

U.S. Route 1/9 T & N.J. Route 440  
Expansion of MASSTR

**MASSTR**

Specifications



July 2013

Prepared By

**New Jersey Meadowlands Commission**

One DeKorte Park Plaza, Lyndhurst New Jersey 07071

[www.njmeadowlands.gov](http://www.njmeadowlands.gov)

A handwritten signature in blue ink that reads "David Liebgold".

**David Liebgold**

New Jersey Professional Engineer

License Number GE 45897



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STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed BIDS will be received by the New Jersey Meadowlands Commission (NJMC), One DeKorte Park Plaza, Lyndhurst, New Jersey 07071 for the following:

**U.S. Route 1/9 T & N.J. Route 440 Expansion of MASSTR**

BIDS must be submitted in the Bid Form contained in the Contract Documents and must be enclosed in a sealed envelope plainly marked on the outside with the name of project and the name of Bidder. BIDS will be received at the above address until 10:00 AM prevailing time, on **Thursday, August 22, 2013**. BIDS will **not** be accepted after 10:00 AM on that day. BIDS will be opened at this date and time in a public forum at the above address.

Contract Documents (specifications and plans) will be available for review at the NJMC offices starting on **Tuesday, August 6, 2013, after 10:00 AM**. Official signed and sealed copies of the Bid Package may be obtained at the NJMC Offices upon payment of the non-refundable fee for each set of \$150.00. Checks shall be made payable to the "NJMC". BIDS will only be accepted from those who obtain an official Bid Package. Electronic copies of the Bid Package may be obtained at no cost by email request to [david.liebgold@njmeadowlands.gov](mailto:david.liebgold@njmeadowlands.gov). Any technical questions regarding the Bid package shall be submitted in writing to the undersigned at [david.liebgold@njmeadowlands.gov](mailto:david.liebgold@njmeadowlands.gov) before **10:00 AM, Thursday, August 15, 2013**; administrative questions may be directed to the undersigned at (201) 777-2414.

The Scope of Work under this Contract consists of providing all plant, labor, equipment, materials, tools, and services necessary to construct, wire, and install all the components necessary for a fully operational adaptive traffic signal control system for sixteen (16) traffic signals located in the City of Jersey City and Town of Kearny, in Hudson County. The project includes the installation and wiring of vehicle detection units, wireless communication transceivers and antennas, and associated infrastructure. The Contract Time amounts to a total of 100 consecutive weekdays/work days for the project from the start date, on or about **September 25, 2013**, weather permitting, as per the Notice-to-Proceed (NTP) letter to be issued on or about **September 11, 2013**.

The Contract Documents contain specific requirements for submission of a Bid. A Bid deposit, in the amount of five percent of the Bid price must accompany the Bid package. The attention of all Bidders is particularly called to the State and Federal requirements regarding equal employment opportunity, affirmative action, New Jersey business registration, public works contractor registration, and prevailing wages. For more information see the general instructions section of the Bid package. Bidders are required to comply with the requirements of **N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27**. The NJMC reserves the right to reject any or all BIDS and to waive minor Bid defects.



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NEW JERSEY MEADOWLANDS COMMISSION

David Liebgold, P.E., P.P.  
Chief of Transportation

## **PROJECT OVERVIEW**

MASSTR is an intelligent transportation system (ITS) that integrates adaptive traffic control, vehicle detection, and wireless communication technologies to optimize the operating efficiency of existing roadway infrastructure in the Hackensack Meadowlands District and surrounding roadways. MASSTR incorporates all of the region's traffic signals into one interconnected system that will achieve maximum roadway capacity and avoid unnecessary roadway widening by reducing inconsistencies and improving the coordination and communication between intersections.

MASSTR consists of three major components: an adaptive traffic control system (ATCS), a real-time vehicle-based vehicle detection system (VDS), and a wireless communication system (CS). The ATCS provides algorithmic intelligence to overcome the limitations of pre-timed signal control; and adjusts the signal timing and phasing on a cycle-by-cycle basis in response to the real-time traffic conditions with minimal manual interference. The VDS provides real-time vehicle-based vehicle detection and surveillance; and measures traffic volume, classification, and speed. The CS provides reliable communication between the ATCS, VDS, local traffic signal controllers, and central server.

The major components of the implementation of MASSTR include engineering services; construction services; and ATCS, VDS, and CS. The NJMC intends to complete the engineering services, including the preparation of plans, specifications, estimates and as-builts; project management; and construction inspection, using NJMC staff. The ATCS, VDS, and CS are intended to be individually procured through the Systems Manager method adhering to the qualification criteria detailed in N.J.S.A. 52:34-12, 49 C.F.R. 18.36, and the Brooks Act.

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

GENERAL INSTRUCTIONS

1.0 DEFINITION AND TERMS

- 1.1 Addendum (a) - written instructions issued prior to the opening of BIDS which clarify, correct or change the bidding requirements or the contract documents.
- 1.2 ATCS - Adaptive Traffic Control System, a key system of MASSTR.
- 1.3 BID - the proposal of the Bidder submitted on the prescribed form setting forth the prices for the work to be performed.
- 1.4 BIDDER - Any corporation, partnership, or individual submitting a Bid to perform the work specified in the Contract Documents.
- 1.5 Contract Documents - the contract and all documents contained in the "Specifications and Bid Documents" along with any addenda thereto, including all Plans, Reports or other drawings or materials referenced or incorporated therein.
- 1.6 Contract Time - the time estimated to complete all second phase of MASSTR.
- 1.7 Contractor - the entity to whom the contract has been awarded and who is responsible for performing the work.
- 1.8 CS - Communication System, a dedicated wireless communication network, a key system of MASSTR.
- 1.9 VDS - Vehicle Detection System, a key system of MASSTR.
- 1.10 MASSTR - Meadowlands Adaptive Signal System for Traffic Reduction.
- 1.11 NJDOT - New Jersey Department of Transportation.
- 1.12 NJMC - New Jersey Meadowlands Commission.
- 1.13 Specifications - the technical specifications contained in Bid package along with any addenda thereto, including all Plans, Reports, Maps, shop drawings, or other drawings or materials referenced or incorporated therein.
- 1.14 Subcontractor - an entity having an arrangement with a Contractor, where the Contractor uses the products and/or services of that entity to fulfill some of its obligations under its Contract, while retaining full responsibility for the performance of all of its [the Contractor's] obligations under the contract, including payment to the subcontractor. The subcontractor has no legal relationship with the NJMC, only with the Contractor.
- 1.15 Work - the entire completed construction, or the various separately identifiable parts thereof required to be furnished under the contract documents. Work is the result of performing

services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the contract documents.

## **2.0 CONTRACT DOCUMENTS EXAMINATION**

- 2.1 Bidders must carefully examine the Contract Documents and completely familiarize themselves with the actual conditions under which the Work is to be performed, as well as the extent and requirements of the Work.
- 2.2 Bidders shall use complete sets of Contract Documents in preparing BIDS. The NJMC assumes no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.
- 2.3 In the event the Contractor discovers a discrepancy, error, omission, or ambiguity in the Contract Documents, or if the Contractor has any doubt or question as to the intent or meaning of the Contract Documents, the Contractor must immediately notify the NJMC.
- 2.4 The Contractor is not relieved of the obligation to complete work because of a discrepancy, error, omission, or ambiguity.
- 2.5 Changes to the Contract documents may be made only by the NJMC via written addenda.
- 2.6 Receipt of Addenda must be acknowledged in the space provided for such purpose in the Bid Forms. Compliance by Bidder with issued addenda is required whether or not receipt is acknowledged.

## **3.0 INTERPRETATION OF QUANTITIES (QUANTITIES ARE APPROXIMATE)**

- 3.1 The quantities appearing in the specifications are estimates. The NJMC has a right to increase or decrease the quantities of work, and has the right to eliminate items in their entirety, at its sole discretion.
- 3.2 Changes to the work resulting in a twenty percent (25%) or less decrease in the Bid quantity of unit price items shall not be considered sufficient basis for adjustment of unit price costs. Additionally, changes in the Bid quantity of unit price items of twenty percent (25%) or less shall not be sufficient grounds for an award of consequential, indirect, or other damages, nor shall changes to quantities be regarded as grounds for the grant of an extension of time to complete the work
- 3.3 The NJMC will pay only for the quantities of work completed as specified in the contract.

## **4.0 "IF AND WHERE DIRECTED"**

- 4.1 The Bid may include items for which the NJMC has designated quantities as "if and where directed." The estimated quantities set out in the Bid for "if and where directed" quantities are presented for the purpose of obtaining a representative Bid unit price, but are not indicative of the NJMC's intent regarding incorporation into the project. The NJMC has the right to direct the Contractor to perform work using "if and where directed" quantities.

## **5.0 BID BOND AND BONDING REQUIREMENTS**

- 5.1 The Bid Bond guarantees execution of the Contract by the Bidder receiving Award.
- 5.2 The Bid Bond shall be in the amount of 5% of the Bid.
- 5.3 The Bidder shall ensure that the Bid Bond is properly completed and furnished by a surety authorized to do business in the State of New Jersey. An authorized surety list can be found here: <http://www.state.nj.us/dobi/surety.htm>
- 5.4 The Bidder shall ensure that the Bid Bond has a power of attorney executed by the Surety. The power of attorney shall set forth the limits of authority of the attorney-in-fact who has signed the bond on behalf of the Surety to bind the company and shall further certify that such power is in full force and effect as of the date of the bond.
- 5.5 The NJMC will not accept Bid Bonds that do not conform to this Section 5.0 and are not substantiated by a valid power of attorney executed by the Surety.
- 5.6 If the Bidder withdraws its Bid or otherwise fails to fulfill any requirements or obligations that prevent Bidder from entering into a contract or beginning work on the Project, the Bid Bond is forfeited, and the NJMC has the right to recover under the terms and provisions of the Bid Bond. The NJMC has the right, at its sole discretion, to award the Contract to the next lowest responsible Bidder, to reject all Bidders and re-advertise the Project, or to take any other action that the NJMC deems necessary.
- 5.7 The NJMC reserves the right to reject any Bidder that fails to submit a Bid Bond.

## **6.0 PUBLIC OPENING OF BIDS**

- 6.1 **The NJMC will open and read BIDS publicly at the time and place indicated in the advertisement or such other time and place as established by addenda. The NJMC invites bidders, their authorized agents, and other interested parties to be present.**

## **7.0 BALANCED BIDS**

- 7.1 The Bidder shall reflect in the Bid price for each Item the cost the Bidder anticipates incurring for the performance or supply of that Item. Submission of intentionally unbalanced BIDS may be cause for the rejection of the entire Bid.

## **8.0 EVALUATION OF BIDS:**

- 8.1 The NJMC may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work; and the Bidder shall furnish all such information and data for this purpose as NJMC may request. The NJMC reserves the right to reject any Bid if the evidence submitted by (or the investigation of) such Bidder fails to satisfy it that such Bidder is properly qualified to carry out the obligations of the Contract, and to complete the work contemplated therein.
- 8.2 Bidders shall be experienced in the kind of work to be performed, have the necessary equipment therefore, and possess sufficient capital to properly execute the work within the time allowed. BIDS received from Bidders who have previously failed to complete contracts

within the time required, or who have previously performed similar work in an unsatisfactory manner, may be rejected. A Bid may be rejected if the Bidder cannot show that it has the necessary ability, plant, and equipment to commence the work at the time prescribed, and thereafter to prosecute and complete the work at the rate or within the time specified. A Bid may also be rejected if the Bidder is already obligated for the performance of other work that would delay the commencement, prosecution, or completion of the Work.

- 8.3 In evaluating the BIDS, the NJMC shall consider the qualifications of the Bidders, whether or not the BIDS comply with the prescribed requirements, and alternates and unit prices if requested in the Bid Forms. Final determination will be at the sole discretion of the NJMC and will be made after receipt of BIDS.
- 8.4 The NJMC may consider the qualifications and experience of subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work. Operating costs, maintenance considerations, performance data, and guarantees of materials and equipment may also be considered.
- 8.5 The NJMC reserves the right to reject the Bid of any Bidder who does not pass these investigations to the satisfaction of the NJMC.
- 8.6 If requested by the NJMC, the three lowest Bidders shall, within 10 days of such request, submit a financial statement prepared by a Certified Public Accountant.

## 9.0 INTERPRETATION AND ADDENDA

- 9.1 The Bidder understands and agrees that its Bid is submitted on the basis of the specifications prepared by the NJMC. The Bidder accepts the obligation to become familiar with these specifications.
- 9.2 Bidders are expected to examine the specifications and related Bid documents with care and observe all their requirements. Ambiguities, errors or omissions noted by Bidders should be promptly reported in writing to the NJMC. In the event the Bidder fails to notify the NJMC of such ambiguities, errors or omissions, the Bidder shall be bound by the requirements of the specifications and the Bidder's submission.
- 9.3 No oral interpretation and or clarification of the meaning of the specifications for any goods and services will be made to any Bidder. Such request shall be in writing, addressed to the NJMC's representative stipulated in the specification. In order to be given consideration, a written request must be received at least seven (7) business days prior to the date fixed for the opening of the BIDS.
  - 9.3.1 All interpretations, clarifications and any supplemental instructions will be in the form of written addenda to the specifications and will be distributed to all prospective Bidders. All addenda so issued shall become part of the specification and Bid documents, and shall be acknowledged by the Bidder in the Bid. The NJMC's interpretations or corrections issued via addenda shall be final unless superseded by subsequent addenda.

**9.4 Discrepancies in BIDS**

- 9.4.1 If the amount shown in words and its equivalent in figures do not agree, the written words shall be binding. Ditto marks are not considered writing or printing and shall not be used.
- 9.4.2 In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall prevail. In the event there is an error of the summation of the extended totals, the computation by the NJMC of the extended totals shall govern.

**9.5 Questions**

- 9.5.1 Any technical questions regarding the Bid package shall be submitted in writing to the undersigned at [david.liebgold@njmeadowlands.gov](mailto:david.liebgold@njmeadowlands.gov) before **10:00 AM, Thursday, August 15, 2013**
- 9.5.2 Administrative questions may be directed to David Liebgold, Chief of Transportation at [david.liebgold@njmeadowlands.gov](mailto:david.liebgold@njmeadowlands.gov) or (201) 777-2414.

**10.0 DISQUALIFICATION OF BIDDERS**

- 10.1 The NJMC will disqualify a bidder and reject a bid submitted by that bidder if the bidder is determined by the NJMC to lack responsibility. Factors demonstrating a lack of responsibility include, but are not be limited to:
  - 10.1.1 Evidence of collusion among bidders.
  - 10.1.2 Uncompleted work, which in the opinion of the NJMC, might hinder or prevent completion of additional work if awarded.
  - 10.1.3 Submission of a materially unbalanced bid. A materially unbalanced bid is a bid where there is a reasonable doubt that award to the bidder submitting a mathematically unbalanced bid, which is structured on the basis of nominal prices for some work and inflated prices for other work, will result in the lowest ultimate cost to the NJMC.
  - 10.1.4 Lack of competency or lack of adequate machinery, plant, or other equipment.
  - 10.1.5 Unsatisfactory performance on previous or current contracts.
  - 10.1.6 Questionable moral integrity as determined by the Attorney General of New Jersey or the NJMC.
  - 10.1.7 Any other outward actions or lack of action that demonstrates the bidder is not responsible.
  - 10.1.8 Disqualification, suspension, or debarment of an individual, firm, partnership, corporation, or any combination as required by N.J.S.A. 16:44-8.1.

## 11.0 REJECTION OF BIDS

- 11.1 The NJMC reserves the right to reject any and all BIDS if it determines that it is in the best interest of the NJMC to do so. In addition, the NJMC reserves the right to reject any Bid that does not conform to the requirements set forth in the Contract Documents.
- 11.2 In the event the NJMC rejects any or all BIDS for any reason whatsoever, any rejected Bidder shall not be entitled to compensation in connection with the preparation and submittal of the Bid or compensation for profits anticipated had the Contract been awarded to the Bidder.

## 12.0 CONSENT OF SURETY

- 12.1 Bidder shall submit with the Bid a Certificate (Consent of Surety) with Power of Attorney for the full amount of the Bid price from a Surety Company authorized to do business in the State of New Jersey and acceptable to the NJMC stating that it will provide said Bidder with a Performance Bond in the full amount of the Bid. This certificate shall be obtained in order to confirm that the Bidder to whom the contract is awarded will furnish Performance and Payment Bonds from an acceptable surety company on behalf of said Bidder, any or all subcontractors or by each respective subcontractor or by any combination thereof which results in performance security equal to the total amount of the contract.
- 12.2 The NJMC reserves the right to reject any Bidder that fails to submit a Consent of Surety Certificate.

## 13.0 BONDS

- 13.1 Provide a Performance Bond and a Payment Bond to the NJMC within 15 days of the date of Award. Ensure that the penal sum of the bond is equal to at least the Total Contract Price less the Bid price for the performance and payment bond. With the bond, provide a certification authorizing the attorney-in-fact to commit the Surety and a true and correct statement of the Surety's financial condition.
- 13.2 Failure to submit a performance and payment bond with the executed contract shall be cause for declaring the contract null and void.
- 13.3 The Bidder is responsible for providing NJMC with a satisfactory replacement bond in the event the Surety becomes insolvent or is otherwise unable to fulfill its obligations.
- 13.4 The performance and payment bond provided shall not be released until final acceptance of the whole work and then only if any liens or claims have been satisfied. The surety on such bond or bonds shall be a duly authorized surety company authorized to do business in the State of New Jersey pursuant to N.J.S.A. 17:31-5.
- 13.5 Upon acceptance of the work by the NJMC, the contractor shall submit a maintenance bond in an amount of 10% of the project costs guaranteeing against defective quality of work or materials for the period of 2 years.

#### **14.0 AWARD OF CONTRACT**

- 14.1 The NJMC will award the contract to the lowest responsible Bidder whose Bid conforms in all respects to the requirements set forth in the Contract Documents. The NJMC will award the contract based on the total contract price.
- 14.2 The Award is not binding upon the NJMC until the NJMC has executed the Contract. No person shall perform any Work in furtherance of the Contract until notified that the Contract has been executed.
- 14.3 Within 14 days of the date of Notice of Award, the Bidder shall properly and duly execute the Contract and deliver to the NJMC the Performance bond, payment bond, and insurance certificate.

#### **15.0 SUBCONTRACTOR**

- 15.1 The Bidder shall provide name of all subcontractors to whom the Bidder will subcontract.
- 15.2 The Bidder shall provide the following information regarding the subcontractor:
  - 15.2.1 Proof of the subcontractor's valid business registration with the New Jersey Department of Treasury, Division of Revenue as defined in N.J.S.A. 52:32-44.
  - 15.2.2 Proof of the subcontractor's valid Public Works Contractor Registration with the New Jersey Department of Labor.
- 15.3 Consent of the NJMC to allow work to be subcontracted does not relieve the Contractor of its responsibility for the Work, nor does it relieve the Surety of its obligations under the bond. The Contractor is responsible for the work of subcontractors. Ensure that the work performed by subcontractors conforms to the Contract.
- 15.4 The NJMC's consent to subcontract any part of the Work shall not be construed as approval of the subcontract or its terms, but only as approval of the Contractor's request to subcontract to its chosen subcontractor.

#### **16.0 SUBSTITUTES FOR PROPRIETARY ITEMS**

- 16.1 If material or equipment is specified in the Contract by using the name of a proprietary item or the name of a particular supplier, the Contractor may propose a substitute except when the Special Provisions state that no substitution is permitted. To request approval for using a substitute item of material or equipment, submit a written request to the NJMC including the following:
  - 16.1.1 Certification that the proposed substitute performs the functions and achieves the results called for by the design, is similar and of equal substance to that specified, and is suited to the same use as that specified.
  - 16.1.2 A statement that the evaluation and approval of the proposed substitute does not hinder the Contractor's ability to complete the Contract.

- 16.1.3 A statement that the proposed substitute for use in the Work does not change or modify the Contract.
- 16.1.4 A complete detailed Manufacture's specification for the substitute.
- 16.1.5 Difference between the proposed substitute from that specified.
- 16.1.6 Manufacturer's recommendations, maintenance requirements, and repair or replacement requirements for the substitute.
- 16.2 The NJMC will evaluate the request and notify the Contractor in writing of approval or rejection of the proposed substitute. The NJMC has the right to require the Contractor to provide, at no cost to the NJMC, a special performance guarantee or other bond with respect to a substitute.
- 16.3 If, during the use of the substitute material or equipment, the NJMC determines that the work produced is not in conformance with the Contract, immediately discontinue the use of the substitute and complete the remaining work with the specified material or equipment. Remove the deficient work and replace it, or take corrective action as directed by the NJMC.
- 16.4 The NJMC will not make payment or modify Contract Time to remove and replace work resulting from an authorized substitution.

## 17.0 APPLICABLE LAWS

- 17.1 This Contract shall be construed and governed by the laws of the State of New Jersey. It is the Contractor's responsibility to be aware of and comply with Federal, State, and local laws, ordinances, rules, and regulations, and orders and decrees of bodies or tribunals having jurisdiction or authority that affect those engaged or employed on the Work, or that affect the conduct of the Work.
- 17.2 The Contractor shall observe and comply with, and ensure the Contractor's agents and employees observe and comply with, laws, ordinances, rules, regulations, orders, and decrees.
- 17.3 The Contractor shall Defend and indemnify the NJMC, NJDOT and their representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or the Contractor's agents or employees, subcontractors of any tier, or suppliers.
- 17.4 If discrepancies or inconsistencies are discovered between any document of the Contract and any law, ordinance, regulation, order, or decree, immediately notify the NJMC in writing.
- 17.5 The Contractor shall obtain permits, grants, licenses, authorizations, certifications, and other approvals for the prosecution of the Work, except where the NJMC has already procured such permits, grants, licenses, authorizations, certifications, and other approvals.
- 17.6 The Contractor shall comply with all required permits, grants, licenses, authorizations, certifications, and approvals. The NJMC reserves the right to suspend the Work if the

- Contractor fails to comply with required permits, grants, licenses, authorizations, certifications, and approvals.
- 17.7 The Contractor shall provide to the NJMC, whenever requested, documentation pertaining to the any noncompliance by Contractor and related corrective actions taken. The NJMC will not make payment for or modify Contract Time for performing corrective and remedial work required to bring the Contractor into compliance.
- 17.8 The Contractor is responsible to pay fines levied against the Contractor, its agents, employees, and subcontractors that arise out of or are alleged to arise out of noncompliance with permits, grants, licenses, authorizations, certifications, or approvals.
- 17.9 The NJMC will recover from the Contractor costs due to fines levied against the NJMC that arise out of, or are alleged to arise out of, noncompliance by the Contractor, its agents, employees, and subcontractors with permits, grants, licenses, authorizations, certifications, or other approvals.
- 17.10 The NJMC may hold the Contractor responsible for all engineering, inspection, and administration costs (including overhead) incurred because of the Contractor's noncompliance.
- 17.11 Regarding any claim arising from a breach of Contract, tort (including negligence), or otherwise, the NJMC and/or NJDOT will not be liable to the Contractor for any special, consequential, incidental, or penal damages, including, but not limited to, loss of profit or revenues, loss of rental value for Contractor-owned equipment, damages to associated equipment, cost of capital, or interest.
- 17.12 There shall be no liability upon the NJMC, NJDOT or their authorized representatives, either personally or as officials of the State, in carrying out any of the provisions of the Contract or in exercising any power or authority granted to them by or within the scope of the Contract, it being understood that in all such matters they act solely as agents and representatives of the State.
- 17.13 All products are required to be authorized by the NJMC and approved by NJDOT prior to use for construction. Detailed product specifications and a sample of each item shall be submitted to the NJMC for authorization for use in construction. Only approved and authorized products are permitted to be present at the job site.

## 18.0 EQUAL EMPLOYMENT OPPRTUNITY

- 18.1 All parties to any contract with the State of New Jersey agree not to discriminate in employment and agree to abide by all anti-discrimination laws including those contained within N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127) N.J.AC. 17:27, and all rules and regulations issued there under.
- 18.2 During the performance of this contract, the contractor agrees as follows:
- 18.3 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, up-grading, 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 NJMC Compliance Officer setting forth provisions of this nondiscrimination clause.
- 18.3.1 The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees places 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.
- 18.3.2 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 or workers' representative of the contractors' commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 18.3.3 The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to the N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time with the Americans with Disabilities Act.
- 18.3.4 When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith effort to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its

percentage of active “card carrying” members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

18.3.4.1 If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurance from the construction trade union at least five business days prior to the commencement of the construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor’s or subcontractor’s prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under Section 19.3.4.2 below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

18.3.4.2 If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of Section 18.3.4.1 above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:

(1) To notify the NJMC Compliance Officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with its awaiting available vacancies;

(3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

(4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;

(5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) The contractor or subcontractor shall interview the referred minority or women worker.

(ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of Section 18.3.4.3 below.

(iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the NJMC Compliance Officer and to the Dept. of LWD, Construction EEO Monitoring Program.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, on forms made available by the Division and submitted promptly to the Dept. of LWD, Construction Monitoring Program upon request.

18.3.4.3 The contractor or subcontractor agrees that nothing contained in Section 18.3.4.2 above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or

the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to Section 18.3.4.2 above without regard to such agreement or arrangement; provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ration established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of Section 18.3.4.2 above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union..

After notification of award, but prior to signing a construction contract, the contractor shall submit to the NJMC compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA201) electronically provided to the NJMC by the Division, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a monthly thereafter for the duration to his contract to the Division and to the NJMC compliance officer.

The contractor agrees to cooperate with the NJMC in the payment of budgeted funds, as is necessary, for the on-the-job programs for outreach and training of minorities and women.

- 18.3.5 The contractor and its subcontractor shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program 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 Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code (NJAC 17:27)**.
- 18.3.6 It is the policy of the NJMC that its contracts should create a workforce that reflects the diversity of the State of New Jersey. Therefore, contractors engaged by the NJMC to perform under the construction contract shall put forth a good faith effort to engage in recruitment and employment practices that further the goal of fostering equal opportunities to minorities and women.
- 18.3.7 The contractor must demonstrate to the NJMC's satisfaction that a good faith effort was made to ensure that minorities and women have been afforded equal opportunity to gain employment under the NJMC's contract with the contractor. Payment may be withheld from a contractor's contract for failure to comply with these provisions.
- 18.3.8 Evidence of a "good faith effort" includes, but is not limited to:

1. The Contractor shall require prospective employees through the State Job bank website, managed by the Department of Labor and Workforce Development, available online at <http://NJ.gov/JobCentralNJ>;
  2. The Contractor shall keep specific records of its efforts, including records of all individuals interviewed and hired, including the specific numbers of minorities and women;
  3. The Contractor shall actively solicit and shall provide the [Reporting Agency] with proof of solicitations for employment, including but not limited to advertisements in general circulation media, professional service publications and electronic media; and
  4. The Contractor shall provide evidence of efforts described at 2 above to the [Reporting Agency] no less frequently than once every 12 months.
  5. The Contractor shall comply with the requirements set forth at N.J.A.C. 17:27.
- 18.3.9 To ensure successful implementation of Executive Order and Law, state agencies, independent authorities and colleges and universities must forward and Initial Project Workforce Report (AA201) for any projects funded with ARRA money to the Division of Public Contracts EEO Compliance immediately upon notification of award but prior to execution of the contract.
- 18.3.10 Additional Federal equal opportunity and affirmative action requirements are included in Appendix D.

## 19.0 CONTRACT TIME

- 19.1 The Contractor shall complete all Work under the Contract and specified portions thereof within the time specified in the Contract Documents.
- 19.2 The Bidder shall, after being notified by the NJMC to commence Work, initiate the Work diligently to ensure completion within the time designated therefore.

## 20.0 PAYMENTS, INSPECTION, & COMPLETION:

- 20.1 No payment will be made unless duly authorized by the NJMC and accompanied by proper documentation.
- 20.2 Payment will be made monthly, for completed items, in accordance with the NJMC policy and procedures.
- 20.3 **Application for Payment:** The Contractor shall submit to the NJMC for review an application for payment, completed and signed by the Contractor and covering the work completed as of the last Friday of the month. The application shall be on a standard NJMC state invoice form and shall be accompanied by the supporting documentation required by the Contract Documents, and any other information that the NJMC may reasonably request.
- 20.3.1 The Contractor shall furnish written proof of payments made to subcontractors, manufacturers, suppliers, etc., within thirty days after receipt of payment for same. The NJMC shall have the right to deduct from a subsequent payment application, an estimated amount to cover the cost of the subject materials, equipment, and/or work, if the proof of payment is not furnished.
- 20.3.2 It is agreed that this Project is one contract for the whole and complete Work. No partial payments on account by the NJMC, or its use of parts of the Project; shall

constitute the acceptance of any part of the Work before final inspection, acceptance, and final payment.

20.3.3 The Total Contract Amount shall be the total compensation paid to the Contractor for performing the Work. All duties, responsibilities, and obligations assigned to, or undertaken by the Contractor in the performance of the Work, shall be at his own expense, without change to the Total Contract Amount.

20.3.4 The NJMC shall retain ten percent of each payment until completion and acceptance of the Work. After completion and acceptance of the Work, payment will be made in full, including the retainage, authorized deductions, and approved Change Orders. In place of the NJMC withholding retainage, the Contractor may deposit with the NJMC negotiable bearer bonds or notes of the state of New Jersey, or any political subdivision of the State. The nature of the bonds or notes to be deposited shall be subject to approval by the NJMC and conform to the requirements of applicable state contracting laws.

20.3.5 This policy shall only apply when the Contractor's performance is considered adequate. A greater amount may be withheld when specific circumstances necessitate such action or when the Contract Documents clearly indicate the withholding of other specified retainage.

20.4 **Review of Applications for Progress Payments:** The NJMC's recommendation for payment of any application shall constitute a representation by the NJMC to the NJMC (based on the NJMC's observations of the Work in progress as an experienced and qualified professional and on the NJMC's review of the application and attached information) that:

20.4.1 The Work has progressed to the point indicated.

20.4.2 To the best of the NJMC's knowledge, information, and belief the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning project, to the results of any subsequent tests required by the Contract Documents, and any qualifications stated in the NJMC's recommendation).

20.4.3 The Contractor is entitled to payment in the amount recommended.

However, by making any such recommendation, the NJMC will not be representing that:

20.4.4 Exhaustive or continuous on-site inspections were made to check the quality or quantity of the Work.

20.4.5 The means, methods, techniques, sequences, and procedures of the Contractor were reviewed.

20.4.6 Title to any work, materials, or equipment has passed to the NJMC free and clear of any liens, claims security interests, and encumbrances (hereafter in this Section referred to as liens).

