

**Bureau of Structural Evaluation and Bridge Management**  
**EXPLANATION OF SCOPE OF WORK**  
**for Consultant Sign Structure Contracts**

This document updated to 20110120

This document updated to 20130214

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This document updated to 20140312

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**(NOTE: As of 2016, all Sign Structure projects will be in CombIS)**

\*Items available on NJDOT website under—Engineering/Operations/Structural Evaluation

**I. MATERIALS FOR CONSULTANT:**

1. Detailed Scope of Work – **See Solicitation** (Attachment A)\*
2. Preliminary list of sign structures (from EOI or as modified)
3. Typical estimate sheet for the proposal (Disk).
4. Monthly progress report form.\*
5. Computer database of prior cycle data.
6. Plan and elevation drawing files and/or images.
7. Sample field inspection and report submission schedule form (standard project schedule located on web page – add extra columns as described herein).
8. SDMS Contractors Specifications, Version 3.1, January 2006\*
9. Copy of 'NJDOT Structural Evaluation Work Zone Set-Up Guide'.
10. Consultant Evaluation System (CES) standards for Structural Evaluation.\*
11. Form AD-99 (Report of Loss, Theft and Vandalism)\*
12. NJDOTUserManual\_Version3.0.pdf (SS database users guide)
13. CD containing copy of documents provided at the Scope meeting
14. Sign Structure Issue Resolution Form (current version is on the CD)
15. Copy of new proposal program containing Group data.
16. **Statement about Sign Structure Numbers**
17. Guidelines for Evaluation Item S.11 for Sign Panel Issues

**II. ITEMS FOR REFERENCE: (Provide any item if consultant needs)**

1. Draft copy of State-Consultant Lump Sum/Cost Plus Agreement.
2. **Priority Repair Categories memo dated 1/2/2008.\***
3. Procedure for Transmitting Traffic Interference Reports.
4. Copy of DC-34.
5. Copy of current Straight Line Diagram CD.
6. **All documents pertaining to CombIS on the Structural Evaluation Web Page.**

### III. PUBLICATIONS (List of Publications to be used)

Specifications and Reference Publications:

Partial list of references to be used:

1. Current (2011) AASHTO The Manual for Bridge Evaluation, 2<sup>nd</sup> edition.
2. Current (2010) AASHTO LRFD Bridge Design Specification, 5<sup>th</sup> Edition with 2010 Interim Revisions.
3. Current FHWA Bridge Inspector Reference Manual.
4. 1987 AASHTO Manual for Bridge Maintenance.
5. Current Manual on Uniform Traffic Control Devices – especially Part VI
6. 2003 FHWA Recording and Coding Guide for the Structure Inventory & Appraisal (SI&A) of the Nation's Bridges.
7. 2003 NJDOT Recording and Coding Guide - Revised 2009.\*
8. 2003 NJDOT PONTIS/Seismic Manual- Revised 2008.\*
9. AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, with Interims.
10. 2007 NJDOT Standard Specifications for Road and Bridge Construction, with Supplemental Specifications.
11. FHWA Guidelines for the Installation, Inspection, Maintenance and Repair of Structural Supports for Highway Signs, Luminaires, and Traffic Signals – March 2005
12. 2009 NJDOT Design Manual for Bridges and Structures, 5<sup>th</sup> Edition.

### IV. ITEMS FOR DISCUSSION:

**Please note that the new “Consultant Project Evaluation” system is in place (03/01/2014). The projects will be evaluated at the completion of the project - in October of year completed. The Consultant Project Evaluation criteria can be found on our web page.**

1. Qualifications of Key Personnel: Project Manager, Team Leader.
2. Phase A Work: Routine or In-depth inspections, incidental maintenance including hardware replacement/tightening, and database/report preparation and submission.
3. Phase B Work: Interim inspection (if any are determined to be needed).

#### 1. Qualifications of Key Personnel

Consultants shall use the Project Manager and BOTH Team Leaders listed in their Expression of Interest. Other personnel will not be permitted to function in either capacity. Second team leader must be utilized for at least one third of the inspections.

**NOTE:** A change of the Project Manager or either Team Leader must be approved in

**writing in advance** by the Department. **The Department does not encourage changes in key staff** and will allow changes only when extreme situations, such as resignations, make the change necessary. When a change is required, the qualifications of proposed personnel must be equal to or better than those proposed in the **Expression of Interest**.

Note: Informal roles, such as Assistant Project Manager or Assistant Team Leader, do not exist with regard to any representation of the function of personnel who have worked on this contract (or for that matter any contract with NJDOT Structural Evaluation).

## **2. Phase A Work**

Phase A work shall include **In-depth** inspections (hands-on) or Routine inspection (of selected structures) as approved for sign structures and associated fixtures and roadway elements. Also, includes testing, incidental maintenance including hardware replacement/tightening, load analysis (if specified for a structure), report preparation in an approved format, as well as submission of signed and sealed reports, and timely submission of sign structure databases and working files in approved formats.

