Mr. Wasim Raja
ITS/Traffic Division
District Department of Transportation
55 M Street, SE, 6th Floor
Washington, D.C. 20003

Materials certifications and laboratory test reports shall be submitted to:

Quality Assurance and Quality Control Division
Materials Testing Branch
D.C. Department of Transportation
55 M Street SE, Suite 400
Washington, D.C. 20003

57. AS-BUILT DRAWINGS

This Special Provision supplements 108.12 of the Standard Specifications.

DDOT AS-BUILT (ITEM 108 004) – During the entire construction period, the Contractor shall maintain one complete record set of Contract Drawings on which he shall annotate daily all deviations, field changes, changes accomplished by change order. The Contractor shall make this annotated record set of Contract Drawings available for review upon the request of the Engineer.

The Engineer will furnish to the Contractor electronic files of the Contract Drawings for Reproduction. The Contractor shall make permanent modifications to the reproducible set by adding the revisions from the annotated record set. The completed as built drawings shall be certified by an officer of the Contractor using a stamp as follows:

AS-BUILT

(Date)

I certify that this drawing accurately depicts the work as constructed.

(An Officer of the Contractor's Company)

Signature Title

CONTRACTOR'S NAME

When the contract is completed and the revisions have all been digitally transcribed to the reproducible set, the Contractor shall copy the electronic files on a CD ROM. The Contractor shall then prepare and deliver to DDOT TOA two CD ROM copies of the electronic files of the final as built drawings, the modified reproducible set, five (5) bound half-size sets on bond paper and one additional CD ROM with as built drawing information of street lighting plans only. All as built drawings shall be submitted in Microstation and PDF formats.

PARTIAL SUBMISSIONS. To facilitate inspections and partial acceptance, the Engineer may request the submission of as built drawings for all or part of the Work and after those work elements have been completed, but prior to contract completion.

MEASUREMENT AND PAYMENT. Unit of measure for As Built Drawings will be the job. No measure will be made for this work. Payment for As Built Drawings will be made at the firm fixed price, which payment will include all performance of work as specified herein.

58. CONTRACTOR'S SUBMITTALS

This Special Provision supplements Section105.02 (B) of the DDOT Standard Specifications for Highways and Structures, 2013.

Selected catalog cuts, material certifications, laboratory test reports, and other required submittals shall be subject to review and approval by the Engineer. The Contractor is encouraged to provide submittals for review as soon as practical after project notice to proceed is issued. Every effort shall be made to respond to these submittals within five (5) working days of receipt by the Engineer. The Contractor shall be required to submit electronic copies (in PDF format) to the email address below. For all submissions that cannot be made electronically, the Contractor shall submit two (2) copies of all submittals to:

Mr. Wasim Raja
ITS/Traffic Division
District Department of Transportation
55 M Street, SE, 6th Floor
Washington, D.C. 20003
wasim.raja@dc.gov

59. SALVAGED MATERIAL

This Special Provision supplements 106 of the Standard Specifications.

Any salvaged materials considered by the Engineer to be useful to the District shall be delivered to a designated storage yard within the District of Columbia. All other materials shall be removed from the job site and be disposed of properly by the Contractor. No direct measure shall be made for this work. Payment for this work shall incidental to the other pay items.

60. WORK HOURS

This Special Provision supplements and modifies Section 103, Article 17.C of the General Provisions, and Sections 105.10, 105.11 and 104.02.

The Contractor may not perform any work during peak-hours as defined as between 6:30 AM to 9:30 AM and 3:30 PM to 7:00 PM. The Contractor may not work at more than three (3) sites at one time, unless approved by the Engineer. All construction, configuration and cleanup must occur at each site before the Contractor can receive approval by DDOT to move onto the next site.

All of the Contractor's employees and sub-contractors working on this contract must carry an official DDOT work approval notice to show a public official/officer upon request. Any

employee or sub-contractor not possessing the official approval letter shall be immediately removed from the job site until they obtain a copy of the official work letter.

The Contractor is permitted to schedule work after 7:00 PM only after gaining written approval from the COTR five (5) calendar days in advanced of the schedule work.

WORK HOURS.

Work requiring traffic lane closures, other than designated construction zones separated from adjacent traffic using concrete barriers, shall be performed at night between the following hours:

Monday through Friday overnight through to the following morning:
10:00 PM to 5:00 AM.

2. Upon written request and approval of the Engineer, single lane closures may be granted from:

Weekdays: 10:00 AM to 2:30 PM.
Weekends: Saturday 5:00 AM to Monday 5:00 AM

3. Work not affecting the travelling public and separated from adjacent traffic using concrete barriers may proceed outside the above timeframes.

4. Coordinate the work to minimize disruptions to traffic or other construction. Strictly confine all work to the lane closures.