20.5 The NJMC may refuse to recommend payment of the whole or any part of any application, if in the NJMC's opinion it would be incorrect to make such representations to the NJMC. The NJMC may also refuse to recommend any such payment (or because of subsequently

discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended) to such extent as may be necessary, in the NJMC's opinion, to protect the NJMC from loss. Reasons for refusing to recommend payment, or for nullifying payments previously made, include but are not limited to the following:

- 20.5.1 Unacceptable Work not remedied.
- 20.5.2 Claims filed or reasonable evidence indicating probable filing of claims.
- 20.5.3 Failure of the Contractor to make payments properly to subcontractors, manufacturers, or suppliers.
- 20.5.4 A reasonable doubt that the Contract can be completed for the balance unpaid.
- 20.5.5 Damage to another contractor.
- 20.5.6 Failure of the Contractor to keep his work progressing in accordance with his progress schedule.
- 20.5.7 Failure to provide a status report on all complaints.
- 20.5.8 Failure to submit certified payrolls (including subcontractor's payrolls) corresponding to the time period covered by the payment application.
- 20.5.9 Failure to satisfactorily prosecute the Work in accordance with the Contract Documents.
- 20.5.10 Liens filed in connection with the Work.
- 20.5.11 Failure to comply with Affirmative Action goals and objectives in accordance with PL1975, c127.
- 20.5.12 Failure to submit any items required by the Contract Documents in the time frame specified.
- 20.5.13 Failure to maintain insurance and/or to provide proof of insurance.
- 20.6 **Contractor's Warranty of Title:** The Contractor warrants and guarantees that title to all work, materials, and equipment included in any and all of his applications for payment (whether or not incorporated in the Work), shall pass to the NJMC at the time of payment free and clear of all liens.
- 20.7 **Final Inspection:** Upon written notice from the Contractor that the Work is complete, the NJMC shall make a final inspection with the Contractor and the NJMC. The NJMC shall notify the Contractor (based on the NJMC's observation of the Work during construction and the final inspection), in writing, of all particulars in which the Work is incomplete and defective. The Contractor shall immediately complete the Work, and remedy said deficiencies, to the satisfaction of the NJMC.
- 20.8 **Acceptance of the Work:** After the Contractor has addressed all deficiencies to the satisfaction of the NJMC, delivered all operations and maintenance instructions, all

schedules, guarantees, bonds, certificates of inspection, and other documents in accordance with the Contract Documents, the NJMC shall notify the Contractor in writing that the Work is acceptable, subject to the provisions of the Contractors' Compliance section.

- 20.9 **Application for Final Payment:** After the NJMC has notified the Contractor of the acceptance of the Work in accordance with the Payments, Inspection, and Completion section, the Contractor shall then submit his application for final payment, following the progress payment procedures. The application for final payment shall be accompanied by all the specified documentation (and such other data and schedules as the NJMC may reasonably request), together with complete and legally effective releases or waivers of all liens arising out of, or filed in connection with, the Work. Said releases or waivers must be satisfactory to the NJMC. If any subcontractor, supplier, manufacturer, fabricator or distributor fails to furnish a release or receipt in full, the Contractor may furnish a bond or other collateral (satisfactory to the NJMC) to indemnify the NJMC against any lien. Final payment shall not be made by the NJMC unless the Contractor supplies all releases or waivers of liens.
- 20.10 **Acceptance of Final Payment Application:** If the NJMC's review of the application for final payment and the accompanying documentation reveals the submittal is in accordance with the Contract Documents, and the NJMC is satisfied that the Contractor has fulfilled all his obligations, the NJMC shall give written notice to the Contractor that the Project has been completed, subject to the provisions of the Payments, Inspection, and Completion section, and shall present the final payment application to the NJMC.
- 20.10.1 If the NJMC's review indicates the application or any of the accompanying documentation is not in order, the NJMC shall return the application to the Contractor, indicating in writing the reasons for not recommending payment. The Contractor shall address all the NJMC's concerns, make the necessary additions and/or corrections, and resubmit the application.
- 20.11 **Waiver of Claims:** The issuance of payment by the NJMC, and the acceptance of same by the Contractor, shall constitute:
- 20.11.1 A waiver of all claims by the NJMC against the Contractor, except claims arising from unsettled liens, defective Work appearing after inspection, failure to comply with the Contract Documents, or any other claims previously made in writing and still unsettled. It shall not constitute a waiver by the NJMC of any rights with respect to the Contractor's continuing obligations under the Contract Documents. Further, it shall not constitute waiver of any legal arguments or defenses in any litigation filed as a result of the Contractor's breach.
- 20.11.2 A waiver of all claims by the Contractor against the NJMC, other than those previously made in writing and still unsettled.
- 20.12 **Contractor's Continuing Obligation:** The Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. The recommendation of the NJMC to pay any application for payment, or NJMC's issuance of the notice of Project Completion and, likewise, any payment by the NJMC to the Contractor in accordance with the Contract Documents, any use or acceptance of the Work by the NJMC or a failure to do so, or the NJMC's correction of any defective work shall not constitute

acceptance of work not in accordance with the Contract Documents or a release of the Contractor's obligation to perform the Work in accordance with same.

## 21.0 WORK CONDITIONS

### 21.1 Standardized Contract Clause Concerning Site Conditions

21.1.1 Differing Site Conditions Clause - This clause provides for the adjustment of the contract terms if the contractor encounters:

21.1.1.1 Type I condition - subsurface or latent physical conditions that differ materially from those indicated in the contract, or

21.1.1.2 Type II condition - unknown physical conditions of an unusual nature that differ materially from those ordinarily encountered and generally recognized as inherent to the work.

21.2 Some examples of potential type I conditions include encountering the following: more rock than indicated in the contract, larger rock, rock that is harder to drill, permafrost when the boring had given no indication of its general extent, or unexpected quantities of underground water not indicated on the boring logs.

While these are potential Type I conditions, in order to receive compensation, the contractor must prove the following by a preponderance of evidence:

*"(1) the contract documents must have affirmatively indicated or represented the subsurface or latent physical conditions which form the basis of plaintiff's claim; (2) the contractor must have acted as a reasonably prudent contractor in interpreting the contract documents; (3) the contractor must have reasonably relied on the indications of subsurface or latent physical conditions in the contract; (4) the subsurface or latent physical conditions actually encountered within the contract area must have differed materially from the conditions indicated in the same contract area; (5) the actual subsurface conditions or latent physical conditions encountered must have been reasonably unforeseeable; and (6) the contractor's claimed excess costs must be shown to be solely attributable to the materially different subsurface or latent physical conditions within the contract site. To prove these six elements, the contractor is only required to use a simple logical process in evaluating the information in the contract documents to determine the expected subsurface or latent physical conditions..."*

(Source: NCHRP, "Selected Studies in Transportation Law, Construction Contract Law", p. 5-16)

Some examples of a potential Type II conditions include unanticipated hazardous waste deposits or unanticipated archaeological sites.

To recover costs under a Type II condition, the contractor must prove:

*"(1) that it did not know about the condition; (2) that it could not have reasonably anticipated the condition after a review of the contract documents, a site inspection, and the contractor's general experience in that area; and (3) that the condition was unusual because it varied from the norm in similar construction work."*

(Source: NCHRP "Selected Studies in Transportation Law, Construction Contract Law", p. 5-16)

Further guidance for design and construction engineers on Differing Site Conditions can be found in FHWA's Geotechnical Engineering Notebook, Geotechnical Guidelines No. 15, dated April 30, 1996. (See <http://www.fhwa.dot.gov/bridge/gt-15.pdf>).

- 21.3 **Suspensions of Work Ordered by the Engineer** - this clause provides for the adjustment of the contract terms if the performance of all or a portion of the work is suspended or delayed by the engineer, in writing, for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry). The contractor is required to submit a request for adjustment, in writing, to the engineer within 7 calendar days of receipt of the notice to resume work. Recovery of profit on costs resulting from suspensions of work is not allowed.

This clause does not preclude the recognition of constructive suspensions or delays resulting from the contracting agency's actions, without written notification. These are delays caused by the owner's instructions that are not in writing. The contractor may receive verbal orders from the engineer, or be delayed by the owners' lengthy review of submittals. Some states recognized constructive delays in their specifications prior to the FHWA regulation. The preamble to the regulation indicates that states may continue to recognize construction delays if this is provided in their standard specifications and contract administration procedures.

To qualify for an adjustment, suspensions must be for unreasonable periods and do not include brief, customary suspensions for reasons inherent to highway construction (i.e., material sampling and testing; approval of shop drawings, material sources, etc.; and other reasonable and customary suspensions necessary for the supervision of construction by the contracting agency). In addition, an adjustment under this clause is not allowed if the work is suspended for other reasons or if an adjustment is provided for, or excluded, under other terms or conditions of the contract.

## 22.0 MATERIAL CHANGES IN THE SCOPE OF WORK

- 22.1 This clause provides for the adjustment of the contract terms if the engineer orders, in writing, an alteration in the work or in the quantities that significantly change the character of work. The term "significant change" shall be construed to apply only to the following circumstances:
- 22.1.1 The altered character of the work differs materially from that of the original contract, or
  - 22.1.2 A major item of work, as defined in the contract, is decreased by more than 25 percent of the original contract quantity; excluding if and where directed items.
- 22.2 This clause provides for adjustments resulting from formal change orders by the engineer, in writing, to the extent that the impacted work is part of the contract. Either party may initiate an adjustment and both must be in agreement before the work is performed. As with the suspension of work provision, this clause does not preclude the recognition of constructive suspensions or delays.
- 22.3 Emergency traffic signal repair and maintenance is required to be performed by the contractor for all State owned traffic signals. All emergency repairs require an approved change order prior to commencement of work. All emergency traffic signal repair items will be reimbursed at a 10 percent markup of the average weighted price rate included the latest

NJDOT Bid Price Report. Where the NJDOT Bid Price Report item has a total quantity of less than 10, then NJDOT Bid Price Reports from previous years shall be used to create an average weighted price that is based on a minimum total quantity of 10.

### **23.0 SUSPENSION OF WORK & TERMINATION:**

- 23.1 The NJMC may, at any time and without cause, suspend the Work, or any portion thereof, for a period of not more than ninety (90) days by notice in writing to the Contractor and the NJMC. The written notice shall establish the date on which the Work will be resumed. The Contractor shall resume work on the established date. The Contractor shall be allowed an increase in the Contract Price and/or an extension of the Contract Time attributable to the suspension; if the Contractor makes a claim therefore, and it is approved.
- 23.2 The NJMC may terminate the services of the Contractor after giving him and the surety seven (7) days written notice, upon the occurrence of any one or more of the following events. In such case, the Contractor shall not be entitled to receive any further payment. Where the Contractor's services have been so terminated by the NJMC, said termination shall not affect any rights or remedies of the NJMC against the Contractor existing at the time, or which may thereafter accrue.
- 23.2.1 If the Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code) now or hereafter in effect.
- 23.2.2 If the Contractor takes any equivalent or similar action by filing a petition or other notice under any other federal or state law in effect at such time relating to bankruptcy or insolvency.
- 23.2.3 If a petition is filed against the Contractor under any chapter of the Bankruptcy Code now or hereafter in effect at the time of filing.
- 23.2.4 If a petition is filed seeking any such equivalent or similar relief against the Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency.
- 23.2.5 If the Contractor makes a general assignment for the benefit of creditors.
- 23.2.6 If a trustee, receiver, custodian, or agent of the Contractor is appointed under applicable law or contract, whose appointment or authority to take charge of the Contractor's property is for the purpose of enforcing a lien against such property, or for the purpose of general administration of such property for the benefit of the Contractor's creditors.
- 23.2.7 If the Contractor admits in writing an inability to pay his debts as they become due.
- 23.2.8 If the Contractor persistently fails to perform the Work in accordance with the Contract Documents: including but not limited to, failure to supply sufficiently skilled workers, suitable materials, or equipment, or the failure to adhere to the progress schedule.
- 23.2.9 If the Contractor disregards any applicable laws or regulations.

- 23.2.10 If the Work to be performed under this Contract shall be abandoned by the Contractor. Abandonment shall mean that the Contractor has failed to perform any work on the Contract for a period of thirty consecutive calendar days.
  - 23.2.11 If this Contract or any part thereof shall be assigned, transferred, or sublet without the previous notice to and written consent of the NJMC.
  - 23.2.12 If the Contract or any claim thereunder shall be assigned by the Contractor other than as herein specified.
  - 23.2.13 If the Contractor fails to maintain insurance during the entire Contract term and until the NJMC accepts the Contract Work and the Contract is ended or fails to provide the NJMC with proof of insurance upon request of the NJMC.
  - 23.2.14 If the Contractor otherwise violates in any substantial way any provisions of the Contract Documents.
- 23.3 Upon seven days written notice to the Contractor, the NJMC may elect to abandon the Work and terminate the Contract without cause and without prejudice to any other right or remedy. In such case, the Contractor shall be paid for all completed Work, plus reasonable termination expenses.

#### **24.0 CONTRACTOR'S COMPLIANCE**

- 24.1 The Contractor and all subcontractor's shall provide the NJMC with a Public Works Contractor Certificate certifying that all employees employed by the Contractor or by any subcontractor have been paid wages not less than those required by the Contract in compliance with N.J.S.A. 34:11-56.25, *et seq.*
- 24.2 The Contractor shall be responsible for obtaining and paying all construction permits and licenses and shall pay all inspection fees associated with the prosecution of the Work. The Contractor shall also schedule and pay for all utility connections required for the Work.
- 24.3 The Contractor shall perform the Work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of his work. The Contractor shall be responsible for the finished Work complying accurately with the Contract Documents.
- 24.4 The Contractor shall provide at all times on the site, a competent, full-time, resident superintendent, who shall not be replaced without written notice to the NJMC, except under extraordinary circumstances. The superintendent shall be the Contractor's representative at the site and shall have the authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to the Contractor.
- 24.5 The Contractor shall be responsible for providing competent, suitably qualified personnel to survey, layout, and perform the Work required by the Contract Documents. The Contractor shall maintain good discipline and order at the site. The Contractor shall be responsible for removing any person from the site who appears to be incompetent, unfaithful, disorderly or otherwise unsatisfactory. Said person shall not again be employed at the site without the written consent of the NJMC.

- 24.6 The Contractor shall be responsible for the proper and timely submittal of the required documents for all equipment and materials so as to not delay the progress of the Work. The Contractor shall determine delivery availability for all items to be furnished and shall order all long-lead items as soon as possible after the award of the contract, to ensure delivery in time to complete the work in the time available.
- 24.7 The Contractor shall be fully responsible to the NJMC for all acts and omissions of his subcontractors, suppliers, organizations, and other persons performing or furnishing any of the Work. Nothing in the Contract Documents shall create any contractual relationship between the NJMC, and any such subcontractor, supplier, organization or other person.
- 24.8 The Contractor shall give all notices and comply with all laws and regulations applicable to furnishing and performing the Work. If the Contractor performs any work that is contrary to such laws and/or regulations, he shall be responsible for all costs arising thereof. If the Contractor observes that the Contract Documents are at variance with these laws and/or regulations, he shall promptly notify the NJMC in writing. Any necessary changes to the Work will be authorized by a Change Order.
- 24.9 If the Contractor elects to remove, replace or relocate any poles, utilities or structures during the performance of the Work, he shall be responsible for making all the necessary arrangements and obtaining all the necessary permits and approvals without the involvement of the NJMC.
- 24.10 The Contractor shall be responsible for all damages resulting from the performance of the Work. Should any claim be made against the NJMC as a result of the performance of the Work, the Contractor shall attempt to promptly settle with such other party.
- 24.11 The Contractor shall not load any part of the Work in a manner that will endanger the Work. The Contractor shall be responsible for damage caused to the Work and to adjacent property, subject to said dangerous stresses or pressures.
- 24.12 The Contractor shall be responsible for initiating, maintaining, and supervising all safety programs and precautions regarding the Work. The Contractor shall comply with all applicable laws and regulations for the safety and protection of persons and property; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall remedy all damage, injury or loss to any persons or property caused by the Contractor or any of his subcontractors, suppliers, organizations or other persons directly or indirectly employed by any of them. The Contractor's duties and responsibilities for safety and protection shall continue until the Work is deemed completed and is acceptable by the NJMC.
- 24.13 The Contractor shall be responsible for repairing any damage caused by his operations that could affect public health and safety, within four hours of the occurrence or the NJMC may have the repairs made by others at the expense of the Contractor. The Contractor shall repair all other damage expeditiously. Until such time as said other damage is repaired by the Contractor and approved by the NJMC, twice the amount of the cost estimate for the repairs will be withheld from the Contractor's progress payment.
- 24.14 In the event of an emergency affecting the safety or protection of persons, the Work, the site or adjacent property; the Contractor shall be responsible to act to prevent threatened damage, injury or loss without special instruction or approval from the NJMC.

- 24.15 The Contractor and his subcontractors shall protect the Work against any damage caused by the weather. If the NJMC determines that any portion of Work has been damaged or injured by a failure on the part of the Contractor or his subcontractors to protect the Work, it shall be repaired or removed and replaced at the expense of the Contractor.
- 24.16 The Contractor shall be responsible for proceeding with the Work and adhering to the progress schedule during all disputes or disagreements with the NJMC. No Work shall be delayed or postponed pending resolution of any disputes or disagreements.
- 24.17 If the Work is defective, the Contractor fails to supply sufficiently skilled workers, suitable materials or equipment or fails to furnish or perform the Work in a manner that will guarantee conformance with the Contract Documents, the NJMC may order the Contractor to stop the Work until the cause for such order has been eliminated. However, this right of the NJMC to stop the Work shall not give rise to any duty on the part of either to exercise this right for the benefit of the Contractor or any other party.
- 24.18 The Contractor shall maintain books, records, and other documents pertinent to the performance of the Work, in accordance with accepted accounting procedures and practices. The NJMC and/or any of their duly authorized representatives shall have access to such books, records, and other documents for the purpose of inspection, auditing, and copying. The Contractor shall provide proper facilities for such access and inspection, and agrees to the disclosure of all information and reports resulting from access of the above records to any of the above agencies. Records shall be maintained and made available until three years from the date of final payment for the Project. Records which relate to any dispute, appeal, litigation or settlement of claims arising out of such performance (or costs or items to which an audit exception has been taken), shall be maintained and made available until three years after the date of the resolution of each dispute, appeal, litigation, claim or exception.
- 24.19 The Contractor shall constantly give his personal attention to the faithful prosecution of the Work and shall keep the Work under his personal control. The Contractor shall not sublet the Work as a whole or substantial part of the whole, without the previous written consent of the NJMC. The Contractor shall not assign any of the Work, or any monies payable under this Contract (or his claim thereto), without the written consent of the NJMC and the surety on the bond.
- 24.20 The Contractor shall take all necessary precautions to protect and preserve existing utilities and improvements during all phases of the Work. The Contractor shall be solely responsible for any damage or disturbance of any existing utilities and improvements, and shall restore them to their original condition, at no cost to the NJMC.
- 24.21 While performing the Work, the Contractor shall not encumber the premises with materials or equipment and shall keep the premises free from accumulations of waste materials. At the completion of the Work, the Contractor shall remove all waste and surplus materials, tools, equipment, and machinery and shall restore to original condition all property not designated for alteration by the Contract Documents.
- 24.22 The Contractor warrants and guarantees to the NJMC that all Work will be performed in accordance with the Contract Documents and that the completed Project will not be defectively or improperly installed. The Contractor agrees that all work improperly performed shall be remedied, all defective Work shall be repaired or replaced, and all

improperly installed Work shall be reinstalled correctly in accordance with the Contract Documents.

- 24.23 Unless otherwise provided, the Contractor will be expected to accomplish all of the work for this project during normal working hours. No work shall be performed on Saturdays, Sundays, Holidays, or prior to 7:00 AM or after 5:00 PM on any normal working day without the permission of the NJMC. All work operations must comply with local ordinances. The contractor shall not interfere with the normal flow of traffic, reduce the number of lanes, or change any traffic pattern prior to 9:00AM or beyond 3:30 PM on all State roadways. The contractor shall not interfere with the normal flow of traffic, reduce the number of lanes, or change any traffic pattern prior to 9:00AM or beyond 4:30 PM on all local roadways.

## 25.0 PREVAILING WAGE ACT

- 25.1 The New Jersey Prevailing Wage Act, N.J.S.A. 34: 11-56.26 et seq. is hereby made part of every contract entered into on behalf of the State of New Jersey through the Division of Purchase and Property, except those contracts which are not within the contemplation of the Act. The Bidder's signature on this BID is his guarantee that neither he nor any subcontractors he might employ to perform the work covered by this BID has been suspended or debarred by the Commissioner, Department of Labor for violation of the provisions of the Prevailing Wage Act and/or the Public Works Contractor Registration Acts; the Bidder's signature on the BID is also his guarantee that he and any subcontractors he might employ to perform the work covered by this BID will comply with the provisions of the Prevailing Wage and Public Works Contractor Registration Acts, where required.
- 25.2 The Contractor shall be required to submit a certified payroll record to the owner within ten (10) days of the payment of the wages. The Contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The Contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c).
- 25.3 It is the Contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards. Additional information is available at: [www.state.nj.us/labor/lssc/lspubcon.html](http://www.state.nj.us/labor/lssc/lspubcon.html)

## 26.0 INSURANCE

- 26.1 The Bidder shall indemnify defend and hold harmless the NJMC and any of its employees, agents, against any loss, liability, claims or demands (including death and/or property damage) arising out of resulting, in whole or in part, from the Bidder's performance of this Contract.
- 26.2 All insurance that will be required to be maintained by the Bidder shall be in the amounts and for the coverage's specified herein. Insurance companies must be licensed to do business in the State of New Jersey.
- 26.3 **INSURANCE:** The Contractor shall furnish the NJMC with satisfactory proof that he/she has obtained the insurance described below from insurance companies or underwriters satisfactory to the NJMC. The Contractor shall keep such insurance in force until each and every obligation assumed under the Contract shall be fully and satisfactorily performed. The

NJMC, shall be named as additional insured under all the policies, except the Compensation Insurance.

26.4 The Contractor shall furnish to the NJMC certificates for the following types of insurance showing the type, amount, and class of operations insured, and the effective and expiration dates of the policies. The certificates shall be submitted with the executed Contract(s). Work on the Contract will not be permitted to proceed until the certificate has been received and verified. Specific reference to the Contract shall be made in all policies.

26.4.1 **CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE**, including Independent Contractor's Completed Operations and Contractual Liability Insurance with combined single limits of not less than one million dollars (\$1,000,000) each occurrence and with an annual aggregate of two million dollars (\$2,000,000) with respect to bodily/personal injury and property damage. Said policies of insurance shall contain a provision or endorsement providing insurance protection against property damage caused by explosion or collapse; and against damage to or interference with other facilities.

26.4.2 **CONTRACTOR'S VEHICLE LIABILITY INSURANCE**, for "any auto/vehicle" for the duration of the contract for bodily injury/property damage with a combined single limit of one million dollars (\$1,000,000).

26.4.3 **EXCESS LIABILITY INSURANCE**, in the amount of five million dollars (\$5,000,000) is to be provided in addition to the above requirements.

26.4.4 **COMPENSATION INSURANCE, coverage "B"**, as required by state law for all employees who will be engaged in the work associated with this Contract. The Contractor shall require all subcontractors to provide similar workmen's compensation insurance for all of their employees, unless those employees are covered under the Contractor's insurance. If any employees engaged in hazardous work under this Contract are not protected under the workmen's compensation statute; the Contractor (and any subcontractors) shall also provide adequate employer's liability insurance for the protection of these employees.

26.5 Subcontractors: The Contractor shall not permit any subcontractor to commence work on his subcontract until all similar insurance (as listed above) required of the subcontractor has been obtained and approved. Copies of all Subcontractors certificates are to be forwarded to the NJMC.

26.6 All insurance certificates shall stipulate that the insurance will not be changed or canceled without giving at least thirty (30) days written notice to the NJMC by certified mail.

## 27.0 NJMC RIGHT TO DEDUCT MONIES

27.1 The Contractor shall pay to the NJMC, and the NJMC shall have the right to deduct the full amount of all expenses, losses, damages, and costs, from all monies due, or to become due, the Contractor under this Contract for any defect, omission, or mistake of the Contractor or his employees, and the repairs of same, as determined by the NJMC.

## **28.0 FINANCIAL RECORDS**

- 28.1 The Bidder and all subcontractors shall maintain their books, records, financial documents and all financial records relevant to the project pursuant to the Contract Documents in accordance with generally accepted accounting principles.

## **29.0 ETHICS STANDARDS**

- 29.1 The Bidder must not 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 NJMC employee, or agent as defined by N.J.S.A. 52:13D-13b. and N.J.S.A. 52:13D-13e., 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 agent, or any partnership, firm or corporation with which they are employed or associated, or in which such employee or agent has an interest within the meaning of N.J.S.A. 52:13D-13g.

## **30.0 AMERICANS WITH DISABILITIES ACT**

- 30.1 The contractor must comply with all provisions of the Americans With Disabilities Act (ADA), P.L 101-336, in accordance with 42 U.S.C. 12101 et seq.

## **31.0 STOCKHOLDER DISCLOSURE**

- 31.1 N.J.S.A. 52:25-24.2 provides that no corporation or partnership shall be awarded any contract for the performance of any work or the furnishing of any goods and services, unless, prior to the receipt of the Bid or accompanying the Bid of said corporation or partnership, Bidders shall submit a statement setting forth the names and addresses of all stockholders in the corporation or partnership who own ten percent or more of its stock of any class, or of all individual partners in the partnership who own a ten percent or greater interest therein. The included Statement of Ownership shall be completed and attached to the Bid proposal. This requirement applies to all forms of corporations and partnerships, including, but not limited to, limited partnerships, limited liability corporations, limited liability partnerships and Subchapter S corporations.
- 31.2 Failure to submit a stockholder disclosure document shall result in rejection of the Bid.

## **32.0 BUSINESS REGISTRATION**

- 32.1 Effective September 1, 2004, pursuant to an amendment to N.J.S.A. 52:32-44, State and local entities (including the Division of Purchase and Property) are prohibited from entering into a contract with an entity unless the contractor has provided a copy of its business registration certificate (or interim registration) as part of its Bid submission. Failure to submit a copy of the Business Registration Certificate within the Bid proposal may be cause for rejection of the Bid proposal. The contractor and any subcontractor providing goods or performing services under the contract, and each of their affiliates, shall, during the term of the contract, collect and remit to the Director of the Division of Taxation in the Department of the Treasury the use tax due pursuant to the "Sales and Use Tax Act, P.L. 1966, c. 30 (N.J.S.A. 54:32B-1 et seq.) on all their sales of tangible personal property delivered into the State. This requirement shall apply to all contracts awarded on and after September 1, 2004. Any questions in this

regard can be directed to the Division of Revenue at (609) 292-1730. Form NJ-REG can be filed online at [www.state.nj.us/treasury/revenue/busregcert.htm](http://www.state.nj.us/treasury/revenue/busregcert.htm)

### **33.0 THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT**

- 33.1 The New Jersey Public Works Contractor Registration Act requires all contractors, subcontractors and lower tier subcontractors who Bid on or engage in any contract for public work as defined in N.J.S.A. 34:11-56.26 be first registered with the New Jersey Department of Labor and Workforce Development. Any questions regarding the registration process should be directed to the Division of Wage and Hour Compliance at (609) 292-9464 or <http://www.nj.gov/labor/lse/lspubcon.html>.

**STATE OF NEW JERSEY  
 NEW JERSEY MEADOWLANDS COMMISSION**

**BID DOCUMENT CHECK LIST**

Required by NJMC	SUBMISSION REQUIREMENT	Initial each item submitted with the Bid (Bidder's Initials)
<b>Name of Bidder:</b>		
√	Bid Form	
√	Bid Bond (with Power of Attorney in the amount of 5% of the total Bid)	
√	Consent of Surety	
√	Acknowledgement of Receipt of Addenda	
√	Affirmative Action Compliance	
√	Ownership Disclosure Form, pursuant to N.J.S.A. 52:25-24.2	
√	Chapter 51 / Executive Order 117 Vendor Certification and Disclosure of Political Contributions	
√	Non-collusion Affidavit (form must be notarized)	
√	Bidder Corporate Resolution (form must be notarized)	
√	Affidavit of Authorization (form must be notarized)	
√	Moral Integrity Affidavit (form must be notarized)	
√	Set-off For State Tax for Contract	
√	Experience Affidavit	
√	Subcontractor Identification Form	
√	Bidder's and all subcontractor's Certificate (s) of Business Registration, pursuant to <u>N.J.S.A. 52:32-44</u>	
√	Bidder's and all subcontractor's Public Works Contractor Registration Certificate, pursuant to <u>N.J.S.A. 34:11-56.25</u>	
√	NJ MacBride Principles Form	
√	Review of NJMC and NJDOT Standard Specifications	

The following documents must be included in Bid package. The NJMC reserves the right to reject a Bid for failure to submit any of the following forms or documents.

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

**BID FORM**

This Bid will not be accepted after 10:00 AM, prevailing time, on **Thursday, August 22, 2013**; at which time all BIDS received will be publicly opened and read. The Bidder agrees that this Bid will not be withdrawn for a period of sixty (60) calendar days after the closing time for receipt of BIDS.

The undersigned declares that this Bid is made without connection to any other person or persons making a Bid for the same Work, and is in all respects fair without collusion or fraud.

The undersigned has determined the quantity and quality of equipment and materials required, have investigated the location and determined sources of supply, have investigated labor conditions, and has arranged for the continuous prosecution of the Work of this Contract.

The undersigned agrees that the prices Bid shall apply to the actual quantities required, approved and used during the Work, including all Addenda.

The undersigned agrees to be bound by the award of the Contract, and if awarded the Contract, to execute the Contract, to furnish the required bonds and insurance certificates, and to furnish all other information required by the Contract Documents within the specified time limits.

The undersigned understands that the NJMC reserves the right to reject any and all BIDS, or waive any informality or technicality in any Bid, in the interest of the NJMC.

The Bidder understands that the quantities appearing in this Bid Form are approximate only and are prepared for the comparison of BIDS. The quantities of items may be increased or decreased as provided in the Contract Documents, and payment will be made for work completed at the original unit prices, in accordance with the Contract Documents.

In the event of discrepancy between the unit price for any pay item and the extended price shown for that item, the unit price is to govern. Where a unit price is Bid for an item, but no extended price is provided, the extended price shall be established by multiplying the unit price and the estimated quantity. Where the extended price is provided and the unit price is not provided, the unit price shall be established by dividing the extended price by the estimated quantity. Where no figure is provided for the unit price and extended price, the amount Bid will be considered to be (\$0.00).

The undersigned hereby proposes and agrees to furnish all the labor, material, equipment, tools and services necessary to perform the specified Work, in accordance with the above referenced contract.

The undersigned has examined the Contract Documents, and the location of the proposed Work, and is familiar with the local conditions at the place where the Work is to be performed. The Bidder understands that information relative to any existing structures, apparent and latent conditions, and natural phenomena as furnished in the Contract Documents or by the NJMC, carries no guarantee, expressed or implied, as to its completeness or accuracy, and has made all allowances therefore.

