December 23, 2020

To: ALL CONSULTANTS

Subject: Request for Expressions of Interest

ORDER FOR PROFESSIONAL SERVICES NO. T3835

New Jersey Turnpike Authority Major Bridge Inspection Program

Major Bridge Group 3 (2021 – 2024)

The New Jersey Turnpike Authority (Authority) invites Expressions of Interest (EOIs) for a Simple project from engineering firms prequalified and eligible in the following Profile Code:

Profile Code	Description
D280C	Bridges – NBIS Program, Complex

Attached (see Section I) is a list of all consultants currently prequalified and eligible to submit an EOI for the above referenced assignment. *Joint Ventures (*Firms interested in submitting an EOI as a Joint Venture must be prequalified as a Joint Venture with the Authority) that meet all of the Profile Code requirements are also eligible to submit an EOI.

To qualify as a prequalified consultant, a firm **must** have on file with the Authority a current "Professional Service Prequalification Questionnaire" (PSPQ) package prior to submission of the EOI. A current PSPQ is one that has been on file with the Authority for no more than 24 months, or in certain cases for no more than 12 months. Only those firms who have been prequalified for the specified profile code(s) this project entails will be considered. Pregualification is not required for subconsultants. Pregualification is required however for Joint Ventures.

The Authority shall be seeking participation of Disabled Veteran Owned Business Enterprises (DVOBs) as subconsultants. The project goal is 3% DVOB participation to New Jersey Businesses (see Section VII of the Attachment to the Expression of Interest for the program provisions).

The Authority shall be seeking participation of Small Business Enterprises (SBEs) as subconsultants. The project goal is 25% SBE participation to New Jersey Businesses (see Section VII of the Attachment to the Expression of Interest for the program provisions).

This solicitation is for professional services required to inspect and provide individual inspection reports for 17 major bridges on the New Jersey Turnpike. These 17 bridges, which were recently reclassified from routine to major status, are in the northern region of the New Jersey Turnpike with most located on the Newark Bay-Hudson County Extension (NB-HCE) and in the Northern and Southern Mixing Bowls. This OPS has a 4-year term, from 2021 through 2024, which will cover 2 consecutive biennial inspection cycles for each major bridge.

Project Description

New Jersey Turnpike Authority's Major Bridge Inspection Program involves the biennial inspection of 24 major bridges on the New Jersey Turnpike and 11 major bridges on the Garden State Parkway. This total inventory of

35 major bridges reflects the recent addition of 17 existing New Jersey Turnpike structures, which were reclassified from routine to major status. The 35 structures are divided into the following three inspection groups.

- <u>Major Bridge Group 1</u> 10 structures located mostly in the southern regions of the New Jersey Turnpike and Garden State Parkway.
- <u>Major Bridge Group 2</u> 8 structures located in the central and northern regions of the New Jersey Turnpike and Garden State Parkway.
- <u>Major Bridge Group 3</u> 17 structures located in the northern region of the New Jersey Turnpike, with most on the Newark-Bay Hudson County Extension (NB-HCE) and in the Northern and Southern Mixing Bowls.

The 18 structures in Major Bridge Groups 1 and 2 are receiving their biennial inspections under OPS Nos. A3770 and A3771, respectively, for a 4-year term from 2020 through 2023. This Request for Expressions of Interest (RFEOI) is for biennial inspection of new Major Bridge Group 3, for a 4-year term from 2021 through 2024.

A major bridge is defined by the Authority as a long span/multi-span structure with complex structural framing and fracture/failure critical members (FCMs), which carries mainline traffic and/or serves as a critical transportation link. Structural framing types include stringer-floorbeam-girder systems, trusses and prestressed concrete multi-girders, which typically span over multilane traffic and other features including waterways, railroads and utilities. The biennial inspection of these complex crossings includes close-up hands-on coverage of pier tops and bearings, FCMs, fatigue-sensitive details and bridge mounted sign structures, together with underwater inspections which are typically performed on a 4-year cycle. The scope of work varies on an annual basis, depending upon the prescribed inspection cycle for each structure. Each major bridge inspection assignment has a 4-year term, thereby covering 2 biennial inspection cycles for each major bridge.

This OPS requires the preparation of draft and final inspection reports, data collection and input using Bentley's proprietary software for FHWA element level inspection, updating of FHWA Structure Inventory and Appraisal (SI&A) Forms, load rating updates and other related work defined in the Scope of Work. The inspection and report format will follow the standard requirements for the New Jersey Turnpike Authority Bridge Inspection Program and shall utilize proprietary software provided by Bentley Software "AssetWise Asset Reliability Inspections" (InspectTech) to develop the reports. See Section XIII for the list and description of structures in Major Group 3.

Project background materials (including previous inspection reports) will be available for review electronically through the Authority's Secure File Sharing site. Access to the secure work space site will be provided to all prequalified and eligible Consultants via email as part of the RFEOI notification process. If there are any questions or issues related to the Secure File Sharing site, please contact Jean H. Laird, P.E. via email at laird@njta.com. The subject line should read OPS No. T3835, Secure File Sharing Site Information."

Staff Qualifications

business/njta-bridge-inspect-program under the heading "Bridge Inspection Program" and as summarized on the NJTA Bridge Inspection Qualification Summary Form QAF3 – Quality Assurance Audit: Technical Managers Qualifications Review Checklist (QAF3 Form). The QAF3 form is included in Appendix B of the NJTA Bridge Inspection Program Quality Management Plan. These factors will be critical elements in the selection process.

EOI Submission Requirements

As a precaution against the spread of COVID-19, the Authority is temporarily suspending the requirement to submit hardcopies of the EOI. To be considered for these services, qualified firms or prequalified Joint Ventures need to submit one copy of their EOI in PDF format through the Authority's Secure File Sharing site, and shall contain the following:

1. Letter of Interest not exceeding seven (7) single-sided, letter-sized pages with minimum 1-inch borders, minimum font (Arial) size of 10 pt., stating the firm's interest, ability and its commitment to complete the requested professional services listed in this solicitation and in their EOI.

The Letter of Interest shall summarize the following information.

a. Experience of the Firm on Similar Projects

Provide information on the firm and its subconsultants' experience on similar projects.

The firm shall provide information on past projects which they have performed that demonstrate similar service of those required for this assignment. Each project listed shall include a brief description of the project scope performed by the firm and its relevance to the proposed assignment. It shall identify the firm's office(s) the work was performed from, the date (time frame) the services were performed, magnitude and cost of the project, and contact/reference information for each project listed.

b. Experience of the Project Manager on Similar Projects

The firm shall identify the Project Manager that will be assigned to the project and identify the individual's education, credentials and work experience. The firm should discuss the proposed Project Manager's experience and its application to the assignment. The firm shall review the criteria set forth by the Authority in the RFEOI in consideration of the person proposed for the assignment. If the firm is proposing an individual with credentials considerably different than those identified by the Authority, the firm must explain its rationale and identify/demonstrate the benefit the individual brings to the assignment.

The resume of the Project Manager proposed, included in the EOI, shall be clear, dated and detailed to the related assignment experience. References shall be furnished for each project listed (include date when work performed and relevance to subject assignment and at least one contact name and phone number for each project). Unless otherwise noted, the Project Manager shall be a licensed Professional Engineer.

Key Personnel's Qualifications and Relevant Experience

The firm shall identify the Team Leaders and/or other key personnel that will be assigned to the project and their role and responsibilities specific to the assignment. Information concerning their education, credentials and work experience should be provided along with contact/reference information. The firm shall discuss the individuals proposed for the assignment and identify how their education, credentials and work experience are applicable to their role on the assignment.

The resumes of key personnel proposed, included in the EOI, shall be clear, dated and detailed to the related assignment experience. References shall be furnished for each project listed (include at least one contact name and phone number for each project).

d. Understanding of the Project and the Authority's Needs, and Reasonableness of Staffing Estimate

Provide an explanation of the firm's understanding of the project and Authority's needs required for the successful completion of the assignment. Provide a summary of the firm's and its staff's qualifications, and state how they relate to the firm's ability to provide the requested services. Through attached organization chart and resumes identify the person(s), or subconsultant(s), responsible for each division of the assignment and their relevant experience.

Understanding of the Project

The firm shall provide information to demonstrate that they fully understand the overall objective of the project and why the Authority is undertaking the assignment. This may include discussions providing background information on the need for the project, its effect on the Authority's facilities, and impact on the overall transportation network. Firms should demonstrate specific first-hand knowledge of the location affected by the project and the long-term effects the project has on the Authority, its patrons, or other relevant issues.

Understanding of the Authority's Needs

The firm shall demonstrate that they fully understand the needs of the Authority as it relates to the specific scope of work identified in the RFEOI. The firm must confirm the deliverables and the schedule for design and construction associated with project specific deliverables. The firm should also discuss project management items, including deliverables such as submittal of wage rate approvals and invoicing.

Reasonableness of Staffing Estimate

The firm shall demonstrate through an attached estimate of work-hours the extent of work effort required to perform each primary task for the assignment as identified on the assignment staffing schedule issued with the RFEOI.

e. Approach to the Project

The firm shall identify the major tasks comprising the project and describe in detail how they will be accomplished. Provide an explanation of the process the firm will use to schedule, manage and perform the required tasks within the scope of services and identify the key milestones and projects critical path. The firm shall identify key issues and potential problems and discuss alternatives and options which would lead to resolution. The firm should discuss innovative concepts with cost benefits and/or accelerated project delivery, where applicable. The Subconsultant roles, value to the team/project, and reporting relationship shall be clearly identified.

f. Commitment and Ability to Perform the Project and Outstanding Work with the Authority

The firm shall affirm their commitment and ability to complete the proposed work as well as any outstanding work the firm currently has with the Authority. The firm shall provide an explanation of the anticipated project schedule and demonstrate that the firm can commit the required staff resources and management to perform the assignment. A listing of the firm's facilities, including the address of the office where the project will be performed, and how they relate to the firm's ability to provide the requested services shall be provided.

Commitment and Ability to Perform the Project

The firm shall discuss their commitment and availability of required staff for the assignment as shown on the completed "Commitments of Proposed Project Staff" and "Certification of Staff Availability" forms.

Outstanding Work with the Authority

The firm shall discuss their outstanding work with the Authority as shown on the completed Disclosure Forms for the prime and all subconsultants. Information should be provided to demonstrate how this

project may be impacted or affected by the existing work load of the consultant or its subconsultants. Outstanding Work shall be considered the sum of the Outstanding Work of the prime and subconsultants. No factors/weighting will be applied based on the percent of work assigned to the prime or subconsultants.

g. Commitment to Quality Management

An affirmation of the firm's Commitment to Quality Management and Quality Assurance/Quality Control (QA/QC). The firm shall provide a written narrative that describes the firm's quality assurance policy and how it intends to implement a quality assurance program <u>specifically</u> for this assignment. The firm shall identify credentialed QA/QC staff and the roles and working relationship with other staff members as part of the design process or construction phase.

Attainment of Sub Consulting Goals

The Authority has adopted a Disabled Veteran Owned Business Enterprise Program (the DVOB Program). Under the program, firms interested in submitting an Expression of Interest and Fee Proposal or an Expression of Interest/Technical and Fee Proposal agree to make a good faith effort to award at least three (3) percent of the assignment to those businesses that meet the requirements and have been registered by the Division of Revenue & Enterprise Services/Department of Treasury as a Disabled Veteran Owned Business Enterprise. Firms shall demonstrate how they will utilize DVOB Firms in order to achieve the 3% goal and add value to the project team.

The Authority has adopted a Small Business Enterprise Sub-Consultant's Program (the SBE Program). Under the SBE Program, firms interested in submitting an Expression of Interest and Fee Proposal agree to make a good faith effort to award at least twenty-five (25) percent of the assignment to those businesses that meet the requirements and have been registered by the Division of Revenue & Enterprise Services/Department of the Treasury as a Small Business Enterprise.

Firms shall demonstrate how they will utilize SBE Firms in order to achieve the 25% goal and add value to the project team.

- 2. An **Organization Chart** showing key project team members for all primary tasks, including subconsultants. Provide all team members' names, titles and reporting relationships.
- 3. Resumes for the Project Manager and each Key Project Team Member, (a maximum total of seven) detailing relevant experience and professional/technical qualifications. Include resumes of proposed subconsultants. Each resume should be one page single-sided with dates provided for each project.
- 4. A completed **NJTA Bridge Inspection Qualification Summary Form** detailing certifications of proposed staff. A copy of this form will be made available via the Authority's Secure File Sharing Site.
- 5. A Detailed Estimate of Work Hours per task and by ASCE Grade/Classification, along with an estimate of total hours, to provide the work described herein. The ASCE Grade/Classification must include a Quality Assurance Officer. The Detailed Estimate of Work Hours shall be presented on an annual basis over the 4-year term, from 2021 through 2024, and also include a separate summary which clearly shows the grand total of proposed hours for the entire assignment. The complete Detailed Estimate of Work Hours shall therefore be a maximum of five (5) pages, based on one (1) page per year for the 4-year term and one (1) page for the summary sheet.
- 6. A **Project Schedule** for this solicitation that addresses the various tasks defined by the scope of services for this assignment. The Project Schedule shall be presented on an annual basis over the 4-year term, from 2021 through 2024. The Project Schedule shall therefore be a maximum of four (4) pages, based on one (1) page per year for the 4-year term of this assignment.

- 7. A completed **Recent Authority Project Experience Form** identifying all Authority projects on which the consultant is currently working or have been completed (closed out) within the previous five (5) year period. A separate form shall be provided for the prime consultant and for each subconsultant.
- 8. A completed Affidavit of Eligibility/Disclosure of Material Litigation for review by the Authority's legal counsel. Forms for each firm, each member of a joint venture and all subconsultants shall be submitted. Firm shall certify that it is not suspended, disbarred or disqualified from bidding on any state or federal projects. Furthermore, no litigation shall be pending or brought against the firm that could materially affect its ability to perform the OPS described herein. Firm shall submit a description of all litigation pending, threatened or brought against it, including any litigation against its owners and/or principals; and shall also submit a description of any enforcement actions or penalties pending or assessed by any regulatory agency having jurisdiction over permit compliance, worker health and safety, or labor laws, as these issues relate to performance of the OPS described herein.

As a precaution against the spread of COVID-19: in lieu of a notary public, the Authority will accept the following statement on the Affidavit of Eligibility/Disclosure of Material Litigation form above the signature line: "I certify, under penalty of perjury under the laws of the State of New Jersey, that the foregoing is true and correct". Hardcopy, signed and notarized forms will be required to be submitted at the request of the Authority.

- 9. A completed Disclosure Form Outstanding Work with the Authority stating all outstanding work with the Authority for both New Jersey Turnpike and Garden State Parkway projects. Forms for each firm, each member of a joint venture and all subconsultants shall be submitted. State "none" on the form if firm, joint venture or subconsultant has no outstanding work with the Authority. It is specifically noted that the Authority's Disclosure Form shall be submitted with the EOI. Consultants may separate types of work by category (i.e.: Design Services, Construction Services, Environmental Services, etc.) however, the "Total" amounts stated at the bottom of the page shall be the combined total amounts of all outstanding work with the Authority as identified on the form.
- 10. A completed **Commitments of Proposed Project Staff Form** stating the percentage of time each member has available to commit to this assignment, including subconsultant staff.
- 11. A completed **Certification of Staff Availability Form** which shall certify that the staff proposed in the EOI shall be used in the performance of the project. When proposing the same staffing in multiple EOIs, disclose one of the following:
 - A. A statement that all projects utilizing same staff will be completed on time and how this will be done, or
 - B. A statement that the firm voluntarily withdraws one of the EOIs from further consideration if the Authority is giving serious consideration to more than one EOI, or
 - C. Alternate staff resumes to be used by the Authority in evaluating EOIs if the Authority is giving serious consideration to more than one EOI.
- 12. A completed SBE/DVOB Form Proposed Schedule of Small Business Enterprise Participation and Disabled Veteran Owned Business Enterprises stating the firm's intention to use SBE and DVOB Certified firms as subconsultants.
- 13. A completed **Disclosure of Investment Activities in Iran Form**.
- 14. A completed **Vendor Source Disclosure Form**.
- 15. A completed **Ownership Disclosure Form**, pursuant to N.J.S.A. 52:25-24.2.

EOIs that are incomplete may not be considered.

The required forms referenced in Items 7 through 15 above can be found on the Authority's website www.nita.com under *Doing Business*, *Engineering Professional Services*, *Supplemental Forms*.

Starting in 2018, firms providing underwater inspection services for the prime consultant shall be considered as subconsultants in the Authority's Bridge Inspection Program. As such, all subconsultant submission requirements shall apply to these services, and underwater inspection firms proposed as vendors will not be considered.

