the responsibility of the sub-system capital works contractor.

4.9.17.21. The Systems Integrator is responsible for the procurement, installation and configuration of the Opticom GTT CMS Software as a standalone system at the
HVTMC. Integration of the Opticom into ICMS will not be conducted as Opticom is currently not NTCIP compliant.

4.9.17.22. In addition, the Consultant is responsible for any modeling support that enables the configuration and verification of the transit signal priority parameters.

4.9.17.23. The models for existing and future (no-build) conditions for the corridor su-system will be developed by an independent NYSDOT consultant. The Consultant is responsible for co-ordination with the NYSDOT consultant.

Deliverables
- Detailed design document outlining the design approach and integration requirements
- Review and recommendation for work to be performed by the relevant NYSDOT contractor
- Hardware and software required to perform this integration.
- Appropriate plans as outlined in the statement of work as applicable to this task.
- Documented verification of integration.
- Final ‘as-built’ plans

Variable Message Signs (VMS)

4.9.17.24. For this sub-system, the Consultant is responsible for integration and configuration of all new field devices into the existing respective ATMS systems as identified in Task 15. The Consultant is also responsible for ensuring that the existing VMS are integrated via the ATMS with the ICMS.

4.9.17.25. Attachment 12 includes the list of all existing and proposed VMS for the corridor. It should be noted that the installation of new VMS signs or upgrades to existing signs will be conducted through a sub-systems capital works contractor contracted by NYSDOT.

Deliverables
- Detailed design document outlining the design approach and integration requirements
- Interface plans, diagrams, modifications and applications necessary to integrate into the ATMS and ICMS.
- Review and recommendation for work to be performed by the relevant NYSDOT contractor
- Hardware and software required to perform this integration.
- Appropriate plans as outlined in the statement of work as applicable to this task.
- Documented verification of integration.
• Final ‘as-built’ plans

Traffic Detectors

4.9.17.26. As part of this sub-system, a number of new field elements are proposed. These include but are not limited to BlueToad, Radar, Wireless Magnetometers and Counting Stations and Video Detection. Detectors will also be added as needed to support the Traffic Signals and Ramp metering sub-systems.

4.9.17.27. For this sub-system, the Consultant is responsible for the integration and configuration of all new field devices into the ICMS either through the existing ATMS or via an independent cloud server to enable simultaneous parallel connections to the existing ATMS and ICMS. The following table identifies the breakdown by detector type and status.

<table>
<thead>
<tr>
<th>Detector Type</th>
<th>Status</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bluetooth</td>
<td>Existing</td>
<td>via cloud server to ATMS</td>
</tr>
<tr>
<td>Bluetooth</td>
<td>Proposed</td>
<td>via server with API to ATMS and ICMS</td>
</tr>
<tr>
<td>Radar</td>
<td>Proposed</td>
<td>via server with API to ATMS and ICMS</td>
</tr>
<tr>
<td>AID</td>
<td>Proposed</td>
<td>data stream via server or local controller to ATMS and ICMS</td>
</tr>
<tr>
<td>VID</td>
<td>Proposed</td>
<td>via ATMS, Now and Transparity to ICMS</td>
</tr>
<tr>
<td>Count Station Loops</td>
<td>Existing</td>
<td>Local count station to ATMS</td>
</tr>
<tr>
<td>Count Station Loops</td>
<td>Proposed</td>
<td>via local count station to ATMS and ICMS</td>
</tr>
<tr>
<td>Wireless</td>
<td>Proposed</td>
<td>via ATMS, Now and Transparity to ICMS</td>
</tr>
</tbody>
</table>

Deliverables
• Detailed design document outlining the design approach and integration requirements
• Interface plans, diagrams, modifications and applications necessary to integrate into the ATMS and ICMS.
• Review and recommendation for approval work to be performed by the relevant NYSDOT contractor.
• Hardware and software required to perform this integration.
• Appropriate plans as outlined in the statement of work as applicable to this task.
• Documented verification of integration.
• Final ‘as-built’ plans
**CCTV Integration into ICMS**

4.9.17.28. For this sub-system, the Consultant is primarily responsible for integration of:

- Integration of all new CCTV devices into the existing ATMS
- Integration of all CCTV devices (existing and proposed) into the new video management system.
- The consultant is responsible for verification of the CCTV sub-system into the ICMS

4.9.17.29. In addition, the Consultant is responsible for any installation, configuration and support required to replace the existing HVTMC video management system. A replacement video management system will be procured by the state through an Invitation for Bids (IFB). The Consultant is also responsible for coordination with NYSDOT as part of the video management replacement installation and configuration.

**Deliverables**
- Detailed design document outlining the design approach and integration requirements
- Interface plans, diagrams, modifications and applications necessary to integrate the CCTV.
- Hardware and software required to perform this integration.
- Appropriate plans as outlined in the statement of work as applicable to this task.
- Final ‘as-built’ plans

**Overall Deliverables**
- Documented verification of the completion of integration
- Updates to system design documentation.

4.9.18. **Task 18 – Interface design/development from existing ATMS to agency Computer Aided Dispatch (CAD) systems (Optional Task)**

4.9.18.1. The high level project architecture for the ICM system is developed on the assumption that existing sub-systems in the agency centers will interface with the ATMS and the ICMS will interface with the existing ATMS. One of the key existing systems at TSOC and HVTMC are the CAD systems that act as the entry point for incidents which are then transferred to the ATMS.

4.9.18.2. An additional component of this project is to create a bi-directional interface that accommodates update of events from the ATMS into the CAD system. The
Consultant is expected to perform this task and the interface development to ensure a bi-directional interface between the CAD and ATMS systems.

4.9.18.3. It should be noted that this task has been revised to be an optional task to be further developed later as a time and materials task.

**Deliverables**
- Documented verification of the completion of integration
- Updates to system design documentation.

4.9.19. **Task 19 – Integration of LHTL –BRT Operational System with the ICMS**

4.9.19.1. As part of the LHTL project, a separate RFP has been issued by the NYSDOT for the procurement of a Transit Operator for the Lower Hudson Transit Link Bus Rapid Transit. The LHTL-BRT system will make extensive use of ITS assets, including Automatic Vehicle Locators (AVL), Computer-Aided Dispatch (CAD), onboard CCTV, and onboard information displays. The provider of these subsystems will be chosen by the selected transit operator and installed into the transit vehicles and at the bus shelters.

4.9.19.2. The Consultant is responsible for the Integration of the LHTL BRT CAD/AVL systems into the ICMS. The Consultant is expected to work with the Transit Operator in the integration of the LHTL BRT elements into the ICMS.

4.9.19.3. There will be a milestone combined design review in which the Consultant and Transit Operator are expected to present their respective designs concurrently to enable resolution of any conflicting design issues.

4.9.19.4. It is also expected that regular collaboration will take place between the Transit Operator and the Consultant to allow for the seamless and effective functioning of the transit-related equipment within the ICM framework.

**Deliverables**
- Documented coordination with the BRT Operator
- Documented verification of the completion of integration
- Updates to system design documentation.
4.9.20. Task 20 – Integration of TRANSCOM data feeds into ICMS

4.9.20.1. TRANSCOM is a 16 member coalition that receives data from participating transportation and incident response agencies across the three states in the New York City metropolitan area, combines the various feeds into a unified and usable format, and then returns it to the agencies to provide real-time region-wide situational awareness and allow for the more effective management of day-to-day travel through these linked feeds.

