

RESOLUTION NO. 2086-11

A RESOLUTION OF THE CITY OF WINTER PARK, FLORIDA APPROVING THE FORM AND AUTHORIZING THE EXECUTION AND DELIVERY OF A MASTER EQUIPMENT LEASE-PURCHASE AGREEMENT WITH BRANCH BANKING AND TRUST COMPANY, AS LESSOR, AND SEPARATE LEASE SCHEDULES ATTACHED THERETO; APPROVING THE FORM OF AND AUTHORIZING THE EXECUTION OF A PROJECT FUND AGREEMENT FOR THE ACQUISITION, PURCHASE, FINANCING AND LEASING OF CERTAIN EQUIPMENT WITHIN THE TERMS HEREIN PROVIDED; AUTHORIZING THE EXECUTION AND DELIVERY OF OTHER DOCUMENTS REQUIRED IN CONNECTION THEREWITH; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

**WHEREAS**, the City Commission (the "Commission") of the City of Winter Park, Florida (the "City") has determined that a true and very real need exists for the acquisition, purchase and financing of certain property relating to energy conservation within the City (the "Equipment"); and

**WHEREAS**, the City has taken the necessary steps to arrange for the acquisition of such Equipment, including any legal bidding requirements under applicable law;

**WHEREAS**, the proposal submitted by Branch Banking and Trust Company (the "Bank") to the City for the financing of the Equipment, which is attached hereto as Exhibit A, contained the terms most advantageous to the City; and

**WHEREAS**, the City now desires to authorize and approve in connection with the lease purchase financing of the Equipment, (i) the form of the Lease Purchase Agreement to be entered into by and between the City and the Bank (the "Lease Agreement") and the exhibits attached thereto, (ii) the form of the Project Fund Agreement to be entered into by and among the City and the Bank (the "Project Fund Agreement," and together with the Lease Agreement, the "Financing Documents"), and (iii) the execution and delivery of the Financing Documents in substantially the forms attached hereto as Exhibit B with such terms as are necessary to properly reflect the terms of the Bank's proposal and (iv) additional limited general authority; and

**BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA:**

**SECTION 1. AUTHORITY FOR RESOLUTION.** This Resolution is adopted pursuant to Chapter 166, Part II, Florida Statutes and other applicable provisions of law (collectively, the "Act").

**SECTION 2. RECITALS.**

(A) The findings and declarations of the City contained in the above WHEREAS clauses are hereby incorporated as a part of this Resolution.

(B) It is in the best interest of City and its inhabitants to purchase the Equipment and to obtain the financing therefor.

(C) It is hereby ascertained, determined and declared that in light of prevailing and anticipated market conditions, it is in the best interest of the City to enter into the Lease Agreement with the Bank for the Equipment, upon the satisfaction of the conditions set forth in Section 3 hereof.

**SECTION 3. AUTHORIZATION OF FINANCING DOCUMENTS.** The Commission does hereby authorize the execution and delivery, on behalf of the City, by its Mayor, and the corporate seal of the City and attested by its City Clerk, of the Lease Agreement. The Financing Documents shall be in substantially the form attached hereto and marked Exhibit B and are hereby approved, with such changes therein as shall be approved by any of the authorized officers executing the same, with such execution constituting conclusive evidence of such officer's approval and the City's approval of any changes therein to the form of the Lease Agreement attached hereto. Notwithstanding the foregoing, the terms of the lease purchase financings for the Equipment shall be in a principal amount of not to exceed \$1,725,656, for a term of not to exceed 11 years and bear a fixed rate of interest of not to exceed 3.05%.

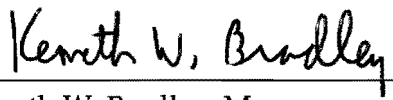
**SECTION 4.. GENERAL AUTHORIZATION.** The Mayor, the Finance Director, the City Clerk, the City Attorney and the officers and agents of the City, are hereby authorized and directed to do all acts and things required by them by the provisions of the Financing Documents in connection with the lease purchase financing of the Equipment, to the extent that full compliance with the terms thereof shall be effected. In the event the Mayor or the City Clerk are unable or unavailable to execute any document or take any action required, the Vice-Mayor shall be fully authorized to take such action for the Mayor and the Deputy City Clerk shall be fully authorized to take such action for the City Clerk.

**SECTION 5. SEVERABILITY OF INVALID PROVISIONS.** If any one or more of the covenants, agreements or provisions herein contained shall be held contrary to any express provision of law or contrary to the policy of express law, though not expressly prohibited, or against public policy, or shall for any reason whatsoever be held invalid, then such covenants, agreements or provisions shall be null and void and shall be deemed separable from the remaining covenants, agreements or provisions hereof.

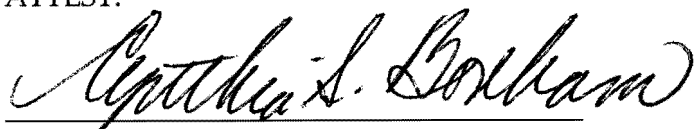
**SECTION 6. REPEAL OF INCONSISTENT PROVISIONS.** All resolutions or parts thereof in conflict with this resolution are hereby repealed to the extent of such conflict.

**SECTION 7. EFFECTIVE DATE.** This resolution shall take effect immediately upon its adoption.

ADOPTED after reading by title at a regular meeting of the City Commission of the City of Winter Park, Florida, held in City Hall, Winter Park, Florida, on this 27th day of June, 2011.

  
\_\_\_\_\_  
Kenneth W. Bradley, Mayor

ATTEST:

  
\_\_\_\_\_  
Cynthia S. Bonham, City Clerk

**EXHIBIT A**

**PROPOSAL FROM BRANCH BANKING AND TRUST COMPANY**

Exhibit A

VIA ELECTRONIC TRANSMISSION

June 16, 2011

Mr. Charles W. Hamil [whaml@cityofwinterpark.org](mailto:whaml@cityofwinterpark.org)  
Finance Director, City of Winter Park  
401 S. Park Avenue  
Winter Park, Florida 32789

Governmental Finance  
5130 Parkway Plaza Blvd.  
Charlotte, NC 28217  
(704) 954-1700  
Fax (704) 954-1799

mcomstock@bbandt.com  
direct dial: 704-954-1752

Dear Mr. Hamil:

We at Branch Banking and Trust Company are pleased that we will be working with you to provide financing for the City's energy conservation measures. By this letter we want to provide you with our proposed draft financing documents, and also outline the additional documentation we will need from you to close the financing.

We have enclosed the following draft documents for this financing:

1. **Lease Agreement.** This is the main document for the financing. The Lease Agreement sets out the loan and repayment terms, provides for the security interest that secures the loan and contains other provisions related to the City's care and use of the property being financed.
2. **Project Fund Agreement.** The Project Fund Agreement provides for the custody of financing proceeds pending their use on project costs. Please let us know as soon as possible if you will need any funds paid out at closing; we will need to know the exact amount you need at least three days prior to closing.
3. **Closing certificate.** This certificate, among other things, identifies the officials authorized to sign financing documents. **Please note that we will need you to attach at closing a certified copy or executed original of the approving resolution your governing board adopts for this financing** (our suggested form of this resolution was attached to our financing proposal to you).
4. **Use of proceeds certificate.** This certificate provides information regarding the City's planned use and expenditure of financing proceeds, to document compliance with federal rules for tax-exempt financing. You will see that there are some blanks in paragraph four; we need information from you to complete these blanks. *The federal tax rules applicable to local government financings can be tricky and technical; please let us know if you want to discuss any aspect of the applicable tax rules.*
5. **Attorney's legal opinion.** The attorney's opinion must be on his or her letterhead, dated the day of closing and delivered at closing. **The opinion will not be valid if it is dated prior to the closing.**
6. **IRS Form 8038-G.** This form is used to provide the required notification to the IRS regarding the tax-exempt financing.

6. **IRS Form 8038-G.** This form is used to provide the required notification to the IRS regarding the tax-exempt financing.
7. **Invoicing Information Sheet.** We have also enclosed a form requesting invoicing instructions. Please complete and return this form along with the other documents so that we will know where to send reminder invoices for your payments.
8. **Copy of Certificate of Property and Liability Insurance.** Please note our insurance requirements have changed. BB&T requires extended coverage property damage in an amount equal to the estimated replacement cost and **must include a lender's loss payable endorsement** in favor of BB&T. In addition, BB&T requires comprehensive general liability insurance for personal injury or death and property damage and **must include BB&T as an additional insured. We have enclosed a summary sheet of our insurance requirements for you to forward to your insurance agent to assist in the preparation of the insurance certificate.** (The insurance certificate may be submitted post-closing with a requisition for funds from the project fund account).

We appreciate your attention to these items. Should you have questions after reviewing the enclosed documents, please do not hesitate to contact either me or Mike Smith at 407-241-3570. Closing is scheduled for June 29, 2011.

Sincerely,

**BB&T Governmental Finance**



Mary Comstock, NCCP  
Contract Administrator

Enclosures

cc: Ken Artin, Esq., with enclosures [kartin@bmolaw.com](mailto:kartin@bmolaw.com)  
Alecia Ingram, Esq., with enclosures [aingram@bmolaw.com](mailto:aingram@bmolaw.com)  
Jay Glover, with enclosures [GLOVERJ@pfm.com](mailto:GLOVERJ@pfm.com)  
Mike Smith, with enclosures [mcsmith@bbandt.com](mailto:mcsmith@bbandt.com)

**EXHIBIT B**

**FINANCING DOCUMENTS**

Exhibit B

## LEASE AGREEMENT

**THIS LEASE AGREEMENT** (this "Agreement") is dated as of June 29, 2011, and is between the **CITY OF WINTER PARK**, a public body of the State of Florida (the "City"), and **BRANCH BANKING AND TRUST COMPANY** ("BB&T").

### RECITALS:

The City has the power to acquire such personal property as it may deem appropriate for carrying out its governmental and proprietary functions, and to acquire such property pursuant to lease agreements. This Agreement provides for BB&T to make available to the City the sum of \$1,725,656.00 to enable the City to acquire the Equipment (as defined below) by lease, and provides for securing the City's obligations under this Agreement in favor of BB&T.

**NOW THEREFORE**, for and in consideration of the mutual promises in this Agreement, and other good and valuable consideration, the parties hereby agree as follows:

### **ARTICLE I**

#### **DEFINITIONS; INTERPRETATION**

Unless the context clearly requires otherwise, capitalized terms used in this Agreement and not otherwise defined shall have the following meanings:

"Additional Payments" means any of BB&T's reasonable and customary fees and expenses related to the transactions contemplated by this Agreement, any of BB&T's expenses (including reasonable attorneys' fees) in prosecuting or defending any action or proceeding in connection with this Agreement, any required license or permit fees, state and local sales and use or ownership taxes or property taxes which BB&T is required to pay as a result of this Agreement, inspection and re-inspection fees, and any other amounts payable by the City (or paid by BB&T on the City's behalf) due and owing under this Agreement (together with interest that may accrue on any of the above if the City shall fail to pay the same, as set forth in this Agreement).

"Amount Advanced" has the meaning assigned in Section 2.02.

"Base Payments" means the rental payments payable by the City pursuant to Section 3.01.

"Bond Counsel Opinion" means a written opinion (in form and substance acceptable to BB&T) of an attorney or firm of attorneys acceptable to BB&T.



"Budget Officer" means the City officer from time to time charged with preparing the City's draft budget as initially submitted to the Governing Board for its consideration.

"Business Day" means any day on which banks in the State are not by law authorized or required to remain closed.

"City" means the City of Winter Park, Florida.

"City Representative" means the City's Finance Director or such other person or persons at the time designated, by a written certificate furnished to BB&T and signed on the City's behalf by the presiding officer of the City's Governing Board, to act on the City's behalf for any purpose (or any specified purpose) under this Agreement.

"Closing Date" means the date on which this Agreement is first executed and delivered by the parties.

"Code" means the Internal Revenue Code of 1986, as amended, including regulations, rulings and revenue procedures promulgated thereunder or under the Internal Revenue Code of 1954, as amended, as applicable to the City's obligations under this Agreement and all proposed (including temporary) regulations which, if adopted in the form proposed, would apply to such obligations. Reference to any specific Code provision shall be deemed to include any successor provisions thereto.

"Equipment" has the meaning assigned in Section 2.03, and is generally expected to include the personal property described in Exhibit A.

"Event of Default" means one or more events of default as defined in Section 6.01.

"Event of Nonappropriation" means any failure by the Governing Board to adopt, by the first day of any Fiscal Year, a budget for the City that includes an appropriation for Required Payments as contemplated by Section 3.05.

"Fiscal Year" means the City's fiscal year beginning October 1, or such other fiscal year as the City may later lawfully establish.

"Governing Board" means the City Council of the City of Winter Park, Florida as from time to time constituted.

"Net Proceeds," when used with respect to any amounts derived from claims made on account of insurance coverages required under this Agreement, any condemnation award arising out of the condemnation of all or any portion of the Equipment, or any amounts received in lieu or in settlement of any of the foregoing, means the amount remaining after deducting from the gross proceeds thereof all expenses (including attorneys' fees and costs) incurred in the collection of such proceeds, and after reimbursement to the City or BB&T for amounts previously expended to remedy the event giving rise to such payment or proceeds.

"Payment Dates" means the dates indicated in Exhibit B.

"Prime Rate" means the interest rate so denominated and set by Branch Banking & Trust Company of North Carolina (whether or not such Bank, or any affiliate thereof, is at any time the counterparty to this Agreement) as its "Prime Rate," as in effect from time to time.

"Project Costs" means all costs of the design, planning, acquiring and installing the Equipment as determined in accordance with generally accepted accounting principles and that will not adversely affect the exclusion from gross income for federal income tax purposes of the designated interest component of Base Payments payable by the City under this Agreement, including (a) sums required to reimburse the City or its agents for advances for any such costs, (b) interest during the period of the acquisition and installation of the Equipment and for up to six months thereafter, and (c) all costs related to the financing of the Equipment through this Agreement and all related transactions.