The NJTA has promulgated a Code of Ethical Standards pursuant to the laws of the State of New Jersey, a copy of which is available on the Authority's website https://www.state.nj.us/ethics/docs/ethics/uniformcode.pdf. By submitting an EOI, your firm will be subject to the intent and purpose of said Code and to the requirements of the Division on Ethical Standards of the State of New Jersey.

EOIs are limited to a total of fourteen (14), single-sided, letter size pages, comprised of the following: **Letter of Interest**, a maximum of seven (7) pages, and **Resumes**, a maximum of seven (7) pages, each of which shall be one (1) page. Pages in excess of these requirements will not be considered. This information shall be presented in an organized fashion and shall be categorized in accordance with the preceding submission requirements. Foldout sheets (11 x 17) will be permitted only for the Project Schedule.

A brief transmittal letter along with the following forms and/or documents (listed below in the order in which they appear in this RFEOI), are **excluded** from the above referenced page count:

- Organization Chart
- NJTA Bridge Inspection Qualification Summary Form
- Detailed Estimate of Work Hours
- Project Schedule
- Recent Authority Project Experience Form
- Affidavit of Eligibility/Disclosure of Material Litigation
- Disclosure Form Outstanding Work with the Authority
- Commitments of Proposed Project Staff Form
- Certification of Staff Availability Form
- SBE/DVOB Form
- Disclosure of Investment Activities in Iran Form
- Vendor Source Disclosure Form
- Ownership Disclosure Form

The aforementioned fourteen (14) page limitation shall be increased to a maximum of nineteen (19) pages, if the Consultant must exercise Option 11C above. The additional five (5) single-sided letter-sized pages shall include information for alternate staffing as follows:

- 1) An alternate Organization Chart as permitted above showing key personnel names, positions, titles and reporting relationships (Note: Organization Chart is not included in the page count).
- 2) One (1) page, single-sided resume for up to five (5) alternate key project personnel stating relevant experience including dates of assignments and professional qualifications.
- 3) Allowance for one (1) page, if necessary, to explain the Consultant's modified approach to the project if it would be handled differently as a result of utilizing the alternate personnel.

The Consultant shall not include alternate staffing in their Expression of Interest unless they are required to do so in accordance with Option 11C. If included in the EOI, the proposed alternate staffing information shall be

contained in a separate section of the EOI. It shall only be considered by the Authority in the scoring of the EOI if required.

Anything in excess of the page limitations for each of the EOI criteria above will not be read or considered. If the EOI submitted is not in accordance with the specific provisions defined above, it shall be considered incomplete and may be rejected.

Firms that are interested in being considered for these services must submit one (1) copy of the Expression of Interest in PDF format, to be received by the Authority no later than 12:00 PM on Wednesday, January 13, 2021. Expressions of Interest will be accepted through the Authority's Secure File Sharing site. Requests for access to this site shall be sent to Jean H. Laird, P.E., Senior Project Engineer, Structures Design at laird@njta.com, no later than 12:00 PM on Wednesday, January 6, 2021 with the subject line "OPS No. T3835, Secure File Sharing Site EOI Submission Access." A response with information on how to access the secure work space will be provided via email no later than 12:00 PM on January 8, 2021. Expressions of Interest uploaded after 12:00 PM on January 13, 2021 will not be considered. Hard copies or emailed copies will not be accepted.

Inquiries

Inquiries pertaining to this RFEOI are to be directed in writing to Jean H. Laird, P.E., Senior Project Engineer, Structures Design, via email to laird@njta.com. The deadline for inquiries is Monday, January 4, 2021. The Authority will respond to all written inquiries received. Each inquiry will be stated and a written response provided. Responses will be posted on the Authority's website under *Doing Business*, *Current Solicitations* on or before January 6, 2021. Consultants will be responsible for submitting their EOIs in accordance with the RFEOI and any modifications, revisions and/or clarifications thereto as a result of the posted responses. Late inquiries may not be reviewed or considered.

Consultant Selection

A consultant selection will be made from the EOIs that are received on time and are deemed complete. A Review Committee will evaluate the technical qualifications and experience of each firm and its project team, and will rank the firms. The evaluation and ranking of the EOIs will serve as a method by which to create a short list of firms most highly qualified to perform the project, who will receive Requests for Fee Proposals.

The EOIs will be evaluated and ranked on the basis of numerical scores resulting from pre-established weighted factors. For this project, the rating factors and their relative weights are:

RATING FACTORS	WEIGHT (%)	POINTS
Experience of the Firm on Similar Projects	15	45
Experience of the Project Manager on Similar Projects	10	30
Key Personnel's Qualifications and Relevant Experience	20	60
Understanding the Project and the Authority's Needs, and Reasonableness of Staffing Estimate	15	45
Approach to the Project	15	45
Commitment and Ability to Perform the Project and Outstanding Work with the Authority	10	30
Commitment to Quality Management	10	30
Attainment of SBE and DVOB Participation Goals	5	15
	100%	300

Following the review of the submitted EOIs, the Authority will request Fee Proposals from firms it deems the most qualified and will commence negotiations with such technically qualified firms in the order ranked. All respondents will be notified at the completion of the review process regarding their status.

All submittals required pursuant to P.L. 2005, Chapters 51 and 271 Executive Order 117 (2008) will be requested from the intended Awardee(s) only. This will include the combined CH. 51/Executive Order 117 Two-Year Certification and Disclosure of Political Contributions form (CH 51.1 R1/21/2009), the P.L. 2005 c. 271 Vendor Certification and Political Contribution Disclosure Form (Rev: 02/07/2006 DPP c271 C&D) completed by each business entity all of which will be transmitted to the intended Awardee(s) by the Authority via mail or fax and are to be returned to the Authority within five (5) business days.

Order for Professional Services

Final OPS Documents shall consist of the Authority's Order for Professional Services Agreement (which is available on the Authority's website, http://www.njta.com/media/2928/ps_agreement_4_v5-17-2017.pdf), the RFEOI, the EOI as well as the selected firm's submitted Final Negotiated Fee Proposal. These documents are listed in the order of priority in the event of a conflict.

Effective April 29, 2014 Consultants shall be required, at their own expense, to provide ALL insurance coverages as more fully set forth in the applicable OPS Agreement (See OPS <u>Agreement #4)</u>.

Business Registration N.J.S.A. 52:32-44

The OPS will not be entered into by the Authority unless the firm first provides proof of valid business registration in compliance with N.J.S.A. 52:32-44. Pursuant to this law the firm is further notified that no subcontract shall be entered into by prime consultant unless the subconsultant first provides proof of valid business registration.

Attached please find additional information regarding EOI and project requirements.

Very truly yours,

ORIGINAL SIGNED BY

Robert J. Fischer, P.E. Chief Engineer

RJF:JHL:ms

Attachments

c: J. L. Williams, P.E. W. Wilson, P.E. J. H. Laird, P.E. Review Committee File

Supplemental Information

Regarding EOI and Project Requirements

Dated December 23, 2020

for

Order for Professional Services No. T3835

New Jersey Turnpike Authority Major Bridge Inspection Program Major Bridge Group 3 (2021 – 2024)

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SECTION I Prequalified and Eligible Consultants

AECOM Technical Services

Al Engineers, Inc.

Arora and Associates, P.C.

ATANE Engineers, Architects and Land Surveyors, P.C.

Boswell Engineering

Buchart-Horn, Inc.

CDM Smith Inc.

CHA Consulting, Inc.

CME Associates

Gannett Fleming, Inc.

GM2 Associates, Inc.

Greenman-Pedersen, Inc.

Hardesty & Hanover, LLC

IH Engineers, P.C.

Johnson, Mirmiran & Thompson, Inc.

KS Engineers, P.C.

LS Engineering Associates Corporation

M&J Engineering, P.C.

MAKS Engineering, P.C.

Michael Baker International, Inc.

Mott MacDonald LLC

MP Engineers, P.C.

Pennoni Associates, Inc.

Pickering, Corts & Summerson, Inc.

PKB Engineering Corporation

SJH Engineering, P.C.

Stantec Consulting Services, Inc.

STV Incorporated

T.Y. Lin International

Traffic Planning and Design, Inc.

TranSystems Corporation

Van Cleef Engineering Associates, LLC

W.J. Castle P.E. and Associates P.C.

WSP USA Inc.

SECTION II Administrative and Agreement Information

Professional Corporation

Incorporated firms that have not filed a copy of a Certificate of Authorization, as required by N.J.S.A. 45:8-56, with the Authority must include a copy of the Certificate with the EOI. Professional service corporations established pursuant to the "Professional Service Corporation Act," P.L. 1969, c. 232 (N.J.S.A. 14A:17-1 et seq.), are exempt from this requirement.

Signatures

Expressions of Interest must be signed by an officer of the firm authorized to make a binding commitment.

Incurring Costs

The Authority shall not be liable for any costs incurred by any consultant in the preparation of their EOI.

Addendum to EOI Solicitations

If, at any time prior to receiving EOIs, it becomes necessary to revise any part of this EOI solicitation, or if additional information is necessary to enable a firm to make an adequate interpretation of the provisions of this EOI solicitation, an addendum to the EOI solicitation will be made available on the Authority's web-site as described herein.

Acceptance and Rejection of EOIs and Proposals

The Authority may award an OPS for these services to a firm that the Authority determines best satisfies the needs of the Authority. The solicitation for an EOI or Technical Proposal does not, in any manner or form, commit the Authority to award any OPS. The contents of the EOIs may become a contractual obligation, if, in fact, the EOI or Technical Proposal is accepted and an OPS is entered into with the Authority. Failure of a firm to adhere to and/or honor any or all of the obligations of its EOI or Technical Proposal may result in cancellation of any OPS awarded by the Authority. The Authority shall not be obligated at any time to award an OPS to any consultant. The Authority reserves the right to reject any and all proposals or to negotiate with any proposer in accordance with applicable law.

Dissemination of Information

Information included in this document or in any way associated with this project is intended for use only by the firm and the Authority, and is to remain the property of the Authority. Under no circumstances shall any of said information be published, copied or used by the firm, except in replying to this EOI solicitation.

News Releases

No news releases pertaining to this RFEOI or the Project to which it relates shall be made without Authority approval and then only in coordination with the issuing office and the Authority's Media Relations Coordinator.

Public Records

Any EOI, Technical Proposal or Fee Proposal submitted by a firm constitutes a public document that will be made available to the public upon request pursuant to New Jersey's Open Public Records Act, N.J.S.A. 47:1A-1 et seq. The firms may request the Authority's General Counsel to deem certain sections of its EOI containing personal, financial or proprietary information non-disclosable, which determination shall be in accordance with such Act.

SECTION III OPS Procurement and Project Schedule

OPS PROCUREMENT SCHEDULE

Posted	December 23, 2020
Deadline for Inquiries	January 4, 2021
Posted Responses to Inquiries	January 6, 2021
Deadline for Secure File Sharing Site EOI Submission Access Request	January 6, 2021
Submittal of Expressions of Interest	January 13, 2021
Recommendation to Issue OPS	March 23, 2021
INSPECTION SCHEDULE - MAJOR BRIDGE GROUP 3	
Notice to Proceed	April 27, 2021
Estimated Start of Scheduled Bridge Inspections	See Scope of Work
Submission of Draft and Final Inspection Reports	See Scope of Work
Project Completion (including Unanticipated Services)	June 2025

SECTION IV Scope of Services

1. GENERAL

- A. The Consultant shall be responsible for the thorough understanding of the project requirements including the applicable codes and regulations governing the inspection. The Consultant shall become familiar with the New Jersey Turnpike Authority's (NJTA) procedures, presentation and coordinating requirements for the effective performance of the project.
- B. It will be the Consultant's responsibility to bring to the attention of the Authority, in the Request for Expression of Interest, or during preparation of the Expression of Interest, any errors, omissions or non-compliance discovered in this Scope of Services Section. By neglecting to do so, the Consultant will be responsible to make any resulting scope of services changes without additional compensation.

2. PROJECT COORDINATION

A. NJTA Coordination

- 1. The Consultant shall coordinate its activities with NJTA personnel throughout the course of this Order for Professional Services (OPS). Early on, the Consultant will establish a means of coordinating and reporting its activities with the designated project liaison to ensure an expeditious exchange of information. The NJTA shall be informed of all meetings with other agencies, government officials and/or groups so that NJTA personnel can attend if necessary.
- 2. All correspondence, invoices and transmittals for the project shall be referenced by the NJTA's Order for Professional Services Number.
- 3. Within two (2) weeks of Notice to Proceed, the Consultant shall submit a master inspection schedule for the entire 4-year term, from 2021 through 2024, for review and approval by the Authority. This master inspection schedule shall be updated on a monthly basis and include the inspection and report delivery milestones for all major bridges in Group 3 receiving biennial inspections that year.
 - The Group 3 assignment shall commence in April 2021, immediately upon Notice to Proceed, and be completed by June 2025. With the exception of the first year, each annual assignment within the 4-year term shall commence in January of that year and be completed by June of the following year. Field inspections shall be scheduled and start in accordance with the NBIS anniversary date for each major bridge listed in Section XVIII. The draft report for each major bridge shall be submitted within three (3) months of completion of the field work. The final report for each major bridge shall be submitted within one (1) month of receipt of the red-lined draft report from the Authority's Liaison Engineer.
- 4. The Consultant shall submit two (2) different monthly schedules/reports as follows.
 - Invoice Progress Report The Consultant will be responsible to prepare and submit a separate
 monthly progress report and progress schedule indicating percent complete by task,
 corresponding to the invoices. Invoices shall be submitted and received by the Authority's
 Engineering Department within 15 calendar days of the end of each billing period. Standard
 reporting forms in MS Excel will be provided by the Authority at the project's kickoff meeting.
 - Submission Schedule The Consultant shall submit a bridge inspection submission schedule which includes but may not be limited to the following fields: Inspection Date, 2 Week

Submission, 90 Day Submission of SIA and NBE data, Draft Report Submission, Final Report Submission, Load Rating Updates Required, and Comments. The Bridge Inspection Program Technical Manager will provide a template in Excel at the kickoff meeting. The initial schedule shall be submitted within 30 days of receipt of the template. Monthly updates are required to be submitted by the 7th day of each month.

- 5. The Consultant shall notify the Authority's Liaison Engineer immediately, if and when the percent fee expended exceeds the project percent complete. The Consultant shall implement at once the necessary adjustments and/or make recommendations on how to alleviate this condition. Failure to do so will put the Consultant at risk of having to absorb any costs above and beyond the authorized fee.
- 6. Invoices are required to be submitted on a monthly basis.
- 7. The Consultant shall submit the names of the personnel in the inspection teams, along with their resumes and NHI training certificates, for approval by the Authority. The Consultant shall complete the QAF3 forms. The Authority's Liaison Engineer shall have the right to approve the number, qualifications and performance of the Consultant's personnel and to have the Consultant remove any such personnel from the project who are not approved or licensed/certified as required, or who fail to perform satisfactorily. The Consultant shall not remove approved personnel assigned to the project without written approval from the Authority. Certificates shall be in PDF format with the following naming convention: "Firm Last Name First Name # Year" (e.g. "ABC Smith Jane 130092 2012.pdf"). For acceptable Non-NHI courses such as the PennDOT thirteen (13) day bridge inspection course, use "Firm Last Name First Name #Equiv Year" (e.g. "Bridge Associates Johnson Edward 130055Equiv 1999.pdf"). All files shall be submitted in one general folder or directory, not broken up into folders/subfolders. Certificates and completed QAF forms shall be submitted at the kickoff meeting.

B. Quality Management and Coordination with Bridge Inspection Program Technical Manager Consultant

Immediately following Notice to Proceed, the Consultant shall submit a Project-Specific Quality Control/Quality Assurance (QA/QC) Plan for the Authority's approval which clearly explains how its firm-wide Quality Management Program translates into the quality process for this assignment. The QA/QC Plan shall identify credentialed QA/QC personnel and their roles, and explicitly outline measures to be followed throughout the duration of the assignment, including the management of subconsultants and their work. The submittal shall include the forms used by the Consultant to document the QA/QC process for review and approval by the Authority. If the forms are not found acceptable or the Consultant does not have available forms, then use of the Authority's QAF5 form detailed in the New Jersey Turnpike Authority Bridge Inspection Quality Management Plan shall be used. The completed forms should be retained by the Consultant and available for review upon the Authority's request.

The Consultant is entirely responsible for the quality of submittals in this inspection assignment, and will be monitored by the Authority on a continued basis for adherence to the approved QA/QC Plan. Should it be determined that incomplete or erroneous reports are being submitted, then the Consultant will be required to convene a meeting with the Authority to review the deficiencies and propose an action plan to bring the reports to established standards.

