



INVITATION TO BID

Abernathy Road Lighting Project - Roswell Rd to Wright Rd(T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)

BID NUMBER 15-080

Bid Due Date

July 15, 2015; 2:00 p.m.

City of Sandy Springs

Purchasing Office

7840 Roswell Road, Building 500

Sandy Springs, GA 30350

Questions must be directed in writing to:

City of Sandy Springs, *Purchasing Manager, Lyn Taylor,*

via e-mail to:

etaylor@sandyspringsga.gov

Deadline for questions from prospective contractors June 26, 2015;

5:00 p.m.

Questions received after this date and time may not be answered.

DEFINITIONS

SSPWD: Sandy Springs Public Works Department

GDOT: Georgia Department of Transportation

ENGINEER: The Sandy Springs Director of Public Works or a duly authorized representative.

ADA: Americans with Disabilities Act

EA: Each

GAL: Gallon

LF: Lineal Feet

LS: Lump Sum

SY: Square Yard

TN: Ton

MUTCD: *Manual on Uniform Traffic Control Devices*

OSHA: Occupational Safety and Health Administration

FHWA: Federal Highway Administration

AASHTO: American Association of State Highway and Transportation Officials

CONTRACT DOCUMENTS: Contract Agreement, General Conditions,
Special Provisions, Technical Specifications,
Drawings and Plans, Bidding Documents

CITY OF SANDY SPRINGS

Invitation to Bid #15-080

ABERNATHY ROAD LIGHTING PROJECT - ROSWELL RD TO WRIGHT RD(T-0002-1) AND WRIGHT RD TO BRANDON MILL (T-0002-2)

The City of Sandy Springs is accepting sealed bids from highly qualified firms **meaning a Prequalified Prime Contractor listed by the Georgia Department of Transportation, Office of Contract Administration** for the **ITB #15-080 Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)**, for the **Public Works Department**. The contractor must self-perform tasks constituting a minimum of fifty-one percent (51%) of the value of the contract. Work will be done in accordance with Georgia Department of Transportation's (GDOT) Standard Drawings, Standard Specifications, and Pay Items Index as standards and specifications for the construction and completion of the work required. Plans for this project are available at LDI, <http://www.ldireproprinting.com/locations.htm>, LDI Norcross 3030-A Business Park Drive, Norcross, GA 30071, 770-263-1010 (P), 770-417-1147 (F).

All bidders must comply with all general and special requirements of the bid information and instructions enclosed herein. **Deadline for questions from prospective contractors is 5:00 p.m., June 26, 2015; 5:00 p.m.** Questions received after this date and time may not be answered.

Sealed bids will be received no later than **July 15, 2015; 2:00 p.m.** in the City of Sandy Springs Purchasing Office, 7840 Roswell Road, Bldg.-500, Sandy Springs, Georgia 30350 at which time bids will be opened and publicly read aloud. Bids received after the above time or in any other location other than the Purchasing Office **will not** be accepted.

Bids shall be presented in a sealed opaque envelope with the bid number and name **ITB #15-080 Abernathy Road Lighting Project - Roswell Rd to Wright Rd(T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)** clearly marked on the outside of the envelope. The name of the company or firm submitting a bid should also be clearly marked on the outside of the envelope. One (1) original and three (3) copies should be submitted and one digital copy in PDF format saved to a CD or USB flash drive. Bids will not be accepted verbally or by fax or email. Bid packages are available on the City of Sandy Springs website, purchasing page <http://www.sandyspringsga.org/purchasing> and also may be downloaded from the DOAS website (www.doas.georgia.gov). All questions should be forwarded in writing to Lynn Taylor at etaylor@sandyspringsga.gov. Please refer to **ITB #15-080 Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)**, when requesting information.

The City of Sandy Springs reserves the right to reject all bids and to waive technicalities and informalities, and to make award in the best interest of the City of Sandy Springs.

The selected contractor must be able to start work within ten (10) calendar days after the "Notice to Proceed" is issued. The time of completion for the project is **sixty (60)** calendar days from the date of the "Notice to Proceed." Section 108.08 of the State of Georgia Department of Transportation Standard Specifications Construction of Transportation Systems (current edition) shall be applied.

BID FORM
(Bidder to sign and return)

**TO: PURCHASING MANAGER
CITY OF SANDY SPRINGS
SANDY SPRINGS, GEORGIA 30350**

Ladies and Gentlemen:

In compliance with your Invitation To Bid, the undersigned, hereinafter termed the Bidder, proposes to enter into a Contract with the City of Sandy Springs, Georgia, to provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the Work in the manner therein specified within the time specified, as therein set forth, for:

***ITB #15-080 Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to
Brandon Mill (T-0002-2)***

The Bidder has carefully examined and fully understands the Contract, Specifications, and other documents hereto attached, has made a personal examination of the Site of the proposed Work, has satisfied himself as to the actual conditions and requirements of the Work, and hereby proposes and agrees that if his bid is accepted, he will contract with the City of Sandy Springs in full conformance with the Contract Documents.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition). All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

It is the intent of this Bid to include all items of construction and all Work called for in the Specifications, or otherwise a part of the Contract Documents.

In accordance with the foregoing, the undersigned proposes to furnish and construct the items listed in the attached Bid schedule for the unit prices stated.

The Bidder agrees that the cost of any work performed, materials furnished, services provided or expenses incurred, which are not specifically delineated in the Contract Documents but which are incidental to the scope, intent, and completion of the Contract, shall be deemed to have been included in the prices bid for the various items scheduled.

The Bidder further proposes and agrees hereby to promptly commence the Work with adequate forces and equipment within ten (10) calendar days from receipt of Notice to Proceed and to complete all Work within sixty (60) calendar days from the initial Notice to Proceed.

The Bidder will be required to sign a "Notice of Intent" (NOI) as the "operator" prior to beginning construction. The Bidder shall be responsible for installing and maintaining the "Best Management Practices" (BMP's) throughout the term of the project. Upon completion and prior to final payment the Bidder will be required to sign a "Notice of Termination (NOT) upon final approval by COSS.

Attached hereto is an executed Bid Bond (bond only: certified checks or other forms are not acceptable)).
_____ in the amount of _____ Dollars (\$ Five Percent of Amount Bid).

If this bid shall be accepted by the City of Sandy Springs and the undersigned shall fail to execute a satisfactory contract in the form of said proposed Contract, and give satisfactory Performance and Payment Bonds, or furnish satisfactory proof of carriage of the insurance required within ten days from the date of Notice of Award of the Contract, then the City of Sandy Springs may, at its option, determine that the undersigned abandoned the Contract and there upon this bid shall be null and void, and the sum stipulated in the attached Bid Bond or certified check shall be forfeited to the City of Sandy Springs as liquidated damages.

Bidder acknowledges receipt of the following addenda:

Addendum No.	Date Received
_____	_____
_____	_____
_____	_____
_____	_____

Bidder further declares that the full name and resident address of Bidder's Principal is as follows:

Signed, sealed, and dated this _____ day of _____

Bidder _____
Company Name

Seal

Bidder Mailing Address:

By: _____

Title: _____

By: _____

Title: _____

BIDDING INSTRUCTIONS

The following items should be returned with the bid documents.

- City Bid Schedule and City Bid Form
- Bid Bond*
- Applicable Compliance Specifications Sheets
- Applicable Addenda Acknowledgement
- Affidavit Verifying Status for City Public Benefit Application*
- Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)*
- Qualifications Signature and Certification
- Corporate Certificate*
- List of Subcontractors*
- CD containing scanned copy of bid in PDF format

***These pages can be found in the Appendices' section of the Sample Contract.**

INSURANCE REQUIREMENTS

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy, but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage under this policy continues for a period of thirty-six (36) months after completion of services.

7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.

Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.

Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

Certificate Holder should read: The City of Sandy Springs, 7840 Roswell Road, Building-500, Sandy Springs, Georgia 30350.

BONDING REQUIREMENTS

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Sandy Springs. Said bid bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to one hundred percent (100%) of the contract price.

The Successful Bidder shall also be required to furnish a Maintenance Bond, in the amount of one-third (1/3) of the contract price, guaranteeing the repair or replacement caused by defective workmanship or materials for a period of one (1) year from the completion of construction.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners shall execute Bond.

QUALIFICATIONS SIGNATURE AND CERTIFICATION
(Bidder to sign and return)

I certify that this offer is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a proposal for the same materials, supplies, equipment, or services and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of State and Federal Law and can result in fines, prison sentences, and civil damage awards. I agree to abide by all conditions of the proposal and certify that I am authorized to sign this proposal for the proposer. I further certify that the provisions of the Official Code of Georgia Annotated, Sections 45-10-20 et. seq., have not been violated and will not be violated in any respect.

Authorized Signature _____ Date _____

Print/Type Name _____

Email Address _____

Print/Type Company Name Here _____



**SAMPLE
CONTRACT AGREEMENT**

For

*Abernathy Road Lighting Project - Roswell Rd to Wright Rd and Wright Rd to Brandon Mill
Project T-0002-1 & T-0002-2*
(“Project”)

Between

CITY OF SANDY SPRINGS, GEORGIA
(“City”)

and

(“Contractor”)

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CONTRACT AGREEMENT

This Agreement is made by and between the City of Sandy Springs, a political subdivision of the State of Georgia (hereinafter referred to as the City) and Surfaces Group LLC, (hereinafter referred to as the Contractor) under seal for construction of the Abernathy Greenway Trail Pervious Paver Project (hereinafter referred to as the Project);

WHEREAS, the Contractor desires to enter into this Agreement for construction of the Project and has represented to the City that it is qualified (**meaning a Prequalified Prime Contractor listed by the Georgia Department of Transportation, Office of Contract Administration**) and experienced to provide such services necessary for construction of the Project (the City requires that the Contractor and to comply with all federal, state and local legal requirements imposed on the Project as the result of federal funding and the City has relied on such representation);

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, it is agreed by and between the Contractor and the City as follows:

ARTICLE I

THE CONTRACT AND THE CONTRACT DOCUMENTS

1.1 The Contract

1.1.1 The Contract between the City and the Contractor, of which this Agreement is a part, consists of the Contract Documents. It shall be effective on the date this Agreement is executed by the last party to execute it.

1.2 The Contract Documents

1.2.1 The Contract Documents consist of this Agreement, General Conditions, Special Provisions, the Technical Specifications, the Drawings and Plans, Bidding Documents, all Change Orders and Field Orders issued hereafter, the base bid made by the Contractor in response to the City's Invitation to Bid No. 15-020 (the "Bid"), and any other amendments hereto executed by the parties hereafter, together with the following (if any):

Documents not enumerated in this Paragraph 1.2 are not Contract Documents and do not form a part of this Contract.

1.3 Entire Agreement

1.3.1 The Contract Documents constitute the entire and exclusive agreement between the City and the Contractor with reference to the Project.

1.4 Subletting, Assignment, or Transfer

1.4.1 It is understood by the parties to this Agreement that the Work of the Contractor is considered personal by the City. The Contractor agrees not to assign, sublet, or transfer any or all of its interest in this Agreement without prior written approval of the City.

1.4.2 The City reserves the right to review all subcontracts prepared in connection with the Agreement, and the Contractor agrees that it shall submit to the City proposed subcontract documents together with Subcontractor cost estimates for the City's review and written concurrence in advance of their execution.

1.4.3 All subcontracts in the amount of \$10,000.00 or more shall include the provisions set forth in this Agreement.

1.5 No Privity with Others

1.5.1 Nothing contained in this Contract shall create, or be interpreted to create, privity or any other contractual agreement between the City and any person or entity other than the Contractor.

1.6 Intent and Interpretation

1.6.1 The intent of this Contract is to require complete, correct and timely execution of the Work. Any Work that may be required, implied or inferred by the Contract Documents, or any one or more of them, as necessary to produce the intended result shall be provided by the Contractor for the Contract Price, as hereinafter defined.

1.6.2 This Contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one Contract Document shall be considered as required by the Contract.

1.6.3 When a word, term or phrase is used in this Contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the construction industry; and third, if there is no generally accepted meaning in the construction industry, according to its common and customary usage.

1.6.4 The words include, includes, or including, as used in this Contract, shall be deemed to be followed by the phrase, without limitation.

1.6.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this Contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this Contract.

1.6.6 Words or terms used as nouns in this Contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

1.6.7 The Contractor shall have a continuing duty to read, carefully study and compare each of the Contract Documents, the shop drawings and the product data and shall give written notice to the City of any inconsistency, ambiguity, error or omission which the Contractor may discover with respect to these documents before proceeding with the affected Work. The issuance or the express or implied approval by the City of the Contract Documents, shop drawings or product data shall not relieve the Contractor of the continuing duties imposed hereby, nor shall any such approval be evidence of the Contractor's compliance with this Contract. **HOWEVER, THE CITY MAKES NO REPRESENTATION OR WARRANTY OF ANY NATURE WHATSOEVER TO THE CONTRACTOR CONCERNING THE DOCUMENTS FOR THE PROJECT, INCLUDING THE DRAWINGS AND SPECIFICATIONS FOR THE PROJECT.** By the execution hereof, the Contractor acknowledges and represents that it has received, reviewed and carefully examined such documents, has found them to be complete, accurate, adequate, consistent, coordinated and sufficient for construction, and that the Contractor has not, does not, and will not rely upon any representation or warranties by the City concerning such documents as no such representation or warranties have been or are hereby made.

1.6.8 Neither the organization of any of the Contract Documents into divisions, sections, paragraphs, articles, (or other categories), nor the organization or arrangement of the design, shall control the Contractor in dividing the Work or in establishing the extent or scope of the Work to be performed by Subcontractors.

1.7 Ownership of Contract Documents

1.7.1 The Contractor may be provided, have access to or become aware of the City's Confidential Information including the City's strategic plans, employee data, customer data and other technical and business information of the City (collectively referred to as the "Confidential Information"). The term Confidential Information includes the deliverables as well as all information generated by the Contractor that contains, references or is derived from the Confidential Information and the Services including, without limitation, the Contractor's summaries, analysis, extracts, working papers and notes relating to the Services and the Deliverables (referred to as the "Working Papers"). The Contractor agrees not to disclose the Confidential Information to third parties without the prior written approval of the City and not to make use of the Confidential Information other than as needed to perform the Services. The Contractor further agrees that it will only disclose the Confidential Information to its personnel on a need-to-know basis solely for the performance of the Services and will protect the Confidential Information with the same degree of care that the Contractor uses to protect its own confidential information, but no less than reasonable care or as the various laws may require or impose.

All Confidential Information as well as other documents, data and information provided to the Contractor by the City is and will remain the property of the City to the extent that it was the property of the City at the time it was provided to the Contractor.

All Confidential Information shall be returned to the City by the Contractor within five (5) business days of the completion of the Services under this Contract. The Contractor will keep no copies of the Confidential Information except that the Contractor may retain one copy of the Working Papers as required by law, regulation, professional standards or reasonable business practice. If requested by the City, an officer of the Contractor will certify in writing that, to the best of his/her knowledge, information and belief, all Confidential Information and all copies thereof (except for one copy of the Working Papers) have been delivered to the City or destroyed.

The Contract Documents, and each of them, shall remain the property of the City. The Contractor shall have the right to keep one record set of the Contract Documents upon completion of the Project; provided, however, that in no event shall Contractor use, or permit to be used, any or all of such Contract Documents on other projects without the City's prior written authorization.

1.8 Hierarchy of Contract Documents

1.8.1 In the event of any conflict, discrepancy, or inconsistency among any of the Contract Documents, the following hierarchy shall control: (a) as between figures given on drawings and the scaled measurements, the figures shall govern; (b) as between large scale drawings and small scale drawings, the large scale shall govern; (c) as between drawings and specifications, the requirements of the specifications shall govern; (d) as between the Contract Agreement and General and the specifications, the requirements of the Contract Agreement shall govern. As set forth hereinabove, any and all conflicts, discrepancies, or inconsistencies shall be immediately reported to the City in writing by the Contractor.

ARTICLE II

THE WORK

2.1 Contractor Responsibility

2.1.1 The Contractor shall perform all of the Work required, implied or reasonably inferable from, this Contract.

2.2 “Work” Defined

2.2.1 The term Work shall mean whatever is done by or required of the Contractor to perform and complete its duties under this Contract, including the following: construction of the whole or a designated part of the Project; furnishing of any required surety bonds and insurance; and the provision or furnishing of labor, supervision, services, materials, supplies, equipment, fixtures, appliances, facilities, tools, transportation, storage, power, permits and licenses required of the Contractor, fuel, heat, light, cooling and all other utilities as required by this Contract. The Work to be performed by the Contractor is generally described in Exhibit A, SCOPE OF SERVICES, attached hereto and incorporated herein.

2.3 Review of Work

2.3.1 Authorized representatives of the City, GDOT, and affected federal agencies may at all reasonable times review and inspect the activities and data collected under the terms of the Contract and any amendments thereto, including but not limited to, all reports, drawings, studies, specifications, estimates, maps, and computations, prepared by or for the City.

2.4 Workday and Restrictions, Suspension and Interruption

2.4.1 Normal workday for the Work shall be from 8:00 A.M. to 5:00 P.M. and the normal work week shall be Monday through Friday. The City will consider extended workdays or work weeks upon written request on a case-by-case basis. The City may restrict work hours in certain locations or at certain times of the day. No work will be allowed on national holidays (i.e., Memorial Day, July 4th, Labor Day, etc.). The City may order the Contractor in writing to suspend, delay or interrupt all or any part of the Work for such period of time as it may determine appropriate for the convenience of the City. The time for completion of the Work shall be extended by the number of days the Work is suspended. The City shall not be responsible for any claims, damages or costs stemming from any delay of the Project.

2.5 Work to be performed by the Prime Contract

2.5.1 Tasks constituting of at least fifty-one percent (51%) of the value of this contract must be performed directly by the prime contractor and shall not be sub-contracted to other firms.

2.5.2 The contractor shall identify which tasks shall be self-performed.

ARTICLE III

CONTRACT TIME

3.1 Time and Liquidated Damages

3.1.1 The Contractor shall not proceed to furnish such services and the City shall not become obligated to pay for same until a written authorization to proceed (“Notice to Proceed”) has been sent to the Contractor from the City. The Contractor shall commence the Work no later than ten (10) days after the effective date of the Notice to Proceed and shall achieve Substantial Completion of the Work, as hereinafter defined, no later than *sixty (60) Calendar Days*, in accordance with the Contract Documents. The number of calendar days from the date on which the Work is permitted to proceed, through the date set forth for Substantial Completion, shall constitute the Contract Time. The Work shall be carried on expeditiously, it being understood, however, that this Agreement may be extended or continued in force by the parties hereto in writing as provided herein.

3.1.2 The Contractor shall pay the City the sum of \$500.00 per day for each and every calendar day of unexcused delay in achieving Substantial Completion beyond the date set forth herein for Substantial Completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that Substantial Completion will be inexcusably delayed, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving Substantial Completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

3.2 Substantial Completion

3.2.1 Substantial Completion shall mean the stage of the work when Sandy Springs has determined all pay items are sufficiently complete allowing the newly constructed facilities to be used for their intended purpose. Partial use or occupancy of the Project shall not result in the Project being deemed substantially complete, and such partial use or occupancy shall not be evidence of Substantial Completion.

3.3 Time is of the Essence

3.3.1 All limitations of time set forth in the Contract Documents are of the essence of this Contract.

ARTICLE IV

CONTRACT PRICE

4.1 The Contract Price

4.1.1 The total contract amount for the Project (the "Contract Price") shall be as set forth in the bid schedule ("Bid Schedule") attached hereto as EXHIBIT B, BID SCHEDULE and incorporated herein. Payment to the Contractor pursuant to the Bid Schedule is full payment for the complete scope of services. The Contract Price shall not be modified except by Change Order as provided in this Contract.

ARTICLE V

PAYMENT OF THE CONTRACT PRICE

5.1 Bid Schedule

5.1.1 The Contractor shall invoice and be paid pursuant to the Bid Schedule contained in the Contract Documents.

5.2 Payment Procedure

5.2.1 The City shall pay the Contract Price to the Contractor as provided below.

5.2.2 Based upon the Contractor's invoices for payment submitted to the City, the City shall make progress payments to the Contractor on account of the Contract Price.

5.2.3 On or before the 5th day of each month after commencement of the Work, the Contractor shall submit an invoice for Work satisfactorily completed as evaluated by an inspector representing the City pursuant to the

Bid Schedule. The invoice shall be in such form and manner, and with such supporting data and content, as the City may require. Therein, the Contractor may request payment for ninety percent (90%) of that portion of the Contract Price properly allocable to Contract requirements properly provided, labor, materials and equipment properly incorporated into the Work plus ninety percent (90%) of that portion of the Contract Price properly allocable to materials or equipment properly stored on-site (or elsewhere if approved in advance in writing by the City) for subsequent incorporation into the Work, less the total amount of previous payments received from the City. Payment for stored materials and equipment shall be conditioned upon the Contractor's proof satisfactory to the City, that the City has title to such materials and equipment and shall include proof of required insurance. Such invoice shall be signed by the Contractor and shall constitute the Contractor's representation that the Work has progressed to the level for which payment is requested in accordance with the Schedule of Work, that the Work has been properly installed or performed in full accordance with this Contract, and that the Contractor knows of no reason why payment should not be made as requested. Thereafter, the City will review the invoice and may also review the Work at the Project Site or elsewhere to determine whether the quantity and quality of the Work is as represented in the invoice and is as required by this Contract. The City shall make partial payments on account of the Contract Price to the Contractor within thirty (30) days following receipt of each invoice. The amount of each partial payment shall be the amount approved for payment less such amounts, if any, otherwise owing by the Contractor to the City or which the City shall have the right to withhold as authorized by this Contract. The City shall not be precluded from the exercise of any of its rights as set forth in Paragraph 5.3 herein below; PROVIDED, HOWEVER, that when fifty (50) percent of the Contract value, including Change Orders and other additions to the Contract value, provided for by the Contract Documents is due, and the manner of completion of the Contract Work and its progress are reasonably satisfactory to the City, the City shall withhold no more retainage. At the discretion of the City, and with the approval of the Contractor, the retainage of any Subcontractor may be released separately as the Subcontractor completes its Work. If, however, after discontinuing the retention, the City determines that the Work is unsatisfactory or has fallen behind schedule, retention may be resumed at the previous level. If retention is resumed by the City, the Contractor and Subcontractors shall be entitled to resume withholding retainage accordingly. The rights of the City set forth herein to retainage are in addition to all of the other rights and remedies of the City set forth in this Agreement.

5.2.4 The Contractor warrants that upon submittal of an invoice, all Work for which payments have been received from the City shall be free and clear of liens, claims, security interest or other encumbrances in favor of the Contractor or any other person or entity whatsoever.

5.2.5 The Contractor shall promptly pay each Subcontractor out of the amount paid to the Contractor on account of such Subcontractor's Work, the amount to which such Subcontractor is entitled. In the event the City becomes informed that the Contractor has not paid a Subcontractor as herein provided, the City shall have the right, but not the duty, to issue future checks in payment to the Contractor of amounts otherwise due hereunder naming the Contractor and such Subcontractor as joint payees. Such joint check procedure, if employed by the City, shall create no rights in favor of any person or entity beyond the right of the named payees to payment of the check and shall not be deemed to commit the City to repeat the procedure in the future.

5.2.6 No progress payment, nor any use or occupancy of the Project by the City, shall be interpreted to constitute an acceptance of any Work not in strict accordance with this Contract.

5.3 Withheld Payment

5.3.1 The City may decline to make payment, may withhold funds, and, if necessary, may demand the return of some or all of the amounts previously paid to the Contractor, to protect the City from loss because of:

- (a) defective Work not remedied by the Contractor or, in the opinion of the City, unlikely to be remedied by the Contractor;

- (b) claims of third parties against the City or the City's property;
- (c) failure by the Contractor to pay Subcontractors or others in a prompt and proper fashion;
- (d) evidence that the balance of the Work cannot be completed in accordance with the Contract for the unpaid balance of the Contract Price;
- (e) evidence that the Work will not be completed in the time required for substantial or final completion;
- (f) persistent failure to carry out the Work in accordance with the Contract;
- (g) damage to the City or a third party to whom the City is, or may be, liable.

In the event that the City makes written demand upon the Contractor for amounts previously paid by the City as contemplated in this Subparagraph 5.3.1, the Contractor shall promptly comply with such demand.

5.4 Punch List

5.4.1 When the Contractor believes that the Work is substantially complete, the Contractor shall so notify the City. If the City deems the work is substantially complete, the City shall make a preliminary final inspection of the Project and shall submit to the Contractor a list of items to be completed or corrected (the "Punch List"). The Contractor shall complete all items on the Punch List within twenty-one (21) calendar days from the date of issuance of the Punch List by the City. If the Contractor is already in liquidated damages, as herein provided, prior to beginning the Punch List, then liquidated damages will be postponed for the twenty-one (21) calendar days. Once the twenty-one (21) calendar days expire, then liquidated damages will continue to accrue. In any case, once the twenty-one (21) calendar days expire after the Punch List is submitted to the Contractor, then liquidated damages will be assessed.

5.5 Completion and Final Payment

5.5.1 When all of the Work is finally complete and the Contractor is ready for a final inspection, the Contractor shall notify the City thereof in writing. Thereupon, the City will make final inspection of the Work and, if the Work is complete in full accordance with this Contract and this Contract has been fully performed, the Contractor is entitled to the remainder of the unpaid Contract Price as hereinafter provided in Subparagraph 5.5.3. Guarantees required by the Contract shall commence on the date of final completion of the Work.

5.5.1.1 If the Contractor fails to achieve final completion within the time fixed therefor by the City, the Contractor shall pay the City the sum of \$ 500.00 (as stipulated in GDOT Standard Specifications 108.08) per day for each and every calendar day of unexcused delay in achieving final completion beyond the date set forth herein for final completion of the Work. Any sums due and payable hereunder by the Contractor shall be payable, not as a penalty, but as liquidated damages representing an estimate of delay damages likely to be sustained by the City, estimated at or before the time of executing this Contract. When the City reasonably believes that final completion will be delayed without excuse, the City shall be entitled, but not required, to withhold from any amounts otherwise due the Contractor an amount then believed by the City to be adequate to recover liquidated damages applicable to such delays. If and when the Contractor overcomes the delay in achieving final completion, or any part thereof, for which the City has withheld payment, the City shall promptly release to the Contractor those funds withheld, but no longer applicable, as liquidated damages.

5.5.2 The Contractor shall not be entitled to final payment unless and until it submits to the City all documents required by the Contract, including, but not limited to, its affidavit that all payrolls, invoices for materials and equipment, and other liabilities connected with the Work for which the City, or the City's property

might be responsible, have been fully paid or otherwise satisfied; releases and waivers of lien from all Subcontractors of the Contractor and of any and all other parties required by the City; consent of Surety, if any, to final payment. If any third party fails or refuses to provide a release of claim or waiver of lien as required by the City, the Contractor shall furnish a bond satisfactory to the City to discharge any such lien or indemnify the City from liability.

5.5.3 Upon a determination by an inspector representing the City that the Work is complete in full accordance with this Contract, the City shall pay the Contractor an amount sufficient to increase total payments to the Contractor to one hundred percent (100%) of the Contract Price less two hundred percent (200%) of the reasonable cost as determined by the City for completing all incomplete Work, correcting and bringing into conformance all defective and nonconforming Work, and handling all unsettled claims.

The City shall make final payment of all sums due the Contractor within thirty (30) days of final completion of the Project as determined by an inspector representing the City.

5.5.4 Acceptance of final payment shall constitute a waiver of all claims against the City by the Contractor except for those claims previously made in writing against the City by the Contractor, pending at the time of final payment, and identified in writing by the Contractor as unsettled at the time of its request for final payment.

ARTICLE VI

THE CITY

6.1 City Responsibility

6.1.1 Excluding permits and fees normally the responsibility of the Contractor, the City shall obtain all approvals, easements, and the like required for construction and shall pay for necessary assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

6.2 Right to Stop Work

6.2.1 If the Contractor persistently fails or refuses to perform the Work in accordance with this Contract, the City may order the Contractor to stop the Work, or any described portion thereof, until the cause for stoppage has been corrected no longer exists, or the City orders that Work be resumed. In such event, the Contractor shall immediately obey such order.

6.3 City's Right to Carry Out Work

6.3.1 If the City determines to order the Contractor to stop the Work under the provisions of Paragraph 6.2, the City shall provide notice to the Contractor and the Contractor's surety under the performance bond that they have seven (7) days to provide adequate assurance to the City that the cause of such stoppage will be eliminated or corrected and provide the City with a plan to remedy the cause of such Work stoppage. If the Contractor and the surety fail within seven (7) days of such Work stoppage to provide such assurance, then the City may, without prejudice to any other rights or remedies the City may have against the Contractor, proceed to carry out the remedies necessary to eliminate or correct the cause of such Work stoppage. Upon proceeding to perform or cause to be performed any corrective actions, the City shall provide notice to the Contractor and the surety of action being taken by the City. In such a situation, an appropriate Change Order shall be issued deducting from the Contract Price the cost of correcting the subject deficiencies. If the unpaid portion of the Contract Price is insufficient to cover the amount due the City, the Contractor and the surety shall be responsible for paying the difference to the City.

ARTICLE VII

THE CONTRACTOR

7.1 Duties with Respect to Documents

7.1.1 The Contractor is again reminded of its continuing duty set forth in Subparagraph 1.6.7. The Contractor shall perform no part of the Work at any time without adequate Contract Documents or, as appropriate, approved shop drawings, product data or samples for such portion of the Work. If the Contractor performs any of the Work knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the City, the Contractor shall bear responsibility for such performance and shall bear the cost of correction.

7.2 Manner of Performance

7.2.1 The Contractor shall perform the Work strictly in accordance with this Contract.

7.3 Supervision

7.3.1 The Contractor shall supervise and direct the Work using the Contractor's best skill, effort and attention. The Contractor shall be responsible to the City for any and all acts or omissions of the Contractor, its employees and others engaged in the Work on behalf of the Contractor.

7.4 Compliance

7.4.1 The Contractor's performance of the Work shall comply with all federal and state legal requirements imposed on GDOT including specifically, but not limited to, the provisions governing GDOT's authority to contract, Sections 32-2-60 through 32-2-77 of the Official Code of Georgia Annotated; GDOT's Rules and Regulations Governing the Prequalification of Prospective Bidders, Chapter 672-5; and GDOT's Standard Specifications, Construction of Transportation Systems (current edition), and Special Provisions modifying them, except as noted in the General Conditions to the Contract including in the Contract Documents. The Contractor shall require all subcontracts for construction of the Project to incorporate the requirements of this Subparagraph.

7.4.2 The Contractor shall comply with the provisions of Federal Form-1273, attached hereto as EXHIBIT C, REQUIRED CONTRACT PROVISIONS – FEDERAL AID CONSTRUCTION CONTRACTS, and

incorporated herein. The Contractor further agrees to require compliance with and physical incorporation of the provisions of Federal Form-1273 into all subcontracts for construction of the Project.

