Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

September 8, 2016

SUBJECT: FAP 362 (Barrington Road)
Section 13-00062-00-SP (Hanover Park)
Cook County
Contract No. 61D06
Item 45
September 16, 2016 Letting
Addendum (B)

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. **Revised page 4 of the Schedule of Prices.**
2. **Revised Special Provision Index and page 1 of the BDE Check Sheet.**
3. **Revised pages 119 – 131 and page 168 of the special provisions.**
4. **Added page 131A to the special provisions.**
5. **Revised sheets 6, 36, 38, 40, 41, 44 & 45 of the plans.**

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

Maureen M. Addis, P.E.
Acting Bureau Chief of Design and Environment

By: Ted B. Walschleger, P.E.
Engineer of Project Management

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE DOLLARS	UNIT PRICE CENTS	TOTAL PRICE DOLLARS	TOTAL PRICE CTS
81028200	UNDRGRD C GALVS 2	FOOT	4,414.000 X			=	
81028220	UNDRGRD C GALVS 3	FOOT	93.000 X			=	
81028240	UNDRGRD C GALVS 4	FOOT	1,058.000 X			=	
81400100	HANDHOLE	EACH	12.000 X			=	
81400200	HD HANDHOLE	EACH	4.000 X			=	
81400300	DBL HANDHOLE	EACH	3.000 X			=	
81603136	UD 5#4#6GXLPUSE 1.5 P *	FOOT	4,650.000 X			=	
81702160	EC C XLP USE 1C 1/0	FOOT	366.000 X			=	
83600200	LIGHT POLE FDN 24D	FOOT	396.000 X			=	
85000200	MAIN EX TR SIG INSTAL	EACH	1.000 X			=	
86400100	TRANSCEIVER - FIB OPT	EACH	1.000 X			=	
87300925	ELCBL C TRACER 14 1C	FOOT	3,843.000 X			=	
87301215	ELCBL C SIGNAL 14 2C	FOOT	3,538.000 X			=	
87301225	ELCBL C SIGNAL 14 3C	FOOT	2,378.000 X			=	
87301245	ELCBL C SIGNAL 14 5C	FOOT	1,606.000 X			=	

*Revised 9/8/16

SPECIAL PROVISIONS INDEX

Revised 8/31/16

BDE SPECIAL PROVISIONS

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

File Name	Pg.		Special Provision Title	Effective	Revised
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
80274			Aggregate Subgrade Improvement	April 1, 2012	April 1, 2016
80192			Automated Flagger Assistance Device	Jan. 1, 2008	
80173			Bituminous Materials Cost Adjustments	Nov. 2, 2006	July 1, 2015
80241			Bridge Demolition Debris	July 1, 2009	
5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
* 80366			Butt Joints	July 1, 2016	
80360	143	X	Coarse Aggregate Quality	July 1, 2015	
80198			Completion Date (via calendar days)	April 1, 2008	
80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
* 80293			Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	July 1, 2016
80311			Concrete End Sections for Pipe Culverts	Jan. 1, 2013	April 1, 2016
80277			Concrete Mix Design – Department Provided	Jan. 1, 2012	April 1, 2016
80261	145	X	Construction Air Quality – Diesel Retrofit	June 1, 2010	Nov. 1, 2014
* 80029	148	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	July 2, 2016
80363			Engineer's Field Office	April 1, 2016	
80358	159	X	Equal Employment Opportunity	April 1, 2015	
80364	163	X	Errata for the 2016 Standard Specifications	April 1, 2016	
80229			Fuel Cost Adjustment	April 1, 2009	July 1, 2015
80304			Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
80246	167	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2016
80347			Hot-Mix Asphalt – Pay for Performance Using Percent Within Limits – Jobsite Sampling	Nov. 1, 2014	April 1, 2016
* 80367	168		Light Poles	July 1, 2016	
* 80368			Light Tower	July 1, 2016	
80336			Longitudinal Joint and Crack Patching	April 1, 2014	April 1, 2016
* 80369	169	X	Mast Arm Assembly and Pole	July 1, 2016	
80045			Material Transfer Device	June 15, 1999	Aug. 1, 2014
80342			Mechanical Side Tie Bar Inserter	Aug. 1, 2014	April 1, 2016
* 80370			Mechanical Splicers	July 1, 2016	
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010
80361			Overhead Sign Structures Certification of Metal Fabricator	Nov. 1, 2015	April 1, 2016
80349			Pavement Marking Blackout Tape	Nov. 1, 2014	April 1, 2016
* 80371			Pavement Marking Removal	July 1, 2016	
80298			Pavement Marking Tape Type IV	April 1, 2012	April 1, 2016
80365	170	X	Pedestrian Push-Button	April 1, 2016	
* 80372			Preventive Maintenance – Bituminous Surface Treatment (A-1)	Jan. 1, 2009	July 1, 2016
* 80373			Preventive Maintenance – Cape Seal	Jan. 1, 2009	July 1, 2016
* 80374			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	July 1, 2016
* 80375			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	July 1, 2016
* 80359			Portland Cement Concrete Bridge Deck Curing	April 1, 2015	July 1, 2016
80353			Portland Cement Concrete Inlay or Overlay	Jan. 1, 2015	April 1, 2016