4.9.20.2. The Consultant is responsible for integration of data feeds from TRANSCOM into the ICMS as outlined in Attachment 26 – System Requirements Specifications. A list of available feeds from TRANSCOM is provided in Attachment 13.

4.9.20.3. Access to the TRANSCOM data feed samples will require Non-Disclosure Agreements (NDAs) with TRANSCOM. The Proposers shall make this request through NYSDOT who will forward this request to TRANSCOM in order to begin the process of executing the NDA and access to the sample data feed.

Deliverables
- NDA with TRANSCOM
- Documented verification of integration
- Updated System Design Documentation
4.9.21. **Task 21 – Center-to-field (C2F) and Center-to-Center (C2C) Communications Integration**

4.9.21.1. For this task, the Consultant is responsible for verifying that all C2C and C2F communications links have sufficient capacity to support all subsystem requirements and operations. The Consultant is responsible for ensuring the readiness of any new or modified C2C or C2F connections.

4.9.21.2. The Consultant shall verify all existing communications links and identify any new communications links that are necessary in order to satisfy project system requirements. This work may include the physical inspection of existing installed components where there is missing or conflicting information in the Systems Inventory. The Consultant will be responsible for updating and producing a complete and accurate inventory of C2C and C2F communication links along with diagrams documenting all logical and physical connectivity between systems and components, similar to the table shown below.

4.9.21.3. Where there are any gaps or discrepancies in existing systems’ documentations, the Consultant shall notify NYSDOT or its designated representative to coordinate an agreed plan forward.

4.9.21.4. Table 1 below provides details on the existing and proposed links.

<table>
<thead>
<tr>
<th>C2C CONNECTIONS</th>
<th>NYSDOT HVTMC</th>
<th>NYSTA TSOC</th>
<th>WCDPW</th>
<th>CWP</th>
<th>TRANSCOM</th>
<th>NYS BA</th>
<th>TrafficLand</th>
<th>NYSDOT HQ Albany</th>
<th>Rockland</th>
<th>NYS STA Tarrytown / TZH</th>
<th>DSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYSDOT HVTMC</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NYSTA TSOC</td>
<td>Existing 1Gbps via fiber. Proposed upgrade to 10Gbps.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>WCDPW T</td>
<td>Existing 1Gb/s via Cisco 1841 router to HVTMC1 TS_SW Cisco 3750 switch.</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 1 provides details on the existing and proposed links.
<table>
<thead>
<tr>
<th>C2C CONNECTIONS</th>
<th>NYS DOT HVTMC</th>
<th>NY STA TSOC</th>
<th>WCDPW T</th>
<th>CWP</th>
<th>TRANSCOM</th>
<th>NYS BA</th>
<th>TrafficLand</th>
<th>NYS DOT HQ Albany</th>
<th>Rockland</th>
<th>NYS TA Tarrytown / TZB</th>
<th>DSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWP</td>
<td>Existing via (1) EVPL connection</td>
<td>Yes</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TRANSCOM</td>
<td>Existing 100Mbps via the Internet</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NYSBA</td>
<td>Existing via (1) EVPL connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TrafficLand</td>
<td>Existing via Dell PCT6224 to HVTMC Backbone Cisco 3750 3-Switch Stack</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NYS DOT HQ Albany</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Rockland</td>
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<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NYSTA Tarrytown / TZB</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

**Deliverables**

- An approved updated systems inventory documenting all available attributes and data of all existing systems and components in the corridor.
- Draft, final, and approved detailed system design, procurement, integration, and implementation documents
- Draft, final, and approved verification and validation plan
- Draft, final, and approved project systems inventory and review documentation, including:
- Complete and updated network diagram(s) illustrating information flows and communications links (logical and physical) between all devices, equipment, infrastructure, and any other relevant project components.
• Full integration capabilities for all systems included in this RFP to meet all project requirements.
• Complete identification of hardware, software, and Internet or other Wide Area Network (WAN) links, IP addresses/ranges, sub-network assignments, and configurations of components at each node in the ICM.
• A detailed description of all data gathering and transmission methods and characteristics that are to be or have been implemented or interfaced with, including communications protocols, encoding/decoding, security, backup, data transmission/reception rates, and any applicable size, performance, or operability constraints.
• Integration of all relevant systems with third party software or hardware components.
• Installation, configuration, and testing of any new system components satisfying all project requirements and as listed elsewhere in this RFP.
• Interface Control Documents with graphical and textual descriptions of each interface and the associated systems, functions, operations, and demonstrating compliance with project requirements.
• Draft, Final, and Approved Software Modification Plan(s) for any new or modified software programs or where requested by NYSDOT
• Documented coordination of design and implementation with NYSDOT and any third parties (including vendors) regarding all new or modified communications links and devices.
• Documentation demonstrating performance of all systems and subsystems meets all relevant system requirements and testing has been executed in accordance with the Verification and Validation Plans.
• Coordination with NYSDOT’s independent V&V contractor to delineate scope of work and documentation delivery.
Phase IV – System Integration Verification and Validation

4.9.22. Task 22 – System Testing

4.9.22.1. The Consultant shall conduct all integration and acceptance tests required to ensure all the systems and subsystems meet all requirements specified in project documents and this RFP and Attachment 15 - Scope of Services, part 3.6.4-3.6.7

4.9.22.2. The Consultant is expected to work with NYSDOT’s independent V&V contractor. The contractor will provide test specifications for user acceptance testing and witness all tests on behalf of NYSDOT. The Systems Integrator will revise any test plans based on input from the independent V&V contractor.

Deliverables:
- Test Strategy, associated Test Plans and results as outlined in the Verification Plan described in Section 4.9.8

Phase V – System Operation, Maintenance, and Support

4.9.23. Task 23 – Ongoing maintenance and support

4.9.23.1. The Consultant shall operate and maintain all installed components through the duration of the contract in accordance with the Operations & Maintenance requirements outlined in Attachment 15 – Scope of Services, part 3.10.

4.9.23.2. In addition to routine maintenance, the Consultant shall provide specific system support tasks as identified in Attachment 14: Service Level Agreements. Examples of potential support tasks include but are not limited to the following:

- Adding another node to the network;
- Making a user-requested change to the system software;
- Providing system recovery in case of crash of the system;
- Increasing system reliability when needed;
- Software debugging as required;
- Reviewing system log files;
- Continuously monitoring network devices, ITS devices and other system components;
- Cleaning system cache memory, temporary files, and database systems;
- Ongoing configuration management; and
- Providing additional hardware to replace failed units or as spares.
Deliverables
- Maintenance and support plan updates


4.9.24.1. The Consultant shall provide on-call technical support to NYSDOT staff as directed by the NYSDOT Project Manager. Technical support may include:

- Configuration of hardware
- Configuration of software
- Evaluation of COTS software
- System testing support

Deliverables
- Updated Support documentation

4.9.25. Task 25 – Manuals

4.9.25.1. The Consultant is expected to develop manuals and documentation for operations and maintenance of the installed equipment in accordance with Attachment 15 - Scope of Services, part 3.8.7 and 3.8.8.