7.4.3 The Contractor shall comply with and shall require its Subcontractors to comply with the regulations for compliance with Title VI of the Civil Rights Act of 1964, as amended, and 23 CFR 200, as stated in EXHIBIT D, NOTICE TO CONTRACTORS - COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, attached hereto and incorporated herein.

7.4.4 The Contractor shall comply with the provisions of Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246) (43 CFR 14895) and shall physically include the provisions of Executive Order 11246 in each subcontract in excess of \$10,000. A copy of Executive Order 11246 (43 CFR 14895) is attached to this Agreement as EXHIBIT E, STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246) (43 CFR 14895), and incorporated herein.

7.4.5 The Contractor shall certify that the provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated relating to the “Drug-Free Workplace Act” have been complied with in full, in the form attached hereto as EXHIBIT F, CERTIFICATION OF SPONSOR - DRUG-FREE WORKPLACE, and incorporated herein.

7.4.6 The Contractor shall subcontract a minimum of _N/A_ percent (_N/A_%) of the total amount of Project funds to Disadvantaged Business Enterprise (“DBE”), as defined and provided for under the Federal Rules and Regulations 49 CFR 23 and 26, and as outlined in EXHIBIT G, DBE REQUIREMENTS, attached hereto and incorporated herein.

7.4.7 The Contractor shall comply with and shall require its Subcontractors to comply with all applicable requirements of the American with Disabilities Act of 1990 (“ADA”), 42 U.S.C. 12101, et seq. and 49 U.S.C. 322; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 791, and regulations and amendments thereto.

7.4.8 The Contractor shall provide to the City in the form attached hereto as EXHIBIT H, CONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS, a certification regarding debarment, suspension, ineligibility and voluntary exclusion in compliance with Executive Order 12549 and 49 CFR 29, according to instructions attached to the certification form. As a part of the Exhibit H certification, the Contractor agrees to include the clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transaction,” as provided by GDOT without modification, in all lower tier covered transactions and in all solicitations for lower tier transactions, and shall cause the lower tier participant or Subcontractor to submit the certification attached hereto as EXHIBIT I, LOWER TIER CONTRACTOR CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS, according to the instructions attached to the certification form.

7.4.9 The Contractor shall comply with and shall require its Subcontractors to comply with all applicable requirements of the Davis-Bacon Act of 1931, 40 U.S.C. 276(a), as prescribed by 23 U.S.C. 113 for federal aid highway projects, except roadways classified as local roads or rural minor collectors. **Note: Davis-Bacon Wage Rates not required for this contract.**

7.4.10 The Contractor shall comply with and shall require its Subcontractors to comply with Section 25-9-1, et seq. of the Georgia Code Annotated, “Georgia Utility Facility Protection Act”, CALL BEFORE YOU DIG 1-800-282-7411.

7.4.11 The Contractor shall comply with and shall cause its Subcontractors to comply with the Contract Work

Hours and Safety Standards Act (40 U.S.C. 327-330), as supplemented by Department of Labor Regulations (29 CFR Part 5).

7.4.12 The Contractor shall comply with and shall cause its Subcontractors to comply with the Copeland “Anti-Kickback” Act (18 U.S.C. 874), as supplemented in Department of Labor Regulations (29 CFR, Part 3).

7.4.13 The Contractor shall execute a certification and shall cause all Subcontractors to execute a certification in the form of EXHIBIT J, CERTIFICATION OF CONTRACTOR – GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT, attached hereto and incorporated herein. Pursuant to the certification, Contractor agrees to comply with all applicable requirements of the Georgia Security and Immigration Compliance Act of 2006 as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, “Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program,” accessed at <http://www.dol.state.ga.us>.

7.4.14 The Contractor acknowledges and agrees that the failure to complete appropriate certifications or the submission of a false certification as required herein shall result in the termination of this Agreement as provided in Article XII herein.

7.5 Warranty

7.5.1 The Contractor warrants to the City that all labor furnished to progress the Work under this Contract will be competent to perform the tasks undertaken, that the product of such labor will yield only first-class results, that materials and equipment furnished will be of good quality and new unless otherwise permitted by this Contract, and that the Work will be of good quality, free from faults and defects and in strict conformance with this Contract. All Work not conforming to these requirements may be considered defective. Unless otherwise specified in this Contract, acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City’s rights under any warranty or guarantee. The Contractor shall remedy all defects in the Work and pay for damage to the Work and/or to other City property resulting from defective Work, which shall appear within a minimum period of one (1) year from the date of acceptance of the Work under this Contract, unless a longer period is specified. The one (1) year warranty period shall begin after any repairs are performed, if needed.

7.6 Permits, Inspections, Fees and Licenses

Except as otherwise provided herein, the Contractor shall obtain and pay for all permits, inspections, fees and licenses necessary and ordinary for the Work. The Contractor shall comply with all lawful requirements applicable to the Work and shall give and maintain any and all notices required by applicable law, ordinance, or regulation pertaining to the Work.

7.7 Supervision

7.7.1 The Contractor shall employ and maintain at the Project Site only competent supervisory personnel. Absent written instruction from the Contractor to the contrary, the superintendent shall be deemed the Contractor’s authorized representative at the Project Site and shall be authorized to receive and accept any and all communications from the City.

7.8 Schedules

7.8.1 The Contractor shall submit to the City on a weekly basis a Schedule of Work to be performed for the next two (2) weeks. The Schedule of Work must be delivered to the City each Thursday no later than 12:00 noon. The Contractor's Schedule of Work shall be prepared in such form, with such detail, and supported by such data as the City may require. The City reserves the right to prohibit Work on any section of the Project not included in the weekly Schedule of Work. The Schedule of Work must accurately represent the intended Work and cannot be vague or broad, such as listing all Work in the Contract. The violation of this provision by the Contractor shall constitute a material breach of this Contract. **THE PARTIES SPECIFICALLY AGREE THAT ANY FLOAT CONTAINED IN THE SCHEDULES SHALL BELONG TO THE PROJECT AND IN NO EVENT SHALL THE CONTRACTOR MAKE CLAIM FOR ANY ALLEGED DELAY, ACCELERATION, OR EARLY COMPLETION SO LONG AS THE PROJECT IS COMPLETED WITHIN THE CONTRACT TIME.** Strict compliance with the requirements of this Paragraph is a condition precedent for payment to the Contractor, and failure by the Contractor to strictly comply with said requirements shall constitute a material breach of this Contract.

7.9 Contract to be maintained at Project Site

The Contractor shall continuously maintain at the Project Site, for the benefit of the City, one record copy of this Contract marked to record on a current basis changes, selections and modifications made during construction. Additionally, the Contractor shall maintain at the Project Site for the City the approved shop drawings, product data, samples and other similar required submittals. Upon final completion of the Work, all of these record documents shall be delivered to the City.

7.10 Shop Drawings, Product Data and Samples

7.10.1 Shop drawings, product data, samples and other submittals from the Contractor do not constitute Contract Documents. Their purpose is merely to demonstrate the manner in which the Contractor intends to implement the Work in conformance with information received from the Contract Documents.

7.10.2 The Contractor shall not perform any portion of the Work requiring submittal and review of shop drawings, product data or samples unless and until such submittal shall have been approved by the City. Approval by the City, however, shall not be evidence that Work installed pursuant thereto conforms with the requirements of this Contract.

7.11 Cleaning the Project Site and the Project

7.11.1 The Contractor shall keep the Project Site reasonably clean during performance of the Work. Upon final completion of the Work, the Contractor shall clean the Project Site and the Project and remove all waste, together with all of the Contractor's property from the Project Site.

7.12 Access to Work

7.12.1 Access to the Work shall be given to the City, GDOT and any affected federal agency requiring access to the Work at all times from commencement of the Work through final completion. The Contractor shall take whatever steps necessary to provide access when requested.

7.13 Indemnity

7.13.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the City and GDOT, their boards, officials, directors, officers, employees, representatives, agents, and volunteers from and against all liability, claims, damages, losses and expenses, including attorneys' fees, arising out of or resulting

from performance of the Work, provided that such liability, claims, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) including loss of use resulting therefrom, but only to the extent caused in whole or in part by negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such liability, claim, damage, loss or expense is caused in part by a party indemnified hereunder.

7.13.2 In claims against any person or entity indemnified under this Paragraph 7.13 by an employee of the Contractor, a Subcontractor, any one directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Paragraph 7.13 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.13.3 The Contractor shall ensure that the provisions of this Paragraph 7.13 are included in all contracts and subcontracts for the performance of Work under this Agreement.

7.14 Means, Methods, Techniques, Sequences, Procedures and Safety

7.14.1 The Contractor is fully responsible for, and shall have control over, all construction means, methods, techniques, sequences, procedures and safety, and shall coordinate all portions of the Work required by the Contract Documents. The Contractor shall confine its apparatus, material and the operations of its workers to limits/requirements indicated by law, ordinances, permits, codes and any restrictions of the City, and shall not unreasonably encumber the premises with its materials or supplies.

The Contractor shall adequately protect its own property from damage, will protect the City's property from damage or loss, and will take all necessary precautions during the progress of the work to protect all persons and the property of others from injury or damage. The Contractor shall take all precautions for the safety of employees, and shall comply with all applicable provisions of Federal, State and local safety laws, building codes and any restrictions of the City to prevent accidents or injury to persons on, about, or adjacent to the premises where work is being performed.

The Contractor shall erect and properly maintain at all times as required by the conditions, service and work, all necessary safeguards for the protection of its employees, the Contractor's employees, and the public, and shall post signs warning against potential hazards.

7.15 Separate Contracts

7.15.1 The City reserves the right to perform work on the premises with its own forces or by the use of other contractors. In such event, the Contractor shall fully cooperate with the City and such other contractors and shall coordinate, schedule and manage its work so as not to hinder, delay or otherwise interfere with the separate work of the City or other contractors.

7.16 Maintenance of Contract Cost Records

7.16.1 The Contractor shall maintain all books, documents, papers, accounting records, and other evidence pertaining to costs incurred on the Project and used in support of its Bid and shall make such material available at all reasonable times during the period of the Contract, and for three (3) years from the date of final payment under the Contract, for inspection by GDOT and any reviewing agencies, and copies thereof shall be furnished upon request. The Contractor agrees that the provisions of this Subparagraph shall be included in any agreement it may make with any Subcontractor, assignee, or transferee.

ARTICLE VIII

CONTRACT ADMINISTRATION

8.1 Claims by the Contractor

8.1.1 All Contractor claims shall be initiated by written notice and claim to the City. Such written notice and claim must be furnished within seven (7) days after occurrence of the event, or the first appearance of the condition, giving rise to the claim.

8.1.2 Pending final resolution of any claim of the Contractor, the Contractor shall diligently proceed with performance of this Contract and the City shall continue to make payments to the Contractor in accordance with this Contract. The resolution of any claim under this Paragraph 8.1 shall be reflected by a Change Order executed by the City and the Contractor.

8.1.3 **Claims for Concealed and Unknown Conditions** -- Should concealed and unknown conditions encountered in the performance of the Work (a) below the surface of the ground or (b) in an existing structure be at variance with the conditions indicated by this Contract, or should unknown conditions of an unusual nature differing materially from those ordinarily encountered in the area and generally recognized as inherent in Work of the character provided for in this Contract, be encountered, the Contract Price shall be equitably adjusted by Change Order upon the written notice and claim by either party made within seven (7) days after the first observance of the condition. As a condition precedent to the City having any liability to the Contractor for concealed or unknown conditions, the Contractor must give the City written notice of, and an opportunity to observe, the condition prior to disturbing it. The failure by the Contractor to make the written notice and claim as provided in this Subparagraph shall constitute a waiver by the Contractor of any claim arising out of or relating to such concealed or unknown condition.

8.1.4 **Claims for Additional Costs** -- If the Contractor wishes to make a claim for an increase in the Contract Price, as a condition precedent to any liability of the City therefor, the Contractor shall give the City written notice of such claim within seven (7) days after the occurrence of the event, or the first appearance of the condition, giving rise to such claim. Such notice shall be given by the Contractor before proceeding to execute any additional or changed Work. The failure by the Contractor to give such notice prior to executing the Work shall constitute a waiver of any claim for additional compensation.

8.1.4.1 In connection with any claim by the Contractor against the City for completion in excess of the Contract Price, any liability of the City shall be strictly limited to direct costs incurred by the Contractor and shall in no event include indirect costs or consequential damages of the Contractor. The City shall not be liable to the Contractor for claims of third parties, including Subcontractors, unless and until liability of the Contractor has been established therefor in a court of competent jurisdiction.

8.1.5 **Claims for Additional Time** -- If the Contractor is delayed in progressing any task which at the time of the delay is then critical or which during the delay becomes critical, as the sole result of any act or neglect to act by the City or someone acting in the City's behalf, or by changes ordered in the Work, unusual delay in transportation, unusually adverse weather conditions not reasonably anticipatable, fire or any causes beyond the Contractor's control, then the date for achieving Substantial Completion of the Work shall be extended upon the written notice and claim of the Contractor to the City, for such reasonable time as the City may determine. Any notice and claim for an extension of time by the Contractor shall be made not more than seven (7) days after the occurrence of the event or the first appearance of the condition giving rise to the claim and shall set forth in detail the Contractor's basis for requiring additional time in which to complete the Project. In the event the delay to the Contractor is a continuing one, only one notice and claim for additional time shall be necessary. If the Contractor fails to make such claim as required in this Subparagraph, any claim for an extension of time shall be waived.

8.1.6 Extension of Contract Time for Unusually Adverse Weather Conditions not Reasonably Anticipated

8.1.6.1 Pursuant to the provisions of Subparagraph 8.1.5 of the Contract Agreement, the Contract Time may be extended upon written notice and claim of the Contractor to the City as set forth in such Subparagraph and as further set forth herein. It is, however, expressly agreed that the time for completion as stated in the Contract Documents includes due allowance for calendar days on which work cannot be performed out-of-doors.

Furthermore, in addition to the notice requirements set forth in the aforesaid Subparagraph 8.1.5, the Contractor agrees that it shall provide written notice to the City on the day of any adverse weather not anticipated and for which a request for a time extension has been, or will be, made. Said notice shall state with particularity a description of the adverse weather as well as a description of the nature and extent of any delay caused by such weather. Receipt of this notice by the City is a condition precedent to the submission of any claim for an extension of time as provided by Subparagraph 8.1.5. Furthermore, as required by Subparagraph 8.1.5, the Contractor shall submit a written claim for extension of time within seven (7) days after the occurrence of the adverse weather and such claim shall be supported by such documentation including, but not limited to, official weather reports, as the City may require. To the extent that any of the terms and conditions set forth in this paragraph are in conflict with any of the terms and conditions of Subparagraph 8.1.5 as identified herein, the terms and conditions of this paragraph shall govern and control.

ARTICLE IX

SUBCONTRACTORS

9.1 Definition

9.1.1 A Subcontractor is an entity which has a direct contract with the Contractor to perform a portion of the Work.

9.2 Award of Subcontracts

9.2.1 Upon execution of the Contract, the Contractor shall furnish the City, in writing, the names of persons or entities proposed by the Contractor to act as a Subcontractor on the Project. The City shall promptly reply to the Contractor, in writing, stating any objections the City may have to such proposed Subcontractor. The Contractor shall not enter into a Subcontract with a proposed Subcontractor with reference to whom the City has made timely objection. The Contractor shall not be required to subcontract with any party to whom the Contractor has objection.

9.2.2 All subcontracts shall afford the Contractor rights against the Subcontractor which correspond to those rights afforded to the City against the Contractor herein, including those rights afforded to the City by Subparagraph 12.2.1 below.

9.2.3 All subcontracts shall comply with the requirements of Paragraph 7.4 above.

ARTICLE X

CHANGES IN THE WORK

10.1 Changes Permitted

10.1.1 Changes in the Work within the general scope of this Contract, consisting of additions, deletions, revisions, or any combination thereof, may be ordered without invalidating this Contract, by Change Order or by Field Order.

10.1.2 Changes in the Work shall be performed under applicable provisions of this Contract and the Contractor shall proceed promptly with such changes.

10.2 Change Order Defined

10.2.1 Change Order shall mean a written order to the Contractor executed by the City, issued after execution of this Contract, authorizing and directing a change in the Work or an adjustment in the Contract Price or the Contract Time, or any combination thereof. The Contract Price and the Contract Time may be changed only by Change Order.

10.3 Changes in the Contract Price

10.3.1 Any change in the Contract Price resulting from a Change Order shall be determined as follows by mutual agreement between the City and the Contractor as evidenced by (1) the change in the Contract Price being set forth in the Change Order, (2) such change in the Contract Price, together with any conditions or requirements related thereto, being initialed by both parties and (3) the Contractor's execution of the Change Order.

10.3.2 If unit prices are provided in the Contract, and if the quantities contemplated are so changed in a proposed Change Order that application of such unit prices to the quantities of Work proposed will cause substantial inequity to the City or to the Contractor, the applicable unit prices shall be equitably adjusted.

10.4 Effect of Executed Change Order

10.4.1 The execution of a Change Order by the Contractor shall constitute conclusive evidence of the Contractor's agreement to the ordered changes in the Work, this Contract as thus amended, the Contract Price and the Contract Time. The Contractor, by executing the Change Order, waives and forever releases any claim against the City for additional time or compensation for matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

10.5 Notice to Surety; Consent

10.5.1 The Contractor shall notify and obtain the consent and approval of the Contractor's surety with reference to all Change Orders if such notice, consent or approval are required by the Contractor's surety or by law. The Contractor's execution of the Change Order shall constitute the Contractor's warranty to the City that the surety has been notified of and consents to, such Change Order and the surety shall be conclusively deemed to have been notified of such Change Order and to have expressly consented thereto.

ARTICLE XI

UNCOVERING AND CORRECTING WORK

11.1 Uncovering Work

11.1.1 If any of the Work is covered contrary to the City's request or to any provisions of this Contract, it shall, if required by the City, be uncovered for the City's inspection and shall be properly replaced at the Contractor's expense without change in the Contract Time.

11.1.2 If any of the Work is covered in a manner not inconsistent with Subparagraph 11.1.1 above, it shall, if required by the City, be uncovered for the City's inspection. If such Work strictly conforms with the provisions of this Contract, costs of uncovering and proper replacement shall by Change Order be charged to the City. If such Work does not strictly conform with the provisions of this Contract, the Contractor shall pay the costs of uncovering and proper replacement.

11.2 Correcting Work

11.2.1 The Contractor shall immediately proceed to correct Work rejected by the City as defective or failing to conform to this Contract. The Contractor shall pay all costs and expenses associated with correcting such rejected Work, including any additional testing and inspections, and reimbursement to the City for services and expenses made necessary thereby, if any.

11.2.2 If within one (1) year after Substantial Completion of the Work any of the Work is found to be defective or not in accordance with this Contract, the Contractor shall correct it promptly upon receipt of written notice from the City. This obligation shall survive final payment by the City and termination of this Contract. With respect to Work first performed and completed after Substantial Completion, this one (1) year obligation to specifically correct defective and nonconforming Work shall be extended by the period of time which elapses between Substantial Completion and final completion of the subject Work.

11.2.3 Nothing contained in this Paragraph 11.2 shall establish any period of limitation with respect to other obligations which the Contractor has under this Contract. Establishment of the one (1) year time period in Subparagraph 11.2.2 relates only to the duty of the Contractor to specifically correct the Work.

11.3 City May Accept Defective or Nonconforming Work

11.3.1 If the City chooses to accept defective or nonconforming Work, the City may do so. In such event, the Contract Price shall be reduced by the greater of (a) the reasonable cost of removing and correcting the defective or nonconforming Work, and (b) the difference between the fair market value of the Project as constructed and the fair market value of the Project had it not been constructed in such a manner as to include defective or nonconforming Work. If the remaining portion of the unpaid Contract Price, if any, is insufficient to compensate the City for its acceptance of defective or nonconforming Work, the Contractor shall, upon written demand from the City, pay the City such remaining compensation for accepting defective or nonconforming Work.

ARTICLE XII

CONTRACT TERMINATION

12.1 Termination by the Contractor

12.1.1 If the Work is stopped for a period of ninety (90) days by an order of any court or other public authority, or as a result of an act of the government, through no fault of the Contractor or any person or entity working directly or indirectly for the Contractor, the Contractor may, upon ten (10) days' written notice to the City, terminate performance under this Contract and recover from the City payment for the actual reasonable expenditures of the Contractor (as limited in Subparagraph 10.3.2 above) for all Work executed and for materials, equipment, tools, construction equipment and machinery actually purchased or rented solely for the Work, less any salvage value of any such items.

12.1.2 If the City shall persistently or repeatedly fail to perform any material obligation to the Contractor for a period of fifteen (15) days after receiving written notice from the Contractor of its intent to terminate hereunder, the Contractor may terminate performance under this Contract by written notice to the City. In such event, the Contractor shall be entitled to recover from the City as though the City had terminated the Contractor's performance under this Contract for convenience pursuant to Subparagraph 12.2.1 hereunder.

12.2 Termination by the City

12.2.1 For Convenience

12.2.1.1 The City may for any reason whatsoever terminate performance under this Contract by the Contractor for convenience. The City shall give written notice of such termination to the Contractor specifying when termination becomes effective.

12.2.1.2 The Contractor shall incur no further obligations in connection with the Work and the Contractor shall stop Work when such termination becomes effective. The Contractor shall also terminate outstanding orders and subcontracts. The Contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders. The City may direct the Contractor to assign the Contractor's right, title and interest under terminated orders or subcontracts to the City or its designee.

12.2.1.3 The Contractor shall transfer title and deliver to the City such completed or partially completed Work and materials, equipment, parts, fixtures, information and Contract rights as the Contractor has.

12.2.1.4

- (a) The Contractor shall submit a termination claim to the City specifying the amounts due because of the termination for convenience together with costs, pricing or other data required by the City. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the City shall pay the Contractor an amount derived in accordance with subparagraph (c) below.
- (b) The City and the Contractor may agree to the compensation, if any, due to the Contractor hereunder.
- (c) Absent agreement to the amount due to the Contractor, the City shall pay the Contractor the following amounts:
 - (i) Contract prices for labor, materials, equipment and other services accepted under this

Contract;

- (ii) Reasonable costs incurred in preparing to perform and in performing the terminated portion of the Work, and in terminating the Contractor's performance, plus a fair and reasonable allowance for overhead and profit thereon (such profit shall not include anticipated profit or consequential damages); provided however, that if it appears that the Contractor would have not profited or would have sustained a loss if the entire Contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss, if any;
- (iii) Reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Subparagraph 12.2.1.2 of this Paragraph. These costs shall not include amounts paid in accordance with other provisions hereof.

The total sum to be paid the Contractor under this Subparagraph 12.2.1 shall not exceed the total Contract Price, as properly adjusted, reduced by the amount of payments otherwise made, and shall in no event include duplication of payment.

12.2.2 For Cause

12.2.2.1 If the Contractor persistently or repeatedly refuses or fails to prosecute the Work in a timely manner, supply enough properly skilled workers, supervisory personnel or proper equipment or materials, or if it fails to make prompt payment to Subcontractors or for materials or labor, or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, or otherwise is guilty of a substantial violation of a material provision of this Contract, then the City may by written notice to the Contractor and the surety, without prejudice to any other right or remedy, terminate the employment of the Contractor and take possession of the Project Site and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor and may proceed to carry out the remedies necessary to finish the Work by whatever methods it may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the Work is finished.

12.2.2.2 If the unpaid balance of the Contract Price exceeds the cost of finishing the Work, including compensation for additional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the City. This obligation for payment shall survive the termination of the Contract.

12.2.2.3 In the event the employment of the Contractor is terminated by the City for cause pursuant to Subparagraph 12.2.2 and it is subsequently determined by a Court of competent jurisdiction that such termination was without cause, such termination shall thereupon be deemed a termination for convenience under Subparagraph 12.2.1 and the provisions of Subparagraph 12.2.1 shall apply.

ARTICLE XIII

INSURANCE

13.1 Insurance Requirements

13.1.1 Prior to beginning Work on the Project, the Contractor shall procure and maintain for the duration of this Contract, and for one (1) years thereafter, at its sole cost and expense such insurance as will fully protect it and the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers from incidents, accidents and claims for personal injury, bodily injury, and property damage which may arise from or in connection with the performance of the work and for the Contractor's professional liability (errors and omissions) under this Contract, whether such services and work are performed by the Contractor, its

agents, representatives, employees, or by any subcontractor or any tier directly employed or retained by either. The following is the minimum insurance and limits that the Contractor must maintain. If the Contractor maintains higher limits than the minimums shown below, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

All of the insurance herein specified shall be written on a form acceptable to the City and shall be A.M. Best Company rated A X or greater. See EXHIBIT K, INSURANCE REQUIREMENTS attached hereto and incorporated herein.

13.1.2 All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

13.1.3 If the City has any objections to the coverage afforded by or provisions of the insurance required to be purchased and maintained by the Contractor, the City will notify the Contractor thereof within twenty (20) days of the date of delivery of such certificates to the City.

13.1.4 The Contractor shall provide to the City such additional information in respect of insurance provided by it as the City may reasonably request. The right of the City to review and comment on certificates of insurance is not intended to relieve the Contractor of his responsibility to provide insurance coverage as specified nor to relieve the Contractor of his liability for any claims which might arise.

13.1.5 The Contractor agrees to require its Subcontractors to obtain insurance complying with the requirements the requirements of the Contract Documents.

ARTICLE XIV

DISPUTES

No civil action with respect to any dispute, claim or controversy arising out of or relating to this Contract may be commenced without first giving fourteen (14) calendar days written notice to Sandy Springs of the claim and the intent to initiate a civil action.

ARTICLE XV

INDEPENDENT CONTRACTOR

15.1 Relationship between Contractor and City

15.1.1 The Contractor shall perform the services under this Agreement as an independent contractor and nothing contained herein shall be construed to be inconsistent with such relationship or status. Nothing in this Agreement shall be interpreted or construed to constitute the Contractor or any of its agents or employees to be the agent, employee or representative of the City. Inasmuch as the City and the Contractor are contractors independent of one another, neither has the authority to bind the other to any third person or otherwise to act in any way as the representative of the other, unless otherwise expressly agreed to in writing signed by both parties hereto. The Contractor agrees not to represent itself as the City's agent for any purpose to any party or to allow any employee or agent of the Contractor to do so, without specific prior written authorization from the City, and then only for the limited purpose stated in such authorization.

15.1.2 The Contractor shall assume full liability for any contracts or agreements that the Contractor enters into on behalf of the City without the express knowledge and prior written authorization of the City.

ARTICLE XVI

COVENANT AGAINST CONTINGENT FEES

16.1 Warranty by Contractor

16.1.1 Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for any fee, commission, percentage, brokerage or contingent fee, gift or other consideration, excepting bona fide employees maintained by Contractor for the purpose of securing business and that Contractor has not received any non-City fee related to this Agreement without the prior written consent of the City.

16.1.2 For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or at its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of any such fee, commission, percentage, brokerage or contingent fee, gift or other consideration.

ARTICLE XVII

MISCELLANEOUS

17.1 Governing Law

17.1.1 The Contract shall be administered and interpreted under the laws of the State of Georgia. Jurisdiction of litigation arising from this Agreement shall be in Georgia. If any part of this Agreement is found to be in

conflict with applicable laws, such part shall be inoperative, null and void insofar as it is in conflict with said laws, but the remainder of this Agreement shall be in full force and effect.

Whenever reference is made in the Agreement to standards or codes in accordance with which work is to be performed, the edition or revision of the standards or codes current on the effective date of this Agreement shall apply, unless otherwise expressly stated.

17.2 Successors and Assigns

17.2.1 The City and Contractor bind themselves, their successors, assigns and legal representatives to the other party hereto and to successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Contract. The Contractor shall not assign this Contract without written consent of the City.

17.3 Surety Bonds

17.3.1 The Contractor shall furnish separate performance and payment bonds to the City. Each bond shall set forth a penal sum in an amount not less than the Contract Price. Each bond furnished by the Contractor shall incorporate by reference the terms of this Contract as fully as though they were set forth verbatim in such bonds. In the event the Contract Price is adjusted by Change Order executed by the Contractor, the penal sum of both the performance bond and the payment bond shall be deemed increased by like amount. The performance and payment bonds furnished by the Contractor shall be in form suitable to the City and shall be executed by a surety, or sureties, reasonably suitable to the City. Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570, as amended) and be authorized to do business in the State of Georgia. The date of the bond must not be prior to the date of the Agreement. If the Contractor is a partnership, all partners shall execute the bond.

It is mutually agreed by the parties hereto that if at any time after execution of this Agreement and the surety bonds for its faithful performance, the City shall deem the surety or sureties upon such bonds to be unsatisfactory, or if for any reason such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at its expense, within five (5) days after receipt of notice from the City to do so, furnish an additional bond or bonds in such form and amount and with such surety or sureties as shall be satisfactory to the City. In such event, no further payment to the Contractor shall be deemed due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the City.

17.4 Notices

If to the City:

John McDonough, City Manager
7840 Roswell Road, Building 500
Sandy Springs, Georgia 30350

With copies to:

Wendell Willard, City Attorney
7840 Roswell Rd. Suite 330
Sandy Springs, Georgia 30350

If to Contractor:

Contractor Contact, Title
Address
City, State Zip

With copies to:

IN WITNESS WHEREOF, the parties hereto, acting through their duly authorized agents, have signed and sealed this Agreement.

CITY OF SANDY SPRINGS, GEORGIA

By: _____
John McDonough, City Manager

Date of Execution

ATTEST:

By: _____
City Clerk

(SEAL)

Approved as to Form:

By: _____
City Attorney

CONTRACTOR

Date of Execution

By: _____
Name:

(Typed or printed name)

Title

ATTEST:

By: _____
Secretary for Corporation

(SEAL)

Witness

Executed in originals of four (4).

EXHIBIT A TO CONTRACT AGREEMENT

SCOPE OF SERVICES

The Contractor shall provide the necessary machinery, tools, apparatus, other means of construction, and all materials and labor specified in the Contract Documents or as necessary to complete the City of Sandy Springs Project T-0002-1&2, Abernathy Road (north side) Lighting Project, as per the attached plans.

Unless otherwise directed, all work performed shall be in accordance with the Georgia Department of Transportation *Standard Specifications, Construction of Transportation Systems* (current edition) – **SEE ALSO EXHIBIT L, “SPECIAL PROVISIONS”, PROVIDED WITH “REQUEST FOR BID” DOCUMENTS**. All materials used in the process of completion of the work included in the Contract will be furnished from Georgia Department of Transportation certified suppliers only.