2 Revised 8/31/16

LIGHT POLE, SPECIAL

Description. This item shall consist of furnishing and installing an aluminum light pole in accordance with the Standard Specifications for Road and Bridge Construction adopted April 1, 2016, Section 830 unless otherwise indicated in this special provision or on the Light Pole Detail as shown on the plans.

Materials.
Revise the second paragraph of Article 1069.01 of the Standard Specifications to read:

> "The detailed design and fabrication of the pole shaft, arms, tenons, and attachments shall be according to AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" current at the time the project is advertised. Light poles shall be designed for ADT > 10,000 and Risk Category Typical. If Fatigue design is required, light poles shall be designed for Importance Category I."

Revise the fifth paragraph of Article 1069.01(a) of the Standard Specifications to read:

> "Deflection of the pole top as caused by the combined effect of deadload referenced above and wind speed prescribed by AASHTO shall be as required by AASHTO. Pole deflection and loading compliance, certified by the manufacturer, shall be noted on the pole submittal."

The base of the pole shall be covered with a 2 piece cast aluminum clamshell base as shown on the plans and as approved by the Engineer as coordinated with the Village of Hanover Park. The finish shall be black anodized aluminum.

The pole and mast arm shall also be black anodized aluminum. The mast arm lengths shall be as indicated on the plans.

A recessed duplex weather-resistant receptacle shall be at approximately 15 ft. mounting height and shall be waterproof (with in use cover) when closed.

The pole shall have a breakaway aluminum banner arm set with banner hubs on the opposite side, as detailed on the plans. A retention chain shall be provided for the banner arms. The banner arms shall be black anodized aluminum.

Breakaway couplings shall also be furnished and installed with this item. Breakaway couplings shall be manufactured of cast aluminum or galvanized steel. Certification shall be submitted from the supplier that the device used under the conditions of the particular design meets the current AASHTO breakaway specification. Certification shall include test results performed by the manufacturer, supplier or others. If test results have been previously approved by a letter from the FHWA, a copy of the approval letter from FHWA should accompany the certification. The coupling shall not alter the bolt circle of the pole.

The light pole shall be inspected and approved by the Engineer as coordinated with the Village of Hanover Park.

Construction requirements. Lighting unit identification numbers shall not be installed on the light poles.

Basis of Payment. The work shall be paid for at the contract unit price per each **LIGHT POLE, SPECIAL**, which price shall include all labor, materials and equipment necessary to complete the work in place.

LIGHT POLE, SPECIAL, TYPE 2

Description. This item shall consist of furnishing and installing an aluminum light pole in accordance with the Standard Specifications for Road and Bridge Construction adopted April 1, 2016, Section 830 unless otherwise indicated in this special provision or on the Light Pole Detail as shown on the plans.

Materials.
Revise the second paragraph of Article 1069.01 of the Standard Specifications to read:

> "The detailed design and fabrication of the pole shaft, arms, tenons, and attachments shall be according to AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" current at the time the project is advertised. Light poles shall be designed for ADT > 10,000 and Risk Category Typical. If Fatigue design is required, light poles shall be designed for Importance Category I."

Revise the fifth paragraph of Article 1069.01(a) of the Standard Specifications to read:

> "Deflection of the pole top as caused by the combined effect of deadload referenced above and wind speed prescribed by AASHTO shall be as required by AASHTO. Pole deflection and loading compliance, certified by the manufacturer, shall be noted on the pole submittal."

The base of the pole shall be covered with a 2 piece cast aluminum clamshell base as shown on the plans and as approved by the Engineer as coordinated with the Village of Hanover Park. The finish shall be black anodized aluminum.

The pole and mast arm shall also be black anodized aluminum. The mast arm lengths shall be as indicated on the plans.

A recessed duplex weather-resistant receptacle shall be at approximately15 ft. mounting height and shall be waterproof (with in use cover) when closed.