"Project Fund" has the meaning assigned in Section 2.02.

"Project Fund Agreement" has the meaning assigned in Section 2.02.

"Required Payments" means Base Payments and Additional Payments.

"State" means the State of Florida.

All references in this Agreement to designated "Sections" and other subdivisions are to the designated sections and other subdivisions of this Agreement. The words "hereof" and "hereunder" and other words of similar import refer to this Agreement as a whole and not to any particular Section or other subdivision unless the context indicates otherwise. Words importing the singular number shall include the plural number and vice versa.

## ARTICLE II

### LEASE; ADVANCE

**2.01. Lease.** BB&T hereby leases to the City, and the City hereby leases from BB&T, the Equipment, for a term beginning on the Closing Date and ending upon final payment of all Required Payments, unless this Lease is earlier terminated. The City shall be entitled to possession of all property constituting any portion of the Equipment and may retain possession of all property constituting any portion of the Equipment so long as no Event of Default is continuing under this Agreement and no Event of Nonappropriation has occurred.

**2.02. Advance.** BB&T advances \$1,725,656.00 (the "Amount Advanced") to the City on the Closing Date, and the City hereby accepts the Amount Advanced from BB&T. BB&T is advancing the Amount Advanced by making a deposit to the Project Fund (the "Project Fund") as

provided in the Project Fund Agreement of even date between City and BB&T. All amounts on deposit in the Project Fund including the Amount Advanced and all investment earnings shall be used only for Project Costs until the Project Fund is terminated as provided under the Project Fund Agreement. Notwithstanding anything herein to the contrary, no funds will be advanced to Lessee hereunder until BB&T receives from Lessee the vehicle identification number(s) (VIN) and/or serial number(s) associated with the Equipment.

**2.03. [Reserved].**

**2.04. City's Limited Obligation.** (a) No provision of this Agreement shall be construed or interpreted as creating a pledge of the City's faith and credit within the meaning of any constitutional debt limitation. No provision of this Agreement shall be construed or interpreted as an improper delegation of governmental powers or as a donation or a lending of the City's credit within the meaning of the State constitution. No provision of this Agreement shall be construed to pledge or to create a lien on any class or source of the City's moneys (other than the funds held under the Project Fund Agreement or this Agreement), nor shall any provision of this Agreement restrict the future issuance of any of the City's bonds or obligations payable from any class or source of the City's moneys (except to the extent this Agreement restricts the incurrence of additional obligations secured by the Equipment).

(b) Nothing in this Section is intended to impair or prohibit execution on the Equipment if the Required Payments are not paid when due or otherwise upon the occurrence of an Event of Default under this Agreement or the Project Fund Agreement.

**2.05. City's Continuing Obligations.** The City shall remain liable for full performance of all its covenants under this Agreement (subject to the limitations described in Sections 2.04 and 6.04), including payment of all Required Payments, notwithstanding the occurrence of any event or circumstances whatsoever, including any of the following:

- (a) BB&T's waiver of any right granted or remedy available to it;
- (b) The forbearance or extension of time for payment or performance of any obligation under this Agreement, whether granted to the City, a subsequent owner of the Equipment or any other person;
- (c) The release of part of the Equipment or the release of any party who assumes all or any part of such performance;
- (d) Any act or omission by BB&T (but this section provision does not relieve BB&T of any of its obligations under this Agreement) or the Project Fund Agreement;
- (e) The sale of all or any part of the Equipment.

## ARTICLE III

### LESSEE'S PAYMENT OBLIGATION AND RELATED MATTERS

**3.01. Rental; Purchase Option.** (a) As rental for the Equipment, the City shall make Base Payments to BB&T in lawful money of the United States at the times and in the amounts set forth in Exhibit B, except as otherwise provided in this Agreement. As indicated in Exhibit B, the Base Payments reflect the repayment of the Amount Advanced and include designated interest components.

(b) Upon payment of all the Base Payments and all Additional Payments, the City may, at its option, purchase all of BB&T's interest in the Equipment, on an as-is, where-is basis, upon notice and payment to BB&T of the sum of Ten Dollars. Upon such purchase, this Agreement and BB&T's interest in the Equipment shall automatically terminate (subject to the performance of any obligations that survive termination of this Agreement). Upon the City's request, BB&T shall provide the City with written evidence of the termination of BB&T's interest in the Equipment as provided above. This option to purchase the Equipment is personal to the City and is not assignable.

**3.02. Additional Payments.** The City shall pay all Additional Payments on a timely basis directly to the person or entity to which such Additional Payments are owed in lawful money of the United States.

**3.03. Prepayment.** At its option on any scheduled Payment Date, the City may prepay the outstanding principal component of the Amount Advanced (in whole but not in part), and thereby obtain ownership of all the Equipment free of this lease and BB&T's interest in the Equipment, by paying (a) all Additional Payments then due and payable, (b) all interest accrued and unpaid to the prepayment date, and (c) 101% of the outstanding principal component of the Amount Advanced.

**3.04. Late Payments.** If the City fails to pay any Base Payment when due, the City shall pay additional interest on the principal component of the late Base Payment at an annual rate equal to the Prime Rate from the original due date.

**3.05. Appropriations.** (a) The Budget Officer shall include in the initial proposal for each of the City's annual budgets the amount of all Base Payments and estimated Additional Payments coming due during the Fiscal Year to which such budget applies. Notwithstanding that the Budget Officer includes such an appropriation for Required Payments in a proposed budget, the Governing Board may determine not to include such an appropriation in the City's final budget for such Fiscal Year.

(b) The Budget Officer shall deliver to BB&T, within 15 days after the beginning of each Fiscal Year, a certificate stating whether an amount equal to the Base Payments and estimated

Additional Payments coming due during the next Fiscal Year has been appropriated by the City in such budget for such purposes.

(c) The actions required of the City and its officers pursuant to this Section shall be deemed to be and shall be construed to be in fulfillment of ministerial duties, and it shall be the duty of each and every City official to take such action and do such things as are required by law in the performance of the official duty of such officials to enable the City to carry out and perform the actions required pursuant to this Section and the remainder of this Agreement to be carried out and performed by the City.

(d) The City represents that it has funds available to pay the Required Payments through the end of the current Fiscal Year.

**3.06. No Abatement.** There shall be no abatement or reduction of the Required Payments for any reason, including, but not limited to, any defense, recoupment, setoff, counterclaim, or any claim (real or imaginary) arising out of or related to the Equipment, except as expressly provided in this Agreement. The City assumes and shall bear the entire risk of loss and damage to the Equipment from any cause whatsoever. The Base Payments shall be made in all events unless the City's obligation to make Base Payments is terminated as otherwise provided in this Agreement.

**3.07. Interest Rate and Payment Adjustment.** (a) "Rate Adjustment Event" means any action by the Internal Revenue Service (including the delivery of a deficiency notice) or any other federal court or administrative body determining (i) that the interest component of Base Payments, or any portion thereof, is includable in any counterparty's gross income for federal income tax purposes or (ii) that the City's obligations under this Agreement are not "qualified tax-exempt obligations" within the meaning of Code Section 265 (a "265 Event"), in any case as a result of any misrepresentation by the City or as a result of any action the City takes or fails to take.

(b) Upon any Rate Adjustment Event, (i) the unpaid principal portion of the Amount Advanced shall continue to be payable on dates and in amounts as set forth in Exhibit B, but (ii) the interest components of the Base Payments shall be recalculated, at an interest rate equal to an annualized interest rate equal to the Prime Rate plus 2% (200 basis points), to the date (retroactively, if need be) determined pursuant to the Rate Adjustment Event to be the date interest became includable in any counterparty's gross income for federal income tax purposes (in the case of a 265 Event, retroactively to the Closing Date).

(c) The City shall pay interest at such adjusted rate (subject to credit for interest previously paid) to each affected counterparty, notwithstanding the fact that any particular counterparty may not be a counterparty to this Agreement on the date of a Rate Adjustment Event. The City shall additionally pay to all affected counterparties any interest, penalties or other charges assessed against or payable by such counterparty and attributable to a Rate Adjustment Event notwithstanding the prior repayment of the entire Amount Advanced or any transfer to another counterparty.

## ARTICLE IV

### LESSEE'S' COVENANTS, REPRESENTATIONS AND WARRANTIES

**4.01. Indemnification.** Except for the negligent acts or omissions of BB&T, to the extent permitted by law, the City shall indemnify, protect and save BB&T and its officers and directors harmless from all liability, obligations, losses, claims, damages, actions, suits, proceedings, costs and expenses, including attorneys' fees, arising out of, connected with, or resulting from the Equipment or the transactions contemplated by this Agreement, including without limitation the possession, condition or use of the Equipment. In no event will the City's obligation under this indemnification clause ever exceed the City's limits of liability under section 768.28, Florida Statutes, as amended. The City does not by reason of this indemnification waive or relinquish its sovereign immunity. The indemnification arising under this Section shall survive the Agreement's termination, except for those matters which arise from BB&T's (or anyone BB&T sells or re-leases the Equipment to) use, operation, ownership, condition or maintenance of the Equipment following termination of this Agreement.

**4.02. Covenant as to Tax Exemption.** (a) The City shall not take or permit, or omit to take or cause to be taken, any action that would cause its obligations under this Agreement to be "arbitrage bonds" or "private activity bonds" within the meaning of the Code, or otherwise adversely affect the exclusion from gross income for federal income tax purposes of the designated interest component of Base Payments to which such components would otherwise be entitled. If the City should take or permit, or omit to take or cause to be taken, any such action, the City shall take or cause to be taken all lawful actions within its power necessary to rescind or correct such actions or omissions promptly upon having knowledge thereof.

(b) In particular, the City covenants that it shall not permit the Amount Advanced, plus the investment earnings thereon (the "Proceeds"), to be used in any manner that would result in 5% or more of the Base Payments being directly or indirectly secured by an interest in property, or derived from payments in respect of property or borrowed money, being in either case used in a trade or business carried on by any person other than a governmental unit, as provided in Code Section 141(b), or result in 5% or more of the Proceeds being used directly or indirectly to make or finance loans to any persons other than a governmental unit, as provided in Code Section 141(c); provided, however, that if the City receives a Bond Counsel Opinion that compliance with any such covenant is not required to prevent the interest components of Base Payments from being includable in the counterparty's gross income for federal income tax purposes under existing law, the City need not comply with such covenant.

(c) Unless the City qualifies for one or more exceptions to the arbitrage rebate requirement with respect to this financing, the City shall provide for the rebate to the United States of (i) at least 90% of the required rebate amount (A) on or before 60 days after the date that is five years from the Closing Date, and (B) at least once during each five years thereafter while the Obligations remain outstanding, and (ii) the entire required rebate amount on or before 60 days after the date of final payment of the Obligations. Payments shall be made in the manner prescribed by the Internal Revenue Service. The City shall cause the required rebate amount to be recomputed as

of each fifth anniversary of the Closing Date, and again as of the date of final payment of the Obligations. The City shall provide BB&T with a copy of the results of such computation within 20 days after the end of each computation period or final payment of the Obligations. Each computation shall be prepared or approved, at the City's expense, by a person with experience in matters of accounting for federal income tax purposes, a bona fide arbitrage rebate calculating and reporting service, or nationally-recognized bond counsel, in any case reasonably acceptable to BB&T. The City shall engage such rebate consultant to perform the necessary calculations not less than 60 days prior to the date of the required payment.

(d) The City acknowledges that its personnel must be familiar with the arbitrage rebate rules, because the tax-exempt status of the interest on the Obligations depends upon continuing compliance with such rules. The City therefore covenants to take all reasonable action to assure that City personnel responsible for the investment of and accounting for financing proceeds comply with such rules.

**4.03. Validity of Organization and Acts.** The City is validly organized and existing under State law, has full power to enter into this Agreement and has duly authorized and has obtained all required approvals and all other necessary acts required prior to the execution and delivery of this Agreement. This Agreement is a valid, legal and binding obligation of the City.

**4.04. Maintenance of Existence.** The City shall maintain its existence, shall continue to be a local governmental unit of the State, validly organized and existing under State law, and shall not consolidate with or merge into another local governmental unit of the State, or permit one or more other local governmental units of the State to consolidate with or merge into it, unless the local governmental unit thereby resulting assumes the City's obligations under this Agreement.

**4.05. Acquisition of Permits and Approvals.** All permits, consents, approvals or authorizations of all governmental entities and regulatory bodies, and all filings and notices required on the City's part to have been obtained or completed as of today in connection with the authorization, execution and delivery of this Agreement, the consummation of the transactions contemplated by this Agreement and the acquisition and installation of the Equipment have been obtained and are in full force and effect, and there is no reason why any future required permits, consents, approvals, authorizations or orders cannot be obtained as needed.

**4.06. No Breach of Law or Contract.** Neither the execution and delivery of this Agreement nor the consummation of the transactions contemplated by this Agreement, nor the fulfillment of or compliance with the terms and conditions of this Agreement, (a) to the best of the City's knowledge, constitutes a violation of any provision of law governing the City or (b) results in a breach of the terms, conditions or provisions of any contract, agreement or instrument or order, rule or regulation to which the City is a party or by which the City is bound.

**4.07. No Litigation.** There is no litigation or any governmental administrative proceeding to which the City (or any official thereof in an official capacity) is a party that is pending or, to the best of the City's knowledge after reasonable investigation, threatened with respect to (a) the City's organization or existence, (b) its authority to execute and deliver this Agreement or to comply with

the terms of this Agreement, (c) the validity or enforceability of this Agreement or the transactions contemplated by this Agreement, (d) the title to office of any Governing Board member or any other City officer, (e) any authority or proceedings relating to the City's execution or delivery of this Agreement, or (f) the undertaking of the transactions contemplated by this Agreement.