Note: Routine inspection will be permitted only for Cycle 2, 4 or 6 inspections of steel sign structures in Good condition, or Fair condition when fatigue cracking has not been observed on the structure, and where collision damage was not observed during the pre-proposal drive-by. Cycle 3, 5 and 7 inspections will always be In-depth and will always include anchor bolt UT.

## **3. Phase B Work**

Phase B work shall include those sign structures (if any) that are flagged as requiring an interim inspection, or additional detailed analysis.

## V. CONSULTANTS PROPOSAL (ESTIMATE)

1. The project will be a **Lump Sum Cost Plus Fixed Fee** agreement.

For **all contracts**, the consultant should obtain, prior to submission of the proposal, at least one (1) bid for Vertical Lift or Cherry Picker type of vehicle, Traffic Safety, and Testing and should be included in the **Direct Expenses** (reimbursable and out of pocket expenses). Please note that a minimum of three (3) bids will eventually be required for State approval of these services – **we require that at least 5 (five) bids be sought for traffic control to ensure at least 3 (preferably 4) valid bids are received.**

2. Consultant must familiarize themselves with all sign structures, before submitting the cost estimate and associated expenses such as Direct Expenses (Reimbursable and out of pocket). Include all third party costs such as scanning (if required), equipment and labor, including Snooper, traffic control, etc. wherever needed (Note: The state can not provide the use of Department owned snooper or traffic control for inspection). Also, please be reminded that proper **safety** procedures must be maintained during all operations including the use of safety harnesses, shadow vehicles, flagman, etc.
3.
  - a. The Midpoint of the project based on a ten (10) month contract will be 1/17/2017 (allowing three (3) months from the scope meeting to the consummation of the Agreement/Notice to Proceed).
  - b. As per the NJDOT directive letter dated October 19, 2009, budget salary cost escalation will be allowed in any agreements and modifications (until further notice) of 3 percent per annum [based on the mid-point of the contract] for titles in the ASCE P1-P4/NICET I-II categories. No salary cost escalation will be allowed for higher level titles for the first 18 months of planned contract duration.  
Certified wage rates are required to be submitted with the preliminary cost proposal (or e-mailed directly to the Project Manager prior to proposal submission).
4. **Fixed fee** shall be negotiated as a percentage of the final negotiated **salaries**. For computing fixed fee, latest audited overhead should be used and the fixed fee factor shall be usually **18%** of the **salaries** (except for those projects designated as “complex” where the fixed fee factor will be **21%** of the salary).
5. Prior written approval must be obtained from the State for employing any **outside services** (reimbursable expenses listed in the agreement) within two (2) weeks from Notice to Proceed. The State Project Manager must be included in all correspondence for solicitation notices for outside services. The consultant must assemble all bids received from outside vendors, prepare a recommendation, and send to the State Project Manager for review. The consultant will not be

reimbursed otherwise. Please note that none of the sign structure inspection functions shall be allowed to be sublet to sub-consultants without prior written approval. Such approval will not be given except in **extreme situations**. Special testing during inspection shall be considered as a vendor item

6. Submit the monthly progress report in the format provided in the first week of the month in addition to any progress reports attached with the invoices. The consultant shall only submit one invoice within each 30 day period. Less than 30 days between any two invoices will require that the invoice be returned to the consultant.
7. **All lane closures shall, at a minimum, meet NJDOT standards, however, the Consultant needs to use their professional judgment to ensure that all MOT is adequate for the site.** Any violations will be the consultant's personal responsibility. All lane or shoulder closures on State bridges shall be coordinated with the appropriate Traffic Operations Office and/or Regional Maintenance Permits Office. Use the 'NJDOT Work Zone Set-Up Guide' for State highways as a guide to the minimum acceptable work zone setup.

Traffic Operations North	Phone # (732) 697-7360 Fax # (732) 324-6217
Traffic Operations South	Phone # (856) 486-6650 Fax # (856) 486-6802
Regional Maintenance North	Phone # (973) 601-6625 Fax # (973) 601-6623
Regional Maintenance Central	Phone # (732) 625-4330 Fax # (732) 625-4344
Regional Maintenance South	Phone # (856) 486-6688

**STATE POLICE ARE NO LONGER TO BE USED FOR ANY TRAFFIC CONTROL OPERATION** (see section VII. 24).

8. The state does not allow the **leasing** of a car for inspection purposes and expects consultant to have their own inspection vehicle and other essential equipment. However, the consultant shall be reimbursed for the mileage **in accordance with the Federal Highway Administration's current reimbursement rate for travel.**
9. As per the requirements of Department's Policy and Procedure **No. 328, (Section IV.A.24.)** the consultant may be **monitored** in the field and/or in their office.
10. All proposals shall be submitted in a **3-ring binder** and shall include the list of sign structures, scope of work, a complete certified (latest approved) wage rates, a sheet describing the derivation of the wage rates used in the proposal, and the resumes of the personnel anticipated to be used for this project. Also, include in the proposal the cost estimate sheets for each sign structure (or group of sign structures) and summary sheets for Phase A work separately and general

summary showing total cost of the project. **Also include a photo (labeled with Route and mile point) for each sign structure**, as well as any significant issues involving the particular sign structure (NOTE: Although the photo does not have to be current, it SHALL reflect the CURRENT status and condition of the sign structure as of the month of submission of proposal). **The submission of the proposal by the Consultant constitutes a certification that the scope proposed for each sign structure is complete and is based on visual observation of each site.**