Breakaway couplings shall also be furnished and installed with this item. Breakaway couplings shall be manufactured of cast aluminum or galvanized steel. Certification shall be submitted from the supplier that the device used under the conditions of the particular design meets the current AASHTO breakaway specification. Certification shall include test results performed by the manufacturer, supplier or others. If test results have been previously approved by a letter from the FHWA, a copy of the approval letter from FHWA should accompany the certification. The coupling shall not alter the bolt circle of the pole.

The light pole shall be inspected and approved by the Engineer as coordinated with the Village of Hanover Park.

Construction requirements. Lighting unit identification numbers shall not be installed on the light poles.

Basis of Payment. The work shall be paid for at the contract unit price per each **LIGHT POLE, SPECIAL, TYPE 2**, which price shall include all labor, materials and equipment necessary to complete the work in place.

LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL

Description.
This work shall consist of furnishing and installing LED luminaire as shown on the plans, as specified herein.

General.
The luminaire including the housing, driver and optical assembly shall be assembled in the U.S.A. The luminaire shall be assembled by and manufactured by the same manufacturer. The luminaire shall be in compliance with ANSI C136.37. LED light source(s) and driver(s) shall be RoHS compliant. The luminaire shall be U.L or E.T.L. listed.

Submittal Requirements.
The Contractor shall submit, for approval, an electronic version of all associated luminaire IES files, AGi32 files and the TM-21 or TM-28 calculator spreadsheet with inputs and reports associated with the project luminaires. The Contractor shall also provide (as a minimum) an electronic (PDF) version of each of the following manufacturer's product data for each type of luminaire:

1. Descriptive literature and catalogue cuts for luminaire, LED driver, and surge protection device.

2. LED drive current, total luminaire input wattage and total luminaire current at the system operating voltage or voltage range and ambient temperature of 25 C.

3. LED efficacy per luminaire expressed in lumens per watt (lpw).

4. Initial delivered lumens at the specified color temperature, drive current, and ambient temperature.

5. Computer photometric calculation reports as specified and in the luminaire performance table.

6. TM-15 BUG rating report.

7. Isofootcandle chart with max candela point and half candela trace indicated.

8. Documentation of manufacturers experience and verification that luminaires were assembled in the U.S.A. as specified.

9. Supporting documentation of compliance with ANSI standards as well as UL listing as specified.

10. Supporting documentation of laboratory accreditations and certifications for specified testing as indicated.

11. Thermal testing documents as specified.

12. IESNA LM-79, LM-80 (or LM-84) and TM-21 (or TM-28) reports as specified.

13. Salt fog test reports and certification as specified.

14. Vibration Characteristics Test Reports and certification as specified.

15. Ingress Protection Test Reports as specified.

16. Written warranty.

A sample luminaire shall be provided upon request of the Engineer. The sample shall be as proposed for the contract and shall be delivered to the Village of Hanover Park.

Housing.

Material. The luminaire shall be a single device not requiring on-site assembly for installation. The power supply for the luminaire shall be integral to the unit.

Finish. Paint shall be black.

The luminaire shall slip-fit on a mounting arm with a 2" diameter tenon (2.375" outer diameter), and shall have a barrier to limit the amount of insertion. The slip fitter clamp shall utilize four (4) bolts to clamp to the tenon arm. The luminaire shall be provided with a leveling surface and shall be capable of being tilted ±5 degrees from the axis of attachment in 2.5 degree increments and rotated to any degree with respect to the supporting arm.

The housing shall be designed to prevent the accumulation of water, ice, dirt and debris and to ensure maximum heat dissipation.

The effective projected area of the luminaire shall not exceed 1.6 sq. ft.

The total weight of the luminaire(s) and accessories shall not exceed 75 pounds.

A passive cooling method with no moving, rotating parts, or liquids shall be employed for heat management.

The luminaire shall include a fully prewired, 7-pin twist lock ANSI C136.41-compliant receptacle. Unused pins shall be connected as directed by the Manufacturer and as approved by the Engineer. A shorting cap shall be provided with the luminaire.

Vibration Characteristics. All luminaires shall be vibration tested and pass ANSI C136.31 requirements. Luminaires shall be rated for "3G" peak acceleration. Vibration testing shall be run using the same luminaire in all three axes.

Labels and Decals. All luminaires shall have labels in accordance with ANSI C136.15 for an external label, and ANSI C136.22 for an internal label.

The luminaire shall be listed for wet locations by a U.S. Occupational Safety Health administration (OSHA) Nationally Recognized Testing Laboratory (NRTL) and shall be in

compliance with UL 8750 and UL 1598. It shall be identified as such by the NRTL tag/sticker on the inside of the luminaire.