**4.08. No Current Default or Violation.** (a) The City is not in violation of any material existing law, rule or regulation applicable to it, (b) the City is not in default under any contract, other agreement, order, judgment, decree or other instrument or restriction of any kind to which the City is a party or by which it is bound or to which any of its assets are subject, including this Agreement, and (c) no event or condition has happened or existed, or is happening or existing, under the provisions of any such instrument, including this Agreement, which constitutes or which, with notice or lapse of time, or both, would constitute an event of default hereunder or thereunder.

**4.09. No Misrepresentation.** No representation, covenant or warranty by the City in this Agreement is false or misleading in any material respect.

**4.10. Environmental Warranties and Indemnification.** (a) The City warrants and represents to BB&T that, to the best of the City's knowledge after thorough investigation, the Equipment is not now and has not ever been used to generate, manufacture, refine, transport, treat, store, handle, dispose, transfer, produce or process Hazardous Materials.

(b) The City covenants that the Equipment shall be kept free of Hazardous Materials and shall not be used to generate, manufacture, refine, transport, treat, store, handle, dispose, transfer, produce or process Hazardous Materials, except in connection with the normal maintenance and operation of the Equipment, and the City shall not cause or permit, as a result of any intentional or unintentional act or omission on the part of the City or any lessee, the release of Hazardous Materials onto the Equipment or suffer the presence of Hazardous Materials on the Equipment, except in connection with the normal maintenance and operation of the Equipment.

(c) The City shall comply with, and ensure compliance by all users and lessees with, all applicable federal, State and local laws, ordinances, rules and regulations with respect to Hazardous Materials and shall keep the Equipment free and clear of any liens imposed pursuant to such laws, ordinances, rules and regulations. If the City receives any notices from any governmental agency or any lessee with regard to Hazardous Materials on, from or affecting the Equipment, the City shall immediately notify BB&T. The City shall conduct and complete all investigations, studies, sampling and testing and all remedial, removal and other actions necessary to clean up and remove all Hazardous Materials on, from or affecting the Equipment in accordance with all applicable federal, State and local laws, ordinances, rules, regulations and policies.

(d) "Hazardous Materials" means any explosives, radioactive materials, hazardous materials, hazardous wastes, hazardous or toxic substances, or related materials, asbestos or any materials containing asbestos, or any other substance or material as defined by any federal, State or local environmental law, ordinance, rule or regulation including, without



limitation, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (42 U.S.C. sections 9601 et seq.), the Hazardous Materials Transportation Act, as amended (49 U.S.C. sections 1801 et seq.), the Resource Conservation and Recovery Act, as amended (42 U.S.C. sections 9601 et seq.), and the regulations adopted and publications promulgated pursuant thereto.

(e) To the extent permitted by law, the City shall indemnify and hold BB&T harmless from and against (i) any and all damages, penalties, fines, claims, liens, suits, liabilities, costs (including clean-up costs), judgments and expenses (including attorneys', consultants' or experts' fees and expenses) of every kind and nature suffered by or asserted against BB&T as a result of any warranty or representation made by the City in subsections (a) through (c) above being false or untrue in any material respect, or (ii) any requirement under any law, regulation or ordinance, local, State or federal, which requires the elimination or removal of any hazardous materials, substances, wastes or other environmentally regulated substances by BB&T or the City or any transferee or assignee BB&T or the City. In no event will the City's obligation under this indemnification clause ever exceed the City's limits of liability under section 768.28, Florida Statutes, as amended. The City does not by reason of this indemnification waive or relinquish its sovereign immunity.

(f) The City's obligations under this Section shall continue in full force and effect notwithstanding full payment of the Required Payments under this Agreement.

**4.11. Further Instruments.** Upon BB&T's request, the City shall execute, acknowledge and deliver such further instruments reasonably necessary or desired by BB&T to carry out more effectively the purposes of this Agreement or any other document related to the transactions contemplated by this Agreement, and all or any part of the Equipment intended to be given or conveyed hereunder or thereunder, whether now given or conveyed or acquired and conveyed subsequent to the date of this Agreement.

**4.12. BB&T's Advances for Performance of City's Obligations.** If the City fails to perform any of its obligations under this Agreement, BB&T is hereby authorized, but not obligated, to perform such obligation or cause it to be performed. All expenditures incurred by BB&T (including any advancement of funds for payment of taxes, insurance premiums or other costs of maintaining the Equipment, and any associated legal or other expenses), together with interest thereon at the Prime Rate, shall be secured as Additional Payments under this Agreement. The City promises to pay all such amounts to BB&T immediately upon demand.

**4.13. Equipment Will Be Used and Useful.** The acquisition and installation of the Equipment is necessary and expedient for the City, and will perform essential functions of the City appropriate for units of local government. The City has an immediate need for, and expects to make immediate use of, all of the Equipment, and does not expect such need or use to diminish in any material respect during the term of the Agreement. The Equipment will not be used in any private business or put to any private business use.

**4.14. Financial Information.** (a) The City shall send to BB&T a copy of the City's audited financial statements for each Fiscal Year within 30 days of the City's acceptance of such statements, but in any event within 180 days of the completion of such Fiscal Year.

(b) The City shall furnish BB&T, at such reasonable times as BB&T shall request, all other financial information (including, without limitation, the City's annual budget as submitted or approved) as BB&T may reasonably request. The City shall permit BB&T or its agents and representatives to inspect the City's books and records and make extracts therefrom.

**4.15. Taxes and Other Governmental Charges.** The City shall pay, as Additional Payments, the full amount of all taxes, assessments and other governmental charges lawfully made by any governmental body during the term of this Agreement. With respect to special assessments or other governmental charges which may be lawfully paid in installments over a period of years, the City shall be obligated to provide for Additional Payments only for such installments as are required to be paid during the Agreement term. The City shall not allow any liens for taxes, assessments or governmental charges with respect to the Equipment or any portion thereof to become delinquent (including, without limitation, any taxes levied upon the Equipment or any portion thereof which, if not paid, will become a charge on any interest in the Equipment, including BB&T's interest, or the rentals and revenues derived therefrom or hereunder).

**4.16 City's Insurance.** (a) The City shall, at its own expense, acquire, carry and maintain broad-form extended coverage property damage insurance with respect to all Equipment in an amount equal to the estimated replacement cost, including installation costs, of the Equipment. Such property damage insurance shall include BB&T as a loss payee. The City shall provide evidence of such coverage to BB&T promptly upon installation of the Equipment. Any Net Proceeds of the insurance required by this subsection (a) shall be payable as provided in Section 5.14.

## ARTICLE V

### THE EQUIPMENT

**5.01. Acquisition and Installation.** The City shall comply with all provisions of law applicable to the acquisition of the Equipment, accept all portions of the Equipment when properly delivered, provide for the proper installation thereof and thereafter promptly place each such portion in service.

**5.02. Changes in Location.** The City shall promptly inform BB&T if any component of the Equipment shall be moved from the location designated for such Equipment at the time of its acquisition.

**5.03. Acquisition and Installation within Funds Available.** The City represents that, based upon its examination of the plans and specifications for the Equipment, estimated installation costs and the Equipment's anticipated configuration, the Equipment can be acquired and installed

for a total price within the total amount of funds to be available therefore in the Project Fund, income anticipated to be derived from the investment thereof and other funds previously identified and designated for such purposes. If the total amount available for such purposes in the Project Fund shall be insufficient to pay the entire cost of acquiring and installing the Equipment, the City promises to pay any such excess costs, with no resulting reduction or offset in the amounts otherwise payable by the City under this Agreement.

**5.04. Disclaimer of Warranties.** The City agrees that BB&T has not designed the Equipment, that BB&T has not supplied any plans or specifications with respect thereto and that BB&T (a) is not a manufacturer of, nor a dealer in, any of the component parts of the Equipment or similar Equipment, (b) has not made any recommendation, given any advice nor taken any other action with respect to (i) the choice of any supplier, vendor or designer of, or any other contractor with respect to, the Equipment or any component part thereof or any property or rights relating thereto, or (ii) any action taken or to be taken with respect to the Equipment or any component part thereof or any property or rights relating thereto at any stage of the acquisition, installation and equipping thereof, (c) has not at any time had physical possession of the Equipment or any component part thereof or made any inspection thereof or of any property or rights relating thereto, and (d) has not made any warranty or other representation, express or implied, that the Equipment or any component part thereof or any property or rights relating thereto (i) will not result in or cause injury or damage to persons or property, (ii) has been or will be properly designed, or will accomplish the results which the City intends therefore, or (iii) is safe in any manner or respect.

BB&T MAKES NO EXPRESS OR IMPLIED WARRANTY OR REPRESENTATION OF ANY KIND WHATSOEVER WITH RESPECT TO THE EQUIPMENT OR ANY COMPONENT PART THEREOF, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OR REPRESENTATION WITH RESPECT TO THE MERCHANTABILITY OR THE FITNESS OR SUITABILITY THEREOF FOR ANY PURPOSE, and further including the design or condition thereof; the safety, quality or capacity thereof; compliance thereof with the requirements of any law, rule, specification or contract pertaining thereto; any latent defect; the Equipment's ability to perform any function; that the Amount Advanced will be sufficient to pay all costs of the acquisition and installation of the Equipment; or any other characteristic of the Equipment; it being agreed that the City is to bear all risks relating to the Equipment, the installation thereof and the transactions contemplated by this Agreement, and the City hereby waives the benefits of any and all implied warranties and representations of BB&T.

The provisions of this Section shall survive the Agreement's termination.

**5.05. Right of Entry and Inspection.** Upon notice to the City and during normal business hours, BB&T and its representatives and agents shall have the right to enter upon the City's property and inspect the Equipment from time to time during installation and after the completion of installation, and the City shall cause any vendor, contractor or sub-contractor to cooperate with BB&T and its representatives and agents during such inspections.

No right of inspection or approval granted in this Section shall be deemed to impose upon BB&T any duty or obligation whatsoever to undertake any inspection or to make any approval. No

inspection made or approval given by BB&T shall be deemed to impose upon BB&T any duty or obligation whatsoever to identify or correct any defects in the Equipment or to notify any person with respect thereto, and no liability shall be imposed upon BB&T, and no warranties (either express or implied) are made by BB&T as to the quality or fitness of any improvement, any such inspection and approval being made solely for BB&T's benefit.

**5.06. Compliance with Requirements.** (a) The City shall cause the Equipment to be installed in a careful manner and in compliance with all applicable legal requirements.

(b) The City shall observe and comply promptly with all current and future requirements relating to the Equipment's use or condition imposed by any judicial, governmental or regulatory body having jurisdiction over the Equipment or any portion thereof.

(c) The City shall obtain and maintain in effect all licenses and permits required for the Equipment's operation.

(d) The City shall in no event use the Equipment or any part thereof, nor knowingly allow the same to be used, for any unlawful purpose, or suffer any act to be done or any condition to exist with respect to the Equipment or any part thereof, nor any article to be brought thereon, which may be dangerous, unless safeguarded as required by law, or which may, in law, constitute a nuisance, public or private, or which may make void or voidable any insurance then in force with respect thereto.

**5.07. Use and Operation.** The City shall use and operate the Equipment and related property as energy conservation measures, and for no other purpose unless required by law. The City shall be solely responsible for the Equipment's operation, and shall not contract with any other person or entity for the Equipment's operation.

**5.08. Maintenance and Repairs; Additions.** (a) The City shall keep the Equipment in good order and repair (reasonable wear and tear excepted) and in good operating condition, shall not commit or permit any waste or any other thing to occur whereby the value or usefulness of the Equipment might be impaired, and shall make from time to time all necessary or appropriate repairs, replacements and renewals.

(b) The City may, also at its own expense, make from time to time any additions, modifications or improvements to the Equipment that it may deem desirable for its governmental or proprietary purposes and that do not materially impair the effective use, nor materially decrease the value or substantially alter the intended use, of the Equipment. The City shall do, or cause to be done, all such things as may be required by law in order fully to protect the interests of and all of BB&T's rights under this Agreement.

(c) Any and all additions to or replacements of the Equipment and all parts thereof shall constitute accessions to the Equipment and shall be subject to all the terms and conditions of this Agreement and included in the "Equipment" for the purposes of this Agreement.

(d) Notwithstanding the provisions of subsection (c) above, however, the City may, from time to time in its sole discretion and at its own expense, install machinery, equipment and other tangible property in or on the Equipment. All such property shall remain the City's sole property in which BB&T shall have no interest; provided, however, that any such property which becomes permanently affixed to the Equipment shall be subject to BB&T's interest arising under this Agreement if BB&T shall reasonably determine that the Equipment would be damaged or impaired by the removal of such machinery, equipment or other tangible property.

**5.09. Security.** The City shall take all reasonable steps necessary to safeguard the Equipment against theft. The security afforded the Equipment shall at all times be equal to or better than the security afforded the City's personal property that is not subject to this Agreement.

**5.10. Utilities.** The City shall pay all charges for utility services furnished to or used on or in connection with the Equipment.

**5.11. Risk of Loss.** The City shall bear all risk of loss to and condemnation of the Equipment.

**5.12. Condemnation.**

(a) The City shall immediately notify BB&T if any governmental authority shall institute, or shall notify the City of any intent to institute, any action or proceeding for the taking of, or damages to, all or any part of the Equipment or any interest therein under the power of eminent domain, or if there shall be any damage to the Equipment due to governmental action, but not resulting in a taking of any portion of the Equipment. The City shall file and prosecute its claims for any such awards or payments in good faith and with due diligence and cause the same to be collected and paid over to BB&T, and to the extent permitted by law hereby irrevocably authorizes and empowers BB&T, in the City's name or otherwise, to collect and receipt for any such award or payment and to file and prosecute such claims. If the City receives any Net Proceeds arising from any such action, the City shall apply such Net Proceeds as provided in Section 5.14.