The undersigned agrees to perform all of the Work described in the Contract Documents, provide all labor, equipment, and materials necessary for the completion of this Contract. The undersigned further agrees to complete all work as specified and shown to a fully acceptable condition for the following Total Contract Price:

<b>BID FORM (PART ONE)</b>					
<b>PAY ITEM</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE (DOLLARS &amp; CENTS)</b>	<b>TOTAL (DOLLARS &amp; CENTS)</b>
101	Maintenance and Protection of Traffic	1	LS		
102	Police Traffic Control	400	Hrs.		
111	Performance and Payment Bond	1	LS		
112	Maintenance Bond	1	LS		
210	Vehicle Detection Unit Installation	60	UNIT		
221	Vehicle Detection Cable, 3/C # 18	15,000	LF		
234	Travel Time System Installation	5	UNIT		
241	Removal of Existing Vehicle Detection Unit	18	UNIT		
243	Adjust Angle of Existing Image Detection Unit (If & Where Directed)	4	UNIT		
244	Relocate Existing Image Detection Unit (If & Where Directed)	4	UNIT		
311	Ethernet Cable, Cat 5e	14,000	LF		
332a	Antenna / Transceiver Assembly Installation (15-42')	21	UNIT		
332b	Antenna / Transceiver Assembly Installation (43-55')	3	UNIT		
332c	Antenna / Transceiver Assembly Installation (56-75')	7	UNIT		
332d	Antenna / Transceiver Assembly Installation (76-100')	2	UNIT		
411	Antenna Pole, Type A (75')	4	UNIT		
602	2" Rigid Metal Conduit	100	LF		
603	3" Rigid Metal Conduit	200	LF		
611	18"x36" Junction Box	3	UNIT		
616	Traffic Signal Mast Arm, Aluminum, Type "C", 25 Feet (If & Where Directed)	1	UNIT		
617	Foundation, Type SFT (If & Where Directed)	1	UNIT		

<b>BID FORM (PART TWO)</b>					
<b>PAY ITEM</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT PRICE (DOLLARS &amp; CENTS)</b>	<b>TOTAL (DOLLARS &amp; CENTS)</b>
621	Service Wire, No. 6 AWG (If & Where Directed)	100	LF		
622	Traffic Signal Cable, 2 Conductor (If & Where Directed)	100	LF		
623	Traffic Signal Cable, 5 Conductor (If & Where Directed)	100	LF		
624	Traffic Signal Cable, 10 Conductor (If & Where Directed)	100	LF		
625	Ground Wire, No. 8 AWG	200	LF		
626	Push Button (If & Where Directed)	4	UNIT		
631	9"x18" Concrete Vertical Curb (If & Where Directed)	100	LF		
632	Concrete Sidewalk, 4" Thick	100	SY		
633	Full Depth Concrete Pavement Repair, HMA (If & Where Directed)	100	SY		
641	Topsoiling, 2" Thick	100	SY		
642	Fertilizing and Seeding	100	SY		
643	Straw Mulching	100	SY		
651	Lighting Standard Aluminum, 42' (If & Where Directed)	1	UNIT		
742	Foundation, Antenna Pole Type A	4	UNIT		
751	PTZ Camera Assembly	4	UNIT		
752	PTZ Camera/Transceiver Assembly Lowering System	8	UNIT		
753	Hardened Video Encoder	4	UNIT		
756	Traffic Signal Cabinet Skirt, 18"	10	UNIT		

**BID FORM (PART THREE)**

TOTAL BID AMOUNT

\_\_\_\_\_  
(Amount in Numbers)

\_\_\_\_\_  
(Amount in Words)

If this Bid shall be accepted by the NJMC, and the Bidder shall fail to enter into the Contract as aforesaid, then the NJMC shall be entitled to recover from the Bidder those monies as specified in SECTION 5.0 GENERAL INSTRUCTIONS.

Name of Contractor \_\_\_\_\_

Business Address \_\_\_\_\_  
\_\_\_\_\_

Business Telephone Number \_\_\_\_\_

**IF A CORPORATION:**

Incorporated Under the Laws of the State of \_\_\_\_\_

Signature of Bidder \_\_\_\_\_

Title of Bidder \_\_\_\_\_

Dated \_\_\_\_\_

Name of President \_\_\_\_\_

Name of Secretary \_\_\_\_\_

Name of Treasurer \_\_\_\_\_

Affix Corporate Seal Here

**IF A PARTNERSHIP, INDIVIDUAL OR NON-INCORPORATED ORGANIZATION:**

Signature of Bidder \_\_\_\_\_

Title of Bidder \_\_\_\_\_

Date \_\_\_\_\_

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

**BID BOND**

**All Bidders are required to submit a Bid Bond in the amount of 5% of the Total Bid. A valid and effective Power of Attorney authorizing the Attorney-in-Fact to execute the Bid Bond on behalf of the Surety for the full amount of the Bid Bond must accompany the Bid Bond.**

KNOW BY ALL MEN BY THESE PERSENTS, that the Bidder, hereinafter called the Principal:

Principal Name: \_\_\_\_\_

Principal Address: \_\_\_\_\_

And the Surety:

Surety Name: \_\_\_\_\_

Surety Address: \_\_\_\_\_

\_\_\_\_\_

A corporation duly organized under the laws of the State of \_\_\_\_\_ are held and firmly bound onto New Jersey Meadowlands Commission , in the Penal Sum of

\_\_\_\_\_  
(BID BOND - AMOUNT IN WORDS)

\_\_\_\_\_  
(BID BOND - AMOUNT IN NUMBERS)

That for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted to the New Jersey Meadowlands Commission a Bid, attached hereto and made a part hereof to enter into a Contract in writing for the following project:

Meadowland Adaptive Signal System for Traffic Reduction (MASSTR)

NOW, THEREFORE,

If said Bid shall be accepted and the principal shall execute and deliver a Contract in the form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for the faithful performance of said Contract, and for the prompt payment of all persons performing labor or furnishing materials in the connection therewith, and shall in all other respect perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the NJMC may accept such Bid; and Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seal, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth below.

SIGNED AND SELAED this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

\_\_\_\_\_  
PRINCIPAL (seal)

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
SURETY (seal)

\_\_\_\_\_  
WITNESS

\_\_\_\_\_  
TITLE

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

CONSENT OF SURETY

A Performance and Payment Bond will be required from the successful Contractor on this project, and consequently, all Bidders shall submit, with their Bid, a consent of surety in substantially the following form:

To: **New Jersey Meadowlands Commission**

Re: \_\_\_\_\_  
(Contractor)

\_\_\_\_\_  
(Project Description)

This is to certify that the \_\_\_\_\_  
(Surety Company)

Will provide to the **New Jersey Meadowlands Commission** a Performance and Payment Bond (PPB) within 14 days of the date of Notice of Award in the full amount of the Total Bid Price less the cost of obtaining the PPB as listed in the Bid Form, in the event that said Bidder is awarded a contract for the above project.

\_\_\_\_\_  
(CONTRACTOR)

\_\_\_\_\_  
(Authorized Agent of Surety Company)

Date: \_\_\_\_\_

**Consent of surety must be signed by an authorized agent or representative of a surety company and not by the individual or company representative submitting the Bid.**

**A valid and effective Power of Attorney authorizing the Attorney-in-Fact to execute the Consent of Surety on behalf of the Surety for the full amount of the Bid Price must accompany the Consent Surety.**

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

**ACKNOWLEDGMENT OF RECEIPT OF ADDENDA**

The undersigned Bidder hereby acknowledges receipt of the following Addenda:

<u>Addendum Number</u>	<u>Dated</u>	<u>Acknowledge Receipt</u> (initial)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**No addenda were received:**

Acknowledged for: \_\_\_\_\_  
(Name of Bidder)

By: \_\_\_\_\_  
(Signature of Authorized Representative)

Name: \_\_\_\_\_  
(Print or Type)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION  
AFFIRMATIVE ACTION COMPLIANCE**

This form is a summary of the successful Bidder's requirement to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27-1 et seq.

The successful Bidder shall submit to the NJMC, after notification of award but prior to execution of this contract, one of the following two documents as forms of evidence:

(a) A photocopy of a valid letter that the Contractor is operating under an existing Federally approved or sanctioned affirmative action program (good for one year from the date of the letter);

OR

(b) A photocopy of a Certificate of Employee Information Report approval, issued in accordance with N.J.A.C. 17:27-4;

After notification of award, but prior to signing the contract, the contractor shall submit to the NJMC and the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division) an Initial Project Workforce Report (Form AA-201) provided to the NJMC by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7.

The contractor shall also submit a copy of the Monthly Project Workforce Report (Form AA-202) once a month thereafter for the duration of the contract to the Division and to the NJMC compliance officer. The contractor shall also cooperate with the NJMC in the payment of budgeted funds, as is necessary, for on-the job and/or off-the-job programs for outreach and training of minorities and women.

COMPANY: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**Note: This notice must be completed, signed and returned with your signed contract.**

STATE OF NEW JERSEY  
 NEW JERSEY MEADOWLANDS COMMISSION

STATE OF NEW JERSEY -- DIVISION OF PURCHASE AND PROPERTY  
 OWNERSHIP DISCLOSURE FORM

Solicitation Number: \_\_\_\_\_ Bidder/Offeror: \_\_\_\_\_

**PART 1: PLEASE COMPLETE THE QUESTIONS BELOW BY CHECKING EITHER THE "YES" OR "NO" BOX.**  
 ALL PARTIES ENTERING INTO A CONTRACT WITH THE STATE ARE REQUIRED TO COMPLETE THIS FORM PURSUANT TO N.J.S.A. 52:25-24.2  
 PLEASE NOTE: IF THE BIDDER/OFFEROR IS A NON-PROFIT, THIS FORM IS NOT REQUIRED. PLEASE COMPLETE THE SEPARATE DISCLOSURE OF INVESTIGATIONS FORM.

	<b>YES</b>	<b>NO</b>
1. Are there any individuals, corporations or partnerships owning a <b>10% or greater</b> interest in the bidder/offeror?	<input type="checkbox"/>	<input type="checkbox"/>

IF THE ANSWER TO QUESTION 1 IS **NO**, PLEASE SIGN AND DATE THE FORM. YOU DO NOT HAVE TO COMPLETE ANY MORE QUESTIONS ON THIS FORM. IF THE ANSWER TO QUESTION 1 IS **YES**, PLEASE ANSWER QUESTIONS 2-4 BELOW.

2. Of those parties owning a 10% or greater interest in the bidder/offeror, are any of those parties <b>individuals</b> ?	<input type="checkbox"/>	<input type="checkbox"/>
3. Of those parties owning a 10% or greater interest in the bidder/offeror, are any of those parties <b>corporations or partnerships</b> ?	<input type="checkbox"/>	<input type="checkbox"/>
4. If your answer to Question 3 is "YES", are there any parties owning a <b>10% or greater</b> interest in the corporation or partnership referenced in Question 3?	<input type="checkbox"/>	<input type="checkbox"/>

IF **ANY** OF THE ANSWERS TO QUESTIONS 2-4 ARE **YES**, PLEASE PROVIDE THE REQUESTED INFORMATION IN PART 2 BELOW.

**PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO QUESTIONS 2-4 ANSWERED AS "YES".**

For Questions 2-4 answered "YES", you **must** disclose identifying information related to the individuals, partnerships and/or corporations owning a 10% or greater interest in the bidder/offeror. Further, if one or more of these entities is itself a corporation or partnership, you must also disclose all parties that own a 10% or greater interest in that corporation or partnership. This information is required by statute.

TO COMPLETE PART 2, PLEASE PROVIDE THE REQUESTED INFORMATION PERTAINING TO EITHER **INDIVIDUALS OR PARTNERSHIPS/CORPORATIONS** HAVING A 10% OR GREATER INTEREST IN THE BIDDER/OFFEROR. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ENTRY" BUTTON IN THE APPROPRIATE ENTITY TYPE.

Individuals	
Name: _____	Date of Birth: _____
Office Held: _____	Ownership Interest _____ %
Home Address: _____	
City _____	State _____ Zip Code _____
Are there <b>additional</b> entities holding <b>10% or greater</b> ownership interest in the bidder/offeror and its parent corporation/partnership? <input type="checkbox"/> Yes or <input type="checkbox"/> No	
<input type="button" value="Delete Entry"/>	
<input type="button" value="Add An Additional Individuals Entry"/>	

<b>Partnerships/Corporations</b>	
<b>Entity Name:</b> _____	<input type="button" value="Delete Entry"/>
<b>Partner Name:</b> _____ <b>Ownership Interest</b> _____ %	
<b>Business Address:</b> _____	
<b>City</b> _____ <b>State</b> _____ <b>Zip Code</b> _____	
Are there <b>additional</b> entities holding <b>10% or greater</b> ownership interest in the bidder/offeror and its parent corporation/partnership?	
<input type="checkbox"/> Yes or <input type="checkbox"/> No	
<input type="button" value="Add An Additional Partnerships/Corporations Entry"/>	
<p><b>ONCE YOU HAVE IDENTIFIED ALL PARTIES HAVING A 10% OR GREATER OWNERSHIP INTEREST IN THE BIDDER/OFFEROR AND ITS PARENT CORPORATION/PARTNERSHIPS, PLEASE SIGN AND DATE BELOW AND PROCEED TO THE <a href="#">DISCLOSURE OF INVESTIGATIONS FORM</a>.</b></p> <p>Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.</p> <p>Full Name (Print): _____ Signature: _____</p> <p>Title: _____ Date: _____</p> <p>FEIN/SSN: _____</p> <p style="text-align: center;"><b>ALL BIDDER/OFFERORS MUST COMPLETE THE DISCLOSURE OF INVESTIGATIONS FORM</b></p>	

**STATE OF NEW JERSEY -- DIVISION OF PURCHASE AND PROPERTY  
DISCLOSURE OF INVESTIGATIONS AND OTHER ACTIONS INVOLVING BIDDER FORM**

**Solicitation Number:** \_\_\_\_\_ **Bidder/Offeree:** \_\_\_\_\_

**PART 1: PLEASE COMPLETE THE QUESTIONS BELOW BY CHECKING EITHER THE "YES" OR "NO" BOX.  
PLEASE REFER TO THE PERSONS AND/OR ENTITIES LISTED ON YOUR OWNERSHIP DISCLOSURE FORM WHEN ANSWERING THE  
QUESTIONS BELOW.**

**NON-PROFIT ENTITIES: PLEASE LIST ALL OFFICERS/DIRECTORS IN PART 2 OF THIS FORM. YOU WILL BE REQUIRED TO ANSWER THE  
QUESTIONS BELOW WITH RESPECT TO THESE INDIVIDUALS.**

- |   | YES                      | NO                       |
|---|--------------------------|--------------------------|
| 1. Has any person or entity listed on this form or its attachments ever been arrested, charged, indicted, or convicted in a criminal or disorderly persons matter by the State of New Jersey (or political subdivision thereof), any other state or the U.S. Government?                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Has any person or entity listed on this form or its attachments ever been suspended, debarred or otherwise declared ineligible by any government agency from bidding or contracting to provide services, labor, materials or supplies?   | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Are there currently any pending criminal matters or debarment proceedings in which the firm and/or its officers and/or managers are involved?  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Has any person or entity listed on this form or its attachments been denied any license, permit or similar authorization required to engage in the work applied for herein, or has any such license, permit or similar authorization been revoked by any agency of federal, state or local government? | <input type="checkbox"/> | <input type="checkbox"/> |

**IF ANY OF THE ANSWERS TO QUESTIONS 1-4 ARE YES, PLEASE PROVIDE THE REQUESTED INFORMATION IN PART 2 BELOW.  
IF ALL OF THE ANSWERS TO QUESTIONS 1-4 ARE NO, PLEASE READ AND SIGN THE FORM BELOW. NO FURTHER ACTION IS NEEDED.  
IF YOU ARE A NON-PROFIT, YOU MUST DISCLOSE ALL OFFICERS/DIRECTORS IN PART 2 BELOW.**

**PART 2: PROVIDING ADDITIONAL INFORMATION**

For Questions 1-4 answered "YES", you **must** provide a detailed description of any investigation or litigation, including but not limited to administrative complaints or other administrative proceedings, involving public sector clients during the past 5 years. This description must include the nature and status of the investigation, and for any litigation, the caption of the action, a brief description of the action, the date of inception, current status, and if applicable, disposition. Please provide this information in the box labeled "Additional Information" below. The box will prompt you to provide the information referenced above. Please provide thorough answers to each question. Click on the "Add Additional Information" button below the box if you need to make additional entries.

**Non-profit bidder/offerees** must disclose the individuals serving as officers or directors for purposes of this form. Please indicate all individuals acting in either capacity by providing the information located in the "Officers/Directors" box. If additional entries are needed, click the "Add an Officer/Director Entry" button.

Once all required information has been disclosed, please sign and date below

Additional Information	
Person or Entity _____ Date of Inception: _____  Current Status _____  Brief Description _____ Caption of Action (if applicable) _____ Disposition of Action (if applicable) _____  Bidder/Offeror Contact Name _____  Contact Phone Number _____	<input type="button" value="Delete Entry"/>
<input type="button" value="Add Additional Information"/>	
Officers/Directors	
Name: _____  Title _____ DOB _____  Address _____  City _____ State _____ Zip Code _____  Phone _____ E-Mail _____	<input type="button" value="Delete Entry"/>
<input type="button" value="Add An Additional Officer/Director Entry"/>	
<p>Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.</p>	
Full Name (Print): _____ Signature: _____  Title: _____ Date: _____	

**State of New Jersey**  
**Division of Purchase and Property**  
**DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN**

**Solicitation Number:** \_\_\_\_\_ **Bidder/Offeror:** \_\_\_\_\_

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that the person or entity, or one of the person or entity's parents, subsidiaries, or affiliates, is not identified on a list created and maintained by the Department of the Treasury as a person or entity engaging in investment activities in Iran. If the Director finds a person or entity to be in violation of the principles which are the subject of this law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the person or entity.

**I certify, pursuant to Public Law 2012, c. 25, that the person or entity listed above for which I am authorized to bid/renew:**

- is not providing goods or services of \$20,000,000 or more in the energy sector of Iran, including a person or entity that provides oil or liquefied natural gas tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the energy sector of Iran, **AND**
- is not a financial institution that extends \$20,000,000 or more in credit to another person or entity, for 45 days or more, if that person or entity will use the credit to provide goods or services in the energy sector in Iran.

**In the event that a person or entity is unable to make the above certification because it or one of its parents, subsidiaries, or affiliates has engaged in the above-referenced activities, a detailed, accurate and precise description of the activities must be provided in part 2 below to the Division of Purchase and Property under penalty of perjury. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.**

**PART 2: PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN IRAN**

You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.

**EACH BOX WILL PROMPT YOU TO PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, CLICK THE "ADD AN ADDITIONAL ACTIVITIES ENTRY" BUTTON.**

Name _____	Relationship to Bidder/Offeror _____
Description of Activities _____	
_____	
Duration of Engagement _____	Anticipated Cessation Date _____
Bidder/Offeror Contact Name _____	Contact Phone Number _____

**ADD AN ADDITIONAL ACTIVITIES ENTRY**

**Certification:** I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the above-referenced person or entity. I acknowledge that the State of New Jersey is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of any contracts with the State to notify the State in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreement(s) with the State of New Jersey and that the State at its option may declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print): \_\_\_\_\_ Signature: \_\_\_\_\_

Title: \_\_\_\_\_ Date: \_\_\_\_\_

PB-MP.1 R10/2011

**MACBRIDE PRINCIPLES FORM**

**BIDDER'S REQUIREMENT: TO PROVIDE A CERTIFICATION  
IN COMPLIANCE WITH MACBRIDE PRINCIPLES  
AND NORTHERN IRELAND ACT OF 1989**

Pursuant to Public Law 1995, c. 134, a responsible bidder selected, after public bidding, by the Director of the Division of Purchase and Property, pursuant to N.J.S.A. 52:34-12, or the Director of the Division of Building and Construction, pursuant to N.J.S.A. 52:32-2, must complete the certification below by checking one of the two representations listed and signing where indicated. If a bidder who would otherwise be awarded a purchase, contract or agreement does not complete the certification, then the Directors may determine, in accordance with applicable law and rules, that it is in the best interest of the State to award the purchase, contract or agreement to another bidder who has completed the certification and has submitted a bid within five (5) percent of the most advantageous bid. If the Directors find contractors to be in violation of the principles which are the subject of this law, they shall take such action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

I certify, pursuant to N.J.S.A. 52:34-12.2 that the entity for which I am authorized to bid:

- has no ongoing business activities in Northern Ireland and does not maintain a physical presence therein through the operation of offices, plants, factories, or similar facilities, either directly or indirectly, through intermediaries, subsidiaries or affiliated companies over which it maintains effective control; or
- will take lawful steps in good faith to conduct any business operations it has in Northern Ireland in accordance with the MacBride principles of nondiscrimination in employment as set forth in N.J.S.A. 52:18A-89.8 and in conformance with the United Kingdom's Fair Employment (Northern Ireland) Act of 1989, and permit independent monitoring of their compliance with those principles.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Firm Name: \_\_\_\_\_

Date: \_\_\_\_\_



State of New Jersey  
Division of Purchase and Property  
Two-Year Chapter 51 / Executive Order 117 Vendor Certification and  
Disclosure of Political Contributions

**For AGENCY USE ONLY**

**General Information**

Solicitation, RFP or Contract No.  Award Amount   
Description of Services

**Agency Contact Information**

Agency  Contact Person   
Phone Number  Agency Email

**Part 1: Vendor Information**

Full Legal Business Name   
(Including trade name if applicable)

**Business Type**

Corporation  Limited Partnership  Professional Corporation  General Partnership  
 Limited Liability Company  Sole Proprietorship  Limited Liability Partnership

Address 1  Address 2   
City  State  Zip  Phone   
Vendor Email  Vendor FEIN

**Part 2: Public Law 2005, Chapter 51/ Executive Order 117 (2008) Certification**

I hereby certify as follows:

1. On or after October 15, 2004, neither the below-named entity nor any individual whose contributions are attributable to the entity pursuant to Executive Order 117 (2008) has solicited or made any contribution of money, pledge of contribution, including in-kind contributions, company or organization contributions, as set forth below that would bar the award of a contract to the vendor, pursuant to the terms of Executive Order 117 (2008).
  - a) **Within the preceding 18 months**, the below-named person or organization has not made a contribution to:
    - (i) Any candidate committee and/or election fund of any candidate for or holder of the public office of Governor or **Lieutenant Governor**,
    - (ii) Any State, county, **municipal** political party committee; OR
    - (iii) Any **legislative leadership committee**.
  - b) **During the term of office of the current Governor(s)**, the below-named person or organization has not made a contribution to:
    - (i) Any candidate, committee and/or election fund of the Governor or **Lieutenant Governor**, OR
    - (ii) Any State, county or **municipal** political party committee nominating such Governor in the election preceding the commencement of said Governor's term.
  - c) **Within the 18 months immediately prior to the first day of the term of office of the Governor(s)**, the below-named person or organization has not made a contribution to:
    - (i) Any candidate, committee and/or election fund of the Governor or **Lieutenant Governor**, OR  
Any State, county, **municipal** political party committee of the political party nominating the successful gubernatorial candidate(s) in the last gubernatorial election.

**PLEASE NOTE: Prior to November 15, 2008**, the only disqualifying contributions include those made by the vendor or a principal owning or controlling more than 10 percent of the profits or assets of a business entity (or 10 percent of the stock in the case of a business entity that is a corporation for profit) to any candidate committee and/or election fund of the Governor or to any state or county political party within the preceding 18 months, during the term of office of the current Governor or within the 18 months immediately prior to the first day of the term of Office of Governor.

**Part 3: Disclosure of Contributions Made**

**Check this box if no reportable contributions have been made by the above-named business entity or individual.**

Name of Recipient	<input type="text"/>	Address of Recipient	<input type="text"/>
Date of Contribution	<input type="text"/>	Amount of Contribution	<input type="text"/>
Type of Contribution (i.e. currency, check, loan, in-kind)	<input type="text"/>		

Contributor Name	<input type="text"/>		
Relationship of Contributor to the Vendor	<input type="text"/>		
Contributor Address	<input type="text"/>		
City	<input type="text"/>	State	<input type="text"/>
		Zip	<input type="text"/>

If this form is not being completed electronically, please attach pages for additional contributions as necessary. Otherwise click "Add a Contribution" to enter additional contributions.

**Part 4: Certification**

I have read the instructions accompanying this form prior to completing this certification on behalf of the above-named business entity. I certify that, to the best of my knowledge and belief, the foregoing statements by me are true. I am aware that if any of the statements are willfully false, I am subject to punishment.

**I understand that this certification will be in effect for two (2) years from the date of approval, provided the ownership status does not change and/or additional contributions are not made.** If there are any changes in the ownership of the entity or additional contributions are made, a new full set of documents are required to be completed and submitted. By submitting this Certification and Disclosure, the person or entity named herein acknowledges this continuing reporting responsibility and certifies that it will adhere to it.

(CHECK ONE BOX A, B or C)

- (A)  I am certifying on behalf of the above-named business entity and all individuals and/or entities whose contributions are attributable to the entity pursuant to Executive Order 117 (2008).
- (B)  I am certifying on behalf of the above-named business entity only.
- (C)  I am certifying on behalf of an individual and/or entity whose contributions are attributable to the vendor.

Signed Name	<input type="text"/>	Print Name	<input type="text"/>
Phone Number	<input type="text"/>	Date	<input type="text"/>
Title/Position	<input type="text"/>		

**Agency Submission of Forms**

The agency should submit the completed and signed Two-Year Vendor Certification and Disclosure forms, together with a completed Ownership Disclosure form, either electronically to [cd134@treas.state.nj.us](mailto:cd134@treas.state.nj.us), or regular mail at Chapter 51 Review Unit, P.O. Box 039, 33 West State Street, 9<sup>th</sup> Floor, Trenton, NJ 08625. The agency should save the forms locally and keep the original forms on file, and submit copies to the Chapter 51 Review Unit.

**Public Law 2005, Chapter 51**

(formerly Executive Order 134) and Executive Order 117 (2008)

**INFORMATION AND INSTRUCTIONS  
For Completing The “Two- Year Vendor Certification and Disclosure of Political  
Contributions” Forms**

**Background Information**

On September 22, 2004, then-Governor James E. McGreevey issued Executive Order 134, the purpose of which was to insulate the negotiation and award of State contracts from political contributions that posed a risk of improper influence, purchase of access or the appearance thereof. To this end, Executive Order 134 prohibited State departments, agencies and authorities from entering into contracts exceeding \$17,500 with individuals or entities that made certain political contributions. Executive Order 134 was superseded by Public Law 2005, c. 51, signed into law on March 22, 2005 (“Chapter 51”).

On September 24, 2008, Governor Jon S. Corzine issued Executive Order No. 117 (“E.O. 117”), which is designed to enhance New Jersey’s efforts to protect the integrity of procurement decisions and increase the public’s confidence in government. The Executive Order builds upon the provisions of Chapter 51.

**Two-Year Certification Process**

Upon approval by the State, the Certification and Disclosure of Political Contributions form (CH51.1R1/21/2009) is valid for a two (2) year period. Thus, if a vendor receives approval on Jan 1, 2009, the certification expiration date would be Dec 31, 2011. Any change in the vendor’s ownership status and/or political contributions during the two-year period will require the submission of new Chapter 51/EO117 forms to the State Review Unit. **Please note that it is the vendor’s responsibility to file new forms with the State should these changes occur.**

Prior to the awarding of a contract, the agency should first send an e-mail to CD134@treas.state.nj.us to verify the certification status of the vendor. If the response is that the vendor is NOT within an approved two-year period, then forms must be obtained from the vendor and forwarded for review. If the response is that the vendor is within an approved two-year period, then the response so stating should be placed with the bid/contract documentation for the subject project.

**Instructions for Completing the Forms**

**NOTE:** Please refer to the next section, “Useful Definitions for Purposes of Ch. 51 and E.O. 117,” for guidance when completing the forms.

**Part 1: VENDOR INFORMATION**

**Business Name** – Enter the full name of the Vendor, including trade name if applicable.

**Business Type** -- Select the vendor’s business organization from the list provided.

**Address, City, State, Zip and Phone Number** -- Enter the vendor’s street address, city, state, zip code and telephone number.

**Vendor Email** – Enter the vendor’s primary email address.

**Vendor FEIN** – Please enter the vendor’s Federal Employment Identification Number.

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**Public Law 2005, Chapter 51**

(formerly Executive Order 134) and Executive Order 117 (2008)

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**INFORMATION AND INSTRUCTIONS**  
**For Completing The “Two- Year Vendor Certification and Disclosure of Political Contributions” Forms**

**Part 2: PUBLIC LAW 2005, Chapter 51 / EXECUTIVE ORDER 117 (2008) DUAL CERTIFICATION**

Read the following statements and verify that from the period beginning on or after October 15, 2004, no contributions as set forth at subsections 1(a)-(c) have been made by either the vendor or any individual whose contributions are attributable to the vendor pursuant to Executive Order 117 (2008).

**NOTE:** Contributions made prior to November 15, 2008 are applicable to Chapter 51 only.

**Part 3: DISCLOSURE OF CONTRIBUTIONS MADE**

**Check the box at top of page 2 if no reportable contributions have been made by the vendor.** If the vendor has no contributions to report, this box must be checked.

**Name of Recipient Entity** – Enter the full name of the recipient entity.

**Address of Recipient Entity** – Enter the recipient entity's street address.

**Date of Contribution** – Indicate the date of the contribution.

**Amount of Contribution** – Enter the amount of the reportable contribution.

**Type of Contribution** – Select the type of contribution from the list provided.

**Contributor Name** – Enter the full name of the contributor.

**Relationship of Contributor to the Vendor** -- Indicate relationship of the contributor to the vendor, e.g. officer or partner of the company, spouse of officer or partner, resident child of officer or partner, parent company of the vendor, subsidiary of the vendor, etc.

**NOTE:** If form is being completed electronically, click “Add a Contribution” to enter additional contributions. Otherwise, please attach additional pages as necessary.

**Part 4: CERTIFICATION**

Check box A if the person completing the certification and disclosure is doing so on behalf of the vendor and all individuals and/or entities whose contributions are attributable to the vendor.

Check box B if the person completing the certification and disclosure is doing so on behalf of the vendor only.

Check box C if the person completing the certification and disclosure is doing so on behalf of an individual and/or entity whose contributions are attributable to the vendor.

Enter the full name of the person authorized to complete the certification and disclosure, the person's title or position, date and telephone number.