Hardware. All fasteners shall be stainless steel. Captive screws are required on any components that require maintenance after installation.

Internal Luminaire Electrical Connections. Quick connect/disconnect plugs shall be supplied between the discrete electrical components within the luminaire such as the driver, surge protection device and optical assembly for easy removal. The quick connect/disconnect plugs shall be operable without the use of tools while wearing insulated gloves.

Provisions for any future house-side external or internal shielding should be indicated along with means of attachment.

Circuiting shall be designed to minimize the impact of individual LED failures on the operation of the other LED's.

Wiring. Wiring within the electrical enclosure shall be rated at 600v, 105°C or higher.

Driver.

The driver shall be integral to the luminaire.

The plugs shall be keyed and shall be operable without the use of special tools by insulated, gloved hands

The driver shall tolerate indefinite open and short circuit output conditions without damage.

Ingress Protection. The driver Ingress Protection (IP) rating as defined in the ANSI/IEC 60529 standard shall have an IP66 rating.

Input Voltage. The driver shall be suitable for operation over a range of 120 to 277 volts or 347 to 480 volts as required by the system operating voltage.

Operating Temperature. The driver shall have an operating ambient temperature range of -40°C to 70°C.

Driver Life. The driver shall provide a life time of 100,000 hours at 25° C ambient.

Safety/UL. The driver shall be UL Listed under standard UL 1012.

Power Factor. Drivers shall maintain a power factor of 0.9 or higher and total harmonic distortion of less than 20%.

Driver efficiency. Efficiency of the driver is defined by the ratio of output power and input power. The driver shall deliver a maximum efficiency of >90% at maximum load and an efficiency of >85% for the driver operating at 50% power.

Electrical Interference. The driver shall meet the Electromagnetic Compatibility (EMC) requirements per FCC Title 47 Code of Federal Regulations (CFR) Part 15 Class A.

Thermal Fold Back. The driver shall reduce the current to the LED module if the driver is overheating due to abnormal conditions.

Dimming. The driver shall have dimming capability. The driver shall accept a dimming control signal that is compliant with the 0-10V protocol in accordance with ANSI C136.37.

Leakage current. The driver shall comply with safety standards in accordance with IEC 61347-1.

The Surge Protection Device shall be UL 1449 labeled as Type 4 and be an integral part of the luminaire. The SPD shall be compliant with ANSI C136.2-2014 (Draft).

Thermal performance

Thermal Testing shall be provided as defined by ANSI/UL 1598. The luminaire shall start and operate in the ambient temperature range specified in the driver section. The maximum rated case temperature of the driver, LEDs, and other internal components shall not be exceeded when the luminaire is operated in the ambient temperature range specified.

Mechanical design of protruding external surfaces (heat sink fins) shall facilitate hose-down cleaning and discourage debris accumulation. Testing shall be submitted (whenever is available) to show the maximum rated case temperature of the driver, LEDs, and other internal components are not exceeded when the luminaire is operated with the heat sink filled with debris.

LED Optical Assembly

The LED optical assembly shall be a scalable array consisting of discrete LED panels or modules. Each panel or module shall have a minimum IP rating of 66.

The optical assembly shall utilize high brightness, long life, minimum 70 CRI, 4,000K color temperature (+/-300K) LEDs binned in accordance with ANSI C78.377. Lenses shall be UV-stabilized acrylic or glass.

Lumen depreciation at 50,000 hours of operation shall not exceed 15% of initial lumen output at the specified LED drive current and an ambient temperature of 25° C.

The luminaire may or may not have a glass lens over the LED modules. If a glass lens is used, it must be a flat lens. Material other than glass will not be acceptable. If a glass lens is not used, the LED modules may not protrude lower than the luminaire housing.

The assembly shall have individual serial numbers or other means for manufacturer tracking.

Photometric Performance.

Luminaires shall be tested according to IESNA LM-79. This testing shall be performed by a test laboratory holding accreditation from the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP) for the IESNA LM-79 test procedure.

Data reports as a minimum shall yield an isofootcandle chart, with max candela point and half candela trace indicated, maximum plane and maximum cone plots of candela, a candlepower

table (house and street side), a coefficient of utilization chart, a luminous flux distribution table, spectral distribution plots, chromaticity plots, and other standard report outputs of the above mentioned tests.

Lumen maintenance shall be measured for the LEDs according to LM-80 or for the luminaires according to LM-84. The LM-80 report shall be based on a minimum of 6,000 hours, yet 10,000 hour reports shall be provided for luminaires where those tests have been completed.