Proposers are advised that general overview of the 2021 – 2024 NJTA Major Bridge Inspection Program for Major Bridge Group 3 will be performed by the Authority's Bridge Inspection Program Technical Manager Consultant (BIPTM, Technical Manager) to ensure accuracy, consistency and

completeness in inspection data collection and entry, SI&A and FHWA Element Level bridge inspection coding interpretation, inspection report format and content, and load ratings. The Technical Manager will be responsible for unscheduled field audits for compliance of inspection personnel and procedures, review of draft inspection reports and limited audits of Bentley AssetWise (InspectTech) data entry, review of load rating updates, SI&A updates and FHWA Element Level bridge inspection coding. A kickoff meeting will be scheduled with the Consultant, the Authority's Liaison Engineer and the Technical Manager to discuss inspection procedures, personnel, report format, schedule and submittals.

The Authority's Liaison Engineer and the Technical Manager will arrange for coordination meetings each year with all engaged bridge inspection consultants, to establish consistent inspection procedures, coding guidelines, and report format. The Consultant shall include two (2) half-day coordination meetings each year at the Authority's Headquarters, in their estimate of work hours in the EOI and Fee Proposal.

C. Other Agency/Entity Coordination

The Consultant will be required to contact and/or meet with representatives of state and/or other agencies/ entities (e.g., New Jersey Department of Transportation, Conrail, Norfolk Southern, CSX, NJ Transit, Amtrak, PATH, etc.), to review and determine all necessary project requirements and permits. It is noted that other agencies/entities may have security requirements such as obtaining of TWIC (Transportation Worker Identification Credentials) cards or supervision of inspection work by a security firm. The Consultant shall notify the Authority immediately if it is revealed during initial contact that any railroad ownership has changed. The Authority's Liaison Engineer will establish the correct channel of communication with the new railroad company for the Consultant in this case. Various regional agencies will be affected by this project and should be kept informed as to the status of this project. The US Coast Guard shall be notified at least 30 days prior to the inspection of any bridge spanning a navigable waterway.

3. REGULATIONS AND GUIDELINES TO BE FOLLOWED, WHICH INCLUDE BUT ARE NOT LIMITED TO:

A. New Jersey Turnpike Authority (NJTA)

Standard Specifications 2016

Design Manual

Standard Drawings

Structural Repair Programs

Category A Repair Procedures

Authority Deficiency Category Definitions

Bridge Inspection Security Measures

AssetWise Asset Reliability Inspection Connect Edition Online Help System

Manual for Traffic Control in Work Zones

LRFR Load Rating Manual

NJTA Bridge Inspection Quality Management Plan

Parapet Stenciling Procedures

Section Loss Workbook

B. Structure Nomenclature/Inspection Methodology

Federal Highway Administration (FHWA)

Culvert Inspection Manual, 1986, FHWA-IP-86-2

Bridge Inspectors Reference Manual, December 2006

Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaries and Traffic Signals, March 2005

Inspection of Fracture Critical Bridge Members, 1986, FHWA-IP-86-26

National Bridge Inspection Standards, 23 CFR Part 650, January 2005

American Association of State Highway and Transportation Officials (AASHTO)

Manual for Bridge Evaluation, 3rd Edition with 2019 Interims Manual for Bridge Element Inspection Roadside Design Guide, 1996

Occupational Safety and Health Administration (OSHA)

Commercial Diving Operations Standards, 29CFR Part 1910 Subpart T

New Jersey Department of Transportation (NJDOT)

Bridge Element Inspection Manual, Revision 1, February 2015 Underwater Inspection and Evaluation of NJ Bridges Guidelines Manual, June 1994 Edition with August 2008 Revisions

C. Concrete Deficiencies

American Concrete Institute (ACI)

Guide for Conducting a Visual Inspection of Concrete in Service, 2008, ACI 201.1R-08

D. Steelwork/Paint Deficiencies

Steel Structures Painting Council (SSPC)

E. Structure Inventory and Appraisal

Federal Highway Administration (FHWA)

Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges, December 1995, FHWA-PD-96-001, and Errata Sheet, March 2004

New Jersey Department of Transportation (NJDOT)

Recording and Coding Guide for Structure Inventory and Appraisal of New Jersey Bridges, 2003 Edition with May 2008 Interim Revisions

4. GENERAL REQUIREMENTS AND CONDITIONS

- A. The Consultant shall defend, indemnify, and hold harmless the Authority, its Commissioners, Directors, officers, employees and agents from liability of any nature or kind arising out of any act or omission of the Consultant or any person, firm or corporation employed by the Consultant in connection with the work.
- B. The Consultant shall not assign this OPS, sublet, or transfer any part of the work or obligations hereunder, without the prior written approval of the Authority.
- C. The Consultant shall comply with all Federal and State laws applicable for the work to be performed under this OPS.
- D. The Consultant shall obtain a traffic permit prior to performing any work on the Authority's Right of Way.
- E. The Consultant shall provide traffic control in accordance with the current edition of the New Jersey Turnpike Authority Manual for Traffic Control in Work Zones, for bridge inspection work along the New

Jersey Turnpike and Garden State Parkway. The Consultant shall also provide traffic control on local and state roads in accordance with the governing agency's requirements. The Consultant shall not rely exclusively on State Police-assisted slowdowns, and instead shall assume that availability for slowdowns will be limited. Under the Approach to the Project Section of the Expression of Interest, the Consultant shall include an estimate for the duration and quantity of shoulder and lane closings for this OPS. No shoulder or lane closings on the New Jersey Turnpike will be approved until the Consultant, its subconsultants, and its subcontractors view the Authority's Traffic Safety Training video on lane closing procedures. Reimbursement for furnishing traffic control devices and shoulder/lane closings will be made as a direct expense.

A Traffic Control Coordinator (TCC) shall be required where lane and half ramp closings are to be installed by the consultant or vendor as part of bridge inspection projects. A TCC will not be required for shoulder closings installed by the consultant or vendor. Refer to Standard Specifications 801.03(A)(6) for TCC requirements and certification which shall apply to design and bridge inspection assignments involving lane and half ramp closings.

- F. For bridge inspection work over active railroad lines (NJ Transit, PATH, Amtrak, Conrail, CSX, Norfolk Southern, Shared Assets, etc.) the Consultant shall have their Team Leaders and Inspectors complete safety training as required by the respective outside agency. The Consultant shall obtain railroad permits, and flagging services necessary to access and perform inspections. For purposes of estimating the costs for permits, flagging, and inspection services, the Consultant shall assume a value of \$20,000 for each year, unless upon review of all requirements it is expected to exceed these values. The estimated expense shall be listed separately in the Fee Proposal.
- G. Lane closings and daily shoulder closings necessary for the inspection work shall be provided and maintained by the Consultant, and shall conform to applicable Standard Drawings. Lane and shoulder closings may not be possible at all times due to conflicts with ongoing higher priority construction or maintenance work in certain areas. The Consultant shall utilize all available Maintenance and Contractor installed closings, where possible. This will require close coordination and contact with the Authority's Operations Department. Lane and shoulder closing requests, as well as slowdown requests, shall be submitted via the web-based application to the Authority (instructions will be provided to the consultants at the kickoff meeting) one week in advance of the desired closings (by Monday, 12:00 PM), and shall conform to the Authority's Lane and Shoulder Closure Tables in the Manual for Traffic Control in Work Zones.
- H. Short duration shoulder closings necessary for the inspection work shall be provided and maintained by the Consultant. Short duration shoulder closings shall be installed for a maximum duration of 60 minutes within a two-hour window, and are restricted to cursory top of deck surveys and underdeck and pier top inspections requiring a truck mounted attenuator (TMA). Short duration shoulder closings shall conform to Standard Drawing No. TP-7.
- I. All inspection work shall be performed behind guide rail or other existing roadside barriers, where feasible. Where work must be conducted in a closed lane or shoulder, a truck mounted attenuator (TMA) shall be provided and placed preceding the work area in accordance with the current AASHTO Roadside Design Guide. For moving inspection operations which do not require the setup of equipment (ladders, snoopers, etc.), TMAs will also be required. The truck shall be in excellent operating condition and have a minimum gross weight of 10 tons. The truck mounted attenuator shall be the Alpha100K as manufactured by Energy Absorption System, Inc., and distributed by Transpo Industries, Inc., or an approved NCHRP 350, Test Level 3 compliant equal. The truck shall also be equipped with two large conspicuous overhead flashing lights. If supplied with an arrow board, only the "CAUTION" bar shall be illuminated. The top of the arrow board must be 13 feet 6 inches from the ground for either standalone arrow boards or TMA attached arrow boards. TMAs shall be provided by the

Consultant. A separate line item shall be provided in the Fee Proposal for the cost associated with furnishing the TMAs for the project and for fueling of the TMAs. For moving inspection operations, the TMA must be fitted with a "Shoulder Closed" sign that will not be obstructed or obstruct any oscillating lights or the arrow board panel. The Consultant will be required to provide a letter from the proposed rental company, which states that the TMAs supplied meet or exceed NCHRP 350, Test Level 3 compliance. In addition, the Consultant will be required to take photos of the TMA, specifically for review of the placement of the TMA mounted "Shoulder Closed" sign.

- J. All team leaders shall notify the Authority and BIPTM of their location via email on a daily basis. An email template will be provided to each consultant and subconsultant at the kickoff meeting.
- K. The Consultant shall furnish specialized equipment as needed to perform bridge inspections.
- L. Reimbursement for any additional cost incurred by the Consultant due to circumstances beyond the control of the Consultant, such as down time for bad weather, shall be approved by the Authority's Liaison Engineer. The Authority's Liaison Engineer will have sole discretion in determining if such circumstances are beyond the control of the Consultant, which would therefore warrant compensation for additional labor and expenses.
- M. The Consultant shall retain legal responsibility for all inspection work, which shall in general follow the latest standards including all the applicable codes and regulations governing the inspection and practices of the Authority.

N. Unanticipated Services

The Authority's Liaison Engineer may require additional information with regard to a deficiency reported by the Consultant, the Authority's Maintenance Department and/or other entities. The required information may consist of a survey or sketch with photographs and recommendations for corrective action. Depending on the deficiency, the Consultant may be required to provide design services. The design services may consist of preparing calculations, providing details and specifications, and developing cost estimates.

As such, Proposers shall provide in their EOIs an additional **250 hours per year** for the 4-year term of this assignment, to allow for unforeseen emergency inspection, repair design services and/or extra work as directed by the Authority (Unanticipated Services). Explicit written authorization must be received from the Authority's Liaison Engineer in order to charge time to this task, prior to commencement of the work. The Consultant will be requested to provide an estimate of hours and cost, in writing, related to each special assignment under consideration for prior approval.

O. Load Rating Updates

Section loss tables shall be created for bridges that exhibit substantial section loss, as specified in the recently developed Section Loss Workbook which is now included in the Authority's Load Rating Manual. As the biennial inspections are completed, the Consultant shall utilize the section loss table to assess the as-inspected conditions, and submit a list of recommended bridges to be updated for Authority review and approval. While recommendations for updates will be primarily based upon measured section losses and current bridge condition, the Consultant shall reference Appendix A3 of the Authority's Load Rating Manual for detailed guidance regarding identification of bridges warranting load rating updates. The updates shall be made using existing load rating files, by key personnel meeting the requirements of the Authority's Load Rating Manual. For the purpose of estimating a level of effort, Proposers shall make an allowance of 250 hours per year for all LRFR load rating updates required over the 4-year term of this assignment.

Following Notice to Proceed, a meeting will be held to discuss the Authority's guidelines for section loss documentation and repair recommendations, and to provide guidance for this load rating task. All available electronic load rating files will be made available to the Consultant for updating.

For routine bridges, initial LRFR load ratings or LRFR load rating updates shall utilize the most current version of AASHTOWare's Bridge Rating (BrR) software which has been approved for use in Appendix A1 of the Authority's Load Rating Manual. For complex bridges that cannot be modeled in BrR, LRFR load ratings shall utilize other appropriate software specified in the Load Rating Manual. The load ratings shall also include Emergency Vehicles EV2 and EV3, as needed and in accordance with the Load Rating Manual.

Proposers are advised that since 2015, the costs associated with obtaining BrR and any other LRFR load rating software licenses are no longer reimbursed by the Authority as a direct expense. Proposers are further advised that the Authority licenses the BrR Unlimited Option as a Member Agency, which allows consultants to obtain single copies of BrR at the current Special Consultant/Agency Option license fee of \$5,000 per workstation for use in performing load ratings of the Authority's bridges.

5. SPECIFIC PROJECT SERVICES

A. Introduction

New Jersey Turnpike Authority's Major Bridge Inspection Program involves the biennial inspection of 24 major bridges on the New Jersey Turnpike and 11 major bridges on the Garden State Parkway. This total inventory of 35 major bridges reflects the recent addition of 17 existing New Jersey Turnpike structures, which were reclassified from routine to major status. The 35 structures are divided into the following three inspection groups.

- Major Bridge Group 1 10 structures located mostly in the southern regions of the New Jersey Turnpike and Garden State Parkway.
- Major Bridge Group 2 8 structures located in the central and northern regions of the New Jersey Turnpike and Garden State Parkway.
- Major Bridge Group 3 17 structures located in the northern region of the New Jersey Turnpike, with most on the Newark-Bay Hudson County Extension (NB-HCE) and in the Northern and Southern Mixing Bowls.

The 18 structures in Major Bridge Groups 1 and 2 are receiving their biennial inspections under OPS Nos. A3770 and A3771, respectively, for a 4-year term from 2020 through 2023. This Request for Expressions of Interest (RFEOI) is for new Major Bridge Group 3, for a 4-year term from 2021 through 2024, which will cover 2 consecutive biennial inspection cycles for each major bridge.

A major bridge is defined by the Authority as a long span/multi-span structure with complex structural framing and fracture/failure critical members (FCMs), which carries mainline traffic and/or serves as a critical transportation link. Structural framing types include stringer-floorbeam-girder systems, trusses and prestressed concrete multi-girders, which typically span over multilane traffic and other features including waterways, railroads and utilities. The biennial inspection of these complex crossings includes close-up hands-on coverage of pier tops and bearings, FCMs, fatigue-sensitive details and bridge mounted sign structures, together with underwater inspections which are typically performed on a 4-year cycle. The scope of work varies on an annual basis, depending upon the prescribed inspection cycle for each structure.

This OPS requires the preparation of draft and final inspection reports, data collection and input using Bentley's proprietary software for FHWA element level inspection, updating of FHWA Structure Inventory and Appraisal (SI&A) Forms, load rating updates and other related work defined in the Scope of Work. The inspection and report format will follow the standard requirements for the New Jersey Turnpike Authority Bridge Inspection Program and shall utilize proprietary software provided by Bentley Software "AssetWise Asset Reliability Inspections" (InspectTech) to develop the reports. See Section XIII for the list and description of structures in Major Group 3.

The Consultant for Major Bridge Group 3 shall provide a complete list of proposed Team Leaders for both biennial inspection cycles, and indicate the individual bridge assignments for each Team Leader over the entire 4-year term. In order to promote having different sets of eyes looking at the same bridges over two consecutive cycles, the Consultant shall ensure that Team Leaders who are assigned to individual bridges in the first biennial cycle are then reassigned to different bridges in the subsequent biennial cycle.

For each major bridge listed in Section XVIII, the Consultant shall commence its biennial inspection on or prior to the previous inspection (anniversary) date. Although NBIS allows for biennial inspections to commence up to two months prior to the anniversary date, NJTA approval is required for inspections starting more than 7 days prior to the anniversary date.

B. Scope of Services for Major Bridge Group 3 Inspection (2021 – 2024)

The following summarizes the list of bridges in Major Bridge Group 3, together with their scheduled biennial inspection cycles under this assignment.