(b) If any of the real or personal property acquired or improved by the City (in whole or in part) using any portion of the Amount Advanced consists of or is located on any real property acquired by the City through the exercise of the power of eminent domain, or through the threat of the exercise of the power of eminent domain, then during the term of this Agreement the City may not transfer any interest in such real property to any entity other than a local governmental unit without BB&T's prior express written consent.

**5.13. No Encumbrance, Mortgage or Pledge of Equipment.**

(a) The City shall not directly or indirectly create, incur, assume or suffer to exist any mortgage, pledge, lien (including mechanics' and materialmen's liens), charge, encumbrance or other claim in the nature of a lien on or with respect to the Equipment. The City shall promptly, at its own expense, take such action as may be duly necessary to discharge any such mortgage, pledge,

lien, charge, encumbrance or claim not excepted above which it shall have created, incurred or suffered to exist.

(b) The City shall reimburse BB&T for any expense incurred by BB&T to discharge or remove any such mortgage, pledge, lien, security interest, encumbrance or claim, with interest thereon at the Prime Rate.

**5.14. Damage and Destruction; Use of Net Proceeds.** (a) The City shall promptly notify BB&T if (i) the Equipment or any portion thereof is stolen or is destroyed or damaged by fire or other casualty, (ii) a material defect in the installation of the Equipment shall become apparent, or (iii) title to or the use of all or any portion of the Equipment shall be lost by reason of a defect in title. Each notice shall describe generally the nature and extent of such damage, destruction or taking.

(b) If the Net Proceeds arising from any single event, or any single substantially related sequence of events, is not more than \$50,000, the City shall retain such Net Proceeds and apply the same to the prompt completion, repair or restoration of the Equipment, and shall promptly thereafter report to BB&T regarding the use of such Net Proceeds.

(c) If the Net Proceeds arising from any single event, or any single substantially related sequence of events, is more than \$50,000, then the City shall cause such Net Proceeds to be paid to an escrow agent (which shall be a bank, trust company or similar entity exercising fiduciary responsibilities) designated by BB&T for deposit in a special escrow fund to be held by such escrow agent. The City shall thereafter provide for the application of all Net Proceeds to the prompt completion, repair or restoration of the Equipment, as the case may be. The escrow agent shall disburse Net Proceeds for the payment of such costs upon receipt of requisitions in the form of Exhibit A to the Project Fund Agreement. If the Net Proceeds shall be insufficient to pay in full the cost of completion, repair or restoration, the City shall either (i) complete the work and pay any cost in excess of the Net Proceeds, or (ii) not carry out such completion, repair or restoration, and instead apply the Net Proceeds, together with other available funds as may be necessary, to the prepayment of all outstanding Required Payments pursuant to Section 3.03.

(d) Any repair, restoration, modification, improvement or replacement paid for in whole or in part out of Net Proceeds shall be the City's property and shall be part of the Equipment.

## ARTICLE VI

### DEFAULTS AND REMEDIES; TERMINATION

**6.01. Events of Default.** An "Event of Default" is any of the following:

(a) The City's failing, other than due to an Event of Non-Appropriation, to make any Base Payment when due.

(b) The City's breaching or failing to perform or observe any term, condition or covenant of this Agreement or of the Project Fund Agreement on its part to be observed or performed, other than as provided in subsection (a) above, including payment of any Additional Payment, for a period of 15 days after written notice specifying such failure and requesting that it be remedied shall have been given to the City by BB&T, unless BB&T shall agree in writing to an extension of such time prior to its expiration.

(c) The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law by or against the City as a debtor, or the appointment of a receiver, custodian or similar officer for the City or any of its property, and the failure of such proceedings or appointments to be vacated or fully stayed within 30 days after the institution or occurrence thereof.

(d) Any warranty, representation or statement made by the City in this Agreement or in the Project Fund Agreement is found to be incorrect or misleading in any material respect on the Closing Date (or, if later, on the date made).

(e) Any lien, charge or encumbrance affecting the validity of the Agreement, is found to exist, or proceedings are instituted against the City to enforce any lien, charge or encumbrance against the Equipment .

(f) If the City is not self-insured pursuant to Section 4.16 hereof, and such self-insurance is not reinstated with three days of notifying BB&T that it is no longer self-insured.

**6.02. Remedies on Default.** Upon the continuation of any Event of Default, BB&T may, without any further demand or notice, exercise any one or more of the following remedies:

(a) Declare the unpaid principal components of the Base Payments immediately due and payable;

(b) Proceed by appropriate court action to enforce the City's performance of the applicable covenants of this Agreement or to recover for the breach thereof;

(c) As provided in the Project Fund Agreement, require BB&T to pay over any balance remaining in the Project Fund to be applied against outstanding Required Payments in any manner BB&T may reasonably deem appropriate; and

(d) Avail itself of all available remedies under this Agreement, and recovery of reasonable attorneys' fees and other expenses (to the extent permitted by law).

**6.03. [Reserved].**

**6.04. Consequences of Nonappropriation.** Upon an Event of Nonappropriation, the City shall have no further obligation to pay Base Payments beyond the end of the Fiscal Year for which amounts have been appropriated for Base Payments. This Agreement shall terminate on

the last day of the Fiscal Year for which amounts have been appropriated for Base Payments without any penalty to the Borrower whatsoever. The City agrees to peaceably surrender possession the Equipment to BB&T or its assignees on the first day of the Fiscal Year to which the Event of Nonappropriation applies, packed for shipment in accordance with manufacturer specifications and freight prepaid and insured to any location in the continental United States or Canada designated by BB&T.

In addition, upon the occurrence of any Event of Nonappropriation, BB&T may, without any further demand or notice, (a) apply any balance remaining in the Project Fund against outstanding Required Payments in any manner BB&T may reasonably deem appropriate, and (b) take action with respect to the City and the Equipment as contemplated in Section 6.05. An Event of Nonappropriation and resulting termination of this Agreement shall not relieve the City of liability for any defaults under this Agreement or the Project Fund Agreement occurring prior to the Event of Nonappropriation, or of liability under those provisions of this Agreement and the Project Fund Agreement which are stated to survive termination.

**6.05. Possession of Equipment.** Upon the continuation of an Event of Default and as of the first day of a Fiscal Year with respect to which an Event of Non-Appropriation occurs, the City shall immediately lose the right to possess, use and enjoy the Equipment and shall be obligated to return the equipment to BB&T; provided, however, that the City may remain in possession of the Equipment as a lessee at the will of BB&T (a) upon payment monthly in advance to BB&T of a fair and reasonable rental value for the use and possession of the Equipment (in an amount BB&T shall determine in its reasonable judgment), and (b) upon BB&T's demand, shall deliver possession of the Equipment to BB&T or, at BB&T's direction, to any purchaser of the Equipment after an execution sale. Any net proceeds from the sale or relet of the Equipment upon the occurrence of an Event of Non-Appropriation shall (a) be applied to the payment of the unpaid balance of the City's obligations under this Agreement, and (b) the balance after such payments are made shall be paid to the City.

In addition, upon the continuation of any Event of Default, or on and after the first day of a Fiscal Year with respect to which an Event of Non-Appropriation has occurred, BB&T, to the extent permitted by law, is hereby authorized to (i) take possession of the Equipment, with or without legal action, (BB&T agrees to cover any damage to City property caused by removal, and in no event will any equipment that has become a fixture under Florida law be removable), (ii) lease the Equipment, (iii) collect all rents and profits therefrom, with or without taking possession of the Equipment, and (iv) after deducting all costs of collection and administration expenses, apply the net rents and profits first to the payment of necessary maintenance and insurance costs, and then (a) in the case of an Event of Default to the City's account and in reduction of the City's corresponding Required Payments in such fashion as BB&T shall reasonably deem appropriate and (b) in the case of an Event of Non-Appropriation, in the manner provided in the last sentence of the preceding paragraph, BB&T shall be liable to account only for rents and profits it actually receives.

**6.06. No Remedy Exclusive; Delay Not Waiver.** All remedies under this Agreement are cumulative and may be exercised concurrently or separately. The exercise of any one remedy shall not be deemed an election of such remedy or preclude the exercise of any other remedy. If any



Event of Default shall occur and thereafter be waived by BB&T, such waiver shall be limited to the particular breach so waived and shall not be deemed a waiver of any other breach under this Agreement.

**6.07. Payment of Costs and Attorney's Fees.** If BB&T employs an attorney to assist in the enforcement or collection of Required Payments, or if BB&T voluntarily or otherwise shall become a party to any suit or legal proceeding (including a proceeding conducted under any state or federal bankruptcy or insolvency statute) to protect the Equipment, to protect the lien of this Agreement, to enforce collection of the Required Payments or to enforce compliance by the City with any of the provisions of this Agreement, the City agrees to pay reasonable attorneys' fees and all of the costs that may reasonably be incurred (whether or not any suit or proceeding is commenced), and such fees and costs (together with interest at the Prime Rate) shall be secured as Required Payments.

## ARTICLE VII

### MISCELLANEOUS

**7.01. Notices.** (a) Any communication required or permitted by this Agreement must be in writing.

(b) Any communication under this Agreement shall be sufficiently given and deemed given when delivered by hand or five days after being mailed by first-class mail, postage prepaid, addressed as follows:

(i) If to the City, to 401 S. Park Avenue, Winter Park, Florida 32789 Attention: Finance Director; or

(ii) If to BB&T, to 5130 Parkway Plaza Boulevard, Building 9, Charlotte, North Carolina 28217, Attention: Account Administration/Municipal.

(c) Any addressee may designate additional or different addresses for communications by notice given under this Section to each of the others.

**7.02. No Assignments by City.** The City shall not sell or assign any interest in this Agreement.

**7.03. Assignments by BB&T.** BB&T may, at any time and from time to time, assign all or any part of its interest in the Equipment or this Agreement, including, without limitation, BB&T's rights to receive Required Payments. Any assignment made by BB&T or any subsequent assignee shall not purport to convey any greater interest or rights than those held by BB&T pursuant to this Agreement.

The City agrees that this Agreement may become part of a pool of obligations at BB&T's or its assignee's option. BB&T or its assignees may assign or reassign all or any part of this Agreement, including the assignment or reassignment of any partial interest through the use of

certificates evidencing participation interests in this Agreement. Notwithstanding the foregoing, no assignment or reassignment of BB&T's interest in the Equipment or this Agreement shall be effective unless and until the City shall receive a duplicate original counterpart of the document by which such assignment or reassignment is made disclosing the name and address of each such assignee.

The City further agrees that BB&T's interest in this Agreement may be assigned in whole or in part upon terms which provide in effect that the assignor or assignee will act as a collection and paying agent for BB&T.

The City agrees to execute any document reasonably required in connection with any assignment. Any assignor must provide notice of any assignment to the City, and the City shall keep a complete and accurate record of all assignments as required by the Code. After the giving of any such notice, the City shall thereafter make all payments in accordance with the notice to the assignee named therein and shall, if so requested, acknowledge such assignment in writing, but such acknowledgment shall in no way be deemed necessary to make the assignment effective.

**7.04. Amendments.** No term or provision of this Agreement may be amended, modified or waived without the prior written consent of the City and BB&T.

**7.05. Governing Law.** The City and BB&T intend that Florida State law shall govern this Agreement.

**7.06. Liability of Officers and Agents.** No officer, agent or employee of the City shall be subject to any personal liability or accountability by reason of the execution of this Agreement or any other documents related to the transactions contemplated by this Agreement. Such officers or agents shall be deemed to execute such documents in their official capacities only, and not in their individual capacities. This Section shall not relieve an officer, agent or employee of the City from the performance of any official duty provided by law.

**7.07. Severability.** If any provision of this Agreement shall be determined to be unenforceable, that shall not affect any other provision of this Agreement.

**7.08. Non-Business Days.** If the date for making any payment or the last day for performance of any act or the exercising of any right shall not be a Business Day, such payment shall be made or act performed or right exercised on or before the next preceding Business Day.

**7.09. Entire Agreement.** This Agreement constitutes the City's entire agreement with respect to the general subject matter covered by this Agreement.

**7.10. Binding Effect.** Subject to the specific provisions of this Agreement, and in particular Section 7.03, this Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

**IN WITNESS WHEREOF**, the parties have duly signed, sealed and delivered this Agreement by duly authorized officers, all as of the date first above written.

**(SEAL)**

**ATTEST:**

**CITY OF WINTER PARK**

By: \_\_\_\_\_  
Cynthia S. Bonham, Clerk

By: \_\_\_\_\_  
Kenneth W. Bradley, Mayor

**BRANCH BANKING AND  
TRUST COMPANY**

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

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

*[Lease Agreement between the City of Winter Park,  
and Branch Banking and Trust Company]*

**EXHIBIT A -- PROJECT AND EQUIPMENT DESCRIPTION**

Those energy conservation measures as set forth on the attached Schedule A.

**EXHIBIT B -- PAYMENT SCHEDULE**

**Payment Schedule to Lease Agreement dated as of February 9, 2011 (the "Lease Agreement"), between the City of Winter Park, and Branch Banking and Trust Company**

Contract Number: 003-2312809-002

The payments required to repay the advance made pursuant to the Lease Agreement call for an amortization period of approximately one hundred thirty one (131) months. Payments are quarterly in arrears in varying amounts. A portion of each payment is paid as and represents payment of interest at an annual interest rate of 3.05%.

Payments are due beginning on September 1, 2011 and quarterly thereafter, with a final payment of all outstanding principal and accrued and unpaid interest due on June 1, 2022, all as set forth in the attached amortization schedule.