Deliverables
- Operations and Maintenance Manuals following Attachment 15 – Scope of Services, DID – 017, 018 (bound hard and electronic copies)


4.9.26.1. The Consultant is expected to offer appropriate training to NYSDOT staff and other local agency staff as outlined in Attachment 15 - Scope of Services, part 3.9

Deliverables
- Operator and Maintainer Training in adherence to procedures outlined in the Scope of Services and in line with NYSDOT policies and requirements.
4.9.27. **Task 27 – Contract Transition**

4.9.27.1. This task shall only be required if the Consultant is not designated for award of a contract to replace this contract. To ensure a seamless transition between the Systems Integrator and a future designated contractor, NYSDOT will establish a transition period during which the Consultant will work with the future designated Contractor to provide the necessary coordination and services without interruption during the transition.

- The Consultant shall update the Initial Transition Plan submitted with its proposal, ready to execute prior to completion of the contract period (or extension(s), if any). The Final Transition Plan shall ensure a transfer of the System Integration service without interruption if the Consultant is not designated for award of a replacement contract. The Plan shall be submitted to the NYSDOT Project Manager 90 days before the anticipated transition date for approval.

- The Plan shall identify the operational requirements during the transition and provide technical support for any systems malfunctions. It shall detail a schedule of staffing necessary to transition the program, and include an interim status report.

- The Plan shall include the process to transfer all physical and intellectual assets. The Systems Integrator shall return to the NYSDOT Project Manager all NYSDOT property including any data. At the end of the contract, the Consultant shall remove such data from any electronic equipment owned by the Consultant.

- At the discretion of the NYSDOT Project Manager, the Consultant will participate in meetings with partner agencies and the future designated contractor to address any concerns prior to transition.

- The Consultant shall train successor contractors in accordance with the NYSDOT-approved Final Transition Plan.

- The Consultant shall provide full operational support services for the ICM to NYSDOT during the transition in accordance with the NYSDOT-approved Final Transition Plan.

- The Consultant shall verify and update all project documentation for the ICM during the transition.
• The Consultant shall provide ICM knowledge transfer support services during the transition in accordance with the NYSDOT-approved Final Transition Plan.

**Deliverables**
- Final Transition Plan

**4.10. **Document Review, Maintenance and Access

All records/reports must be in Word, Excel, PDF or another format acceptable to NYSDOT. Documents must be available when requested by NYSDOT or automatically shared with NYSDOT in electronic format via e-mail or managed file transfer (for larger sized documents). Should NYSDOT want to review records pertaining to this contract at the selected Consultant’s offices, NYSDOT shall be given access to those files upon reasonable notice.

The Consultant must maintain all records at a location accessible by NYSDOT staff and in an electronic format acceptable to NYSDOT. Per the contract, all records produced under this contract are property of NYSDOT. Should the work between NYSDOT and the selected Consultant be terminated, all records shall be turned over to NYSDOT or its designated recipient.

**4.11. **Schedule

The Consultant must develop a schedule as identified in the attached Scope of Services. Section 5.1.7 lists the major milestones.
5. PROPOSAL FORMAT AND CONTENTS

For the purposes of evaluation, each proposal must be submitted in two parts, bound separately. Part I shall consist of the Technical and Management submittal. Part II is the Cost and Administrative submittal. Each part of the proposal must be complete in itself in order that the evaluation of both parts can be accomplished independently and concurrently, and the Technical and Management submittal can be evaluated strictly on the basis of its merits. Cost information is not to be included in the Part I submittal. Your proposal should follow the format listed below.

Web links, photographs, and illustrations (except for the organizational chart) are not to be included unless specifically required in this section.

NOTE: NYSDOT will protect confidential and proprietary information from disclosure to the extent permitted by the Freedom of Information Law (“FOIL”), Article 6 of the Public Officers Law. If a Proposer believes information included in their proposal is confidential and proprietary, they should identify those page(s) of their proposal which contain such information as “confidential and proprietary.” Additionally, Proposers need to explain the reason(s) why this information should be considered exempt from public disclosure under FOIL. This information is to be provided in the Cover Letter.

Note: Cost information is not to be included in the Part I submittal, and Technical and Management information is not to be included in Part II submittal.

5.1. Part I: Technical and Management Submittal

Part I shall include the following sections:

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten (10) Printed hard copies (three-ring binder, tabbed and labeled)</td>
<td>of Part I plus one copy of Part I on CD/DVD in Adobe PDF format.</td>
</tr>
<tr>
<td>Securely sealed and clearly labeled with the Systems Integrator’s name,</td>
<td>address, and telephone number and the words “INTEGRATED CORRIDOR MANAGEMENT (ICM) SYSTEM INTEGRATOR</td>
</tr>
<tr>
<td>Signed Cover Letter on official business letterhead and title page</td>
<td>SERVICES FOR NYSDOT RFP Part I — Technical and Management Proposal (C031480)”</td>
</tr>
<tr>
<td>Table of Contents identifying each major section and page numbers</td>
<td></td>
</tr>
<tr>
<td>Project Delivery Strategy and Approach</td>
<td></td>
</tr>
<tr>
<td>Conceptual Design</td>
<td></td>
</tr>
</tbody>
</table>


5.1.1. **Cover Letter, and Title page, indicating:**

Name, address, and phone number of the Proposer, and the name, title, address, email, and telephone number of person(s) with authority to negotiate and who may be contacted during the procurement process. Provide a brief description of the proposed approach, work effort, and resulting product. Confidential and proprietary information should also be identified and addressed in this section. This is not to exceed a single page.

5.1.2. **A Table of Contents**

5.1.3. **Project Delivery Strategy and Approach**

Provide a discussion highlighting the overall project delivery strategy including key phases and approach. This section should also include enough substantive discussion to demonstrate an understanding of NYSDOT project objectives and familiarity with applicable laws, rules, and procedures. Finally, this section should include a strategic plan for integration into DYNAC ATMS within the constraints of project specified in Section 4.9.16.

5.1.4. **Conceptual Design**

The Proposer shall describe its Conceptual Design for performing the work and accomplishing the scope and objectives as identified in Section 4 of this RFP and Attachment 15 - Scope of Services. The proposer’s technical approach shall be based on the tasks outlined in this RFP.
5.1.5. **Initial Project Management Plan, Risk Management & Through Life Support**

5.1.5.1. The Proposer shall describe its Initial Project Management Plan addressing the following areas:

- Project Definition and Scope (design, development, installation, testing, commissioning and training)
- Project Administration
- Project Controls

5.1.5.2. The Proposer shall propose a Through life support Strategy for the ICM system as part of the proposal response.

5.1.5.3. The Proposer shall include in its Initial Risk Management Plan, a risk register that highlights the top 20 project risks, ratings and proposed mitigation strategies.

5.1.5.4. The Proposer shall describe its Initial Project Security Plan that defines the activities and environment necessary to securely host the ICM System.

5.1.6. **Requirements Management Strategy and Proposed Software Tool**

5.1.6.1. As part of the response to the RFP, the Proposer shall propose a strategy for the management of requirements developed for the ICM system. The Consultant shall propose a strategy and solution that adheres to the requirements laid out in Task 2 in Section 4.9 of this RFP.