Major Bridge Group 3

Structure Name (Traditional)	Next NBIS Inspection <u>Date</u>	Next Biennial Inspection <u>Cycles</u>
Oak Island Viaduct (NSI/SNI) Oak Island Viaduct (SNO) Oak Island Viaduct (NSO)	4/30/2022 3/1/2021 3/1/2021	2022, 2024 2021, 2023 2021, 2023
Turnpike SNW over Turnpike Ramps NSE-I/SNI-E Turnpike Ramp TNW-14 over Turnpike Ramps	3/27/2021 3/22/2021	2021, 2023 2021, 2023 2021, 2023
Turnpike SNW over Turnpike NSE and SN80 Turnpike NSW over Turnpike NSE	4/12/2021 4/12/2021	2022, 2024 2021, 2023 2021, 2023
Southeast Viaduct East Viaduct West Viaduct	6/19/2022 6/19/2022 6/18/2022	2022, 2024 2022, 2024 2022, 2024
North Terminal Ramps Section A North Terminal Ramp Section B (Eastbound) North Terminal Ramp Section B (Westbound) Turnpike Ramp NSE-O over Turnpike SNW and Ramps Turnpike NSW/SNW over Turnpike Ramps, PSEG & RR	5/29/2022 5/15/2022 7/2/2022 3/22/2021 3/21/2021	2022, 2024 2022, 2024 2022, 2024 2021, 2023 2021, 2023
	Oak Island Viaduct (NSI/SNI) Oak Island Viaduct (SNO) Oak Island Viaduct (NSO) Grand Avenue Viaduct Turnpike SNW over Turnpike Ramps NSE-I/SNI-E Turnpike Ramp TNW-14 over Turnpike Ramps Erie Viaduct Turnpike SNW over Turnpike NSE and SN80 Turnpike NSW over Turnpike NSE Southeast Viaduct East Viaduct West Viaduct North Terminal Ramps Section A North Terminal Ramp Section B (Eastbound) North Terminal Ramp Section B (Westbound) Turnpike Ramp NSE-O over Turnpike SNW and Ramps	Structure Name (Traditional) Oak Island Viaduct (NSI/SNI) Oak Island Viaduct (SNO) Oak Island Viaduct (SNO) Oak Island Viaduct (NSO) Grand Avenue Viaduct Turnpike SNW over Turnpike Ramps NSE-I/SNI-E Turnpike Ramp TNW-14 over Turnpike Ramps Erie Viaduct Turnpike SNW over Turnpike NSE and SN80 Turnpike NSW over Turnpike NSE Turnpike NSW over Turnpike NSE Fied Viaduct Southeast Viaduct Southeast Viaduct East Viaduct West Viaduct North Terminal Ramps Section A North Terminal Ramp Section B (Eastbound) North Terminal Ramp Section B (Westbound) Turnpike Ramp NSE-O over Turnpike SNW and Ramps Inspection Date H/30/2022 5/3/2021 1/2021 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022 1/2022

Proposers are advised that the NBIS anniversary dates for the next biennial inspection of Structures 105.18NO, 105.18SO, E106.15A, E106.20A, E116.72AN, E116.74AS, W106.26AR and W116.10 are in March and April 2021. In anticipation that the successful consultant for OPS No. T3835 will only receive Notice to Proceed in late April 2021, the Authority has arranged for another consultant to commence the biennial inspection of these 8 structures as an interim measure to ensure NBIS compliance. Once OPS No. T3835 is issued, the successful consultant shall immediately proceed with and complete the subject 2021 biennial inspections as the Authority's bridge inspection consultant of record. Regardless of actual timing, the Staffing Estimate shall assume an appropriate level of effort to perform the complete, NBIS-compliant biennial inspection of these 8 structures in 2021.

C. Bridge Inspection Scope

1. General

The scope of biennial inspection shall cover all structural elements on a two-year (biennial) cycle in accordance with NBIS, including pier tops and bearings, fracture critical members (FCMs) and bridge-mounted sign structures. Inspection findings shall be reported via the Authority's InspectTech software including FHWA Structure Inventory & Appraisal (SI&A) and Bridge Element Level Inspection data collection and updates.

The major bridge biennial inspection requires full observation all parts of each structure with handson capability. All vantage points shall be utilized to access the structure, including ground level, boat access, pier top level and roadway level, with full utilization of available catwalks and safety cables, over-the-side inspection vehicles, ground-up inspection vehicles, superstructure rigging, large ladders, and tethered climbing on overhead truss members.

The hands-on visual superstructure inspection shall cover all truss and girder elements and their connections, floorbeam and stringer elements and their connections, bearings (including cantilevered piggyback arrangements), diaphragms, bracing and secondary members, catwalk assemblies, and expansion joints. Special attention shall be paid to fracture critical and failure members (FCMs), fatigue-sensitive details, normally inaccessible connections and member areas, and members with known or potential cracks. The biennial inspection shall also include a visual detailed inspection of the top of deck, underdeck and underdeck joint assemblies, substructure units including bearing seat areas, fenders, parapet median joints, drainage system, electrical facilities, navigation and aviation warning light assemblies and appurtenances.

The biennial inspection shall also cover bridge appurtenances including but not limited to: bridge and fascia mounted sign structures and noise barriers, right-of-way and security fencing, substructure protection, guide rail and barriers, utilities and supports attached to the structure, approaches, and approach protection features within 50 feet of the bridge abutments.

Bearings are observed at documented air and steel temperatures for position and function. Individual bearing measurements are <u>not</u> taken as part of this inspection; rather only if deemed necessary for bearings which are observed to be abnormal or deficient.

With the exception of inspections following major bridge reconstruction, the Consultant shall use the Authority's latest bearing matrix coded with defects (uploaded to 2020 reports as "File" file type) during the current inspection. This file will be used to collect current defects, which will then be uploaded as a working file for use in future inspections.

2. Underwater Inspections (If Applicable)

An underwater inspection shall be performed every four years (48 months) for those major bridges spanning waterways. A complete underwater inspection is required for all substructure units and fender elements that are below mean low water. The underwater inspection shall include probing and checking for potential scour along the face of each abutment and pier; taking soundings at ten (10) foot intervals along both fascias and the longitudinal centerline of the bridge, and around pier perimeters; and providing a streambed cross section showing the streambed below both fascias and the longitudinal centerline of the bridge. Water level, at the time of inspection, shall be shown on the cross section relative to a reusable known reference elevation. Baseline streambed profiles shall be shown on the drawings to assess long term movement. If tidal flow is present, both mean high and low water levels shall be recorded on the streambed cross section. Starting in 2019, the Consultant shall provide sounding sketches using the template provided by NJTA; the sounding sketches are to be an update of the soundings from the last underwater inspection report. For bridges that require underwater inspections, a diver may be used to perform the off-cycle soundings/fathometric surveys.

The underwater inspection shall be a hands-on inspection performed by a qualified dive team. A Professional Engineer, licensed in the State of New Jersey, shall be present when the underwater inspection is performed. A diving report containing observations of noted conditions shall be submitted. The inspection shall be a Type 2 classification in accordance with NJDOT's Underwater Inspection Evaluation of New Jersey Bridges Guideline Manual, June 1994, and all associated revisions. The underwater inspections are in addition to the requirements of the routine biennial inspections (not in place of) and shall be performed at the time of the initial routine bridge inspection.

The minimum size of a dive team shall be three (3) as follows:

Commercial Scuba Air Diving:

- a. Designate Person-in-Charge (DPIC)
- b. Standby Diver
- c. Diver (line tended)

Commercial Surface – Supplied Air Diving:

- a. DPIC
- b. Diver
- c. Tender

The requirements for diver and dive team training are as follows:

The diver shall have successfully completed NHI Course No. FHWA-NHI-130091 – Underwater Bridge Inspection, within the last 5 years. The diver shall be commercially trained at an Association of Commercial Diving Educators (ACDE) accredited school complying with the requirements of

ANSI/ACDE-01-1993, "Commercial Diver Training – Minimum Standard". A military diving school meeting the same standards is also acceptable training.

In lieu of meeting the above requirements, a diver may be trained through either field experience or a combination of formal diving training and field experience. The OSHA diving standard (29-CFR 1910.410) specifies that all dive team members (i.e., divers and support employees involved in diving operations including the DPIC) must have experience or training in the use of tools, equipment, systems, techniques, diving operations and emergency procedures which pertain to their assigned tasks and diving modes (i.e., scuba diving on air, surface supplied diving on air or mixed gas diving). Additionally, dive team members who are exposed to hyperbaric conditions (e.g., diver) or control the exposure of others to hyperbaric conditions (e.g., DPIC or decompression chamber operator) must be trained in diving related physics or physiology. The level of training required by the standard depends upon the particular experience or function an employee fulfills on a dive team, the specific underwater operational tasks being performed and the diving mode to which the employee is assigned.

Records of all diver or dive team training shall be maintained by the diving company and shall be available for inspection.

All dive team members shall be trained in cardiopulmonary resuscitation and standard first aid (American Red Cross Standard).

Proposers are advised that Major Bridge Group 3 has no bridges spanning waterways; as such, underway inspections are not required for this assignment.

3. Fracture Critical and Failure Member (FCM) Inspections

Special attention shall be paid to FCMs, normally inaccessible connections and member areas, fatigue-sensitive details and members with known potential crack locations, for visual crack detection or crack growth. Proposers are advised that the majority of NJTA's major bridges have major FCM elements. These include but are not limited to the following: Extensive use of non-redundant girder systems; box girders and pin and hanger assemblies on Structure Nos. E107.88 and W107.87; a complex three-span continuous, cantilever through truss/tied arch unit with suspenders on Structure No. N2.01; and a continuous through truss arch unit with suspenders comprising the main span over the navigation channel on Structure No. P0.00, with continuous deck truss units on the New Jersey and Pennsylvania approaches. Special attention shall also be paid to all welding and fatigue sensitive details, both in terms of stress category and known damage, on all major structures.

FCM inspections shall comply with the requirements of FHWA-IP-86-26, Inspection of Fracture Critical Members, and they shall be performed concurrently with the biennial inspections. The FCM inspections are supplementary to, rather than in place of, the biennial inspections.

FCM inspections include bridges with box girders, plate girders, two or three-girder systems, transverse pier girders, pin and hanger assemblies, suspenders and sockets, select truss members and other non-redundant structural members. The FCM inspection requires full hands-on inspection of all surfaces and weldments of box girders (interior and exterior) and plate girders in the tension zone, including their major bearings and critical uplift anchor bolt assemblies. Also included are bearing, joint, and structural steel conditions for span ends supported by box girders or framed integral therewith. For welded construction, tension and stress reversal zones shall be examined for

the presence of tack welds; welded erection aids; groove weld backup bars; plug welded holes; and other weld details. Special attention shall be paid to any AASHTO Fatigue Category D, E, or E' weld details. Paint shall be removed from areas if applicable of suspected cracks to perform non-destructive testing if deemed necessary. The areas where paint has been removed and cleaned shall be spray coated by the inspector with a rust inhibitor. Non-destructive testing, liquid penetrant (PT), or as recommended, shall be performed on a sampling basis for FCMs with Category D, E, or E' details. The locations and number of such details shall be identified, delineated and documented by the Consultant. Prior to any non-destructive testing, a recommended list of locations shall be submitted to the Authority's Liaison Engineer for approval. The estimated direct expense for non-destructive testing shall be listed separately in the Fee Proposal.

FCM inspections shall cover the detailed inspection of pin and hanger assemblies and include the following information: Sketch elevations of each face of each hanger assembly plotting clearances and conditions of individual components, relative suspended girder positions, rotation monitoring, and any redundant support and disc bearing conditions. Drainage and catwalk conditions relative to pin and hanger assemblies shall also be included.

The Team Leader for FCM inspections shall have successfully completed the NHI FCM Inspection Course (FHWA-NHI-130078, Fracture Critical Inspection Techniques for Steel Bridges) within the past 5 years.

Confined Space Entry Requirements

- a. The Team Leader and inspector shall attend a training course for confined space inspections, and submit evidence of training certification to the Authority. Firms such as Leading Edge Safety and Health, LLC, (732) 223-7800, offer a training course on safety of confined space entry.
- b. During the FCM inspection of box girder interiors, interior air shall be monitored from the outside by a person certified for first aid from a firm certified for the interior air monitoring.
- c. A second inspector shall be positioned at the entry opening with a two-way radio to stay in contact with the entrants inside the confined space.

Proposers are advised that Major Bridge Group 3 has the following bridges with FCMs: MP N3.73, MP N6.49, MP N7.90E, MP N7.93W, MP E106.15A, MP E106.20A, MP 116.72AN, MP E116.74AS and MP W106.26AR.

4. Inspection of Bridge Security Features

This assignment includes ongoing condition inspection of bridge security features installed at Turnpike and Parkway major bridges. These features include ground and structure mounted security fencing, catwalk gates, secured manholes and hatches, secured box girders, and other items specific to each bridge. The Consultant shall record the inspection findings for each bridge in an input form via InspectTech. The Authority has a formal procedure for performing work within secured areas, and will provide details to the Consultant at the kickoff meeting.

The Consultant shall coordinate with the designated New Jersey Turnpike Authority Key Custodian or Security Liaison to obtain security keys necessary to open the locks at locations where security

fence is present. A representative of the Consultant who will require access at the bridge(s) shall obtain the security key in person at the Authority's headquarters.

5. Vertical Underclearance Measurements

For inspections following major reconstruction, the Consultant shall provide vertical underclearance measurements and photos for any spans over active roadways. Photos should be framed by both substructure units. Photos shall be annotated using photo software or MS Word to include roadway names, structure milepost and name, date photo taken, and minimum vertical clearances at each shoulder and lane line citing near fascia (NF) or far fascia (FF). Starting in 2019, the Consultant shall provide clearance sketches using the template provided by NJTA and clearly denote SI&A Items DJ, 10, 47, 53, 54B, 55B and 56, as well as any vertical underclearance postings present.

For <u>second cycle</u> inspections and later, elevation photos are already available through InspectTech. The Consultant shall update the vertical clearances as follows.

- a. Structures over Turnpike/Parkway Mainline and Ramps Underclearance measurements obtained by Lidar will be provided by the Technical Manager if available. The Consultant shall update the clearance photos and the SI&A data as necessary. The Consultant shall notify the Technical Manager if Lidar data is missing.
- b. Turnpike/Parkway Mainline over Roads, Railroads, Etc. The Consultant shall field verify the elevations, and update the clearance photographs and SI&A data as necessary. Starting in 2019, the Consultant shall provide clearance sketches using the template provided by NJTA and clearly denote SI&A Items DJ, 10, 47, 53, 54B, 55B and 56, as well as any vertical underclearance postings present.

6. Inspection of Navigation Lighting Systems (If Applicable)

Starting in 2019, the Consultant shall conduct nocturnal inspections of any assigned bridges spanning navigable waterways with span or fender mounted navigation lighting. This will be required on an annual basis for each assigned bridge, both as part of the biennial inspection and as part of the off-cycle inspection. When part of the NBIS biennial inspection, a sketch (plan) of the location of the lighting and its condition (functional/non-functional) shall be included in the report. For off-cycle (non-NBIS) inspections, the sketch shall be uploaded to InspectTech. Category A2 reports shall be created/updated as necessary for both current cycle and off-cycle inspections.

Proposers are advised that Major Bridge Group 3 has no bridges spanning navigable waterways; as such, navigation lighting system inspections are not required for this assignment.

7. Stenciling of Bridge Barrier Parapets

The Authority is undertaking a stenciling program for major bridges and viaducts with significant total length and number of spans, to clearly identify the pier numbers at the roadway level. As such, the Consultant will be required to stencil the barrier parapets on each major bridge where none currently exist, or re-stencil the barrier parapets where the existing markings are faded or unintelligible, as approved by the Authority. Stenciling shall be applied in accordance with the NJTA Parapet

Stenciling Procedure, which will be shared with the Consultant at the kickoff meeting. The procedure is summarized for Proposers as follows.

Stenciling along the parapet shall be located over each abutment and pier (at a joint or where no joint is present), and it shall label that appropriate abutment or pier number onto the parapet. The stencil shall be typically positioned in the upper left-hand corner on the interior face of the parapet, to the right of the associated deck joint or open parapet joint. If this area is spalled or damaged, the abutment/pier number shall be stenciled to the left of the joint, or in a location closest to the damaged area on either side of the deck or open parapet joint. Additionally, a joint plate, lighting standard mount or cabinet may be present at this location, which will require the stenciling to be performed on the opposite side of the joint. The top of the abutment/pier number shall be positioned 3 to 4 inches down from the top of the parapet, and the left edge of the abutment/pier number shall be positioned 4 inches to the right of the associated deck or open parapet joint above the intermediate piers in continuous spans where no deck joint is present; this stenciling position shall be followed throughout the structure for consistency. Stenciling shall also conform to previous formats to the greatest extent practicable. The following equipment will be required for bridge stenciling.

- Yellow Lumber Marking Crayon (Keel)
- Tape Measure
- · Stiff Wire Brush
- Soft Fiber (Polymer) Brush
- RAE Pavement Stencil Set, A thru Z, 0 thru 9, Punctuation, 8", Polyethylene (Mfr. Model No. STL-116-8088, Grainger Item No. 18E712 or Equivalent)
- Enamel-Based Flat Black Spray Paint (Krylon® Pro Professional All Surface Enamel, or Equivalent)
- Disposable Gloves
- Dust Mask
- Safety Glasses
- Personal Protective Equipment (PPE), as per NJTA Requirements

Proposers are advised that Major Bridge Group 3 has the following bridges which require parapet stenciling: MP 105.18, MP E111.15, MP N3.73, MP N6.49, MP N7.13, MP N7.52, MP N7.90E, MP N7.93W, MP 105.18NO, MP 105.18SO, MP 120.46, MP E106.15A, MP E106.20A, MP E116.72AN, MP E116.74AS, MP W106.26AR and MP W116.10.