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**Public Law 2005, Chapter 51**

(formerly Executive Order 134) and Executive Order 117 (2008)

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**INFORMATION AND INSTRUCTIONS**  
**For Completing The “Two- Year Vendor Certification and Disclosure of Political Contributions” Forms**

**USEFUL DEFINITIONS FOR THE PURPOSES OF Ch. 51 and E.O. 117**

- “**Vendor**” means the contracting entity.
- “**Business Entity**” means any natural or legal person, business corporation, professional services corporation, limited liability company, partnership, limited partnership, business trust, association or any other legal commercial entity organized under the laws of New Jersey or any other state or foreign jurisdiction. The definition also includes (i) if a business entity is a for-profit corporation, any officer of the corporation and any other person or business entity that owns or controls 10% or more of the stock of the corporation; (ii) if a business entity is a professional corporation, any shareholder or officer; (iii) if a business entity is a general partnership, limited partnership or limited liability partnership, any partner; (iv) if a business entity is a sole proprietorship, the proprietor; (v) if the business entity is any other form of entity organized under the laws of New Jersey or any other state or foreign jurisdiction, any principal, officer or partner thereof; (vi) any subsidiaries directly or indirectly controlled by the business entity; (vii) any political organization organized under 26 U.S.C.A. § 527 that is directly or indirectly controlled by the business entity, other than a candidate committee, election fund, or political party committee; and (viii) with respect to an individual who is included within the definition of “business entity,” that individual’s spouse or civil union partner and any child residing with that person.<sup>1</sup>
- “**Officer**” means a president, vice-president with senior management responsibility, secretary, treasurer, chief executive officer, or chief financial officer of a corporation or any person routinely performing such functions for a corporation. Please note that officers of non-profit entities are excluded from this definition.
- “**Partner**” means one of two or more natural persons or other entities, including a corporation, who or which are joint owners of and carry on a business for profit, and which business is organized under the laws of this State or any other state or foreign jurisdiction, as a general partnership, limited partnership, limited liability partnership, limited liability company, limited partnership association, or other such form of business organization.
- “**Reportable Contributions**” are those contributions, including in-kind contributions, in excess of \$300.00 in the aggregate per election made to or received by a candidate committee, joint candidates committee, or political committee; or per calendar year made to or received by a political party committee, legislative leadership committee, or continuing political committee.
- “**In-kind Contribution**” means a contribution of goods or services received by a candidate committee, joint candidates committee, political committee, continuing political committee, political party committee, or legislative leadership committee, which contribution is paid for by a person or entity other than the recipient committee, but does not include services provided without compensation by an individual volunteering a part of or all of his or her time on behalf of a candidate or committee.
- “**Continuing Political Committee**” includes any group of two or more persons acting jointly, or any corporation, partnership, or any other incorporated or unincorporated association, including a political club, political action committee, civic association or other organization, which in any calendar year contributes or expects to contribute at least \$4,300 to aid or promote the candidacy of an individual, or the candidacies of individuals, for elective public office, or the passage or defeat of a public questions, and which may be expected to make contributions toward such aid or promotion or passage or defeat during a subsequent election, provided that the group, corporation, partnership, association or other organization has been determined by the Commission to be a continuing political committee in accordance with N.J.S.A. 19:44A-8(b).

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<sup>1</sup> Contributions made by a spouse, civil union partner or resident child to a candidate for whom the contributor is eligible to vote or to a political party committee within whose jurisdiction the contributor resides are permitted.

**Public Law 2005, Chapter 51**

(formerly Executive Order 134) and **Executive Order 117 (2008)**

**INFORMATION AND INSTRUCTIONS  
For Completing The “Two- Year Vendor Certification and Disclosure of Political  
Contributions” Forms**

- “**Candidate Committee**” means a committee established by a candidate pursuant to N.J.S.A. 19:44A-9(a), for the purpose of receiving contributions and making expenditures.
- “**State Political Party Committee**” means a committee organized pursuant to N.J.S.A. 19:5-4.
- “**County Political Party Committee**” means a committee organized pursuant to N.J.S.A. 19:5-3.
- “**Municipal Political Party Committee**” means a committee organized pursuant to N.J.S.A. 19:5-2.
- “**Legislative Leadership Committee**” means a committee established, authorized to be established, or designated by the President of the Senate, the Minority Leader of the Senate, the Speaker of the General Assembly, or the Minority Leader of the General Assembly pursuant to N.J.S.A. 19:44A-10.1 for the purpose of receiving contributions and making expenditures.
- “**Political Party Committee**” means:
  1. The State committee of a political party, as organized pursuant to N.J.S.A. 19:5-4;
  2. Any county committee of a political party, as organized pursuant to N.J.S.A. 19:5-3; or
  3. Any municipal committee of a political party, as organized pursuant to N.J.S.A. 19:5-2.

**Agency Submission of Forms**

The agency should submit the completed and signed Two-Year Vendor Certification and Disclosure forms, together with a completed Ownership Disclosure form, either electronically to [cd134@treas.state.nj.us](mailto:cd134@treas.state.nj.us) or regular mail at Chapter 51 Review Unit, P.O. Box 039, 33 West State Street, 9<sup>th</sup> Floor, Trenton, NJ 08625. Original forms should remain with the Agency and copies should be sent to the Chapter 51 Review Unit.

**Questions & Answers**

Questions regarding the interpretation or application of Public Law 2005, Chapter 51 (N.J.S.A. 19:44A-20.13) or Executive Order 117 (2008) may be submitted electronically through the Division of Purchase and Property website at <http://www.state.nj.us/treasury/purchase/execorder134.shtml>. Responses to previous questions are posted on the website, as well as additional reference materials and forms.

**NOTE:** *The Chapter 51 Q&A on the website DOES NOT address the expanded pay-to-play requirements imposed by Executive Order 117. The Chapter 51 Q&A are only applicable to contributions made prior to November 15, 2008. There is a separate, combined Chapter 51/E.O. 117 Q&A section dealing specifically with issues pertaining to contributions made after November 15, 2008, available at <http://www.state.nj.us/treasury/purchase/execorder134.shtml#state>.*

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

NON-COLLUSION AFFIDAVIT

STATE OF \_\_\_\_\_

ss:

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, of the \_\_\_\_\_ of \_\_\_\_\_ in the County of \_\_\_\_\_ and the State of \_\_\_\_\_, of full age, being duly sworn according to law, on my oath depose and say that:

I am (NAME) \_\_\_\_\_ in the firm of \_\_\_\_\_, the Bidder making the Bid for this Contract;

I execute the said Bid with full authority to do so;

Said Bidder has not directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action to restrain free, competitive bidding in connection with the above named Project; and,

All statements contained in said Bid, and in this affidavit, are true, correct, and made with the full knowledge that the NEW JERSEY MEADOWLANDS COMMISSION relies upon the truth of the statements contained in the Bid and this affidavit in awarding the Contract for the Project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such Contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by

\_\_\_\_\_  
(Name of Bidder)

(N.J.S.A. 52:34-15)

Subscribed and sworn to  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_ 20 \_\_\_\_.

\_\_\_\_\_  
(Type or print name of affiant under signature)

\_\_\_\_\_  
(Notary Public)  
My commission expires \_\_\_\_\_ 20\_\_\_\_

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

CORPORATE RESOLUTION FORM

BE IT RESOLVED, By the Board of Directors of \_\_\_\_\_ that the president  
(\_\_\_\_\_) be and hereby is authorized to make, execute and deliver a contract FOR:  
Meadowlands Adaptive Signal System for Traffic Reduction, with the NEW JERSEY MEADOWLANDS  
COMMISSION and that the Secretary (\_\_\_\_\_) be and hereby is authorized to attest to the  
execution of the same and affix the corporate seal thereto.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

BOARD OF DIRECTORS

\_\_\_\_\_

SECRETARY

(SEAL)

I HEREBY CERTIFY that the foregoing is an exact copy of a Resolution by the BOARD of Directors of  
(\_\_\_\_\_) adopted at a (\_\_\_\_\_) , meeting held on \_\_\_\_\_ at  
which quorum was present.

IN WITNESS WHEREOF, I have herunto set my hand and the seal of (\_\_\_\_\_)

this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

\_\_\_\_\_

SECRETARY

(SEAL)

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

**AFFIDAVIT OF AUTHORIZATION**

State of \_\_\_\_\_  
County of \_\_\_\_\_

ss:

\_\_\_\_\_, being duly sworn, deposes and says that he resides at \_\_\_\_\_, that he is the (TITLE) \_\_\_\_\_ who signed the Bid for this Contract, that he was duly authorized to sign, that the Bid is a true offer of the Bidder, that the seal attached is the seal of the Bidder, and that all declarations and statements contained in the Bid are true to the best of his knowledge and belief.

\_\_\_\_\_  
(Type or print name of affiant  
under signature)

Subscribed and sworn to  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_, 20\_\_\_\_\_

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

MORAL INTEGRITY AFFIDAVIT

STATE OF \_\_\_\_\_

ss:

COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, the (TITLE) \_\_\_\_\_

of (COMPANY) \_\_\_\_\_, hereinafter called the Bidder, being first duly

sworn; deposes and says that:

1. The Bidder has submitted a Bid to the NEW JERSEY MEADOWLANDS COMMISSION regarding this Contract on \_\_\_\_\_.
2. The Bidder wishes to demonstrate moral integrity to the satisfaction of the New Jersey Meadowlands Commission.
3. As of the date of signing this affidavit, neither the Bidder, not any of his owners, officers, or directors are involved in any federal, state or other governmental investigations concerning criminal or quasi-criminal violations, except as follows (if none, so state):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Neither the Bidder nor any of his owners, officers or directors have ever committed any violation of a federal or state or quasi-criminal statute, except as follows (if none, so state):

\_\_\_\_\_.

5. The Bidder is incorporated in the State of \_\_\_\_\_.

6. If the answer to question #5 is other than New Jersey, that the Bidder has received from the Secretary of the State of New Jersey, a certificate authorizing the corporation to conduct business in New Jersey.

7. The names and addresses of the principals, shareholders and officers of the Bidder are as follows:

\_\_\_\_\_  
\_\_\_\_\_

**MORAL INTEGRITY AFFIDAVIT (Continued)**

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(Use additional sheets, as required)

8. He is personally acquainted with the operations of the Bidder, has full knowledge of the factual basis comprising the contents of this Affidavit, and knows the contents are true.
9. This Affidavit is made to the NEW JERSEY MEADOWLANDS COMMISSION to accept the Bid for this Contract, knowing that the NEW JERSEY MEADOWLANDS COMMISSION relies upon the truth of the statements contained herein.

\_\_\_\_\_  
(Bidder)

\_\_\_\_\_  
(Type of print name of affiant under signature)

Subscribed and sworn to  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
(Notary Public)

My commission expires \_\_\_\_\_, 20\_\_\_\_

**STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION**

**SET-OFF FOR STATE TAX FOR CONTRACT**

Please be advised that , pursuant to P.L., 1995 c. 159, effective January 1, 1996, and notwithstanding any provisions of the law to the contrary, whenever any taxpayer, partnership or S corporation under contract to provide goods and 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 at the same time a taxpayer, 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 or shareholder's share of the payment due the taxpayer, partnership or S. corporation. The amount of the set off shall not allow for the deduction of expenses or other deductions which might be attributable to the taxpayer, partner or shareholder subject to set-off under this act.

The Director of the Division of Taxation shall give notice of the set-off to the taxpayer and provide an opportunity for a hearing within 30 days of such notice under the procedures for protest 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 to the State, pursuant to P.L. 1987, c. 184 (c. 52:32-32 et seq). to the taxpayer shall be stayed.

"I HAVE BEEN ADVISED OF THIS NOTICE"

Company: \_\_\_\_\_

Signature: \_\_\_\_\_

Print or Type Name of Signer: \_\_\_\_\_

Print or Type Title of Signer: \_\_\_\_\_

Date: \_\_\_\_\_

**STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION**

**EXPERIENCE AFFIDAVIT**

The Bidder shall state below, or on sheets to be attached, at least (3) projects he has completed which were similar to this Contract, and during which the products specified herein were used. The information required below shall include the title of the contract; the NJMC's name, address, and telephone number; and the dollar value of work completed. This information will assist the NEW JERSEY MEADOWLANDS COMMISSION in judging the Bidder's experience, skill, and business standing.

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The undersigned is (an Individual, a Partnership, a Corporation) under the laws of the State of \_\_\_\_\_, and having principal offices at

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(Signed) \_\_\_\_\_

(Address) \_\_\_\_\_

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(Date) \_\_\_\_\_ 20\_\_\_\_



**U.S. Route 1/9 T & N.J. Route 440  
Expansion of MASSTR**

**MASSTR**

**Contract**



**July 2013**

Prepared By  
**New Jersey Meadowlands Commission**  
One DeKorte Park Plaza, Lyndhurst New Jersey 07071  
[www.njmeadowlands.gov](http://www.njmeadowlands.gov)

STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION

### CONTRACT DOCUMENT CHECK LIST

REQUIRED BY NJMC	SUBMISSION REQUIREMENT
√	Performance Bond
√	Payment Bond
√	Public Liability and Property Damage Insurance Certificate
√	Vehicle Liability Insurance Certificate
√	Excess Liability Insurance Certificate
√	Compensation Insurance Certificate
√	Letter of Federal Affirmative Action Plan Approval; or Certificate of Employee Information Report
√	Initial Project Workforce Report (Form AA-201)
√	Signed and Completed Contract

**STATE OF NEW JERSEY  
NEW JERSEY MEADOWLANDS COMMISSION**

**CONTRACT**

This Contract, effective on the latest date of signature at the last page, by and between the New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey, 07071, hereinafter called the NJMC, the party of the first part, and:

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hereinafter called the Contractor, the party of the second part.

WITNESSETH, that whereas the NJMC intends it to have the Contractor construct, wire, and install the US Route 1/9 T & NJ Route 440 Expansion of MASSTR hereinafter called the Project or the Work, in accordance with the Plans, Specifications, and other Contract Documents.

NOW, THEREFORE, the NJMC and the Contractor, in exchange for the mutual consideration set forth herein, agree as follows:

**1.0 PARTS OF CONTRACT**

1.1 The parties agree that the conditions contained in the following documents which comprise and are hereinafter called the Contract Documents are made part of this Contract and are binding on both parties as if all conditions contained in the Contract Documents were set forth in this Contract:

- 1.1.1 Advertisement for BIDS
- 1.1.2 General Instructions
- 1.1.3 Forms
- 1.1.4 Contract Documents
- 1.1.5 Specifications
- 1.1.6 Plans
- 1.1.7 Addenda
- 1.1.8 Change Orders

**2.0 SCOPE OF WORK**

2.1 The contractor shall furnish all labor, materials, equipment, tools, and services necessary to construct, wire, and install all the components (e.g. traffic poles, antenna poles, cameras, transceivers, antennas, etc.) necessary for a fully operational adaptive traffic signal control system for sixteen (16) traffic signals located in the City of Jersey City and Town of Kearny in Hudson County New Jersey.

### 3.0 THE CONTRACT SUM

The NJMC shall pay the Contractor for the performance of the Work, based on the Bid prices, an amount not to exceed:

\$ \_\_\_\_\_  
(Amount in Numbers)

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(Amount in Words)

### 4.0 TIME FOR COMPLETION:

4.1 Work under this Contract shall be completed within 100 consecutive week days/work days, weather permitting, from the date specified in the Notice to Proceed.

### 5.0 CONTRACTORS

5.1 The Contractor shall have sole responsibility for the complete effort specified in the contract. Payment will be made only to the Contractor. The Contractor shall have sole responsibility for all payments due to any subcontractor. The Contractor is responsible for the professional quality, technical accuracy and timely completion and submission of all deliverables, services or commodities required to be provided under the contract. The Contractor shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in its deliverables and other services. The approval of deliverables furnished under this contract shall not in any way relieve the Contractor of responsibility for the technical adequacy of its work. The review, approval, acceptance or payment for any of the services shall not be construed as a waiver of any rights that the State may have arising out of the Contractor's performance of this contract.

### 6.0 SUBCONTRACTORS

6.1 The Contractor agrees to bind every subcontractor by the terms of the Contract Documents. The Contract Documents shall not be construed as creating any contractual relations between any subcontractor and the NJMC. Relations between the Contractor and subcontractors are further defined in the General Instructions.

### 7.0 SUBSTITUTION OR ADDITION OF SUBCONTRACTOR(S)

7.1 This Subsection serves to supplement but not to supersede Section 3.11 of the NJ Standard Terms and Conditions version 05/13/2010 located on the Advertised Solicitation, Current BID Opportunities webpage. If it becomes necessary for the Contractor to substitute a subcontractor, add a subcontractor or substitute its own staff for a subcontractor, the Contractor will identify the proposed new subcontractor or staff member(s) and the work to be performed. The Contractor must provide detailed justification documenting the necessity for the substitution or addition. The Contractor must provide detailed resumes of its proposed replacement staff or of the proposed subcontractor's management, supervisory and other key personnel that demonstrate knowledge, ability and experience relevant to that part of the work which the subcontractor is to undertake. The qualifications and experience of the replacement(s) must equal or exceed those of similar personnel proposed by the Contractor in its BID. The Contractor shall forward a written request to substitute or add a subcontractor or to substitute its own staff for a subcontractor to the State Contract Manager for consideration. If the State Contract Manager approves the request, the State Contract Manager will forward the request to the Director for final approval.

**8.0 WORK**

8.1 The Contractor agrees to furnish all the necessary labor, materials, equipment, tools, and services necessary to perform and complete all work required for the construction of the Project, in strict compliance with the Contract Documents herein mentioned, which are hereby made a part of the Contract, including the following Addenda:

<u>ADDENDUM No.</u>	<u>DATE</u>
_____	_____
_____	_____
_____	_____

**9.0 PRICES OF WORK**

9.1 The NJMC will pay based on the prices in the Bid, and the Contractor shall receive the prices stipulated in the Bid as full compensation for everything furnished and done by the Contractor under this Contract, including all work required but not specifically mentioned, and also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen obstruction or difficulty encountered in the prosecution of the work, and for all risks of every description connected with the work, and for all expenses incurred by or in consequence of the suspension or discontinuance of the work as herein specified, and for well and faithfully completing the work and the whole thereof, as herein provided. If and where directed items will only be paid if they are determined to be necessary by the NJMC.

**10.0 AVAILABILITY OF FUNDS**

10.1 The NJMC's obligation to pay the Contractor is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the NJMC for payment of any money shall arise unless funds are made available each fiscal year to the Using Agency by the Legislature with applicable matching funds being made available by the Federal government.

**11.0 PAYMENTS**

11.1 Payments shall be made to the Contractor on a reimbursable basis in response to invoices submitted.

11.2 Records of the Contractor's direct labor costs (and other billable charges pertinent to its compensation under this Contract) shall be maintained in accordance with generally accepted accounting principals. Copies applicable to open invoices will be made available to NJMC upon written request, prior to the final payment for the Contractor's services.

11.3 The Contractor shall submit a detailed invoice, project subtask invoice breakdown, project status report, and an NJMC invoice on a monthly basis. The NJMC invoice shall show the total invoiced amount and a reference to the Contractor's detailed invoice, while the Contractor's detailed invoice shall contain an itemized accounting of all charges. The invoice period shall be from the start of the period to the last Friday in the month.

11.4 The NJMC shall notify the Contractor of any questions with respect to the invoice, within 30 working days after receipt of the invoice. The NJMC and the Contractor shall designate representatives to resolve any disputes, as necessary. In the event that disputes remain unresolved for an extended period, the NJMC will pay the portion of the invoice not in dispute.

## **12.0 WAIVERS**

12.1 Neither the inspection by the NJMC nor any of its agents, nor any orders, measurements of certificate by the NJMC, nor any order by the NJMC for the payment of money nor payment for, nor acceptance of, the whole nor any part of the work by the NJMC nor any extension of time nor any possession taken by the NJMC or its employees, shall operate as a waiver of any provision of this Contract, or of any power herein reserved to the NJMC, or any right to damages herein provided, nor shall any waiver of any breach of this Contract be held to be a waiver of any other or subsequent breach. Any remedy provided in this Contract shall be taken and construed as cumulative, that is, in addition to each and every other remedy herein provided, and in addition to all other suits, actions, or legal proceedings, the NJMC shall also be entitled as of right to writ of injunction against any breach of any of the provisions of this Contract.

## **13.0 INDEMNIFICATION**

13.1 The Contractor shall defend, indemnify, protect and save harmless the NJMC, NJDOT, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature to the extent arising out of any act, error or omission in the performance of this Contract including, but limited to negligence, gross negligence, willful misconduct, intentional tort, fraud, bad faith, or criminal behavior of the Contractor, his agents, servants, employees, or subcontractors. The Contractor shall, at his own expense, appear, defend and pay all charges for attorneys and all costs and other expenses arising from such suit or claim incurred in connection therewith. If any judgment shall be rendered against the NJMC for which indemnification is provided under this paragraph, the Contractor shall, at his own expense, satisfy and discharge the same.

13.2 The NJMC shall, as soon as practicable after a claim has been made against it, give written notice thereof to the Contractor, along with full and complete particulars of the claim. If the suit is brought against the NJMC or any of its servants and employees, the NJMC shall expeditiously forward or have forwarded to the Contractor every demand, complaint, notice, summons, pleading or other process received by the NJMC or its representatives.

13.3 It is expressly agreed and understood that any approval by the NJMC of services performed and/or reports, plans, or specifications provided by the Contractor shall not operate to limit the obligations of the Contractor assumed in this Section or in the other provisions of this Contract.

## **14.0 INSURANCE**

14.1 Insurance shall be provided in accordance with Bid Package Section 26.0.

## **15.0 NJMC STATUS DURING THE PROJECT**

15.1 All work under this Contract shall be done under the observation of the Chief of Transportation. The Chief of Transportation shall decide any and all questions that may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of work, interpretation of Plans and Specifications, and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor.

15.2 The Chief of Transportation shall be an employee of NJMC. In addition, the NJMC may designate additional individuals to act on the Chief of Transportation's behalf on a temporary basis, depending on the type of

work occurring at the Project Site. At all times, these individuals shall have the same responsibilities and authority as the Chief of Transportation.

15.3 The Chief of Transportation shall be the initial interpreter of the Contract Document requirements and judge of the acceptability of the Work thereof. Any claims, disputes and/or other matters relating to the above or to changes in the Contract Price or Time will initially be referred to the NJMC, in writing. Any changes in the material terms of the Contract, including changes in Price or Time, shall be made only by mutually agreed upon written amendment to this Contract.

15.4 The NJMC shall make visits to the site to observe the progress and quality of the executed Work and to determine if it is proceeding in accordance with the Contract Documents. On the basis of such visits and observations, the Chief of Transportation will keep the NJMC informed of the quality and progress of the Work.

15.5 The NJMC may authorize minor variations in the Work, which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. If the Contractor believes that a variation issued as minor justifies an increase in the Contract Price and/or an extension of the Contract Time, the Contractor may make a claim therefore.

15.6 The NJMC may reject Work believed to be defective. The NJMC also has the authority to require special inspection and testing of the Work, whether or not it has been fabricated, installed or completed.

15.7 The NJMC shall not be responsible for the means, methods, techniques, sequences or procedures of the Contractor's performance of the Work, or the safety programs and precautions incident thereto. The NJMC will not be responsible for the failure of the Contractor to furnish or perform the Work in accordance with the Contract Documents.

15.8 The NJMC will not be responsible for acts of omission by the Contractor or any of his subcontractors or suppliers furnishing or performing any of the Work.

## **16.0 CONTRACTOR'S BANKRUPTCY**

16.1 In the event of bankruptcy of the Contractor, the NJMC shall use the Performance and Payment Bond to complete the project. The Performance and Payment Bond shall specifically include coverage and protection against bankruptcy of the Contractor.

## **17.0 SUCCESSORS AND ASSIGNS**

17.1 This Contract and all of the covenants hereof shall inure to the benefit of and be binding upon the NJMC and the Contractor respectively and his partners, successors, assigns and legal representatives. Neither the NJMC nor the Contractor shall have the right to assign, transfer or sublet his interests or obligations hereunder without notice to and written consent of the other party.

## **18.0 TERMINATION**

18.1 The NJMC may, upon seven days written notice to the Contractor, and at any time after the execution of this contract, terminate or limit the services of the Contractor furnished hereunder for any reasons; including but not limited to, the abandonment of the Project, or the unavailability of monies to complete the Work.

## **19.0 GUARANTEE AND CORRECTION OF DEECTIVE WORK**

19.1 The Contractor warrants and guarantees to the NJMC that all Work will be performed in accordance with all federal, state, and local laws standards and regulations and these Contract Documents; and that the Work will not be defective.

19.2 If within two (2) years after acceptance date, any Work is found to be defective, the Contractor shall promptly correct the defective work, or remove and replace it with non-defective Work; as directed by the NJMC, and at no additional cost to the NJMC.

**20.0 CHANGE ORDERS**

20.1 Any changes to any material terms of this contract, including change orders, shall be at the sole discretion of the NJMC, and shall be made by mutually agreed upon written amendment to this Contract.

**21.0 ADVERTISING**

21.1 The Contractor shall not use the NJMC's name, logos, vehicles, or any data or results arising from this contract without first obtaining the prior written consent of the NJMC.

IN WITNESS THEREOF, \_\_\_\_\_ and the NJMC have executed this Contract on the date immediately adjacent to their respective signatures.

FOR THE CONTRACTOR:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Typed Name of Firm)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Signature of Bidder)

\_\_\_\_\_  
(Typed Name of Bidder)

\_\_\_\_\_  
(Typed Title of Bidder)

FOR THE NJMC:

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
Marcia A. Karrow, Executive Director

\_\_\_\_\_  
(Date)

**U.S. Route 1/9 T & N.J. Route 440  
Expansion of MASSTR**

**MASSTR**

**Technical  
Specifications**



**July 2013**

Prepared By

**New Jersey Meadowlands Commission**

One DeKorte Park Plaza, Lyndhurst New Jersey 07071

[www.njmeadowlands.gov](http://www.njmeadowlands.gov)

A handwritten signature in blue ink that reads "David Liebgold".

**David Liebgold**

New Jersey Professional Engineer  
License Number GE 45897

<b>PAY ITEM SPECIFICATION SUMMARY</b>				
<b>ITEM</b>	<b>SPEC</b>	<b>ITEM NAME</b>	<b>INCLUDED IN PAY ITEM</b>	<b>BID PACKAGE</b>
<b>Detection System</b>				
210	VD-2	Vehicle Detection Unit Installation	Installation Only	Low-Bid
221	VD-3	Vehicle Detection Cable, 3/C # 14	Materials and Installation	Low-Bid
224	CS-9	Vehicle Detection Cable, Coax	Materials and Installation	Low-Bid
234	VD-7	Travel Time System Installation	Installation Only	Low-Bid
241	VD-8	Removal of Existing Vehicle Detection Unit		Low-Bid
243	VD-10	Adjust Angle of Existing Vehicle Detection Unit	Adjustment and Setup	Low-Bid
244	VD-10	Relocate Existing Vehicle Detection Unit	Relocation, Adjustment & Setup	Low-Bid
<b>Communication System</b>				
302	CS-2	Antenna/Transceiver Assembly Installation	Installation Only	Low-Bid
311	CS-3	Ethernet Cable, Cat 5e	Materials and Installation	Low-Bid
411	AP-2	Antenna Pole, Type A (75')	Materials and Installation	Low-Bid
742	AP-2	Foundation Antenna Pole, Type A	Materials and Installation	Low-Bid

**NJMC SPECIFICATION  
MASSTR VD-2**

**ITEM 210: VEHICLE DETECTION UNIT INSTALLATION**

**1. GENERAL**

This specification sets forth the minimum requirements for the installation of an image-based vehicle detection unit (VDU, i.e. camera).

At a minimum, the work shall include mounting the VDU on signal mast arms and/or poles, including any auxiliary hardware; pulling drop cables that are supplied by the VDU vendor from the VDU to the pole base; splicing the drop cable to the Vehicle Detection Cable 3/C#14 in the pole base; pulling cables in existing or empty conduits; connecting cables to the TIP (Terra Interface Panel) inside the controller cabinet in accordance with the attached manufacturer’s installation manual; removing all existing loop detector cables in all conduits and cabinets; and removing all existing vehicle detection cables in all conduits and cabinets.

Removal of the existing loop detector cables shall be done in a manner as not to affect the general public safety; shall not be completed until the NJMC Vehicle Detection System Manager has completed the configuration and setup of the new vehicle detection units; and shall not interrupt the operation of traffic controllers.

The installation shall comply with the installation instructions provided as an attachment to this specification. The installation shall comply with the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007. The Contractor shall furnish any and all auxiliary equipment which they deem necessary for safe and reliable installation of the system, including but not limited to: mounting brackets, screws, and washers. The Vehicle Detection Cable, 3/C#14, shall be spliced to the drop cable in the pole base as instructed by the VDU vendor, no other splicing of cables shall be allowed. Removal of the abandoned existing loop detector cables shall be done in a manner as not to affect the general public safety and not to interrupt the operation of traffic controllers.

All major components shall be identified with a metal plate containing the serial number and bar code identification.

**2. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
210	Vehicle Detection Unit Installation	Unit

The quantity of the VDU installation shall be measured as the actual number of VDU’s, completely installed and accepted, and shall be paid for at the Contract unit price for each installation.

Price and payment will constitute full compensation for mounting VDU’s on signal mast arms and/or poles, including any auxiliary hardware; pulling drop cables that are supplied by the VDU vendor from the VDU to the pole base; splicing the drop cable to the Vehicle Detection Cable 3/C#14 in the pole base; and pulling cables in existing or empty conduits; for removing all existing loop detector cables in all conduits; for removing all existing vehicle detection cables in all conduits; for installing all mounting brackets, screws, and washers; and for all labor, equipment, tools and incidentals required to complete the installation.

Quantities of the VDU and the video detection cable are not measured and paid under this specification, but as separate items under NJMC Specifications: MASSTR VD-1 and VD-3, respectively.

### **3. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

# Autoscope® ENCORE™



## Installation Guide

# Chapter 2: Power Cables

## Introduction

This section is designed to help with selection, installation, and testing of power cables used to connect the *ENCORE MVP* to an Autoscope *Terra* Interface Panel (TIP).

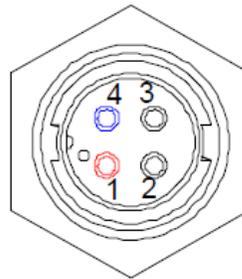
*ENCORE MVPs* are typically mounted on traffic luminaire arms or traffic signal mast arms where a clear traffic view is available. 3-wire, 16 to 18 AWG (solid, stranded, twisted, or untwisted) power cables are used for distances up to 330 meters (1000 feet). The part number for the 500 foot spool is 1175-010; for the 1000 foot spool is 1175-011. Pre-terminated cables (pigtails) of various lengths are available, as well as bulk cable that can be used for the run from the pole base or junction box back to the traffic cabinet. The Econolite catalog number for the “pigtail” cable is AENCORECBLxx, where xx is the cable length. For available cable lengths, contact your Autoscope representative.

The power cables may provide a connection between an *ENCORE MVP* and an intermediate, above ground junction point such as a pole-mounted junction box, or the base of a signal pole. Alternatively, cable can be run directly from the *Terra* Interface Panel to the rear of the *ENCORE MVP*. Two *ENCORE MVP* power cables may be connected to each power terminal on the TIP.

Power cables are installed to connect each *ENCORE MVP* to a *Terra* Interface Panel (TIP) that is located in a traffic controller cabinet or weatherproof junction box. The power cables also carry broadband communications between the *ENCORE* and the TIP.

Typical connections:

- Use a 3-conductor, #18 stranded cable with Polyethylene jacket for individual cable runs from the TIP to each Autoscope *ENCORE* camera in the field (see cable list above). The molded connector used is a Conxall connector (PN6832-4SG-XX, where XX is the grommet size. **Note**, field construction of cables is NOT recommended.



Pin Number	Function/Color
1	Neutral, White
2	Line/Hot, Black
3	No Connection
4	Ground, Green or Green/Yellow Stripe

- Use three existing wires ,or the bulk cable mentioned above, between the TIP and the pole base. Splice in the base of the pole to a 3-conductor, UV rated, flexible "pigtail" cable with moulded connector, for the run to/from the junction/splice point to the *ENCORE MVP*.
- At the cabinet, you use the terminal strips provided on the TIP.

## Installing Power Cables

Use the following guidelines to install the power cable between the *ENCORE MVP* junction location and the traffic control cabinet. You may install the cable to the *ENCORE MVP* by pulling it up the pole or dropping it down the pole, whichever is more convenient.