BOND DEBT SERVICE

City of Winter Park  
Performance Contract Bond, Series 2011

003-2312809-002

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
09/01/2011			9,064.49	9,064.49	
12/01/2011			13,158.13	13,158.13	
03/01/2012			13,158.13	13,158.13	
06/01/2012	36,680	3.050%	13,158.13	49,838.13	85,218.88
09/01/2012	36,688	3.050%	12,878.44	49,566.44	
12/01/2012	36,688	3.050%	12,598.70	49,286.70	
03/01/2013	36,688	3.050%	12,318.95	49,006.95	
06/01/2013	36,688	3.050%	12,039.20	48,727.20	196,587.29
09/01/2013	37,820	3.050%	11,759.46	49,579.46	
12/01/2013	37,820	3.050%	11,471.08	49,291.08	
03/01/2014	37,820	3.050%	11,182.70	49,002.70	
06/01/2014	37,820	3.050%	10,894.33	48,714.33	196,587.57
09/01/2014	38,987	3.050%	10,605.95	49,592.95	
12/01/2014	38,986	3.050%	10,308.67	49,294.67	
03/01/2015	38,986	3.050%	10,011.40	48,997.40	
06/01/2015	38,989	3.050%	9,714.14	48,703.14	196,588.16
09/01/2015	40,189	3.050%	9,416.84	49,605.84	
12/01/2015	40,189	3.050%	9,110.40	49,299.40	
03/01/2016	40,189	3.050%	8,803.96	48,992.96	
06/01/2016	40,192	3.050%	8,497.52	48,689.52	196,587.72
09/01/2016	41,429	3.050%	8,191.06	49,620.06	
12/01/2016	41,429	3.050%	7,875.16	49,304.16	
03/01/2017	41,429	3.050%	7,559.26	48,988.26	
06/01/2017	41,432	3.050%	7,243.37	48,675.37	196,587.85
09/01/2017	42,708	3.050%	6,927.45	49,635.45	
12/01/2017	42,707	3.050%	6,601.80	49,308.80	
03/01/2018	42,707	3.050%	6,276.16	48,983.16	
06/01/2018	42,710	3.050%	5,950.52	48,660.52	196,587.93
09/01/2018	44,026	3.050%	5,624.86	49,650.86	
12/01/2018	44,025	3.050%	5,289.16	49,314.16	
03/01/2019	44,025	3.050%	4,953.47	48,978.47	
06/01/2019	44,027	3.050%	4,617.78	48,644.78	196,588.27
09/01/2019	45,384	3.050%	4,282.07	49,666.07	
12/01/2019	45,383	3.050%	3,936.02	49,319.02	
03/01/2020	45,383	3.050%	3,589.97	48,972.97	
06/01/2020	45,386	3.050%	3,243.93	48,629.93	196,587.99
09/01/2020	46,785	3.050%	2,897.86	49,682.86	
12/01/2020	46,784	3.050%	2,541.12	49,325.12	
03/01/2021	46,784	3.050%	2,184.39	48,968.39	
06/01/2021	46,784	3.050%	1,827.67	48,611.67	196,588.04
09/01/2021	48,227	3.050%	1,470.94	49,697.94	
12/01/2021	48,227	3.050%	1,103.21	49,330.21	
03/01/2022	48,227	3.050%	735.48	48,962.48	
06/01/2022	48,229	3.050%	367.75	48,596.75	196,587.38
	1,725,656		325,441.08	2,051,097.08	2,051,097.08

**Schedule A**  
**Scope of Services/Installed Equipment**

Summary of Energy Conservations Measures (ECM) included in contract:

ECM #	Facility	Scope of Work
1	City Hall	Lighting Retrofit
2	City Hall	Water Conservation
3	City Hall	Building Automation – Space Setpoint Control
4	City Hall	Building Automation – Setback Scheduling
5	City Hall	East Wing Renovation
6	City Hall	Demand Control Ventilation
7	City Hall	Chiller Replacement
8	City Hall	Variable Flow Chilled Water System
9	Not Included	
10	Public Safety	Variable Flow Chilled Water System
11	Not Included	
12	Public Safety	Building Automation – Space Setpoint Control
13	Public Safety	Building Automation – Setback Scheduling
14	Not Included	
15	Public Safety	Demand Control Ventilation
16	Library	2 <sup>nd</sup> Floor Air Handling Unit Replacement
17	Library	Water Conservation
18	Not Included	
19	Not Included	
20	Library	Lighting Retrofit
21	Library	Building Automation – Space Setpoint Control
22	Library	Building Automation – Setback Scheduling
23	Library	Roof Top Unit Replacement
24	Library	Cool Roof Retrofit
25	Civic Center	Lighting Retrofit
26	Not Included	
27	Not Included	
28	Public Works	Lighting Retrofit
29	Public Works	Lighting Controls
30	Not Included	
31	Not Included	
32	Not Included	
33	Not Included	
34	Not Included	
35	Not Included	
36	Farmers Market	Lighting Retrofit
37	Welcome Center	Lighting Retrofit
38	Fire Station #62	Lighting Retrofit
39	Fire Station #62	Lighting Controls
40	Fire Station #64	Lighting Retrofit
41	Golfview Terrace	Lighting Retrofit
42	Golf Course Clubhouse	Lighting Retrofit
43	Golf Course Clubhouse	Lighting Controls
44	Meade Garden	Lighting Retrofit
45	Meade Garden	Lighting Controls
46	Police Training Area	Lighting Retrofit

47	Not Included	
48	Fleet Peoples Park	Lighting Retrofit
49	Lake Island Area	Lighting Retrofit
50	Lake Island Area	Lighting Controls
51	McKean Arboretum	Lighting Retrofit
52	Not Included	
53	Dinky Dock	Lighting Retrofit
54	Not Included	
55	ITS	Lighting Retrofit
56	Bongart Plant Area	Lighting Retrofit
57	Bongart Plant Area	Lighting Controls
58	Azalea Recreation Center	Lighting Retrofit
59	Azalea Recreation Center	Lighting Controls
60	Azalea Tennis Tower	Lighting Retrofit
61	Magnolia Plant	Lighting Retrofit
62	PWC Area	Lighting Retrofit
63	PWC Area	Lighting Controls
64	PWC Lakes Building	Lighting Retrofit
65	PWC Building #4	Lighting Retrofit
66	PWC Building #11	Lighting Retrofit
67	PWC Building #12	Lighting Retrofit
68	PWC Building #14	Lighting Retrofit
69	PWC Building #20	Lighting Retrofit / Lighting Controls
70	PWC Building LS-70	Lighting Retrofit
71	PWC Storage #1	Lighting Retrofit
72	PWC Storage #2	Lighting Retrofit
73	PWC Storage #3	Lighting Retrofit
74	Not Included	
75	PWC Fuel Island	Lighting Retrofit
76	Not Included	
77	Not Included	
78	Not Included	
79	City Wide – Various Buildings	Owner Installed Programmable Thermostats
80	Place holder	M&V
81	Place holder	T-12 Savings
82	Not Included	
83	Not Included	
84	Not Included	
85	Not Included	
86	Not Included	
87	Not Included	
88	Not Included	
89	Place Holder	Capital Renewal
90	Not Included	
91	Energy Seminar	Energy Seminar

The Scope of Services includes the following:

**ECM-1 City Hall Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures in the City Hall complex. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.



Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Surface MiniCube F40T12S	6	6	Retrofit 1x4 w/(4) T8 lamps & LP Elec. ballast
1x4 Recess Acrylic F40T12S	115	115	Retrofit 1x4 w/(2) T8 lamps & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	13	13	Retrofit 2x2 w/(2)F17T8 lamps, Elec. Ballast, & Reflector Kit
2x4 Recess Acrylic F40T12S	219	219	Retrofit 2x4 w/(4) T8 lamps & LP Elec. Ballast
Incandescent	16	16	Replace Fixture w/ 2x13 Drum Fixture
Incandescent	24	24	Retrofit w/(1) 14w CF Spiral
Incandescent	15	15	Retrofit w/(1) 23w CF Spiral
1x4 Strip F40T12S	57	57	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12S	8	8	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
1x2 Wrap F20T12	3	3	Retrofit 1x2 w/(2) F17T8 & LP Elec. Ballast
2x4 Recess Parabolic F40T12S	1	1	Retrofit 2x4 w/(4) T8 & PL Elec. Ballast
1x4 Recess Parabolic F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x3 Cove Strip F30T12	26	26	Retrofit 1x3 w/(2) F25T8 w/ LP Elec. Ballast
Double Face Exit Sign	31	31	Replace Fixture w/ LED/Battery Back up
1x4 Vapor Tight F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Strip F96T12S	5	5	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
2x4 T8 F32T8	10	10	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast

#### ECM-2 City Hall Water Conservation

Existing water consuming plumbing fixtures will be retrofit with flow reducing technologies or will be replaced with upgraded plumbing fixtures to reduce overall water consumption. See the table below for a summary of the Scope of Services. For retrofit details, see plumbing survey data contained in Appendix D

Existing Plumbing Fixture	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
Wall Mounted Water Closet	4	4	Replace w/ Zurn Econvantage HET 1.28 gpf fixture
Wall Mounted Urinal	6	6	Retrofit flush valve w/Zurn Aquavantage 0.75 gpf
Tank Top Water Closet	3	3	Replace w/ Caroma Sydney Dual Flush 0.8/1.28 Gravity Flush Tank
Flush Valve Water Closet	6	6	Retrofit flush valve w/Zurn Econvantage HET 1.28 gpf
Lavatory Faucet	3	3	Retrofit w/ Chronomite Laboratories Laminar Series Flow Restrictor 1.0 gpm
Kitchen Faucet	1	1	Retrofit w/ Chronomite Laboratories

			Laminar Series Flow Restrictor 1.5 gpm
Lavatory Faucet	16	16	Retrofit w/ Chronomite Laboratories Laminar Series Flow Restrictor 0.5 gpm
Hand-Held Shower Head	2	2	Replace w/ Niagara Conservation Earth Hand Held 1.5 gpm

**ECM-3/4 City Hall BAS –Setpoint & Setback Control**

Through expansion of the existing Building Automation System and modification of existing programming, space temperature setpoints will be modified to allow differential setpoints for cooling mode and heating mode and from occupied to unoccupied conditions. Currently, cooling and heating setpoints are set at the same value, regardless of space occupancy conditions. All space setpoints for AHUs, VAV boxes, and FTB's to the following parameters (set occupied/unoccupied modes if programmable thermostat):

- Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.
- Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
- Unoccupied Mode – cooling: 80° F with a +/- 3-deg throttling range.
- Unoccupied Mode – heating: 60° F with a +/- 3-deg throttling range

**ECM-5 City Hall East Wing Renovation**

Included is a complete renovation of the existing 2-pipe Fan Coil Unit (FCU) serving the 1<sup>st</sup> and 2<sup>nd</sup> floors of the East Wing of City Hall. The new system will be a 4-pipe system to provide heating water and cooling water as needed throughout the space, regardless of the time of year. Air distribution will be provided by new air handling units, new ductwork, and new hot water reheat variable air volume (VAV) boxes. The project will be sequenced to begin in the basement central energy plant to modify the plant piping and pumping to accommodate a 4-pipe system arrangement and to extend the chilled water and hot water risers to the 1<sup>st</sup> and 2<sup>nd</sup> floor. While work is commencing on the 1<sup>st</sup> and 2<sup>nd</sup> floor areas, all City of Winter Park personnel will be relocated to temporary work facilities, provided by the City of Winter Park. See the Detailed Study in Appendix B for schematic drawings of system layout. Included below is a detail of the project sequence:

1. The basic sequence of work will be scheduled as follows:
  - i. Temporary chiller hook up
  - ii. Mechanical plant demolition
  - iii. Mechanical plant equipment set
  - iv. Mechanical plant piping
  - v. Mechanical plant framing/drywall
  - vi. Mechanical plant controls
  - vii. Mechanical plant startup/commissioning
  - viii. Basement IT room unit replacement
  - ix. 2<sup>nd</sup> floor wing demolition
  - x. 2<sup>nd</sup> floor wing framing/drywall
  - xi. 2<sup>nd</sup> floor equipment
  - xii. 2<sup>nd</sup> floor piping
  - xiii. 2<sup>nd</sup> floor ductwork
  - xiv. 2<sup>nd</sup> floor controls
  - xv. 2<sup>nd</sup> floor start up/commissioning
  - xvi. 1st floor wing demolition
  - xvii. 1st floor wing framing/drywall
  - xviii. 1st floor equipment
  - xix. 1st floor piping
  - xx. 1st floor ductwork
  - xxi. 1st floor controls
  - xxii. 1st floor start up/commissioning
2. Installation Requirements – Central Energy Plant
  - i. Provide access to the basement area by lifting off the access hatch adjacent to the south parking lot and the west wing of the City Hall complex.