8. Category A Deficiencies

The Consultant shall review and adhere to the Authority's Category A Repair Procedures, for the reporting of potential Category A deficiencies.

The Consultant shall notify the Authority's Liaison Engineer and the Technical Manager whenever a new Category A deficiency is detected, via an email with photos. Upon confirmation of the new Category A deficiency, the Consultant shall create and submit the Category A notification through InspectTech. This includes new Category A deficiencies which are removed during the inspection. For previously reported Category A deficiencies to be monitored under this assignment, if the condition has worsened or if new defects of similar type have been found, the Consultant shall create a new Category A Report. However, if the condition has not worsened and no additional defects of that type have been found, the Consultant shall update the existing report description with the date of their inspection, firm name, and a note stating, "the condition remains unchanged." The Consultant

shall attach supporting photos/sketches to the report. The procedure to issue or update Category A report is available on the Authority's website at https://www.njta.com/inspecttech/bridge-inspection-program-notifications under No. 2019-2.0 Category A Procedure Changes.

D. Bridge Inspection Reports

 Development of Individual Inspection Report using Bentley Software "AssetWise Asset Reliability Inspections" (InspectTech)

The Consultant shall provide a list of users that will require access to InspectTech software to the Authority at the kickoff meeting. This includes all users that require email notifications regarding procedures and clarifications. Users are required to submit all questions and issues related to InspectTech via email to NJTABridgesHelp@njta.com. All latest directives and clarifications are available via https://www.njta.com/inspecttech/bridge-inspection-program-notifications.

The Consultant will be responsible for achieving proficiency with InspectTech, and maintaining that proficiency throughout the duration. The Consultant shall include the costs associated with a full day training session for key staff (assume one training session per year) together with any other effort associated with using InspectTech in their Fee Proposal.

2. Report Format

The Consultant shall submit a draft inspection report for each major bridge to the Technical Manager. Starting in 2017, the Authority began using a new bridge inspection report format, which has been subsequently updated each year. A sample report has been posted to the Authority's Secure File sharing site along with other project reference and materials. The majority of the document pages shall be generated in InspectTech through the standard forms and report sections. Other pages (Load Rating Summary Sheets, Section Loss Documentation, Underclearances, FCM Location Plan, Underwater Inspection Report/Soundings) shall be generated outside the program, or pulled from previous cycles and inserted as additional sections. Category A reports for Type A1, A2, A3, Inadequate Clearance and Guide Rail shall also be included in the report. Proposers are advised that reclassification of the 17 Major Bridge Group 3 bridges will require the addition of several report sections, in order to convert the routine bridge format to major bridge format. Revisions are necessary to include the major bridge format sections for Bridge Description, Recommendations, and Repairable Deficiencies which are described below. Sample major bridge inspection reports will be included as Reference Material, so that Proposers understand the associated level of effort associated with this task.

a. Report Sections

The report shall have the following sections; all are generated in IT unless otherwise noted *.

- Cover
- Table of Contents
- Bridge Description
- Contract History
- Load Rating Summary Sheets*
- Section Loss Workbook (SLW) Tables*
- General Information/Inspection Information
- Conclusions

- Recommendations
- Photographs
- Repairable Deficiencies
- Approach/Roadway (Sheets 1 through 4)
- Deck 1 (General 1)
- Deck 1 (General 2)
- Deck 2 (Joints)
- Deck 3 (Top of Deck)
- Deck 4 (Underdeck)
- Superstructure 1 (General 1)
- Superstructure 1 (General 2)
- FCM Member Summary*
- Superstructure 2 (Superstructure)
- Bearing Matrix (Inventory Information Only)
- Superstructure 3 (Bearings)
- Substructure 1 (General)
- Substructure 2 (Abutment and Piers)
- Underwater Inspection Report/Sounding Survey
- Waterway/Channel
- Fender/Navigation Lighting
- Navigation Lighting Status Sketch*
- Bridge Security Features
- Underclearance Sketches*
- Bridge Element Inspection Forms
- Structure Inventory and Appraisal Forms
- Category A Reports

Field notes are organized into checkbox groupings taken from the former bullet forms. For each grouping, there are up to six different defects. Each defect is classifiable as N/A, Category A, or B/C (Contract). Fields include notes, contract repair quantities and photo references for recommended repairs. Repeatable information such as spans and joints are collected in repeater groups which are limited to 200 rows.

b. Report Section Descriptions

A description of the information per report section is listed below.

<u>Bridge Description</u>: Includes a description of the structural elements including deck, superstructure, and substructure. Includes original construction and changes due to widening/major rehabilitation. This field form is read only and does not require update unless work has been performed to change the structure type. Proposers are advised that a description of each bridge in Major Bridge Group 3 will be prepared by the Technical Manager and furnished to the Consultant for insertion into the inspection report.

<u>Contract History</u>: Includes contract type, contract number, description of work and year. The Consultant will need to review NJTA card files and existing available contract information, to collect data for all contract work competed from construction to the most recent repair contract.

This information will be entered into the Inventory Information form in InspectTech. Information shall be obtained by the Consultant through review of the contract information included in the prior individual reports and review of as-built plans. Hours shall be included in the Fee Proposal for this task.

<u>Load Rating Summary Sheets</u>: For any new structures or structures requiring load rating updates based on Appendix A3 of the Authority's Load Rating Manual, the InspectTech form shall be used to generate this report section and shall include Emergency Vehicle (EV) Ratings. There is also an InspectTech form available for LFR ratings, should ratings using that methodology be required. For all other structures the existing/current PDF shall be included. Refer to the Authority's Load Rating Manual for all requirements.

<u>Section Loss Workbook Tables</u>: Shall be utilized to document primary structural steel member section loss and determine if associated LRFR load rating updates are required and will generate this report section. Refer to the Authority's Section Loss Workbook.

<u>General Information/Inspection Information</u>: Bridge Date (NBI and other fields), Superstructure, Substructure and Inspection Information including Team Leader, Assistant Team Leader, Inspector(s), equipment, MPT, and temperature.

<u>Conclusions</u>: Includes Overall Condition, any Upgrades or Downgrades, Load Ratings, Scheduled/Ongoing/Completed Work, FCM (type and condition), Type 2 Underwater Inspection Statements, Description of Deck, Approaches, Superstructure, Substructure, Waterway, Safety Features, Other and Category E to supplement NBI ratings.

<u>Recommendations</u>: Repeatable Field Group (RFG) form including a description of recommended repairs, with quantity and photo references. Quantities are summary of items noted in the Repairable Deficiencies report section.

<u>Repairable Deficiencies</u>: Summary of defects included in the field notes warranting repair by future contract. This summary is used to generate the quantity of defects included in the Recommendations report section.

Approach/Roadway 1: Roadway, Guide Rail, Embankment.

Approach/Roadway 2: Sidewalk/Safetywalk/Curb, Barrier, Other, Noise Barriers.

<u>Approach/Roadway 3</u>: Median, Parapet Protective Fencing, Drainage Inlets, Lighting Standards and Junction Boxes.

Approach/Roadway 4: Safety Features.

<u>Deck 1 (General 1)</u>: Median, Sidewalk/Safetywalk/Curb, Bridge Rail, Parapet Protective Fencing, Drainage Inlets.

Deck 1 (General 2): Noise Barriers, Lighting Standards and Junction boxes.

Deck 2 (Joints): RFG for Deck Joints per substructure unit.

<u>Deck 3 (Top of Deck)</u>: Rideability, Overlay Type, Overlay Appraisal, Repeater Group for Top of Deck Defects per Span.

<u>Deck 4 (Underdeck)</u>: Deck Type, Percent SIP, Repeater Group for Underdeck/Fascia Defects per Span.

<u>Superstructure 1 (General 1)</u>: Coating Condition, Drainage, Utility Lines/Support, Catwalks/Ladders/Hatches, Structural Connections (read-only).

<u>Superstructure 1 (General 2)</u>: Underbridge Lighting, Bridge Mounted Sign Structures.

<u>FCM Member Summary</u>: Includes an FCM In-Depth Inspection Plan, Location Plan, Box Girder Inventory Forms, and Detail Plates. The Inspection Plan includes a description of the bridge and fracture critical members (FCMs), inspection methods, and special inspection needs. The Location Plan is a framing plan highlighting the FCM members. The Location Plan shall clearly identify all FCMs on each individual bridge. The Box Girder Inventory Forms are RFGs for each box girder and include data related to the box girder type, size, anchor bolts, bearings, connections, stiffeners and weldments. All notes regarding inspection findings shall be included on the Superstructure 2 (Superstructure) Form. Detail Plates include diagrams depicting the plan, elevation and cross section views of the FCMs.

<u>Superstructure 2 (Superstructure)</u>: RFG for Span to include all notes for FCM member inspection when considered superstructure element.

<u>Bearing Matrix</u>: The bearing deficiency matrix is included for inventory information only.

<u>Superstructure 3 (Bearing)</u>: RFG for Bearing Lines.

<u>Substructure 1 (General)</u>: Abutment Slope, Substructure Protection Features, Right of Way Security, Drainage (read-only)

<u>Substructure 2 (Abutments and Piers)</u>: RFG for Abutment/Wingwalls and Piers; shall include all notes for FCM member inspection when considered a substructure element.

<u>Underwater Inspection Report / Soundings Survey</u>: For structures crossing waterways where a Type 2 Underwater Inspection is performed during the NBIS inspection, a PDF of the report in its entirety will be uploaded and added as a report section. For all other cases, sounding surveys shall be provided as described above.

Waterway/Channel: Countermeasures and Waterway/Channel.

<u>Fender/Navigation Lighting</u>: Fender System, Navigation Lighting (Span Mounted), and Navigation Lighting (Fender Mounted).

<u>Navigation Lighting Status Sketch</u>: Plan view of the fender and span lighting documenting the findings from the nocturnal navigation lighting survey.

<u>Bridge Security Features</u>: Security Fencing, Box Girder Access, and other Major Bridge Security Features.

c. Photographs

GENERAL: Elevation (2), Approach (All), Top of Deck (All / Each type), Superstructure (Each Type), FCMs, Waterway (Upstream/Downstream).

CATEGORY A: Defect Photos associated with Category A Reports (A1, A2, A3, Guide Rail, Inadequate Clearance, Utility).

DEFECT: Approach, Deck, Superstructure, Bearings, Substructure, Misc. (Utilities) in order of the field notes. Category D repairs are no longer recommended in the reports, however, the corresponding defect photos shall be included in the Photographs Section of the reports, and uploaded to the Pics/Files page as described below.

WORK DONE: Work done photos shall be included within the defect photos.

EQUIPMENT AND MPT: Special equipment or MPT used during the inspection.

Photographs are required to be referenced in the field notes for all defects with Category A, or B/C repairs recommended; typical/worst photos shall be included in the report with reference to other similar locations in the description.

Deficiency quantities (e.g. 20 SF of concrete is hollow sounding) and location shall be included in the caption. The photo date shall be recorded upon upload and reflect the actual date the photograph was taken.

Although not all photos will be included in the Report, the Consultant shall take photos of every repairable (A, B/C or D) defect and upload into InspectTech. Photos not included in the Inspection Report will also be useful for scoping of bridge repair contracts, and the description shall contain the element and defect shown at a minimum.

Utility Photos are required for all utilities on a bridge. Photographs shall be clear enough to identify utility lines, casing, and supports, and be at a distance that shows the relative location of the utilities on the structure. Captions shall include direction and orientation of the photo stating location and type of lines. Separate photos are not necessary if the above criteria are met in an existing photo. If a utility is not captured within existing general, work done or defect photos, it shall be included in a separate photograph at the end.

Note that photo references are not linkable to fields. Photo number references should therefore be manually entered after the photographs are numbered.

Recommendations noted in reports shall be cross referenced to photos taken which depict that deficiency.

When improvements are underway at a structure, the Consultant shall provide photos of the areas under construction. This will require early familiarization with the Authority's planned bridge repair contracts for 2021 and future years.

The digital camera to be used shall have a minimum resolution of four (4) mega pixels.

d. SI&A

FHWA Structure Inventory & Appraisal (SI&A) forms shall be updated during the biennial inspection of each major bridge. All SI&A data required by the Authority as described below will be submitted to NJDOT. InspectTech is currently populated with SI&A data from the latest biennial inspection cycle. The Consultant shall update the SI&A data and run the error check

and Sufficiency Rating calculation utilizing InspectTech. Consultants should pay particular attention to fields highlighted RED which indicate that the input does not follow the defined format, causing the data transfer to fail for that asset. The Authority will transmit SI&A data directly to NJDOT's CombIS System from InspectTech.

The tasks involved in updating the forms include:

Addressing Federal Coding Items 1 to 116 (inclusive); note the following.

- Code Item 100 (STRAHNET Route) in accordance with FHWA memo dated February 9,
 2001. Item 6B shall no longer be coded as per FHWA errata sheet.
- Code Items 11, 12 and 13 using NJDOT Straight Line Diagrams and Appraisal of New Jersey Bridges.
- Code Items 10, 47 and 54 for all sheets (Sheet 2 or A through Z).
- Code Item 21 as State Toll Agency (31).
- The Authority will update all state and federal load rating fields. The Consultant shall verify
 that the ratings on the Load Rating Summary sheet match the SIA data and will notify the
 Authority if they do not match.

Completion of State Coding Items as follows.

Requirements for Sheet 1

Item No.	<u>Name</u>
(M84)	Degree latitude
(M85)	Degree longitude
(A)	Town
(AA)	Route
(AB)	Structure Name
(AE)	Owner
(AE)	Owner 2
(AF)	Alt. Structure #
(AG)	Rail Type
(AK)	Abutment
(AL)	Pier
(AM)	Depth of Fill
(AV)	Widened Struct 1st Widened Design
(AV)	Widened Struct 1st Widened Mat.
(AV)	Widened Struct 2nd Widened Design
(AV)	Widened Struct 2nd Widened Mat.
(BA)	Approach Roadway Condition
(BC)	USRA Code
(BE)	Rail Milepost
(BR)	Load Ratings: HS Tons
	_

(BV)	Load Ratings: Military: RF
(CB)	Load Ratings: HS Tons
(CF)	Load Ratings: Military: RF
(CG)	Load Type- Load/Tons
(CI)	Cycle Number
(CJ)	Inspection Type
(CM)	Consultant
(CP)	Federal Report
(FV)	Route Milepost
(BQ)	Load Ratings – H
(BS)	Load Ratings - 3
(BT)	Load Ratings - 3S2
(BU)	Load Ratings - 3-3
(CA)	Load Ratings - H
(CC)	Load Ratings - 3
(CD)	Load Ratings - 3S2
(CE)	Load Ratings - 3-3

All the State load rating fields indicated in italic above will be coded by NJTA. The Consultant shall verify the data.

Requirements for Sheet 2 or A through Z

Item No.	<u>Name</u>
DJ	Minimum Vertical Underclearance Including Shoulders
SRI	State Route Identification including Ramp Identifiers

The Consultant shall notify the Authority of coding downgrades from above a Four (4) or for upgrades from less than or equal to a Four (4) for Federal Codes 58, 59 and 60.

e. Bridge Element Level Inspection

In accordance with 23 CFR 650 Subpart C, the Authority has been collecting element level data for all of its NBIS bridges since the 2015 Bridge Inspection Program. Bentley developed the Element Level Inspection Data Input module within InspectTech for the Authority. Similar to SI&A data, the Authority will transmit Bridge Element Level inspection data directly to NJDOT's CombIS System from InspectTech.

The Consultant shall perform the element level inspection concurrently with the routine NBIS inspection for each bridge within the scope of this assignment. The Consultant shall refer to the AASHTO Manual for Bridge Element Inspection and NJDOT Bridge Element Inspection Manual for element descriptions, quantity calculations, and condition state definitions. The Consultant shall cross check inputs for condition states and quantities for a particular element with its corresponding input in the bridge inspection forms and SI&A item condition ratings to ensure consistent inputs.

3. Draft Report Submission

The Consultant shall submit a draft report for each major bridge in electronic format (PDF) which includes updated field forms, FHWA Element Level bridge inspection coding forms and SI&A sheets. The Technical Manager will establish FTP sites to upload the reports. Prior to their submission, draft reports shall receive an independent review by the Consultant's structural staff not directly involved in the bridge inspection assignment, for technical concurrence of repair recommendations and prioritization. Each major bridge inspection report shall be submitted first in draft form to the Technical Manager for review and conformance with established Authority standards. The Authority's Liaison Engineer will then review the red-lined draft reports before returning to the Consultant for comment resolution and report finalization. Any red-lined comments shall be addressed and incorporated in the final report, or responded to accordingly in the draft reports which will serve as the record for comment resolution. The final report shall then be submitted to the Authority's Liaison Engineer and Technical Manager.