There is City furnished equipment to be installed by the Contractor as follows:

Base Bid:

- A) 22 – 13 foot high lighting posts and associated 55W LED luminaires
- B) 2 – 15 foot high lighting posts and associated 70W LED luminaires
- C) 24 sets of pole to base mounting hardware

Add/Alt:

- A) 11 – 13 foot high lighting posts and associated 55W LED luminaires
- B) 3 – 15 foot high lighting posts and associated 70W LED luminaires
- C) 14 sets of pole to base mounting hardware

EXHIBIT B

**Summary of Quantities
Base Bid - Schedule Unit Prices
from Wright Road to Brandon Mill Road**

Item No.	Pay Item	Description	Qty.	Unit	Unit Price	Total Price
1.	163-0232	Temporary Grassing	.25	AC	\$	\$
2.	163-0240	Mulch-Hay	1	TN	\$	\$
3.	165-0030	Maintenance of Temporary Compost Filter Sock	325	LF	\$	\$
4.	171-0030	Temporary "Compost Filter Sock"	325	LF	\$	\$
5.	150-1000	Traffic Control TO#15-049 & TO#15-051	1	LS	\$	\$
6.	210-0100	Grading Complete TO#15-049 & TO#15-051	1	LS	\$	\$
7.	999-9000	Miscellaneous Construction	1	ALLOW	\$15,000	\$15,000
8.	999-9001	Geotechnical & Material Testing (In accordance with GDOT sampling, Testing, and Inspection Guide)	1	ALLOW	\$5,000	\$5,000
9.	999-9002	Bury Existing Conduit/Wire (Min. 12"Below Grade)	1	LS	\$	\$
10.	999-9002	Remove Existing Shrubs and Ground Cover at each Light Location (24 lights locations)	24	EST.	\$	\$
11.	444-1000	Sawed Joints in Exist Concrete Pavement	325	LF	\$	\$
12.	611-5360	Remove and Reset Traffic Signage	1	EA	\$	\$
13.	702-0330	Hemerocallis – Happy Returns – 1 Gal.	22	EA	\$	\$
14.	702-0981	Abelia X Grandiflora 'Rose Creek' – 3 Gal.	3	EA	\$	\$
15.	702-0982	Buxus Sempervirens 'Suffruticosa' – 3 Gal.	5	EA	\$	\$
16.	702-0559	Liriope Muscari – 4" Pot	364	EA	\$	\$
17.	701-0030	Agricultural Lime	34	LB	\$	\$
18.	700-8100	Fertilizer Nitrogen Content	10	LB	\$	\$
19.	700-0020	Fertilizer Mixed Grade	320	LB	\$	\$
20.	702-9025	Landscape Mulch, Dark Brown Dyed Shredded Hardwood Mulch;	100	SY	\$	\$
21.	708-1000	Plant Topsoil	4	CY	\$	\$
22.	702-9300	Sod – Bermuda TIFFWAY 419	100	SY	\$	\$

23.	702-7501	Tree Protection Barrier, TP-1 4 Ft – Tree Protection Fence	520	LF	\$	\$
24.	681-3600	Construct Foundation and Install Provided "A" Light and Pole	22	EA	\$	\$
25.	681-3601	Construct Foundation and Install Provided "B" Light and Pole	2	EA	\$	\$
26.	615-1200	Directional Bore- 2IN	2,260	LF	\$	\$
27.	682-9021	Electrical Junction Box, Conc. Ground Mounted	1	EA	\$	\$
28.	682-6222	Conduit, Nonmetal, TP2, 2 IN	20	LF	\$	\$
29.	682-6233	Conduit, Nonmetal, TP3, 2 IN	2500	LF	\$	\$
30.	682-9011	Service	1	EA	\$	\$
31.	682-1404	Cable, TP XHHW, AWG NO10	8,200	LF	\$	\$
32.	441-0104	Conc. Sidewalk, 4 Inch thick Includes WWM, and Base under Brick Paver Band	165	SY	\$	\$
33.	990- 0037A	Install Brick Pavers (Paver Band)	407	SF	\$	\$
34.	610-2701	Remove Existing Brick Paver Band	392	SF	\$	\$
35.	610-2700	Remove Concrete- Includes Concrete Walk and Concrete Base Under Brick Paver Bands	125	SY	\$	\$

Base Bid - Wright Road to Brandon Mill Road

Total Base Bid Price \$ _____

Total Base Bid Price in Words _____

Summary of Quantities
Add Alternate Bid - Schedule Unit Prices
Roswell Road to Wright Road

Item No.	Pay Item	Description	Qty.	Unit	Unit Price	Total Price
1.	163-0232	Temporary Grassing	.12	AC	\$	\$
2.	163-0240	Mulch-Hay	.36	TN	\$	\$
3.	165-0030	Maintenance of Temporary Compost Filter Sock	55	LF	\$	\$
4.	171-0030	Temporary "Compost Filter Sock"	55	LF	\$	\$
5.	150-1000	Traffic Control TO#15-049 & TO#15-051	1	LS	\$	\$
6.	210-0100	Grading Complete TO#15-049 & TO#15-051	1	LS	\$	\$
7.	999-9000	Miscellaneous Construction	1	ALLOW.	\$10,000	\$10,000
8.	999-9001	Geotechnical & Material Testing (In accordance with GDOT sampling, Testing, and Inspection Guide)	1	ALLOW.	\$3,500	\$3,500
9.	999-9002	Bury Existing Conduit/Wire (Min. 12" Below Grade)	1	LS	\$	\$
10.	444-1000	Sawed Joints in Exist Concrete Pavement	100	LF	\$	\$
11.	611-5360	Remove and Reset Traffic Signage	2	EA	\$	\$
12.	701-0030	Agricultural Lime	16	LB	\$	\$
13.	700-8100	Fertilizer Nitrogen Content	5	LB	\$	\$
14.	700-0020	Fertilizer Mixed Grade	160	LB	\$	\$
15.	708-1000	Plant Topsoil	2	CY	\$	\$
16.	702-9300	Sod – Bermuda Tiffway 419	40	SY	\$	\$
17.	702-7501	Tree Protection Barrier, TP-1 4 Ft – Tree Protection Fence	210	LF	\$	\$
18.	681-3600	Construct Foundation and Install Provided "A" Light and Pole	11	EA	\$	\$
19.	681-3601	Construct Foundation and Install Provided "B" Light and Pole	3	EA	\$	\$
20.	615-1200	Directional Bore- 2IN	1,440	LF	\$	\$
21.	682-9021	Electrical Junction Box, Conc. Ground Mounted	1	EA	\$	\$
22.	682-6222	Conduit, Nonmetal, TP2, 2 IN	20	LF	\$	\$

23.	682-6233	Conduit, Nonmetal, TP3, 2 IN	1,600	LF	\$	\$
24.	682-9010	Service	1	EA	\$	\$
25.	682-1404	Cable, TP XHHW, AWG NO10	5,200	LF	\$	\$
26.	441-0104	Conc. Sidewalk, 4 Inch thick Includes WWM, and Base under Brick Paver Band	38	SY	\$	\$
27.	990-0037A	Install Brick Pavers (Paver Band)	243	SF	\$	\$
28.	610-2701	Remove Existing Brick Paver Band	193	SF	\$	\$
29.	610-2700	Remove Concrete- Includes Concrete Walk and Concrete Base Under Brick Paver Bands	36	SY	\$	\$

Add Alternate Bid - Roswell Road to Wright Road

Total Additive Bid Price \$ _____

Total Bid Alternate Price in Words _____

Base Bid plus Add Alternate Bid

Total Base Bid and Bid Alternate Price \$ _____

Total Base Bid and Alternate Price in Words _____

BID PRICE CERTIFICATION

In compliance with the attached Specification, the undersigned offers and agrees that if this Bid is accepted, by the City Council within one hundred and twenty (120) days of the date of Bid opening, that he will furnish any or all of the Items upon which Prices are quoted, at the Price set opposite each Item, delivered to the designated point(s) within the time specified in the Bid Schedule.

COMPANY _____

ADDRESS _____

AUTHORIZED SIGNATURE _____

EMAIL ADDRESS _____

PRINT / TYPE NAME _____

**EXHIBIT C
TO CONTRACT AGREEMENT**

**REQUIRED CONTRACT PROVISIONS
FEDERAL AID CONSTRUCTION CONTRACTS
Not Applicable for this Contract.**

**EXHIBIT D
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS
COMPLIANCE WITH TITLE VI OF THE CIVIL RIGHTS ACT OF 1964**

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 will comply with the Regulations of the Department of Transportation relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21, hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of the Contract.
2. Nondiscrimination: The Contractor, with regard to the work performed by it afterward and prior to completion of the contract work, will not discriminate on the ground of race, color, sex, or national origin in the selection and retention of subcontracts including procurements of materials and leases of equipment. The Contractor will not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when contract covers a program set forth in Appendix B of the Regulations. In addition, the Contractor will not participate either directly or indirectly in discrimination prohibited by 23 CFR 710.405 (b).
3. Solicitations for subcontracts, 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 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 ground of race, color, national origin or sex.
4. Information and Reports: The Contractor will provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Department of Transportation 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 the Department of Transportation, or the Federal Highway Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the Department of Transportation shall impose such Contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to the Contractors under the Contract until the Contractor complies, and/or
 - (b) Cancellation, termination or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraph (1) through (6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, orders or instruction issued pursuant thereto. The Contractor will take such action with respect to any subcontract or procurement as the Department of Transportation or the Federal Highway Administration 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 or supplier as result of such direction, the Contractor may request the State to enter into such litigation to protect the interests of the State, and, in addition, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

**EXHIBIT E
TO CONTRACT AGREEMENT**

**STANDARD FEDERAL EQUAL OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246) (43 CFR 14895)
Not Applicable for this Contract.**

**EXHIBIT F
TO CONTRACT AGREEMENT**

**CERTIFICATION OF SPONSOR
DRUG-FREE WORKPLACE
(Bidder to sign and return)**

I hereby certify that I am a principal and duly authorized representative of _____, (“Contractor”), whose address is _____, _____, _____, and I further certify that:

- (1) The provisions of Section 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the “Drug-Free Workplace Act” have been complied with in full; and
- (2) A drug-free workplace will be provided for Contractor’s employees during the performance of the Agreement; and
- (3) Each Subcontractor hired by Contractor shall be required to ensure that the subcontractor’s employees are provided a drug-free workplace. Contractor shall secure from that subcontractor the following written certification: “As part of the subcontracting agreement with Contractor, _____ certifies to Contractor that a drug-free workplace will be provided for the Subcontractor’s employees during the performance of this Agreement pursuant to paragraph (7) of subsection (b) of the Official Code of Georgia Annotated, Section 50-24-3”; and
- (4) The undersigned will not engage in unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the Agreement.

CONTRACTOR:

Date: _____

Signature: _____

Title: _____

**EXHIBIT G
TO CONTRACT AGREEMENT**

**DBE REQUIREMENTS
Not Applicable to this project.**

**EXHIBIT H
TO CONTRACT AGREEMENT**

**CONTRACTOR
CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
AND OTHER RESPONSIBILITY MATTERS
AND INSTRUCTIONS
Not Applicable for this Contract**

**EXHIBIT I
TO CONTRACT AGREEMENT**

**LOWER TIER
CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
AND OTHER RESPONSIBILITY MATTERS
AND INSTRUCTIONS**

Not Applicable for this Contract.

**EXHIBIT J
TO CONTRACT AGREEMENT**

**CERTIFICATION OF CONTRACTOR
GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT**

I hereby certify that I am a principal and duly authorized representative of _____, (“Contractor”), whose address is _____, _____.

Contractor hereby agrees to comply with all applicable provisions and requirements of the Georgia Security and Immigration Compliance Act of 2006 (the “Act”), as codified in O.C.G.A. Sections 13-10-90 and 13-10-91 and regulated in Chapter 300-10-1 of the Rules and Regulations of the State of Georgia, "Public Employers, Their Contractors and Subcontractors Required to Verify New Employee Work Eligibility Through a Federal Work Authorization Program," accessed at <http://www.dol.state.ga.us>, as further set forth below.

Contractor agrees to verify the work eligibility of all of newly hired employees through the U.S. Department of Homeland Security’s *Employment Eligibility Verification (EEV) / Basic Pilot Program*, accessed through the Internet at <https://www.vis-dhs.com/EmployerRegistration>, in accordance with the provisions and timeline found in O.C.G.A. 13-10-91 and Rule 300-10-1-.02 of the Rules and Regulations of the State of Georgia. As of July 1, 2007, the verification requirement applies to contractors and subcontractors with five-hundred (500) or more employees.

Contractor understands that the contractor and subcontractor requirements of the Act apply to contracts for, or in connection with, the physical performance of services within the State of Georgia.

Contractor understands that the following contract compliance dates set forth in the Act apply to the Contract Agreement, pursuant to O.C.G.A. 13-10-91:

On or after July 1, 2007, to public employers, contractors, or subcontractors of 500 or more employees;

On or after July 1, 2008, to public employers, contractors, or subcontractors of 100 or more employees; and

On or after July 1, 2009, to all other public employers, their contractors, and subcontractors.

To document the date on which the Act is applicable to Contractor, and to document Contractor’s compliance with the Act, the undersigned agrees to initial one of the three (3) lines below indicating the employee number category applicable to Contractor, and to submit the indicated affidavit with the Contract Agreement if the Contractor has 500 or more employees.

Contractor has:

- _____ 500 or more employees [Contractor must register with the *Employment/Eligibility Verification/Basic Pilot Program* and begin work eligibility verification on July 1, 2007];
- _____ 100-499 employees [Contractor must register with the *Employment Eligibility Verification/Basic Pilot Program* and begin work eligibility verification by July 1, 2008]; or
- _____ 99 or fewer employees [Contractor must begin work eligibility verification by July 1, 2009].

Contractor further agrees to require O.C.G.A. Sections 13-10-90 and 13-10-91 compliance in all written agreements with any subcontractor employed by Contractor to provide services connected with the Contract Agreement, as required pursuant to O.C.G.A. 13-10-91.

Contractor agrees to obtain from any subcontractor that is employed by Contractor to provide services connected with the Contract Agreement, the subcontractor's indication of the employee number category applicable to the subcontractor.

Contractor agrees to secure from any subcontractor engaged to perform services under this Contract an executed "Subcontractor Affidavit," as required pursuant to O.C.G.A. 13-10-91 and Rule 300-10-1-.08 of the Rules and Regulations of the State of Georgia, which rule can be accessed at <http://www.dol.state.ga.us>.

Contractor agrees to maintain all records of the subcontractor's compliance with O.C.G.A. Sections 13-10-90 and 13-10-91 and Chapter 300-10-1 of the Rules and Regulations of the State of Georgia.

CONTRACTOR:

Date: _____

Signature: _____
Title: _____

EXHIBIT K

TO CONTRACT AGREEMENT

INSURANCE REQUIREMENTS

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy, but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage under this policy continues for a period of thirty-six (36) months after completion of services.
7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the

required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions:

- (a) A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- (b) Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- (c) Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

Certificate Holder should read: The City of Sandy Springs, 7840 Roswell Road, Building-500, Sandy Springs, Georgia 30350.

**EXHIBIT L
TO CONTRACT AGREEMENT
SPECIAL PROVISIONS**

Special Provisions
Abernathy Road (north side) from Roswell Road to Brandon Mill Road
Lighting and Sidewalk Improvement Project TO#15049 and TO# 15051.
June 15, 2015

As part of this contract, the Contractor is also required to comply with the **Special Provisions** when bidding and constructing the proposed **Abernathy Road (north side) from Roswell Road SR9 to Brandon Mill Road Lighting and Sidewalk Improvements Project -TO#-15049 and TO#-15051.**

The Special Provisions associated with the Project included:

<u>SPECIAL PROVISIONS</u>	<u>TITLE</u>
Section TS-	Technical Specifications
Section 104	Summary of Work
Section 133	Cleaning
Section 150	Traffic Control
Section 700	Grassing
Section 702	Shrub and Ground Cover
Section 766	Irrigation Specification
Section 900	Pavers Specification
Section 999-9000	Miscellaneous Construction
Section 1450	Quality Control
Section 3301	Cast- In -Place Concrete
Section 26-0000	Electrical Specifications (For information purpose-Typ. A- Mid Block and Typ. C Intersection Lighting Cut Sheets)

TS-1

TS- Technical Specifications
Abernathy Road (north side) from Roswell Road to Brandon Mill Road
Lighting and Sidewalk Improvement Project TO#15049 and TO# 15051.
June 8, 2015

TECHNICAL SPECIFICATIONS

Unless otherwise directed, all work performed under this Contract shall be in accordance with the State of Georgia Department of Transportation *Standard Specifications for the Construction of Roads and Bridges*, dated April 18, 2013 Edition, any current Supplemental Shelf, and/or Reference Specifications modifying them, except as noted in the attached Special Provisions.

How to Obtain the Specifications:

1.) State of Georgia, Department of Transportation, *STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF TRANSPORTATION SYSTEMS* dated April 18, 2013

All of the specific sections from these standard specifications referred to in these Contract Documents are available for review and downloading at:

<http://www.dot.ga.gov/doingbusiness/TheSource/specs/DOT2013.pdf>

2.) State of Georgia, Department of Transportation, *SUPPLEMENTAL SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES*, 2008 Edition, modifying and expanding the 2001 Edition, is available for review and downloading at:

http://www.dot.ga.gov/doingbusiness/contractors/Documents/Suppl_Specification_%202008%20Book.pdf

3.) Shelf Special Provisions are available for review and downloading under the State of Georgia, Department of Transportation *THE SOURCE* website:

http://www.dot.ga.gov/doingbusiness/TheSource/Pages/special_provisions.aspx

4.) To order hard copies (books) of the two publications listed above, please contact:

Georgia Department of Transportation
600 West Peachtree St., NW
Atlanta, Georgia 30308
Phone: (404) 631-1215

**Special Provision 104- Summary of Work
for
Abernathy Road (north side) from Roswell Road to Brandon Mill Road,
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June 15, 2015**

104- SUMMARY OF WORK

104.1 Work Covered by Contract Documents:

Spirit and Intent:

It is the spirit and intent of the Special Provisions to accompany the Construction Documents and to provide clarification and describe the work and all parts thereof that shall be fully completed and suitable in every way for the purposes for which they are designed. Mention in the Special Provisions or indications on the Drawings of articles or materials, operations or methods requires that the Contractor provide each item listed, of quality or subject to qualification notes; perform according to conditions stated each operation prescribed; and provide therefore all necessary labor, materials, tools, equipment and incidentals to complete the work as indicated.

The Construction Documents, and Special Provisions are intended to be mutually explanatory and complete; all work called for by one, even if not by the other, shall be fully executed. Detailed drawings shall take precedence over small scale drawings. In case of discrepancy, either in the figures, in the Construction Documents, and or the Special Provisions, the matter shall be promptly submitted to the City Engineer/ Project Manager who will promptly make a determination in writing. Any adjustment by the Contractor without this determination shall be at his own risk and expense.

104.1.01 The Scope of Work includes, but is not limited to, the following:

- A. Furnish, install and MAINTAIN, and remove upon acceptance of the Work all necessary Erosion Control Measures including; but not limited to, Filter Sock, Inlet Sediment Control, Temporary Grassing and Tree Protection Fencing and any other miscellaneous items as indicted within the Contract Documents or required per any and all applicable standards.
- B. Provide all Erosion Control measures, clearing, demolition (of concrete walk and concrete paver bands), saw cutting, installation and the full operation of proposed lighting standards; including but not limited; the directional bore of conduit, installation of electrical wire, installation of lighting foundations, installation of light poles and luminaires, electrical wiring, minor irrigation adjustments associated with installing light pole foundations, minor landscape remove and reinstallation, the reinstallation of concrete walk and pavers and all of the miscellaneous items required for the performance of this Work or as noted within the Contract Documents.
- C. The Contractor is **not required** to purchase the light poles and light luminaries. **The City of Sandy Springs will supply both the light pole and light luminaries to the Contractor for the Contractor to install and make fully operational. The City will coordinate the delivery of the light poles and the luminaries to the site.**
- D. Provide limited earthwork and related requirements associated with the site construction and other miscellaneous improvements required to perform this Work or as indicated within the Contract Documents. The related requirements shall include removal of limited concrete walk and landscape plant material. On-site temporary stockpile(s) within the construction limits is not allowed. **For purposes of bidding this Work, the contractor is advised that no stockpiles will be allowed within the ROW.**
- E. The Contractor shall remove all unsuitable material (**including stripping's, concrete, brick and other debris, or other construction materials identified within the Contract Documents**) within the Project limits (including any stripping's generated from the creation of any material stockpile locations). **All construction debris must be properly disposed of offsite on a daily**

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basis.

- F. **The Contractor shall not be permitted to temporarily stockpile any excess stripping's or unsuitable materials within the rights of way.** Temporary stockpile(s) within the project limits shall not be allowed. The Contractor shall provide erosion control measures around storm inlets and temporary excavation holes or debris (to prevent impact to adjacent roadways, lands and water bodies. Any temporary stockpiles must be removed on a daily basis.
- G. Replace all landscape, sodding, mulch and seeding impacted from the construction activities and as indicated within the Contract Documents.
- H. Provide, maintain, and remove/restore to existing condition the Project site when completed with the project. In addition, this Contractor shall provide and maintain all 'maintenance of traffic' items which may become necessary due to the installation or maintenance required to perform its work.
- I. The Contractor **will clean-up daily ALL roadways of mud or dirt tracked out as a result of his work.**
- J. All holes, pits and demolition areas shall be protected and maintained to provide a safe working area in conformance with the GDOT and OSHA or other applicable standards. Provide, maintain, remove and dispose of any temporary sheeting and/or shoring required upon completion of its work. Should it be required, **all temporary sheeting and/or shoring shall be designed and sealed by a Georgia Registered Professional Engineer.**
- K. Provide all necessary temporary supports required to protect any and all existing utility systems prior to commencing and during the work. All damage to existing facilities during construction will be repaired at the Contractor's expense. Temporary supports shall be reviewed by representatives of the respective utility company prior to installation by the Contractor.
- L. Provide all labor, material, and equipment necessary to perform all temporary traffic and pedestrian signage, including but not limited to: flaggers, signage, and control devices, required for the performance of the Work, or requested by the Owner's Representative.
- M. Provide and maintain ALL 'maintenance of traffic' control items as required for the performance of Work.
- N. Provide all labor, material, and equipment necessary to install pavers, sidewalks, lighting, traffic control signage and electrical improvements as indicated within the Contract Documents.
- O. Provide all necessary reinforcing steel, wire mesh and accessories as shown, specified or required for the lighting foundations and sidewalk improvements.
- P. Provide all labor, material, and equipment necessary to perform all concrete work, including cast-in-place concrete.
- Q. Provide all demolition, removal and disposal off of the project site, of existing concrete paving, pavers, and any other miscellaneous items as noted within the Contract Documents or required for the performance of the Work. All debris resulting from the demolition activities shall be deposited off of the project property at the Contractor's cost.
- R. The Contractor shall be responsible for dust control as it pertains to its work or its work which adversely affects adjacent existing facilities, operations and occupants.

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- 104.1.02** The **Work** includes, but is not limited to, all labor, materials, equipment, tools, machinery, construction facilities and temporary controls, transportation and other facilities and services necessary to produce the construction required by the Contract Documents as follows:
- A.** Drawings as listed in the Drawings' Index.
 - B.** Specification Divisions and Sections as listed in the Table of Contents for the Project Manual.
 - C.** Pay legally required sales, consumer and use taxes.
 - D.** Secure and pay for, as necessary for proper execution and completion of Work:
 - 1. All permits.
 - 2. Government fees.
 - 3. Licenses and applications.
 - 4. Electrical permits.
 - E.** Give required notices.
 - F.** Comply with laws, codes, ordinances, rules, regulations, orders, and other legal requirements of public or quasi-public authorities which bear on performance of the Work.
 - G.** Enforce strict discipline and good order among employees. Do not employ for Work:
 - 1. Unfit persons.
 - 2. Persons not skilled in assigned tasks.
 - H.** Coordinate activities with other contractors.
 - I.** Maintain site access for other contractors using the site.
 - J.** Temporary services for construction purposes, required to perform this Contractor's work, including portable toilet facilities for the duration of this Contract, shall be by this Contractor.
 - K.** All necessary flagmen, barricades, warning flashers, etc., for safe and proper traffic control. When public roadways are used, the Contractor will coordinate his operations with the City of Sandy Springs. The Contractor is advised that he is responsible for all construction personnel and traffic routing logistics required in the performance of his Work. Cost of these services and materials is included in this Contract.
 - L.** This Contractor shall provide (where applicable to his Work) the following:
 - 1. All surveying, engineering and layout required for his work.
 - 2. All "rough" and "finish" grade stakes required to perform his Work. Re-staking required due to this or any other contractor damaging or removing original stakes shall be performed by this Contractor and is not the responsibility of the Owner.
 - M.** Provide all necessary temporary supports required to protect any and all existing utilities prior to commencing the Work. All damage to existing utilities during construction will be repaired at the Contractor's expense. Temporary shoring and/or supports of utilities, if required, are to be reviewed by the Utility Company prior to installation.
 - N.** It is incumbent upon each Contractor to coordinate and cooperate with all other Contractors in

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order that all work is installed in a timely an expeditious manner.

- O. The Contractor is advised that work associated with this Construction Package may have to be performed during "off" working hours and shall include these costs within his Construction Proposal accordingly. No additional compensation will be provided for work required to be performed during "off" working hours.
- P. The Contractor will be working along roadways which are presently open to the public and must, therefore, exercise care in performing work along said roadways so that access for the public is **not** interrupted.
- Q. Perform all Work in accordance with the specified hours of Work indicated within the Contract Documents.
- R. The Contractor and his subcontractors will be responsible for, and required to, accomplish their own clean-up on a **daily basis** or more frequently as conditions dictate or as directed by the Owner's Representative. This Contractor will clean-up daily all roadways of mud or dirt tracked out as a result of his Work.
- S. Provide all safety precautions and equipment to ensure conformance to all safety regulations.
- T. The Contractor shall be responsible for replacing all landscape planting material and or irrigation systems as a result of the Work specified within this construction package.
- U. During the work of this Contract, the Contractor shall ensure that any existing irrigation systems remain in service.

104.9 General Clarifications

- 104.9.01** The existing grade elevations and utility locations as depicted on the Contract Drawings are not to be construed as absolute; should the Contractor notice any discrepancies between the drawings and the existing conditions, such discrepancies shall be pointed out to the Owner's Representative, by the Contractor, before the starting the construction activity.
- 104.9.03** Flagmen and appropriate signage will be required at any and all on-site/off-site off-road accesses unless otherwise approved by the Owner. Maintenance of the off-road accesses will be the responsibility of the Contractor as well as repair to hard road surfaces and subsurfaces damaged as a result of the Work.
- 104.9.04** Maintenance and dust abatement of all areas of Work provided by the Contractor shall be done in a manner acceptable to the Owner.
- 104.9.05** The Contractor will be responsible for safely barricading open excavations that may present hazards. Special attention is noted that during the performance of this scope of work, the private residences and adjacent school shall be occupied, as such, the Owner shall require the Contractor to pay special attention to this issue.
- 104.9.06** All connections of new Work or utilities to existing that is to be accomplished by the Contractor must be scheduled at least 24 hours in advance, accomplished in a manner and at a time acceptable to the Owner.
- 104.9.07** Debris, as a result of construction and/or miscellaneous demolition Work required by the Contract Documents, is to be hauled off and disposed of in a manner acceptable to the Owner.

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- 104.9.08** Logistical routing and methods of interfacing with existing road systems will be subject to approval by the Owner.
- 104.9.09** All maintenance to construction equipment on-site that may be considered by the Owner to contaminate the existing earth will not be permitted.
- 104.9.10** All existing conditions off the immediate Project site which are disturbed due to Contractor's activities must be repaired to pre-construction conditions.
- 104.9.11** **The Contractor's attention is directed to the fact that this project site has existing underground electrical transmission lines, underground electrical and communications distribution lines and Irrigation lines (main and secondary) located within and adjacent to the limits of construction. The Contractor shall be required to coordinate his operations with these existing facilities and to provide any and all means necessary to protect these facilities during construction. Any damage to the existing utilities services will be at the contractor's expense.**
- 104.9.12** Prior to construction, the Contractor shall contact and notify the applicable utility companies and coordinate the schedule of construction activities in the vicinity of the existing electrical transmission lines, electrical distribution lines, and communications distribution lines.
- 104.9.13** Prior to construction, the Contractor shall submit a plan to the Owner and utility company showing the proposed methods of protection for all existing utilities. No construction may commence until the plan has been accepted by the applicable utility company.
- 104.9.14** All temporary sheeting and/or shoring required to perform this Work is a requirement of this Contract and shall be included in the Bid as appropriate. Temporary sheeting and shoring shall be signed and sealed by an Engineer registered in the State of Georgia.
- 104.9.15** Throughout the duration of this Contract, other Contractors and other entities may be working within the construction limits of the Project. The Contractor shall coordinate his construction activities with all other contractors working within the Project Limits.
- 104.9.16** The Contractor must notify utilities companies prior to commencement of field operations to verify the horizontal and vertical locations of utilities and related systems. Utilities that may be present include, but are not limited to, the following:
- 1) Electric:** Georgia Power
 - 2) Gas:** Atlanta Gas Light
 - 3) Telephone:** AT&T
 - 4) Cable:** Comcast
 - 5) Water:** City of Atlanta
 - 6) Sewer:** Fulton County
- 104.9.17** It is the Contractor's responsibility to notify utilities and arrange for locator service prior to construction operations. Damage to any utilities and interruption of service shall be the responsibility of the Contractor should it fail to properly notify utilities of its work or cause damage to facilities owned and/or operated by others.
- 104.9.18** The Contractor shall be responsible to consolidate and secure all equipment and materials at the job site. The Owner's current intent is to NOT provide security for material and equipment stored on site for contractors working at the Project site.

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104.9.19 The Contractor is responsible to schedule, coordinate, and comply with all Owner, County, State, and utility provider requirements for connections to and inspections of the Work.

104.10 Owner-Furnished Products

Certain lighting products (poles, luminaries and fastening hardware) are furnished by the Owner and shall be installed by the Contractor. Refer to Lighting Construction Documents for the extent of material provided by the City.

104.10.01 Owner's duties:

- A. Schedule delivery date with supplier in accord with project construction schedule
- B. Obtain installation drawings and instructions.

104.10.02 Contractor's duties:

- A. Designate required delivery date for each product in construction schedule.
- B. Promptly inspect delivered products, report damaged or defective items.
- C. Repair or replace items damaged as a result of Contractor's operations.
- D. Obtain installation drawings and instructions.
- E. Properly install, connect, and provide any and all finishing work for completion of each product or item of equipment being relocated in strict accord with manufacturer's installation instructions and technical bulletins.