11. Two copies of the preliminary proposal shall be submitted to the State directly to the Manager, **Bureau of Structural Evaluation and Bridge Management** (The copy of the proposal previously sent to the Bureau of Auditing is no longer required).  
**Note: The new NJDOT Proposal Program is now required to be used for preparing ALL proposals.** In addition, please be aware that data generated directly from this program will be the source for the Project schedule spreadsheet.

After negotiation of the project, submit **only revised pages** (two copies - properly marked so that there is no confusion as to where they are to be inserted in the proposal) to the State.

AT THE SAME TIME as submitting the final proposal pages, Consultant shall submit a fully OCR'd **PDF copy** of the **COMPLETE FINAL** proposal (either via e-mail or by CD) to Jack Evans at: [Jack.Evans@dot.nj.gov](mailto:Jack.Evans@dot.nj.gov)

**Submit a copy of the final proposal database file used to prepare the cost estimate to Structural Evaluation** via e-mail (or alternative if file is too large for e-mail). **For 2016 – include a CD with this file at time of proposal submission.**

12. All correspondence, including the proposal, must be addressed to the Manager, **Bureau of Structural Evaluation and Bridge Management**, to the attention of the State's Project Manager.
13. The general liability and professional liability insurance certificates for the project are to be sent directly to the Manager, Bureau of Professional Services ATTN: Agreement Coordinator.
14. Include approximately \$100 under direct (out-of-pocket) expenses, in the misc. category, to allow for the purchase of misc. hardware (nuts, etc.) if directed by the State.

## VI. QUALITY ASSURANCE

In compliance with Quality Assurance/Quality Control (QA/QC), Section 6 of the NJDOT Procedures Manual, the consultant shall include in its proposal a written narrative that describes the consultants Quality Assurance process for **this** project.

As a minimum, all evaluation reports must be reviewed for completeness and accuracy, before being submitted to the Department, by a senior level engineer (namely the Project Manager) who is intimately familiar with the Department's and with NBIS requirements for bridge and other structural evaluation projects. Also, the field observation and data must be spot checked for accuracy by a NBIS qualified Project Manager or QA/QC Engineer. All final reports must be signed and sealed (Certified) by a Professional Engineer registered in the State of New Jersey before submission to the Department. This engineer is to be the Project Manager, unless the Project Manager does not have a PE license in which case a separate engineer (ASCE Grade P5 or above, and not permitted to be a Team Leader assigned to this project) will be allowed to be the Certifying Engineer and will be permitted to sign and seal the report.

**Note: Sign Structure projects are now evaluated based on a set of CES criteria specific to this type of work. We recommend that you become thoroughly familiar with them. This evaluation will occur after ALL deliverables have been submitted.**

## VII. AREAS OF EMPHASIS:

Use of a **laptop computer** or similar data collection device in the field is highly recommended. **This will become possible when CombIS is upgraded to Bentley InspectTech 7.5 in September.**

1. The field schedule shall include a very basic definition of the traffic control to be put in place, as well as any special inspections such as fracture critical, ultrasonic, etc., as well as whether an inspection vehicle (such as a cherry picker) will be used. The consultant **MUST** obtain State approval for the field schedule and the proposed Project Manager and both Team Leaders before starting the inspection work. **Any change in the staff, especially the Team Leaders, and any significant change in the schedule, must be pre-approved.** The standard project schedule form for sign structure projects (Located on our web page) must be submitted annually (**at the end of the year** via E-mail and Hard copy).
2. **Both Team Leaders are to be utilized. The proposal must use the second Team Leader for at least 1/3 of all inspections.**

It is required that the Field Notes document any conditions that result in element condition ratings of other than '1', including Emergency/Priority repair conditions or conditions that will require monitoring during subsequent inspection cycles. If



the structure requires more frequent inspection, this period is to be properly reflected in the **CombIS** database

Comments are to be reasonably self-contained. For example, if there are truss cracks, in the deficiencies area for S.07 don't simply say "see S.08," unless other comments that must be put in S.07 field preclude room for the additional comments. In addition, the Overall Inspection Rating Comments area **SHALL** include a specific statement as to why the structure has been marked down. (Note: With the implementation of CombIS, the 255-character comment limit has been removed, however, we still expect comments to be efficiently written. )

3.
  - a. Check closely (hands on) areas vulnerable to fatigue, and special emphasis should be given to fracture Critical and Non-redundant members during inspection. Hands-on inspection of all welded Fracture Critical Members (FCM) shall be performed unless specifically waived for a particular sign structure.
  - b. Use of the Dye Penetrant test is encouraged for areas suspected to develop fatigue cracks or to check for the propagation of cracks previously arrested by drilling holes.
4. Perform Ultrasonic Testing (UT) of all tower to foundation anchor bolt connections as directed. Please note that the report sheet shall contain a simple plan sketch of the foundation, corresponding to the one in the Cycle 1 report, showing bolt locations and numbering.