4. Deliverables for Final Reports

Electronic bridge inspection report files shall be provided as PDF files on CDs, DVD, flash drive or other acceptable media. Each of the reports shall be named (GSP or TPK)_BridgeInspectionReport_Structure Number. File extension. Examples include "GSP_BridgeInspectionReport _28.0S.pdf", and "TPK_ BridgeInspectionReport _W106.26AR.pdf". All reports shall be placed together in one folder or subfolder set up specifically for bridge inspection reports only. Working files for Underwater Inspection Reports, Section Loss Documentation, , etc. shall also be included under a separate folder titled "Working Files".

The Consultant shall also submit one (1) hard copy of each final major bridge inspection report. All final reports shall be bound in 3-ring binders with a spine thickness of no more than 3 inches. Reports shall be broken into two or more volumes, as needed, in order to remain within the thickness limit. Tabs and/or heavy card stock sheets shall be used to delineate between sections and appendices of the report.

5. Authority Deficiency Category Definitions

To identify the severity of the deficiencies and prioritize the necessary repairs to help in planning for future Maintenance Force and Contract improvements, the deficiencies and conditions noted in the bridge and ancillary structure inspection reports shall be identified within one of the following Authority stipulated repair categories:

CATEGORY A

Deficiencies that require prioritized attention with prompt notification given to the Authority. For such findings, a Category A report is prepared and issued with one of the below subcategories based on urgency and criticality.

A1 (Emergency)

Critical findings in the bridge deck, superstructure or substructure which, if not repaired immediately, may require closing the bridge, or a portion thereof, and could lead to a total collapse of the structure; or, a defect found at any ancillary structural asset determined as an immediate safety hazard to the traveling public.

A2 (Priority)

Major defects noted which are recommended for necessary repair in the near future as they pose a potential safety concern to the travelling public, or could lead to significant load restriction or partial collapse of the structure.

A3 (Non-Structural)

Issues noted which are recommended for repair before or within the next regularly scheduled contract as they pose a potential safety concern to the travelling public.

GUIDE RAIL

Damage or significant corrosion noted to guide rail elements including attachments to bridges, rail and posts at approach roadway or substructure protection runs, and end terminals at Turnpike and Parkway structures, which require repair in the near future; these deficiencies are reported by the issuance of a Guide Rail Type Category A Report.

UTILITY

Damage or significant corrosion noted to Authority and outside agency utility supports, pipes/conduits and connections at Turnpike and Parkway structures, which require repair in the near future are reported by the issuance of a Utility Type Category A Report.

INADEQUATE CLEARANCE

Vertical bridge underclearances which are incorrectly posted, or measured to be less than the following minimum thresholds established for New Jersey Turnpike and Garden State Parkway crossings, are reported by the issuance of an Inadequate Clearance Type Category A Report.

Bridges over State Roads 14' - 9" minimum Bridges over Non-State (County and Local) Roads 14' - 6" minimum Bridges over New Jersey Turnpike and Garden State Parkway Roads 14' - 0" minimum

Through InspectTech, a Category A Report is issued for each item and distributed to Engineering and Maintenance as required. Further information can be found in the Category A Repair Procedures.

For loose concrete found over traffic, the Consultant shall remove loose material if fractured areas are reachable and removable by hand tools. The Consultant shall mark the fractured area with spray paint and take two photos of the area, one close-up, and one backed up to indicate the location of fracture relative to span framing.

CATEGORY B / C "Contract/Deck Work"

Deficiencies noted that are recommended for repair by an annual Bridge Repair Contract or Specialized Repair Contract as part of the Authority's Capital Budget Program.

CATEGORY D "Maintenance"

Deficiencies noted which can be repaired most expeditiously by the Authority's Maintenance Department.

CATEGORY E "Monitor"

Noted deficiencies or conditions that are considered actively developing and may be recommended for contract work, but require monitoring until the condition has been remedied. This monitoring

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would involve an increased inspection frequency and/or level of detail through routine or interim inspections.

Further information can be found in the Authority Deficiency Category Definitions on the Authority's website at https://www.njta.com/media/4595/njta_deficiency_category_definitions_v61219.pdf.

SECTION V <u>Staffing Schedule</u> New Jersey Turnpike Authority Major Bridge Inspection Program

OPS No. T3835 – Major Bridge Group 3 (2021 – 2024)

Classification (ASCE-Grade)	Task 1 Mobilization	Task 2 Bridge Inspection	Task 3 Bridge Reports	Task 4 SI&A/Element Level Inspection	Task 5 Load Rating Updates	Task 6 Unanticipated Hours	Total Hours
Project Manager ()						10	
Project Engineer ()						20	
Team Leader ()						80	
Inspector/ Engineer ()						80	
Junior Engineer ()						40	
CADD Technician ()						20	
Other-Specify ()							
Total Hours					250 ³	250 ²	

Notes:

- (1) The above chart is intended to act as a guide. The Consultant shall modify and expand Classifications and Tasks as required to meet project needs.
- (2) Unanticipated Services in the amount of 250 hours is an annual total and shall be multiplied over the 4-year term of this assignment.
- (3) Load Rating Updates in the amount of 250 hours is an annual total and shall be multiplied over the 4-year term of this assignment.

SECTION VI Compensation Basis

Effective February 28, 2011 the New Jersey Turnpike Authority will no longer issue Non-Revenue Toll Passes to consultants working on Authority projects. Also effective this date, the Consultant will be responsible for paying all tolls.

Following a review of submitted Expressions of Interest, the Authority will request Fee Proposal(s) from the firm(s) it deems most qualified.

The Sealed Fee Proposal shall be submitted as a cost-plus fee, based on reimbursement of direct professional and technical salaries, except Corporate Officers, Partners, Owners and routine secretarial and clerical services, times a multiplier, not to exceed 2.8, based on a 10% allowance for profit and an overhead rate of 154.5%, the individual firm's overhead rate as determined by Federal Audit Regulation (FAR) procedures, whichever is less plus direct expenses and subconsultant services, at cost. The multiplier shall not be applied to the premium portion of overtime. When Corporate Officers, Partners, Owners and/or Principals are required to provide services in a technical capacity, the salaries for such services shall be reimbursable for direct salaries times a multiplier not to exceed 2.8. The multiplier covers all overhead and profit. No expenses or costs shall be billed unless specifically included in this EOI Solicitation or Final Negotiated Fee Proposal. For general services provided by Corporate Officers, Partners, Owners and/or Principals working in a non-technical capacity, no compensation will be provided.

Average rate per classification/grade will not be permitted to determine total labor costs. The Consultant shall list each individual proposed for the project and include the hours and hourly pay rate.

Effective August 1, 2015, salary rate increases will be permitted in accordance with the following parameters:

- Salary increases will <u>not</u> be permitted for the first 24 months of any OPS Agreement from the date of execution;
- Starting at month 25, all staff, regardless of pay grade / title, will be allowed up to a maximum annual increase of 2%;
- The proposal salary rate increase schedule will apply to the prime consultant as well as all subconsultants;
- Supplements to OPS Agreements executed prior to August 1, 2015 will not be permitted salary increases.

The Fee Proposal when requested, shall detail time (hours) and direct salary data for classifications conforming to ASCE Professional and Technical Grades, as shown on the staffing schedule and as modified by the Consultant to account for all required services. The ceiling amount shall be estimated to the nearest \$5,000.

Salaries shall be charged at the Consultant's hourly rates. The Consultant is responsible for managing the assignment, adhering to the number of hours, salary rates and personnel, as presented in the Expression of Interest and Fee Proposals. Individual standard and overtime rates must be approved by the Authority's Chief Engineer or the Chief Engineer's designated representative prior to commencement of work or whenever the Consultant proposes that an individual's rate be changed during the term of this OPS, provided such change is reflected in the Consultant's Fee Proposal. Except for overtime worked on construction supervision during permissible contract working hours, approval of overtime must be issued by the Authority. The Fee Proposal shall follow and reflect the staffing schedule as shown in Section V.

Direct expenses shall include approved subconsultant services; mileage; material sampling and destructive testing; non-destructive testing (NDT); air monitoring; printing of inspection reports (including the costs of regular paper, colored paper, dividers, covers, photo pages, bindings, labels, and plastic covers); railroad insurance, permits, safety training, flagging and inspection services; rental costs for bridge inspection access equipment and truck-mounted attenuators (TMAs); fuel, tire and repair costs for rented bridge inspection access equipment and TMAs; materials for bridge parapet stenciling; and expenses associated with the unanticipated assignment task, with prior written approval by the Authority. The Consultant shall provide the estimated direct costs for these items in the Fee Proposal. Mileage will be paid at the prevailing rate. Mileage will be reimbursed for travel between the field office and the job site and return. Any change to this rate is subject to the approval of the New Jersey Turnpike Authority.

Expenses for lodging and meals will be paid in accordance with the Federal per diem rates which can be found at www.gsa.gov/perdiem. Compensation for lodging and meals must be approved in advanced by the Authority, otherwise the Consultant will not be reimbursed for meals and lodging. This shall also apply to the Consultants subconsultants.

Subconsultant services are those required services performed by other firms at the Consultant's direction. These services in excess of \$5,000 must be approved in advance by the Authority.

Overnight delivery charges will be paid by the Authority if said delivery is specifically requested by the Authority and agreed to in advance. Otherwise, the Consultant will not be reimbursed for overnight delivery charges if the Consultant elects to use such services for his convenience. This shall also apply to the consultant's subconsultants.

SECTION VII NEW JERSEY TURNPIKE AUTHORITY SUBCONSULTING PROGRAM

Small Business Enterprise Program

It is the policy of the New Jersey Turnpike Authority (the "Authority") that Small Business Enterprises ("SBE") as determined and defined by the Division of Revenue & Enterprise Services ("Division") and the Department of the Treasury ("Treasury") in N.J.A.C. 17:13-1.1. have the opportunity to compete for and participate in the performance of consultant services. The Authority is seeking participation of these SBEs in the performance of certain Orders for Professional Services (OPS). Your Expression of Interest (EOI) must include either (1) evidence of the use subconsultants who are registered with the Division as a SBE, or (2) demonstration of a good faith effort, to meet the goal of awarding at least twenty-five (25%) percent of the total value of the OPS to. During the RFP portion of this procurement, as part of the fee negotiation process, Firms must submit proof of their subconsultants' SBE registration(s). In the event that a Firm cannot comply with the goal set forth above, prior to the time of the award, the Firm must demonstrate to the Authority's satisfaction that a good faith effort was made to accomplish the above stated goal.

After award of the OPS, in order for the Authority to monitor and report SBE participation during the course of the OPS pursuant to N.J.A.C. 17:13-5.2, the Consultant shall submit evidence of SBE participation in a form acceptable to the Authority, with each invoice for payment. Invoices for Payment submitted without the completed SBE Form will not be processed.

If the Consultant, for any reason, at any time during the course of the OPS, intends to make any additions, deletions or substitutions to the list of Firms on the SBE form submitted to the Authority, the Consultant shall submit such proposed changes for approval. Any such proposed changes must comply with the requirements and procedures set forth herein.

Evidence of a "good faith effort" includes, but is not limited to:

- 1. Consultant shall request a listing of small businesses from the Division and the Authority and attempt to contact same;
- 2. Consultant shall keep specific records of its efforts, including the names of businesses contacted and the means and results of such contacts, receipts from certified mail and telephone records;
- 3. Consultant shall provide proof of solicitations of SBEs for their services, including advertisements in general circulation media, professional service publications and minority and women focus media;
- 4. Consultant shall provide evidence of efforts made to identify work categories capable of being performed by SBEs:
- 5. Consultant shall provide all potential subconsultants with detailed information regarding the project description;
- 6. Consultant shall attempt, wherever possible, to negotiate lower prices with potential SBE subconsultants which submitted higher than acceptable fee estimates; and
- 7. Efforts made to use the services of available community organizations, consultant groups, and local, state and federal agencies that provide assistance in the recruitment and placement of SBEs.

Consultant shall maintain adequate records to document their efforts and will provide same to the Authority upon request.

Disabled Veteran Owned Business Enterprise Program

It is the policy of the New Jersey Turnpike Authority (the "Authority") that Disabled Veteran Owned Business Enterprises (DVOBs) as determined and defined by the Division of Revenue & Enterprise Services ("Division") and the Department of Treasury ("Treasury") in N.J.A.C. 17:14-1.1have the opportunity to compete for and participate in the performance of consultant services. The Authority is seeking participation of these DVOBs in the performance of certain Orders for Professional Services (OPS). Your Expression of Interest (EOI) must include either (1) evidence of the use of subconsultants who are registered with the Division as a DVOB, or (2) demonstration of a good faith effort to meet the goal of awarding at least three(3) percent of the total value of the OPS to. During the RFP portion of this procurement, as part of the fee negotiation process, Firms must submit proof of their subconsultants DVOB registrations. In the event that a Firm cannot comply with the goal set forth above, prior to the time of award, the Firm must demonstrate to the Authority's satisfaction that a good faith effort was made to accomplish the above stated goal.

After award of the OPS, in order for the Authority to monitor and report DVOB participation during the course of the OPS pursuant to NJAC 17:14-4, the Consultant shall submit evidence of DVOB participation in a form acceptable to the Authority, with each invoice for payment. Invoices for payment submitted without the completed DVOB Form will not be processed.

If the Consultant, for any reason, at any time during the course of the OPS, intends to make any additions, deletions or substitutions to the list of Firms on the DVOB Form submitted to the Authority, the Consultant shall submit such proposed changes for approval. Any such proposed changes must comply with the requirements and procedures set forth herein.

Evidence of a "good faith effort" includes, but is not limited to:

- 1. The Consultant shall attempt to locate qualified potential DVOBs;
- 2. The Consultant shall consult the DVOB Database if no DVOBs are known to consultant;
- 3. The Consultant shall keep all documentation of its efforts, including the names of businesses contacted and the means and results of such contacts; and
- 4. The Consultant shall provide all potential subcontractors with detailed information regarding the specifications.

SECTION VIII <u>EQUAL EMPLOYMENT OPPORTUNITY REGULATIONS</u> <u>N.J.S.A.</u> 10:5-31 et seq. (P.L. 1975, C. 127) And <u>N.J.A.C.</u> 17:27 GOODS, PROFESSIONAL SERVICE AND GENERAL SERVICE CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to <u>N.J.S.A.</u> 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to make good faith efforts to meet targeted county employment goals established in accordance with N.J.A.C.17:27-5.2.

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not

discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

Letter of Federal Affirmative Action Plan Approval

Certificate of Employee Information Report

Employee Information Report Form AA302 (electronically provided by the Division and distributed to the public agency through the Division's website at www.state.nj.us/treasury/contract_compliance).

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Public Contracts Equal Employment Opportunity Compliance as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Public Contracts Equal Employment Opportunity Compliance for conducting a compliance investigation pursuant to <u>Subchapter 10 of the Administrative Code at N.J.A.C.17:27</u>.

SECTION IX

<u>State Contractor Political Contributions Compliance</u>
Public Law 2005, Chapter 51, Executive Order 134 and Executive Order 117

In order to safeguard the integrity of State government procurement by imposing restrictions to insulate the award of State contracts from political contributions that pose the risk of improper influence, purchase of access, or the appearance thereof, Executive Order 134 was signed on September 22, 2004 ("Executive Order 134"). The Order is applicable to all State agencies, the principal departments of the executive branch, any division, board, bureau, office, commission within or created by a principal executive branch department, and any independent State authority, board, commission, instrumentality or agency. Executive Order 134 was superseded by Public Law 2005, c.51, signed into law on March 22, 2005. In September 2008, Executive Order 117 was signed and became effective November 15, 2008. It applies to the same government contracting entities subject to Executive Order 134, but extends the political contribution restrictions by expanding the definition of "business entity" to include, for example, more corporate shareholders and sole proprietors. Executive Orders 134 and 117, and Public Law 2005, c.51 contain restrictions and reporting requirements that will necessitate a thorough review of the provisions. Pursuant to the requirements of PL 2005, c.51, the terms and conditions set forth in this section are material terms of any OPS resulting from this RFEOI or RFP:

DEFINITIONS

For the purpose of this section, the following shall be defined as follows:

- a) Contribution means a contribution reportable as a recipient under "The New Jersey Campaign Contributions and Expenditures Reporting Act." P.L. 1973, c. 83 (C.19:44A-1 et seq.), and implementing regulations set forth at N.J.A.C. 19:25-7 and N.J.A.C. 19:25-10.1 et seq. Through December 31, 2004, contributions in excess of \$400 during a reporting period were deemed "reportable" under these laws. As of January 1, 2005, that threshold was reduced to contributions in excess of \$300.
- b) Business Entity means any natural or legal person; business corporation (and any officer, person, or business entity that owns or controls 10% or more of the corporation's stock); professional services corporation (and any of its officers or shareholders); limited liability company (and its members); general partnership (and its partners); limited partnership (and its partners); in the case of a sole proprietorship: the proprietor; a business trust, association or any other legal commercial entity organized under the laws of New Jersey or any other state or foreign jurisdiction, including its principals, officers, or partners. The definition of a business entity also includes (i)all principals who own or control more than 10 percent of the profits or assets of a business entity; (ii)any subsidiaries directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee; and (iv) if a business entity is a natural person, that person's spouse or child, residing in the same household.