- ii. Provide a means of connecting a temporary chiller into the existing piping system via flexible hose that will be provided by the temporary chiller provider.
  - iii. Demolish the existing walls in the basement bathroom area the restrict access from the mechanical room to the basement access hatch.
  - iv. Demolish and remove all existing mechanical and electrical components in the basement mechanical room which will not be reused and incorporated into the new system.
  - v. Receive, load, and install new water cooled chiller provided by Trane. See ECM-7 for chiller details.
  - vi. Provide and install two new variable primary chilled water pumps in the location of the existing chiller water pump. Pump motor will be premium, inverter service duty. Control of variable volume chilled water pumps is defined in ECM-8.
  - vii. Provide and install new condenser water pump in the location of the existing pump. Pump motor will be premium, inverter service duty.
  - viii. Provide and install new chilled water piping and piping specialties. Piping to be schedule 40 welded steel. Include new triple duty valves, automated isolation valves, crank style manual isolation valves on supply and return side of chiller. Provide and install all new local monitoring instrumentation, including pressure and temperature sensors.
  - ix. Provide and install new condenser water piping and piping specialties. Piping to be schedule 40 welded steel. Include new triple duty valves, automated isolation valves, crank style manual isolation valves on supply and return side of chiller. Provide and install all new local monitoring instrumentation, including pressure and temperature sensors.
  - x. Provide and install insulation on new chilled water piping. Insulation to be 2" foamglass, wrapped with white service jacket. Provide industry standard placards and directional flow arrows, per industry standards.
  - xi. Install all required BAS control hardware into piping system, including pressure, flow, and temperature sensors.
  - xii. Provide and install new chemical treatment system, per industry standards and local codes. System control to be a processor based industrial chemical system.
  - xiii. Provide and install two new variable primary hot water pumps in the location of the existing hot water pumps. Pump motors will be premium, inverter service duty.
  - xiv. Provide and install new hot water piping and piping specialties. Piping to be schedule 40 welded steel. Include new triple duty valves, automated isolation valves, crank style manual isolation valves on supply and return side of existing boiler. Provide and install all new local monitoring instrumentation, including pressure and temperature sensors.
  - xv. Provide and install insulation on new hot water piping. Insulation to be 2" foamglass, wrapped with white service jacket. Provide industry standard placards and directional flow arrows, per industry standards.
  - xvi. Install all required BAS control hardware into piping system, including pressure, flow, and temperature sensors.
  - xvii. Provide new electrical service from the existing load center to all new mechanical equipment. Service to be installed in EMT and per NEC. Reuse of existing conduit system as allowable.
  - xviii. Receive and install new variable frequency drives provided by Trane for water and airside systems.
3. Installation Requirements – Basement IT Room
- i. Install temporary spot cooling equipment to serve the affected areas. Install condenser exhaust into the return air plenum, so that the heat load is carried back to the 1<sup>st</sup> floor central air handling unit and conditioned. Add temporary ductwork as necessary to adequately condition the work areas.
  - ii. Remove existing DX Liebert unit and roof-mounted air-cooled condenser serving the 911 office. Remove existing supply and return ductwork as required to facilitate AC removal.
  - iii. Remove the existing control wiring and thermostat.
  - iv. Install new CHW computer room unit and connect to existing supply and return ductwork. Tap off existing chilled water mains in mechanical room and route new CHW piping from mechanical room to new CHW computer room unit. Install new chilled water piping and piping specialties as required to accomplish the defined scope. Piping to be schedule 40 welded steel. Ball style manual

- isolation valves on supply and return side of air handling unit. Provide and install all new local monitoring instrumentation, including pressure and temperature sensors.
- v. Provide and install insulation on new chilled water piping. Insulation to be 2" foamglass, wrapped with white service jacket. Provide industry standard placards and directional flow arrows, per industry standards.
  - vi. The new CHW computer room unit shall have a DX backup cooling coil with a backup air-cooled condenser. Install air-cooled condenser on roof in place of old air-cooled condenser.
  - vii. Install building automation devices into piping system, which are provided by BAS contractor.
  - viii. Connect new indoor AHU supply fan and air-cooled condenser shall be connected to emergency power circuit that was provided for the original unit.
  - ix. Remove temporary cooling services including spot cooling units and temporary ductwork. Repair and patch any locations where ductwork was tied into the central air handling system ductwork. Replace any ceiling tile or grid assembly that was removed to accomplish the work.
4. Installation Requirements – 2<sup>nd</sup> and 1<sup>st</sup> Floors
- i. Demolish and remove the existing ceiling grid and system as necessary to accomplish the work.
  - ii. Remove existing lighting fixtures from ceiling grid and suspend from temporary supports in the space.
  - iii. Construct new 2<sup>nd</sup> floor mechanical rooms for the installation of the new air handling units
  - iv. Provide new lighting service and electrical service outlets in new mechanical rooms.
  - v. Received and install new air handling units, control valves and vav boxes provided by Trane.
  - vi. Provide and install the ductwork, piping, and other peripheral devices that are necessary for the conversion of the FCUs and AHUs listed in the Detail Study in Appendix B to VAV systems. Installation includes all requirements for fire stopping around piping and ductwork.
  - vii. Provide new electrical service to the new air handling units and terminal box locations. Service to be installed in EMT and per NEC.
  - viii. The air systems included in this ECM are recommended for DDC conversion in ECM 5. The AHUs converted to VAV systems, along with the new VAV boxes and the new VFDs, shall be controlled by the new building DDC systems.
  - ix. Modify the 2-pipe changeover system in the east wing as follows:
    1. Remove existing 2-pipe fan coil units on the first and second floors of the east wing. Remove all 2-pipe changeover piping, valves, and accessories to the fan coils on the first and second floors.
    2. Remove existing 4-pipe AHU in attic space, including all supply ductwork serving the spaces on the first and second floor of the east wing.
    3. Convert angled closet and then adjacent closet located next to the Commission Chambers and storage room located on the very end of the South wing on the second floor to new mechanical room.
    4. Install new 2-pipe chilled water VAV AHU, provided by Trane, equal to 14170 CFM supply air in new mechanical room. Install new VFD provided by Trane for AHU. Provide and install 26x26 outside air duct to new AHU mixing box to provide ASHRAE-required ventilation air to the first and second floor.
    5. Provide and install new medium-pressure supply air distribution system on first and second floors to new Variable Air Volume (VAV) boxes. VAV boxes shall have hot water reheat coils for zone temperature control. Provide and install low-pressure supply ductwork downstream of VAV boxes to ceiling diffusers supplying the spaces.
    6. Provide and install new 2" HW piping to the new VAV box reheat coils. Reheat coils shall be provided with 3-way valve packages consisting of isolation valves, auto flow, strainers, and motorized 3-way automatic control valves.
    7. Remove and replace existing 4-pipe first floor AHU to serve first floor and basement with air handling unit provided by Trane.
    8. Provide electrical service to new AHU to serve the 1<sup>st</sup> floor and basement. Service to be installed in EMT and per NEC. Reuse of existing conduit system is allowable.
    9. New VAV AHU system shall have the following sequence of controls:

- a. Unoccupied Mode: The unit supply fan shall be stopped, the chilled water valves positioned closed, the outside air damper shall be positioned closed, and the return air damper shall be positioned open. The associated exhaust fans shall be stopped.
  - b. Night Setback: The space temperature sensor shall signal the air handling unit to start when any space temperature drops to 60°F. The unit shall operate as described in the warm-up mode.
  - c. Night Setup: The space temperature sensor shall signal the air handling unit to start when any space temperature rises to 85°F. The unit shall stop when all temperatures drop to 80°F. The unit shall operate as described under cool-down mode.
  - d. Warm-up: When the optimal start program calls for warm-up, the unit shall be started and operate with 100% recirculation air. The discharge temperature shall not be under control.
  - e. Cool Down: When the optimal start program calls for cool-down operation, the unit shall be started, and shall operate with 100% return air. The unit shall control the cooling coil as described under temperature control.
  - f. Occupied Mode: The unit shall be started and the unit outdoor air damper and the return air damper shall be modulated to maintain the minimum outside air quantity scheduled. All associated exhaust fans shall be started. The actual time for occupied operation shall be one hour prior to the normal occupancy time to permit an IAQ pre-operation period.
  - g. Humidity Control: On a rise in return air relative humidity above 60% RH, the chilled water control valve shall be modulated to full open, and the heating coil shall be modulated to maintain the space temperature. The system shall remain under this control until the return air relative humidity drops below 55% RH.
  - h. Temperature Control: On a rise in discharge temperature, the chilled water valves shall be modulated open. The discharge temperature shall be set for 52°F.
  - i. Supply Fan and Duct Pressure Control:
    - i. The supply fan capacity shall be modulated as required to maintain a supply duct static pressure of 1.0 in. wg. where indicated, at a point approximately 2/3 of the way toward the end of the duct.
    - ii. Control Supply fan by the VFD.
10. The locations of AHUs and VAV Boxes are shown on the building HVAC floor plans in the Detail Study. The maximum air flow rates, heating capacities and HW flow rates of the VAV boxes are shown in the Detailed Study.
  11. Install new ceiling grid and ceiling tiles in 2<sup>nd</sup> floor and 1<sup>st</sup> floor areas affected by construction operations. The City of Winter Park is to provide painting and flooring.
  12. Reinstall existing lighting fixtures into ceiling grid. Wipe clean and remove any dust or construction debris prior to installation.

#### **ECM-6 City Hall Demand Control Ventilation**

Provide mechanical devices and BAS devices to allow the BAS to modulate outside air (OA) flow in the East Wing area based upon CO<sub>2</sub> levels as an indication of space occupancy conditions. CO<sub>2</sub> sensor-controlled OA ventilation systems modulate the amount of OA drawn into the building by the HVAC systems in response to return air CO<sub>2</sub> levels, which acts as an indicator for space occupancy levels. Installing CO<sub>2</sub> sensor-controlled OA ventilation systems will reduce OA ventilation rates when space occupancy is low, which will reduce heating and cooling energy consumption. Scope of Services will include installation CO<sub>2</sub> sensor-controlled outside air (OA) ventilation systems for the AHUs listed in the Detailed Study. Install a CO<sub>2</sub> sensor in the AHU return air path to monitor the return air CO<sub>2</sub> level. All of the AHUs involved in this ECM are included in ECM 3 and ECM 4, Unoccupied Hour Setback Control, which includes the installation of motorized OA damper actuators to open and close the OA dampers. This ECM requires the OA damper actuators of the AHUs in this ECM to be modulating type. Install control wiring, relays, and other necessary control accessories needed to achieve the intent of this ECM. Control points include:

- CO<sub>2</sub> analog input
- Damper position analog output

Program the BAS so that the OA damper modulates to maintain CO<sub>2</sub> levels of return air, and where additional CO<sub>2</sub> sensors are located, at a user-programmable set point, initially set at 700 ppm. See the Detailed Study in Appendix B for schematic drawings of system layout.

#### **ECM-7 City Hall Chiller Replacement**

The Scope of Services includes the removal the existing chiller and installing a new high efficiency Trane rotary screw chiller in its place. This work will be coordinated with the Scope of Services defined in ECM-5. Trane will remove the existing chiller and properly dispose it or, at the owner's discretion, store the chiller at an on-site location specified by the owner. If the removal of the chiller involves temporary relocation of other mechanical equipment, store and environmentally protect this equipment and restore to proper operation after the new chiller is installed. Extract and store the R-12 refrigerant from the displaced chiller in secure vessels on site and properly dispose. Install a new 80 ton electric water-cooled rotary screw chiller at the location of the removed chiller. The new chiller shall be a Trane RTWD with a minimum efficiency of 1 kW/ton at the same design criteria as the existing chillers, 44°F and 54°F leaving and entering CHW temperatures and 85°F and 95°F entering and leaving CW temperatures. The new chiller will be integrated into the overall central energy plant as defined in ECM-5. Tran will provide and install insulation on new or disturbed chilled water piping. Insulation to be 2" foam glass, wrapped with white service jacket. Trane will provide conduit and wiring to provide proper electrical power to the new chiller. Trane will reuse existing conduit as acceptable. All new conduits will be EMT. See the Detailed Study in Appendix B for schematic drawings of system layout.

#### **ECM-8 City Hall Variable Flow Water Pumping**

The current configuration of constant volume chilled water pumping and hot water pumping will be modified to provide variable volume chilled water pumping in the new CEP. See ECM-5 for details of the CEP Scope of Services. Under this Scope of Services, Trane will install a new VFD for each new primary CHW (2 each) and HW pump (2 each) installed under scope of work for ECM-5. Trane will install one differential pressure sensor in the primary loop on both the chilled water and hot water systems. The BAS will be programmed to allow the VFD control system to stage the primary CHW and HHW pumps and vary the pump speeds to maintain differential pressure setpoints. The sensors shall be installed at the locations and with optimum setpoints to ensure adequate supply of CHW to all of the AHUs and HHW to VAV boxes on the CHW and HHW loops while minimizing pumping energy. See the Detailed Study in Appendix B for schematic drawings of system layout.

#### **ECM-10 Public Safety Variable Flow Water Pumping**

The current configuration of constant volume chilled water pumping will be modified to provide variable volume chilled water pumping in the existing CEP. Under this Scope of Services, Trane will install a new VFD for each new primary CHW (2 each). Trane will install one differential pressure sensor in the primary loop on both the chilled water and hot water systems. The BAS will be programmed to allow the VFD control system to stage the primary CHW pumps and vary the CHW pump speeds to maintain differential pressure setpoints. The sensors shall be installed at the locations and with optimum setpoints to ensure adequate supply of CHW to all of the AHUs on the CHW loop while minimizing pumping energy. See the Detailed Study in Appendix B for schematic drawings of system layout.

#### **ECM-12/13 Public Safety BAS –Setpoint & Setback Control**

Through expansion of the existing Building Automation System and modification of existing programming, space temperature setpoints will be modified to allow differential setpoints for cooling mode and heating mode and from occupied to unoccupied conditions. Currently, cooling and heating setpoints are set at the same value, regardless of space occupancy conditions. All space setpoints for AHUs, VAV boxes, and FTB's to the following parameters (set occupied/unoccupied modes if programmable thermostat):

- Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.

- Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
- Unoccupied Mode – cooling: 80° F with a +/- 3-deg throttling range.
- Unoccupied Mode – heating: 60° F with a +/- 3-deg throttling range

#### **ECM-15 Public Safety Demand Control Ventilation**

Provide mechanical devices and BAS devices to allow the BAS to modulate outside air (OA) flow in the East Wing area based upon CO<sub>2</sub> levels as an indication of space occupancy conditions. CO<sub>2</sub> sensor-controlled OA ventilation systems modulate the amount of OA drawn into the building by the HVAC systems in response to return air CO<sub>2</sub> levels, which acts as an indicator for space occupancy levels. Installing CO<sub>2</sub> sensor-controlled OA ventilation systems will reduce OA ventilation rates when space occupancy is low, which will reduce heating and cooling energy consumption. Scope of Services will include installation CO<sub>2</sub> sensor-controlled outside air (OA) ventilation systems for the AHUs listed in the Detailed Study. Install a CO<sub>2</sub> sensor in the AHU return air path to monitor the return air CO<sub>2</sub> level. All of the AHUs involved in this ECM are included in ECM 3 and ECM 4, Unoccupied Hour Setback Control, which includes the installation of motorized OA damper actuators to open and close the OA dampers. This ECM requires the OA damper actuators of the AHUs in this ECM to be modulating type. Install control wiring, relays, and other necessary control accessories needed to achieve the intent of this ECM. Control points include:

- CO<sub>2</sub> analog input
- Damper position analog output

Program the BAS so that the OA damper modulates to maintain CO<sub>2</sub> levels of return air, and where additional CO<sub>2</sub> sensors are located, at a user-programmable setpoint, initially set at 700 ppm. See the Detailed Study in Appendix B for schematic drawings of system layout. The Public Safety building contains many exhaust fans in various areas of the buildings. If exhaust fans are allowed to run continuously when OA is reduced by the CO<sub>2</sub> sensors, it will cause the building to operate under negative pressure. Buildings in a warm humid climate such as Florida's should always operate under positive pressure. Therefore, certain measures will be taken to minimize the exhaust fan airflows throughout the day through the use of connecting to the lighting occupancy sensors and manual rheostats. See the Detailed Study in Appendix B for schematic drawings of system layout and the proposed method of control for each fan.