5. Additional traffic lane closure restrictions are as follows:

Lane closures are not permitted on legal holidays nor on the day preceding nor the day following that legal holiday.

Lane closures are not permitted during Federal holidays and on the Emancipation day.

Special Events must be coordinated with the District of Columbia Department of Transportation.

If all lanes on this project are not fully opened to vehicular traffic in the hours outside the lane closure hours indicated above, the Contractor shall be assessed ROAD USERS LIQUIDATED DAMAGES for each lane that is not available as follows:

TIME PERIOD	ROAD USERS LIQUIDATED DAMAGES
Any time outside the allowed lane closure hours indicated above	$835.00 per 15 minutes, or part of thereof, for each lane that is not available to vehicular traffic

61. WEEKEND WORK

This Special Provision modifies Section 103, Article 17.C of the General Provisions, and Section 105.10.

Weekend work may be required as determined by the Engineer in congested areas where serious traffic difficulties would result if the work were performed during the normal work week. The Contractor is permitted to schedule weekend work, between the hours of 9:30 AM and 3:30 PM, only after gaining written approval from the COTR.

It is estimated that the amount of weekend work shall not exceed five percent (5%) of total work to be performed under the contract.

Weekend or holiday work shall require prior written approval by the CA before commencing.

62. NIGHT WORK

Night work shall require prior written approval by the CA before commencing.

Requirements of 105.11 apply as modified.

The Contractor shall receive written approval from the COTR to perform night work a minimum of 5 calendar days before the work is to commence.

In addition, the Contractor shall maintain sufficient light illumination levels for safe operations in all active work areas during evening and night work. Temporary lighting for the Contractor's operations shall comply with OSHA regulations, Section 1926.56, task requirements and as specified elsewhere in these Special Provisions.

Replace table in 105.11(A) with the following:

D.C. MAXIMUM PERMITTED NOISE LEVEL

(as defined in DC Law 2-53, District of Columbia Noise Control Act of 1977)

	Maximum Noise Level, dBA	
Zone	**Daytime**	**Nighttime**
Residential, Special Purpose Or Waterfront Zone	60	55
Commercial or Light Manufacturing Zone	65	60
Industrial Zone	70	65

63. PUBLIC SAFETY AND CONVENIENCE

The Contractor shall take every measure necessary to ensure the protection of personnel and property. When in the opinion of the District Engineer, construction operations constitute a hazard to traffic in any area, the Contractor may be required to suspend operations during certain hours to remove equipment from the roadway.

64. CONTRACTOR'S RESPONSIBILITY FOR WORK

This Special Provision supplements 107.15 of the Standard Specifications.

GENERAL. Portions of the general project site will be open to the public during construction. The Contractor shall take the necessary measures to prevent vandalism and theft of materials, equipment and tools as well as the completed work on the project site. The District Department of Transportation shall not be held liable for any loss or damage resulting there from.

MEASURE AND PAYMENT. No direct measure or payment will be made. The cost of project security shall be reflected, and distributed among the various contract Pay items.

65. MAINTENANCE OF HIGHWAY TRAFFIC – ITEM 612 002

This Special Provision supplements and modifies 104.02 and 616 of the Standard Specifications.

Supplementing first paragraph of 104.02, reference to the MUTCD shall be to the latest edition, with latest revisions or latest edition.

GENERAL. Work consists of proper maintenance of vehicular and pedestrian traffic within and adjacent to the project and includes, but is not limited to the following as required for contract duration: safety officer, flaggers and watchmen; public convenience and safety; furnishing, placing, maintenance, removal and disposal of all traffic control devices as defined in the MUTCD (Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition, U.S. Department of Transportation, Federal Highway Administration and subsequent revisions.

Minimum requirements are presented below. Work includes all operational needs for proper traffic maintenance and coordination with the District of Columbia Department of Transportation (DDOT) traffic requirements outside the project area.

During the entire construction period, the Contractor shall minimize interferences, as determined by the Engineer, with the adjacent neighborhood, including pollution, noise, safety and other effects. The Contractor must immediately remedy all interferences determined by the Engineer.

During all phases of construction, at no time shall the project be left unattended. Proper security measures shall be taken to keep unauthorized persons from entering into the construction areas.

Construction work zones shall be made safe for traffic. No material or equipment shall be placed or stored on the designated roadway during any phase of construction unless otherwise authorized.

PEDESTRIAN SAFETY. The Contractor shall provide pedestrians with a continuous 6-foot wide walkway past the construction work zone if space permits. A minimum 4-foot wide walkway may be authorized by the Engineer only if a wider space is not possible. The walkway shall be safe, convenient and replicate as nearly as possible the most desirable characteristics of sidewalks or footpaths. Pedestrians shall not be led into direct conflict with the work site operations or mainline traffic moving through or around the work site. All pedestrians including blind, hearing impaired and physically challenged shall be provided protection. All necessary signs and supports for closing sidewalks and detouring

pedestrians and providing temporary ramps and/or protective walkways is the responsibility of the Contractor and no additional payment will be made.