104.18.01 Examination of Site

Before submitting bids for the work, each bidder shall be held to have examined the premises and satisfied himself as to the existing conditions under which he shall be pledged to operate or that in any manner shall affect the work. No allowance shall be made subsequently in this connection in behalf of the Contractor for any error or negligence on his part.

104.19.01 Landscape Protection

Tree Save Fence and Sediment Control (Filter Sock) is proposed at all boring location and limit of work. The Tree Save Fence shall not be removed and shall be carefully protected by the Contractor through the entirety of the project. As part of this project no trees are proposed to be removed or replaced. Damage to any existing vegetation including trees and shrubs, ground cover, sod, perennials and other landscape material items not identified, will be replaced at the contractor's expense.

Specimen Elm trees along the corridor shall not be damaged or scared during the construction process. Any damage including minor scaring to the existing tree may result in the contractor required to replace the entire tree. Should the trees be replaced, the contractor would be required to purchase the trees from Select Trees in Athens, Georgia. The contractor would be required to remove the existing tree and reinstall a new tree with proper soil amendments, and guying. The replacement size of the tree would be 6" caliber. The contractor would be required to warranty the tree replacement for two year period. The total replacement cost for the trees

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would either be held from the contractor retainage or the contractor would be required to place a bond for the entire replacement amount for a two year period.

104.32.01 Layout of Work

Before commencing any work, the Contractor shall indicate all proposed lighting locations in the field for review and approval by the City Engineer/ Project Manager. The Contractor shall stake the entire project, both as to location of all proposed light pole locations as well as finished grades. The locations of the staking shall be accurate. This stakeout shall be made early in the construction process and preserved for reference during construction. The purpose of the staking, with inspection and adjustment by the City Engineer/ Project Manager, is to potentially adapt the design layout to the site rather than allow the design to be forced upon the site. This variation is an aesthetic decision, the amount of adjustment most often determined by the existing trees, terrain, soil conditions, utilities, sub-surface water and by other intangibles which are impractical to survey in absolute accuracy.

The Contractor shall notify the City Engineer/ Project Manager at least three (3) working days before inspection of the stakeout. During the inspection, the City Engineer/ Project Manager will adjust the stake-out as necessary. At this time the City Engineer/ Project Manager will clearly confirm all proposed light locations and mark any ground cover or vegetation to be removed. This staking-inspection process must take place prior to any landscape removal, directional boring, construction and any other work on the site. During the inspection, the Contractor shall be at the site along with the person who will superintend the clearing under this contract.

The staking inspection process shall be repeated for any work not staked and approved or adjusted during the first site visit. No work shall ever be done without the stakeout first being adjusted and approved by the City Engineer/ Project Manager.

Any work progress delays caused by inadequate, incomplete or improper staking shall not merit an extension of the contract or delay charges by the Contractor.

The Landscape Architect/Engineer shall have two (2) working days to respond to any request to come to the site and adjust a stake-out. The City Engineer/ Project Manager shall have a minimum of two (2) work days to resolve any problems created by unknown conditions discovered during the stakeout or construction.

The Contractor shall be responsible for adequately scheduling his process in order to allow constant work to continue. When unknown conditions inhibit the flow of work in a specific location, during the inspection, the Contractor shall continue unhindered portions elsewhere on the project and notify the City Engineer/ Project Manager immediately.

104.33.01 Geotechnical and Material Sampling Assistance

The contract currently provides allowance for geotechnical and material testing services. The Contractor shall hire and coordinate with a GDOT prequalified geotechnical engineer for material testing services associated with the project. Including checking, testing of soil compaction, concrete sampling and steel reinforcement for lighting foundations. The geotechnical engineer shall be concerned with construction methods necessary to prevent settlement or failure of walkways, foundations, and/or damage to such surrounding structures as sidewalks, roads, utilities, within the Abernathy Road Linear Greenway or within the public rights of way. Geotechnical and Material Sampling Assistance shall be provided in accordance with GDOT specifications and may be directed by the City Engineer/ Project Manager. All geotechnical reports shall be provided to the City of Sandy Springs.

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104.34.01 Utilities

The Contractor shall exercise extra precaution to avoid damage to underground utilities, The Contractor shall notify the utility locating service to flag and mark with paint all underground utilities before any work commences. The Contractor shall determine the exact location of all existing utilities, structures and underground utilities, which may not be indicated on the drawings, and he shall conduct his work so as to prevent interruption of service or damage to them. The Contractor shall protect existing structures, utilities and underground utilities and be responsible for their replacement if damaged by him.

The Contractor, at his expense, shall immediately repair existing irrigation and utility lines impacted on site. This may include cables, duct banks, conduits and piping damaged by Contractor's operations. Unless they are to be abandoned, protect and or maintain in use until relocation of same has been completed or shall be cut and capped where directed or shall be prepared for service connections when so required by the City Engineer/ Project Manager.

104.35.01 Inclusion of Accessories

Unless specifically mentioned otherwise, all anchors, bolts, screws, fittings, fillers, hardware accessories, trim and other parts required for, or in connection with, full operation of the lighting system (and irrigation system) to make a complete, serviceable, finished and first quality installation, shall be furnished and installed by the Contractor as part of the lighting installation whether or not shown on the drawings or specified.

104.36.01 Installation and Protection of Materials

All items shall be installed in a workmanlike manner in accordance with the best recognized practice of the trade. Manufactured items shall be installed in strict accordance with the manufacturer's printed directions, specifications and recommendations. All working parts shall be properly adjusted after installation and left in perfect working order. Unless otherwise indicated, items exposed to weather and subject to flooding shall be installed so as to shed water. Items in all cases shall be installed plum and true and in proper relation to surrounding materials. The Contractor shall be responsible for preparing samples as required in the Specifications and to obtain approvals prior to construction of the item.

All materials shall be shipped, stored and handled in a manner that will afford protection and insure their being in first class condition at the time they are incorporated in the Work. After installation, all materials shall be properly protected against damage to insure their being in first class condition when the project as a whole is completed and accepted by the Owner.

104.37.01 Reference to Standard Specifications

When standard specifications such as the American Society for Testing and Materials, Federal Specifications, Department of Commerce (commercial Standards), American Institute of Steel Construction, American Association of State Highway and Transportation officials (AASHTO) guidelines, or other well known public or trade associates are cited as a standard to govern materials or workmanship, such specifications or portions thereof as referred to shall be equally as binding and have the full force and effect as though it were copied in the Specifications. Such standards as are mentioned are generally recognized by and available to the trades concerned.

104.38.01 Reference to Manufacturer's Publications

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Unless otherwise specifically stated, all manufacturer's catalogs, specifications, instructions or other information or literature that are referred to in the Specifications shall be considered as the latest edition or revision of such publications that is in effect on the date of the Invitation or Advertisement for Bids.

104.41.01 Materials Furnished by Others

Whenever Contractor or any subcontractor shall receive items from another contractor or from the Owner for storage, erection or installation, the Contractor or subcontractor shall give receipts for items delivered, and any necessary replacement of items received. No adjustment will be made to contract price for increased insurance premiums, except for materials or equipment furnished by the Owner and not listed as such in other contract documents.

104.39.01 Substitute Materials and Equipment

Approval by the City Engineer/ Project Manager of substitute materials and equipment shall not relieve the Contractor from his responsibility to supply and install any additional materials, equipment or labor required to make the substitution properly function within the intent of the contract documents as issued for bid whether or not recognized by the City Engineer/ Project Manager or Contractor. The Contractor shall supply and install such required substitutions at no additional cost to the Owner.

104.40.01 Protection of Existing Structures

The Contractor shall be liable for all damage to existing structures that occur as a result of his negligence to provide proper and adequate protective measures, including but not limited to buildings, walls, fences, paving, conduits, furniture, pipe, wiring, drains, underground utilities and equipment. The Contractor shall be liable for all damage to trees, shrubs, turf, and other vegetation; see Tree Penalty Clause in Specifications. The Contractor shall not encroach on neighboring properties or damage fences or vegetation within the designated buffer zone.

104.41.01 Record of Construction Changes and As-Built Drawings

On completion of work, the Contractor is required to provide an As-Built Survey of the proposed lighting improvements including conduit and lighting locations and any other modifications that may be required as a result of implementing the project. The data shall be provided to the owner in Auto-Cad (version 10 format).

104.42.01 Maintenance

Except as otherwise provided in the Specifications, the Contractor shall be responsible for all maintenance until completion and final acceptance of the total project. Various items of maintenance are indicated in applicable sections of the Specifications to which the Contractor is referred. Contractor is expected to maintain all erosion control fences, paving, landscape, grassing, and lighting.

104.46.01 Preconstruction Conference

The Contractor shall schedule a pre-construction conference with the Owner and City Engineer/ Project Manager at least three (3) days before beginning work under the contract. The contractor shall submit a proposed work schedule at the pre-construction conference.

104.47.01 Traffic Control

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All project work must conform to GDOT Section 105 Specification and local City guidelines for uniform traffic control.

104.48.01 Control of Materials

Source of Supply and Quality Requirements: The materials used on the work shall conform to the requirements of the contract, plans and specifications. Unless otherwise specified, such materials that are manufactured or processed shall be new (as compared to used or processed).

In order to expedite the inspection and testing of materials, the Contractor shall furnish complete statements to the Landscape Architect/Engineer as to the origin, composition, and manufacture of all materials to be used in the work. Such statements shall be furnished promptly after execution of the contract but, in all cases, prior to delivery of such materials.

Samples, Tests and Cited Specifications: All materials used in the work may be inspected, tested, and approved by the City Engineer/Project Manager before incorporation in the work. Any work in which untested materials are used without approval or written permission of the City Engineer/ Project Manager or Contractor shall be performed at the Contractor's risk. Materials found to be unacceptable and unauthorized will not be paid for and, if directed by the City Engineer/ Project Manager or Contractor, shall be removed at the Contractor's expense. Unless otherwise designated, tests in accordance with cited standard methods of AASHTO or ASTM which are current on the date of advertisement for bids will be made by and t the expense of the owner. Samples will be taken by a qualified representative of the Owner. All materials being used are subject to inspection, test or rejection at any time prior to or during incorporation into the work. Copies of all tests will be furnished to the Contractors representative at his request.

Certification of Compliance: The City Engineer/ Project Manager permit the use, prior to sampling and testing of certain materials, or assemblies when accompanied by manufacturer's certificates of compliance stating that such materials or assemblies fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a certificate of compliance in which the lot is clearly identified.

Materials or assemblies used on the basis of certificates of compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not,

The form and distribution of certificates of compliance shall be as approved by the City Engineer/ Project Manager.

When a material or assembly is specified by "brand name or- equal" and the contractor elects to furnish the specified "brand name", the contractor shall be required to furnish the manufacturer's certificate of compliance for each lot of such material or assembly delivered to the work. Such certificate of compliance shall clearly identify each lot delivered and shall certify as to: (a) Conformance to the specified performance, testing, quality of dimensional requirements; and (b) Suitability of the material or assembly for the use intended in the contract work.

Should the contractor propose to furnish an "or equal" material or assembly, he shall furnish the manufacturer's certificates of compliance as hereinbefore described for the specified brand name material or assembly, However, the Landscape Architect/Engineer shall be the sole judge as to whether the proposed "or equal" is suitable for use in the work.

The City Engineer/ Project Manager reserves the right to refuse permission for use of materials or assemblies on the basis of certificates of compliance.

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Plant Inspection: The City Engineer/ Project Manager or his authorized representative may inspect, at its source, any specified material or assembly to be used in the work. Manufacturing plants may be inspected from time to time for the purpose of determining compliance with specified manufacturing methods or materials to be used in the work and to obtain samples required for his acceptance of the material or assembly.

Should the City Engineer/ Project Manager conduct plant inspections, the following conditions shall exist:

- (a) The City Engineer/ Project Manager shall have the cooperation and assistance of the contractor and the producer with whom he has contracted for materials;
- (b) The City Engineer/ Project Manager shall have full entry at all reasonable times to such parts of the plant that concern the manufacture or production of the materials being furnished; and
- (c) If required by the City Engineer/ Project Manager, the contractor shall arrange for adequate office or working space that may be reasonably needed for conducting plant inspections. Office or working space should be conveniently located with respect to the plant.

It is understood and agreed that the Owner shall have the right to retest any material which has been tested and approved at the source of supply after it has been delivered to the site. The Landscape Architect/Engineer shall have the right to reject material which, when retested, does not meet the requirements of the contract, plans, or specifications.

Restroom Facility: The Contractor shall furnish a restroom facility during the construction of the project. The restroom shall be maintained by the Contractor and removed from the site at the completion of the project.

Storage of Materials: Materials shall be so stored as to assure the preservation of their quality and fitness for the work, Stored materials, even though approved before storage, may again be inspected prior to their use in their work. Stored materials shall be located so as to facilitate their prompt inspection. The contractor shall coordinate the storage of all materials with the City Engineer/ Project Manager.

Unacceptable Materials: Any material or assembly that does not conform to the requirements of the contract, plans or specifications shall be considered unacceptable and shall be rejected. The contractor shall remove any rejected material or assembly from the site of the work, unless otherwise instructed by the City Engineer/ Project Manager.

No rejected material or assembly, the defects of which have been corrected by the contractor, shall be returned to the site of the work until such time as the City Engineer/ Project Manager has approved its use in the work.

Owner-Furnished Materials: The contractor shall furnish all materials required to complete the work, except those specified herein (if any) to be furnished by the owner. Owner-furnished materials shall be made available to the contractor at the location specified herein.

All costs of handling, transportation from the specified location to the site of work, storage and installing Owner-furnished materials shall be included in the unit price bid for the contractor item when such owner-furnished material is used.

After owner-furnished material has been delivered to the location specified, the contractor shall be responsible for any demurrage, damage, loss or other deficiencies which may occur during

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the contractor's handling, storage, or use of such owner-furnished material. The owner will deduct from any monies due or to become due the contractor any cost incurred by the owner in making good such loss due to the contractor's handling, storage, or use of owner-furnished materials.

END OF SECTION

Special Provision 133- Cleaning
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SPECIAL PROVISION 133 - CLEANING

Supplemental to GDOT Standard Specification;

133.1 General

133.1.01 Description

- A. Maintain job site, surrounding areas, and public properties free from stored materials, accumulations of waste, debris, and rubbish caused by operations.
- B. At completion of each business day, the contractor shall remove waste materials, rubbish, tools, equipment, machinery, surplus materials, and clean all sight-exposed surfaces. Leave job site clean and ready for occupancy.

133.2 Products

133.2.01 Materials

- A. Use only cleaning materials recommended by manufacturer of materials of surface to be cleaned.
- B. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

133.3 Execution

133.3.01 Cleaning - General

- A. Cleaning and disposal:
 - 1. Conduct cleaning and disposal operations in accord with legal requirements.
 - 2. Do not burn or bury rubbish and waste materials on job site. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
- B. Burning:
 - 1. Burning of the trees, shrubs, bushes, etc., cleared on the project site will not be allowed within the project site.
- C. Hazards control:
 - 1. Store volatile wastes in covered metal containers, and remove from premises daily.
 - 2. Prevent accumulation of wastes which create hazardous conditions.
 - 3. Provide adequate ventilation during use of volatile or noxious substances.

133.3.02 Clean-up During Construction

- A. Execute cleaning to ensure job site, premises, adjacent and public properties are maintained free from accumulations of waste materials and rubbish.

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- B.** Wet down dry materials and rubbish to lay dust.
- C.** At reasonable intervals during progress of Work, clean job site and public properties, and dispose of waste materials, debris and rubbish.
- D.** Provide dump containers on job site for collection of waste materials, debris and rubbish.
 - 1. Permit Owner's other contractors to place waste materials, debris and rubbish in containers provided by this Contractor.
- E.** Remove waste materials, debris and rubbish from job site, premises, including within the rights of way or adjacent to private and public properties and legally dispose of at public or private dumping areas.
- F.** Handle materials in a controlled manner with as few handlings as possible.
- G.** Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

133.3.03 Final Cleaning

- A.** In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.
- B.** Remove soil stains, grease, dust, dirt, stains, labels, furniture, fingerprints, and other foreign materials, from sight-exposed interior and exterior finished surfaces including paving, stone walls buildings and fences.
 - 1. Clean and polish all factory finished surfaces such as plastic laminate, plated metals, stainless steel, and factory baked-on enamel surfaces.
- C.** Repair, patch and touch-up marred surfaces to specified finish, and to match adjacent surfaces as appropriate.
- D.** Broom clean paved/stone surfaces or pressure wash concrete and stone surfaces, structures, walls and columns, etc... as directed by the Landscape Architect; rake clean other surfaces of grounds.
- E.** Owner will assume responsibility for cleaning as of time designated on Certificate of Substantial Completion for Owner's acceptance of project or portion thereof.

133.3.04 General Requirements

- A.** If the Contractor fails to comply with the requirements of this Article, in the opinion of the Owner or the Owner's Representative, the Owner's Representative shall perform the necessary clean-up and deduct the cost of work from the monies due or to become due to said Contractor.

END OF SECTION

Special Provision 150 Traffic Control
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Section 150—Traffic Control

Retain Section 150 as written and add the following:

150.11 SPECIAL CONDITIONS:

A. WORK HOURS:

This project requires the following restricted work hours:

Lane closures will not be permitted during weekdays (Monday through Friday) between the hours of 6:00 a.m. to 9:00 am; and 3:30 to 6:30 pm. Monday through Friday.

Failure by the contractor to reopen the lane by the times specified will result in damages assessed in accordance with Section 108.08 of this contract.

B. TRAFFIC CONTROL PLAN:

A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TWO (2) WEEKS PRIOR TO ANY WORK FOR REVIEW AND APPROVAL BY THE ENGINEER.

C. HOLIDAY WORK:

- No work shall be allowed during the following holidays, (including actual days of observance, i.e. 3rd of July):
- Memorial Day
- 4th of July
- Labor Day
- Thanksgiving
- Christmas and New Years

D. LANE CLOSURES: shall not be allowed during the weekends of the Georgia Tax Free Weekends.

E. MAINTENANCE OF TRAFFIC:

Contractor is required to maintain a minimum of a single lane of traffic throughout the construction project. Temporary closures within a single work day and/or flagging will be allowed only with prior approval of the City of Sandy Springs. A minimum 48 hour notice is required for a request for closure. A minimum of a single lane of traffic adequate for emergency services is required to be maintained at all times when Contractor is not actively working on site. All traffic control shall conform to GDOT Standard Specification 150 as updated in the Special Provisions dated May 15, 2015 and the MUTCD.

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SPECIAL PROVISION 700 – GRASSING

700.1 General Description

This work includes preparing the ground, furnishing, planting, seeding, fertilizing, sodding, and mulching disturbed areas within the Project limits as shown on the Plans and or as designated by the Project Manager/ City Engineer.

700.1.01 Definitions

General Provisions 101 through 150.

700.1.02 Related References

A. Standard Specifications

Section 160—Reclamation of Material Pits and Waste Areas
Section 163—Miscellaneous Erosion Control Items
Section 718—Wood Fiber
Section 822—Emulsified Asphalt
Section 882—Lime
Section 890—Seed and Sod
Section 891—Fertilizers
Section 893—Miscellaneous Planting Materials
Section 895—Polyacrylamide

B. Referenced Documents

QPL 33
QPL 84

700.1.03 Submittals

Submit manufacturer's product expiration date along with written instructions to ensure proper application, safety, storage, and handling of Polyacrylamide products used in The Work.

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- C. Product Certificates: For soil amendments and fertilizers, signed by product manufacturer.
- D. Material Test Reports: For existing surface soil and imported topsoil.
 - 1. Results of analysis of topsoil indicating required nutrient and lime application rates.

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700.1.04 Quality Assurance

A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.

1. Installer's Field Supervision: Require installer to maintain an experienced staff when planting.

700.1.05 Delivery, Storage, And Handling

700.2 Materials

Use materials that meet the requirements of the following Specifications:

Material	Section
Wood Fiber Mulch	718.2
Emulsified Asphalt	822
Agricultural Lime	882.2.01
Liquid Lime	882.2.01
Seed	890.2.01
Sod	890.2.02
Fertilizer	891.2.01
Plant Topsoil	893.2.01
Mulch	893.2.02
Inoculants	893.2.04
Tackifiers	QPL 33
Anionic Polyacrylamide	QPL 84 & Section 895

A. Seeds

Whenever seeds are specified by their common names, use the strains indicated by their botanical names.

B. Water

Obtain the water for grassing from an approved source. Use water free of harmful chemicals, acids, alkalis, and other substances that may harm plant growth or emit odors. Do not use salt or brackish water.

C. Fertilizer Mixed Grade

Select fertilizer mixed grade such as 10-10-10, 6-12-12, 5-10-15, or other analysis within the following limits:

- Nitrogen 5 to 10 percent
- Phosphorus 10 to 15 percent
- Potassium 10 to 15 percent

If using mixed grade fertilizer for hydroseeding, ensures that it has the following analysis:

- Nitrogen 5 to 19 percent
- Phosphorus 10 to 19 percent

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- Potassium 10 to 19 percent

E. Mulch

Use straw or hay mulch according to Subsection 700.3.05.G.

Use wood fiber mulch in hydroseeding according to Subsection 700.3.05.F.1.

700.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

700.3 Construction Requirements

700.3.01 Personnel

General Provisions 101 through 150.

700.3.02 Equipment

Use grassing equipment able to produce the required results.

700.3.03 Preparation

General Provisions 101 through 150.

700.3.04 Fabrication

General Provisions 101 through 150.

700.3.05 Construction

Follow the planting zones, planting dates, types of seed, seed mixtures, and application rates described throughout this Section. The Project Manager/City Engineer has the authority to alter the planting dates as set forth by a period of 4 weeks. This 4-week period may be applied to either the beginning of the specified planting and/or to the end of the end of the specified planting season.

In general:

- Obtain the Engineer's approval before changing the ground cover type.
- Do not use annual rye grass seeds with permanent grassing.
- Follow the planting zones indicated on the Georgia State Planting Zone Map, below.
- Refer to sod planting schedule for installation of sod.

For temporary and permanent grassing, apply the seed and sod indicated in the plant schedule. Do not exceed the amounts of specified seed.

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A. Ground Preparation

Prepare the ground by plowing under any temporary grass areas and preparing the soil as follows:

- Plow to a depth whatever depth is practicable.
- Scarify.

a. Obstructions

Remove boulders, stumps, large roots, large clods, and other objects that interfere with grassing or may slide into the ditch.

b. Topsoil

Spread topsoil stockpiled during grading evenly over cut and fill slopes after preparing the ground. Push topsoil from the top over serrated slopes. Do not operate equipment on the face of completed serrated cuts.

(Refer to Special Provision for Topsoil)

Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 6 percent organic material content; free of stones **1/2 inch** or larger in any dimension and other extraneous materials, including weeds, harmful to plant growth, unless otherwise noted. At competition athletic and planting beds, provide materials free of stones 1/2 inch or larger.

- i. Topsoil Source (Disturbed Areas): Reuse surface soil stockpiled on-site. Verify suitability of stockpiled surface soil to produce topsoil. Clean surface soil of roots, plants, weeds, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
- ii. Supplement with imported or manufactured topsoil from off-site sources when quantities are insufficient. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.
- iii. Topsoil Source (Undisturbed): Amend existing in-place surface soil to produce topsoil. Verify suitability of surface soil to produce topsoil. Clean surface soil of roots, plants, weeds, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
- iv. Surface soil may be supplemented with imported or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from bogs or marshes.

INORGANIC SOIL AMENDMENTS

Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:

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1. Lime (If required as a result of tests made under preceding Part 1): Shall be ground limestone (Dolomite) containing not less than 85 percent of total carbonates and shall be ground to such a fineness that 50 percent will pass through a 100-mesh sieve and 90 percent will pass through a 20 mesh sieve. Coarser material will be acceptable, provided the specified rates of application are increased proportionately on the basis of quantities passing the 100 mesh sieve.
2. Provide lime in form of dolomitic limestone.

Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum 99 percent passing through No. 6 sieve and a maximum 10 percent passing through No. 40 sieve.

B. Grassing Adjacent to Existing Lawns

When grassing areas adjacent to residential or commercial lawns, the Project Manager/City Engineer may direct the contractor to change the plant material to match the type of grass growing on the adjacent lawn. The Contract Unit Price will not be modified for this substitution.

If the Engineer believes bituminous treated mulch would harm other portions of the work, bituminous treated mulch may be substituted with 1,500 lbs/acre (1680 kg/ha) of wood fiber mulch with tackifier.

C. Temporary Grassing

Apply temporary grassing according to Subsection 163.3.05.F. Determine lime requirements by a laboratory soil test. In March or April of the year following planting and as soon as the weather is suitable, replace all areas of temporary grass with permanent grass by plowing or overseeding using the no-till method. If the no-till method is used, ensure that temporary grass is less than 3 inches in height (this may be achieved by mowing). Additional mulch will be required only if the temporary grass does not provide adequate mulch to meet the requirements of Subsection 700.3.05.G, "Mulching."
Temporary grass, when required, will be paid for according to Section 163.

D. Applying Agricultural Lime and Fertilizer Mixed Grade

Apply and mix lime and fertilizer as follows:

1. Agricultural Lime

Uniformly spread agricultural lime on the ground at the approximate rate determined by the laboratory soil test.

A. Liquid Lime (Flowable Dolomitic Lime) may be applied during the hydroseeding operation at the rate of 2.5 gallons (of Liquid Lime concentrate) per acre (23.75 liters per hectare). This provides the equivalent of 1 ton per acre (2.25 mg per hectare) of agricultural lime. The remainder of lime specified by the soil test is applied as agricultural lime and uniformly spread over the surface of the ground.

B. Agricultural Lime may be used as filler material in mixed grade fertilizer in lieu of inert material. The use of agricultural lime as filler material is to be shown on the fertilizer bag or invoice from the supplier. Do not deduct any amount of fertilizer when lime is used as filler.

2. Fertilizer Mixed Grade

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Uniformly spread the fertilizer selected according to Subsection 700.2.D over the ground at approximately 1,200 lbs/acre (1350 kg/ha).

If using a higher analysis fertilizer with hydroseeding, apply it at the same rate per acre (hectare) as the standard fertilizer.

3. Mixing

Before proceeding, uniformly work the lime and fertilizer into the top 4 in (100 mm) of soil using harrows, rotary tillers, or other equipment acceptable to the Engineer.

On cut slopes steeper than 3:1, other than serrated slopes, reduce the mixing depth to the maximum practical depth as determined by the Engineer. Omit mixing on serrated slopes.

E. Seeding

Grass seed to be fresh, clean, dry, new crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances. Following is a list of both common names and botanical names for approved seed types. Whenever seeds are specified by the common names, the strains indicated by their botanical name apply.

Prepare seed and sow as follows:

1. Inoculation of Seed: Inoculate each kind of leguminous seed separately with the appropriate commercial culture according to the manufacturer's instructions for the culture.

2. Sowing: Weather permitting, sow seed within 24 hours after preparing the seed bed and applying the fertilizer and lime. Sow seed uniformly at the rates specified in the Seeding Table. Use approved mechanical seed drills, rotary hand seeders, hydraulic equipment, or other equipment to uniformly apply the seed. Do not distribute by hand. To distribute the seeds evenly sow seed types separately, except for similarly sized and weighted seeds. They may be mixed and sown together. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other. Do not use wet seed or seed that is moldy or otherwise damaged. Sow seed at the rate of 5 lb/1000 sq. ft., unless otherwise noted. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.

3. Rolling Roll: seeded areas before applying mulch, except on steep slopes where rollers cannot operate satisfactorily. On slopes inaccessible to compaction equipment, cover the seeds by dragging spiked chains over them or by using other methods. Do not sow during windy weather, when the prepared surface is crusted, or when the ground is frozen, wet, or otherwise non-tillable.

4. Overseeding

Temporary grass areas that were prepared in accordance with Subsection 700.3.05.A, may be overseeded using the no-till method. The no-till method is defined by planting permanent grass seeds using a drill-type seeder over existing temporary grass without plowing or tilling soil and in accordance with Subsection 700.3.05.C.

G. Mulching

Except as noted in Subsection 700.3.05.B and Subsection 700.3.05.C, apply mulch immediately after seeding areas as follows:

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Areas with permanent grass seed and covered with slope mats or blankets will not require mulch. Evenly apply straw or hay mulch between 3/4 in and 1-1/2 in (20 mm and 40 mm) deep, according to the texture and moisture content of the mulch material.

Mulch shall allow sunlight to penetrate and air to circulate as well as shade the ground, reduce erosion, and conserve soil moisture. If the type of mulch is not specified on the Plans or in the Proposal, use any of the following as specified.

1. Mulch with Binder

Apply mulch with binder regardless of whether using ground or hydroseeding equipment for seeding.

a. Mulch uniformly applied manually or with special blower equipment designed for the purpose. When using a blower, thoroughly loosen baled material before feeding it into the machine so that it is uniformly coated with binder and broken up.

b. After distributing the mulch initially, redistribute it to bare or inadequately covered areas in clumps dense enough to prevent new grass from emerging.
Do not apply mulch on windy days.

c. Apply enough binder to the mulch to hold it in place. Immediately replace mulch that blows away. When using a power blower to distribute the mulch, spray the binder onto the mulch as the mulch is ejected from the machine. If distributing the mulch by hand, immediately apply the binder uniformly over the mulched areas.

Use one of the following binders:

- Emulsified asphalt, SS-1h or SS-1 (Section 822): The public, adjacent property, bridges, pavements, curbs, sidewalks, and other existing structures shall be protected from discoloration by the asphalt. Correct discoloration damage at no expense to the Department.
- Tackifier: Use a tackifier listed in the Laboratory Qualified Products Manual may be used at the manufacturer's recommended rates.

2. Walked-in-Mulch

Apply walked-in-mulch on slopes ranging in steepness from 5:1 to 2:1 and treat as follows:

a. Immediately walk it into the soil with a cleated track dozer. Make dozer passes vertically up and down the slope.

b. Where walked-in-mulch is used, do not roll or cover the seeds as specified in Subsection 700.3.05.E.3.

H. Sod

Furnish and install sod in all areas shown on the Plans or designated by the City Engineer/Project Manager.

1. Kinds of Sod

The Contractor shall use either Common Bermuda (Tiff 419), Zeon Zoysia or Meyer Zoysia Sod for the sod areas. The Contractor is to confirm the existing sod and install with similar type when replacing

Sod shall be nursery-grown and be accompanied with a Georgia Department of Agriculture Live Plant License Certificate or Stamp. Sod shall consist of live, dense, well-rooted material free of weeds and insects as described by the Georgia Live Plant Act.

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2. Type And Size Of Sod: Furnish block sod; Sod shall be a minimum of 12 inches wide by 2 feet long. Ensure all sod consists of a uniform soil thickness of not less than 1 inch.

3. Ground Preparation: Excavate the ground deep enough and prepare it according to Subsection 700.3.05.A to allow placing of sod. Spread soil, meeting the requirements of Subsection 893.2.01, on prepared area to a depth of 4 inches.