1. If you use a junction box, use cord grips at the point of cable entry into the junction box.
2. As directed on the site plan, pull the cable through underground conduit. Pulling the “pigtail” from the top down will minimize the risk of damage to the connector. You may also run the cable overhead.
3. To avoid the risk of moisture seeping into connections, install all power cables in a continuous run (with no splices), where possible. Otherwise, use locally-acceptable splicing methods to create a moisture-proof splice.
4. Label each cable entering the control cabinet so that it corresponds to the *ENCORE MVP* to which it is connected. It is recommended that a uniform *ENCORE MVP* numbering convention be adopted that is consistent throughout the installation. This facilitates installation, maintenance, and troubleshooting.

The following table suggests a numbering scheme for an 8-phase intersection. You may choose your own scheme. It is recommended that one scheme be adopted and used consistently.

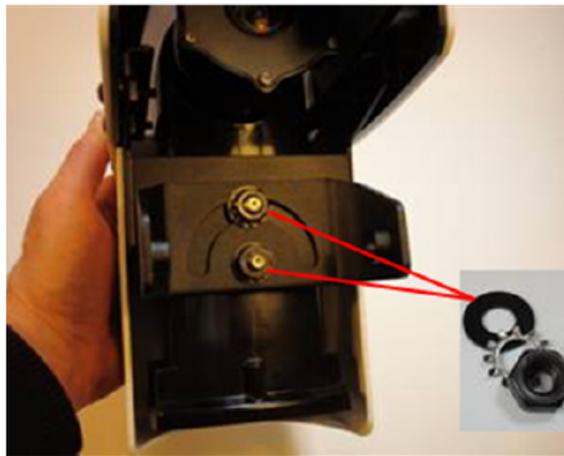
**Table 2-1: Sample Numbering Scheme for Intersection Applications**

<b>Approach</b>	<i>ENCORE MVP</i>	<b>Intersection Controller Phase</b>
SB Snelling Ave	1	2, 5
EB University Ave	2	4, 7
NB Snelling Ave	3	6, 1
WB University Ave	4	8, 3

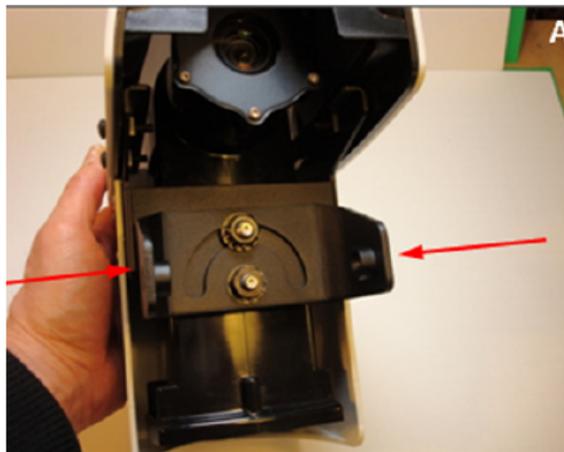
## Installation Procedure

To install the *ENCORE MVP*:

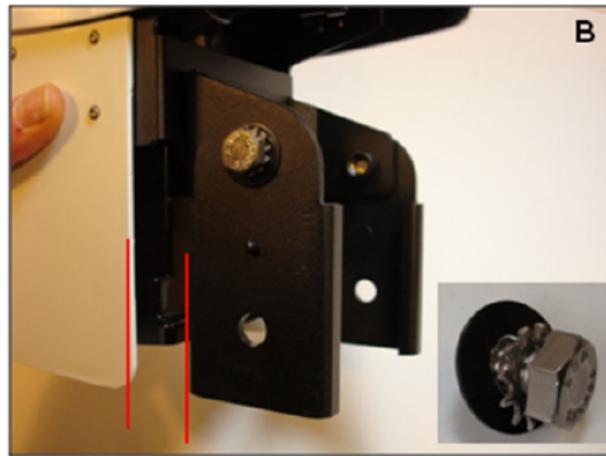
1. If not already installed, install the extension brackets from the Extension Brackets Accessory Kit.
  - a) First install the tilt bracket (PN A650-1035-02). Align tilt bracket on the sheet metal structure studs as shown. Apply flat washer (PN 200854), external tooth lock washer (PN 200792), and hex nut (PN 200855) to both threaded studs and hand tighten. These must be fully tightened when other brackets are applied:



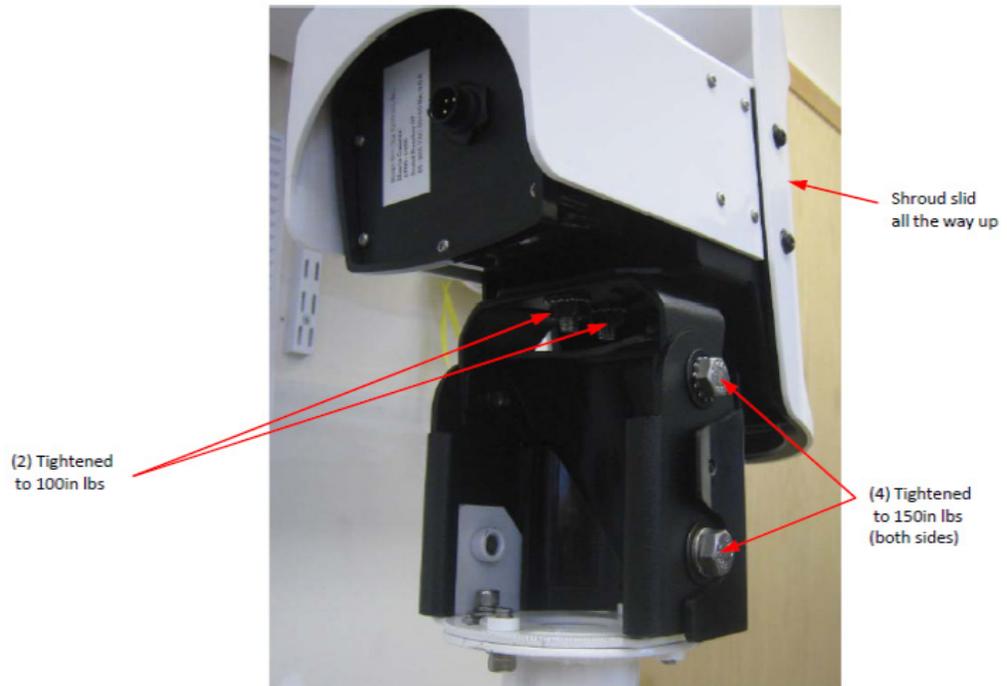
- b) Position extension brackets (PN A650-1035-05) on the outsides of the tilt bracket (PN A650-1035-02), as indicated by the arrows:



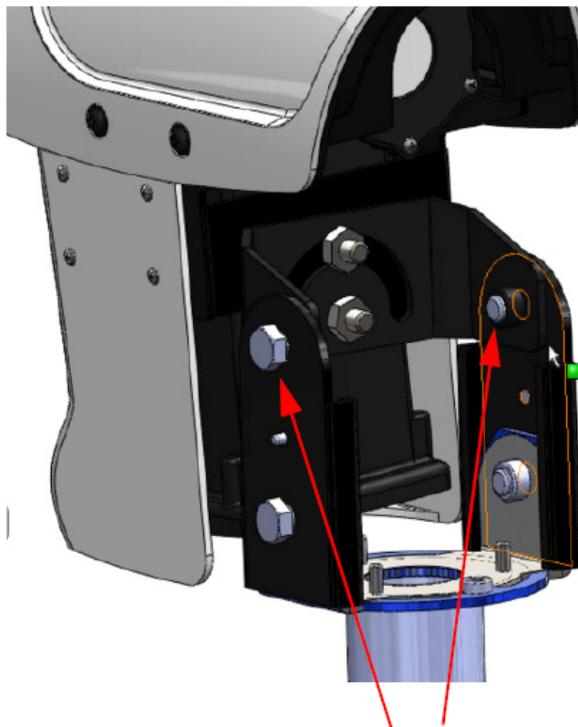
- c) Roughly orient the extension brackets so they are parallel to the lower shroud as indicated by the lines on the figure, and tighten with a 9/16-inch socket wrench:



- d) Aligning the ends of the extension brackets with a flat surface is an effective way to ensure they both line up properly.
  - e) Align and tighten the tilt bracket nuts with the 9/16-inch socket wrench.
2. Use the following torque settings for the *ENCORE* fasteners for this, and all subsequent adjusting and installation procedures that require loosening and tightening bolts:



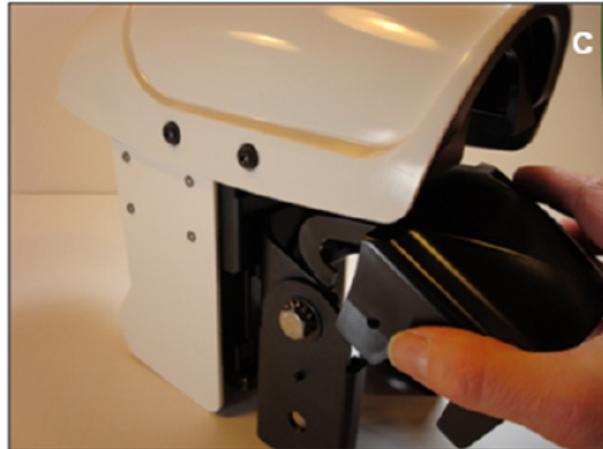
3. Bolt the *ENCORE* MVP to its mounting pedestal as shown in Figure 4-2. Drop the *ENCORE* MVP assembly over the upright mounting brackets on top of the pole. The assembly is designed to hold itself in place while you install the bolts. The mounting bracket comes with two 5/8-inch Hex head bolts and mounting hardware. These mounting bolts attach the *ENCORE* MVP to the mounting bracket. Four, 1/4-20 x 3/16 Allen head bolts allow you to adjust the MVP left and right using a 3/16-inch Allen wrench.



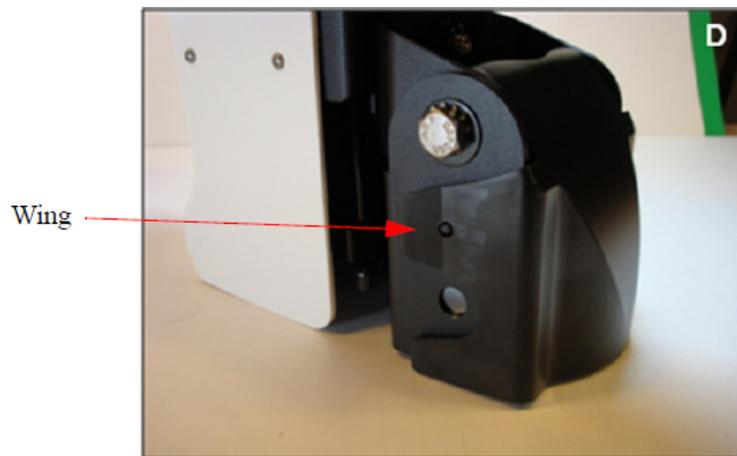
Use to attach Solo *ENCORE* MVP to turret head of pedestal mounting bracket and to modify MVP angle.

**Figure 4-2: Attaching *ENCORE* MVP to Mounting Bracket**

4. Hang the yoke cover (PN A650-1035-08) on the two threaded boss details on the interior of the tilt bracket. Guide into position as shown, deflecting brackets wings outward if needed.



5. Rotate yoke cover down about its hinge point until the pins align with the locking holes on the ‘wings’ of the yoke cover. You may deflect the yoke cover wings outward to help the bracket snap into place, Example image below shows yoke properly in place but not on the pole. (You may remove the yoke by deflecting the wings outward, rotating the yoke upwards, and pulling the assembly gently outwards until the yoke is clear of the boss details). The yoke is only installed after all camera setup installation steps are completed.



6. Using 3/4-inch stainless steel banding, attach mounting bracket to a signal pole or a mast arm at the height specified in the site plans. To ensure proper placement of the mounts, familiarize yourself with the detection objectives of each *ENCORE MVP*.



### Caution

Whenever possible, avoid mounting the bracket directly under a luminaire as this may result in degraded detection performance at night during heavy precipitation such as snowfall. It is better to be above the cone of light from the luminaire to reduce or eliminate the scattering of light by the precipitation.

7. Attach the supplied mini-connector to the bottom connector of the *ENCORE MVP* by lining up the pins and grooves, and inserting and turning the collar to snap into place.



**Figure 4-3: Autoscope *ENCORE* Bottom View**

8. Create a drip loop in the cable near the *ENCORE MVP*, or with a round turn, and then feed the cable to the base of the signal pole using traditional methods. The cable may be installed inside the pole but splices should not be routed underground (place in a ground level pull-box).
9. If necessary splice the *ENCORE MVP* power cable to an underground rated power cable. If using underground rated power cable from the *ENCORE MVP* to the cabinet without a splice, connect the cable directly to the appropriate power terminal on the *Terra* Interface Panel.

The completed mounting for the *ENCORE MVP* is shown in [Figure 4-4](#).

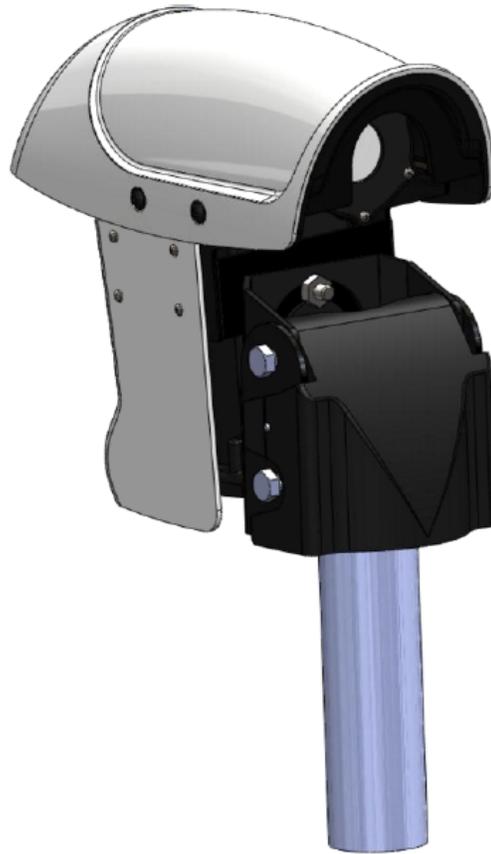


Figure 4-4: Completed *ENCORE* Mounting

## Powering Up at the Controller Cabinet

To apply power to the system at the controller cabinet:

1. Before applying power, verify all cable connections are made properly between the *ENCORE* MVP, the power cables, and the TIP (*Terra* Interface Panel).
2. Turn on the breaker providing power to the TIP. Make sure all four ON/OFF switches to the power terminals for each MVP are ON, and allow about two minutes for the *ENCORE* MVPs to initialize.
3. Connect a laptop to the TIP either through an Ethernet bridge device or directly by using a CAT5, CAT 5e or CAT6 Ethernet patch cable. Note, if you encounter problems, try using a crossover cable instead.
4. Use the Network Browser video player or a software decoder (media player or web browser plug-in) on the laptop to stream video from the MVP and observe the video image. The image should have a reasonably bright, crisp, clear, and stable field of view for all vehicle types and colors.
5. Repeat Step 4 for additional MVPs.

## Aiming the *ENCORE MVP* for an Intersection

This section explains how to aim the *ENCORE MVP* for maximum detection effectiveness at an intersection. For highway application instructions, see Aiming the *ENCORE MVP* for a Highway, next.

### Aiming Overview

Adjust the *ENCORE MVP* field of view to meet the detection objectives. Do this with a single technician in a bucket truck or in coordination with an observer on the ground viewing the video at the TIP or TAP. Tools needed for this are:

- Mounting bracket supplies including stainless steel banding.
- Appropriate hand tools for adjusting the mounting bracket: 9/16-inch open-end wrench; 3/16-inch Allen wrench.
- #2 Phillips Driver
- Radios or cell phones to communicate between the cabinet and the bucket.
- Laptop and interface cables.
- Zoom Control Modem and interface cables, if required.
- Video Monitor. Optional, preferably one with under scanned display.
- Faceplate cleaning supplies (lint-free lens tissue/cloth; spray bottle with water).
- Measuring wheel and traffic cones.

There are five adjustments for optimizing the field of view:

- Pan (left or right).
- Tilt (up or down).
- Rotate the camera (clockwise or counterclockwise).
- Adjust the sunshield overhang.
- Zoom.

**NOTE:** Avoid including bright objects in the field of view. This includes traffic signals, streetlights, commercial signs, as well as headlights of vehicles outside the desired detection areas.

## Aiming Procedure

To aim an *ENCORE MVP*:

1. Find out what the detection objectives are for this installation. Determine on the road where advance detectors (if any) will be placed. Use a measuring wheel and cones to measure and mark the desired detection zones.
2. Inventory the equipment against the installation plans for this site.
3. Fine-tune the aim by adjusting the zoom, pan left-right, tilt up-down, rotate the camera, and slide the sunshield all the way to the rear.

**NOTE:** For added safety, connect the cable to the Autoscope sensor before mounting this assembly onto the bracket. Do not depend solely on the connector to carry the camera during this procedure.

4. Loosen all mounting bracket adjustments. Finger-tighten all adjustments until ready for final tightening of fasteners (Step 10).
5. Aim the camera so the primary detection area, usually the stop line area, is centered left to right in the image. Zoom in or out leaving a half lane extra on either side of the detection area.

**NOTE:** An underscan monitor is a particularly good tool for adjusting tilt.

6. Tilt the *ENCORE MVP* down so the farthest away detectors, for example, advance detectors, will be near the top of the image or field of view. This will help reduce glare problems later.
7. Rotate the MVP so the traffic flows top to bottom, or to eliminate light problems and obstructions in the view. (Ideally for high-speed traffic, the nearest lane of detection would be vertical in the image. Hold a pen vertically on a monitor to compare the far detection lane orientation.)
8. Push the sunshield forward. Only move forward enough to see a little sunshield in the corners of the view. Sunshield overhang prevents direct sunlight from hitting the faceplate and helps keep blowing rain or snow from collecting on the faceplate. Setting the zoom to allow you to see a little of the sunshield in the corners does not substitute for proper sunshield overhang.
9. Tighten all fasteners. Start with the sunshield fasteners. Next, tighten the 'left-right' fasteners (if necessary, tilt the camera down temporarily to tighten them as well). If needed, rotate the camera by loosening the plate bolts, rotating the camera, and then retightening the plate bolts. Lastly, tighten the two 'up-down' bolts. We save the most difficult adjustment—firmly holding the tilt-angle, for the last.
10. Double check the aim of the camera after everything is tight.
11. Inspect the faceplate glass for fingerprints and dirt, etc. Clean appropriately using **ONLY** water and lint-free lens tissue/cloth.



**Figure 4-5: Typical Intersection Optimized Field of View**



**Figure 4-6: Sky and Horizon Visible in Image—Tilt Down**



**Figure 4-7: Advance Detection Region Not in Field of View—Tilt Up**

## Verification

Check the image using the Network Browser video player or a software decoder (media player or web browser plug-in) on a laptop. The image should remain reasonably bright, crisp, clear, and stable when a bright vehicle passes through the field of view.

If no image is displayed, follow standard procedures for testing cables.

## Aiming the *ENCORE MVP* for a Highway

Video detection objectives for highway applications typically include incident detection and routine traffic data collection for planning and reporting. Incident detection includes stopped vehicles, wrong-way vehicles, vehicles going too fast or too slow, or the effect of incidents beyond the field-of-view of the camera. Incident prevention objectives usually involve integration with an automatic response system that may or may not require operator intervention to reset. Surveillance video output from detection cameras is increasingly valuable to incident managers, who can apply video detection resources to more steps of their incident response process.

### Aiming Cameras

For video detection, the aiming process can be 25-30% of all the factors that influence detection performance. The camera should not see much beyond the roadway itself. You want to fill the image with the detection target while excluding extraneous objects or light sources that could affect performance in some conditions.

For highways and freeways, aim the camera so that the detection area is toward the top and centered left-to-right in the image. The tilt angle will be less than 45 degree, so the detection area is 2 to 5 times the height of the sensor away from the camera. Ideally, you should see the front of vehicles at the bottom of the image. If zooming out for a wider view, you should move the sunshield forward so you only see a little sunshield in the upper corners of the picture. For roadside poles or high-speed traffic, you should rotate the camera so the farthest-away lane of detection is vertical, which helps detect high-speed vehicles. You may also make adjustments to block out unwanted light sources such as lit signs, window glare, etc., from the picture.

### Video Detection and Video Surveillance

Video detection and video surveillance objectives usually conflict. Aiming cameras for a strictly video detection application is different from video surveillance objectives. You can think of the difference by comparing a portrait or family photograph (video detection) to an outdoor vacation photograph (surveillance). The most value to the operator is in the useful area of the picture, rather than a broader, panoramic picture. When surveillance video is also required, take time to define what will be the useful area in the scene. For example, you will still want to fill the image with the useful target area, and exclude extraneous objects or light sources. Finding the balance of these two, conflicting objectives minimizes the possible impact on detection performance, while providing a higher-quality video picture for surveillance.

### Mounting Location

The site for your sensor or camera was likely selected during the planning and site survey processes. Mounting heights might be overhead sign structures or tall roadside poles. The optimal height is above 40 feet. If you need to choose a mounting location, please consult Autoscope Technical Support for site survey guidelines and worksheets for your project.

## Tools and Supplies

The following tools and supplies are required:

- Mounting bracket supplies including stainless steel banding.
- Appropriate hand tools for adjusting the mounting bracket: 9/16-inch open-end wrench; 3/16-inch Allen wrench.
- #2 Phillips driver.
- Radios or cell phones to communicate between the cabinet and the bucket.
- Laptop and interface cables.
- Zoom Control Modem and interface cables, if required.
- Video Monitor. Optional, preferably one with under scanned display.
- Faceplate cleaning supplies (lint-free lens tissue/cloth and water in a spray bottle).
- Measuring tape to measure the height of the camera.
- Measuring wheel and cones.

## Aiming Your Autoscope Video Sensor

For specific product information, refer to the package inserts with the device packaging.

1. Inventory the equipment against the installation plans, especially what is necessary for each site location.
2. Plan the camera's field-of-view to meet the detection objectives at each site.
3. Prepare your team to adjust incrementally the left-right, up-down, *ENCORE* rotation, and sunshield overhang of the camera as you fine-tune its zoom and aim. Use consistent language for clear communications (for example, Tilt is up or down, Swing, left or right, Rotate the camera clockwise or counterclockwise, Push sunshield forward or back).
4. Use a measuring wheel to help define known calibration reference points. These usually define 40, 50, or 60 feet distances within the area of the detectors. Lane hash marks may also work.
5. Up in the bucket for added safety: first connect the cable to the camera inside the bucket before mounting the assembly onto the bracket. To ensure equipment safety, use additional support for the *ENCORE* camera assembly.
6. Loosen all mounting bracket adjustments and the sunshield fasteners. Fingertighten the adjustments until you are ready for final tightening of all fasteners (in Step 14 below).
7. While aiming the camera to achieve the detection objectives, make bigger changes first to each adjustment and then fine tune each adjustment again before tightening.
8. Zoom in or out to fill the picture with the vehicles in the detection area.
9. Swing the camera left to right to center the vehicles in the image.

10. Tilt the camera down so you see the front of the vehicles at the top of the image and, toward the bottom of the image, you see only the hood of the vehicles and not the grill. This will help reduce glare problems later. Do not tilt the camera up too far. It is better to be too low.
11. When you tilt the camera down, you should see about: the entire length of a tractor trailer in the next-to-nearest lane; 3-lane line segments (hash marks) in the nearest lane, and 2 or 3 transverse shoulder markings (skip marks) in the shoulder of the far lane.
12. Rotate the camera so the traffic generally flows top to bottom, or as necessary to eliminate light problems and obstructions in the view. Ideally, the farthest lane of detection would be vertical in the image to better detect high-speed vehicles. You can hold a pen vertically on your monitor to compare to the far detection lane orientation.
13. If you see a lot of sunshield in the view after setting the zoom, push the sunshield forward to adjust the sunshield overhang. Do not push the sunshield forward too much. You should see a little sunshield in the corners of the view. This improves the quality of the video image, prevents direct sunlight from hitting the faceplate, and helps keep blowing rain or snow from collecting on the faceplate.
14. Tighten all fasteners. Start with the sunshield fasteners. Next, tighten the 'left-right' fasteners (if necessary, tilt the camera down temporarily to tighten them as well). If needed, rotate the camera by loosening the plate bolts, rotating the camera, and then retightening the plate bolts. Lastly, tighten the two 'up-down' bolts. We save the most difficult adjustment—firmly holding the tilt-angle, for the last.
15. Double check the aim of the camera after everything is tight. Make changes as necessary.
16. Inspect the faceplate glass for fingerprints and dirt, etc. Clean as necessary with lint-free lens tissue/cloth and water in a spray bottle.
17. Before you go back down the ground, measure the height of the camera lens relative to the road surface in the detection area, and record the height on the plans or worksheet for later reference.

**NJMC SPECIFICATION  
MASSTR VD-3**

**ITEM 221: VEHICLE DETECTION CABLE, 3/C#14**

**1. GENERAL**

This specification sets forth the minimum requirements for a vehicle detection cable (Cable) that will be used for the Vehicle Detection System (VDS) as part of the Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR).

The Cable utilizes the broadband-over-powerline (BPL) technology so that the impact on the conduit fill percentage of existing conduits is minimized. The Cable shall be designed for 110Volt AC use and shall be extremely durable and easy to install in underground conduit systems in order to accommodate the water-resistant requirements and low pulling tension necessary for conduit applications.

At a minimum, the work shall include materials and installation of Vehicle Detection Cable in the pole base; pulling cables in existing or empty conduits; connecting cables to the TIP (Terra Interface Panel) inside the controller cabinet in accordance with the attached manufacturer’s installation manual; removing all existing loop detector cables in all conduits and cabinets; and removing all existing vehicle detection cables in all conduits and cabinets.

Removal of the existing loop detector cables shall be done in a manner as not to affect the general public safety; shall not be completed until the NJMC Vehicle Detection System Manager has completed the configuration and setup of the new vehicle detection units; and shall not interrupt the operation of traffic controllers.

**2. CABLE CONSTRUCTION**

The cable shall consist of three conductors 14 AWG with an overall UV-resistant Low Density Polyethylene jacket.

- 14 AWG Components: three conductors, 14 AWG, 19 strands of 30 gauge tin-plated copper conductor diameter 0.046” to 0.052” ;
- Conductor Insulation: extruded polyethylene 200 with nominal 0.030” wall thickness ;
- Colors: black, green, and white;
- Jacket: extruded black polyethylene 0.040” to 0.050” wall thickness, UV-resistant;
- Finished diameter: 0.330” to 0.354”;
- Electrical: 600 volts (rms);
- Operating temperature range: -20 °F to +140 °F

**3. CABLE IDENTIFICATION**

The cable identification shall be printed with the manufacturer’s part number, number of conductors, conductor size, voltage rating, jacket material, and an indication that it is conduit rated.

During construction, each Cable shall be labeled in all junction boxes and cabinets with a distinctive number, in the format of “VDU-#”, where the value of the # shall correspond to the VDU numbering scheme on the Plans.

**4. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
221	Vehicle Detection Cable, 3/C#14	Linear Foot

Price and payment will constitute full compensation for materials and installation of Vehicle Detection Cable; for removing all existing loop detector cables in all conduits; for removing all existing vehicle detection cables in all conduits; and for all labor, equipment, tools and incidentals required to complete the installation.

The quantity of the Cable shall be measured as the actual linear feet installed and accepted, and shall be paid for at the Contract unit price per linear foot.

## **5. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

**NJMC SPECIFICATION  
MASSTR VD-7  
ITEM 234: TRAVEL TIME SYSTEM INSTALLATION**

**1. GENERAL**

This specification sets forth the minimum requirements for the installation of a travel time data system (System), including the travel time collectors (Collector) and travel time antennas (Antenna), the specification of which are listed in NJMC Specification VD-6.

The installation shall at a minimum include mounting the NEMA 4X enclosure that houses the Collector and Antenna onto roadside poles, pulling Ethernet cables in existing or empty conduits, connecting the Antenna, installing a Power over Ethernet (PoE) injector in the traffic control cabinets, and grounding the PoE injector, in accordance with the manufacturer’s installation manual and the Plans.

The installation shall comply with the installation instructions provided as an attachment to this specification. The installation shall comply with the New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction, 2007. The Contractor shall furnish any and all auxiliary equipment which they deem necessary for safe and reliable installation of the System, including but not limited to: mounting brackets, screws, and washers. Splices of cables shall not be allowed anywhere.

A certified representative from the manufacturer shall be on-site to supervise the installation. This person shall be on site until the initial installation is accepted by the NJMC.

All Antennas and Collectors shall be identified with a metal plate containing the serial number and bar code identification.

**2. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
234	Travel Time System Installation	Unit

The quantity of the Installation shall be measured as the actual number deployment locations, completely installed and accepted, and shall be paid for at the Contract unit price for each deployment location.

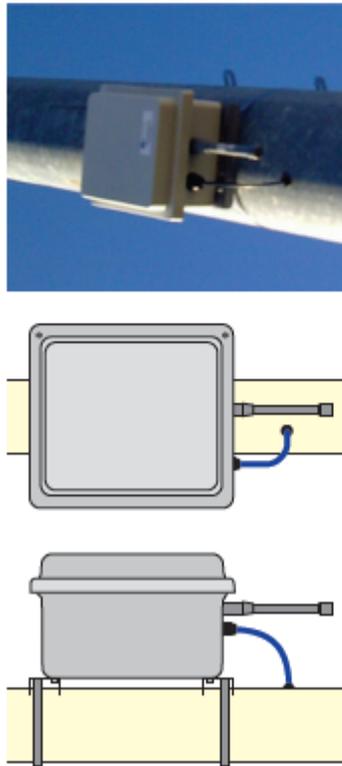
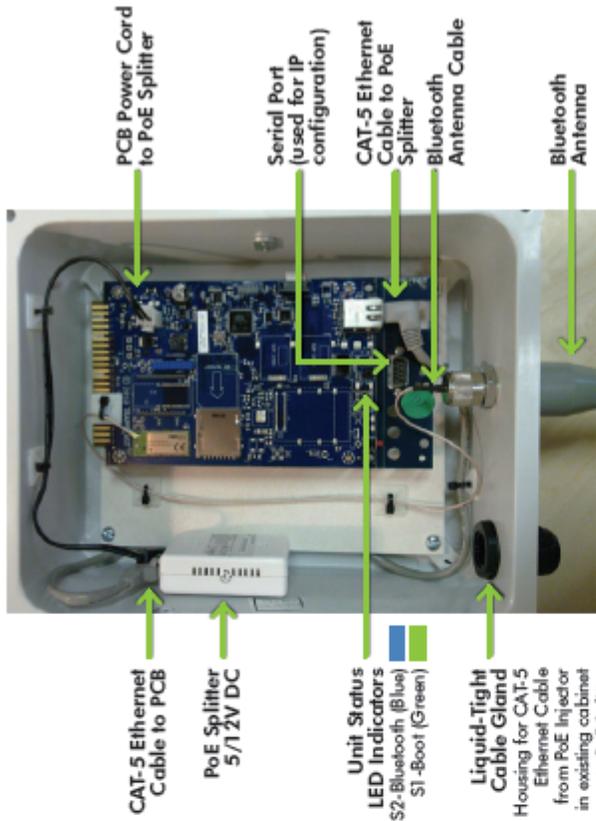
Quantities of the Ethernet CAT5e cable connecting the Collector to controller cabinet, and the PoE injector to the Ethernet switch are not measured and paid under this specification, but as Item 311 under NJMC Specification: MASSTR CS-3.