FAILURE TO MAINTAIN ENTIRE PROJECT. Failure on the part of the Contractor, at any time, to comply with the provisions of 104.02, 616 and this Special Provision will result in the immediate notification of the Contractor by the Engineer to comply with the required traffic maintenance provisions. In the event that the Contractor fails to make the needed corrections to unsatisfactory site maintenance so as to confirm to the provisions of 104.02 and 616 within 24 hours after receipt of such notice, the Engineer may notify the Contractor to suspend all work at the contract work site until such time that the unsatisfactory site maintenance is corrected. In the event that the Contractor fails to respond to a notice of unsatisfactory site maintenance and correct the deficiency within 24 hours after receipt of such notice, the Engineer may immediately proceed with other forces and equipment to maintain the project. The entire cost of this maintenance by the District will be deducted from monies due the Contractor on the next monthly invoice.

A deduction of $200.00 will be made from the Contractor's next invoice for each day, or portion thereof, that traffic maintenance deficiencies exist and will continue until the deficiencies are corrected and accepted by the Engineer. Any portion of a day will be considered a full day deduction. The amount of monies deducted will be a permanent deduction and will not be recoverable.

TRAFFIC CONTROL PLAN (TCP). None required for Work included in this Contract.

66. FURNISH AND INSTALL 14-SLOT INPUT FILE RACK FOR MODEL 336 CABINET, ITEM 900 007

GENERAL. The input file rack shall conform to the provisions of Section 825.01.03.E of the District of Columbia Department of Transportation (DDOT) Standard Specifications for Highways and Structures (Standard Specifications) 2013. This Work shall include all necessary hardware to install the units for functional operation of input files within the traffic controller cabinet.

INSTALLATION COORDINATION. The Contractor shall coordinate the installation of all input file racks with DDOT before any work begins. Failure to properly coordinate with the Department, which leads to Project delays, is the sole responsibility of the Contractor. The Department is not responsible for utility coordination between the Contractor and the utility company.

MEASURE AND PAYMENT. Each input file rack shall be paid for at the Contract unit price of each. The price shall include the cost of the input file rack and all required labor, equipment, and materials to install the phase selector in the field traffic controller cabinet and render the TSP System operational. This Work includes all wiring, surge protection and electrical isolation, testing, and furnishing documentation to complete the Work.

67. FURNISH AND INSTALL PHASE SELECTOR CARD IN TRAFFIC CONTROLLER CABINET INPUT FILE RACK, ITEM 900 007

GENERAL. This Work shall include all necessary hardware, wiring, and electrical connections to install the phase selector in a type 336 cabinet 14-slot input file rack to render the TSP System operational.

SPECIFICATIONS

1. Verify that the operation of the 170 traffic controller is configured properly for priority control inputs.

2. Locate slot I12 of the cabinet input file rack.

3. Install the phase selector into slot I12 of the input file, making sure it is fully seated.

4. Connect a standard Ethernet cable between the Ethernet port on the phase selector and the Ethernet network device used to communicate with the phase selector.

INSTALLATION COORDINATION. The Contractor shall coordinate the installation of all phase selectors with DDOT before any work begins. Failure to properly coordinate with the Department, which leads to Project delays, is the sole responsibility of the Contractor. The Department is not responsible for utility coordination between the Contractor and the utility company.

MEASURE AND PAYMENT. Each phase selector card shall be paid for at the Contract unit price of each. The price shall include the cost of the phase selector and all required labor, equipment, and materials to install the phase selector in the field traffic controller cabinet and render the TSP System operational. This Work includes all wiring, electrical and data connection to the communication modem within the controller cabinet, surge protection and electrical isolation, calibration, testing, and furnishing documentation to complete the Work.

68. FURNISH AND INSTALL CELLULAR MODEM INSIDE TRAFFIC CONTROLLER CABINET, ITEM 900 007

GENERAL. This work shall consist of furnishing, installing, and configuring a cellular communication modem capable of delivering Carrier service over an existing WMATA-owned cellular communications network. The modem must provide real-time wireless capabilities for fixed and mobile applications. All modem SIM cards shall be provided by WMATA. The Contractor shall provide WMATA at least fourteen (14) days notification for the request of SIM cards. To request SIM cards and coordinate cellular data network access, contact the representatives below:

- Dineshkumar Patel <dpatel@wmata.com>
- Eric G. Tombs <egtombs@wmata.com>

The cellular modem shall be located within the traffic signal controller cabinet, as specified and as approved by the Engineer. This work shall include all necessary hardware and electrical and communications connections to install the units in an existing traffic signal control cabinet.

SPECIFICATIONS.