#### **ECM-16 Library 2<sup>nd</sup> Floor Air Handling Unit Replacements**

Air Handler No. 1 and Air Handler No. 3 are located in the 2<sup>nd</sup> floor mechanical equipment room (MER). AHU No. 1 serves the 1<sup>st</sup> floor Library area and AHU No. 3 serves the 2<sup>nd</sup> floor Library area. Both units are at the end of their useful lives and in need of replacement. These units will be replaced with new Trane Performance Climate Changer units. AHU No. 1 will be selected to deliver 9,475 CFM of supply air to the 1<sup>st</sup> floor at an entering air condition of 76.3 deg F dry-bulb and 65.0 deg F wet-bulb temperatures and leaving condition of 55.6 deg F dry-bulb. AHU No. 3 will be selected to deliver 10,350 CFM of supply air to the 2<sup>nd</sup> floor at an entering air condition of 76.3 deg F dry-bulb and 65.0 deg F wet-bulb temperatures and leaving condition of 55.6 deg F dry-bulb. See the Detailed Study in Appendix B. for schematic drawings of system layout. The air systems included in this ECM are recommended for DDC conversion in ECM 15 and 16. The Single Zone AHUs in the Library have CHW cooling coils and electric duct heating coils. The cooling coils of these AHUs have 3-way control valves which modulate based on space temperature. Included below is a detail of the project sequence:

1. Work to be scheduled on a three day weekend to allow adequate time for system demolition and installation of new AHUs.
2. Existing units to be disconnected and demolished as necessary to remove from MER space.
3. New Trane AHUs will be delivered in disassembled modules to allow transport to the 2<sup>nd</sup> floor MER.
4. New Trane AHU will come with factory mounted control hardware and sensors for ease of installation.
5. New Units to be connected to the existing ductwork system and existing chilled water piping system.
6. Provide and install insulation on new chilled water piping. Insulation to be 2" foamglass, wrapped with white service jacket. Provide industry standard placards and directional flow arrows, per industry standards.
7. Modify the control system to allow the space or return air temperature sensor to modulate the supply air temperature. Mount and connect all necessary control devices on included in factory mount controls package.

8. BAS for the new units will be programmed to provide the space control as follows:
  - Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.
  - Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
  - Unoccupied Mode – cooling: 80° F with a +/- 3-deg throttling range.
  - Unoccupied Mode – heating: 60° F with a +/- 3-deg throttling range

**ECM-17 Library Water Conservation**

Existing water consuming plumbing fixtures will be retrofit with flow reducing technologies or will be replaced with upgraded plumbing fixtures to reduce overall water consumption. See the table below for a summary of the Scope of Services. For retrofit details, see plumbing survey data contained in Appendix C.

Existing Plumbing Fixture	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
Wall Mounted Water Closet	13	13	Replace w/ Zurn Econvantage HET 1.28 gpf fixture
Wall Mounted Urinal	3	3	Retrofit flush valve w/Zurn Aquavantage 0.75 gpf
Lavatory Faucet	1	1	Retrofit w/ Chronomite Laboratories Laminar Series Flow Restrictor 1.0 gpm
Kitchen Faucet	2	2	Retrofit w/ Chronomite Laboratories Laminar Series Flow Restrictor 1.5 gpm
Lavatory Faucet	15	15	Retrofit w/ Chronomite Laboratories Laminar Series Flow Restrictor 0.5 gpm

**ECM-20 Library Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures in the Library building. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x2 Wrap F20T12	2	2	Retrofit 1x2 w/(2) F17T8 & Elec. Ballast
1x4 Recess Acrylic F40T12S	12	12	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Recess Parabolic F40T12S	270	270	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	59	59	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	14	14	Retrofit 1x4 w/ LED LumaStick unit
1x4 T8 F32T8	4	4	Retrofit 1x3 w/(2) T8 & LP Elec. Ballast
1x8 Strip F40T12	10	10	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Surface MiniCube F40T12	1	1	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	3	3	Retrofit 2x2 w/(2) F17T8, Elec. Ballast, & Reflector Kit
2x2 Recess Parabolic F40T12US	151	151	Retrofit 2x2 w/(2) F17T8, Elec. Ballast, & Reflector Kit
2x4 Recess Acrylic F40T12S	60	60	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast



2x4 Recess Parabolic F40T12S	25	25	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x4 Recess Parabolic F40T12S	56	56	Retrofit 1x4 w/(3) T8 & LP Elec. Ballast
2x4 T8 F32T8	61	61	Retrofit 2x4 w/(3) T8 & LP Elec. Ballast
Double Face Exit Sign	12	12	Replace Fixture w/ LED/Battery
Incandescent	91	91	Replace fixture w/(1) 14w CF
Incandescent	3	3	Replace fixture w/(1) 23w CF
Incandescent	20	20	Retrofit w/(1) 4w LED MR
Incandescent	2	2	Replace fixture w/1x2 Vanity w/(2) F17T18 & Elec. Ballast
Incandescent	17	17	Replace w/LED LR6 Unit

#### **ECM-21/22 Library BAS –Set point & Setback Control & Scheduling**

Through expansion of the existing Building Automation System and modification of existing programming, space temperature setpoints will be modified to allow differential setpoints for cooling mode and heating mode and from occupied to unoccupied conditions. Currently, cooling and heating setpoints are set at the same value, regardless of space occupancy conditions. All space setpoints for AHUs to the following parameters (set occupied/unoccupied modes if programmable thermostat):

- Occupied Mode - cooling: 74° F with a +/- 2-deg throttling range.
- Occupied Mode - heating: 68° F with a +/- 2-deg throttling range.
- Unoccupied Mode – cooling: 80° F with a +/- 3-deg throttling range.
- Unoccupied Mode – heating: 60° F with a +/- 3-deg throttling range

#### **ECM-23 Library RTU Replacements**

The Library 3<sup>rd</sup> floor is served by two constant-volume packaged DX Rooftop Units (RTUs). These units have programmable thermostats but do not provide any form of active humidity control to the 3<sup>rd</sup> floor. RTUs do not control humidity well and are inefficient by today's energy standards. Trane will convert these DX RTUs to DX CDQ Units has potential energy savings and will provide active humidity control to the 3<sup>rd</sup> floor. The Trane CDQ (Cool Dry Quiet) system provides lower supply air dew point temperatures by breaking the cooling coil dew point barrier. It does this with an innovative desiccant wheel that transfers moisture from the supply air back to the mixed airstream. The result is that the cooling coil removes up to 200% more moisture per hour. The air systems included in this ECM are recommended for DDC conversion in ECM 15 and 16. See the Detailed Study in Appendix C. for schematic drawings of system layout. Included below is a detail of the project sequence:

1. Work to be scheduled on a three day weekend to allow adequate time for system demolition and installation of new AHUs.
2. The air systems included in this ECM are recommended for DDC conversion in ECM 15 and 16. The new DX CDQ units shall be controlled by the new building DDC systems.
3. Remove existing DX Packaged RTUs serving the 3<sup>rd</sup> floor of the Library
4. Remove existing control wiring and thermostats.
5. Remove existing supply and return ductwork as required to facilitate RTU removal.
6. Install new DX CDQ Units in place of old RTUs. Install roof curb adapters as required to facilitate CDQ installation.
7. Connect to existing supply and return ductwork.
8. Provide DDC-compatible thermostats for each unit and connect to new DDC Control System for Library.

#### **ECM-24 Library Cool Roof Retrofit**

The existing Library roof system is a Modified Bitumen Roofing System (MBRS) which is starting to show signs of deterioration from Central Florida weather exposure. Trane will apply a Roof Coating System over the existing

roof membrane which will seal and protect the roof system and extend the useful life by ten years and will improve the roof system's thermal performance and reflectivity. Included below is a detail of the project sequence:

1. Pressure-wash the existing MBRS to remove dirt and debris.
2. Inspect roof condition and flash any seams or breaks in the membrane using flashing grade.
3. Flash around roof penetrations where necessary.
4. Apply roof coating prime materials to existing roofing system.
5. Spray and back roll new reflective coating to entire roof area per manufacturer's recommendations.
6. Provide 10 year coating manufacturer's leak proof warranty.

**ECM-25 Civic Center Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures in the Library building. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Recess Acrylic F40T12S	10	10	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12S	14	14	Retrofit 1x4 w/(1) T8 & LP Elec. Ballast
1x4 Strip F40T12S	60	60	Retrofit 1x4 w/(1) T8 & LP Elec. Ballast
2x4 Recess Acrylic F40T12S	28	28	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
1x3 Strip F30T12	2	2	Retrofit 1x3 w/(2) F25T8 & LP Elec. Ballast
1x3 Vanity F30T12	3	3	Retrofit 1x3 w/(2) F25T8 & LP Elec. Ballast
Incandescent	25	25	Replace fixture w/(1) 13w CF

**ECM-28 Public Works Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures in the Public Works Building. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Strip F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	16	16	Retrofit 2x2 w/(2) F17T8, Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	24	24	Retrofit 2x4 w/(2) T8, Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	75	75	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
HID Metal Halide	8	8	Replace fixture w/(1) 32w CFL Flood

**ECM-29 Public Works Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared

Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Public Works	PW Office	Wall Switch
Public Works	Conference Room	Wall Switch
Public Works	Director's Office	Wall Switch
Public Works	Assistant Director Office	Wall Switch
Public Works	WW Office	Wall Switch
Public Works	PW 2 Office	Wall Switch
Public Works	PW Director's Office	Wall Switch
Public Works	PW 3 Office	Wall Switch
Public Works	Assistant PW Director Office	Wall Switch
Public Works	Assistant PW Engineer Office	Wall Switch
Public Works	Utility Director's Office	Wall Switch
Public Works	Training Room	Ceiling Switch
Public Works	Men's Restroom	Wall Switch
Public Works	Women's Restroom	Wall Switch
Public Works	Storage Closet	Wall Switch
Public Works	WW 2	Wall Switch
Public Works	Open Area	Ceiling Switch
Public Works	Open Area	Ceiling Switch
Public Works	PW 4 Office	Wall Switch
Public Works	Communication's Director Office	Wall Switch
Public Works	Design Coordinator's Office	Wall Switch

#### ECM-36 Farmer's Market Lighting Retrofit

Included is a complete retrofit of all the appropriate lighting fixtures at the Farmer's Market. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x2 Strip F20T12	6	6	Retrofit 1x2 w/(2) F17T8 & Elec. Ballast
1x4 Recess Acrylic	3	3	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	13	13	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12S	1	1	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
Double Face Exist	6	6	Replace Fixture w/ LED/Battery
Incandescent	1	1	Relamp w/(1) 14w CF Spiral
Incandescent	13	13	Relamp w/(1) 23w CF Spiral
Incandescent	8	8	Relamp w/(1) 16w R30 CF
Incandescent	3	3	Replace w/1x4 Wrap w/(2) T8 & LP Elec. Ballast
Incandescent	6	6	Replace w/LED LR6 Unit

**ECM-37 Welcome Center Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Welcome Center. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	16	16	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x4 T8 F32T8	1	1	Retrofit 2x4 w/(2) T8, Elec. Ballast & Reflector Kit
2x4 T8 F32T8	66	66	Retrofit 2x4 w/(3) T8 & LP Elec. Ballast
Incandescent	22	22	Relamp w/(1) 16w R30 CF
Incandescent	98	98	Relamp w(1) 4w LED MR

**ECM-38 Fire Station #62 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Fire Station #62. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	96	96	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	33	33	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
HID Metal Halide	12	12	Replace w/(1) 150w Metal Halide Pulse Start Wall Pack
Incandescent	6	6	Replace w/(1) LED LR6 Unit

**ECM-39 Fire Station #62 Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Fire Station #62	Multi-Purpose Room	Wall Switch
Fire Station #62	Storage Closet	Wall Switch
Fire Station #62	Restroom	Wall Switch
Fire Station #62	Administration/Office	Wall Switch

**ECM-40 Fire Station #64 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Fire Station #64. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Recess Acrylic F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast

1x4 Strip F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 T8 4' F32T8	12	12	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	2	2	Retrofit 2x2 w/(2) F17T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	3	3	Retrofit 2x4 w/(2) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12	4	4	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
Incandescent	2	2	Relamp w/(1) 14w CF Spiral
Incandescent	3	3	Relamp w/(1) 23w CF Spiral

**ECM-41 Golfview Terrace Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Golfveiw Terrace. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
Incandescent	2	2	Relamp w/(1) 23w R30 CF
Incandescent	1	1	Relamp w/(1) 23w CF Spiral