4. Application Of Lime And Fertilizer: Apply lime and fertilizer according to turf supplier recommendations and the Subsection 700.3.05.D within 24 hours prior to installing sod.

5 Weather Limitations: Do not place sod on frozen ground or where snow may hinder establishment. 6. Install Sod Install Sod as follows:

- Place sod by hand so that joints are tightly abutted with no overlaps or gaps. Use soil to fill cracks between sod pieces, but do not smother the grass.
- Stake sod placed in ditches or slopes steeper than 2:1 or any other areas where sod slipping can occur.
- Use wood stakes that are at least 8 in (200 mm) in length and not more than 1 in (25 mm) wide.
- Once sod is placed and staked as necessary, tamp or roll it using adequate equipment to provide good contact with soil.
- Use caution to prevent tearing or displacement of sod during this process. Leave the finished surface of sodded areas smooth and uniform.

7. Watering Sod: After the sod has been placed and rolled or tamped, water it to promote satisfactory growth. Refer to turf farm recommendations for frequency and method of watering. Additional watering will be needed in the absence of rainfall and during the hot dry summer months. Water may be applied by Hydro Seeder, Water Truck or by other means approved by the Engineer.

8. Dormant Sod: Dormant Zoysia grass sod can be installed. However, assume responsibility for all sod through establishment and until final acceptance.

9. Establishment: Sod will be inspected by the Engineer at the end of the first spring after installation and at the time of Final Inspection. Replace any sod that is not live and growing. Any cost for replacing any unacceptable sod will be at the Contractor's expense.

I. Application of Nitrogen

Apply nitrogen per the turf farm recommendations (typically 50 lbs/acre+-) (56 kg/ha) when specified by the Engineer after plants have grown to 2 in (50 mm) high.

One application is mandatory and must be applied before Final Acceptance.

Apply nitrogen with mechanical hand spreaders or other approved spreaders capable of uniformly covering the grassed areas. Do not apply nitrogen on windy days or when the foliage is damp.

Refer to the turf farms recommendations for application times for turf type used. Typically do not apply nitrogen between October 15 and March 15 except in Zone 4. In planting zones 3 and 4 apply an additional application of nitrogen.

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700.3.06 Quality Acceptance

The City Engineer/Project Manager may require replanting of an area that shows unsatisfactory growth for any reason at any time.

Except as otherwise specified or permitted by the Engineer, prepare replanting areas according to the Specifications as if they were the initial planting areas. Use a soil test or the City Engineer/Project Manager guidance to determine the fertilizer type and application rate, then furnish and apply the fertilizer.

700.3.07 Contractor Warranty and Maintenance

Begin maintenance immediately after each area is planted and continue until final acceptable of lawn area is established, but for not less than two year period.

- A. This section includes **A FULL TWO YEAR WARRANTY OF THE LANDSCAPE IMPROVMENTS** associated with the project. The Contractor is hereby required to furnish labor, materials and equipment for the complete care and maintenance of all shrubs, ground covers, lawn/sod areas, seasonal color, of the proposed landscape improvements shown in Construction Plans. The **Two Year Warranty of Landscape Improvements** will begin at the City of Sandy Springs acceptance of the Final Acceptance of the construction improvements.

1.01 QUALITY ASSURANCE

- A. The Contractor shall demonstrate their capabilities and experience in installation and maintenance of a minimum of five similar projects completed within the last five years with project name, address, names of Owners, overall description of scope of work, and contract value.
- B. Contractor Qualifications: The Firm shall provide evidence of sufficient manpower, equipment and financial resources to complete the Work of the Section.
- C. Supervision:
1. Maintenance shall be supervised by a person(s) having one or more of the following qualifications:
 - a. A Certified Nurseryman.
 - b. A Licensed Horticulturist.
 - c. A professional landscape contractor with a minimum of 10 years of experience in landscape and irrigation construction and maintenance.
 - d. A registered Landscape Architect and or Engineer in the state of Georgia.
- D. Inspection and Approval:
1. All plant material replacement and substitutions are subject to inspection and approval by the Landscape Architect and or the City.
- E. The Owner shall be assured of a complete maintenance program and plant guarantee for all trees, plants, lawn and mulch areas such that the quality of all planting and lawns shall

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not deteriorate, but shall obtain vitality and healthy new growth for the duration of the **Two Year Period**.

- F. The Contractor is hereby made aware that both the City of Sandy Springs anticipates that the landscape at this site shall be of the highest quality. All work to be performed such as pruning, fertilizing, watering, weeding, irrigation maintenance, edging, spraying, plant installation, overseeding, aerating, and mulching shall be strictly managed and executed and performed by experienced personnel.

1.02 WARRANTY

- A. The Contractor shall guarantee and completely replace at no additional cost to the Owner 100% of the plants, sod or seed area which, in the opinion of the City that fails to maintain a healthy, vigorous condition (excluding theft or vandalism). All replacement plant material shall meet all specification as listed in Landscape Development Specifications and Plant List in regard to species, variety, color and quality. Replacement plant material shall equal that of the plant which is being replaced and/or the size of existing adjacent like specimens.
- B. In the event that the performance of the Contractor should fail to satisfy the standards set forth in the Two Warranty of Landscape Material as interpreted by the City, the City reserves the right to obtain others to perform such duties and deduct all costs from the Contractor's retainage.
- C. Plant Establishment
1. Preserve, protect, water, reseed or replant, and perform other work as necessary to keep the grassed areas in satisfactory condition. If lawns do not show a healthy, uniform stand of grass, those areas shall be reseeded or resodded as soon as conditions permit, but during the spring or fall seeding periods.
 2. Owner's Responsibility: If an area of seeding or sodding during the warranty and replacement period is found to be damaged or destroyed due to vandalism, malicious mischief, vehicle ruts and tracks, or acts of God such as flooding, storm debris, then the Owner shall have the responsibility of replacing those lawn areas without cost or responsibility to the Contractor.
 3. Watering: Water the areas during this period to promote maximum growth. The contractor is advised that manual irrigation is to be used as a supplement to rainfall. The contractor is responsible for carefully observing the water requirements for all landscape areas and maintaining healthy, vigorous plant material/ grass areas by manually watering.
 4. Apply water in a manner to prevent erosion. Water all turfgrass at the time of planting. Water after applying and as necessary to maintain enough moisture to promote plant growth.
 5. Apply enough water to wet the soil to a depth slightly below the roots.
 6. Mowing: Mow seeded lawn areas after seed has established at least once a week until final acceptance of project. Avoid damaging desirable vegetation.
 - a. Adjust mowing schedule as necessary in order to achieve proper mowing methods.

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- b. Mowing height shall be 1.0 to 1.5" tall during growing season. Scalp Bermuda turfgrass to a height of 0.75" during February to promote turf quality the following growing season.
 - c. Remove no more than one-third (1/3) of the total leaf blade during any one mowing.
 - d. Prevent grass clippings from entering adjacent planting beds or roadway.
 - e. Blow grass clippings off all sidewalks immediately following each mowing. Do NOT blow grass clippings into roadway. Remove off-site if necessary.
 - f. Edge turfgrass along all sidewalks and curbs every other mowing during growing season.
 - g. In addition, mow as necessary to prevent tall grass from obstructing signs, delineation, traffic movements, sight distance, or otherwise becoming a hazard to motorists.
7. Edging: Maintain shapes and configurations of plant beds as installed until final acceptance.
8. Foreign Matter: Remove all extraneous leaves, weeds, trash, limbs, and debris from plant beds as necessary to constantly maintain a completely clean appearance. This shall occur at each maintenance visit.
9. Soil Samples: Obtain soil samples from all areas of the site for analysis. Follow by fertilizing and liming recommendations from testing laboratory.
10. Weed Control: Use chemical and mechanical means to prevent weeds and/or undesirable grasses from encroaching in mulched areas. Maintain a valid, Georgia pesticide applicator and operator's license and use chemicals in strict accordance with federal, state, and county directives on environmental control. Chemicals must have an EPA approval number.

D. Additional Fertilizer Mixed Grade

Apply fertilizer at the rate required by the seed or sod use. Typically, use approximately 600 lbs/acre (675 kg/ha) each spring after initial plant establishment. Continue annual applications until Final Acceptance. This additional fertilizer will be measured and paid for at the Contract Unit Price for fertilizer mixed grade.

E. Growth and Coverage

Provide satisfactory growth and coverage, ensuring that vegetation growth is satisfactory with no bare spots larger than 1 ft² (0.1 m²). Bare spots shall comprise no more than 1 percent of any given area. An exception is given for seed not expected to have germinated and shown growth at that time.

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F. Permissible Modifications

When all Items of the work are ready for Final Acceptance except for newly planted repaired areas or other areas with insufficient grass, the Contractor may fill the eroded areas or treat bare areas with sod obtained, placed, and handled according to Subsection 700.3.05.H.

Carefully maintain the line and grade established for shoulders, front slopes, medians, and other critical areas.

Sod as described above will not be paid for separately, but will be an acceptable substitute for the satisfactory growth and coverage required under this Specification. These areas treated with sod are measured for payment under the Item for which the sod is substituted.

700.4 Measurement

A. Permanent Grassing

Permanent Grassing will be measured for payment by the SF.

B. Mulches

Straw or hay mulch applied to permanent grassing areas will be measured by the ton (megagram). Wood fiber mulch furnished by the Contractor for permanent grassing is not measured for separate payment.

C. Quantity of Sod

Sod is measured for payment by the number of square yards (meters), surface measure, completed and accepted.

D. Water

Water furnished and applied to promote a satisfactory growth is not measured for payment.

E. Quantity of Lime and Fertilizer Mixed Grade

Lime and fertilizer are measured by the ton (megagram). Lime used as a filler in fertilizer is measured by the ton (megagram). Liquid lime is measured by the gallon (liter).

F. Quantity of Nitrogen Used for Permanent Grassing

Nitrogen is measured in pounds (kilograms) based on the weight of fertilizer used and its nitrogen content.

G. Replanting and Plant Establishments

No measurement for payment is made for any materials or work required under Subsection 700.3.06 and Subsection 700.3.07.

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H. Temporary Grass

Temporary grass is measured for payment by the acre (hectare) of seed according to Section 163.

700.4.01 Limits

General Provisions 101 through 150.

700.5 Cleanup and Protection.

700.7 Payment

As grassing and planting progress, the Contractor will receive full measurement and payment on regular monthly estimates provided the work complies with the Specifications.

A. Permanent Grassing

Permanent grassing will be paid for at the Contract Price per SF complete and in place. Payment is full compensation for preparing the ground, seeding, wood fiber mulch, polyacrylamide, and providing plant establishment and other incidentals.

B. Straw or Hay Mulch

Straw or hay mulch required for Permanent Grassing will be paid for according to Section 163.

C. Fertilizer Mixed Grade

Fertilizer mixed grade will be paid for at the Contract Price per ton (megagram). Payment is full compensation for furnishing and applying the material.

D. Lime

Lime will be paid for at the Contract Price per ton (megagram). Lime used as a filler in fertilizer will be paid for per ton (megagram). Liquid lime will be paid for per gallon (liter). Payment is full compensation for furnishing and applying the material.

E. Nitrogen

Nitrogen will be paid for at the Contract Price per pound (kilogram) of nitrogen content. Payment is full compensation for furnishing and applying the material.

F. Sod

Sod will be paid by the square foot in accordance with the following schedule of payments. Payment is full compensation for ground preparation, including addition of topsoil, furnishing and installing live sod, and for Plant Establishment. Sod will be paid 100% at Final Acceptance.

G. Temporary Grass

Temporary Grass will be paid for under Section 163.

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Payment will be made under:

Item No. 700	Permanent grassing	Per acre (hectare)
Item No. 700	Agricultural lime	Per ton (megagram)
Item No. 700	Liquid Lime	Per gallon (liter)
Item No. 700	Fertilizer mixed grade	Per ton (megagram)
Item No. 700	Fertilizer nitrogen content	Per pound (kilogram)
Item No. 700	Sod	Per square yard (meter)

END OF SECTION

**Special Provision 702- Shrub and Ground Cover Planting
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SPECIAL PROVISION 702 –SHRUB, AND GROUND COVER PLANTING

702.1 General Description

This Work includes furnishing limited planting shrubs and ground cover, as well as treating regenerated areas according to the Specifications, Plans, and the Engineer.

702.1.01 Definitions

General Provisions 101 through 150

702.1.02 Related References

A. Standard Specifications

Section 108—Prosecution and Progress

Special Provisions 700—Grassing

Section 882—Lime

Section 891—Fertilizers

Section 893—Miscellaneous Planting Materials

B. Referenced Documents

Standardized Plant Names

702.1.03 Submittals

A. Certificates of Inspection

Submit certificates of inspection with the invoice for each shipment of plants as required by law for transportation. File certificates with the Engineer before the material is accepted. Plants may be rejected at the site regardless of Federal or State government inspections at the place of growth.

B. Substitutions

When both primary and alternate plants are specified, use the alternate only after providing written proof that the primary plants specified are not available. In this case a Supplemental Agreement is not required to use the alternate plants. When a primary or an alternate plant cannot be furnished, provide the Engineer written proof that neither is available. A Supplemental Agreement is required for substitute plants in this case.

702.2 Materials

Ensure that materials meet the requirements of the following Specifications:

Material	Section
Water	700.2.B
Agricultural Lime	882.2.01
Fertilizers	891.2.01
Plant Topsoil	893.2.01
Landscape Mulch	893.2.02
Vines, Shrubs, Trees, and Miscellaneous Plants	893.2.03

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Tree Paint	893.2.06
Prepared Plant Topsoil	893.2.07
Stakes	893.2.08
Organic Soil Additives	893.2.09

A. Plant Specifications

Furnish plants according to the plant name and Specifications included on the Plans titled, "Plant Specifications."

1. Plant Names: Ensure that the botanical and common names of plants specified conform with the most current edition of Standardized Plant Names, as adopted by the American Joint Committee on Horticultural Nomenclature.

2. Grades: Ensure that plants meet the grade requirements of the most current American Standard for Nursery Stock of the American Association of Nurserymen and any other requirements. Caliper used for establishing plant grades or trunk sizes is measured according to the American Standard for Nursery Stock. Plant trees with straight stems and symmetrical branches according to their natural growth. Trees with broken or damaged terminal or main stems will be rejected.

3. The Contractor Shall Furnish: The Contractor shall furnish field-grown trees complying with ANSI Z60.1, with healthy root systems developed by root pruning and transplanting. Provide well-shaped, fully branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement. Provide written verification and photos of ten representative trees from the supplying nursery for review with the submittal. Provide a photograph of a sample tree root system with the submittal.

4. Substitutions: Use approved substitute plants, as designated by the Engineer, equal in value to specified plants. Request substitutions at least 30 days before the end of the planting season in the area.

B. Nursery Plants

Unless otherwise specified, use plants stock-grown in a licensed nursery under intensive care and cultivation for at least one year. The plants shall be normally developed and free of disease, injurious insects, disfiguring knots, sun-scald, injuries, bark abrasions, dead or dry wood, broken terminal growth, or other disfigurements. Ensure that proper certificates of inspection and a complete list of the nursery growers accompany nursery grown plants. See Subsection 893.2.03.

C. Collected Plants

Do not take collected plants from areas infested with insects under quarantine. See Subsection 893.2.03.

D. Approval and Selection of Materials and Work

Select materials and execute operations required under the Specifications and drawings with the approval of the Engineer. Remove rejected materials from the site promptly.

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702.2.01 Delivery, Storage, and Handling

A. Protection after Delivery:

Cover the balls of "B & B" plants, which cannot be planted immediately on delivery with moist soil, mulch, or other protection from drying winds and sun. Plant bare-rooted plants or heeled-in immediately upon delivery. Water plants as necessary until planted.

Deliver exterior plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set exterior plants trees in shade, protect from weather and mechanical damage, and keep roots moist.

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of exterior plants stored on-site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.
4. Use extreme caution when handling trees. Use a strap cradle (adequate for weight and size of tree) attached to root ball to unload & move trees. Strapping and wire basket can break or loosen. Never move, lift, or handle by attaching to or by putting pressure on the trunk.
5. Prep for Staging: Staging systems should be prepared in advance to adequately hold trees above ground for optimum tree health prior to planting. Many times, even with the best planning & coordination, trees cannot be planted when they are delivered.
6. Moisture: Monitor moisture in the root ball by probing with a soil probe & manage supplemental irrigation accordingly. Be careful not to over or under irrigate.
7. Cold: During cold weather periods, root balls must be protected from freezing temperatures.

Do not prune shrubs before delivery, except as approved by Architect. Do not bend shrubs in such a manner as to destroy their natural shape. Provide protective covering of exterior plants during delivery. Do not drop exterior plants during delivery.

B. Time of Planting:

Conduct planting operations under favorable weather conditions during the next season or seasons, which are normal for such work as determined by accepted practice in the locality of the Project.

C. Bare-Rooted Plants

Tie bare-rooted plants in bundles and place moist sphagnum moss, shingle toe, or other moisture-retaining material around the roots to keep the plants moist for up to 10 days. Over-wrap the bundle with a heavy weight, waterproof, flexible material, covering the roots and one-half of the tops. Keep the plants wrapped until they are planted or heeled-in.

Wrapped plants may be held in the package for up to 10 days from shipment if protected from the sun and wind. If unable to plant plants within 10 days from shipment, unwrap, spread the roots, heel-in using moist soil, and water well.

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Protect roots of plants that have been heeled-in from drying out. Cover soil and roots with wet canvas, burlap, or straw while transporting and distributing them for planting. The type of protection depends on weather conditions and the length of time the plants remain unplanted. Use protection methods satisfactory to the Engineer.

D. Balled and Burlapped Plants (B&B)

Ensure that the soil in the ball is the original and undisturbed soil in which the plant has grown.

1. Dig, burlap, transport, and handle the plant carefully to avoid loosening the soil (stripping or exposing the roots). Burlap shall be a natural biodegradable material. Do not use synthetic burlap.
2. Replace plants rejected because of broken or loose balls, or balls of less diameter than that specified.
3. Adequately protect the roots of balled and burlapped plants, unless they are planted immediately after they are delivered. Completely cover them with damp soil, sawdust, or other moist material until removing them for planting.
4. Keep plants moist while awaiting planting.
 - a. Do not saturate the ball, causing it to pull off in handling.
 - b. Handle B&B plants by the ball and not by the top growth.
 - c. Never leave the balls of plants unprotected overnight.

E. Container-Grown Plants

Keep container-grown plants moist until planted. Handle them by the container or soil ball and not by the top growth.

F. Collected Plants

Do not collect plants more than 24 hours before planting.

1. Select plants with good shape and form. Do not select poorly shaped, weak plants taken from dense shade and crowded conditions.
2. Dig collected plants with a wide root system equal to at least the spread of the top of the plant.
3. Protect the roots with a moist packing material.
4. Load them onto a covered truck, protected from the sun and wind and transfer them directly to the final planting site.
5. Prune collected plants by removing from one-third to one-half of the side branches as directed by the Engineer.

G. Heeled-in Plants

Properly maintain heeled-in plants until they are planted. Do not allow plants to remain heeled-in over the summer or for over 30 days without the Engineer's consent.

H. Injury Prevention

In digging, loading, unloading, planting, or otherwise handling plants, avoid injuring the trunk, branches, and roots of the plants. Injured plants will be rejected. Protect tops of shrubs and trees while in transit to prevent windburn.

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702.3 Construction Requirements

702.3.01 Personnel

General Provisions 101 through 150

702.3.02 Equipment

General Provisions 101 through 150

702.3.03 Preparation

A. Inspect Plants before Digging

The City will inspect trees or plants from the bidder's source for acceptability. When rejecting the trees or plants, the Engineer reserves the right to pursue and examine other sources of plants to find acceptable specimens. This change will not constitute an increase in cost to the State.

B. Clear and Grub

Clear and grub before planting or beginning to prepare the plant bed. See Section 201

C. Prepare Plant Bed

Prepare for planting as follows:

1. Planting Limits;

Stake planting limits according to Plan details and the Engineer. Have the Engineer approve the method of plant identification before planting.

2. Applications of Soil Additives

a. Apply fertilizer approximately 3 lbs/100 ft² (1.5 kg/10 m²) of bed surface. Fertilizer for plant bed may be 6-12-12 if 4-12-12 is not available.

b. Apply agricultural lime for plant bed approximately 5 lbs/100 ft² (2.5 kg/10 m²) of bed surface.

c. Spread an organic soil additive, (See Subsection 893.2.09), evenly throughout the designated area to at least 2 in (50 mm) deep. Thoroughly dig it into the soil to at least 6 in (150 mm) deep using a rotary hoe type tiller or other equipment that evenly mixes the soil, lime, fertilizer, and organic soil additive.

d. Till the area until the surface is smooth and free of weeds, roots, rocks, and other debris, to the satisfaction of the City Engineer.

702.3.04 Fabrication

General Provisions 101 through 150

702.3.05 Construction

A. Seasonal Limitations for Planting

For geographic seasonal limitations, refer to the Planting Zones Map found in Subsection 700.3.05. Plant in Zones 1 and 2 between October 15 and March 15.

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B. Planting Operations

Plant using either the pit method or the dibble method as called for on the Plant Specification sheet. Before beginning planting of each area, have available the necessary materials including prepared plant topsoil (see Subsection 893.2.07), water, stakes, and mulch.

When seasonal limitations and weather conditions permit, continuously water, mulch, guy, and stake, until completing the last operation. After completing planting, provide a method for retaining water adjacent to the plant according to the details shown on the Plans or as directed by the Engineer.

1. Planting by the Pit Method

a. Placing Bare-Rooted Plants

Plant bare-rooted plants delivered to the pit area. Protect roots from drying out until placing them in the pit.

- Center plants in pits and spread roots as they originally grew.
- Cover and prepare the topsoil according to details shown on the Plans.

b. Placing Balled and Burlapped Plants

Immediately plant these plants after they are delivered to the pit site. Never allow the balls to remain unprotected overnight.

- The pit diameter shall be a minimum of 3 times the diameter of the root ball. Center the ball in the prepared pit, leaving the top of the ball 1 in (25 mm) above the top of the ground for settlement.
- Cut away and remove the top 1/3 of burlap from the root ball. Cut all ropes and twine, pull the nails, and drop the remaining burlap to the bottom of the hole. Cut away and remove any wire from the top 1/3 of the root ball.
- Partially fill the pit with prepared plant topsoil and compact the soil enough to hold the ball firmly.
 - i. Preparation: Before planting, remove any plastic wrap & any circling roots from the root ball. Handle tree only by root ball & be certain your equipment, including strap & chain cradles, are rated for the weight you are lifting.
 - ii. Hole Width: Excavate planting hole at least two times the diameter of root ball. Root ball must be set on compacted foundation that cannot settle when saturated.
 - iii. Hole Depth: Excavate hole no deeper than 2" shallower than the root ball depth.
 - iv. Equipment: Whenever possible a telehandler with side-tilt carriage forks (brands such as LULL or JLG) machine rated to handle weights of root balls and trees should be used to set root balls in planting pits. Forks should always be carefully positioned above root ball to lift root ball by strapping on

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- top of the root ball with four pick-up points for even weight distribution. Prior to setting root ball in planting pit, forks should be adjusted so that tree is plumb. Place root ball at a level where the trunk flare will be 2" above surrounding finished grade after settling.
- v. Straight and Plumb: Maintain the tree with forks in a straight & plumb position while backfilling and watering.
 - vi. Backfill/Water: Backfill and tamp in 6" lifts until ½ complete. Saturate the planting hole with water.
 - vii. Backfill/Water: After ½ backfill, watering, & the tree is plumb, then add backfill to just below the top horizontal ring of the wire basket, completely saturate planting hole. Adjust root ball (if necessary) by adjusting forks to make tree straight & plumb and at proper depth. Do not remove forks until tree is straight and plumb, backfill is settled, and root ball is stable.
 - viii. Remove Forks: After above items have been completed and tree is straight and plumb with root ball stable and at proper depth, gently remove forks and also remove:
 - A. The synthetic strap,
 - B. Any cardboard packaging,
 - C. The top portion of the wire basket down to & including the first horizontal ring,
 - D. The burlap from the top portion of the root ball.
 - ix. Backfill/Water: Complete the backfill & thoroughly saturate with water, repeat this step if necessary to make absolutely certain that air pockets do not exist in the backfill.
 - x. When Soil on Top of Root Ball is Distorted or Not Perpendicular to Tree Trunk: Even root balls with excellent root systems grown and harvested at proper depth can sometimes become distorted during shipping and handling. Actions to take if soil on top of root ball has become distorted:
 - A. If soil is bulging or distorted on the top surface of the root ball:
 - i. Very gently tamp the area of bulging or distorted soil as much as possible so that soil is perpendicular to trunk.
 - ii. If soil is still bulging or distorted, very gently (with a sharp shovel or spade) cut and remove remaining bulge.
 - B. Root ball distortion can be minimized by:
 - i. Providing as much advance notice as possible so that select trees will be able to best manage soil moisture during harvest, loading, and shipping.
 - ii. Coordinating scheduling so that trees will not be shipped during significant rain.
 - iii. Following the previous handling planting and care instructions.When a tree is handled, moved, adjusted, straightened, etc. more than the minimum steps covered in these instructions, the possibility of root ball distortion and other damage increases. Root balls that are moved when extremely wet are the most likely to become distorted or damaged.
 - xi. Staking: NA

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- xii. Mulch: Mulch the area over the root ball to a depth no deeper than 1 ½" to 2". Keep all mulch away from the trunk flare.

- xiii. Straightening: If for any reason trees need straightening, shrubs can be straightened by carefully digging out all backfill around the root ball, attaching seat belt strap to the wire basket and lifting. Never pull, push, or put pressure on the trunk (refer to actions B.3 – B.12 for information to complete this process). If tree roots are significantly established in the backfill, it is best for the health of the trees to wait until dormancy to straighten trees, since roots outside the original root ball will be cut.

c. Placing Container-Grown Plants

When the container is delivered to the pit site, split the container from top to bottom and carefully remove the plant.

The pit diameter shall be a minimum of 3 times the diameter of the root ball. Spread into the hole any major roots growing around the container or prune them to remove any circular growth.

Place the ball in the center of the prepared pit, leaving the top of the ball 1 in (25 mm) above the top of the ground for settlement.

Partially fill the pit with prepared plant topsoil and compact the soil enough to hold the ball firmly.

d. Completing Pit Plantings

After placing pit plantings, water plants thoroughly the same day regardless of weather or soil moisture conditions.

- After the water has soaked in, add prepared plant topsoil and compact firmly up to 2 in (50mm) below the adjacent ground.
- Stop compacting when the compacted prepared topsoil is 2 in (50 mm) below the adjacent ground.
- Fill the remainder of each pit with loose, prepared plant topsoil according to the details shown on the Plans.
- Prepare the loose topsoil to retain water adjacent to the plant according to the Plans or as directed by the City Engineer/Project Manager.

2. Planting By the Dibble Method

If the Plans require the dibble method, perform the Work as outlined. Standard dibble blades are made in 10 in (250 mm) and 12 in (300 mm) heights. Use the 12 in (300 mm) blade on all plants except those with a root system of 8 in (200 mm) or less.

Locate plants as shown on the Plans or as approved by the Engineer. Only plant when there is adequate moisture in the ground and when the ground is not frozen.

Follow these steps when grass or other vegetation is present:

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- a. Apply landscape mulch of the specified type and amount to the mowed area before planting.
- b. Complete each planting according to the Plan details to retain water adjacent to the plant.

C. Landscape Mulching

1. For Pit Plantings

Follow these requirements when mulching for plantings:

- a. Apply mulch within 2 days of planting at least 4 in (100 mm) in depth to obtain a compacted depth of at least 3 in (75 mm).
- b. Compaction occurs naturally. Check compaction at least two months after spreading and exposing the mulch to the elements. If the compacted depth is less than 3 in (75 mm), apply additional mulch to deficient areas within 1 month following notification.
- c. Apply mulch to a uniform depth and remove lumps for a neat appearance. Tuck mulch neatly against all paving edges, drainage structures, and where planting beds meet grassed areas.
- d. Leave a 1 in (25 mm) to 2 in (50 mm) ring of non-mulched area directly around all tree trunks.
- e. Use mulch specified.

2. For Plantings by the Dibble Method

Apply landscape mulch according to Subsection 702.3.05.C.1 with the following exceptions:

- a. Apply mulch before planting.
- b. Ensure that the minimum compacted height after 2 months exposure is 2 in (50 mm).

D. Watering

1. Apply water in a manner to prevent erosion. Water plants at the time of planting. Water after applying fertilizer called for in Subsection 702.3.05.H and to maintain enough moisture to promote plant growth.

- a. Apply enough water to wet the soil to a depth slightly below the roots. Direct the water to the ground around the plant, not the tops.
- b. Do not allow plant foliage to dry out or plants to defoliate from lack of water. Remove plants in such condition from the site immediately.

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- c. Apply water as needed (minimum of once per week) throughout the planting season in which the plants are installed and until Final acceptance of the project. Follow Subsection 702.3.07.B and 702.3.07.C for shrub and tree watering requirements throughout the life of the project.
- i. Do not allow plant foliage to dry out or plants to defoliate from lack of water. Remove plants in such condition from the site immediately.
- ii. If required Irrigation water shall be transported via watering truck and administered by hand watering.
- iii. The Contractor is responsible for monitoring all plant material vitality, soil moisture level, and climatic conditions as they pertain to watering. Maintain accurate rainfall measurements for Project until Final Inspection. The Contractor shall install and maintain a minimum of three (3) rain gauges spaced evenly along Project corridor.
- iv. The Contractor shall determine optimal watering quantity based on the following variables: weather conditions, seasons, and microclimate factors (sun vs. shade, soil condition, & slope conditions)

H. Spring Application of Fertilizer

1. Method and Rate of Application

Follow these requirements when applying fertilizer in the spring:

a. Shrubs

Fertilize shrubs with a 6-12-12 slow release 60 percent organic fertilizer by spreading fertilizer around the base of the plant and working it into the soil by hand. Use 0.5 cup (0.12 L) of fertilizer per foot (300 mm) of shrub height.

c. Bed Areas

Spread fertilizer on bed areas (defined by method of planting in Subsection 702.3.05.B), over the mulch at the rate of 3 lbs/100 ft² (1.5 kg/10 m²) using 6-12-12 or 8-12-12. Thoroughly water in the plants.

d. Apply fertilizer in the spring in Zones 1 and 2 (with reference to the Planting Zones specified in Subsection 702.3.05.A) between April 1 and April 15. Apply between March 15 and April 1 for Zones 3 and 4. For late plantings, do not apply fertilizer less than 30 days after the plantings.