The luminaire shall have a BUG rating of Back Light B3 or less, Up Light rating of U0, and a Glare rating of G4 or less unless otherwise indicated in the luminaire performance table.

Lumen Maintenance Projection.

The luminaire shall have long term lumen maintenance documented according to IESNA TM-21 or IESNA TM-28. Ambient temperature shall be 25^0 C.

The submitted calculations shall incorporate the light loss factors as indicated in the respective performance tables.

Photometric Calculations.

Calculations. Submitted report shall include a luminaire classification system graph with both the recorded lumen value and percent lumens by zone along with the BUG rating according to IESNA TM-15.

Complete point-by-point luminance and veiling luminance calculations as well as listings of all indicated averages and ratios as applicable shall be provided in accordance with IESNA RP-8 recommendations. Lighting calculations shall be performed using AGi32 software with all luminance calculations performed to two decimal places (i.e. x.xx cd/m2). Uniformity ratios shall also be calculated to two decimal places (i.e. x.xx:1). Calculation results shall demonstrate that the submitted luminaire meets the lighting metrics specified in the project Luminaire Performance Table(s). Values shall be rounded to the number of significant digits indicated in the luminaire performance table(s).

All photometry must be **photopic**. Scotopic or mesopic factors will not be allowed.

IDOT DISTRICT 1 LUMINAIRE PERFORMANCE TABLE
STREET LIGHTING

GIVEN CONDITIONS

ROADWAY DATA	Pavement Width	64 (ft)
	Number of Lanes	5
	Median Width	0 (ft)
	I.E.S. Surface Classification	R3
	Q-Zero Value	.07
LIGHT POLE DATA	Mounting Height	48 (ft)
	Mast Arm Length	12 (ft)
	Pole Set-Back From Edge Of Pavement	6 (ft)
LUMINAIRE DATA	Lumens	23,000 (Min)
	BUG Rating	B3 – U0 – G4 (Max)
	I.E.S. Vertical Distribution	Medium
	I.E.S. Lateral Distribution	Type II
	Total Light Loss Factor	0.70
LAYOUT DATA	Spacing	150 (ft)
	Configuration	Single Sided
	Luminaire Overhang over EOP	6 (ft)

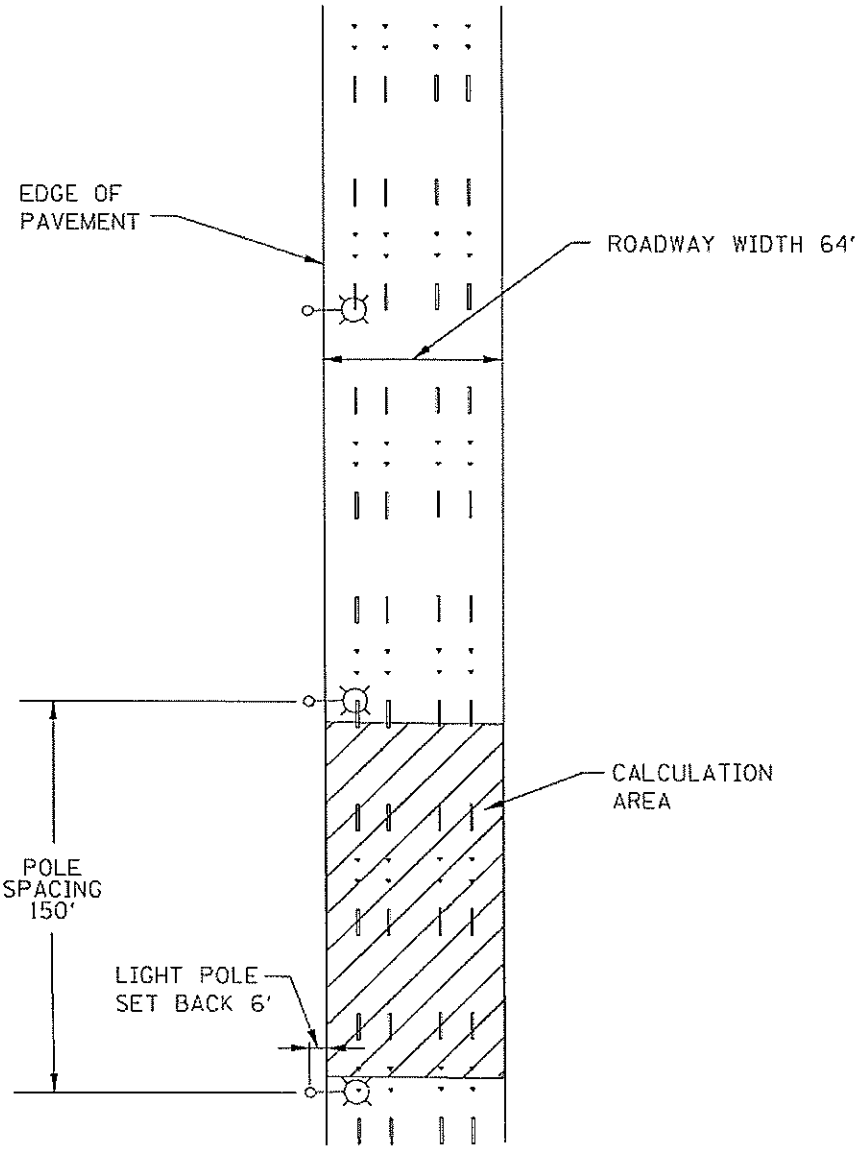
NOTE: Variations from the above specified I.E.S. distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ROADWAY LUMINANCE	Average Luminance, L_{AVE}	.9	Cd/m^2 (Min)
	Uniformity Ratio, L_{AVE}/L_{MIN}	3.0	(Max)
	Uniformity Ratio, L_{MAX}/L_{MIN}	5.0	(Max)
	Veiling Luminance Ratio, L_V/L_{AVE}	.3	(Max)