5.1.7. **Project Schedule (single 11/17 sheet of paper)**

The Proposer shall submit a Gantt chart showing all major activities. The Gantt chart shall be presented in hard copy printed on an 11” by 17” sheet with all as-printed font sizes at least 8 point and provided electronically in PDF and, if applicable, Microsoft Project. The major activities shall include the Project Completion Date and the following Major Interim Milestones. The entry and exit criteria for these milestones are listed in Attachment 15 - Scope of Services, part 1.3.6

- Preliminary Design Review
- System Design Review
- System Integration Readiness Review
- System Test Readiness Review
Functional Configuration Audit  
Physical Configuration Audit  
System Operational Readiness Review  
Day 1 +6 months

In developing the schedule, Proposers should assume contract award and a Notice to Proceed Date (currently estimated at March 1, 2017), and Operational Date no later than September 1, 2018. In addition, all deferred delivery outlined in specific tasks must be accomplished no later than September 1, 2019.

In addition to the Gantt Chart, the Proposer shall complete Form SCD (Attachment 19: Schedule of Contract Durations), detailing the proposed Project Completion Date and the Major Interim Milestones. Failure of the Contractor to meet the Project Completion Date or the Major Interim Milestones shall result in the liquidated damages stated on Form SCD being assessed against the Contractor. Liquidated Damages shall be an offset against future invoices.

5.1.8 Organization Chart (single 11/17 sheet of paper) and Staffing Plan.

The Proposer shall submit an Initial Staffing Plan for the project. The Plan shall include the following:

- Provide an organizational chart (on 11”x17” sheet of paper) for the project showing the names of the Consultant’s Key Personnel. The chart should show reporting relationships and lines of communication. A sample chart is included in Attachment 16 – Sample Organization Chart.

- Provide a narrative (not to exceed 2 pages maximum) describing the measures the Proposer will use to retain the Key Personnel as well as supporting staff, how the Proposer will maintain full staffing in face of vacations, retirements, and unplanned events such as illness or staff terminations, and what methods the Proposer will use to hire and screen potential new staff.

- Provide a staffing table broken down by task showing the Key Personnel and additional staff. The staffing table shall also show the proposed number of hours per task for each Key Personnel and additional staff. ONLY the proposed hours per task are to be included in this table, NO COSTS are to be included.

- Provide Consultant Key Personnel Resume and Reference form Attachment 10 that includes, at a minimum, the following Key Personnel roles and any other roles that it considers instrumental to the project. A broad outline of roles and key responsibilities is included here. In addition, Section 5.1.9 lists the desired qualifications for key roles.
identified below.

- **Project Manager** – Responsible for the execution and coordination of all aspects of the Consultant’s project plan, performs project management activities (schedule management, change management, risk management, and resource management), serves as the primary point of contact for NYSDOT, and has authority to act on behalf of the Consultant.

- **Operations Manager** – The primary contact for NYSDOT for all day-to-day operational questions and/or issues and will be required to clarify, explain, provide further details, handle necessary technical matters, implement technical changes, and develop administrative procedures.


- **System Integration Lead Engineer** – The Engineer-in-charge responsible for developing and implementing the system architecture and requirements.

- **System Network Design Engineer** – The Engineer-in-charge responsible for developing and implementing the system architecture and requirements.

- **Training Manager** – Responsible for executing the Knowledge Transfer and Training Plan and all required activities.

- **Supporting Staff/Technicians** – Responsible for technical assistance in operations, testing and training as needed.

5.1.8. **Desired Qualifications for Systems Integrator Personnel**

5.1.8.1. **Project Manager**

- Shall have at a minimum a Bachelor of Science Degree in Electrical, ICT, Engineering or Civil Engineering with experience in Systems Engineering, and 10+ years of experience in systems engineering, having at least 5 years in the Traffic and/or Transportation industry.

**Qualifications Desired**

- Able to exercise considerable independent judgment in performing moderate to complex strategies.
• Demonstrated skill managing professional staff in high pressure environment
• Excellent communications skills – ability to clearly articulate and interpret complex instructions and policies to staff
• Demonstrated ability to work well under stress / strict time constraints
• Experience interpreting and implementing system requirements

5.1.8.2. Task Leads (Operations Manager, System Acceptance Testing Manager, Training Manager)

• Shall have at a minimum Bachelor of Science Degree in Electrical, ICT, Engineering or Systems Engineering and 6+ years of experience in systems engineering, having at least 5 years in traffic and/or transportation industry.

Qualifications Desired
• Able to exercise considerable independent judgment in performing moderate to complex strategies.
• Extensive experience in operations, testing and training (as applicable) of systems integration projects.
• Experience in integrating multiple systems, in multiple locations
• Hands-on experience with making adjustments to intelligent transport equipment and IT systems
• Knowledgeable in traffic operations and incident management
• Good problem solving skills
• Strong communication skills
• Strong organizational skills
• Ability to establish and maintain effective working relationships
• Creative thinkers

5.1.8.3. Systems Integration Lead Engineer/ Other Engineers

• Shall have at a minimum a Bachelor of Science Degree in Electrical, ICT, Engineering or Systems Engineering and 6+ years of experience in systems engineering, having at least 5 years in traffic and/or transportation industry

Qualifications Desired
• Able to exercise considerable independent judgment in performing moderate to complex strategies.
• Extensive engineering experience in systems integration projects.
• Experience in integrating multiple systems, in multiple locations
• Hands-on experience with making adjustments to intelligent transport equipment and IT systems
• Knowledgeable in traffic operations and incident management
• Good problem solving skills
- Strong communication skills
- Strong organizational skills
- Ability to establish and maintain effective working relationships
- Creative thinkers

5.1.8.4. Network Design Engineer

- Shall have at a minimum BS, CS, or University degree equivalent and 8+ years relevant experience in network engineering or telecommunications support environment.

Qualifications Desired

- Ability to Design, Deploy, manage, and operate a modular End to End DC networking Infrastructure.
- Broad technical knowledge of the data center and its components: Applications, Storage, Network, Server and projects surrounding their planning, design, implementation, operation, and optimization.
- Plans and executes highly complex Network Upgrade and Network Migration activity.
- Architectural knowledge of Three Tiered application environments
- Architectural knowledge of virtualization tools and concepts
- In depth knowledge and experience with virtualization tools and concepts.
- Networking: OSI Layer 2 (Spanning tree, vPC, Fabric Path, EtherChannel, VLAN, etc), Layer 3 switching /routing (OSPF, EIGRP, ISIS, BGP, MPLS, IPv4/6), DNS/DHCP WAN/ISP, network virtualization (N1kv, VRF), basics of higher layer protocols: SSL/TLS, HTTP, real-time traffic (voice/video), NFS, database access protocols
- Programmatic control of infrastructure elements (data model, API), integration frameworks and technologies (SP-style)
- Content Switching (OSI Layer 4-7 Switching, Load-balancers), Caching and Content Delivery
- Good understanding of Servers and Applications is required, including application development/deployment methodologies
- Network/Infrastructure Security technologies (Firewall, access control, intrusion detection, intrusion prevention, administrative access control) and Compliance (PCI, SOx, HIPAA)
- Programmatic methods to provision manage and control infrastructure services
- Generates standard project documentation including detailed test plan for highly complex networks, design diagrams, protocols, IP Schema and other related maintenance documentation.
- Generates network configurations from Low Level Design for highly complex networks.
Troubleshooting highly complex customer network problems across a broad range of technologies, Acts as a focal point for highly complex network problem resolution.