Price and payment will constitute full compensation for mounting the NEMA 4X enclosure that houses the Collector and Antenna onto roadside poles, pulling Ethernet cables in existing or empty conduits, connecting the Antenna, installing a PoE injector in the traffic control cabinets, and grounding the PoE injector; for furnishing all mounting brackets, screws, and washers; and for all labor, equipment, tools and incidentals required to complete the installation.

**3. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

### BlueTOAD Sensor Equipment Components



**BlueTOAD™ Roadside Bluetooth™ Sensor Equipment**  
**Power over Ethernet (PoE) Configuration**

### BlueTOAD Unit Mounting How-To Basics

Category	Recommended Requirements
Mounting structure	Lamp or signal poles (BlueTOAD ~ 10 lbs.)
Height	Clear immediate obstacles - 10' - 14' ground clearance ideal
Antenna Clearance	The device should be mounted such that the external Bluetooth antenna is as unobstructed as possible and so that it has a clear line of sight to the target road segment
Antenna Alignment	Use the BlueTOAD front cover (enclosure door face) as an antenna reference. If the BlueTOAD unit is mounted on side of the road, place front cover parallel to the road. If the BlueTOAD unit is mounted on the center median, place the front cover perpendicular to the road.

## BlueTOAD Installation Guide

**Customer Support**  
**1-608-268-3941**



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## BlueTOAD Installation Guide

**1**

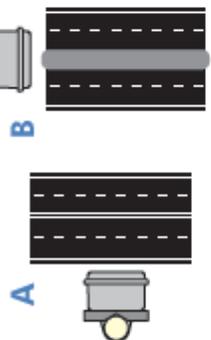
### Mount BlueTOAD NEMA Enclosure to Structure

The BlueTOAD standard unit package includes two (2) mounting brackets and two (2) metal cable bands designed for mounting on, poles, I-Beams, or support structures up to a 1.4" diameter.



### BlueTOAD Unit Roadside Alignment

**Alignment A:** For roadside install, Front Cover mounted parallel to roadway.  
**Alignment B:** For center median install, Front Cover mounted perpendicular to roadway.



**2**

### Install CAT-5 Ethernet Cable

1. Run CAT-5 cable from the roadside cabinet to where the BlueTOAD unit is mounted
2. Pass the CAT-5 Ethernet cable through the Liquid-Tight Cable Gland. The strain relief on the cable will have to be removed in order to fit through the Cable Gland. The Strain Relief can be slid away from the RJ-45 connector without cutting the relief.
3. Insert the RJ-45 connector into the PoE Splitter
4. Tighten the Cable Gland

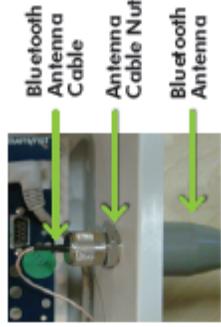


**3**

### Connect Bluetooth Antenna

Attach Bluetooth Antenna. Take extra precaution not to detach the cable from the connector on the BlueTOAD PCB.

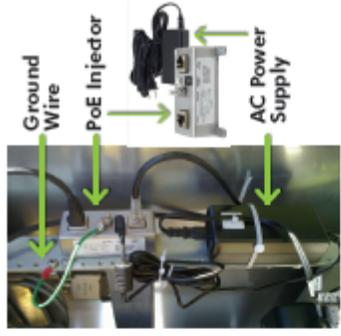
1. Secure antenna with Nut on inside of enclosure
2. Connect Bluetooth cable to antenna
3. Hand-tighten (with most connectors and antennas, hand-tension is preferred)



**4**

### Install PoE Injector in Roadside Cabinet

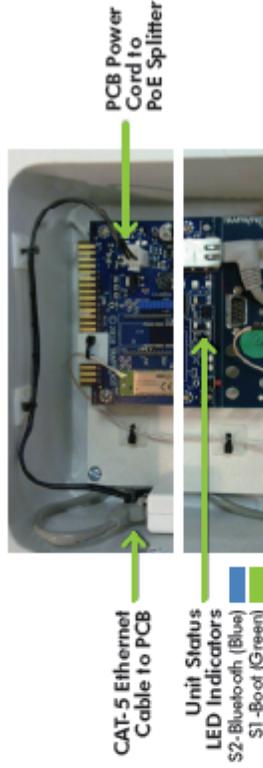
1. Secure PoE injector onto flat surface inside roadside cabinet
2. Attach Ground Wire
3. The PoE injector has two (2) RJ-45 receptacles
  - Data – connects to network Ethernet switch, router, or hub
  - Data & Power – connects to the BlueTOAD unit (PCB)
4. Connect AC power supply to PoE Injector and "plug" the 110V cord to AC power outlet



**5**

### Turn ON BlueTOAD Unit

To automatically turn ON the BlueTOAD unit, plug the power cord into the mated connector on the BlueTOAD PCB.



LED	Color	At Initial Start-up	At Normal State (May take up to 3 minutes)
S1 - Boot	Green	Blink - 4 times per second	Blink - 1 time per 3 seconds
S2-Bluetooth	Blue	Off	Blink - 3 times per 3 seconds



**NJMC SPECIFICATION  
MASSTR VD-8**

**ITEM 241: REMOVAL OF EXISTING VEHICLE DETECTION UNIT**

**1. GENERAL**

This specification sets forth the minimum requirements for the removal of an existing above-the-ground vehicle detection unit (VDU). Depending on the type of existing vehicle detection system, the VDU can be a camera, a radar sensor, or a microwave sensor that are mounted on existing signal mast arms or poles. The work shall at a minimum include dismounting the existing vehicle detection unit from existing poles and mast arms, removing the mounting brackets, removing the cables and cable connections from the VDU to the control cabinet. The removed equipment and materials shall be returned to the NJMC. The removal shall follow the accepted standards of ANSI, NEMA, UL, NEC, ITE, and ASTM.

Removal of the existing vehicle detection unit shall be done in a manner as not to affect the general public safety; shall not be completed until the NJMC Vehicle Detection System Manager has completed the configuration and setup of the new vehicle detection units; and shall not interrupt the operation of traffic controllers.

**2. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
241	Removal of Existing Vehicle Detection Unit	Unit

The quantity of the VDU removal shall be measured as the actual number of VDU's (i.e. cameras, radar sensors, or microwave sensors) that are completely removed and accepted, and shall be paid for at the Contract unit price for each removed unit. For example, for a four-approach intersection, if each approach has one existing VDU and all four existing VDU's are removed, the quantity of Item 241 is four, instead of one.

Price and payment will constitute full compensation for removing the existing VDU's from existing poles or mast arms, including the mounting brackets, and the cables and cable connections from the VDU to the control cabinet; and for all labor, equipment, tools and incidentals required to complete the removal.

**3. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

**NJMC SPECIFICATION  
MASSTR VD-10**

**ITEM 243: ADJUST ANGLE OF EXISITNG VEHICLE DETECTION UNIT (VDU)  
ITEM 244: RELOCATE EXISITNG VEHICLE DETECTION UNIT (VDU)**

**1. GENERAL**

This specification sets forth the minimum requirements for the adjustment and relocation of an existing image-based vehicle detection unit (VDU, i.e. camera).

Item 243 shall at a minimum include adjusting the mounting angle of the existing VDU as directed by the NJMC. The Contractor shall furnish any and all auxiliary equipment which they deem necessary for the safe and reliable adjustment of the existing VDU, including but not limited to: mounting brackets, screws, washers, cables, and cable connections. Splices of cables shall not be allowed anywhere.

Item 244 shall at a minimum include adjusting the mounting location and mounting angle of the existing VDU as directed by the NJMC. The Contractor shall furnish any and all auxiliary equipment which they deem necessary for safe and reliable relocation of the VDU, including but not limited to: mounting brackets, screws, washers, cables, and cable connections. Splices of cables shall not be allowed anywhere.

**2. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
243	Adjust Angle of Existing Vehicle Detection Unit (VDU)	Unit
244	Relocate Existing Vehicle Detection Unit (VDU)	Unit

The quantity of the Item 243 shall be measured as the actual number of VDU that are adjusted accepted, and shall be paid for at the Contract unit price for each adjusted camera. Price and payment will constitute full compensation for adjusting the mounting angle of the existing VDU; for furnishing all mounting brackets, screws, washers, cables and cable connections; and for all labor, equipment, tools and incidentals required to complete the work.

The quantity of the Item 244 shall be measured as the actual number of VDU that are completely relocated, and shall be paid for at the Contract unit price for each relocated camera. Price and payment will constitute full compensation for adjusting the mounting location and mounting angle of the existing VDU; for furnishing all mounting brackets, screws, washers, cables and cable connections; and for all labor, equipment, tools and incidentals required to complete the work.

**3. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

**NJMC SPECIFICATION  
MASSTR CS-2**

**ITEM 302: ANTENNA/TRANSCIVER ASSEMBLY INSTALLATION**

**1. GENERAL**

This specification sets forth the minimum requirements for installing the pre-assembled wireless transceiver and antenna assembly (Assembly) that is part of the Communication System (CS) of the Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR).

The transceivers and antennas are pre-assembled by the CS vendor into one unit and delivered to the Contractor for installation. The installation shall comply with the installation instructions provided as an attachment to this specification. The contractor is responsible for providing aerial bucket access to the installed antenna/transceivers assembly to the NJMC MASSTR Communication System Manager for final aiming and/or approval of the contractor's aiming of the installed antenna/transceivers assembly. All NJMC MASSTR Communication System Manager's personnel shall be fully certified and insured for access to any equipment utilized for the aerial bucket access. NJMC MASSTR Communication System Manager shall provide the contractor with an insurance liability certificate naming the contractor.

The installation shall at a minimum include mounting the Assembly as directed by the Plans and the NJMC, pulling cables in existing or empty conduits, connecting the Ethernet cables to the transceiver, and properly aiming the antenna at the associated receiving transceiver. Each Ethernet cable shall have a distinctive number labeled at each junction box and both ends for identification. Splices of cables shall not be allowed anywhere.

General Installation Instructions:

1. Antennas shall be separated from any other object (or other antenna) by at least 2-3 feet.
2. Follow instructions on RJ45 connector kit package for proper installation.
3. All CAT weatherized connectors should be taped over with a high quality butyl tape first and then 3M 33+ tape over it.
4. Follow instructions taped to each antenna for orientation. Additional aiming device is available upon request.
5. Blue label should face blue label and red label should face red label.
6. All drip-loops should slope down as per Electrical Installation Code/Standard directing water away from the connector.
7. Verify CAT5 connections with a point to point tester. The test should include testing for continuous ground.
8. Notification to the NJMC MASSTR Communication System Manager is required at least one day prior to scheduling installations for required prepare and support.
9. Care shall be taken when handling all antenna/transceiver assemblies. Never rest on or use antennas to lift or move assemblies.



## 2. MEASUREMENT AND PAYMENT

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
302	Antenna/Transceiver Assembly Installation	Unit

The quantity of the Assembly Installation shall be measured as the number of Assembly installations, completely configured and accepted, and shall be paid for at the Contract unit price for each installation and connection. Price and payment will constitute full compensation for furnishing all auxiliary equipment, including mounting brackets, screws, and washers; and for all labor, equipment, tools, and incidentals required for the safe and secure placement of the Assembly.

Quantities of the Ethernet cable are not measured and paid under this specification, but as separate items under NJMC Specifications CS-3.

## 3. MISCELLANEOUS

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

**NJMC SPECIFICATION  
MASSTR CS-3**

**ITEM 311: ETHERNET CABLE, CAT5E**

**1. GENERAL**

This specification sets forth the minimum requirements for a Cat5e Ethernet cable (Cable) that will be used for the communication system to be built by the Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR). The installation shall include terminating and grounding the Ethernet cable.

**2. CABLE CONSTRUCTION**

The Cable shall be of a Cat5e type, IEEE 802.3 compliant and support 10/100/1000 Base-T network standards.

The Cable shall consist of eight (8) 24 AWG solid bare copper conductors, each insulated with a color coded premium grade flame retardant polyethylene (PE) or Polyolefin (PO) jacket. The insulated conductors shall be twisted into four pairs. The Cable shall have an inner layer of polyester (PET) shield, an outer layer of aluminum foil shield with 100% coverage, an inner jacket and an outer jacket both made from industrial grade black PE or LLPE. The Cable shall have a 24 AWG tinned copper drain wire and shall be filled with flooding compound. Each complete run of cable shall include compatible P8C8 (RJ45) Ethernet connectors at both ends. The copper drain wire insert shall be adequately grounded to the P8C8, or the Ethernet cable shall be grounded by an alternate NJMC approved method. Each segment of cable shall be tested for connectivity using a fluke test, or NJMC approved alternative method, after installation.

The Cable shall be outdoor rated and suitable to the harsh, non-enclosed environment, and shall be Gasoline and Oil Resistant II and UV Resistant. The Cable shall be extremely durable and easy to install in underground conduit systems in order to accommodate the water-resistant requirements and low pulling tension necessary for conduit applications. The cable shall have a nominal jacket outside diameter less than 0.30 inches.

**3. STANDARDS**

- TIA/EIA 568-B.2
- ISO/IEC 11801
- RoHS

**4. CABLE IDENTIFICATION**

The Cable identification shall be printed with the manufacturer’s part number, number of conductors, conductor size, voltage rating, jacket material, and an indication that it is outdoor rated and conduit rated.

During construction, each Ethernet Cable shall be labeled in all junction boxes and cabinets in the format of “E-#”, where the value of the # shall be distinctive.

**5. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
311	Ethernet Cable, Cat5e	Linear Foot

The quantity of the Cable shall be measured as the actual linear feet installed and accepted, and shall be paid for at the Contract unit price per linear foot.

## **6. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

## NJMC SPECIFICATION MASSTR AP-2

### ITEM 411: ANTENNA POLE, TYPE A (75') ITEM 412: ANTENNA POLE, TYPE B (55')

#### 1. GENERAL

This specification sets forth the minimum requirements for the Antenna Pole, Type A and B, (Pole) that are used to mount antennas, transceivers, and cameras as part of the Meadowlands Adaptive Signal System for Traffic Reduction (MASSTR). Two types of Pole(s) are specified within this document:

- Antenna Pole, Type A, (75')
- Antenna Pole, Type B, (55')

#### 2. DESIGN SPECIFICATIONS

The Pole shall be designed conforming to the 2009 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 5<sup>th</sup> edition, incorporated herein by reference, as amended and supplemented.

The design shall utilize the following parameters:

- Design wind velocity - 80 m.p.h. (Appendix C)
- Design ice load - 3 p.s.f.
- Fatigue category - 2
- Design Life - 50 years

All loads applied to all members shall be taken into account for strength design, and all welded structural details shall be analyzed against fatigue. The design should consider, but is not limited to pole, hand hole, base plate, pole-to-base connection, anchor bolts and embedment.

Maximum horizontal deflection at the top of the pole completely assembled with wireless antennas, transceivers and all fixtures attached shall not exceed 2 inches from the center line due to a 40 mph (gust factor 1.3) wind speed (Appendix C wind pressure formula).

Submit detail plans and design calculations of Pole, manufacturer specified antenna/transceiver weight and projection area, and anchor bolt assembly for approval. Ensure the design calculations and working drawings are signed and sealed by a professional engineer licensed in the State of New Jersey.

#### 3. MATERIALS

The steel pole shall be tapered and consist of a maximum of two individual steel sections. The lower section shall be a minimum of 40 feet and maximum of 50 feet long with a minimum thickness of ¼ inches and contain only one longitudinal seam weld. However if the pole diameter is greater than 24 inches, two longitudinal seam welds will be permitted. Either slip joints or full penetration weld joints are acceptable. Laminated tubes are not permitted.

The pole and tenon material shall conform to ASTM Specification A595, Grade A (minimum yield point 55 ksi) or Grade B (minimum yield point 60 ksi). If the pole consists of two segments, they shall be of the same material. As an alternative, the pole (18 sided minimum) and tenon may be formed from steel conforming to ASTM A572 Grade 55 or Grade 60. All other steel shall conform to ASTM Specification A709 (AASHTO M270) Grade 36 or Grade 50. All Pole(s) regardless of thickness and all steel plates greater than ½ inches thickness shall meet the AASHTO requirements for notch toughness (charpy testing) Zone 2. Tenon and both segments of the pole shall be galvanized per ASTM A123 after fabrication.

Anchor bolt materials shall conform to ASTM F1554, Grade 55. The anchor bolts shall be galvanized per ASTM

A153, Class C after threading for the full length of the bolt, as well as nuts and washers. High strength bolts, nuts, and washers shall be galvanized per ASTM A153, Class C.

Stainless steel fasteners (including bolts, nuts and washers) shall conform to ASTM A320, Grade B8, Class 2 (ANSI Type 304) and strain hardened. Ensure all nuts lock type with sealing all threads.

The foundation shall conform to the New Jersey Department of Transportation (NJDOT) ITS Details ITSD-704-15. All concrete shall be "Class B" as defined in the NJDOT Standard Specifications for Road and Bridge Construction, 2007, unless otherwise specified by the Engineer.

#### 4. INSTALLATION

Installation of the Pole(s) shall comply with the NJDOT Standard Specifications for Road and Bridge Construction, 2007.

The Pole(s) shall be installed a minimum of 10 feet from the face of the curb or edge of pavement.

Provide neoprene door gasket.

Provide a galvanized screen, double rap around the base of pole. The galvanized screen shall have an opening of no more than ½ inches wide and be held together with stainless steel nuts, bolts and flat washers.

Grouting under the pole shall not be permitted.

Provide one (1) leveling hex nuts, two (2) hold-down hex nuts and one (2) flat washer per anchor bolt. Determine the proper length of the anchor bolt for projection and embedment. The clearance between the top of the foundation and the bottom of the leveling nut shall not exceed 1½ inches. The projection length shall be a minimum of 9 inches.

All welding shall conform to the ANSI/AWS D1.1 Structural Welding Code-Steel, with NJDOT amendments in NJDOT Standard Specifications. Welding inspection and full penetration weld nondestructive testing shall conform to AWS D1.1. All welding shall be done with E-80T-1 wire.

Locate the top, center and bottom electrical cable guides within the pole and align with each other. Position the bottom cable guide 2 inches below the handhole and top cable guide 1 inch directly below the top of tenon. Position two parking stands a maximum of 2¾ inches below the top of the handhole and located at the 90 degree and 270 degree from the handhole. Ensure each cable guide is 3/8 inches wire eye bolt having 1" internal diameter for wire tie off.

Refer to manufacturer's specifications for the weight and projection area of wireless antennas and wireless transceivers.

The tightening procedure for anchor bolts shall follow Section 6.9 of the 2005 FHWA "Guidelines for the Installation, Inspection, maintenance and Repair of Structural Supports for Highway Signs, Luminaries and Traffic Signals."

The Manufacturer or Contractor shall furnish any and all auxiliary equipment which they deem necessary for safe and reliable installation of the Pole(s), including but not limited to foundation, stainless steel bolts, anchor bolts, nuts, washers and fasteners.

**5. MEASUREMENT AND PAYMENT**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
411	Antenna Pole, Type A, (75')	Unit
742	Foundation Antenna Pole, Type A	Unit

The quantity of Pole will be measured as the actual number of Pole that are completely installed and accepted by the NJMC, including all necessary auxiliary equipment, including but not limited to foundation, stainless steel bolts, anchor bolts, nuts, washers and fasteners.

The quantity of the Pole will be paid for at the Pole unit price for each Pole that is completely installed and accepted by the NJMC. Price and payment will constitute full compensation for furnishing and placing all hardware components, including all necessary auxiliary equipments, including but not limited to foundation, stainless steel bolts, anchor bolts, nuts, washers and fasteners; and for all labor, equipment, tools and incidentals required to complete the installation.

**6. MISCELLANEOUS**

No changes or substitutions in these requirements shall be acceptable unless submitted in writing and authorized in writing by the NJMC and approved in writing by NJDOT. Inquiries regarding this specification shall be addressed to the Chief of Transportation, New Jersey Meadowlands Commission, One DeKorte Park Plaza, Lyndhurst, New Jersey 07071.

**U.S. Route 1/9 T & N.J. Route 440  
Expansion of MASSTR**

**MASSTR**

**NJDOT Standard  
Specifications**



**July 2013**

Prepared By

**New Jersey Meadowlands Commission**

One DeKorte Park Plaza, Lyndhurst New Jersey 07071

[www.njmeadowlands.gov](http://www.njmeadowlands.gov)

## Part I. New Jersey Department of Transportation (NJDOT) Standard Specification for Road and Bridge Construction 2007

All other pay items shall conform to the NJDOT Standard Specification for Road and Bridge Construction 2007 (NJDOT SSRBC 2007) as amended and supplemented and Standard Electrical and Construction Details, with the following special provisions **marked in bold** in the following:

ITEM	ITEM NAME
101	Maintenance and Protection of Traffic
102	Police Traffic Control
751	PTZ Camera Assembly
752	PTZ Camera / Transceiver Assembly Lowering System
753	Hardened Video Encoder

Section 159.04 of the NJDOT SSRBC 2007 shall be revised to read as follows:

**159.04 MEASUREMENT AND PAYMENT**

**The NJMC will measure and make payment for Items as follows:**

<b>Item</b>	<b>Description</b>	<b>Pay Unit</b>
101	MAINTENANCE AND PROTECTION OF TRAFFIC	LUMP SUM
102	POLICE TRAFFIC CONTROL	POLICE HOURS

**The Contractor is responsible for the payment of the hours incurred by a police officer(s) and all associated police costs required at the construction site. *Police Traffic Control* is the designated pay item.**

The following sentence is added to Sections 701.03.02, 701.03.03, and Section 606.03.02 of the NJDOT SSRBC 2007:

**All existing roadway and sidewalk surfaces shall be sawcut for conduit installation. The cost of sawcutting to be included in the unit price for various sidewalk and pavement pay items. All existing sidewalk shall be replaced in kind using tinted and/or imprinted concrete where applicable.**

**ITEM 751: PTZ CAMERA ASSEMBLY**

September 2011

**SECTION 1 - GENERAL**

- 1-1 Ensure that the camera:
- Is a dome or positional type as specified in the contract.
  - Is compatible with encoder.
  - Has Electronic Image Stabilization
  - Has Compass Direction

1-2 **STANDARDS**

- NEMA Type 4X
- As a minimum, IP 66 Environmental Rating
- EIA RS-232, RS-422/485
- UL Listed for outdoor use
- NEC

1-3 **POWER SUPPLY**

- Power: 24 VAC
- Input voltage: 120 or 240 volt user selectable.
- UL listed and meeting NEMA 4X and IP66 standards.

1-4 **POWER AND COMMUNICATIONS CABLES**

- Ensure that the unit is provided with all power, control, and communications (composite) cables.**
- Ensure they are suitable for burial underground in a duct and able to withstand wet environments.
- Ensure power cables provide power to Camera & PTZ equipment, including ancillary equipment to provide proper functionality and for testing purposes.
- Ensure cables are of proper length as detailed in the Camera/Transceiver Assembly Lowering System specification.**

1-5 **HEAD END COMPATIBILITY**

Ensure the provided equipment is compatible from the camera to the head end Genetec controller software and meets applicable NTCIP requirements. Code translators may be required to be installed for communicating the PTZ data from the NJDOT video operating system to the camera. This requirement is solely determined by the Contractor' System Integrator based on the proposed system submitted for approval. Provide the necessary power supplies for code translation equipment that are suitable for installation in an outdoor cabinet enclosure. Input voltage for the power supplies are to be 120 Volt, 60 Hz

and output voltage meeting code translation requirements. Ensure that the units are UL listed and meet NEMA 1 standards.

#### 1-6 REMOTE MONITORING SYSTEM

Ensure that the remote monitoring system includes the necessary kits, ports and cables designed to provide ground level, local interface to the field installed system. Ensure conformity to NEMA 4X, UL, and FCC Class B Ratings where they apply,

Ensure that the unit meets the following general requirements:

a. The outdoor CCTV remote data port allows for the control and setup of camera when used with compatible remote monitor kit or remote monitor cable.

a. The remote data port allows for new operating code and language files to be uploaded to camera system.

b. The remote data port is able to receive commands from standard personal computers and PDA devices utilizing serial communications between the remote data port and camera system.

d. The enclosure and data port meets or exceeds the following design and performance specifications:

Port Enclosure:

- |                       |   |
|-----------------------|---|
| 1. Size:              | large enough to accommodate multiple ports, wiring, and terminal blocks and adapters. |
| 2. Door latch:        | Stainless steel; means for locking with a padlock                                     |
| 3. Input Voltage:     | 24 VAC  |
| 4. Power Consumption: | 1 VA  |
| 5. Operating Range:   | -50° to 122°F   |
| 6. Weight:            | 6.5 lbs max.  |

Data port:

1. At least one RJ-45 and other ports that may be necessary for control, programming, and viewing
2. Video transmission from camera system to control equipment over coaxial cable or unshielded twisted pair (UTP)
3. Lock out control from head end when cable is plugged into RJ-45 jack
3. An audible alarm sounds when the door is open until cable is plugged into RJ-45 jack and the audible alarm sounds again when cable is removed to remind operator to latch the door closed
5. Each remote data port controls only one camera system

#### SECTION 2 - DOME CAMERA CHARACTERISTICS

Ensure that the Dome Camera is an outdoor environmental CCTV camera dome system with a discreet, miniature camera dome system consisting of a dome drive with a variable speed/high speed pan and tilt

drive unit with continuous 360° rotation, 1/4-inch high resolution EXview HAD™ camera, motorized zoom lens with optical and digital zoom and auto focus; and an enclosure consisting of a back box, lower dome, and a quick-install pole adapted mounting. Ensure that the unit meets NEMA Type 4X and IP66 environmental standards and is suitable for outdoor installation atop poles up to 75' high. Ensure that the unit operates at 24 VAC nominal with maximum 110 Watt power consumption. Ensure that the unit meets or exceeds the following design and performance specifications:

2-1 DOME DRIVE

- |                                 |  |
|---------------------------------|--|
| 1. Pan Speed:                   | 250° per second  |
| 2. Vertical Tilt:               | Unobstructed tilt of +2° to -92°   |
| 3. Manual Control Speed:        | Pan speed of 0.1° to 80° per second, Tilt operation range from 0.1° to 40° per second  |
| 4. PTZ Protocol:                | Mandatory NTCIP 1205 Camera Control, Genetec PTZ protocol supported  |
| 5. Automatic Preset Speed:      | Pan speed of 250° and a tilt speed of 100° per second  |
| 6. Presets:                     | Sixty-four preset positions with a 20-character label available for each position; programmable camera settings, including selectable auto focus modes, iris level, and backlight compensation, for each preset; command to copy camera settings from one preset to another; preset programming through control keyboard or through dome system on-screen menu |
| 7. Preset Accuracy:             | 0.1°   |
| 8. Proportional Pan/Tilt Speed: | Speed decreases in proportion to the increasing depth of Zoom  |
| 9. Automatic Power-Up:          | User-selectable to the mode of operation the dome will assume when power is cycled, including automatically returning to position or function occurring before power outage.   |
| 10. Zones:                      | Eight zones with up to 20-character labeling for each, with ability to blank the video in the zone   |
| 11. Motor Operating Mode:       | Microstep to 0.015° steps  |
| 12. Motor:                      | Continuous duty, variable speed, operating at 18 to 30 VAC, 24 VAC nominal   |
| 13. Limit Stops:                | Programmable for manual panning, auto/random scanning, and frame scanning  |
| 14. Alarm Inputs:               | N.O./N.C. dry contacts   |
| 15. Alarm Outputs:              | One auxiliary Form C relay output and one open collector auxiliary output  |

16. Alarm Output Programming: Auxiliary outputs can be alternately programmed to operate on alarm
17. Alarm Action: Individually programmed for three priority levels, initiating a stored pattern or going to a pre-assigned preset position
18. Resume after Alarm: After completion of alarm, dome returns to previous programmed state or its previous position
19. Window Blanking: Eight four-sided, user-defined shapes, with each side being of different lengths; window blanking setting to turn off at user-defined zoom ratio; window blanking set to opaque gray or translucent smear; blank all video above user-defined tilt angle; blank all video below user-defined tilt angle.
20. Patterns: Four user-defined programmable patterns including pan, tilt, zoom, and preset functions; pattern programming through control keyboard or through dome system onscreen menu
21. Pattern Length: Four patterns of user-defined length, based on dome memory
22. Auto Sensing: Automatically sense and respond to protocol utilized for controlling unit; including NTCIP compliant control protocols and translators
23. Menu System: Built-in for setup of programmable functions in English
24. Auto Flip: Rotates dome 180° at bottom of tilt travel
25. Password Protection: Programmable settings with optional password protection
26. Clear: Clear individual, grouped, or all programmed settings
27. Diagnostics: On-screen diagnostic system information
28. Freeze Frame: Freeze current scene of video during preset movement
29. Display Setup: User-definable locations of all labels and displays; user selectable time duration of each display
30. Azimuth/Elevation/Zoom: On-screen display of pan and tilt locations and zoom ratio
31. Compass Display: On-screen display of compass heading; user-definable compass setup
32. Video Output Level: User-selectable: normal or high to compensate for long video wire runs
33. Dome Drive Compatibility: All dome drives are compatible with all back box configurations
34. RJ-45 Jack: Plug-in jack on dome drive for control and setup of unit and for uploading new operating code and language file updates. Compatible with personal computers.