Revised 08/31/16



Installation.

Each luminaire shall be installed according to the luminaire manufacturer's recommendations.

Luminaires which are pole mounted shall be mounted on site such that poles and arms are not left unloaded. Pole mounted luminaires shall be leveled/adjusted after poles are set and vertically aligned before being energized. When mounted on a tenon, care shall be exercised to assure maximum insertion of the mounting tenon. Each luminaire shall be checked to assure compatibility with the project power system. When the night-time check of the lighting system by the Engineer indicates that any luminaires are mis-aligned, the mis-aligned luminaires shall be corrected at no additional cost.

No luminaire shall be installed before it is approved. Where independent testing is required, full approval will not be given until complete test results, demonstrating compliance with the specifications, have been reviewed and accepted by the Engineer.

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Pole wiring shall be provided with the luminaire. Pole wire shall run from handhole to luminaire. Pole wire shall be sized No. 10, rated 600 V, RHW/USE-2, and have copper conductors, stranded in conformance with ASTM B 8. Pole wire shall be insulated with cross-linked polyethylene (XLP) insulation. Wire shall be trained within the pole or sign structure so as to avoid abrasion or damage to the insulation.

Pole wire shall be extended through the pole, pole grommet, luminaire ring, and any associated arm and tenon. The pole wire shall be terminated in a manner that avoids sharp kinks, pinching, pressure on the insulation, or any other arrangement prone to damaging insulation value and producing poor megger test results. Wires shall be trained away from heat sources within the luminaire. Wires shall be terminated so all strands are extended to the full depth of the terminal lug with the insulation removed far enough so it abuts against the shoulder of the lug, but is not compressed as the lug is tightened.

Included with the pole wiring shall be fusing located in the handhole. Fusing shall be according to Article 1065.01 with the exception that fuses shall be 6 ampere.

Each luminaire and optical assembly shall be free of all dirt, smudges, etc. Should the optical assembly require cleaning, a luminaire manufacturer approved cleaning procedure shall be used.

Horizontal mount luminaires shall be installed in a level, horizontal plane, with adjustments as needed to insure the optics are set perpendicular to the traveled roadway.

Warranty.

The entire luminaire and all of its component parts shall be covered by a 10 year warranty. Failure is when one or more of the following occur:

1) Negligible light output from more than 10 percent of the discrete LEDs.
2) Significant moisture that deteriorates performance of the luminaire.
3) Driver that continues to operate at a reduced output due to overheating.

The warranty period shall begin on the date of project final acceptance. A copy of the acceptance letter shall be sent to the luminaire manufacturer and luminaire manufacturer's representative by the Contractor upon final acceptance.

The replacement luminaire shall be of the same manufacturer, model, and photometric distribution as the original.

Basis of Payment.

This work will be paid for at the contract unit price per each for LUMINAIRE, LED, HORIZONTAL MOUNT, SPECIAL.

LIGHTING CONTROLLER, SPECIAL

Description: This item shall consist of furnishing and installing a lighting controller in accordance with the Standard Specifications for Road and Bridge Construction adopted April 1, 2016, Section 825 unless otherwise indicated in this special provision or on the Lighting Controller Single Door detail as shown on the plans.

Revised 08/31/16

General: The work shall be performed according to Sections 825 and 1068 of the Standard Specifications and the following;

The step down transformer for the interior lighting shall be 10 KVA and shall also feed the breakers for the receptacles at each light pole as shown on the Lighting Controller Single Door detail. The additional controls and circuit breakers required shall be as shown on the detail.