Environmental Requirements

Operating Temp. -30° to +70°C
Storage Temp. -40° to +85°C

Relative humidity Up to 90%, non-cond.

Host Interfaces

10/100 Base-T RJ-45 Ethernet
RS-232 Serial port
USB V2.0 Micro-AB connector
3 SMA antenna connectors (RF, GPS, Rx Diversity)
Support for active antenna

VPN/Security

IPsec, SSL, and GRE VPN client
Up to 5 VPN tunnels
IKE encryption
Port forwarding and DMZ
Port filtering
Trusted IP
MAC address filtering

Protocols

Network: TCP/IP, UDP/IP, DNS
Routing: NAT, Host Port Routing, DHCP, PPPoE, VLAN, VRRP
Application: SMS, Telnet/SSH, SMTP, SNMP, SNTP
Serial: TCP/UDP PAD Mode, Modbus (ASCII, RTU, Variable), PPP

INSTALLATION. Securely mount unit to the inside of the traffic control cabinet. Provide power to each unit utilizing existing power within the traffic control cabinet. Connect the Ethernet port on the cellular modem to the Ethernet port on the phase selector via Contractor-supplied Ethernet cable. Install external antenna in a manner approved by DDOT prior to installation.

INSTALLATION COORDINATION. The Contractor shall coordinate the installation of all phase selectors with DDOT before any work begins. Failure to properly coordinate with the Department, which leads to Project delays, is the sole responsibility of the Contractor. The Department is not responsible for utility coordination between the Contractor and the utility company.

MEASURE AND PAYMENT. Each phase cellular modem shall be paid for at the Contract unit price of each. The price shall include the cost of the modem and all required wiring, labor, equipment, and materials to install the modem and render clear communication from the transit vehicle. This Work includes all wiring connections within the controller cabinet, surge protection and calibration, testing, and furnishing documentation to complete the Work.

69. FURNISH AND INSTALL CELLULAR ANTENNA AND MOUNTING HARDWARE ON TOP OF CABINET, ITEM 900 007

GENERAL. This Work shall consist of the Contractor furnishing and installing a cellular antenna on the outer roof of a type 336 traffic controller cabinet, as specified and as

approved by the Engineer. This Work shall include all necessary hardware (mounting hardware), sealant, and cable connections to install the cellular antenna.

SPECIFICATIONS.

Cellular Frequency: 824 – 896 MHz

Cable Length: 15 feet min.

Mounting: Bolt-On and Adhesive

Center Frequency: 1575.42 MHz
Gain: 30 dB min.
Polarization: Right Hand Circular Polarization
Noise Figure: 2.0 max.
Aerial Ratio: 3 dB max.
Bandwidth: 2 MHz min.
VSWR: 2.0 max.
Output Impedance: 50 Ohms
Voltage: 3-5 Volts
Current: 15 mA max.

The cellular antenna shall be securely bolted to the top of the traffic controller cabinet.

The antenna installation shall also include the use of a watertight acetoxy silicone rubber sealant between the bottom of the antenna and the cabinet to prevent water damage or leaking.

Sealant Specifications and Application

Continuous Temperature Resistance, -59°C (-75°F) to 204°C (400°F)
Extrusion rate @ 25°C, (grams/min) >220
Flash Point °C, °F >93 (>200)

All necessary coring, cutting, or drilling shall be conducted so as to minimize noise impact and preserve the functional state of the in-cabinet equipment. The Contractor shall be responsible for the replacement of all damaged equipment resultant from cutting, drilling, and/or coring in or on the traffic controller cabinet.

INSTALLATION COORDINATION. The Contractor shall coordinate the installation of all cellular antennas with DDOT before any work begins. The Contractor shall provide a schedule and list of installation locations to DDOT prior to any cabinet and antenna mounting work. A DDOT representative will be present during time of installation unless otherwise agreed upon. Failure to properly coordinate with the Department, which leads to Project delays, is the sole responsibility of the Contractor. The Department is not responsible for utility coordination between the Contractor and the utility company. The Contractor shall confirm the cabinet mounting location of the cellular antenna with DDOT staff prior to installation.

MEASURE AND PAYMENT. Each cellular antenna shall be paid for at the Contract unit price of each. The price shall include the cost of the antenna and all required wiring, labor, equipment, and materials to install the antenna and mounting hardware on top of the cabinet and render a clear signal from the transit vehicle. This Work includes all wiring connections to the communication modem within the controller cabinet, surge protection and electrical isolation, calibration, testing, and furnishing documentation to complete the Work.

70. FURNISH AND INSTALL AUXILIARY INTERFACE PANEL INSIDE TRAFFIC CONTROLLER CABINET, ITEM 900 007

GENERAL. This Work shall include all necessary hardware, wiring, and electrical connections to install the auxiliary interface panel in the traffic controller cabinet for TSP performance monitoring.