3. Additional Fertilizer Grades 8-12-12 or 6-12-12

Approximately one month after the spring fertilizer is applied, the City Engineer/Project Manager will inspect planted areas and determine if an additional application of fertilizer is needed for any plant or group of plants.

If the City Engineer/Project Manager determines additional fertilizer is required, apply fertilizer at the rate specified in Subsection 702.3.05.H. Make the additional application between June 15 and July 15th.

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I. Treatment of Regenerated Areas

Treating regenerated areas includes staking the perimeter and applying fertilizer in the spring. Pruning, mulching, staking (except perimeter staking), guying, mowing, weeding, and watering (except watering following fertilization) are not required.

Perform perimeter staking as specified in Subsection 702.3.03.C.1. Apply fertilizer in the spring as specified in Subsection 702.3.03.C.2.

J. Restoration and Cleanup

Restore areas where existing grass has been damaged or scarred during planting operations at no expense to the Department. Restore the disturbed areas to their original conditions as directed by the City Engineer/Project Manager. Clean up debris, spoil piles, and containers and leave the Project area clean.

702.3.06 Quality Acceptance

Preserve the plants in a healthy growing condition. The acceptability of the plant material planted and maintained as specified will be determined at the end of establishment period. For the purpose of this project the end of the establishment period will be at the final acceptance of the project.

The contractor is hereby made aware that the owner (City of Sandy Springs) requires that the landscape maintenance at this site shall be of the very highest quality possible. All work to be performed such as pruning, mowing, fertilizing, watering, weeding, edging, spraying, policing, plant installation, aerating, and mulching shall be strictly managed and executed and performed by qualified landscape installer whose work has resulted in successful establishment of exterior plantings.

D. Two Year Warranty

1. **The Contractor warrants and will replace, at no additional cost to the owner, 100% of the plants which, in the opinion of the City Engineer, fails to maintain a healthy, vigorous condition for up to a two period after final acceptance of the project.** Replacement plant material shall meet all specifications as listed in the drawings and on the plant list in regard to species, variety, color, and quality. Size of replacement plant material shall equal that of the plant which is being replaced and/or the size of existing adjacent like specimens.
2. Inspections: The owner, or City Engineer, will make periodic reviews of the entire site as related to visual aspects and the contractor's performance. The contractor will, on the sole judgment of the designated representative, make repairs and adjustments as directed during the site visit.

1.01 WARRANTY

- A. The Contractor shall completely replace at no additional cost to the Owner 100% of the plants which, in the opinion of the City that fails to maintain a healthy, vigorous condition (excluding theft or vandalism). All replacement plant material shall meet all specification as listed in Landscape Special Provisions and or Construction Documents and Plant List in regard to species, variety, color and quality. Size of replacement plant material shall equal that of the plant which is being replaced and/or the size of existing adjacent like specimens.
- B. In the event that the performance of the Contractor should fail to satisfy the standards set forth in the Two Warranty of Landscape Material as interpreted by the City, the City

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- C. Reserves the right to obtain others to perform such duties and deduct all costs from the Contractor's retainage.
- D. **Plant Establishment**
1. Preserve, protect, water, reseed or replant, and perform other work as necessary to keep the plant material in satisfactory condition.
 2. **Owner's Responsibility:** If an area of planting during the warranty and replacement period is found to be damaged or destroyed due to vandalism, malicious mischief, vehicle ruts and tracks, or acts of God such as flooding, storm debris, then the Owner shall have the responsibility of replacing those lawn areas without cost or responsibility to the Contractor.
 3. **Watering:** Water the areas during this period to promote maximum growth. The contractor is advised that manual irrigation is to be used as a supplement to rainfall. The contractor is responsible for carefully observing the water requirements for all landscape areas and maintaining healthy, vigorous plant material by manually watering.
 4. Apply water in a manner to prevent erosion. Water all plants at the time of planting. Water after applying and as necessary to maintain enough moisture to promote plant growth.
 5. Apply enough water to wet the soil to a depth slightly below the roots.
 6. **Foreign Matter:** Remove all extraneous leaves, weeds, trash, limbs, and debris from plant beds as necessary to constantly maintain a completely clean appearance. This shall occur at each maintenance visit.
 7. **Soil Samples:** Obtain soil samples from all areas of the site for analysis. Follow by fertilizing and liming recommendations from testing laboratory.
- E. **Additional Fertilizer Mixed Grade**
- Apply fertilizer at the rate required by the plant type.
- F. **Growth**
- Provide satisfactory growth, dead or bare spots in plants shall not comprise no more than 10 percent of total the plant area.

700.7 Payment

As planting progress, the Contractor will receive payment provided the work complies with the Specifications. Should the work comply with the specifications, the cost associated with the plant material will be paid 100% at Final Acceptance.

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A. Plants

Plants will be paid by the per unit price provided in the Contractors Unit Price Schedule. Payment includes full compensation for ground preparation, fertilization, watering and the addition of topsoil, furnishing and installing for Plant Establishment.

END OF SECTION

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SPECIAL PROVISION 766 – IRRIGATION SYSTEM SPECIFICATIONS

PART 1- GENERAL

1.1 SYSTEM DESCRIPTION

- A. The Contractor shall be required to make adjustments to the existing Abernathy Linear Greenway Park irrigation system. The adjustment to the existing irrigation system shall be limited to the project limits of the proposed Abernathy Road (north side) - Roswell Road to Brandon Mill Road, Lighting and Sidewalk improvement project. The adjustments to the existing irrigation system are a result of the installation of the proposed 24 light pole foundations. This work may include the adjustments to sprinklers heads, piping and fittings, and wiring. When making the necessary adjustments to the existing irrigation system, the contractor shall follow the Irrigation system specifications that are provided.
- B. Prior to construction of the project, the contractor shall coordinate with the City Parks and Recreation Department and or the City Engineer to turn on and off the impacted irrigation zones. The automatic irrigation controller is located within the Abernathy Greenway restroom maintenance room located central to the Greenway. The contractor shall notify the City Engineer/Project Manager in advance when the irrigation zones and or portions of the system may need to be shut down.
- C. The contractor shall be responsible to make the irrigation system fully operational at the end of each business day. If for some reason the irrigation system cannot be repaired at the close of a business day, the contractor shall notify the City Engineer/Project Manager of the duration that the irrigation system or zones that will be impacted and how long the system will need to be shut down.
- D. The Contractor will be held responsible for any and all plant material that maybe damaged and or may die as a result of the lack of irrigation. This includes the full replacement and installation of all trees, shrubs, ground cover. It will be critically important that the system be repaired in a timely manner.

1.2 QUALITY ASSURANCE

- A. Contractor to provide the following information with his bid.
 - 1. Contractor to provide the name of the subcontractor that will complete the irrigation system adjustments.
 - 2. Contractor to provide general background information on the irrigation company, including the owner's name, number of employees and years that they have been in business.
 - 3. The contractor is also required to provide with their bid the quantity and unit cost of the irrigation material that will be used to install the irrigation system.
- B. Conference: Before any work is started a conference shall be held between the Contractor and the Owner concerning the work under this contract.

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- C. The Contractor shall maintain continuously a competent superintendent, satisfactory to the Owner, on the work during progress with authority to act or him in all matter pertaining to the work.
- D. It is the Irrigation Contractor's responsibility to coordinate and cooperate with the other Contractors to enable work to proceed rapidly and efficiently.
- E. The Contractor shall confine his operations to the area to be improved and to the areas allotted him by the City Engineer/Project Manager and the General Contractor for material and equipment.
- F. Contractor shall take all necessary to protect the existing site conditions and vegetation.

1.3 SUBMITTALS

- A. General: Submit in accordance with Shop Drawings, Product Data, and Samples.
- B. Shop Drawings and Equipment Product Information:
 - 1. Prior to purchasing materials, submit product information on all sprinkler heads, automatic valves, quick coupling valves, controller, and pipe to be used on the project.
 - 2. Contractor shall review drawings and data to supply actual precipitation rates and times for each zone in maintenance package.

1.4 SITE CONDITIONS

- A. The Contractor shall examine the site, and specifications (i.e. system requirements). Adjustment of the sprinkler heads and automatic equipment will be done by the Contractor, upon completion of installation, to provide optimum performance.
- B. After completion, testing, and acceptance of the system, the Contractor shall verbally instruct the Owner's personnel in the operation and maintenance of the system.

PART 2 – REQUIRED PRODUCTS

2.1 PIPE AND FITTINGS

- A. Pipe sizes shall conform to those in need or adjustment and or repair. No substitutions of smaller pipe sizes will be permitted, but substitutions of larger size may be approved. All pipe damaged or rejected because of defects shall be removed from the site at the time of said rejection.
- B. All mainline piping (21/2") two and one half inches and larger will be equipped with gaskets.

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- C. All fittings for mainline pipes two and one half (2 1/2") inches or larger will be equipped with gaskets.
- D. All piping downstream of electric valves, sizes (3) inches and smaller, shall be rigid unplasticized PVC 200 PSI working pressure extruded from virgin parent material of the type specified on the drawings. The pipe shall be homogeneous throughout and free from visible cracks, holes, foreign materials, blisters, wrinkles and permanently marked with the manufacture's name, material, size, and schedule type. Pipe must bear the NFS seal.
- E. All mainline piping and underground piping under continuous pressure shall be rigid unplasticized PVC-Class 200 PSI working pressure extruded from virgin parent material of the type specified on the drawings. The pipe shall be homogeneous throughout and free from visible cracks, holes, and foreign materials, blisters, wrinkles and dents.
- F. All plastic fittings to be installed shall be molded fittings manufactured of the same material as the pipe and shall be suitable for solvent weld, slip joint ring tight seal, or screwed connections NO fitting made of other material shall be used except as hereinafter specified.
- G. Slip fitting socket tapers shall be so sized that a dry unsoftened pipe end conforming to these special provisions can be inserted no more than halfway into the socket. Plastic saddle and flange fittings will not be permitted. Only Schedule 80 pipe may be threaded.
- H. Fittings for all Mainline Piping 4" and larger shall be Harco Ductile Iron Gasketed Fittings. All mainline 4" and larger shall utilize approved thrust blocking and or restraints. Thrust Blocking and restraints to be installed as per manufacturer's recommendations for pipe type, pipe size and local environmental conditions.
- I. All Solvent Weld pipe to be joined utilizing primer and glue that meets both ASTM and Manufacturer specifications.

2.2 SLEEVES

- A. All sleeves shall be Class 200 PVC or stronger. All sleeves are required at every crossing indicated on drawings. (Size Noted)
- B. All sleeves shall be installed under proposed pavement areas prior to subgrade and base construction.
- C. Sleeves shall have a minimum horizontal separation of 18" and a maximum of twenty-four (24) inch clearance below bottom of walks.
- D. All sleeves shall have a minimum horizontal separation of twenty-four (24) and maximum of thirty-six inches from center to center.
- E. Stub up sleeve pipe twelve (12) inches above ground surface and cap. Paint cap with fluorescent orange paint for easy identification.

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- F. The location of all sleeves shown on the plans is schematic. The contractor shall make any adjustments necessary to accommodate existing vegetation, utilities, or other existing conditions.
- G. If the road crossings are designated as being bore locations the bore must be ample size to accommodate the size sleeve specified.

2.3 CONTROL SYSTEM

- A. Is located within the maintenance room of the Abernathy Greenway Restroom Facility.

2.4 CONTROL WIRE

- A. All wiring must be sized and installed as per controller manufacturer specifications.
- B. Wire to be Direct Burial Wire, color coded in different directions from the controller
- C. All splices and connections should be made with DBR-6 or equivalent, unless otherwise specified by controller manufacturer.
- D. All Wire splices must occur in valve boxes.

2.5 IRRIGATION VALVES: NA

2.6 VALVE BOXES

- A. All valves shall be installed in thermoplastic valve access boxes of the size required to permit access to the valve. Valve boxes shall include black thermoplastic locking covers. Manufacturer - Ametek or approved equal.
- B. All valve boxes shall be installed on at least a two (2) cubic foot gravel base to provide foundation and drainage.
- C. All valve box elevations shall be ½" below finished grade.

2.7 THRUST BLOCKS

- A. Place one cubic ft. of concrete for each inch of pipe diameter for thrust block. Thrust shall not allow vertical or horizontal movement of pipe in any direction unless otherwise noted on design. Thrust blocking shall be provided on all piping three (3) inch diameter and larger.

PART 3 - EXECUTION

3.1 EXCAVATION AND BACKFILL

- A. Trenches for pipe sprinkler lines shall be excavated of sufficient depth and width to permit proper handling and installation by any other method the Contractor may desire if

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approved by the Owner, pipe manufacturer, and Designer. The backfill shall be thoroughly compacted and evened off with the adjacent soil level. Selected fill dirt or sand shall be used if soil conditions are rocky. In rocky areas the trenching depth shall be two (2) inches below normal trenching depth to allow for this bedding. The fill dirt or sand shall be used in filling (4) inches above the pipe. The remainder of the backfill shall contain no lumps or rocks larger than three (3) inches. The top twelve (12) inches of backfill shall be topsoil, free of rocks, subsoil, or trash. Any open trenches or partially backfilled trenches left overnight or left unsupervised shall be barricaded to prevent undue hazard to the public.

- B. The Contractor shall backfill in six (6) inch compacted lifts as needed to bring the soil to its original density.
- C. In the spring following the year of installation, the Contractor shall repair any settlement of the trenches by bringing them to grade with topsoil, and seeding with the existing lawn type(s). Watering and maintenance of the repaired areas shall be the Owner's responsibility.

3.2 INSTALLATION OF PLASTIC PIPE

- A. Plastic pipe shall be installed in a manner that permits expansion and contraction as recommended by the manufacturer.
- B. Plastic pipe shall be cut with a handsaw or hacksaw with the assistance of a square in sawing vice or in a manner so as to ensure a square cut. Burrs at cut ends shall be removed prior to installation so that a smooth unobstructed flow will be obtained.
- C. All plastic-to-plastic joints shall be solvent weld joints or slip seal joints. Only the solvent recommended for the pipe and fittings shall be installed as outlined and instructed by the pipe manufacturer. The Contractor shall assume full responsibility for the correct installation.
- D. The joints shall be allowed to set at least twenty-four (24) hours before pressure is applied to the system on PVC pipe.

3.3 CONTROLLER AND ELECTRICAL CONNECTIONS

- A. All electrical connections shall conform to the National Electrical Code, latest edition.
- B. Control wires installed beneath walks, drives, or other permanent surfaces shall be placed in sleeves.
- C. Wires shall be spliced only at valve boxes.
- D. Leave thirty (36) inch loop of wire at each valve for expansion/contraction and servicing.
- E. Controllers and valves shall be from the same company e.g. (Rain Bird, Toro or approved equal).
- F. 120 VAC electrical power supply to the controller location shall be supplied by others.

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3.4 FLUSHING AND TESTING

- A. After all new sprinkler piping and risers are in place and connected for a given section and all necessary division work has been completed and prior to the installation of sprinkler heads all control valves shall be opened and a full head of water used to flush out the system.
- B. Sprinkler main shall be tested under normal water pressure for a period of twelve (12) hours. If leaks occur, repair and repeat the test. Give Designer twenty-four hours notice prior to testing.
- C. Testing of the system shall be performed after completion of the entire installation and any necessary repairs shall be made at the Contractor's expense to put the system in good working order before final payment by the Owner.
- D. Adjustment of the sprinkler heads, and automatic equipment, will be done by the Contractor upon completion of installation to provide optimum performance. Minor adjustments during the guarantee period will be made by the Owner.
- E. After completion, testing, and acceptance of the system, the Contractor will instruct the Owner's personnel in the operation and maintenance of the system.

3.5 CLEAN UP AND PROTECTION

- A. During irrigation work, Contractor shall keep project site clean and orderly
- B. Upon Completion of Work, clear grounds of debris, superfluous materials and all equipment.
Remove from site to satisfaction of the Owner's Representative.

3.6 WINTERIZING THE SYSTEM: NA

3.7 INSPECTION

- A. Periodic Inspections will be made by City Engineer/Project Manager and or Owner's Representative to review the quality and progress of the work. Work found to be unacceptable must be corrected within a timely mater (to be determined by City Engineer/Project Manager and or Owner's Representative). Remove rejected materials promptly from the project site.
- B. It will be the responsibility of the Irrigation Contractor to provide a reliable communication system (i.e. two way radios or remote radio control activation system) for Substantial Completion and all periodic inspections.

PART 4.0 – CODES, PERMITS, WARRANTY, AND GUARANTEE

4.1 CODES AND ORDINANCES

- A. All materials, installation parameters, and operations shall conform to all applicable codes and ordinances. It is the Contractor's responsibility to investigate and follow all regulations. Contractor is responsible to verify applicable codes and ordinances prior to

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submitting bid. Before bid submittal, it is the Contractor's responsibility to notify the City Engineer/Project Manager at least 5 days before bid submittal, of any changes due to code or ordinance discrepancies. If the Contractor does not comply with this process and notification, the Contractor shall be responsible for the necessary installation change and redesign costs for non-compliance.

4.2 PERMITS AND FEES

- A. The Contractor shall obtain, at his expense, all required permits and shall pay all required fees. Any penalties imposed due to failure to obtain any permit or pay any fee shall be the responsibility of the Contractor.

4.3 WARRANTY AND GUARANTEE

- A. The Contractor shall furnish a certificate of warranty registration and a written guarantee of work and materials for a one year period from the date of final acceptance of the Irrigation System by the Owner.
- B. The warranty will include any defects in material, equipment, and workmanship and the contractor will repair the system as directed by the Owner and or City Engineer/Project Manager representative. The Warranty/Guarantee shall also cover repair of damage to any part of the Park or adjoining property; resulting of leaks or other defects in material, equipment, and workmanship to the satisfaction of the Owner. Repairs, if required, shall be done promptly at no cost to the Owner.

END OF SECTION

**Special Provision 900 Paver Specification
for
Abernathy Road (north side) from Roswell Road to Brandon Mill Road,
Lighting and Sidewalk Improvement Project TO#15049 and TO# 15051.
June 15, 2015**

SPECIAL PROVISION 900 – PAVER SPECIFICATION

900.0039.1 GENERAL

900.009.1.01 WORK INCLUDED

- A. The Paver Type and Extent of paver installation is indicated on the drawings.

900.0039.1.02 SUBMITTALS

- A. Product Data: Paver is to match city standard. The Contractor shall refer to the City of Sandy Springs Streetscape Manual and Urban Design Standards for general paving specifications including the brick paver type, color and size, the Portland cement, mortar setting bed and grout color and materials. Contractor shall submit manufacturer's technical data/cut sheets to confirm that the appropriate materials are being used and that the contractor will comply with city standards and paver installation instructions.
- B. Samples: Submit samples of each type of unit paver, for approval by the Owner and Landscape Architect. Also submit samples of setting bed course materials and joint mortar. Include enough samples to show the full range of exposed color and texture to be expected in the completed work.
- C. Attic Stock: Provide a 2% quantity of each paver type as the Owner's attic stock. Store in designated area(s) on oak pallets, protected with 1/4" plywood and banded with metal straps. Provide list with quantities of each type of paver stored.
- D. Warranty: Submit manufacturer's warranty cosigned by Contractor which includes all labor and materials to replace all cracked or chipped pavers and reset any pavers settled or heaved out of plane within two years of substantial completion.

900.0039.1.03 PROJECT CONDITIONS

- A. Cold Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.
- B. Weather Limitations: Protect unit paver work against freezing when atmospheric temperature is 40 ° F. and falling. Heat materials and provide temporary protection of completed portions of unit paver work. Comply with International Masonry All-Weather Council's "Guide Specification for Cold-Weather Masonry Construction."
- C. Hot Weather Requirements: Protect unit paver work in hot weather to prevent excessive evaporation of mortar, if applicable. Provide artificial shade, wind breaks and use cooled materials, as required above.

900.0039.1.04 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has successfully completed at least three years of unit paver installations similar in material, design and extent to that indicated for this project. At least one person with current Paver Installer Certification from the Interlocking Concrete Pavement Institute (ICPI) shall be present on site during paver installation and this person shall be responsible for supervising the installation of all concrete pavers.

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- B. City's representative will periodically inspect work

900.0039.1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect unit pavers and aggregate during storage and construction against wetting by rain, snow or groundwater and against spoilage of contamination from earth or other types of materials.

900.0039.2 PRODUCTS

900.0039.2.01 MATERIALS

- A. Pavers to be as indicated on drawings, complying with ASTM C 936-82, and made from normal weight aggregate, unless otherwise indicated.
- B. Sand: Clean builder's sand. This sand is commonly known as manufactured concrete sand. Mason sand is not acceptable.
- C. Water: Clean, potable, and free of materials detrimental to strength or bond or mortars.

900.0039.3 EXECUTION

900.0039.3.01 INSPECTION

- A. Installer to examine surfaces indicated to receive unit pavers, for compliance with requirements for installation tolerances subgrade slope-to-drain and other conditions affecting performance of unit pavers. Do not proceed with installation until unsatisfactory conditions have been corrected.

900.0039.3.02 PREPARATION

- A. Vacuum clean concrete or stone substrates to remove dirt, dust, debris, and loose particles.
- B. Remove substances from concrete or stone substrates that could impair bond of mortar (if applicable), including curing and sealing compounds, form oil, and laitance.
- C. Proof roll prepared subgrade surface to check for unstable areas and areas requiring additional compaction. Do not proceed with installation of unit pavers until deficient subgrades have been corrected and are ready to receive subbase for unit pavers.

900.0039.3.03 INSTALLATION – GENERAL

- A. Do not use unit pavers with chips, cracks, voids, discolorations, and other defects that might be visible or cause staining in finished work.
- B. Cut unit pavers with motor-driven, diamond blade wet masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
- C. Tolerances: Do not exceed 1/32" unit-to-unit offset from plumb (lippage) and a tolerance of 1/8" in 10' from level of slope as indicated for finished surface of paving.

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- D. Spread mortar setting bed evenly over concrete sub-base. Thickness of the finished setting bed shall be no more than 1." The bed thickness shall be adjusted so that when the pavers are placed, the top surface of the pavers will be at the required finished grade.
- E. Set pavers in the approved pattern with 3/16" - 1/4" joints maximum, being careful not to disturb the setting bed. Use string lines to keep straight paver corner lines. Fill gaps between units with pieces cut to fit from full-size unit pavers.
- F. Clean all stains and tire marks off pavers, remove any excess sand remaining after the sand in the paver joints have been watered in and set, and replace cracked or chipped pavers prior to final inspection.
- G. Provide final protection and maintain conditions in a manner acceptable to Installer, which ensures unit paver work being without staining, damage or deterioration.

END OF SECTION

**Special Provision 999-9000 Miscellaneous Construction Allowance
for
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**SPECIAL PROVISION 999-9000
Miscellaneous Construction Allowance**

Pay Item No. 999-9000 is intended for Miscellaneous Construction Allowance, which may or may not be required to construct the project. The Allowance shall be directed by the City Engineer/Project Manager. The Contractor shall not be reimbursed for Miscellaneous Items, unless he has **in writing specific authorization to proceed with the work from the City of Sandy Springs City Engineer/Project Manager.**

In the event that the scope of the project, and therefore this contract, needs to be adjusted, either by adding or deducting work, The Contractor agrees to furnish all services, labor, material, demolition (removal), overhead, profit, insurance, tools, equipment, transportation, supervision and other items necessary to complete the installation of the additional construction items for Unit Price that has been provided in the Bid Proposal Form.

If the City request additional work to be performed that is not listed as a Unit Price in the Bid Proposal Form, the Contractor agrees to make every effort to negotiate an acceptable price with the City. If the City of Sandy Springs is unable to negotiate an agreeable price with the Contractor, the City of Sandy Springs reserves the right to negotiate both price and warranties with specialty contractors for the completion of the work. The Contractor will then be required to include the work that is authorized, and utilizing the City authorized specialty subcontractor. The additional work will be billed under the Miscellaneous Construction items.

Section 999.2 Payment for Miscellaneous Construction Items:

Payment will be only for amounts authorized and approved by the City Engineer/ Project Manager.

Payment may or may not equal 100% of the Item No. 999-9000 Miscellaneous Construction Allowance included in the Bid Proposal Form. At the end of the project, should a balance remain as part of the Miscellaneous Construction Allowance, the remaining balance will be reduced from the total contract amount. The 999-9000 Miscellaneous Construction Allowance is to be used for unforeseen conditions.

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SPECIAL PROVISIONS 1450- QUALITY CONTROL

Supplemental to GDOT Standard Specification;

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to Work of this Section.

1.02 **SUMMARY (All testing is to meet the requirements outlined in the GDOT Sampling, Testing, and Inspection Guide.)**

- A. This Section includes Contractors responsibilities of quality control services and extent of quality control services to be performed.
- B. Definitions: Quality control services include inspections and tests, and actions related thereto including reports, but do not include contract enforcement activities performed directly by City Engineer/ Project Manager. Quality control services include those inspections and tests and related actions performed by qualified testing agencies and governing actions performed by qualified testing agencies and governing authorities, as well as directly by Contractor.
 - 1. Testing service is required to immediately notify City Engineer/ Project Manager of discrepancies observed in the Work performed and to be performed to the Contract Documents.
- C. Inspections, tests, and related actions specified in this Section and elsewhere in Contract Documents are not intended to limit Contractor's quality control procedures which facilitate compliance with requirements of Contract Documents.
- D. Requirements for quality control services by Contractor, as requested or to be requested by City Engineer/ Project Manager, Owner, governing authorities, or other authorized entities are not limited by provisions of this Section.
- E. Contractors shall review and become familiar with the requirements of Section 104 Summary of Work for testing of the Work.

1.03 RESPONSIBILITIES

- A. Contractor shall coordinate with a qualified testing agency performing inspections, tests, and quality control services.
 - 1. Construction Manager will schedule services of qualified testing agency to perform services so specified.
 - 2. Owner will only pay for quality control services that have been specified. All other cost for material testing is the Contractors responsibility.

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- B. Retest Responsibility: Where results of required inspection, test, or similar service are unsatisfactory (do not indicate compliance of related work with requirements of Contract Documents), retests are responsibility of Contractor. Retesting of work revised or replaced by Contractor is Contractor's responsibility, where required tests were performed on original work.
- C. Responsibility for Associated Services: Contractor is required to cooperate with qualified testing agencies performing required inspections, tests, and similar services. Provide auxiliary services as reasonably requested, including access to work, the taking of samples or assistance with the taking of samples, delivery of samples to test laboratories, and security and protection for samples and test equipment at project site. Responsibilities include the following:
 - 1. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
 - 2. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - 3. Fabricate and install test assemblies using installers who will perform the same tasks for project.
- D. Coordination: Contractor and qualified testing agency performing inspections, tests, and similar services for project are required to coordinate and sequence activities so as to accommodate required services with minimum delay of work and without the need for removal/replacement of work to accommodate inspections and tests. Scheduling of times for inspections, tests, taking of samples, and similar activities is Contractor's responsibility.
- E. Sampling and testing is required for the following Sections of Work and shall be performed by an independent testing material or geotechnical firm, paid for by the City. (From the testing allowance).
 - 1. Cast-In-Place Concrete: Inspection of reinforcing and steel placement.
 - 2. Cast-In-Place Concrete: Field quality control of concrete.
 - 3. Cast-In-Place Concrete: Tests for concrete materials and mix design tests.
 - 4. Masonry Mortar: Field quality control of mortar.
 - 5. Masonry Units: Field quality control of unit masonry and masonry assemblies, and reinforcing placement.
- F. Contractors shall submit to the City Engineer for review, the names and addresses of geotechnical firm for material and compaction testing to be used in making their required inspections, sampling, and testing as outlined herein or other tests that may be required by the Contract Documents and not covered herein. Geotechnical firms /laboratories must be GDOT pre-qualified and have sufficient experience in making the inspections, sampling, or testing they will be required to complete.
- G. Test results shall be submitted electronically to the City Engineer/ Project Manager for their review, approval and files.

PART 2 PRODUCTS

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Not Used

PART 3 EXECUTION

3.01 SOIL COMPACTION TESTING

- A. The Contractors shall cooperate and coordinate with the qualified soil testing and inspection service for quality control testing during earthwork operations as follows:
 - 1. Field density test reports.
 - 2. One optimum moisture-maximum density curve for each type of soil encountered.
 - 3. The Contractor shall arrange for Soils Engineer to be on the site for observation and testing during times when the concrete walk and the light pole foundations are being poured.
- B. Percentage of Maximum Density Requirements: Provide not less than following percentages of maximum density of soil material compacted at optimum moisture content, for the actual density of each layer of soil material in place.
 - 1. Lawn, Unpaved Areas, and Borrow Pit: Compact top 6 inches of subgrade and each 8 inch layer of backfill or fill material to 95 percent Modified Proctor maximum dry density.
 - 2. Walkways: Compact top 6 inches of subgrade and each 8-inch layer of backfill or fill material to 95 percent Modified Proctor maximum dry density.
 - 3. Underground Utilities: Provide the preceding requirements for the respective utility location(s).

3.02 INSPECTION OF REINFORCING STEEL PLACEMENT

- A. The Contractor for the Work associated with- Cast-In-Place Concrete, shall cooperate and coordinate with the testing laboratory to perform field inspection of the placement of reinforcing steel prior to, and in some specified instances during the placement of concrete in all reinforced concrete structures, unless specifically noted otherwise.
- B. Inspection shall include the following:
 - 1. All Structures:
 - a. Size of all reinforcing bars.
 - b. Measurement of bar laps.
 - c. Spacing of reinforcing bars.
 - d. Measurement of reinforcing concrete cover.
 - e. Adequacy of reinforcement ties to prevent movement during concrete placement.
 - f. Placement of reinforcing chairs, bolsters, and concrete blocks supporting reinforcement.
 - g. Condition of reinforcing free of corrosion scale, grease, oil, and other foreign materials which would reduce bond of concrete to reinforcement.
 - 2. Slabs-on-Grade:
 - a. Nominal size of welded wire fabric.
 - b. Measurement of fabric lap.
 - c. Type, size, and spacing of supports for welded wire fabric.

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- d. Adequacy of maintaining welded wire fabric in correct position during the concrete placement. If concrete workers walk on fabric during concrete placement, is fabric lifted back in to correct position prior to set of concrete. (THE TESTING LABORATORY SHALL BE PRESENT DURING THE PLACEMENT OF SLABS-ON-GRADE THAT USE WELDED WIRE FABRIC OR REINFORCING STEEL BARS).
 - e. Slabs-on-grade with fibrous reinforcement do not require this inspection.
- C. Report inspection results in writing to the Architect, Construction Manager, and Contractor the same day that tests are made. Reports shall indicate the specific structural items inspected and the location, with column grid references, where possible to clearly identify the inspected items.
- D. Additional Inspections: Where inspections indicate deficiencies and concrete placement is made prior the correction and retesting of these deficiencies or where concrete placement of any structural item is made without this required inspection, the testing laboratory shall conduct additional tests, including concrete coring, magnetic detection devices, sonic testing devices, and other methods as required to verify the conformance of the reinforcing steel placement to the Contract Documents. The Contractor shall pay for such inspections conducted and other additional inspections as may be required when unacceptable or uninspected reinforcing steel placement is verified.