Specifically for **Cycle 2, 4 and 6** inspections, only UT the cantilever sign structures and single pole tower span sign structures. Multiple pole towers for span sign structures will not be UTed in this cycle unless the structure had one or more bolts flagged in the previous cycle (Note: there are only a few span structures in this category).

5. **Hardware replacement, tightening, or field measurement.**

Prior to beginning the field inspections, contact the NJDOT Project Manager to determine the availability of, or obtain if directed, misc. hardware typically used on sign structures (such as sign bolts and nuts, u-bolt nuts, etc.).

Have basic equipment on hand during the field inspections to tighten hardware that is visibly loose (sign bolts, etc.), and perform the task as necessary.

During the field inspection, **measure the size of missing hardware** (bolts, u-bolts, nuts, etc.) that is recommended for replacement. This information **SHALL** be included in all Priority Repair letters (Note: Without this information, our Operations forces need to close traffic under the structure merely to measure the size of the missing hardware, and then need to come back later to install it).



6. All **priority repairs** are to be entered in the CombIS system, and submitted as instructed. Until CombIS is upgraded to ver 7.5, priority repairs shall be submitted electronically (in MS Word file format AND Adobe PDF). All **priority repairs are to include** a COMPLETE recommendation and repair scheme. Provide the mile post, the name of the Town/City/Twp, and the Group Number in the subject area of the priority repair letter. In addition, please lead the Subject title of your email with the Group number (for example: **S16G** - Priority 1 Repair for Sign Structure xxxx-xxx).

When **priority repair letters are sent via email**, the consultant SHALL verify that the electronically sent priority files are actually received by the State Project Engineer and Assigned Engineer by requesting a reply e-mail acknowledging receipt of the files, and following up if a timely (based on Priority level) response is not received.

The Consultant is to notify the State Project Manager (or Assigned Engineer) immediately by phone if they encounter any structural or safety problems of an **Emergency** type that need Immediate Attention.

If any vandalism is observed during the inspection, Form AD-99 **must** be completed, scanned and included as an image in the database. In addition, attach a separate copy to the hard copy of the report. Graffiti that meets the definition of vandalism for filing an AD-99 consists of graffiti that is vulgar, racial or anti-religion/anti-semitic. Other types of graffiti are too common and do not require the filing of an AD-99.

7. The Consultant must notify the Project Manager, in writing, as soon as it is evident that **Additional or Extra Work** (as defined in standard agreement) may be necessary and must negotiate costs associated with it (Note: **Failure to include work in the original proposal that would have been obvious from a visual observation of the site at time of scoping will not be considered for additional compensation as additional or extra work**). The Department will only reimburse for work that has been specifically authorized by agreement, Contract Modification, Letter of Intent, or, when appropriate, letter from the Manager, Structural Evaluation and Bridge Management. Also, the Consultant must notify the PM as soon as it is apparent that a cost overrun due to any reason is occurring on the project. Failure to promptly notify the PM will result in lower Consultant Evaluation System (CES) ratings.
8. **All electronic working files used for report preparation shall be loaded into the CombIS system. These must be loaded PRIOR to submitting the report electronically for Bridge Owner Review.**

**File formats:**

- Any correspondence not done within the system is to be in Microsoft Word file format. (“\*.doc” or “\*.docx” only).

- All newly created CAD files for State projects are to be in Microsoft Visio 2007 or newer file format.

(Note: If unusual circumstances dictate the use of a formal CAD product, our standard is Microstation 2-dimensional “.dgn” file format. Existing AutoCAD files are to be provided in “.dxf” format if unable to easily convert to “.dgn” format.)

If CAD or Visio files are not available for a particular structure, you may be provided with TIF files and instructed to mark-up these files. If so, these are to be converted to Bitmap files as described below.

- Photos are to be in “.jpg” file format.
- Scanned or electronically converted images for inclusion in CombIS as part of the report are to be in .PNG, .TIF (Group 4), or .BMP file format (in order of preference). Do not allow the files to be unnecessarily large. For example, if the image is black & white (one that could have been submitted as a TIF) it is to be submitted as a Monochrome Bitmap (1-bit depth).

Submission of all electronic records are to comply with the version of the SDMS Contractor’s Specifications in effect at the time the work is actually performed, when appropriate.