BREACH OF TERMS OF THE LEGISLATION

It shall be a breach of the terms of the contract for the Business Entity to (i)make or solicit a contribution in violation of the Legislation, (ii)knowingly conceal or misrepresent a contribution given or received; (iii)make or solicit contributions through intermediaries for the purpose of concealing or misrepresenting the source of the contribution; (iv)make or solicit any contribution on the condition or with the agreement that it will be contributed to a campaign committee or any candidate of holder of the public office of Governor, or to any State or county party committee; (v)engage or employ a lobbyist or consultant with the intent or understanding that such lobbyist or consultant would make or solicit any contribution, which if made or solicited by the business entity itself, would subject that entity to the restrictions of the Legislation; (vi)fund contributions made by third parties, including consultants, attorneys, family members, and employees; (vii)engage in any exchange of contributions to circumvent the intent of the Legislation; or (viii)directly or indirectly through or by any other person or means, do any act which would subject that entity to the restrictions of the Legislation.

CERTIFICATION AND DISCLOSURE REQUIREMENTS

- a) The Authority shall not enter into a contract to procure from any Business Entity services or any material, supplies or equipment, or to acquire, sell or lease any land or building, where the value of the transaction exceeds \$17,500, if that Business Entity has solicited or made any contribution of money, or pledge of contribution, including in-kind contributions to a candidate committee and/or election fund of any candidate for or holder of the public office of Governor, or to any State, county or municipal political party committee, or legislative leadership committee during specified time periods.
- b) Prior to the award of any contract or agreement, the intended Awardee shall submit the Certification and Disclosure form, certifying that no contributions prohibited by the Legislation have been made by the Business Entity and reporting all contributions the Business Entity made during the preceding four years

to any political organization organized under 26 U.S.C.527 of the Internal Revenue Code that also meets the definition of a "continuing political committee" within the means of <u>N.J.S.A.</u> 19:44A-3(n) and <u>N.J.A.C.</u> 19:25-1.7. Failure to submit the required forms will preclude award of a contract under this RFP, as well as future contract opportunities.

c) Further, the Contractor is required, on a continuing basis, to report any contributions it makes during the term of the contract, and any extension(s) thereof, at the time any such contribution is made.

STATE TREASURER REVIEW

The State Treasurer or his designee shall review the Disclosures submitted pursuant to this section, as well as any other pertinent information concerning the contributions or reports thereof by the intended awardee, prior to award, or during the term of the contract, by the contractor. If the State Treasurer determines that any contribution or action by the contractor constitutes a breach of contract that poses a conflict of interest in the awarding of the contract under this solicitation, the State Treasurer shall disqualify the Business Entity from award of such contract.

ADDITIONAL DISCLOSURE REQUIREMENT OF P.L. 2005, C. 271

Contractor is advised of its responsibility to file an annual disclosure statement on political contributions with the New Jersey Election Law Enforcement Commission (ELEC), pursuant to P.L. 2005, c. 271, section 3 if the contractor receives contracts in excess of \$50,000 from a public entity in a calendar year. It is the contractor's responsibility to determine if filing is necessary. Failure to so file can result in the imposition of financial penalties by ELEC. Additional information about this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

ADDITIONAL DISCLOSURE REQUIREMENT OF P.L. 2005, C. 51 (EXECUTIVE ORDER NO. 117)

Executive Order No. 117 (Corzine 2008) is designed to enhance New Jersey's efforts to protect the integrity of government contractual decisions and increase the public's confidence in government. The Executive Order builds on the provisions of P.L. 2005, c. 51 ("Chapter 51"), which limits contributions to certain political candidates and committees by for-profit business entities that are, or seek to become, State government vendors.

Executive Order No. 117 extends the provisions of Chapter 51 in two ways:

- 1. The definition of "business entity" is revised and expanded so that contributions by the following individuals also are considered contributions attributable to the business entity:
 - Officers of a corporation, any person or business entity who owns or controls 10% or more of the
 corporation's stock, and professional services corporations, including any officer or shareholder, with
 the term "officer" being defined in the same manner as in the regulations of the Election Law
 Enforcement Commission regarding vendor disclosure requirements (N.J.A.C. 19:25-26.1), with the
 exception of officers of non-profit entities;
 - Partners of general partnerships, limited partnerships, and limited liability partnerships and members
 of limited liability companies (LLCs), with the term "partner" being defined in the same manner as in
 the regulations of the Election Law Enforcement Commission regarding vendor disclosure
 requirements (N.J.A.C. 19:25-26.1);

- In the case of a sole proprietorship: the proprietor; and
- In the case of any other form or entity organized under the laws of this State or any other state or foreign jurisdiction: the entity and any principal, officer, and partner thereof;
- Spouses, civil union partners, and resident children of officers, partners, LLC members, persons
 owning or controlling 10% or more of a corporation's stock, all shareholders of a professional services
 corporation, and sole proprietors are included within the new definition, except for contributions by
 spouses, civil union partners, or resident children to a candidate for whom the contributor is eligible
 to vote or to a political party committee within whose jurisdiction the contributor resides.
- 2. Reportable contributions (those over \$300.00 in the aggregate) to legislative leadership committees, municipal political party committees, and candidate committees or election funds for Lieutenant Governor are disqualifying contributions in the same manner as reportable contributions to State and county political party committees and candidate committees or election funds for Governor have been disqualifying contributions under Chapter 51.

Executive Order No. 117 applies only to contributions made on or after November 15, 2008, and to contracts executed on or after November 15, 2008.

Only the intended Awardee will be required to submit the required P.L. 2005 c. 51/Executive Order 117 and P.L., 2005, c. 271 forms. The **combined** Chapter 51/Executive Order 117 form and the Chapter 271 form are available on the Department of Treasury Division of Purchase and Property's website at: http://www.state.nj.us/treasury/purchase/forms.htm.

SECTION X Set-Off for State Tax (N.J.S.A. 54:49-19)

Please be advised that pursuant to P.L. 1995. C. 159, effective January 1, 1996 and notwithstanding any provision of the law to the contrary, whenever any taxpayer, partnership, or S corporation under contract to provide goods or services or construction projects to the State of New Jersey or its agencies or instrumentalities, including the legislative and judicial branches of State government, is entitled to payment for those goods or services or construction projects and at the same time the taxpayer, or the partner or shareholder of that entity, is indebted for any State tax, the Director of the Division of Taxation shall seek to set-off that taxpayer's, partner's or shareholder's share of the payment due to the taxpayer, partnership, or S corporation. The amount of set-off shall not allow for the deduction of any expenses or other deductions which might be attributable to a partner or shareholder subject to set-off under this act. No payment shall be made to the taxpayer, the provider of goods or services or the contractor or subcontractor of construction projects pending resolution of the indebtedness.

The Director of Division of Taxation shall give notice to the set-off to the taxpayer, the provider of goods or services, or the contractor or subcontractor of construction projects and provide an opportunity for a hearing with thirty (30) days such notice under the procedures for protests established under R.S. 54:49-18. No requests for conference, protest or subsequent appeal to the Tax Court from any protest under this section shall stay the collection of the indebtedness. Interest that may be payable by the State pursuant to P.L. 1987, c. 184 (c.582:32-32et seq.) to the taxpayer, the provider of goods or services, or the contractor or subcontractor of construction projects shall be stayed.

SECTION XI Right to Audit

Pursuant to N.J.A.C. 17:44-2.2, authority to audit or review contract records:

- (a) Relevant records of private vendors or other persons entering into contracts with covered entities are subject to review by the Office of the State Comptroller (OSC) pursuant to N.J.S.A. 52:15C-14(d).
- (b) As of November 15, 2010, the Consultant (contract partner) shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

SECTION XII Source Disclosure Certification

Pursuant to <u>N.J.S.A.</u> 52:34-13.2 (Executive Order 129 (2004)), the Authority must consider the requirements of New Jersey's contracting laws, the best interests of the State of New Jersey and its citizens, as well as applicable federal and international requirements.

The Authority shall insure that all Firms seeking to enter into any contract in which services are procured on its behalf must disclose:

- a. The location by country where the services under contract will be performed;
- b. Any subcontracting of services under the contract and the location by country where the subcontracted services will be performed.

This information must be disclosed on the Vendor Source Disclosure Form – N.J.S.A. 52:34-13.2 (Executive Order 129 (2004)), which is available on the authority's website at: http://www.state.nj.us/turnpike/documents/vendor-disclosure-form.pdf and returned with your firm's Expression of Interest (EOI).

SECTION XIII Disclosure of Investment Activities in Iran

Pursuant to N.J.S.A. 52:32-57(a), the bidder must certify that neither the Proposer, nor one of its parents, subsidiaries, and/or affiliates (as defined in N.J.S.A. 52:32-56(e)(3)), is listed on the Department of Treasury's List of Persons or Entities Engaging in Prohibited Investment Activities in Iran and that neither is involved in any of the investment activities set forth in N.J.S.A. 52:32-56(f). If the Proposer is unable to so certify, the Proposer shall provide a detailed and precise description of such activities to the Authority. Each Proposer (and all Subconsultants) shall certify under penalty of perjury, date and return to the Authority the completed form entitled "Disclosure of Investment Activities in Iran" which is available on the Authority's website at: http://www.state.nj.us/turnpike/documents/Disclosure-of-Investment-Activities-in-Iran.pdf with your firm's Expression of Interest (EOI). Failure to include the completed form, certified and dated, shall be grounds for rejection of Proposer's Expression of Interest (EOI).

Pursuant to N.J.S.A. 52:32-57(a), any person or entity that is on the list of entities that are doing business with Iran is ineligible to and shall not bid on or submit a proposal for a contract with the Authority.

SECTION XIV Antidiscrimination Provisions

In accordance with <u>N.J.S.A.</u> 10:2-1 every contract for or on behalf of the State or any county or municipality or other political subdivision of the State, or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

- a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;
- b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;
- c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$ 50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and
- d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

SECTION XV Standards Prohibiting Conflicts of Interest Executive Order 189 (1988 - Kean)

Pursuant to N.J.S.A.52:34-19 and Executive Order 134 (1976 - Byrne), Executive Order 189 (1988 - Kean) includes the following prohibitions on any vendor which provides or offers or proposes to provide goods or services to or perform any contract for the State of new Jersey or any State agency.

(a) No vendor shall pay, offer to pay, or agree to pay, either directly or indirectly, any fee, commission, compensation, gift, gratuity, or other thing of value of any kind to any State officer or employee or special State officer or employee, as defined by N.J.S.A. 52:13D-13b. and e., in the Department of the Treasury or any other agency with which such vendor transacts or offers or proposes to transact business, or to any member of the immediate family, as defined by N.J.S.A. 52:13D-13i., of any such officer or employee, or any partnership, firm, or corporation with which they are employed or associated, or in which such officer or employee has an interest within the meaning of N.J.S.A. 52:13D-13g.

- (b) The solicitation of any fee, commission, compensation, gift, gratuity or other thing of value by any State officer or employee or special State officer or employee from any State vendor shall be reported in writing forthwith by the vendor to the Attorney General and the Executive Commission on Ethical Standards.
- (c) No vendor may, directly or indirectly, undertake any private business, commercial or entrepreneurial relationship with, whether or not pursuant to employment, contract or other agreement, express or implied, or sell any interest in such vendor to, any State officer or employee or special State officer or employee having any duties or responsibilities in connection with the purchase, acquisition or sale of any property or services by or to any State agency or any instrumentality thereof, or with any person, firm or entity with which he is employed or associated or in which he has an interest within the meaning of N.J.S.A. 52:13D-13g. Any relationships subject to this provision shall be reported in writing forthwith to the Executive Commission on Ethical Standards, which may grant a waiver of this restriction upon application of the State officer or employee or special State officer or employee upon a finding that the present or proposed relationship does not present the potential, actuality or appearance of a conflict of interest.
- (d) No vendor shall influence, or attempt to influence or cause to be influenced, any State officer or employee or special State officer or employee in his official capacity in any manner which might tend to impair the objectivity or independence of judgment of said officer or employee.
- (e) No vendor shall cause or influence, or attempt to cause or influence, any State officer or employee or special State officer or employee to use, or attempt to use, his official position to secure unwarranted privileges or advantages for the vendor or any other person.
- (f) The provisions cited above in paragraph 3a. through 3e. shall not be construed to prohibit a State officer or employee or special State officer or employee from receiving gifts from or contracting with vendors under the same terms and conditions as are offered or made available to members of the general public subject to any guidelines the Executive Commission on Ethical Standards may promulgate under paragraph 3c.

Section XVI ADA Indemnification

The Consultant and the Authority do hereby further agree that the provisions of Title II of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. §12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this OPS. In providing any aid, benefit, or service on behalf of the Authority pursuant to this OPS, the Consultant agrees that the performance shall be in strict compliance with the Act. In the event that the Consultant, its agents, servants, employees, or subconsultants violate or are alleged to have violated the Act during the performance of this OPS, the Consultant shall defend the Authority in any action or administrative proceeding commenced pursuant to this Act. The Consultant shall indemnify, protect, and save harmless the Authority, its agents, servants, and employees from and against any and all suits, claims, losses demands, or damages, or whatever kind or nature arising out of or claimed to arise out of the alleged violation. The Consultant shall at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the Authority grievance procedure, the Consultant agrees to abide by any decision of the Authority which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the Authority or if the Authority incurs any expense to cure a violation of the Act which has been brought pursuant to its grievance procedure, the Consultant shall satisfy and discharge the same at its own expense.

The Authority shall, as soon as practicable after a claim has been made against it, give written notice thereof to the Consultant along with full and complete particulars of the claim. If any action or administrative proceedings is brought against the Authority or any of its agents, servants, and employees, the Authority shall expeditiously forward or have forwarded to the Consultant every demand, complaint, notice, summons, pleading, or other process received by the Authority or its representatives. It is expressly agreed and understood that any approval by the Authority of the services provided by the Consultant pursuant to this contact will not relieve the Consultant of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the Authority pursuant to this Section. It is further agreed and understood that the Authority assumes no obligation to indemnify or save harmless the Consultant, its agents, servants, employees and subconsultants for any claim which may arise out of their performance of this OPS. Furthermore, the Consultant expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the Consultant's obligations assumed in this OPS, nor shall they be construed to relieve the Consultant from any liability, nor preclude the Authority from taking any other actions available to it under any other provisions of the OPS or otherwise at law.

Section XVII <u>Diane B. Allen Equal Pay Act</u>

Please be advised that in accordance with P.L. 2018, c. 9, also known as the Diane B. Allen Equal Pay Act, which was signed in to law by Governor Phil Murphy on April 24, 2018, a contractor performing "qualifying services" or "public work" to the State or any agency or instrumentality of the State shall provide the Commissioner of Labor and Workforce Development a report regarding the compensation and hours worked by employees categorized by gender, race, ethnicity, and job category. For more information and report templates see https://nj.gov/labor/equalpay/equalpay.html

SECTION XVIII Bridge List and Descriptions Major Bridge Group 3

1. Structure No. 105.18 - Turnpike NSI/SNI over Turnpike Interchange 14 Ramps SIT/HLT/SOT and Conrail

Traditional Name Oak Island Viaduct (NSI/SNI)

SI&A Number M105180 Next NBIS Inspection Date 04/30/2022

Total Number of Spans 21

Structure No. 105.18, carrying the Turnpike NSI/SNI Roadways over Interchange 14 Ramps and Conrail, was constructed in 1950. The overall condition of the bridge is fair due to the condition of the superstructure and substructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 6 lanes of traffic and has twenty-one spans, with a total length of 1,934 feet and a total width of 124.5 feet. The structure is flared and the spans are comprised of 16 to 20 girders each with a maximum span length of approximately 134 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete pile bent piers with reinforced concrete pier caps.

Load rating updates were last performed for this structure under the 2018 inspection cycle. **Proposers** are advised that load rating updates will be required under the 2022 inspection cycle for this assignment.

2. <u>Structure No. 105.18NO - Turnpike SNO and Ramp TN-14 over Turnpike Interchange 14 Ramps SIT/ HLT/SOT and Conrail</u>

Traditional Name Oak Island Viaduct (SNO)

SI&A Number M10518N Next NBIS Inspection Date 03/01/2021

Total Number of Spans 16

Structure No. 105.18NO, carrying the Turnpike SNO Roadway and Ramp TN-14 over Interchange 14 Ramps and Conrail, was constructed in 1970. The bridge is in overall fair condition due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 6 lanes of traffic and has sixteen spans, with a total length of 1,927 feet and a total width of 116 feet. The structure is flared and the spans are comprised of 18 to 20 girders each with a maximum span length of approximately 163 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete pile bent piers with reinforced concrete pier caps.