5.1.8.5 Supporting Staff (Operations, Testing and Training Technicians)

- At a minimum a High School Diploma or Equivalent

**Qualifications Desired**

- 6 months’ experience using computer applications relevant to this project
- Minimum 18 months’ experience working in an engineering or ICT discipline
- Excellent verbal communication skills over phone and in person
- Ability to work in a fast-paced work environment
- Ability to take direction and follow detailed procedures
- Excellent attention to detail
- Punctual and reliable schedule adherence

- The Key Personnel proposed by the designated Consultant are an important factor in the evaluation of its proposal. Thus, the Department expects that the personnel proposed will be available at the start of the contract term. As a result, any personnel proposed by the designated Consultant that does not perform the required work under the contract for the initial 30 calendar days after the effective date of the Notice to Proceed will, at NYSDOT’s discretion, result in a $10,000 charge per personnel title as Liquidated Damages.

In addition, if at any time during the term of the contract a member of the Consultant’s Key Personnel needs to be replaced, the Consultant shall have 30 calendar days to submit a qualified Candidate (same level of experience and expertise) to NYSDOT for approval. In the event the Consultant is unable to provide a qualified Candidate within 30 calendar days, and NYSDOT must use in-house NYSDOT staffing, or NYSDOT must hire a separate Consultant to provide the personnel, NYSDOT will, at its discretion:

- Charge and bill the Consultant $100/hour for the use of in-house NYSDOT personnel, or
- Charge and bill the Consultant a 10% administrative fee on top of and in addition to whatever NYSDOT is billed by an out-of-house Consultant. If, for example, NYSDOT must hire a separate Consultant to provide a service at $100/hour, NYSDOT will charge and bill the Consultant $110/hour.

The determination that a Candidate is “qualified” is the sole decision of NYSDOT. All amounts specified above will be billed as an off-set against future Consultant invoices.
Using the major milestones detailed, provide a Staffing Table, which will include an estimate of total effort hours contributed by each of the key personnel for each task and an estimate of total effort hours for each task. The estimates provided should be aligned with those in the Cost workbook.

If sub-consultants are to be used, explain the specific need for their expertise and describe the arrangements. Discuss recruiting, training, assigning and substituting Consultant staff to assure the Project Completion Date shall be met. Include in this discussion how staff will be recruited, trained, what provisions will be made for coverage during vacations, illnesses and absences, and how personnel turnover will be minimized.

5.1.8.5. **Experience of the Firm**

The qualifications and prior experience of the proposer are of great importance to NYSDOT. Direct, prior experience in System Integration of traffic systems similar in size, scope, and complexity as described in Section 4 of this RFP is highly desirable. Provide a list of projects currently in progress and those completed within the last five years which are relevant to this effort. Indicate proposed key personnel who are, or have worked, on such projects. Include names, addresses and phone numbers of contact points with the listed clients. NYSDOT reserves the right to request information from any source so named.

Note: If the proposal is being presented by a Proposer and one or more sub-consultants, at least two of the references must be for work completed by the Proposer.

5.2. **Part II: Cost and Administrative Submittal**

<table>
<thead>
<tr>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four (4) Printed and bound hard copies (three-ring binder, tabbed and labeled) of Part II plus one (1) copy of Part II on CD/DVD, in Adobe PDF and MS Excel 2007 (for Attachment 25) format</td>
</tr>
<tr>
<td>Securely sealed and clearly labeled with the words “INTEGRATED CORRIDOR MANAGEMENT (ICM) SYSTEM INTEGRATOR SERVICES FOR NYSDOT RFP, Part II — Cost and Contract Proposal (C031480)”</td>
</tr>
<tr>
<td>Required Cost information (complete and submit Attachment 25, Cost Proposal Workbook)</td>
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</tbody>
</table>

Administration Submittal:

<table>
<thead>
<tr>
<th>Requirement</th>
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</thead>
<tbody>
<tr>
<td>Complete and submit Attachment 2: Systems Integrator Information and Certifications (sign both Sections II and III)</td>
</tr>
<tr>
<td>Complete and submit the Attachment 3: Procurement Lobbying Law Compliance Forms</td>
</tr>
<tr>
<td>Requirements</td>
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<tr>
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</tr>
<tr>
<td>Complete and submit Attachment 5: DBE Participation Information Form</td>
</tr>
<tr>
<td>Complete and submit (if applicable) Attachment 6: Subconsultant Participation Solicitation Log AND Goal Attainment Explanation Letter</td>
</tr>
<tr>
<td>Complete and submit Attachment 8: Form AOR Acknowledgement of Receipt</td>
</tr>
<tr>
<td>Complete and submit Attachment 9: Non-Collusive Bidding Certification</td>
</tr>
<tr>
<td>Certification of completed online Vendor Responsibility Questionnaire</td>
</tr>
<tr>
<td>Complete and submit Attachment 33: Vendor Assurance of No Conflict of Interest or Detrimental Effect</td>
</tr>
</tbody>
</table>

Part II of the proposal consists of two general sections:

A Cost Proposal, which shall set forth the deliverable based amount for performing the work in the scope of services; and

The Administration Section, which shall specify the proposer’s acceptance of the terms and conditions contained in the draft Contract enclosed as Attachment 1 – Draft Contract to this solicitation, as well as host several other administrative items.

The above general sections shall include the following:

5.2.1. **Cost Proposal**

5.2.1.1 NYSDOT requires that all cost information be presented using the RFP-provided Microsoft Excel spreadsheets (see Attachment 25, ‘Cost Proposal Workbook’) in both a hardcopy Part II response and an electronic copy on CD, securely presented in the Part II response. The Proposer cannot modify the format or calculations of the spreadsheet. The spreadsheet is protected with limited areas for Proposer data entry.

5.2.1.2 When completing the Excel cost worksheets included in Attachment 25 Proposers shall follow these instructions:

1. The one-time and recurring costs the proposer provides within the Cost Proposal must include ANY AND ALL one-time and recurring fees, charges, or costs for the duration of the contract, including but not limited to:
   a. All direct and indirect costs, all overhead, fees, profit,
   b. Labor, parts, shipping, material and equipment cost;
   c. Software licensing;
   d. Emergency work;
   e. Maintenance services as specified herein;
   f. Repairs and replacement of major or minor parts as necessary;
g. Administrative, reporting or other requirements;

h. Travel costs, parking fees, and any other ancillary fees including permits; licenses, insurance, etc., and

i. Services not explicitly stated in these specifications, but necessarily attendant thereto as applicable to the associated item for which the rate/fee is being quoted.

2. Terminology used in the cost spreadsheets for products and services must be consistent with the terminology used in the technical portion of the response.

3. All worksheets included in Attachment 25 must be completed in order for the response to be considered complete.

4. Proposer should not make entries in colored cells in Attachment 25’s Excel spreadsheets. Changes should not be made to the spreadsheet format or formulas. Proposers shall not attach any additional or qualifying information except otherwise noted.

5. Proposer shall attach a detailed itemized list of Direct Non-Salary Costs (DNSC) that are separated by Firm and Task (for example a detailed list for Task 1 showing DNCS for each firm, a separate detailed list for Task 2 showing DNCS for each firm). The total of DNCS for each task shall be entered into Attachment 25 Excel spreadsheet in the cell indicated on the spreadsheet.