9. Provide one copy of all electronic files used during the report preparation (word processing, CADD, etc.), one hard copy of the report, and one copy of all sign structure database CDs required (final as well as any pre-final CDs requested - Note: DVDs are not acceptable for any submission). As indicated in the scope, the Department may request an interim database submission at any time.
10. Place sign structure decals on any structures not yet displaying a structure number that is visible from the road **when approaching in a vehicle**. Remove and replace decals that are incorrect or deteriorated. Request these decals as early in the process as possible - preferably identified during scoping (so we can attempt to get them to you prior to the field inspection).
11. The CombIS upgrade will not be available until sometime in September. If you choose to perform inspections before then, you must record your information on paper. You will be expected to enter the information in to CombIS as soon as the upgraded version is made available to you.
12. See the following document: **“Additional Guidance for Sign Structure Inspection Contracts,”** (on the CD with name **“Additional Guidelines to Consultants - FINAL\_20090501---rev20130204-20140312.doc”**) for detailed guidance in VARIOUS AREAS, including what to do if a sign structure no longer exists.
13. Verify the SRI number for the structure. Where incorrect, make the necessary change. Remember, the SRI is for the **ACTUAL** route **(including Ramp**

designation, if appropriate). If the structure is, in fact, only a ramp (and not on both the main line and a ramp), please verify or add this portion of the SRI.

For all new structures, where the structure number is not yet verified, the Consultant shall obtain plans from the Department. In all cases, the Consultant shall go to the [Structure Numbering](#) page on our web site if a structure number needs to be assigned (even if one is shown on the plans) requesting a structure number, so we can determine if a structure number has been issued or not. (This replaces the old Structure Resolution form.)

14. Check existing data, and correct any errors. The structure name is to follow our format for structure names (see document titled “How to Name Sign Structures - jbe20091016.doc”). **Our method of sign structure naming has changed over time; please adjust the names if necessary to be in compliance.**
15. If there are no field notes for a particular category, say “none” in the notes area rather than leaving the area blank (among other reasons, this is a way of ensuring that data has not been lost or corrupted).
16. Refer to and follow our handout titled “Guidelines for Evaluating Item S.11 for Sign Panel Issues” for how to evaluate the sign surface. A comment on the sign panel condition must be included in item S.11 of evaluation area for all sign structures. If for some reason you are unable to view the sign panels for a particular sign structure at night, a statement to this effect shall be included in evaluation Item S.11 of the database. We have added a new item, Item S.11a, to allow a discrete coding of night time visibility. Please still include any comments in the areas for S.11.
17. A **Safety Meeting** is strongly recommended (required if you have never completed a sign structure contract for the NJDOT) just prior to the start of actual work (work involving lane closures) to allow all to review the field operation and pertinent safety issues. The following personnel should attend:
  - Consultant – Project Manager & Both Team Leaders (as a minimum)
  - State Police representative
  - Someone from a Regional Maintenance Permits office
  - Someone from Traffic Operations
  - The State’s Project Manager
  - A representative of the Traffic Control Subcontractor that will be involved with the project in a supervisory capacity
  - A representative of any Ultrasonic Testing Subcontractor that will be involved with the field work
18. **The Traffic Control Subcontractor**  
The Consultant shall ensure that whatever firm provides traffic control will comply with the following:

- a. The Traffic Control Subcontractors must have sufficient equipment to set up **extensive** traffic control. Also, all equipment & devices must be in **LIKE NEW** condition.
  - b. The Traffic Control Subcontractor must have someone on staff who will serve as the Traffic Control Coordinator (TCC). This individual **must** have TCC credentials; either be certified by a Rutgers class or have equivalent certification. This person's full time job is making sure the TC is properly maintained. The TCC will be required to patrol the traffic control in place to ensure continuity is maintained.
  - c. The Consultant is responsible to ensure the Traffic Control Subcontractor is doing their job.
  - d. The Consultant is specifically referred to relevant sections of the NJDOT Standard Specifications for Road and Bridge Construction, with the Supplemental Specifications. Section 107 and 617 are of specific importance, and shall be referenced or included (with modification if approved) in any agreement with any traffic control subcontractor. State specifically in your agreement with the Traffic Safety Contractor that "The more restrictive document will rule unless waived in writing."
19. **Weather** - Someone on site must make the call concerning when not to place traffic control due to adverse weather (fog, etc.) or other unsafe conditions. This individual will be the Consultant, possibly with input from the TCC.
20. **Lane Closures - Miscellaneous notes**
- a. Try to avoid Center Lane traffic closures if at all possible.
  - b. Truck Mounted Attenuators (TMA) are required for anything parked in the traveled way. The TMA truck must stand alone, can be used for no other purpose, and no loose materials are to be stored in the truck. The Truck must conform to the "Standard Specifications for Road and Bridge Construction."
  - c. All **lane closures** shall meet NJDOT standards and any violations will be the consultant's personal responsibility. All lane or shoulder closures on State routes shall be coordinated with the appropriate Regional Maintenance Permits Office and/or Traffic Operations Office. Use the 'NJDOT Structural Evaluation Work Zone Set-Up Guide' (copy is on CD) as a recommended minimum guideline for State highways (Note: This standard is greater than MUTCD but less than our typical traffic control details used for construction projects).