Load rating updates were last performed for this structure under the 2019 inspection cycle.

3. <u>Structure No. 105.18SO - Turnpike NSO and Ramp NT-14 over Turnpike Interchange 14 Ramps SIT/ HLT/SOT and Conrail</u>

Traditional Name Oak Island Viaduct (NSO)

SI&A Number M10518S Next NBIS Inspection Date 03/01/2021

Total Number of Spans 16

Structure No. 105.18SO, carrying the Turnpike NSO Roadway and Ramp NT-14 over Interchange 14 Ramps and Conrail, was constructed in 1970. The bridge is in overall poor condition due to low Inventory ratings. However, the overall physical condition of the structure is fair due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 6 lanes of traffic and has sixteen spans, with a total length of 1,890 feet and a total width of 116 feet. The structure is flared and the spans are comprised of 18 girders each with a maximum span length of approximately 167 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete pile bent piers with reinforced concrete pier caps.

Load rating updates were last performed for this structure under the 2019 inspection cycle. Previous legal load ratings for this bridge were determined to be low (RFs < 1.00) using LRFR methodology. A Load Factor Rating (LFR) analysis was performed using the existing BrR file with minor updates. Since this structure was built prior to 2010, and it was not designed using LRFD methodology, LFR values are reported.

4. <u>Structure No. 120.46 - Turnpike NS95L/NS95X/SN95X/SN95L over NJ Route 93 (Grand Avenue), Conrail, and Flat Rock Creek</u>

Traditional Name Grand Avenue Viaduct

SI&A Number M120460 Next NBIS Inspection Date 05/03/2021

Total Number of Spans 19

Structure No. 120.46, carrying the Turnpike NS95L/NS95X/SN95X/SN95L Roadways over NJ Route 93 (Grand Avenue), Conrail and Flat Rock Creek, was constructed in 1961. The bridge is in overall fair condition due to the superstructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 10 lanes of traffic and has nineteen spans, with a total length of 1,608 feet and a total width of 169 feet. The structure is flared and the spans are comprised of 24 to 28 girders each with a maximum span length of approximately 119 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete abutments supported on steel piles and solid type piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle.

5. <u>Structure No. E106.15A - Turnpike SNW over Turnpike Ramps NSE-I/SNI-E</u>

Traditional Name Turnpike SNW over Turnpike Ramps NSE-I/SNI-E

SI&A Number E10615A
Next NBIS Inspection Date 03/27/2021

Total Number of Spans 5

Structure No. E106.15A, carrying the Turnpike SNW Roadway over Ramps NSE-I/SNI-E, was constructed in 1971. The bridge is in overall satisfactory condition due to the condition of the superstructure, substructure, and inventory ratings.

The bridge consists of a weathering steel multi-girder system. The bridge carries 3 lanes of traffic and has five spans, with a total length of 760 feet and a total width of 59 feet. The spans are comprised of 7 girders each with a maximum span length of approximately 152 feet.

The structure is fracture critical due to the welded steel box cross-girders at Piers 1 thru 4. The FCMs are in good condition.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete column piers.

Load rating updates were last performed for this structure under the 2011 inspection cycle.

6. Structure No. E106.20A – Turnpike Ramp TNW-14 over Turnpike Ramps SNO-E/SNI-E/NSE-I/TNE-14

Traditional Name TNW-14 over Ramps SNO-E/SNI-E/NSE-I/TNE-14

SI&A Number E10620A Next NBIS Inspection Date 03/22/2021

Total Number of Spans 12

Structure No. E106.20A, carrying the Turnpike Ramp TNW-14 over Turnpike Ramps SNO-E/SNI-E/NSE-I/TNE-14, was constructed in 1994. The bridge is in overall satisfactory condition due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 2 lanes of traffic and has twelve spans, with a total length of 1,616 feet and a total width of 47 feet. The spans are comprised of 7 girders each with a maximum span length of approximately 160 feet.

The structure is fracture critical due to the welded weathering steel box cross-girders at Piers 5, 6, 7S&N, 8, 9, and 10. The FCMs are in satisfactory condition.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete solid type piers.

Load rating updates were last performed for this structure under the 2011 inspection cycle.

7. <u>Structure No. E111.15 - Turnpike NSE/SNE over Erie Viaduct, Seaview Drive, CR 653, Access Roads and Turnpike MP 111 U-Turn</u>

Traditional Name Erie Viaduct SI&A Number E111150 Next NBIS Inspection Date 05/22/2022

Total Number of Spans 14

Structure No. E111.15, carrying the Turnpike NSE/SNE Roadways over local roads, railroads and the MP 111 U-Turn, was constructed in 1951. The overall condition of the bridge is fair due to the condition of the superstructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 6 lanes of traffic and has fourteen spans, with a total length of 1,350 feet and a total width of 120 feet. The spans are comprised of 14 girders each with a maximum span length of approximately 122 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete solid type piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle. Previous legal load ratings for this bridge were determined to be low (RFs < 1.00) using LRFR methodology. A Load Factor Rating (LFR) analysis was performed using the existing BrR file with minor updates. Since this structure was built prior to 2010, and it was not designed using LRFD methodology, LFR values are reported.

8. Structure No. E116.72AN - Turnpike SNW over Turnpike NSE and SN80

Traditional Name SNW over NSE and SN80

SI&A Number E11672A Next NBIS Inspection Date 04/12/2021

Total Number of Spans 7

Structure No. E116.72AN, carrying the Turnpike SNW Roadway over Turnpike NSE and SN80 Roadways, was constructed in 1968. The bridge is in overall fair condition due to the superstructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 2 lanes of traffic and has seven spans, with a total length of 1,007 feet and a total width of 47 feet. The structure is curved and the spans are comprised of 8 girders each with a maximum span length of approximately 248 feet.

The structure is fracture critical due to the welded weathering steel box cross-girders at Piers 2, 3, and 4. The FCMs are in overall fair condition due areas of active corrosion and several loose/broken backup bars at the box girder interiors.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete solid and column bent type piers.

Load rating updates were last performed for this structure under the 2011 inspection cycle.

9. <u>Structure No. E116.74AS – Turnpike NSW over Turnpike NSE</u>

Traditional Name NSW over NSE SI&A Number E11674A
Next NBIS Inspection Date 04/12/2021

Total Number of Spans 9

Structure No. E116.74AS, carrying the Turnpike NSW Roadway over Turnpike NSE Roadway, was constructed in 1968. The bridge is in overall satisfactory condition due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 2 lanes of traffic and has nine spans, with a total length of 1,255 feet and a total width of 47 feet. The structure is curved and the spans are comprised of 8 girders each with a maximum span length of approximately 204 feet.

The structure is fracture critical due to the welded weathering steel box girders at Piers 2, 3 and 4. The FCMs are in overall satisfactory condition due to evidence of water leakage and moderate corrosion with areas of section loss to the exteriors, and several cracks between the longitudinal stiffeners and bulkheads on the interiors.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete solid and column bent and individual column type piers.

Load rating updates were last performed for this structure under the 2011 inspection cycle.

10. <u>Structure No. N3.73 - Turnpike HWE/HEW over Turnpike Interchange 14A Ramps ET/TW, NJ440, HBLR, Conrail and Access Roads</u>

Traditional Name Southeast Viaduct

SI&A Number N003730 Next NBIS Inspection Date 06/19/2022

Total Number of Spans 28

Structure No. N3.73, carrying the Turnpike NB-HCE Roadways over Turnpike ramps, local roads and railroads, was constructed in 1955. The bridge is in overall serious condition due to the low inventory rating. However, the overall physical condition of the structure is fair due to the condition of the superstructure and substructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 4 lanes of traffic and has twenty-eight spans, with a total length of 2,279 feet and a total width of 84 feet. The structure is flared and the spans are comprised of 12 to 15 girders each with a maximum span length of approximately 126 feet.

The structure is fracture critical due the riveted plate box girders at Piers 16, 17, 18, 19 and 20.

The substructure units consist of reinforced concrete abutments supported on steel piles and reinforced concrete solid and column bent and individual column type piers with box girder pier caps.

Load rating updates are scheduled to be performed under the current (2020) inspection cycle.

11. <u>Structure No. N6.49 - Turnpike HWE/HEW over Jersey City Streets, NJ Transit Light Rail and Former Railroad Yards</u>

Traditional Name East Viaduct SI&A Number N006490 Next NBIS Inspection Date 06/19/2022

Total Number of Spans 44

Structure No. N6.49, carrying the Turnpike NB-HCE Roadways over local roads and railroads, was constructed in 1955. The overall condition of the structure is fair due to the condition of the superstructure and substructure.

The bridge consists of a combination of painted steel multi-girder and girder/floorbeam/stringer systems. The bridge carries 5 lanes of traffic and has forty-four spans, with a total length of 4,269 feet and a total width of 110 feet. The structure is flared and the multi-girder spans are comprised of up to 23 girders each with a maximum span length of approximately 167 feet.

The structure is fracture critical due to the two (2) girder and floorbeam superstructure units carrying westbound traffic from Pier 8A to Pier 14 (Units 5 and 7); the three (3) girder and floorbeam superstructure units carrying eastbound traffic from Pier 9C to Pier 14 (Units 6 and 8); and the three (3) girder and floorbeam superstructure units carrying westbound and eastbound traffic from Pier 14 to Pier 21 (Units 9 through 15).

The substructure units consist of a reinforced concrete abutment at the west end supported on steel piles and multiple types of piers.

Load rating updates were last performed for this structure during the 2018 inspection cycle. Previous legal load ratings for this bridge were determined to be low (RFs < 1.00) using LRFR methodology, thus an abbreviated Load Factor (LFR) analysis was performed using the existing BrR file. Since this structure was built prior to 2010 and it was not designed using LRFD methodology, LFR values are reported. Asbuilt load ratings using LRFR methodology are scheduled to be performed by the design consultant for Contract No. T100.321, following the completion of construction. These as-built load ratings will supersede the 2018 load rating updates.

12. Structure No. N7.13 - Turnpike HWE/HEW over Jersey City Streets and PATH

Traditional Name West Viaduct
SI&A Number N007130
Next NBIS Inspection Date 06/18/2022

Total Number of Spans 26

Structure No. N7.13, carrying the Turnpike NB-HCE Roadways over local roads and PATH, was

constructed in 1955. The overall condition of the bridge is serious due to low inventory ratings. However, the overall physical condition of the bridge is fair due to the superstructure and substructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 4 lanes of traffic and has twenty-six spans, with a total length of 2,355 feet and a total width of 84 feet. The multi-girder spans are comprised of 10 or 12 girders each with a maximum span length of approximately 165 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete solid and column bent piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle, including low rating review and updates using LFR methodology, and Emergency Vehicle (EV) ratings.

13. <u>Structure No. N7.52 - Turnpike HWE/HEW over Jersey City Streets, Conrail and Railroad Yards</u>

Traditional Name North Terminal Ramps Section A

SI&A Number N007520 Next NBIS Inspection Date 05/29/2022

Total Number of Spans 25

Structure No. N7.52, carrying the Turnpike NB-HCE Roadways over local roads and railroads was constructed in 1955. The bridge is in overall poor condition due to low inventory ratings. However, the overall physical condition of the structure is fair due to the superstructure and substructure condition.

The bridge consists of a painted steel multi-girder system. The bridge carries 4 lanes of traffic and has twenty-five spans, with a total length of 2,042 feet and a total width of 84 feet. The multi-girder spans are comprised of 12 girders each with a maximum span length of approximately 120 feet.

The structure does not contain fracture critical members.

The substructure units consist of reinforced concrete column bent piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle. Previous legal load ratings for this bridge were determined to be low (RFs < 1.00) using LRFR methodology. A Load Factor Rating (LFR) analysis was performed using the existing BrR file with minor updates. Since this structure was built prior to 2010, and it was not designed using LRFD methodology, LFR values are reported.

14. Structure No. N7.90E - Turnpike HWE over Jersey City Streets, Conrail and Railroad Yards

Traditional Name North Terminal Ramps Section B (Eastbound)

SI&A Number N00790E Next NBIS Inspection Date 05/15/2022

Total Number of Spans 25

Structure No. N7.90E, carrying the Turnpike NB-HCE EB Roadway over local roads and railroads, was constructed in 1955. The bridge is in overall poor condition due to low inventory ratings. However, the overall physical condition of the bridge is fair due to the superstructure and substructure.

The bridge consists of a painted steel multi-girder system. The bridge carries 2 lanes of traffic and has twenty-five spans, with a total length of 2,003 feet and a total width of 42 feet. The multi-girder spans are comprised of 3 to 6 girders each with a maximum span length of approximately 210 feet.

The structure is fracture critical due to the three (3) riveted built-up girder three (3) span units in Spans 40 to 42. These girders are non-load path redundant, however they do exhibit internal redundancy due to riveted construction.

The substructure units consist of a reinforced concrete abutment on steel piles at the east and solid and column bent piers.

Load rating updates are scheduled to be performed under the current (2020) inspection cycle. Previous legal load ratings for this bridge were determined to be low (RFs < 1.00) using LRFR methodology. A Load Factor Rating (LFR) analysis was performed using the existing BrR file with minor updates. Since this structure was built prior to 2010, and it was not designed using LRFD methodology, LFR values are reported.

15. <u>Structure No. N7.93W - Turnpike HEW over Coles Street, Conrail and Railroad Yards</u>

Traditional Name North Terminal Ramps Section B (Westbound)

SI&A Number N00793W Next NBIS Inspection Date 07/02/2022

Total Number of Spans 27

Structure No. N7.90E, carrying the Turnpike NB-HCE WB Roadway over local roads and railroads, was constructed in 1955. The bridge is in overall poor condition due to low inventory ratings. However, the overall physical condition of the structure is fair due to the superstructure.

The bridge consists of a painted steel multi-girder and riveted through girder systems. The bridge carries 2 lanes of traffic and has twenty-seven spans, with a total length of 2,387 feet and a total width of 42.4 feet. The multi-girder spans are comprised of 2 to 6 girders each, with a maximum span length of approximately 172 feet.

The structure is fracture critical due to the two (2) spans of steel plate through girders. Spans 30 and 31 consist of two (2) riveted steel plate through girders with multiple cover plates to support normal, closely-spaced shallow floorbeams and longitudinal diaphragms encased within a concrete deck.

The substructure units consist of a reinforced concrete abutment on steel piles at the east and solid and column bent piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle.

16. Structure No. W106.26AR - Turnpike Ramp NSE-O o/Turnpike SNW & Ramps NSW-O/NSW-I/TNW-14

Traditional Name Turnpike Ramp NSE-O over Turnpike SNW and Ramps

SI&A Number W10626A Next NBIS Inspection Date 03/22/2021

Total Number of Spans

Structure No. W106.26AR, carrying the Turnpike Ramp NSE-O Roadway over Turnpike SNW and Ramps, was constructed in 1994. The bridge is in overall satisfactory condition due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 2 lanes of traffic and has nine spans, with a total length of 1,490 feet and a total width of 47 feet. The multi-girder spans are comprised of 8 girders each with a maximum span length of approximately 190 feet.

The structure is fracture critical due to the welded weathering steel box cross-girders at Piers 2, 3, 4, 6 and 7. The FCMs are in satisfactory condition due to presence of moderate laminar corrosion inside the box girders.

The substructure units consist of a reinforced concrete abutments on steel piles and solid and individual column piers.

Load rating updates were last performed for this structure under the 2011 inspection cycle.

17. <u>Structure No. W116.10 - Turnpike NSW/SNW over Ramps SESA & SWSA, Sealand Terminal, Conrail, PSE&G Yard and Victoria Terrace</u>

Turnpike NSW/SNW over ramps, local road, PSE&G Yard and Railroads

SI&A Number W116100 Next NBIS Inspection Date 03/21/2021

Total Number of Spans 9

Structure No. W106.26AR, carrying the Turnpike Ramp NSW/SNW Roadways over Turnpike Ramps, a local road, PSE&G Yard and railroads, was constructed in 1970. The bridge is in overall poor condition due to the low inventory ratings. However, the overall physical condition of the structure is fair due to the superstructure and substructure.

The bridge consists of a weathering steel multi-girder system. The bridge carries 4 lanes of traffic and has nine spans, with a total length of 1,198 feet and a total width of 85 feet. The multi-girder spans are comprised of 16 girders each with a maximum span length of approximately 217 feet.

The structure does not contain fracture critical members.

The substructure units consist of a reinforced concrete abutments on steel piles and solid piers.

Load rating updates were last performed for this structure under the 2018 inspection cycle.