The finish shall be black anodized aluminum.

Basis of Payment: This work will be paid for at the contract unit price per each for LIGHTING CONTROLLER, SPECIAL.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

This work shall be according to Article 669 of the Standard Specifications and the following:

Qualifications. The term environmental firm shall mean an environmental firm with at least five (5) documented leaking underground storage tank (LUST) cleanups or that is pre-qualified in hazardous waste by the Department. Documentation includes but not limited to verifying remediation and special waste operations for sites contaminated with gasoline, diesel, or waste oil in accordance with all Federal, State, or local regulatory requirements and shall be provided to the Engineer for approval. The environmental firm selected shall not be a former or current consultant or have any ties with any of the properties contained within and/or adjacent to this construction project.

General. This Special Provision will likely require the Contractor to subcontract for the execution of certain activities.

All contaminated materials shall be managed as either "uncontaminated soil" or non-special waste. This work shall include monitoring and potential sampling, analytical testing, and management of a material contaminated by regulated substances. The Environmental Firm shall continuously monitor all soil excavation for worker protection and soil contamination. **Phase I Preliminary Engineering information is available through the District's Environmental Studies Unit.** Soil samples or analysis without the approval of the Engineer will be at no additional cost to the Department. The lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit whichever is less.

The Contractor shall manage any excavated soils and sediment within the following areas:

ISGS Site 2969-3 – Vacant Lot No. 1

- Station 12+35 to Station 14+15 (CL Barrington Road), 0 to 60 feet LT (Vacant Lot No. 1, PESA Site 2969-3, 6600 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-4 – Commercial Building No. 1

- Station 14+15 to Station 15+75 (CL Barrington Road), 0 to 50 feet LT (Commercial Building No. 1, PESA Site 2969-4, 6602 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

- Station 15+75 to Station 17+45 (CL Barrington Road), 0 to 50 feet LT (Commercial Building No. 1, PESA Site 2969-4, 6602 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-5 – Hanover Square Shopping Center

- Station 17+45 to Station 18+70 (CL Barrington Road), 0 to 50 feet LT (Hanover Square Shopping Center, PESA Site 2969-5, 6606-6772 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 18+70 to Station 19+80 (CL Barrington Road), 0 to 50 feet LT (Hanover Square Shopping Center, PESA Site 2969-5, 6606-6772 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.
- Station 19+80 to Station 20+85 (CL Barrington Road), 0 to 50 feet LT (Hanover Square Shopping Center, PESA Site 2969-5, 6606-6772 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-6 – Vacant Lot No.2

- Station 23+25 to Station 24+25 (CL Barrington Road), 0 to 50 feet LT (Vacant Lot No. 2, PESA Site 2969-6, 6700 block of Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)pyrene.
- Station 24+25 to Station 25+05 (CL Barrington Road), 0 to 75 feet LT (Vacant Lot No. 2, PESA Site 2969-6, 6700 block of Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(5) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic.

ISGS Site 2969-15 – Residential Building

- Station 24+40 to Station 25+80 (CL Barrington Road), 0 to 85 feet RT (Residential Building, PESA Site 2969-15, 1591-1593 Walnut Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-8 – Commercial Building No. 2

- Station 25+05 to Station 26+30 (CL Barrington Road), 0 to 80 feet LT (Commercial Building No. 2, PESA Site 2969-8, 6800 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(3) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Arsenic, Manganese.
- Station 26+30 to Station 27+15 (CL Barrington Road), 0 to 50 feet LT (Commercial Building No. 2, PESA Site 2969-8, 6800 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: VOCs.

ISGS Site 2969-9 – Hanover Park Fire Station No. 1

- Station 27+15 to Station 28+45 (CL Barrington Road), 0 to 50 feet LT (Hanover Park Fire Station No. 1, PESA Site 2969-9, 6850 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(1) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: VOCs.
- Station 28+45 to Station 31+00 (CL Barrington Road), 0 to 50 feet LT (Hanover Park Fire Station No. 1, PESA Site 2969-9, 6850 Barrington Road, Hanover Park). This material

meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-10 – Christ Church Presbyterian

- Station 31+00 to Station 33+40 (CL Barrington Road), 0 to 50 feet LT (Christ Church Presbyterian, PESA Site 2969-10, 6900 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-11 – Carsmart

- Station 33+40 to Station 33+85 (CL Barrington Road), 0 to 50 feet LT (Carsmart, PESA Site 2969-11, 7000 Barrington Road, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-14 – Residences No. 1