21. **Night-time work**

- See the “Standard Specifications for Road and Bridge Construction” for night-time traffic control requirements and also for night-time lighting specifications.
- All traffic control used for nighttime work MUST be reflectorized.
- Continuity of traffic control MUST be maintained; the traffic control equipment must be patrolled. This is especially important at night.

22. **Workzone Safety**

The Consulting firm is expected to have a Firm Safety Plan – see construction Specs. 107.10 for some useful information (Note: We do not audit this plan but still expect one to be in place). The plan should cover workzone related issues such as fall protection, chemical safety sheets (for dye penetrant, etc.), hospital locations, and what to do in case of an emergency.

The Consultant is specifically reminded to:

- Use proper safety equipment (Reflectorized vests, hard hat, proper work shoes, etc.)
- Comply with OSHA specs for fall protection (Harness w/ tie off, etc.).

23. Each Consultant, possibly with input from the State, must complete a DC-34 for this project. This document lists the key personnel involved with the job. This shall be submitted to the State Project Manager prior to performing the first hands-on inspection.

Each Team Leader shall always have a copy of the DC-34 on hand for review by the State Police on site.

24. **Comments on the NJ State Police – NJDOT Construction Unit**

STATE POLICE ARE NO LONGER TO BE USED FOR ANY TRAFFIC CONTROL OPERATION (with the possible exception of controlling traffic at a signalized intersection, or TOTAL temporary road closures). IF you ever have either of these two situations, you shall flag this clearly in the proposal AND bring it to the State Project Manager’s attention (as they must then seek formal approval from the Operations side of the Department for the use of State Police).

Please be advised that the State Police and/or Regional Permits personnel monitor all sites where traffic control is set up. If the State Police find deficiencies, they will fill out a Safety Improvement Report, and may order the Consultant off the highway. If you are issued a Safety Improvement Report you must immediately (before we hear from the State Police about this) forward a copy to the State Project Manager. (NOTE: You don’t want to get these as they will impact your rating).

25. This paragraph is blank.

26. **Phone Numbers (last updated Jan 2011)**

These are included here as a starting point for potential contacts.

NJ State Police – NJDOT Construction Unit

DELETED - STATE POLICE ARE NO LONGER TO BE USED.

**Traffic Operations**

Statewide Traffic Management Center

732.697.7360

Traffic Operations - North

**Northern New Jersey**

NJDOT Traffic Operations

670 River Drive

Elmwood Park, NJ 07407

Bergen, Essex, Hudson, Hunterdon Middlesex, Morris, Passaic,

Sussex, Union and Warren counties

Traffic Operations - South

**Southern New Jersey**

NJDOT Traffic Operations

1 Executive Campus, Rt. 70 W

Cherry Hill, NJ 08002

Atlantic, Burlington, Camden, Cape May, Cumberland,

Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem

and Somerset counties

Regional Maintenance Permits Offices

South Region (856) 486-6688

Central Region (732) 625-4330

North Region (973) 601-6625

Note: Region North Maintenance Permits often asks vendors for money to cover overtime. We are EXEMPT.

Consultants are to do the following when applying for a permit:

1. Clearly identify that you are a CONSULTANT working on a DEPARTMENT project.
2. Clearly provide them with the Job Number and SubJob number.
3. In addition to the State Project Manager, give the following name and phone number as a secondary contact if need be.

Jack Evans, Supervising Engineer 609-530-2547

## VIII. **BRIDGE INSPECTION SECURITY**

### **Yellow (or lower) Alert Level**

1. Consultants and their subcontractors should have the following with them at all times while conducting bridge inspections:
  - a. Photo ID for each team member.
  - b. Letter of authorization from the Department (Notice to Proceed Letter).
  - c. Properly identified inspection vehicle. Magnetized sign with firm name is acceptable.
  - d. Additionally for subcontractors, a letter from the consultant authorizing their presence at the site on dates specified. The letter should also indicate the type of work being done and equipment being used. In addition, a copy of the vendor approval letter from the Department should be in possession.
  - e. While performing initial scoping of the bridges in a project, consultants should have a copy of the Selection Notification Letter with the bridge list from the Department in lieu of the Notice to Proceed Letter.
2. In-House staff should have the following with them at all times while conducting bridge inspections:
  - a. Department issued Photo ID for each team member.
  - b. Letter of authorization signed by the Unit Manager or designee.
3. Staff shall dress appropriately for bridge inspection activities. This means wearing safety vests, hard hats, and other clothing to help security personnel identify you as a bridge inspector.
4. Copies of previous cycle Bridge Survey Reports and other related materials should be retained to further confirm the reason for your presence at the bridge site.
5. Lane or shoulder closures on State highways are to be processed for permits through the appropriate Traffic Operations Office or Region.
6. Drawbridge Operations must be notified 72 hours or three (3) working days prior to the inspection activity for all movable bridges. This is also a requirement for underwater diving inspections or other subcontractors. Also, if applicable, the Coast Guard should be contacted prior to the inspection to request approval for your presence in navigable waterways.
7. Bridge (and sign structure) Inspection staff should be aware of any unusual or suspicious activity encountered. Any suspicious devices found on or near bridges or the potential reconnaissance of highway infrastructure should be reported immediately to the Office of Counter Terrorism [1-866-472-3365]. If a situation is deemed to be emergent in nature



(suspicious packages, etc.), then the local emergency officials should be contacted using 911 in addition to notifying the Office of Counter Terrorism. Finally, the Manager, Structural Evaluation should be notified. The intent is not to confront anybody acting suspiciously, but to report the suspicious activity. To that end, bridge inspectors should attempt to obtain information, such as license plate numbers or photos, that would allow appropriate security staff to investigate the matter but not to expose themselves to risk.