An Auxiliary Interface Panel shall be installed and configured at all intersections detailed in the Contract drawings in accordance with these Specifications. The contractor shall furnish 78 Auxiliary Interface Panels as indicated on the Schedule of Items. For the quantity of Auxiliary Interface Panels required for installation that exceed this amount, the Contractor shall utilize the spare parts quantities procured through DCKA-2014-B-0076 (first phase of the DDOT TSP Implementation). The Contractor shall coordinate with the product vendor to furnish all Auxiliary Interface Panels required for installation. DDOT shall not be responsible for the handling, transport, or storage of any Auxiliary Interface Panels prior to installation.

SPECIFICATIONS

An auxiliary interface panel shall be used to connect the phase selector and the traffic control cabinet wiring to monitor signal activity and assess TSP operation.

The auxiliary interface panel shall provide accurate readings of light status to the Central Management System software, and shall directly plug into the phase selector and load switch AC commons. The interface panel shall be capable of receiving inputs of 89-135VAC at 57-63 Hz.

The auxiliary interface panel shall operate at temperatures from -30˚C to +80 ˚C, and in humidity up to 95% (non-condensing). Each interface panel shall be properly configured as detailed in these Special Provisions and per manufacturer's recommendations to achieve an operating condition needed to satisfy the system requirements.

The Contractor shall provide all hardware and materials, including mounting brackets and screws, required to successfully install the auxiliary interface panel inside the traffic signal cabinet per the manufacturer's recommendations. The auxiliary interface panel shall be mounted on back of rack. The Contractor shall also provide a Work Breakdown Structure (WBS) - complete with dates and locations – at the time of bid opening and shall coordinate the installation of all auxiliary interface panels with DDOT.

All auxiliary interface panels shall have a minimum of a two (2) year warranty that includes product defects in materials and workmanship under normal use from the date of acceptance. If a hardware defect arises the manufacturer shall exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product. A replacement product or part, including a user-installable part that has been installed in accordance with instructions

provided by the manufacturer, assumes the remaining warranty of the original product or 90 Calendar Days from the date of replacement or repair, whichever provides longer coverage.

During the warranty period, technical support shall be available from the supplier via telephone within 24 hours of the time a call is made by a user, where this support shall be provided by factory-authorized personnel or factory-authorized installers.

Installation Procedures:

1. Determine a suitable location for the auxiliary interface panel in the traffic control cabinet

2. Connect one end of the auxiliary interface panel cable to the connector on the phase selector and the other to the connector on the interface panel

3. Locate and identify the load bay field wire connections (AC+) for each green phase in the traffic control cabinet

4. Determine the appropriate length of wires (22 to 16 AWG) required to connect the interface panel to the wiring points in the load bay of the traffic control cabinet

5. Strip ¼ inch of insulation from both ends of the wires

6. Insert one end of each wire into the desired terminals of the interface panel and tighten the screw

7. Route the wires through the traffic control cabinet to the AC side of the load switches in the load bay. Install spade lugs on the wires.

8. Insert one wire at a time into the correct terminal in the load bay and tighten the screw

9. Locate and identify the AC neutral connection in the traffic control cabinet

10. Insert one end of a wire into the AC neutral terminal of the auxiliary interface panel and tighten the screw

11. Route the wire through the traffic control cabinet to the AC neutral terminal. Install a spade lug and connect the other end of the wire to the AC neutral terminal in the cabinet.

INSTALLATION COORDINATION. The Contractor shall coordinate the installation of all auxiliary interface panels with DDOT before any work begins. Failure to properly coordinate with the Department, which leads to Project delays, is the sole responsibility of the Contractor. The Department is not responsible for utility coordination between the Contractor and the utility company.

MEASUREMENT AND PAYMENT. Each auxiliary interface panel shall be paid for at the Contract unit price of each. The price shall include the cost of the interface panel and all required labor, equipment, and materials to install the interface panel inside the traffic signal

cabinet and render the central management software monitoring operational. This Work includes all mounting hardware, wiring, configuration, testing, and furnishing documentation to complete the Work.

71. INSTALL TERMINAL CONNECTOR DEVICES

GENERAL. This work shall consist of the relocation of the Communications Panel at locations where applicable per the Contract Plans. The Communications Panels shall be removed and replaced with communications terminal connector devices. DDOT Staff shall supervise all re-termination of communications. All removed Communications Panels shall be returned to DDOT.

SPECIFICATIONS.

Compatibility	Devices shall be compatible with Scotchlok E-9C tool
Connector Type	Butt/2 or 3 Conductor
Insulation Diameter	0.082 Inch
Temp. Range	-40 to 140 Degree Fahrenheit
Product Type	Connector
RUS Listed	Yes/BA
Wire Gauge	26 - 19 AWG

The communications terminal Connectors shall accept any two or three solid copper conductor combinations of 19-26 AWG (0.9mm -0.4 mm) air core or filled cable with a maximum insulation O.D. of .082" (2.08 mm). The Connectors shall be able to join multiple wires of different gauges. The Connectors shall be moisture resistant and have three ports that accept two or three conductors for butt splicing.