35. Remote Data Port Compatibility: Ability to control and setup unit and to upload new operating code and language file updates through optional remote data port that is located in area with easy access. Compatible with personal computers.
36. UTP Compatibility: Ability to plug into back box an optional board that converts video output to passive, unshielded twisted pair transmission
37. Fiber Optic Compatibility: Ability to plug into back box an optional third-party board that converts video output and control input to fiber optic transmission
38. Third-Party Control Systems: Ability to plug in optional board that converts control signals from selected third-party controllers
39. Power Consumption: Maximum 110 W

## 2-2 COLOR/BLACK-WHITE OPTIC SYSTEM (35X)

1. Image Sensor: 1/4-inch high resolution EXview HAD™
2. Scanning System: 2:1 interlaced output
3. Effective Pixels: NTSC 768 x 494
4. Horizontal Resolution: NTSC 540 TVL
5. Lens: f/1.4 (focal length, 3.4~119 mm; 35X optical zoom with Electronic Image Stabilization, 12X digital zoom)
6. Zoom Speeds: Minimum two settings; Fast Setting response 3.2 seconds; Slow Setting 6.6 seconds
7. Horizontal Angle of View: 55.8° at 3.4 mm wide zoom, 1.7° at 119 mm telephoto zoom
8. Focus: Automatic with manual override
9. NTSC Sensitivity : 0.00018 lux at 1/2 sec shutter speed (BW) @ 35 IRE 0.55 lux at 1/60 sec shutter speed (color) @ 35 IRE 0.018 lux at 1/2 sec shutter speed (color) @ 35 IRE 1.0 lux at 1/60 sec shutter speed (color) @ 50 IRE 0.05 lux at 1/2 sec shutter speed (color) @ 50 IRE 0.01 lux at 1/4 sec shutter speed (BW) @ 50 IRE
10. Synchronization System: Internal/ AC line lock phase adjustable through remote control, V-sync OR Crystal
11. White Balance: Automatic with manual override
12. NTSC Shutter Speed: up to 1/30,000
13. Iris Control: Automatic with manual override
14. Gain Control: Automatic/ off
15. Video Output: 1 Vp-p, 75 ohms

- |                            |  |
|----------------------------|--|
| 16. Video Signal-to-Noise: | >50 dB   |
| 17. Wide Dynamic Range:    | minimum 80X  |
| 18. Motion Detection:      | User-definable motion detection settings for each preset scene, can activate auxiliary outputs, and contains 3 sensitivity levels per zone |

### 2-3 BACK BOX AND LOWER DOME

#### Heavy Duty Pendant Environmental

- |                              |   |
|------------------------------|---|
| 1. Connection to Dome Drive: | Quick, positive mechanical and electrical disconnect without the use of any tools   |
| 2. Trap Door:                | Easy-access trap door that allows complete access to the installation wiring and, when closed, provides complete separation of the wiring from the dome drive mechanics                                     |
| 3. Terminal strips:          | Removable with screw-type terminals for use with a wide range of wire gauge sizes   |
| 4. Auxiliary Connections:    | One Form-C relay output at <40 V, 2 A maximum, and a second open collector output at 32 VDC maximum at 30 mA  |
| 5. Alarm inputs:             | Seven   |
| 6. Installation:             | Quick-mount wall, corner, pole, parapet, or ceiling adapter   |
| 7. Cable Entry:              | Through a 1.5-inch NPT fitting  |
| 8. Environmental Features:   | Factory-installed heaters, blowers, and sun shroud  |
| 9. Operating Temperatures:   | Continuous operating range of -29.2° to 122°F   |
| 10. Memory:                  | Built-in memory storage of camera and location- specific dome settings such as presets and patterns. If new dome drive is installed in back box, all settings to download automatically into new dome drive |
| 11. Color:                   | Gray, baked-on enamel powder coat   |
| 12. Construction:            | Anti-impact, vandal resistant, dual wall aluminum enclosure with a min, 0.090-inch thick, clear polycarbonate lower dome and aluminum trim ring   |
| 13. Disconnect:              | Quick to dome drive   |
| 14. Dimensions:              | Pendant 10.6-13.74-inch overall length (including dome) by 8.6-11.05-inch diameter  |
| 15. Weight:                  | 14.0 lbs max  |

**SECTION 3 - POSITIONAL CAMERA**

## 3-1 CAMERA WITH PTZ UNIT

Ensure that the Positional Camera conforms to the aforementioned requirements in Section 2-2 with an integrated environmental PTZ control unit with receiver/driver. The Positional Camera is to be mounted on the pole top plate.

Ensure that the unit meets NEMA 4X and IP 66 environmental standards and that the unit includes, meets, or exceeds the following design and performance specifications:

- |                            |   |
|----------------------------|---|
| 1. Mounting:               | Internal cabling and easy attachments for quick mounting.   |
| 2. Camera/lens package:    | Pre-installed and manufactured tested camera/lens   |
| 3. Heater/ defroster:      | Suitable for outside environment with heater/ defroster package.  |
| 4. Pan/tilt drive unit:    | High speed, utilizing high speed stepper motors, capable of pre-set pan speeds of up to 100° per second and tilt speeds of 30° per second in wind speeds of up to 50 mph, and pre-set speeds of 50° per second in wind speeds up to 90 mph. |
| 5. Pan speeds:             | Variable standard up to 40° per second while sustaining wind speeds of up to 90 mph.  |
| 6. Tilt speeds:            | 20° per second while sustaining wind speeds of up to 90 mph.  |
| 7. Weight:                 | Up to 25 lbs.   |
| 8. Pre-wired:              | Power input, camera, lens, heater, and window defroster functions.  |
| 9. Operating voltage:      | 24VAC from a 120VAC 60Hz source.  |
| 10. Power consumption:     | Maximum of 160W   |
| 11. Operating temperature: | -29°F to 122°F and capable of de-icing and operating at an ambient temperature of -13°F within two hours of power on.   |
| 12. Pan rotation:          | 360° continuous and a tilt range of +40° to -90° from horizontal.   |
| 13. Pre-sets:              | 64 positions with a preset accuracy of 1/2° utilizing electronic limit stops.   |
| 14. PTZ Protocol:          | Mandatory NTCIP 1205 Camera Control, Genetec PTZ protocol supported   |
| 15. Construction/Finish:   | extruded and sheet aluminum; stainless steel hardware; powdered coated aluminum finish  |
| 16. Viewing window:        | 0.23" min. thick, optically clear impact and scratch resistant coating  |

**MEASUREMENT AND PAYMENT - III**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
751	PTZ Camera Assembly	Unit

The quantity of the PTZ Camera Assembly shall be measured as the actual units installed and accepted, and shall be paid for at the Contract unit price.

**ITEM 752: PTZ CAMERA/TRANSCAIVER ASSEMBLY LOWERING SYSTEM**

September 2011

These specifications describe the minimum acceptable design and operating requirements for the individual components of **Camera/Transceiver Assembly Lowering System**.

**SECTION 1 - GENERAL**

Ensure that the **Camera/Transceiver Assembly Lowering System** is designed to support, raise and lower a pole mounted dome type **Camera/Transceiver Assembly** complying with the following:

1-1 **Standards**

- a. AASHTO - Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, with Latest Interim.
- b. National Fire Protection Code (NFPA), NFPA 70, National Electrical Code (NEC)

1-2 **Basic Design**

Ensure that the **Camera/Transceiver Assembly Lowering System** consists of the following:

- a. A suspension contact unit
- b. Divided support arm
- c. A pole adapter and suspension contact unit fitter
- d. Control Cable and Pulleys
- e. Camera/transceiver Assembly junction box**
- f. PTZ Camera and Transceiver Assembly composite cables**

1-3 **Performance and requirements**

Design wind velocity:	100mph with a 30 percent gust factor
Design safety factor:	1.50-Safety factor
Minimum effective projected area:	Exceeds unit with attached camera/transceiver assembly
Load capacity:	200 lbs. with a 4:1 Safety factor

1-4 **Environment**

Operating temperature range:	-20°F to +158 °F
Relative humidity:	0 to 95 percent non-condensing

1-5 **Electrical Power**

Operating voltage:	120 volt AC
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Voltage range: 105 to 125 volts AC at 60 hertz

#### 1-6 Materials

- a. Structural components are to be heavy-duty cast aluminum alloy or stainless steel unless otherwise noted on contract plans.
- b. Housing seals are to be flexible polymer water-tight gaskets
  - a. All dissimilar metals are to be protected from corrosion for the life of the device.
  - b. All external components are to be made of corrosion resistant material and protected from the environment by industry-accepted coatings to withstand exposure to the environment.

#### 1-7 Suspension Contact Unit

Basic Configuration:

- a. Load capacity is required to be 200 lbs. with a 4:1 safety factor.
- b. Suspension contact unit housing is to be weatherproof with gasket seal.
- c. The **Camera/Transceiver Assembly** lowering junction box is to accept an NPT 1.5" pipe mount.
- d. Provide locking mechanism between the fixed and moveable components.
- e. The fixed unit is to have a heavy duty cast tracking guide.

Electrical Contacts:

- a. Mated pin and socket contacts
- b. Self-aligning contact molded housing
- c. All provide a rain tight seal when mated

#### **Connection:**

**The PTZ Camera and Transceiver Assemblies composite cables (up to 350 feet unless otherwise specified or required) are to be continuous run to the ITS or traffic signal cabinet and sized for the camera/antenna pole height to which it is mounted.**

#### 1-8 Divided Support Arm

- a. Minimum 2 inch divided connecting arm.
- b. Provide rigid connection between the suspension contact unit and pole adapter fitter.
- c. Separate cable runs for electrical and signal wires.
- d. Supports the suspension contact unit and camera assembly.

1-9 Suspension Contact Unit Fitter

Suspension contact unit fitter is to rigidly connect the suspension contact unit to isolate the moving lowering cable from the electrical and video cables.

Material: Heavy-duty cast aluminum alloy.

Pulleys: High strength and low resistance.

1-10 Pole Adapter Fitter

Pole adapter fitter is to rigidly connect the pole to the divided arm support and to isolate the moving lowering cable from the electrical and video cables.

Material: Heavy-duty cast aluminum alloy.

Pulleys: High strength and low resistance

1-11 Control Cable & Pulley

Ensure that pulleys have sealed, self-lubricated bearings, oil tight bronze bearings or sintered bronze bushings. Ensure that:

a. Lowering control cable is a minimum 1/8-inch diameter stranded stainless steel cable.

b. Minimum breaking strength is 1740 lbs.

c. Control cable guides are located within the pole.

1-12 Camera/Transceiver Assembly Lowering System Junction Box

Ensure that:

a. The **Camera/Transceiver Assembly** junction box that connects the **camera/transceiver assembly** to the lowering device has a two-piece design with a 1.5" NPT pipe receptacle for easy **camera/transceiver assembly** mounting.

b. Material is corrosion resistant cast aluminum.

c. It contains a large capacity-splicing compartment for camera power, signal leads, and connectors.

d. There is ample room for securely mounting and accessing lightning protection devices for power, data and video, isolated from the junction box itself.

e. It is provided with weights and /or counterweights to assure the alignment of pins and connectors.

f. The power and signal connectors are provided for attachment to the bare leads in the junction box or camera dome to make the system operational.

1-13 Composite Cable

**Standard cabling will consist of a PTZ Camera Assembly composite cable which includes, (1)-RG-6 coax cable, (1)-Cat 5e Ethernet cable (to be provided as per spec CS-5) and (1)-16 gauge low voltage power cable and a Transceiver Assembly composite cable which consists of (3)-Cat 5e Ethernet cables (to be**

provided as per spec CS-5). Provide the camera/transceiver assembly lowering system with a direct continuous run (no splices) of PTZ Camera and Transceiver Assembly composite cables (up to 350 feet unless otherwise specified or required), wired, sealed and connectorized from the top connector to the ITS and/or traffic signal cabinet sized for the camera/antenna pole height to which it is mounted. The price for the PTZ camera and Transceiver Assembly composite cables shall be included in cost of Pay Item 752 Camera/Transceiver Assembly Lowering System.

Ensure the cables are suitable for wet environments, burial underground in duct and are certified to same.

#### 1-14 Test Cable

Supply a control cable and harness to plug into the suspension contact unit to provide the capability to fully test the camera and its functions while being serviced on the ground before the camera is hoisted to the locked position at the top of the pole.

### SECTION 2 - WINCH ASSEMBLY ACCESORIES

Provide a built-in permanent winch assembly with cable mounted inside the pole that is accessible via a hand hole. Ensure that it operates using portable electrical drill and also by using a manual crank handle. Provide a Portable Drill and a Drill Adaptor Assembly for operating the lowering device. Also provide a Manual Hand Crank assembly with crank handle to operate the lowering device manually without a drill as a backup. The built-in winch is to have a quick release cable connector and an adjustable safety clutch. The portable drill is to be an adequately sized variable speed, industrial-duty reversible motor electric drill.

Ensure that the built-in winch is:

- a. Accessible through the pole hand hole for repairs, operation or replacement.
- b. Securely attached inside the pole.
- c. Supporting itself and the load assuring lowering/raising operations.
- d. Preventing freewheeling when loaded.
- e. Provided with reducing gear to reduce the loading effort.
- f. Ready for quick connect/disconnect of Drill Adaptor Assembly for portable drill operation.
- g. Ready for quick connect/disconnect of Manual Hand Crank Assembly for manual operation.

#### 2-1 Winch Assembly Specifications:

- Gear Ratio: 15:1
- Vertical lift max.: 1,000 lbs.
- Pulling capacity single line: 1,000 lbs
- Pulling capacity double line: 1,900 lbs
- Drum capacity for 1/8 in. cable: 140 ft.
- Drum capacity for 3/16 in. cable: 61 ft.
- Gear ratio: 15:1

- Length: 7-1/2 in.
- Width: 11-13/16 in.
- Height: 15-19/32 in.
- Weight: 21 lbs max

2-2 Drill Adapter Assembly and Portable Electric Drill

Portable Electric Drill with Overload Clutch

- 1/2" drill chuck
- Variable speed up to 500 rpm max.
- Heavy duty reversible motor

Drill Adapter Assembly

- 7/16" drill motor adapter
- Torque limiter
- 7/16" hex drive adapter
- Extension shaft
- 1-1/8 in. hex impact socket with part release access

2-3 Manual Hand Crank Assembly

- 1-1/8 in. hex socket with part release access
- Extension shaft
- Arm with rotating handle to steady assembly

**MEASUREMENT AND PAYMENT - III**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Item No.	Pay	Item Description	Pay Unit
752		PTZ Camera/Transceiver Assembly Lowering System	Unit

The quantity of the PTZ Camera/Transceiver Assembly Lowering System shall be measured as the actual units installed and accepted, and shall be paid for at the Contract unit price.

**ITEM 753: HARDENED VIDEO ENCODER**

September 2011

**SECTION 1 - GENERAL**1-1 Standards and Certifications

Institute of Electrical and Electronics Engineers (IEEE) and Operating Standards:

- IEEE 802.3 10 Base-T
- ISO/IEC 14496-2 Simple profile video standard

Safety Certifications:

- Electromagnetic Emissions: Federal Communication Commission (FCC) Part 15, (Sub Part B, Class A)

**SECTION 2 - HARDENED VIDEO ENCODER CHARACTERISTICS**2-1 Functional Requirements

- Convert analog video and serial PTZ data to MPEG4 Video stream for transmission over Ethernet Network.
- Compatible with NJDOT digital video operating system - GENETEC Omnicast.
- Transparent serial port supporting any asynchronous serial protocol.
- Compression: MPEG-4 simple profile and MJPEG
- Number of MPEG-4 Streams: Dual Streams
- MPEG Resolution: Scalable from 176x128 to 704x480 pixels 1CIF, 2CIF, 4CIF, user selectable for each stream.
- Bandwidth: 30 Kbps to 6Mbps user selectable for each stream.
- Transport Protocols: RTP/IP, UDP/IP, TCP/IP, Multicast IP
- Other Protocols: DNS, NTP, HTTP, FTP and DHCP client

2-2 Management

- HTML Web Browser with Password Protection, Telnet
- Flash memory of video codec and firmware upgrade over the network
- \*HTTPS based Authentication
- \*For Broadband and ISP applications

2-3 Interface and Connectors

- Serial Interface (PTZ): EIA RS-422/RS-485 Transparent serial port supporting any asynchronous serial protocol.
- Video: 1 Composite, 1Vpp into 75 ohms (NTSC), BNC female connector.

- Ethernet Network: 10/100Base-T Cat5e, RJ-45 connector

2-4 Indicators

- LED Indicator showing Power Status
- LED Indicators showing status and activity of each port

2-5 Mechanical Specifications

- Max. Dimension not to exceed: 5" L X 4"W x 2" H
- Max. Weight not to exceed: 1 lb

2-6 Environmental Specifications

- Operating Temperature: -22°F to +140°F
- Operating Humidity: 95% non-condensing at 122°F

2-7 Electrical Power

The power supply is to be equipped with a minimum of a six (6) foot power cord terminating in a standard three (3) prong line plug. Maximum power requirement is not to exceed 10 watts for each unit.

2-8 Software

Provide Software License(s) with the unit.

2-9 Identification

Identify Hardened Video Encoder with a metal plate containing the serial number with bar code identification. Provide phenolic nameplate with switch designation shown on Contract Documents. Provide manuals and training documentation, and electronic version of custom configurations on compact disc media.

2-10 Standard Configuration

Input		Output	
Minimum Number of Required Ports		Minimum Number of Required Ports	
NTSC Video	1	Ethernet RJ45	1
RS-422/485 (PTZ)	1		

The video channel and data channel is to have the capability to configure to independent IP address and port number.

2-11 List of Equipment

Provide the following with each Hardened Video Encoder:

- Documentation
- External power supply (if required)

- All required custom connections
- Mounting brackets/shelf (if required)

**MEASUREMENT AND PAYMENT - III**

The following NJMC pay items shall be measured and paid for under this specification:

NJMC Pay Item No.	Item Description	Pay Unit
753	Hardened Video Encoder	Unit

The quantity of the hardened video encoder shall be measured as the actual units installed and accepted, and shall be paid for at the Contract unit price.

## APPENDIX D: NJDOT SPECIAL PROVISIONS

### AUTHORIZATION OF CONTRACT

The Contract is authorized by the provisions of Title 27 of the Revised Statutes of New Jersey and supplements thereto, and Title 23 of the United States Code - Highways.

### SPECIFICATIONS TO BE USED

The 2007 Standard Specifications for Road and Bridge Construction, of the New Jersey Department of Transportation as amended and supplemented will govern the construction of this Project and the execution of the Contract.

These Special Provisions consist of the following:

Pages 1 to \_\_\_ inclusive.

General wage determinations issued under Davis-Bacon and related acts, published by US Department of Labor, may be obtained from the Web Determinations online web site at <http://www.wdol.gov/dba.aspx#0> Select state, county and construction type heading: HIGHWAY where the Project is to be performed then click Search.

Pay the prevailing wage rates determined by the United States Secretary of Labor and the New Jersey Department of Labor. If the prevailing wage rate prescribed for any craft by the United States Secretary of Labor is not the same as the prevailing wage rate prescribed for that craft by the New Jersey Department of Labor, pay the higher rate. State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development's web site at [http://lwd.dol.state.nj.us/labor/wagehour/wagehour\\_index.html](http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html). The State wage rates in effect at the time of award are part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

The following FHWA funded project Attachments that are located at the end of these Special Provisions:"

1. Required Contract Provisions, Federal-Aid Construction Contracts (Form FHWA-1273).
2. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246).
3. Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246).
4. State of New Jersey Equal Employment Opportunity for Contracts Funded by FHWA.
5. Emerging Small Business Enterprise Utilization Attachment, FHWA Funded Contracts.
5. Disadvantaged Business Enterprise Utilization Attachment, FHWA Funded Contracts
- 5(A) The Incentive Program, Disadvantaged Business Enterprise Utilization Attachment for FHWA Funded Contracts.
6. Equal Employment Opportunity Special Provisions.
7. Special Contract Provisions for Investigating, Reporting, and Resolving Employment Discrimination and Sexual Harassment Complaints.

The following additional project specific Attachments are located at the end of these Special Provisions:

State wage rates may be obtained from the New Jersey Department of Labor & Workforce Development (Telephone: 609-292-2259) or by accessing the Department of Labor & Workforce Development's web site at

[http://lwd.dol.state.nj.us/labor/wagehour/wagehour\\_index.html](http://lwd.dol.state.nj.us/labor/wagehour/wagehour_index.html) The State wage rates in effect at the time of award are part of this Contract, pursuant to Chapter 150, Laws of 1963 (NJSA 34:11-56.25, et seq.).

If an employee of the Contractor or subcontractor has been paid a rate of wages less than the prevailing wage, the Department may suspend the Work, and declare the Contractor in default.

The following Wholly State funded project Attachments that are located at the end of these Special Provisions:"

1. State of New Jersey Equal Employment Opportunity Special Provisions for Construction Contracts Funded by Wholly or partially State Funds.
2. Payroll Requirements for 100 Percent State Projects.
3. Americans with Disabilities Act for 100 Percent State Funded Contracts.
4. Small Business Enterprise Utilization Attachment for 100% State Funded Contracts.

The following additional project specific Attachments are located at the end of these Special Provisions:

## STATE ATTACHMENT NO. 1

### STATE OF NEW JERSEY EQUAL EMPLOYMENT OPPORTUNITY SPECIAL PROVISIONS FOR CONSTRUCTION CONTRACTS FUNDED BY WHOLLY OR PARTIALLY STATE FUNDS

#### I. GENERAL

It is the policy of the New Jersey Department of Transportation (hereafter "NJDOT") that its contracts should create a workforce that reflects the diversity of the State of New Jersey. Therefore, contractors engaged by the NJDOT to perform under a construction contract shall put forth a good faith effort to engage in recruitment and employment practices that further the goal of fostering equal opportunities to minorities and women.

The contractor must demonstrate to the NJDOT's satisfaction that a good faith effort was made to ensure that minorities and women have been afforded equal opportunity to gain employment under the NJDOT's contract with the contractor. Payment may be withheld from a contractor's contract for failure to comply with these provisions.

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

1. The Contractor shall recruit prospective employees through the State Job bank website, managed by the Department of Labor and Workforce Development, available online at <http://NJ.gov/jobCentralNJ>;  
  
Note: Posting shall not be required where the employer intends to fill the job opening with a present employee, a laid-off former employee, or a job candidate from a previous recruitment, where pre-existing legally binding collective bargaining agreements provide otherwise, or where an exception has been granted to the NJDOT by the Department of Labor and Workforce Development.
2. The Contractor shall keep specific records of its efforts, including records of all individuals interviewed and hired, including the specific numbers of minorities and women;
3. The Contractor shall actively solicit and shall provide the NJDOT with proof of solicitation for employment, including but not limited to advertisements in general circulation media, professional service publications and electronic media; and
4. The Contractor shall provide evidence of efforts described at 2 above to the NJDOT no less frequently than once every 12 months.
5. The Contractor shall comply with the requirements set forth at N.J.A.C. 17:27.

The Contractor is required to implement and maintain a specific Affirmative Action Compliance Program of Equal Employment Opportunity in support of the New Jersey "*Law Against Discrimination*", N.J.S.A. 10:5-31 et seq., and according to the Affirmative Action Regulations set forth at N.J.A.C. 17:27-1.1 et seq.

The provisions of N.J.S.A. 10:2-1 through 10:2-4 and N.J.S.A. 10:5-31 et seq., as amended and supplemented) dealing with discrimination in employment on public contracts, and the rules and regulations promulgated pursuant thereto, are hereby made a part of this contract and are binding upon the Contractor.

Noncompliance by the Contractor with the requirements of the Affirmative Action program for Equal Employment Opportunity may be cause for delaying or withholding monthly and final payments pending corrective and appropriate measures by the Contractor to the satisfaction of the Department.

The Contractor will cooperate with the state agencies in carrying out its Equal Employment Opportunity obligations and in their review of its activities under the contract.

The Contractor and all its subcontractors, not including material suppliers, holding subcontracts of \$2,500 or more, will comply with the following minimum specific requirement activities of Equal Opportunity and Affirmative Action set forth in these special provisions. The Contractor will include these requirements in every subcontract of \$2,500 or more with such modification of language in the provisions of such contracts as is necessary to make them binding on the subcontractor.

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

1. 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.
2. 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.
3. The Contractor or subcontractor, where applicable, will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.
5. When hiring or scheduling workers in each construction trade, the Contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the The Division of Public Contracts Equal Employment Opportunity Compliance (hereafter "Division") may, in its discretion, exempt a Contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, a, b, and c, as long as the Division is satisfied that the Contractor or subcontractor is employing workers provided by a union which provides evidence, in accordance with standards prescribed by the Division, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The Contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

- a. If the Contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the Contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the Contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the Contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the Contractor or subcontractor agrees to afford equal employment opportunities to minority and women workers directly, consistent with this chapter. If the Contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the Contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (b) below; and the Contractor or subcontractor further agrees to take said action immediately if it determines or is so notified by the Division that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.
- b. If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (a) above, or if the Contractor does not have a referral agreement or arrangement with a union for a construction trade, the Contractor or subcontractor agrees to take the following actions:
  - (1) To notify the Public Agency Compliance Officer, the Division, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;
  - (2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;
  - (3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the Contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;
  - (4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the Contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;
  - (5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable State and Federal court decisions;
  - (6) To adhere to the following procedure when minority and women workers apply or are referred to the Contractor or subcontractor:
    - (i) The contractor or subcontractor shall interview the referred minority or women worker.
    - (ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the Contractor or subcontractor shall in good faith determine the qualifications of such individuals. The Contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However a Contractor or subcontractor shall determine that the individual at least possesses the requisite skills and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Division. If necessary, the Contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (c) below.

- (iii) The name of any interested women or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in paragraph (i) above whenever vacancies occur. At the request of the Division, the Contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.
  - (iv) If, for any reason, said Contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the Contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the Public Agency Compliance Officer and to the Division.
- (7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract, and on forms made available by the Division and submitted promptly to the Division upon request.
- c. The Contractor or subcontractor agrees that nothing contained in (b) above shall preclude the Contractor or subcontractor from complying with the hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (b) above without regard to such agreement or arrangement; provided further, however, that the Contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the Contractor or subcontractor agrees that, in implementing the procedures of (b) above, it shall, where applicable, employ minority and women workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the Contractor shall submit to the Public Agency Compliance Officer and the Division an initial project workforce report (Form AA 201) provided to the public agency by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7.

The Contractor and each subcontractor must submit monthly employment and wage data to the Department via a web based application using electronic Form CC-257R. Instructions for registering and receiving the authentication code to access the web based application can be found at:

<http://www.state.nj.us/transportation/business/Civilrights/pdf/CC257.pdf>

Instructions on how to complete Form CC-257R are provided in the web application. Submit Form CC-257R through the web based application within 10 days following the end of the reporting month.

All employment and wage data must be accurate and consistent with the certified payroll records. The Contractor is responsible for ensuring that their subcontractors comply with these reporting requirements. Failure by the Contractor to submit Monthly Employment Utilization Reports may impact the contractor's prequalification rating with the Department.

- d. 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 Division 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 **Subchapter 10 of the Administrative Code (NJAC 17:27)**.

- e. The Contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and off-the-job programs for outreach and training of minority and female trainees employed on the construction projects.

## **II. EQUAL EMPLOYMENT OPPORTUNITY POLICY**

The Contractor agrees that it will accept and implement during the performance of this contract as its operating policy the following statement which is designed to further the provision of Equal Employment Opportunity to all persons without regard to their age, race, color, religion, creed, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex and to promote the full realization of Equal Employment Opportunity through a positive continuing program:

“It is the policy of this company that it 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 and that it will take Affirmative Action to ensure that applicants are recruited and employed 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 action 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.”

## **III. EQUAL EMPLOYMENT OPPORTUNITY OFFICER**

The Contractor will designate and make known to the Department contracting officers an Equal Employment Opportunity Officer (hereafter “EEO Officer”) who will have the responsibility for and must be capable of effectively administering and promoting an active Equal Employment Opportunity program and be assigned adequate authority and responsibility to do so.

## **IV. DISSEMINATION OF POLICY**

- A. All members of the Contractor’s staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, will be made fully cognizant of, and will implement, the Contractor’s Equal Employment Opportunity Policy and contractual responsibilities to provide Equal Employment Opportunity in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
  - 1. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every 6 months, at which time the Contractor’s Equal Employment Opportunity Policy and its implementation will be reviewed and explained. The EEO Officer or other knowledgeable company official will conduct the meetings.
  - 2. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the Contractor’s Equal Employment Opportunity obligations within 30 days following their reporting for duty with the Contractor.
  - 3. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer or appropriate company official in the Contractor’s Procedures for locating and hiring minority and women workers.
- B. In order to make the Contractor’s Equal Employment Opportunity Policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies,

labor unions (where appropriate), college placement officers, etc., the Contractor will take the following actions:

1. Notices and posters setting forth in the Contractor's Equal Employment Opportunity policy, as set forth in Section 2 of these Equal Employment Opportunity Special Provisions will be placed in conspicuous places readily accessible to employees, applicants for employment and potential employees.
2. The Contractor's Equal Employment Opportunity Policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate channels.

## **V. RECRUITMENT**

- A. In all solicitations and advertisements for employees placed by or on behalf of the Contractor, the Contractor will 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. All such advertisements will be published in newspapers or other publications having a large circulation among minorities and women in the area from which the project workforce would normally be derived.
- B. The Contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and women applicants, including, but not limited to state employment agencies, schools, colleges and minority and women organizations. To meet this requirement, the Contractor will, through his/her EEO Officer, identify sources of potential minority and women employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the Contractor for employment consideration.
- C. In the event the Contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the Contractor's compliance with Equal Employment Opportunity contract provisions. (The US Department of Labor has held that where implementations of such agreements have the effect of discriminating against minorities or women, or obligates the Contractor to do the same; such implementation violates Executive Order 11246, as amended).
- D. In the event that the process of referrals established by such a bargaining agreement fails to provide the Contractor with a sufficient number of minority and women referrals within the time period set forth in such an agreement, the Contractor shall comply with the provisions of "Section IX Unions" of the EEO Special Provisions.

## **VI. ESTABLISHMENT OF GOALS FOR CONSTRUCTION CONTRACTORS**

- A. The New Jersey Department of Transportation has established, pursuant to N.J.A.C. 17:27-7.2, the minority and women goals for each construction contractor and subcontractor based on availability statistics as reported by the New Jersey Department of Labor, Division of Planning and Research, in its report, "EEO Tabulation - Detailed Occupations by Race/Hispanic Groups" as follows:

**MINORITY AND WOMEN EMPLOYMENT GOAL OBLIGATIONS FOR CONSTRUCTION CONTRACTORS AND SUBCONTRACTORS**

<b>COUNTY</b>	<b>MINORITY % PERCENTAGE</b>	<b>WOMEN % PERCENTAGE</b>
Atlantic	18	6.9
Bergen	22	6.9
Burlington	15	6.9
Camden	19	6.9
Cape May	5	6.9
Cumberland	27	6.9
Essex	53	6.9
Gloucester	9	6.9
Hudson	60	6.9
Hunterdon	3	6.9
Mercer	30	6.9
Middlesex	24	6.9
Monmouth	15	6.9
Morris	16	6.9
Ocean	7	6.9
Passaic	36	6.9
Salem	10	6.9
Somerset	20	6.9
Sussex	4	6.9
Union	45	6.9
Warren	5	6.9

The Division of Public Contracts Equal Employment Opportunity Compliance has interpreted Section 7.2 of the State of New Jersey Affirmative Action Regulations as applicable to work hour goals for minority and women participation.

If a project is located in more than one county, the minority work hour goal will be determined by the county which serves as the primary source of hiring or, if workers are obtained equally from one or more counties, the single minority goal shall be the average of the individual goal for the affected counties.