5.2.2. Administrative Section

All signatures on each copy must be an original.

a) Acceptance of Terms and Conditions
Proposers shall complete and submit the “Consultant Information and Certifications Form,” included as Attachment 2 to this RFP, to indicate their acceptance of all of the terms and conditions contained in the draft Agreement (Attachment 1 – Draft Contract). Altering this form without the prior expressed written approval of the New York State Department of Transportation is prohibited and may lead to the proposal being deemed non-responsive and subsequently dismissed. No exceptions to any of the draft contract’s terms and conditions will be entertained by NYSDOT. Conditional bids will be deemed non-responsive.

b) DBE Participation
In Part II of your firm’s proposal, provide the following:

i. Complete and submit Attachment 5: DBE Participation Information. Provide the legal names of all certified DBE Consultant (prime and/or sub-consultants).
ii. For firms whose DBE participation is less than the established goal stated in Section 2 (or where the prime Consultant’s certified as a DBE proposes to meet the Department’s DBE participation goal via their meaningful participation), the firm must also complete and submit Attachment 6: Solicitation Log. Submission of a Goal Attainment Explanation Letter shall be required for proposals with either partial goal attainment or no goal attainment at all.

c) Modification Acknowledgement Forms
   The Proposer shall include a completed Attachment 8: Form AOR acknowledging receipt of any Modifications issued by the Department.

d) Non-Collusion Bidding Certification

   All Proposers shall submit a completed Attachment 9: Non-Collusive Bidding Certificate.

e) Procurement Lobbying Law


   Filing the two required forms is mandatory for all Systems Integrators in order to be considered for contract award. These Forms are:

   • Proposer’s Affirmation of Understanding of and Agreement pursuant to State Finance Law §139-j (3) and §139-j (6) (b) https://www.dot.ny.gov/main/business-center/consultants/consultants-repository/offers_affirmation_and_agreement_form.pdf

   f) Failure to submit the required PLL forms with your proposal will result in elimination from consideration for contract award.
5.2.2.1. Use Contract Number C031480 wherever requested in the forms. Please call or e-mail the individuals identified as the Designated Contact in section 1.5 of this RFP if you have any questions regarding how to complete this required form.

5.2.2.2. Per the Procurement/Lobbying Law of 2005, any person who wishes to contact NYSDOT regarding this project during the restricted period (i.e. from advertisement through designation), may only contact the person noted in Section 1.5 to this solicitation.

5.2.2.3. For additional information, refer to Attachment 3: Procurement Lobbying Law Compliance (Section 8.3).

5.2.3. **Vendor Responsibility**

In accordance with the NYS Finance Law, NYSDOT will only make contract award to vendors that are determined to be responsive and responsible. All selected proposers of contracts valued at $100,000 or more will be required to submit a Vendor Responsibility Questionnaire through the Office of the State Comptroller website via http://www.osc.state.ny.us/vendrep/index.htm before negotiation of a contract. Proposers must certify the accuracy of the information they provide in the questionnaire. In addition, any sub-consultants providing services valued at $100,000 or more is required to submit a Vendor Responsibility Questionnaire through the Office of the State Comptroller website.

5.2.4 **Vendor Assurance of No Conflict of Interest or Detrimental Effect**

All Proposers and proposed Sub-Contractors/Sub-Consultants shall submit a completed **Attachment 33 – Vendor Assurance of No Conflict of Interest or Detrimental Effect.**
6. PROPOSAL EVALUATION

6.1. Criteria for Evaluation of Proposals

6.1.1. General

6.1.1.1. Proposals shall be pre-screened to determine if they meet the minimum RFP responsiveness (Section 1.4). Those which do not shall be deemed non-responsive and shall be removed from further consideration.

6.1.1.2. Proposals shall then be evaluated by the Department using a Best Value Method evaluation process based on the technical and cost criteria described below. Technical considerations are of greater importance than pricing considerations; however, price is a significant factor in the Department’s evaluation of proposals. Technical proposals will be scored based on the information provided under Section 5.1 in accordance with the pre-established criteria listed in Section 6.1.3. The cost portion of Section 5.2 will be point scored in accordance with the pre-established criteria listed in Section 6.1.4.

6.1.1.3. The Technical and Management Proposal evaluation will be accomplished by a representative committee comprised, as appropriate, of technical, program and management personnel. The Department reserves the right to augment the committee to include a technical advisor. Committee members will score each proposal individually and then meet as a group to discuss the proposals. Evaluators will be allowed to revise scores on the basis of the committee discussions. Only proposals determined to be technically acceptable and susceptible for contract award will be considered further and have their cost proposal included in the selection process.

6.1.1.4. Proposers responding to this RFP may be requested to clarify issues or to provide additional insights into their proposal through written clarifications and/or technical interviews. If written clarifications are required to complete the technical evaluation of proposals, evaluators will be allowed to revise their technical scores based on this additional information. Furthermore, the Department reserves the right to ask clarifying questions regarding each cost proposal (Part II) and DBE participation as well.

6.1.1.5. Technical interviews are required to complete the technical evaluation of proposals, and the criteria listed below under Section 6.1.5 will be used to evaluate the
technical interviews. The total percentage for technical proposals (see below) will be distributed so that [60%] will be for the written submission(s) and [10%] for the technical interview. Clarification questions may also be asked of proposers after technical interviews have been completed. Technical Interviews will be held at the Department’s offices located in Albany, New York at a date and time to be determined by NYSDOT.

6.1.1.5. The Department reserves the right to request best and final offers from firms that are determined to be susceptible for contract award.

6.1.1.6. An award shall be made to the proposer whose proposal receives the highest total score after considering all technical and cost/price evaluation factors. Should NYSDOT opt to request best and final offers, it reserves the right to re-score technical and cost proposals. Further, NYSDOT reserves the right to re-score technical and cost proposals should a firm withdraw from this solicitation or be deemed non-responsive after initial evaluation and scoring.

6.1.1.7. **Note:** In the event two or more proposals are found to be “substantially equivalent”, the Department reserves the right to award the contract under the terms of State Finance Law §163 (10)(a).

6.1.1.8. At the conclusion of the evaluation process, an announcement of the Department’s designation(s) will be posted on the NYSDOT web site. All non-designated firms shall be notified in writing regarding the results from the solicitation, and will be offered an opportunity to hold a debriefing. Further, it is expressly understood that this Request for Proposals does not commit the Department to award a contract, pay any costs incurred in the preparation of a proposal to this request, or to procure or contract services or supplies. Further, the Department shall have no obligation or liability whatsoever to the vendor selected as a result of this solicitation unless and until a contract satisfactory to the Department is approved and executed by the vendor and all necessary State officials.

6.1.2. **Pre-Screening of Proposals**

6.1.2.1. NYSDOT will conduct a pre-screening of each proposal to ensure all contents have been submitted in accordance with the minimum proposal responsiveness requirements as specified in the RFP. RFP specifications include that it is NYSDOT’s sole discretionary determination as to whether a proposal is complete (reference “Minimum RFP Responsiveness” Section 1.4). Proposals which do not
meet the mandatory specifications in the Minimum RFP Responsiveness section will be deemed non-responsive by NYSDOT and will not be considered further.