**ECM-42 Golf Course Clubhouse Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Golf Course Clubhouse. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Industrial F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Surface Mount F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Industrial F96T12S	12	12	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
1x8 Strip F96T12S	23	23	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	4	4	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
2x4 T8 F32T8	8	8	Retrofit 2x4 w/(3) T8 & LP Elec. Ballast
Incandescent	24	24	Relamp w/(1) 14w CF Spiral
Incandescent	2	2	Relamp w/(1) 23w CF Spiral
Incandescent	8	8	Relamp w/(1) 23W R30 CF
Incandescent	44	44	Relamp w/(1) LED Deco Lamp
Incandescent	9	9	Replace fixture w/2x13 Drum Fixture
Incandescent	2	2	Replace fixture w/(1) 32w CFL Flood
Incandescent	6	6	Replace fixture w/(1) LED LR6 Unit

**ECM-43 Golf Course Clubhouse Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Golf Clubhouse	Multi-Purpose Room	Wall Switch
Golf Clubhouse	Admin/Office	Wall Switch
Golf Clubhouse	Admin/Office	Wall Switch

**ECM-44 Meade Garden Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at Meade Garden. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Industrial F40T12S	10	10	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	40	40	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	6	6	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Vapor Tight F40T12S	6	6	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12S	9	9	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
1x8 Industrial F96T12S	8	8	Retrofit 1x8 w/(4) T8, Elec. Ballast & Reflector Kits
1x8 Strip F96T12S	1	1	Retrofit 1x8 w/(4) T8, Elec. Ballast & Reflector Kit
2x2 Recess Acrylic F40T12US	1	1	Retrofit 2x2 w/(2) F17T8, Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	9	9	Retrofit 2x4 w/(2) T8, Elec. Ballast & Reflector Kit
HID Metal Halide	2	2	Replace fixture w/(1) 32w CFL Flood
Incandescent	7	7	Relamp w/(1) 14w CF Spiral
Incandescent	30	30	Relamp w/(1) 23w CF Spiral
Incandescent	6	6	Relamp w/(1) 23w R30 CF
Incandescent	4	4	Replace fixture w/(2) Vanity F17T8 & LP Elec. Ballast
Incandescent	2	2	Replace Fixture w/(1) 2x13 Drum

**ECM-45 Meade Garden Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Meade Garden	Administration/Office	Ceiling Switch
Meade Garden	Administration/Office	Wall Switch
Meade Garden	Administration/Office	Wall Switch
Meade Garden	Administration/Office	Wall Switch

**ECM-46 Police Training Area Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Police Training Area. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	7	7	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Vapor Tight F96T12S	3	3	Replace Fixture w/1x8 Vapor Tight w/(4) T8 & LP Elec. Ballast
2x4 T8 F32T8	36	36	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
2x4 T8 F32T8	24	24	Retrofit 2x4 w/(3) T8 & LP Elec. Ballast
HID Metal Halide	11	11	Replace Fixture w/(1) 32w CFL Flood
Incandescent	104	104	Relamp w/(1) 23w R30 CF
Incandescent	5	5	Replace Fixture w/(1) 2x13 Drum

**ECM-48 Fleet Peoples Park Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at Fleets Peoples Park. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 4' F32T8	2	2	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
1x8 Wrap F96T12S	2	2	Replace Fixture w/1x8 Vapor Tight w/(4) T8 & LP Elec. Ballast
Incandescent	8	8	Relamp w/(1) 23w R30 CF

**ECM-49 Lake Island Area Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Lake Island Area. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Strip F40T12S	17	17	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast

1x4 Surface Mini F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	25	25	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x4 Recess Acrylic F40T12	12	12	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
Metal Halide	13	13	Replace Fixture w/150w Metal Halide Pulse Start Wall Pack
Incandescent	2	2	Relamp w/(1) 14w CF Spiral
Incandescent	6	6	Replace Fixture w/(1) 13w Drum Fixture
Incandescent	1	1	Replace Fixture w/(2) 13w Drum Fixture

**ECM-50 Lake Island Area Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Lake Island	Administration/Office	Wall Switch
Lake Island	Administration/Office	Wall Switch

**ECM-51 McKean Arboretum Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the McKean Arboretum. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
Incandescent	4	4	Relamp w/(1) 23w CF Spiral

**ECM-53 Dinky Dock Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Dinky Dock. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
Incandescent	4	4	Relamp w/(1) 23w R30 CF
1x4 Vapor Tight F40T12S	12	12	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast

**ECM-55 ITS Building Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the ITS Building. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Industrial F40T12S	10	10	Retrofit 1x4 w/(2) T8 & LP Elec.



			Ballast
1x4 Strip F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	3	3	Retrofit 2x2 w/(2) F17T8, Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	6	6	Retrofit 2x4 w/(3) T8 & LP Elec. Ballast
Metal Halide	4	4	Replace Fixture w/(1) 32w CFL Flood
Incandescent	12	12	Replace Fixture w/(1) 16w R30 CFL
Incandescent	1	1	Replace Fixture w/(1) 13w Drum Fixture
Incandescent	13	13	Replace Fixture w/(1) LED LR6 Unit

**ECM-56 Bongart Plant Area Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Bongart Waste Water Plant. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Industrial F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Surface Mini F40T12S	4	4	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	6	6	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Vapor Tight F40T12S	10	10	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Industrial F96T12S	1	1	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
1x8 Industrial 4' F96T12S	2	2	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
1x8 Strip F96T12S	1	1	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	52	52	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
2x4 Surface Mini Cube F40T12S	6	6	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
HID High Pressure Sodium	1	1	Replace Fixture w/(1) 32w CF Flood
HID High Pressure Sodium	2	2	Replace Fixture w/(1) T8, Elec. Ballast, & Reflector Kit
Incandescent	4	4	Relamp w/(1) 23w CF Spiral
Incandescent	3	3	Relamp w/(2) 14w CF Spiral
Incandescent	1	1	Replace Fixture w/(1) 32w CFL Flood
Quartz Q250	1	1	Replace Fixture w/(1) 32w CFL Flood

**ECM-57 Bongart Plant Area Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Bongart Plant	Administration/Office	Wall Switch
Bongart Plant	Restroom	Wall Switch
Bongart Plant	Administration/Office	Wall Switch
Bongart Plant	Multi-Purpose Room	Ceiling Switch
Bongart Plant	Storage Room	Wall Switch
Bongart Plant	Restroom	Wall Switch

**ECM-58 Azalea Recreation Center Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Azalea Recreation Center. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Strip F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	8	8	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12S	4	4	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast
2x4 Recess Acrylic F40T12S	9	9	Retrofit 1x4 w/(2) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	29	29	Retrofit 1x4 w/(4) T8, LP Elec. Ballast & Reflector Kit
Incandescent	8	8	Relamp w/(1) 23w R30 CF
Incandescent	13	13	Replace Fixture w/(1) 13w Drum

**ECM-59 Azalea Recreation Center Lighting Control**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
Azalea Rec Center	Administration/Office	Ceiling Switch
Azalea Rec Center	Administration/Office	Wall Switch
Azalea Rec Center	Administration/Office	Wall Switch
Azalea Rec Center	Multi-Purpose Room	Ceiling Switch
Azalea Rec Center	Storage Room	Wall Switch
Azalea Rec Center	Multi-Purpose Room	Ceiling Switch

**ECM-60 Azalea Tennis Tower Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Azalea Tennis Tower. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Strip F40T12S	14	14	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Wrap F40T12	8	8	Retrofit 1x4 w/(4) T8 & LP Elec. Ballast

**ECM-61 Magnolia Plant Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the Magnolia Water Plant. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Industrial F96T12S	14	14	Replace Fixture w/(1) 1x8 Vapor Tight w/(4) T8 & LP Elec. Ballast
1x8 Vapor Tight F96T12S	20	20	Replace Fixture w/(1) 1x8 Vapor Tight w/(4) T8 & LP Elec. Ballast
2x2 T8 FBO32T8US/841/ECO	3	3	Retrofit 2x2 w/(2) F17T8, Elec. Ballast & Reflector Kit
HID Metal Halide	15	15	Replace Fixture w/1x4 Vapor Tight w/(2) T8 & LP Elec. Ballast
HID Metal Halide	16	16	Replace Fixture w/(1) 84w CFL Wall Pack
HID Metal Halide	15	15	Retrofit w/(1) 32w CFL

**ECM-62 PWC Area Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Work Center. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 Recess Acrylic F40T12S	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 Strip F40T12S	1	1	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Strip F96T12S	28	28	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
1x8 T8 4' F32T8	19	19	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	2	2	Retrofit 2x2 w/(2) F17T8, LP Elec. Ballast & Reflector Kit
2x2 T8 F32T8	3	3	Retrofit 2x2 w/(2) F17T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	9	9	Retrofit 2x4 w/(2) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	4	4	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
2x4 T8 F32T8	4	4	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast

2x4 T8 F32T8	12	12	Retrofit 2x4 w/(2) T8, LP Elec. Ballast & Reflector Kit
2x4 T8 F32T8	8	8	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
Incandescent	3	3	Relamp w/(1) 14w CF Spiral
Incandescent	3	3	Relamp w/(1) 23w CF Spiral
Incandescent	1	1	Replace Fixture w/(1) LED LR6 Unit

**ECM-63 PWC Area Lighting Controls**

Installation of room based occupancy sensors in all offices, conference rooms, mechanical rooms, and other spaces with intermittent occupancy to control room lighting. Sensors will be dual technology Passive Infrared Radiation (PIR) and ultrasonic sensing for both motion and thermal energy. See below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Building Name	Room Location	Occupancy Sensor Type
PWC Area	Administration/Office	Ceiling Switch
PWC Area	Administration/Office	Wall Switch
PWC Area	Administration/Office	Wall Switch
PWC Area	Administration/Office	Wall Switch
PWC Area	Multi-Purpose Room	Wall Switch
PWC Area	Multi-Purpose Room	Wall Switch
PWC Area	Multi-Purpose Room	Wall Switch
PWC Area	Open Area	Ceiling Switch
PWC Area	Administration/Office	Wall Switch

**ECM-64 PWC Lakes Building Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Lakes Building. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x3 Vanity F30T12	1	1	Retrofit 1x3 w/(2) F25T8 & LP Elec. Ballast
1x4 Strip F40T12S	10	10	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x4 T8 F32T8	2	2	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Strip F96T12S	6	6	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
1x8 T8 4' F32T8	15	15	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
2x2 Recess Acrylic F40T12US	1	1	Retrofit 2x2 w/(2) F17T8, Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	2	2	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
2x4 Recess Acrylic F40T12S	10	10	Retrofit 2x4 w/(2) T8, LP Elec. Ballast & Reflector Kit
2x4 Recess Acrylic F40T12S	7	7	Retrofit 2x4 w/(4) T8 & LP Elec. Ballast
2x4 T8 F32T8	6	6	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast

Double Faced Exist	2	2	Replace Fixture w/(1) LED/Battery
Incandescent	1	1	Replace Fixture w/(1) LED LR6 Unit

**ECM-65 PWC Building #4 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Building #4. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	17	17	Retrofit 1x4 w/(2) F25T8 & LP Elec. Ballast
HID Metal Halide	4	4	Replace Fixture w/(1) 32w CFL Flood

**ECM-66 PWC Building #11 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Building #11. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	25	25	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 T8 4' F32T8	25	15	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
2x4 T8 F32T8	18	18	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
HID High Pressure Sodium	10	10	Replace Fixture w/(1) 32w CFL Flood
HID Metal Halide	5	5	Remove Existing Fixture

**ECM-67 PWC Building #12 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Building #12. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x4 T8 F32T8	5	5	Retrofit 1x4 w/(2) T8 & LP Elec. Ballast
1x8 Strip F96T12	3	3	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
1x8 T8 4' F32T8	2	2	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
2x4 T8 F32T8	23	23	Retrofit 2x4 w/(2) T8 & LP Elec. Ballast
HID Metal Halide	12	12	Replace Fixture w/(1) 32w CFL Flood
Incandescent	4	4	Replace Fixture w/(1) LED LR6 Unit



PWC Building #20	Multi-Purpose Room	Ceiling Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Storage	Wall Switch
PWC Building #20	Storage	Wall Switch
PWC Building #20	Storage	Wall Switch
PWC Building #20	Storage	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Storage	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Multi-Purpose Room	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Ceiling Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Ceiling Switch
PWC Building #20	Restroom	Wall Switch
PWC Building #20	Restroom	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Ceiling Switch
PWC Building #20	Administration/Office	Wall Switch
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PWC Building #20	Administration/Office	Wall Switch
PWC Building #20	Administration/Office	Wall Switch

**ECM-70        PWC Building LS-70    Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Building #LS-70. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x8 Industrial F40T12	6	6	Retrofit 1x8 w/(2) T8 & LP Elec.

			Ballast
HID Metal Halide	4	4	Replace Fixture w/ (1) 150w Metal Halide Pulse Start Wall Pack
Incandescent	8	8	Relamp w/(1) 23w R30 CF
Incandescent	2	2	Replace Fixture w/(1) 32w CFL Flood

**ECM-71 PWC Storage #1 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Storage Building #1. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x8 T8 4' F32T8	14	14	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
Incandescent	4	4	Relamp w/(1) 23w CF

**ECM-72 PWC Storage #2 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Storage Building #2. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x8 Strip F96T12S	28	28	Retrofit 1x8 w/(4) T8, LP Elec. Ballast & Reflector Kit
Incandescent	9	9	Relamp w/(1) 23w CF

**ECM-73 PWC Storage #3 Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Storage Building #3. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
1x8 Vapor Tight F96T12	3	3	Retrofit 1x8 w/(4) T8 & LP Elec. Ballast
Incandescent	4	4	Replace Fixture w/(1) 1x4 Vapor Tight T8 & LP Elec. Ballast

**ECM-75 PWC Fuel Island Lighting Retrofit**

Included is a complete retrofit of all the appropriate lighting fixtures at the PWC Fuel Island. See the below table for a summary of the Scope of Services. For room by room details, see the Detailed Lighting Audit included in Appendix C.

Existing Lighting System	Existing Quantity	Proposed Quantity	Proposed Retrofit Solution
HID Metal Halide	4	4	Replace Fixture 2x2 Surface w/(4) 28w Biax Lamp & LP Elec. Ballast