3.03 CONCRETE TESTING

- A. The Contractor for Cast-In-Place Concrete, shall cooperate and coordinate with the qualified testing laboratory to perform field quality control testing during concrete work under GDOT procedures.
- B. Quality Control Testing During Construction: Perform sampling and testing for field quality control during the placement of concrete, as follows:
- 1. Sampling Fresh Concrete: ASTM C172, except modified for slump to comply with ASTM C94.
 - 2. Slump: ASTM C143, one test for each concrete load at point of discharge, and one for each set of compressive strength test specimens.
 - 3. Air Content: ASTM C231, pressure method; one for every other concrete load at point of discharge or when the indication of change requires.
 - 4. Compression Test Specimens: ASTM C31, one set of 4 standard cylinders for each compressive strength test, unless otherwise directed.
 - a. Cast and store 4 cylinders for laboratory cured test specimens and as specified in ASTM C31.
 - 5. Concrete Temperature: Test hourly when air temperature is 40 degrees F. and below and when 80 degrees F. and above; and each time a set of compressive test specimens is made.
 - 6. Compressive Strength Tests: ASTM C39, one set for each 100 cu.yds. or fraction thereof, of each mix design placed in a day or for each 5,000 sq.ft. of surface area placed, 1 specimen (lab cured) tested at 7 days, 2 specimens (lab cured) tested at 28 days, and 1 specimen (lab cured) retained in reserve for later testing if required.
 - a. When the frequency of testing will provide less than 5 strength tests for a given mix design, conduct testing strength tests for a given mix design, conduct testing from at least 5 randomly selected batches or from each batch if fewer than 5 are used.

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- b. When the total quantity of a given mix design of concrete is less than 50 cu.yds. the strength tests **may be** waived by the Architect if, in his judgment, adequate evidence of satisfactory strength is provided.
 - c. When the strength of field-cured cylinders is less than 85 percent of companion laboratory cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.
- C. Report test results in writing to the City Engineer/ Project Manager, Contractor, and ready-mix supplier on the same day that tests are made. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of Contractor, name of concrete supplier and truck number, name of concrete testing service, concrete type and class, location of concrete batch in the structure, design compressive strength at 28 days, concrete mix proportions and materials, type and amount of fibrous reinforcement, compressive breaking strength, and type of break for both 7 day tests and 28 day tests.
- D. Additional Tests: The testing service will make additional tests of in-place concrete, as directed by the City Engineer/ Project Manager, when test results indicate the specified concrete strengths and other characteristics have not been attained in the structure. The testing service shall conduct tests to determine the strength and other characteristics of the in-place concrete by compression tests on cored cylinders complying with ASTM C42 or by load testing specified in ACI 318 or other acceptable nondestructive testing methods, as directed. The Contractor shall pay for such tests conducted and other additional testing as may be required, when unacceptable concrete is verified.
- E. Evaluation of Quality Control Tests: Do not use concrete delivered to the final point of placement that has slump or total air content outside the specified values.
 - 1. Compressive strength tests for laboratory-cured cylinders will be considered satisfactory if the averages of all sets of 3 consecutive compressive strength tests results equal or exceed the 28-day design compressive strength of the type or class of concrete; and no individual strength test falls below the required compressive strength by more than 500 psi.
 - 2. Strength tests of specimens cured under field conditions may be required by the City Engineer/ Project Manager to check the adequacy of curing and protecting of the concrete placed. Specimens shall be molded by the field quality control laboratory at the same time and from the same samples as the laboratory cured specimens.
 - a. Provide improved means and procedures for protecting concrete when the 28 day compressive strength of field cured cylinders is less than 85 percent of companion laboratory cured cylinders.
 - b. When laboratory cured cylinder strengths are appreciably higher than the minimum required compressive strength, field-cured cylinder strengths need not exceed the minimum required compressive strength by more than 500 psi even though the 85 percent criterion is not met.

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- c. If individual tests of laboratory cured specimen produce strengths more than 500 psi below the required minimum compressive strength or if tests of field cured cylinders indicates deficiencies in protection and curing; provide additional measures to assure that the load-bearing capacity of the structure is not jeopardized. If the likelihood of low-strength concrete is confirmed and computations indicate the load-bearing capacity may have been significantly reduced, tests of cores drilled from the area in question may be required.
 - 3. If the compressive strength tests fail to meet the minimum requirements specified, the concrete represented by such tests would be considered deficient in strength.
- F. Deficient concrete shall be removed and replaced by the Contractor without additional cost to the Owner.

3.04 CONCRETE MATERIALS AND MIX DESIGN

- A. Concrete Materials and Mix Design: The Contractor(s) for- Cast-In-Place Concrete shall provide the following in conformance with the requirements of Section 03300 - Cast-In-Place Concrete.
 - 1. Ready-mixed concrete shall be mixed and delivered in accordance with ASTM C94.
 - 2. Product Data: Submit 3 copies of manufacturer's specifications with application and installation instructions for proprietary materials and items, including admixtures, bonding agents; waterstops, joint systems, chemical floor hardeners, and dry shake finish materials.
 - 3. Laboratory Test Reports: Submit 2 copies of laboratory test reports for concrete materials and mix design tests. The Architect's review will be for general information only. Production of concrete to comply with specified requirements is the Contractor's responsibility.
 - 4. Mix Design: Submit 3 copies of concrete mix designs for each type of mix required by the Concrete Schedule indicating the amount of each ingredient (by weight) in one cubic yard of concrete, the calculated water/cement ratio, and the slump, two weeks prior to placement of concrete.
- B. Tests for Concrete Materials
 - 1. For normal weight concrete, test aggregates by the methods of sampling and testing of ASTM C33.
 - 2. For lightweight concrete, test aggregates by the methods of sampling and testing of ASTM C330.
 - a. For Portland cement, sample the cement and determine the properties by the methods of test of ASTM C33.
 - 3. Submit written reports for each material sampled and tested, prior to the start of Work. Provide the project identification name and number, date of report, name of Contractor, name of concrete testing service, source of concrete aggregates, material manufacturer and brand name for manufactured materials, values specified in the referenced specification for each material, and test results. Indicate whether or not material is acceptable for intended use.
- C. Submit signed statement from ready-mix plant that concrete furnished for the Project will exactly conform to the approved design mixes.

3.05 TESTS FOR FF/FL: Refer to GDOT specifications.

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3.06 TESTS FOR MORTAR

- A. The Contractor for the installation of the Masonry Units, shall cooperate with a qualified testing laboratory to perform field quality control testing during the masonry work, unless specifically noted otherwise.
- B. For colored and noncolored mortars test for compressive strength by the methods of sampling and testing of ASTM C109 and ASTM C780.
- C. Submit written reports for each material sampled and tested. Provide the project identification name and number, date of report, name of contractor, name of testing service, source of aggregates, material manufacturer and brand name for manufactured materials, values specified in the referenced specification for each material, and test results. Indicate whether or not material is acceptable for intended use.
- D. If the compressive strength tests fail to meet the minimum requirements specified; the mortar represented by such tests would be considered deficient in strength.
- E. Deficient mortar shall be removed and replaced by the Contractor without additional cost to the Owner.

3.07 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample-taking, and similar services performed on Work, repair damaged Work and restore substrates and finishes to eliminate deficiencies including defects in visual qualities of exposed finishes.
- B. Except as otherwise indicated, the Contractor shall comply with requirements of Contract Documents for "Cutting and Patching." Protect Work exposed by or for service activities and protect repaired Work.
- C. Repair and protection is Contractor's responsibility, regardless of assignment of responsibility for inspection, testing, or similar service.

END OF SECTION

**Special Provision 3301- Cast In Place Concrete
for
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Special Provision 3301- CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.01 SUMMARY

This Section specifies cast-in-place concrete, including reinforcement, concrete materials, mix design, placement procedures, and finishes.

PART 2 PRODUCTS

2.01 FORMWORK

A. Furnish formwork and form accessories according to ACI 301.

2.02 STEEL REINFORCEMENT

A. Plain-Steel Welded Wire Fabric: ASTM A185, fabricated from as-drawn steel wire into flat sheets.

2.03 CONCRETE MATERIALS

A. Portland Cement: ASTM C150, Type 1.

B. Normal-Weight Aggregate: ASTM C33, uniformly graded, not exceeding 1-1/2 inch (38 mm) nominal size.

C. Water: Potable and complying with ASTM C94.

D. Synthetic Fiber: Fibrillated or monofilament polypropylene fibers engineered and designed for use in concrete, complying with ASTM C1116, Type III, 1/2 to 1 inch (13 to 25 mm) long.

2.04 ADMIXTURES

A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cement and to be compatible with other admixtures. Do not use admixture containing calcium chloride.

B. Air-Entraining Admixture: ASTM C260.

C. Water-Reducing Admixture: ASTM C494, Type A.

D. High Range, Water Reducing Admixture: ASTM C494, Type F.

E. Water-Reducing and Accelerating Admixture: ASTM C494, Type E.

F. Water-Reducing and Retarding Admixture: ASTM C494, Type D.

2.05 RELATED MATERIALS

**Special Provision 3301- Cast In Place Concrete
for
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- A. Vapor Retarder: Multi-ply reinforced polyethylene sheet, ASTM E1745, Class C, not less than 10 mils (0.25 mm) thick.
- B. Joint Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber, or ASTM D1752, cork or self-expanding cork.

2.06 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, nonmolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq.yd. (305 g/sq.m) dry.
- C. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C309, Type I, Class B.
- F. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C1315, Type I, Class A.

2.07 CONCRETE MIXES

- A. Comply with ACI 301 requirements for concrete mixtures.
- B. Prepare design mixes, proportioned according to ACI 301, for normal-weight concrete determined by either laboratory trial mix or field test data bases, as indicated on schedule.
- C. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.0 lb/cu.yd. (0.60 kg/cu.m.)

2.08 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with ASTM C94.
 - 1. When air temperature is between 85 and 90 deg. F. (30 and 32 deg. C.), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg. F. (32 deg. C.), reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete material and concrete according to ASTM C94. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For mixer capacity of 1 cu.yd. (0.76 cu.m.) or smaller, continue mixing at least one and one-half minutes, but not more than five minutes after ingredients are in mixer, before any part of batch is released.
 - 2. For mixer capacity larger than 1 cu.yd. (0.76 cu.m.), increase mixing time by 15 seconds for each additional 1 cu.yd. (0.76 cu.m.).
 - 3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mix type, mix time, quantity, and amount of water added. Record approximate location of final deposit in structure.

END OF SECTION

Special Provision 26-0000- Electrical
for
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June 15, 2015

26 0000-1
Electrical

W&A Project No. 15037

PART 1 – GENERAL

1.0 SCOPE OF WORK:

- A. The work shall consist of, but shall not be limited to, the design and installation of the following systems:
 - 1. Exterior electrical systems for Pedestrian Lighting System, including a new metered electrical power service, installation of the poles/fixtures (poles/fixtures by Sandy Springs), conductors and controls as required for the project.

1.1 CODES, FEES AND INSPECTIONS:

- A. All work shall be done in accordance with the requirements of the National Electrical Code, NFPA #70, 2014 Edition, all local and state codes and the regulations of utility company providing service.
- B. The contractor shall obtain and pay for all permits and inspections required by the building and safety codes and ordinances and the rules and regulations of any legal body having jurisdiction.
- C. All electrical items covered by this specification shall be U.L. labeled and listed for the purpose.
- D. The Contractor shall notify the City of Sandy Springs' Community Development Department, Building and Development Office for electrical inspection and the City of Sandy Springs Public Works Department Inspector a minimum of 48 hours, during City's normal work week, prior to covering any underground conduit installation such that the required inspections can be provided by the inspectors. All underground conduit installations shall be inspected by the Departments prior to cover-up by the Contractor.

1.2 SHOP DRAWINGS:

- A. Eight complete sets of Submittals shall be made for each of the following items to the Owner for review and approval prior to the purchase or installation of any materials on the project.

Enclosed Circuit Breakers	Conduits / Conductors
Inground Junction Boxes	Control Components
Copy of Valid State of Georgia Electrical Contractor Class II (unrestricted) License	

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1.3 RECORD DRAWINGS:

- A. At the time of final inspection, provide three (3) sets of complete data (one original and two copies) on electrical equipment used in the project and Reproducible As-Built drawings reflecting all field changes. This data shall be in bound in a 3 Ring Binder and shall include the following items:
1. Copy of the control schematic.
 2. Data sheets indicating electrical characteristics of all devices and equipment.
 3. The As-Built Drawings shall have the Contractor's name, address, telephone number, fax number, date and indicate that the drawings are "As-Built".
 4. Location of all underground conduits, ground mounted pull boxes, panelboards and fixtures/poles.

1.4 SITE INVESTIGATION:

- A. Prior to submitting bids of the project, the contractor shall visit the site of the work to become aware of existing conditions which may affect the cost of the project.

PART 2 – PRODUCTS

2.0 MATERIALS:

- A. All material shall be new and shall conform to the applicable standard or standards where such have been established for the particular material in question. Publications and standards of the organization listed below are applicable to materials specified herein.
1. American Society for Testing and Materials (ASTM).
 2. Underwriters' Lab (UL).
 3. National Electrical Manufacturer Association (NEMA).
 4. Insulated Cable Engineers Association (ICEA).

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5. Institute of Electrical and Electronic Engineers (IEEE).
6. Edison Electric Institute (EEI).
7. National Fire Protection Association (NFPA).
8. American Wood Preservers Association (AWPA).
9. American National Standards Institute (ANSI).

B. Material of the same type shall be the product of a single manufacturer.

2.1 RACEWAYS:

A. Contractor shall install all conduits as per the below requirements.

1. Intermediate Metal Conduit (IMC) shall be ferrous galvanized conduit and shall comply with Article 342 of the National Electrical Code, 2011 Edition. IMC shall be used for the last 90 degree bend below grade to above grade.
2. Rigid steel conduit shall be ferrous galvanized conduit and shall comply with Article 344 of the National Electrical Code. RGS conduit shall be used for the last 90 degree bend below grade to above grade.
3. Rigid nonmetallic conduit shall be polyvinyl chloride Schedule 40 (PVC) and comply with Article 352 of the National Electrical. No exposed PVC Conduit will be accepted. Transition from PVC conduit to metal conduit shall be made at the last 90 degree bend prior to the conduit exiting from below grade or entering into the poured in place pole base foundation.
4. High Density Polyethylene Conduit, Type HDPE shall be used for direct bore under streets and driveways or as indicated on the documents and shall comply with Article 353 of the National Electrical Code. No exposed HDPE conduit will be accepted.

2.2 CONDUCTORS:

- A. All conductors shall be copper and shall have 600 volt Type THHN/THWN or XHHN/XHHW insulation. Aluminum conductors will not be accepted on any projects.
- B. All branch circuit conductors shall be rated 600 volt insulation and be a minimum of No. 12 AWG stranded copper conductors.

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- C. All branch circuit and feeder conductors, No. 6 AWG and smaller shall be color coded as follows: 120/240 volt, single phase system, Phase A--Black, Phase B--Red, Neutral--White, Ground—Green.

2.3 GROUNDING:

- A. Shall comply with Article 250 of the National Electrical Code and all state and local codes and the requirements of the utility company serving the site.
- B. Grounding shall be provided as per these specifications and the approved drawings.
- C. The electrical system shall be a grounded wye supplemented with equipment grounding systems. All non-current carrying parts of the electrical system i.e., raceways, equipment enclosures and frames, junction and outlet boxes, machine frames and other conductive items in close proximity with electrical circuits, shall be grounded to provide a low impedance path for potential ground faults.
- D. The neutral conductor of the 120/240 Volt, Single Phase, 3 Wire system shall be grounded to the ground system as indicated on the drawings. Grounding conductor shall be copper sized as indicated on the drawings. Conductor shall be installed in PVC Conduit to the ground point connection.
- E. A grounding conductor shall be installed in all branch circuit or feeder circuit conduit installations as indicated on the Drawings.

2.4 INGROUND PULLBOXES:

- A. Inground pull boxes shall be precast polymer concrete type, with heavy duty bolted covers with a minimum ANSI/SCTE 77 – 2007 Tier 15 rating. Boxes shall be sized as per the Drawings. Boxes shall be open bottom type and installed on a 9” bed of #57 stone for drainage. No inground pull boxes are allowed to be installed in a roadway; driveway or pathway used by a motorized vehicle, all shall be installed in landscape strips or in the sidewalks as required for the project. All inground pullboxes shall be a minimum of 10 feet from a driveway or street provided they remain within the right of way.

2.5 ENCLOSED CIRCUIT BREAKERS:

- A. Enclosed circuit breakers shall be provided in NEMA Type 3R galvanized steel powder coated painted enclosures, sizes as indicated on the Documents. All shall have UL approved interrupting capacity of equal to or greater than the Fault Currents indicated on the Power Riser Diagram. All multiple breakers shall be common trip type only. All circuit breakers

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shall have 75 degree C rated lugs.

- B. Circuit breakers shall be provided with trip rating class and poles as indicated on the drawings. Class indicated is designation according to Federal Specification W-C-375C/GEN-2000 and indicates the frame size and interrupting rating required. Operation of multiple breakers shall be by single handle; tie handles are not acceptable.
- C. Circuit breakers used for the control of discharge or fluorescent lighting shall be designated for the purpose and bear the marking "HID" or "SWD".
- D. All enclosed circuit breakers shall be marked with Arc Flash Warning Labels as required by Article 110.16 of the NEC.

2.6 GROUND RODS:

- A. Ground rods shall be 3/4" copperweld sectional rods 10'-0" in length. Top of the ground rod shall be twelve (12) inches below finished grade. Connection to the ground rod shall be made by chemical weld process or approved mechanical clamp. Resistance to ground shall not exceed twenty-five (25) ohms for each service ground location.

2.7 LIGHTING FIXTURES:

- A. Lighting fixtures/poles shall be provide by the City of Sandy Springs and installed by the Contractor and as required by the Fixture Schedule on the Drawings.
- B. All poles shall be mounted plumb, vertical and parallel and all poles shall be located the same dimension off of the curb along a street.
- C. All poles shall have weatherproof inline fuses installed in each phase conductor feeding the pole. Fuses shall be sized as per the Drawings.
- D. All poles shall be provided with breakaway couplings and breakaway wiring connectors as indicated on the Drawings. Breakaway couplings shall be Transpo Pole-Safe Model No. 4100 or approved equal, provide one per anchor bolt. Breakaway connectors shall be waterproof type and be installed above the in-line fuses in each conductor and in the ground conductor. Contractor to provide breakaway couplings and inline fuses/holders and connectors for this project.
- E. All poles shall be oriented such that the pole handhole is facing opposite of the street side.
- F. Each street light service shall be metered as required by Georgia Power Company

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PART 3 – EXECUTION

3.0 CONTRACTOR’S SITE PERSONNEL:

- A. The Contractor shall have a licensed Electrical Contractor with a minimum of a State of Georgia Electrical Contractor Class II (Unrestricted) License, in good standing with the State of Georgia, on site every day there is electrical working being performed on the project. A copy of that individual’s license is to be provided at the Shop Drawing Submittal stage of the project and/or prior to any electrical work being started for the project.

3.1 RACEWAYS:

- A. Rigid conduit or IMC shall be attached to sheet metal enclosures with a Myers Hub or approved equal. All connectors shall be of the insulated throat type. Rigid conduit stub ups not attached to enclosure shall be terminated with steel insulated throat, grounding type bushing. All connectors and couplings shall be approved for the purpose. All PVC conduit glue connections shall be made with PVC cement that is approved for the purpose and use. Contractor shall provide and install insulating bushings onto the ends of all conduits.
- B. Protect conduits against dirt and foreign debris with conduit plugs.
- C. All conduits entering panels or enclosures from below grade shall be sealed with fiber and insulating electrical putty to prevent entrance of moisture.
- D. Pull lines shall be installed in all spare or future conduits. Pull lines shall be 500# minimum test; continuous fiber polyline type and shall be secured at each end of the conduit to a plastic locknut that is larger than the conduit the pull line is installed in for future use.

3.2 INGROUND PULLBOXES:

- A. Inground pullboxes shall be provided where specifically indicated and where required to facilitate the installation of conductors.
- B. Feeders within pull boxes shall be individually laced with nylon tie straps of the type with enlarged tab to permit identification of each feeder within pull box.
- C. Minimum box size shall be as per the NEC and as required for the installation of the conductors and as indicated on the Drawings.
- D. All inground pullboxes shall be installed flush with the finished grade the junction box in installed into. Maximum height above finished grade should not be greater than 1/4” above or below finished grade.

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- E. All Pullboxes shall be a minimum of ten (10) feet from any roadway or edge of driveway, while still placing the box within the right of way.

3.3 CONDUCTORS:

- A. All feeder and branch circuit conductors No. 4 AWG and larger shall be phase identified in each accessible enclosure by 1" wide plastic tape attached to conductors in a readily visible location. Tape colors shall match color requirements specified herein.
- B. Splices in conductors shall be made only within inground junction boxes or in the pole bases as permitted by the National Electrical Code, 2011 Edition. All splices and terminations that are made in inground junction boxes shall be made with watertight connectors, wire nuts with electrical tape or standard wire nuts with silicone caulk are not acceptable.

3.4 INSTALLATION OF LIGHTING POLES:

- A. All poles shall be installed as per the manufacturer's requirements and shall be left plumb, vertical and level. Poles installed in a line shall be installed at the same distance from the curb and parallel to each other.

3.5 TESTS:

- A. At final inspection, a test will be made and the entire system shall be shown to be in proper working order.
- B. Contractor shall provide all instruments, labor and materials for any essential intermediate and final testing.
- C. Equipment covers (i.e., panelboard trims and junction box covers) shall be removed, as directed, for inspection of internal wiring. All circuits throughout project shall be energized and shall be tested for operation and equipment connections in compliance with contract requirements.
- D. Perform the following test after the installation but prior to energizing equipment:
 - 1. Megger test all feeders and branch circuits 50 Amps or greater. Allowances for leakages shall be within the manufacturers recommend tolerances. Testing methods shall be per the cable manufacturer's recommendations. Certified test results and the manufacturers data/recommendations shall be provided to the Owners Representative as indicated below.
 - 2. The Contractor shall perform any other test which may be required by any legal authority having jurisdiction to verify this installation meets that requirement or

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requirements.

- E. Burn-in of the fixtures, the Contractor shall burn-in all fixtures for a minimum of thirty (30) days at his expense for the cost of the electricity (operation of the fixtures). The Contractor shall notify the City of the completion of the installation and the start of the thirty (30) day burn-in period in writing. Once the burn-in time is completed, the contractor shall request that the system be inspected by the Owner or Owner's rep. If the system is acceptable and accepted by the City, the electrical meter(s) will then be put into the City of Sandy Springs' name by the Contractor and the Contractor will not be responsible for the electrical cost of operation

3.6 GROUND TEST:

- A. Upon completion of the ground rod installation the contractor shall test the system by the "fall of potential" measuring method using a ground resistance test meter and two auxiliary electrodes driven into the earth, interconnected through the meter with the ground rod installation being tested. Placement of the auxiliary electrodes shall be in accordance with operating instructions of the test meter, but in no case shall be placed within the effective resistance area of the system being tested. The effective resistance area shall be considered twice the ground rod length of the ground rod(s) driven. The test shall not be taken within forty-eight (48) hours of rainfall and shall include the data tested and the lowest reading recorded. Test results shall be forwarded, in writing, immediately to the engineer.

3.7 IDENTIFICATION:

- A. Contractor shall identify each device such as circuit breakers, panelboards, contactor, timeclock, controllers, etc. with Black on White Phenolic Tags using machine cut letters, 1/4" minimum height, unless otherwise noted. Permanently attach to each device as required. For all panelboards, switchboards, fusible disconnect switches and remote ballast enclosures include name, voltage, phase, number of wires, ampacity rating, short circuit rating and name/location of feed to the device.
- B. Contractor shall provide and install a Black on White Phenolic Tag using machine cut letters, 3/8" minimum height, unless otherwise noted. Permanently attach to Enclosed Circuit Breakers as required. This tag will indicated the maximum available fault current at the Service Panel and the date calculated as required by NEC Paragraph 110.24 (A).
- C. The Contractor shall identify each pole on the project. Pole identification numbers shall be a permanent weatherproof reflective stick-on tag with a dark green background with 3M diamond grade reflective white numbers that are minimum of 2" height. Numbers shall begin at 01, with the pole closest to the service point being number 01 and each pole thereafter shall then increase in it number sequentially by 1 on the same street. The maximum numbers on the poles for one service point and on one street will be 99. If a service serves

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multiple streets, then at the start of an intersecting street the pole numbers will begin at 01 and continue to a maximum of 99 as needed. Mount the pole identification number at 6' above finished grade or on the identification plate supplied by the pole manufacturer. The numbers shall face the street and shall adhere to the pole by use of cyanoacrylate.

3.8 WARRANTIES:

- A. All guarantees commence on Project Date from Date of Final Acceptance by the City.
- B. All guarantees fully cover the costs of **materials & labor** ("M & L") for repair and/or replacement within the guarantee period.
- C. All equipment & workmanship is guaranteed for at least one year for M & L from the Date of Final Acceptance by the City of Sandy Springs.

3.9 MOUNTING OF ELECTRICAL DEVICES/SERVICE EQUIPMENT:

- A. The Contractor shall provide and install field fabricated supports for all enclosed circuit breakers, disconnect switches, panelboards and meter sockets as indicated below. Provide and install a minimum of two – 1 1/2" rigid galvanized steel conduit legs with cap on top and bottom of the conduits; per device with a minimum of two Unistrut P1000 galvanized steel cross braces to support the device. Install the legs a minimum of 24" into the ground and pour a concrete base, minimum of 12" diameter by 28" deep for support of the legs. Attach the cross braces to the RGS conduit with either galvanized or stainless steel bolts, nuts, washers, U-bolts and lock washers as required.
- B. All equipment shall be mounted "as low as possible". Minimum height of any operator handle shall be 30" AFG and maximum height shall be 72" AFG. It is the Owner desire to keep all equipment as low as possible.

3.10 EXCAVATION, TRENCHING AND BACKFILLING:

- A. All conduits shall be buried a minimum of 18" below grass areas and 24" below driveways and roads. Provide and install magnetic warning tape 12" below finished grade over the entire length of all buried conduits. The Contractor shall layout all underground trench routing prior to the start of any trenching. Notify the Owner once the routing is determined such that the routing can be approved by the Owner prior to the start of that work.
- B. The contractor shall perform all excavation to install the electrical work herein specified. During excavation, material for backfilling shall be piled back from the banks of the trench to avoid overloading and to prevent slides and cave-ins. All excavated materials not to be used for backfill shall be removed and disposed of by the contractor. Grading shall be done to

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prevent surface water from flowing into trenches and other excavation and any water accumulating therein shall be removed by pumping. All excavation shall be made by open cut. No tunneling shall be done. Any area disturbed during excavation shall be repaired back to its original condition, i.e.: paving, grassing, sod, gravel, etc.

- C. The bottom of the trenches shall be graded to provide uniform bearing and support for conduits, cables, or duct bank on undisturbed soil at every point along its entire length. Overdepths shall be backfilled with loose, granular, moist earth, tamped. Remove unstable soil that is not capable of supporting equipment or installation and replace with specified material for a minimum of 12" below invert of equipment or installation.
- D. The trenches shall be backfilled with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand and gravel or soft shale, free from large clods of earth and stones, deposited in 6" layers and rammed until the installation has a cover of not less than the adjacent ground but not greater than 2" above existing ground. The backfilling shall be carried on simultaneously on both sides of the trench so that injurious pressures do not occur. The compaction of the filled trench shall be at least equal to 95% of the maximum density as determined by the Standard Proctor Test. Settling the backfill with water will not be permitted. Reopen any trenches not meeting compaction requirements or where settlement occurs, refill, compact, and restore the surface to the grade and compaction indicated, mounded over and smoothed off.
- E. Contractor shall repair all surfaces disturbed by the installation of all underground conduit systems back to their original condition with the same type of material and construction and/or up-grade as approved by the Owners Representative and Engineer.
- F. The Contractor is to be aware that this is an area of public activity. No foundation holes or trenches will be left open after the end of the work day. All excavations will be temporarily secured at the end of the each work day to prevent anyone from falling into the holes or trenches. All pole foundation holes will be covered by a 3/4" sheet of plywood with a minimum of two (2) #6 rebar spikes at opposite corners driven into the earth at a 45 degree angle away from the foundation hole. The Contractor shall also put a mound of dirt onto the top of the plywood cover such that the cover is securely held down. All open trenches will be secured at the end of each work day with 3 foot high "Tensar" type safety fencing material on all sides of the open ditch. Support the fencing with wood stakes at a maximum of 4 foot centers.
- G. The Contractor shall provide **ALL REQUIRED** erosion control for this project as required by the County / City/ State Officials.
- H. The Contractor shall cover all exposed anchor bolts on top of concrete poles bases until such time that the light poles are placed on the base. The Contractor shall use an OSHA approved Rebar Safety Caps, sized as required for the anchor bolts. Provide a safety cap per anchor

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bolt. Rebar safety cap to be Haala Industries, Inc. Cat # DISC-10 Safety Caps (3/4" diameter anchor bolts) or # HH-H Safety Caps (for 1" diameter anchor bolts) or approved equal.

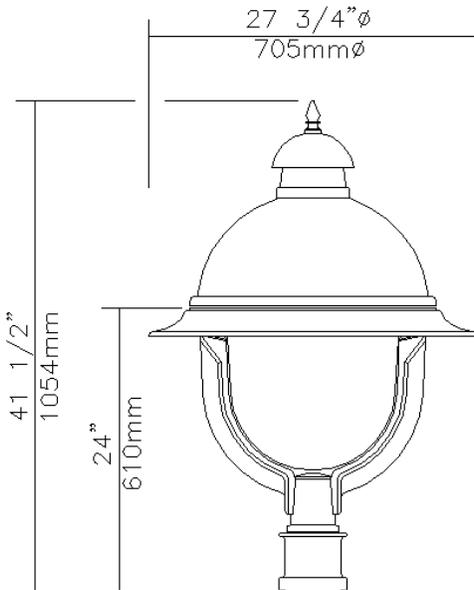
3.11 DIRECT BORING:

- A. The contractor shall direct bore conduit runs in this project where indicated on the Drawings or as an alternate to trenching, at the Contractor's option. Minimum depth of all conduits is typically 36" below finished grade. All conduits shall be buried a minimum however of 18" below grass areas and 24" below driveways and roads. All excavated materials shall be removed and disposed of by the contractor. Any area disturbed during boring shall be repaired back to its original condition, i.e.: paving, grassing, sod, gravel, etc. The contractor shall provide and install inground pullboxes at each end of the direct bore, such that the conduit used for the direct bore and the underground conduit used for the remainder of the circuit are not connected together, but instead are each terminated in the bottom of the inground pullbox and the conductor are either continuous or spliced at that point.
- B. Contractor shall repair all surfaces disturbed by the installation of all underground conduit systems back to their original condition with the same type of material and construction and/or up-grade as approved by the Architect and Owner. No holes or trenches shall be left open after the end of each work day. See Paragraph 3.10 - F above for instructions and procedures.
- C. All direct bore conduits shall be accurately located on the Contractor's "As-Built" Documents that are to be provided to the Owner at the completion of the project.
- D. The Contractor shall provide **ALL REQUIRED** erosion control for this project as required by the County / City/ State Officials.
- E. The Contractor shall comply with the City of Sandy Springs Utility Accommodations and Guideline Procedures established by the Department of Public Works Transportation Division. Approved by Ordinance No. 2006-05-34 on May 16, 2006 and said amendments to approved ordinance.