- B. The State Division of Public Contracts Equal Employment Opportunity Compliance may designate a regional goal for minority membership for a union that has regional jurisdiction. No regional goals shall apply to this project unless specifically designated elsewhere herein.
- C. When hiring workers in the construction trade, the Contractor and/or subcontractor agree to attempt, in good faith, to employ minority and women workers in each construction trade, consistent with the applicable county or, in special cases, regional goals.
- D. It is understood that the goals are not quotas. If the Contractor or subcontractor has attempted, in good faith, to satisfy the applicable goals, he will have complied with his obligations under these EEO Special Provisions. It is further understood that if the Contractor shall fail to attain the goals applicable to this project, it will be the Contractor's obligation to establish to the satisfaction of the Department of Transportation that it has made a good faith effort to satisfy such goals. The

Contractor or subcontractor agrees that a good faith effort to achieve the goals set forth in these special provisions shall include compliance with the following procedures:

1. Requests shall be made by the Contractor or subcontractor to each union or collective bargaining unit with which the Contractor or subcontractor has a referral agreement or arrangement for the referral of minority and women workers to fill job openings. Requests shall also be made for assurances for the referral of minority and women workers to fill job openings. Requests shall also be made for assurances from such unions or collective bargaining units that they will cooperate with the Contractor or subcontractor in fulfilling the Affirmative Action obligations of the Contractor or subcontractor under this contract. Such requests shall be made prior to the commencement of construction under the contract.
2. The Contractor and its subcontractors shall comply with Section IX, Unions of these EEO Special Provisions and, in particular, with Section IX, Paragraph D, if the referral process established in any collective bargaining arrangement is failing to provide the Contractor or subcontractor with a sufficient number of minority and women referrals.
3. The Contractor and its subcontractors shall notify the Department's Compliance Officer, the Division of Public Contracts Equal Employment Opportunity Compliance of the Department of Treasury and at least one approved minority referral organization of the Contractor's or subcontractors work force needs and of the Contractor's or subcontractor's desire for assistance in attaining the goals set forth herein. The notifications should include a request for referral of minority and women workers.
4. The Contractor and its subcontractors shall notify the Department's Compliance Officer and the Division of Public Contracts Equal Employment Opportunity Compliance of the Department of Treasury in the event that a union or collective bargaining unit is not making sufficient minority and women referrals to enable the Contractor or subcontractor to attain the workforce goals for the Project.
5. The Contractor and its subcontractors shall make standing requests to all local construction unions, the state training and employment service and other approved referral sources for additional referrals of minority and women workers until such time as the project workforce is consistent with the work hour goals for the project.
6. The Contractor and its subcontractors shall make standing requests to all local construction unions, the state training and employment service and other approved referral sources for additional referrals of minority and women workers until such time as the project workforce is consistent with the work hour goals for the project.
7. In the event that it is necessary to lay off some of the workers in a given trade on the construction site, the Contractor and its subcontractors shall ensure that fair layoff practices are followed regarding minority, women and other workers.
8. The Contractor and its subcontractors shall comply with the other requirements of these EEO Special Provisions.

## **VII. PERSONNEL ACTIONS**

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to age, race, color, creed, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. The following procedures shall be followed:

- A. The Contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- B. The Contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

- C. The Contractor will periodically review selected personnel actions in-depth to determine whether there is evidence of discrimination. Where evidence is found, the Contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- D. The Contractor will promptly investigate all complaints of alleged discrimination made to the Contractor in connection with his/her obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the Contractor will inform every complainant of all of his/her avenues of appeal.

#### **VIII. TRAINING AND PROMOTION**

The Contractor will assist in locating, qualifying, and increasing the skills of minority group and women workers, and applicants for employment.

Consistent with the Contractor's workforce requirements and as permissible under State regulations, the Contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs, for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The Contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

The Contractor will periodically review the training and promotion potential of minority group and women workers and will encourage eligible employees to apply for such training and promotion.

#### **IX. UNIONS**

If the Contractor relies in whole or in part upon unions as a source of employees, the Contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and women workers. Actions by the Contractor either directly or through a Contractor's association acting, as agent will include the procedures set forth below:

- A. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract of understanding, a notice advising the labor union or workers' representative of the Contractor's commitments under both the law against discrimination and this contract and shall post copies of the notice in conspicuous places readily accessible to employees and applicants for employment. Further, the notice will request assurance from the union or worker's representative that such union or worker's representative will cooperate with the Contractor in complying with the Contractor's Equal Employment Opportunity and Affirmative Action obligations.
- B. The Contractor will use their best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- C. The Contractor will use their best efforts to incorporate an Equal Employment Opportunity clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their age, race, color, creed, sex, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, or nationality.
- D. The Contractor is to obtain information as to the referral practices and policies of the labor union except to the extent that such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the Contractor, the Contractor shall so certify to the NJDOT and shall set forth what efforts have been made to obtain such information.

- E. In the event the union is unable to provide the Contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the Contractor will, through independent recruitment efforts, fill the employment vacancies without regard to age, race, color, creed, sex, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, or nationality making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The US Department of Labor has held that it shall be no excuse that the union with which the Contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees). In the event the union referral practice prevents the Contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these Special Provisions, such Contractor shall immediately notify the NJDOT.

#### **X. SUBCONTRACTING**

- A. The Contractor will use his best efforts to solicit bids from and to utilize minority group and women subcontractors or subcontractors with meaningful minority group and women representation among their employees. Contractors may use lists of minority owned and women owned construction firms as issued by the NJDOT and/or the New Jersey Unified Certification Program (NJUCP).
- B. The Contractor will use his best efforts to ensure subcontractor compliance with their Equal Employment Opportunity obligations.

#### **XI. RECORDS AND REPORTS**

- A. The Contractor will keep such records as are necessary to determine compliance with the Contractor's Equal Employment Opportunity obligations. The records kept by the Contractor will be designed to indicate:
  - 1. The work hours of minority and non-minority group members and women employed in each work classification on the project;
  - 2. The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to Contractors who rely in whole or in part on unions as a source of their workforce);
  - 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and women workers; and
  - 4. The progress and efforts being made in securing the services of minority group and women subcontractors or subcontractors with meaningful minority and women representation among their employees.
- B. All such records must be retained for a period of 3 years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the NJDOT.
- C. The Contractor shall submit monthly reports to the NJDOT after construction begins for the duration of the project, indicating the work hours of minority, women, and non minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on a form supplied by the NJDOT.

#### **XII SPECIAL CONTRACT PROVISIONS FOR INVESTIGATING, REPORTING AND RESOLVING EMPLOYMENT DISCRIMINATION AND SEXUAL HARASSMENT COMPLAINTS**

The Contractor hereby agrees to the following requirements in order to implement fully the nondiscrimination provisions of the Supplemental Specifications:

The Contractor agrees that in instances when it receives from any person working on the project site a verbal or written complaint of employment discrimination, prohibited under N.J.S.A. 10:5-1 et seq. 10:2-1 et seq., 42 U.S.C. 2000 (d) et seq., 42 U.S.C. 2000(e) et seq. And Executive Order 11246, it shall take the following actions:

1. Within one (1) working day commence an investigation of the complaint, which will include but not be limited to interviewing the complainant, the respondent, and all possible witnesses to the alleged act or acts of discrimination or sexual harassment.
2. Prepare and keep for its use and file a detailed written investigation report which includes the following information:
  - a) Investigatory activities and findings.
  - b) Dates and parties involved and activities involved in resolving the complaint.
  - c) Resolution and corrective action taken if discrimination or sexual harassment is found to have taken place.
  - d) A signed copy of resolution of complaint by complainant and Contractor.  
(In addition to keeping in its files the above-noted detailed written investigative report, the Contractor shall keep for possible future review by the NJDOT all other records, including, but not limited to, interview memos and statements.)
3. Upon the request of the NJDOT provides to the NJDOT within ten (10) calendar days a copy of its detailed written investigative report and all other records on the complaint investigation and resolution.
4. Take appropriate disciplinary actions against any Contractor employee, official or agent who has committed acts of discrimination or sexual harassment against any Contractor employee or person working on the project. If the person committing the discrimination is a subcontractor employee, then the Contractor is required to attempt to effectuate corrective and/or disciplinary action by the subcontractor in order to establish compliance with project's contract requirements.
5. Take appropriate disciplinary action against any Contractor employee, official or agent who retaliates, coerces or intimidates any complainant and/or person who provides information or assistance to any investigation of complaints of discrimination or sexual harassment. If the person retaliating, coercing or intimidating a complainant or other person assisting in an investigation is a subcontractor's employee, then the Contractor is required to attempt to effectuate corrective and/or disciplinary action taken by the subcontractor in order to establish compliance with the project's contract requirements.
6. Ensure to the maximum extent possible that the privacy interests of all persons who give confidential information in aid of the Contractor's employment discrimination investigation are protected.
7. In conjunction with the above requirements, the Contractor herein agrees to develop and post a written sexual harassment policy for its workforce.
8. The Contractor also agrees that its failure to comply with the above requirements may be cause for the New Jersey Department of Transportation to institute against the Contractor any and all enforcement proceedings and/or sanctions authorized by the contract or by state and/or federal law.

## STATE ATTACHMENT NO. 2

### PAYROLL REQUIREMENTS FOR 100% STATE PROJECTS

1. Each contractor and subcontractor shall furnish the RE with payroll reports for each week of contract work. Such reports shall be submitted within 10 days of the date of payment covered thereby and shall contain the following information:
  - A. Each employee's full name and the last four digits of social security number of each such employee.
  - B. Each employee's specific work classification (s).
  - C. Entries indicating each employee's basis hourly wage rate(s) and, where applicable, the overtime hourly wage rate(s). Any fringe benefits paid to the employee in cash must be indicated.
  - D. Each employee's daily and weekly hours worked in each classification, including actual overtime hours worked (not adjusted).
  - E. Each employee's gross wage.
  - F. The itemized deductions made.
  - G. The net wages paid.
2. Each contractor or subcontractor shall furnish a statement each week to the RE with respect to the wages paid each of its employees engaged in contract work covered by the New Jersey Prevailing Wage Act during the preceding weekly payroll period. The statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractors who supervises the payment of wages. Contractors and subcontractors must use the certification set forth on New Jersey Department of Transportation Form FA-7 "Statement of Compliance," or the same certification set forth on (1) U.S. Department of Labor Form WH-348, (2) the reverse side of U. S. Department of Labor Form WH-347, or (3) any form with identical wording.
3. Contractor and subcontractor shall maintain complete social security numbers and home address for employees. Government agencies are entitled to request or review all relevant payroll information, including social security numbers and addresses of employees. Contractors and subcontractors are required to provide such information upon request.

## STATE ATTACHMENT NO. 3

### AMERICANS WITH DISABILITIES ACT 100% STATE FUNDED CONTRACTS

Equal Opportunity For Individuals With Disabilities.

The CONTRACTOR and the STATE do hereby agree that the provisions of Title II of the American With Disabilities Act of 1990 (the "ACT") (42 U.S.C. Section 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 thereto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the STATE pursuant to this contract, the CONTRACTOR, agrees that the performance shall be in strict compliance with the Act. In the event that the CONTRACTOR, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the STATE in any action or administrative proceeding commenced pursuant to this Act. The CONTRACTOR shall indemnify, protect, and save harmless the STATE, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend, and pay any and all charges for legal services 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 STATE'S grievance procedure, the CONTRACTOR agrees to abide by any decision of the STATE which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the STATE or if the STATE incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its own expense.

The STATE shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the STATE or any of its agents, servants, and employees, the STATE shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the STATE or its representatives.

It is expressly agreed and understood that any approval by the STATE of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the STATE pursuant to this paragraph.

It is further agreed and understood that the STATE assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the STATE from taking any other actions available to it under any other provisions of this Agreement or otherwise at law.

## STATE ATTACHMENT NO. 4

### SMALL BUSINESS ENTERPRISE UTILIZATION ATTACHMENT 100% STATE-FUNDED CONTRACTS

#### I. UTILIZATION OF SMALL BUSINESS ENTERPRISE (SBE) BUSINESSES AS CONTRACTORS, MATERIAL SUPPLIERS AND EQUIPMENT LESSORS.

The New Jersey Department of Transportation advises each contractor or subcontractor that failure to carry out the requirements set forth in this attachment shall constitute a breach of contract and, after notification to the applicable State agency, may result in termination of the agreement or contract by the Department or such remedy as the Department deems appropriate. Requirements set forth in this section shall also be included in all subcontract agreements in accordance with State of New Jersey requirements.

#### II. POLICY

It is the policy of the New Jersey Department of Transportation that Small Business Enterprises, as defined in N.J.A.C. 12A: 10A-1.2 et seq., and N.J.A.C. 17:14-1.2 et seq., shall have the maximum opportunity to participate in the performance of contracts financed wholly with 100% state funds.

#### III. CONTRACTOR'S SMALL BUSINESS OBLIGATION

The New Jersey Department of Transportation and its Contractor agree to ensure that Small Business Enterprises (SBE), as defined in N.J.A.C. 12A: 10A-1.2 et seq., and N.J.A.C. 17:14-1.2 et seq., have maximum opportunity to participate in the performance of contracts and subcontracts financed wholly with 100% state funds. In this regard, the New Jersey Department of Transportation and all Contractors shall take all necessary and reasonable steps to ensure that Small Business Enterprises are utilized on, compete for, and perform on NJDOT construction contracts. The New Jersey Department of Transportation and its Contractors shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of State-funded contracts.

#### IV. COMPLIANCE

To signify and affirm compliance with the provisions of this attachment, the bidder shall complete the Schedule of Small Business Participation "Form CR-266S" included in the Proposal and all forms and documents required in Sections VII and VIII of these provisions which will be made a part of the resulting contract.

#### V. SMALL BUSINESS GOALS FOR THIS PROJECT

**NOTE: SUBCONTRACTING GOALS ARE NOT APPLICABLE IF THE PRIME CONTRACTOR IS A REGISTERED SMALL BUSINESS ENTERPRISE (SBE) FIRM.**

- A. This project includes a goal of awarding \_\_\_\_ % percent of the total contract value to subcontractors qualifying as **SMALL BUSINESSES**.
- B. Only Small Business Enterprises registered prior to the date of bid, or prospective Small Business Enterprises that have submitted to the New Jersey Commerce and Economic Growth Commission on or before the day of bid, a completed "State of New Jersey Small Business Vendor Registration Form" and all the required support documentation, will be considered in determining whether the contractor has met the established goals for the project. Early submission of required documentation is encouraged.
- C. If a prospective Small Business Enterprise fails to meet the eligibility standards for participation the department's Small Business Program, the contractor shall, prior to the award, make reasonable outreach efforts to replace that ineligible subcontractor with a registered Small Business whose participation is sufficient to meet the goal for the contract.

- D. Prospective Small Businesses whose registration applications are denied or rejected by the New Jersey Commerce and Growth Commission are ineligible for participation on the project to meet Small Business goals, regardless of any pending appeal action in progress.
- E. A directory of registered Small Businesses Enterprise firms is available upon request to the New Jersey Commerce and Growth Commission or the New Jersey Department of Transportation, Division of Civil Rights/Affirmative Action. The directory is to be used as a source of information only and does not relieve the Contractor of their responsibility to seek out Small Businesses Enterprises not listed.

## **VI. COUNTING SMALL BUSINESS ENTERPRISE PARTICIPATION**

- A. Each Small Business Enterprise (SBE) is subject to a registration procedure to ensure their SBE eligibility prior to the award of contract. In order to facilitate this process, it is advisable for the bidder to furnish the names of proposed SBEs to the Department before bid opening. Once a firm is determined to be a bona fide SBE by the New Jersey Commerce and Growth Commission, the total dollar value of the contract awarded to the SBE is counted toward the applicable goal.
- B. The Contractor may count toward its SBE goal only expenditures to SBEs that perform a commercially useful function in the work of a contract. A SBE is considered to perform a commercially useful function when it is responsible for execution of a distinct element of the work of a contract and carrying out its responsibility by actually performing, managing and supervising the work involved. To determine whether a SBE is performing a commercially useful function, the Contractor shall evaluate the amount of work subcontracted, industry practice and other relevant factors.
- C. If an SBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the SBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, you must presume that it is not performing a commercially useful function.
- D. If a Contractor is part of a Joint Venture and one or more of the Sole Proprietorships, Partnerships, Limited Liability companies or Corporations comprising the Joint Venture is a registered SBE, the actual payments made to the Joint Venture for work performed by the SBE member, will be applied toward the goal. Payments made to the Joint Venture for work performed by a non-small business firm will not be applied toward the applicable goal.
- E. If the Contractor is a registered SBE, payments made to the Contractor for work performed by the Contractor will be applied toward the SBE goal. Payments made to the Contractor for work performed by non-SBE's will not be applied toward the goal.
- F. When a SBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted towards the SBE goals only if the SBE's subcontractor is also a SBE. Work that a SBE subcontracts to a non-SBE firm does not count toward the assigned goal.

## **VII. SUBMISSION OF CONTRACTOR'S AFFIRMATIVE ACTION PLANS**

- A. Contractors are required to submit annually on their due date, their firm's Affirmative Action Program to the Division of Civil Rights/Affirmative Action. Contractors must have an **approved** Affirmative Action Program in the Division of Civil Rights/Affirmative Action no later than seven (7) State business days after receipt of bids. No recommendations to award will be made without an approved Affirmative Action Program on file in the Division of Civil Rights/Affirmative Action.
- B. The Annual Affirmative Action Program will include, but is not limited to the following:
  - 1. The name of the company's Liaison Officer who will administer the Small Business Enterprise Program.
  - 2. An explanation of the affirmative action methods used in seeking out and considering Small Business Enterprises as subcontractors, material suppliers or equipment lessors.

3. An explanation of affirmative action methods which will be used in seeking out future Small Business Enterprises as subcontractors, material suppliers or equipment lessors after the award of the contract and for the duration of said project.
- C. The following shall be submitted either with the bid or to the Division of Civil Rights/Affirmative Action no later than seven (7) state business days after the receipt of bids.
1. SBE FORM CR-266S Schedule of SBE Participation. The Contractor shall list all SBEs that will participate in the contract including scope of work, actual dollar amount and percent of total contract to be performed. This form should be submitted only if the goal level established for the contract has been met or exceeded;  
**Note:** If a change occurs to the Contractor's original Form A submission which was previously approved by the Division of Civil Rights/Affirmative Action, a Revised Form CR-266S must be submitted naming the replacement Small Business Enterprise subcontractors. A written explanation should be included with the submission of the revised Form CR-266S.
  2. Request for Exemption - In the event the Contractor is unable to meet the specified goal level, that Contractor must submit a written request for a partial or full exemption from the SBE goal. This request shall include the names of all SBE firms that the contractor will utilize on the contract and shall describe the specific work to be performed by each SBE together with the actual dollar amount of that work. Additionally, this request must address the Contractor's efforts to make Reasonable Outreach Efforts as enumerated in Section VIII.
  3. Additional Information - The Department in its sole discretion may request additional information from the Contractor prior to award of the contract in order to evaluate the Contractor's compliance with the SBE requirements of the bid proposal. Such information must be provided within the time limits established by the department. The Contractor shall, prior to the award of the contract, submit a completed SBE "Form CR-266S", even if it has been granted an exemption from the SBE goal.

#### VIII. REASONABLE OUTREACH EFFORTS

If a Contractor fails to meet the goal for Small Business Enterprise participation, the Contractor shall document its reasonable outreach efforts to meet the SBE goal. Reasonable outreach shall include, but not be limited to the following:

- A. Attendance at a pre-bid meeting, if any, scheduled by the Department to inform SBE's of subcontracting opportunities under a given solicitation.
- B. Advertisement in general circulation media, trade association publications, and small business enterprise-focus media for at least 20 days before bids are due. If 20 days are not available, publication for a shorter reasonable time is acceptable.
- C. Written notification to SBE's that their interest in the contract is solicited;
- D. Efforts made to select portions of the work proposed to be performed by SBEs in order to increase the likelihood of achieving the stated goal;
- E. Efforts made to negotiate with SBE's for specific sub-bids including at a minimum
  1. The names, addresses and telephone numbers of SBE's that were contacted;
  2. A description of the information provided to SBE's regarding the plans and specifications for portions of the work to be performed; and
  3. A statement of why additional agreements with SBE's were not reached;
- F. Information regarding each SBE the bidder contacted and rejected as unqualified and the reasons for the bidder's conclusion;
- G. Efforts made to assist the SBE in obtaining bonding or insurance required by the Bidder or the Department.

## **IX. ADMINISTRATIVE RECONSIDERATION**

- A. If the Division of Civil Rights/Affirmative Action determines that the apparent successful bidder has failed to make reasonable outreach efforts to meet the requirements of this section, the Department must, before awarding the contract, provide the bidder an opportunity for administrative reconsideration.
- B. As part of this reconsideration, the bidder will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. NJDOT will send the bidder a written decision on reconsideration, explaining the basis for finding that the bidder did or did not meet the SBE goal or make an adequate good faith effort to do so.
- C. Within seven (7) State business days of being informed by the Division of Civil Rights/Affirmative Action that it is not a responsible bidder because it has not made or documented sufficient outreach efforts to SBEs, a bidder may make a request in writing to the Director, Division of Procurement, PO Box 605, Trenton, New Jersey, 08625-0605; Telephone (609) 530-6355. The Director, Division of Procurement, does not participate in the initial determination of whether reasonable outreach was performed by the Contractor.

## **X. RESPONSIBILITY AFTER AWARD OF THE CONTRACT**

If at any time following the award of contract, the Contractor intends to sublet any portion(s) of the work under said contract, or intends to purchase material or lease equipment not contemplated during preparation of bids, said Contractor shall take affirmative action:

- A. To notify the RE, in writing, of the type and approximate value of the Contractor intends to accomplish by such subcontract, purchase order or lease.
- B. To signify and affirm compliance with the provisions of this Section, the Contractor shall submit the Post-Award SBE Certification Form to the Regional Supervising Engineer with his application to sublet or prior to purchasing material or leasing equipment. Post Award SBE forms may be obtained from the RE.
- C. To give small business enterprise firms equal consideration with non-small business firms in negotiation for any subcontracts, purchase orders or leases.

## **XI. CONSENT BY DEPARTMENT TO SUBLETTING**

- A. The Department will not approve any subcontracts proposed by the Contractor unless and until said contractor has complied with the terms of this SBE Utilization Attachment.
- B. The Contractor shall provide the RE with a listing of firms, organizations or enterprises to be used as subcontractors on the proposed project. Such listing shall clearly delineate which firms are classified as SBEs.
- C. Notification of a subcontractor's termination shall be sent to the Department by the Contractor through the RE.

## **XII. CONCILIATION**

In cases of alleged discrimination regarding these and all equal employment opportunity provisions and guidelines, investigations and conciliation will be undertaken by the Division of Civil Rights/Affirmative Action, New Jersey Department of Transportation.

## **XIII. DOCUMENTATION**

- A. Records and Reports

The Contractor shall keep such records as are necessary to determine compliance with its Small Business Enterprise Utilization obligations. The records kept by the Contractor will be designed to indicate:

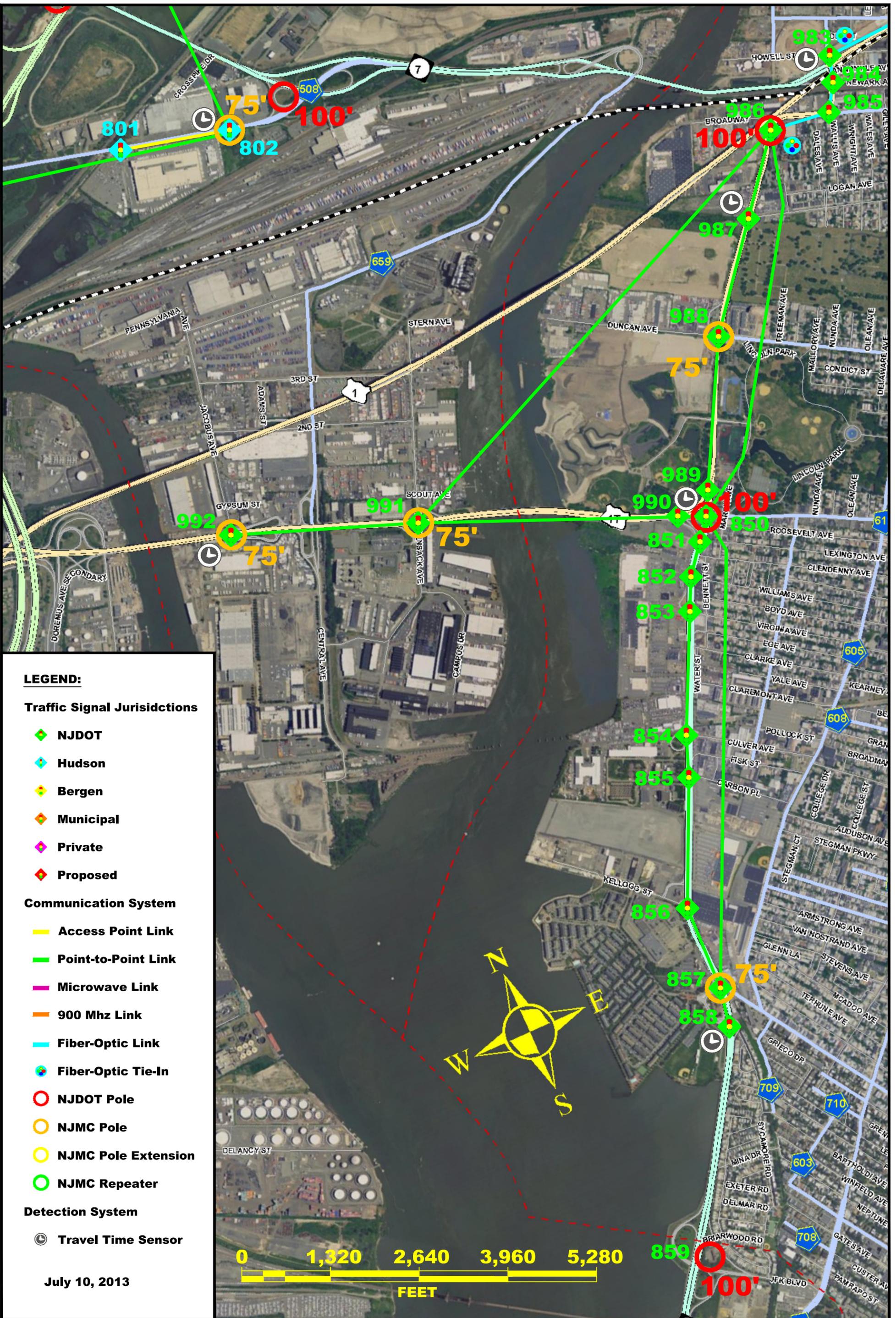
1. The names of the small business enterprise subcontractors, equipment lessors and material suppliers contacted for work on this project.
  2. The type of work to be done, materials to be utilized or services to be performed other than by the prime contractor on the project.
  3. The actual dollar amount of work awarded to SBE's.
  4. The progress and efforts being made in seeking out and utilizing Small Business Enterprise firms. This would include solicitations, quotes and bids regarding project work items, supplies, leases, etc.
  5. Documentation of all correspondence, contacts, telephone calls, etc, to obtain the services of Small Business Enterprise firms on this project.
- B. The contractor shall submit reports, as required by the Department, on those contracts and other business transactions executed with Small Business Enterprise firms in such form and manner as may be prescribed by the Department.
- C. All such records must be maintained for a period of three (3) years following acceptance of final payment and will be available for inspection by the Department.

#### **XIV. PAYMENT TO SUBCONTRACTORS**

The Contractor agrees to pay its subcontractors in accordance with the Specifications.

#### **XV. SANCTIONS**

Failure of a Contractor to comply with these provisions may result in bid rejection, reduced classification, suspension, debarment, or the institution of other appropriate action by the New Jersey Department of Transportation.



**LEGEND:**

**Traffic Signal Jurisdictions**

- ◆ NJDOT
- ◆ Hudson
- ◆ Bergen
- ◆ Municipal
- ◆ Private
- ◆ Proposed

**Communication System**

- Access Point Link
- Point-to-Point Link
- Microwave Link
- 900 Mhz Link
- Fiber-Optic Link
- Fiber-Optic Tie-In
- NJDOT Pole
- NJMC Pole
- NJMC Pole Extension
- NJMC Repeater

**Detection System**

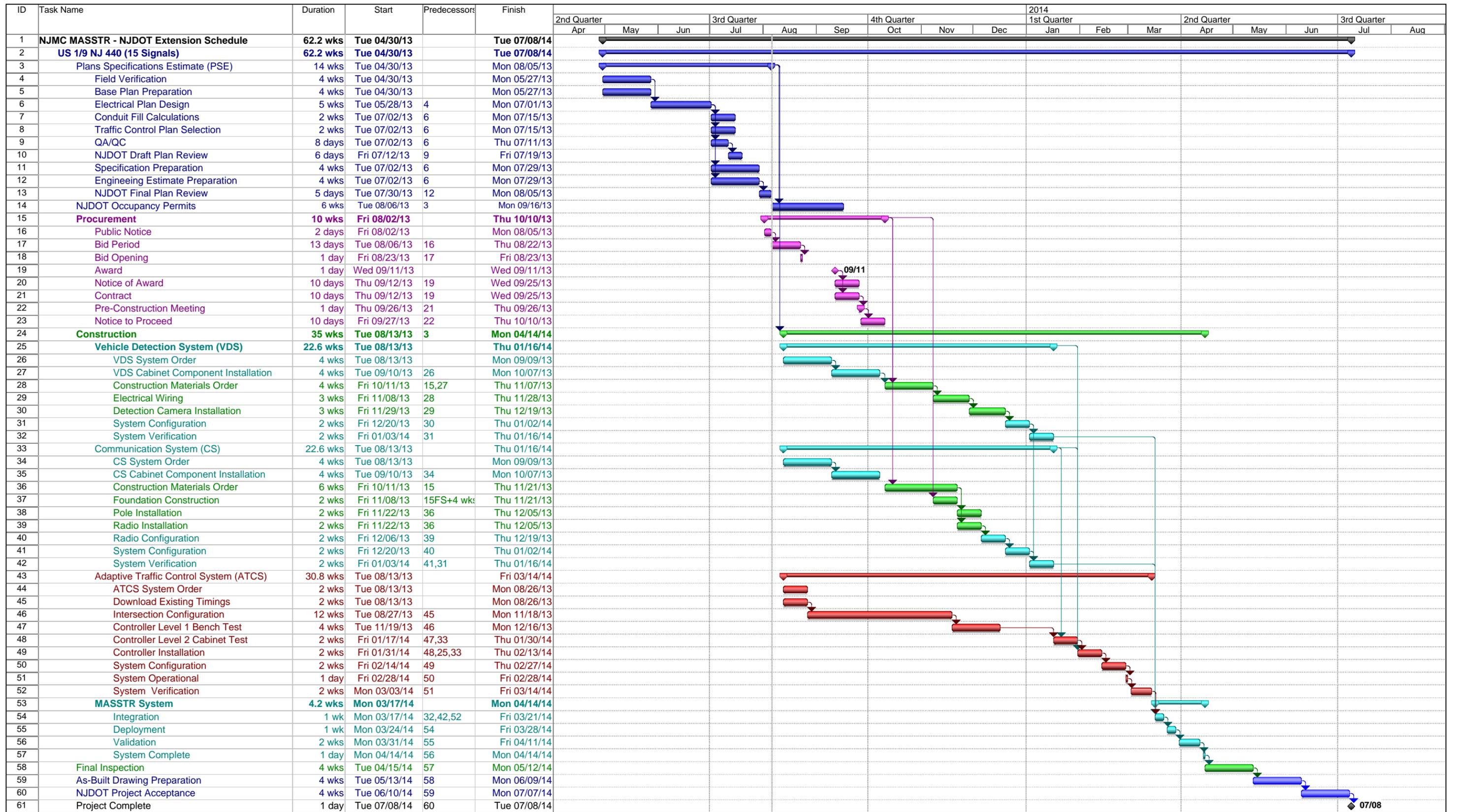
- ⌚ Travel Time Sensor

July 10, 2013



**MASSTR**

US 1/9T & NJ 440 Expansion



Project: MASSTR Schedule  
Date: Tue 08/06/13

Task: Progress, Summary, External Tasks, Milestone, Project Summary, External Milestone

Split: Milestone