- Station 36+90 to Station 38+30 (CL Barrington Road), 0 to 50 feet LT (Residences, PESA Site 2969-14, 6961-6981 Hanover Street and 1601 Sycamore Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(4) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)flouranthene, Dibenzo(a,h)anthracene.
- Station 38+30 to Station 39+40 (CL Barrington Road), 0 to 50 feet LT (Residences, PESA Site 2969-14, 6961-6981 Hanover Street and 1601 Sycamore Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

ISGS Site 2969-19 – Residences No. 2

- Station 39+40 to Station 39+80 (CL Barrington Road), 0 to 70 feet LT (Residences, PESA Site 2969-19, 7011-7241 Hanover Street, 1600 Sycamore Street, and 1600 Laurel Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 41+40 to Station 42+90 (CL Barrington Road), 0 to 50 feet LT (Residences, PESA Site 2969-19, 7011-7241 Hanover Street, 1600 Sycamore Street, and 1600 Laurel Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.
- Station 50+40 to Station 53+30 (CL Barrington Road), 0 to 60 feet LT (Residences, PESA Site 2969-19, 7011-7241 Hanover Street, 1600 Sycamore Street, and 1600 Laurel Avenue, Hanover Park). This material meets the criteria of Article 669.09(a)(2) and shall be managed in accordance to Article 669.09. Contaminants of concern sampling parameters: Manganese.

THOSE SEEKING THE FULL GEOTECHNICAL REPORT OR PRELIMINARY SITE INVESTIGATION SHOULD CONTACT THE OWNER OF RECORD. TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION PLEASE CONTACT:

T.J. MOORE, PUBLIC WORKS & ENGINEERING DIRECTOR
VILLAGE OF HANOVER PARK
(630) 823-5701

REMOVE EXISTING HANDHOLE

Add the following to Article 895.05 of the Standard Specifications.

Description: The existing handhole which is to be removed and is to become the property of the Contractor shall be disposed of at the Contractor's expense. This work shall include all of the necessary work to remove the existing handholes from the ground and to restore the existing pavement or ground to match the adjacent conditions at the site. Holes created should be filled or barricaded immediately to prevent safety hazards.

Basis of Payment: This work shall be paid for at the contract unit price, per each, for REMOVE EXISTING HANDHOLE, of the type indicated on the plans, which price shall include all work, excavation, materials, all equipment and labor required to complete the work as specified and to restore the existing ground or pavement.

REMOVE EXISTING DOUBLE HANDHOLE

Add the following to Article 895.05 of the Standard Specifications.

Description: The existing double handhole which is to be removed and is to become the property of the Contractor shall be disposed of at the Contractor's expense. This work shall include all of the necessary work to remove the existing double handholes from the ground and to restore the existing pavement or ground to match the adjacent conditions at the site. Holes created should be filled or barricaded immediately to prevent safety hazards.

Basis of Payment: This work shall be paid for at the contract unit price, per each, for REMOVE EXISTING DOUBLE HANDHOLE, of the type indicated on the plans, which price shall include all work, excavation, materials, all equipment and labor required to complete the work as specified and to restore the existing ground or pavement.

REMOVE EXISTING CONCRETE FOUNDATION

Add the following to Article 895.05 of the Standard Specifications

Description: The existing concrete foundation which is to be removed shall be disposed of at the Contractor's expense. This work shall include all of the necessary work to remove the existing concrete foundation from the ground and to restore the existing pavement or ground to match the adjacent conditions at the site. Holes created should be filled or barricade immediately to prevent safety hazards.

Basis of Payment: This work shall be paid for at the contract unit price, per each, for REMOVE EXISTING CONCRETE FOUNDATION, which shall be payment in full which includes all work, excavation, materials to remove and dispose of an existing concrete traffic signal foundation, as well as all equipment and labor required to complete the work specified and to restore the existing ground or pavement.

LIGHT POLES (BDE)

Effective: July 1, 2016

Revise the second paragraph of Article 1069.01 of the Standard Specifications to read:

"The detailed design and fabrication of the pole shaft, arms, tenons, and attachments shall be according to AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" current at the time the project is advertised. Light poles shall be designed for ADT > 10,000 and Risk Category Typical. If Fatigue design is required, light poles shall be designed for Importance Category I."

Revise the fifth paragraph of Article 1069.01(a) of the Standard Specifications to read:

"Deflection of the pole top as caused by the combined effect of deadload referenced above and wind speed prescribed by AASHTO shall be as required by AASHTO. Pole deflection and loading compliance, certified by the manufacturer, shall be noted on the pole submittal."

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