End of Section

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Specification



EPA: 2.6 sq ft / weight: 40 lb (18.2 kg)
Note: 3D image may not represent color or option selected.
Logos above include link, click to access.

Qty	1	Luminaire	DMS60-55W48LED4K-R-ACDR-LE3A-VOLT-GN8TX
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Description of Components:

Finial: Decorative cast 356 aluminum, mechanically assembled.

Cupola: Decorative spun aluminum 1100-0, mechanically mounted on hood.

Hood: Spun aluminum 1100-0 dome, mechanically assembled on the luminaire.

Guard: With 2 cast aluminum 356 arms, this guard is welded to the fitter and to the access-mechanism.

Skirt: Spun 1100-0 aluminum, mechanically assembled on the luminaire.

Access-Mechanism: A die cast A360 aluminum technical ring with latch and hinge. The mechanism shall offer toolfree access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

Light Engine: LEDgine composed of 5 main components: **Globe / LED lamp / Optical System / Heat Sink / Driver**
Electrical components are RoHS compliant.

Globe: (ACDR), Made of one-piece seamless injected-moulded impact-resistant (DR) acrylic having an inner prismatic surface. The globe is mechanically assembled and sealed onto the lower part of the heat sink.

Lamp: (Included), Lamp type Philips Lumileds Luxeon R. Composed of 48 high-performance white LEDs, 55w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan based on TM21 extrapolation to get results after which 50% of LEDs still emits over 70% (L70) of its original lumen output. Use of metal core board insures greater heat transfer and longer lifespan of the light engine. The LED circuit board is included with a connector, (no connection wire

Specification

required for ease of replacement).

Optical System: (LE3A), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumen and a perfect lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM63 and LM79 and TM15 (IESNA) certifying its photometric performance. Street side indicated.

Heat Sink: Made of cast aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device)

Driver: High power factor of 95%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

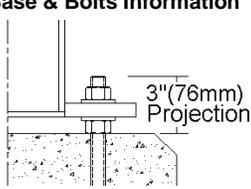
The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

Surge Protector: LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.

Fitter: Cast 356 aluminum c/w 4 set screws 3/8-16 UNC. This fitter holds 2 arms made of cast aluminum 356 mechanically assembled. Slip-fits on a 4"(102mm) outside diameter x 4" (102mm) long tenon.

Specification

Base & Bolts Information



3" (76mm) Projection

Comes with 4 steel anchor bolts, 3/4" X 17" + 3", 8 nuts and 8 washers. Important: Do not obstruct space between anchor plate and concrete base.

Anchor Plate

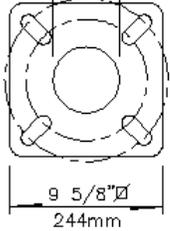
Free opening

3 5/16" ϕ
84mm ϕ

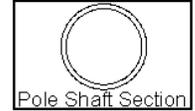
- Bolt Circle:
8 1/2" (216mm)

- Material:
Cast Aluminum

- NOTE:
Bolt Circle Allowed:
6 3/4" to 10"
171mm to 254mm



9 5/8" \square
244mm



Qty 1 Pole **APR4U-13-LBC1-GN8TX**

Description of Components:

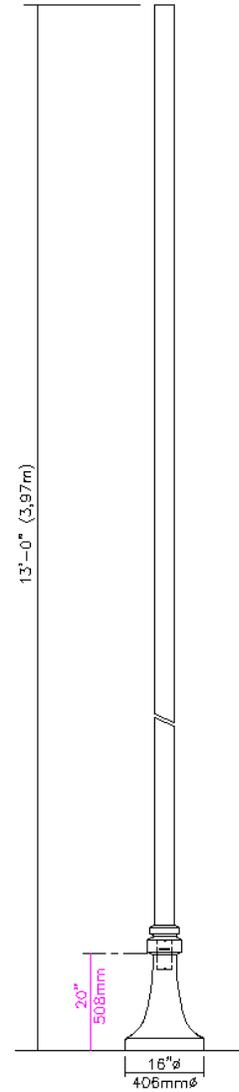
Pole Shaft: Shall be made from a 4" (102mm) round extruded 6061-T6 aluminum tubing, having a 0.226" (5.7mm) wall thickness, welded to both the bottom and top of the anchor plate.

Maintenance Opening: The pole shall have a 2" x 4 1/2" (51mm x 114mm) maintenance opening centered 20" (508mm) from the bottom of the anchor plate, complete with a weatherproof aluminum cover and a copper ground lug.

Base Cover: Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

Note: A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

IMPORTANT: Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.



Specification

Miscellaneous

Description of Components:

Wiring: Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

Hardware: All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Finish: Color to be **dark forest green textured (GN8TX)** and in accordance with the AAMA 2603 standard. Application of a polyester powdercoat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D 2244 standard, as well as luster retention in keeping with the ASTM D 523 standard and humidity proof in accordance with the ASTM-D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM-B117 standard.

Note: *IMPORTANT: All missing details must be clearly specified on the return of these approval drawings. Thank you for your cooperation.*

VOLTAGE:_____

LED products manufacturing standard: The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Quality Control: The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

Mechanical resistance: In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

Web site information details: Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

Specification

LED light engine technical information for AT10 AT20 AT30 AT40 OT10 OT20 XL10 TR10 DMS60 with prismatic globe LED = Philips Lumileds Luxeon R, CRI = 70, CCT = 4000K (+/- 350K) System (LED + driver) rated life = 100,000 hrs ¹											
Lamp	Typical delivered lumens	Typical system wattage ² (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HID equivalent ³	Luminaire Efficacy Rating (Lm/W)	BUG rating	
35W32LED4K-R-LE2A	3299	35	0.29	0.17	0.16	0.15	350	70 -100	94.3	B1-U3-G1	
35W32LED4K-R-LE3A	3280	35	0.29	0.17	0.16	0.15	350	70 -100	93.7	B1-U2-G1	
35W32LED4K-R-LE4A	2983	35	0.29	0.17	0.16	0.15	350	70 -100	85.2	B1-U3-G1	
55W32LED4K-R-LE2A	4627	52	0.40	0.23	0.21	0.19	530	100 - 150	89.0	B1-U3-G1	
55W32LED4K-R-LE3A	4605	52	0.40	0.23	0.21	0.19	530	100 - 150	88.6	B1-U3-G1	
55W32LED4K-R-LE4A	4676	52	0.40	0.23	0.21	0.19	530	100 - 150	89.9	B1-U3-G1	
55W48LED4K-R-LE2A	4673	55	0.38	0.22	0.23	0.21	350	100 - 150	85.0	B1-U3-G1	
55W48LED4K-R-LE3A	4648	55	0.38	0.22	0.23	0.21	350	100 - 150	84.5	B1-U3-G1	
55W48LED4K-R-LE4A	4722	55	0.38	0.22	0.23	0.21	350	100 - 150	85.9	B1-U3-G1	
80W48LED4K-R-LE2A	6890	79	0.63	0.36	0.34	0.31	530	150 - 175	87.2	B2-U3-G2	
80W48LED4K-R-LE3A	6853	79	0.63	0.36	0.34	0.31	530	150 - 175	86.7	B2-U3-G2	
80W48LED4K-R-LE4A	6642	79	0.63	0.36	0.34	0.31	530	150 - 175	84.1	B1-U3-G2	

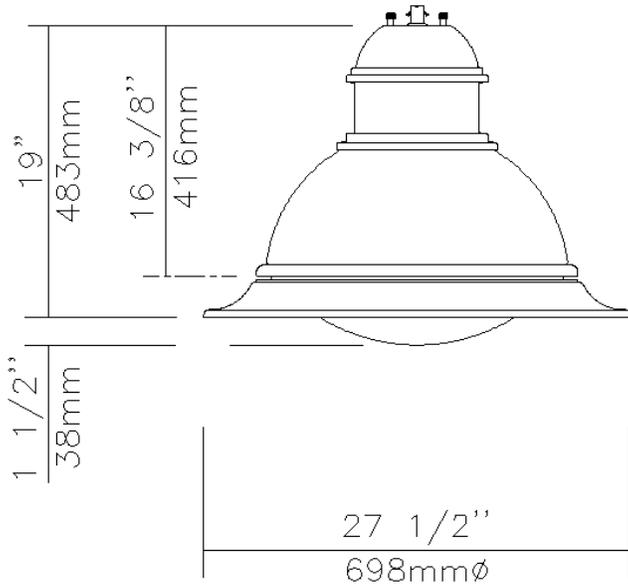
¹ L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)

² System wattage includes the lamp and the LED driver.

³ Equivalence should always be confirmed by a photometric layout.

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.

Specification



EPA: 1.42 sq ft / weight: 42 lb (19.1 kg)
Note: 3D image may not represent color or option selected.
Logos above include link, click to access.

Qty	1	Luminaire	DMS50-70W64LED4K-R-LE3S-VOLT-GN8TX
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Description of Components:

Hood: A die cast A360.1 aluminum dome complete with a cast-in technical ring with latch and hinge. The mechanism shall offer toolfree access to the inside of the luminaire. An embedded memory-retentive gasket shall ensure weatherproofing.

Housing: In a round shape, this housing is made of cast 356 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 3/8-16 UNC. This suspension system permits for a full rotation of the luminaire in 90 degree increments.

Light Engine: LEDgine composed of 5 main components: **Lens / LED lamp / Optical System / Heat Sink / Driver**
Electrical components are RoHS compliant.

Lens: Made of soda-lime clear tempered glass curved lens, mechanically assembled and sealed onto the lower part of the heat sink.

Lamp: (Included), Lamp type Philips Lumileds Luxeon R. Composed of 64 high-performance white LEDs, 70w lamp wattage. Color temperature of 4000 Kelvin nominal, 70 CRI. Operating lifespan based on TM21 extrapolation to get results after which 50% of LEDs still emits over 70% (L70) of its original lumen output. Use of metal core board insures greater heat transfer and longer lifespan of the light engine. The LED circuit board is included with a connector, (no connection wire required for ease of replacement).

Optical System: (LE3S), IES type III (asymmetrical). Composed of high-performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumen and a perfect lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM63 and LM79 and TM15 (IESNA) certifying its photometric performance. Street side indicated.

Specification

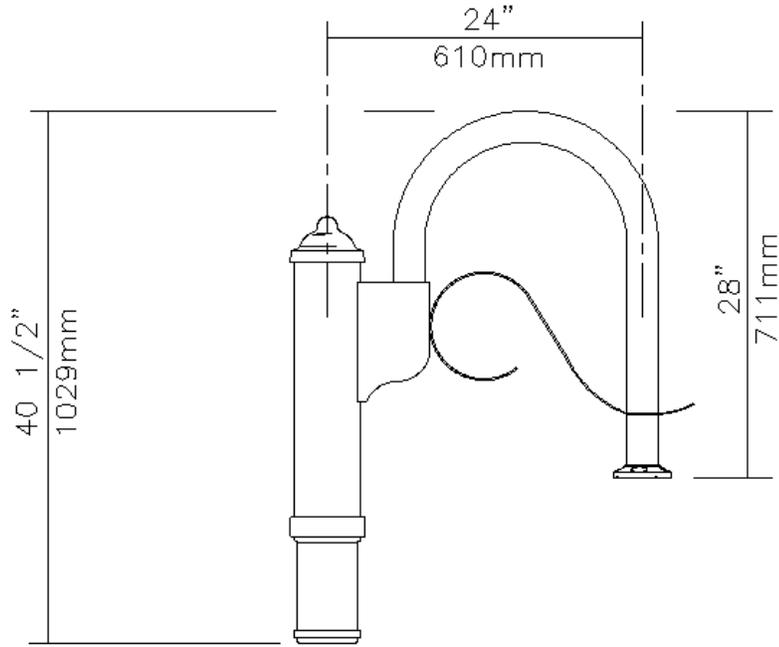
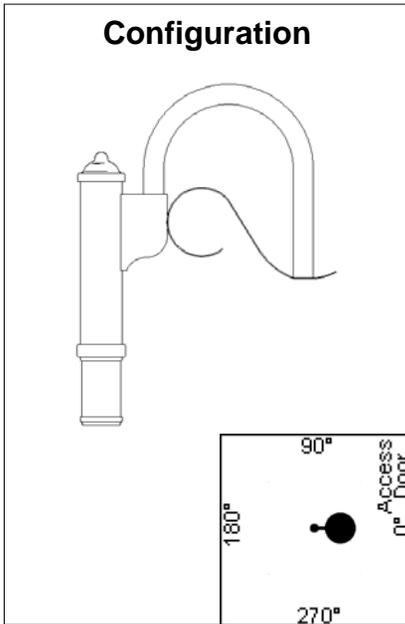
Heat Sink: Heat Sink: Made of die cast A360 aluminum optimising the LEDs efficiency and life, complete with a cast in skirt and technical ring. Product does not use any cooling device with moving parts (only passive cooling device)

Driver: High power factor of 95%. Electronic driver, operating range 50/60 Hz. **Auto-adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I**, THD of 20% max. Maximum ambient operating temperature from -40F(-40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221F(105C) degrees.

The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built-in driver surge protection of 2.5kV (min).

Surge Protector: LED Driver 3 poles 10KV surge Protectors that protect Line-Ground, Line-Neutral, and Neutral-Ground in accordance with IEEE / ANSI C62.41.2 guidelines.

Specification



Qty 1 Bracket LM-1A-GN8TX

Description of Components:

Arm: Shall be made from bent 6061-T6 aluminum tubing, 2 3/8" (60mm) outside diameter, welded.

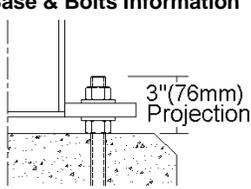
Decorative Element: Scroll made of bent aluminium, welded to the arm.

Central Adaptor: Made of aluminum 6061-T6, 5" (127mm) outside diameter. Complete with a cast 356 aluminum fitter that slip-fits 9" (229mm) over a 4" (102mm) outside diameter pole tenon. Mechanically assembled using two sets of four set screws at 90 degrees around the bracket.

Bracket Weight: 17 lbs (7.7 kg)

Specification

Base & Bolts Information



3" (76mm) Projection

Comes with 4 steel anchor bolts, 3/4" X 17" + 3", 8 nuts and 8 washers. Important: Do not obstruct space between anchor plate and concrete base.

Anchor Plate

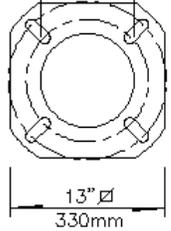
8 1/8" ϕ
206mm

Free opening

- Bolt Circle: 12 1/2" (318mm)

- Material: Cast Aluminum

- NOTE: Bolt Circle Allowed: 11" to 13" 279mm to 330mm



13" ϕ
330mm



Qty	1	Pole	AM8F-15-GN8TX
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Description of Components:

Pole Shaft: Shall be made from a 4" (102mm) round extruded 6061-T6 aluminum tubing, having a 0.125" (3.2mm) wall thickness, welded to the pole base.

Joint Cover: Two-piece round joint cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

Pole Base: Shall be made from a 8 5/8" (219mm) round extruded 6061-T6 aluminum tubing base having a 0.148" (4.8mm) wall thickness, welded to both the bottom and top of the anchor plate.

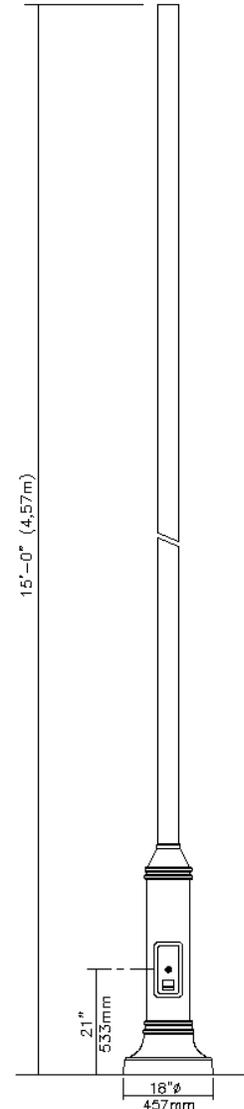
Maintenance Opening: The pole shall have a 4 1/2" x 10" (114mm x 254mm) maintenance opening centered 25 1/4" (641mm) from the bottom of the anchor plate, complete with a weatherproof embossed aluminum cover and a copper ground lug.

Base Cover: Two piece round base cover made from cast 356 aluminum, mechanically fastened with stainless steel screws.

Note: A tenon will be provided when the luminaire or bracket does not fit directly on pole shaft. Tenon not shown on the drawing.

IMPORTANT: Philips Lumec strongly recommends the installation of the complete lighting assembly with all of its accessories upon the anchoring of the pole. This will ensure that the structural integrity of the product is maintained throughout its lifetime.

Pole Weight: 34 lbs (15.5 kg)



Specification

Miscellaneous

Description of Components:

Wiring: Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding top of the bracket.

Hardware: All exposed screws shall be stainless steel with Ceramic primer-seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone.

Finish: Color to be **dark forest green textured (GN8TX)** and in accordance with the AAMA 2603 standard. Application of a polyester powdercoat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D 2244 standard, as well as luster retention in keeping with the ASTM D 523 standard and humidity proof in accordance with the ASTM-D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM-B117 standard.

Note: IMPORTANT: All missing details must be clearly specified on the return of these approval drawings. Thank you for your cooperation.

VOLTAGE:_____

LED products manufacturing standard: The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Quality Control: The manufacturer must provide a written confirmation of its ISO 9001-2008 and ISO 14001-2004 International Quality Standards Certification.

Vibration Resistance: The DMS50 meets the **ANSI C136.31**, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100 000 cycles by an independent lab)

Mechanical resistance: In order to ensure the mechanical resistance of the poles, the reflected area should be calculated according to AASHTO standards and resists to a wind of 140 km/hr.

Web site information details: Click on any specific information details you need:

[Paint finish](#) / [Warranties](#) / [Installation pictures](#) / [ISO 9001-2008 Certification](#) / [ISO 14001-2004 Certification](#) / [CSA Pole Certification](#)

Specification

LED light engine technical information for DMS50 DMS55 RN20 RN30 TR20 AT50 with sag lens										
LED = Philips Lumileds Luxeon R, CRI = 70, CCT = 4000K (+/- 350K)										
System (LED + driver) rated life = 100,000 hrs ¹										
Lamp	Typical delivered lumens	Typical system wattage ² (W)	Typical current @ 120 V (A)	Typical current @ 208 V (A)	Typical current @ 240 V (A)	Typical current @ 277 V (A)	LED current (mA)	HID equivalent ³	Luminaire Efficacy Rating (lm/W)	BUG rating
35W32LED4K-R-LE2S	2867	35	0.29	0.17	0.16	0.15	350	70 -100	81.9	B1-U1-G1
35W32LED4K-R-LE3S	3972	35	0.29	0.17	0.16	0.15	350	70 -100	113.5	B1-U1-G1
35W32LED4K-R-LE4S	3691	35	0.29	0.17	0.16	0.15	350	70 -100	105.5	B1-U1-G1
35W32LED4K-R-LE5S	3649	35	0.29	0.17	0.16	0.15	350	70 -100	104.2	B2-U1-G1
55W32LED4K-R-LE2S	5232	52	0.40	0.23	0.21	0.19	530	100 -150	100.6	B1-U1-G1
55W32LED4K-R-LE3S	5553	52	0.40	0.23	0.21	0.19	530	100 -150	106.8	B2-U1-G1
55W32LED4K-R-LE4S	5160	52	0.40	0.23	0.21	0.19	530	100 -150	99.2	B1-U1-G1
55W32LED4K-R-LE5S	5101	52	0.40	0.23	0.21	0.19	530	100 -150	98.1	B3-U1-G1
55W48LED4K-R-LE2S	5395	55	0.38	0.22	0.23	0.21	350	100 -150	98.1	B1-U1-G1
55W48LED4K-R-LE3S	5726	55	0.38	0.22	0.23	0.21	350	100 -150	104.1	B2-U1-G1
55W48LED4K-R-LE4S	5320	55	0.38	0.22	0.23	0.21	350	100 -150	96.7	B1-U1-G2
55W48LED4K-R-LE5S	5259	55	0.38	0.22	0.23	0.21	350	100 -150	95.6	B3-U1-G1
80W48LED4K-R-LE2S	5259	79	0.63	0.36	0.34	0.31	530	150 -175	66.6	B3-U1-G2
80W48LED4K-R-LE3S	8051	79	0.63	0.36	0.34	0.31	530	150 -175	101.9	B2-U1-G2
80W48LED4K-R-LE4S	7481	79	0.63	0.36	0.34	0.31	530	150 -175	94.7	B2-U1-G2
80W48LED4K-R-LE5S	7395	79	0.63	0.36	0.34	0.31	530	150 -175	93.6	B3-U1-G2
70W64LED4K-R-LE2S	7611	71	0.58	0.34	0.32	0.3	350	100 -150	107.2	B2-U1-G1
70W64LED4K-R-LE3S	8077	71	0.58	0.34	0.32	0.3	350	100 -150	113.8	B2-U1-G2
70W64LED4K-R-LE4S	7505	71	0.58	0.34	0.32	0.3	350	100 -150	105.7	B2-U1-G2
70W64LED4K-R-LE5S	7419	71	0.58	0.34	0.32	0.3	350	100 -150	104.5	B3-U1-G2
110W64LED4K-R-LE2S	7419	103	0.8	0.46	0.42	0.38	530	175 -200	72.0	B2-U1-G2
110W64LED4K-R-LE3S	11412	103	0.8	0.46	0.42	0.38	530	175 -200	110.8	B3-U1-G2
110W64LED4K-R-LE4S	10604	103	0.8	0.46	0.42	0.38	530	175 -200	103.0	B2-U1-G2
110W64LED4K-R-LE5S	10482	103	0.8	0.46	0.42	0.38	530	175 -200	101.8	B4-U1-G2
90W80LED4K-R-LE2S	9325	87	0.78	0.43	0.40	0.34	350	150 -175	107.2	B2-U1-G2
90W80LED4K-R-LE3S	9897	87	0.78	0.43	0.40	0.34	350	150 -175	113.8	B3-U1-G2
90W80LED4K-R-LE4S	9197	87	0.78	0.43	0.40	0.34	350	150 -175	105.7	B2-U1-G2
90W80LED4K-R-LE5S	9091	87	0.78	0.43	0.40	0.34	350	150 -175	104.5	B3-U1-G2
135W80LED4K-R-LE2S	13122	129	1.15	0.61	0.58	0.5	530	250 -320	101.7	B3-U1-G2
135W80LED4K-R-LE3S	13927	129	1.15	0.61	0.58	0.5	530	250 -320	108.0	B3-U1-G3
135W80LED4K-R-LE4S	12941	129	1.15	0.61	0.58	0.5	530	250 -320	100.3	B3-U2-G2
135W80LED4K-R-LE5S	12792	129	1.15	0.61	0.58	0.5	530	250 -320	99.2	B4-U2-G2

¹ L70 = 100,000 hrs (at ambient temperature = 25°C and forward current = 700 mA)

² System wattage includes the lamp and the LED driver.

³ Equivalence should always be confirmed by a photometric layout

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Philips.

**EXHIBIT M
TO CONTRACT AGREEMENT**

**NOTICE TO CONTRACTORS
COMPLIANCE WITH ELECTRICAL SAFETY PROVISIONS
(Bidder to sign and return)**

I hereby certify that I am a principal and duly authorized representative of _____, (“Contractor”), whose address is _____, _____, _____, and I further certify that:

- (1) The provisions of Section 46-3-30 of the Official Code of Georgia Annotated, relating to the “High Voltage Safety Act” will be complied with in full; and
- (2) The provisions of OSHA 29CFR1910.333(c) relating to work near high voltage power lines; and
- (3) The provisions of Part 4 of the National Electrical Safety Code.
- (3) The Contractor shall be required to ensure that each subcontractor hired is in compliance with the provisions listed above.

CONTRACTOR:

Date: _____

Signature: _____
Title: _____

APPENDICES

1. AFFIDAVITS
 - Affidavit Verifying Status for City Public Benefit Application
 - Contractor Affidavit Under O.C.G.A. §13-10-91(b(1))
2. CORPORATE CERTIFICATE
3. BONDS
4. LIST OF SUBCONTRACTORS
5. CERTIFICATE OF QUALIFICATION GEORGIA DEPARTMENT OF TRANSPORTATION

**Affidavit Verifying Status
for City Public Benefit Application
(Bidder to sign and return)**

By executing this affidavit under oath, as an applicant for a City of Sandy Springs, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit, execution of contract or other public benefit as referenced in O.C.G.A. Section 50-36-1, I am stating the following with respect to my application for a City of Sandy Springs license/permit and/or contract for

[Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: _____ Date: _____

Printed Name: _____

*Alien Registration number for non-citizens

****PLEASE INCLUDE A COPY OF YOUR PERMANENT RESIDENT CARD, EMPLOYMENT AUTHORIZATION, GREEN CARD, OR PASSPORT WITH A COPY OF YOUR DRIVER'S LICENSE IF YOU ARE A LEGAL PERMANENT RESIDENT (#2).**

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF _____.

Notary Public: _____

My Commission Expires: _____

*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below:

Contractor Affidavit under O.C.G.A. § 13-10-91(b)(1)
(Bidder to sign and return)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the City of Sandy Springs has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____ in _____ (city), _____ (state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME

ON THIS THE _____ DAY OF _____

NOTARY PUBLIC

My Commission Expires: _____

CORPORATE CERTIFICATE

I, _____, certify that I am the Secretary of the Corporation named as Contractor in the foregoing bid; that _____ who signed said bid in behalf of the Contractor, was then (title)_____ of said Corporation; that said bid was duly signed for and in behalf of said Corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of ___Georgia_____.

This _____ day of _____, 2012.

(Seal)

(Signature)

BID BOND
(BID BOND TO BE RETURNED WITH BID)

KNOW ALL MEN BY THESE PRESENTS, THAT _____

(Name of Contractor) _____

(Address of Contractor) at

(Corporation, Partnership and or Individual) hereinafter called Principal, and _____

(Name of Surety)

(Address of Surety)

A corporation of the State of _____, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

City of Sandy Springs Georgia

7840 Roswell Rd., Bldg.-500, Sandy Springs, Georgia 30350

herein after referred to as Obligee, in the penal sum of _____ Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Sandy Springs, Georgia, a proposal for furnishing materials, labor and equipment for:

Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Sandy Springs, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Sandy Springs, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Sandy Springs, Georgia, and otherwise, to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Sandy Springs, Georgia, upon

demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20____

ATTEST:

(Principal Secretary)

(SEAL)

(Witness to Principal)

(Address)

(Surety)

ATTEST

BY: _____
(Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)

(Address)

(Witness as to Surety)

(Address)

(Principal)

BY: _____

(Address)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: THAT

(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

A Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs, Georgia
7840 Roswell Rd., Bldg.-500, Sandy Springs, Ga. 30350

hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of:

_____ Dollars (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated _____ for:

Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the obligee, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and

agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed thereunder shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed hereunder.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. § 36-91-1 et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20____

ATTEST:

(Principal Secretary)

(Principal)

(SEAL)

BY: _____

(Witness to Principal)

(Address)

(Surety)

ATTEST BY:

Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)

(Address)

(Witness as to Surety)

(Address)

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: THAT _____
(Name of Contractor)

(Address of Contractor)

a _____
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

(Name of Surety)

(Address of Surety)

a Corporation of the State of _____ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Sandy Springs Georgia
7840 Roswell Rd., Bldg.-500, Sandy Springs, Georgia 30350

hereinafter referred to as Obligee; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of _____ Dollars

(\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract hereto attached, with the Obligee, dated _____ for:

Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to Brandon Mill (T-0002-2)

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials, services, skill, tools, machinery, and equipment furnished or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED, HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal:

Unless such person shall have given notice to the Principal within One Hundred and Twenty (120) days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five (5) days of the mailing of the notice to the Principal.

PROVIDED, FURTHER, that any suit under this bond must be instituted before the expiration of one (1) year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this _____ day of _____ A.D., 20____

ATTEST:

(Principal Secretary)

(SEAL)

(Witness to Principal)

(Address)

(Principal)

BY: _____

(Address)

ATTEST

(Surety)
BY: _____
(Attorney-in-Fact) and Resident Agent

(Attorney-in-Fact)

(Seal)

(Address)

(Witness as to Surety)

(Address)

MAINTENANCE BOND

CITY OF SANDY SPRINGS, GEORGIA
PROJECT NO: **T-0034** FULTON COUNTY, GEORGIA
BOND NO: _____

KNOW ALL MEN BY THESE PRESENTS

That we, _____ as Principal, and
_____ as Surety, are held and firmly bound unto the
CITY OF SANDY SPRINGS, GEORGIA, as Obligee in the sum of 1/3 of the contract bid for
the payment of which said Principal and Surety bind themselves, their heirs, administrators,
executors, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into an agreement with the City of Sandy Springs for

*Abernathy Road Lighting Project - Roswell Rd to Wright Rd (T-0002-1) and Wright Rd to
Brandon Mill (T-0002-2)*

and said work has now been completed and the Obligee desires a maintenance bond guarantee
said streets and improvements for a period of one (1) year beginning _____ and
ending _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the
Principal shall fully indemnify and save harmless the City of Sandy Springs from any and all
loss, costs, expenses or damages, for any repairs or replacements required because of defective
workmanship or materials in said construction, then this obligation shall be null and void;
otherwise to be and remain in full force and effect as to any such claim arising within one (1)
year from the completion of said construction as set forth in said agreement.

Signed, sealed and dated this _____ day of _____, 20 _____

Witness:

(Principal)

(Name of Surety. Company)

(Attorney-in-fact)

LIST OF SUBCONTRACTORS
(Bidder to complete and return)

I do _____, do not _____, propose to subcontract some of the work on this project. I propose to subcontract work to the following subcontractors:

Company Name: _____