8. While conducting bridge (and sign structure) inspections, staff shall consider the potential security vulnerabilities of the structure. Examples of security vulnerability issues are as follows:

- Missing locks on box beam access doors
- Holes cut through chain link fencing
- Lack of access control to Fracture Critical Members (FCMs). Pin-Hanger Connections, Movable Bridge Machinery, etc.
- Industrial sites located close enough to the structure where objects thrown from the bridge could impact the site—tank farms, chemical sites, industrial sites, etc.

Any such situations found should be brought to the Department's attention by writing a letter or e-mail to the Manager, Structural Evaluation as soon as possible after the situation is identified.

9. The Department will notify the affected local police officials when an inspection is scheduled within their jurisdiction. This will be achieved by e-mailing the consultant's field schedule at the start of the project. This measure will not relieve the consultant from notifying the police during Orange Alerts as the original field schedule is subject to changes.

### **Orange Alert Level**

1. Regularly scheduled bridge (and sign structure) inspections will continue to be conducted.
2. All of the above security measures remain in effect as modified below.
3. All staff is to be notified that we are at the Orange Alert Level and that we are at a heightened state of security. Any unusual activity at bridges should be viewed at a heightened awareness context.
4. All staff should have at least two forms of ID (including at least one photo ID) while conducting bridge (and sign structure) inspections.
5. Local police departments must be notified that specific bridges (and sign structures) are to be inspected prior to engaging in any inspection activity.

### **Red Alert Level**

1. All regular bridge (and sign structure) inspection activities will cease until a lower alert level is specified.
2. In-house staff identified as critical must carry a Departmental Photo ID and a letter of authorization signed by the Commissioner prior to conducting any inspection activities. Specific letters of authorization may also be issued to consultants.
3. The function of in-house bridge inspection staff switches from regularly scheduled work activities to emergency response.

## IX. REPORT FORMATS

**The consultant is solely responsible for the quality of the sign structure inspections and reports produced.** The State has introduced a reduced report review policy whereby it is unlikely that errors in the reports will be identified. The State's review policy is geared towards establishing a proper Consultant Evaluation Rating system score for the consultant's project. Therefore, the responsibility of the consultant for the quality of the work product cannot be overemphasized.

### A. STATE SIGN STRUCTURES

The **report format** to be used for this project shall be as produced utilizing **CombIS**.

Submit **Format** reports as first submission for the sign structures in at least the following categories.

- a. A trilon overhead sign structure in poor condition.
- b. A cantilever sign structure in poor condition.
- c. A recently constructed overhead sign truss structure or one in good condition.
- d. A recently constructed cantilever sign structure or one in good condition.

### B. GENERAL

1. Include occasional photos of all Special Equipment used – Vertical Lift, cherry picker, inspection in action. Also, include photos of maintenance and protection of traffic.

Include one photo of the sign structure number decal if room in the database photo area permits.

See the Sign Structure Database “NJDOTUsersManual” for photo sequence.

2. Photos shall be of sufficient resolution (**5-megapixel minimum final** resolution – and quality (not over-compressed) to clearly show the intended.

**Note: Images over 8 megapixels provide minimal additional benefit. Do not submit pictures larger than 12-megapixel.**

- a. **Make sure photos are not dark** and show the intended defects or feature **clearly** (The exception is a photo solely intended to show nighttime visibility – for documenting Item S.11 – can be taken at night without a flash). Any photo not meeting these requirements will be rejected. This is important for final report quality. The consultant will be asked to resubmit clear and sharp photos at his cost. Include photos of significant defects and work done.
  - b. Take photos of roadway in each direction (along the center line) and both elevations should be for full length (or panoramic) showing clearly all the features of the structure and also features intersected. **It is important that all signs be clearly visible and legible** (not blurred). Any angular views of elevations and roadway will be rejected.
  - c. Include photo from underneath structure to clearly show the type of truss.
  - d. **Place the photos in the correct order**, as described in the table in Section 8.2.5 of the “NJDOT Sign Structure Database Users Manual.”
  - e. Provide a photo of each crack and major defect. Photos are required for all Emergency or Priority Repairs conditions. In addition, photos are required for defects that require monitoring during future cycle inspections. Additional photos are needed to show any Work Done since the previous inspection. Also, if space permits, include a photo for any special equipment used for inspection that is not typical of a sign structure inspection project.
3. Also, determine or verify (Latitude & Longitude) for all bridges to the following accuracy: xx.xxxxx Degrees (Note: **All five digits must be relevant** in order to achieve a location coding within a couple meters of actual). This level of accuracy can be obtained by using a hand-held WAAS enabled GPS receiver (WAAS stands for the Wide Area Augmentation System - a system of satellites and ground stations providing GPS timing corrections which are capable of improving the accuracy of the final reading to within a few meters). **Establishment of GPS coordinates utilizing CombIS itself is encouraged.**
- We are now asking that this GPS measurement be taken at the point where the sign structure crosses from the right lane to the shoulder (as long as this can be safely accomplished) for span and cantilever structures on the right side of the road. For left side cantilevers, this measurement is to be taken at the point where the sign structure crosses from the left lane to the shoulder (again, as long as this can be safely accomplished). For butterfly structures, please take the measurement at the post if possible
4. Verify the coding for the mile-point (both the local mile point, if appropriate and shown in the SLD, as well as the mile point entered for the associated State route)