MEASURE AND PAYMENT. Terminal connector devices shall be paid for at the Contract unit price of per 500-count jar.

72. RETROFIT TRAFFIC CONTROL CABINET

GENERAL. This work shall consist of retrofitting the existing traffic signal control cabinet to house the proposed in-cabinet detection equipment, as specified and as approved by the Engineer. This work shall include all necessary hardware to retrofit the cabinet and install TSP equipment in the traffic control cabinet, including rearrangement of existing equipment.

For the relocation of camera equipment in the Traffic Control Cabinet (at locations where applicable per the Contract Plans), the Contractor shall not re-install the equipment rack at a height beyond the length of the coaxial and power cables. Should the cables be an insufficient length to install at the location proposed, the Contractor shall coordinate with DDOT to re-install the equipment rack within the cabinet at a height within the extension ranges of the coaxial and power cables.

For the removal of the Dimensions transfer switch (at locations where applicable per the Contract Plans), the Contractor shall remove the Dimensions unit from the Traffic Control Cabinet and relocate the Dimensions unit to an external UPS cabinet.

The Contractor shall provide all materials necessary required to successfully retrofit the existing traffic signal controller cabinet.

MEASURE AND PAYMENT. This Special Provision features no measure and payment provision. The cost shall be reflected and distributed among the various contract pay items.

73. SYSTEM CONFIGURATION AND TESTING

GENERAL. The work consists of all configuration, testing, calibration, and troubleshooting required for an optimally functioning TSP system within the District.

Work includes, at a minimum:

1. Updating the SQL based WMATA fleet database for TSP parameters for onboard equipment and for the 101 traffic controllers. Deploy the database to onboard equipment via wireless update in coordination with WMATA personnel.

   Configuration, testing, adjustment, and support necessary for all global, intersection-specific, and route-specific TSP-related parameters included in the Fleet Management Software (i.e., conditional priority parameters for detection decision point start and stop distances, ETA, ETA limit, passenger load criteria, TSP type, Heading inputs, schedule deviation thresholds, schedule deviation threshold adjustment, TSP update intervals, etc.) to operate an optimally functioning conditional priority TSP system. DDOT shall provide the following parameters for each Phase 2 location to the Contactor for configuration:

   i. Intersection name
   ii. Intersection location (i.e., latitude/longitude in decimal degrees)
   iii. Minimum and maximum heading
   iv. TSP StartDist
   v. TSP StopDist

   Bus software upgrades required to enable TSP on each Express Route bus (116 buses) operating through the intersections included in this Scope of Work are to be completed under the Phase 1 DDOT TSP contract DCKA-2014-B-0076.

2. Configuration, testing, adjustment, and support necessary for all global, intersection-specific, and approach-specific parameters included in the Central Management System (i.e., channels, time of day restrictions, etc.) to operate an optimally functioning conditional priority TSP system. The existing Central Management System and SQL server were installed as part of the Phase 1 TSP Implementation. All configuration, testing, and adjustment of phase selector parameters within the CMS shall be executed using the existing licensing, software, and server hardware.

3. Testing and adjustment, as necessary, for all TSP-related parameters included in the traffic controller firmware (i.e., low priority channels, green extension, early green, bus headway) to operate an optimally functioning TSP system.

4. Field integration of TSP system at all intersections included in the Contract Plan set. Integration includes successful communication of a conditional priority TSP request from a simulated transit vehicle via cellular communication to a programmed phase selector and the subsequent, successful response and cycling of the traffic controller due to a TSP request received from the phase selector.

MEASURE AND PAYMENT. This Special Provision shall be divided among the various configuration pay items as applicable to the Scope of Work.

74. DDOT TITLE VI ASSURANCE

During the performance of this Contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

(1) COMPLIANCE WITH REGULATIONS
The Contractor shall comply with the Regulations relative to Non-Discrimination in Federally Assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, (hereinafter referred to as the "Regulations"), as they may be amended from time to time, which are incorporated by reference and made a part of this contract.

(2) NON-DISCRIMINATION

The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, gender or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. A contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

(3) SOLICIATIONS FOR SUBCONTRACTORS, INCLUDING PROCUREMENTS OF MATERIALS AND EQUIPMENT

In all solicitations either by competitive bidding or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, gender, or national origin.

(4) INFORMATION AND REPORTS

The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts and other sources of information, and its facilities as may be determined by DDOT or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to DDOT, or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.