6.1.2.2. As part of the pre-screening process, the proposed DBE participation percentages offered for NYSUCP-certified prime Consultant and/or NYSUCP-certified sub-consultants will be reviewed (Attachment 5 DBE Participation Information). To count towards the Department’s DBE participation goal, each firm must be currently listed in the NYSUCP Directory. If the proposed DBE participation is less than the established 11% goal (or where a prime Consultant certified as a DBE proposes to meet the Department’s DBE participation goal via their meaningful participation), the firm’s evidence of a Good Faith Effort (Attachment 6 Sub-Consultants Integrator Participation Solicitation Participation Solicitation Log to achieve the goal will be reviewed, along with the firm’s letter of explanation (Goal Attainment Explanation Letter) as to why it was unable to meet the goal.

6.1.2.3. During the review process, which will include verification of a Proposer’s Good Faith Effort evidence, if it is determined by the Department that the Proposer did not provide an acceptable Good Faith Effort, then the Proposal will be deemed non-responsive. Any Proposals deemed non-responsive shall be removed from further consideration.

6.1.3. Technical and Management

6.1.3.1. The technical and management proposal will be scored and will represent 60% of the total score for a proposal. The major evaluation criteria are listed in descending order of importance. Sub-criteria within major evaluation factors are also in descending order of importance.

6.1.3.2. A proposal to be deemed technically acceptable and susceptible to contract award must receive an average raw committee score of 36 points or higher out of a total possible of 60 points.


A. The degree to which the conceptual design demonstrates the understanding of the project scope;
B. The degree to which the project delivery, strategy and approach reflects understanding and comprehension of the project scope and objectives;

C. The degree to which the initial project management plan, risk management, initial project security plan, & through lift support submitted demonstrate the understanding of the project scope and required deliverables;

D. The degree to which the requirements management strategy and proposed software tool demonstrate the understanding of the project scope;

E. Creativeness and innovation of the Consultant in the methods proposed for the System Integration for the ICMS including the strategic solution for DYNAC integration within NNYB contractual obligations.

6.1.3.4 Project Schedule and Schedule of Contract Durations (5 points)
A. Completeness and reasonableness of the project schedule;
B. Completeness and reasonableness of Schedule of Contract Durations in relation to the Gantt Chart.)

6.1.3.5 Organization Chart and Staffing Plan (5 points)
A. The degree to which the staffing table and hours presented are reasonable for the project scope;
C. Quality of the organization chart showing the names of all key personnel
D. The degree to which the organization chart shows the relationships and lines of communication;
E. The quality of the narrative staffing plan describing the measures to retain key personnel/supporting staff, maintaining full staffing, hiring and screening new staff.

6.1.3.6 Experience of the Firm and Key Personnel (25 points)
A. The quality, extent and relevance of current and prior experience of the firm, as measured by client references about satisfactory performance and integrity on previous contracts;
B. The quality, extent and relevance of experience, education and training of key personnel;
C. Experience of the proposer in procuring and integrating advanced technology.
6.1.4. **Cost**

6.1.4.1. The cost portion of the cost and contract proposal will be point scored and will represent 30% of the total score for a proposal. The Contractor shall provide, in the cost spreadsheets provided in Attachment 25: Cost Proposal Workbook, the total cost to perform the Scope of Services.

6.1.4.2. The calculation of a cost score will be determined by the following method:

   A. The lowest cost proposal will receive the full amount of points.
   B. Every other proposal within the competitive range will be given points proportionately in relation to the lowest price.
   C. This point total will be calculated by dividing the lowest proposed price by the total price of each proposal, multiplied by the maximum weight for price (30 points).

6.1.5. **Technical Interviews**

6.1.5.1. Technical Interviews will be held at the Department’s offices located at Albany, NY at a date and time to be determined by NYSDOT. The Technical Interview portion (only available for firms mathematically subject to contract award; ie, shortlisted) of the Technical and Management proposal will be technically evaluated and point scored and will account for a separate block of up to 10 points of the total best value score for a proposal. The technical interviews will represent 10% of the total score for a Proposal.

6.1.5.2. The Proposer would be expected to give a presentation (no more than 15 minutes) on their Proposal, and then submit to questioning by the evaluation committee. This interview would confer up to 10 additional points to each Proposer who participates, as follows:

   A. Additional insights into technical aspects of the firm’s proposal (up to 4 points)
   B. Understanding of project risks and effectiveness of proposed mitigation strategies (up to 3 points)
   C. Ability of the presenting team to address and answer the committee’s clarifying questions; team chemistry (up to 3 points)
7. ADMINISTRATIVE SPECIFICATIONS

7.1. Proposal Submission

7.1.1.1. The Proposal shall be signed by an official authorized to bind the proposer.

7.1.1.2. Proposers shall submit 10 copies of Part I and 4 copies of Part II.

7.1.1.3. Your Proposal must be received by NYSDOT by noon (EST) on March 2, 2017. The proposal must be addressed to

Patricia Kappeller  
NYS Department of Transportation  
50 Wolf Road, 6th floor  
Albany, New York  12232  
Attention: # C031480  {ICM Systems Integrator- RFP }

7.2. State’s Rights

All Proposals, upon submission to NYSDOT, shall become its property for use as deemed appropriate. By submitting a Proposal, the Consultant covenants not to make any claim for or have any right to damages because of any misinterpretation or misunderstanding of the specification, or because of any misinformation or lack of information. With regard to Proposal submitted, NYSDOT asserts the following prerogatives with regard to Proposals submitted:

a. To accept or reject any or all Proposals;
b. To correct any arithmetic errors in any or all Proposals;
c. To change the Proposal’s due date upon appropriate notification to interested firms;
d. To eliminate any mandatory RFP requirement or specification unmet by all Proposers in the evaluation of received Proposals;
e. To adopt any or all of a successful Proposer’s Proposal;
f. To negotiate modifications to the scope, milestone payment schedule and total cost, and contract terms and conditions with the selected Proposer prior to contract award only if it is in the best interest of the state to do so;
g. To disqualify an Proposer from receiving the award if such Proposer, or anyone in the Proposer’s employ, has previously failed to perform satisfactorily in connection with public bidding or contracts;
h. To revise/amend any provision of this RFP by written notification to Proposers, prior to Proposal submission;

i. To eliminate any requirement that is found to be unmet by all Proposers;

j. To make inquiries, by means it may choose, into the Proposer’s background or statements made in the Proposal to determine the truth and accuracy of all statements made therein;

k. To select and award the contract to the Proposer whose Proposal represents the best value to NYSDOT;

l. Should NYSDOT determine that the negotiations with the selected proposer will not result in a contract, to begin contract negotiations with the next-best-value Proposer(s) responsive to this RFP — without again requesting Proposals;

m. Any contract entered into pursuant to an award of this solicitation shall contain a provision which grants the option to extend the terms and conditions of such contract to any other New York state agency. However, any response to this solicitation shall be based solely on the purpose of this solicitation and shall not factor in the possibility that this contract may, in the future, be applicable to other state agencies. Please be advised that any award made pursuant to this solicitation shall be based on the specific requirements of this solicitation only.