using the current version of the Straight Line Diagrams (SLD). If the field mile points vary considerably from the ones shown in the Straight Line Diagram, please make a note in the Additional Comments area (Note: See new fields).

5. Also, make sure that the guide-rails present meet the NJDOT Roadway Design Manual criteria listed under Section 8. In case guide-rail is required (but not present), specific reasons for recommending the proposed guide rail should be given. BCT on all State roads should be considered as inadequate. However, BCT can be considered to be adequate on local roads (city/county/municipal, etc) depending on the owner's design standards. In all cases, BCTs located on NHS highways are to be considered inadequate. Refer to the Commentary on Item 36 (Safety Features) included as State Appendix F in the 2003 SI&A Coding Manual.
6. IF sheets are scanned or files are PDFed **outside of CombIS** - All scanning or file PDFing is to be performed based on the **CURRENT** version of the "SDMS Contractors Specifications" in effect **at the time** the scanning or PDFing is actually performed. Therefore, if scanning or file PDFing does not occur for some time after the initiation of the project, make sure that all involved have and use a copy of the current specifications.
7. **Report covers must be** Acco Pressboard Report Covers or similar functionality (minimal space required for storage but firm cover). **Due to the way we store sign structure reports, soft covers are no longer acceptable.**

X. **PHASE B WORK:**

A list of sign structures requiring interim or special inspections or evaluations should be submitted as per agreement and inspections carried out **if required**, upon approval by the State. The report format for Phase B work (interim inspections) will typically include a letter indicating change in condition of component(s) if any, supported by photographs, however, the final requirements shall as determined by the State based on the type of work. For the new shorter duration inspection projects, it will be necessary for the consultant to request a time extension in order to conduct the interim inspections within the authorized time.

For instructions on how to code an Interim inspection in the sign structure database, see the latest version of:

“Guidelines for Coding Interim Inspection for NJDOT Sign Structures... .doc”

## XI. **SCANNING & FILE PDFing PROCESS** (Sign Structures)

**NOTE: With the implementation of CombIS, the following is mostly out of date. It is included for use only if needed.**

Although Sign Structure reports are not PDFed, a copy of **the following documents are to be PDFed** and included on the Sign Structure CD:

- Priority repair letters
- Interim Inspection letters

Each file is to be named according to the convention in the “SDMS Contractors Specifications.” Include these in separate folders **ON THE SAME CD AS THE DATABASE**. We expect PDFing to be performed by the Consultant (no exceptions).

All sheet scanning and file PDFing is to be performed using the **CURRENT** version of the “SDMS Contractors Specifications” in effect **at the time** the scanning or PDFing is actually performed. Therefore, if scanning or file PDFing does not occur for some time after the initiation of the project, make sure that all involved have and use a copy of the current specifications. This also applies to the indexing process. Use the version of the SDMS Specifications in effect at the time the indexing is actually performed.

**STATEMENT OF INTENTION** - We will be implementing the following standard for any PDF files created and submitted:

Starting January 1st, 2008, all PDF files created by you (file date after 1/1/08) must be compliant with the following standard:

### **PDF/A-1b (sRGB version)**

PDF/A standards (ISO 19005-1:2005) are defined by the International Organization for Standardization (ISO). PDF/A standards apply to long-term archiving of electronic documents. PDF/A-1b is the less strict of the two PDF Archival standards.

(Note: We are currently testing various ways this can be achieved. Items showing early promise include add-ins for MS Word 2007.)

### **Designating a Report as Official**

The final PDF version of any report, where the original is to be signed and sealed, is to contain the phrase “Original Signed and Sealed” (This text is NOT to be included in preliminary reports). This can be accomplished in one of two ways:

- a. Include the text in the box where the seal is placed prior to PDFing (but **AFTER** you have printed the sheet that will be signed and sealed).
- b. After PDFing the file (and **AFTER** you have printed the sheet that will be signed and sealed), place a Text Box with the above phrase within the box where the Seal goes.

Font size and type is to be approximately the same as the other text on the page.