(5) SANCTIONS FOR NON-COMPLIANCE

In the event of the Contractor's non-compliance with non-discrimination provisions of this contract, DDOT shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- Withholding of payments to the Contractor under the contract until the Contractor complies, and/or
- Cancellation, termination, or suspension of the contract in whole or in part.

(6) INCORPORATION OF PROVISIONS

The Contractor shall include the provisions of paragraphs (1) through (6) of this Assurance in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

The Contractor shall take such action with respect to any subcontract or procurement as DDOT or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor supplier as a result of this direction, the Contractor may request DDOT to enter into such litigation to protect the interests of DDOT, and in addition, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

75. RECORD OF MATERIALS, SUPPLIES AND LABOR (FHWA 47 SUBMISSION)

This Special Provision Supplements the Appendix Entitled REQUIRED CONTRACT PROVISIONS, FEDERAL AID CONSTRUCTION CONTRACTS.

For contracts of $1,000,000.00 or more, the completion and submission of the FHWA 47 report is a contract requirement. The form must be completed and submitted as soon as fieldwork is completed. Final payment will not be made until the contractor files this report.

INTERSECTION LOCATIONS

PHASE 2 LOCATIONS			
ID	**Area**	**ACISA**	**Intersection**
1	Georgia Avenue NW	2056	7th St NW & Florida Ave and Georgia Ave NW
2	Georgia Avenue NW	2057	7th St NW & G St NW
3	Georgia Avenue NW	2059	7th St NW & I St NW
4	Georgia Avenue NW	2063	7th St NW & M St NW
5	Georgia Avenue NW	2064	7th St NW & N St NW
6	Georgia Avenue NW	2071	9th St NW & G St NW
7	Georgia Avenue NW	2075	9th St NW & L St NW
8	Georgia Avenue NW	2076	9th St NW & M St NW
9	Georgia Avenue NW	2078	9th St NW & O St NW
10	Georgia Avenue NW	2079	9th St NW & P St NW
11	Georgia Avenue NW	2081	9th St NW & Q St NW
12	Georgia Avenue NW	2083	9th St NW & Rhode Island Ave NW
13	Georgia Avenue NW	2236	9th St NW & I St NW
14	Georgia Avenue NW	2238	9th St NW & N St NW
15	Georgia Avenue NW	2252	7th St NW & T St NW
16	Georgia Avenue NW	3022	7th St NW & O St NW
17	Georgia Avenue NW	3023	7th St NW & P St NW
18	Georgia Avenue NW	3024	7th St NW & Q St NW
19	Georgia Avenue NW	3026	7th St NW & S St NW
20	Georgia Avenue NW	5010	Georgia Ave NW & Shepherd St NW
21	Georgia Avenue NW	5011	Georgia Ave NW & Quincy St NW
22	Georgia Avenue NW	5118	Georgia Ave NW & Bryant St NW

PHASE 2 LOCATIONS			
ID	**Area**	**ACISA**	**Intersection**
23	Georgia Avenue NW	5119	Georgia Ave NW & Buchanan St NW
24	Georgia Avenue NW	5120	Georgia Ave NW & Butternut St NW
25	Georgia Avenue NW	5122	Georgia Ave NW & Dahlia St NW
26	Georgia Avenue NW	5123	Georgia Ave NW & Decatur St NW
27	Georgia Avenue NW	5124	Georgia Ave NW & Eastern Ave/Blair Rd
28	Georgia Avenue NW	5125	Georgia Ave NW & Elder St NW
29	Georgia Avenue NW	5126	Georgia Ave NW & Euclid St NW
30	Georgia Avenue NW	5127	Georgia Ave NW & Fairmont St NW (north/south)
31	Georgia Avenue NW	5129	Georgia Ave NW & Geranium St NW
32	Georgia Avenue NW	5130	Georgia Ave NW & Harvard St NW
33	Georgia Avenue NW	5132	Georgia Ave NW & Ingraham St NW
34	Georgia Avenue NW	5134	Georgia Ave NW & Kansas Ave NW
35	Georgia Avenue NW	5136	Georgia Ave NW & Kenyon St NW
36	Georgia Avenue NW	5137	Georgia Ave NW & Madison St NW
37	Georgia Avenue NW	5140	Georgia Ave NW & Park Rd NW
38	Georgia Avenue NW	5141	Georgia Ave NW & Peabody St NW
39	Georgia Avenue NW	5143	Georgia Ave NW & Princeton Pl NW
40	Georgia Avenue NW	5144	Georgia Ave NW & Randolph St NW
41	Georgia Avenue NW	5145	Georgia Ave NW & Rittenhouse St NW
42	Georgia Avenue NW	5146	Georgia Ave NW & V St NW
43	Georgia Avenue NW	5147	Georgia Ave NW & Van Buren St NW
44	Georgia Avenue NW	5148	Georgia Ave NW & W St NW