7.3. Consultant Responsibility when Proposing Former NYSDOT Employees

It is the Consultant’s responsibility to ensure they propose staff that is eligible to work on the proposed project. It is an individual’s responsibility to comply with the Public Officer’s Law. The following procedure applies if either of the following criteria is met:

- It is two years or less between the date that the individual is proposed and the individual’s date of separation from the State.

- The individual proposed has worked on the project while employed by NYSDOT regardless of how long ago they left NYSDOT.

Before the Consultant proposes an individual, the individual must obtain an opinion from the New York State Joint Commission on Public Ethics (http://www.jcope.ny.gov/) that approves their participation in the project as they are proposed.

A copy of this opinion must be on file in the Consultant’s office and available for review by NYSDOT if requested.
Failure to obtain New York State Joint Commission on Public Ethics approval for an individual’s participation in a project may jeopardize the Proposer’s designation for that project.

7.4. **Method of Payment**

7.4.1.1. Payment for services provided under the agreement resulting from this RFP will be fixed for the duration of the agreement unless changed by an executed supplemental agreement. The Consultant will designate a Billing Representative who will be responsible for resolving any invoicing issues during the term of the Contract.

7.4.1.2. Payment for services provided under the project shall be reimbursement via the Contract’s specific hourly rates plus reasonable reimbursement for directed actual non-salary costs, as applicable, incurred in the performance of the scope of services, subject to the limits of Schedule B’s task budgets. A modest budget will be added to allow for necessary hardware purchases. Hardware purchased via the agreement shall be ‘OGS or less’ unless not available via the current state IT Hardware contract, then any purchase shall follow state purchasing guidelines.

7.4.1.2. Requests for progress and final payments shall be made by the designated Consultant on standard payment request forms (FIN 421). Use proper procedure for billing each deliverable: Submit a draft billing to NYSDOT’s assigned Project Manager via the following sample electronic billing: https://www.dot.ny.gov/main/business-center/consultants/forms-publications-and-instructions

7.4.1.3. The sample spreadsheet contains all of the proper, required billing forms, as well as a sample billing. The Project Manager will respond via e-mail either with comments/corrections or with an approval to submit the final billing via signed hardcopy. The last and final payment will become due and payable within thirty (30) days after delivery of the final deliverable(s) and a standard NYS FIN 421 payment request forms.

7.5. **Information for the Selected Consultant**

7.5.1. **Registration with NYSDOT**

7.5.1.1. Consultant firms entering into contracts with the New York State Department of Transportation (NYSDOT) as prime Consultants, joint venture partners or sub-consultants, are required to electronically register their firm using the Consultant Selection System web application (CSSWeb). All Consultant firms entering into
Non-Architectural/Non-Engineering agreements are required to create and register an account to:
- Create and assign Consultant Identification Numbers (CINs) for each office registered by the firm;

- Provide general firm information including, but not limited to: legal firm name; Federal Identification Number (FEIN); ownership type; DBE, MBE and/or WBE status; firm principals; and office(s) address information.

All Consultant firms participating in a potential agreement (negotiations) must be registered electronically with NYSDOT prior to that agreement being forwarded to the Office of the State Comptroller for approval. Registered firms are responsible for verifying and updating their registration information for the duration of the agreement.

7.5.1.2. Consultant Firm Registration instructions are available at:

7.5.1.3. Questions regarding the CSSWeb application and firm registration should be directed to the CSSWeb Administrator by email at css@dot.state.ny.us or by telephone at 518-457-2600.

7.5.2. Registration with Statewide Financial System (SFS)

7.5.2.1. Should this solicitation lead to a designation, the Prime Consultant will be required to electronically register with the Statewide Financial System (SFS) – if not already registered. NYSDOT will initiate the registration process in the SFS application and then contact the Prime Consultant to provide them with further direction for completion of the registration process. The result of this process is an established SFS vendor number assigned to the Prime Consultant. If a firm has already registered in SFS in connection with another procurement effort, it will likely not need to re-register for this opportunity. However, a SFS vendor number is firm name specific. Since many firms have different variations of their business identities, firms will be required to register in the name of the business entity that NYSDOT is doing business with.

7.5.3. Consultant Employment Disclosure Requirements of this Project

7.5.3.1. Go to Office of the State Comptroller’s Web site (http://osc.state.ny.us/procurement/contractor_instr_forms_a_b.doc) to become familiar with Consultant Employment Disclosure requirements, which went into
effect June 19, 2006. The Consultant selected for this solicitation shall be required
to complete ‘State Contractor Services – Contractor’s Planned Employment’ (Form
A, Attachment 4) and submit when the contract is signed. For each contract year
thereafter, the Consultant shall complete the “State Contractor Services
Contractor’s Annual Employment Report” (Form B, Attachment 4) and submit
copies to the Office of the State Comptroller, the Department of Civil Service, and
the Department of Transportation on or before May 15th of each year the contract is
in effect.

7.5.4. **Insurance Requirements of this Project**

7.5.4.1. Please carefully read the terms and conditions of the draft Contract appended as
Attachment 1 of this RFP. Your attention is drawn to the insurance requirements
for this Project that are contained in Article 12 of the draft Contract. These
insurances are mandatory for the firm(s) selected as a result of this solicitation and
will not be waived.

7.5.5. **Contractor Tax Certification**

7.5.5.1. Per Section 5-a of the NYS Tax Law, all vendors selected for contracts in excess of
$100,000 for the sale of goods or services must complete and submit Forms ST-
220-TD and ST-220-CA (Contractor Certifications) prior to negotiation of a
contract with State agencies. You should make yourself familiar with these forms
by visiting the following Web sites:
https://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf (Form ST-220-
CA) and https://www.tax.ny.gov/pdf/current_forms/st/st220td_fill_in.pdf (Form
ST-220-TD)

7.6. **Inquiries and Information**

7.6.1.1. All questions concerning this solicitation must be directed only to the individual
specified in Section 1.5 of this RFP. The last date to submit questions for this
solicitation is stated in Section 7.8 below.

7.6.1.2. Responses to all questions of a substantive nature, as well as copies of the
questions, will be posted to the NYSDOT web site.

7.7. **Protest Procedure**
7.7.1.1. The New York State Department of Transportation (NYSDOT) has established a protest procedure to be utilized when an interested party challenges a Non-Engineering Consultant designation by NYSDOT. The complete procedure can be accessed via: https://www.dot.ny.gov/main/business-center/consultants/general-info by accessing ‘Protest Of Designation For Professional Consultant Services And Architectural/Engineering Claims Of Misrepresentation’ document.

7.8. **Tentative Schedule of Key Events**

NYSDOT will attempt to adhere to the following tentative schedule with regard to progressing this solicitation:

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFP Release Date</td>
<td>September 9, 2016</td>
</tr>
<tr>
<td>Question Submittal Deadline</td>
<td>January 19, 2017</td>
</tr>
<tr>
<td>Proposals Due</td>
<td>February 16, 2017, 2016, 12 noon Eastern Time</td>
</tr>
<tr>
<td>Recommendation &amp; Designation</td>
<td>Approximately March 23, 2017</td>
</tr>
<tr>
<td>Contract Finalizing</td>
<td>Two weeks</td>
</tr>
<tr>
<td>Contract Award</td>
<td>4–6 weeks after completion of contract finalizing</td>
</tr>
</tbody>
</table>