PHASE 2 LOCATIONS			
ID	**Area**	**ACISA**	**Intersection**
45	Georgia Avenue NW	5237	Georgia Ave NW & Aspen St NW
46	Georgia Avenue NW	5246	Georgia Ave NW & Barry Pl NW
47	Georgia Avenue NW	5253	Georgia Ave NW & Allison St NW
48	Georgia Avenue NW	5256	Georgia Ave NW & Otis Pl NW
49	Georgia Avenue NW	5257	Georgia Ave NW & Taylor St NW
50	Georgia Avenue NW	5258	Georgia Ave NW & Upshur St NW
51	Georgia Avenue NW	5261	Georgia Ave NW & Quackenbos St NW
52	16th Street NW	1053	16th St NW & L St NW
53	16th Street NW	1054	16th St NW & M St NW
54	16th Street NW	5066	16th St & Fuller St
55	16th Street NW	5081	16th St NW & Alaska Ave
56	16th Street NW	5084	16th St NW & Aspen St NW
57	16th Street NW	5086	16th St NW & Crescent Pl NW
58	16th Street NW	5089	16th St NW & Florida Ave NW
59	16th Street NW	5099	16th St & Newton St
60	16th Street NW	5100	16th St & Oak St
61	16th Street NW	5104	16th St NW & Spring Rd NW
62	16th Street NW	5105	16th St & Upshur St
63	16th Street NW	5106	16th St & V St
64	16th Street NW	5107	16th St NW & Van Buren St NW
65	16th Street NW	5108	16th St NW & Walter Reed Entrance
66	16th Street NW	5203	16th St & Montague St

PHASE 2 LOCATIONS			
ID	**Area**	**ACISA**	**Intersection**
67	16th Street NW	5239	16th St & Missouri Ave (N)
68	Wisconsin Avenue NW	1123	20th St NW & K St NW
69	Wisconsin Avenue NW	1125	20th St NW & M St NW
70	Wisconsin Avenue NW	1126	20th St NW & Massachusetts Ave NW
71	Wisconsin Avenue NW	1127	20th St NW & New Hampshire Ave NW
72	Wisconsin Avenue NW	1128	20th St NW & P St NW
73	Wisconsin Avenue NW	1138	21st St NW & K St NW
74	Wisconsin Avenue NW	1139	21st St NW & L St NW
75	Wisconsin Avenue NW	1140	21st St NW & M St NW
76	Wisconsin Avenue NW	1141	21st St NW & Massachusetts Ave NW
77	Wisconsin Avenue NW	1142	21st St NW & New Hampshire Ave NW
78	Wisconsin Avenue NW	1153	22nd St NW & Massachusetts Ave NW
79	Wisconsin Avenue NW	1184	Massachusetts Ave NW & Q St NW
80	Wisconsin Avenue NW	1254	20th St NW & N St NW
81	Wisconsin Avenue NW	6107	Massachusetts Ave NW & Garfield St NW
82	Wisconsin Avenue NW	6109	Massachusetts & Waterside Drive
83	Wisconsin Avenue NW	6131	Wisconsin Ave & Brandywine St
84	Wisconsin Avenue NW	6133	Wisconsin Ave & Davenport St
85	Wisconsin Avenue NW	6138	Wisconsin Ave NW & Garfield St NW
86	Wisconsin Avenue NW	6140	Wisconsin Ave & Harrison St
87	Wisconsin Avenue NW	6141	Wisconsin Ave & Jenifer St
88	Wisconsin Avenue NW	6148	Wisconsin Ave NW & Porter St NW

PHASE 2 LOCATIONS			
ID	**Area**	**ACISA**	**Intersection**
89	Wisconsin Avenue NW	6151	Wisconsin Ave & Rodman St
90	Wisconsin Avenue NW	6152	Wisconsin Ave NW & Van Ness St NW
91	Wisconsin Avenue NW	6155	Wisconsin Ave NW & Woodley Rd NW
92	Wisconsin Avenue NW	6159	Wisconsin Ave & Ellicott St
93	Wisconsin Avenue NW	6246	Wisconsin Ave & Upton St
94	Wisconsin Avenue NW	6259	Wisconsin Ave & River Rd
95	Georgia Avenue NW	5117	Georgia Ave NW & Kalmia Rd NW/Alaska Ave NW
96	Georgia Avenue NW	5128	Georgia Ave NW & Gallatin St and Arkansas Ave NW
97	Georgia Avenue NW	5139	Georgia Ave NW & New Hampshire Ave/Rock Creek Church Rd NW
98	16th Street NW	5083	16th St NW & Arkansas Ave and Shepherd St NW
99	16th Street NW	5101	16th St NW & Park Rd NW
100	Wisconsin Avenue NW	6129	Wisconsin Ave NW & Western Ave NW
101	Wisconsin Avenue NW	6130	Wisconsin Ave NW & Albemarle St NW